



97-06 Jeep TJ Wrangler 4" Value Flex Suspension Lift Installation Instructions

REQUIRED TOOL LIST:

- Safety Glasses
- Metric / Standard Wrenches & Sockets
- Drill / Assorted Drill Bits
- Floor Jack
- Jack Stands
- Measuring Tape
- Torque Wrench



Before beginning the installation, thoroughly & completely read these instructions & the enclosed driver's WARNING NOTICE. Affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to the disassembly of the vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain the needed items. If you have any questions or reservations about installing this lift kit, call SKYJACKER® Technical Assistance at 318-388-0816.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from the factory & is usually not noticed until a lift kit has been installed, which makes the difference more visible. Using a measuring tape, measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle. Record this information below for future reference.

Driver Side Front: _____ Passenger Side Front: _____

Driver Side Rear: _____ Passenger Side Rear: _____

IMPORTANT NOTES:

- This lift is determined from the amount of lift to the front of the vehicle, while only lifting the rear to a position level with the front.
- If larger tires (10% more than the stock diameter) are installed, speedometer recalibration will be necessary. Contact your local Jeep dealer or an authorized dealer for details.
- After installation a qualified alignment facility is required to align the vehicle to OEM specifications.
- 6-speed transmission models may require additional modifications. The options are trimming of the console or bending of the shifter.
- On models outfitted with extra bolt-on equipment & accessories, SKYJACKER® offers new coil spring isolator pads made from polyurethane to increase the ride height 3/4", front or rear (Part # SIP275, pair).

Kit Box Breakdown:

Part #: TJ401BPHX / TJ403BPHX

ITEM#	DESCRIPTION	QTY
TJ40FS	4" WRANGLER TJ FRONT	2
TJ40RS	4" WRANGLER TJ REAR	2
JLL24-SX-L	JEEP LWR LINK 2-4"SGL FLEX	4
RR114X1R	NG ROD END 1 1/4"RIGHT HAND	4
114RFTJN	1 1/4" RIGHT HAND JAM NUT	4
HB-LL-NGSX	HDWR BAG:LWR LNK NG SGL FLX	2
BPS30-B	BUMP STOP SPACER BLK, 3"	4
10MMX90MMB	10 X 90 METRIC BOLT/10.9	4
JA750	PITMAN ARM TJ,YJ W/PWR STRG	1
SBE120	DBL DISC LINKS TJ 2-4" FRT	1
SBE500	SWAY BAR END LINKS REAR PR	1
TCL15SX2012-R (TJ401BPHX Box)	TRANSFER CASE LWR 1.5SQX20	1
TCL15SX2358-L (TJ401BPHX Box)	TRANSFER CASE LWR 1.5SQX23	1
TCL15SX2-1 (TJ403BPHX Box)	TRANSMISSION LWR 1.5SQX2"	2
TCL15SX2234-1 (TJ403BPHX Box)	TRANSFER CASE LWR 1.5SQX22	2
TCLTJ40 (TJ401BPHX Box)	TRANSFER CASE LWR TJ 4"	1
TCLTJ43 (TJ403BPHX Box)	TRANSFER CASE HDWR BAG/ 4"	1
TJRTB	TJ REAR TRACK BAR BRACKET	1
H7025	HYDRO SHOCK W/RED BOOT	2
H7028	HYDRO SHOCK W/RED BOOT	2
I-TJ4013BX	INST SHEET: TJ401/03BPHX	1

Hardware Bag Breakdown:

HB-LL-NGSX

HARDWARE BAG

ITEM#	DESCRIPTION	QTY
2617	BUSHING DGE RAM LWR LNK	4
LS2645	LINK SLEEVE 2.645" LOWER	2
ZF316	ZERK FITTING ALEMITE, 3/16"	2
RR114-14	ROD END BUSHING 14MM ID	4

