07 TOYOTA FJ CRUISER 6” SUSPENSION

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician installs this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read all the instructions before beginning the installation. Check the kit hardware against the parts list. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list and make sure you have needed tools.

PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll-bar and cage system. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Braking performance and capabilities are decreased when significantly larger/heaver tires and wheels are used. Take this into consideration while driving. Also, speedometer recalibration is necessary when larger tires are installed.

Do no add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands, lifts, and/or combining body lift with suspension lifts voids all warranties. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

The 6” suspension system was developed for 35x12.50x17 tire on an after market wheel with 4.5/8” of back spacing, on an 8” wide wheel. Clearancing the body mount is required. Failure to clearance mount could result in tire and body damage. See body mount section.

NOTICE TO DEALER AND VECHICLE OWNER

Any vehicle equipped with any Rough country product must have the “Warning to Driver” decal installed on the sun visor or dash. The decal is to act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics. **INSTALLING DEALER**—It is your responsibility to install the warning decal and to forward these in-

Kit Contents

9294	Rear Coil Springs
1770Box1	Front and Rear Cross Member 1770Bag1
1770Box2	Driver and Passenger Side Knuckle
1770Box3	Front and Rear Skid Plates 1770Bag2
1770Box4	Pass Diff Bracket, Driver Diff Bracket Strut Spacers, Sway Bar Brackets, Sway Bar Links, Rear Upper Arms Rear Shocks, Bump Stop Brackets 1770Bag3, 1770Bag4
1770Box5	Rear Track Bar 1170Bag5

Tools Needed

10mm Wrench
12mm Wrench
12mm Socket
14mm Wrench
14mm Socket
17mm Wrench
17mm Socket
19mm Wrench
19mm Socket
22mm Socket
22mm Wrench
35mm Socket
5mm Allen Wrench
12mm Allen Wrench
Jack Stands
Floor Jack
Flat Screwdriver

Torque Specs

Size	Grade 5	Grade 8
5/16”	15 ft/lbs	20 ft/lbs
3/8”	30 ft/lbs	35 ft/lbs
7/16”	45 ft/lbs	60 ft/lbs
1/2”	65 ft/lbs	90 ft/lbs
9/16”	95 ft/lbs	130 ft/lbs
5/8”	135 ft/lbs	175 ft/lbs
3/4”	185 ft/lbs	280 ft/lbs

Size	Class 8.8	Class 10.9	Class 12.9
M6	5 ft/lbs	9 ft/lbs	12 ft/lbs
M8	18 ft/lbs	23 ft/lbs	27 ft/lbs
M10	32 ft/lbs	45 ft/lbs	50 ft/lbs
M12	55 ft/lbs	75 ft/lbs	90 ft/lbs
M14	85 ft/lbs	120 ft/lbs	145 ft/lbs
M16	130 ft/lbs	165 ft/lbs	210 ft/lbs
M18	170 ft/lbs	240 ft/lbs	290 ft/lbs

Parts List

1770BOX1		
Qty	**Part #**	**Description**
1	94003301	Front Cross member
1	94003302	Rear Cross member
1	1770Bag1	Front cross member kit bag
1	1770Bag2	Rear cross member kit bag

1770BOX2		
Qty	**Part #**	**Description**
1	94003310	Driver side knuckle
1	94003303	Passengers side knuckle

1770BOX3		
Qty	**Part #**	**Description**
1	94003304	Front skid plate
1	94003313	Rear skid plate

1770BOX4		
Qty	**Part #**	**Description**
1	94003305	Passenger side diff bracket
1	94003306	Driver side diff bracket
2	94003307	Strut spacer
2	94003314	Sway bar bracket
2	94003012	Rear sway bar links
2	94003308	Rear upper control arms
2	660554	Rear shocks
2	94003317	Bump stop extensions
2	142973	Shock bushings (top)
2	140169	Shock bushings (bottom)
1	1770Bag3	Diff mounting bag
1	1770Bag4	Sway bar bracket bag
1	1770Bag5	Brake line bag
1	1770Bag6	Strut/Skid plate bag

