Indicated for symphyseal fracture fixation of the mandible
Lag Screw Device

Indicated for symphyseal fracture fixation of the mandible

- Simplifies the lag screw fixation technique by providing accurate placement and measurement of 2.4 mm screws across the fracture site
- For use with the following items:
  - Universal Trocar Handle [397.211]
  - 1.8 mm Insert Drill Guide [397.282]
  - 2.4 mm Drill Guide [397.285]
- Supplements the Mandibular Modular Fixation System (MMFS); can be stored in the Trocar Tray Insert B [304.741]

Components

Lag Screw Cannula [397.225]

- 2.4 mm calibrated cannula with serrated tip works with the Lag Screw Pointer [397.226]
- Inserts into the Universal Trocar Handle [397.211]
- Couples with the 2.4 mm Drill Guide [397.285] and the 1.8 mm Insert Drill Guide [397.282]

Lag Screw Pointer [397.226]

- Calibrated drilling indicator slides along the Lag Screw Cannula to determine drill length
- Pointer tip predicts exit point at the far cortex
- Easily adjusted and secured in any position with the set screw
Surgical Technique

1 **Reduce the fracture**

Manipulate the bone fragments until anatomic reduction is achieved. Maintain reduction using bone holding forceps.

*Note:* It may be necessary to predrill two holes at the superior portion of the fracture (approximately 1 cm on either side of the fracture) to properly insert the bone holding forceps.

2 **Assemble the Lag Screw Device**

Insert the Lag Screw Cannula [397.225] into the Universal Trocar Handle [397.211].

Slide the Lag Screw Pointer [397.226] over the cannula and gently secure it by tightening the set screw.
Surgical Technique (continued)

3 Drill the gliding hole

Insert the 2.4 mm Drill Guide [397.285] into the cannula and secure by pressing into place.

Place the lag screw device on the mandible perpendicular to the fracture line. Adjust the length and angulation to indicate screw entry and exit points as well as screw length.

Caution: Position the device so that the predetermined drill path avoids tooth roots.

Note: To ensure that the lag screw device is positioned properly, the cannula and pointer tips must contact the bone with the drill entry point located approximately 12 mm–15 mm from the fracture. Note the approximate screw length indicated on the scale.

Place a long (125 mm) 2.4 mm drill bit through the 2.4 mm Drill Guide [397.285] and drill through the near cortex to the fracture line.
Caution: Be sure the drill path avoids the lingual cortex. If the drill exits this cortex, it may bend along the curve of the lingual surface and exit the buccal cortex at a location other than the pointer tip.

4 Drill the threaded hole

Remove the 2.4 mm Drill Guide and replace it with the 1.8 mm Insert Drill Guide [397.282]. Seat the drill guide into the drilled hole. Drill with a long (125 mm) 1.8 mm drill bit through the far cortex.

Note: The pointer is no longer necessary and may now be removed.

Caution: If using the pointer, be prepared to stop the drill immediately upon contact with the pointer tip.

5 Countersink

Use the Countersink [310.80] in the near cortex to allow proper screw head seating. This reduces palpability through the soft tissue.
Surgical Technique (continued)

6 Measure
Confirm screw length using a depth gauge.

Note: Due to the anatomy of the anterior mandible, it is necessary to add 2 mm to the reading to ensure that both cortices are engaged.

7 Insert the screw
Insert the proper length 2.4 mm self-tapping screw.

A second screw is recommended to prevent rotation of the fragments. Repeat the procedure with a second 2.4 mm screw inserted parallel to the first screw.
**Lag Screw Device**

**Instruments***

- 397.225 Lag Screw Cannula
- 397.226 Lag Screw Pointer

**Supporting Instruments**

- 397.211 Universal Trocar Handle
- 398.985 Bone Reduction Forceps, large
- 398.986 Bone Reduction Forceps, small
- 398.987 Bone Reduction Forceps, small straight
- 397.285 2.4 mm Drill Guide
- 310.540 2.4 mm Drill Bit, quick coupling, 125 mm
- 310.541 2.4 mm Drill Bit, universal-Hall, 125 mm
- 310.542 2.4 mm Drill Bit, Stryker J-latch, 125 mm
- 310.543 2.4 mm Drill Bit, mini quick coupling, 125 mm
- 397.282 1.8 mm Insert Drill Guide
- 310.520 1.8 mm Drill Bit, quick coupling, 125 mm
- 310.521 1.8 mm Drill Bit, universal-Hall, 125 mm
- 310.522 1.8 mm Drill Bit, Stryker J-latch, 125 mm
- 310.523 1.8 mm Drill Bit, mini quick coupling, 125 mm
- 310.80 Countersink with centering pins for 2.4 mm cortex screws
- 319.007 Depth Gauge for 2.0 mm and 2.4 mm screws, long
- 319.53 Depth Gauge for 2.4 mm screws, long
- 313.925 2.4 mm Screwdriver, self-retaining
- 313.94 2.4 mm Screwdriver with holding sleeve

* Can be stored in the Trocar Tray Insert B [304.741] of the Mandibular Modular Fixation System.