Installation Manual

10457 KIT

2.5" Coil Spring Base Lift Kit Jeep Wrangler JL / JLU*

Designed to increase vehicle ride height and reduce squat due to heavy accessories while maintaining on road comfort and response.

** See application guide for proper fitment.*

L6571_REV5_02.27.2023 ECN 1-2721

WARNING: This product can expose you to the chemical Hexavalent Chromate, which is known to the State of California to cause cancer and birth defects or other reproductive harm. ***For more information go to www.P65Warnings.ca.gov***

Thank you and congratulations on the purchase of a Jeep Coil Spring Kit. Please read the entire manual prior to starting the installation to ensure you can complete it once started.

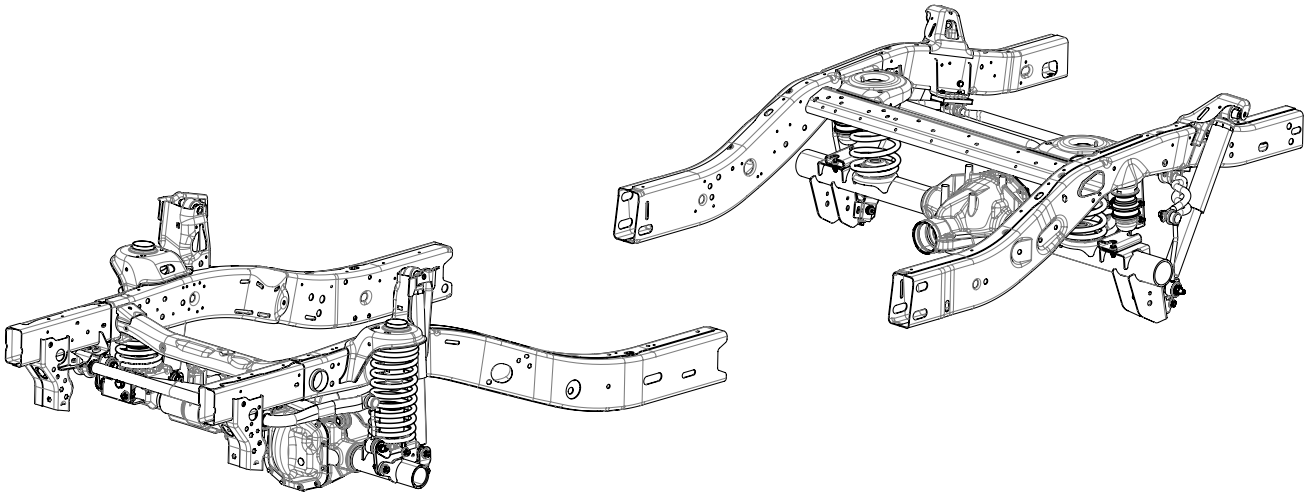
KIT CONTENTS

This kit is broken down into digestible subgroups for an easier installation.

Please make sure all the items shown in the individual kit layouts are provided in your kit before starting the installation.

REQUIRED TOOLS FOR INSTALLATION

- Hoist or Floor Jack
- Safety Stands
- Wheel Chocks
- Safety Glasses
- Cordless Drill
- Center Punch
- Small Mallet
- Ratchet
- Torque Wrench
- Metric & Standard Combination Wrenches
- Metric & Standard Sockets
- 1/8", 7/16", 1/2" Diameter Drill
- Utility Knife



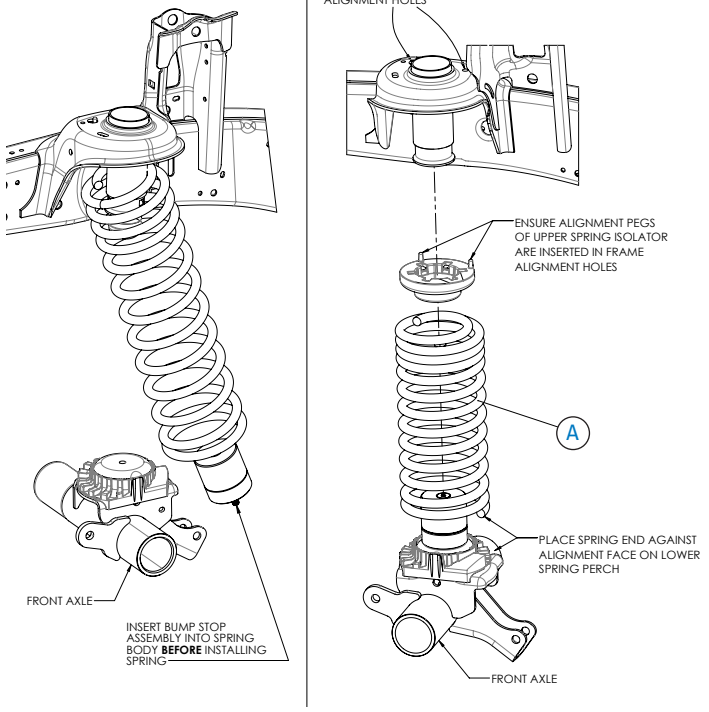
NOTES:

1. FITMENT GUIDE:
   - I. 2018 - 2022 JEEP WRANGLER JL/JLU
   - II. 4Xe TRIM MAY REQUIRE A CUSTOM DOUBLE CARDAN FRONT DRIVE SHAFT AND CUSTOM TRANSFER CASE YOKE TO ELIMINATE OEM JOINT BIND
2. RIDE HEIGHT CAN VARY DEPENDING ON ENGINE CONFIGURATION AND ACCESSORIES FITTED
3. FRONT BUMP STOP EXTENSION REQUIREMENTS:
   - I. RUBICON TRIM OR MODELS WITH 3.0L ECODIESEL OR 6.4L V8 → DO NOT INSTALL SPACER
   - II. SPORT AND SAHARA WITH 3.6L OR 2.0L GAS→ INSTALL SPACER
   *MAXIMUM 35" DIAMETER TIRES CAN BE INSTALLED WITHOUT INTERFERENCE WITH WHEEL LINERS
4. REAR BUMP STOP EXTENSION REQUIREMENTS:
   - I. REAR JOUNCE STRIKE PLATES OPTIONAL BUT REQUIRED FOR 35" DIAMETER TIRE FITMENT.
5. COMPONENTS WITH RUBBER OR URETHANE BUSHINGS MUST BE TORQUED WITH VEHICLE AT NORMAL RIDE HEIGHT
6. ALL COMPONENTS SHOULD BE CHECKED FOR PROPER TIGHTNESS AND TORQUE AFTER THE FIRST 160 km [100 miles] AND EVERY 4800 km [3000 miles] AFTER INITIAL INSPECTION
7. A PROFESSIONAL WHEEL ALIGNMENT PERFORMED BY A CERTIFIED TECHNICIAN IS REQUIRED TO ALIGN THE VEHICLE TO FACTORY SPECIFICATIONS
8. FACTORY HEADLAMP AIMING PROCEDURE MUST PERFORMED TO REALIGN HEADLAMPS
9. DRAWING FOR REPRESENTATION ONLY, NOT FOR MANUFACTURING

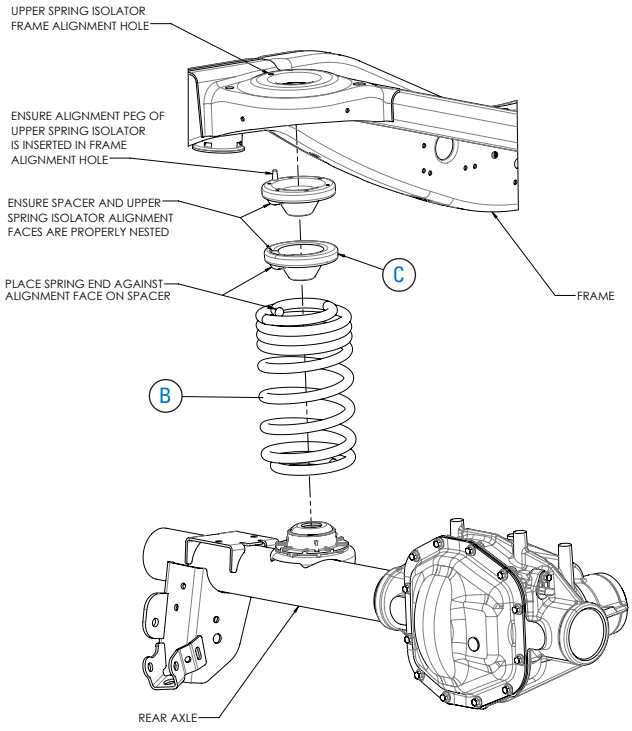
COIL SPRINGS

Coil Springs		QTY	PART #
A	Front	2	HP1953
B	Rear	2	HP1803
C	Rear Spacer	2	HP1954

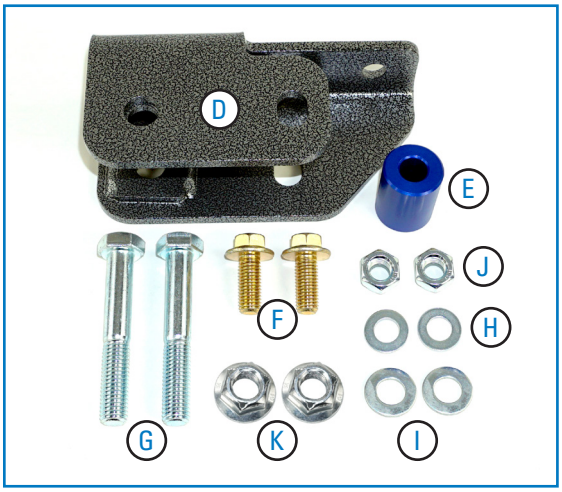
FRONT COIL SPRING



REAR COIL SPRING

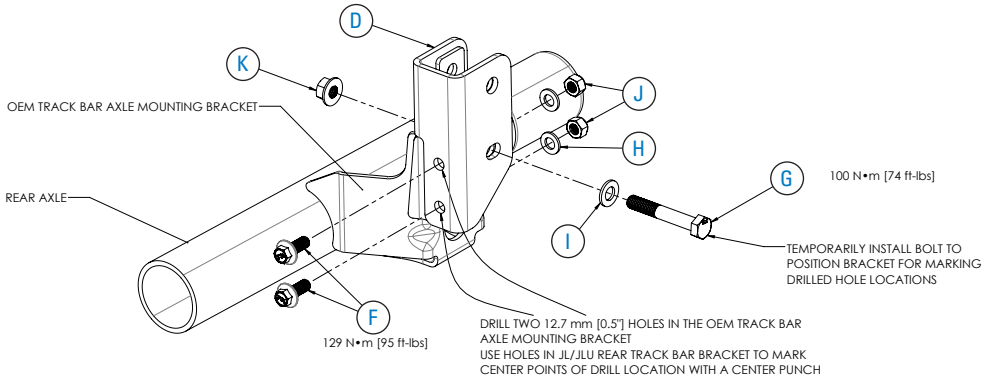


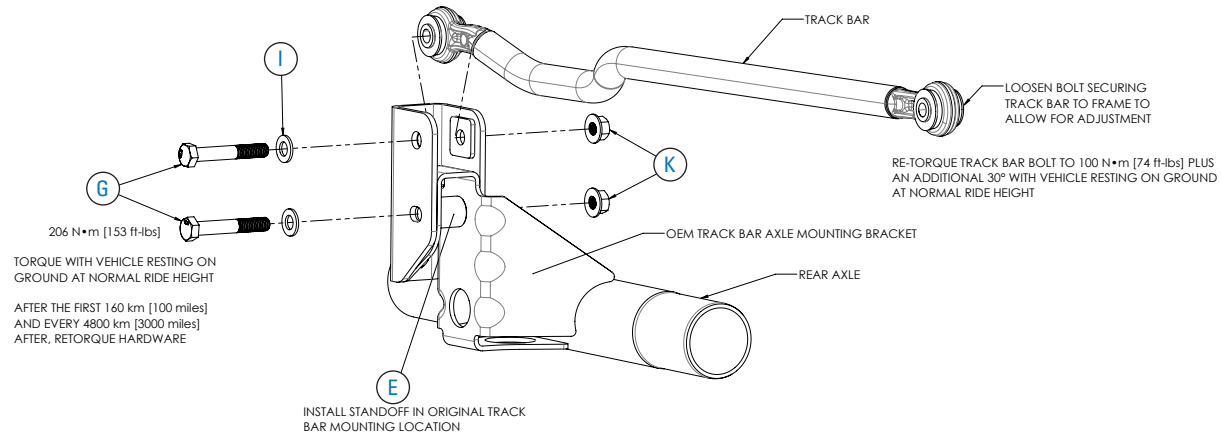
SUBGROUP HP1900: Rear Track Bar Relocation



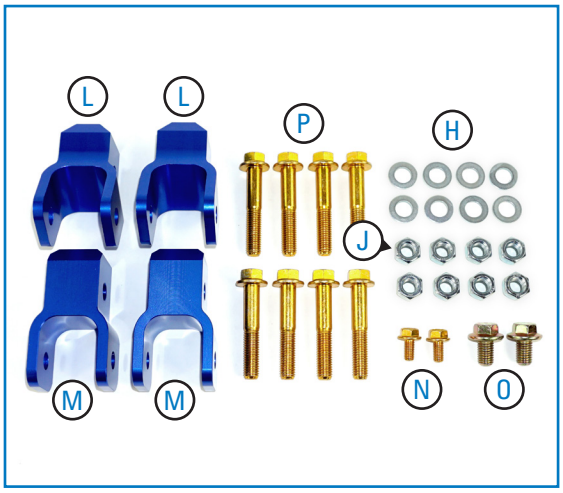
HP1900 Contents		QTY	PART #
D	Bracket, Rear Track Bar	1	HP1816
E	Spacer, Rear Track Bar	1	HP1809
F	Bolt, M12 x 1.75 x 30mm Flange Head	2	HP1817
G	Bolt, M14 x 2 x 90mm Hex Head	2	HP1465
H	Washer, M12 Flat	2	HP1818
I	Washer, M14 Flat	2	HP1466
J	Nut, M12 x 1.75 Nylon Lock	2	HP1575
K	Nut, M14 x 2 Top Lock Flange	2	HP1872

