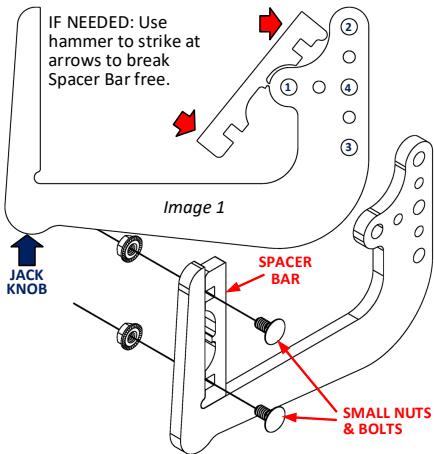
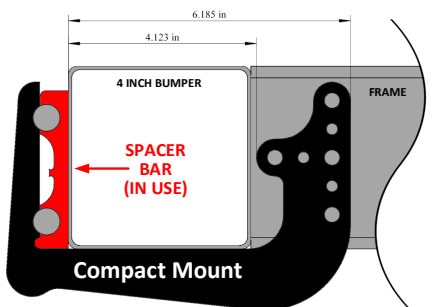
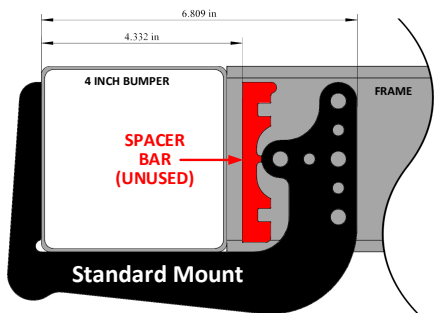
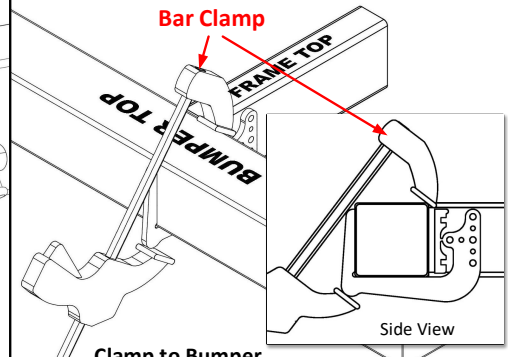
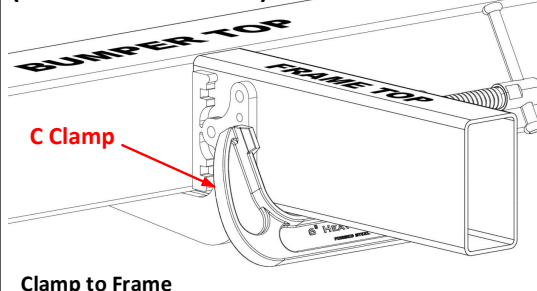


PAGE 1: GENERAL INFORMATION

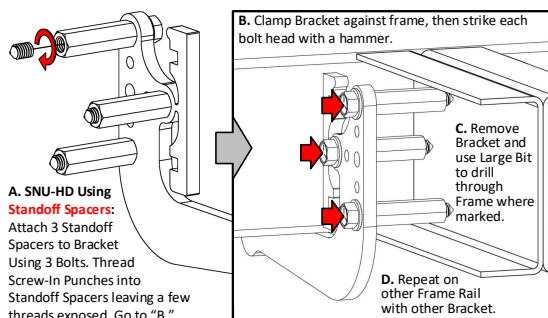
MOUNTING: Select Configuration



CLAMPING: Determine Best Method (Use Both if Possible)



MARKING AND DRILLING HOLES: Use Oil and Drill Slowly to Keep Bits Cool and Sharp!



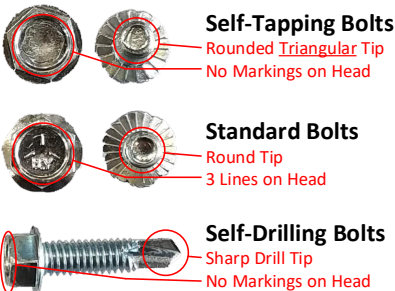
OTHER INFORMATION

Bumper Preloading

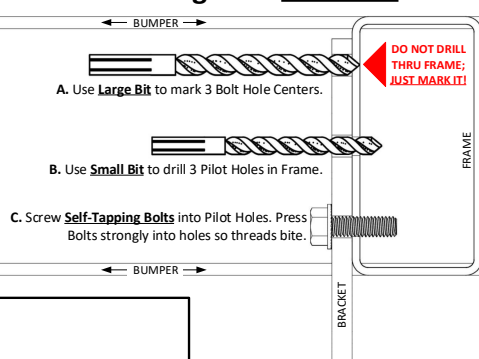
Recommended, optional step that can be used to square-up out-of-square or drooping bumpers.

See Image 1 at left. Mount SafetyStruts™ bracket using only Mounting Hole 1; **do not drill other holes yet.** Position a jack under the Jack Knob as indicated by the blue arrow at left and jack up the SafetyStruts™ bracket until the bumper seats itself in the bracket. Drill Mounting Holes 2 and 3, insert and tighten all fasteners. Remove jack once all fasteners have been tightened.

Bolt Identification



To Install Using SELF-TAPPING Bolts



To Install Using SELF-DRILLING Bolts

Use Nut Driver and Power Drill to screw Self-Drilling Bolts into Frame. Follow Self-Tapping Bolt instructions on Page 2 but do not drill any pilot holes.

