



Manual Rev.
1.01
3/27/2009

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2004+ Toyota Sienna QuickLIFT Installation Guide

Step 1 - Unpack QuickLIFT system and verify contents.

Remove all items from the packing tube. You should have the following before beginning:

- * (2) Gas springs (RT-QL-170-4A) - Be sure to cycle them a few times before installing.
- * (4) 3/16"- #2 multi-grip rivets (used on hood brackets)
- * (2) ball-studs and washers
- * (2) brackets used on hood frame
- * Printed Color Instructions
- * Gas Spring locking clips - (Already installed in the gas spring ball-ends -

Step 2 - Gather the required tools.

Please gather the following tools before you begin the installation:

- * Power Drill
- * 3/16" drill bit
- * 10mm socket and socket wrench
- * 13mm or 1/2" wrench
- * Fine permanent marker or felt tip pen
- * Tape measure or ruler
- * Masking tape
- * Hammer & center punch



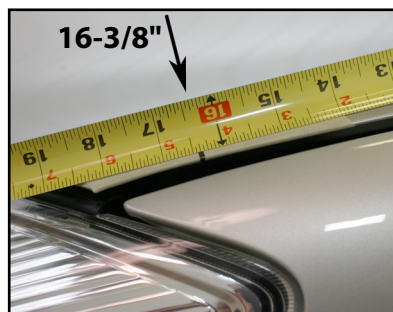
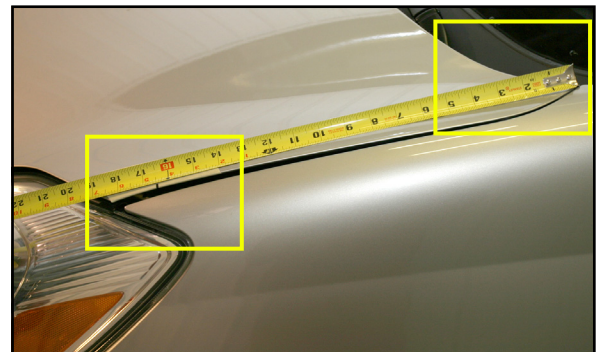
Recommended: Craftsman standard or Swivel Riveter (shown - 974749) - \$9.99 to \$17.99

Step 3 - Mark centerline of hood bracket location.

A. Leave your hood closed.

B. Using a piece of masking tape and a permanent marker, carefully measure from the hood's corner (near hinge and windshield) and along the fender line. Wrap the end of the tape measure over the corner lip and place a mark on the hood masking tape at **16-3/8"**

This mark will be used to align the centerline of the bracket's ball-stud in the next step.



Step 4 - Align bracket and mark lower hole for drilling.

A. Align the center of the bracket with the mark you just made on the hood. You will need to view the hood directly from the side as shown in **Figure 4A**. The bracket should sit on the flat area just inside the edge of the hood skin with the ball stud facing down and toward the vehicle. The back of the bracket should be up against the hood's skin.

B. Holding bracket in place, mark the center of the lower hole using a permanent felt tip marker. Be sure the bracket is straight and sitting flat against the hood's frame.

C. Set bracket aside. Using a center punch and a hammer, tap the center of the mark you just made (this indentation will help guide the drill bit and keep it from wandering). **Verify the brackets placement using these photos and those in the following steps.**

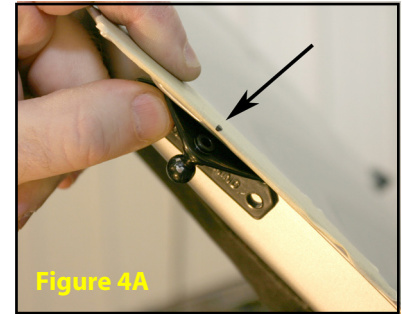


Figure 4A

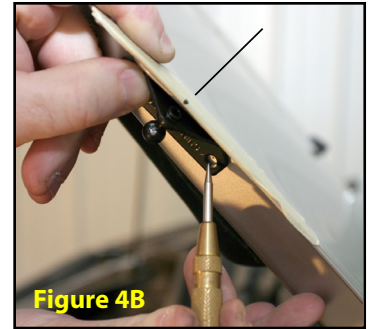


Figure 4B

Step 5 - Drill 3/16" hole.

