

# RibLoc® U+

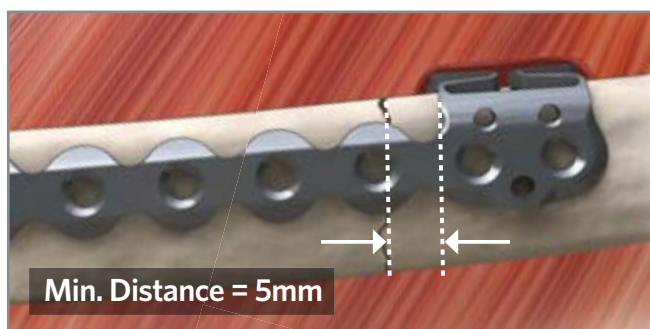
Chest Wall Plating System

Technique



Innovative Solutions for Challenging Thoracic Procedures

## SELECT PLATE



### STEP 1

After exposing fracture, select the desired plate length and prepare for placement:

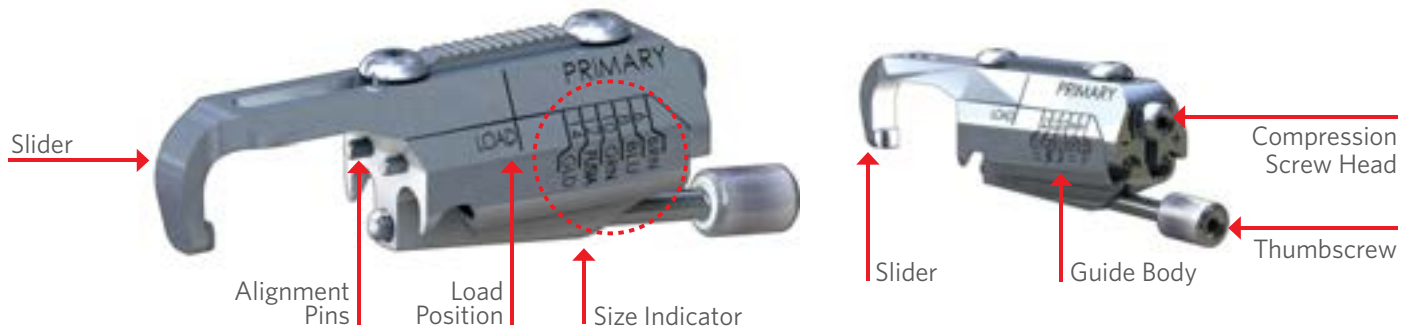
- Identify the desired placement of the U-clips by holding the plate over the rib.
- At each U-clip location, make a small incision immediately superior to the rib margin.

#### Notes:

- Plates are available in 50mm, 75mm, 115mm, 155mm, and 215mm lengths.
- Select a plate that allows a minimum distance of 5mm between the fracture and the nearest U-clip.
- A sterile packed ruler can be used to assist in plate sizing
- Contouring the plate with Acute's bending template (RBL2294) can be helpful when installing onto the rib.

**⚠ CAUTION:** Care should be used not to deform the U-clips during handling.

# ATTACH PRIMARY GUIDES



LOAD position



14mm marking

## STEP 2

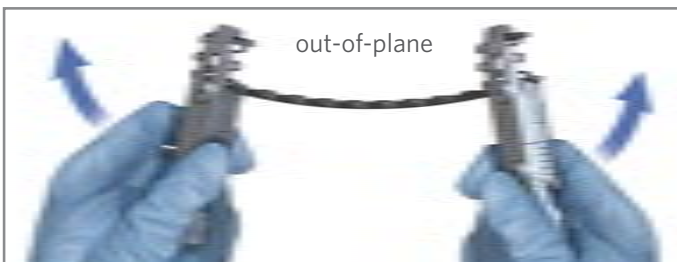
Attach the Primary Guides:

- a) Reset the Primary Guide to the "LOAD" position by using the driver and rotating the Compression Screw Head.
- b) Align the Primary Guide pins with the corresponding holes on the front of each U-clip.
- c) Tighten the Thumbscrew by hand to secure the Primary Guide to the plate.
- d) Using the driver, rotate the Compression Screw Head until the indicator reaches the 14mm, or gold, marking and the slider engages with the posterior of the U-clip.

### Notes:

- Visually ensure slider is engaged with posterior rectangular slot of U-clip. Adjust alignment by hand if necessary.
- Do not start compressing the U-clip at this point.

# CONTOUR PLATE



## STEP 3

Contour the plate:

**If needed**, contour the plate to match the rib's geometry using the bending tools provided. Place the plate over the rib throughout the bending process to assess fit.

### Note:

- Contouring is typically needed for 115mm, 155mm, and 215mm plates.

Plate contouring options:

#### a) Hand Benders

- 1) For in-plane bending, place the plate within the teardrop features. In-plane contour can be added in situ or prior to plate placement.
- 2) For out-of-plane bending, place the plate between the rollers.

### Tip:

- Plate will bend in the direction of the handles.

#### b) Joystick Benders

- 1) Thread the two benders into plate holes on either side of the desired contour location.
- 2) Use the handles to bend, twist or straighten the plate. This can be done in situ or prior to plate placement.

### Tips:

- The Joystick Benders may be used to hold and manipulate the plate during installation and fracture reduction.
- Primary Guides can also be used to bend or straighten the plate.

**⚠ CAUTION:** Repetitive bending of the plate at the same location may fatigue and weaken it.

## APPROXIMATE FRACTURE



### STEP 4

Plate placement:

Place the plate onto the rib at the desired location.



