

1986-1995 Suzuki Samurai Front Missing Link Rear Up Front Kit (SKU# SSP-LRRUFK)

Installation Instructions



Important Notice:

This kit supplies the items shown on the next page. If any items are missing when you receive your shipment, please notify us immediately. In addition to what is supplied, you will need: (2) Samurai rear leaf springs, (2) longer shock absorbers and (2) longer flexible brake hoses. All of these items can be obtained through Low Range Off-Road. Log on to our website or give us a call. We'd be happy to assist you.

CAUTION: Safety glasses should be worn at all times when working with vehicles and related tools and equipment.



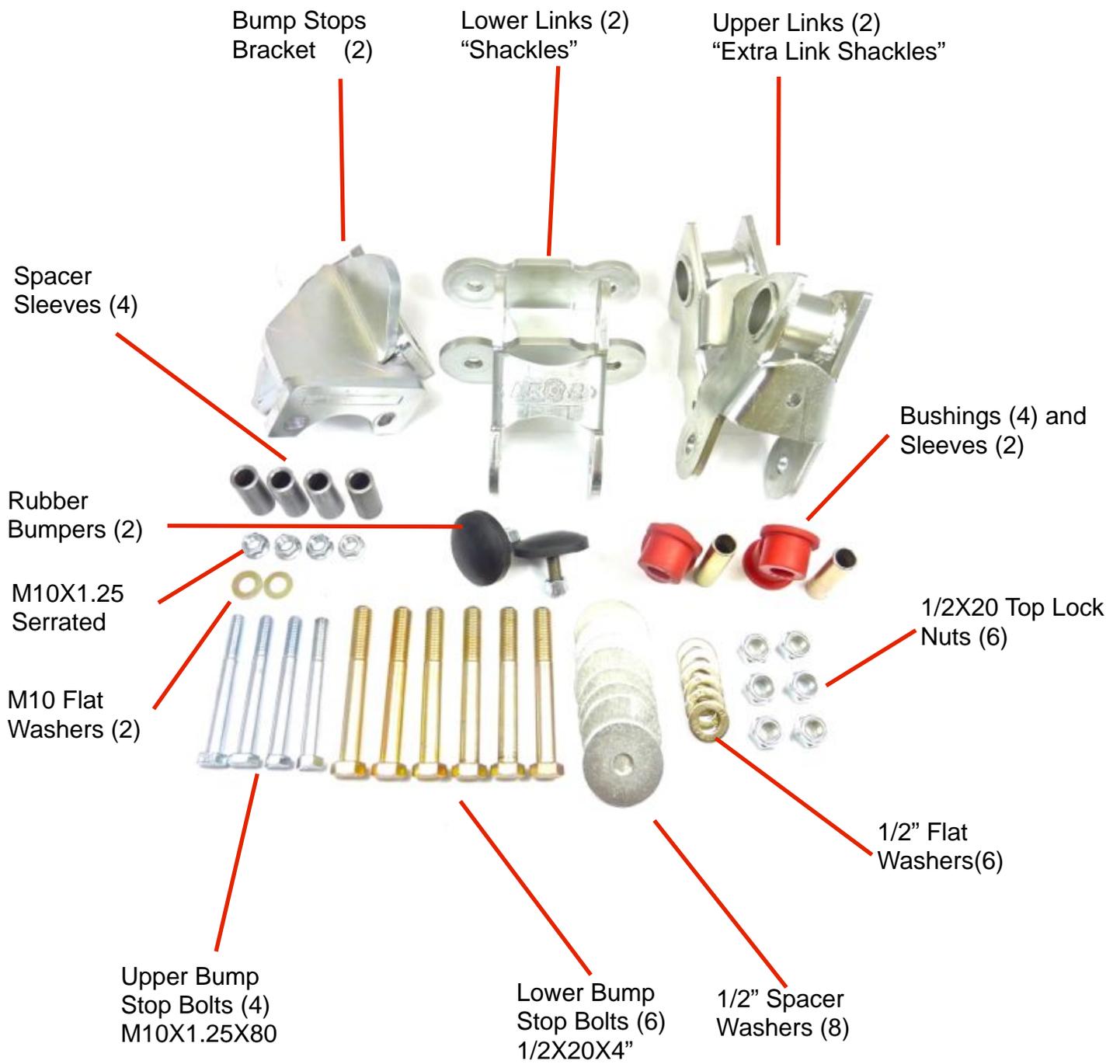
FOR ADDITIONAL COPIES OF THESE AND OTHER INSTRUCTIONS GO TO:

www.lowrangeoffroad.com and click on the "TECH AND INSTRUCTIONS" tab.

