Periarticular Aiming Arm Instruments for LCP Condylar Plate 4.5/5.0. Part of the LCP Periarticular Aiming Arm Instrument System (large).

Technique Guide
Warning
This description alone does not provide sufficient background for direct use of the instrument set. Instruction by a surgeon experienced in handling these instruments is highly recommended.

Reprocessing, Care and Maintenance of Synthes Instruments
For general guidelines, function control and dismantling of multi-part instruments, please refer to: www.synthes.com/reprocessing
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## Product Information
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The aiming arms for the LCP Condylar Plates 4.5/5.0 facilitate percutaneous, submuscular insertion of the plate. The Periarticular Aiming Arm Instruments provide common instrumentation throughout the system including:

- Screwdrivers
- Drill guides
- Drill bits
- Guide sleeves
- Drill sleeves
- Drill guides
- String guides
- Screwdrivers
- Tropars

Additional features include:

- Aiming for all three positions of the control-hole
- Locking
- Load (compression)
- Neutral
- Instruments snap into aiming arms for quick assembly and removal
- Multiple options for connecting plates and insertion handles accommodate surgeon preferences
- Color-coding facilitates system familiarity

The Periarticular Aiming Arm Instruments are part of the LCP Periarticular Aiming Arm Instrument System (large).
LCP Condylar Plate 4.5/5.0

The Synthes LCP Condylar Plate 4.5/5.0 is part of the LCP Periarticular Plating System, which merges locking screw technology with conventional plating techniques. The LCP Periarticular Plating System is capable of addressing complex fractures of the
- distal femur with the LCP Condylar Plates 4.5/5.0,
- proximal femur with the LCP Proximal Femoral Plates 4.5/5.0 and the LCP Proximal Femoral Hook Plates 4.5/5.0,
- proximal tibia with the LCP Proximal Tibia Plates 4.5/5.0 and LCP Medial Proximal Tibia Plates 4.5/5.0.

The Locking Compression Plate (LCP) has combi-holes in the plate shaft that combine a dynamic compression unit (DCU) hole with a locking screw hole. The combi-hole provides the flexibility of axial compression and locking capability throughout the length of the plate shaft.

Note: For information on fixation principles using conventional and locked plating techniques, please refer to the Synthes Large Fragment Locking Compression Plate (LCP) Technique Guide (036.000.019).
AO Principles

In 1958, the AO formulated four basic principles which have become the guidelines for internal fixation.¹ Those principles as applied to the LCP Condylar Plate 4.5/5.0 inserted with Periarticular Aiming Arm Instruments, are:

**Anatomic reduction**
Facilitates restoration of the articular surface by exact screw placement using threaded drill guides.

**Stable fixation**
Locking screws create a fixed-angle construct, providing angular stability.

**Preservation of blood supply**
Tapered end for submuscular plate insertion. Limited contact shaft profile reduces plate-to-bone contact and vascular trauma.

**Early, active mobilization**
Plate features combined with AO technique create an environment for bone healing, expediting a return to optimal function.

Indications

The Synthes LCP Condylar Plates 4.5/5.0 are intended for buttressing of multifragment distal femur fractures including:
- Supracondylar fractures
- Intra-articular and extra-articular condylar fractures
- Malunions and nonunions of the distal femur
- Periprosthetic fractures
- Osteotomies of the femur
- Osteopenic bone
1 Preoperative planning

Sets

01.120.024 LCP Condylar Plates 4.5/5.0 (Stainless Steel)
01.120.035 Periarticular Aiming Arm Instruments for LCP Condylar Plates 4.5/5.0
01.120.021 Periarticular Instruments
LCP Large Fragment Instruments and Standard Instruments

Large Fragment Screws including Cannulated Locking and Conical Screws

Complete a preoperative radiographic assessment and prepare the preoperative plan. Position the patient supine on a radiolucent table. Viewing the distal femur under image intensifier control in both the lateral and AP views is necessary.

