

# Installation Manual

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## 10341 KIT

**2.25" Leveling Kit** Toyota Tacoma (4WD) / Pre-Runner (2WD) / 4Runner (4WD) / FJ Cruiser (2WD/4WD)\*

\* Will not fit TRD Pro models

\* Will not fit models with X-REAS Suspension System

\* Will not fit models with KDSS Suspension System

*Levels the stance of your vehicle by raising the front end a fixed amount, increasing both the ground and wheel well clearance for the installation of larger wheels.*

**Thank you and congratulations on the purchase of a leveling kit. Please read the entire manual prior to starting the installation to ensure you can complete it once started.**

## KIT LAYOUT



## KIT CONTENTS

**Please make sure all the items shown in the above kit layout are provided in your kit before starting the installation.**

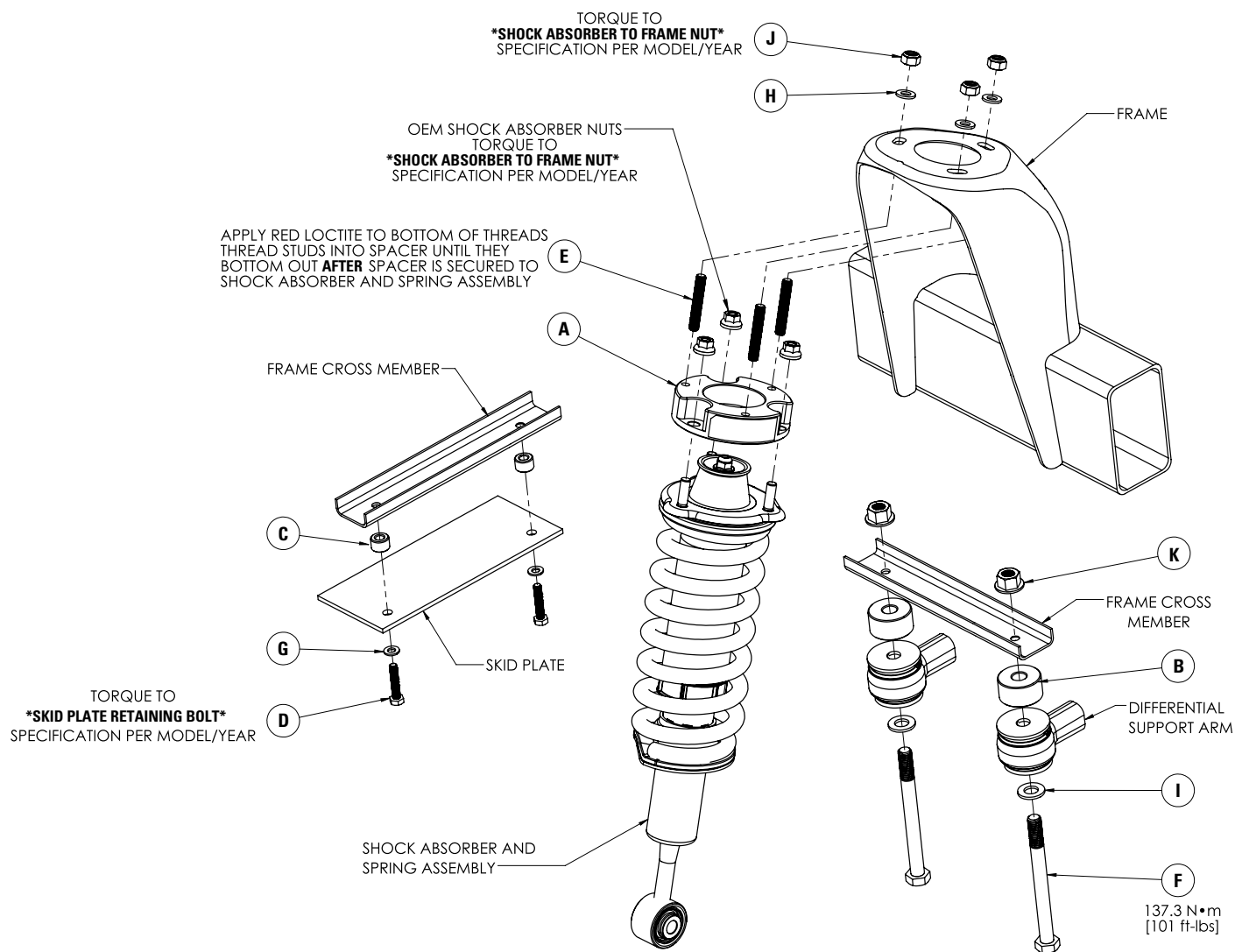
KIT CONTENTS		QTY	PART #
<b>A</b>	2.25" Front Spacer	2	HP1549
<b>B</b>	Differential Spacer	2	HP1542
<b>C</b>	Skid Plate Spacer	2	HP1548
<b>D</b>	M8 - 1.25 mm x 40 mm Hex Head Cap Screw	2	HP1545
<b>E</b>	M10 - 1.5 x 60 mm Fully Threaded Stud	6	HP1075
<b>F</b>	M14 - 2.0 mm x 150 mm Hex Head Cap Screw	2	HP1546
<b>G</b>	M8 Flat Washer	2	HP1543
<b>H</b>	M10 Flat Washer	6	HP1573
<b>I</b>	M14 Flat Washer	2	HP1466
<b>J</b>	M10 - 1.5 mm Nylon Lock Nut	6	HP1574
<b>K</b>	M14 - 2.0 mm Flange Nut	2	HP1541

