



ENT-097-001

SHOCK ABSORBER SPACER KIT TO SUIT CHEVROLET SILVERADO 2500 / 3500 2020+



NOTE

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**

READ THESE INSTRUCTIONS THOROUGHLY AND COMPLETELY
BEFORE COMMENCING INSTALLATION.

INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED.

ENTHUZE CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE OR FAILURE
RESULTING FROM IMPROPER INSTALLATION.

**SAFETY WARNING****MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH**

- Suspension systems or components that enhance the on and off road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt manoeuvres.
- Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.
- ENTHUZE recommends avoiding quick sharp turns and other sudden manoeuvres.
- ENTHUZE does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.
- It is the responsibility of the retailer and/or the installer to review all State or Territory local laws with the end user of this product, relating to bumper height laws and the lifting of their vehicle before the purchase and installation of any ENTHUZE product.
- All raised vehicles have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.
- Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off road use.

**CUSTOMER INFORMATION**

Customer Name: _____ Date: _____

Contact: _____

Part Number: _____ Batch Number: _____

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



IMPORTANT WARNINGS



INSTALLATION WARNING

- All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.
- Use caution during all disassembly and assembly steps to ensure suspension components are not overextended, causing damage to any vehicle component and/or parts included in this kit.
- Included instructions are guidelines only for recommended procedures and are not meant to be definitive. The installer is responsible to ensure a safe and controllable vehicle after performing any modifications.
- ENTHUZE recommends the use of an vehicle specific OE Service Manual for disassembly and assembly of factory and related components.
- Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.
- Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.
- Larger tyre and wheel combinations may increase leverage on suspension, steering and related components.
- Due to variations in payload options and initial ride height, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to commencing installation.



SAEJ2492 WARNING

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

Always wear seat belts and drive safely, recognising that reduced speeds and specialised 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 or Territory. Consult your owner's manual, the instructions accompanying this product, and State or Territory laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

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PRE-INSTALLATION PROCEDURES

It is imperative you record the following measurements of factory components in the tables below.

ENTHUZE tests and records as much data from each application as is available at the time of product development. Vehicle manufacturers may change components or add models with different options and ENTHUZE cannot be held responsible for these alterations.

Recording and not exceeding the fender-to-hub-centre ENTHUZE recommends, will ensure the lift on the vehicle is correct.

These measurements will affect the performance of this lift kit. Failure to ensure proper stock conditions may result in over lifting, causing premature failure of axles, CV boots and drivetrain.

Overlifting will cause a shock top off condition, resulting in poor ride quality accompanied by pops and clunks which are symptoms of prematurely wearing components. Overlifting a vehicle will also result in an incorrect wheel alignment, consequently causing tyres to wear incorrectly.

Incorrect alignment will also cause poor vehicle handling issues including, but not limited to understeer.

Failure to adjust headlights may create dangerous driving conditions for you and other drivers on the road. Record the headlight position before installation of this lift or levelling kit, adjusting to the original factory position after completion to ensure a safe and enjoyable driving experience.

VEHICLE MEASUREMENTS

	Left-hand Side Before	Left-hand Side After	Right-hand Side Before	Right-hand Side After
Front Torsion Bolt Length				
Front Hub to Guard				
Rear Hub to Guard				

Measurement is to be performed from the centre 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

A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.

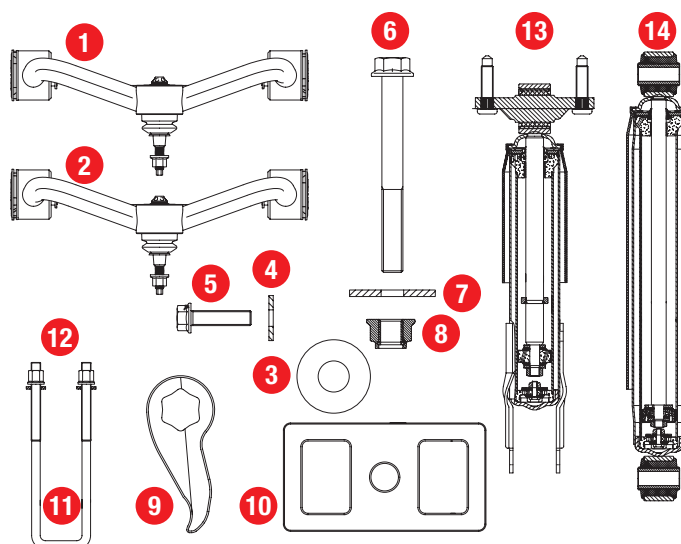
- All lifted vehicles may require additional driveline modifications and / or balancing.
- A vehicle alignment is REQUIRED after installation of this product.
- Speedometer / Computer recalibration is required if changing +/- 10% from factory tyre diameter.
- A vehicle lift or hoist greatly reduces installation time. Installation time estimates are based on an available vehicle hoist.
- Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation.

