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Rough Country 90400 Installation Instructions

2-Inch Lift Kit for Subaru Crosstrek & XV Crosstrek AWD (2013–2017)

Part number: 90400

trailfortress.com/rough-country-2-inch-lift-kit-90400

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

90400BAG

2013 - 2017 Subaru Crosstrek 2” Lift Kit

Thank you for choosing Rough Country for all of your suspension needs.

Rough Country recommends that a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle. Please read all the instructions before beginning the installation. Check the kit hardware against the ‘’Kit Contents’’ list below. If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product. Check all fasteners for proper torque. Check to ensure for adequate clearance between all components. Check and retighten wheels at 50 miles and again at 500 miles. Periodically check all hardware for tightness. Be sure you have all the needed parts and understand where they go. Also, please review the “Tools Needed” list to be certain you have the necessary tools to complete the installation.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend that seat belts and shoulder harnesses be worn at all times. Braking performance and capabilities are decreased when significantly larger/ heavier tires and wheels are used. Do not add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

TIRE FITMENT

This kit was developed using a 225/65/r17 for a no rub 17x8 +15 offset. Due to differences in manufacturing, dimension and inflated measurements, tire and wheel combinations should be test fit prior to installation.

NOTICE TO DEALER AND VEHICLE OWNER

⚠NOTICE Any vehicle equipped with any Rough country product must have the “Warning to Driver” decal installed on the sun visor or dash. The decal is to act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics. INSTALLING DEALER—It is your responsibility to install the warning decal and to forward these installation instructions on too the vehicle owner for review and to be kept in the vehicle for its service life.



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2013 - 2017 Subaru Crosstrek 2” Lift Kit

TOOLS NEEDED:
Jack
Safety Stands
Wheel Chocks
Pry Tool
Metric Wrench/Socket
12mm
14mm
15mm
17mm
19mm
22mm

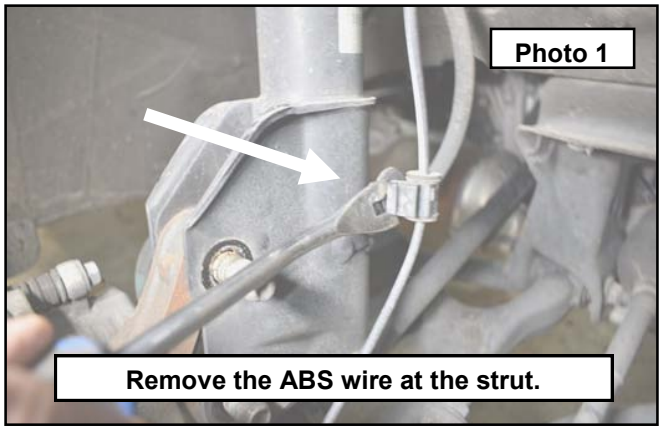
KIT CONTENTS:
Front Strut Spacer (2)
Rear Strut Spacer (2)
Cradle Spacer (4)
Cradle Support Front Spacer (2)
Cradle Support Rear Spacer (2)
Rear Brake Line Bracket (2)

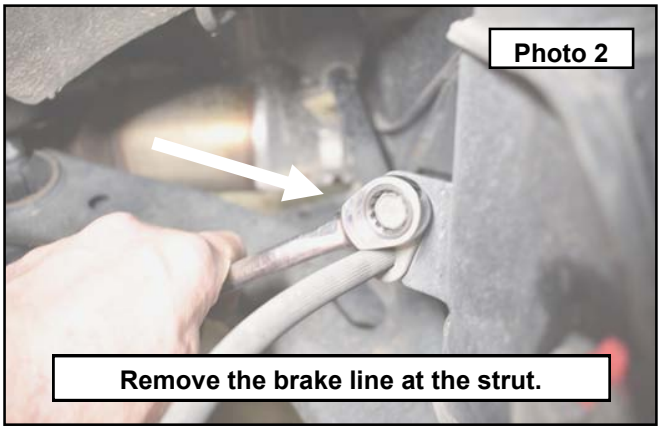
HARDWARE INCLUDED:
10mm Stud Bag
8mm x 25mm Bolt (2)
8mm x 70mm Bolt (4)
8mm Flat Washer (14)
8mm Lock Washer (4)
8mm Locking Nut (6)
10mm x 70mm Bolt (6)
10mm Flat Washer (6)
10mm Lock Washer (6)
14mm x 215mm Bolt (4)
14mm Flat Washer (4)
14mm Lock Washer (4)



