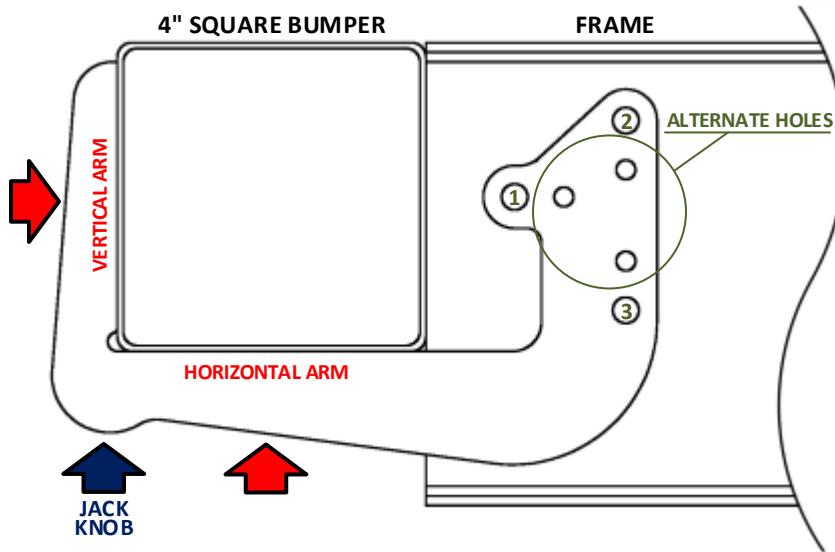


## Installation Information and Guidelines

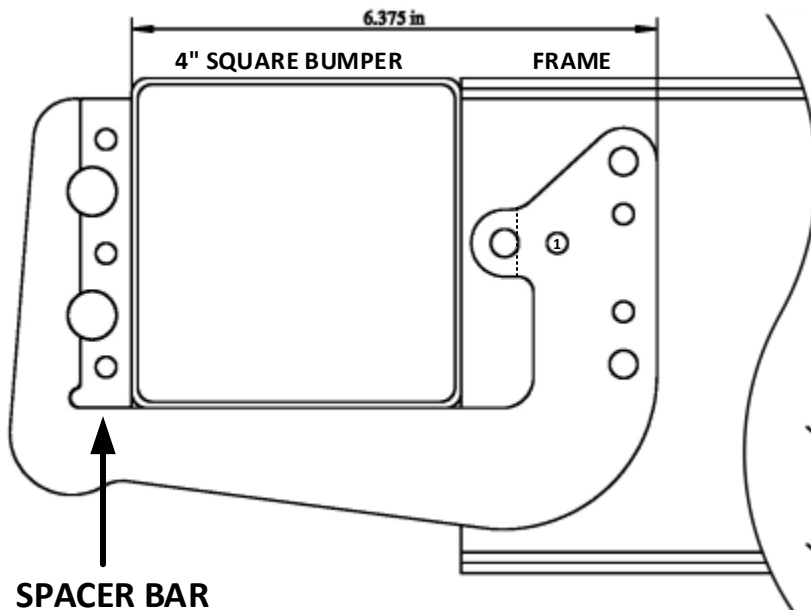


1. Find your frame type on next page and review fastener combinations, positions, and drilled-hole sizes.

2. When positioning SafetyStruts™ prior to drilling, make sure that the Vertical Arm and Horizontal Arm are tight against bumper as indicated by the red arrows above. Once in position, clamp firmly to frame.

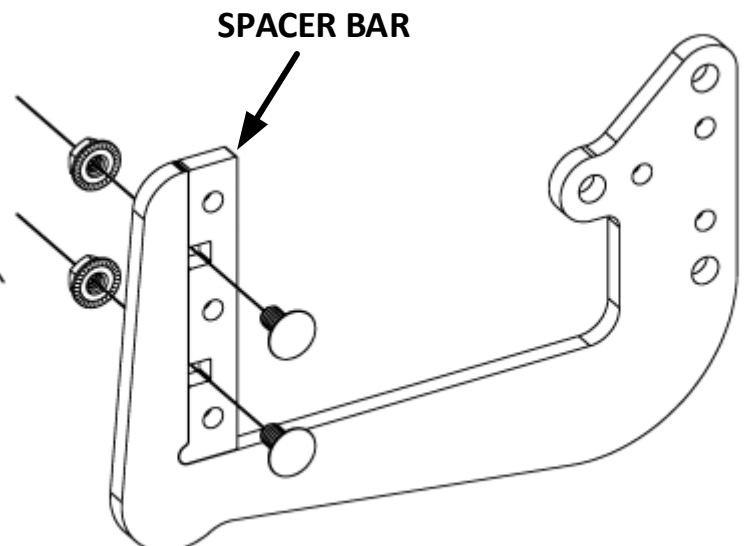
3. Note positions of 3 Main Mounting Holes (Indicated by the numbers 1, 2, and 3) and the adjacent Alternate Holes (in green circle). Mount SafetyStruts™ using the Main Mounting Holes unless obstruction prevents doing so, in which case drill out nearest Alternate Hole to 5/16" and use it.