Use the AO preoperative planner template for the LCP Condylar Plate 4.5/5.0.
2

Attach insertion handle

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.120.008</td>
<td>Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, right</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>03.120.010</td>
<td>Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, left</td>
</tr>
<tr>
<td>03.120.019</td>
<td>Wire Guide $\phi$ 2.5, for Cannulated Locking Screws $\phi$ 7.3 mm and Cannulated Conical Screws $\phi$ 7.3 mm</td>
</tr>
<tr>
<td>03.120.020</td>
<td>Wire Guide $\phi$ 2.5, for Locking Screws $\phi$ 5.0, for Cannulated Locking Screws $\phi$ 5.0 mm and for Cannulated Conical Screws $\phi$ 5.0 mm</td>
</tr>
<tr>
<td>03.120.021</td>
<td>Nut for No. 03.120.020</td>
</tr>
<tr>
<td>03.120.029</td>
<td>Hexagonal Pin Wrench $\phi$ 4.0 mm with ball tip</td>
</tr>
<tr>
<td>324.215</td>
<td>Wire Guide 5.0, percutaneous, for Guide Wire $\phi$ 2.5 mm</td>
</tr>
</tbody>
</table>

Thread a nut onto a wire guide for screws $\phi$ 5.0 mm until the hex stops flush against the head of the wire guide.

Choose an appropriate insertion handle (left or right). Insert an assembled wire guide with nut in the insertion handle and thread it into the corresponding locking hole $\phi$ 5.0 mm in the distal plate head. Finger-tighten the wire guide into the plate.

In the same manner, thread at least one additional wire guide with nut into the plate. Place as many assemblies into the plate as necessary for wire guides.

**Important:** Two wire guides with nuts must remain threaded into the plate head to maintain the insertion handle/aiming arm connection for subsequent aiming of screws in the shaft.
Notes

- It is not necessary to thread the wire guide assemblies into the plate in any particular order.
- However, it is recommended that one of the wire guide assemblies is placed through the most proximal hole of the insertion handle corresponding with the first combi-hole in the plate shaft.
- A hexagonal pin wrench may be used to facilitate insertion and removal of the wire guide from the most proximal position.
- The hole immediately distal to the insertion handle will not accept a wire guide for screws Ø 5.0 mm and nut due to its proximity to the handle. A percutaneous wire guide is used in this hole.

Turn each of the nuts down their wire guide and finger-tighten to firmly clamp the insertion handle to the plate.

Thread the wire guide for screws Ø 7.3 mm through the central head hole of the insertion handle and into the central locking head hole Ø 7.3 mm on the plate.

Optional instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>313.930</td>
<td>Screwdriver, hexagonal</td>
</tr>
<tr>
<td>314.050</td>
<td>Screwdriver, hexagonal, cannulated</td>
</tr>
</tbody>
</table>

A hexagonal screwdriver can be used to facilitate insertion and removal of wire guides.
3

Make incision

Lateral incision
A lateral incision is recommended when a simple articular (AO classification 33-C1) or extra-articular fracture (AO classification 32- or 33-A) is present. The skin incision starts at Gurdy’s tubercle and extends about 80 mm in a proximal direction.

Note: The incision can be extended distally, if necessary. It may not always be appropriate to use closed reduction.

Lateral parapatellar incision
In the presence of a complex intra-articular fracture (AO classifications 33-C2 or C3), perform a lateral parapatellar approach. Perform an arthrotomy to expose the joint for reduction. Evert the patella and extend the incision for adequate exposure of the joint for reduction and anatomic fixation.
4

Reduce articular surface

**Instruments**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>310.990</td>
<td>Countersink, large, length 180 mm, for Cortex Screws Ø 4.5 mm</td>
</tr>
<tr>
<td>324.170</td>
<td>Guide for LCP Condylar Plate, right</td>
</tr>
<tr>
<td>324.171</td>
<td>Guide for LCP Condylar Plate, left</td>
</tr>
</tbody>
</table>

Reduce and temporarily secure the articular fragments with pointed reduction forceps and/or Kirschner wires. If a posterior Hoffa fragment is present, it must be reduced and provisionally stabilized with Kirschner wires inserted from anterior to posterior.

Secure the condyles with appropriately placed bone screws. The guide for LCP Condylar Plate, or the plate itself, may be held laterally on the condyle to select an area where the screw(s) will not interfere with plate placement.

For fixation of a posterior articular fragment (Hoffa fracture), place cortex screws or cancellous bone screws from anterior to posterior and countersink the screw heads so they lie below the level of the articular cartilage. It may occasionally be necessary to reposition one of these screws to avoid impingement on screws placed through the plate, considered essential for fixation.
5

Insert plate

Using the insertion handle assembly, insert the plate submuscularly distal-to-proximal. Slide the plate proximally until the plate head is oriented properly on the lateral condyle.
6 Determine plate position

Place a Kirschner wire across the femoral condyles at the level of the knee to indicate the joint axis.