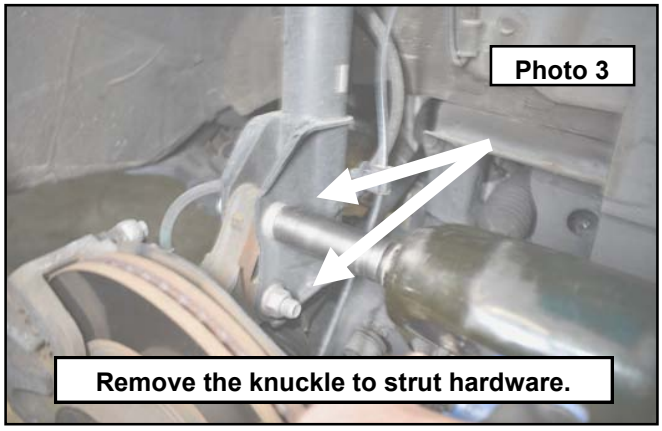
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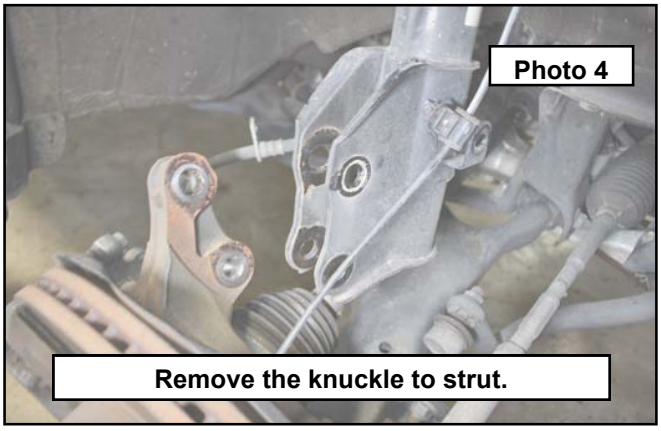
1. Park your vehicle on a clean flat surface, engage the parking brake and block the rear tires.
2. Jack the front of the vehicle up and place safety stands at the indicated lift points for the unibody in the service manual. Remove the front wheels and set aside.
3. **Save all hardware removed from the vehicle unless otherwise noted.**
4. Open the hood and disconnect the negative terminal on the battery.
5. Use a pry tool to remove the ABS wire from the strut body and let hang out of the way. **Photo 1**
6. Remove the brake line at the strut using a 12mm wrench and let hang out of the way. **Photo 2**





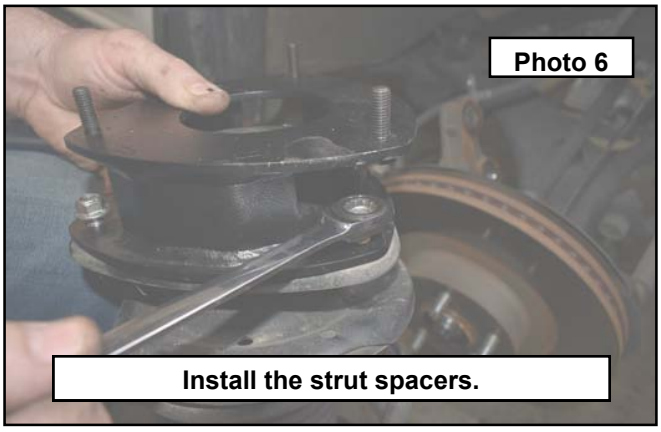
7. Support the lower control arm with a jack. Remove the knuckle to strut hardware using a 19mm wrench and socket. Note that the upper bolt is a cam bolt and has a washer behind the nut. This is important for reinstallation later. **Photo 3**
8. Remove the knuckle from the strut while supporting the knuckle to make sure the CV axle, ABS and brake lines do not over extend. **Photo 4**





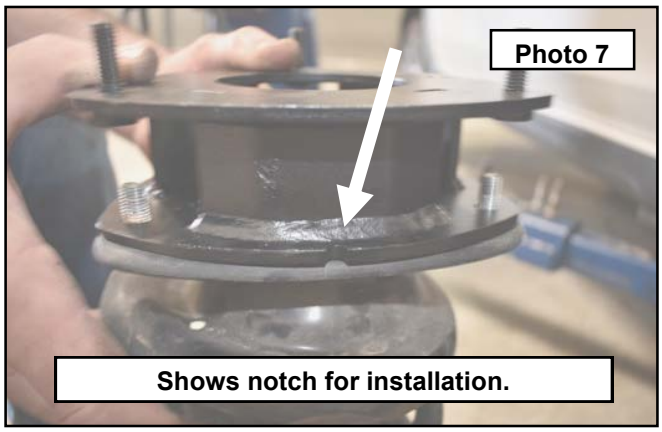
9. Move to under the hood. Have a helper hold the strut while removing the upper strut hardware using a 12mm wrench. Make sure to not drop the strut or damage the CV boots when removing. **Photo 5**
10. Install the strut spacers to the strut using the factory hardware and 12mm wrench. Torque to 20 ft-lbs. **Photo 6**

