

CORELINK ORO™ LATERAL PLATE SYSTEM

Surgical Technique Guide



THE CORELINK ORO™ LATERAL PLATE SYSTEM ADVANTAGE

The CoreLink Oro Lateral Plate System is a flexible, all-encompassing lateral plate system allowing for a variety of implantation techniques and the ability to treat a wide range of pathologies. The system seamlessly integrates with the CoreLink F3D titanium alloy and CL5 PEEK Lateral interbody fusion devices for surgical efficiency and optimal plate placement.*

The CoreLink Oro Lateral Plate System is supplied with quality instruments and implants that feature:

- Two and Four-hole** Plate options in a variety of lengths ensure the surgeon achieves perfect fit every case
- Standard and rescue screw diameters to meet the most demanding of applications
- Automatic locking mechanisms to prevent screw back-out
- Low profile design minimizes tissue disruption

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^{*}Compatible CoreLink lateral interbodies are labeled with part numbers beginning with 3LL for F3D or PLL for CL5. Other CoreLink lateral interbodies are <u>not</u> compatible.
**Special Order

ORO LATERAL PLATE PRODUCT OVERVIEW

PLATE FEATURES

- Connects with CoreLink F3D & CL5 Lateral interbodies
- In-situ attachment or back table pre-assembly
- Zero-step screw locks
- Thickness: 4mm
- Two-hole width: 15.5mm
- Four-hole width: 19mm (at widest point)

SCREW FEATURES

- Diameters: 5.5mm & 6mm
- Lengths: 25mm 65mm*, 5mm increments
- Variable angle: 18 degrees Cephalad/Caudal

PLATE SIZES AND ORIENTATION

The Lateral Plate is marked to be read upright from the posterior side of the patient. The "A" identifies Anterior and the Plate Reference Number identifies size. See the table below for the complete Lateral Plate offering. The Plate Reference Number corresponding to the recommended CoreLink Lateral interbody height provides a minimum of 2mm of clearance between the bottom of a 5.5mm Bone Screw and closest aspect of the CoreLink Lateral Interbody.

For additional Plate sizing information, please see Page 24.

PLATE SIZES									
2-HOLE	4-HOLE*	PLATE REFERENCE NUMBER	CORELINK Interbody Height	SCREW TO SCREW LENGTH	PLATE LENGTH				
•		6		16MM	26MM				
•		8	8MM	18MM	28MM				
•	•	10	10MM	20MM	30MM				
•	•	12	12MM	22MM	32MM				
•	•	14	14MM	24MM	34MM				
	•	16	16MM*	26MM	36MM				
	•	18		28MM	38MM				

^{*} Noted CoreLink items are non-standard



^{*65}mm length is non-standard and available upon request

IMPORTANT INFORMATION **ORO LATERAL PLATE SYSTEM INDICATIONS:**

The CoreLink Oro Lateral Plate System (LPS) may be used with or without an interbody cage. The CoreLink Oro LPS has the ability to connect to CoreLink Lateral interbody devices to aid in delivery of the plate to the surgical site and to facilitate early removal of the inserter, clearing the retractor path for screw preparation instrumentation. The set screw in the CoreLink Oro LPS may be threaded into the CoreLink Lateral interbody. Once the screws have been placed and their positioning has been verified through fluoroscopic imaging, the set screw connecting the CoreLink Oro LPS to the CoreLink Lateral interbody may either be disconnected or remain connected.

If the CoreLink Oro LPS remains connected to CoreLink Lateral interbody, the following additional indication restrictions apply:

Alternatively, the CoreLink Oro LPS may remain attached to CoreLink lateral lumbar interbody devices after implantation. In this configuration the CoreLink Oro LPS must only be used to treat patients with degenerative disk disease (DDD) at one or two contiguous levels from L2 to S1. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved levels.

The surgeon performing this procedure should be aware of this additional use limitation.

ORDERING OVERVIEW

The comprehensive CoreLink Lateral System portfolio includes access, implants, and plates. Listed below is system information to help determine which sets are required for Lateral surgical cases. Please discuss system needs with your surgeon prior to ordering.

Set contents and layouts are shown in detail beginning on page 22. NOTE: This Surgical Technique Guide has abbreviated Lateral Access steps. Please reference the Lateral Access Surgical Technique (CL-FORM-295) for full Lateral Access steps and complete access instrument and implant lists.

LATERAL ACCESS

REQUIRED INSTRUMENT SETS

- Retractor 1 Retractor, Dilators, Light Cable, Table Arm
- Retractor 2 Blades, Fourth Blade, Shims, Shim Inserter & Remover
- Instrument 1 Cobbs, T-handle, Slide Hammer, Box Osteotomes
- Instrument 2 Inserters, Pituitaries, Kerrisons, Curettes, Scrapers

SPECIAL ORDER INSTRUMENT SETS

- Angled Instrument 1
- Angled Instrument 2

Note: Angled instrument sets are especially useful for L4/L5 cases. Levels above do not typically require angeled instruments

LATERAL IMPLANTS

STANDARD IMPLANT SETS

- Standard CL5 Implants Non-Sterile PEEK implants (includes Trials)
- Standard F3D Implants Sterile-packed titanium alloy (does not include Trials)
- Trial Set Required if ordering F3D implants

SPECIAL ORDER IMPLANT SETS (F3D OR PEEK)

- Parallel Implant Sets
- 25mm Implant Sets
- 40mm Length Implant Sets

Note: Special order PEEK 25mm and 40mm Implant Sets do not include Trials

LATERAL PLATES

REQUIRED INSTRUMENT SETS

- Oro Plate 1 Titanium alloy Plates, Inserters, Tamp
- Oro Plate 2 Titanium alloy Screws, Handles, Screw Hole Prep

Note: Four-hole Plates are special order

SETUP AND PATIENT POSITIONING

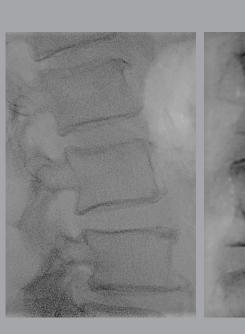
Proper operating room setup and patient positioning are key to successful completion of this procedure. The patient should be placed in the lateral decubitus position then secured to the table. Identify the appropriate disc space and further refine patient positioning using table adjustments and fluoroscopy until true (straight) AP and lateral images are achieved with the C-arm at zero degrees and 90 degrees, respectively. Clean the operative site.

Further detail relating to setup, positioning, disc space preparation, and insertion of the CoreLink Lateral interbody fusion devices can be found in the Lateral Access System Surgical Technique Guide (CL-FORM-295).

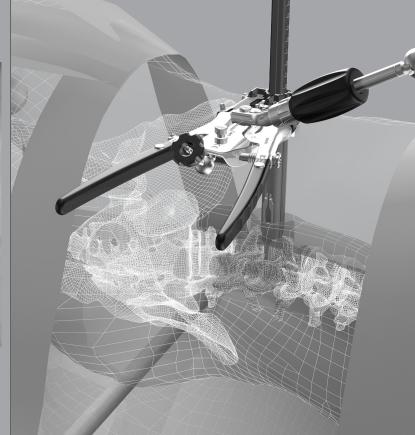
RETRACTOR **INSERTION**

Again using fluoroscopy, identify the middle of the disc space with the optional Targeting Tool or a K-wire. Mark the skin to indicate the intended incision location. Approach the desired disc space level and place the Retractor. Use of intraoperative neuromonitoring is recommended to ensure patient safety. It is especially critical during approach and Retractor placement.

