

Installation Manual



10346 KIT

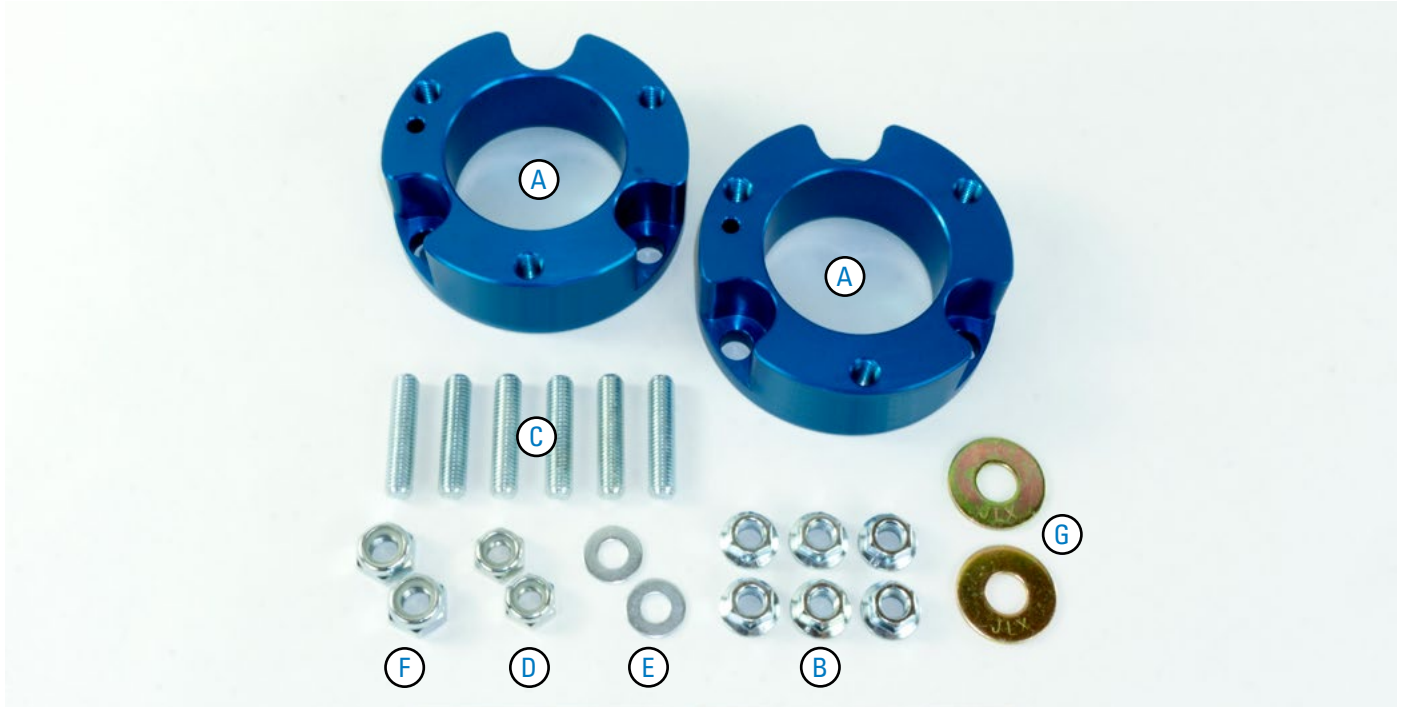
2.5" Leveling Kit Ford Ranger (2WD/4WD)*

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.

* See application guide for proper fitment.

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 #	REQUIRED TOOLS
A	Upper Strut Mount Spacer	2	HP1570	<ul style="list-style-type: none"> • 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 	
B	Flange Nut, M10 x 1.5 mm	6	HP1457		
C	Stud, M10 x 1.5 mm x 45 mm	6	HP1547		
D	Nyloc Nut, M10 x 1.5 mm	2	HP1574		
E	Flat Washer, M10	2	C653		
F	Nyloc Nut, M12 x 1.75 mm	2	HP1575		
G	Flat Washer, M12	2	HP1368		



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.

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.



