



INSTALLATION INSTRUCTIONS

ENT-085-001

OEM SHOCK ABSORBER SPACER KIT TO SUIT RAM 1500
DT (2WD & 4WD) 2019+



Lift Height Approx: 3.5" (89mm) Front / 2" (50mm) Rear - *(No Accessories Fitted)*



NOTE

Not compatible with TRX models, truck variants with air suspension, pre-lifted or leveled with off road packages (greater than 22" vertical distance between hub center to fender lip).

Some images contained in these instructions are generic and are a representation of the actual model and/or parts used. Some steps may also show parts out of sequence to the instructional steps.



7 Hours
Approximately



SAFETY WARNING

ENTHUZE requires you read and understand the safety and pre-install directions on page 2 and 3 before commencing installation of this product.

**Occupational health and safety procedures
must be observed at all times**

**IMPORTANT WARNINGS**

**BEFORE COMMENCING INSTALLATION OF THIS KIT
IT IS MANDATORY THAT YOU READ THE BELOW WARNINGS.**

**SAFETY WARNING**

- Read and understand instructions fully.
- Check the hardware supplied against the contents list on the following pages.
- This suspension kit can only be fitted to the vehicles Original Equipment Manufacturer (OEM) suspension components.
Do not combine suspension lifts kits, body lifts, or other lifting devices.
- Do not use this product for any vehicle make or model other than specified in these instructions.
- It is highly recommended that this kit be installed by a certified professional mechanic. ENTHUZE CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.
- While working on this vehicle, always use appropriate safety equipment.
- This product and or hardware must not be modified in any way. Do not remove labels from this product.
- Some images contained in these instructions are generic and are a representation of the actual model and/or parts used. Some steps may show parts out of sequence to the instructional steps.
- Fitting instructions are correct at the time of publication date and ENTHUZE cannot be held responsible for any vehicle changes from the manufacturer. It is the responsibility of the installer to ensure correct fitment.
- ENTHUZE recommends consulting a vehicle specific OEM Service Manual for proper disassembly and reassembly.
Tighten all bolts and fasteners to the torque specifications in the OEM Service Manual unless specified otherwise.
- Generally, altering your suspension system may change the way your vehicle handles. Take care when driving both on and off the road.
- Laws in regards to suspension modification vary from state, retailer and installers must inform end users about local laws and any breaches prior to installation.
- The vehicle must be in optimal operating condition prior to fitting this suspension kit. Repair or replace any worn or damaged components before proceeding.
- After installation of this product, a wheel alignment **MUST** be performed
- Read SAEJ2492 warning below.

**SAEJ2492 WARNING**

By installing this product, you acknowledge the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers.

Always wear seat belts and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions.

Some modifications (and combinations of modifications) are not recommended and may not be permitted in your State. Consult your owner's manual, the instructions accompanying this product and State laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

**CUSTOMER INFORMATION**

Customer Name: _____ Date: _____

Contact: _____

Part Number: _____ Batch Number: _____

PRE-INSTALLATION PROCEDURES

Prior to starting the installation it is mandatory to measure vehicle heights and head light positions.

With the vehicle on a level surface, measure the vertical distance from hub center to fender on each of the four corners and recording the measurements in the below table.

Once the installation is finished, roll the vehicle forward and back to settle the suspension and then remeasure the vehicles hub center to fender values.

After installation, readjust the headlights close as possible to factory heights to prevent safety hazards.

VEHICLE HEIGHT MEASUREMENTS

	Left-hand Side Before	Left-hand Side After	Right-hand Side Before	Right-hand Side After
Front				
Rear				

Measurement is to be performed from the center of the hub to fender edge, straight up from the hub.

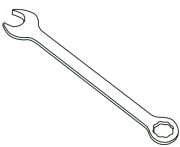
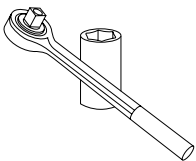
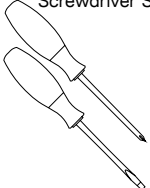
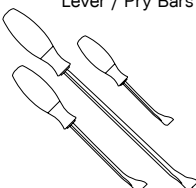
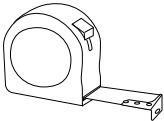
HEADLIGHT MEASUREMENTS

Left-hand Side Before	Left-hand Side After	Right-hand Side Before	Right-hand Side After

We strongly recommend using a Factory Service Manual for the specific Year / Make / Model as reference while installing.