## REQUIRED TOOLS

- Hoist or Floor Jack
- Safety Stands
- Safety Glasses
- Torque Wrench
- Standard Combination Wrenches
- 7/32" Hex Allen Wrench
- 1-1/8" Wrench or Deep Socket
- Metric & Standard
- Sockets Ratchet

*Please make sure all the items shown in this explosion diagram are provided in your kit before starting the installation.*

### KIT ASSEMBLY SHOWN:



## OEM TORQUE SPECIFICATIONS:

OEM TORQUE SPECIFICATIONS - TACOMA		
MODEL YEAR	2005-2015	2016-2023
LOWER CONTROL ARM BALL JOINT BOLTS	160 N•m [118 ft-lbs]	
LOWER CONTROL ARM TO FRAME FRONT BOLT	183 N•m [135 ft-lbs]	
LOWER CONTROL ARM TO FRAME REAR NUT	183 N•m [135 ft-lbs]	188 N•m [139 ft-lbs]
UPPER CONTROL ARM BALL STUD NUT	110 N•m [81 ft-lbs]*	
UPPER CONTROL ARM TO FRAME NUT	115 N•m [85 ft-lbs]	
TIE ROD BALL STUD NUT	91 N•m [67 ft-lbs]	
SHOCK ABSORBER TO FRAME NUT	64 N•m [47 ft-lbs]	
SHOCK ABSORBER TO LOWER CONTROL ARM BOLT	83 N•m [61 ft-lbs]	
STABILIZER END LINK NUT	70 N•m [52 ft-lbs]	
STABILIZER BAR CLAMP BRACKET BOLT	40 N•m [30 ft-lbs]	50 N•m [37 ft-lbs]
DIFFERENTIAL SUPPORT BOLT	137.3 N•m [101 ft-lbs]	
SKID PLATE RETAINING BOLT	30 N•m [22 ft-lbs]	

\* NUT AND COTTER PIN ARE NON-REUSABLE PARTS

OEM TORQUE SPECIFICATIONS - FJ CRUISER		
MODEL YEAR	2007-2010	2011-2014
LOWER CONTROL ARM BALL JOINT BOLTS	160 N•m [118 ft-lbs]	
LOWER CONTROL ARM TO FRAME FRONT BOLT	135 N•m [100 ft-lbs]	175 N•m [129 ft-lbs]
LOWER CONTROL ARM TO FRAME REAR NUT	135 N•m [100 ft-lbs]	175 N•m [129 ft-lbs]
UPPER CONTROL ARM BALL STUD NUT	110 N•m [81 ft-lbs]*	
UPPER CONTROL ARM TO FRAME NUT	115 N•m [85 ft-lbs]	
TIE ROD BALL STUD NUT	88 N•m [65 ft-lbs]	91 N•m [67 ft-lbs]
SHOCK ABSORBER TO FRAME NUT	64 N•m [47 ft-lbs]	
SHOCK ABSORBER TO LOWER CONTROL ARM BOLT	135 N•m [100 ft-lbs]	95 N•m [70 ft-lbs]
STABILIZER END LINK NUT	70 N•m [52 ft-lbs]	
STABILIZER BAR CLAMP BRACKET BOLT	40 N•m [30 ft-lbs]	50 N•m [37 ft-lbs]
DIFFERENTIAL SUPPORT BOLT	137.3 N•m [101 ft-lbs]	
SKID PLATE RETAINING BOLT	29 N•m [21 ft-lbs]	