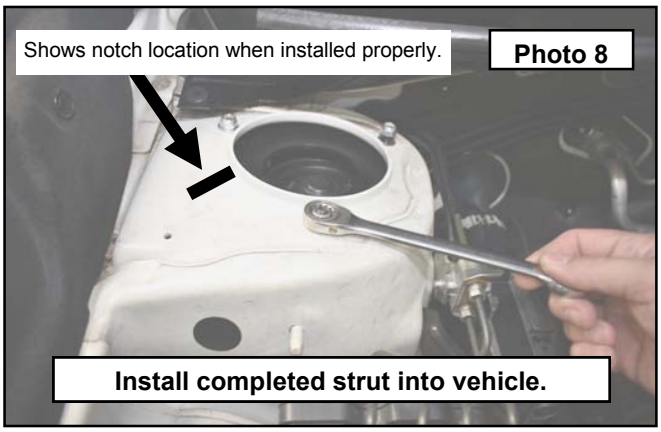




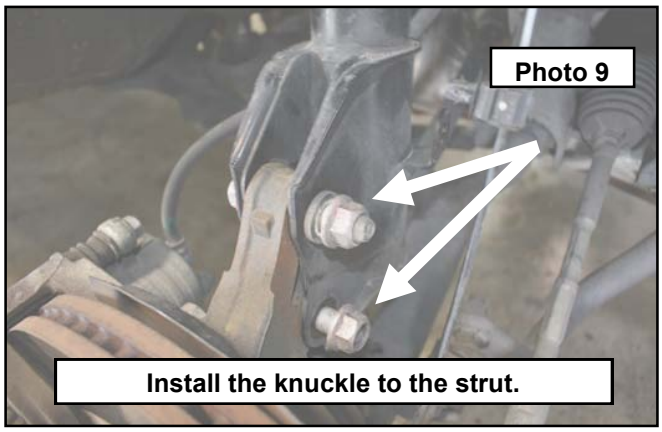
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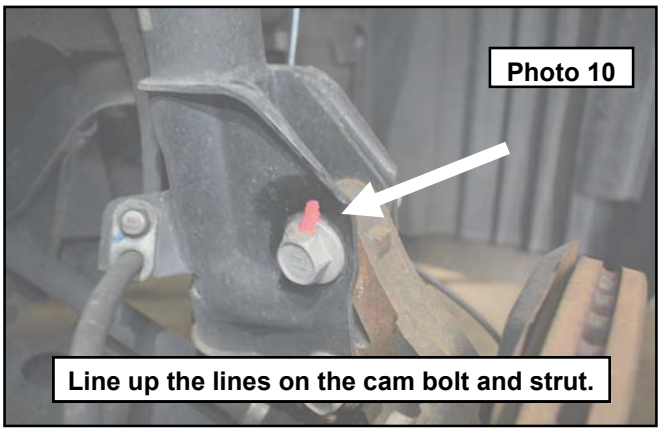
11. You will notice that on the lower plate of the strut extension that there is a notch. This is important when installing strut assembly back into the vehicle. This notch must face out to the tire and slightly to the front of the vehicle. This is done to correct camber and caster for alignment purposes. If not done properly the alignment will not be able to obtained and tire wear with improper handling will occur. **Photo 7**
12. Install the completed strut assembly into the vehicle using the provided 8mm nuts, and flat washers. Leave loose at this time to aid in the rest of the installation. **Photo 8** (Passenger side shown)