- Before proceeding with this installation, the vehicle should be in optimal operating condition, and any worn or damaged components replaced first.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- After installation of this product, a wheel alignment MUST be performed.
- If changing +/- 10% from OEM tire diameter, a Speedometer / Computer recalibration is required.

TOOLS REQUIRED

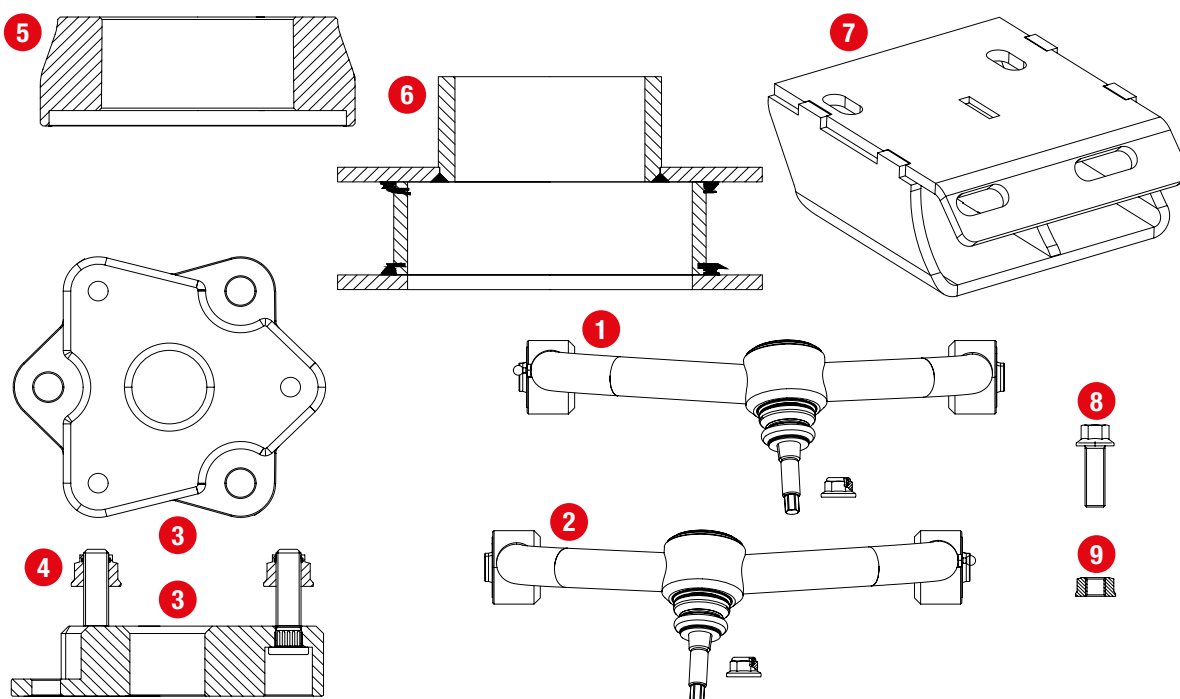
 Metric Wrench Set	 Metric Socket Set	 Screwdriver Set	 Lever / Pry Bars	 Tape Measure	 Spring Compressor
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Any damage or loss caused by improper installation, application or failure to observe and follow our recommendations, goes beyond our quality warranty.