\* NUT AND COTTER PIN ARE NON-REUSABLE PARTS

OEM TORQUE SPECIFICATIONS - 4RUNNER			
MODEL YEAR	2003-2009	2010-2015	2016-2023
LOWER CONTROL ARM BALL JOINT BOLTS	160 N•m [118 ft-lbs]**		
LOWER CONTROL ARM TO FRAME FRONT BOLT	135 N•m [100 ft-lbs]	175 N•m [129 ft-lbs]	
LOWER CONTROL ARM TO FRAME REAR NUT	135 N•m [100 ft-lbs]	175 N•m [129 ft-lbs]	
UPPER CONTROL ARM BALL STUD NUT	110 N•m [81 ft-lbs]*		
UPPER CONTROL ARM TO FRAME NUT	115 N•m [85 ft-lbs]		
TIE ROD BALL STUD NUT	91 N•m [67 ft-lbs]		
SHOCK ABSORBER TO FRAME NUT	64 N•m [47 ft-lbs]		71 N•m [52 ft-lbs]
SHOCK ABSORBER TO LOWER CONTROL ARM BOLT	135 N•m [100 ft-lbs]	95 N•m [70 ft-lbs]	
STABILIZER END LINK NUT	70 N•m [52 ft-lbs]		
STABILIZER BAR CLAMP BRACKET BOLT	40 N•m [30 ft-lbs]	49 N•m [36 ft-lbs]	
DIFFERENTIAL SUPPORT BOLT	137.3 N•m [101 ft-lbs]		
SKID PLATE RETAINING BOLT	29 N•m [21 ft-lbs]		

\* NUT AND COTTER PIN ARE NON-REUSABLE PARTS

\*\* FOR 2003-2005 MODEL YEARS, TORQUE TO 225 N•m [166 ft-lbs]

## 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.

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. Prevent the suspension components from overextension by supporting them with a jack.

**PLEASE NOTE:** Due to the suspension geometry and vehicle tolerances, the amount of lift is a base figure. **Spacer thickness does not equate to the amount of lift due to the suspension geometry.** For example: a 1" thick spacer may provide a 2" lift. Always measure the vehicle ride height at all 4 corners before and after installation to ensure the results are as expected.

## WHEEL ALIGNMENT AND HEADLIGHT ADJUSTMENT

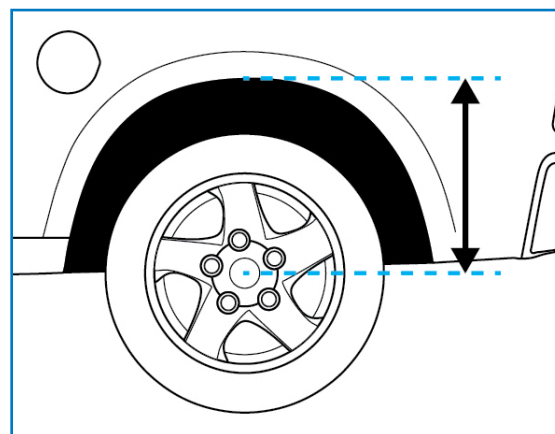
It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician to align the vehicle to factory specifications. After the installation is complete, check to ensure that the vehicle's headlights are aimed properly. If not, a headlight alignment is required.

### 1 MEASURE STOCK RIDE HEIGHT

Park the vehicle on a level surface.