Part #: SBE120

ITEM#	DESCRIPTION	QTY
SBE102-L	SWAY BAR END LINK,FRT-SGL	2
SBE-E2	SWAY BAR END LK EYE, WELDED	4
14X112SPIN	1/4 X 1 1/2 SNAPPER PIN	4
HB-SBENB01	HDWR BAG:SBE120,225,228,401	1

Hardware Bag Breakdown:**HB-SBENB01****HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
SBB2	SWAY BAR U-BRACKET FOR SBE	2
141509	ES25 SLEEVE/403646 1.50"	4
12X212CTBG5	1/2 X 2 1/2 CRS THD BLT,GR5	2
10X35MMB	10MM X 35 METRIC BOLT/10.9	2
12CTCLN	1/2"COARSE-CENTER LOCK NUT	2
10MMN	10 MM N/I LOCKNUT	2
38SAEW	3/8 SAE WASHER	2
12SAEW	1/2 SAE WASHER	2

Part #: SBE500

ITEM#	DESCRIPTION	QTY
SBE500-L	SWAY BAR END LINK,REAR SGL	2
HB-142118-4	HARDWARE BAG FOR SBE500	1

Hardware Bag Breakdown:**HB-142118-4****HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
142118	ES34 SLEEVE/404094 1.66"	4

Part #: TCLTJ40 (TJ401BPHX Box)

ITEM#	DESCRIPTION	QTY
12X3FSB	1/2 X 3 FLAT SOCKET BOLT	6
TCL24-B	TRANS CASE LNKG RELOC B-TJ	1
14X1FTB	1/4 X 1 FINE THD BOLT G8	2
14FTN	1/4-28 FINE N/I LOCK NUT	2
14SAEW	1/4 SAE WASHER	2
LT100	NUTS N' BOLTS 427 1 ML TUBE	1

Part #: TCLTJ43 (TJ403BPHX Box)

ITEM#	DESCRIPTION	QTY
12MMX80B	12 X 80 METRIC BOLT/10.9	8
12SAEW	1/2 SAE WASHER	8
TCL24-B	TRANS CASE LNKG RELOC B-TJ	1
14X1FTB	1/4 X 1 FINE THD BOLT G8	2
14FTN	1/4-28 FINE N/I LOCK NUT	2
14SAEW	1/4 SAE WASHER	2
LT100	NUTS N' BOLTS 427 1 ML TUBE	1

Part #: TJRTB

ITEM#	DESCRIPTION	QTY
TJRTB-B	TJ REAR TRK BAR RELOC BRKT	1
HB-TJRTB	HDWR BAG:2.5-4"RR TRAC BRKT	1

Hardware Bag Breakdown:

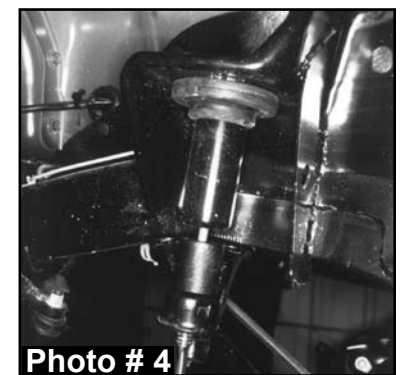
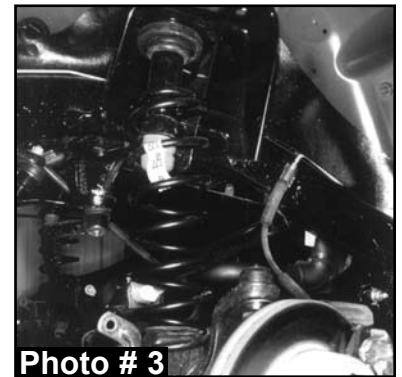
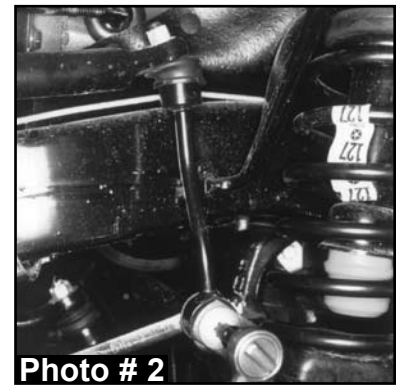
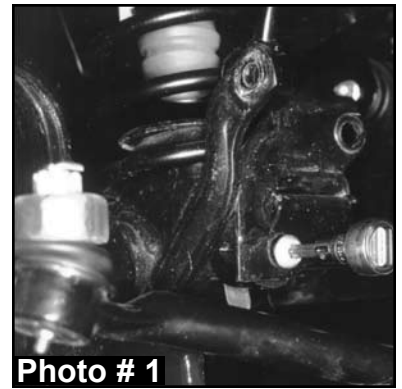
HB-TJRTB

