

# 86-95 Suzuki Samurai Lower Shock Mounts FRONT & REAR (SKU# SSP-SML)

# **Installation Instructions**



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



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#### Suggested Tools:

- Welder
- Lug Wrench: 19 mm
- Socket: 11/16 Socket
- Ratchet
- Angle Grinder W/ Flap Disc
- MIG (or Stick) Welder
- Spray Paint (Your Choice of Color)

FOR ADDITIONAL COPIES OF THESE AND OTHER INSTRUCTIONS GO TO: www.lowrangeoffroad and click on the "INSTRUCTIONS" tab.



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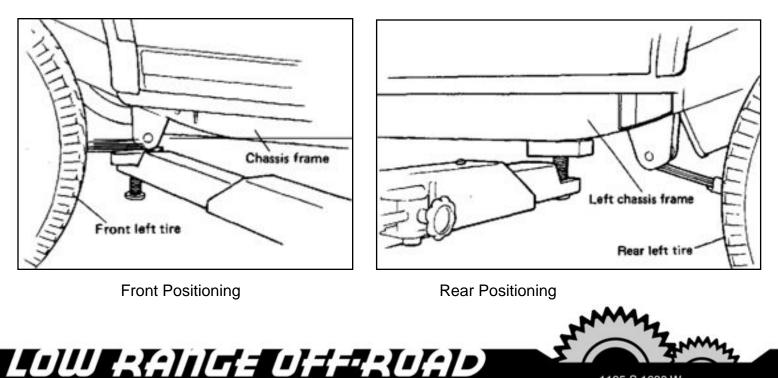
# FRONT MOUNTS

### Lifting and Supporting the Vehicle



# Lifting Option 1

Lift and support the vehicle on a twin post, frame contact, lift.

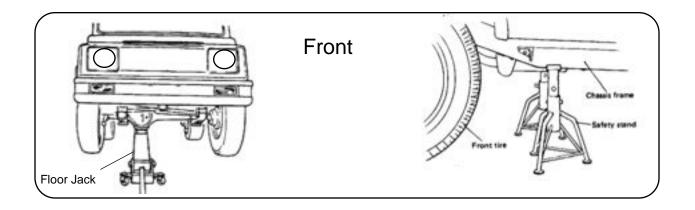


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### Lifting Option 2

Lift the front of the vehicle with a floor jack and support it on safety stands.





### 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 Remove both front wheels using a 19 mm socket.





### Mounting the Passenger Side Lower Shock Mount



Passenger Side Mount

### Step 2

Remove the existing lower mount or anything that would obstruct the positioning of the new shock mount.



### Step 3

Estimate the positioning of the new lower shock mount.

Note: This step is primarily to determine where to prep the metal for welding.



### Tech Tip

The shock mount could be installed on the bottom of the axle housing if this would be more desirable for your application.

Note: We chose to place our mount on top to give more clearance between the shock and the U-bolt Plate.





### Step 4

Using an angle grinder and flap disc, clean away any paint, rust or dirt that would hinder a good weld.



### Upper Shock Mount



### Step 5

Estimate the positioning of the lower shock mount and tack it in two places.

Note 1: The stud should be 90° in relation to the upper shock mount. It should also be clear of the U-bolt plate and all steering system components. It is wise to have an assistant turn the steering, full right and full left, to insure there is no obstruction.

Note 2: Some have found that attaching the shock to the lower shock mount, before tach welding, makes for a better positioning of the lower shock mount.





### Step 6

Check the fit of the shock absorber by connecting it at the top . . .

Note: The upper shock mount shown here is our LROR Upper Shock Mount. Yours may look different than this.



### Step 7

. . . and at the bottom. If the lower mount needs to be adjusted; break it loose, reposition it and tack it again.

Note: You may want to turn the steering full right and full left again, just be sure things are right before going to the next step.



### Step 8

Once you are **<u>COMPLETELY</u>** satisfied that the mount is properly positioned, remove the lower end of the shock and weld the mount on both sides.







Once it cools, spray paint the mount and other exposed metal to improve appearance and reduce the risk of rust.



## Step 10

If not already done, reinstall the upper end of the shock absorber according to manufacture instructions.



### Step 11

Install the lower end of the shock absorber according the manufacture instructions.



### Step 12

Repeat **Steps 2 through 11** on the driver side wheel.









Replace both front wheel assemblies and tighten the lug nuts in a progressively tighter criss-cross pattern until 36.5 to 57.5 ft. lbs. is reached. Lower the vehicle to the floor.



### **Congratulations:**

You have successfully installed your Front LROR Lower Shock Mounts. We hope these instructions have been helpful. If you have any questions, call our Tech Support Line by dialing the number listed at the bottom of each page.

