MEDLINE

UNITE®
FOOT & ANKLE

Ankle Fusion Plating System

SURGICAL TECHNIQUE

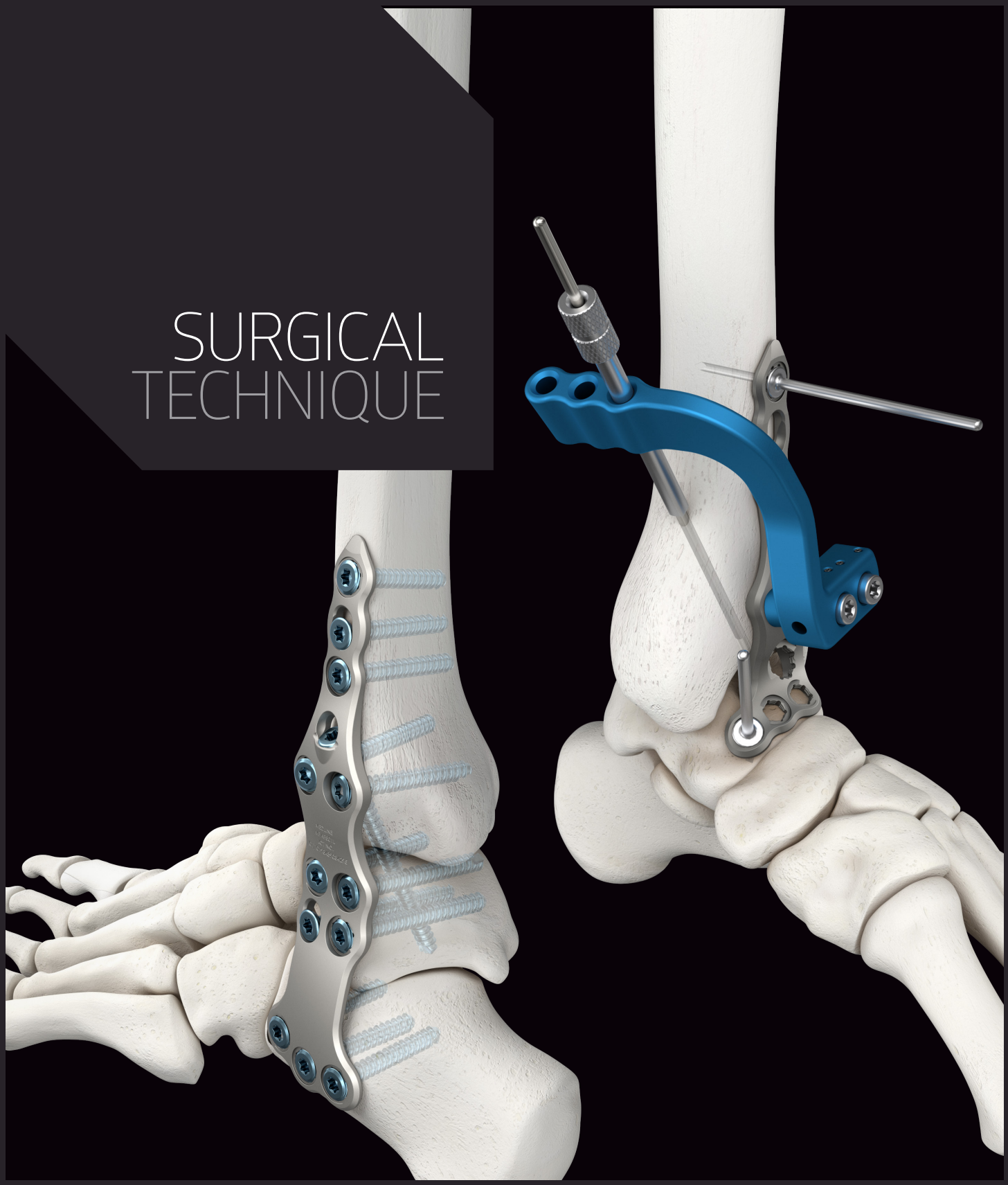
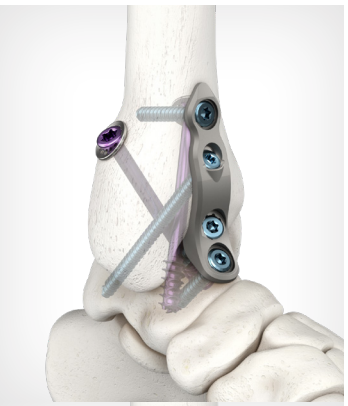
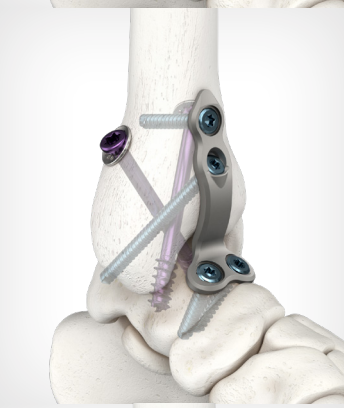


