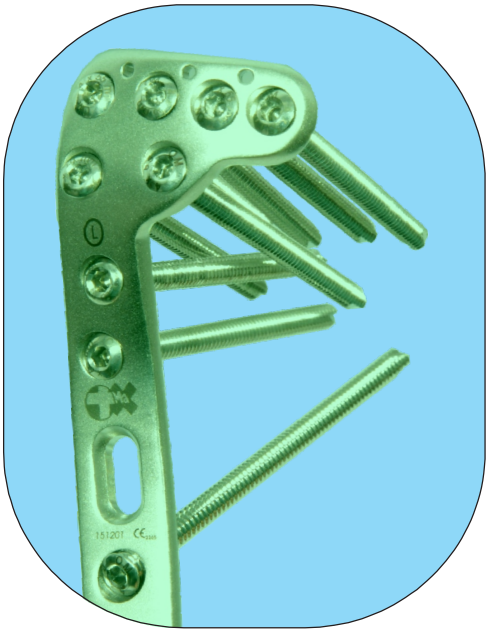
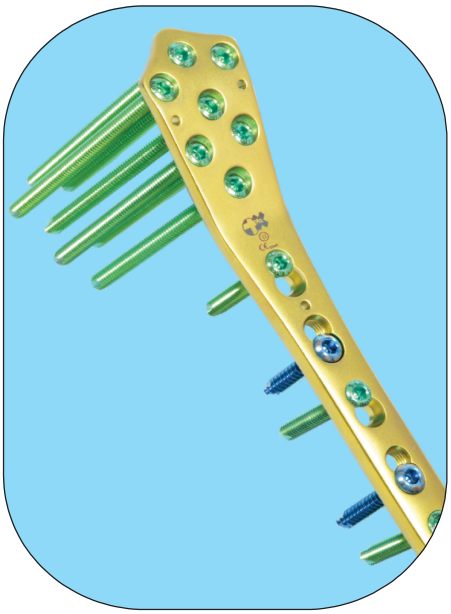
LOCKING COMPRESSION PLATING SYSTEM FOR LARGE FRAGMENT – Surgical Technique

CE 1023





Doc. No.	Issue No/Rev No	Dated	Page No
F/CMF/ST/04	01/00	24-04-2019	Page **1** of **24**

The ULTRALOCK TECHNOLOGY

The following points distinguish treatment using ULTRALOCK screw technology:

- It allows fracture treatment using conventional plating with conventional Cortical or cancellous bone screws.
- An ULTRALOCK plate can also be used as an internal fixator and permits stable bridging over shattered zones.
- The ULTRALOCK system permits the combination of conventional and locking screws.
- Unicortical locking screws permit better vascularity.

Important notes:

The Ultra Lock Plating system applies to many different plate types and is therefore suitable for a large number of fracture types of large bones. For that reason, this Surgical Technique does not deal with any specific fracture type. Please refer to literatures of Principles of Fracture Management for specific fracture procedure.

Indications

The Ortho Max ULTROLOCK Plates — narrow and broad, are intended for fixation of various long bones, such as the humerus, femur and tibia. They are also for use in fixation of osteopenic bone and fixation of nonunions or malunions.

The Ortho Max ULTRALOCK Plates — T-Plates are intended to buttress metaphyseal fractures of the proximal humerus, medial tibial plateau and distal tibia-femur. They are also for use in fixation of osteopenic bone and fixation of nonunion and malunions.

The various options of plates in large fragment system are as under:

Plates Options and Intended Use:

- Dynamic Compression Locking Plates (DCLP) – Narrow 12mm- For Fracture Fixation of Tibia & Humerus Shaft
- Dynamic Compression Locking Plates (DCLP) – Broad 16mm – For Fracture Fixation of Femur
- Buttress 'T' Locking Plates / Buttress 'L' Locking Plates – For Internal Fixation of Proximal Tibial Condyle
- Lateral Tibial Head Locking Plates – For Internal Fixation of Proximal Tibial Condyle

- Peri-Articular Proximal Tibia LockingPlates - For Internal Fixation of Proximal Tibial Condyle
- Proximal Medial Tibial LockingPlates - For Internal Fixation of Proximal Tibial Condyle
- Antrolateral Distal Tibia Locking Plates – For Internal Fixation of Lateral Distal Tibial Condyle
- Distal Tibia Locking Plates – For Internal Fixation of Distal Medial Tibial Condyle
- Metaphyseal Distal Tibia Locking Plates – For Internal Fixation of Medial Distal Tibial Condyle
- Low Bend Distal Tibia Locking Plates - For Internal Fixation of Distal Medial Tibial Condyle
- Distal Femur Locking Plates – For Internal Fixation of Distal Femur Condyle
- Proximal Femur Locking Plates – For Internal Fixation of Proximal Femoral Condyle
- Richard's Barrel Locking Plates - For Internal Fixation of Trochanter with Hip Screws
- Calcaneal Locking Plates – For Internal Fixation of Calcaneal

Contraindications:

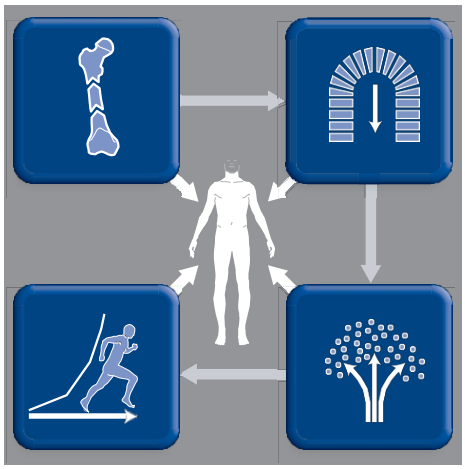
Do not use the Bone Plate, Bone Screw, Pins & Wires in cases of:
- Inadequate bone quantity and/or bone quality
- Hypersensitivity to metal or allergic reaction
- Early or Late Inspection, both deep and / or superficial
- Patients with limited blood supply
- Patient within whom co-operation or mental competence is lacking, thereby reducing patient compliance

ADVERSE REACTIONS

Adverse reactions may include but are not limited to:
- Clinical failure (i.e. pain or injury) due to bending, loosening, breakage of implant, loose fixation, dislocation and/or migration
- Pain, discomfort, and/or abnormal sensations due to the presence of the implant.
- Primary and/or secondary infections.
- Allergic reactions to implant material.
- Necrosis of bone or decrease of bone density.
- Injury to vessels, nerves and organs.
- Elevated fibrotic tissue reaction around the surgical area.

AO Principles

In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation.



Anatomic reduction

Fracture reduction and fixation to restore anatomical

Stable fixation

Fracture fixation providing absolute or relative stability, as relationships.

Early, active mobilization

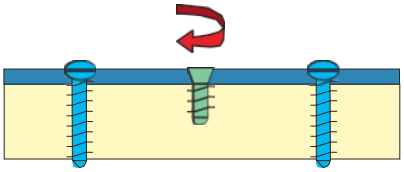
Early and safe mobilization and rehabilitation of the injured part and the patient as a whole. Required by the patient, the injury, and the personality of the fracture.

Preservation of blood supply Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.

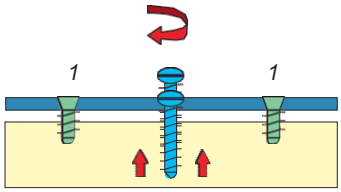
Combined Internal Fixation

The combination of conventional compression plating and locked plating techniques enhances plate osteosynthesis. The result is a combination hole that, depending on the indication, allows conventional compression plating, locked plating, or a combination of both.

Internal fixation using a combination of locking screws and standard screws

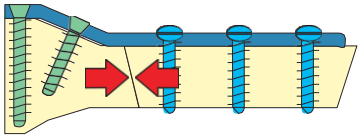


Note: If a combination of Cortical and locking screws is used, a cortical screw should be inserted first to pull the plate to the bone.



If locking screws (1) have been used to fix a plate to a fragment, subsequent insertion of a conventional screw
(2) In the same fragment without loosening and retight- ending the locking screw is NOT RECOMMENDED.
Note: If a locking screw is used first, care should be taken to ensure that the plate is held securely to the bone to avoid spinning of the plate about the bone.

Dynamic compression



Once the Metaphyseal fragment has been fixed with locking screws, the fracture can be dynamically compressed using conventional screws in the DC hole portion of the ULTRALOCK hole.

Locked and Conventional plating techniques

- First, use lag screws to an atomically reconstruct the joint surfaces.
- The behavior of a locking screw is not the same as that of a lag screw. With the locked plating technique, the implant locks the bone segments in their relative positions regardless of how they are reduced.
- A plate used as a locked plate does not produce any additional compression between the plate and the bone.
- The unicortical insertion of a locking screw causes no loss of stability.

Surgical Technique (continued)

1. Plate selection

- The plates are available in various lengths and configurations as shown above similar to the Ortho Max Basic Plating Set.

2. Contouring

a. Use the Plate bender in Pair to contour the ULTRA LOCK Plate to the anatomy.

Note: The plate holes have been designed to accept some degree of deformation. When bending the plate, place the benders on two consecutive holes.
This ensures that the threaded holes will not be distorted. Significant distortion of the locking holes will reduce locking effectiveness.

3. Reduction and temporary plate placement

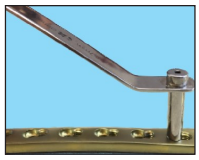
The plate may be temporarily held in place with K wire holding in bony fragment.
Note: The middle of the plate should be positioned over the fracture site if compression of the fracture fragments is desired.

4. Screw insertion

Insertion of a Cortical or cancellous bone screw

Use the 4.5 mm Drill & Tap Sleeve for an eccentric (compression) or neutral (buttress) insertion of cortical screws.

Determine whether conventional cortical screws, cancellous bone screws or locking screws will be used for fixation. A combination of all may be used.

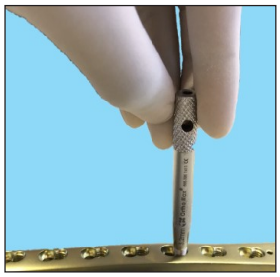
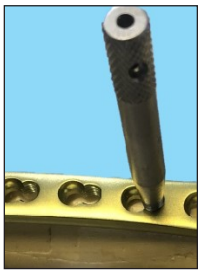


Note: If a combination of Cortical, cancellous and locking screws is used, a conventional screw should be used first to pull the plate to the bone.