ENT-097-001 KIT PARTS LIST

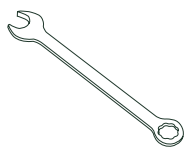
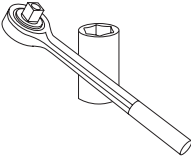
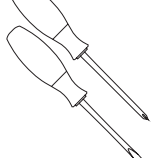
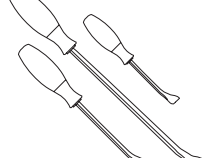
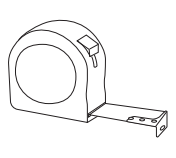
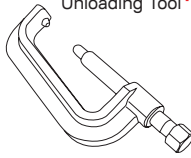
SPACER KIT TO SUIT SHOCK ABSORBERS

No.	Description	Qty
UCA Steel Kit		
1.	Upper Control Arm - LHS	1
2.	Upper Control Arm - RHS	1
Differential and Skid Plate Drop Kit		
3.	Spacer - Diff	8
4.	Washer - (M10 x 40 x 2.5mm)	4
5.	Bolt - Hex Flange (M10 x 1.5 x 40mm)	4
6.	Bolt - Hex Flange (M14 x 2.0 x 130mm)	4
7.	Washer - (M14 x 56 x 5mm)	4
8.	Nut - Hex Flange Lock (M12 x 1.75)	2
Front Spacer		
9.	Torsion Key - Front	2

No.	Description	Qty
Rear Leaf Spacer Kit		
10.	Spacer Leaf - Cast	2
11.	U-Bolt - Flat	4
12.	Nut - Flange	4
Shock Absorbers		
13.	Nitro Gas - Front	2
14.	Nitro Gas - Rear	2



TOOLS REQUIRED

Metric Spanner Set 	Metric Socket Set 	Screwdriver Set 	Lever / Pry Bars 	Tape Measure 	Torsion Key Unloading Tool* 
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***WARNING:** Do not attempt to install kit without this tool

Any damage or losses caused by improper installation and application, 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.

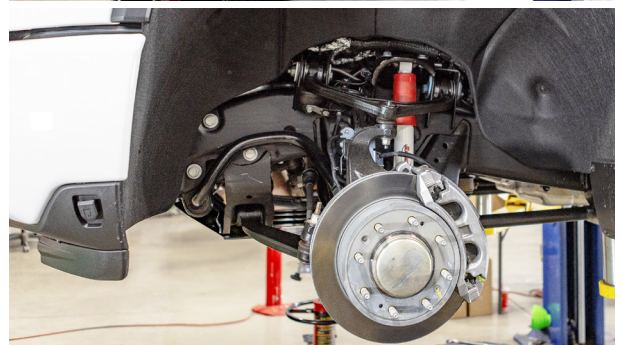
Lift the front of the vehicle and support it with jack stands under each frame rail.

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.



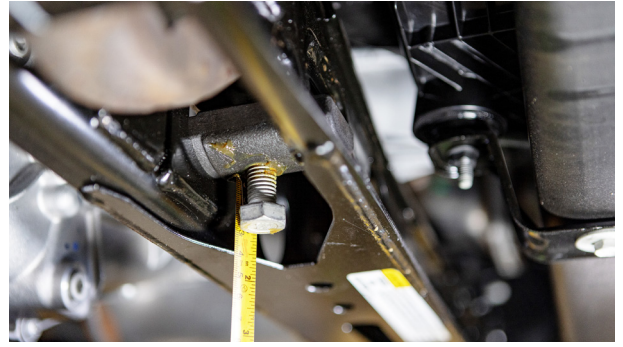
4. Use a tape to measure the torsion key adjuster bolt length.



NOTE

Document the measurements on page 4. Ensure both left and right sides are measured and recorded before installation.

