

stryker

Ortholoc® 3Di

Ankle Fracture System

Operative technique



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Ankle Fracture System: Operative technique

Table of contents

Introduction	3
Intended use	4
Device description	5
Instrument/implant color coding system	6
Implant selection: Plates	7
Implant selection: Screws	9
Operative technique	10
Incision	11
Fracture reduction	11
Lag screw	12
Fully threaded screw lag technique	12
Determining screw length	13
Countersink	13
Screw insertion	13
Torque limiting driver handle	13
Provisional fixation	14
In situ contouring	15
Plate contouring	14
Locking screws	15
Compression slots	16
Syndesmosis fixation	16
Explant information	16
Postoperative management ¹	17
Ordering information	17
Screw quick guide	23

Proper surgical procedures and techniques are the responsibility of the medical professional. The following guidelines are furnished for information purposes only. Each surgeon must evaluate the appropriateness of the procedures based on his or her personal medical training and experience. Prior to use of the system, the surgeon should refer to the product package insert for complete warnings, precautions, indications, contraindications and adverse effects. Package inserts are also available by contacting the manufacturer. Contact information can be found on the back of this surgical technique and the package insert is available on the website listed.

Acknowledgments:

The Ortholoc 3Di Ankle Fracture System was developed in conjunction with:

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Introduction

Ankle fractures are the most common intra-articular fracture of a weight-bearing joint.¹ These injuries present in a multitude of classifications and degrees of severity. The Ortholoc 3Di Ankle Fracture System combines a complete selection of indication specific implants and instruments with an advanced and versatile locked plate technology, providing a comprehensive single tray solution to these complex indications.

- 9 tibia and fibula fracture plating options
- 8 screw options
- Indication specific instrumentation
- Single tray comprehensive solution



Ortholoc 3Di Polyaxial Locking Technology

Ortholoc 3Di locking technology is the combination of two advanced designs: a plate thread designed to maximize polyaxial screw engagement and a double-lead locking screw specially manufactured to re-form the internal plate threads to the angle of the locking screw. The result is Ortholoc 3Di: an advanced locked plate technology providing versatility without sacrificing the advantages of a locked plate construct.

The Ortholoc 3Di plate thread design features a double-lead locking thread that has been segmented into multiple planes. Used on axis, this design performs as a traditional locking mechanism, providing reliable construct strength and stiffness. When placed up to 15° off-axis, the hard-coated screw threads act to reform the internal segments of the plate threads. This three dimensional interface (3Di) results in a locking construct that is as stiff off-axis as on-axis.²

- 30° conical polyaxial locking capability
- Multi-point screw/plate engagement
- Comparable polyaxial locking stiffness

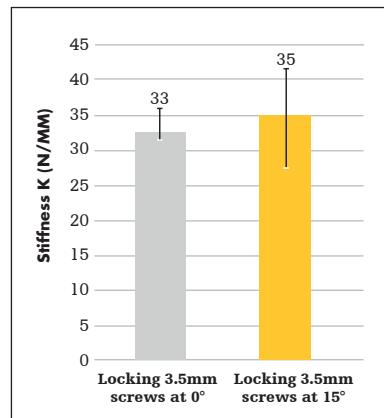


Figure 1

Intended use

Indications

Ortholoc 3Di Ankle Plating System is intended for fixation of fractures, osteotomies and non-unions of the distal tibia and fibula such as:

- Lateral malleolar fractures
- Syndesmosis injuries
- Medial malleolar fractures
- Bi-malleolar fractures
- Tri-malleolar fractures
- Posterior malleolar fractures
- Distal anterior tibia fractures
- Vertical shear fractures of the medial malleolus
- Pilon fractures
- Distal tibia shaft fractures
- Distal fibula shaft fractures
- Distal tibia periartricular fractures
- Medial malleolar avulsion fractures
- Lateral malleolar avulsion fractures

Ortholoc 3Di locking screws are intended for use with Ortholoc 3Di Plating Systems of the same base material.

Ortholoc bone screws are indicated for use in bone reconstruction, osteotomy, arthrodesis, joint fusion, fracture repair and fracture fixation, appropriate for the size of the device.

Ortholoc washers are intended to prevent a screw head from breaking through the cortex of the bone by distributing the forces/load over a large area when used for fracture fixation of bone fragments.