LATERAL AND AP FLUOROSCOPIC IMAGES



RETRACTOR PLACEMENT



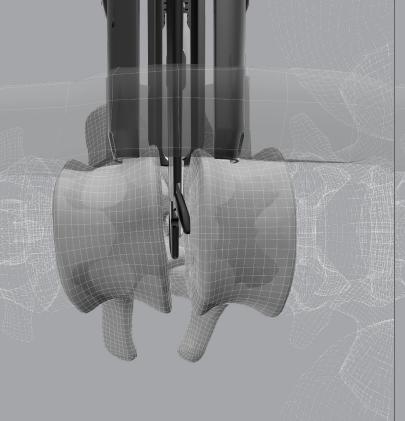
DISC SPACE PREPARATION

To facilitate bony fusion, adequate preparation of the intervertebral space must be performed. CoreLink offers a comprehensive suite of disc removal and endplate preparation instruments as seen in the Lateral Access System Surgical Technique Guide.

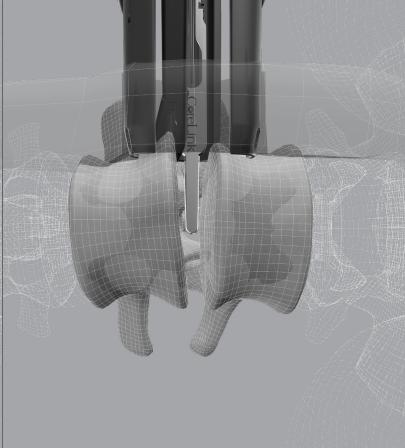
OSTEOPHYTE REMOVAL

Remove any anterior or lateral osteophytes or other bony structures that may prohibit the Lateral Plate from sitting flush on the vertebral body.

DISC PREPARATION



OSTEOPHYTE REMOVAL



INTERBODY SELECTION

The CoreLink Oro Lateral Plate System may be used with a lateral interbody fusion device, such as the CoreLink F3D or CL5 Lateral interbodies. Choose the appropriate interbody based on patient anatomy and sizing guidelines of the interbody being used.

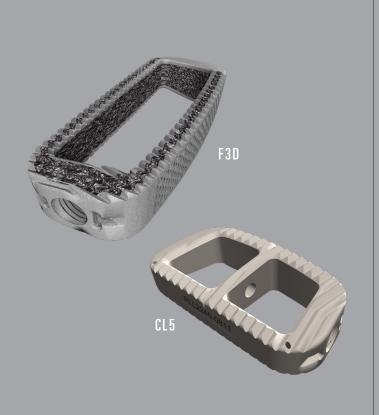
PLATE SELECTION

The CoreLink Oro Lateral Plate System is available in a variety of lengths and is offered with two-hole configurations standard and four-hole configurations as special order. The Lateral Plates are marked with an "A" indicating Anterior as well as a Plate Reference Number. Corresponding key dimensions are shown in the Plate Size Tables on Page 1.

The Lateral Plates are designed to provide minimal extension past the endplates of the adjacent level vertebral bodies.

CORELINK LATERAL INTERBODIES

CORELINK ORO LATERAL PLATES





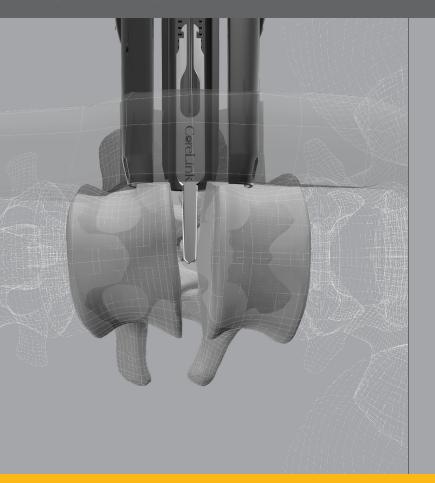
INSERTION OVERVIEW

There are two different methods to implant the Lateral Plate. The Lateral Plate is typically used in conjunction with a lateral interbody device and can be installed:

- A. Subsequent to implantation of any lumbar interbody fusion device, including the CoreLink F3D or CL5 Lateral interbody fusion devices. (See Option A -Page 8)
- B. Simultaneously with a CoreLink F3D or CL5 Lateral interbody fusion device. (See Option B - Page 10)

Caution: When the Lateral Plate is used with an alternative interbody fusion device, the Lateral Plate size must be verified with the interbody fusion device to ensure that proper placement is achieved. Incorrect implant placement or sizing will result in surgical complications and/or device failure.

FULLY PREPARED SITE



OPTION A — STANDARD INSERTION

A lateral interbody may be implanted prior to inserting the Lateral Plate. When using the Lateral Plate in conjunction with the CoreLink Lateral interbody, the Lateral Plate may be attached to the interbody via the recessed Set Screw. To allow for this connection, ensure the proximal portion of the CoreLink Lateral interbody is left exposed above the cortical rim of the vertebral endplates. If the CoreLink Lateral interbody cannot be placed in such a manner, attachment of the Lateral Plate to the CoreLink Lateral interbody must not be attempted.

Once the CoreLink Lateral interbody is correctly positioned, the Lateral Plate can be loaded directly out of the caddy onto the Plate Inserter. Align the anterior markings on the Plate Inserter with those on the Lateral Plate and seat together. The Plate Inserter features spring-loaded stab-and-grab functionality that secures the Plate Inserter to the Lateral Plate. Manually confirm the Lateral Plate is securely attached to the Plate Inserter.

INITIAL INTERBODY PLACEMENT

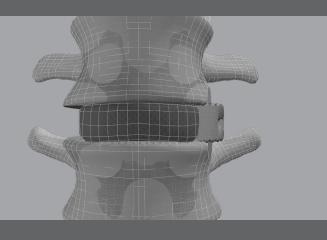


PLATE INSERTER



PLATE CADDY

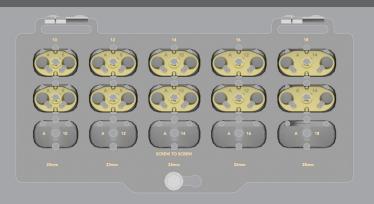


PLATE AND PLATE INSERTER



Ensuring proper orientation, introduce the Lateral Plate into the surgical site and seat against the CoreLink Lateral interbody. Once seated, rotate the Plate Inserter knob clockwise to drive the Set Screw until fully engaged. When fully attached, the Lateral Plate cannot move relative to the CoreLink Lateral interbody. Remove the Lateral Plate Inserter from the surgical site.

Use the Tamp to advance the construct into its final anatomical location. The Lateral Plate should seat flush against the ipsilateral portion of the cortical rim. Confirm proper placement both visually and with fluoroscopy.

NOTE: If connection to a CoreLink Lateral interbody is not desired or a CoreLink Lateral interbody is not being used, ensure the Lateral Plate is able to seat fully against the vertebral bodies by recessing the Lateral interbody sufficiently. Once the Lateral Plate is seated, the Spring-loaded Awl may be placed through a screw hole acting as a temporary fixation pin and allowing for removal of the Plate Inserter.