Plate options



Petite Inline (Mini-Open)

Size	Small & Standard
Side Specific	Universal
Screw Size	ø4.5/5.5mm
Plate Length	Small 55mm Standard 69mm



Petite T-Style (Mini-Open)

Size	Small & Standard
Side Specific	Universal
Screw Size	ø4.5/5.5mm
Plate Length	Small 56mm Standard 69mm

Standard Anterior

Size	Small & Standard
Side Specific	Left/Right
Screw Size	ø3.5/4.0mm ø4.5/5.5mm
Plate Length	Small 88mm Standard 99mm

Anterior Short Talar Neck

Size	Small & Standard
Side Specific	Left/Right
Screw Size	ø4.5/5.5mm
Plate Length	Small 81mm Standard 92mm

Posterior TT

Size	Universal
Side Specific	Left/Right
Screw Size	ø4.5/5.5mm
Plate Length	76mm

Posterior TTC

Size	Universal
Side Specific	Left/Right
Screw Size	ø3.5/4.0mm ø4.5/5.5mm
Plate Length	93mm

Lateral TTC

Size	Universal
Side Specific	Left/Right
Screw Size	ø4.5/5.5mm
Plate Length	127mm

Pilon Primary Fusion

Size	Universal
Side Specific	Left/Right
Screw Size	ø3.5/4.0mm ø4.5/5.5mm
Plate Length	150mm

Screw options

Plate screws

Polyaxial locking
& non-locking screws

Ø3.5 mm

Length 16 – 40mm
Drill Bit Ø2.8mm
Driver T15
For use with Standard Anterior, Posterior TTC, Primary Pilon Fusion

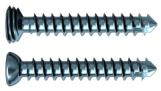
Polyaxial locking
& non-locking screws

Ø4.0 mm

Length 16 – 40mm
Drill Bit Ø3.0mm
Driver T15
For use with Standard Anterior, Posterior TTC, Primary Pilon Fusion

Polyaxial locking
& non-locking screws

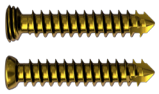
Ø4.5 mm



Length 16 – 60mm
Drill Bit Ø3.1mm
Driver T20
For use with All Ankle Fusion Plates (Over-drill and guide for lag technique through dual-mode compression feature)

Polyaxial locking
& non-locking screws

Ø5.5 mm



Length 16 – 60mm
Drill Bit Ø3.8mm
Driver T20
For use with All Ankle Fusion Plates

Cannulated screws (separate trays*)

HEADED
HEADLESS

Ø5.5 mm

Length 34 – 80mm
Drill Bit Ø3.6mm
(Ø2.0 x 200mm wire)
Driver T20
For use as independent lag screw

HEADLESS

Ø6.5 mm

Length 40 – 125mm
Drill Bit Ø3.6mm
(Ø2.5 x 200mm wire)
Driver T30
For use as independent lag screw