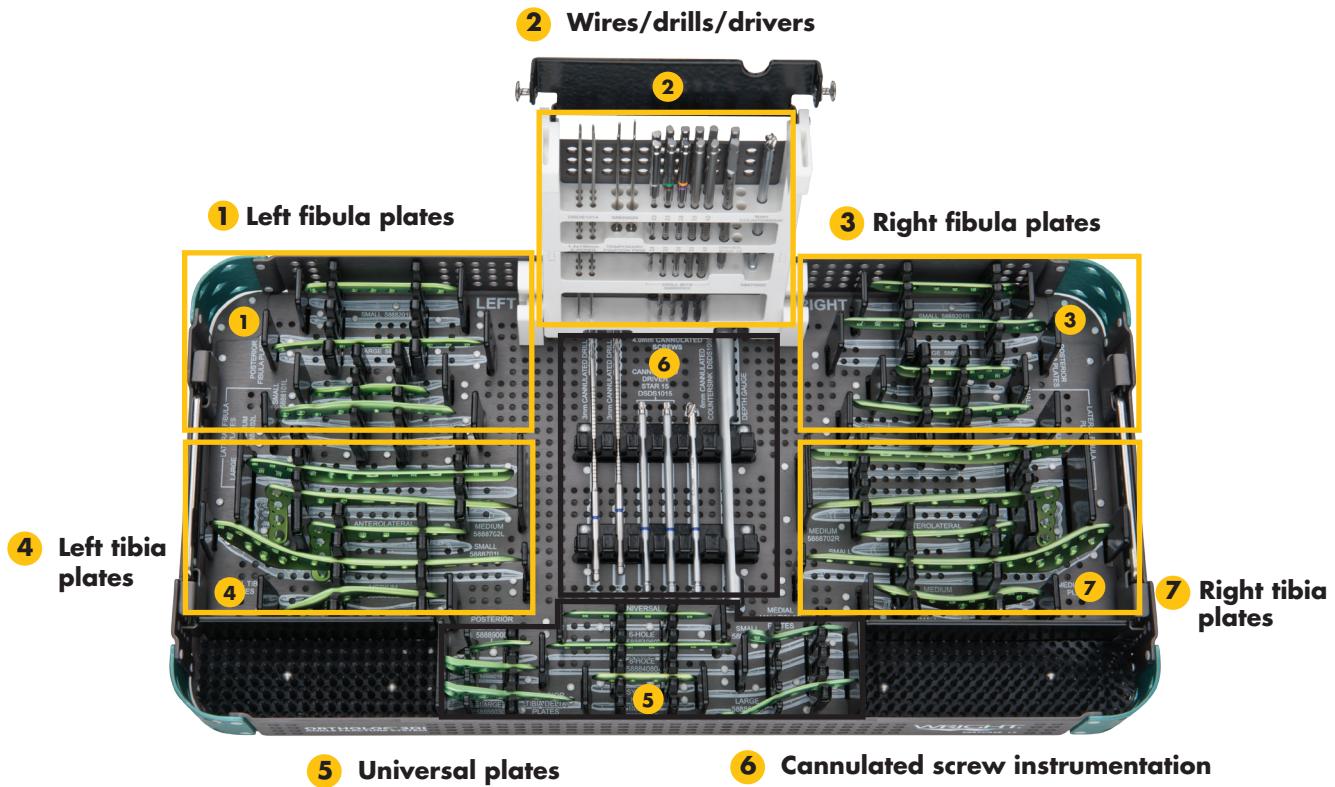
Contraindications

Patients should be warned of these contraindications:

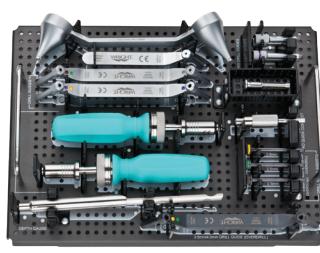
- Infection
- Physiologically or psychologically inadequate patient
- Inadequate skin, bone or neurovascular status
- Irreparable tendon system
- Possibility for conservative treatment
- Growing patients with open epiphyses
- Patients with high levels of activity

Refer to package insert 142058 for complete warnings, precautions, indications, contraindications and adverse effects.

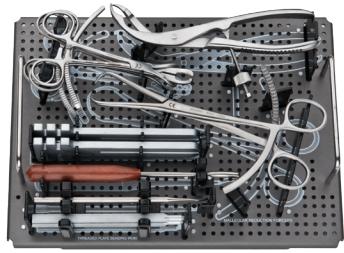
Device description



- 2.7mm Locking screws
- 3.5mm Locking Screws
- 3.5mm Low-profile screws
- 3.5mm Cortical screws
- 4.0mm Cortical screws
- 4.0mm Cancellous screws
- 4.0mm Cannellous, partial thread
- 4.0mm Cannellous, partial thread, cannulated



- Locking drill guides
- Polyaxial drill guide
- Tissue protectors
- Driver handles
- Depth gauge
- AO quick connect adaptor
- Screw gripper
- Drill guide inserts



- Bone clamps
- Slotted plate benders
- In situ plate benders
- Soft-tissue elevators
- Bone pick

Instrument/implant color coding system

The Ortholoc 3Di Ankle Fracture System features an instrument and implant color coding system to increase OR efficiency and speed. After choosing the appropriate screw for a given application, select the drill and drill guide with the corresponding color coded markings.

NOTICE

All screws feature a universal T-15 drive mechanism.