PLATE CONNECTED TAMP INTO FINAL POSITION

OPTION B — SIMULTANEOUS INSERTION

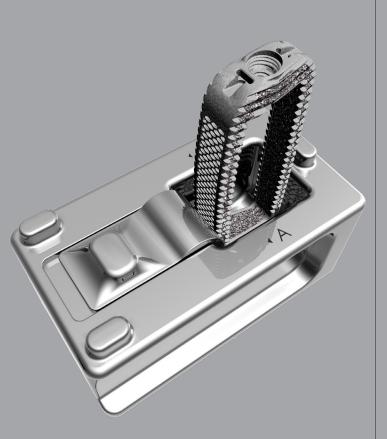
Simultaneous insertion can only be performed when using the Lateral Plate with a CoreLink Lateral interbody. This insertion method facilitates ease of alignment during insertion and allows for better visibility and access during screw insertion.

Place the CoreLink Lateral interbody into the pocket of the Assembly Block with the interbody's anterior face directed toward the Assembly Block's anterior markings and the inserter features facing up. With the interbody now held by the Assembly Block, seat the chosen Lateral Plate against the interbody, again, aligning anterior markings.

Drive the Set Screw clockwise using the Alignment Driver to assemble the Lateral Plate to the interbody. Manually confirm the Lateral Plate is securely attached to the interbody.

CONSTRUCT ASSEMBLY BLOCK

ALIGNMENT DRIVER CONNECTING PLATE TO CAGE





Attach the Construct Inserter to the assembled implant construct noting A/P orientation. The outer shaft seats flush with the Lateral Plate while the inner shaft passes through the Lateral Plate and engages the inner thread of the interbody.

Introduce the implant construct into the surgical site at the appropriate disc level. The construct is properly placed once the Lateral Plate is fully seated against the ipsilateral portion of the cortical rim. Confirm proper placement both visually and with fluoroscopy.

FINAL PLACEMENT CONSTRUCT INSERTER

PILOT HOLE **PREPARATION**

Thread the Depth Stop into the Guide Sleeve to create the Depth Guide Assembly. Use of the Guide Sleeve without the Depth Stop is not recommended and will result in patient injury. The Fixed Awl, Drill, and Tap utilize the Depth Guide Assembly to control hole depth and vary the hole trajectory.

Begin screw hole preparation through the use of either the Fixed Awl and the Depth Guide Assembly or the Spring-loaded Awl. Ensure the instruments are securely seated in the Lateral Plate before use to prevent damage to the Lateral Plate and instruments. Depth is adjustable from 25mm - 40mm on both the Spring-loaded Awl and the Depth Guide Assembly. Failure to set the desired depth correctly will result in patient injury.

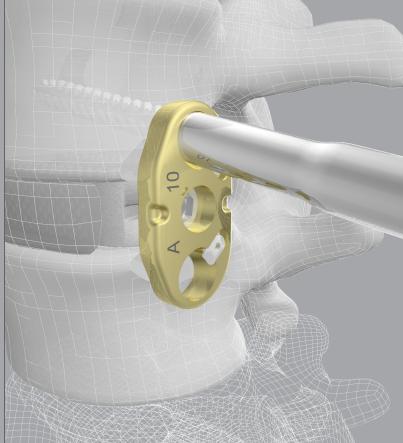
Connect either of the Ratcheting Handles to the Drill and insert through the Depth Guide Assembly. Connect the desired Ratcheting Handle to the Tap and insert through the Depth Guide Assembly. Tapping is required to prevent screw failure during insertion.

Application of excessive force to the Awls, Drill, or Tap will result in instrument failure. Use of powered instruments with the supplied screw preparation instruments is not recommended.

DEPTH GUIDE ASSEMBLY







SCREW INSERTION

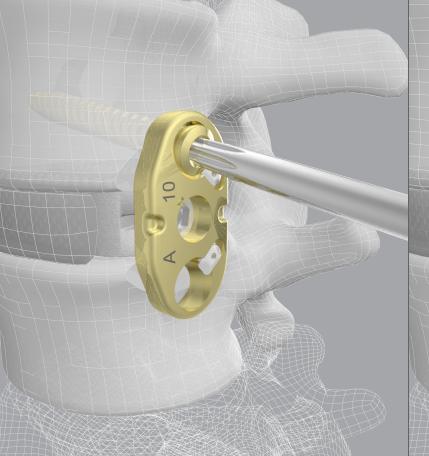
Attach the desired Ratcheting Handle to the Driver. Determine proper Screw length and load the Screw to the Driver. The Driver features a self-retaining tip.

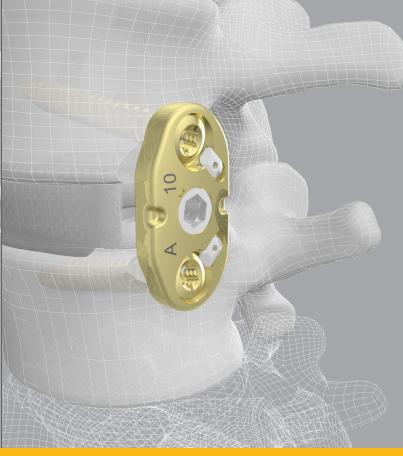
Drive the Screw through the Lateral Plate until fully seated. The Screw Lock will automatically move to allow Screw passage, returning to the locked position once the Screw is fully seated. Verify that Screw Locks are in locked position visually.

Verify Screw placement and trajectory using fluoroscopy. If alternate placement is desired, the Screw can be removed as described in Screw Removal. Repeat steps for all remaining Screws. A crisscross sequence is recommended for Four-hole Lateral Plates for even Lateral Plate seating.

SCREW AND DRIVER

SCREWS IN FINAL POSITION AND LOCKED



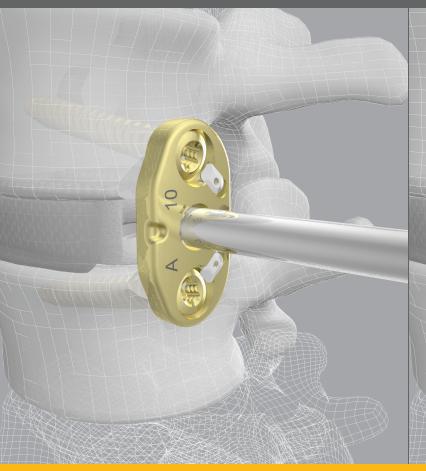


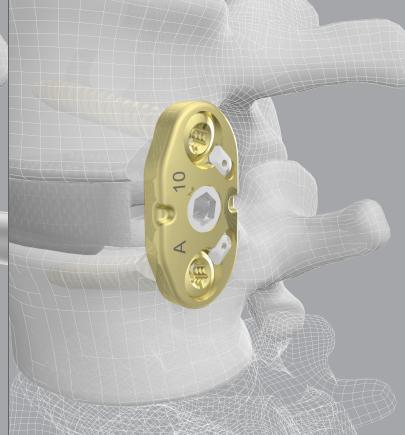
DETACHMENT (OPTIONAL)

After screw insertion, the Set Screw on the Lateral Plate may be disengaged from the CoreLink Lateral interbody fusion device if desired. Introduce the Extended Set Screw Driver to the center drive feature of the Set Screw and rotate counterclockwise until the threads are fully released. The Set Screw is permanently retained in the plate once disengaged from the interbody device.

SET SCREW DETACHMENT

SET SCREW FULLY DETACHED





SCREW REMOVAL

There are two methods for removing the Screws. To maintain Screw integrity for situations such as changing Screw trajectory, see below. For a destructive method for situations such as revision surgery, see the next page.