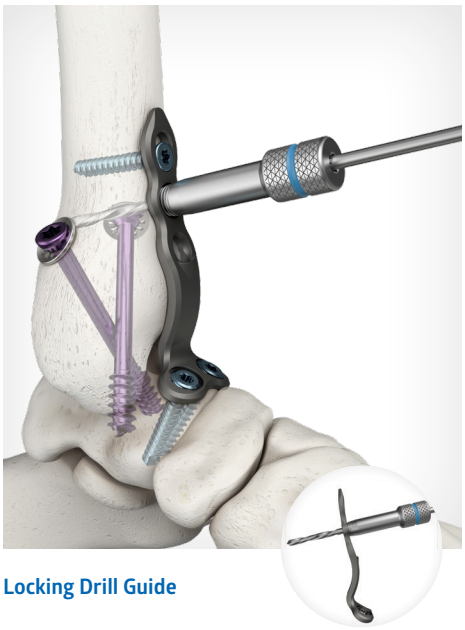
HEADED

Ø7.0 mm

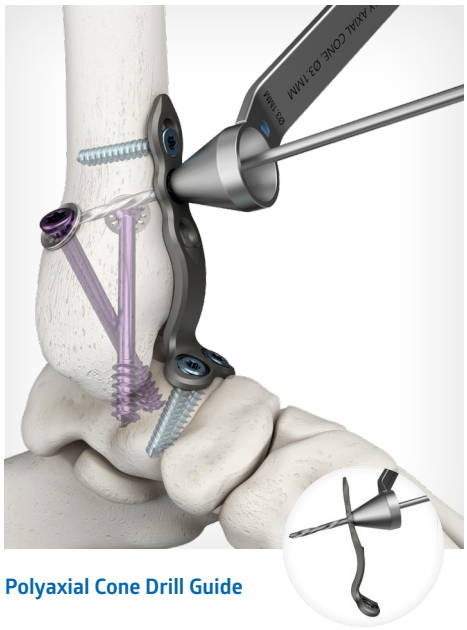
Length 40 – 125mm
Drill Bit Ø4.5mm
(Ø2.5 x 200mm wire)
Driver T30
For use as independent lag screw