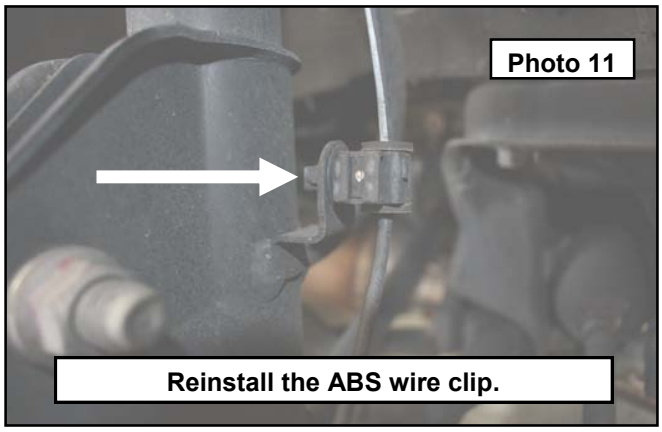


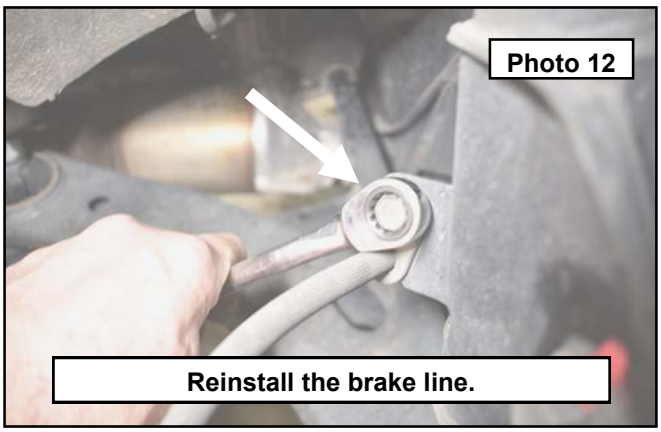
13. Reinstall the knuckle to strut hardware making sure to use the cam bolt in the upper hole as well as install the washer behind the nut. **Photo 9**
14. Rotate the cam bolt until the notches on the bolt and the strut line up. You are presetting the camber to aid in the alignment later. You will rotate the cam bolt while watching the knuckle move inwards as far as possible. The last line on the cam bolt will line up with the notch in the strut body. Torque both the upper and lower bolts to **95 ft-lbs**. Final torque to be set by the alignment technician. **Photo 10**





15. Reinstall the ABS wire clip to the strut body. **Photo 11**
16. Reinstall the brake line bracket to the strut using the factory hardware and 12mm wrench. Torque to **5 ft-lbs**. **Photo 12**



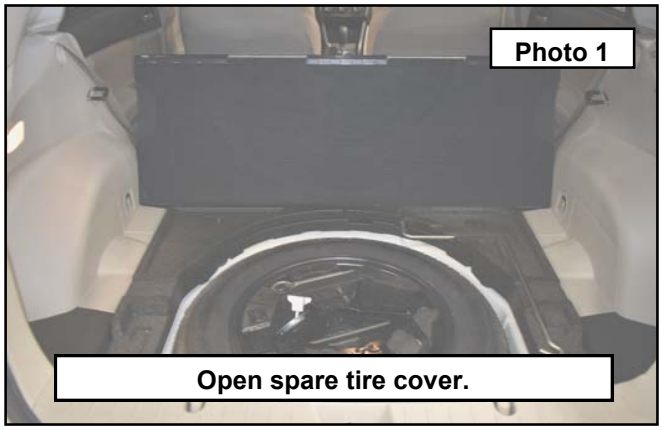


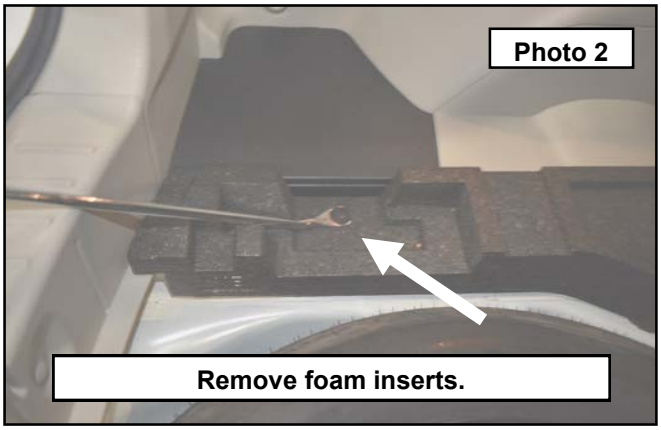
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17. Install the wheels/tires and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacture's specs.

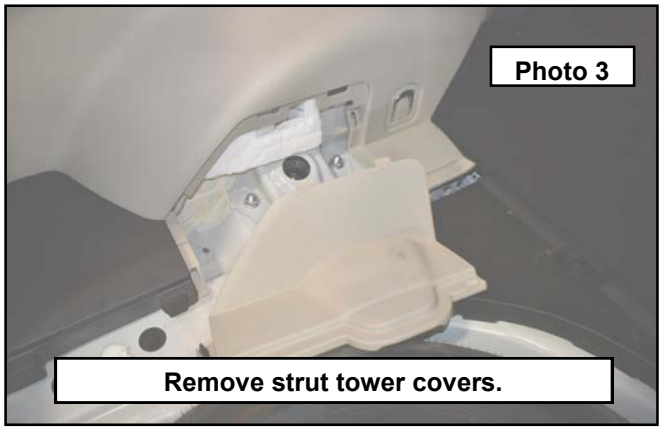
Rear Installation

1. Chock the front wheels and jack the rear of the vehicle up. Place safety stands at the indicated lift points for the uni-body in the service manual. Remove the rear wheels and set aside.
2. Open the rear hatch and remove the carpet cover if installed. Open the spare tire compartment by lifting the carpeted panel up and folding out of the way. **Photo 1**
3. Using a pry tool, remove the plastic clips holding the foam inserts down. Remove the foam inserts and set aside. **Photo 2**



