



INSTALLATION INSTRUCTIONS

ENT-098-001

SHOCK ABSORBER SPACER KIT TO SUIT TOYOTA TUNDRA
3rd Gen (2WD & 4WD) (Coil) 2022+



Lift Height Approx: 3" (76mm) Front / 2" (50mm) Rear - *(No Accessories Fitted)*



NOTE

Not compatible with TRD PRO variants, vehicles with OEM air suspension or AVS. Due to diff drop, the OEM TRD skid plate cannot be reinstalled after fitting this kit.

It is a requirement that (red) OEM CV shafts (p/n: PT362-3432B and PT362-3431B) are used when fitting this kit. Failure to comply may cause damage not covered by ENTHUZE warranty.

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.



6 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.

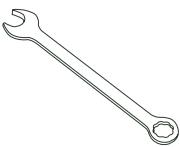
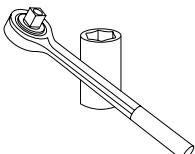
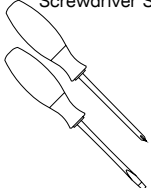
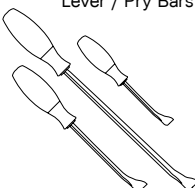
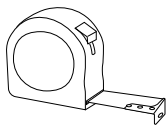
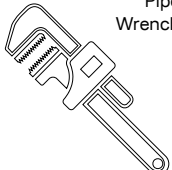
HEADLIGHT MEASUREMENTS

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	 Pipe Wrench
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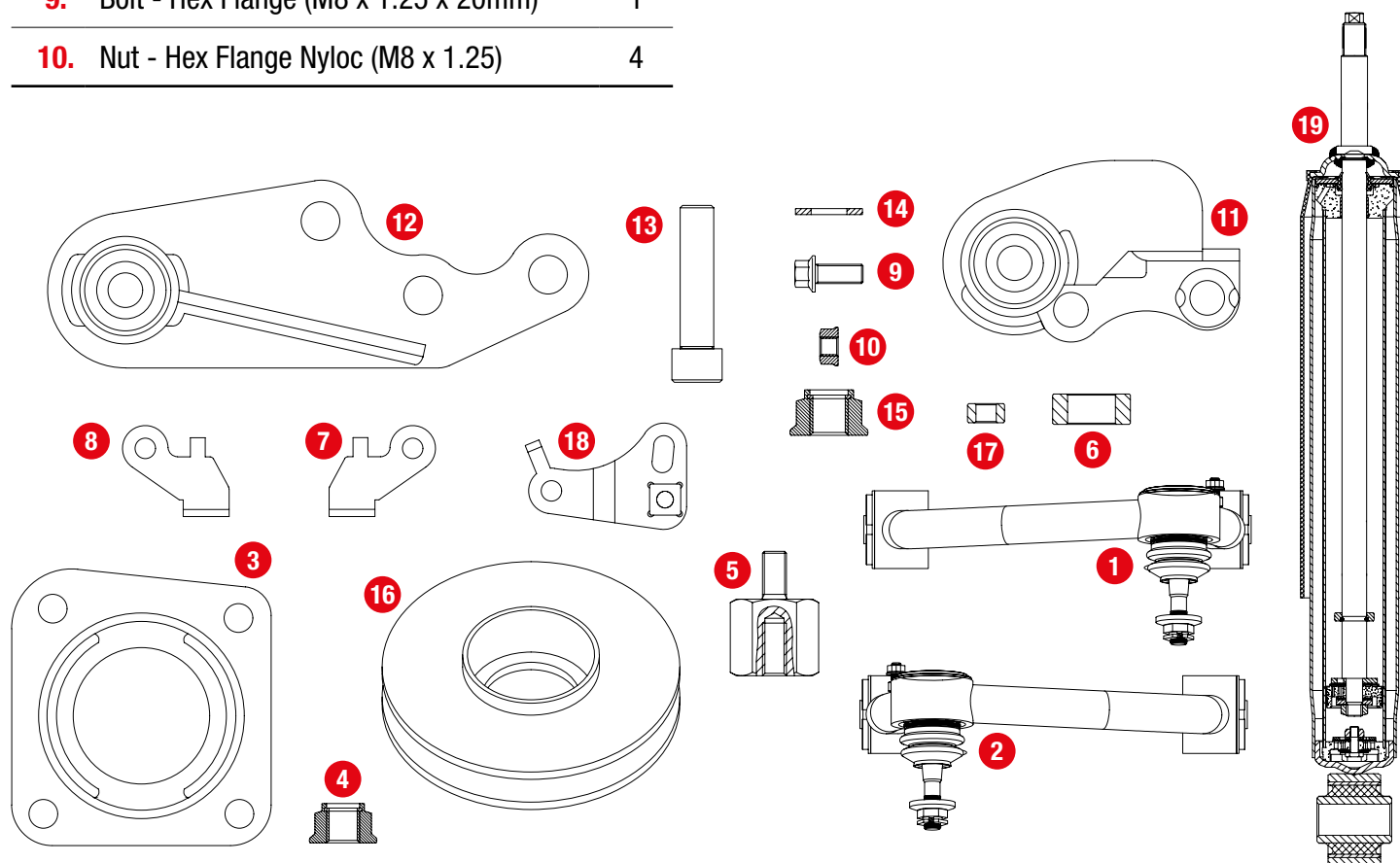
Any damage or losses caused by improper installation and application, goes beyond our quality warranty.