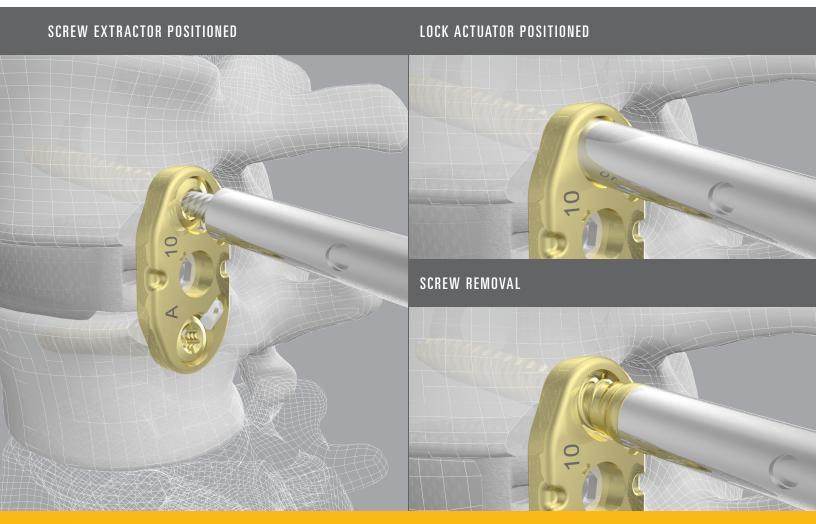
The first method of Screw removal utilizes the Bone Screw Remover and a Ratcheting Handle. The Bone Screw Remover features a reversed threaded tip which mates with reverse threads inside of the hexalobe of the Screw. Thread the Bone Screw Remover into the Screw in the counterclockwise direction. The Bone Screw Remover will automatically retract the Screw Lock, allowing Screw removal.



SCREW REMOVAL (CONTINUED)

Alternatively, the Screws can be destructively removed using the Rescue Extractor, Lock Actuator, and a Ratcheting Handle. Fully thread the Lock Actuator onto the Rescue Extractor and attach a Ratcheting Handle. Thread the Rescue Extractor into the hexalobe in a counterclockwise motion until the Screw begins to back out then stop. Thread the Lock Actuator forward until it fully seats against the Screw and has retracted the Screw Lock. Continue the counterclockwise movement of the Rescue Extractor to fully remove the Screw.

Screws that are removed or extracted must be discarded and must not be reused.

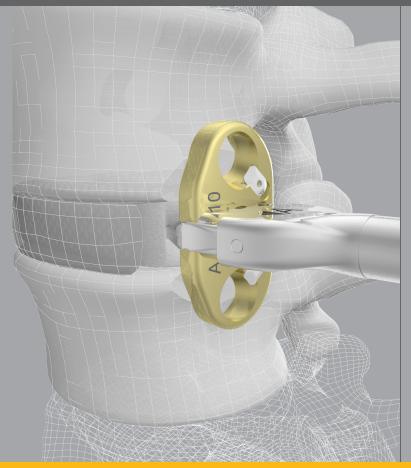


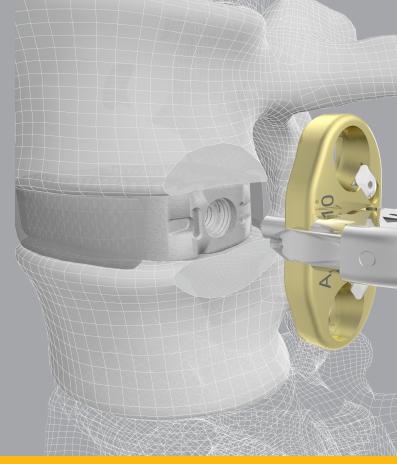
IMPLANT REMOVAL

Once the Screws have been removed, introduce the Plate Inserter to the surgical site and secure it to the Lateral Plate. If required, unthread the Set Screw from the CoreLink interbody by turning counterclockwise then remove the Lateral Plate from the surgical site.

PLATE WITH PLATE INSERTER

PLATE REMOVAL





FOR USE

INSTRUCTIONS CORELINK ORO™ LATERAL PLATE SYSTEM



OPERATING SURGEON - IMPORTANT INFORMATION

IMPORTANT NOTE: The user of this system must read and acknowledge the conditions of this insert prior to use.

Consult the product electronic instructions for use for all current languages and latest document revision at corelinksurgical.com/ifu or by scanning the barcode code on the product labeling.

DESCRIPTION

The CoreLink Oro Lateral Plate System consists of implants (plates and screws) intended for use as a laterally placed supplemental fixation device via the lateral or anterior lateral surgical approach above the bifurcation of the great vessels or via the anterior surgical approach below the bifurcation of the great vessels.

Implants in the Oro Lateral Plate System are manufactured from the following materials:

- Medical grade Titanium Alloy (Ti6Al4V per ASTM F136)
- Medical grade Nitinol (Nickel-Titanium Alloy per ASTM F-2063)

The screws are anodized to facilitate size selection. Changes or variations in color during use or preparation do not affect implant quality.

Do not use any of the Oro Lateral Plate System components with components from any other manufacturer or system unless specifically allowed to do so in this or any other CoreLink document. None of the Oro Lateral Plate System implants or implant components should be reused under any circumstances. The instruments provided with the Oro Lateral Plate System are provided specifically for the implantation of the Oro Lateral Plate System implants and associated CoreLink interbody fusion devices referenced in this document.

CoreLink provides Surgical Technique Manuals demonstrating the use of CoreLink implants and instruments. Please contact your CoreLink sales representative to obtain copies of these Surgical Technique Manuals. Reference the Oro Lateral Plate System Surgical Technique Manual for additional important information about specific CoreLink implants, in addition to the information described herein.

INDICATIONS

The CoreLink Oro Lateral Plate System (LPS) is intended for use as a laterally placed supplemental fixation device via the lateral or anterolateral surgical approach above the bifurcation of the great vessel or via the anterior surgical approach, below the bifurcation of the great vessels. The CoreLink Oro Lateral Plate System is designed to provide temporary stability until fusion is achieved. It is intended for lateral or anterolateral lumbar (L1-S1) fixation for the following indications: degenerative disc disease (DDD) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma (i.e., fracture or dislocation), deformities or curvatures (i.e., scoliosis, kyphosis, and/or lordosis), tumor, pseudarthrosis, and failed previous fusion.

Alternatively, the CoreLink Oro Lateral Plate System may remain attached to CoreLink Lateral lumbar interbody devices after implantation. In this configuration the CoreLink Oro LPS must only be used to treat patients with degenerative disk disease (DDD) at one or two contiguous levels from L2 to S1. These DDD patients may also have up to Grade 1 spondylolisthesis or retrolisthesis at the involved levels.

CONTRAINDICATIONS

- Do not use the CoreLink Oro Lateral Plate System in the presence of an active systemic infection or infections localized to the site of the proposed implantation. Use of implants in this setting may lead to future infection and implant failure. Other relative contraindications include:
- Disease conditions that have been shown to be safely and predictably managed without the use of internal fixation devices.
- Severe osteoporosis as it may prevent adequate fixation of spinal anchors and thus preclude the use of this or any other spinal instrumentation system.
- Any entity or condition that totally precludes the possibility of fusion (e.g., cancer, kidney dialysis, osteopenia).
- Obesity.
- Certain degenerative diseases.
- Foreign body sensitivity.
- A patient's occupation or activity level or mental capacity may be relative contraindications to this surgery. Specifically, patients who because of their occupation or lifestyle, or because of conditions such as mental illness, alcoholism, or drug abuse, may place undue stresses on the implant during bony healing and may be at higher risk for implant failure and non-union.