HARDWARE BAG

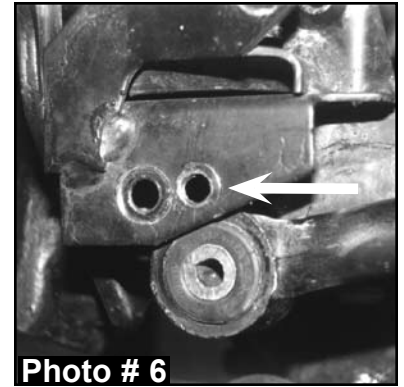
ITEM#	DESCRIPTION	QTY
SSTJRTB	SPACER SLEEVE FOR TJRTB	1
12X70MMB	12 X 70 METRIC BOLT/10.9	1
12MMN	12 MM NUT (METRIC)	1
12X112FTB	1/2 X 1 1/2 FINE THRD BOLT	1
12FTN	1/2-20 FINE N/I LOCK NUT	1
12SAEW	1/2 SAE WASHER	3

Front Installation:

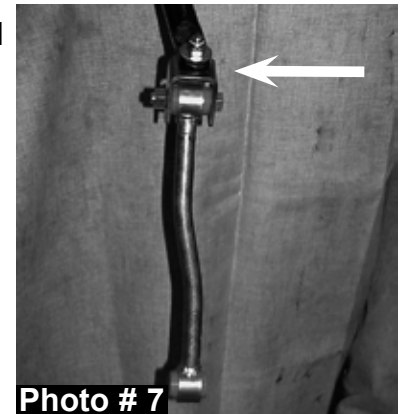
1. Secure & properly block the rear tires of the vehicle on a level concrete or asphalt surface.
2. Jack up the front of the vehicle & install jack stands under the frame behind the lower control arm rear brackets.
3. Remove the front tires / wheels & OEM front shocks.
4. Remove the OEM lower track bar bolt on the passenger side end & lower the OEM track bar down. **Note:** It may be necessary to pry the track bar loose. (See Photo # 1)
5. Remove the OEM drag link assembly from the OEM pitman arm & lower it down. Remove the OEM pitman arm using a pitman arm puller & install the new Skyjacker drop pitman arm.
6. Remove the lower OEM sway bar end link bolts at the axle on both the driver & passenger side. (See Photo # 2)
7. Lower the front axle until the OEM coil springs become loose & remove the OEM bottom bolt & clip from the left front OEM coil spring. (See Photo # 3)
8. Remove both the OEM coil springs & the OEM upper bump stops. **Note:** Use channel lock pliers working the OEM bump stop back & forth to remove.
9. Remove the OEM 10mm bolt from inside the OEM bump stop cup. Install the new Skyjacker bump stop spacer & OEM bump stop cup using the supplied 10mm x 90mm bolts. Reinstall the OEM bump stop in the OEM bump stop cup. (See Photo # 4)
10. Install the new Skyjacker coil springs. Raise the jack so that enough load is applied to hold the new Skyjacker coil springs in place. Reinstall the OEM spring bolt & clip at the bottom of the left front coil spring.
11. Install the new Skyjacker front shocks. (See Photo # 5)
12. Reinstall the OEM drag link to the new Skyjacker pitman arm & tighten. **Note:** Be sure to install the OEM cotter pin.
13. Install the front tires / wheels & lower the vehicle to the ground.