Figure 2

Screw/drill bit quick guide

Diameter	Type	Thread	Thread type	Available length	Pre-drill diameter	Over-drill available	Color code
2.7mm	Locking/plate	Cortical	Full	10-18mm	2.0mm	No	Grey
3.5mm	Locking/plate	Cortical	Full	10-60mm	2.8mm	No	Purple
3.5mm	Low-profile bone	Cortical	Full	10-60mm	2.5mm	Yes	Bronze
3.5mm	Bone	Cortical	Full	10-60mm	2.5mm	Yes	Bronze
4.0mm	Bone	Cortical	Full	24-60mm	2.8mm	Yes	Gold
4.0mm	Bone	Cancellous	Full	12-60mm	2.5mm	Yes	Green
4.0mm	Bone	Cancellous	Partial	20-60mm	2.5mm	No	Green
4.0mm	Bone / cannulated	Cancellous	Partial	20-60mm	3.0mm	No	Blue

Implant selection: Plates

Like any lower extremity ORIF procedure, preoperative planning is vital to the overall outcome of ankle fracture fixation. Careful consideration must be given to implant selection. Choose an implant that addresses the specific needs dictated by the fracture location, fracture type and classification. In addition, consideration must be given to the individual anatomic variables of the patient.

Fibula plates

Lateral fibula plate		Posterior fibula plate		Syndesmosis plate		Straight plate	
Holes	Length	Holes	Length	Holes	Length	Holes	Length
Small	8	61mm	Small	8	78mm	4	51mm
Medium	11	91mm	Large	11	106mm	Small	6
Large	15	132mm				Large	8
							67mm
							88mm

Tibia plates

Medial tibia plate		Anterolateral tibia plate		Medial malleolar plate		Posterior tibia plate		1/3 Tubular plates	
Holes	Length	Holes	Length	Holes	Length	Holes	Length	Holes	Length
Small	12	92mm	Small	9	77mm	Small	5	49mm	6
Medium	18	151mm	Medium	13	124mm	Medium	7	71mm	7
									84mm
									96mm
									120mm
									144mm
									168mm

Implant selection

Use the following chart to assist with implant selection:

	Lateral fibula	Posterior fibula	Syndesmosis	Universal straight	Medial tibia	Anterolateral	Medial malleolar	Anterior delta	Posterior tibia
Lateral malleolar fractures	X	X		X					
Syndesmosis injuries	X		X						
Medial malleolar fractures					X		X		
Bi-malleolar fractures	X	X		X	X		X		
Tri-malleolar fractures	X	X		X	X		X		X
Posterior malleolar fractures				X					X
Distal anterior tibia fractures						X		X	
Vertical shear fractures of the medial malleolous					X		X		
Pilon fractures	*X	*X		X	X	X	X	X	X
Distal tibia shaft fractures				X		X		X	
Distal fibula shaft fractures	X	X		X	X				
Distal tibia periarticular fractures					X	X			X

1/3 tubular plates can be contoured to meet the anatomic demands of multiple ankle fracture types and classifications. Use the plate bending irons or threaded bending bars provided in the system to modify the plate as needed.

Proper surgical procedures and techniques are the responsibility of the medical professional. Each surgeon must evaluate the appropriateness of the product and procedure used based on personal medical training and experience.

*When fibula fractures also occur with indicated fracture type.

Implant selection: Screws

The Ortholoc 3Di locking hole has been designed to provide the surgeon with a broad range of fixation options. All 3Di locking holes will accept 2.7mm and 3.5mm locking screws. Locking screws can be locked on-axis with the plate threads or up to 15 degrees off-axis in any direction (30 degree conical). In addition, six options of 3.5mm and 4.0mm non-locking screws can be used in all 3Di locking holes.

Screw diameter and size are determined by anatomy and fixation goals. All screws are self-tapping, but do require the use of color coded pre-drills and provided instrumentation. Additionally, 3.5 and 4.0mm over-drills are provided in the system for use in a lag technique.

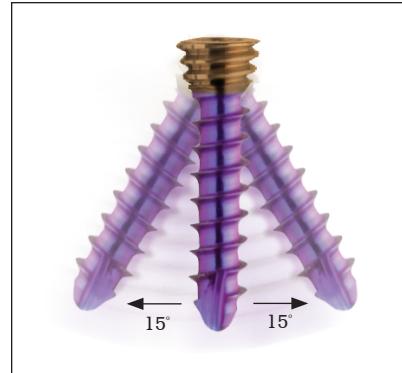


Figure 3



2.7mm Locking screw

- On axis and polyaxial locking capability
- Cortical thread
- 2.0mm Pre-drill
- 10 – 18mm lengths
- Color code: Grey



3.5mm Locking screw

- On-axis and polyaxial locking capability
- Cortical thread
- 2.8mm Pre-drill
- 10 – 60mm lengths
- Color code: Purple



3.5mm Low-profile screw

- Low-profile head sits flush with plate
- Cortical thread
- 2.5mm Pre-drill
- 10 – 60mm lengths
- Color code: Bronze



3.5mm Cortical bone screw:

- Cortical thread
- Fully threaded
- 2.5mm Pre-drill
- 10 – 60mm lengths
- Color code: Bronze



4.0mm Cortical bone screw:

- Cortical thread
- Fully threaded
- 2.8mm Pre-drill
- 24 – 60mm lengths
- Color code: Gold



4.0mm Cancellous bone screw:

- Cancellous thread
- Fully threaded
- 2.5mm Pre-drill
- 12 – 60mm lengths
- Color code: Green



4.0mm Cancellous bone screw:

