



2001- 2010 Chevy / GMC
2500 HD 4WD
3" Suspension Lift
Installation Instructions

- * Safety Glasses
- * Metric / Standard Wrenches & Sockets
- * Allen Wrenches
- * Drill & Assorted Drill Bits
- * Floor Jack
- * Jack Stands
- * Measuring Tape
- * Torsion Bar Tool
- * Torque Wrench
- * Transmission Jack
- * Grinder



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.

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 Chevy/GMC dealer or an authorized dealer for details.
- Modifications may be necessary if installing this lift on a Duramax model.
- After installation a qualified alignment facility is required to align the vehicle to factory specifications.

Kit Box Breakdown:

Part #: C9381

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
C938L	3" 2500HD 4X4,LEFT KNKLE	1
C938R	3" 2500HD 4X4,RIGHT KNKLE	1
C9382FCM-S	3"2500HD,FRONT CROSSMEMBER	1
C9382RCM-S	3"2500HD,REAR CROSSMEMBER	1
H-BOX C9381	HDWR BOX: C9381 COMP BOX	1

Hardware Box Breakdown:

H-BOX C9381 HARDWARE BOX

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
C938DPS-S	3"2500HD,PASS DIFF BRKT	1
C968CVS-P	CV SPACER,2500HD,15/16"WIDE	1
C938TBD-S	3"2500HD,TORSION DROP BRKT	2
C938FBS-S	3"2500HD,FRT BUMP STOP BRKT	2
C938TXD	3"2500HD,DRIV TRAN X-M SPCR	1
C938TXP	3"2500HD,PASS TRAN CROSSMEM	1
HB-C938-CVS	HDWR BAG: 3",C938 CV SPACER	1
HB-C938-CM	HDWR BAG: 3",C938 CROSSMEMB	1
HB-C938-SBBS	HDWR BAG:3"2500HD SWAY/BUMP	1
HB-C938-DB	HDWR BAG:3",C938 DIFF BRKTS	1
HB-C938-TBB	HDWR BAG: TORSION BAR BRKTS	1
HB-C938-TCM	HDWR BAG: C938 TRANS X-MEMB	1
HB-C938-FS	HDWR BAG: C938 OE SKID PLAT	1
CBL2500	CARR BRG LWRG KIT, 2500 HD	1
C766SBL-S	OE STYLE SWAY BAR LINK 3"GM	2
I-C938	INST SHEET: 3" 2500HD 4X4	1

Hardware Bag Breakdown:

HB-C938-CVS HARDWARE BAG

<u>ITEM#</u>	<u>DESCRIPTION</u>	<u>QTY</u>
10MMX50MMB	10 X 50 METRIC BOLT/10.9	6
LT100	NUTS N' BOLTS 427 1 ML TUBE	1
5MMX12SHB	5MM X 12MM.80 KNUCKLE BOLTS	2
38CC	3/8" CABLE CLAMPS	4

Hardware Bag Breakdown:

HB-C938-CM HARDWARE BAG

ITEM#	DESCRIPTION	QTY
58X5FTB	5/8 X 5 FINE THREAD BOLT	2
58X6FTB	5/8 X 6 FINE THD BOLT/GRD 8	2
916X5FTB	9/16 X 5 FINE THRD BOLT	1
916X112FTB	9/16 X 1 1/2 FINE THRD BOLT	1
58FTN	5/8-18 NYLON INSERT LOCKNUT	4
58SAEW	5/8 SAE WASHERS	6
916SAEW	9/16 SAE WASHERS	3
916FTN	9/16-18 NYLON INSERT LOCKNU	2
CS3860	3"2500HD,REAR X-M CRUSH SLV	2

Hardware Bag Breakdown:

HB-C938-SBBS HARDWARE BAG

ITEM#	DESCRIPTION	QTY
38X114FTB	3/8 X 1 1/4 FINE THD/GRD 8	4
38SAEW	3/8 SAE WASHER	8
38FTN	3/8-24 FINE N/I LOCK NUT	4

Hardware Bag Breakdown:

HB-C938-DB HARDWARE BAG

ITEM#	DESCRIPTION	QTY
916X4FTB	9/16 X 4 FINE THREAD BOLT	1
916X112FTB	9/16 X 1 1/2 FINE THRD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNU	3
916SAEW	9/16 SAE WASHERS	6
716X112FTB	7/16 X 1 1/2 FINE THRD BOLT	1
716SAEW	7/16 SAE WASHER	2
716FTN	7/16-20 FINE N/I LOCK NUT	1
C938DDS-S1	2500HD 3"DRVR DIF INNR BRKT	1
C938DDS-S2	2500HD 3"DRVR DIFF OUTR BRK	1
CS2125	3"2500HD,DRIV DIF CRUSH SLV	1