Suggested Tools:

- Twin Post Lift (or Floor Jack)
- Under Hoist Jack Stand (or 2 Jack Stands)
- 1/2" Impact Wrench
- 1/2" Dr. Impact Sockets: 14,17,19 mm & 3/4"
- Combination Wrenches: 14,17,19mm & 3/4"
- Ball Peen Hammer
- 3/16" Pin Punch
- 1/2" Driver Torque Wrench
- Angle Grinder with Cut-Off Blade (May be needed)

Kit Parts Identification



Front Suspension Part Identification

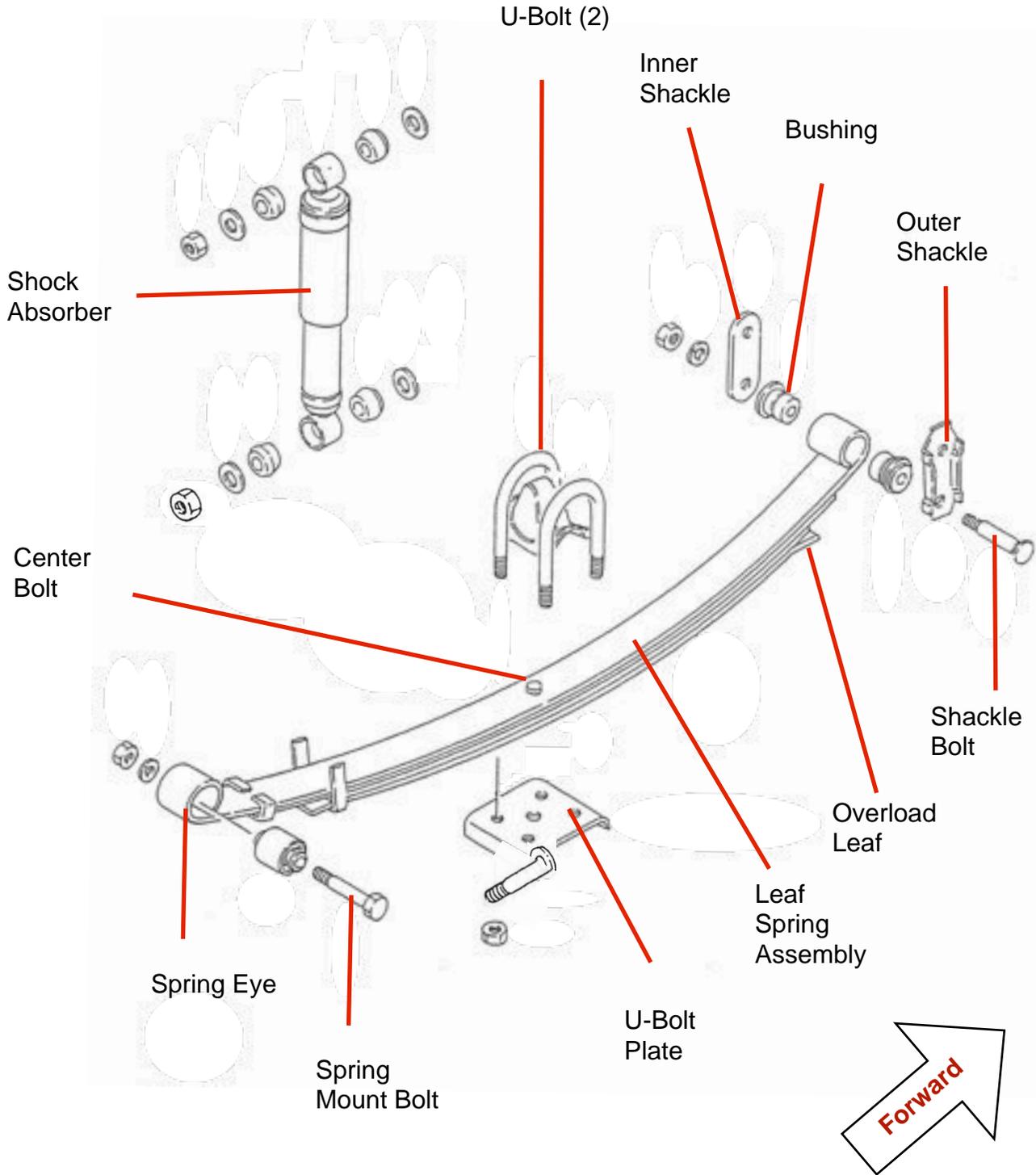


Figure A



Lifting and Supporting the Vehicle



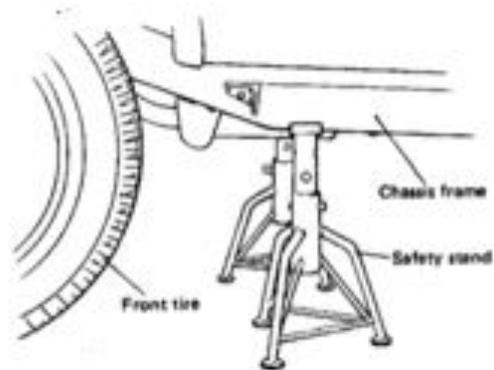
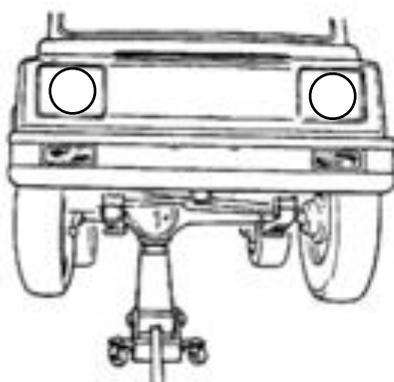
Tech Tip

When working on suspension, brakes or drive train parts it is a good idea to spray all fasteners with penetrating oil a day ahead. If not done a day ahead, an hour or even minutes before is helpful.

Step 1

Lift and support the vehicle on a twin post lift.

Note: We used a twin post lift, but this job could easily be done with a floor jack and (2) safety stands.



Tech Tip

Proper positioning of floor jack.

Tech Tip

Proper positioning of safety stands.

Disconnecting the Passenger Side Shock Absorber



Step 2

Remove both front wheels using a 19 mm socket and an impact wrench or lug wrench.



Step 3

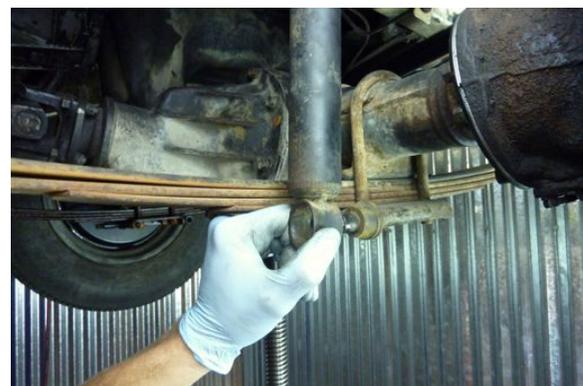