- Cancellous thread
- Partially threaded
- 2.5mm Pre-drill
- 20 – 60mm lengths
- Color code: Green



4.0mm Cannulated bone screw:

- Cancellous thread
- Partially Threaded
- Cannulated design (1.4mm K-wire)
- 3.0mm Pre-drill
- 20 – 60mm lengths
- Color code: Blue



Bone screw washers

Washers are intended to prevent a screw head from breaking through the cortex of the bone by distributing the forces/load over a large area

Operative technique

Incision

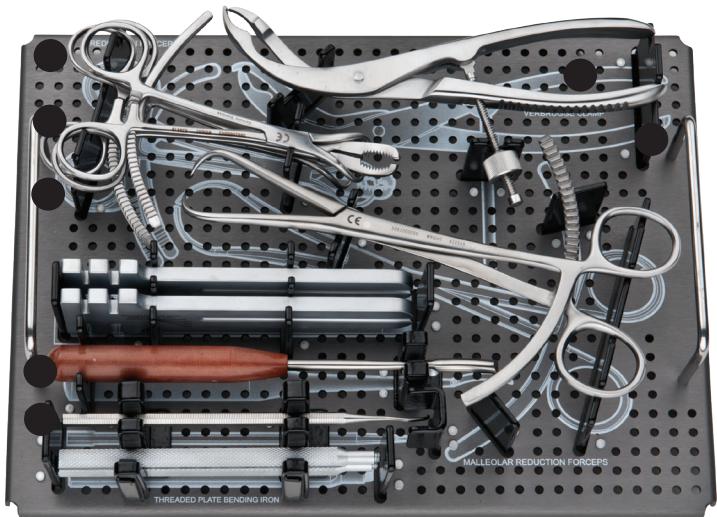
Several incision options are available for ankle fractures. Preoperative fluoroscopy and/or CT scan should be used in determining the proper approach. Incision location should take into account the fracture type and anatomy.

Fracture reduction

Anatomic reduction is performed and length restored. In cases of comminution and bone loss, the contralateral ankle is used as a reference for accuracy. Temporary fixation of the bone is achieved using the bone reduction forceps and/or K-wires provided in the Ortholoc 3Di Ankle Fracture System. Care is taken to ensure that the location of the forceps do not interfere with the planned location of the implant/s. Anatomic reduction is confirmed fluoroscopically.

Fracture reduction instrumentation

A	Small, curved periosteal elevator	5362000004
B	Bone fragment pick	5202000008
C	Serrated bone forceps	5882000040
D	Pointed bone forceps	5882000045
E	Pointed/serrated forceps	5882000080
F	Verbrugge clamp	5882000055
G	Malleolar reduction forceps	5882000050



Lag screw

In many cases, the use of a fully or partially threaded lag screw is desired for fracture compression and stabilization. The Ortholoc 3Di Ankle Fracture System is equipped with multiple lag screw options and corresponding instrumentation to address the unique requirements of most distal tibia and fibula fracture types and classifications.

Fully threaded screw lag technique

Based on the desired screw diameter and type, drill the near cortex of the bone through the over-drill guide using the 3.5 or 4.0mm over-drills. This hole should be drilled as perpendicular to the fracture line as possible to achieve maximum compression. Stop drilling just as the drill passes the near side of the fracture line.

Diameter	Thread type	Thread length	Available length	Pre-Drill diameter	Color code
3.5mm	Cortical/low-profile bone	Full	10-60mm	2.5mm	Bronze
3.5mm	Cortical/bone	Full	10-60mm	2.5mm	Bronze
4.0mm	Cortical/bone	Full	24-60mm	2.8mm	Gold

Figure 4

Insert the color coded pre-drill insert guide into the corresponding over-drill guide hole or directly into the created bone hole. Finish the hole using the correct pre-drill through the pre-drill insert guide.

NOTICE

All over-drill instruments are colored dark gray.

Lag screw instruments

3.5/4.0mm	Drill guide	58873540
2.5mm	Drill insert	58810035
2.5mm	Drill insert	58870040
2.8mm	Drill insert	58870140



Figure 5

Determining screw length

Screw length can be determined with the drill and drill guides. Use the appropriate drill to penetrate through the proximal cortex and continue until the distal cortex is reached.

Stop drilling just as the distal cortex of the bone is penetrated and note where the screw length reference on the drill meets the drill guide. As an alternative, a traditional screw depth gauge has also been provided in the system.

NOTICE

Screw length can be determined with the drill and drill guides.