Ford recommends discarding factory fasteners removed from specific suspension components and replacing them with new Ford nuts. This manual recommends discarding factory nuts removed from specific suspension components and replacing them with new Ford fasteners or the fastners provided in this kit.

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

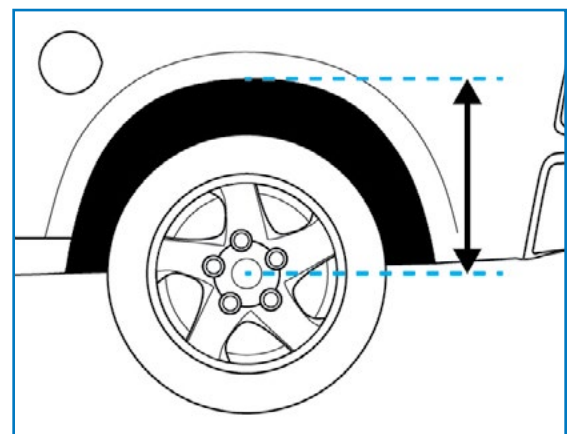
It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician to align the vehicle to factory specifications. After the installation is complete, check to ensure that the vehicle's headlights are aimed properly. If not, a headlight alignment is required.

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.



1

2 REMOVE FRONT WHEELS

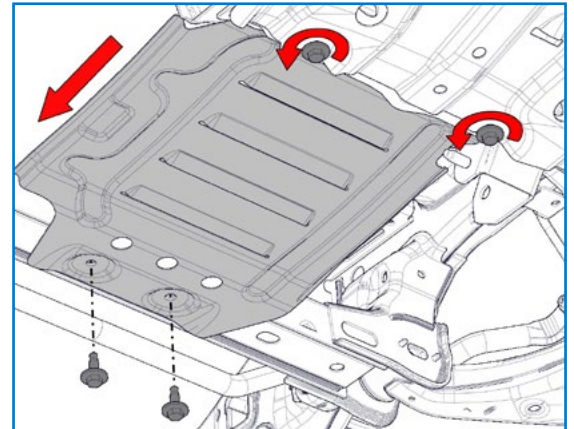
Place wheel chocks in front of and behind both rear wheels.

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 (19 mm).



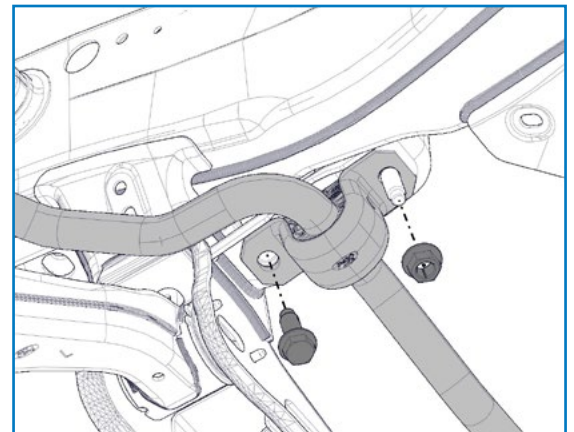
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3 REMOVE STEERING SKID PLATE

Loosen (2) front skid plate bolts (15 mm) – do not remove.

Remove (2) rear skid plate bolts (15 mm).

Slide out skid plate and set aside.



5

4 UNPLUG ELECTRONIC POWER STEERING

Unplug (3) power steering plugs, allowing to hang loose (as shown in Figure 4)

5 DETACH SWAY BAR MOUNTS

Remove sway bar mounting bolt and nut (18 mm) on each side of vehicle (as shown in Figure 5). Allow sway bar to hang freely.

6 SUPPORT LOWER CONTROL ARM

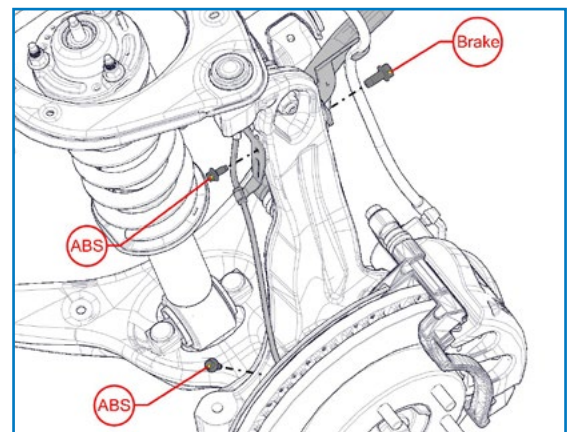
Place floor jack under lower control arm, near ball joint. Jack it up to slightly compress the suspension.