Position an under hoist jack stand (or floor jack) under the differential housing and raise the front axle assembly up about 1/2".

Note: Just enough to remove weight from the shock absorber.



Step 4

Begin disconnecting the bottom of shock by removing the nut, washer and bushing.

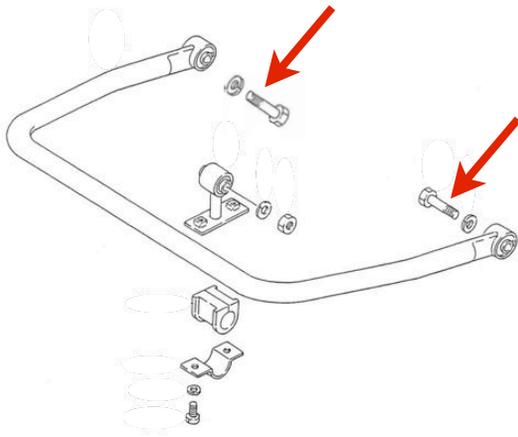


Step 5

Disconnect the bottom of the shock absorber and let it hang for now.



Removing the Passenger Side Leaf Spring



Step 6

This vehicle did not have a sway bar on it. If the vehicle you are working with has a sway bar, simply remove the bolts indicated by arrows and let it drop down out of the way.

Step 7

Remove the (4) U-bolt nuts and lock washers using a 17 mm socket.



Step 8

Remove the U-bolt plate.



Step 9

Remove both U-Bolts.





Step 10

Remove the spring mount bolt using a 17 mm socket and 17 mm combination wrench.

Note: These bolts and nuts are often quite rusted. Consequently, it may be necessary to grind the nut and the head of the bolt off using a cut-off wheel. Some have found success using a sawzall.



Tech Tip:

If the nut does come off, it may be necessary to reinstall the nut (to protect the threads) and pound the nut and bolt together to get it loose.