ENT-085-001 KIT PARTS LIST

SPACER KIT TO SUIT OEM SHOCK ABSORBERS

No.	Description	Qty	No.	Description	Qty
UCA Steel Kit			Coil Spacer 2" Fabricated Kit		
1.	Upper Control Arm - LHS	1	6.	Spacer - Coil Steel	2
2.	Upper Control Arm - RHS	1	Bump Stop Spacer Kit		
Extension Strut Kit			7.	Spacer - Bump Stop Fabricated	2
3.	Spacer - Strut	2	8.	Bolt - Hex Flange (M8 x 25mm)	4
4.	Nut - Flange (M10 x 1.25)	6	9.	Nut - Hex Flange (M8 x 1.0)	4
Coil Spacer Kit					
5.	Spacer - Coil Alloy	2			



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PRE-INSTALLATION

1. Before installing, ensure spacer kit application is compatible with the vehicle.

Unwrap all components taking care not to damage or scratch in the process. Inspect for any damage.



NOTE

Retain all OEM (factory) hardware and components unless advised to discard.



TIP

It is good practice to lay out all parts to cross-reference against the parts list and record Batch Numbers.



2. All of the following steps should be repeated on the opposite side of the vehicle, unless otherwise specified.

REMOVAL AND INSTALLATION PROCEDURES - FRONT

3. Set the vehicle on a clean, level area and block the rear wheels for safety.

Engage parking brake.

Disconnect the vehicle power by removing the ground cable from the battery.

Fix the steering wheel in a straight position using a steering or column lock.

Lift the front of the vehicle and support it with jack stands under each frame rail.

Remove the front wheels and use a suitable workshop stand to support the front axle.



TIP

We suggest using a two (2) post vehicle lift if available, to lift and support the vehicle while completing the front and rear installation simultaneously.



4. Using a 13mm wrench, remove the brake line bracket from the chassis.
Carefully guide the metal brake line through the chassis to create some slack.
Make sure not to bend the metal brake line or damage the rubber hose.



5. Using a trim tool, detach the ABS harness from the upper control arm and the frame rails.

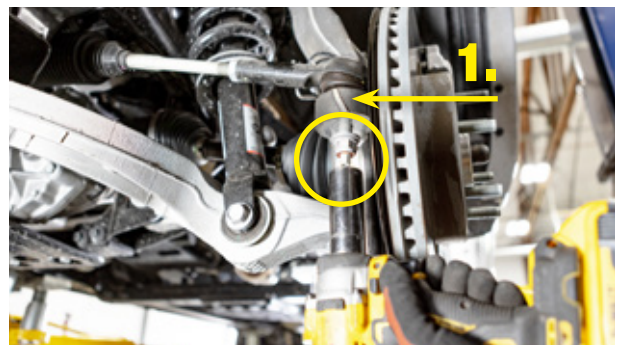


6. Using a 21mm socket, remove the outer tie rod nut from the knuckle.
To separate the taper, hit the tie rod boss **(1)** with a dead blow hammer. Be careful not to hit the tie rod end or boot.



TIP

Use a pry bar to pry the tie rod up while hitting.



7. Use a 21mm wrench to loosen the upper ball joint from the knuckle.

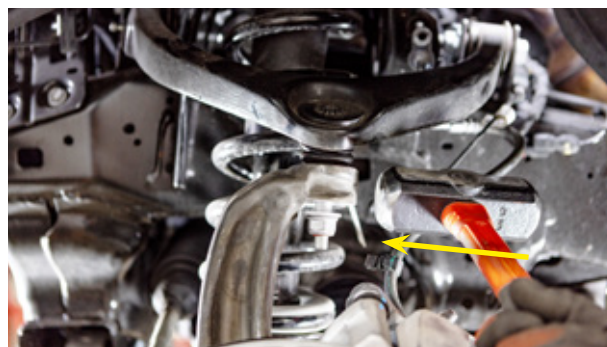


8. Using a dead blow hammer, strike the ball joint boss to release the taper.



TIP

Use a lever bar to pry up on the upper control arm while hitting.



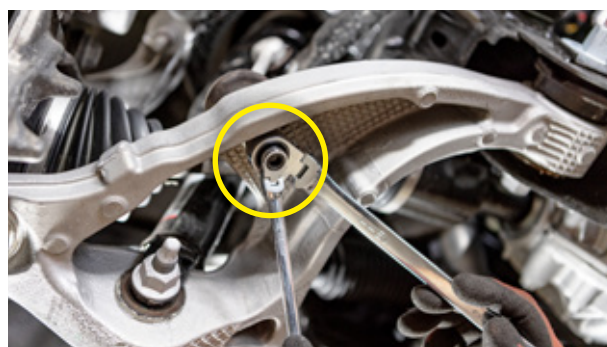
9. Remove the axle nut using a 35mm socket.