REAR TRACK BAR BRACKET



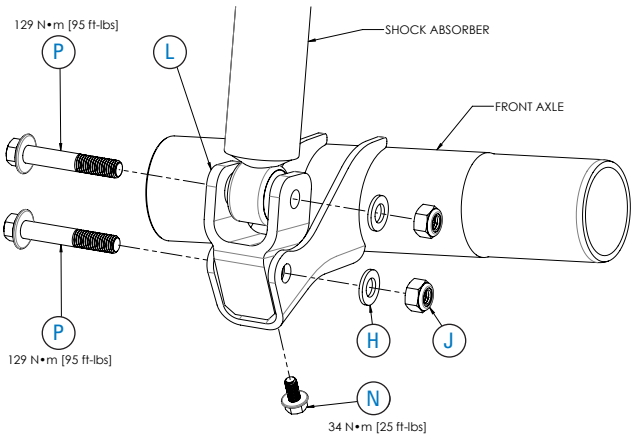


SUBGROUP HP1901: Shock Extensions

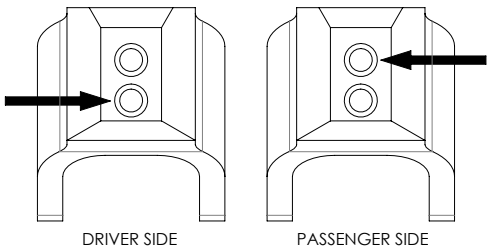


HP1901 Contents		QTY	PART #
L	Shock Extension, Front	2	HP1782
M	Shock Extension, Rear	2	HP1783
N	Bolt, M8 x 1.25 x 16mm Flange Head	2	HP1790
O	Bolt, M12 x 1.75 x 20mm Flange Head	2	HP1793
P	Bolt, M12 x 1.75 x 70mm Flange Head	8	HP1794
H	Washer, M12 Flat	8	HP1818
J	Nut, M12 x 1.75 Nylon Lock	8	HP1575

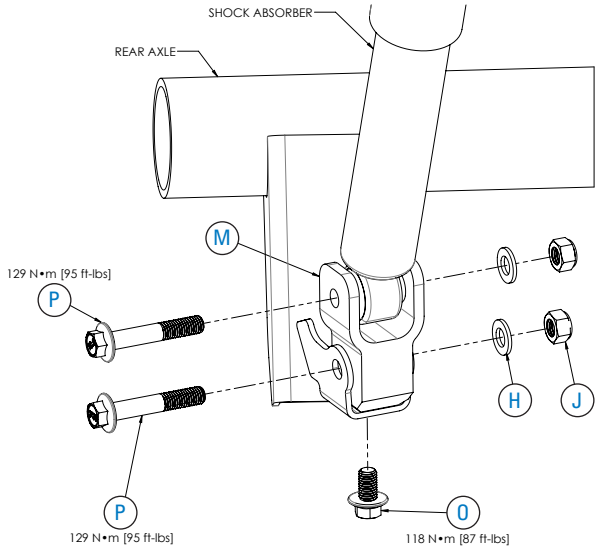
FRONT SHOCK EXTENSION



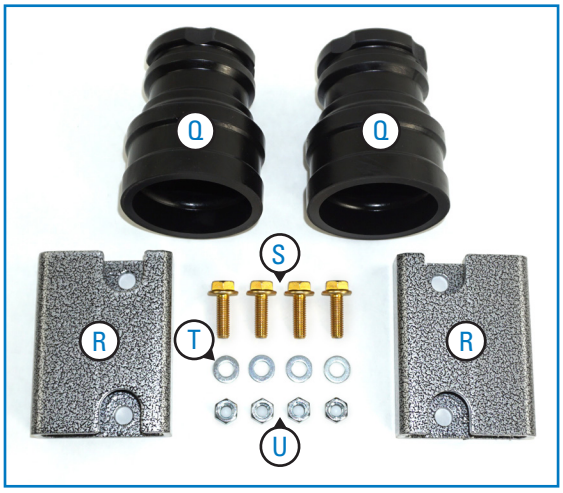
USE LOWER MOUNTING HOLE IN SHOCK EXTENSION AS INDICATED



REAR SHOCK EXTENSION

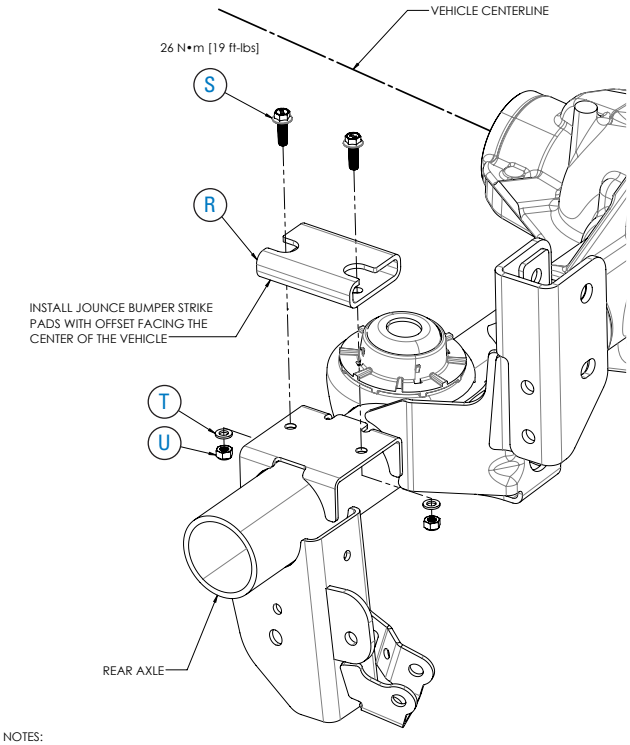


SUBGROUP HP1902: Rear Bump Stop Extension



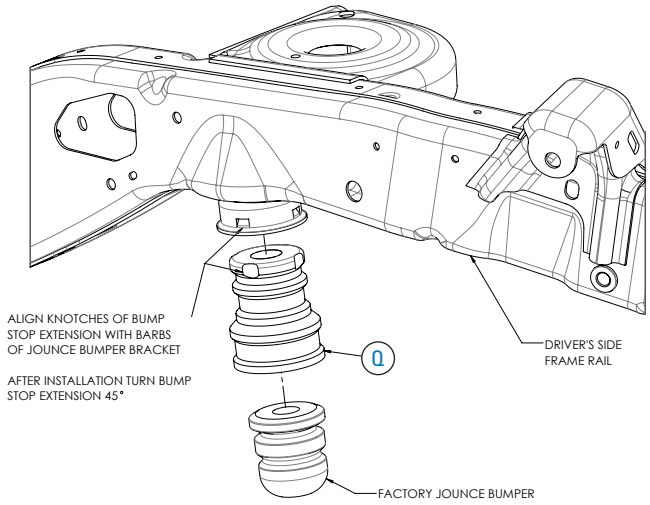
HP1902 Contents		QTY	PART #
Q	Rear Jounce Bumper Extension	2	HP1956
R	Rear Jounce Strike Plate	2	HP1960
S	Bolt, M8 x 1.25 x 25mm Flange	4	HP1430
T	Washer, M8 Flat	4	C10473
U	Nut, M8 - 1.25 Nylon Lock	4	C11377

REAR JOUNCE STRIKE PLATE

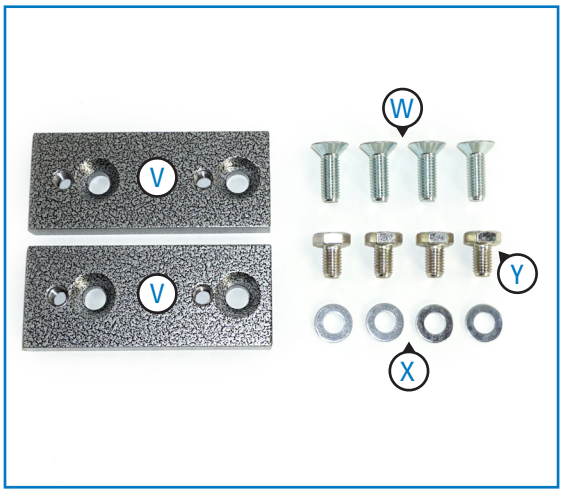


NOTES:
1. REAR JOUNCE STRIKE PLATES OPTIONAL BUT REQUIRED FOR 35" DIAMETER TIRE FITMENT.

REAR JOUNCE BUMPER EXTENSIONS

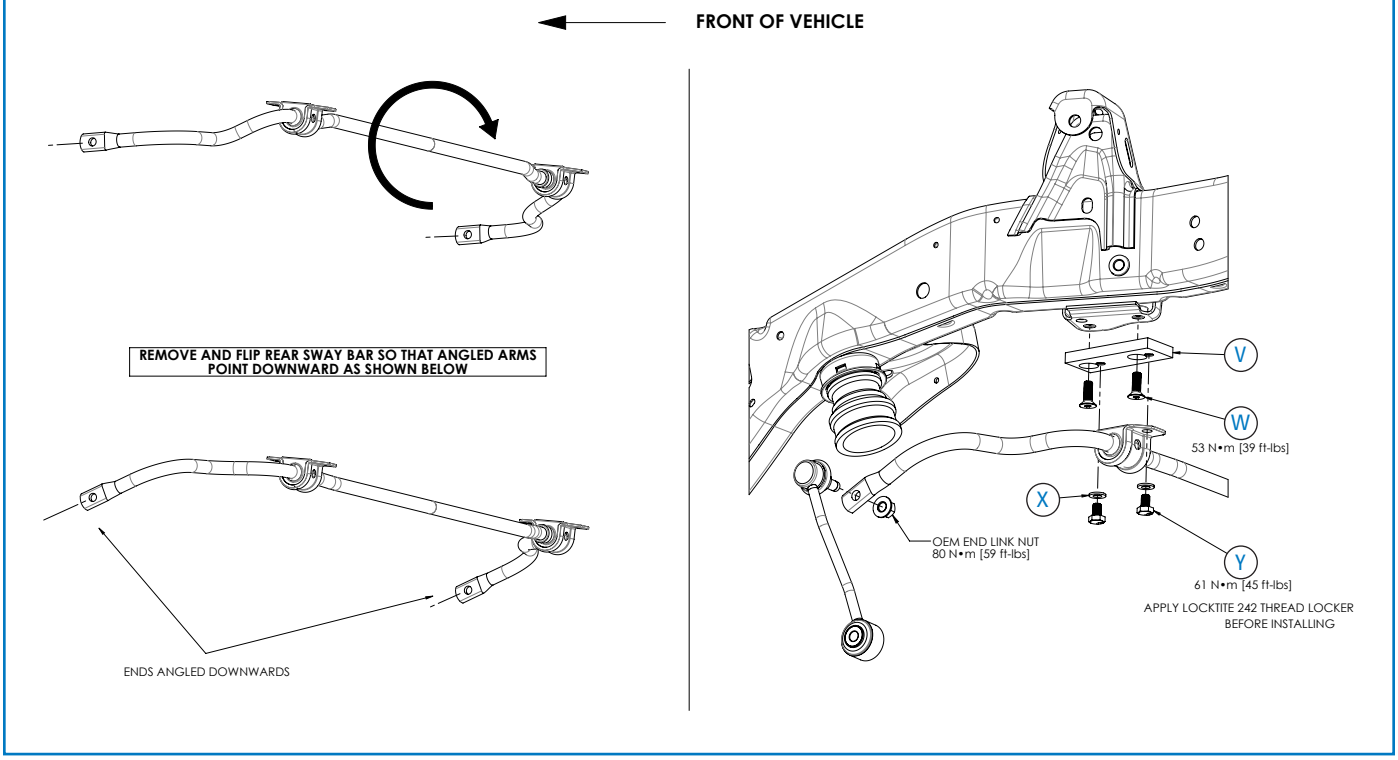


SUBGROUP HP1903: Rear Sway Offset Spacer

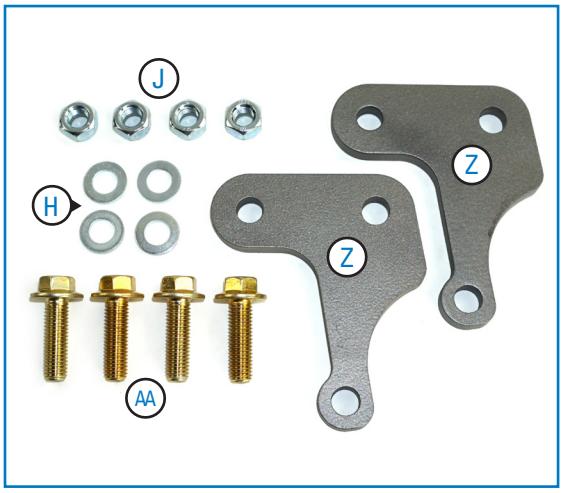


HP1903 Contents		QTY	PART #
V	Sway Bar Offset Spacer	2	HP1958
W	Bolt, M10 x 1.5 x 30mm Flat Head	4	HP1962
X	Washer, M10 Flat	4	HP1573
Y	Bolt, M10 x 1.5 x 16mm Hex Head	4	HP1959