1770BOX5		
Qty	**Part #**	**Description**
1	94003309	Rear track bar
1	1770Bag7	Track bar bag

9294		
Qty	**Part #**	**Description**
2	91929400	Rear coil spring

1770BAG1		
Qty	**Part #**	**Description**
2	90506002	.750-10 Lock nut
4	81051	.750 flat washer
2	90505810	.750-10 x4.5” Bolt

1770BAG2		
Qty	**Part #**	**Description**
4	90500343	14mm Flat washer
2	90500339	14mm-2 x 130mm Bolt
2	90500392	14mm-2 Lock nut

1770BAG3		
Qty	**Part #**	**Description**
2	90605907	.5625x .750 x2.41 Sleeve
4	90602105	Bushing
1	90500341	14mm-1.50 x 25mm Bolt
1	90500342	12mm-1.25 x 35mm Bolt
1	90500390	.562 Flat washer
1	970-0686	.50 Flat washer
2	90503103	.562-12 x4” Bolt
4	90500390	.562 Flat washer
2	90500386	.562-12 Lock Nut
1	81007	Bushing

1770BAG4		
Qty	**Part #**	**Description**
4	81055	.312 Flat washer
4	81072	.375-16 Nut
4	81057	.375 Lock washer
4	90500316	.375-16 x 1” Bolt

1770BAG5		
Qty	**Part #**	**Description**
1	94004413	Brake line bracket
1	94004414	Brake line bracket
2	960-0559	.3125 Flat washer
2	90500324	.312-18 Lock nut
2	90500326	.312-18 x.75 Bolt
1	94003319	Rear brake line bracket
2	90500316	.375-16x1” Bolt
4	90500304	.375 Flat washer
2	90500314	.375-16 Lock nut

Parts List

1770BAG6		
Qty	**Part #**	**Description**
6	81078	.375-16 Lock nut
2	90606703	.125 x 2” Cotter pin
4	90606701	.093 x 1” Cotter pin
6	90500302	.375-16 x 1.25” bolt
8	94003315	Upper control arm spacer
2	94003318	Bump stop stud

1770BAG7		
Qty	**Part #**	**Description**
4	90601002	Track bar bushing
2	94003316	Track bar sleeve

FRONT INSTALLTION INSTRUCTIONS

1. Prior to installing this kit, with the vehicle on the ground, measure the heights of your vehicle. This measurement can be recorded from the center of the wheel straight up to the top of the inner fender lip. Record the measurements. LF:_____, RF:_____, LR:_____, RR:_____.
2. Place the vehicle in park on a smooth and level surface. Place the floor jack under the front cross member of the vehicle and raise the vehicle. Place jack stands under the frame rails behind the front wheel wells and lower the frame onto the stands. Remove the jack, set emergency brake and chock rear wheels.
3. Remove the front wheels.
4. Remove the front skid plate and skid plate support bracket using a 12mm socket. **See Figure 1**.
5. Using a 12mm socket, unbolt the brake line bracket from the knuckle. **See Figure 2**.

Figure 1

Figure 2

6. Using a 12mm socket, unbolt the brake line bracket from the frame. **See Figure 3**.
7. Remove the ABS bracket from the knuckle using a 12mm socket. **See Figure 4.**

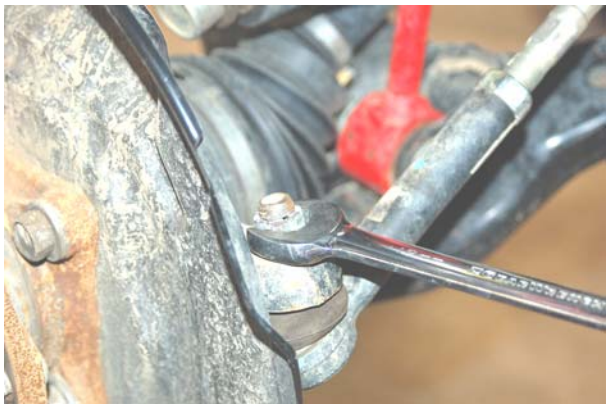
Figure 3

Figure 4

8. Using a 10mm, socket remove the ABS bracket from the upper control arm.
9. Remove the ABS sensor from the knuckle using a 5mm allen wrench. **See Figure 5**.
10. Using a 19mm wrench, remove the outer tie rod end nut and separate from the knuckle. Retain stock nut for reuse. **See Figure 6**.