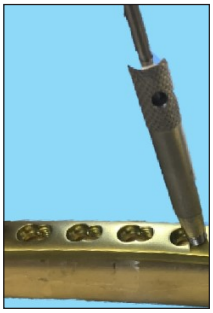
Warning: If a locking screw is used first, care should be taken to ensure that
The plate is held securely to the bone to avoid spinning of the plate about the bone.

Insertion of 4.0 mm and 5.0 mm Locking Screws

Note: The locking screw is not a lag screw. Use non locking screws when requiring a precise anatomical reduction (e.g., joint surfaces) or inter fragmentary compression. Before inserting the First locking screw, perform anatomical reduction and fix the fracture with lag screws, if necessary. After the insertion of locking screws, anatomical reduction will no longer be possible without loosening the locking screw.

A. Screw the appropriate Threaded Locking Drill Sleeve for 4.0 mm or 5.0 mm screws into plate hole until fully seated.

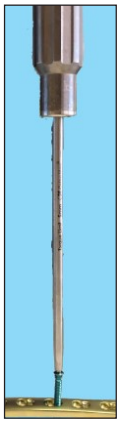


B. Use the appropriate Drill Bit (3.2 mm for 4.0 mm screws and 4mm for 5.0 mm screws) to drill to the desired depth.

C. Remove the drill Sleeve.

D. Use the Depth Gauge3.5 or 4.5mm to determine screw length.

Note 1: Since the direction of a locking screw is determined by plate design, final screw position may be verified with a K wire prior to insertion. This becomes especially important when the plate has been contoured or applied in metaphysical regions around joint surfaces.
Warning: Do not try to bend the plate using the Locking Drill Sleeve because damage may occur to the hole's threads.



E. Insert the locking screw of respective dia. And length using the Torque Limit Screw driver of 4mm or 5mm.
Note: The screw is securely locked to the plate when an audible "click" is heard.

F. Alternative Method of Locking Screw Insertion
Use the Hexagonal Screw driver 3.5mm or 4.5mm to manually insert the appropriate locking screw.
Carefully tighten the locking screw, as excessive force is not necessary to produce effective screw-to- plate locking which can damage screw head and driver.

Postoperative treatment

Postoperative treatment with ULTRALOCK Plates does not differ from conventional internal fixation procedures.

Implant removal:

To remove the Ultra Lock Plates, unlock all screws from the plate; then remove the screws completely from the bone by following screw removal technique of cortical screws with the help of Hexagonal Screw Driver 3.5 OR 4.5mm. This prevents simultaneous rotation of the plate when removing the last locking screws .The following should be noted in order to avoid damage to the instrument or implants: Always engage the screw driver tip firmly into the head of screw to remove. Don't give extra quick torque to damage screw head. If screw head gets damaged during removal, use the screw removal instruments to remove damage head screws.

Note: The final decision of removing the implants shall be taken by the operating surgeon only. It is recommended that the implant used as an aid for healing should be removed once its service is over after proper consultation and examination by the operating surgeon in final follow up, particularly in younger and more active patients.

CAUTION:

Used Implants:

Used implants which appear un-damaged may have internal and/or external defects. It is possible that individual stress analysis of each part fail to reveal the accumulated stress on the metals as a result of use within the body. This may lead ultimately to implant failure after certain point of time due to metal fatigue. Therefore reuses of implants are strictly not recommended.

Disposal of Used Implants:

Every used or removed implant must be discarded after use and must never be re- used. It should be bent or scratched & then disposed of properly so that it becomes unfit for reuse. While disposing it off, it should be ensured that the discarded implant does not pose any threat to children, stray animals and environment. Dispose of the implants as per applicable medical practices and local, state and country specific regulatory requirement of Bio Medical Waste rules.

PACKAGING MATERIAL DISPOSAL:

The packaging material of this device is made of LDPE and therefore if swallowed, may cause choking Hazards. Therefore, it should be disposed of in such ways that keep out of reach of children and stray animals.

SINGLE BRAND USAGE:

Implant components from one manufacture should not be used with those of another. Implants from each manufacture may have metal, dimensions and design differences so that the use in conjunction with different brands of devices may lead to inadequate fixation or adverse performances of the devices.

MRI SAFETY INFORMATION

- Ortho Max Mfg. Co Pvt. Ltd. implants are manufactured from Titanium Gr.2, SS316L, SS316LVM material for Bone Plate & Titanium Gr.5, SS316L, SS316LVM material for Bone Screw, Pins & Wires, both are non-magnetic material, hence it do not pose any safety risk.
- Patients should be directed to seek a medical opinion before entering potentially adverse environments that could affect the performance of the implants, such as electromagnetic or magnetic field or including a magnetic resonance environment.
- Doctor shall conduct a Risk Benefit Analysis before directing the patient to enter electromagnetic or magnetic fields or including a magnetic resonance environment.
- The Ortho Max Mfg. Co Pvt. Ltd. implants has not been evaluated for safety and compatibility in the MR environment but on the basis of literature study below mentioned points can be taken care during MRI

✓ The minimum recommended time after the implantation that allows patients to safely undergo MRI examination or allowing the patient or an individual to enter the MRI environment is 6 (six) weeks.

✓ The maximum recommended time limit for MRI examination in patients implanted with the evaluated device is 30 min with a scanner operating at 1.5T (Tesla) or less.