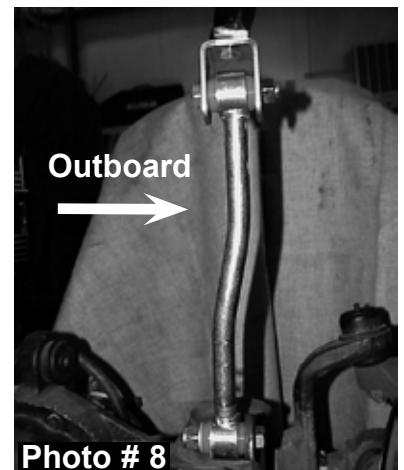
14. Locate the OEM front track bar mounting bracket on the axle, measure straight across (Inward) 3/4" & put a mark. Center punch & drill a 7/16" hole through both front & back plates, keeping the drill as straight & square to the bracket as possible. (See Photo # 6) Reattach the OEM front track bar using the OEM hardware.



15. The new Skyjacker sway bar end link mounting bracket should be mounted to the bottom of the OEM sway bar with the bolt pointing up through the sway bar & the nut & washer applied on top. (See Photo # 7) **Note:** Apply lithium grease to the metal sleeves & insert the bushings into the sway bar end link eyes. The top 1/2" x 2 1/2" bolt connecting the bracket to the sway bar end link must be installed with the nut to the outside of the vehicle to provide adequate clearance to the frame. Install the new Skyjacker sway bar end links on the inboard side of the axle, being sure that the offset is turned correctly. (See Photo # 8)



16. At the front lower control arm adjustment cams, mark (with an ink marker or scribe a mark) the vertical line on the cam & the reinforcement bracket for reference so you can realign the marks after installation. (See Photo # 9)

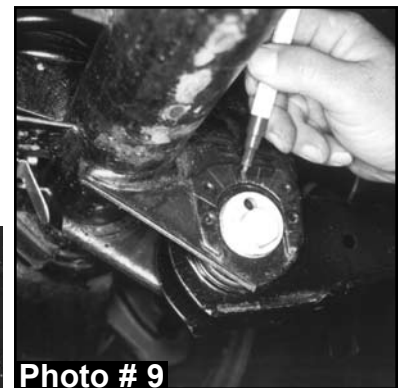
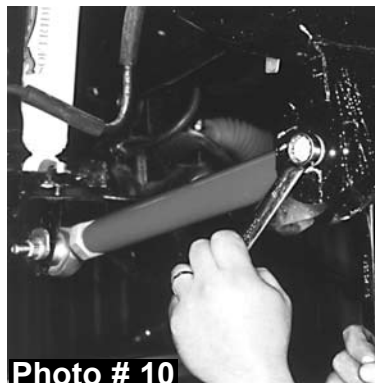


17. Install the drive-in grease fittings in each end of the new Skyjacker lower control arms by using a 1/4" socket over the grease fittings. Tap with a hammer until the grease fitting is completely flush with the eyelet of the new control arm.

18. Install the new Skyjacker polyurethane bushings (Part # 2617) & steel sleeves (2.645" Long) in each end of the new Skyjacker lower control arms. **Note:** Apply a thin coat of lithium grease to the new bushings & sleeves prior to installation.

19. Measure the length of the new control arms between the center of the rod end & eyelet on each control arm. Rotate the rod end as needed, being sure to keep the ends square with each other until the new control arms measure 16 1/16" center to center.

20. Remove the OEM lower control arms & install the new Skyjacker rod end step bushings into each side of the rod ends. Install the new control arms (One side at a time) using the OEM hardware & tighten each jam nut to seat against the base of the new lower control arms. (See Photo # 10) **Note:** Only start these bolts & nuts, do not tighten at this time.