ENT-098-001 KIT PARTS LIST

SPACER KIT TO SUIT OEM SHOCK ABSORBERS

No.	Description	Qty
UCA Steel Kit		
1.	Upper Control Arm - LHS	1
2.	Upper Control Arm - RHS	1
Strut Spacer Kit		
3.	Spacer - Steel	2
4.	Nut - Hex Flange Nyloc (M10 x 1.25)	8
Front Bump Stop Extension Kit		
5.	Bump Stop Extension	2
6.	Sway End Link Spacer - Tube	2
Brake Line Dropper Kit		
7.	Brake Line Relocation Bracket - LHS	1
8.	Brake Line Relocation Bracket - RHS	1
9.	Bolt - Hex Flange (M8 x 1.25 x 20mm)	1
10.	Nut - Hex Flange Nyloc (M8 x 1.25)	4

No.	Description	Qty
Front Diff Drop Kit		
11.	Diff Bracket Spacer - LHS	1
12.	Diff Bracket Spacer - RHS	1
13.	Bolt - Cap Screw (M14 x 1.5 x 60mm)	2
14.	Washer - (M14)	2
15.	Nut - Hex Flange Lock (M16 x 1.5)	3
Rear Coil Spacer Kit		
16.	Spacer Coil - Steel	2
17.	Spacer - Tube	2
18.	Brake Line Relocation Bracket - A	1
Shock Absorbers		
19.	Nitro Gas - Rear	2



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

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 factory (OE) 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.



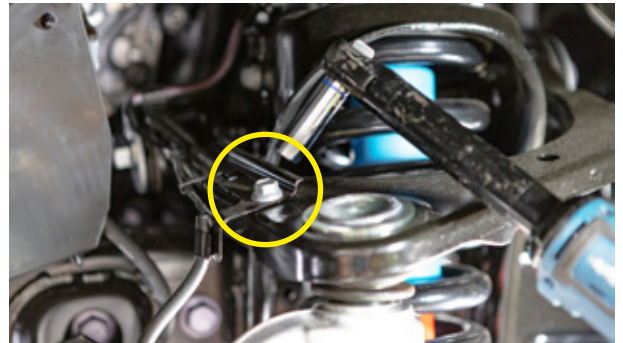
4. Using a 17mm socket, loosen but DO NOT remove the four (4) sway bar bolts.



5. Using a 19mm socket, remove the OEM fastener and pry the sway bar end link from its mount.



6. Disconnect the ABS wire bracket from the upper control arm, by removing the fastener.

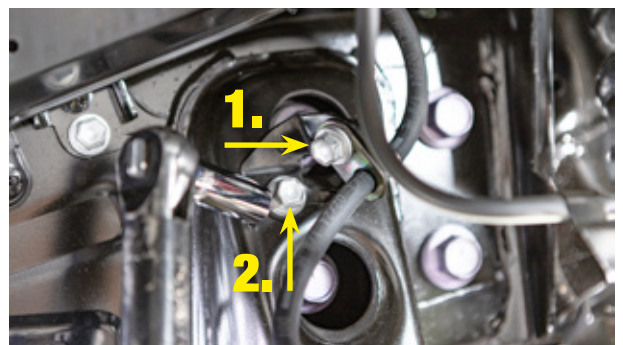


7. Remove the bracket line tab from its bracket by removing the fastener **(1)**.

Remove bracket from chassis and discard bracket. Retain fastener **(2)**.