*The Ankle Fusion tray includes 105 – 125mm Ø6.5/7.0mm Cannulated Screws

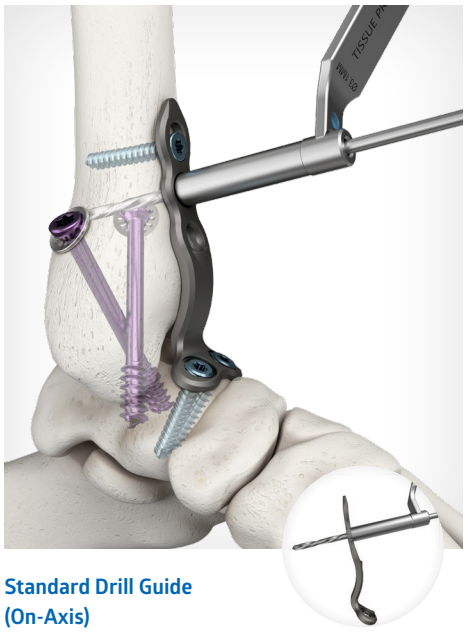
Drill guide options



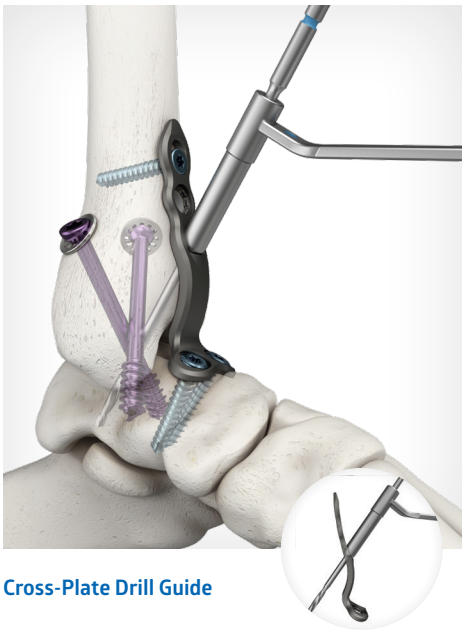
Locking Drill Guide



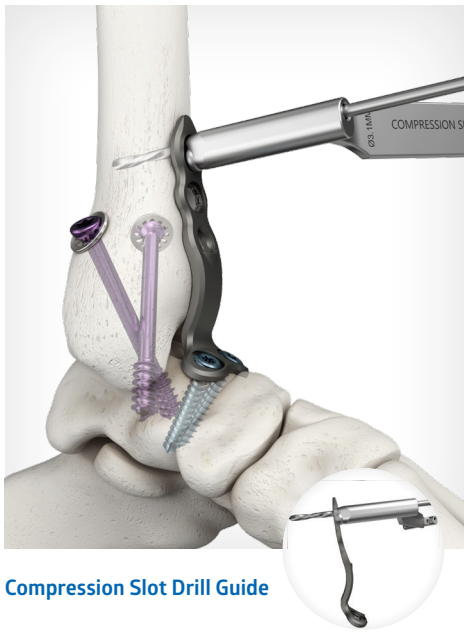
Polyaxial Cone Drill Guide



Standard Drill Guide
(On-Axis)



Cross-Plate Drill Guide



Compression Slot Drill Guide

Depth Gauge guidance

Ankle Fusion plates vary in thickness. To properly measure for accurate screw length, the surgeon must account for the distance from the top of the plate hole to the surface of the bone. The specially designed depth gauge neck features laser lines from 2 to 12mm to account for this distance.

1. Place the tip of the depth gauge through the plate hole and against the surface of the bone in standard fashion.
2. Slide the depth gauge into the bone to hook the far cortex, or to the desired position if bicortical fixation is not desired.
3. Read the length from the back end of the depth gauge (flat sliding component).
4. Next, refer to the laser line marking on the thin neck of the depth gauge to determine the distance from the surface of the bone to the top of the plate hole.
5. Add the two numbers together to determine the accurate screw length for the plate hole.

Note: The red lines on the illustrations represent the spot-faces of different holes in various areas of a standard anterior plate. Measurements shown are for illustration only. Values will vary based on patient anatomy and plate position.

Targeting guide and homerun screw placement (optional)

Anterior Plates

1. Attach appropriate guide (left or right) to the desired anterior plate (standard, short talar neck, or pilon primary fusion) by threading towers into the two distal tibial locking plate holes using the T20 driver.
2. Position and secure the plate to the bone using temporary fixation pins.
3. Select the sleeve option for the desired lag screw size (2.0mm for 5.5mm screws or 2.5mm sleeve for 6.5/7.0mm screws), then place the sleeve through the desired trajectory hole.
4. Place the guidepin through the sleeve and across the ankle joint and confirm placement fluoroscopically.