Note: So that the lower control arms may be greased while on the vehicle, install them with the grease fittings positioned as follows: **Front** eye of lower control arm has the fitting pointing out the end & the **Rear** eye of the lower control arm should have the grease fitting pointing down.

Note: Once both lower control arms are installed, tighten each lower control arm being sure to realign the marks on the eccentric cams.



Photo # 11

21. Place a jack under the OEM transfer case cross member & remove the four screws that mount the transfer case pivot assembly from the body of the vehicle. **Note:** It will be necessary to roll the floor mat back to gain access to the OEM bolts.

22. Remove the three bolts on each side of the transfer case skid plate & lower it enough to install the new Skyjacker square tube spacers between the skid plate & the frame. **Note:** 97-02 TJ models use the 1/2" x 3" flat socket head tapered bolts supplied & 03-06 TJ models will use the 12mm x 80mm flat socket tapered head bolts supplied. Apply a few drops of the supplied thread lock compound on the bolt threads prior to installing. Tighten the bolts to 75-80 ft.lbs. (See Photo # 11) **Note:** On 03-06 TJ models equipped with an engine skid plate, remove the two engine skid plate bolts. Install the small square tube spacers at the mounting points on the frame rails, along with the 12mm bolts supplied.

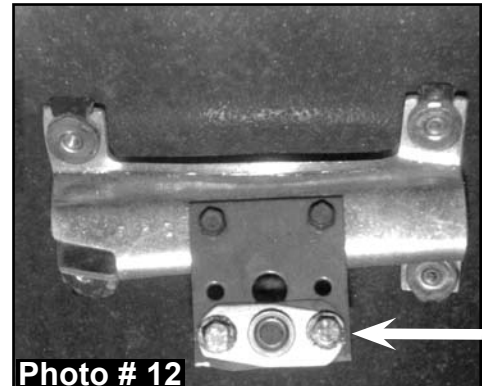


Photo # 12

23. Install the new Skyjacker transfer case linkage pivot drop bracket to the OEM pivot bracket using the OEM hardware. Using the two 1/4" x 1" bolts with a flat washer & self-locking nut, bolt the ball swivel bracket (See Arrow in Photo # 12) to the new Skyjacker drop bracket. **Note:** The bracket has two sets of holes. The bottom holes are for 4" lifts as shown & the upper holes are for 2 1/2" lifts. Placing the pivot bracket back in location & start the end of the rod through the ball swivel. Bolt the bracket back into location with the OEM hardware. (See Photo # 13)

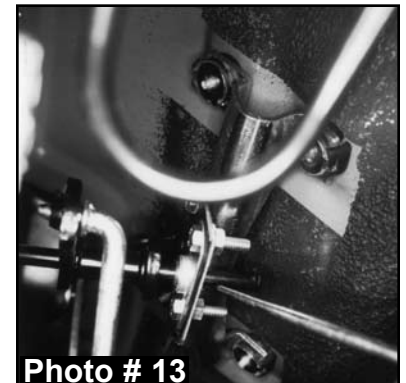
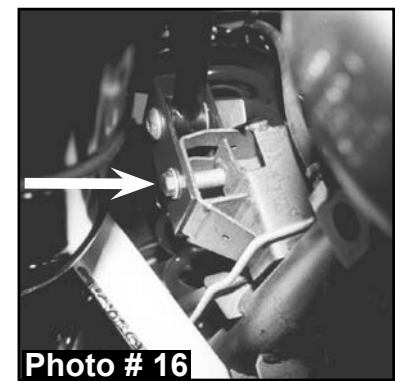
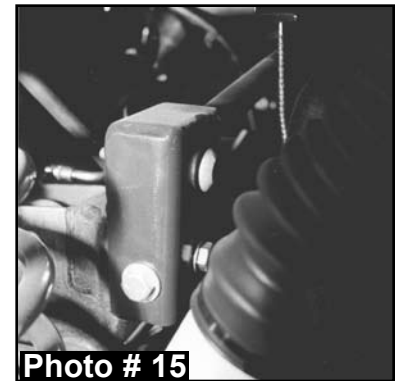


Photo # 13

Rear Installation:

1. Block the front tires, place a floor jack under the rear axle, & raise the vehicle. Place jack stands under the frame ahead of the lower control arm bracket to support the vehicle.
2. Remove the rear tires / wheels & OEM rear shocks.
3. Remove the OEM rear track bar & OEM sway bar end link bolts at the axle.