SSN-HD Includes:
6 Self-Drilling Bolts
2 Steel Brackets
8 D-Washers
4 Small Bolts
4 Small Nuts
1 Nut Driver

SSN-HD SafetyStruts™ Heavy Duty Standard Bumper Brackets

SNU-HD Includes:
6 Self-Tapping Bolts
6 Flanged Locknuts
6 Standoff Spacers
6 Standard Bolts
2 Steel Brackets
8 D-Washers
4 Small Bolts
4 Small Nuts
1 Large Drill Bit
1 Small Drill Bit
3 Screw-in Punches

SNU-HD SafetyStruts™ Heavy Duty Universal Bumper Brackets

PLEASE READ & UNDERSTAND THIS ENTIRE GUIDE BEFORE STARTING INSTALLATION

SNU-HD: Use Included 17/64" (Short) & 5/16" (Long) Drill Bits As Shown In This Guide For Your Frame Type

See Yellow Boxes For Max Torque When Tightening Bolts

Self-Tapping Bolts Will Thread Into Nuts a Little Tighter

D-Washers Are For Shimming - Do Not Use Otherwise

Only Use the Fasteners That Are Supplied with Product

Using a Skinnier Power Drill May Make Installation Easier

Clamp as Shown and Use SafetyStruts™ as Drill Guide

Mount SafetyStruts™ To Either Side Of Your Frame Rails

SafetyStruts™ Maximum Cargo Load of 400 Pound-Feet



Proudly Made in the USA

Haul It All!



Do Not Exceed 20 foot-pounds of Torque When Tightening Bolts

SNU-HD ONLY: SHORT I-BEAM (Less Than 6" Tall) & DOUBLE-CHANNEL FRAMES - See Page 1 for detailed mounting instructions using Standoff Spacers.

Frame: Less than 6-Inch Tall I-Beam or Double-Channel

Obstructions: Frame Flanges

Mounting Method: Fasten Standoff Spacers to SafetyStruts™ using long bolts and fasten Standoff Spacers to frame using short bolts through 5/16" holes drilled into frame.

SELF-TAPPING BOLTS

STANDARD BOLTS

STANDOFF SPACERS

Frame: Less than 6-Inch Tall I-Beam or Double-Channel

Obstructions: Frame Flanges and Bolted Corner Braces

Mounting Method: Same method as shown at left except use D Washers to shim between SafetyStruts™ and Standoff Spacers as shown here.

STANDARD BOLTS

SELF-TAPPING BOLTS

Use D-WASHERS to Shim Level with Raised Plate. Put Washer Straight Edge Toward Bumper

SSN-HD or SNU-HD: TUBE FRAMES - See Page 1 for detailed mounting instructions. *Self-Drilling Bolts do not require pilot holes.*

Frame: Tube

Obstructions: None
Mounting Method: Screw self-tapping bolts into 17/64" pilot holes drilled into frame's Sidewall as shown here.

Self-Tapping Bolts: Pre-Drill Pilot Holes as Shown on Page 1

SELF-TAPPING OR SELF-DRILLING BOLTS

Use Alternate Mounting Hole for Frames Less Than 4" Tall

Frame: Tube

Obstructions: Welded Corner Braces

Mounting Method: Same method as shown at left except use flat washers to shim between SafetyStruts™ and frame as shown here.

SELF-TAPPING OR SELF-DRILLING BOLTS

Use D-WASHERS to Shim Level with Raised Plate. Put Washer Straight Edge Toward Bumper

SSN-HD or SNU-HD: TALL I-BEAM AND S-BEAM FRAMES - See Page 1 for detailed mounting instructions. SSN-HD does not need Pilot Holes for Self-Drilling Bolts.

Frame: 6-Inch or Taller I-Beam or S-Beam

Obstructions: I-Beam: None, S-Beam: Bolts

Mounting Method: Fasten SafetyStruts™ to frame using provided bolts and Lock nuts.

SNU-HD: Pre-Drill Mounting Holes using Large Bit.

LOCK NUTS (SNU-HD)

REMOVE SPACER BAR

Frame: 6-Inch or Taller I-Beam

Obstructions: Bolted Corner Braces

Mounting Method: Same method as shown at left except use flat washers to shim between SafetyStruts™ and frame's sidewall as shown here.

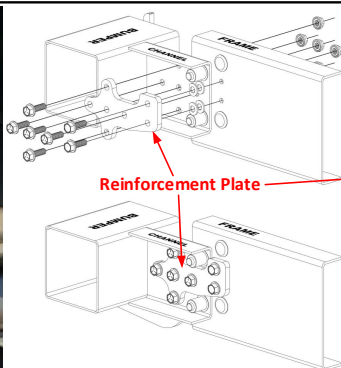
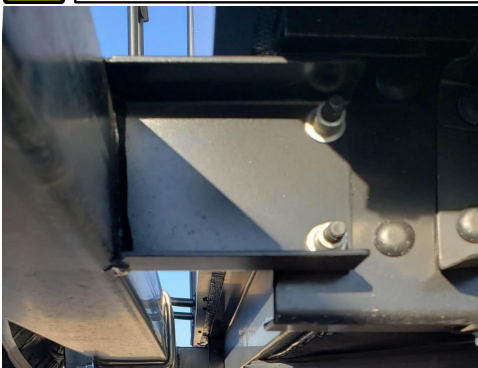
REMOVE SPACER BAR

Use D-WASHERS to Shim Level with Raised Plate. Put Washer Straight Edge Toward Bumper

LOCK NUTS (SNU-HD)



Minnie Winnie/Micro Winnie 2-Bolt Frame Mount: Reinforcement Plates Needed for Proper Support of These Bumper-Frame Extensions. *Contact Us for Information.*



Reinforcement Plate