Product Details:

Ultra Lock® Plating System - Large Fragment

Dynamic Compression Locking Plates (DCLP)
Narrow for Tibia/Humerus

Size	S.S.	Titanium
5 Holes	192.1205	192.T1205
6 Holes	192.1206	192.T1206
7 Holes	192.1207	192.T1207
8 Holes	192.1208	192.T1208
9 Holes	192.1209	192.T1209
10 Holes	192.1210	192.T1210
12 Holes	192.1212	192.T1212

Intended Use	For Fixation of Tibia/Humerus Shaft
Profile	12mm x 4mm, 5mm Screw Compatible, 1mm thread pitch
Material	SS 316L & Titanium

Broad for Femur

Size	S.S.	* Titanium
6 Holes	192.1606	192.T1606
7 Holes	192.1607	192.T1607
8 Holes	192.1608	192.T1608
9 Holes	192.1609	192.T1609
10 Holes	192.1610	192.T1610
12 Holes	192.1612	192.T1612
14 Holes	192.1614	192.T1614

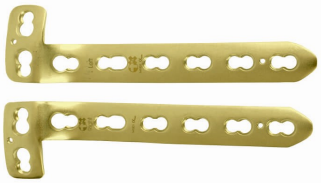
Intended Use	For Internal Fixation of Shaft Femur
Profile	16mm x 4.5mm, 5mm Screw compatible, 1mm thread pitch
Material	SS 316L & * Titanium

Buttress 'T' Locking Plates

Size	S.S.	* Titanium
3 Holes	207.003	207.T003
4 Holes	207.004	207.T004
5 Holes	207.005	207.T005
6 Holes	207.006	207.T006
7 Holes	207.007	207.T007
8 Holes	207.008	207.T008
9 Holes	207.009	207.T009
10 Holes	207.010	207.T010

Intended Use	For Internal Fixation of Proximal Tibial Condyle
Profile	16mm x 2.5mm, proximal hole 5+6.5mm Screw Compatible, 1mm thread pitch
Material	SS 316L & * Titanium

Buttress 'L' Locking Plates



Size	S.S.	* Titanium
3 Holes	208.03 (L/R)	208.T03 (L/R)
4 Holes	208.04 (L/R)	208.T04 (L/R)
5 Holes	208.05 (L/R)	208.T05 (L/R)
6 Holes	208.06 (L/R)	208.T06 (L/R)
7 Holes	208.07 (L/R)	208.T07 (L/R)
8 Holes	208.08 (L/R)	208.T08 (L/R)
9 Holes	208.09 (L/R)	208.T09 (L/R)
10 Holes	208.10 (L/R)	208.T10 (L/R)

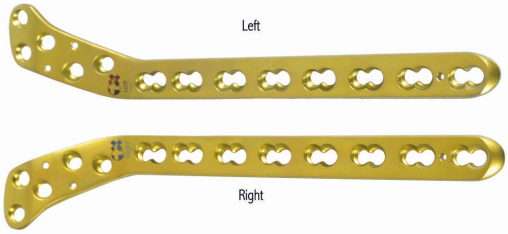
Intended Use	For Internal Fixation of Proximal Tibial Condyle
Profile	16mm x 2.5mm, proximal hole 5+6.5mm Screw Compatible, 1mm thread pitch
Material	SS 316L & * Titanium

Ortho Max® Mfg. Co. Pvt. Ltd.

14

Ultra Lock® Plating System - Large Fragment

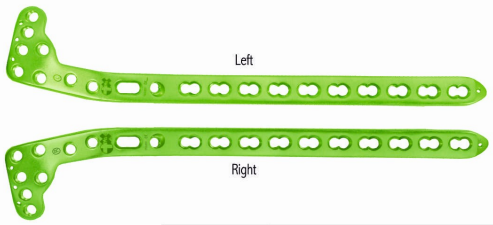
Lateral Tibial Head Locking Plates



Size	S.S.	Titanium
4 Holes	194.104(L/R)	194.T104(L/R)
5 Holes	194.105(L/R)	194.T105(L/R)
6 Holes	194.106(L/R)	194.T106(L/R)
7 Holes	194.107(L/R)	194.T107(L/R)
8 Holes	194.108(L/R)	194.T108(L/R)
9 Holes	194.109(L/R)	194.T109(L/R)
10 Holes	194.110(L/R)	194.T110(L/R)
11 Holes	194.111(L/R)	194.T111(L/R)
12 Holes	194.112(L/R)	194.T112(L/R)
14 Holes	194.114(L/R)	194.T114(L/R)
16 Holes	194.116(L/R)	194.T116(L/R)

Intended Use	For Internal Fixation of Proximal Tibial Condyle
Profile	16mm x 4.5mm, 5mm Screw Compatible, 1mm thread pitch
Material	SS 316L & Titanium

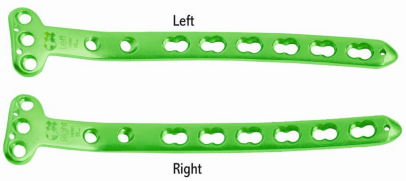
Peri-Articular Proximal Tibia Locking Plates