10. Use an 8mm, 15mm and 18mm socket and wrench to remove the sway bar end link from the lower control arm.

Loosen the bolt securing the saddle holding the sway bar to the frame.

Remove the end link from the lower control arm, this now allows both to hang out of the way.



11. Use a suitable jack to support the lower control arm.



WARNING

Failure to support the lower control arm may cause vehicle damage.



12. Using a 21mm and 24mm socket, remove the lower strut fasteners.

Lower the control arm while ensuring the control arm is supported.



WARNING

Do not overextend the ABS and brake lines.



13. Use a 16mm wrench and remove the upper strut nuts from the chassis bracket.



14. Remove strut assembly from the vehicle and retain.

Using a 21mm wrench, remove the upper control arm from the vehicle and discard.



WARNING

The spring is under extreme pressure and can cause bodily injury and/or death if handled improperly.

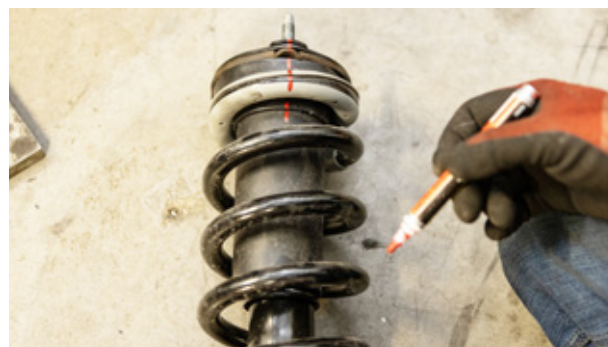


- 15.** Place the strut into a spring compressor. Mark the top hat to spring location for reassembly.
- Take care as the strut is under extreme pressure. Relieve the tension on the spring and remove the top hat.



WARNING

Take special care when disassembling and assembling the strut assemblies. Damage to the strut can occur if done incorrectly.



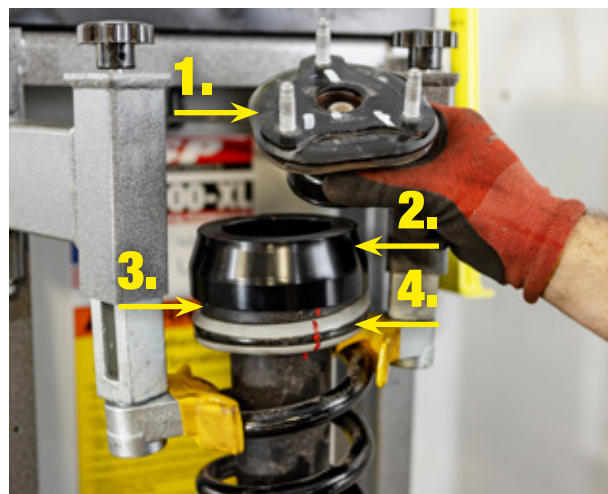
- 16.** Order of assembly for the strut:
1. OEM strut top and rubber isolator
 2. Preload spacer
 3. OEM dust shield
 4. Spring.

Install the preload spacer onto the dust shield/spring seat.

Install the OEM top hat/rubber isolator 180° from the marks previously made for orientation. This will orient the spring in its original location to prevent the spring from bowing.

When tightening, make sure the top of the strut shaft is fully seated into the top hat.

Torque the top strut hardware to 30lb.ft (41Nm).



- 17.** Place the strut spacer on top of the OEM strut top and check that the length of the OEM studs are shorter than the spacer.
- If they are longer trim, (as seen in image), use an appropriate tool to cut the top of the studs so they do not extend beyond the top of the strut extension.

Install the strut spacer on top of the OEM strut top and fasten with OEM hardware.

Torque to 30lb.ft (41Nm)



- 18.** Install the upper control arm, using the OEM fasteners
- Tighten fasteners, but do not torque at this time. These will be tightened once vehicle is returned to the ground.