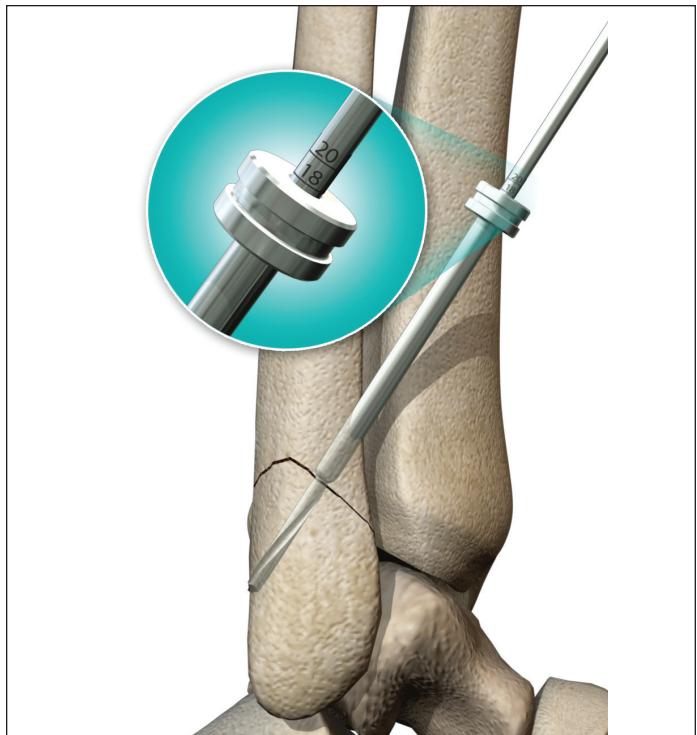


Figure 6

Countersink

All Ortholoc non-locking bone screws can be countersunk into the bone to decrease cortical stress and reduce head prominence. A 6mm solid countersink has been provided in the system for all solid core bone screws. In addition, a 6mm cannulated countersink is provided for the 4.0mm cannulated bone screw.

Place the appropriate countersink in the created bone hole or over the 1.2mm K-wire and rotate clockwise until the desired space is created to accommodate the screw head. Care should be taken to not over countersink the bone.

Description	Part number
Depth gauge	536200016
6mm Countersink	58870002
6mm Cannulated countersink	DSDS1060
Star 15 Driver	58861T15
Torque limiting driver handle	58871012

Screw insertion

Insert the desired screw, closely observing the compression along the fracture line. Reduction forceps are removed before final tightening of the lag screw. Final tightening should be performed using a two-finger technique.

Torque limiting driver handle

The Ortholoc 3Di Ankle Fracture System is provided standard with a torque limiting driver handle. This driver handle has been calibrated to provide the ability to seat all 3Di locking and non-locking screws in all appropriate conditions while avoiding the risk of applying more torque than required. Once the driver handle has reached the maximum allowable torque, an audible click will be heard. Stop driving the screw once the torque limiting driver handle has reached the maximum allowable torque level.



Figure 7

Plate fixation

Provisional fixation

Place the chosen Ortholoc 3Di Ankle Fracture plate on the bone, ensuring adequate points of fixation can be achieved on all sides of the fracture line/s. 1.4mm temporary fixation pins can be placed in the pin holes on selected plates or through any locking hole to achieve provisional plate fixation. Fluoroscopy should be used to verify accurate plate placement.

NOTICE

1.4mm temporary fixation pins can be placed in the pin holes on selected plates or through any locking hole to achieve provisional plate fixation.

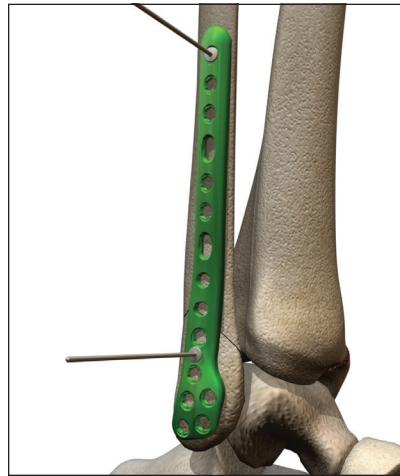


Figure 8

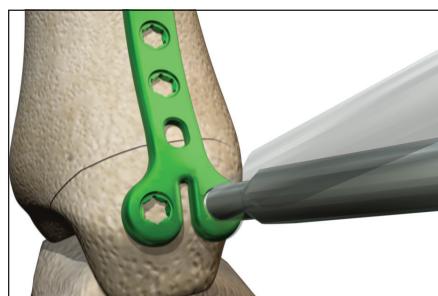


Figure 9

In situ contouring

Use of the in situ benders should be limited to the medial malleolar plates. Thread the bender into either of the distal plate holes, ensuring full engagement to the plate threads. Lever the bender down, contouring the plate flush to the host bone.

NOTICE

Lever the bender down, contouring the plate flush to the host bone.

If the removal of one or both of the distal tabs is desired, lever the instrument in a back-and-forth motion until the tabs snap-off from the plate. The tab should break away cleanly along the scored line found on the reverse side of the plate.

Plate contouring

The Ortholoc 3Di Ankle Fracture plates have been designed to match the anatomic contours of the distal fibula and tibia. In most cases, interoperative plate contouring will not be necessary. In cases of bone deformity or abnormalities some contouring may be required.

Use the plate bending irons provided in the system to slightly modify plate contours as needed. Multiple slot widths within the benders are available to accommodate all plate types and thicknesses. Care should be taken to avoid over-bending or bending in a back-and-forth motion to prevent stress risers.

