



Installation Manual

2018 - Current Subaru CrossTrek

2015 - Current Subaru Outback

2019 Subaru Forester

2" lift kit

Part # 51705 & 51730

SS03312019

2018 - Current Subaru CrossTrek part # (51705)

2015 - Current Subaru Outback part # (51730)

2019 - Current Subaru Forester # (51705)

Part #	Description	Qty.
51730-01	Driver side front spacer	1
51730-02	Passenger side front spacer	1
51730-03	Rear strut spacer	2
51730-04	front sway bar endlink bracket	2
* 51730-06	Rear sway bar bracket	2
51730-05	1.000" x .510" x .250" spacer	2
38FLN	3/8" flange nut	10
M1230B	12mm x 30mm bolt	2
M12UN	12mm unitorque nut	2
M12WA	12mm flat washer	4
* M825CSB	8mm x 25mm counter sunk bolt	4

* - Included in Part # 51730 Kit only

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

For a list of parts, please refer to the back of the installation manual for photos of parts that are included in this suspension system.

Make sure to use thread locker or loctite on all new and stock hardware associated with the installation of this suspension system.

After the completion of this installation a full vehicle alignment is required.

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

It is the responsibility of the customer/installer to wear safety glasses at all times when performing this installation.

It is the customers/installers responsibility to read and understand all steps before installation begins. If you have any questions or concerns, please contact our technical department @ (801) 280-2777. Also, the OEM manual should be used as a reference guide.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance or loss of control. **DRIVE SAFELY!** Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death.

It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

IMPORTANT!

This suspension system was developed using a **235 - 65 R17"** tire with a **17" x 9"** wheel and an offset of **+38**. If wider tires are used, offset wheels may be necessary and trimming may be required. Factory wheels can be used but are not recommended with tires over **11"** wide.

The stock spare rim can be used in an emergency, - but use extreme caution under stock spare tire operating conditions. Please note that, if running the spare factory tire, it is done for short distances and a speed

not to exceed 45 MPH or damage to differentials may occur.

Important Note:

245/45R17 tire size can fit with minor trimming of the mud flaps and front bumper edge. The front air dam in front of each tire will need to be removed. The inner fender liner at the front bumper will need to be relocated forward. You can remove all the mounting clips under the bumper, push the plastic forward and drill new clip holes. You can trim the mud flap at the back of the front wheel well, or remove it.

Limited lifetime warranty

Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension WARRANTY WILL BE VOID. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased, installed and maintained on a non-commercial vehicle; otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered, improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing. ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental or consequential damages. Any part or product returned for warranty claim must be returned through the dealer or the distributor from whom it was purchased. Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine

whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaid by the customer under this warranty. Important information that needs to be read before installation begins:

Due to the different variation of the stock strut spring rate, height after installation of the spacer may vary. Any questions please feel free to contact Tuff Country or your local Tuff Country dealer.

Before installation begins, Tuff Country EZ-Ride Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations occur on the test drive, uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation to inform the customer of these issues if they exist.

This Suspension kit comes with (1) installation manual and some post installation procedure literature and it is the installers responsibility to make sure that the customer receives the post installation procedure literature. If a customer would like a copy of the installation manual, please have them visit our website at www.tuffcountry.com. Have them go to the customer care section to download these instructions. If you have any questions, please feel free to call us at (801) 280-2777.

Recommended tools selection:

Angle grinder with cut off disc
Drill and assorted drill bits
Torque wrench
Standard socket set
Standard wrench set
Metric socket set
Metric wrench set
Tape measure
Hydraulic floor jacks

Please follow instructions carefully:

Before installation begins, measure from the center of the hub, to the bottom of the fender well, and record measurements below.

Pre-installation measurements:

Driver side front: _____

Passenger side front: _____

Driver side rear: _____

Passenger side rear: _____

At the end of the installation take the same measurements and compare to the pre-installation measurements.

Post installation measurements:

Driver side front: _____

Passenger side front: _____

Driver side rear: _____

Passenger side rear: _____

Front end installation:

1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the wheels and tires from both sides.

2. Support the lower control arm with a suitable jack. **All steps are repeated for both sides of the vehicle.**

3. Remove the front sway bar end link at the strut body. This step should be performed on both sides to help make installation easier.



4. Remove the brake line bracket from the strut body.

Carefully let the brake line hang out of the way.



5. Remove the ABS harness clip at the strut body and carefully let hang out of the way.



6. Remove the strut to knuckle bolts. **Special note: These bolts are specific to upper and lower mounting locations AND direction of install. The upper is a cam bolt, while the lower is a standard bolt. Make sure to note their orientation for reinstallation later.**



7. While keeping the lower control arm supported, release the knuckle from the strut body and let hang out of the way. Make sure to not over extend the ABS, brake line, and CV axle. Adjust as necessary.