Figure 5

Figure 6



11. Using a 17mm socket, remove the sway bar links from the knuckle. **See Figure 7**
12. Using a 17mm socket, remove the brake caliper, and rotor. Secure them free form the work area, **DO NOT** let the caliper hang from the brake line, or you will damage the lines. Use a zip tie or wire to hang the caliper to the frame, out of the way.
13. Using a flat screwdriver remove the dust cap from the knuckle.
14. Remove the cotter pin and pal nut from the axle. Using a 35mm socket, remove the axle retaining nut. Retain stock hardware for re-use. **See Figure 8**.

Figure 7

Figure 8

15. Using 2 hammers as shown in **Figure 9**, remove the CV shaft from the knuckle. Using zip ties or wire, be sure to support the CV axle, before removing the lower control arm. Do not allow the axle to hyper-extend or damage to the CV may result. Remove the factory knuckle. **See Figure 10**

Figure 9

Figure 10

16. Using a 17mm wrench, remove the 4 bolts that hold the hub flange and dust cover to the knuckle. Remove the hub, and cover. Retain stock hardware. **Note**: You will not be able to remove the bolts from the hub assembly after the hub is removed from the knuckle. **See Figure 11**
17. Remove the upper ball joint nut from the upper control arm using a 19mm wrench. Separate the ball joint from the knuckle. Retain the stock nut for re-use. **See Figure 12**.

Figure 11

Figure 12

18. Using a 19mm socket, remove the 2 bolts from the lower ball joint bracket. Remove the knuckle. Retain stock hardware. **See Figure 13**
19. Unbolt the sway bar frame mount brackets using a 14mm socket. Remove the sway bar. Retain stock hardware. **See Figure 14.**

Figure 13

Figure 14

20. Using a 14mm wrench, remove the 3 bolts holding the strut to the top of the strut tower. Using two 19mm wrenches, remove the lower strut bolt. Remove the strut from the vehicle and retain stock hardware . **See Figure 15**.
21. Remove the lower control arm bolts using a 19mm socket and wrench. Remove the arms from the vehicle and retain stock hardware for reuse.
22. Repeat steps 3-21 on opposite side of vehicle
23. Support differential with stands.
24. Remove the factory front differential support bolts using a 22mm socket. Retain factory hardware **See Figure 16.**

Figure 15

Figure 16

25. Using a 19mm socket remove the 2 factory bolts from the passengers side diff bracket, and 3 factory bolts from the drivers side diff bracket. Retain factory hardware. **See Figure 17**. **& 18**

Figure 17

Figure 18

26. Remove the rear differential bracket using a 12mm allen socket and a 17mm wrench. Retain factory hardware. **See Figure 19 & 20**.

Figure 19

Figure 20

27. Using the bushing from 1770bag3, place the bushing in the top hole of the cross member as shown in **Figure 21**. Using the stock bolts bolt the differential bracket in place as shown.
28. Install the front cross member into the front mounting pockets using the supplied 3/4" x 4 1/2" bolts washers and nuts from 1770bag1. **See Figure 22**

Figure 21

Figure 22

29. Install the rear cross member into the rear mounting pockets using the supplied 14mmx130mm bolt from 1770 bag2.
30. Using the 14mmx25mm bolt and washer from 1770bag3, bolt the differential to the tab on the front cross member as shown in **Figure 23**.
31. Insert the bushings and sleeves from 1770bag3 into the passenger diff bracket, as shown in **Figure 24**

Figure 23

Figure 24

32. Using the 9/16" x 4" bolts, washers and nuts, from 1770bag3, bolt the passengers side diff bracket to the front and rear cross member as shown in **Figure 25**.
33. Using the factory hardware install the bolts in the bottom of the bracket into the differential as shown in **Figure 26**.