Place a second Kirschner wire across the patellofemoral joint on the trochlear surface.

7 Insert cannulated screws Ø 5.0 and 7.3 mm in plate head

Instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.120.020</td>
<td>Wire Guide 2.5, for Locking Screws Ø 5.0, for Cannulated Locking Screws Ø 5.0 mm and for Cannulated Conical Screws Ø 5.0 mm</td>
</tr>
<tr>
<td>03.120.026</td>
<td>Guide Wire 2.5 mm, with drill tip, length 300 mm, Cobalt-chrome alloy (CoCrMo)</td>
</tr>
<tr>
<td>338.002</td>
<td>Guide Wire 2.5 mm, with drill tip, length 300 mm, Stainless Steel</td>
</tr>
</tbody>
</table>
Lag screw external to the plate

Synthes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>314.050</td>
<td>Screwdriver, hexagonal, cannulated, for Cannulated Screws ∅ 6.5 and 7.3 mm</td>
</tr>
<tr>
<td>314.230</td>
<td>Screwdriver Shaft, hexagonal, cannulated</td>
</tr>
<tr>
<td>319.701</td>
<td>Measuring Device for Cannulated Locking Screws and Cannulated Conical Screws ∅ 5.0 and 7.3 mm</td>
</tr>
<tr>
<td>324.208</td>
<td>Direct Measuring Device, percutaneous</td>
</tr>
<tr>
<td>324.215</td>
<td>Wire Guide 5.0, percutaneous, for Guide Wire ∅ 2.5 mm</td>
</tr>
</tbody>
</table>

**Note:** Although screws may be inserted in any order, it is usually advantageous to start with the central screw ∅ 7.3 mm.

**Important:** Before proceeding, confirm plate head placement.

Use clinical examination and image intensifier control to confirm that the plate is properly oriented on the condyle under the lateral image.

Because the shaft of the femur is frequently out of alignment with the distal fragment, proper plate placement can be determined by orienting the distal plate shape to that of the condyle. Placement of the plate on the condyle at this point will determine final flexion/extension reduction. The plate should be oriented so that the shape mimics the condyle anteriorly and posteriorly (1).

Secure the plate position on the lateral femoral condyle with at least three guide wires before inserting the first screw.
Notes
– Take into consideration that the most posterior distal screw hole ⌀ 5.0 may be positioned distal to Blumen-saat’s line, requiring a unicodylar screw (2, 3).
– If the plate shifts during screw insertion, the guide wires must be removed and reinserted for the screws to lock to the plate properly.

Advance a guide wire through a wire guide for screws ⌀ 5.0 mm until it reaches the medial wall of the femoral condyle. Measure for screw length using the measuring device for cannulated screws.

For proper screw length measurement, the measuring device must contact the end of the wire guide. This will place the tip of the screw at the tip of the guide wire.

Note: If it is desired to place a cannulated locking screw in the hole immediately distal to the insertion handle, a percutaneous wire guide can be used. Measure for screw length using the percutaneous direct measuring device.

Technique tip: The self-drilling, self-tapping flutes of the cannulated locking screws ⌀ 5.0 mm and 7.3 mm make predrilling and pretapping unnecessary in most cases. In dense bone, the lateral cortex can be predrilled, if necessary.
Optional instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>310.632</td>
<td>Drill Bit Ø 5.0 mm, cannulated, length 200 mm, with Quick Coupling</td>
</tr>
<tr>
<td>310.634</td>
<td>Drill Bit Ø 4.3 mm, cannulated, length 200 mm, with Quick Coupling</td>
</tr>
<tr>
<td>511.774</td>
<td>Torque Limiter, 4 Nm, for AO/ASIF Quick Coupling for Reamers</td>
</tr>
</tbody>
</table>

Using the cannulated hexagonal screwdriver, remove a wire guide assembly and insert the appropriate length screw over the guide wire and into the bone. Locking screws may be inserted using power equipment and the torque limiter. However, final tightening should be done by hand.

Reminder: Two wire guides for screws Ø 5.0 mm with nuts must remain threaded into the plate head to maintain the insertion handle/aiming arm connection for subsequent aiming of screws in the shaft.

If the torque limiter is unavailable, do not tighten the screws to the plate under power. Perform final tightening by hand.