REAR SWAY BAR RELOCATION

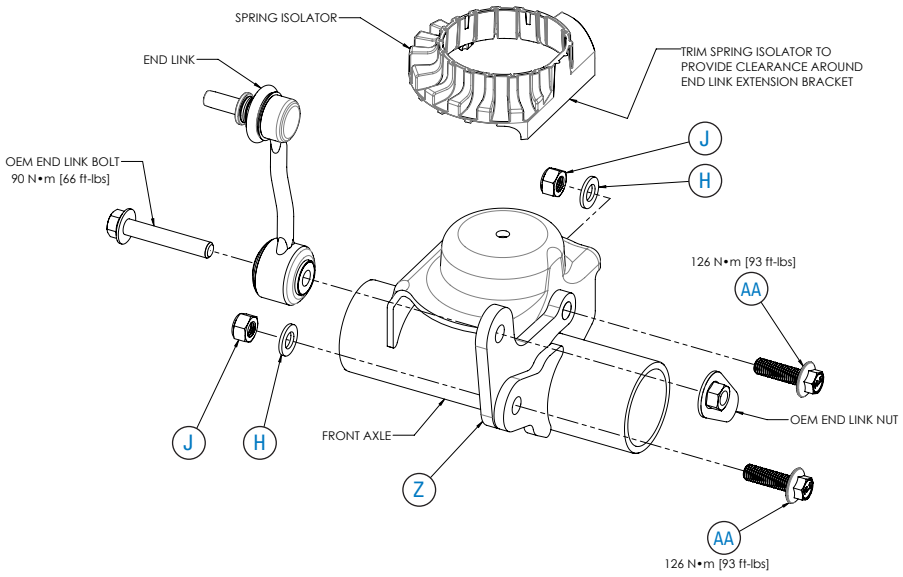


SUBGROUP HP1904: Front End Link Extension

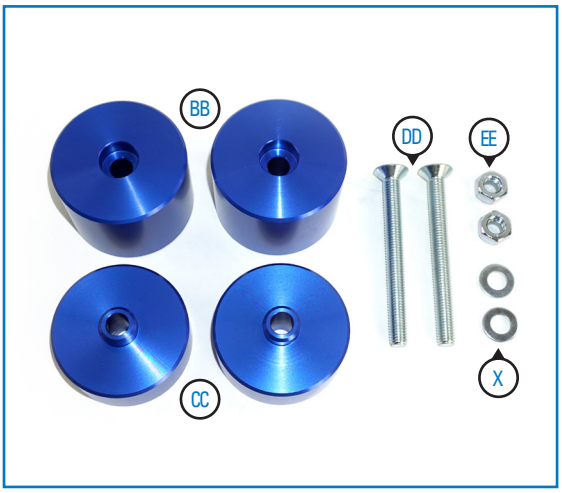


HP1904 Contents		QTY	PART #
Z	Bracket, End Link Extension	2	HP1813
AA	Bolt, M12 x 1.75 x 40mm Flange Head	4	HP1828
H	Washer, M12 Flat	4	HP1818
J	Nut, M12 x 1.75 Nylon Lock	4	HP1575

FRONT DRIVER'S END LINK RELOCATION



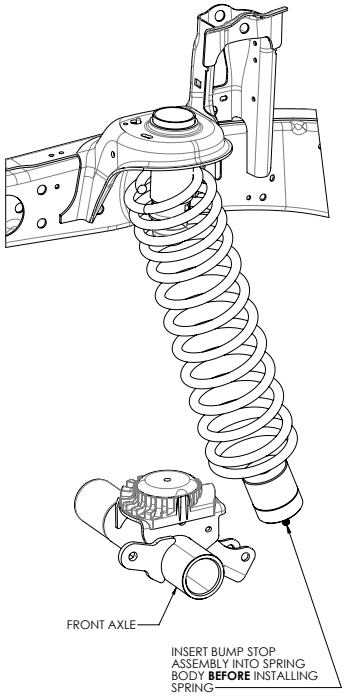
SUBGROUP HP1905: Front Bump Stop Extension

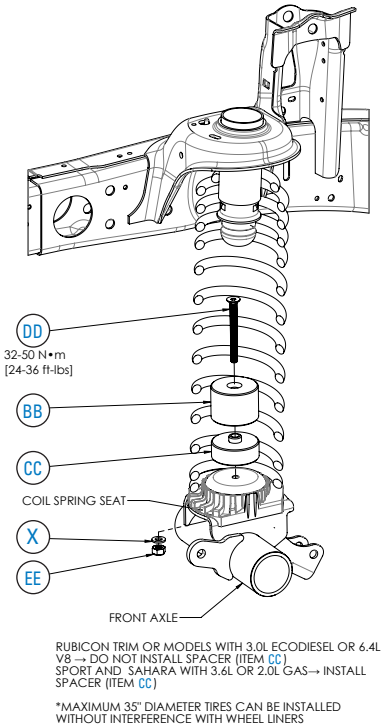


HP1905 Contents		QTY	PART #
BB	Bump Stop Extension, Front	2	HP1784
CC	Bump Stop Extension Spacer*	2	HP1785
DD	Bolt, M10 x 1.5 x 100mm Flat Head	2	HP1792
EE	Nut, M10 - 1.5mm, Nylon Nut	2	HP1574
X	Washer, M10 Flat	2	HP1573

⚠ ** Not for use with Rubicon models or models equipped with 3.0L Eco Diesel or 6.4L V8*

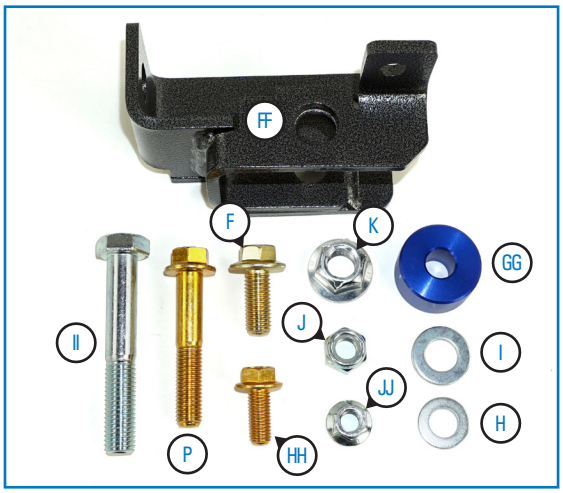
FRONT BUMP STOP EXTENSION





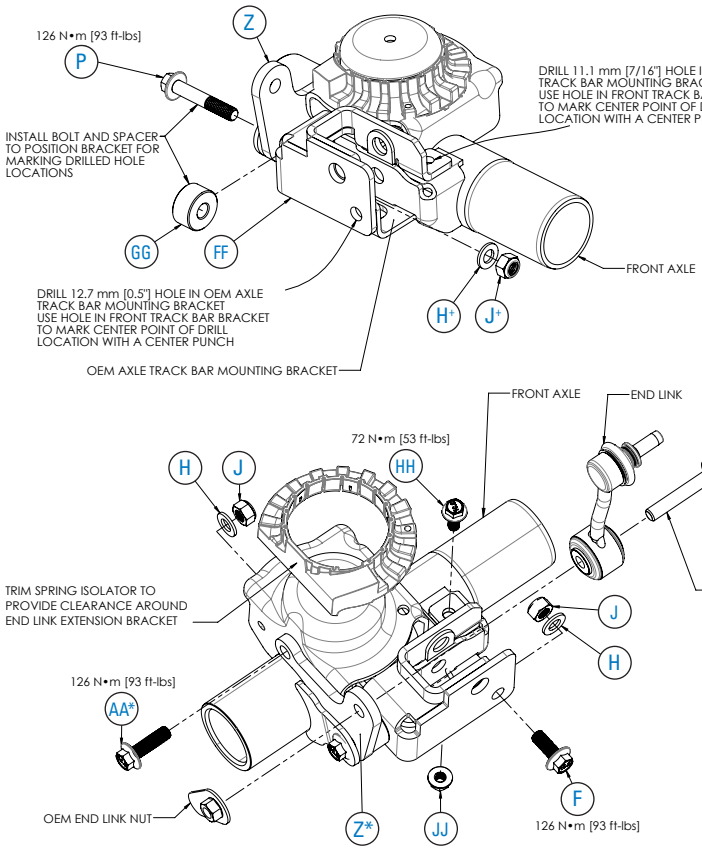
NOTES:
1. DRIVER'S SIDE SHOWN, PASSENGER SIDE SIMILAR

SUBGROUP HP1906: Front Track Bar Relocation

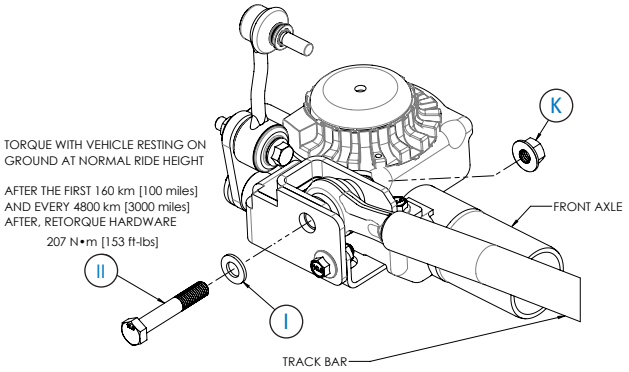


HP1906 Contents		QTY	PART #
FF	Bracket, Front Track Bar	1	HP1808
GG	Spacer, Front Track Bar	1	HP1829
HH	Bolt, M10 x 1.5 x 25mm Flange Head	1	HP1814
F	Bolt, M12 x 1.75 x 30mm Flange Head	1	HP1817
P	Bolt, M12 x 1.75 x 70mm Flange Head	1	HP1794
II	Bolt, M14 x 2 x 85mm Hex Head	1	HP1832
H	Washer, M12 Flat	1	HP1818
I	Washer, M14 Flat	1	HP1466
JJ	Nut, M10 x 1.5 Flange	1	HP1457
J	Nut, M12 x 1.75 Nylon Lock	1	HP1575
K	Nut, M14 x 2 Top Lock Flange	1	HP1872

FRONT PASSENGER TRACK BAR BRACKET



FRONT PASSENGER END LINK EXTENSION



PLEASE NOTE:

- **Use AA*** from Subgroup HP1904
- **Use Z*** from Subgroup HP1904
- **Use H+** from Subgroup HP1904
- **Use Z+** from Subgroup HP1904

BEFORE STARTING THE INSTALLATION:

Safety Warning!

Altering the suspension system of your vehicle may cause it to handle differently than it did from the factory. Larger wheel and tire combinations may increase the leverage on the suspension and steering components. This changes the way your vehicles handles and responds to abrupt maneuvers. Operate your vehicle at reduced speeds in all conditions to prevent loss of control. Failure to do so may result in serious injury. It is not recommend to combine the use of suspension lifts, body lifts, or other lifting methods.

Installation Warning!

Use caution when disassembling and reassembling the vehicle. The proceeding instructions are guidelines only, the installer is responsible for ensuring that the vehicle is safe for use after performing the installation. It is recommended to use the factory service manual for the model/year of the vehicle when disassembling and assembling factory related components.

WHEEL ALIGNMENT AND HEADLIGHT ADJUSTMENT

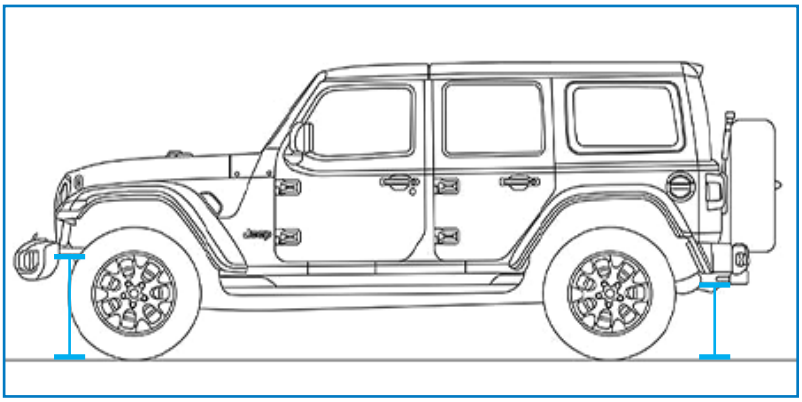
It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician to align the vehicle to factory specifications. After the installation is complete, check to ensure that the vehicle's headlights are aimed properly. If not, a headlight alignment is required.

1 MEASURE STOCK RIDE HEIGHT

Park the vehicle on a level surface.

Using a measuring tape, measure the distance between the front/rear frame to body mount brackets and ground (see Figure 1). This will give you your ride height.

Note the ride height for all four corners. Please be aware that resulting lift height may change depending on trim/engine.



1

2 REMOVE REAR WHEELS

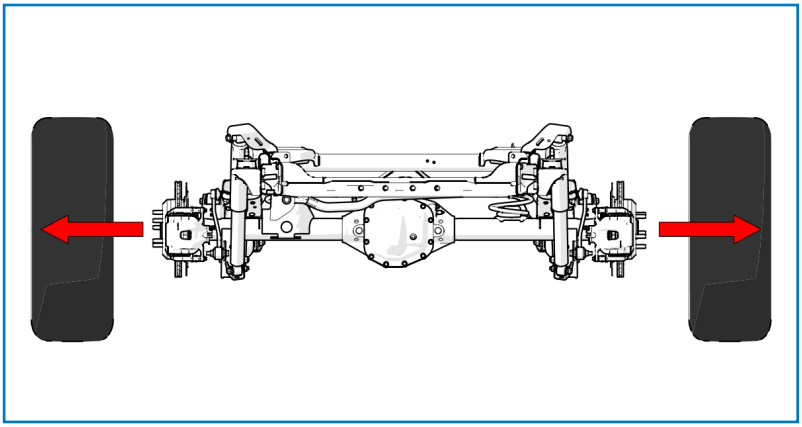
Place wheel chocks in front of and behind both front wheels.

Raise the rear of the vehicle high enough to remove both wheels and attain a comfortable working height.

Use two jack stands to support the vehicle at the frame.

Use a jack to support the rear axle.

Remove both rear wheels.



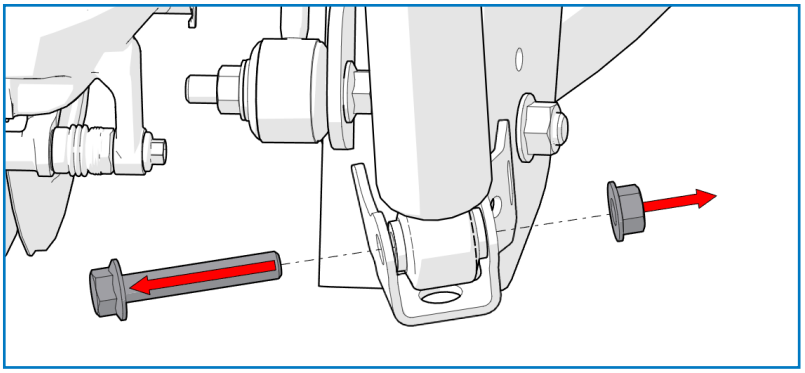
2

3 REMOVE LOWER SHOCK BOLTS

Remove the bolt securing the shock to the axle (as shown in Figure 3).

Discard the hardware.

Repeat on the opposite side of the vehicle.