8. Open the hood of the vehicle and carefully support it with the prop rod. Locate the upper strut mounting hardware, and with the help of someone holding the strut, remove the hardware and carefully remove strut assembly from the vehicle.



9. With the struts removed from the front of the vehicle, carefully drill the OE upper strut mounting holes out to 3/8".



10. Locate the new front strut spacers and install them on the top of the OE struts using the OE nuts. **Special note: the spacers are driver side/passenger side specific, and will only fit on one way, make sure to install on the correct side.**



11. Install the completed strut assembly to the strut tower using the provided 3/8" flange nuts. Leave loose to help with the installation of the knuckle. **Special note: The new front strut spacers have notches cut out in the top plate, the driver side will have one notch and the passenger side will have 2 notches. While installing these back into the vehicle make sure that these notches are facing the OUTSIDE of the vehicle. The spacers are off set to the inside and rear of the vehicle to help with camber and caster settings.**

12. Raise the knuckle up and install into the strut body. Install the cam bolt into the upper hole and the remaining bolt into the lower hole. Torque bolts to 95 ft lbs.



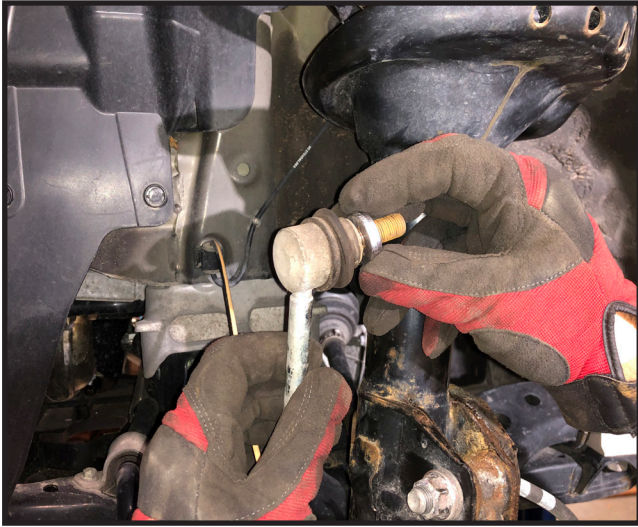
13. Install the brake line bracket to the strut body using the OE hardware. Torque bolt to 5 ft lbs.

14. Install the ABS wire clip back to the strut.

15. Install the new sway bar brackets onto the strut body using the new 12mm x 30mm bolts and hardware. **Do not tighten at this time.**



16. Install the 1/4" thick washer onto the top end of the sway bar end link.



17. Install the sway bar end link on to the new bracket using the OE hardware. Torque the end link and the new bracket to 45 ft lbs.



18. Install the front wheels and lower the vehicle to the ground. Torque the lug nuts according to vehicle or wheel manufacturer specifications. Jounce the front of the vehicle up and down a few times to settle the suspension and then torque the upper strut mounting hardware to 30 ft lbs.



Front installation Complete. Double check that all steps have been completed properly.

Rear Installation:

19. Jack the rear of the vehicle up and place jack stands under the main lifting points according to the OE owners manual. Open the rear hatch and remove the spare tire cover.





20. Remove the 2 outer most plastic panel covers to access the rear upper strut mounting hardware.



21. Remove the 2 upper strut mounting nuts from both sides of the vehicle.



22. Support the lower control arm with a suitable jack. Remove the rear wheels. Loosen but do not remove the sway bar end link on the lower control arm.



23. Remove the sway bar from its subframe mounts and carefully let it hang out of the way.





24. Loosen but do not remove the front lower control arm bolt at the subframe mount.



25. Remove the front lower control arm bolt at the knuckle. Let the control arm hang down out of the way. This will allow access to the rear lower control arm bolt.



26. Loosen but do not remove the lower control arm bolt at the subframe.



27. Remove the lower strut bolt from the lower control arm and the control arm bolt at the knuckle.



28. Carefully remove the rear struts from the vehicle and take to a bench.

29. Thread the OE nuts over the top studs of the struts and using a cut off tool, carefully cut about 2-3 threads off the top of the studs. Remove the nuts to clean the cut area.