4. Lower the rear axle to remove the OEM rear coil springs. Remove both the OEM coil springs & the OEM upper bump stops. **Note:** Use channel lock pliers working the OEM bump stop back & forth to remove.
5. Remove the OEM 10mm bolt from inside the OEM bump stop cup. Install the new Skyjacker bump stop spacer & OEM bump stop cup using the supplied 10mm x 90mm bolts. Reinstall the OEM bump stop in the OEM bump stop cup. (See Photo # 14)
6. Place the new Skyjacker rear track bar relocation bracket in position & place the track bar in the new Skyjacker bracket. **Note:** Do not start its bolt. Start the supplied 12mm x 70mm bolt through the OEM lower track bar location using the supplied spacer sleeve with a self-locking nut & tighten the bolt to hold the bracket in place. (See Photo # 15)
7. Drill a 1/2" hole through the hole in the end of the new Skyjacker bracket. Remove the 12mm x 70mm bolt, installed before drilling, & install the 1/2" x 1 1/2" bolt, with a washer on each side, through the newly drilled hole & tighten the self-locking nut. Reinstall the new 12mm x 70mm bolt through the OEM track bar location using the supplied spacer sleeve (See Arrow in Photo # 16) with a self-locking nut. **Note:** Do not tighten at this time.
8. Install new Skyjacker rear coil springs. Raise the jack so that enough load is applied to hold the coil springs in place.
9. Install the drive-in grease fittings in each end of the new Skyjacker lower links by using a 1/4" socket over the fitting. Tap with a hammer until the grease fitting is completely flush with the eyelet of the new control arm.
10. Install the new Skyjacker polyurethane bushings (Part # 2617) & steel sleeves (2.645" Long) in each end of the new Skyjacker lower control arms. **Note:** Apply a thin coat of lithium grease to the new bushings & sleeves prior to installation.
11. Measure the length of the new control arms between the center of the rod end & eyelet on each control arm. Rotate the rod end as needed, being sure to keep the ends square with each other until the new control arms measure 16 1/16" center to center.
12. Remove the OEM lower control arms & install the new Skyjacker rod end step bushings into each side of the rod ends. Install the new control arms (One side at a time) using the OEM hardware & tighten each jam nut to seat against the base of the new lower control arms. (See Photo # 17) **Note:** Only start these bolts & nuts, do not tighten at this time.



Note: So that the lower control arms may be greased while on the vehicle, install them with the grease fittings positioned as follows: **Rear** eye of the lower control arm has the grease fitting pointing out the end & the **Front** eye of the lower control arm should have the grease fitting pointing down. (See Arrow in Photo # 17) **Note:** Once both lower control arms are installed, tighten each lower control arm being sure to realign the marks on the eccentric cams.

13. Attach the OEM track bar to the new Skyjacker relocation bracket on the axle & to the OEM upper location on the passenger side frame using the OEM hardware. **Note:** Do not tighten at this time.
14. Assemble the new Skyjacker rear sway bar end links by applying grease to the metal sleeves & inserting them into each eye. Install using the OEM hardware. (See Arrow in Photo # 17)
15. Install the new Skyjacker rear shocks, install the rear tires / wheels, & lower the vehicle to the ground. (See Photo # 18)
16. Tighten the rear track bar bolts on each end & the new bolt in the track bar relocation bracket.