- 19.** Reinstall the strut into the vehicle using the M10 x 1.25 flange nut supplied.
- Tighten the strut top hardware and torque to 30lb.ft (41Nm).



- 20.** Using the jack, lift the lower control arm up until you can align and install the lower strut hardware.
- Do not tighten at this time.



- 21.** Reattach the upper control arm ball joint to the knuckle using hardware supplied. Install the castle nut.

Torque the castle nut to 65lb.ft (88Nm).

Install the provided cotter pin.

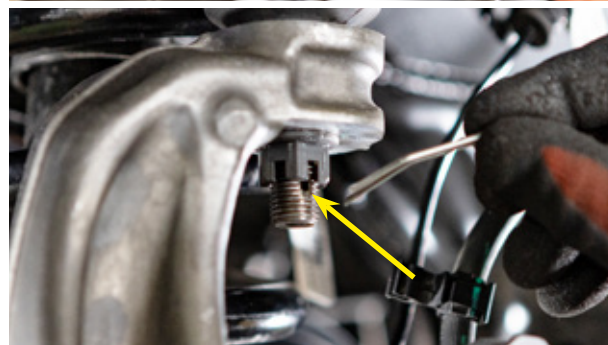
Use a suitable grease gun to fill the upper ball joint with grease until the boot just starts to expand.

Install the ball joint top cap.



WARNING

Do not overgrease. Overgreasing can cause premature wear.



- 22.** Reinsert the axle into the hub assembly.

Ensure splines are aligned and fully engaged, then fasten OEM nut.

Torque the axle nut to 185lb.ft (251Nm).



- 23.** Reinstall the brake line bracket to the chassis using OEM fastener.

Torque to 5lb.ft (6.8Nm).



- 24.** Guide the ABS wire harness alongside the rubber brake line and secure it in place using a zip tie.



- 25.** Use an 8mm, 15mm and 18mm socket and wrench to reinstall the sway bar end link into the lower control arm.

Reinstall the bolt securing the saddle holding the sway bar to the chassis.

Torque to 35lb.ft (47Nm).



- 26.** Refit the wheels and lower the vehicle to the ground.

Torque lug nuts to manufacturer specification.

Bounce the vehicle a few times to settle the suspension to the new ride height.

**NOTE**

Skip this step if you are using a hoist to lift the vehicle and continue the install.

REMOVAL AND INSTALLATION PROCEDURES - REAR

- 27.** Block the front wheels and raise the rear of the vehicle using a suitable jack and support with jack stands at each frame rail.



NOTE

Skip the above if you are using a hoist to lift the vehicle and complete the install.

Support the axle with a suitable jack stand.

Support the front of the vehicle to prevent the vehicle moving on the hoist

- 28.** Using a 16mm socket, remove the brake line and ABS brackets/clips.



- 29.** Using a 21mm and 24mm socket, loosen but do not remove the upper and lower trailing arm hardware.

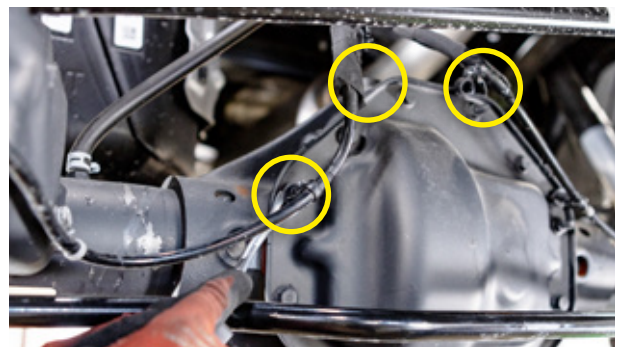
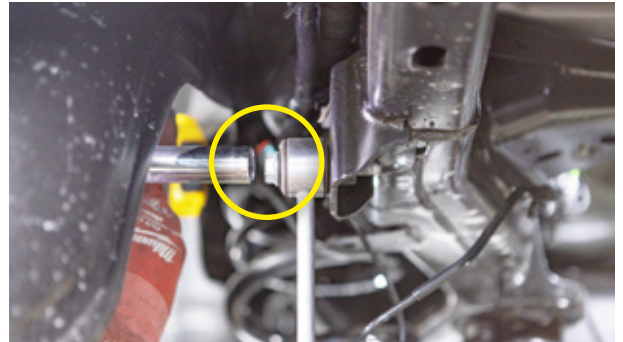


- 30.** Loosen but do not remove the track bar hardware at the frame and axle ends using a 21mm socket.