**WARNING**

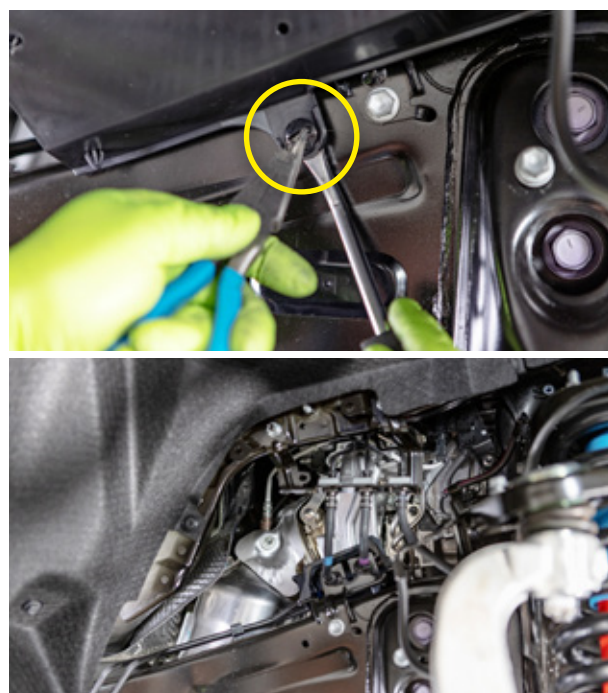
Do not disconnect any hydraulic break lines connections.



- 8.** Free the ABS wire from the knuckle by removing the two (2) upper screws and lower one (1).



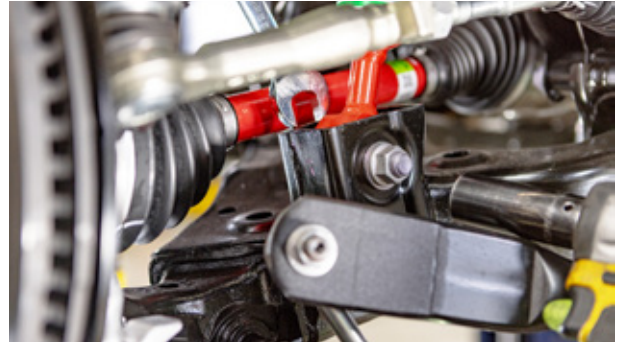
- 9.** Locate and remove the four (4) clips on the rear plastic dirt shield, using a trim removal tool.



- 10.** Locate and remove the four (4) clips on the front dirt shield, using a trim removal tool.



- 11.** Using a 22mm socket, loosen but do not remove the lower strut nut.



- 12.** Remove two (2) rear strut nuts and the one (1) at the front.
Loosen the remaining nut.



- 13.** Remove the two (2) lower control arm to spindle bolts, 22mm. Loosen cam bolts allowing the lower control arm to rotate down, 24mm.



- 14.** Remove strut from the vehicle by removing upper and lower fasteners.



- 15.** Install the strut spacer onto the strut with the four (4) OEM nuts.
Torque to 30ft.lb (41Nm).



- 16.** Reinstall the strut into the vehicle using the four (4) nuts supplied and the lower bolt.
Torque top to 30ft.lb (41Nm).
Tighten lower bolt, but do not torque. This will be completed on the ground.



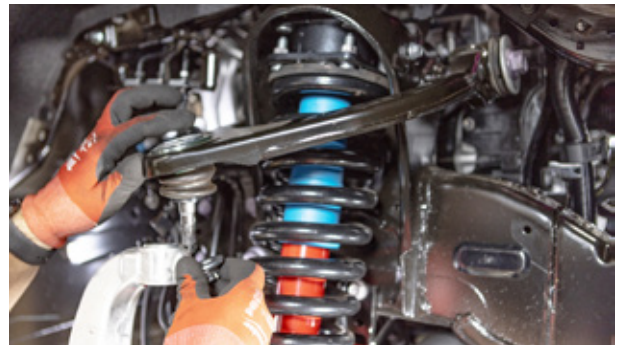
- 17.** Reinstall the two (2) bolts connecting the lower control arm and upright.
Torque to 118ft.lb (160Nm).



- 18.** Remove the upper ball joint pin.
Loosen but DO NOT remove the nut. (19mm).

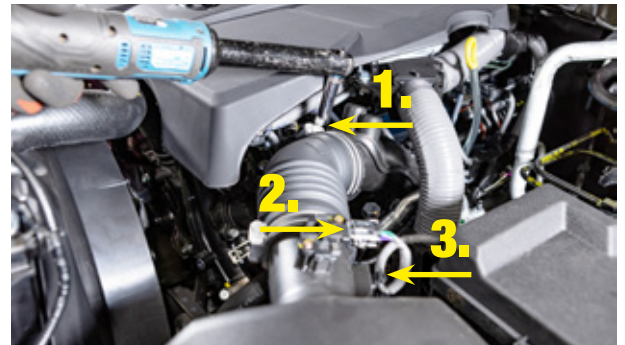


- 19.** Support the brake caliper with suitable jack.
Use a lever bar to load the upper control arm upwards and strike the knuckle with a dead-blow hammer to release the taper.
Use cable ties to keep the top of knuckle inwards, towards the vehicle.