A. Carefully drill the hole as shown to the right using a **3/16" bit**.

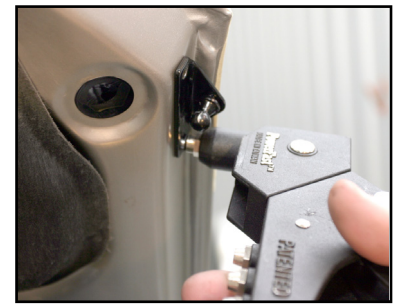
Wrap a piece of electrical tape around the drill bit about 1/4" from the tip to prevent the bit from denting the hood skin. Use new and sharp bits! A drill stop can be used to keep the drilling shallow as well.



Step 6 - Rivet end of bracket to hood.

A. Hold the bracket in position.

B. With the bracket lined up again, place the rivet through the bracket and hole with the long stem sticking outward - shown to the right. The rivet may require a few twists while pushing it in.



C. Check to be sure your rivet gun has the **3/16"** rivet head installed, then slide rivet gun onto rivet. While applying downward force on rivet and bracket, firmly squeeze riveter handle multiple times until rivet gun pops and snaps off the rivet stem.

Riveting Tips: Visit <http://www.redlinetuning.com/QL-tips.html>

Step 7 - Drill and rivet upper hole

A. Reposition or rotate bracket into the proper position against hood lip. Carefully drill the second hole through bracket hole and hood frame.

Wrap end of drill bit 1/4" down from tip with electrical tape to keep drill bit from pulling through and hitting hood skin.



Step 8 - Repeat steps 3-7 and install the passenger side hood bracket.

A. The vehicle hood has a symmetrical hood frame. Repeat Steps 3-7 to install the upper passenger hood bracket. Take your time.

Step 9 - Remove fender bolt & install ball-stud/washer back into hole (BOTH SIDES)

- A. **On the inner fender**, locate the fender bolt near the firewall.
- B. Remove this bolt using a 10mm socket wrench.
- C. Slide a washer onto the supplied ball-stud.
- D. Install the ball-stud/washer into the same hole using a 13mm deep-well socket and wrench (or 1/2").

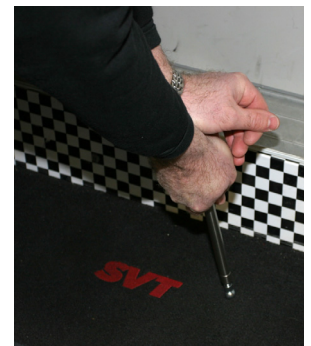


Repeat Step 9 on passenger side of vehicle. **DO NOT OVERTIGHTEN BALL-STUD.**

Step 10 - Cycle both gas springs a few times.

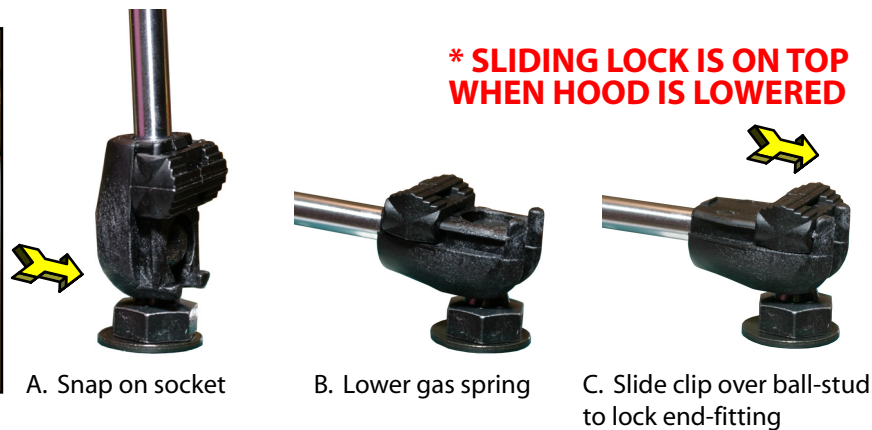
- A. **CYCLE EACH GAS SPRING BEFORE INSTALLING - firmly hold a gas spring with both hands by the thick cylindrical end - firmly press down on the floor or carpet and compress the spring. Compress both springs.** Have a friend hold the hood up.

Compress each gas spring a few times - Note: If you unable to compress the gas springs, do not worry. Normal function after installation will also serve the same purpose.



Step 11 - Install gas springs onto fender ball-studs.

- A. Firmly press the open end of the socket onto the ball-stud.
- B. Lower gas spring down such that the locking mechanism is on top.
- C. Slide the locking mechanism over the ball-stud to secure the gas spring. Be sure that the locking clip slides all the way over the ball-stud - this will ensure that this end of the gas spring will not free itself.



Snap the large end of the gas spring to each of the hood's ball-studs. Check to be sure all ends are securely fastened before lowering the hood.