Once measured and recorded, remove the torsion bar adjustment bolt.



5. Use a torsion bar unloading tool and wrench to slowly release the load on the torsion key cross pin.

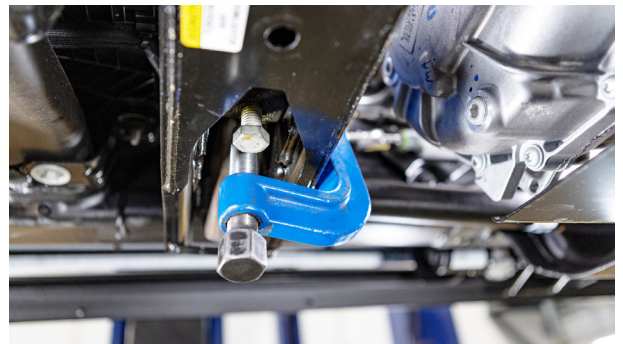


WARNING

Take care as the torsion key is under extreme pressure and can cause injury and/or death if handled improperly.

Do NOT attempt these steps without the unloading tool.

Do NOT use an impact gun in these steps.



6. Once the cross pin load is released, pull it out from the side.



WARNING

Do NOT push the key with your finger as this can lead to personal injury.

Unload the torsion bar loading tool and remove it.



- 7.** Remove and discard the OE torsion bar keys by pushing the torsion bars toward the front of the vehicle.



- 8.** Install the ENTHUZE torsion bar keys and reinstall the torsion bar into them.
Do NOT load the cross pin or bolt at this stage. This will be completed as one of the final steps during the front installation.



- 9.** Disconnect the ABS wire bracket from spindle using a 10 and 13mm wrench.



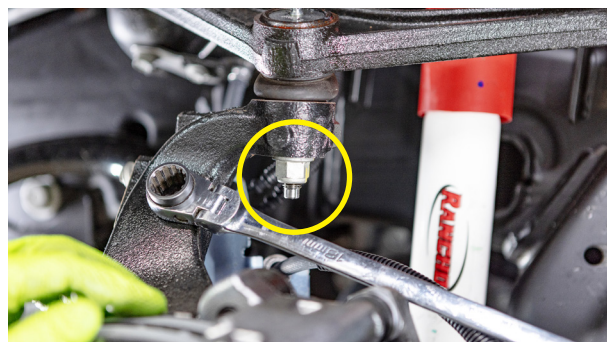
- 10.** Using an 18mm wrench, disconnect the front sway bay.



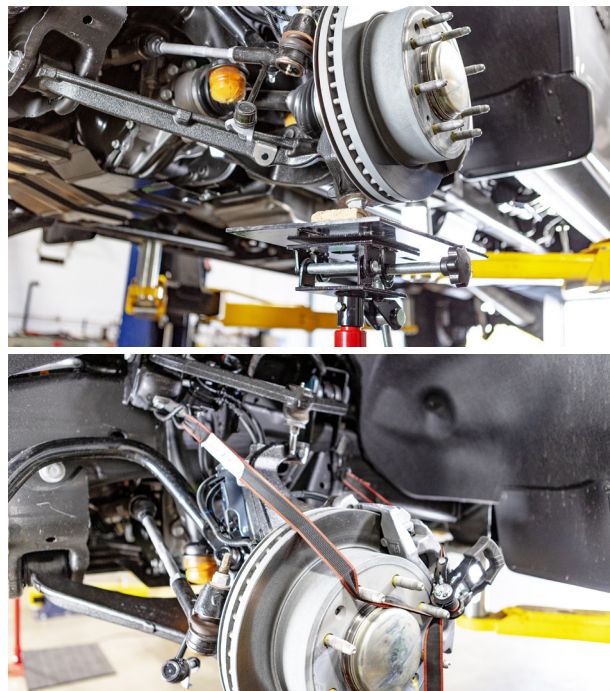
- 11.** Use a 21mm wrench to remove the OE front shock. This can be discarded.