### STEP 5

Approximate the fracture:

- Reduce the fracture and approximate any displaced rib segments using the Rib Forceps.
- Place the Intermediate Gauge superiorly over any rib segments to maintain reduction during drilling and screw insertion.
- Tighten the gauge until the plate is secured to the rib.



### INTERMEDIATE GAUGE



↑ Functions as a rib clamp and Intermediate Gauge

## COMPRESS U-CLIP TO RIB



### STEP 6

Use the Primary Guide to compress the U-clip to match the thickness of the rib:

- Using the driver, rotate the Compression Screw Head clockwise, compressing the U-clip until it feels secure on the rib.
- Assess the compression of the U-clip by moving the U-clip relative to the bone. Little to no motion should be present.

**CAUTION:** Over-compressing the U-clip may damage the bone.

## DRILL PRIMARY HOLES

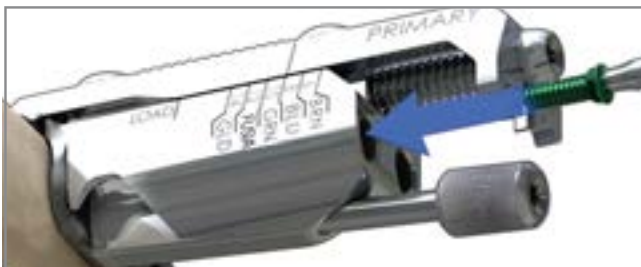
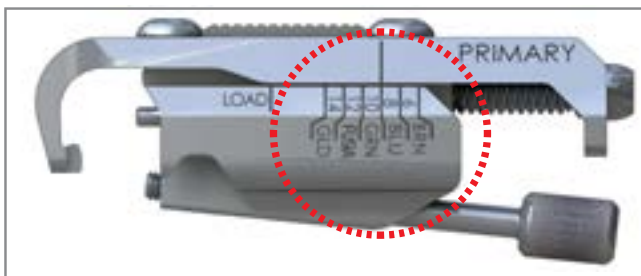


### STEP 7

Drill primary holes:

Drill through the barrels of the Primary Guide and **advance until the drill reaches a hard stop** on the Guide Slider.

## PLACE SCREWS IN PRIMARY LOCATIONS



Viewing window

Alignment line

### STEP 8

Select appropriate Dual-Lock Screws:

Read the size indicator to select the appropriate screw length. If the marker is in between sizes, select the longer of the two.

#### Note:

- The screws are color coded to match the size indicated by the markings on the guide.

- Gold - 14mm
- Fuchsia - 12mm
- Green - 10mm
- Blue - 8mm
- Brown - 6mm

Place screws in primary holes:

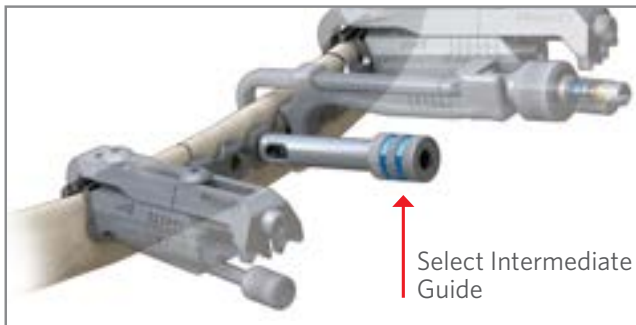
- Use the driver to retrieve the appropriate screw size.
- Place the screw down the barrel of the Primary Guide and advance until you feel a hard stop. Use the window to visually confirm the seating of the screw. The line on the driver will align with the guide body when the screw is fully seated.
- Repeat until all screws have been placed in U-clips.

# PLACE SCREWS IN INTERMEDIATE LOCATIONS



## Size Indicator

**Example:** Read the size indication as 8mm or blue



## STEP 9

Determine the appropriate Dual-Lock Screw size for intermediate placement.

Clamp the Intermediate Gauge next to the desired screw location and read the size in one of two places:

- The numerical size (6mm, 8mm, 10mm, 12mm, 14mm) as marked on either side of the gauge.
- The color marking on the end of the gauge.

## Note:

- Intermediate sizing is usually one length shorter than the primary locations.

## STEP 10

Place the Intermediate Guide:

- Select the appropriately sized Intermediate Guide as indicated by the Intermediate Gauge (color coded for size).
- Thread the guide into the intermediate plate hole until firmly seated.

## STEP 11

Drill intermediate holes:

Drill through the Intermediate Guide until the drill stops.

## STEP 12

Place screws in the intermediate holes:

- First remove the Intermediate Guide from the plate.
- Insert screw until fully seated.

## Note:

- A minimum of two screws should be used for segments measuring 2cm or more in length. Add additional intermediate screws for extra stability as needed.

# REMOVE INSTRUMENTATION



## STEP 13

Remove Primary Guides by using the driver to rotate the Compression Screw Head until the Slider returns to the LOAD position, and then release the Thumbscrew.

### Additional System Information

If desired, one of the U-clips may be cut off using standard OR plate cutters.  
Use a minimum of three screws to secure the plate at the cut end.

### Removal

For implant removal, screws may be removed with the system driver or a standard T8 hexalobe driver.

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Back to health. Back to work. Back to **life.**

Not all products may currently be available in all markets.

Please also refer to the package insert(s) or other labeling associated with the devices identified in this reference guide for additional information



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RBL7002\_D | Effective: 10/2019

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