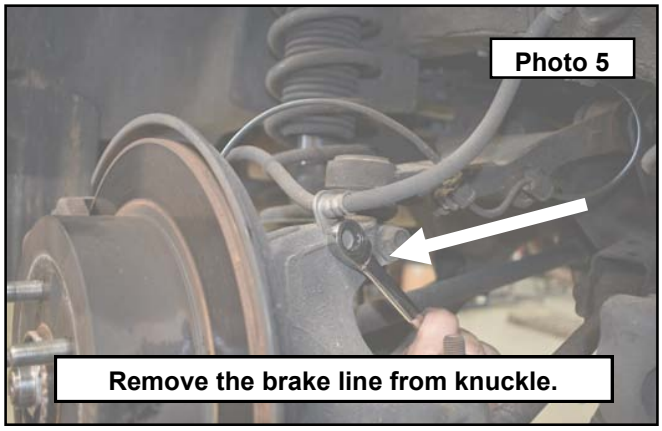


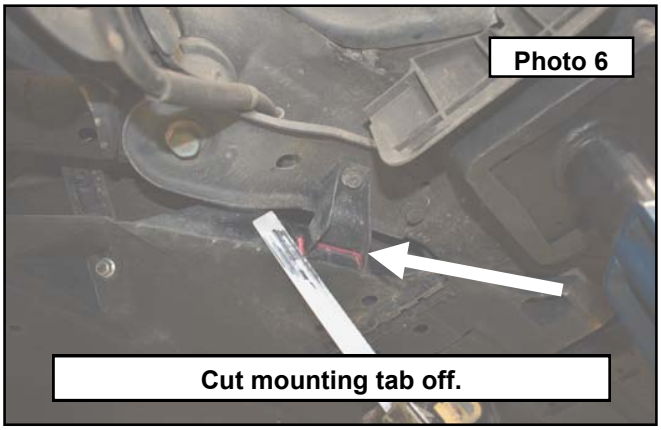
4. Remove the strut tower covers by pulling out and down to disengage the plastic clips. **Photo 3**
5. Remove the upper strut nuts using a 14mm socket. **Photo 4**





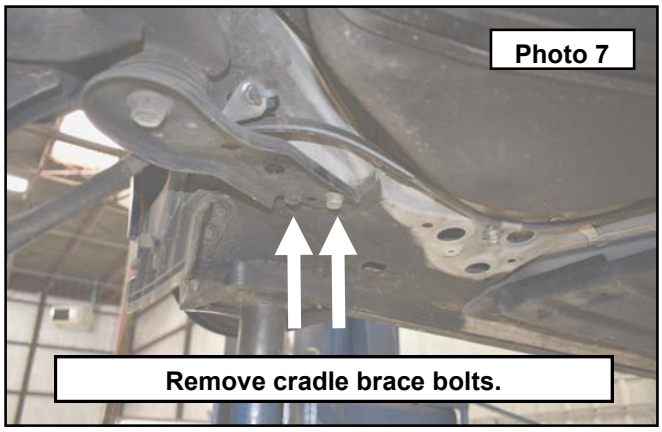
6. Remove the brake line bracket from the knuckle using a 12mm wrench and let hang out of the way. **Photo 5**
7. Under the vehicle are plastic tank covers. On models with the small subframe support you will need to cut one of the mounts off using a suitable cutting tool. Cut along the edge of the tank cover to remove this mount. (Sawzall shown) Once cut, remove the piece using a 10mm socket. **Photo 6**