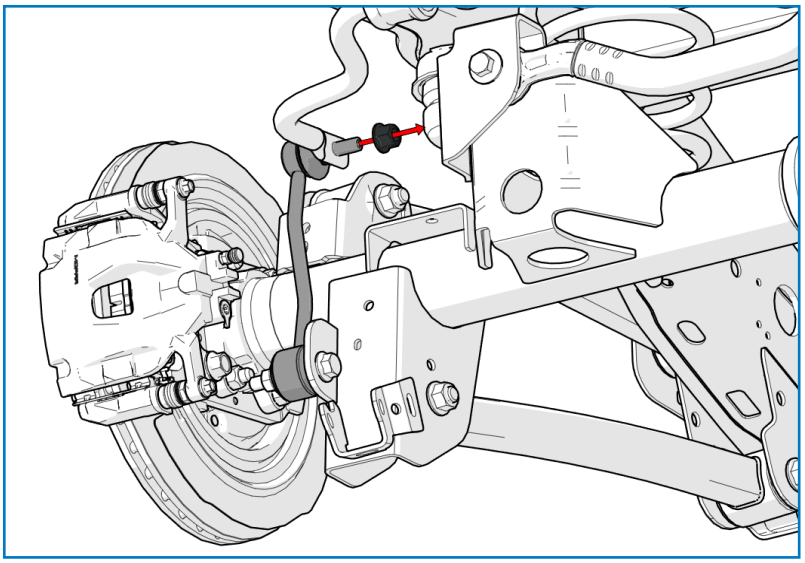


3

4 REMOVE REAR SWAY BAR END LINK

Remove the nut securing the rear sway bar end links to the sway bar. (See Figure 4 for reference).

Push the sway bar upwards to a position that is out of the way and re-secure the nuts onto the end links.



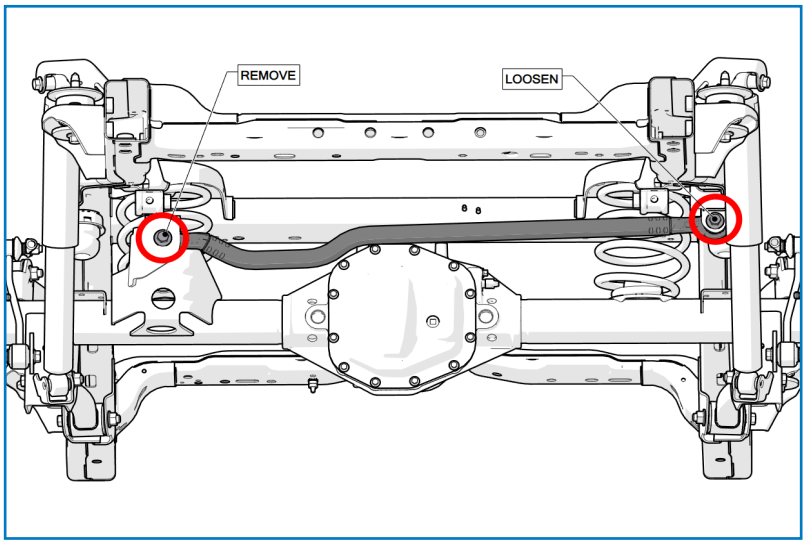
4

5 REMOVE TRACK BAR BOLT

Remove the bolt securing the track bar to the axle (as shown in Figure 5; marked as "REMOVE").

Discard the hardware.

Loosen, <u>but do not fully remove,</u> the bolt securing the track bar to the frame (as shown in Figure 5; marked as "LOOSEN").



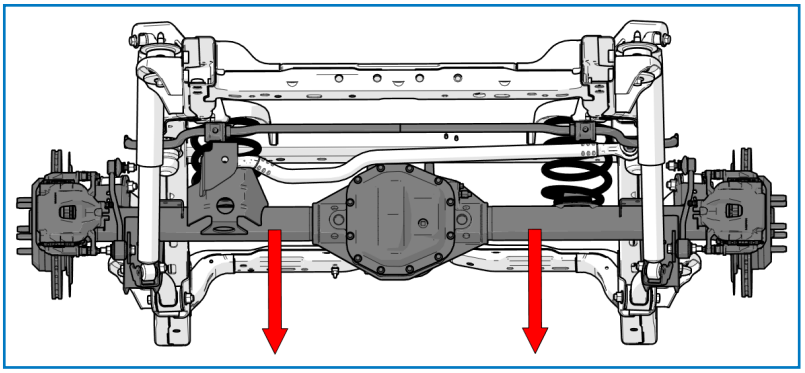
5

6 REMOVE REAR SPRINGS

Slowly lower the rear axle until the rear coil springs can be removed.

Temporarily remove emergency brake lines from both disc brakes and rear axle housing.

⚠ Ensure no brake or electrical lines are stretched while lowering the axle.



6

7 INSTALL JOUNCE BUMPER EXTENSION

Remove rear jounce bumpers (as shown in Figure 7A), using a pulling and twisting motion.

Align jounce bumper extension grooves with teeth on cup (highlighted red in Figure 7B).

Push the jounce extension into mounting cup (as shown in Figure 7C).

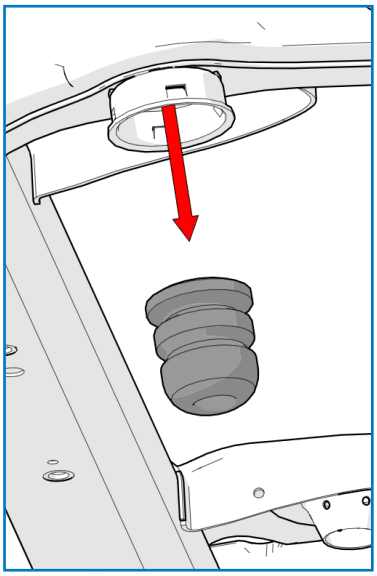
ⓘ Lubricating the sliding surfaces with a light coating of grease will aid the installation.

If installation by hand is too difficult, the vehicle's weight can be used to press it in.

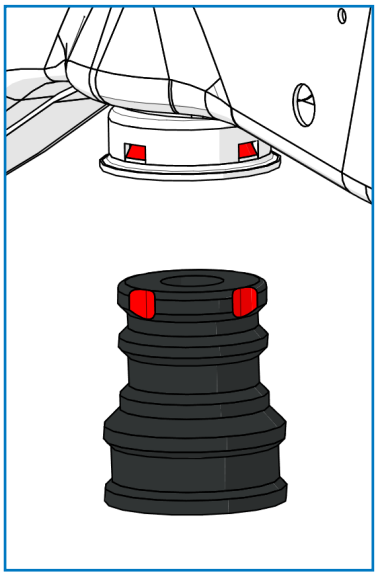
Place a block of wood between the axle jounce stopping pad and the jounce extension, then lower the vehicle body (or raise the axle) so that the extension is pressed into the mounting cup.

Next, push in OEM jounce bumper into extension cup.

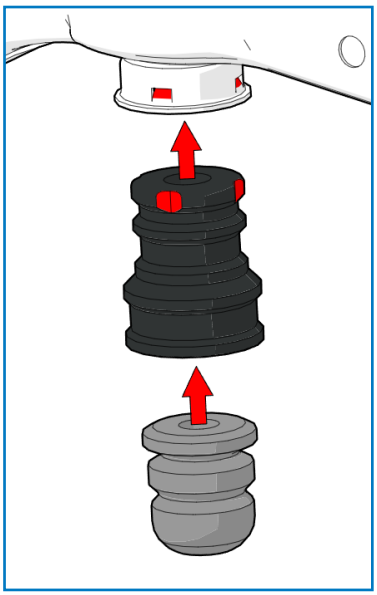
Finally, turn jounce bumper extension approximately 45 degrees so that notches in the extension and mounting cup teeth no longer align with extension grooves (See Figure 7D for reference).



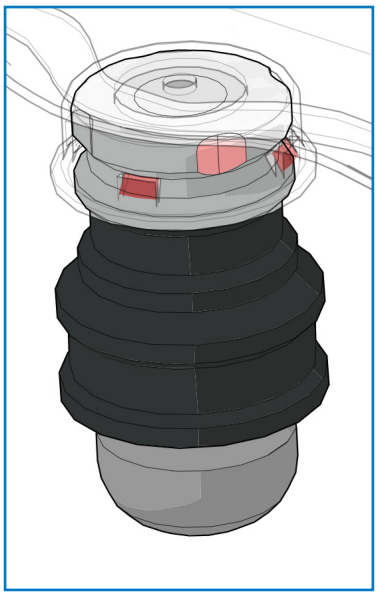
7A



7B



7C



7D

8 INSTALL REAR LIFT SPRINGS

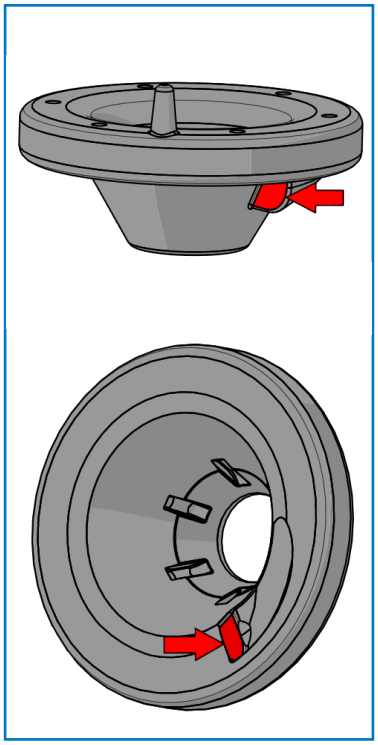
Install the rear lift spring in the vehicle with the spacer nested between the spring and OEM spring isolator. (Use Figures 8A-8C as reference).

Ensure the spacer, spring isolator and tail of the spring butt up against each parts stopping face (highlighted red in Figure 8A).

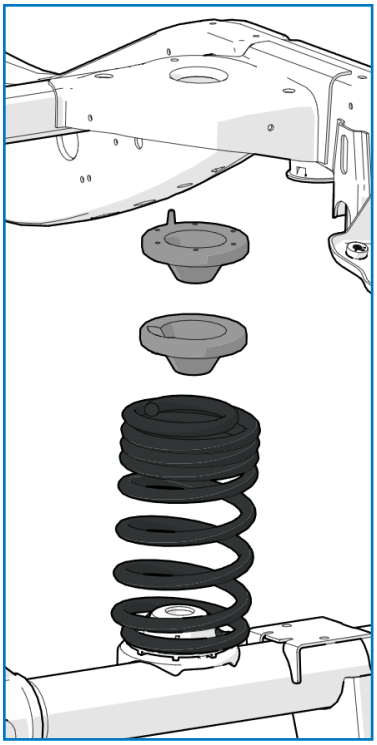
Ensure the spring is fully seated on the axle spring perch (see Figure 8B for alignment).

Ensure the alignment tab on the spring isolator is aligned with the alignment holes in the frame (as shown in Figure 8C).

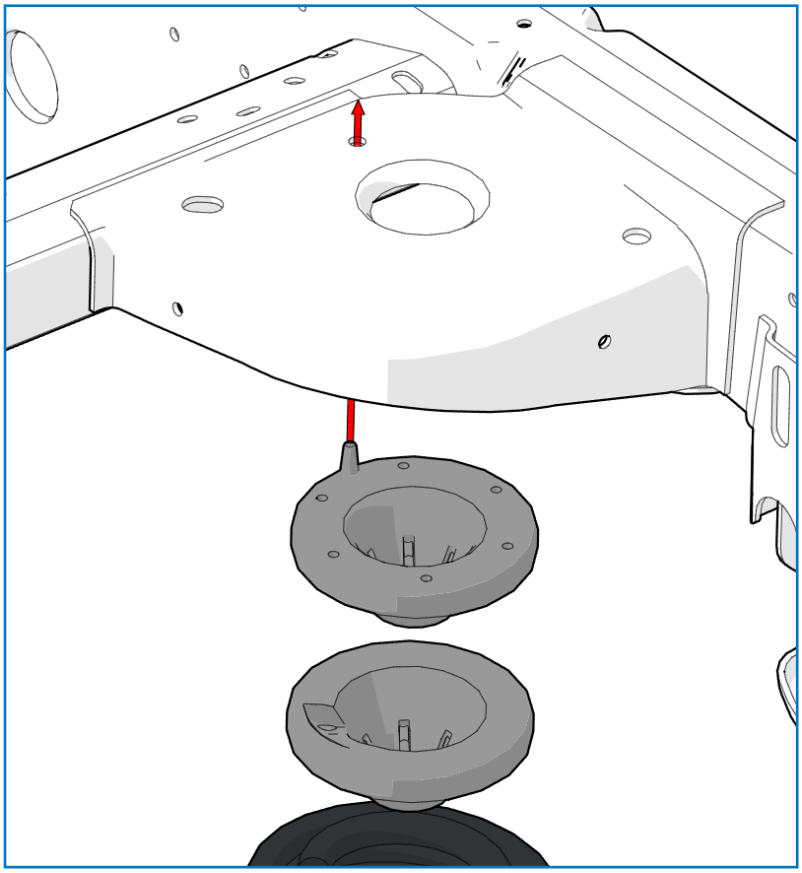
Repeat on the opposite side of the vehicle.



8A



8B



8C

USE SUBGROUP HP1900

9 DRILL TRACK BAR BRACKET HOLES

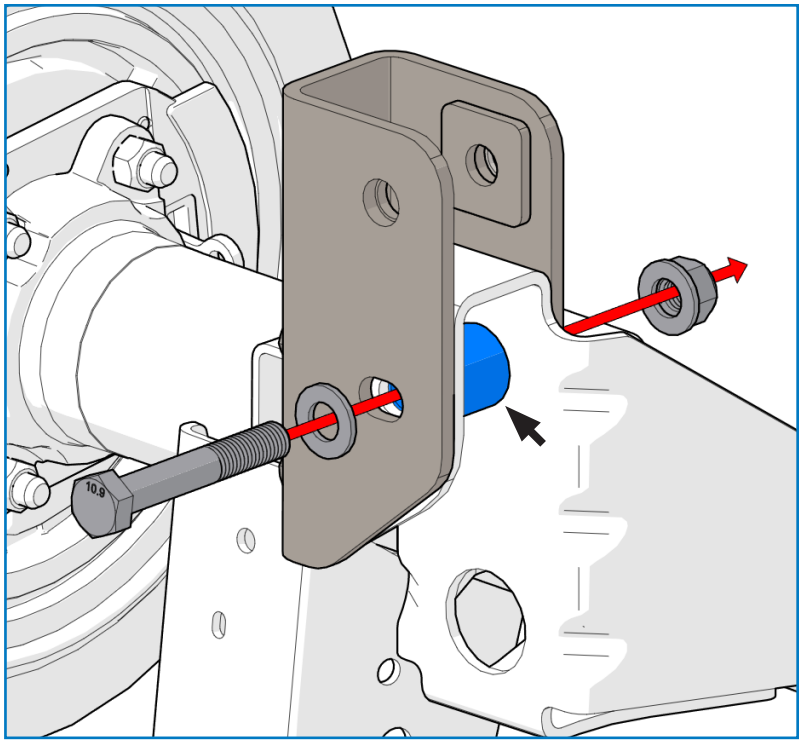
Temporarily install the rear track bar bracket using the provided M14 x 2 x 90mm bolt, washer, top lock flange nut and spacer (see Figure 9A for assembly - spacer shown in blue, marked with a black arrow).