**IN ORDER TO REMOVE THE LEFT-HAND SIDE UPPER CONTROL ARM BOLT,
THE FOLLOWING EXTRA STEPS MUST BE TAKEN**

- 20.** Loosen the engine size hose clip **(1)**.
Gently unplug the MAF sensor **(2)**.
Remove the clip from side of intake, using a pry tool **(3)**.
Unclip the air box cover allowing the assembly to be set aside.



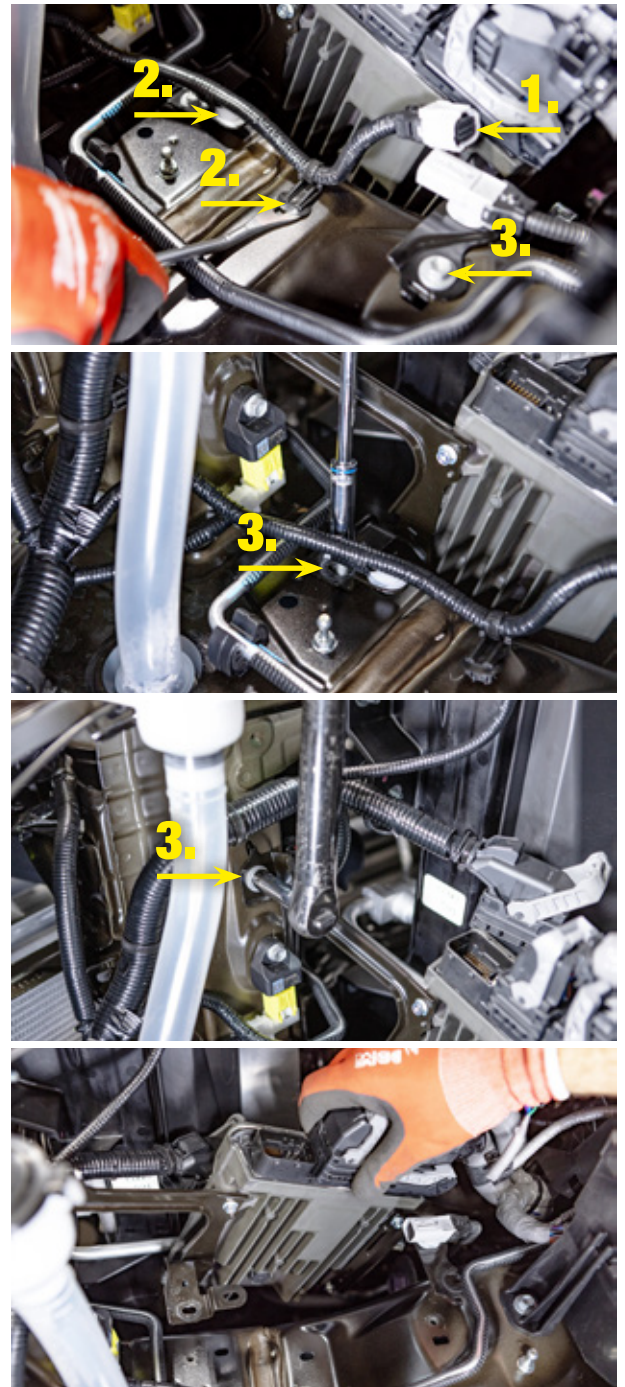
- 21.** Lift the air box out and set aside.



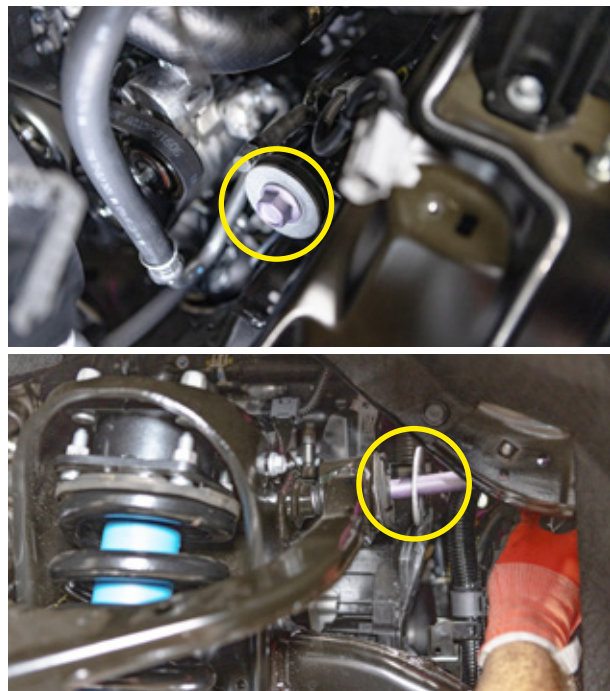
- 22.** Unclip the left plug by pressing in the tab and pulling the handle to the rear of the vehicle.
Allow the plug hang out of the way.