Hardware Bag Breakdown:**HB-C938-TBB HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
SP3445	GM 1/2T,3/4T TORSION BUSHG	4
TBBS1590	TORSION BAR SLEEVE,1.590"L	2
716X112FTB	7/16 X 1 1/2 FINE THRD BOLT	8
716FTN	7/16-20 FINE N/I LOCK NUT	8
716SAEW	7/16 SAE WASHER	16

Hardware Bag Breakdown:**HB-C938-TCM HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
10MMX60MMB	10 X 60 METRIC BOLT/10.9	2
38SAEW	3/8 SAE WASHER	2
716SAEW	7/16 SAE WASHER	4
12MMN	12 MM NUT (METRIC)	4
C938TS-B	3"2500HD,TRANSMISSION SPACE	2

Hardware Bag Breakdown:**HB-C938-FS HARDWARE BAG**

ITEM#	DESCRIPTION	QTY
10MMX100MMB	10 X 100 METRIC BOLT/ 10.9	2
10MMX30MMB	10 X 30 METRIC BOLT/ 10.9	2
38SAEW	3/8 SAE WASHER	6
10MMN	10 MM N/I LOCKNUT	4

Part #: CBL2500

ITEM#	DESCRIPTION	QTY
CBL255-B	CARR BRG LOWER BRKT,2"DROP	1
SP250	1/4"SHIM PLATE, 1/2" HOLE	2
38X312FTB	3/8 X 3 1/2 FINE THREAD BLT	2
38FTN	3/8-24 FINE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	4

Part #: BUK2082F

ITEM#	DESCRIPTION	QTY
RBF20	2" REAR BLOCK "FLAT"	2
58X234X1212	1 U-BOLT WITH NUTS	4
I-BUK	INST. SHEET BLOCK/U-BOLT KI	1

Front Installation:

1. With the vehicle on flat level ground set the emergency brake & block the rear tires.
2. Place a floor jack under the lower control arm's front cross member & raise the vehicle. Place jack stands under the frame rails, behind the front wheel wells & lower the frame onto the jack stands.
3. Remove both front OEM skid plates located in front of & under the front differential using a 15mm socket. (See Photo # 1)

WARNING: Be extremely careful when loading or unloading the torsion bars. There is a tremendous amount of stored energy (load pressure) in the bars. Keep your hands & body clear of the adjuster arm assembly & puller tool in case anything slips or breaks.

Note: A special torsion bar puller tool is required for safe removal & installation of the torsion bars. This puller can be purchased from a GM Dealer (Tool # J36202) or from Kent Moore Tool Group, Roseville, MI (800) 345-2233 / (313) 774-9500 (Part # J-22517-C).

4. Locate the torsion bar adjuster bolt on the bottom of the rear cross member. Measure & record the length of the torsion bar adjusting bolt that is exposed below the nut & remove the torsion bar adjusting bolt. Apply a small amount of lubricating grease to the puller threads & the puller shaft-to-adjuster arm contact point. Position the puller & load the adjuster arm until the adjuster nut can be removed from the cross member. With the bar unloaded, slide it forward into the lower control arm. If the bar seems lodged, use a hammer & punch through the hole in back of the cross member. When the bar shifts forward, the adjuster will fall free. (See Photo # 2) Repeat this process on the passenger side.
5. With the torsion bars removed from the rear cross member, remove the torsion bar cross member using a 21mm socket. With the cross member removed, remove the torsion bars from the vehicle. (See Photo # 3) **Note:** Be sure to mark the driver & passenger torsion bars for reinstallation.
6. Remove the front tires & remove the front shocks using a 21mm socket & 15mm wrench.
7. Remove the front sway bar end links using a 13mm wrench.
8. Remove the tie rod end nut from the steering knuckle using a 21mm socket & remove the tie rod end from the steering knuckle by striking the steering knuckle to dislodge the tie rod end.
Note: Be careful not to damage the tie rod end. (See Photo # 4)