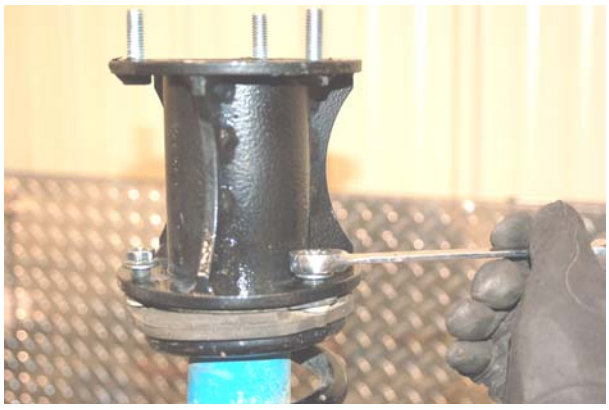
Figure 25

Figure 26

34. Using the factory hardware, reinstall the lower control arms as shown in **Figure 27.**
35. Place the strut extension on top of the factory strut. Using the 3/8" nuts from 1770bag6 tighten the nuts to 30ft. lbs. using a 14mm wrench. **See Figure 28**.

Figure 27

Figure 28



36. Place the top of the strut assembly back into the factory position. Be sure that it is turned where you can get the factory bolt through the bottom of the strut eye. **See Figure 29**.
37. Using the factory hardware, bolt the bottom of the strut to the lower control arm. Using two 19mm wrench torque to 100 ft.lbs. **See Figure 30**.

Figure 29

Figure 30

38. Inspect the seal on the factory knuckle, if the seal is in good condition, using a hammer and punch carefully remove the factory seal and reinstall into the new Rough Country knuckle. If factory seal is tore or dry rotted, replace with a new seal. **See Figure 31**.
39. Using the stock hardware and a 19mm wrench, install the Rough Country knuckle to the upper control arm. **See Figure 32**.

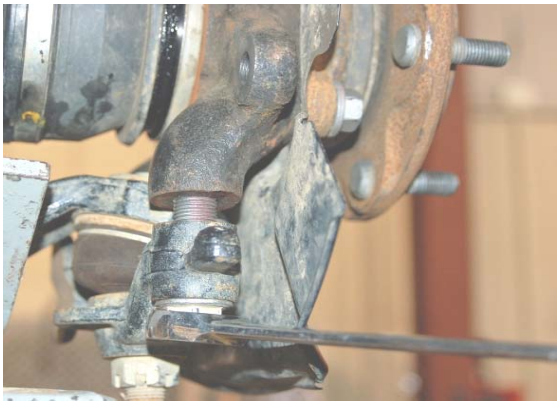
Figure 31

Figure 32

40. Reinstall the factory CV shaft through the new knuckle. **See Figure 33.**
41. Using the factory hardware reinstall the knuckle to the lower control arm using a 19mm wrench. A jack or jack stand may be needed to get the knuckle up to the arm. **See Figure 34.**
42. Reinstall the factory rotor.
43. Using the factory hardware and a 17mm wrench, reinstall the brake caliper.

Figure 33

Figure 34



44. Using a 5mm allen wrench and factory hardware, reinstall the ABS sensor to the knuckle. **See Figure 35**.
45. Reinstall the ABS bracket to the knuckle using a 12mm socket. **See Figure 36.**

Figure 35

Figure 36

46. Reinstall the brake line bracket back to the knuckle using a 12mm wrench. **See Figure 37**.
47. Using a 35mm socket reinstall the factory axle nut, torque to 174ft. lbs. Reinstall the factory cotter pin and pal nut.
48. Reinstall the factory dust cap.
49. Using a 12mm wrench install the new brake line bracket using the stock hardware for the stock hole and the 5/16" bolts, nuts and washers from 1770bag5. **See Figure 38**.