Note: Try to **NOT** damage the threads on the bolt. You will need this bolt later. Obviously, if the bolt cannot be removed without damaging it, it will need replacing.



Step 11

Drive the bolt the rest of the way out using a 3/16" pin punch (or something similar) and a ball peen hammer.



Step 12

Remove the leaf spring from the mount.

Note: You may need to use a large pry bar to get the spring out of the mount.



Step 13

Let the spring hang down suspended by the shackle.



Step 14

Remove both shackle nuts using a 14 mm socket.



Step 15

Remove the inside shackle plate.



Step 16

Remove the shackle and leaf spring and set this assembly aside.



Installing the Shackles & Leaf Spring



Begin with Passenger Side



Important Notice

We supply two bushings with this kit. If you need more bushings we would be happy to assist you in obtaining them. Click [HERE](#) for more information, call us or log on to our website. Our contact information is listed at the bottom of each page.

Step 17

Install the supplied bushings in the upper link as shown.



Step 18

Install the supplied bushing sleeve.

Note: It may be necessary to drive it in with a hammer. Be careful to not "mushroom" the end of the sleeve.



Step 19

Install the supplied rubber bumper as shown and tighten the nut on the back side.

Note: It may be necessary to hold the bumper with channel lock pliers to tighten the nut.





Step 20

Force the upper link and the lower link together and install the supplied (1/2X20X4") bolt.

Note: Be sure to install the lower link such that the Low Range Logo is right side up.



Step 21

Install the supplied washer and nut. Leave the nut loose for now.

Note: Insure that all three of these bolts are installed from the outside and the nuts are on the inside of the shackle.



Step 22

Attach the link assembly using a supplied (1/2X20X4") bolt.

If there is excessive clearance between the shackle and the mount, install one or two of the large spacer washer supplied with this kit.

Step 23

Install the washer and nut. Leave the nut loose for now.





Step 24

Position the "Rear" leaf spring in the lower link and install the supplied (1/2X20X4") bolt.

Note: The smaller of the two eyes goes toward the front of the vehicle.



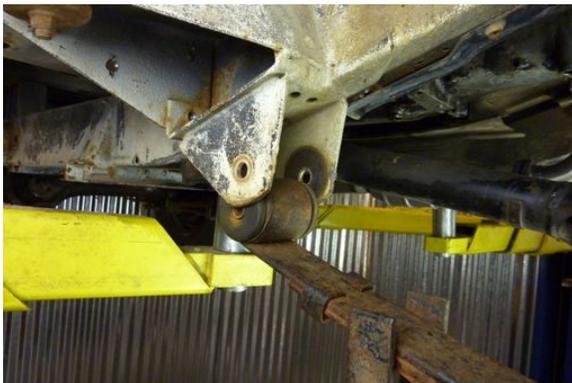
Step 25

Install the washer and nut. Leave this nut loose for now.



Overload Spring

Notice: Some have decided to remove the overload spring in this installation and it has worked out well.



Step 26

Swing the leaf spring into position in the rear hanger.

Note: If you used spacer washers in the front shackle links, use the same number and location of washers in the rear. This will maintain the spring-to-frame alignment.



Step 27

Align the holes, install the hanger bolt, washer and nut. Leave the nut loose for now.

Note: Obviously, if you had to cut this bolt during disassembly, install a new one.



Installing the U-Bolts and U-Bolt Plate



Tech Tip 2

If U-bolts are excessively rusted, stretched or have damaged threads, we recommend replacing them.

Step 28

Lower the front axle assembly and align the leaf spring center bolt (see Figure A) with the hole in the rear axle assembly.

CAUTION: When lowering the front axle assembly, observe the brake hose. If it becomes taunt and stretched it will need to be replaced with a longer hose.



Tech Tip 1

The U-bolts on the passenger side are not equal length. The longer U-bolt is to be installed on the inside and the shorter U-bolt on the outside.

The driver side U-bolts ARE equal length.

Step 29

Install the U-bolts, lock washers and nuts. Just snug them for now. Do not tighten them all the way yet. Insure that the leaf spring center bolt aligns with the U-bolt plate.

Note: It may not be possible to install both of the U-Bolts at this point due to the leaf springs being at different heights. If not, simply install one U-bolt for now and the other can be installed after the driver side leaf spring has been installed.

Step 30

Repeat **Steps 3 through 29** on the driver side leaf spring.