9. Disconnect the ABS line at the top of the frame rail. Remove the brakeline retaining bracket from the top of the steering knuckle, using a 10mm wrench. **Note:** It will not be necessary to disconnect the banjo fitting from the brake caliper.
10. Remove the brake caliper using a 21mm socket & wire the brake caliper out of the way so that there is no stress on the brakeline.
11. Remove the brake rotor. (See Photo # 5)
12. Remove the outer CV axle nut dust cover to allow access to the outer CV axle nut. Remove the outer CV axle nut & washer using a 1 7/16" socket. (See Photo # 6)
13. Mark the CV axle prior to removal so that the CV axle can be reinstalled in the same position as removed. **Note:** Be sure to mark the left & right CV axles.
14. Remove the CV axle from the front differential using a 15mm socket. (See Photo # 7)
15. Remove the upper & lower ball joints from the steering knuckle using a 18mm & 24mm socket. **Note:** It may be necessary to strike the steering knuckle to allow the ball joints to dislodge. Remove the steering knuckle from the vehicle.
16. Remove the spindle bearing from the steering knuckle using a 15mm socket. Remove the inner O-Ring from the steering knuckle. **Note:** The O-Ring will be reused in a further installation step. (See Photo # 8)
17. Remove the lower control arm from the frame using a 24mm socket & 18mm wrench. (See Photo # 9)
18. Disconnect the front driveshaft using a 11mm wrench. **Caution:** Be sure to mark the U-Joint & yoke at the differential. The drive shaft **must** be installed the same way during reinstallation. Failure to realign the U-Joint & yoke at the same point could result in vibration after install. (See Photo # 10) Do not remove the driveshaft. Simply strap it out of the way.

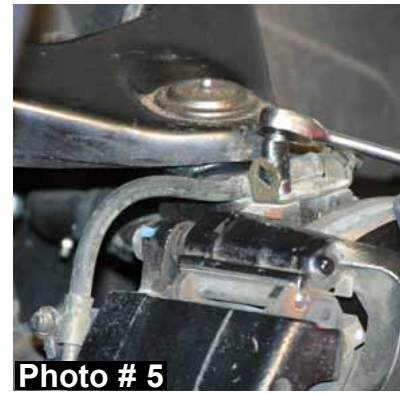
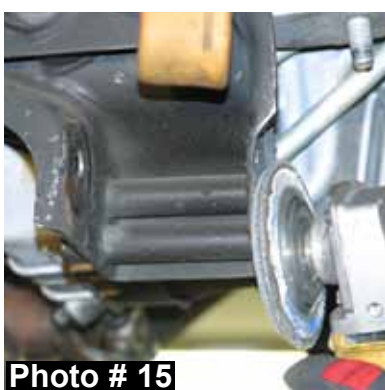
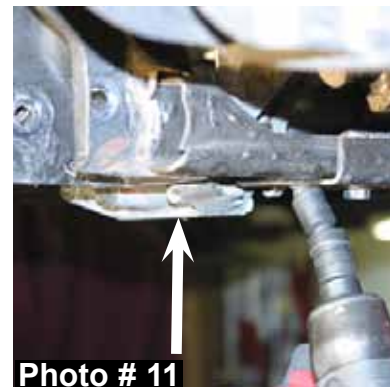


Photo # 9
I-C938

Photo # 10

Note: GM front drive shafts are balanced on each vehicle due to driveline vibrations. It is **very** important that the drive shaft is reinstalled the same as OEM.

19. Locate the rear OEM two piece differential cross member. Locate the point on the driver side where the cross member is welded to the frame. It will be necessary to grind off the welds so that the cross member can be removed. (See Photo # 11)
20. With the welds ground off, remove the cross member mounting bolts using a 18mm wrench & remove the rear cross member assembly. (See Photo # 12)
21. While supporting the front differential with a transmission jack, remove the passenger side differential mounting bolts using a 21mm socket & disconnect the actuator line from the passenger side of the front differential. (See Photo # 13)
22. Remove the driver side upper differential bolt using a 21mm socket. Disconnect the vacuum hose on the driver side of the front differential. (See Photo # 14)
23. Lower & remove the front differential using a transmission jack.
24. Locate the rear cross member mount on the driver side & passenger side frame. Grind the front outside edge smooth. (See Photo # 15)
25. Remove the OEM bump stops from the frame using a 15mm socket. (See Photo # 16)



26. Install the new Skyjacker passenger side differential bracket with the offset holes toward the front bumper of the vehicle & the open portion of the bracket toward the engine. Attach using the OEM hardware at the frame. (See Photo # 17)

27. Install the new Skyjacker driver side differential bracket using the crush sleeve, 9/16" x 4" fine thread bolt, washers, & nut. With the bracket installed, mark the upper hole in the frame that needs to be drilled. With the hole marked, remove the bracket & drill the hole to 15/32". Reinstall the bracket using the 7/16" x 1 1/2" fine thread bolts, washers, & nut. (See Photo # 18) Install the 9/16" x 4" bolt along with the crush sleeve. **Note:** Do not tighten at this time.