4. OPTIONAL MOUNTING STEP: This step allows you to "preload" the bumper. Mount individual SafetyStruts™ using only Main Mounting Hole #1 and by tightening related fasteners; *do not drill other holes*. Position a jack under the Jack Knob as indicated by the blue arrow above and jack up the individual SafetyStruts™ until the camper or bumper starts to lift slightly. Now drill and mount Main Mounting Holes #2 and #3, removing jack once all fasteners are tight.



## Installation in Tight Space

If you need to install the SafetyStruts™ into a tight space due to an obstruction on the frame forward of the bumper, the space needed to mount the SafetyStruts™ can be reduced by attaching the Spacer Bar as shown prior to mounting the SafetyStruts™ to the frame. Mount the Spacer Bar by using the included Carriage Bolts and matching Serrated Flange Locknuts (finger tighten these nuts until the SafetyStruts are mounted, then wrench tighten). If needed, tab can be removed by cutting along dashed line and Alternate Hole 1 used as shown at left.



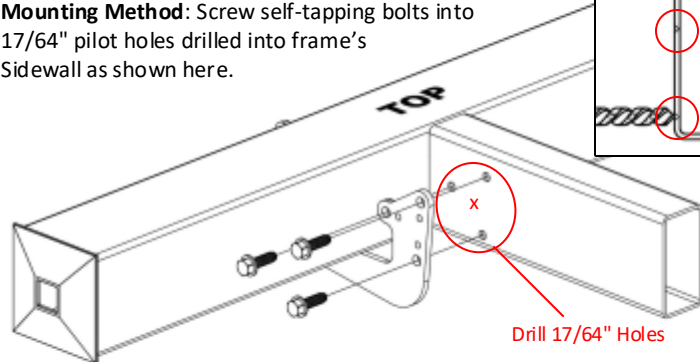
**TO MOUNT TO TUBE FRAMES:** Clamp the Strut in place, mark the 3 hole centers using a 5/16" drill bit to *Mark the Frame* (DO NOT DRILL THROUGH!) then use an 17/64" drill bit and the Marks you created to drill 3 pilot holes into the Frame. Next, secure the Strut to the Frame by screwing the Self-Tapping Bolts into the pilot holes you drilled.

**Frame:** Tube

**Obstructions:** None

**Mounting Method:** Screw self-tapping bolts into 17/64" pilot holes drilled into frame's Sidewall as shown here.

"...Mark the Frame..."

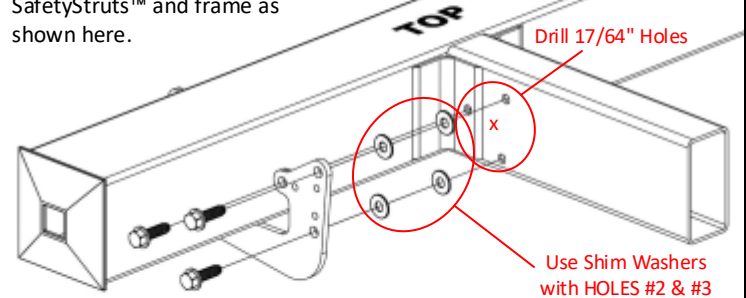


Drill 17/64" Holes

**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.



Drill 17/64" Holes

Use Shim Washers with HOLES #2 & #3

**Works With:**

SafetyStruts™ Type SSN, SNU

**NOTE:** Tighten self-tapping bolts carefully to 20 foot-pounds so as not to strip threads. You can drill a test hole at red "X" to practice tightening before installing.