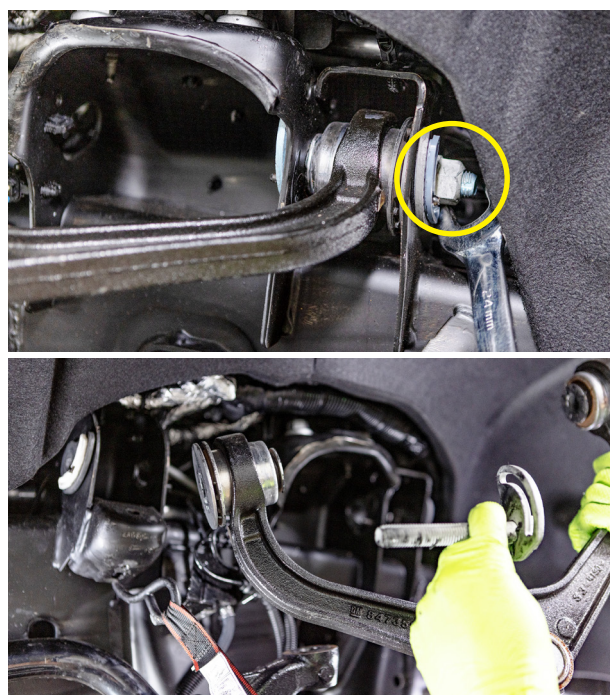
- 12.** Using an 18mm wrench, loosen the upper ball joint nut, but do not remove.



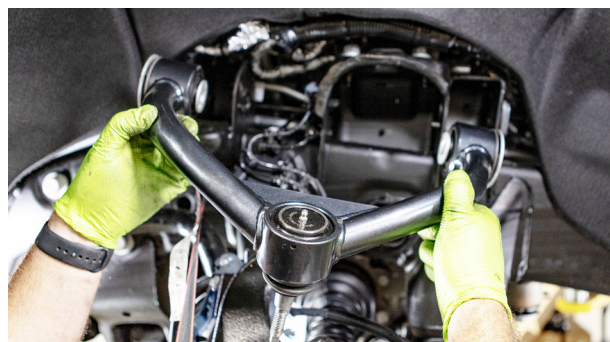
- 13.** Support hub assembly with a suitable jack stand.
Use a dead blow hammer to strike the upper spindle, releasing the ball joint taper.
Use a strap to keep from pulling away from vehicle



- 14.** Mark the cam bolt and alignment lobe to assist reinstallation.
Use a 24mm wrench to remove the upper control arm bolts from the frame rails.
Remove the upper control arm from the frame rail.



- 15.** Install the upper control arm to the frame using the OE cam bolts and cams.
Line up removal marks and snug the bolts.
Final torque after alignment 125ft.lb.
The sticker should be toward the vehicle front.



- 16.** Install the upper control arm ball joint to the knuckle with the supplied hardware.
Torque to 85ft.lb (115Nm)



- 17.** Using a high quality ball joint grease, grease the upper ball joint until the boot starts to expand.

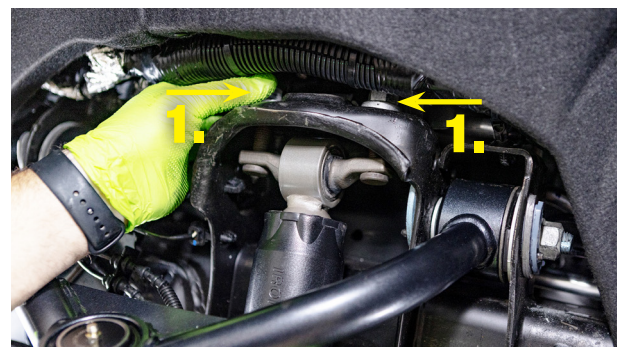


WARNING

Do not over grease. Over greasing can cause premature wear.



- 18.** Install the ENTHUZE front shock absorber.
Secure the upper point **(1)** using the new supplied hardware and OE fasteners for the lower point **(2)**.
Torque the upper bolts to 45ft.lb (61Nm) and snug the lower bolts.



- 19.** Remove the front skid plate using a 15mm socket. Discard OE bolts.



- 20.** Support the front differential on the left-hand side with a suitable jack stand.



- 21.** Locate the four (4) front and rear differential cradle bolts.

Using a 21mm socket, remove all four (4) bolts and lower the differential down enough to install the 1/2" differential spacers.



- 22.** Support the right-hand side of the differential with suitable jack.

Install the differential spacers between the frame and differential cradle, using the large washers and M14 x130mm bolts, reuse OE the flange nuts.

Torque all differential fasteners to 95ft.lb (129Nm).