Size	S.S.	Titanium
2 Holes	2048.02(L/R)	2048.T02(L/R)
3 Holes	2048.03(L/R)	2048.T03(L/R)
4 Holes	2048.04(L/R)	2048.T04(L/R)
5 Holes	2048.05(L/R)	2048.T05(L/R)
6 Holes	2048.06(L/R)	2048.T06(L/R)
7 Holes	2048.07(L/R)	2048.T07(L/R)
8 Holes	2048.08(L/R)	2048.T08(L/R)
9 Holes	2048.09(L/R)	2048.T09(L/R)
10 Holes	2048.10(L/R)	2048.T10(L/R)
12 Holes	2048.12(L/R)	2048.T12(L/R)

Intended Use	For Internal Fixation of Proximal Tibial Condyle
Profile	13mm x 4mm, 4mm Compatible Screws, 0.8mm thread pitch
Material	SS 316L & Titanium

Proximal Medial Tibial Locking Plates



Size	S.S.	Titanium
4 Holes	2046.04(L/R)	2046.T04(L/R)
5 Holes	2046.05(L/R)	2046.T05(L/R)
6 Holes	2046.06(L/R)	2046.T06(L/R)
7 Holes	2046.07(L/R)	2046.T07(L/R)
8 Holes	2046.08(L/R)	2046.T08(L/R)
9 Holes	2046.09(L/R)	2046.T09(L/R)
10 Holes	2046.10(L/R)	2046.T10(L/R)
12 Holes	2046.12(L/R)	2046.T12(L/R)

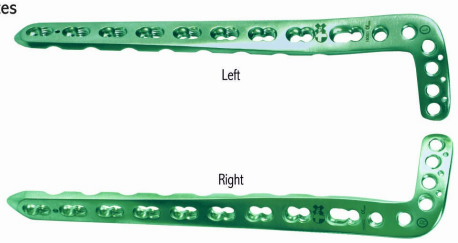
Intended Use	For Internal Fixation of Proximal Tibial Condyle
Profile	11mm x 4mm, 4mm Compatible Screw, 0.8mm thread pitch
Material	SS 316L & Titanium

15

Ortho Max® Mfg. Co. Pvt. Ltd.

Ultra Lock® Plating System - Large Fragment

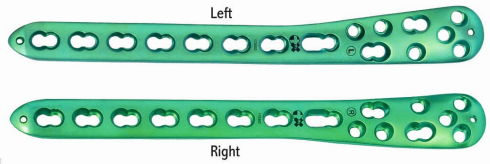
Anterolateral Distal Tibia Locking Plates



Size	S.S.	Titanium
4 Holes	2029.04 (L/R)	2029.T04 (L/R)
5 Holes	2029.05 (L/R)	2029.T05 (L/R)
6 Holes	2029.06 (L/R)	2029.T06 (L/R)
7 Holes	2029.07 (L/R)	2029.T07 (L/R)
8 Holes	2029.08 (L/R)	2029.T08 (L/R)
9 Holes	2029.09 (L/R)	2029.T09 (L/R)
10 Holes	2029.10 (L/R)	2029.T10 (L/R)
12 Holes	2029.12 (L/R)	2029.T12 (L/R)

Intended Use	For Internal Fixation of Lateral Distal Tibial Condyle
Profile	13mm x 4 mm, 4mm compatible Screw, 0.8mm thread pitch
Material	SS 316L & Titanium

Low Bend Distal Tibia Locking Plates



Size	S.S.	Titanium
4 Holes	2050.04 (L/R)	2050.T04 (L/R)
5 Holes	2050.05 (L/R)	2050.T05 (L/R)
6 Holes	2050.06 (L/R)	2050.T06 (L/R)
7 Holes	2050.07 (L/R)	2050.T07 (L/R)
8 Holes	2050.08 (L/R)	2050.T08 (L/R)
9 Holes	2050.09 (L/R)	2050.T09 (L/R)
10 Holes	2050.10 (L/R)	2050.T10 (L/R)
12 Holes	2050.12 (L/R)	2050.T12 (L/R)
14 Holes	2050.14 (L/R)	2050.T14 (L/R)

Intended Use	For Internal Fixation of Distal Medial Tibial Condyle
Profile	14mm x 4mm, 4mm Compatible Screws, 0.8mm thread pitch
Material	SS 316L & Titanium

Ortho Max® Mfg. Co. Pvt. Ltd.

16

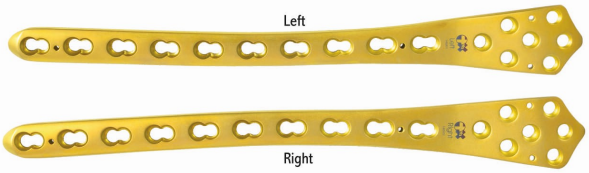
Ultra Lock® Plating System - Large Fragment

Metaphyseal Distal Tibia Locking Plates

Size	S.S.	* Titanium
5+3 Holes	2028.053 (L/R)	2028.T053 (L/R)
5+4 Holes	2028.054 (L/R)	2028.T054 (L/R)
5+5 Holes	2028.055 (L/R)	2028.T055 (L/R)
5+6 Holes	2028.056 (L/R)	2028.T056 (L/R)
5+7 Holes	2028.057 (L/R)	2028.T057 (L/R)
5+8 Holes	2028.058 (L/R)	2028.T058 (L/R)

Intended Use	For Internal Fixation of Medial Distal Tibial Condyle
Profile	14mm x 4mm, Distal 5 holes - 4mm Compatible Screw, Shaft Holes 5mm Compatible Screws
Material	SS 316L & * Titanium