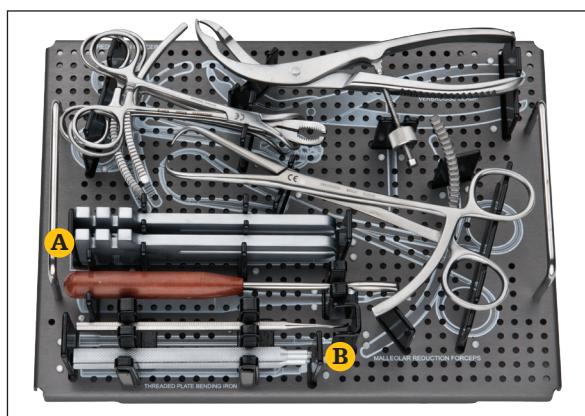


Figure 10

A Slotted plate benders	58872031
B In situ plate benders	58870003

Locking screws

The Ortholoc 3Di Locking hole has been designed to accept the 2.7mm and 3.5mm Ortholoc 3Di locking screws as well as the six non-locking screw designs provided in the system. All locking screws can be placed on-axis with the internal plate threads or at up to 15 degrees off axis in any direction (30 degree cone).

When using a locking screw on-axis with the plate, thread the appropriate locking drill guide into the 3Di locking hole, and use the corresponding drill through the guide to the appropriate depth (See "Determining Screw Length").

All 3Di locking holes and locking screws have polyaxial locking capabilities. To engage a locking screw off-axis to the plate threads, place the polyaxial drill guide into the desired locking hole. Ensure the guide mates properly with the 3Di locking feature, and that the end of the guide being used corresponds with the proper drill size. Drill to the appropriate depth, ensuring that the drill trajectory stays within the 30 degree guide cone.

NOTICE

Ensure the guide mates properly with the 3Di locking feature, and that the end of the guide being used corresponds with the proper drill size.



Figure 11

Locking screw	Drill/guide	Color code
2.7mm	2.0mm	Grey
3.5mm	2.8mm	Purple

Description	Part number
2.0mm Locking drill guide	58872030
2.8mm Locking drill guide	58872560
Polyaxial drill guide	58872028

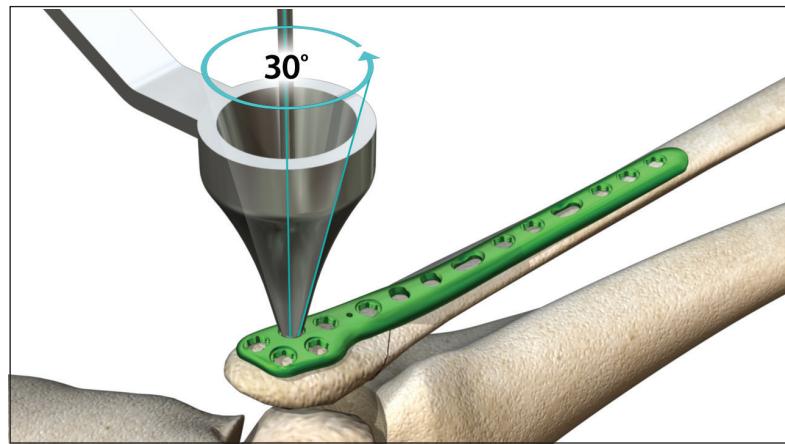


Figure 12

Compression slots

Compression across a fracture site can be achieved using the oblong compression slots in selected plates. Fixate the distal aspect of the selected plate using the appropriate locking or non-locking screw. Pre-drill the portion of the oblong compression slot farthest away from the fracture line, determine screw length and drive the appropriate non-locking screw until fully engaged with the plate. Compression across the fracture site is created as the screw travels to the center of the compression slot.

Syndesmosis fixation

The Ortholoc 3Di lateral fibula (medium and large only) and syndesmosis plates feature anatomic syndesmosis holes for use with any 3.5 or 4.0mm non-locking screws. These screw holes have been designed to place the chosen syndesmotic fixation in the correct anatomic location and allow for up to 30° of anterior screw angulation. Any 3Di non-locking bone screw can be placed through the syndesmotic holes, however a 4.0mm cortical, fully-threaded solid screw is usually recommended for fixation.

When using the Syndesmosis plate, ensure that the anterior portion of the plate is facing anteriorly.

Use the appropriate pre-drill through the syndesmosis hole and measure for screw length. Drive the selected screw through the syndesmosis hole/s and verify syndesmotic fixation fluoroscopically.

Explant information

Removal of the plate may be performed by first extracting the plate screws using the Star 15 straight driver (58861T15) and then removing the plate from the bone.

If the removal of the implant is required due to revision or failure of the device, the surgeon should contact the manufacturer using the contact information located on the back cover of this surgical technique to receive instructions for returning the explanted device to the manufacturer for investigation.



Figure 13

NOTICE

The small lateral fibula plate does not feature anatomic syndesmosis screw holes, and is not recommended for use with syndesmotic screw fixation.