**NOTE:** IF YOU ARE INSTALLING REAR SHOCK MOUNTS CONTINUE TO THE NEXT PAGE.



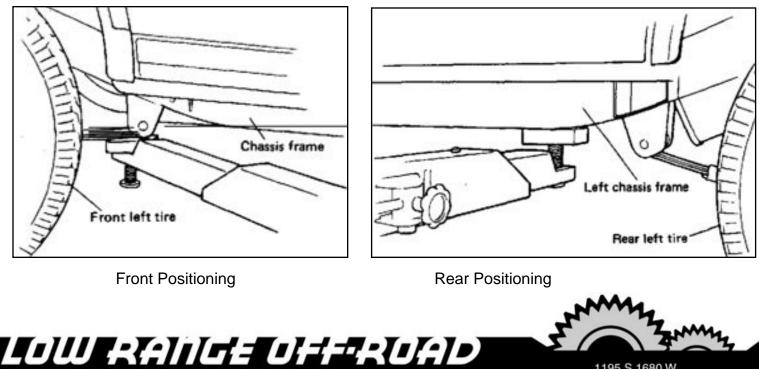


# REAR MOUNTS

### Lifting and Supporting the Vehicle



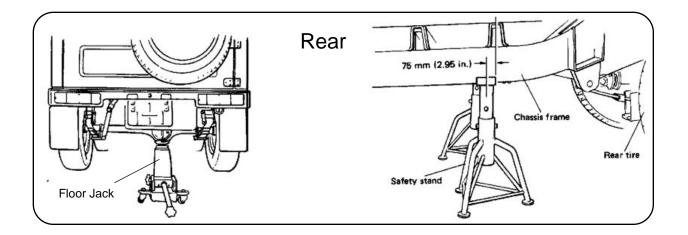
Lifting Option 1 Lift and support the vehicle on a twin post, frame contact, lift.



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### Lifting Option 2

Lift the rear of the vehicle with a floor jack and support it on safety stands.





### Tech Tip

When working on suspension, brake 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.





### Mounting the DRIVER SIDE Lower Shock Mount



Driver Side Mount Position

### Step 1

Remove the existing lower mount and anything that would obstruct the positioning of the new shock mount.



Step 2 Bend the brake line tab open.



### Step 3

Remove the brake line from the clip and slightly bend it rearward, out of the way.

Note: Bend the brake line about 2 inches away from the axle housing. Be gentle, do not force it.

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### Step 4

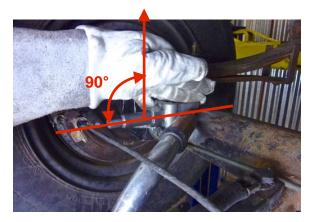
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Using an angle grinder with a flap disc, clean away any paint, rust or dirt that would hinder a good weld.

Note: It is not necessary to remove the brake line clip. The shock mount fits directly over this clip.



#### Upper Shock Mount



### Step 5

Positioning of the lower shock mount and tack it in two places.

Note: The stud should be 90° in relation to the upper shock mount. It should also be clear of the U-bolt plate and all other suspension and brake components. We welded ours 1" away from the U-bolt. See next Tech Tip.



### **Tech Tip**

Lower shock mount positioned 1" away from the U-bolt.

Alternate Method of Positioning: Some have found that attaching the shock to the lower shock mount before tach welding it, makes for better positioning of the lower shock mount.



### Step 6

Check the fit of the shock absorber by connecting it at the top . . .

Note: We are using our LROR Upper Shock Mount and Doetsch Tech 3000 Series Shocks. Your setup may look different.





### Step 7

. . . and at the bottom. If the lower mount needs to be adjusted; break it loose, reposition it and tack it again.





Once you are **<u>COMPLETELY</u>** satisfied that the mount is properly positioned, remove the lower end of the shock and weld the mount on both sides.

**CAUTION:** Be careful not to damage the brake lines or parking brake cable.



### Step 9

Once the weld cools, spray paint the mount and other exposed metal to improve appearance and reduce the risk of rust.



### Step 10

If not already done, install the upper end of the shock absorber according to the shock manufacture instructions.



### Step 11

Install the lower end of the shock absorber according the shock manufacture instructions.







Passenger Side Mount

Repeat **Steps 1 through 11** on the passenger side wheel. The steps for installing the passenger side mount is exactly the same with one exception. See the next step for that exception.



### Tech Tip

Instead of placing the mount over the brake line clip as you did on the driver side, you will need to remove the clip on the passenger side. Simply grind the clip away as part of the cleaning process in preparation for welding.



### Step 13

Check the brake line routing on the driver side. Make sure the lines are routed such that they will not be rubbed, pinched, kinked or damaged in any way.

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**Tech Tip:** If brake lines pass near other metal parts you may want to split a short section of 1/4 inch flexible fuel line and place it around the steel brake line.

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### Step 14

Repeat previous step on the passenger side.



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### **Congratulations!**

You have completed the installation of rear lower shock mounts. We hope these instructions have been helpful. If you have any questions call our Tech Line by using the number listed at the bottom of each page.





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.

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