Distal Femur Locking Plates



Size	S.S.	Titanium
5 Holes	205.105 (L/R)	205.T105 (L/R)
6 Holes	205.106 (L/R)	205.T106 (L/R)
7 Holes	205.107 (L/R)	205.T107 (L/R)
8 Holes	205.108 (L/R)	205.T108 (L/R)
9 Holes	205.109 (L/R)	205.T109 (L/R)
10 Holes	205.110 (L/R)	205.T110 (L/R)
12 Holes	205.112 (L/R)	205.T112 (L/R)
14 Holes	205.114 (L/R)	205.T114 (L/R)
16 Holes	205.116 (L/R)	205.T116 (L/R)

Intended Use	For Internal Fixation of Distal Femur Condyle
Profile	16mm x 5.5mm, 5mm Compatible Screws, 1mm thread pitch
Material	SS 316L & Titanium

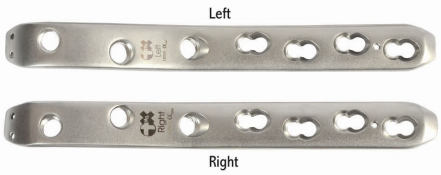
Richard's Barrel Locking Plate

Size	S.S.
135° x 3 Holes	199.1353
135° x 4 Holes	199.1354
135° x 5 Holes	199.1355
135° x 6 Holes	199.1356
135° x 7 Holes	199.1357
135° x 8 Holes	199.1358

Intended Use	For Internal Fixation of Trochanter with Hip Screws
Profile	19mm x 6mm, 5mm compatible Screw, 1mm thread pitch, barrel 32mm
Material	SS 316L

Ultra Lock® Plating System - Large Fragment

Proximal Femoral Locking Plate (PFLP)

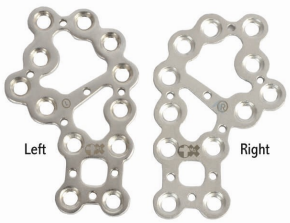


Size	S.S.
3 Holes	2027.03 (L/R)
4 Holes	2027.04 (L/R)
5 Holes	2027.05 (L/R)
6 Holes	2027.06 (L/R)
7 Holes	2027.07 (L/R)
8 Holes	2027.08 (L/R)
9 Holes	2027.09 (L/R)
10 Holes	2027.10 (L/R)
12 Holes	2027.12 (L/R)
14 Holes	2027.14 (L/R)

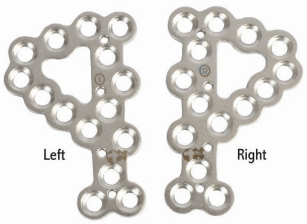
Intended Use	For Internal Fixation of Proximal Femoral Condyle
Profile	17.5mm x 5.5mm, Proximal holes 6.5mm Compatible, Shaft holes 5mm Compatible, 1mm thread pitch
Material	SS 316L

Calcaneal Locking Plates

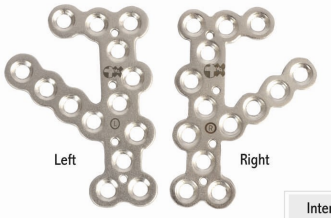
D Shape



P Shape



F Shape



Size	S.S.
D Shape	211.01 (L/R)
P Shape	211.02 (L/R)
F Shape	211.03 (L/R)

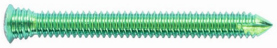
Intended Use	For Internal Fixation of calcaneal
Profile	2.0mm,4mm compatible Screws
Material	SS 316L

Ortho Max® Mfg. Co. Pvt. Ltd.

Ultra Lock® Plating System - Large Fragment

Cortical Locking Screws - 4mm

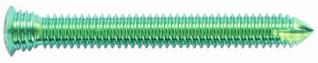
Size	S.S.	Titanium
10mm	196.410	196.T410
12mm	196.412	196.T412
14mm	196.414	196.T414
16mm	196.416	196.T416
18mm	196.418	196.T418
20mm	196.420	196.T420
22mm	196.422	196.T422
24mm	196.424	196.T424
26mm	196.426	196.T426
28mm	196.428	196.T428
30mm	196.430	196.T430
32mm	196.432	196.T432
34mm	196.434	196.T434
36mm	196.436	196.T436
38mm	196.438	196.T438
40mm	196.440	196.T440
45mm	196.445	196.T445
50mm	196.450	196.T450
55mm	196.455	196.T455
60mm	196.460	196.T460
65mm	196.465	196.T465
70mm	196.470	196.T470
75mm	196.475	196.T475
80mm	196.480	196.T480



Intended Use	For Internal Fixation with Locking Plates
Profile	Core Dia. 3.2mm, 26 TPI, 0.8mm head pitch 2.5mm Hex. Self Tapping
Material	SS 316L & Titanium

Cortical Locking Screws - 5mm

Size	S.S.	Titanium
18mm	196.518	196.T518
20mm	196.520	196.T520
22mm	196.522	196.T522
24mm	196.524	196.T524
26mm	196.526	196.T526
28mm	196.528	196.T528
30mm	196.530	196.T530
32mm	196.532	196.T532
34mm	196.534	196.T534
36mm	196.536	196.T536
38mm	196.538	196.T538
40mm	196.540	196.T540
42mm	196.542	196.T542
44mm	196.544	196.T544
46mm	196.546	196.T546
48mm	196.548	196.T548
50mm	196.550	196.T550
55mm	196.555	196.T555
60mm	196.560	196.T560
65mm	196.565	196.T565
70mm	196.570	196.T570
75mm	196.575	196.T575
80mm	196.580	196.T580
85mm	196.585	196.T585
90mm	196.590	196.T590