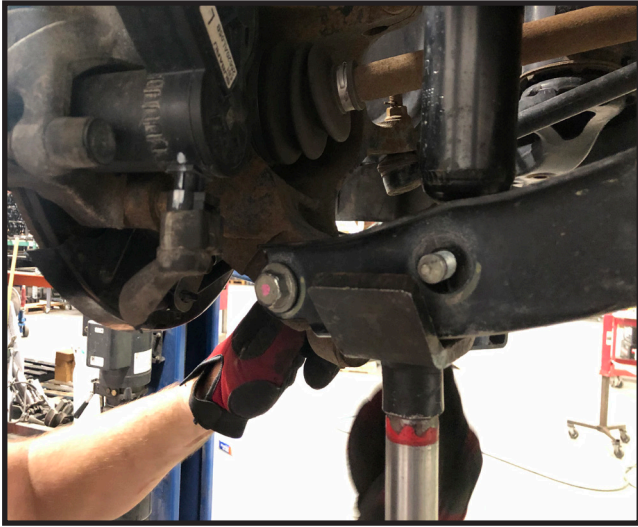
30. Locate the new rear strut spacers and install them on top of the struts using the OE nuts.



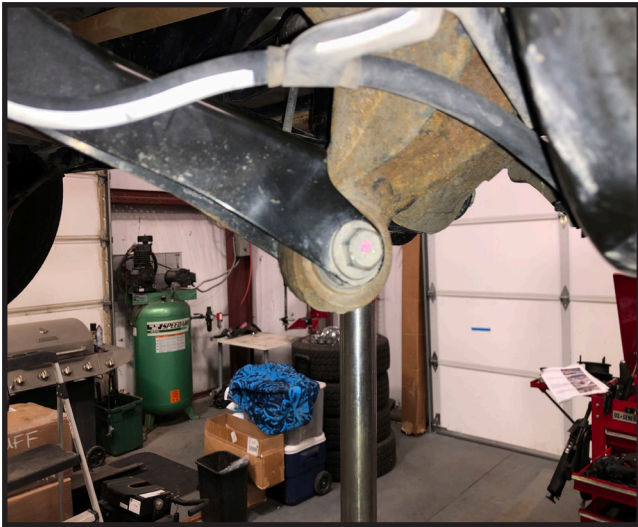
31. Install the completed struts back into the vehicle using the 3/8" flange nuts at the top, Do not tighten at this time.



32. Raise the lower control arm into place and install the lower strut hardware. Do not tighten at this time. Use the jack to raise up on the control arm to set pre load on the strut, and install the lower knuckle bolt.

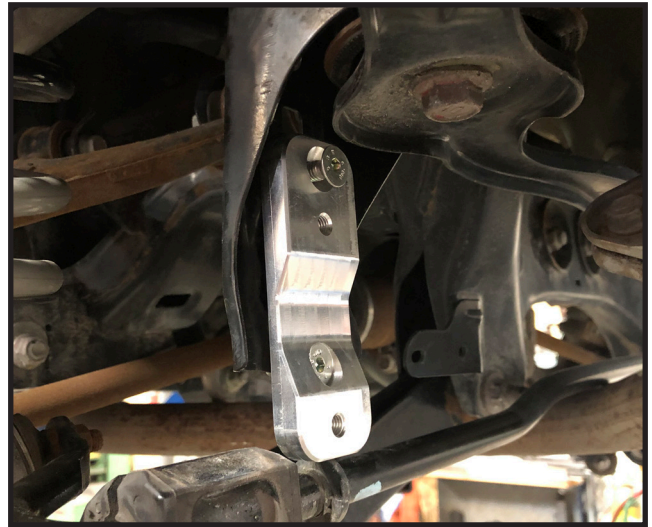


32. Install the front lower control arm to the knuckle using the OE hardware. Do not tighten at this time.



If you are installing Part # 51705 on a Crosstrek, you will skip to step # 35

33. Locate the new rear sway bar brackets part # 51730-06. Also locate (4) M825CSB counter sunk bolts. Install the new brackets to the subframe using the new bolts and torque to 25 ft lbs.



34. Install the sway bar to the new brackets using the OE hardware and OE pinch bracket. Make sure to install the pinch bracket with the locking tab facing down. Torque to 25 ft lbs.



35. Install the wheels and lower the vehicle back down to the ground. Torque the lug nuts to the wheel or vehicle manufacturers specifications.

36. Jounce the vehicle up and down a few times to settle the suspension. Torque the upper strut nuts to 30 ft lbs.

37. Reinstall the plastic panels and spare tire cover.

38. Torque all the lower control arm hardware to 95 ft lbs.

39. Torque the lower sway bar end link hardware to 35 ft lbs

Installation Complete!

Check and double check to make sure that all steps were performed properly. After the completion of this install, Tuff Country Recommends taking the vehicle in for a complete front end alignment.

Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with the system after the first 100 miles of installion. It is also the Customers responsibility to do a complete re-torque after every 3,000 miles or after every off road use. Neglect of following these steps could cause brackets to come loose and cause serious damage to the suspension system and to the vehicle.