- 23.** Gently unclip the plug **(1)** and using a trim tool, remove the clips **(2)**.
Use a 10mm socket to remove the fasteners **(3)**.
The accumulator will now be free and can be gently moved to the side.



- 24.** Locate the upper control arm nuts and remove with a 22mm socket.
- Remove the bolts and the OEM upper control arms.
- Discard OEM upper control arms.



- 25.** Install the ENTHUZE upper control arms
- Tighten bolt but do not torque. Will be torqued once the vehicle is returned to the ground.



NOTE

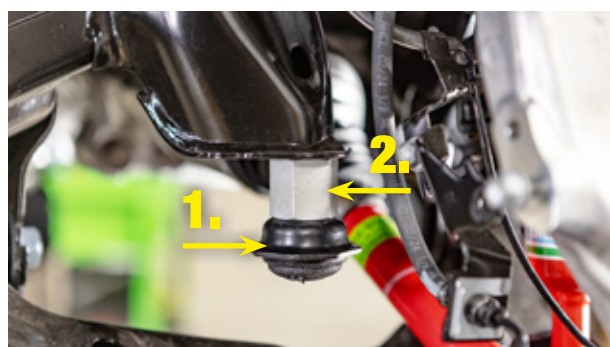
The stud should be positioned towards the rear of the vehicle.



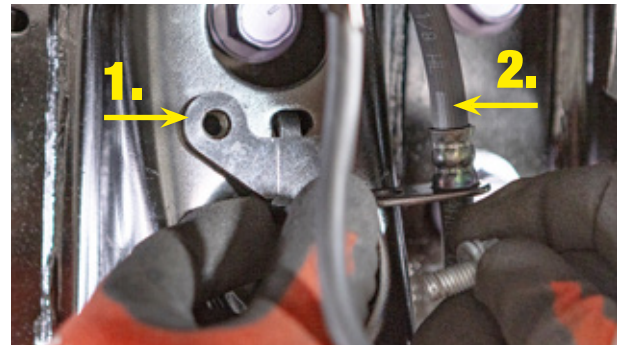
- 26.** Install the ball joint nut.
- Torque to 81ft.lb (110Nm).
- Install the split pin.



- 27.** Remove the OEM bump stop **(1)** with a pipe wrench.
- Install the bump stop spacer **(2)** and reinstall the bump stop.
- Tighten with pipe wrench.



- 28.** Using OEM fasteners, install the ENTHUZE brake line bracket **(1)** to the chassis.
Install the brake line **(2)** to the bracket.



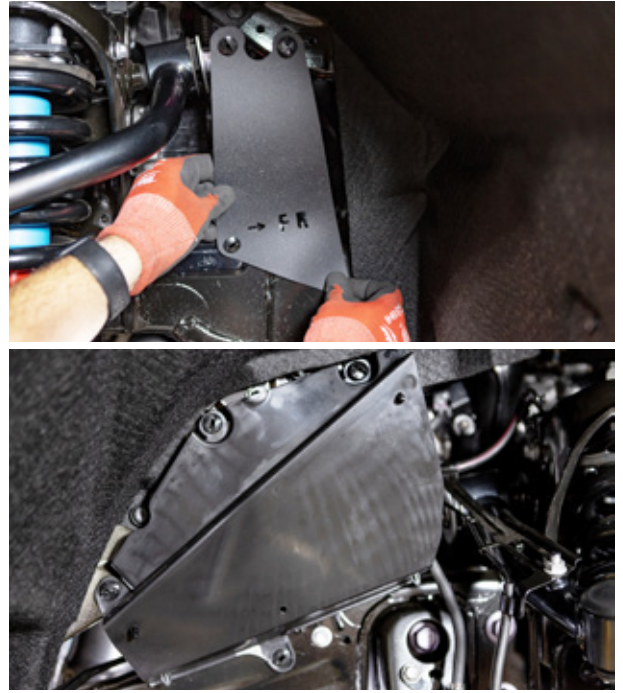
- 29.** Reinstall the ESC lines to the upper control arms, using the nuts provided and a 13mm wrench.