WARNING: On the Jeep Wrangler TJ models, only the shock absorbers limit the extended position of the front & rear suspension! The use of shocks other than those supplied in this system, may cause coil disengagement, adverse steering angles, brake hose failure, driveline component failure, and/or other related component failure! The use of other shocks will void your Skyjacker® warranty!

FINAL NOTES:

- Thoroughly grease the new Skyjacker lower control arms.
- Check the clearance between the inner side wall of the tires & lower control arms. **Note:** It may be necessary to adjust the steering stops by adding 2-3 washers on the bolt to eliminate interference. (See Arrow in Photo # 19)
- Check the transfer case shifter to see if it will move to **4L**. If not, the linkage will need adjusting as follows. Place the shifter in **4L**, loosen the adjustment bolt ("A" Arrow in Photo # 20) & push the linkage ("B" Arrow in Photo # 20) forward until it stops. Now retighten the adjustment bolt. Check to be sure 4WD works properly.
- On 5 speed models, engage the clutch & check the transmission shifter to see if it will go fully into 2nd gear. If not, the shifter housing on the floor will need trimming. Remove center console, pull back the carpet, remove the screws holding the shifter boot to the floor & trim or grind the floor board (See Arrow in Photo #21) until sufficient clearance is obtained. Shift through each gear to check the clearance at this time. Now reinstall the shifter boot, carpet, & console.



Photo # 18

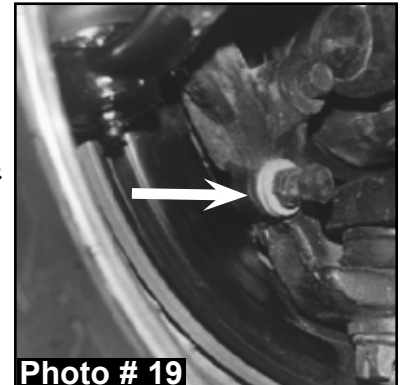


Photo # 19

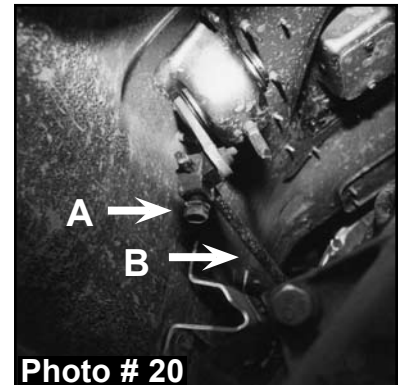


Photo # 20

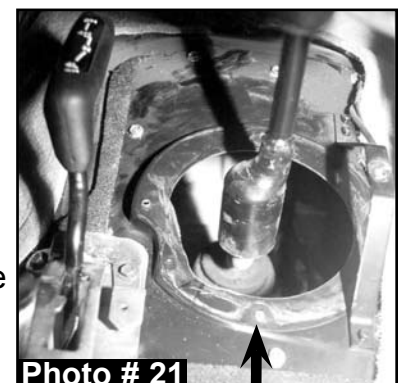
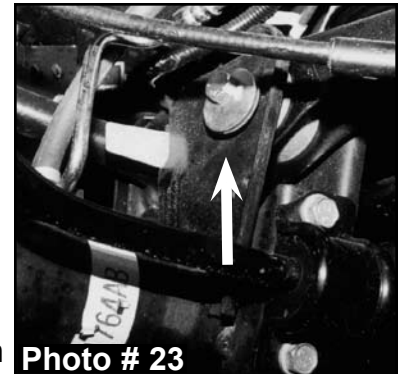
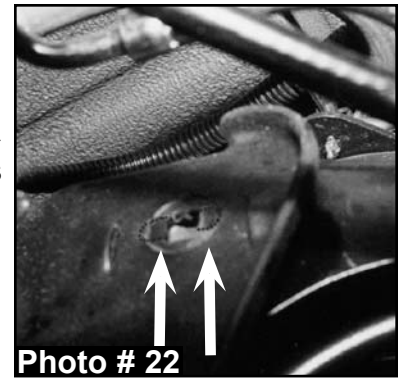