Torque to approximately 100 N•m [74 ft-lbs]

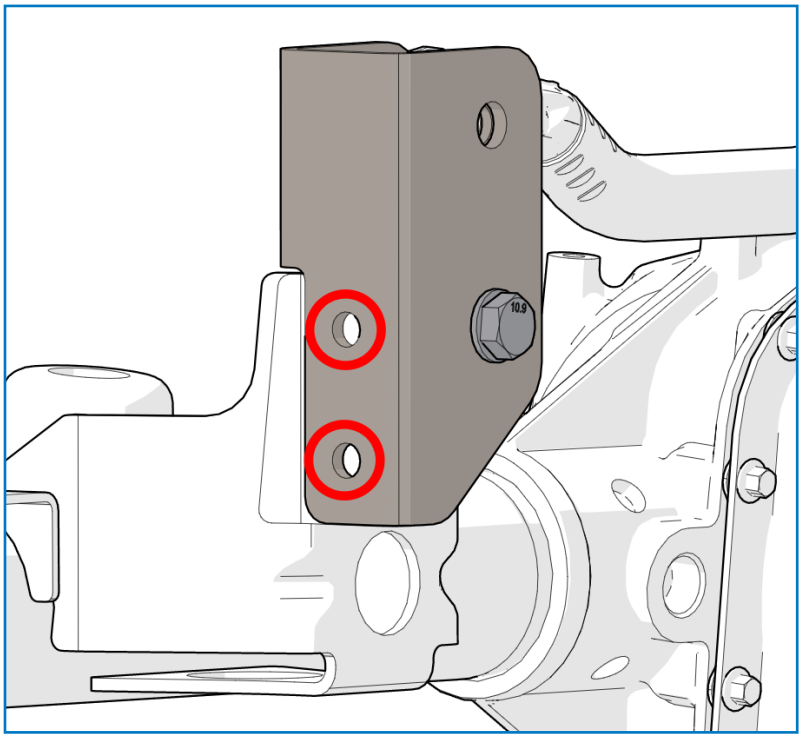
Use the rear track bar bracket as a template to mark the centers of the hole with a center punch (see highlighted red circles in Figure 9B).

First drill hole using a 1/8" pilot drill, then enlarge holes to 12.7mm [0.5"] holes in the axle mounting bracket.

Apply paint or protective coating to bare metal to prevent corrosion.



9A



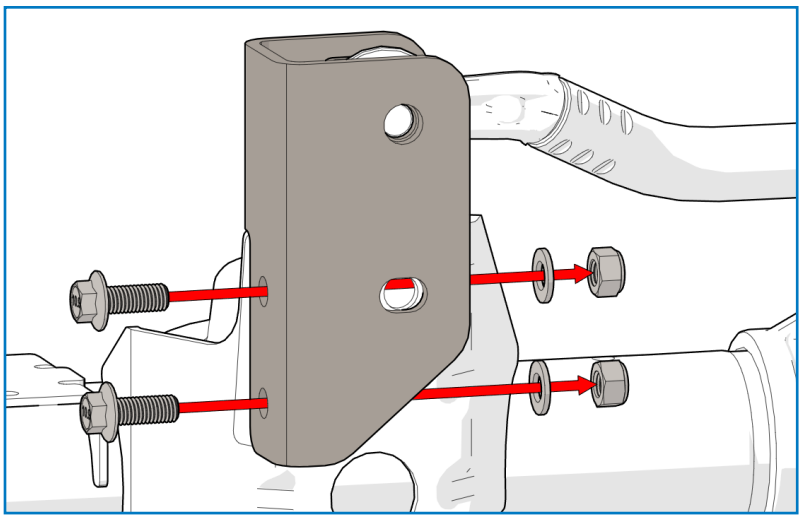
9B

10 ATTACH TRACK BAR BRACKET

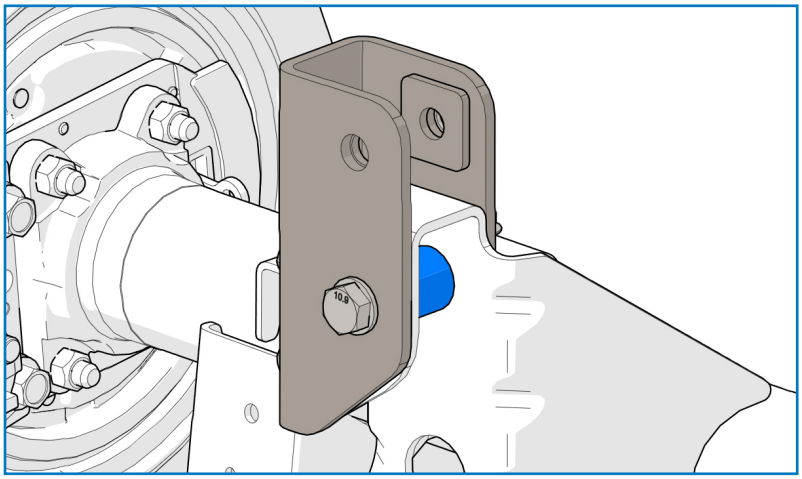
Attach the rear track bar bracket to the axle using two M12 x 1.75 x 30mm flange bolts, washers and nylon lock nuts (as shown in Figure 10A).

Torque bolts to 129 N•m [95 ft-lbs]

Torque M14 bolt to 206 N•m [153 ft-lbs]



10A



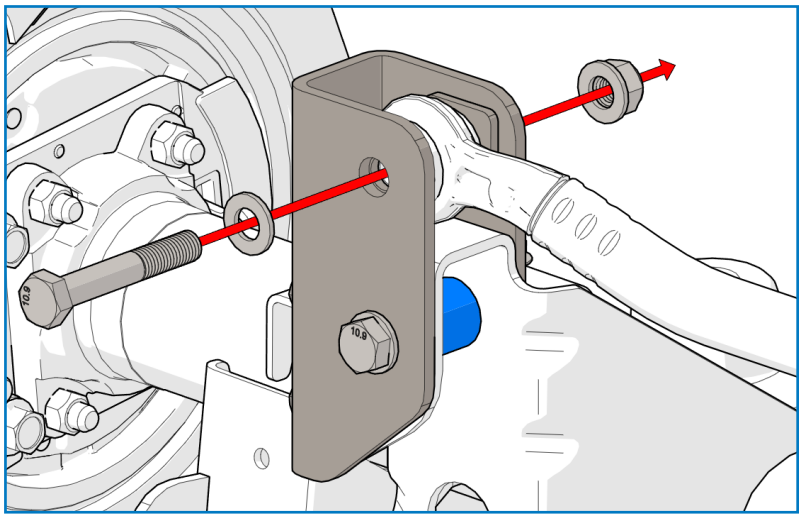
10B

11 ATTACH TRACK BAR

Secure track bar to rear track bar bracket with M14 x 2 x 90mm bolt, washer and top lock flange nut (as shown in Figure 11).

Torque hardware snug, but do not fully tighten at this stage.

If there is difficulty aligning the track bar to the bracket, a heavy duty ratchet strap can be used to pull the axle into position.



11

***USE SUBGROUP HP1901** (REAR COMPONENTS)*

12 INSTALL REAR SHOCK EXTENSIONS

Place rear shock extension in shock mounting bracket on axle (as shown in Figure 12).

Secure extension to axle using one M12 x 1.75 x 20mm flange bolt and one M12 x 1.75 x 70mm flange bolt, washer and nylock nut (see part assembly in Figure 12).

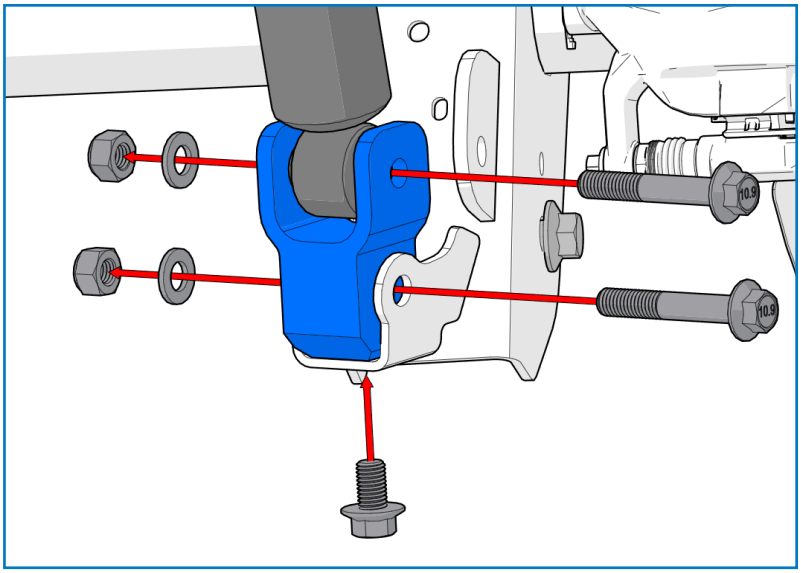
First: torque 20mm flange bolt to 118 N•m [87 ft-lbs]

Second: torque 70mm flange bolt to 129 N•m [95 ft-lbs]

Attach shock to extension using M12 x 1.75 x 70mm flange bolt, washer and nylock nut.

Torque bolt snug, but do not fully tighten at this stage.

Repeat on the opposite side of the vehicle



12

USE SUBGROUP HP1902

13 INSTALL REAR JOUNCE STRIKE PLATES

⚠ ***PLEASE NOTE: Strike plates are required for 35" diameter tire fitment.***

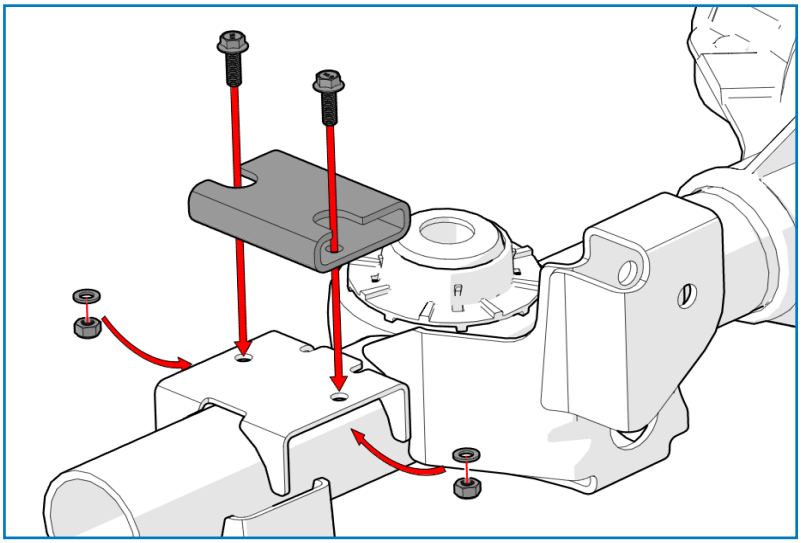
Place the rear jounce strike plates on the axle (as shown in Figure 13A).

Ensure the plate is offset toward the center of the vehicle (see Figure 13B for reference).

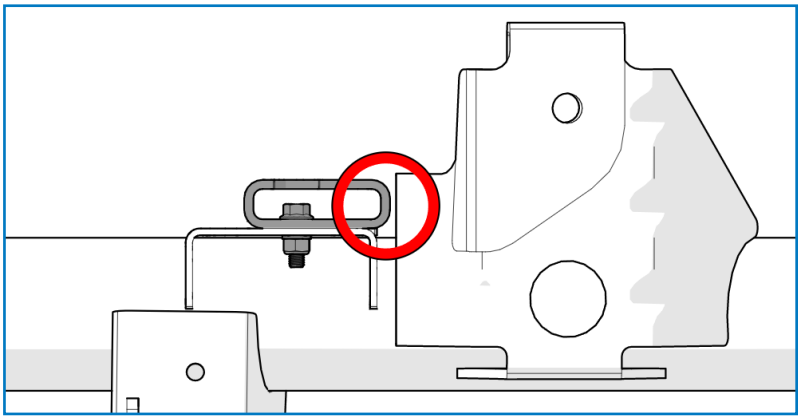
Secure the strike plates using two M8 x 1.25 x 25mm flange bolts, washers and nylock nuts.

Torque the bolts to 26 N•m [19 ft-lbs]

Repeat on the opposite side of the vehicle.



13A



13B

USE SUBGROUP HP1903

14 INSTALL SWAY BAR OFFSET SPACERS

Remove rear sway bar and discard fasteners (as shown in Figure 14A).

Using four M10 x 1.5 x 30mm flat head bolts, install sway bar spacers so that the offset will be toward the rear of the vehicle (as shown in Figure 14C).

Torque bolts to 53 N•m [39ft-lbs]

Flip rear sway bar so that the angled arms point downward (as shown, highlighted red, in Figure 14D).

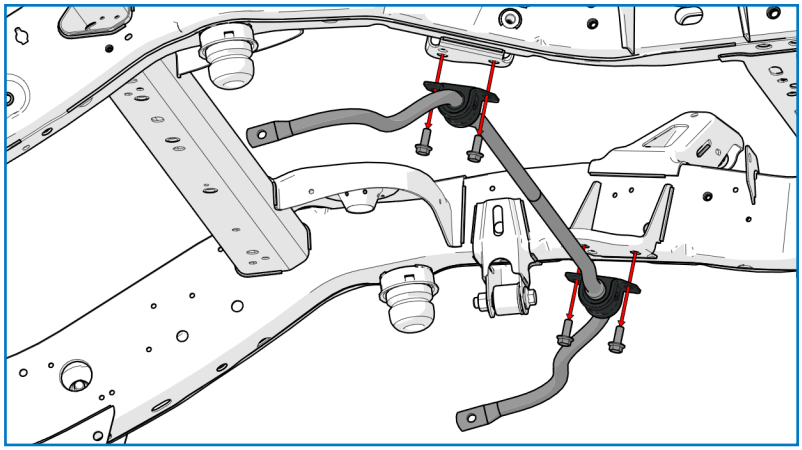
Clean and degrease the four M10 x 1.5 x 16mm hex head bolts and apply the provided Loctite 242 to the threads.