7 DETACH ABS SENSOR, ABS WIRE & BRAKE LINE BRACKETS

(Using Figure 7 as reference) Remove bolt (10 mm) securing brake line bracket to upright.

Remove bolt (8 mm) securing ABS bracket to upright.

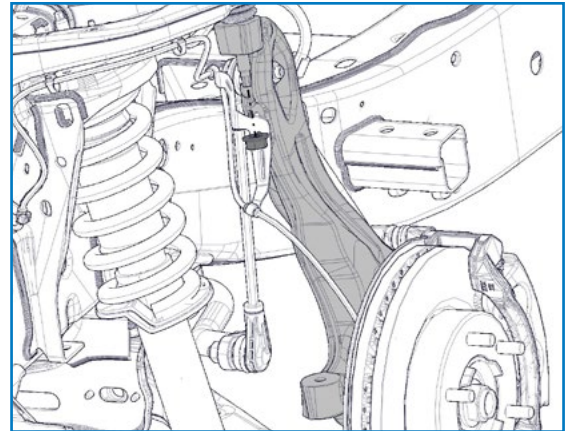
Remove bolt (8 mm) securing ABS sensor to top of upright.



7

8 REMOVE TIE ROD END NUT

Use 8 mm wrench to stop ball joint spinning, remove and discard tie rod end nut (15 mm) (as shown in Figure 8). Strike upright to dislodge tie rod end.



8

9 REMOVE UPPER BALL JOINT NUT

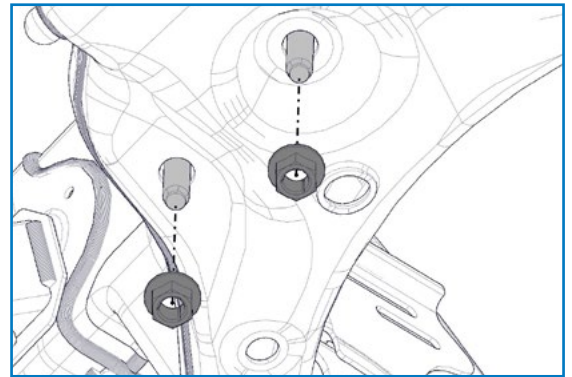
Use 8 mm wrench to stop ball joint spinning, remove and discard upper ball joint nut (18 mm). Strike upright to dislodge ball joint.

Once nut is removed, lower upright by lowering jack.

⚠ Do not remove jack completely as CV joint can pull out.

10 REMOVE LOWER STRUT MOUNT NUTS

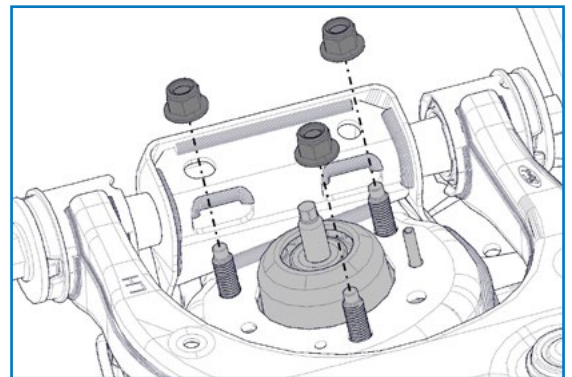
Remove (2) nuts (18 mm) securing lower control arm to lower strut mount cross pin. (See Figure 10)



10

11 REMOVE UPPER STRUT MOUNT NUTS

Remove (3) upper strut mount nuts (18 mm). (See Figure 11)



11

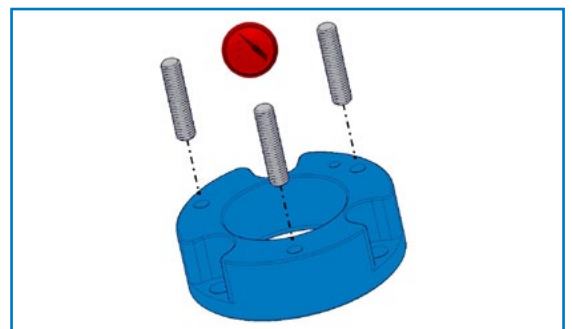
12 REMOVE STRUT ASSEMBLY

Remove strut assembly from vehicle.