Using a measuring tape, measure the distance between the center of the wheel hub and the bottom of the fender well (as shown in Figure 1) this will give you your ride height.

Note the ride height for all four corners.



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## 2 REMOVE FRONT WHEELS

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

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

Place two jack stands under the vehicles frame.

Lower vehicle until the frame is supported by the jack stands.

Remove front wheels.

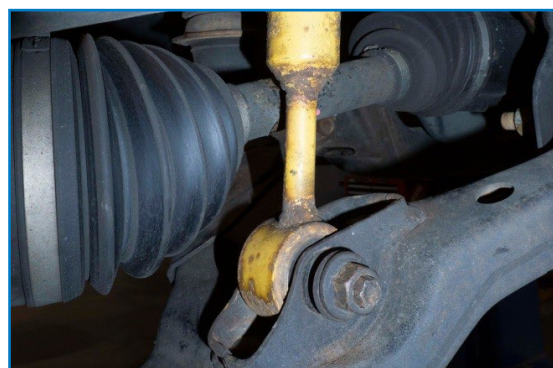


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## 3 REMOVE THE SKID PLATE

Remove the four bolts securing the skid plate (shown with arrows in Figure 3).

On some models, a second (silver) skid plate will be present. This is secured using the same bolts and can be removed, along with the black skid plate underneath.

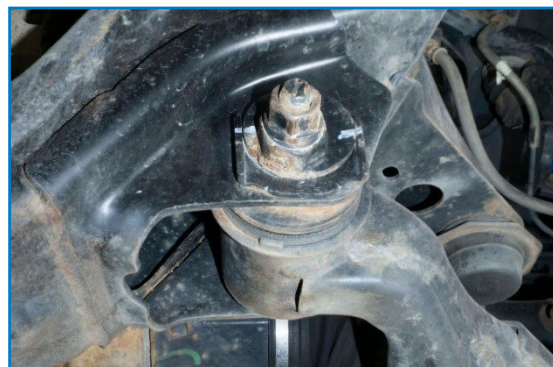


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## 4 SUPPORT THE LOWER CONTROL ARM

Place a floor jack under the lower control arm, near the ball joint.

Jack it up to slightly compress the suspension.



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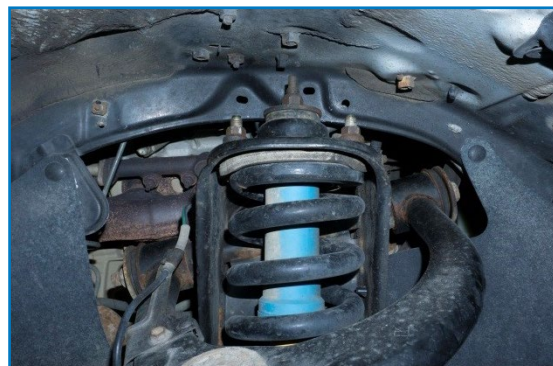
## 5 LOOSEN THE LOWER SHOCK BOLT

Loosen, but do not remove, the bolt securing the lower shock mount to the lower control arm.

## 6 MARK AND LOOSEN THE LOWER CONTROL ARM ADJUSTMENT (CAM) BOLTS

Mark both the cam bolts on both sides of the bushing, to aid in aligning them during reassembly.

Loosen, but do not remove, both of the cam bolts.



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## 7 LOOSEN UPPER STRUT MOUNT NUTS

Loosen, but do not remove, the three nuts securing the upper strut mount to the frame.



## 8 DISCONNECT THE LOWER BALL JOINT ATTACHMENT

Disconnect the lower ball joint attachment from the front steering knuckle by removing the two bolts.

## 9 REMOVE THE LOWER SHOCK BOLT

Using a floor jack, slowly lower the lower control arm until tension is released from the lower shock bolt

Remove the lower shock bolt.