- 23.** Install the differential skid plate with the rear mount only at this time.

Insert two (2) spacers between the crossmember and skid plate.

Use the supplied M10 x 40mm bolts and M10 fender washers.

Finger tighten only.



- 24.** The lower mount of some gravel guards may require trimming to enable bolt fitment.

If trimming is required, cut a slot large enough for the provided M10 bolt to slide through freely.

Use the provided M10 x 40 bolts, M10 fender washer and two (2) spacers to secure the skid plate and gravel guard.

Torque all bolts to 25ft.lb (34Nm)



- 25.** Connect the front sway bar and torque to 90ft.lb (122Nm).



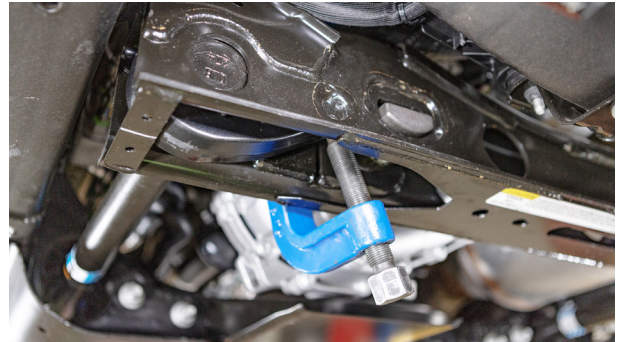
- 26.** Use the torsion adjuster tool, to load the torsion bar and reinstall the OE cross pin.

Remove the torsion adjuster tool.



WARNING

Keep fingers away from pinch points, as this may lead to personal injury.



- 27.** Grease OE adjustment bolt and screw in until achieving the measurement previously recorded on page 4.



NOTE

This is a starting point. Final adjustments should be performed on the ground.



- 28.** With everything tightened and torqued to the specified specifications, refit the front wheels and lower vehicle.

With the steering wheel centered, turn the tie rod ends until the wheels 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 make sure the brake lines and ABS routing clears all suspension components adequately. Reposition if necessary.



REMOVAL AND INSTALLATION PROCEDURES - REAR

- 29.** Park vehicle on a clean, flat surface and block the front wheels for safety.

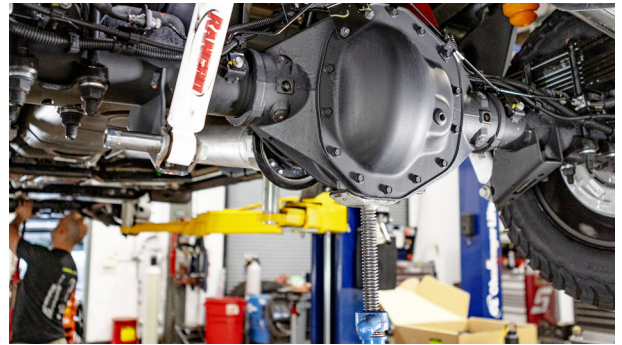
Using a suitable jack, raise the rear axle up and place jack stands under the frame in front of rear leaf spring hangers.



NOTE

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

Support the axle with a suitable jack stand. If using a hoist, support the front of the vehicle to prevent any movement on the hoist.



- 30.** Use a socket to remove the rear OE shock absorber.

Discard the shock absorber.



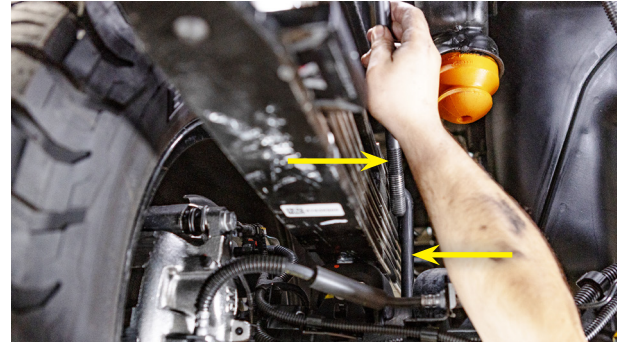
- 31.** With the axle supported, loosen (2-3 turns) but do not remove the right-hand side u-bolts.



NOTE

Perform the following steps one side at a time. Once the first side is completed, then commence on the opposite side.

Remove the left-hand side u-bolts using a 27mm socket, discarding the OE u-bolts.