Note: If required, lag screw reduction of a fragment must be accomplished before inserting locking screws into the fragment. Lag screw reduction can be accomplished using the partially threaded cannulated conical screws Ø 5.0 mm or 7.3 mm. Conical screws may be replaced with locking screws after reduction is complete.
8
Secure aiming arm to plate

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.120.008 Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, right</td>
<td></td>
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<tr>
<td>03.120.009 Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, right</td>
<td></td>
</tr>
<tr>
<td>03.120.010 Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, left</td>
<td></td>
</tr>
<tr>
<td>03.120.011 Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, left</td>
<td></td>
</tr>
<tr>
<td>03.120.014 Guide Sleeve for Periarticular Aiming Arm Instruments</td>
<td></td>
</tr>
<tr>
<td>03.120.015 Trocar with Handle for No. 03.120.014</td>
<td></td>
</tr>
</tbody>
</table>

Attach the appropriate aiming arm onto the insertion handle for aiming arm for LCP Condylar Plate 4.5/5.0.

Finger-tighten the connecting bolt to secure the aiming arm to the insertion handle.

Locate the hole in the aiming arm that corresponds with the most proximal combi-hole in the plate. The aiming arm is numbered to facilitate locating the most proximal hole in the plate.

Make a small skin incision at this location.
Optional instrument

| 03.120.016 | Scalpel Handle for Periarticular Aiming Arm Instruments |

Attach a blade to the scalpel holding end of the handle.

The scalpel handle will pass through the aiming arm holes and assist in performing a minimally invasive and accurate incision. (The scalpel handle, with a #10 blade, will only travel through the aiming arm as far as the top edge of the plate.)

Remove the scalpel from the aiming arm.

**Note:** Remove the scalpel blade prior to storage in the case.
Surgical Technique

Insert the trocar with handle into a guide sleeve for periarticular aiming arm instruments and align the self-retaining features until the trocar snaps into place within the guide sleeve.

Orient the arrow on the guide sleeve in the direction of the "LOCKING SCREW" arrow on the aiming arm, and then use the assembled trocar and guide sleeve to push down to the plate through the incision.
Push the assembly completely down, aligning the self-retaining features, until it snaps into the aiming arm.

Remove the trocar with handle by gently depressing its release mechanism and slowly pulling it away from the guide sleeve.
Instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.120.022</td>
<td>Handle for Percutaneous Drill Guide Ø 4.3 mm, with thread</td>
</tr>
<tr>
<td>03.120.026</td>
<td>Guide Wire Ø 2.5 mm, with drill tip, length 300 mm, Cobalt-chrome alloy (CoCrMo)</td>
</tr>
<tr>
<td>or 338.002</td>
<td>Guide Wire Ø 2.5 mm, with drill tip, length 300 mm, Stainless Steel</td>
</tr>
<tr>
<td>324.215</td>
<td>Wire Guide 5.0, percutaneous, for Guide Wire Ø 2.5 mm</td>
</tr>
</tbody>
</table>

Thread the handle for percutaneous drill guide into the percutaneous wire guide 5.0.

Insert the handle and wire guide assembly through the guide sleeve, and securely thread it into the plate. Turn the handle counterclockwise to disengage and remove it from the wire guide.

**Note:** Be sure to securely tighten the wire guide to the plate to achieve a stable construct between the aiming arm and the plate.

Insert a guide wire Ø 2.5 mm into the bone through the percutaneous wire guide.

**Alternative instruments**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>324.203</td>
<td>Drill Guide Ø 4.3 mm, percutaneous, with thread</td>
</tr>
<tr>
<td>324.213</td>
<td>Drill Bit Ø 4.3 mm, percutaneous, calibrated, length 300/200 mm, for Quick Coupling</td>
</tr>
</tbody>
</table>

Using the appropriate diameter drill bit, drill through the drill guide to the far cortex, leaving the drill bit in place to stabilize the proximal portion of the plate on the bone.
### Use of pull reduction device (optional)

#### Instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>03.120.014</td>
<td>Guide Sleeve for Periarticular Aiming Arm Instruments</td>
</tr>
<tr>
<td>03.120.023</td>
<td>Pull Reduction Device for Percutaneous Drill Guide Ø 4.3 mm, with Nut</td>
</tr>
<tr>
<td>321.160</td>
<td>Combination Wrench Ø 11.0 mm</td>
</tr>
<tr>
<td>324.203</td>
<td>Drill Guide Ø 4.3 mm, percutaneous, with thread</td>
</tr>
</tbody>
</table>

Additional correction can be completed prior to placement of screws in both main fracture fragments. The pull reduction device with quick coupling is placed through the guide and plate holes to pull or push bone fragments in relation to the plate. This instrument can be used for:
- Minor varus-valgus adjustment (approximately 2°– 4°)
- Translational adjustments
- Stabilization of plate-bone orientation during insertion of the first screws
- Alignment of segmental fragments
- Predrilling dense or thick cortical bone before placing a locking screw Ø 5.0 mm

**Note:** The pull reduction device must be used with a percutaneous drill guide Ø 4.3 mm and a guide sleeve.
Surgical Technique

Thread the nut for pull reduction device over the drill tip of the pull reduction device.