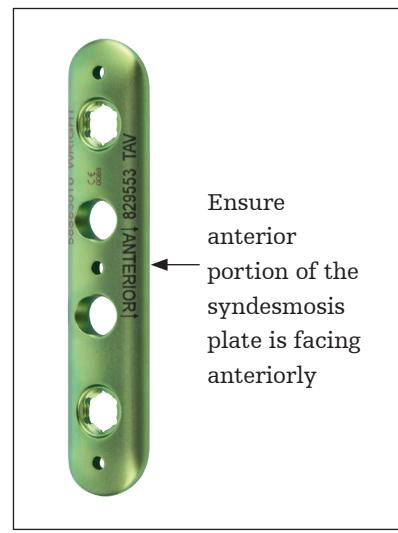


Figure 14

Postoperative management

Postoperative care is the responsibility of the medical professional.

Ordering information

Sterile part numbers are available upon request for specific markets.

Lateral fibula plate

Part number	Description
5888101L	Lateral fibula plate, left, small
5888101R	Lateral fibula plate, right, small
5888102L	Lateral fibula plate, left, medium
5888102R	Lateral fibula plate, right, medium
5888103L	Lateral fibula plate, left, large
5888103R	Lateral fibula plate, right, large

Posterior fibula plate

Part number	Description
5888201L	Posterior fibula plate, left, small
5888201R	Posterior fibula plate, right, small
5888203L	Posterior fibula plate, left, large
5888203R	Posterior fibula plate, right, large

Syndesmosis plate

Part number	Description
58883010	Syndesmosis plate

Medial malleolar plate

Part number	Description
58885010	Medial malleolar plate, small
58885030	Medial malleolar plate, large

Straight plate

Part number	Description
58884060	Universal straight plate, 6 hole
58884080	Universal straight plate, 8 hole

Anterior tibia delta plate

Part number	Description
58886010	Anterior tibia delta plate, small
58886030	Anterior tibia delta plate, large

Anterolateral tibia plate

Part number	Description
5888701L	Anterolateral tibia plate, left, small
5888701R	Anterolateral tibia plate, right, small
5888702L	Anterolateral tibia plate, left, medium
5888702R	Anterolateral tibia plate, right, medium

Medial tibia plate

Part number	Description
5888801L	Medial tibia plate, left, small
5888801R	Medial tibia plate, right, small
5888802L	Medial tibia plate, left, medium
5888802R	Medial tibia plate, right, medium

Posterior tibia plate

Part number	Description
58889000	Posterior tibia plate

1/3 Tubular plate

Part number	Description
58880006	6 Hole 1/3 tubular plate
58880007	7 Hole 1/3 tubular plate
58880008	8 Hole 1/3 tubular plate
58880010	10 Hole 1/3 tubular plate
58880012	12 Hole 1/3 tubular plate
58880014	14 Hole 1/3 tubular plate

Ordering information



2.7mm Locking screw

Part number	Description
58802710	2.7X10mm
58802712	2.7X12mm
58802714	2.7X14mm
58802716	2.7X16mm
58802718	2.7X18mm



3.5mm Locking screw

Part number	Description
58803510	3.5 X 10mm
58803512	3.5 X 12mm
58803514	3.5 X 14mm
58803516	3.5 X 16mm
58803518	3.5 X 18mm
58803520	3.5 X 20mm
58803522	3.5 X 22mm
58803524	3.5 X 24mm
58803526	3.5 X 26mm
58803528	3.5 X 28mm
58803530	3.5 X 30mm
58803532	3.5 X 32mm
58803534	3.5 X 34mm
58803536	3.5 X 36mm
58803538	3.5 X 38mm
58803540	3.5 X 40mm
58803542	3.5 X 42mm
58803544	3.5 X 44mm
58803546	3.5 X 46mm
58803548	3.5 X 48mm
58803550	3.5 X 50mm
58803555	3.5 X 55mm
58803560	3.5 X 60mm

3.5mm Low-profile cortical screw

Part number	Description
58813510	3.5 X 10mm
58813512	3.5 X 12mm
58813514	3.5 X 14mm
58813516	3.5 X 16mm
58813518	3.5 X 18mm
58813520	3.5 X 20mm
58813522	3.5 X 22mm
58813524	3.5 X 24mm
58813526	3.5 X 26mm
58813528	3.5 X 28mm
58813530	3.5 X 30mm
58813532	3.5 X 32mm
58813534	3.5 X 34mm
58813536	3.5 X 36mm
58813538	3.5 X 38mm
58813540	3.5 X 40mm
58813542	3.5 X 42mm
58813544	3.5 X 44mm
58813546	3.5 X 46mm
58813548	3.5 X 48mm
58813550	3.5 X 50mm
58813555	3.5 X 55mm
58813560	3.5 X 60mm

Ordering information



3.5mm Cortical screw

Part number	Description
58913510	3.5X10mm
58913512	3.5X12mm
58913514	3.5X14mm
58913516	3.5X16mm
58913518	3.5X18mm
58913520	3.5X20mm
58913522	3.5X22mm
58913524	3.5X24mm
58913526	3.5X26mm
58913528	3.5X28mm
58913530	3.5X30mm
58913532	3.5X32mm
58913534	3.5X34mm
58913536	3.5X36mm
58913538	3.5X38mm
58913540	3.5X40mm
58913542	3.5X42mm
58913544	3.5X44mm
58913546	3.5X46mm
58913548	3.5X48mm
58913550	3.5X50mm
58913555	3.5X55mm
58913560	3.5X60mm