**Works With:**

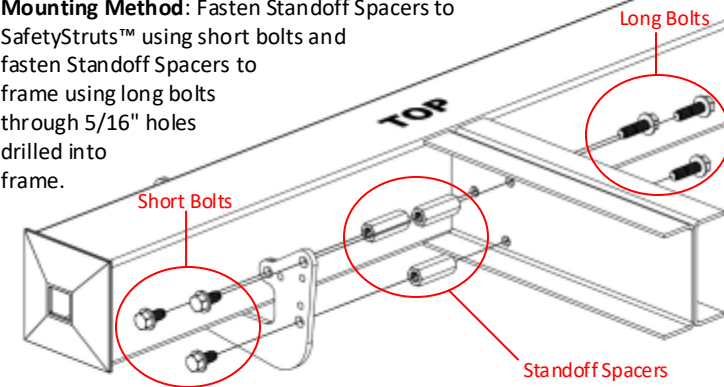
SafetyStruts™ Type SSN, SNU

**TO MOUNT TO SHORT I-BEAM FRAMES:** Bolt 3 Standoff Spacers to Strut (shim as needed), then clamp Strut and Spacers to Frame. Carefully remove one Bolt at a time and use a 1/4" drill bit to make a pilot hole (3 total), using the Spacers as a guide. Remove Strut, enlarge holes to 5/16", and bolt the Strut-to-the-Spacers-to-the-Frame as shown.

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

**Obstructions:** Frame Flanges

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



Short Bolts

Long Bolts

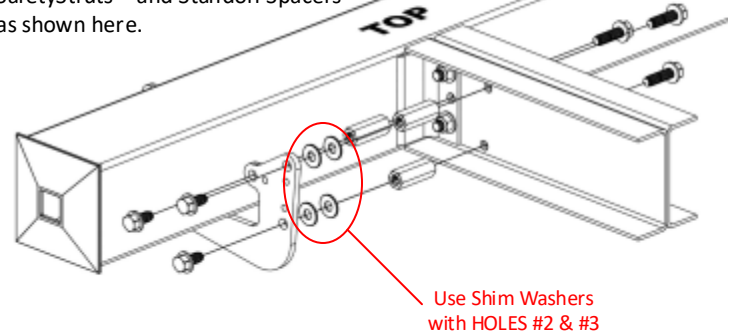
Standoff Spacers

**Works With:** SafetyStruts™ Type SNU

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

**Obstructions:** Frame Flanges and Bolted Corner Braces

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



Use Shim Washers with HOLES #2 & #3

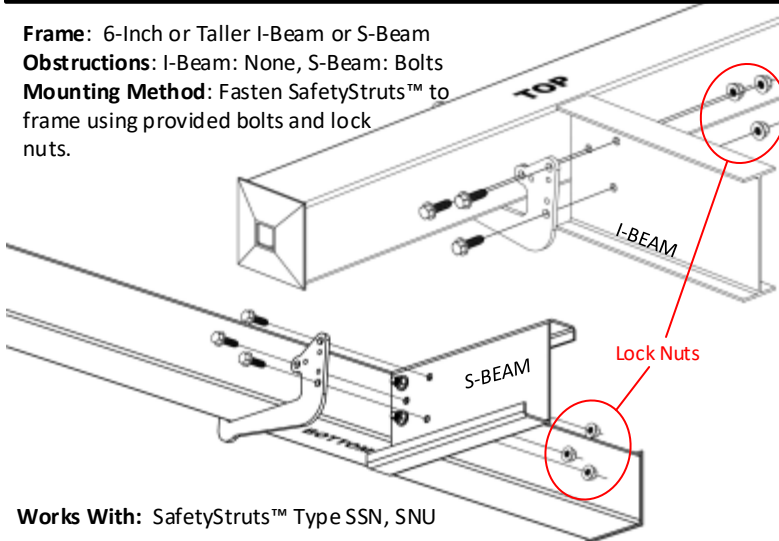
**Works With:** SafetyStruts™ Type SNU

**TO MOUNT TO TALL I-BEAM AND S-BEAM FRAMES:** Clamp Strut to Frame (shim as needed), drill 3 holes using 5/16" bit, fasten Strut to Frame using provided Nuts and 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.



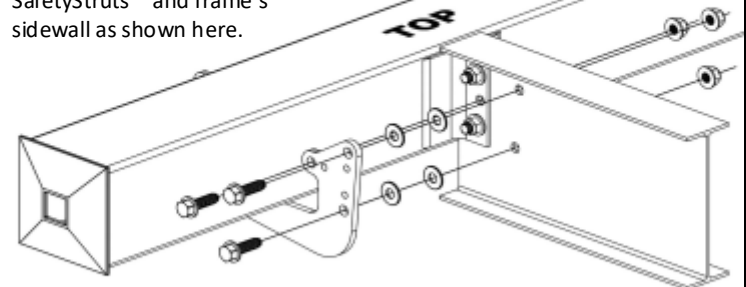
Lock Nuts

**Works With:** SafetyStruts™ Type SSN, SNU

**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.



**Works With:** SafetyStruts™ Type SSN, SNU