When the pull reduction device has been attached to a power tool (quick coupling), insert it through a percutaneous drill guide Ø 4.3 mm that has already been threaded into the plate.

With the nut in its highest position possible, begin power insertion of the pull reduction device. Stop insertion before the end of the threaded portion meets the plate surface.

**Note:** Attempting to advance beyond this point may cause threads to strip in bone.

Remove the power tool and begin tightening the nut toward the drill guide, while monitoring progress under image intensifier control. The combination wrench can facilitate tightening.

Stop when the desired reduction is achieved.

The pull reduction device is 4.3 mm in diameter and calibrated for screw length measurement to allow later placement of a locking screw Ø 5.0 mm in the same hole.

**Optional instrument**

| 03.120.025 | Stopper for Periarticular Aiming Arm Instruments |

Mark each screw location in the aiming arm using a stopper for reference as screw insertion proceeds.
## 10

**Insert cortex screws ⌀ 4.5 mm**

### Instruments

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>03.400.102</td>
<td>Screwdriver Shaft 3.5, hexagonal, Stardrive T25 and</td>
</tr>
<tr>
<td>03.400.112</td>
<td>Handle for Screwdriver Shaft 3.5, hexagonal, Stardrive T25</td>
</tr>
<tr>
<td>314.119</td>
<td>Screwdriver Shaft Stardrive 4.5/5.0, T25, self-holding, for AO/ASIF Quick Coupling</td>
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<tr>
<td>314.560</td>
<td>Screwdriver Shaft, hexagonal, large, ⌀ 3.5 mm, length 165 mm, for Quick Coupling</td>
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<tr>
<td>03.120.014</td>
<td>Guide Sleeve for Periarticular Aiming Arm Instruments</td>
</tr>
<tr>
<td>03.120.015</td>
<td>Trocar with Handle for No. 03.120.014</td>
</tr>
<tr>
<td>03.120.017</td>
<td>Drill Sleeve ⌀ 3.2 mm, for neutral position, for Periarticular Aiming Arm Instruments</td>
</tr>
<tr>
<td>03.120.018</td>
<td>Drill Sleeve ⌀ 3.2 mm, for load position, for Periarticular Aiming Arm Instruments</td>
</tr>
<tr>
<td>324.212</td>
<td>Drill Bit ⌀ 3.2 mm, percutaneous, calibrated, length 300/200 mm, for Quick Coupling</td>
</tr>
</tbody>
</table>

Choose an aiming arm hole through which to make an appropriate incision. Create an incision.

As described on page 18, assemble a trocar with handle and guide sleeve.

Orient the arrow on the guide sleeve in the direction of the “CORTEX SCREW” arrow on the aiming arm, and then use the assembled trocar and guide sleeve to stab down to the plate through the chosen aiming arm hole and corresponding incision.
Choose an appropriate drill sleeve, neutral or load, and insert it into the guide sleeve while aligning the self-retaining features until it snaps into place.

**Important:** When using the drill sleeve Ø 3.2 mm for load position, orient the sleeve’s directional arrow in the direction of the “CORTEX SCREW” arrow on the aiming arm.

Use the percutaneous drill bit Ø 3.2 mm to drill and determine screw length from the drill bit calibration aligned with the top of the drill sleeve.

Remove the drill bit.
Alternative instrument

324.208 Direct Measuring Device, percutaneous

Place the percutaneous direct measuring device over the drill bit and against the end of the drill sleeve. Determine screw length from the end of the drill bit.

Remove the drill sleeve and insert screw using the screwdriver shaft with handle.

Repeat this process to insert as many cortex screws Ø 4.5 mm as necessary into the plate shaft.

Option
Mark each screw location in the aiming arm using a stopper for reference as screw insertion proceeds.

Important: All of the cortex screws Ø 4.5 mm must be inserted before insertion of locking screws.
11

Insert locking screws Ø 5.0 mm

Choose an aiming arm hole through which to make an appropriate incision. Create an incision.