- 31.** Locate the upper sway bar end link and brake line bracket mount on the frame rail and remove the hardware.

Disconnect the brake wire brackets/clips and the diff breather tube from the differential.



- 32.** Use a 21mm socket and wrench to remove the lower shock hardware.



- 33.** Lower the axle slowly until the springs and rubber isolator can be removed.

Do not allow brake lines or other lines to become tight.



NOTE

Ensure the left upper and lower trailing arms do not make contact with the fuel tank skid plate. A pry bar may be required to keep them apart.



- 34.** The rubber isolator has two locating nipples on it that are required to be removed.

Using a grinder or suitable cutting device, remove these flush with the isolator.



- 35.** place the bump stop spacer on the axle using the hardware supplied.

Torque to 5lb.ft (6.8Nm).



NOTE

The bump stop extensions are universal for both sides of the axle. Two (2) bolts are used on each side.

One (1) bolt in photo is obscured.

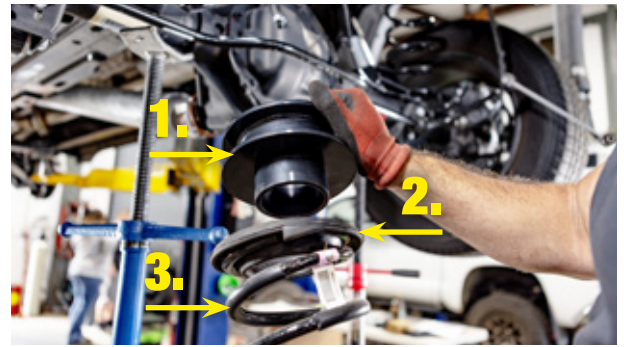


- 36.** Install the spring spacer **(1)**, OEM isolator **(2)** and spring **(3)** to the chassis and axle.



WARNING

Vehicle damage may occur if the order of these components is not followed.



- 37.** Lift the axle and locate springs within their seats within the vehicle.

Lift the axle only enough to allow for the reinstallation of the lower shock bolt.

Do not tighten at this time



WARNING

Do not overlift the axle, as this may result in the vehicle lifting off the hoist pads.



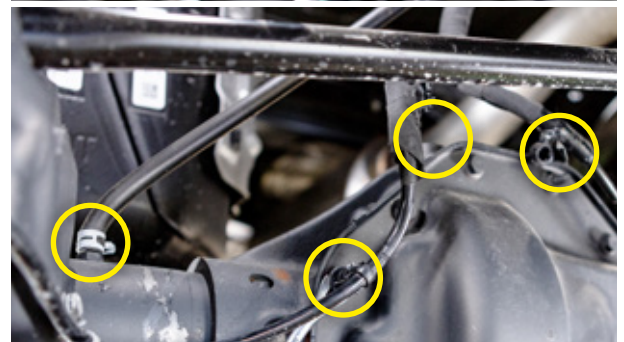
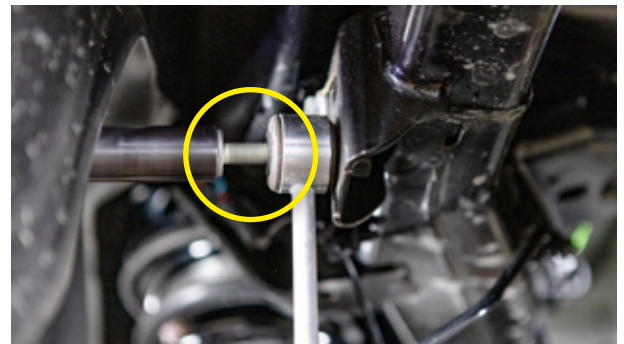
- 38.** Reinstall the sway bar end links to the chassis rail using OEM fasteners.