13 INSTALL STUDS INTO BILLET STRUT SPACER

Put a small amount of red thread locker on the bottom threads of (3) M10 studs (C).

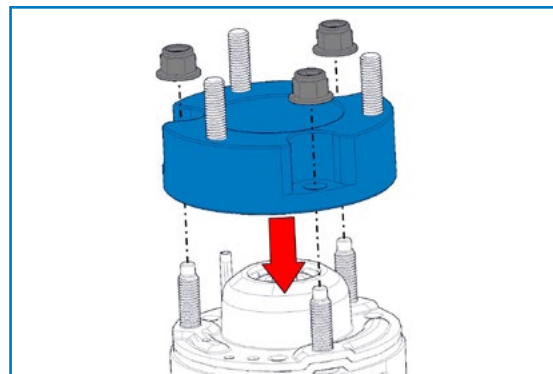
Thread the studs (C) into the spacer (A) until they bottom out. Approximately 22 mm will protrude above the spacer.



13

14 INSTALL BILLET STRUT SPACER

Attach billet strut spacer (A) to top of factory strut assembly using the (3) factory nuts (as shown in Figure 14). Torque the (3) nuts to 41 ft.-lbs. (55 N-m).

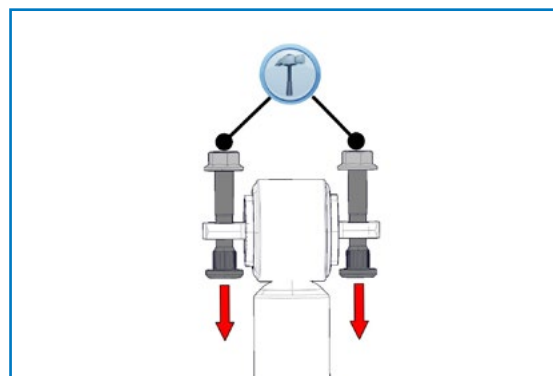


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15 REMOVE LOWER STRUT MOUNT STUDS

Clamp lower strut mount cross pin in vise. Thread factory nuts on a few threads by hand.

Use hammer to knock studs out of cross pin.



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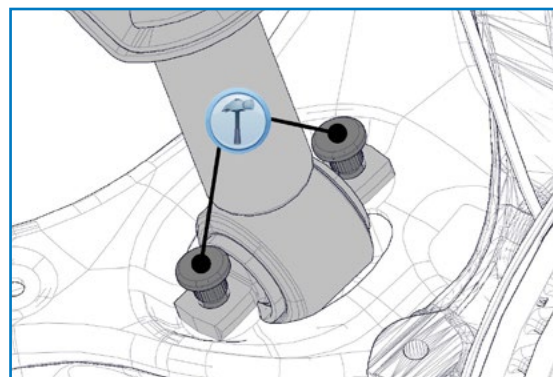
16 REINSTALL STRUT ASSEMBLY

Attach strut assembly (with billet spacer installed) to frame using (3) supplied M10 nuts (B, 14 mm). Tighten nuts hand-tight.

17 REINSTALL LOWER STRUT MOUNT STUDS

Reinstall (2) factory studs through cross pin and lower control arm. Tap with a hammer to seat splines.

Reinstall (2) factory nuts and torque to 66 ft.-lbs. (90 N-m).



17

18 TORQUE UPPER STRUT MOUNT NUTS

Torque (3) upper strut mount nuts (14 mm) to 41 ft.-lbs. (55 N-m).