As described on page 18, assemble a trocar with handle and guide sleeve.
Orient the arrow on the guide sleeve in the direction of the “LOCKING” arrow on the aiming arm, and then use the assembled trocar and guide sleeve to stab down to the plate through the chosen aiming arm hole and corresponding incision.

Push the assembly completely down until it snaps into the self-retaining feature of the aiming arm.

Remove the trocar by depressing its release mechanism and pulling it away from the guide sleeve.

Thread the handle for percutaneous drill guide into an appropriate percutaneous drill guide.

For locking screws Ø 5.0 mm, use the percutaneous drill guide Ø 4.3 mm.

Insert the handle and percutaneous drill guide assembly through the guide sleeve, and thread it into the plate. Turn the handle counterclockwise to disengage and remove it from the drill guide.

Drill using the appropriate percutaneous drill bit. Determine screw length from the drill bit calibration aligned with the top of the drill guide.

**Alternative instrument**

| 324.208 | Direct Measuring Device, percutaneous |

Place the percutaneous direct measuring device over the drill bit and against the end of the drill guide. Determine screw length from the end of the drill bit.

Remove the drill bit.
Surgical Technique

Remove the drill guide.

**Technique tips**
- Use the tip of the handle for percutaneous drill guide as a pin wrench to loosen the drill guides from the plate.
- The hexagonal pin wrench ø 4.0 mm can also be used.

Insert a screw using the screwdriver shaft with handle or screwdriver shaft.

**Option**
Mark each screw location in the guide, using a stopper for reference as screw insertion proceeds.
Repeat this process to insert as many locking screws Ø 5.0 mm into the plate shaft as necessary.

12 Remove aiming arm and insertion handle

Remove all guide sleeves.

Turn the connecting bolt on the aiming arm counterclockwise to loosen and remove the aiming arm from the insertion handle.

As desired, insert guide wires Ø 2.5 mm and measure for remaining screws in the plate head where wire guides for screws Ø 5.0 mm were maintained. Remove the wire guide assemblies from the plate head and insert the remaining screws.

Remove the insertion handle and any remaining guide wires.
## Plates

### LCP Condylar Plates 4.5/5.0

<table>
<thead>
<tr>
<th>Stainless steel</th>
<th>Holes</th>
<th>Length (mm)</th>
<th>Side</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6</td>
<td>170</td>
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<td>222.658</td>
<td>8</td>
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<table>
<thead>
<tr>
<th>Stainless steel</th>
<th>Holes</th>
<th>Length (mm)</th>
<th>Side</th>
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<tr>
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<td>222.659</td>
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<td>02.001.302</td>
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<tr>
<td>02.001.304</td>
<td>14</td>
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<tr>
<td>02.001.306</td>
<td>16</td>
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<tr>
<td>02.001.308</td>
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### Additionally available (only sterile packed)

<table>
<thead>
<tr>
<th>Stainless steel</th>
<th>Holes</th>
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<tbody>
<tr>
<td>02.001.330S</td>
<td>20</td>
<td>422</td>
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<tr>
<td>02.001.332S</td>
<td>22</td>
<td>458</td>
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<tbody>
<tr>
<td>02.001.310S</td>
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<tr>
<td>02.001.312S</td>
<td>22</td>
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</table>

All plates are available sterile packed. For sterile implants add suffix “S” to article number.
Screws Used with the LCP Condylar Plate 4.5/5.0

**Cannulated Locking Screw Ø 7.3 mm**
- Creates a locked, fixed-angle screw/plate construct
  - Threaded conical head
  - Fully threaded shaft
  - Self-drilling, self-tapping tip

**Cannulated Conical Screw Ø 7.3 mm**
- Compresses the plate to the lateral femoral condyle
  - Smooth conical head
  - Fully threaded shaft
  - Self-drilling, self-tapping tip

**Cannulated Conical Screw Ø 7.3 mm, partially threaded**
- Compresses the plate to the lateral femoral condyle and provides interfragmentary compression
  - Smooth conical head
  - Partially threaded shaft
  - Self-drilling, self-tapping tip

**Locking Screw Ø 5.0 mm**
- Creates a locked, fixed-angle screw/plate construct
  - Threaded conical head
  - Fully threaded shaft
  - Self-tapping tip