COMPLICATIONS AND POSSIBLE ADVERSE EFFECTS

Use and/or misuse of this system may result in the following list of complications and potential adverse effects:

- Bending and/or breakage of any or all devices.
- Inadequate fixation.
- Non-union, delayed union or mal-union.
- Allergic reaction to implant material, debris, corrosion products including metallosis, staining, tumor formation, and/or autoimmune disease.
- Wound healing disorders or hematomas.
- Fracture, microfracture, resorption, damage or penetration of any spinal bone at, above, and/or below the level of surgery.
- Herniated nucleus pulposus, disc disruption or disc degeneration at, above or below the level of surgery.
- Dural tears, pseudomeningocele, fistula, persistent CSF leakage, meningitis.
- Loss of sensory and/or motor function including paralysis (complete/incomplete), dysesthesia, hyperesthesia, paresthesia, radiculopathy, pain, numbness, spasms, sensory loss, tingling sensation and/or visual deficit.
- Neuropathy, paraplegia, paraparesis, reflex deficit, irritation, neurological deficit (transient or permanent) and/or muscle loss.
- Scar formation possibly causing neurological compromise or compression around nerves and/or pain.
- Damage to the urological, gastrointestinal, and/or reproductive systems resulting in compromises including urinary retention, loss of bladder control, gastritis, bowel obstruction, loss of bowel control, sterility, consumption, sexual dysfunction etc.
- Decrease in bone density potentially caused by stress shielding.
- Cessation of any potential growth of the operated portion of the spine.
- Loss of or increase in spinal mobility or function.
- Hemorrhage, hematoma, occlusion, seroma, edema, hypertension, embolism, stroke, excessive bleeding, phlebitis, wound necrosis, wound dehiscence, damage to blood vessels, or other types of cardiovascular system compromise.
- Reproductive system compromise, including sterility, loss of consortium, and sexual dysfunction.
- Limited ability to perform daily activities.
- Continuation of symptoms that were to be treated for by the implantation.
- Change in mental status.
- Development of respiratory problems, e.g. pulmonary embolism, bronchitis, pneumonia, etc.

Additional surgery may be required to correct these potential adverse effects and/or outcomes.

USE OF IMPLANT COMPONENTS

WARNING: The safety and effectiveness of lumbar plating systems have been established only for spinal conditions with acute and chronic instabilities or deformities of lumbar and sacral/iliac spine (L2-S1): degenerative disc disease (defined as discogenic back pain with degeneration of disc confirmed by history and radiographic studies), degenerative spondylolisthesis with objective evidence of neurological impairment, fracture, dislocation, scoliosis, kyphosis, spinal tumor, and failed previous fusion pseudarthrosis. The safety and effectiveness of these devices for any other conditions are unknown.

Patients must be informed that implants cannot be made to last indefinitely, and the purpose of the implant is to provide temporary internal support while the fusion mass about the implant is developing. Without solid biological support provided by sufficient fusion mass, the implants will fail in any of several modes. These modes may include bone-implant interface failure, implant fracture, or bone failure. Spinal implants of this type are more likely to fail if no bone graft is used, if a pseudarthrosis develops, or if patients have severe or multiple preoperative curves.

Spinal implants, like other implants or temporary internal fixation devices, have a limited life. The life of the implant is directly impacted by the level of activity of the patient. Inform the patient that any activity increases the risk that the implant components may become loose, bend, or break. Instruct patients about restrictions to their activity levels in the postoperative period. Examine patients postoperatively to evaluate the condition of implant components and the development of the fusion mass about the implant components. Instruct the patient that implant components may bend, break, or loosen even though restrictions in activity are followed and even if fusion mass about the implant component sufficiently develops.

This device is not intended or expected to be the only mechanism of support of the spine. Regardless of the spinal pathology for which implantation of this device was chosen, solid biological support is anticipated but is not always obtained. Without solid biological support provided by bony fusion, the device cannot be expected to support the spine indefinitely and will lose effectiveness in any of several modes. These modes include, but are not limited to, bone-metal interface failure, rod fracture or deformation, and/or bone failure.

Spinal implants of this type may be removed after sufficient bone fusion develops. However, please inform the patient that a second surgical procedure may be necessary and that there are risks associated with a second surgical procedure. The decision to remove a broken implant must be made by the physician who must consider the risks associated with the presence of the broken implant and the condition of the patient.

Potential risks associated with the use of this system, which may require additional surgery, include: device component fracture, loss of fixation, non-union, fracture of the vertebra, neurological injury, vascular or visceral injury, neurological complications, over-distraction, trauma to nerve root or dura, incorrect implant positioning, implant migration, pseudarthrosis, disc height loss, adjacent level disc degeneration, allergy or inflammation, general adverse effects related to surgical procedures (e.g. anesthesia, infection), subsidence, and expulsion. Risks and potential benefits must be provided to patients for whom this treatment modality is suggested.

This device must not be reused. Reuse may result in patient injury or other complications including but not limited to component fracture and/or deformation, breakage, difficulty with implantation, incompatibility with mating components and infection. It is the physician's responsibility to discard all damaged or mishandled

Altering an implant may reduce its strength from fatigue and cause its fracture or deformation. If spinal implants are damaged during insertion or adjustment, they may not remain implanted and must be replaced. Refer to the CoreLink Oro Lateral Plate System surgical technique manual for descriptions of appropriate implant handling and insertion techniques.

Internal fixation devices cannot withstand activity and loads equal to those placed on normal healthy bone. Until maturation of the fusion mass is confirmed, do not subject this device to the stress of full weight bearing, or implant fracture or deformation may result.

In addition to the warnings and precautions discussed above, patients must be informed about general surgical risks prior to surgery.

PRECAUTIONS: The implantation of the CoreLink Oro Lateral Plate System is a technically demanding procedure that presents a risk of serious injury to the patient. Accordingly, such a procedure must be performed only by experienced spinal surgeons with specific training in the use of this intervertebral body fusion device system. The surgeon must be thoroughly knowledgeable in the medical and surgical aspects of the implant procedure, and the surgeon must be thoroughly knowledgeable of the mechanical and metallurgical limitations of the implant. It is the surgeon's responsibility to ensure that the operating procedure is performed correctly. The Surgical Technique can be requested from CoreLink by calling the phone number at the end of this document. No manufacturer can be responsible for complications resulting erroneous indication, wrong choice of implant size, incorrect operating procedure, and incorrect implant component combination. Internal fixation devices such as the CoreLink Oro Lateral Plate System rely upon individual patient physiological response, and proper use of the device does not guarantee any result.

Use of the system off-label is forbidden by CoreLink.

The CoreLink Oro Lateral Plate System has not been evaluated for safety and compatibility in the MR environment. The CoreLink Oro Lateral Plate System has not been tested for heating, migration, or image artifact in the MR environment. The $\,$ safety of the CoreLink Oro Lateral Plate System in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

PREPARATION AT POINT OF USE

The implants and instruments of the CoreLink Oro Lateral Plate System are supplied non-sterile and must be thoroughly decontaminated, cleaned, and sterilized prior to surgical use. Instruments must be cleaned using validated methods before sterilization and introduction into the surgical field. Instrument sets are provided with a system specific tray suitable for transportation and steam sterilization. Remove all packaging that individual devices may be provided in prior to cleaning. Clean instruments may be placed in the supplied instrument tray, then into an approved sterilization wrap or container. Some instruments in the CoreLink Oro Lateral Plate System must be disassembled to facilitate cleaning. All instruments should be reassembled following cleaning, prior to sterilization.