Photo # 21

- Front end realignment is necessary so after the lift is installed have a qualified alignment center realign the vehicle to factory specifications.
- Rotate the driveshafts & check for interference at the differential yoke & cardan joint. If necessary, lightly dress the casting(s) and/or U-joint tabs in order to eliminate binding.
- Ensure there is adequate clearance between the exhaust, brake lines, fuel lines, fuel tank, floor board, & wiring harnesses. Check the steering gear for interference & proper working order. Test the brake system before driving.
- With the vehicle on the floor, cycle the steering lock to lock & inspect the steering, suspension, driveline, & brake line systems for proper operation, tightness, & adequate clearance.
- Have the headlights readjusted to proper settings.
- Driveline vibrations can be caused from the removal or addition of the hardtop which changes the rear vehicle weight, & the rear height, which affects the rear drive shaft pinion angle. Skyjacker's adjustable eccentric upper cam-bolt kit (Part # CAM500) will eliminate such vibrations by adjusting / rotating the rear pinion angle up or down as needed.



- If you purchased the optional (Part # CAM500) Skyjacker TJ rear driveline cam-bolt kit, install them using the steps below.
 1. Remove the bolt in the rear upper control arm (The end toward the rear bumper) & raise the control arm up out of the mount. **Note:** The hole is notched so that it can be a slotted hole. Knock out the notches on the front & rear half of the holes on each side of the control arm mounts. (See Arrows in Photo # 22)
 2. Lower the control arm back into the mount & install the new Skyjacker eccentric cam-bolt, eccentric washers, & nut on each control arm & tighten. These bolts can be rotated to adjust the axle pinion angle to eliminate any driveline vibration. (See Arrow in Photo # 23)

TORQUE SPECIFICATIONS

<u>INCH SYSTEM</u>			<u>METRIC SYSTEM</u>		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9
5/16	15 FT LB	20 FT LB	6MM	5 FT LB	9 FT LB
3/8	30 FT LB	35 FT LB	8MM	18 FT LB	23 FT LB
7/16	45 FT LB	60 FT LB	10MM	32 FT LB	45 FT LB
1/2	65 FT LB	90 FT LB	12MM	55 FT LB	75 FT LB
9/16	95 FT LB	130 FTLB	14MM	85 FT LB	120 FT LB
5/8	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB
3/4	185 FT LB	280 FT LB	18MM	170 FT LB	240 FT LB

- **The above specifications are not to be used when the bolt is being installed with a bushing.**



Skyjacker® 97-06 Jeep Accessories

- Steering Box Skid Plate Part # RRSP20



- Heavy-Duty Tie Rod Tube Part # TR300



- High Capacity Oil Pan
(97-02 Models w/ Automatic Transmission)
Part# OPA999



- Shifter Relocation Bracket
(Included in Rock Ready® Kits)
Regular TJ with NP231 Transfer Case
Part # JSRB231A
Unlimited, Rubicon & Rubicon Unlimited
Part # JSRB2315U



- Rear Shock Relocation
Brackets Part # TJRSB10



- Stainless Steel Brakelines 4"-10" Lift
Front Part # FBL44 Rear Part # RBL98



- Heavy-Duty Limiting Straps

LS16K 16"	LS28K 28"
LS20K 20"	LS32K 32"
LS24K 24"	



- Rock Ready® Grab Handles

RRGH20-K	2" Black
RRGH20-R	2" Red
RRGH30-K	3" Black
RRGH30-R	3" Red



- C.V. Yoke (Rubicon Models Only)
Part # CVR680



- High Clearance Transfer Case Skid Plate.
97-02 Models Part # SP28
03-06 Models Part # SP283



- Heavy-Duty Adjustable Rear Sway Bar
Part # RSBA410



Contact your distributor & get your Skyjacker® Jeep Accessories Today!!