**Cannulated Locking Screw Ø 5.0 mm**
- Creates a locked, fixed-angle screw/plate construct
  - Threaded conical head
  - Fully threaded shaft
  - Self-drilling, self-tapping tip
Screws Used with the LCP Condylar Plate 4.5/5.0

**Cannulated Conical Screw Ø 5.0 mm**
Compresses the plate to the lateral femoral condyle and provides interfragmentary compression
- Smooth conical head
- Partially threaded shaft
- Self-drilling, self-tapping tip

**Screw Nut Ø 5.0 mm**
Offers additional fixation and compression options for complex fractures
- Self-cutting, serrated tip
- Inserted from the medial aspect of the distal femur
- Internal threads mate with the cannulated conical screw Ø 5.0 mm

**Cortex Screw Ø 4.5 mm**
Compresses the plate to the bone or creates axial compression
- May be used in the DCU portion of the combi-holes in the plate shaft
Periarticular Aiming Arm Instruments

- **03.120.008** Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, right

- **03.120.009** Aiming Arm, for LCP Condylar Plate 4.5/5.0, curved, right

- **03.120.010** Insertion Handle for Aiming Arm for LCP Condylar Plate 4.5/5.0, curved, left

- **03.120.011** Aiming Arm, for LCP Condylar Plate 4.5/5.0, curved, left

- **03.120.001** Aiming Arm, for LCP Proximal Tibial Plate 4.5/5.0, right

- **03.120.002** Insertion Handle for Aiming Arm for LCP Proximal Tibial Plate 4.5/5.0, right
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>03.120.003</td>
<td>Angled Aiming Guide for No. 03.120.001, right</td>
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<tr>
<td>03.120.004</td>
<td>Aiming Arm, for LCP Proximal Tibial Plate 4.5/5.0, left</td>
</tr>
<tr>
<td>03.120.005</td>
<td>Insertion Handle for Aiming Arm for LCP Proximal Tibial Plate 4.5/5.0, left</td>
</tr>
<tr>
<td>03.120.006</td>
<td>Angled Aiming Guide for No. 03.120.004, left</td>
</tr>
<tr>
<td>03.120.007</td>
<td>Connecting Bolt for Nos. 03.120.003 and 03.120.006</td>
</tr>
<tr>
<td>03.120.014</td>
<td>Guide Sleeve for Periarticular Aiming Arm Instruments</td>
</tr>
</tbody>
</table>
03.120.015  Trocar with Handle for No. 03.120.014

03.120.016  Scalpel Handle for Periarticular Aiming Arm Instruments

03.120.017  Drill Sleeve Ø 3.2 mm, for neutral position, for Periarticular Aiming Arm Instruments

03.120.018  Drill Sleeve Ø 3.2 mm, for load position, for Periarticular Aiming Arm Instruments

03.120.020  Wire Guide Ø 2.5, for Cannulated Locking Screws Ø 7.3 mm and Cann. Conical Screws Ø 7.3 mm

03.120.021  Nut for No. 03.120.020

03.120.021  Wire Guide Ø 2.5, for Lock. Screws Ø 5.0, for Cannulated Locking Screws Ø 5.0 mm and for Cann. Conical Screws Ø 5.0 mm
Periarticular Aiming Arm Instruments

03.120.022          Handle for Percutaneous Drill Guide
                     Ø 4.3 mm, with thread

03.120.023          Pull Reduction Device for Percutaneous
                     Drill Guide Ø 4.3 mm, with Nut

03.120.024          Nut for No. 03.120.023

03.120.025          Stopper for Periarticular Aiming Arm
                     Instruments

03.120.026          Guide Wire Ø 2.5 mm, with drill tip,
                     length 300 mm, Cobalt-chrome alloy
                     (CoCrMo)