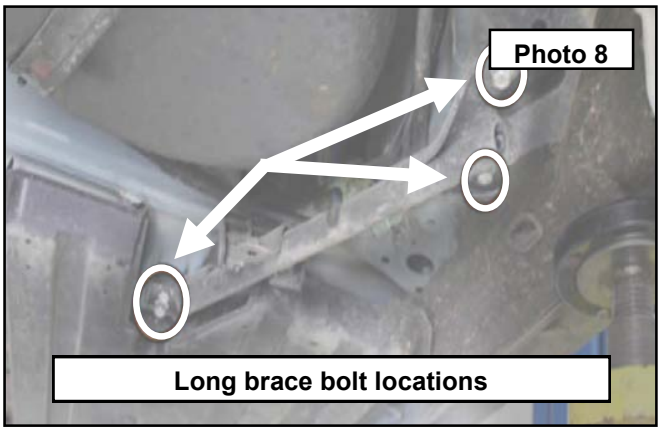




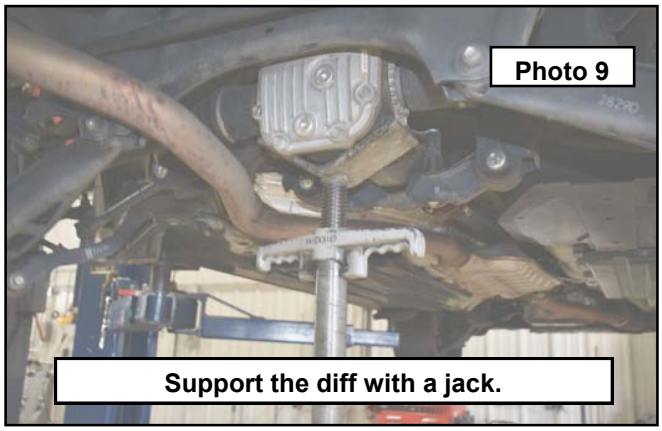
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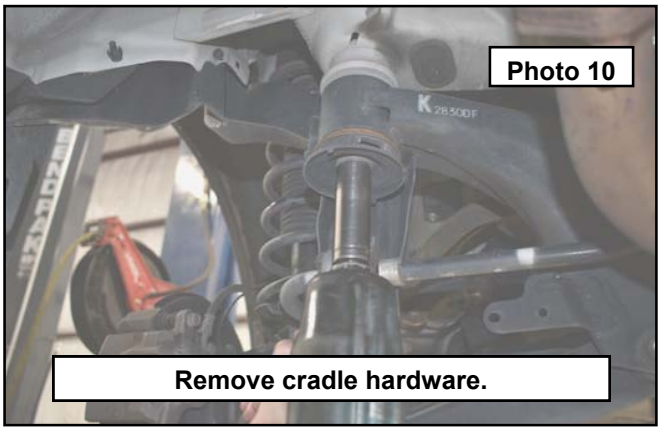
8. Remove the cradle brace front bolts using a 15mm socket. Discard the hardware as it will not be reused. Short cradle brace shown. **Photo 7**
9. If you have the long cradle brace, you will need to remove the entire tank cover from both sides and discard.
10. Once removed, you can remove the long cradle brace from the unibody using a 15mm socket for the middle bolts and a 13mm socket for the front bolts. **Photo 8**





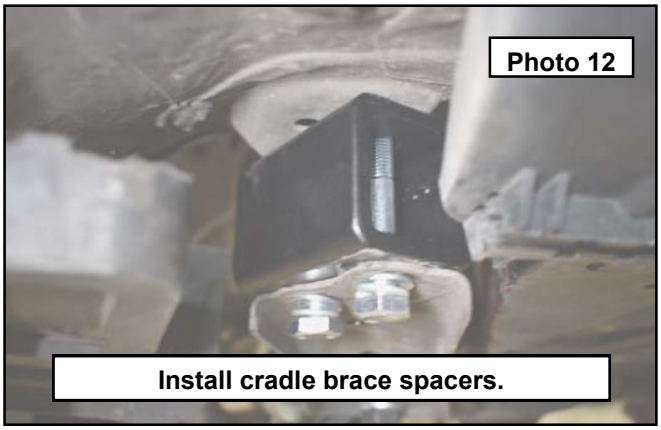
11. Support the rear differential with a jack. **Photo 9**
12. Back two of the cradle to unibody bolts on one side of the vehicle about 1/2" out. Then on the other side, remove the bolts completely. Lower the jack to allow the cradle to drop low enough to install the body pucks. **Photo 10**





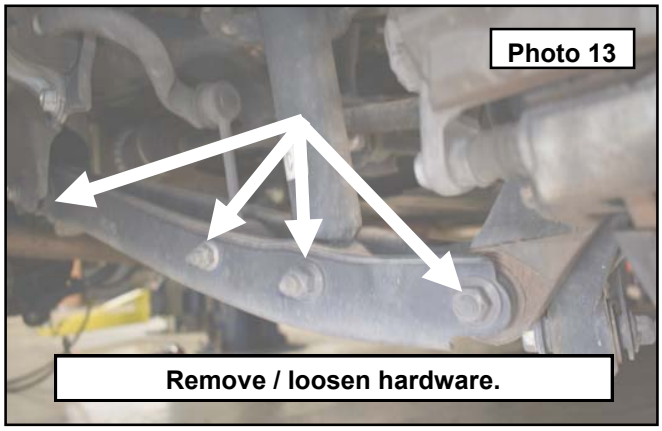
13. Install the body puck between the unibody and the cradle at both the front and rear points. Install the provided 14mm x 215mm bolt, lock washer, flat washer and the factory keeper washer for the rear mount. On the front mount use the 14mm x 215mm bolt, lock washer, flat washer and the cradle brace. The cradle brace acts as a large factory keeper washer in the front mount. Make sure to only start these bolts. **Photo 11**
14. Install the cradle brace spacer between the unibody and brace using the provided 10mm x 70mm bolts, lock washers, and flat washers. If you have the short brace, you are done. If you have the long brace, install the front brace spacer in between the front mount and unibody using the provided 8mm x 70mm bolts, lock washers, and flat washers. **DO NOT** tighten at this time. Repeat all steps above for the other side of the vehicle. Once all spacers and hardware have been installed, make sure the cradle is square under the body. In a crisscross pattern, tighten the main cradle bolts, torque these to **120 ft-lbs**. Once tight, torque the 10mm bolts to **45 ft-lbs** and if you have the long brace, torque the 8mm hardware to **20 ft-lbs**. **Photo 12**