Do not tighten at this time.

Reinstall the brake line brackets to the frame rail using OEM hardware.

Torque to 5lb.ft (6.8Nm).

Reattach the diff breather tube and refit the brake wire clips back to the differential.



- 39.** Lower the vehicle to the ground and check the torque on the lug nuts are to the wheel manufacturer specifications.



- 40.** Bounce the vehicle to get the suspension to settle to the new ride height.

On the front of the vehicle, torque the upper control arm to 125lb.ft (170Nm), the upper strut hardware to 30lb.ft (41Nm) and the lower strut hardware to 150lb.ft (203Nm). Center the lower control arm cam bolts and torque to 125lb.ft (170Nm). Final torque to be completed by alignment technician.

At the rear, torque the upper and lower trailing arm hardware to 145lb.ft (197Nm), the lower shock hardware to 45lb.ft (61Nm), the sway bar end link hardware to 35lb.ft (47Nm) and the track bar hardware to 125lb.ft (170Nm).

- 41.** Reconnect the battery ground terminal.

With the steering wheel centered, turn the tie rod ends until the tires are straight. If the steering wheel is not centered properly, the ABS/traction control lights may activate.

Turn the wheels from lock to lock and to ensure brake lines and ABS routing clear all suspension components adequately and reposition if necessary.

Measure and record ride height after initial test drive and record these on the table on page 3.

- 42.** Ensure a mandatory wheel alignment is performed by a qualified technician and the alignment is set to the recommended specs following.



NOTE

On completion of the installation, have the suspension and headlights realigned.

After 310 miles (500km) recheck for proper torque on all newly installed hardware. Recheck all hardware for tightness after off road use.

Make sure to have any, and all electronic systems calibrated as indicated by the manufacturer for the features of your vehicle.

This includes but not limited to the steering wheel angle sensors, yaw sensors, cruise control, lane departure, etc.

WHEEL ALIGNMENT

**NOTE**

Professional wheel alignment is required.

A strong understanding of wheel alignment procedure is required. ENTHUZE recommends wheel alignment be carried out by a trained alignment professional only.

ENTHUZE Steel Upper Control Arms will significantly change the wheel alignment settings by comparison to the OEM arm, for the purpose of correcting alignment after raising ride height.

Adjustments to Camber, Caster and Toe will be required.

Using the lower control arm, in most instances set alignment within the following range, or according to OEM specification.

Front	Driver	Passenger	Tolerance	Total / Split
Camber	+0.15	+0.15	±0.5	+0.0
Caster	+3.0	+3.0	±0.5	+0.0
Toe	+0.10	+0.10	±0.05	+0.20

Always set wheel alignment settings in relation to tire wear for each individual vehicle.

ONCE INSTALLED...



POST-INSTALLATION WARNINGS

It is mandatory to perform post-installation checks after installing suspension components.

Failure to do so can lead to dangerous consequences, including vehicle damage, personal injury, or even death, therefore, post-installation safety checks are essential before driving the vehicle.

POST-INSTALL INSPECTION AND REFINEMENT

- Torque wheel lug nuts to manufacturer specifications.
- Inspect and test all steering, brake and suspension components for tightness and proper operation.
- Inspect wheels, brake lines/hoses and ABS lines, ensure adequate tire clearance and adequate looseness at full extension by turning the steering wheel completely to the left and then to the right.
- Inspect all rubber parts ensuring correct torque at ride height.
- Seat suspension components correctly by rocking the vehicle back and forth.
- A full professional wheel alignment to OEM specifications is mandatory and must be performed by a certified alignment technician.
- Inspect and adjust vehicle headlights to ensure correct aim and alignment.
- If vehicle is fitted with active or passive safety/collision monitoring and/or avoidance systems, these should be professionally checked and adjusted to ensure correct aim and function.
- Recheck all bolts and suspension components for correct torque values after two weeks or at 310 miles (500km).



Any damage or loss caused by improper installation, application or failure to observe and follow our recommendations, goes beyond our quality warranty.