- 30.** Reinstall the ESC lines to the knuckle with the OEM fasteners and 12mm socket.



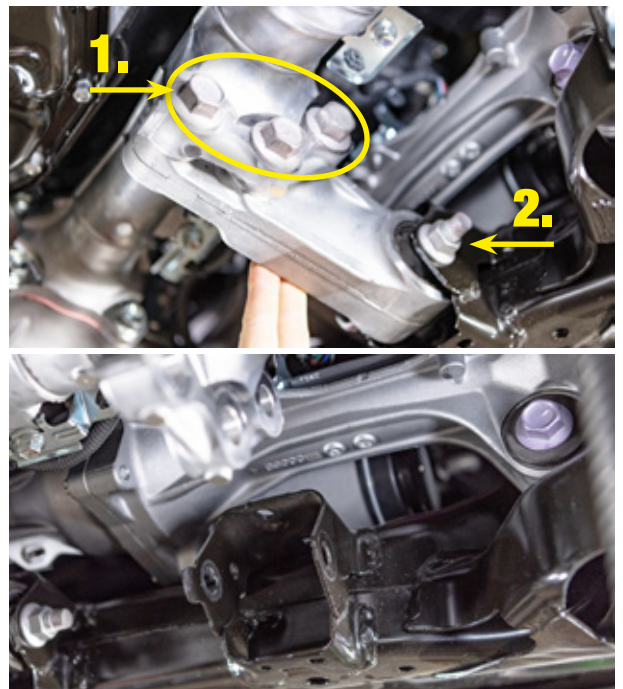
- 31.** Reinstall the leading and trailing dust covers using the OEM clips.



- 32.** Support the diff with a suitable jack.



- 33.** Remove the three (3) fasteners securing the right-hand side differential bracket **(1)**, then remove the chassis mount bolt **(2)** using a 19 and 22mm socket.



- 34.** Remove the left hand side differential bracket, by loosening and removing the two (2) fasteners and then the chassis mount bolt using a 19mm sockets.



- 35.** Using a 12mm socket remove the fastener from the bracket and relocate the bracket on top of the mount.

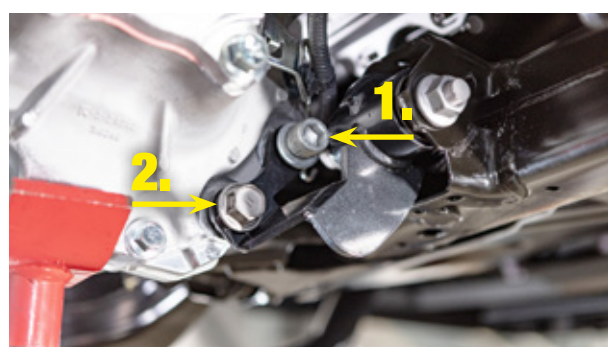
Reinstall the OEM fastener, with the bolt head located on top of the mount.



- 36.** Attach the left-hand side differential bracket to the chassis, using the OEM fastener. Finger tighten only at this point.



- 37.** Drop the differential slightly, enabling the alignment of the holes to install the fasteners. Use the bolt and washer supplied **(1)** in the top hole, and the OE fastener **(2)** in the lower hole. Finger tighten only at this point.



- 38.** Attach the right-hand side differential bracket to the chassis using OEM fastener.
Finger tighten only at this point.



- 39.** Using the OEM bolts and M16 flange nuts supplied, connect the bracket to the differential.



NOTE

The fastener direction must match the image.

Torque all differential fasteners to 110ft.lb (149Nm).



- 40.** Reinstall the accumulator into position by clipping wires into place and fastening the OEM bolts.



- 41.** Plug the left most plug into the accumulator and lock it in place by closing the handle to the left.



- 42.** Plug the electrical plug back into its housing. Snap the wire clip back into the body.



- 43.** Push the air box back into place.



- 44.** Slide the air box lid into the intake hose and clip it to the air box.



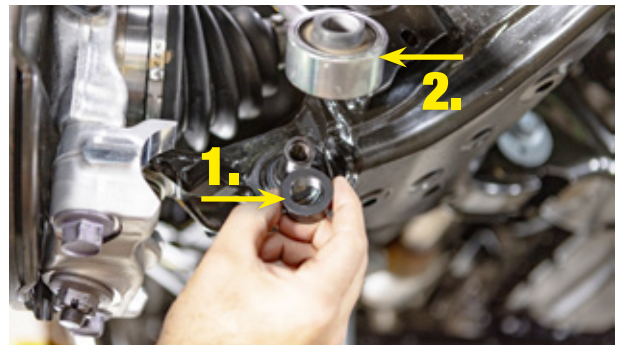
- 45.** Plug the MAF sensor back into its housing.
Tighten the hose clamp until it is snug.