03.120.027          Locking Bolt, for Nos. 03.120.002 and
                     03.120.005 length 151 mm

03.120.029          Hexagonal Pin Wrench Ø 4.0 mm
                     with ball tip

03.120.030          Connecting Bolt for Aiming Arm for
                     Periarticular Aiming Arm Instruments
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Image</th>
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<tbody>
<tr>
<td>314.119</td>
<td>Screwdriver Shaft Stardrive 4.5/5.0, T25, self-holding, for AO/ASIF Quick Coupling</td>
<td><img src="image1.png" alt="Image" /></td>
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<tr>
<td>314.560</td>
<td>Screwdriver Shaft, hexagonal, large, Ø 3.5 mm, length 165 mm, for Quick Coupling</td>
<td><img src="image2.png" alt="Image" /></td>
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<tr>
<td>321.160</td>
<td>Combination Wrench Ø 11.0 mm</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>324.203</td>
<td>Drill Guide Ø 4.3 mm, percutaneous, with thread</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>324.208</td>
<td>Direct Measuring Device, percutaneous</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>324.212</td>
<td>Drill Bit Ø 3.2 mm, percutaneous, calibrated, length 300/200 mm, for Quick Coupling</td>
<td><img src="image6.png" alt="Image" /></td>
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<tr>
<td>324.213</td>
<td>Drill Bit Ø 4.3 mm, percutaneous, calibrated, length 300/200 mm, for Quick Coupling</td>
<td><img src="image7.png" alt="Image" /></td>
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<tr>
<td>324.215</td>
<td>Wire Guide 5.0, percutaneous, for Guide Wire Ø 2.5 mm</td>
<td><img src="image8.png" alt="Image" /></td>
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<tr>
<td>338.002</td>
<td>Guide Wire Ø 2.5 mm, with drill tip, length 300 mm, Stainless Steel</td>
<td><img src="image9.png" alt="Image" /></td>
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</tbody>
</table>
Sets

01.120.035  Periarticular Aiming Arm Instruments for LCP Condylar Plate 4.5/5.0 and LCP Proximal Tibial Plate 4.5/5.0, in Vario Case

68.120.035  Vario Case for Periarticular Aiming Arm Instruments, size ⅓, without Contents

68.120.036  Modular Tray 1, for Periarticular Aiming Arm Instruments, size ⅓, without Contents, Vario Case System

68.120.037  Modular Tray 2, for Periarticular Aiming Arm Instruments, size ⅓, without Contents, Vario Case System

01.120.021  Periarticular Instruments in Vario Case

68.120.445  Modular Tray for Periarticular Instruments, size ⅓, without Contents, Vario Case System

68.120.447  Vario Case for Periarticular Instruments, size ⅓, without Contents
01.120.024  LCP Condylar Plates 4.5/5.0 (Stainless Steel) in Modular Trays, Vario Case System

68.120.448  Modular Tray for LCP Condylar Plates 4.5/5.0, short plates, size ⅓, without Contents, Vario Case System

68.120.449  Modular Tray for LCP Condylar Plates 4.5/5.0, long Plates, size ⅓, without Contents, Vario Case System

Modular Large Fragment Screw Rack

68.122.050  Modular Insert, for Modular Screw Rack, for Screws Ø 5.0 mm, size ⅓, without Contents, Vario Case System

68.122.051  Modular Insert, for Modular Screw Rack, for Screws Ø 4.5 mm, size ⅓, without Contents, Vario Case System

68.122.052  Modular Insert, for Modular Screw Rack, for Screws Ø 6.5 mm, size ⅓, without Contents, Vario Case System
Sets

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<tr>
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<tbody>
<tr>
<td>68.122.053</td>
<td>Modular Insert, for Modular Screw Rack, for Screws Ø 7.3 mm, size ⅓, without Contents, Vario Case System</td>
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<tr>
<td>68.122.054</td>
<td>Modular Screw Rack, with Drawer, Measuring Block and Lid, length 200 mm, height 115 mm, size ⅓, without Contents, Vario Case System</td>
</tr>
<tr>
<td>68.122.056</td>
<td>Auxiliary Modular Insert, for Modular Screw Rack, size ⅓, without Contents, Vario Case System</td>
</tr>
<tr>
<td>68.000.128</td>
<td>Auxiliary Module, size ⅓, height 14 mm, for Screw Rack, size ⅓</td>
</tr>
<tr>
<td>68.000.129</td>
<td>Auxiliary Module, size ⅓, height 28 mm, for Screw Rack, size ⅓</td>
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Additionally required
LCP Large Fragment Instrument Set
Recommended

<table>
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<tr>
<th>Code</th>
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<tr>
<td>01.120.457</td>
<td>LCP Large Fragment Instruments and Standard Instruments in Vario Case</td>
</tr>
<tr>
<td>68.120.457</td>
<td>LCP Large Fragment Instruments and Standard Instruments, in Vario Case</td>
</tr>
<tr>
<td>68.120.455</td>
<td>Modular Tray for LCP Large Fragment Instruments, size ⅓, without Contents, Vario Case System</td>
</tr>
<tr>
<td>68.120.456</td>
<td>Modular Tray for Large Fragment Standard Instruments, size ⅓, without Contents, Vario Case System</td>
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