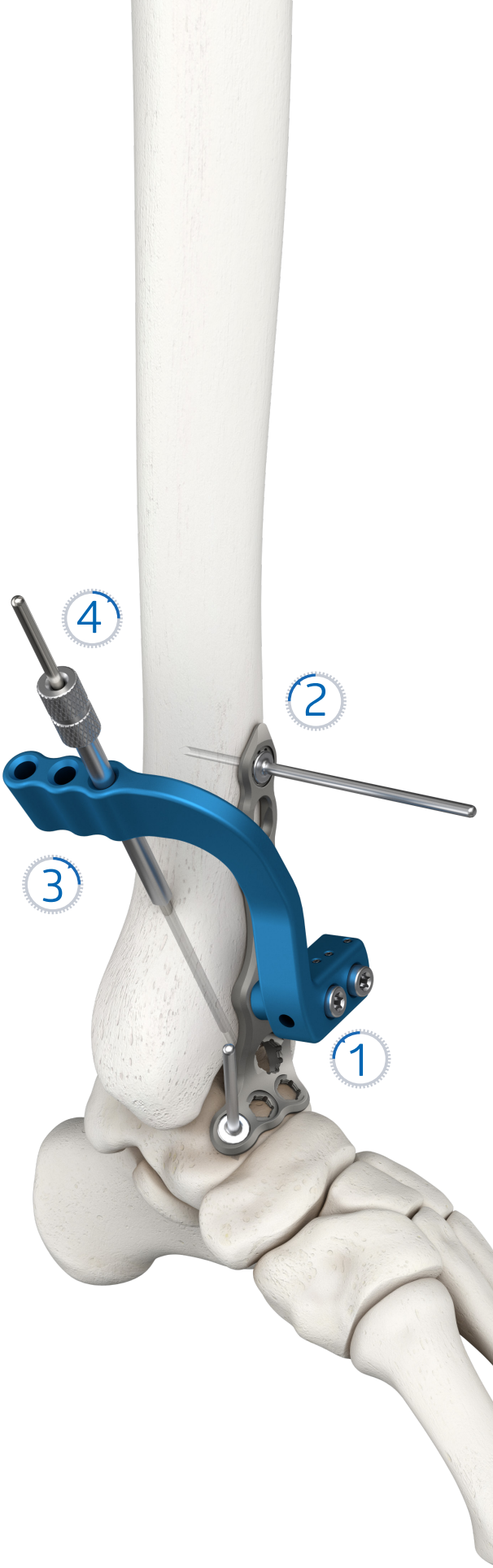


Plate fixation sequence

Anterior Standard and Short Talar Neck Plates

Note: The surgeon may place independent lag screws for ankle and/or subtalar joints prior to plate fixation.

1 If the optional targeting guide was used for homerun screw placement, place a locking screw distally before removing the distal temporary fixation pin. Place locking screws in the talar section (distal holes) of the plate using the desired drill guide. Remove any remaining temporary fixation pins.

2 Ankle joint compression through the plate.

2a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the proximal-most traditional compression slot in the tibial section.

2b Dual-mode compression feature (two options) – it is recommended to compress through this feature after utilizing the more proximal traditional compression slot.

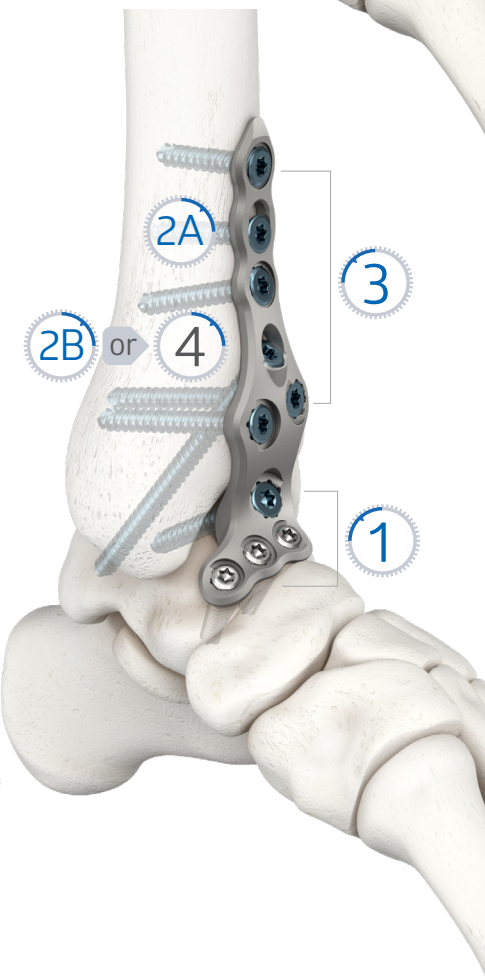
Note: If cross-joint screw placement is desired through the dual-mode compression feature as a positional/static screw, place the screw after locking the plate both distally and proximally. Skip ahead to step 3.

Option 1: Utilize the compression slot drill guide to drill eccentrically and place a 4.5 or 5.5mm non-locking screw.