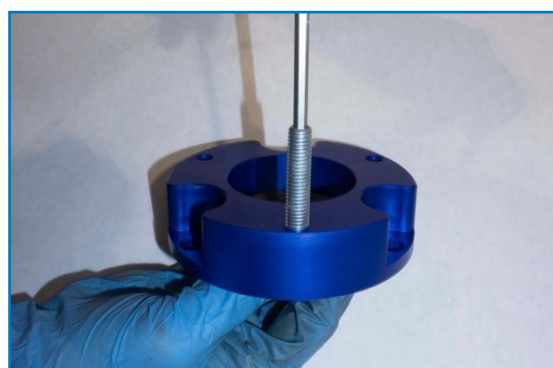


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## 10 REMOVE STRUT ASSEMBLY

While holding the strut assembly, remove the three nuts securing the upper strut mount to the frame.

Remove the strut assembly.



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## 11 INSTALL STUDS INTO BILLET STRUT SPACER

Put a small amount of red thread locker on the bottom threads of three M10 studs.

Thread the studs into the spacer until they bottom out.

Approximately 22 mm will protrude above the spacer.



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## 12 INSTALL BILLET STRUT SPACER

Using the three factory nuts, attach the billet strut spacer to the top of the factory strut assembly.

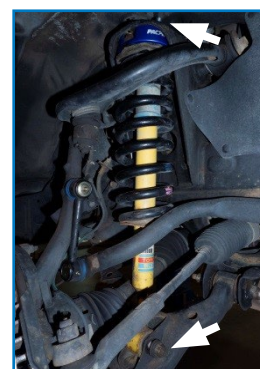
Torque the three nuts to the OEM torque specs (found on Page 4).

If the studs of the factory mount protrude above the spacer, file or grind them flush.

## 13 REINSTALL STRUT ASSEMBLY

Using three of the supplied M10 nuts, attach the strut assembly (with billet spacer installed) to the frame.


Tighten the nuts to hand-tight.



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## 14 INSTALL THE LOWER SHOCK BOLT

Using a floor jack, raise the lower control arm until the lower shock bolt can be installed and temporarily tightened. Do not torque yet.

 **NOTE:** Suspension components that use rubber bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing.

## 15 CONNECT LOWER BALL JOINT ATTACHMENT

Continue to raise the lower control arm with the floor jack, until the lower ball joint attachment contacts the steering knuckle.

Install the two factory bolts and torque to the OEM torque specs (found on Page 4).

## 16 TIGHTEN UPPER STRUT MOUNT

Fully tighten the (3) upper strut mount nuts.

Torque the (3) nuts to the OEM torque specs (found on Page 4).

## 17 REALIGN CAM BOLTS AND TEMPORARILY TIGHTEN

Align the cam bolts to the marks made previously and temporarily tighten.

Do not torque yet.

## 18 REPEAT FOR OPPOSITE SIDE

Perform Steps 4-16 for the front strut on the opposite side.

## 19 THE FOLLOWING APPLIES TO AWD MODELS ONLY.

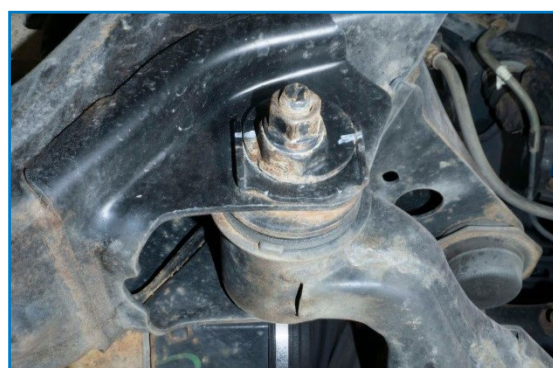
### SUPPORT THE FRONT DIFFERENTIAL AND REMOVE BOLTS

Place a floor jack under the front differential casing to support it.

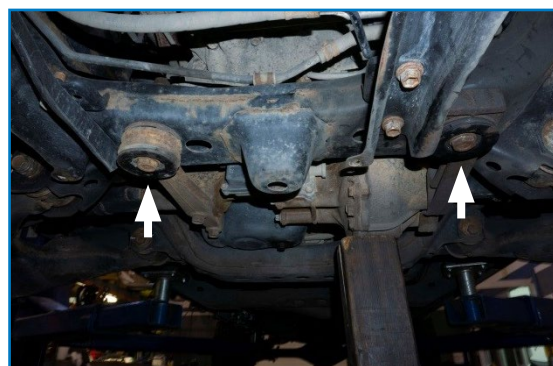
Remove the two bolts securing the forward differential mounting points to the frame.