28. Attach the differential to the new mounting locations using the OEM hardware on the driver side & the 9/16" x 1 1/2" bolts on the passenger side.

29. Install the new Skyjacker rear cross member & attach at the side mounting locations using the 9/16" x 1 1/2" fine thread bolts, washers, & nuts. (See Arrow # 1 Photo # 19) Attach to the rear differential mount using the 9/16" x 4" fine thread bolts, washers, & nuts. (See Arrow # 2 in Photo # 19) Attach the cross member to the OEM control arm location using the 5/8" x 6" fine thread bolts & crush sleeve provided. **Note:** No washer will be used under the head of the bolt.

30. Install the new Skyjacker front cross member using the 5/8" x 5" fine thread bolts, washers, & nuts. (See Photo # 20) On the bottom side of the cross member there are mounting locations for the OEM skid plate. Make sure the slotted mount is toward the rear. **Note:** Some models may be required to grind on the cross member for lower control arm clearance.

31. With the new Skyjacker cross members installed, tighten the differential bolts & attach the front drive shaft. (See Photo # 21)

32. Attach the lower control arms to the new Skyjacker cross members using the OEM hardware. (See Photo # 22)

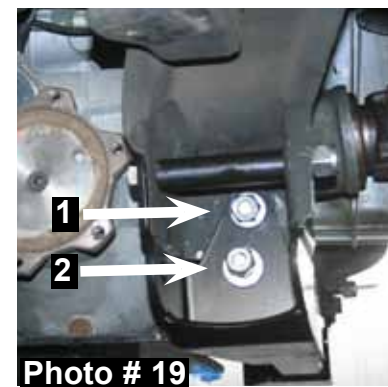
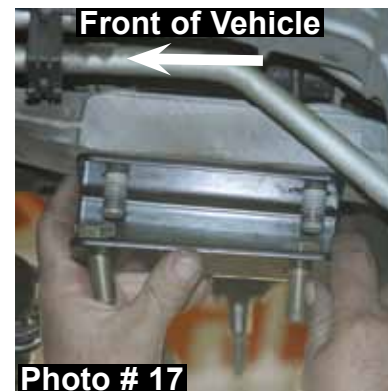


Photo # 21
I-C938

Photo # 22

33. Attach the hub bearing assembly to the new Skyjacker steering knuckle using OEM hardware. **Note:** Be sure to reinstall the O-Ring & use loctite on the bolts. (Torque flange bolts to 130 ft. lbs.) (See Photo # 23)



34. Install the new Skyjacker steering knuckles & attach the upper & lower control arms to the steering knuckle using the OEM hardware. The outer tie rod end will install from the top instead of from the OEM bottom position. (See Photo # 24)



35. Reinstall the brake rotor & brake caliper. Attach brake line to the side of the steering knuckle using the 5mm screws provided. **Note:** Some models have a OEM 6mm bolt that can be reused. Attach the ABS line to the upper control arm using the OEM bolt with the plastic clips provided. (See Photo # 25)



36. Install the driver & passenger side CV axles. **Note:** Use the new Skyjacker 15/16" thick CV axle spacer on the **DRIVER'S** side. The new Skyjacker CV axle spacers will install between the CV axle & the differential. **Note:** The spacers should install with the male end against the differential. Use the 10mm x 50mm bolts on the driver side. **Note:** Be sure to use at least **three** drops of thread lock compound on these bolts. (Torque to 45 ft. lbs.) (See Photo # 26) The passenger side CV axle will install the same as OEM, with no spacer. Reinstall the CV axle retaining nut & dust cover.



37. Locate the new Skyjacker front bump stop relocation brackets. Line up with the OEM hole in the frame & drill the new mounting locations using a 25/64" drill bit. Attach to the frame using the 3/8" x 1 1/4" bolts, washers, & nuts supplied. Attach the OEM bump stop to the bottom of the new Skyjacker bracket using the OE hardware. (See Photo # 27)

38. Install the new Skyjacker front shocks. (See Photo # 28)

39. Install the new Skyjacker sway bar end links. (See Photo # 29) **Note:** Be sure to install the pivoting end at the lower control arm. The gold washer will go on top of the control arm & the nut on the bottom.