Option 2: Utilize the cross-plate drill guide, along with the pre-drill and over-drill, to lag a 4.5mm non-locking screw by technique.

3 Place locking screws in the tibia (promixal holes) of the plate using the desired drill guide.

4 Place cross-joint positional screw if step 2b was skipped.



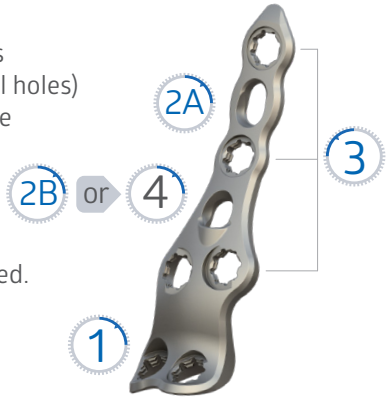


Plate fixation sequence

Anterior Petite Inline and T-Style Plates

Note: Before plate fixation, it is recommended to place one or two independent lag screws across the ankle joint (medially and/or laterally) when using the petite style plates.

1 Place locking screws in the talar section (distal holes) of the plate using the desired drill guide.

2 Ankle joint compression through the plate.

***Note:** Short petite plates do not include a traditional compression slot. If implanting a short plate, skip to step 2b.

2a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the proximal-most traditional compression slot in the tibial section*.

2b Dual-mode compression feature (two options) – it is recommended to compress through this feature after utilizing the more proximal traditional compression slot.

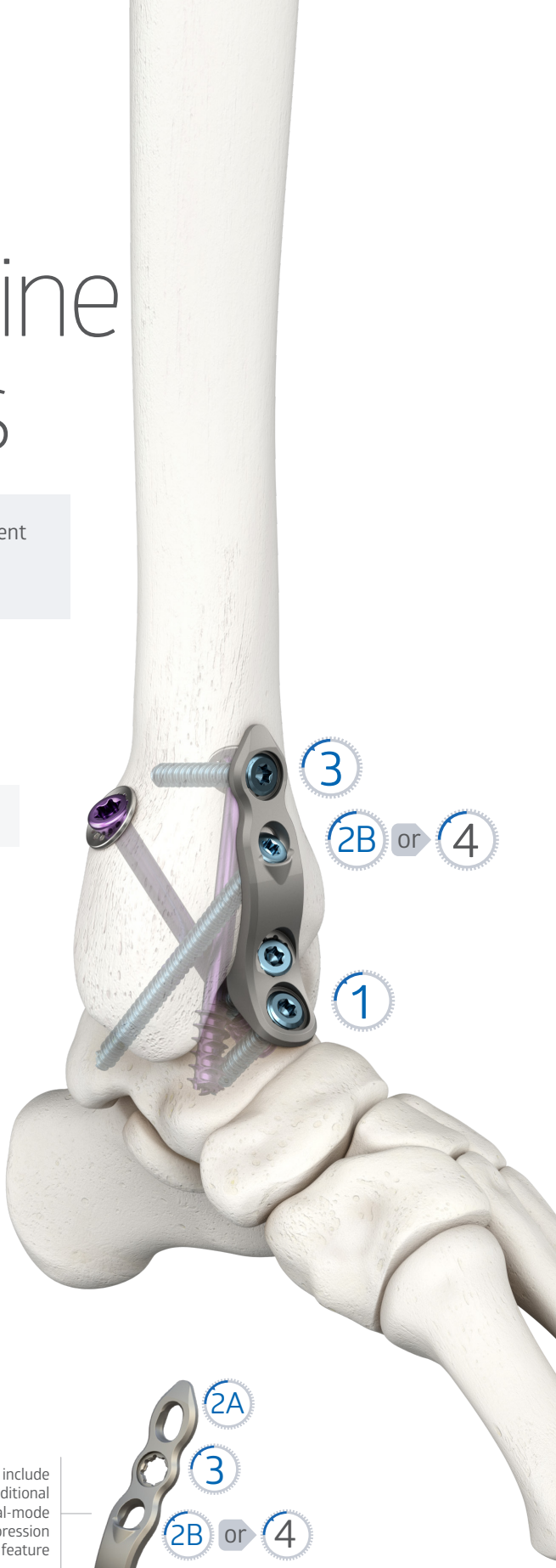
Note: If cross-joint screw placement is desired through the dual-mode compression feature as a positional/static screw, place the screw after locking the plate both distally and proximally. Skip ahead to step 3.