4.0mm Cancellous full screw

Part number	Description
58934012	4.0X12mm
58934014	4.0X14mm
58934016	4.0X16mm
58934018	4.0X18mm
58934020	4.0X20mm
58934022	4.0X22mm
58934024	4.0X24mm
58934026	4.0X26mm
58934028	4.0X28mm
58934030	4.0X30mm
58934035	4.0X35mm
58934040	4.0X40mm
58934045	4.0X45mm
58934050	4.0X50mm
58934055	4.0X55mm
58934060	4.0X60mm



4.0mm Cancellous partial screw

Part number	Description
58944020	4.0X20mm
58944022	4.0X22mm
58944024	4.0X24mm
58944026	4.0X26mm
58944028	4.0X28mm
58944030	4.0X30mm
58944035	4.0X35mm
58944040	4.0X40mm
58944045	4.0X45mm
58944050	4.0X50mm
58944055	4.0X55mm
58944060	4.0X60mm



4.0mm Cortical screw

Part number	Description
58924024	4.0X24mm
58924026	4.0X26mm
58924028	4.0X28mm
58924030	4.0X30mm
58924035	4.0X35mm
58924040	4.0X40mm
58924045	4.0X45mm

Ordering information



4.0mm Headed cannulated/partial screw

Part number	Description
D1N40020S	4.0 X 20mm
D1N40022S	4.0 X 22mm
D1N40024S	4.0 X 24mm
D1N40026S	4.0 X 26mm
D1N40028S	4.0 X 28mm
D1N40030S	4.0 X 30mm
D1N40032S	4.0 X 32mm
D1N40034S	4.0 X 34mm
D1N40036S	4.0 X 36mm
D1N40038S	4.0 X 38mm
D1N40040S	4.0 X 40mm
D1N40042S	4.0 X 42mm
D1N40044S	4.0 X 44mm
D1N40046S	4.0 X 46mm
D1N40048S	4.0 X 48mm
D1N40052S	4.0 X 52mm
D1N40056S	4.0 X 56mm
D1N40060S	4.0 X 60mm

Bone screw washer



Part number	Description
5881003540	Washer 3.5 / 4.0mm screw

Consumable instruments

Part number	Description
58850020	Drill bit 2.0 X 24mm
58850025	Drill bit 2.5 X 60mm
58850028	Drill bit 2.8 X 60mm
58850035	Drill bit 3.5 X 60mm
58850040	Drill bit 4.0 X 60mm
DSDS1060	Countersink 6.0mm cannulated
58870002	Countersink 6.0mm solid
58850030	Drill bit 3.0 X 60mm cann
58820024	Temp fixation pin 1.4mm, large
DSDS1014	K-wire 1.4 X150mm blunt/trocars
DSDS0015	Driver star #15 cannulated
58861T15	Driver star 15 straight

Instruments

Part number	Description
5882000040	Reduction forceps serrated
5882000045	Reduction forceps pointed
5882000050	Malleolar reduction forceps
5882000080	Reduction forceps PNT/serrated
5882000055	Verbruffe clamp
58872030	Locking 2.0mm drill guide
58872560	Locking 2.8mm drill guide
58872025	Drill guide 2.0 / 2.5
58872830	Drill guide 2.8 / 3.0
58873540	Drill guide 3.5 / 4.0
58870000	K-wire guide 1.4mm
58810035	Drill guide 2.5mm insert
58870040	Drill guide 2.5mm insert
58870140	Drill guide 2.8mm insert
5362000160	Depth gauge 60mm
DSDS0006	Depth gauge small screw
58871012	Torque limiting driver handle
41112017	AO quick connect cannulated
58872031	Slotted plate bender
58870003	Threaded bending iron
5362000004	Curved elevator
5202000008	Bone fragmet pick
58872028	Poly locking drill guide
5887CASE	Ortholoc ankle FX case ASSY

Screw quick guide

Diameter	Type	Thread	Thread type	Available length	Pre-Drill diameter	Over-drill available	Color code
2.7mm	Locking/plate	Cortical	Full	10-18mm	2.0mm	No	Grey
3.5mm	Locking/plate	Cortical	Full	10-60mm	2.8mm	No	Purple
3.5mm	Low-profile bone	Cortical	Full	10-60mm	2.5mm	Yes	Bronze
3.5mm	Bone	Cortical	Full	10-60mm	2.5mm	Yes	Bronze
4.0mm	Bone	Cortical	Full	24-60mm	2.8mm	Yes	Gold
4.0mm	Bone	Cancellous	Full	12-60mm	2.5mm	Yes	Green
4.0mm	Bone	Cancellous	Partial	20-60mm	2.5mm	No	Green
4.0mm	Bone / cannulated	Cancellous	Partial	20-60mm	3.0mm	No	Blue

1. Coughlin, M.J.; Mann, R.A.; Saltzman, C.L.; "Ankle Fracture". Surgery of the Foot and Ankle 8 Edition. Ed.Coughlin et al. Philly: Mosby, 2007

2. Data on file at Wright Medical Technology, Inc.

Foot & Ankle

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