



1511 Hancel Parkway, Mooresville, IN 46158 317-837-2444

Lower Chassis Brace 1999-2004 F-150 Lightning (LCB-FT01)

Stifflers Lower Chassis Brace System acts as a support structure to bridge the front and rear chassis sections by way of geometric triangulation. The addition of this system significantly decreases power robbing chassis flex by increasing its overall stiffness, resulting in improved handling, feel and weight transfer. The basic system is designed for ease of installation, using all but one OEM mounting points and existing holes.

Kit Includes:

(1) Front Brace	(16) ½" SAE Washers
(2) Rear Braces	(4) ½"-8 Lock Washers
(1) Rear Cross Brace	(10) ½"-13x1.25" Hex Cap Screws
	(3) ½"-13x3.5" Hex Cap Screws
	(2) ½"-13x5" Hex Cap Screws
	(10) ½"-13 Nylon Locking Nuts
	(4) ½"-13NutPlates

Required Tools: Basic hand tools

Install Time: Approximately 3hrs.

Installation:

- 1) Raise vehicle with drive-on lift or ramps, or position on jack stands ensuring that brace mounting locations are fully accessible.
- 2) Locate rearward front lower control arm mounting bolt on cross-member for both driver and passenger sides. Place a scribe mark around the nut/washer (Fig.1) **DO NOT SKIP THIS STEP! *To maintain proper alignment it is critical the bolts be re-assembled in their original location.*** Now loosen both bolts until the head of the nut becomes flush with the end of the bolt, do not remove nut. Using a hammer, tap bolts from the front side until the head separates from the cross-member approximately one inch. (Fig.2)
- 3) Remove the two nuts from the transmission cross-member (Fig. 3). Position Front Brace section in place, as shown in (Fig.4), and secure using the OEM hardware. Note the location of the scribed mark being sure that bolt is in its original position. Torque front lower control arm mounting bolts to 135 ft-lbs and transmission mount nuts to OEM specifications.
- 4) Using the supplied hardware, position and install driver side bar (Reference Fig.5, 6 & 9 for orientation and required hardware). When installing supplied nut plates into frame rail, be sure the nut is facing up.
***NOTES: All bolts should remain loose until all three rear brace pieces have been fit.
When using drop hangers the rear mounting point on bar is not used.***
- 5) Place Rear Cross Brace in position as shown in (Fig.7) and loosely fasten with supplied hardware fully on driver's side and to frame on passenger side.
- 6) Place passenger side bar into position and loosely fasten bolts in front and crossbar mounting locations. Tighten all bolts beginning with driver side bar and finishing with the Rear Cross Brace.
- 7) Using passenger bar rear mount as a drill guide, drill a 9/16" hole through the frame and fasten with remaining ½"-13x3.5" bolt, wave washer, lock-washer and nut plate (Fig.8).

Fig.1

Fig.2





Fig.3



Fig.4

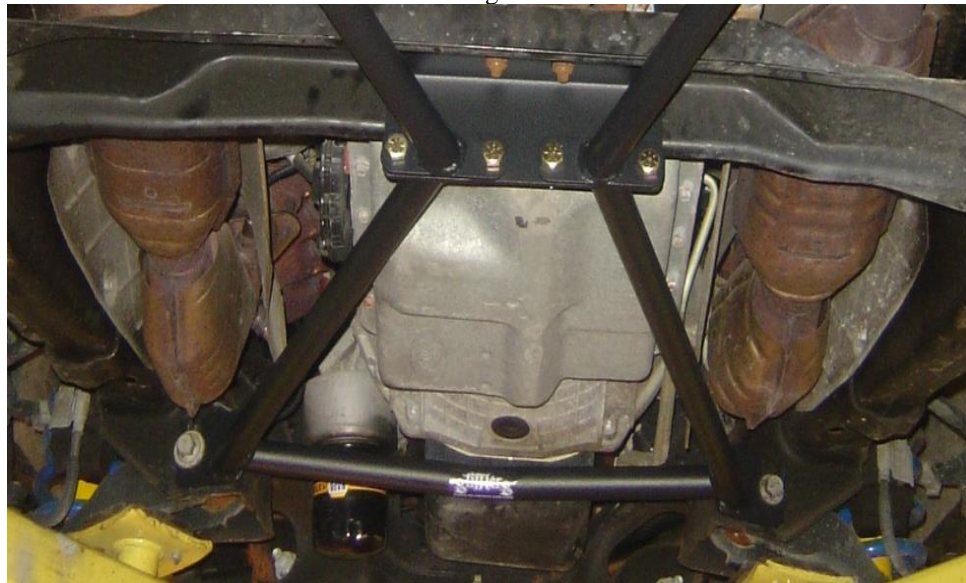
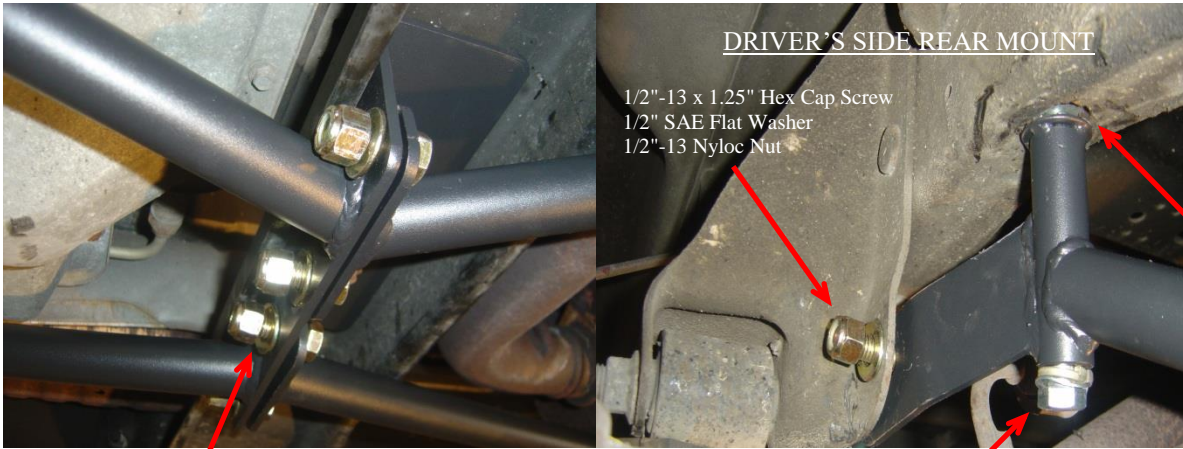


Fig.5

Fig.6



DRIVER'S SIDE REAR MOUNT

- 1/2"-13 x 1.25" Hex Cap Screw
- 1/2" SAE Flat Washer
- 1/2"-13 Nyloc Nut

Fig.7

- 1/2"-13 x 1.25" Hex Cap Screw
- 1/2" SAE Flat Washer
- 1/2"-13 Nyloc Nut



- 1/2"-13 x 5" Hex Cap Screw
- M12 Wave Washer
- 1/2" Lock Washer

Nut plate locations

- 1/2"-13 x 3.5" Hex Cap Screw
- M12 Wave Washer
- 1/2" Lock Washer

Fig.8



Fig.9





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Complete Install w/Driveshaft Safety Loop option



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