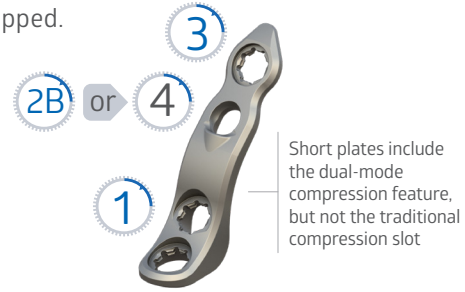
Option 1: Utilize the compression slot drill guide to drill eccentrically and place a 4.5 or 5.5mm non-locking screw.

Option 2: Utilize the cross-plate drill guide, along with the pre-drill and over-drill, to lag a 4.5mm non-locking screw by technique.

3 Place locking screw in the tibia (promixal hole) of the plate using the desired drill guide.

4 Place cross-joint positional screw if step 2b was skipped.





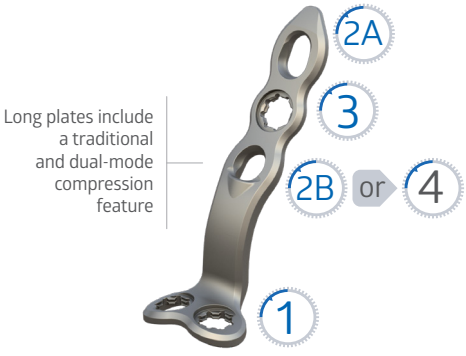


Plate fixation sequence

Posterior TT Plates

Note: The surgeon may place independent lag screws for ankle and/or subtalar joints prior to plate fixation.

1 Place locking screws in the talar section (distal holes) of the plate using the desired drill guide.

2 Ankle joint compression through the plate.

2a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the proximal-most traditional compression slot in the tibial section.

2b Dual-mode compression feature (two options) – it is recommended to compress through this feature after utilizing the more proximal traditional compression slot.

Note: If cross-joint screw placement is desired through the dual-mode compression feature as a positional/static screw, place the screw after locking the plate both distally and proximally. Skip ahead to step 3.

Option 1: Utilize the compression slot drill guide to drill eccentrically and place a 4.5 or 5.5mm non-locking screw.

Option 2: Utilize the cross-plate drill guide, along with the pre-drill and over-drill, to lag a 4.5mm non-locking screw by technique.

3 Place locking screws in the tibia (promixal holes) of the plate using the desired drill guide.

4 Place cross-joint positional screw if step 2b was skipped.

Plate fixation sequence

Posterior TTC Plates

Note: It is recommended to place independent lag screws for ankle and/or subtalar joints prior to plate fixation.

1. Place locking screws in the calcaneal section followed by the talar section using the desired drill guide.

2. Ankle joint compression through the plate

   2a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the proximal-most traditional compression slot in the tibial section

   2b Dual-mode compression feature (two options) – it is recommended to compress through this feature after utilizing the more proximal traditional compression slot

   Note: If cross-joint screw placement is desired through the dual-mode compression as a positional/static screw, skip ahead to step 3 to place the screw after locking the plate both distally and proximally.

   Option 1: Utilize the compression slot drill guide to drill eccentrically and place a 4.5 or 5.5mm non-locking screw.

   Option 2: Utilize the cross-plate drill guide, along with the pre-drill and over-drill, to lag a 4.5mm non-locking screw by technique.