Tightening Everything Up



Step 31

Tighten all (3) shackle 1/2X20 nuts on the passenger side to 22 to 39 ft. lbs.



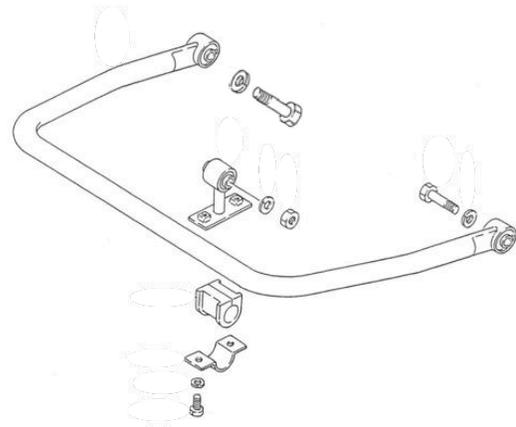
Step 32

Tighten the passenger side hanger nut 43 to 61 ft. lbs.



Step 33

Install the second passenger side U-bolt, if not done earlier and tighten both U-bolt nuts 43 to 57 ft. lbs.



Step 34

If equipped with a sway bar, reconnect it and torque both bolts 51 to 65 ft. lbs.





Step 35

Repeat steps **31 through 34** on the driver side leaf spring.

Installing the Bump Stops



Step 36

Beginning on the passenger side, install the supplied lower bolt (M10X1.25X80) and the spacer sleeve as shown.



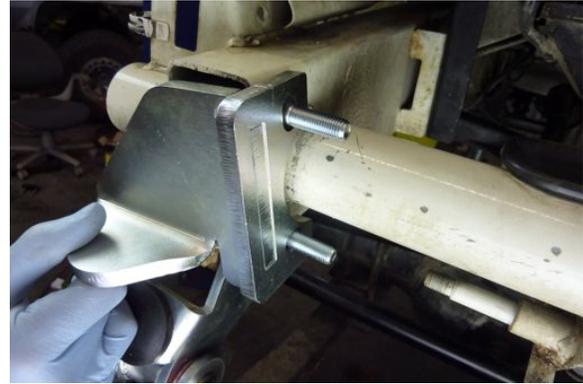
Step 37

Install the supplied upper bolt (M10X1.25X80) and the spacer sleeve as shown.



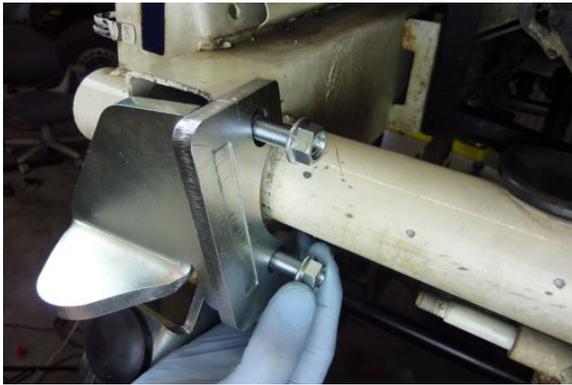
Step 37 Continued

Bolts properly installed.



Step 38

Install the bump stop on the bolts as shown.



Step 39

Install the (2) serrated nuts and torque them to 25 ft. lbs.



Step 40

Repeat steps 35 through 38 on the driver side bump stop.





Step 41

Install both front wheels and torque the lug nuts 36 to 57 ft. lbs.



Step 42

Remove the under hoist jack stand (or standard jack stands) and lower the vehicle to the floor.



Congratulations:

You have completed these instructions.





Important Notice:

You will need to address the following concerns:

- You may need to install longer front brake hoses. If you do, don't forget to bleed the brakes after replacing the brake hoses.
- You may need to install longer shock absorbers.

As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F 8am-5pm MST. Thank you for purchasing from Low Range Off-Road.



These instructions are designed as a general installation guide. Installation of many Low Range Off-Road products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 801-805-6644 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

Rock crawling and off-road driving are inherently dangerous activities. Some modifications will adversely affect the on-road handling characteristics of your vehicle. All products sold by Low Range Off-Road are sold for off road use only. Any other use or application is the responsibility of the purchaser and/or user. Some modifications and installation of certain aftermarket parts may under certain circumstances void your original dealer warranty. Modification of your vehicle may create dangerous conditions, which could cause roll-overs resulting in serious bodily injury or death. Buyers and users of these products hereby expressly assume all risks associated with any such modifications and use.

Revised 07/22/13© Copyright 2013 Low Range Off-Road, LC All Rights Reserved