Intended Use	For Internal Fixation with Locking Plates
Profile	Core Dia. 4mm, 24 TPI, 1mm head pitch 3.5mm Hex. Self Tapping
Material	SS 316L & Titanium

Ultra Lock® Plating System - Large Fragment

Cancellous Locking Screws - 5mm

Size	S.S.	Titanium
25mm	206.225	206.T225
30mm	206.230	206.T230
35mm	206.235	206.T235
40mm	206.240	206.T240
45mm	206.245	206.T245
50mm	206.250	206.T250
55mm	206.255	206.T255
60mm	206.260	206.T260
65mm	206.265	206.T265
70mm	206.270	206.T270
75mm	206.275	206.T275
80mm	206.280	206.T280
85mm	206.285	206.T285
90mm	206.290	206.T290
95mm	206.295	206.T295
100mm	206.2100	206.T2100

Intended Use	For Internal Fixation with Locking Plates
Profile	Core Dia. 3.5mm, 14 TPI, 1mm head pitch 3.5mm Hex. Self Tapping
Material	SS 316L & Titanium

Cancellous Locking Screws - 6.5mm

Size	S.S.
40mm	197.340
45mm	197.345
50mm	197.350
55mm	197.355
60mm	197.360
65mm	197.365
70mm	197.370
75mm	197.375
80mm	197.380
85mm	197.385
90mm	197.390
95mm	197.395
100mm	197.3100

Intended Use	For Internal Fixation with Locking Plates
Profile	Core Dia. 4.5mm, 9 TPI, 1mm head pitch 3.5mm Hex. Self Tapping
Material	SS 316L

Cap for Locking Plate

Size	S.S.	Titanium
4mm	198.400	198.T400
5mm	198.500	198.T500

Intended Use	To Safe guard hole profile while bending & Plugging blank Holes
Profile	0.8 thread pitch for 4mm & 1mm thread pitch for 5mm, 2.5mm & 3.5mm Hex.
Material	SS 316L & Titanium

Ortho Max® Mfg. Co. Pvt. Ltd.

Ultra Lock® Plating System - Large Fragment

Cortical Screws - 3.5mm

Size	S.S. 14TPI	S.S. 20TPI	Titanium 20TPI
10mm	101.110	101.210	226.210
12mm	101.112	101.212	226.212
14mm	101.114	101.214	226.214
16mm	101.116	101.216	226.216
18mm	101.118	101.218	226.218
20mm	101.120	101.220	226.220
22mm	101.122	101.222	226.222
24mm	101.124	101.224	226.224
26mm	101.126	101.226	226.226
28mm	101.128	101.228	226.228
30mm	101.130	101.230	226.230
32mm	101.132	101.232	226.232
34mm	101.134	101.234	226.234
36mm	101.136	101.236	226.236
38mm	101.138	101.238	226.238
40mm	101.140	101.240	226.240

Intended Use	For Internal Fixation with bone plate
Profile	Core dia. 2.7mm for 20 TPI - 2.5mm for 14TPI 2.5mm Hex., Self Tapping,
Material	SS 316L & Titanium

Cortical Screws - 4.5mm

Size	S.S.	Titanium
10mm	102.110	227.110
12mm	102.112	227.112
14mm	102.114	227.114
16mm	102.116	227.116
18mm	102.118	227.118
20mm	102.120	227.120
22mm	102.122	227.122
24mm	102.124	227.124
26mm	102.126	227.126
28mm	102.128	227.128
30mm	102.130	227.130
32mm	102.132	227.132
34mm	102.134	227.134
36mm	102.136	227.136
38mm	102.138	227.138
40mm	102.140	227.140
42mm	102.142	227.142
44mm	102.144	227.144
46mm	102.146	227.146
48mm	102.148	227.148
50mm	102.150	227.150
55mm	102.155	227.155
60mm	102.160	227.160
65mm	102.165	227.165
70mm	102.170	227.170
75mm	102.175	227.175

Intended Use	For Internal Fixation with bone plate in large fragment
Profile	Core dia.3.2mm, 14 TPI, 3.5mm Hex. Self Tapping
Material	SS 316L & Titanium

Ultra Lock® Plating System - Large Fragment Instruments

Drill Bits - 2.5/2.7mm

Size	Screws Size	Reference
2.5mm x 5"	Cortical Screws - 3.5mm x 14 TPI	552.255
2.7mm x 5"	Cortical Screws - 3.5mm x 20 TPI	552.275

Drill & Tap Sleeve Double Ended

Size	Screws Size	Reference
2.7mm x 3.5mm	Cortical Screws - 3.5mm x 20 TPI	558.350
3.2mm x 4.5mm	Cortical Screws - 4.5mm	558.450

Drill Bits - 3.2mm

Size	Screws Size	Reference
3.2mm x 6"	Cortical Screws - 4.5mm	552.326
3.2mm x 8"	Cortical Locking Screws - 4mm	552.328