Secure the rear sway bar using these bolts with washers to the offset spacer (Figure 14C).

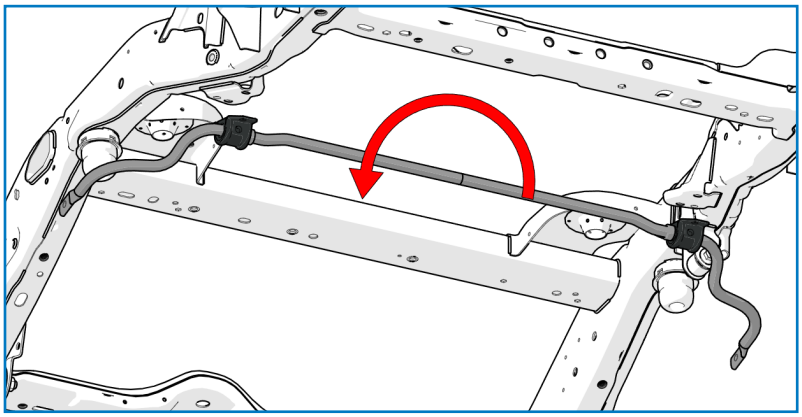
Torque bolts to 61 N•m [45ft-lbs]

Reconnect sway bar end links to the rear sway bar.

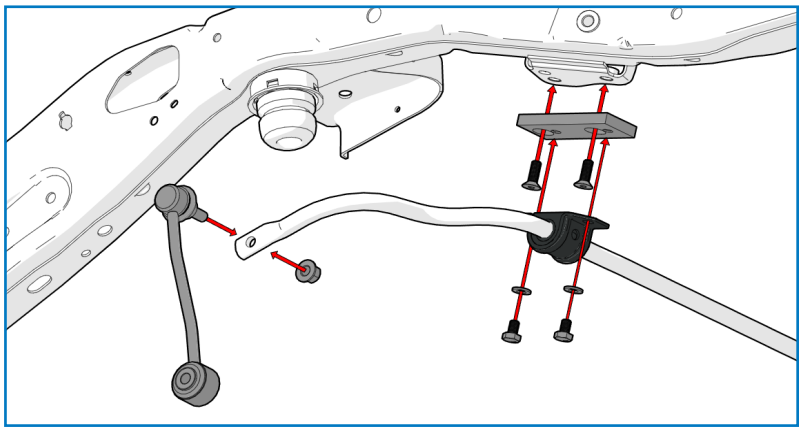
Torque nuts to 80 N•m [59 ft-lbs]



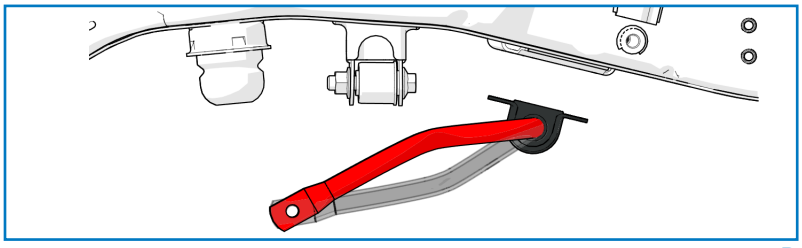
14A



14B



14C

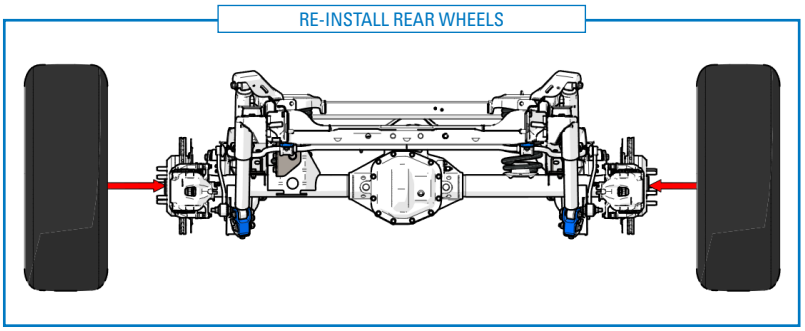


14D

15 INSTALL TIRES & LOWER VEHICLE

Re-install the rear tires and lower the vehicle to the ground.

Torque wheels to manufacturer's specifications.



15

16 REMOVE FRONT WHEELS

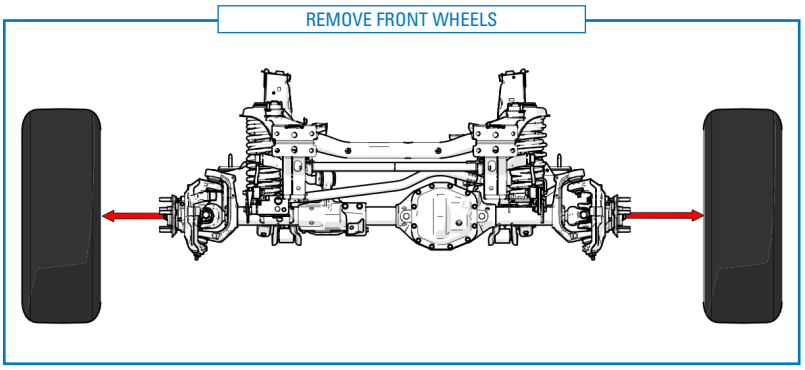
Place wheel chocks in front of and behind both rear wheels.

Raise the front of the vehicle high enough to remove both wheels and attain a comfortable working height.

Use two jack stands to support the vehicle at the frame.

Use a jack to support the front axle.

Remove both front wheels.



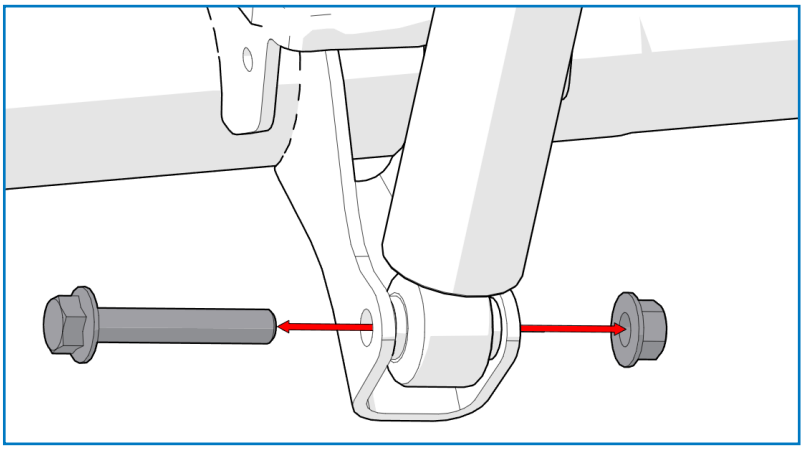
16

17 REMOVE LOWER SHOCK BOLTS

Remove the bolt securing the shock to the axle (as shown in Figure 17).

Repeat on the opposite side of the vehicle.

Discard the hardware.

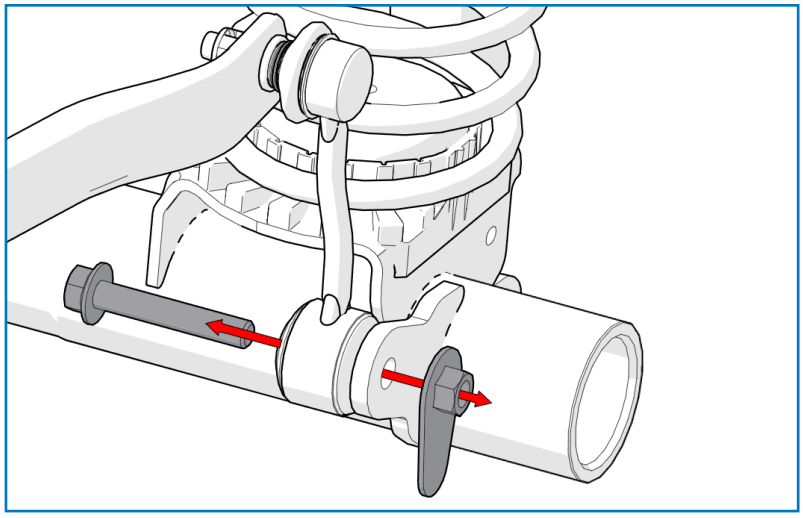


17

18 REMOVE END LINK BOLTS

Remove the bolt securing the end links to the axle (as shown in Figure 18).

Repeat on the opposite side of the vehicle.



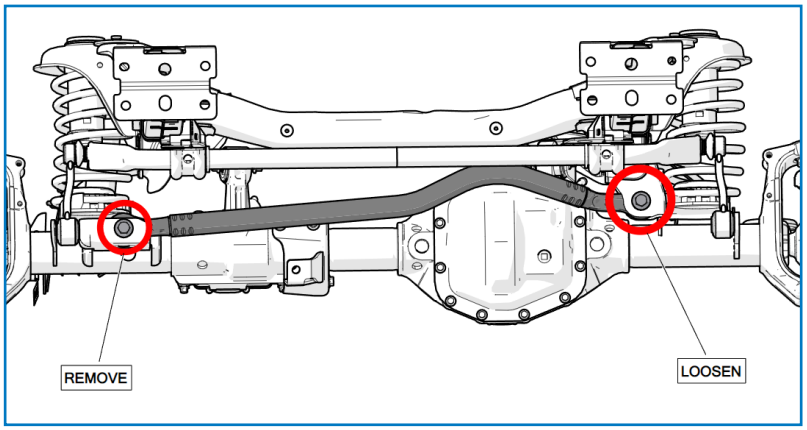
18

19 REMOVE TRACK BAR BOLT

Remove the bolt securing the track bar to the axle (as shown in Figure 19, marked as "REMOVE").

Discard the hardware.

Loosen, but do not fully remove, the bolt securing the track bar to the frame (as shown in Figure 18, marked as "LOOSEN").



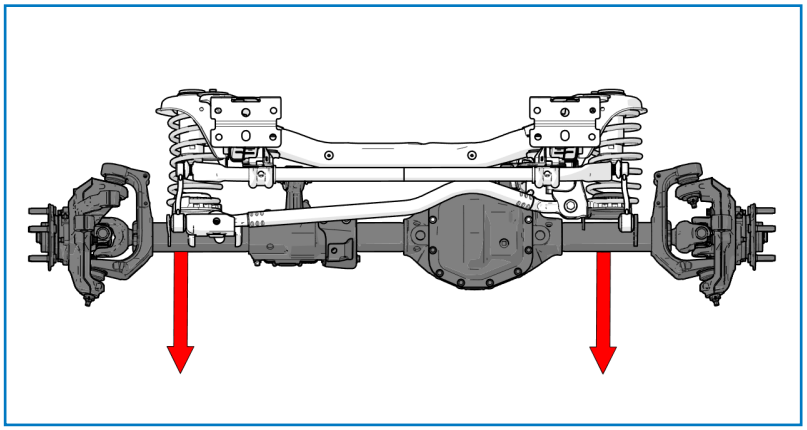
19

20 REMOVE FRONT SPRINGS

Slowly lower the front axle until the coil springs can be removed.

Ensure no brake or electrical lines are stretched while lowering the axle.

Temporarily remove any line retaining clips or brackets as needed to lower axle safely and sufficiently.



20

USE SUBGROUP HP1905

21 MODIFY SPRING PERCHES

Trim the lower edge of the rubber spring isolators (highlighted with a red arrow in Figure 21A) to allow clearance for the end link extension bracket (shown with a black arrow in Figure 21A) to sit on the axle.

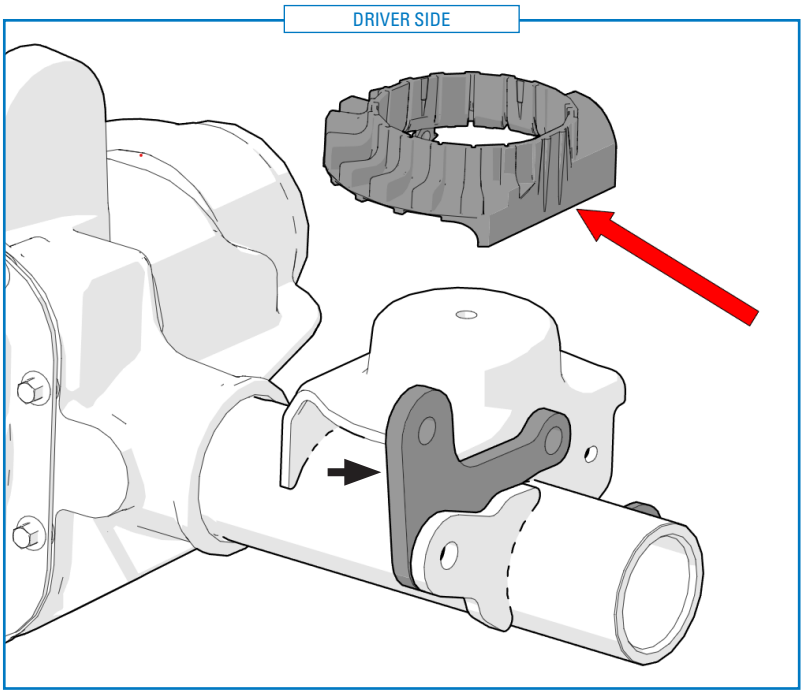
Driver side shown, repeat on passenger side.

Place the end link extension bracket (HP1813 - found in subgroup HP1904) on the drivers side.