Photo # 26
Driver side shown with one
15/16" C.V. spacer.



Photo # 27
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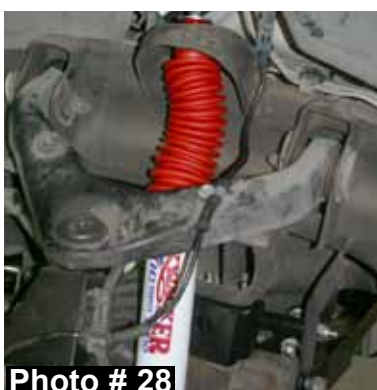


Photo # 28



Photo # 29

40. Support the transmission using a transmission jack & disconnect the transmission cross member from the transmission & the frame rail of the vehicle. (See Photo # 30)
41. Remove the transmission mount from the bottom of the transmission & install the supplied aluminum spacers using the 10mm x 60mm bolts & washers. (See Photo # 31)
42. Reinstall the transmission cross member using the new Skyjacker lowering brackets. Install using the OEM bolts with the supplied 12mm nuts & washers. (See Photo # 32) **Note:** There is a driver & passenger side bracket. The passenger side lowering bracket is marked with an extra hole.
43. Slide the torsion bars into the lower control arms & push forward. Install new Skyjacker torsion bar drop brackets using the 7/16" x 1 1/2" fine thread bolts, washers, & nuts. **Note:** Grind off the rivets on the outside of the frame rail. (See Photo # 33) Install the new Skyjacker poly bushings & sleeves into the new Skyjacker torsion bar drop brackets. Attach the cross member using the OEM hardware.
44. Reinstall OEM torsion bars to the cross member. **Note:** Be sure to install the adjuster bolts to the same length as OEM. (See Photo # 34)
45. Attach the front skid plate using the 10mm bolts supplied. (See Photo # 35)
46. Disconnect the rear driveline carrier bearing from the frame. Install the new Skyjacker lowering bracket using the 3/8" hardware provided. (See Photo # 36)



Photo # 30



Photo # 31



Photo # 32

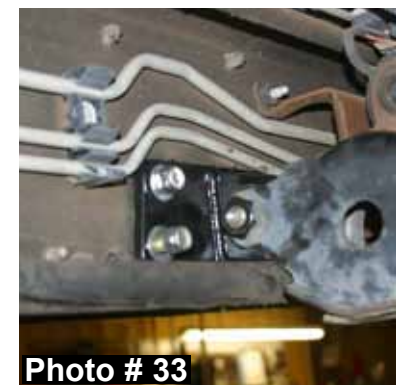


Photo # 33



Photo # 34
I-C938



Photo # 35



Photo # 36

Rear Installation:

1. Remove the OEM rear shocks using a 21mm socket. (See Photo # 37)
2. Raise the rear of the vehicle & support the frame rails using jack stands.
3. While supporting the rear axle with a floor jack, remove the rear U-bolts using a 15/16" socket.
4. Install the new Skyjacker 2" blocks. Slowly let the weight of the vehicle down onto the blocks. **Note:** Be sure that the alignment pin in the block is inserted into the axle pad correctly & the spring head seats into the hole in the block.
5. Install the 5/8" x 2 3/4" x 12 1/2" U-bolts supplied. (Torque to 100-110 ft. lbs.) (See Photo # 38)
6. With the U-bolts installed, remove the jack stands & let the weight of the vehicle down onto springs.
7. Install the new Skyjacker rear shocks using the OEM hardware. (See Photo # 39)



FINAL NOTES:

- After the installation is complete, double check that all nuts & bolts are tight. Refer to the following chart again for the proper torque specifications. (Do not retighten the nuts & bolts where thread lock compound was used.)
- With the vehicle placed on the ground, cycle the steering lock to lock & inspect the steering, suspension, brake lines, front & rear drivelines, fuel lines, & wiring harnesses for proper operation, tightness, & adequate clearance.
- Have the headlights readjusted to the proper settings.
- Have a qualified alignment center realign the front end to the factory specifications.
- Retorque all the bolts after the first 100 miles.

<u>TORQUE SPECIFICATIONS</u>					
<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.

Seat Belts Save Lives, Please Wear Your Seat Belt.