Drill Sleeve - 3.2mm

Size	Screws Size	Reference
3.2mm x 3"	Cortical Locking Screws - 4mm	555.320

Drill Bits - 3.5mm

Size	Screws Size	Reference
3.5mm x 8"	Cancellous Locking Screws - 5mm	552.358

Drill Sleeve - 3.5mm

Size	Screws Size	Reference
3.5mm x 3"	Cancellous Locking Screws - 5mm	555.350

Drill Bits - 4mm

Size	Screws Size	Reference
4mm x 8"	Cortical Locking Screws - 5mm	552.408

Drill Sleeve - 4mm

Size	Screws Size	Reference
4mm x 3"	Cortical Locking Screws - 5mm	555.400

Drill Bits - Stainless Steel - 4.5mm

Size	Screws Size	Reference
4.5mm x 8"	Cancellous Locking Screws - 6.5mm	552.458

Double Drill Sleeve for PFLP- 4.5mm

Size	Screws Size	Reference
4.5mm x 3"	Cancellous Locking Screws - 6.5mm	555.1450

Doc. No.	Issue No/Rev No	Dated	Page No
F/CMF/ST/04	01/00	24-04-2019	Page **21** of **24**

Ultra Lock® Plating System - Large Fragment Instruments

Depth Gauge - 4.5mm

Size	Reference
4.5mm	561.245

Depth Gauge - 3.5mm

Size	Reference
3.5mm	561.235

Tommy Bar

Reference
943.001

Hexagonal Screw Driver - 3.5mm

Size	Reference
3.5mm	569.135

Hexagonal Screw Driver - 4.5mm

Size	Reference
4.5mm	569.145

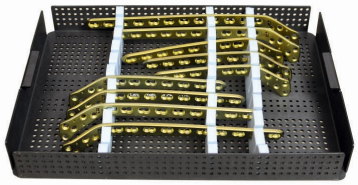
Torque Limit Screw driver

Size	Reference
4mm	925.001
5mm	925.002

Reduction Bone Holding Forceps with K wire Guide

Size	Reference
8"	704.108

All in One "Ultra Lock®" Large Fragment Set



Contents :

Implants	Size	Qty.
Lateral Tibial Head Locking Plates Left & Right	5H, 6H, 7H, 8H - 1 each 9H, 10H, 12H - 1 each	08 Nos 06 Nos
Anterolateral Distal Tibia Locking Plates Left & Right	6H, 8H - 1 each 10H, 12H - 1 each	04 Nos 04 Nos
Low Bend Distal Tibial Locking Plates Left & Right	6H, 8H - 1 each 10H, 12H - 1 each	04 Nos 04 Nos
Distal Femur Locking Plates Left & Right	6H, 7H, 8H - 1 each 9H, 10H, 12H, 14H - 1 each	06 Nos 08 Nos
Proximal Medial Tibia Locking Plates Left & Right	4H, 5H, 6H, 8H - 1 each 10H - 1 each	08 Nos 02 Nos
Cortical Locking Screws	4mm x 24mm To 28mm - 10 each	30 Nos
	x 30mm To 40mm - 5 each	30 Nos
	x 45mm To 80mm - 5 each	40 Nos
	5mm x 24mm To 42mm - 10 each	100 Nos
	x 44mm To 50mm - 5 each	20 Nos
	x 55mm To 90mm - 5 each	40 Nos
Cancellous Locking Screws - Full Thread	5mm x 35mm To 100mm - 3 each	42 Nos
Cortical Screws 3.5mm x 20 TPI	22mm To 40mm - 5 each	50 Nos
Cortical Screws 4.5mm	24mm To 50mm - 10 each 55mm & 60mm - 5 each	140 Nos 10 Nos
Instruments Contents :-		
S.S. Drill Bits - 2.7mm x 5"	(For Cortical 3.5mm)	01 No
3.2mm x 6"	(For Cortical 4.5mm)	01 No
3.2mm x 8"	(For Lock. Cortical - 4mm)	02 Nos
3.5mm x 8"	(For Lock. Cancellous - 5mm)	01 No
4mm x 8"	(For Lock. Cortical - 5mm)	02 Nos
Drill & Tap Sleeve	2.7mm x 3.5mm	01 No
	3.2mm x 4.5mm	01 No
Drill Sleeve 3.2mm	(For Lock. Cortical - 4mm)	02 Nos
3.5mm	(For Lock. Cancellous - 5mm)	02 Nos
4.0mm	(For Lock. Cortical - 5mm)	02 Nos
Tommy Bar for Drill Sleeve		01 Nos
Depth Gauge - 3.5mm & 4.5mm - 1 each		02 Nos
Hexagonal Screw Driver - 3.5mm & 4.5mm - 1 each		02 Nos
Torque Limit Screw Driver - 4mm & 5mm - 1 each		02 Nos
Reduction Forceps Pointed with K Wire Guide 8"		01 No
Container For Ultra Lock® Large Fragment Set		01 No

*Available in SS 316L & Titanium

Reference
920.002

Implants certified by ITC: CE 1023

Instruments certified by self declaration: CE

MFG. UNIT & REGD. OFFICE
C-1-B/886/4, G.I.D.C. ESTATE
MAKARPURA,
VADODARA – 390 010 GUJ. INDIA

Tel : +91-89800 15555
+91-89800 25555

E-mail : info@orthomaxindia.net
admin@orthomaxindia.net