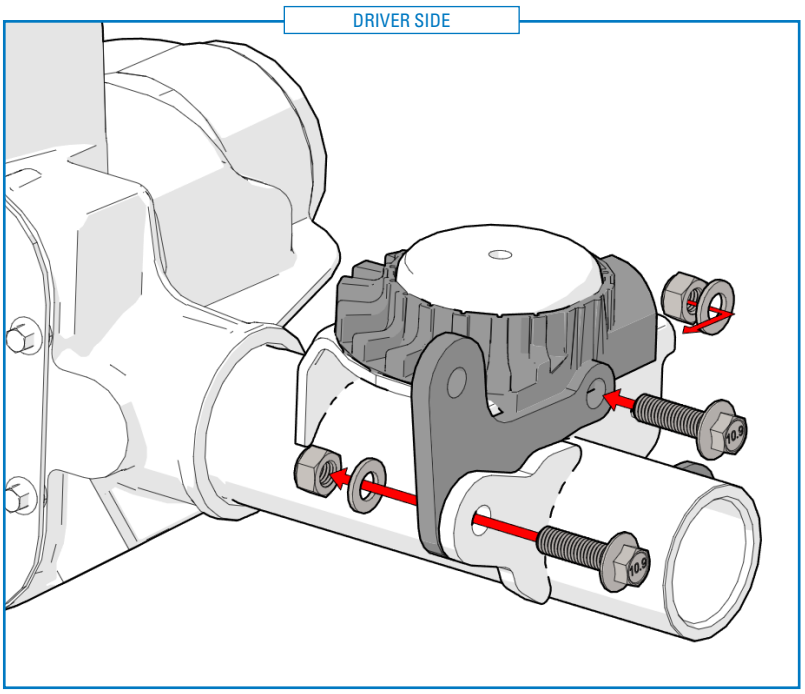
If installation is tight, a rubber mallet may be required to tap into place.

Install using two M12 x 1.75 x 40 mm flange bolts and nylock nuts/washers (as shown in Figure 21B).

Torque hardware to 126 N•m [93 ft-lbs]



21A



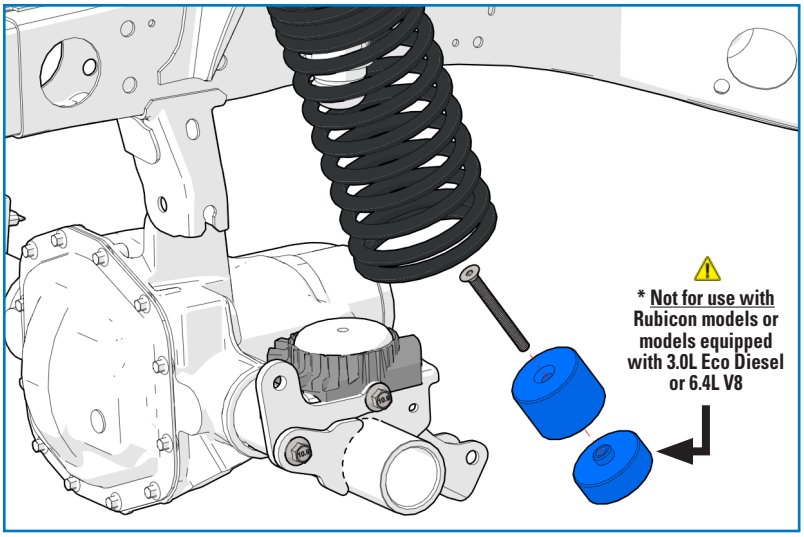
21B

22 INSTALL FRONT LIFT SPRINGS

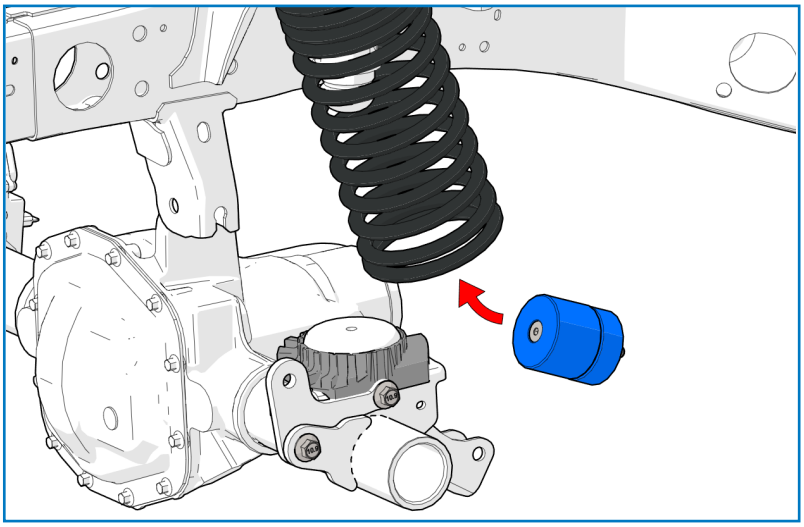
Nest the front bump stop extensions and front bump stop extension spacers* (*see note below*) with M10 x 1.5 x 100mm flat head into the bottom of spring (see Figures 22A-22C for correct assembly).

⚠ ***PLEASE NOTE:*** Front bump stop extension spacers (shown in Figure 22A with a black arrow) are to be used for all models *EXCEPT RUBICON or MODELS EQUIPPED WITH 3.0L ECO DIESEL or 6.4L V8.*

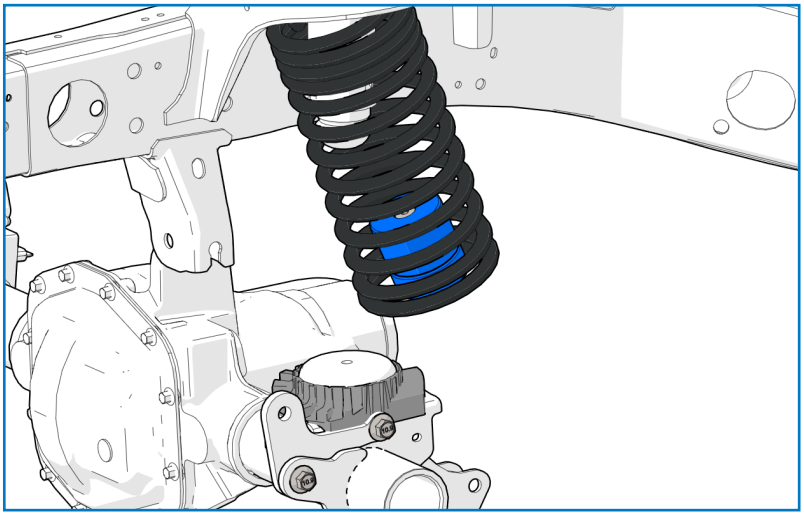
Step continues on the following page...



22A



22B



22C

Install the top end of the front lift spring in the vehicle with the OEM upper spring isolator (as shown in Figure 22D).

Ensure the alignment tabs on the spring isolator are aligned with the alignment holes in the frame (as shown in Figure 22E).

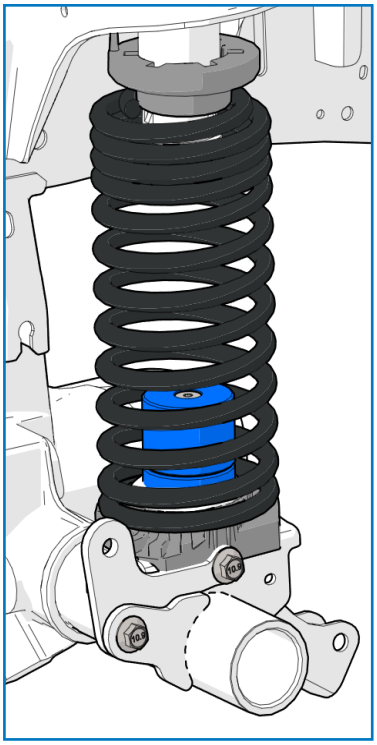
Pull spring / bump stop extension together onto lower spring isolator.

Ensure the spring is properly positioned with the coil end against the stop face on lower spring perch.

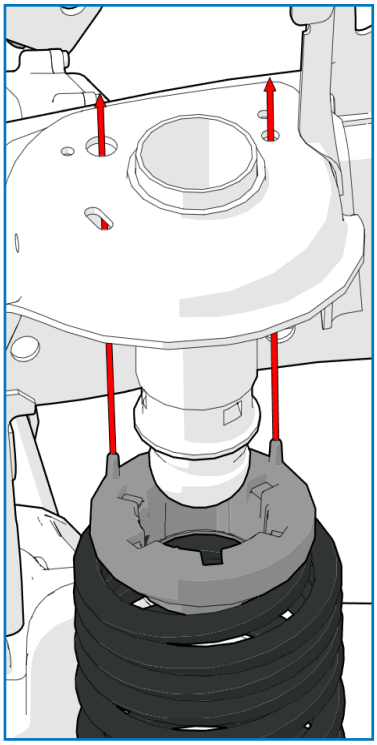
Route M10 nylock nuts and washers under the coil spring seat.

Torque flat head bolt to 32-50 N•m [24-36 ft-lbs] (see Figure 22F).

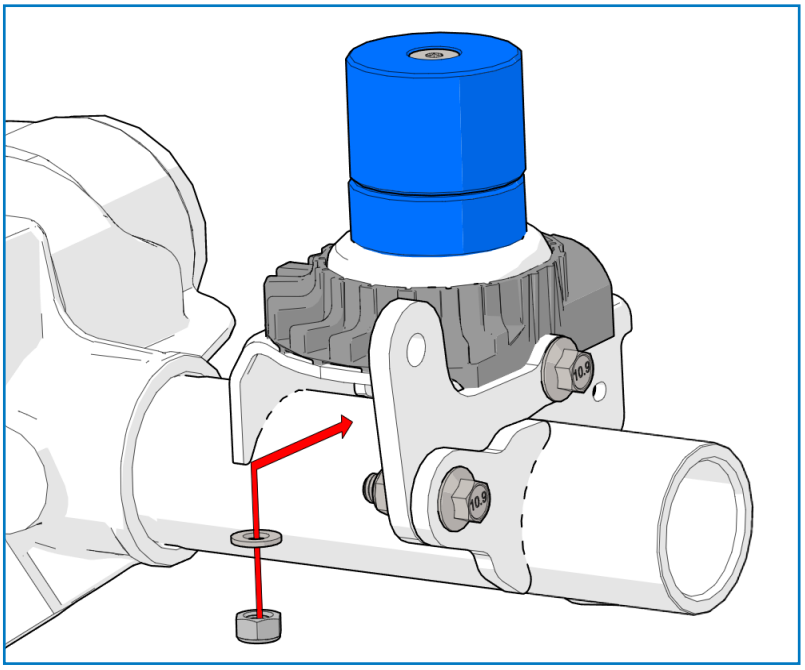
Repeat on the opposite side of the vehicle.



22D



22E



22F

***USE SUBGROUP HP1901** (FRONT COMPONENTS)*

23 INSTALL FRONT SHOCK EXTENSIONS

Place the front shock extension in the shock mounting bracket on the axle.

⚠ ***PLEASE NOTE: different bolt holes/ports are used for each side of the vehicle*** *(see Figure 23A for reference)*

Secure extension to axle using one M8 x 1.25 x 16mm flange bolt and one M12 x 1.75 x 70mm flange bolt, washer and nylock nut (see Figure 23B for correct parts assembly).

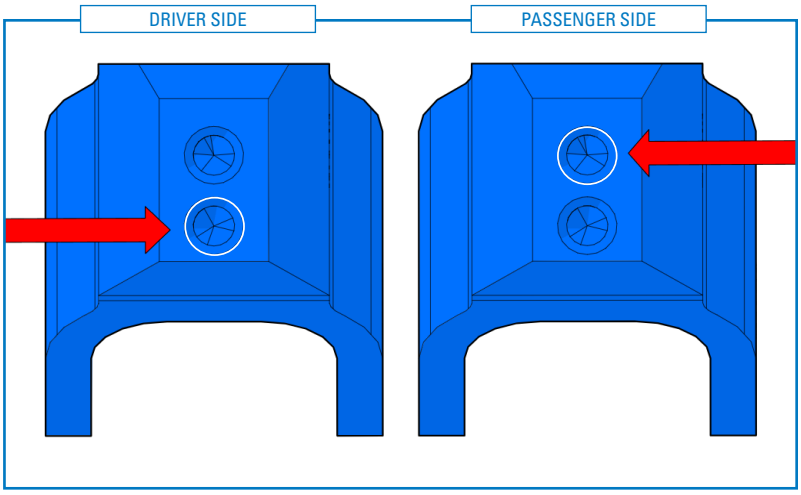
First: Torque 16mm flange bolt to 34 N•m [25 ft-lbs]

Second: Torque 70mm flange bolt to 129 N•m [95 ft-lbs]

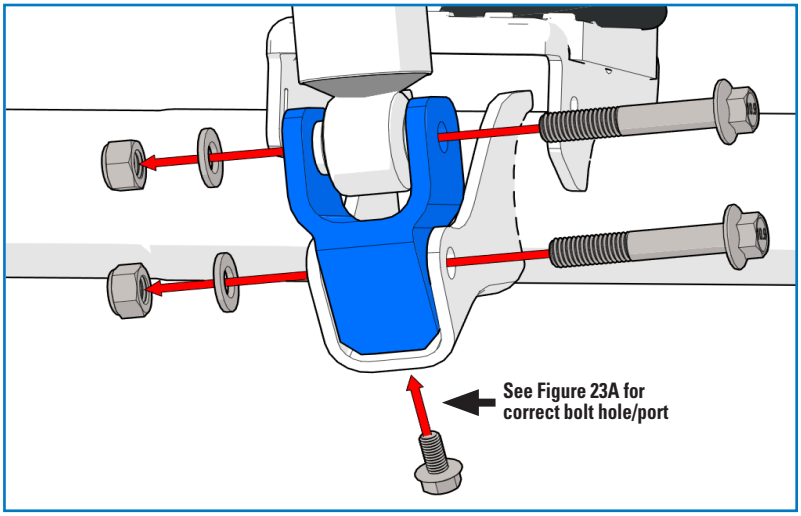
Attach shock to extension using M12 x 1.75 x 70mm flange bolt, washer and nylock nut.

Torque bolt snug, but do not fully tighten at this stage.