Figure 37

Figure 38

50. Using a 19mm wrench, reinstall the outer tie rod to the knuckle using stock hardware.
51. Using a 19mm socket and wrench torque the lower strut bolt to 100ft. lbs.
52. Repeat steps 35-52 on the opposite side.
53. Insert the 3/8" nuts from 1770bag4 into the sway bar relocation bracket as shown in **figure 39**.
54. Place bracket into the original sway bar mounting location, using the stock bolts and a 14mm socket, bolt the factory bolts back into the factory holes. **See Figure 40**.

Figure 39

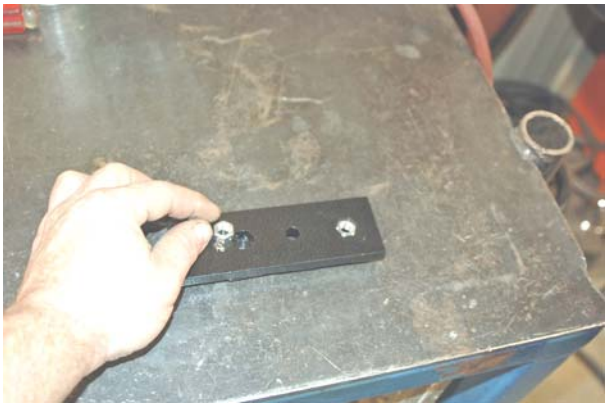


Figure 40

55. Using the 3/8” bolts, washers and lock washers from 1770bag4, bolt the sway bar to the new bracket. **See Figure 41.**
56. Using a 9/16” socket, bolt the stock front sway bar link to the sway bar and knuckle using the stock hardware. **See Figure 42**.

Figure 41

Figure 42

57. Attach the bottom skid plate to the rear cross member using the 3/8” bolts from 1770bag6, and a 9/16” socket. **See Figure 43**.
58. Attach the front skid plate to the front cross member, overlapping the bottom skid plate lip, using the 3/8” bolts from 1770bag6. Tighten using a 17mm socket. **See Figure 44**.

Figure 43

Figure 44

59. Attach the top of the front skid plate to the factory location, using the factory hardware. **See Figure 45.**
60. Reinstall the factory drain plug cap into the new bottom skid plate. **See Figure 46**.

Figure 45

Figure 46

61. Using a 3” adjustable wrench, or strap wrench, remove the factory bump stop. **See Figure 47.**
62. Using the 10mmX1.25x50mm stud, from 1770bag6, bolt the new bump stop extension into the stock location.

Figure 47

Figure 48

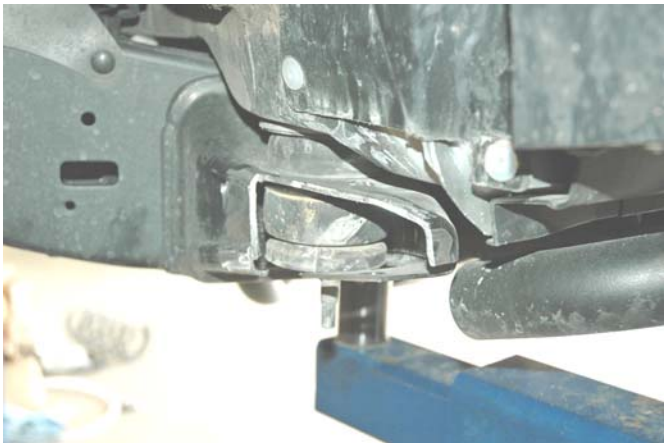
64. On both sides of the vehicle, check the routing of the brake lines and the ABS wiring harness. There must be no pinching, rubbing, or stretching of either component. At full droop, cycle the steering from lock to lock while observing the reactions of these components
65. If installing a tire than a 33x12.50, skip to the next section
65. Reinstall the wheels and lower the vehicle to the ground. Torque the lug nuts according to the wheel manufactures recommendations.
66. With the vehicle on the ground, using a 19mm wrench torque the lower A arm cam bolts to 100 ft.lbs.
67. Recheck all hardware for proper installation and torque at this time.