Prior to use, instruments must be inspected for signs of wear, damage and proper function. If you suspect an instrument is damaged, please contact CoreLink for a replacement.

Follow the Cleaning and Sterilization procedures below.

CLEANING AND STERILIZATION

Instruments exposed to tissue must be thoroughly cleaned after use. Dried residues from surgery will make the cleaning process more difficult and/or ineffective. Maximum recommended time between use and cleaning is 4 hours. Instruments should not be exposed to elevated air temperatures (>100 °F). Certain cleaning solutions such as those containing fixatives, alcohols, aldehydes, chlorides, and/or excessive amounts of basic detergents can cause degradation of stainless-steel surfaces and laser marking. Use a cleaning and disinfecting agent that is compatible with aluminum, stainless steel, plastics, and silicone according to the manufacturer's instructions.

All instruments must be fully disassembled prior to cleaning (e.g. handles must be detached from shafts, driver shafts removed from drivers, and implants disconnected from mating instruments)

Manual Cleaning Instructions

- 1. Completely submerge the instruments in a lukewarm neutral pH enzyme solution and allow soaking for a minimum of 10 minutes. Use a soft-bristled brush to gently clean the instrument (particular attention must be given to crevices, cannulations, hinges, mated surfaces and other hard-to clean areas) until all visible soil has been removed. Brushing steps should be performed while submerged to prevent aerosols. A lumen brush must be used to clean cannulations. The enzyme solution should be changed on a regular basis in order to ensure its effectiveness.
- Remove the instrument from the enzyme solution and rinse in purified water (from one or any combination of the following processes: ultra-filter, RO, DI and/or distilled). Thoroughly flush cannulations, holes, and other difficult to reach areas with a syringe or equivalent tool.
- 3. Prepare a neutral pH cleaning solution according to the manufacturer's instructions and place in an ultrasonic cleaning unit at 45-50 kHz to aid in thorough cleaning of
- 4. Completely submerge device in cleaning solution and sonicate for minimum of 14 minutes.
- Rinse instrument in running purified water (from one or any combination of the following processes: ultra-filter, RO, DI and/or distilled) thoroughly for at least one minute. There must be no sign of detergent, blood, or soil in the rinse stream.
- 6. Dry the instrument with a clean, disposable, absorbent, lint-free wipe. Instruments that require reassembly should be done so after drying.
- 7. Visually inspect instruments to ensure they are clean and in working order. If the device is found to not be visually clean, the previous cleaning steps must be repeated.
- NOTE: Instrument cases, trays, and caddies must be thoroughly cleaned according to the above instructions. Inspect the containment devices and if found to not be visually clean, repeat the previous cleaning steps.

Automated Cleaning Instructions:

- Rinse devices under running tap to remove gross soils. Particular attention must be given to crevices, lumens, mated surfaces and other hard-to-clean areas. Use a syringe or jetted water to flush difficult to reach areas.
- Place instruments in a suitable washer basket and process through a standard instrument washer. The table below represents the minimum parameters required for proper cleaning and disinfection.

Typical Automated Washer Cycle for Surgical Instruments

Step	Description
1	2-minute prewash with cold tap water
2	1-minute enzyme spray with hot tap water
3	2-minute detergent wash with hot tap water (64-66°C/146-150°F)
4	15-second hot tap water rinse
5	2-minute thermal rinse (80-93°C/176-200°F)
6	10-second purified water rinse (64-66°C/146-150°F)
7	7 to 30-minute heated air dry (116°C/240°F)

NOTES:

- The washer manufacturer's instructions should be strictly adhered to.
- Avoid impact, scratching, bending or surface contact with any material that might affect the implant surface or configuration.
- Pay particular attention to recesses as chemicals and rinse water may be entrapped in the recess after rinsing.
- Visually inspect all devices after cleaning to ensure cleanliness and function.

STERILIZATION INSTRUCTIONS

Implants and instruments of the CoreLink Oro Lateral Plate System are provided non-sterile. The non-sterile condition is conspicuously set forth on the product label. Implants supplied non-sterile are clean. ISO 8828 or AORN recommended practices for in-hospital sterilization should be followed for all components

INSTRUCTIONS FOR USE (CONTINUED)

In a properly functioning calibrated steam sterilizer, testing has shown that effective sterilization may be achieved as follows:

Sterilizer type: Pre-vacuum

Preconditioning Pulses:

Minimum Temperature: 132°C (270°F) Full Cycle Time: 4 Minutes

Minimum Dry Time: 30 Minutes (allow for cool-down)

Instruments and implants should be sterilized in the steam sterilization cases provided by CoreLink, Instrument and implant sets must be wrapped in two layers of 1-ply polypropylene wrap (Kimguard KC600 – 510(k) K082554 or similar wrap) using sequential envelope techniques. Only wraps validated to maintain sterility after processing are to be used. Saturated steam with a quality of 97-100% must be used.

REUSABLE RIGID STERILIZATION CONTAINERS

The Oro Lateral Plate System provided in a perforated steam sterilization case may be placed directly into Aesculap™ SterilContainers™. Testing has demonstrated the system, when processed in Aesculap SterilContainer systems JK440, JK442, JK444, JK446 rigid containers (with corresponding JK series lid and re-usable JK series filter assembly), can be sterilized to a 10-6 sterility assurance level (SAL) in a Dynamic Air Removal (pre-vacuum) steam sterilization cycle when processed using the required sterilization cycle.

Required Sterilization Cycle

Sterilizer type: Pre-vacuum

Preconditioning Pulses:

132°C (270°F) Minimum Temperature: **Full Cycle Time:** 4 Minutes

Minimum Dry Time: 30 Minutes (allow for cool-down)

CoreLink does not recommend the use of gravity displacement steam cycles for sterilization in Aesculap rigid container systems. Ensure that the supplied reusable rigid sterilization container is in proper working order prior to sterilization. Aesculap SterilContainer System has been validated ONLY with Aesculap reusable filters. For more information on the use of the Rigid Sterilization Containers please consult the Instructions for Use of the Manufacturer (https://www.aesculapusa.com/products/ instructions-for-use)

THE STERILIZATION PARAMETERS PROVIDED IN THIS INSTRUCTIONS FOR USE SUPERCEDE THOSE LISTED IN THE AESCULAP INSTRUCTIONS FOR USE. ALL OTHER USAGE, CARE AND MAINTENANCE INSTRUCTIONS SPECIFIED IN AESCULAP DOCUMENTATION REMAIN APPLICABLE.

It is the end user's responsibility to use only sterilizers and accessories (such as $\,$ sterilization wraps, sterilization pouches, chemical indicators, biological indicators, and sterilization cassettes) that have been cleared by the US FDA for the selected sterilization cycle.

Flash sterilization of the Oro Lateral Plate System is not recommended.

IMPORTANT SYSTEM CONSIDERATIONS AND WARNINGS

- 1. Corrosion from Mixed Metals. Damage from corrosion may occur following surgical implantation of metals. All implanted metals and alloys display general or uniform corrosion, and the rate of corrosion of implanted metals and alloys is typically low due to the presence of passive surface films on the implanted metals and alloys. However, the presence of dissimilar metals in contact accelerates corrosion. For instance, where titanium and stainless steel are in contact, the stainless steel is subject to corrosive attack. Corrosion may accelerate failure of implants through fatigue fracture. Corrosion also causes metal compounds to be released into the body. To minimize effects from corrosion, implant components that encounter other metal objects, must be made from like or compatible metals
- 2. Failure of Implants Due to Excessive Demands In Connection With Delayed Union Or Nonunion. Implants of this type are temporary devices that are used to obtain disc height restoration until normal healing occurs and bone fusion mass is developed. If healing is delayed, or does not occur, the implant may fail over time due to metal fatigue. The useful life of the implant will be in part affected by the degree or success of implant to bone union, loads produced by weight bearing, and activity levels. The useful life of the implant will be also in part affected by notches, scratches or bending of the implant which may occur during the surgical procedure. Please inform patients of the risks of implant failure.