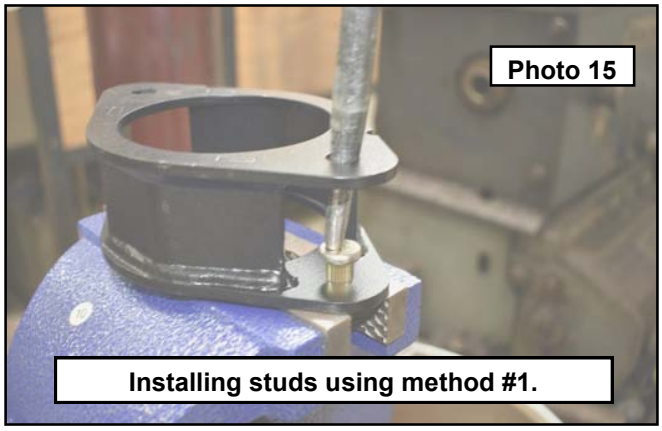
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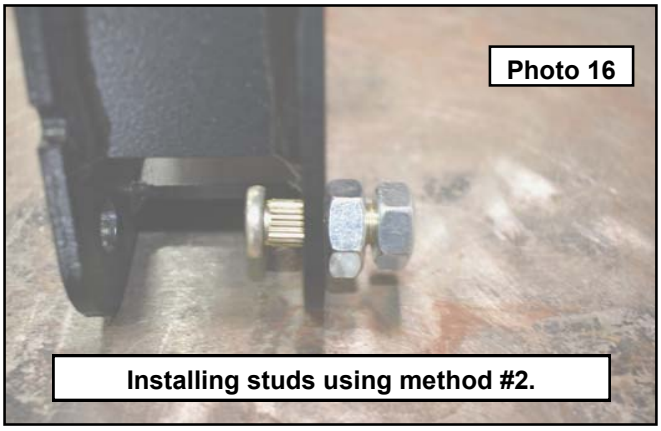
15. Support the lower control arm with a jack. Remove the lower control arm to knuckle hardware using a 17mm socket and wrench. Loosen but do not remove the lower control arm to cradle hardware. Remove the sway bar end link using a 14mm wrench and socket and the lower strut hardware using a 17mm wrench and socket. **Photo 13**
16. Lower the jack down to remove the strut from the vehicle. **Photo 14**



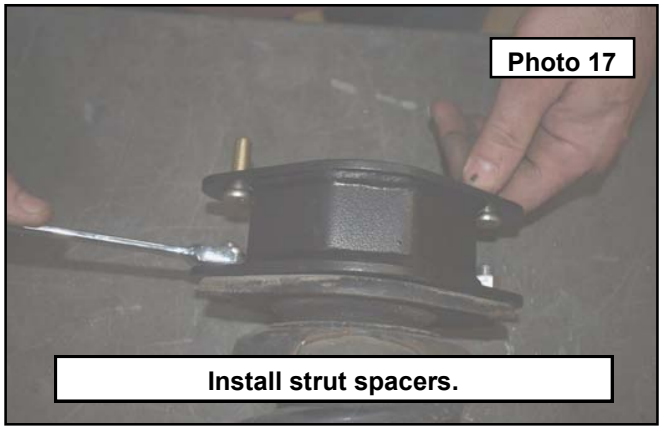


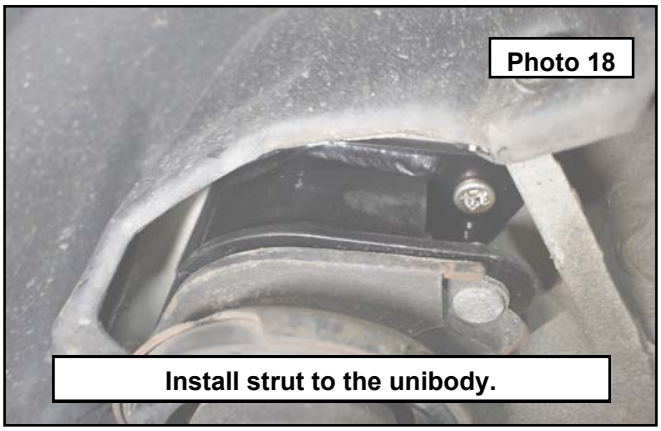
17. Prepare the strut spacers for installation by installing the provided studs into the smaller holes on the spacer. There are two ways to do this. The first way is to press the studs into place using a punch and hammer. Repeat this step for all 4 studs. **Photo 15**
18. The second way is to press the studs into place using the provided 1/2” nut acting as a spacer and a spare 10mm nut to suck the stud into place. It is recommended to use a lubricant between the two nuts to prevent galling of the metals while this step is completed. Repeat this step for all 4 studs. **Photo 16**