- 46.** Install the front wheels and lower vehicle to the ground. Torque the lug nuts to the wheel manufacturer specs.
Torque lower strut OE hardware to 115ft.lb (156Nm).
Attach the vehicle negative power source.



- 47.** Slide the end link spacer **(1)** and sway bar link **(2)** onto the stud.



- 48.** Torque the sway bar end link factory hardware to 80ft.lb (109Nm).



- 49.** Torque the sway bar bracket factory hardware to 80ft.lb (109Nm).

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



REMOVAL AND INSTALLATION PROCEDURES – REAR

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



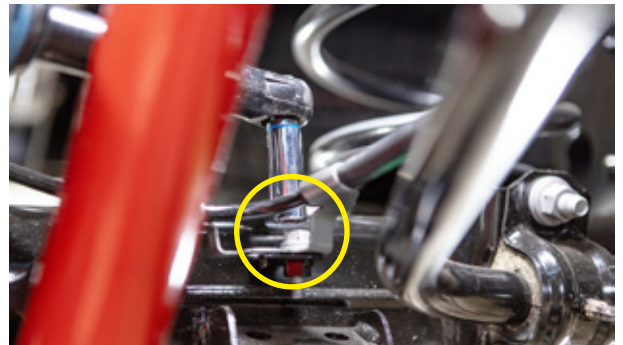
NOTE

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.



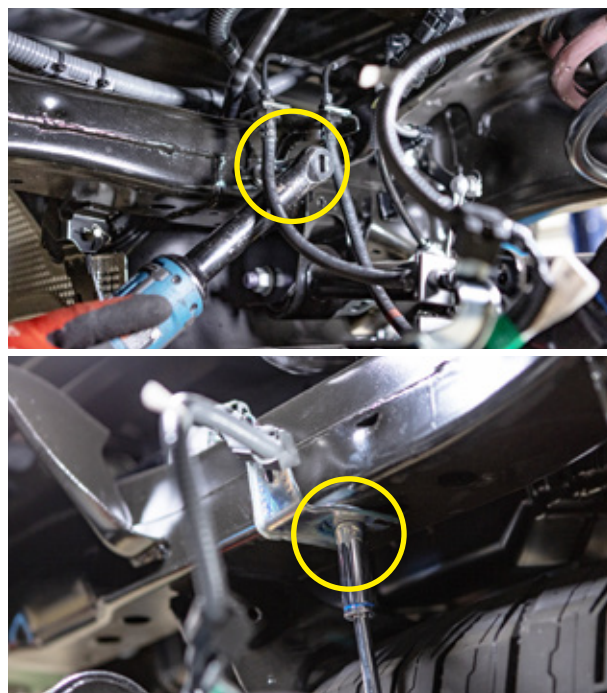
- 51.** Remove the bolt, one (1) on each side securing the brake line bracket to the axle.



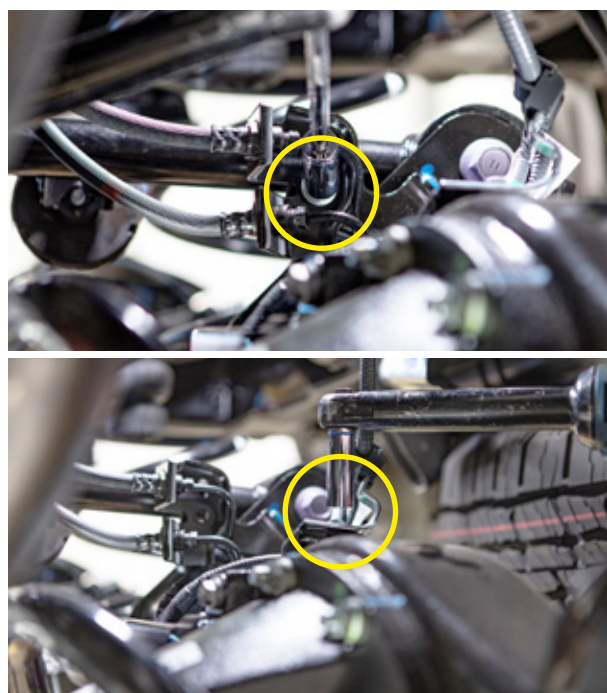
- 52.** Remove the OEM fastener and disconnect the handbrake cable brackets from the chassis.