- 3. Implant Selection. The selection of the proper size, shape, and design of the implant greatly contribute to the potential of satisfactory fixation. However, the size and shape, and condition of the patient's bones present limitations on the size, shape and strength of implants. Implants cannot withstand activity levels equal to those placed on normal healthy bone. As mentioned above, implants of this type are temporary and should not be expected to withstand indefinitely the unsupported stress of full weight bearing.
- 4. Patient Considerations. The following should be considered when evaluating whether a patient is a candidate for such a procedure:
 - Weight. An overweight or obese patient can produce loads on the device that may lead to failure of the implant component.
 - Lifestyle or activity. If the patient is involved in an occupation or activity that includes heavy lifting, muscle strain, twisting, repetitive bending, stooping, running, substantial walking, or manual labor, he/she should not return to these activities until the bone is fully healed. Even after the bone is fully healed, the patient may not be able to resume these activities.
 - Alcoholism, drug abuse, or mental conditions. These conditions, among others, may cause the patient to ignore certain necessary limitations and precautions leading to implant failure or other complications.
 - **Degenerative diseases.** In some cases, the progression of a degenerative disease may be so advanced at the time of implantation that it may substantially decrease the expected useful life of the implant component. In these cases, the use of the implant may only postpone potential outcomes and/or be of a temporary nature.
 - Implant sensitivity. No preoperative test can completely exclude the possibility of sensitivity or allergic reaction. A patient may develop sensitivity or allergy after implants have been in the body for a period of time.
 - Smoking. Smoking has been linked to a higher rate of pseudarthrosis following surgical procedures where bone graft is used. Additionally, smoking has been shown to cause diffuse degeneration of intervertebral discs. Smoking can also lead to progressive degeneration of adjacent segments and late clinical failure (recurring pain) even after successful fusion and initial clinical improvement.

ADDITIONAL PRECAUTIONS

- Patient Instructions. Instructions for the patient's postoperative care, and the patient's ability and willingness to follow such instructions are extremely important for successful bone healing. In addition to the instructions described previously, please instruct the patient on the limitations of the implant, and to limit and restrict physical activities, especially lifting and twisting motions and sports-related activities. Please inform the patient that an implant is not as strong as normal healthy bone, and that the implant could loosen, bend, and/or break if excessive demands are placed on the implant, especially in the absence of complete bone mass fusion. Please inform the patient that improper activities may cause the implants to become displaced or damaged and may cause the implant to migrate and damage nerves or blood vessels. As mentioned above, a patient having certain conditions, such as alcoholism, drug abuse, or other mental conditions may not properly use weight-supporting devices and may be particularly at risk during postoperative rehabilitation.
- Implant Location. Because vascular and neurological structures are located near to the implantation site, there are risks of serious or fatal hemorrhage and risks of neurological damage during and after implantation procedure. Serious or fatal hemorrhage may occur if: (i) the great vessels are eroded or punctured during implantation or are subsequently damaged due to breakage or migration of implants; or (ii) pulsatile erosion of the vessels occurs due to the placement of the implants adjacent to the vessels.
- Implant Removal. Spinal implants of this type may require removal if the desired clinical and surgical outcomes are not obtained. The surgeon should carefully weigh the risks versus benefits when deciding whether to remove the implant. When the implant is removed, the surgeon should provide postoperative management to avoid refracture. If the patient is older and has a low activity level, the surgeon may choose not to remove the implant thus eliminating the risks involved with a second surgery. Although uncommon, permanent implantation of this device may result in the following:: (1) Corrosion, with localized tissue reaction or pain; (2) Possible increased risk of infection; (3) Bone loss due to stress shielding (4) Bending, loosening, and/or breakage, which could make removal impractical or difficult; (5) Pain, discomfort, or abnormal sensations due to the presence of the device; (6) Migration of implant position resulting in injury; and (7) Risk of additional injury from postoperative trauma.
- Do Not Reuse Implants. An implant previously implanted should never be reused. An implant previously implanted may have small defects that are not readily visible that may lead to early breakage, and compromise device performance and patient safety. Reuse may also lead to cross contamination and patient infection.

POSTOPERATIVE IMMOBILIZATION

Until X-rays confirm the development of a fusion mass, external immobilization (such as bracing or casting) is recommended.

Please inform the patient to reduce stress on the implants in order to reduce the risk of complications from fixation failure.

CAUTION: Under federal law, this device may only be sold by or on the order of physician.

LIMITED WARRANTY AND DISCLAIMER

CORELINK PRODUCTS ARE SOLD WITH A LIMITED WARRANTY TO THE ORIGINAL PURCHASER AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS. ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE HEREBY DISCLAIMED.

IF MORE THAN TWO YEARS HAVE ELAPSED BETWEEN THE DATE OF ISSUE/ REVISION OF THIS INSERT AND THE DATE OF CONSULTATION, CONTACT CORELINK CUSTOMER SERVICE FOR CURRENT INFORMATION AT 888-349-

The Aesculap SterilContainer System is FDA 510(k) cleared under K792558, K053389, K040865, K093493, K093649, K041623, and K073168. Aesculap and SterilContainer are trademarks of Aesculap, Inc., a B. Braun Company.

For further information contact:



CoreLink, LLC 2072 Fenton Logistics Park St. Louis, MO 63026

CoreLinkSurgical.com | (888) 349-7808

SYMBOLS GLOSSARY

Symbol	Description	ISO 15223 Reference
R	Prescription Required – Federal Law restricts this device to sale by or on the order of a licensed practitioner.	N/A
	Manufacturer - Indicates the medical device manufacturer as defined in EU Directives 90/385/EEC, 93/42/EEC and 98/79/EC.	5.1.1
LOT	Lot Number – Indicates the manufacture's batch code so that the batch or lot can be identified.	5.1.5
REF	Reference Number – Indicates manufacture's catalogue number so that the medical device can be identified	5.1.6
NON STERILE	Non-Sterile – Indicates a medical device that has not been subject to a sterilization process.	5.2.7
2	Do not re-use - Indicates a medical device that is intended for one use, or for use on a single patient during a single procedure.	5.4.2
\bigcap_{i}	Consult instructions for use - Indicates the need for the user to consult the instructions for use.	5.4.3
<u> </u>	Caution – Indications the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be presented on the medical device itself	5.4.4

STANDARD ORO LATERAL PLATE 1 KIT

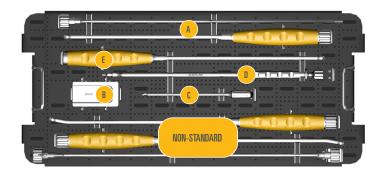
KIT ORDER #K5000371

INSTRUMENTS							
QTY	CATALOG NUMBER	DESCRIPTION					
1	2801-105	CONSTRUCT INSERTER					
1	6310-010	CONSTRUCT ASSEMBLY BLOCK					
1	2801-115	ALIGNMENT DRIVER					
1	2801-118	PLATE INSERTER					
1	1015-700	TAMP					
1	2801-120	EXTENDED SET SCREW DRIVER					
0*	2801-106	CONSTRUCT INSERTER ANGLED LEFT					
0*	2801-107	CONSTRUCT INSERTER ANGLED RIGHT					