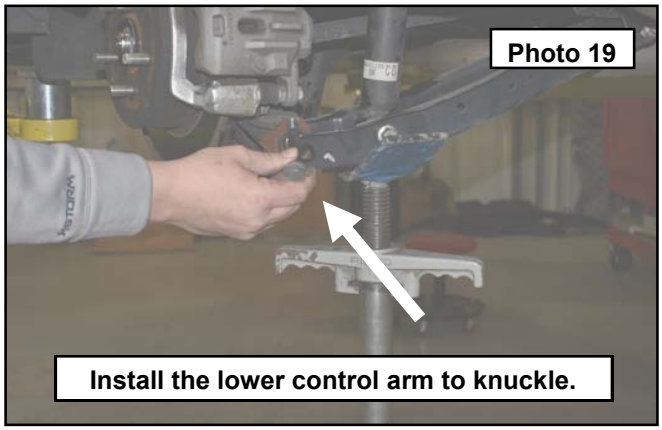
19. Install the strut spacers to the struts using the factory hardware. Torque to **30 ft-lbs**. **Photo 17**
20. Use a helper to hold the strut, install the completed strut assembly to the unibody using the provided 10mm nuts, lock washers, and flat washers. Leave loose to aid in the rest of the installation. **Photo 18**

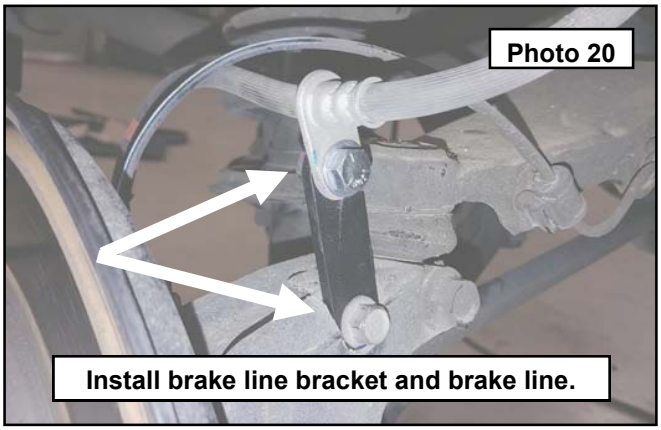




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21. Raise the lower control arm up and install the lower strut, the sway bar end link, and the lower knuckle factory hardware. Leave loose at this time. **Photo 19**
22. Install the brake line bracket to the knuckle using the factory hardware and 12mm wrench. Install the brake line to the bracket using the provided 8mm x 25" bolts, flat washers, nuts and 13mm wrench and socket. Torque all to 5 ft-lbs. **Photo 20**





23. Look around the muffler and exhaust mid pipe. Make sure that the exhaust pipe is not hitting or touching any part of the cradle or CV axle. If you encounter a contact point, pull down on the pipe to rotate it on its hanger until everything clears. You will be able to gain clearance by rotating the pipe down and out of the way. (Some models may need exhaust modifications if clearances cannot be gained.)
24. Install the wheels/tires and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs.
25. Open the rear hatch and torque the upper strut hardware to **30 ft-lbs**. Reinstall the strut tower covers, foam inserts and the spare tire cover.
26. Reconnect the negative terminal at the battery. Start the engine and make sure there are not any dash lights pertaining to the suspension.
27. Rotate the steering wheel from lock to lock, verifying all clearances between the wheels/tires, suspension and body components. Adjust as necessary.
28. Roll the vehicle forward and backwards to get the suspension to settle to the new ride height. This allows the rear components to relax for torqueing. If this is not done, the rubber bushings will end up in a bind and can cause premature wear, improper alignment, and/or improper handling characteristics.
29. Once the suspension is settled, torque the lower control arm to knuckle, cradle and the lower strut to **95 ft-lbs** using 17mm wrench and sockets. Torque the sway bar end link to **45 ft-lbs** using a 14mm wrench and socket.
30. Have the alignment set to the specs on the chart below by a reputable alignment shop.

FRONT	DRIVER	PASSENGER	TOLORANCE
CAMBER	+0.0	+0.0	+/-0.5
CASTER	+4.5	+4.5	+-/0.5
TOE	+0.0	+0.0	+/-.05
REAR	DRIVER	PASSENGER	TOLORANCE
CAMBER	-0.3	-0.3	+/-0.5
TOE	+.05	+.05	+/-.05

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