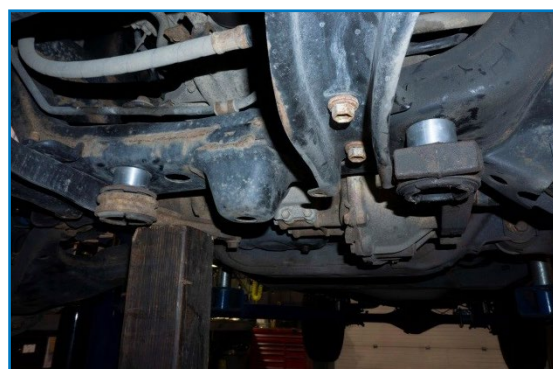
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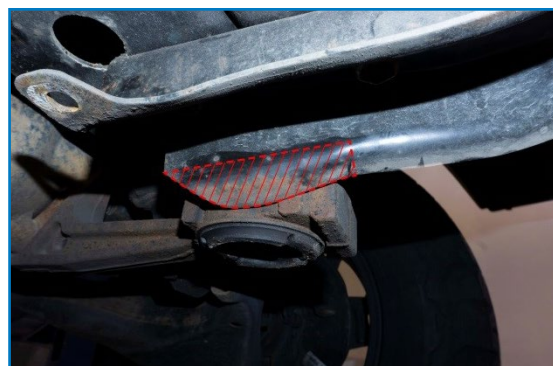
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## 20 INSTALL DIFFERENTIAL SPACERS

Slowly lower the front differential using a floor jack until the supplied spacers can be inserted between the differential mounts and the frame.

 **NOTE:** The driver's side differential mount may contact the lip of the skid plate support bracket. Bend or trim the bracket as necessary to provide clearance (highlighted area in Figure 20).



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## 21 INSTALL NEW FRONT DIFFERENTIAL MOUNTING HARDWARE

Install the two longer M14 bolts into each forward differential mount with the supplied nuts and washers.

Ensure to re-use the large factory washer on the underside of the mount.

Torque the two bolts to the OEM torque specs (found on Page 4).



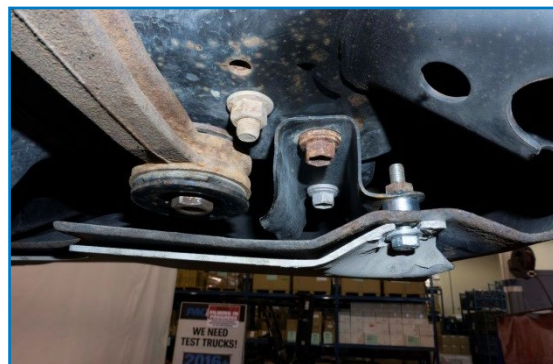
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## 22 REINSTALL SKID PLATE(S)

Attach the front of the skid plate(s) using the two factory bolts.

Attach the rear of the skid plate(s) using the two longer M8 bolts, washers and spacers.

Torque the four bolts to the OEM torque specs (found on Page 4).



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## 23 REINSTALL THE WHEELS

Install the wheels and torque them to factory specification.

Raise the vehicle in order to remove the jack stands from under the frame and then lower the vehicle back to the ground.

Roll the vehicle forward and back and bounce the vehicle up and down several times to stabilize the suspension.

## 24 FULLY TIGHTEN THE LOWER CAM BOLTS AND LOWER SHOCK BOLTS

With the vehicle on the ground, the bolts securing rubber bushings can be fully tightened to factory specifications.

Torque the two lower cam bolts on each side of the vehicle to the OEM torque specs (found on Page 4).

Torque the lower shock mount bolt on each side of the vehicle to the OEM torque specs (found on Page 4).

### ***Congratulations!***

***You have completed the installation***

## POST INSTALLATION WARNING

After the kit installation is complete and the vehicle is on the ground at its normal ride height, roll the vehicle backward and forward to settle the suspension. Tighten all components containing rubber bushings to the specified torque values. 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 manoeuvres, 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 and within 50 miles of driving, 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.