TWO-	TWO-HOLE PLATES							
ОТУ	CATALOG NUMBER	DESCRIPTION						
2	900215-16	15MM X 16MM						
2	900215-18	15MM X 18MM						
2	900215-20	15MM X 20MM						
2	900215-22	15MM X 22MM						
2	900215-24	15MM X 24MM						

FOUR	FOUR-HOLE PLATES - SPECIAL ORDER						
QTY	CATALOG NUMBER	DESCRIPTION					
0*	900415-20	15MM X 20MM					
0*	900415-22	15MM X 22MM					
0*	900415-24	15MM X 24MM					
0*	900415-26	15MM X 26MM					
0*	900415-28	15MM X 28MM					

TOP TRAY A Construct Inserter Plate Inserter E Tamp B Assembly Block C Alignment Driver



BOTTOM TRAY

TWO-HOLE PLATE

F 15mm x 16mm

15mm x 18mm

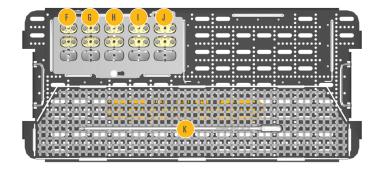
H 15mm x 20mm

1 15mm x 22mm

J 15mm x 24mm

INSTRUMENTS

K Extended Set Screw Driver



^{*} Noted items are non-standard and available upon request.

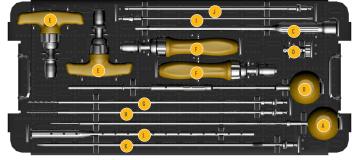
STANDARD ORO LATERAL PLATE 2 KIT

KIT ORDER #K5000382

INSTRUMENTS						
ΩТΥ	CATALOG NUMBER	DESCRIPTION				
1	5060-103	FIXED AWL				
1	5025-341	SPRING-LOADED AWL				
1	1015-603	GUIDE SLEEVE - VARIABLE				
1	1015-605	DEPTH STOP				
2	8135-100	T-HANDLE				
2	8235-100	STRAIGHT HANDLE				
1	1015-341	DRILL				
1	1015-500	TAP				
1	2015-100	BONE SCREW DRIVER				
1	2015-101	BONE SCREW REMOVER				
2	2015-102	RESCUE BONE SCREW EXTRACTOR				
1	2015-103	LOCK ACTUATOR				
0*	2015-104	BONE SCREW DRIVER, STIFFENED				

SCREWS						
QTY	CATALOG NUMBER	DESCRIPTION				
4	90755-25	5.5MM X 25MM				
4	90755-30	5.5MM X 30MM				
8	90755-35	5.5MM X 35MM				
8	90755-40	5.5MM X 40MM				
8	90755-45	5.5MM X 45MM				
8	90755-50	5.5MM X 50MM				
8	90755-55	5.5MM X 55MM				
4	90755-60	5.5MM X 60MM				
0*	90755-65	5.5MM X 65MM				
4	90760-25	6MM X 25MM				
4	90760-30	6MM X 30MM				
8	90760-35	6MM X 35MM				
8	90760-40	6MM X 40MM				
8	90760-45	6MM X 45MM				
8	90760-50	6MM X 50MM				
8	90760-55	6MM X 55MM				
4	90760-60	6MM X 60MM				
0*	90760-65	6MM X 65MM				

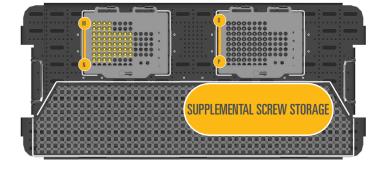




BOTTOM TRAY

M 5.5mm screws from small

6.5mm screws from small to large



^{*} Noted items are non-standard and available upon request.

ORO LATERAL PLATE **SIZE GUIDE**

It is recommended to choose the Lateral Plate which corresponds with the height of the Lateral interbody by utilizing the sizing chart below. The Lateral Plate is sized to provide a nominal clearance of 2mm between a 5.5mm Bone Screw and the closest aspect of the CoreLink Lateral interbody. This best-practice sizing prevents Bone Screws from contacting the CoreLink Lateral interbody during insertion.



It may be desirable to undersize the Lateral Plate due to anatomical considerations, the presence of additional implanted devices, or surgeon preference. Selecting a Lateral Plate shorter than the recommended CoreLink Lateral interbody (e.g. Plate Reference Number 6 with CoreLink Lateral interbody height of 8mm) will increase the risk of Bone Screw contact with the Lateral interbody in the surgical site. Contact of the Bone Screw with the Lateral interbody will result in damage and failure. If alternate configurations are preferred by the surgeon, the following tables lay out the clearance between a 5.5mm Bone Screw at a zero degree trajectory and the closest aspect of the CoreLink Lateral interbody. For accurate gap sizing when using a 6mm Bone Screw, subtract .25mm from the measurement listed in the table.

PLATE SIZES									
2-HOLE	4-HOLE	PLATE REFERENCE NUMBER	CORELINK Interbody Height	SCREW TO SCREW LENGTH	PLATE LENGTH				
•		6		16MM	26MM				
•		8	8MM	18MM	28MM				
•	•	10	10MM	20MM	30MM				
•	•	12	12MM	22MM	32MM				
•	•	14	14MM	24MM	34MM				
	•	16	16MM*	26MM	36MM				
	•	18		28MM	38MM				

^{*} Noted CoreLink Lateral Interbody height is non-standard

GAP DISTANCE FROM BOTTOM OF 5.5MM SCREW TO TOP OF LATERAL INTERBODY**										
			18MM			22MM			25 M M	
		0°	8°	12°	0°	8°	12°	0°	8°	12°
	ON SIZE	1.9MM	2.7MM	2.9MM	1.9MM	2.8MM	ЗММ	1.9MM	2.9MM	3.1MM
2-HOLE	UNDERSIZE BY 1	0.9MM	1.7MM	1.9MM	0.9MM	1.8MM	2MM	0.9MM	1.9MM	2.1MM
	UNDERSIZE BY 2	><	0.7MM	0.9MM	><	0.8MM	1MM	><	0.9MM	1.1MM
	ON SIZE	2.2MM	2.6MM	2.7MM	2.1MM	2.7MM	2.7MM	2.1MM	2.7MM	2.9MM
4-HOLE ANTERIOR	UNDERSIZE BY 1	1.2MM	1.6MM	1.7MM	1.1MM	1.7MM	1.7MM	1.1MM	1.7MM	1.9MM
	UNDERSIZE BY 2	><	0.6MM	0.7MM	><	0.7MM	0.7MM	><	0.7MM	0.9MM
	ON SIZE	1.9MM	2.9MM	3.3MM	1.8MM	3.0MM	3.4MM	1.8MM	3MM	3.4MM
4-HOLE POSTERIOR	UNDERSIZE BY 1	0.9MM	1.9MM	2.3MM	0.8MM	2.0MM	2.4MM	0.8MM	2MM	2.4MM
	UNDERSIZE BY 2	><	0.9MM	1.3MM	><	1.0MM	1.4MM	><	1MM	1.4MM

^{**}NOTE: If using a 6mm Bone Screw subtract .25mm from the listed measurement for accurate gap sizing

NOTES		



The Source for Spine™