19 CONNECT UPPER BALL JOINT

Insert upper ball joint into upright, install M12 flat washer (G) and supplied M12 nut (F, 19 mm) by hand. Torque nut to 46 ft.-lbs. (63 N-m).

20 CONNECT TIE ROD END

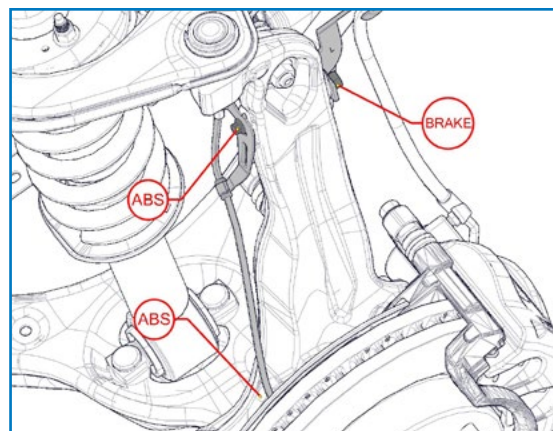
Insert tie rod end into upright, install M10 flat washer (E) and supplied M10 nut (D, 17 mm) by hand. Torque nut to 35 ft.-lbs. (48 N-m).

21 REATTACH ABS SENSOR, ABS WIRE & BRAKE LINE BRACKETS

Reinstall factory bolt to secure brake line bracket to upright. Torque to 159 in.-lbs. (18 N-m).

Reinstall factory bolt to secure ABS wire bracket to upright. Torque to 53 in.-lbs. (6 N-m).

Reinstall factory bolt to secure ABS sensor to top of upright. Torque to 53 in.-lbs. (6 N-m). Bolt not visible in image.



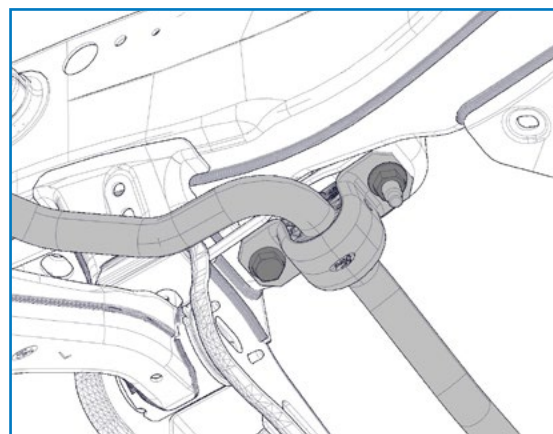
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22 REPEAT FOR OPPOSITE SIDE

Repeat Steps 6 through 21 for opposite side.

23 REATTACH SWAY BAR MOUNTS

Install sway bar mounting bolt and nut on each side of vehicle. Torque to 66 ft.-lbs. (90 N-m).



23

24 PLUG IN ELECTRONIC POWER STEERING

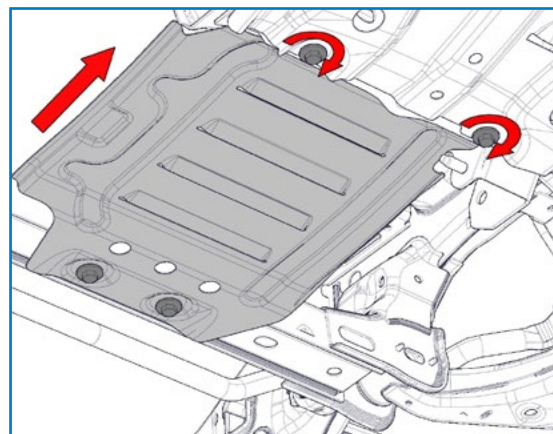
Plug in (3) power steering plugs.

25 REINSTALL STEERING SKID PLATE

Slide skid plate onto (2) front skid plate bolts.

Reinstall (2) rear skid plate bolts.

Torque all (4) skid plate bolts to 22 ft.-lbs. (30 N-m).



25

26 REINSTALL WHEELS

Install wheels and torque them to factory specification.

Raise vehicle, remove jack stands from under frame and lower vehicle back to ground.

Roll vehicle forward and backwards, and bounce vehicle up and down several times to stabilize suspension.

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).