3. Place locking screws in the tibia (promixal holes) of the plate using the desired drill guide.

4. Place cross-joint positional screw if step 2b was skipped.

Plate fixation sequence

Lateral TTC Plates

Note: The surgeon may place independent lag screws for ankle and/or subtalar joints prior to plate fixation.

1 Place locking screws in the calcaneal section of the plate using the desired drill guide.

2 Subtalar joint compression through the plate.

2a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the traditional compression slot in the talar section of the plate.

3 Place locking screws in the talar section of the plate.

4 Ankle joint compression through the plate.

4a Using the compression slot drill guide, drill eccentrically and place a 4.5 or 5.5mm non-locking screw in the proximal-most traditional compression slot in the tibial section.

4b Dual-mode compression feature (two options) – it is recommended to compress through this feature after utilizing the more proximal traditional compression slot.

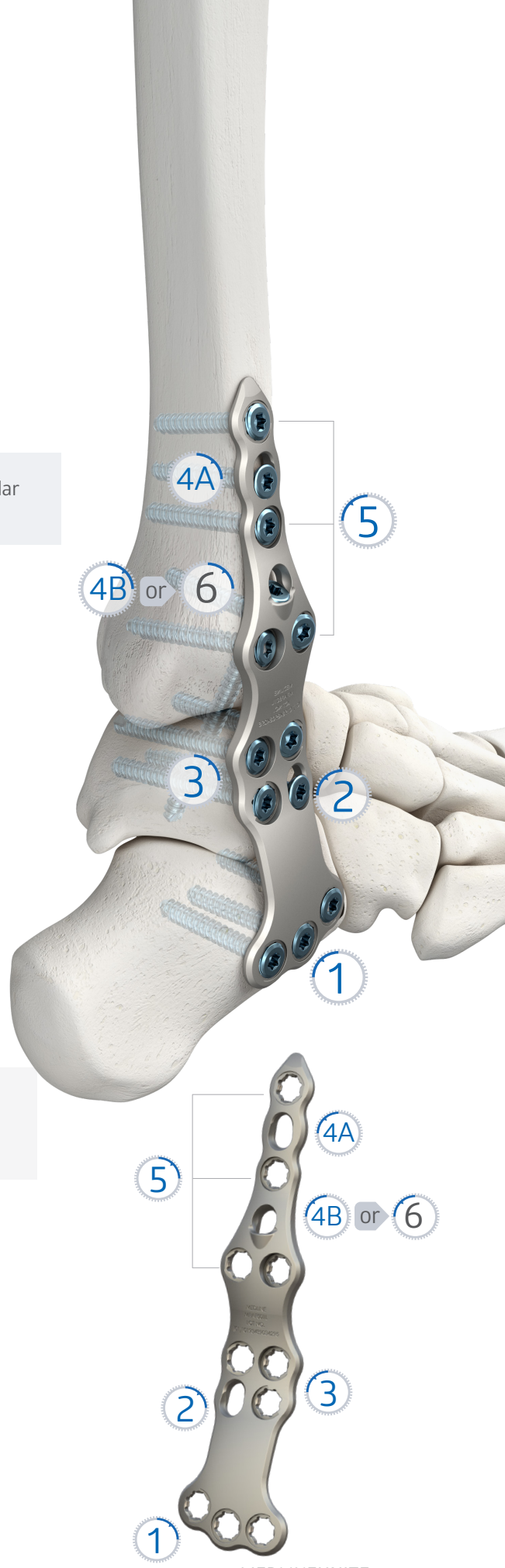
Note: If cross-joint screw placement is desired through the dual-mode compression as a positional/static screw, place the screw after locking the plate both distally and proximally. Skip ahead to step 5.

Option 1: Utilize the compression slot drill guide to drill eccentrically and place a 4.5 or 5.5mm non-locking screw.

Option 2: Utilize the cross-plate drill guide, along with the pre-drill and over-drill, to lag a 4.5mm non-locking screw by technique.

5 Place screws in remaining proximal plate locking holes in the tibia.

6 Place cross-joint positional screw if step 4b was skipped.



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