Repeat on the opposite side of the vehicle



23A



23B

USE SUBGROUP HP1906

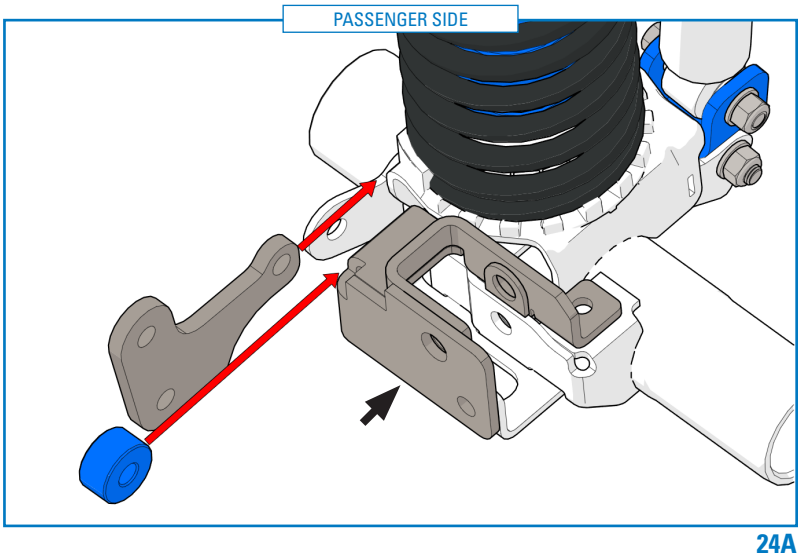
24 DRILL TRACK BAR BRACKET HOLES

Temporarily place the front track bar bracket on the axle (shown in Figure 24A with a black arrow).

Slide in passenger side end link extension and spacer (as shown in Figure 24A with red arrows).

ⓘ If installation is tight a rubber mallet may be required to tap into place.

Step continues on the following page...



24A

Install the M12 x 1.75 x 40mm flange head and M12 x 1.75 x 70mm flange head bolts with nylock nuts and washers to hold the front track bar relocation bracket and end link extension bracket in place.

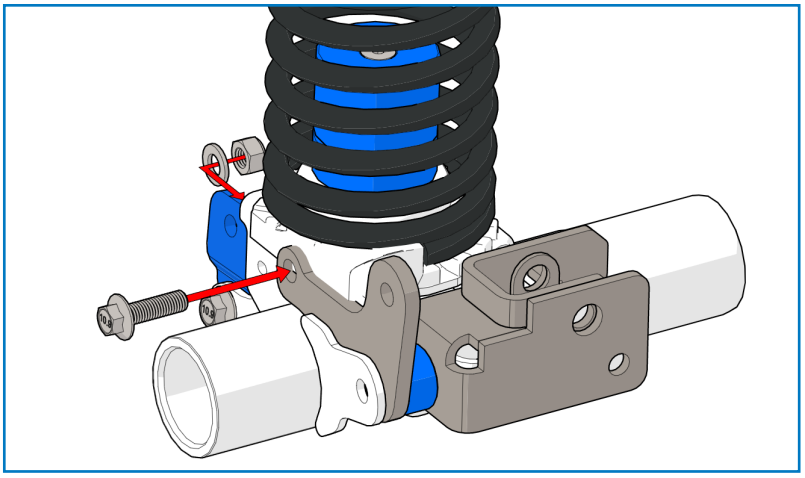
Torque hardware to 126 N•m [93ft-lbs]

Use the track bar bracket as a template to mark the centers of the holes (highlighted with red circles in Figure 24C) with a center punch.

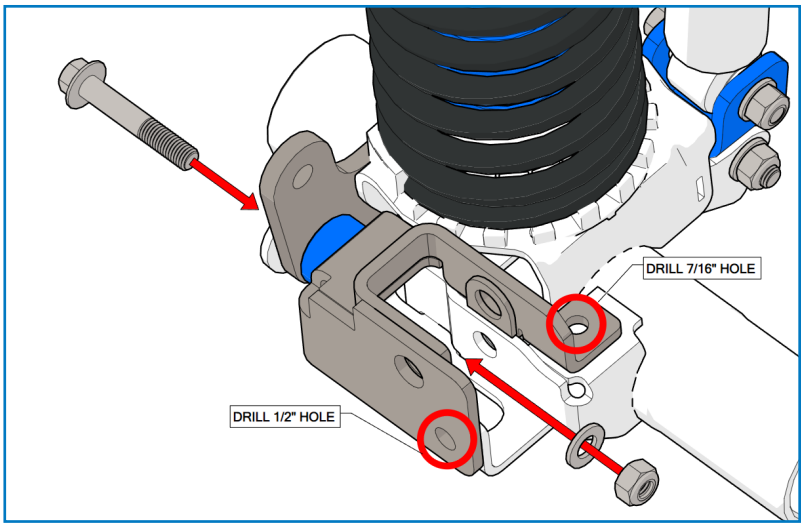
Drill a 1/8" diameter pilot hole in each location.

Enlarge pilot holes to 11.1mm [7/16"] and 12.7mm [0.5"] in the original axle track bar mounting bracket.

It is recommended to apply paint or protective coating to the bare metal to prevent corrosion.



24B



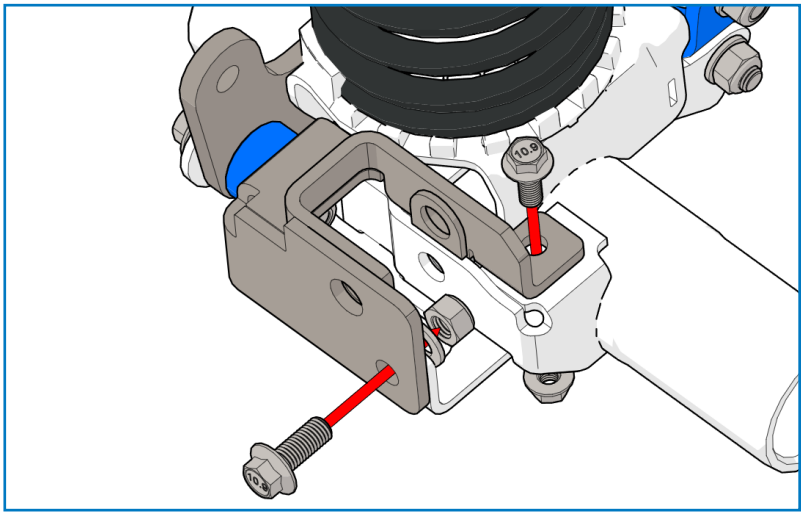
24C

25 ATTACH TRACK BAR BRACKET

Using the previously drilled holes, secure the track bar bracket with an M12 x 1.75 x 30mm flange bolt, washer and nylock nut, and an M10 x 1.5 x 25mm flange bolt and nylock nut (see Figure 25 for correct parts assembly).

Torque M10 bolt to 72 N•m [53 ft-lbs]

Torque M12 bolt to 126 N•m [93 ft-lbs]

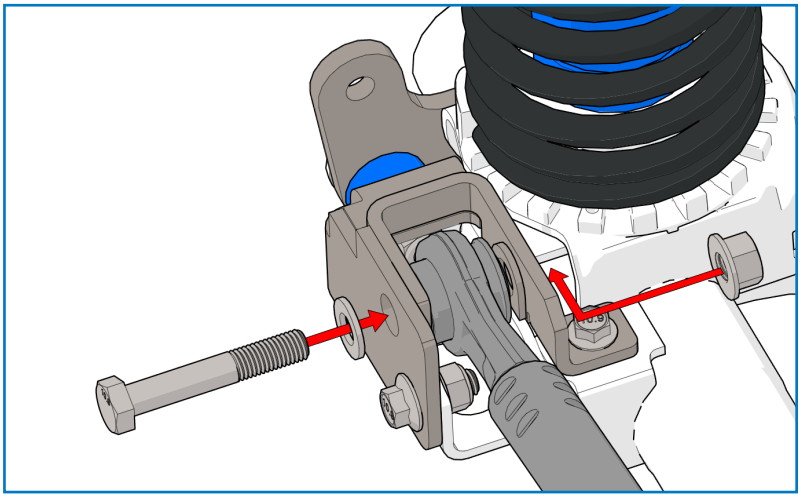


25

26 ATTACH TRACK BAR

Secure track bar to front track bar bracket with M14 x 2 x 85mm bolt and top lock flange nut (see Figure 26 for correct parts assembly).

Torque hardware snug, but do not fully tighten at this stage.



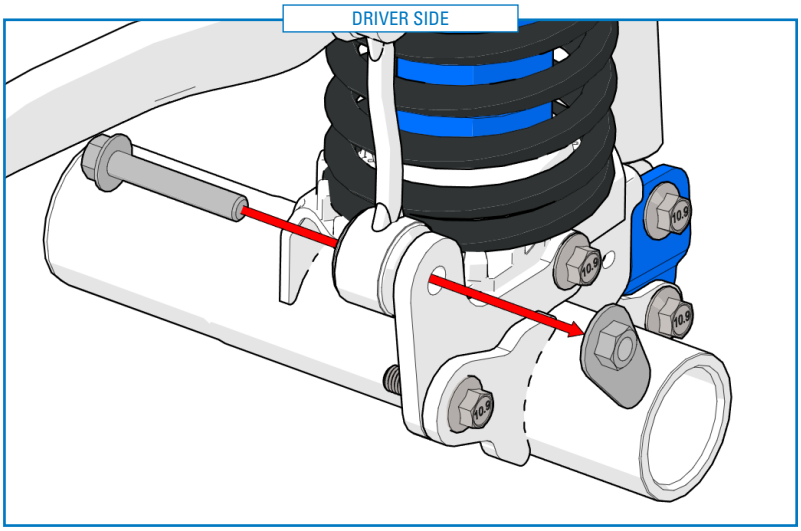
26

USE SUBGROUP HP1904

27 INSTALL DRIVER END LINK

Attach end link to extension using OEM bolt and nut (as shown in Figure 27).

Torque hardware to 90 N•m [66 ft-lbs]

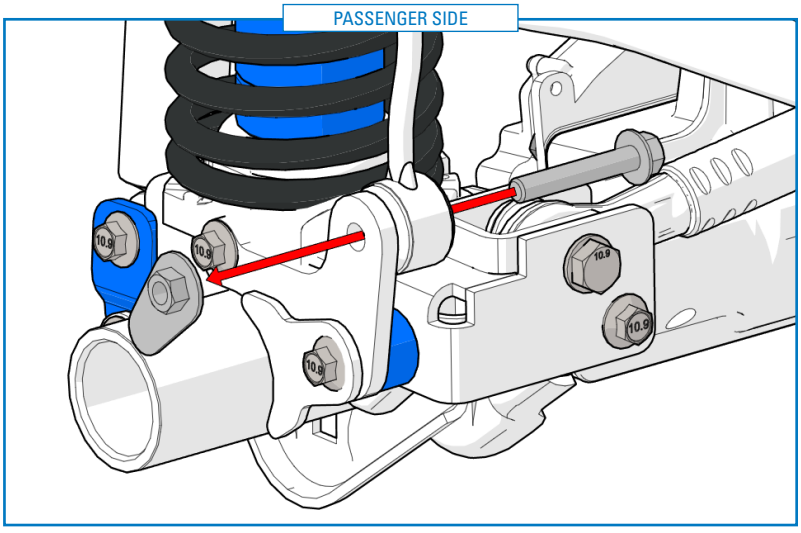


27

28 INSTALL PASSENGER END LINK

Attach end link to extension using OEM bolt and nut (as shown in Figure 28).

Torque hardware to 90 N•m [66 ft-lbs]

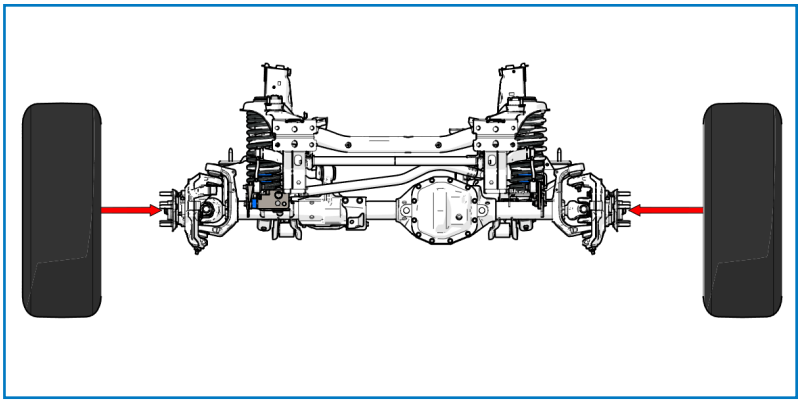


28

29 INSTALL TIRES & LOWER VEHICLE

Re-install the tires and lower the vehicle to the ground.

Torque wheels to manufacturer's specifications.



29

30 TORQUE ALL SUSPENSION HARDWARE

With the vehicle resting on the ground at unloaded ride height, rock the vehicle back and forth several times to settle all suspension components.

Move the vehicle forwards and backwards a short distance to allow suspension components to adjust.

Torque the following fasteners:

- Torque the rear lower shock bolts to 129 N•m [95 ft-lbs]
- Torque the rear lower track bar bolt to 206 N•m [153 ft-lbs]
- Torque the rear upper track bar bolt to 100 N•m [74 ft-lbs] plus an additional 30°
- Torque the front lower shock bolts to 129 N•m [95 ft-lbs]
- Torque the front lower track bar bolt to 207 N•m [153 ft-lbs]
- Torque the front upper track bar bolt to 70 N•m [52 ft-lbs] plus an additional 115°

Congratulations!
You have completed the installation

POST INSTALLATION WARNING

Verify adequate tire, wheel, brake line and ABS wire clearance by turning the front wheels completely to the left and then to the right. Ensure brake/ABS lines are not stretched when the suspension is at full droop. Test and inspect steering, brake and suspension components. Vehicle damage may result if the post installation checks are not performed.

VEHICLE HANDLING WARNING

Larger wheel and tire combinations may increase the leverage on the suspension and steering components. Increasing the height of your vehicle increases the likelihood of rollover or loss of control during abrupt maneuvers, especially at high speeds. Operate your vehicle at reduced speeds in all conditions to prevent loss of control. Failure to do so may result in serious injury.

WHEEL ALIGNMENT & HEADLIGHT ADJUSTMENT

After the kit installation is complete, a professional wheel alignment must be performed by a certified alignment technician to re-align the vehicle to within factory specifications. Additionally, ensure that the vehicles headlights are aimed properly. If not, a headlight alignment is required as well. If not properly aligned it can cause increased tire and suspension component wear.

VEHICLE RE-TORQUE & SAFETY INSPECTION

After the kit installation and adjustments have been completed, within 160 kms [100 miles] of driving and every subsequent 4800 kms [3000 miles], perform a check over of all applicable fasteners and hardware to ensure they are adequately tightened to the specifications given (or as noted in the vehicle's factory service manual).

WARRANTY

To be eligible for warranty, the owner must submit their warranty card or register online within 30 days of the purchase date.