Body Mount Clearance

1. If you are planning on running a 35x12.50, tire or a rim that is wider than 8” the body mount will need clearancing to keep the tire from rubbing.
2. Working from the driver side, mark the body mount 5 1/4” from the face of the frame. Mark 1” from the back end of the mount back as shown in **Figure 49**.
3. Use a sawzall, or cutoff wheel and cut the marked area from the mount. Next sand and clean the area on the mount. If you wish to cap the mount, you can grind the excess metal off the piece that was cut off to fit back into place. **See Figure 50**.
4. Weld in and paint after it has cooled.
5. Repeat on the opposite side.

Figure 49

Figure 50



REAR INSTALLTION INSTRUCTIONS

1. Block the front tires and raise the rear of the vehicle. Support the frame with jack stands forward of the rear control arms.
2. Remove the rear wheels
3. Be sure to support the rear axle while the shocks and springs are being removed.
4. Using a 17mm wrench, remove the shocks on both sides of the vehicle. It may be necessary to slightly raise the axle to unload the shocks for removal. **See Figure 49**.
5. Using a 19mm wrench and socket, remove the rear track bar from the axle and frame mount. Retain stock hardware for re-use. **See Figure 50**

Figure 49

Figure 50

6. Using a 12mm wrench for the top and a 17mm wrench for the bottom, remove the rear sway bar link. Retain stock hardware for re-use. **See Figure 52**.
7. Using a 19mm socket and wrench, loosen the lower control arm.
8. Remove the factory rear coil spring.
9. Using a 17mm socket and wrench, remove the upper control arm.
10. Install the heim spacers in the new Rough Country control arms as shown in **Figure 53**.

Figure 52

Figure 53

11. Using the stock hardware and a 17mm socket and wrench, install the new upper control arms into the stock location as shown in **Figure 54**.
12. Install the new Rough Country coil spring into the stock location. Be sure the coil seats properly into the bottom coil pocket. **See Figure 55**.

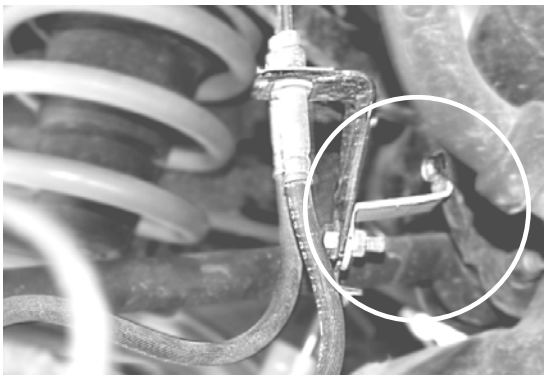
Figure 54

Figure 55

13. Insert the bushings and sleeves from 1770bag7 into the new rear track bar.
14. Using a 19mm socket and stock hardware, install the new rear track bar in the original frame mount. **See Figure 56.**
15. Using a 13mm wrench and 19mm socket, install the new rear sway bar links using the stock hardware.
16. Insert shock bushings from 1770box4 into the new rear shocks.
17. Using a 17mm socket and stock hardware, install the new rear shocks into the stock location
18. Install the new rear brake line bracket using the stock hardware and 3/8" bolts, washers and nuts from 1770bag5 as shown in **Figure 57**.

Figure 56

Figure 57



19. Check all hardware at this time to ensure that everything is tight. Check for adequate clearance on all repositioned brake lines.
20. Reinstall the wheels and lower vehicle the ground. Torque the lug nuts according to the wheel manufacturers recommendations.
21. With the vehicle on the ground, install the new rear track bar in the original frame mount using a 19mm socket and stock hardware.

POST INSTALLTION INSTRUCTIONS

1. Have a qualified alignment center realign front end.
2. Install Warning to Driver decal on sun visor.
3. Re-torque all nuts, bolts and especially u-bolts after the first 100 miles, again after another 100 miles and then check periodically thereafter.
4. All components must be retightened after 500 miles, and every three thousand miles after installation
5. Adjust headlights to proper settings.