- 53.** Remove the OEM fastener and disconnect the brake and ABS lines from the chassis.



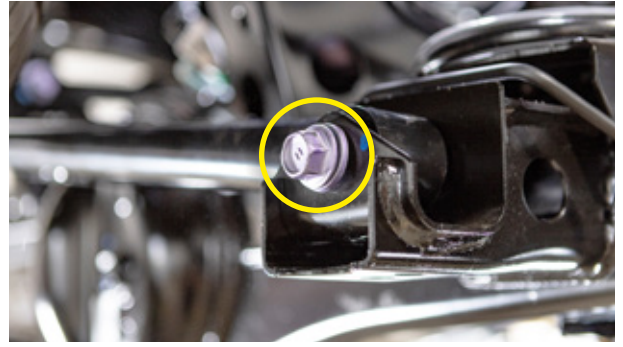
- 54.** Remove the OEM fastener and disconnect the brake and ABS lines from the differential.



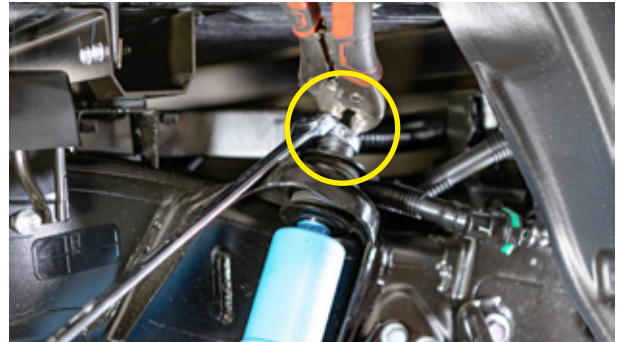
- 55.** Locate the sway bar end link, remove the OEM nut and disconnect it from the chassis.



- 56.** Loosen but do not remove the Panhard bar bolt at the axle.



- 57.** Remove the OEM shock absorber by loosening the upper and lower mounts with 17 and 19mm sockets.
Dispose of the OEM shock.



- 58.** Lower the differential only enough to remove the springs.



WARNING

Take care not to lower the differential too much, the ESC and brake lines must not be stretched.



- 59.** Install the rear spacer on top of the OEM bump stop and spring assembly.



- 60.** Install the spring and spacer assembly into the vehicle.

Raise the differential while aligning the components ensuring the springs are located on their upper and lower seats well, and make sure alignment is correct.



- 61.** Install new rear shock.



NOTE

Pay close attention to the correct order of rear shock bushings when installing upper stem mount.

Torque upper shock nut to 60ft.lb (81Nm).



- 62.** Install the lower shock on its mount and reinstall the OEM fastener.

Torque to 60ft.lb (81Nm).



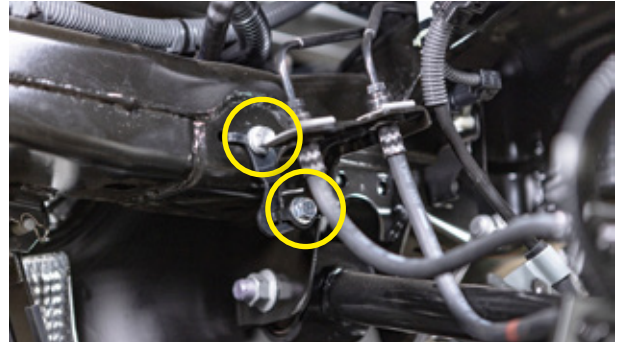
- 63.** Reinstall the brake and ESC lines back to the vehicle in as seen in the images.



- 64.** Install the ESC line spacers in two (2) places on the differential using OEM fasteners.
Torque to 20ft.lb (27Nm).



- 65.** Install the brake line dropper bracket into the chassis using the OEM fastener.
- Use the fasteners provided to attach the brake line to the spacer bracket.
- Torque to 20ft.lb (27Nm).



- 66.** Reinstall the sway end link into the chassis using the OEM nut.
- Torque to 60ft.lb (81Nm).



- 67.** Reinstall the wheels and lower the vehicle to the ground.
- Torque the all the lug nuts to the wheel manufacturer specifications.
- Bounce the vehicle to get the suspension to settle to the new ride height.
- On the front, torque the lower strut bolts to 115lb.ft (156Nm) and the front upper control arm to 150lb.ft (203Nm).
- On the rear, torque lower control arm OEM hardware, upper control arm OEM hardware and panhard arm OEM hardware to 100ft.lb (136Nm).



- 68.** 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.

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

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.