- 32.** Lower the axle down slightly, just enough to install the new lift block.

Ensure you align the block pin and the hole on the differential.



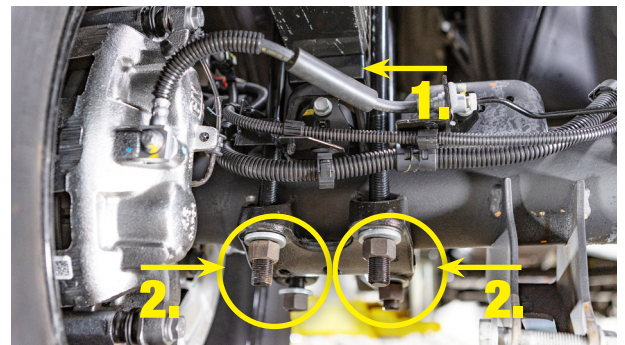
- 33.** Raise the axle with the block **(1)** in place, installing it into the leaf spring.

Ensure the leaf spring center bolt locates in the spacer block hole.

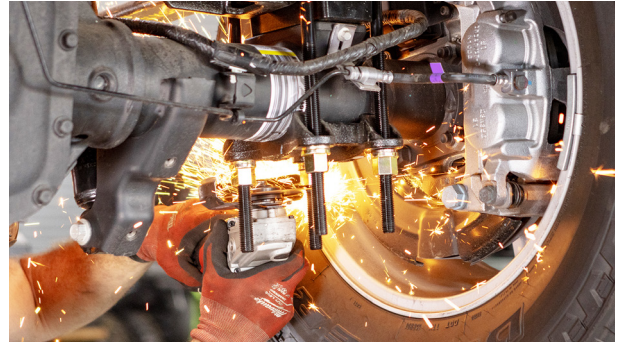
Install and tighten the new u-bolts **(2)** and hardware.

Repeat these three (3) steps on the right-hand side.

Final torque will be done when the vehicle is on the ground.

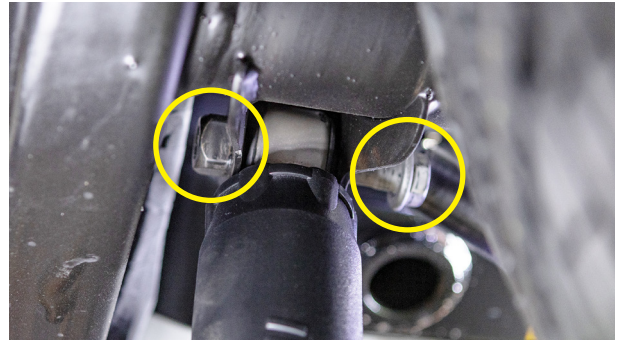


- 34.** Cut the u-bolts to desired length, approximately 1/4" from the nuts.



- 35.** Install the ENTHUZE rear shocks using the OE fasteners.

Torque mounts to 90ft.lb (122Nm).



- 35.** 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.

Evenly tighten each set of u-bolts and torque to 110ft.lb (149Nm).

Torque the upper control arm fasteners to 125lb.ft (170Nm).

Tighten rear shock hardware and torque to 90ft.lb (136Nm).

Torque front lower shock hardware to 90ft.lb (136Nm).



- 36.** Roll the vehicle forward and back to settle the suspension height.

Using a tape, measure the ride height of the front on both sides of the vehicle.

The measurement is the vertical distance from the centre of the wheel to the underside of the fender lip

The measurement cannot exceed 27"

If greater lower the vehicle as necessary using the torsion adjustment bolts.



- 37.** If needed, adjust the suspension height using the following method:

TO LOWER

Have a helper rotate the bolt counter clockwise to lower the vehicle until you reach the the hub to guard measurement.



WARNING

DO NOT use an impact on the torsion adjuster bolt, damage to the vehicle will occur.

TO RAISE

Place a jack under the front crossmember and jack the truck up until the front wheels are off the ground.

Adjust the torsion bar bolts clockwise to raise to the adjusted height.

Lower the vehicle to the ground and repeat the previous steps until the desired height is reached.



38. 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 4.

39. 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	+0.5°	+0.5°	±1.0°	-1.5° - +1.5°
Caster	+2.8°	+3.3°	±1.5°	-1.0° - 0.0°
Toe	+0.02°	+0.02°	±0.2°	+0.2°

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.