



Product:

aFe Control Sway Bars

Part Numbers:

440-503003-N

440-503003FN

440-503003RN

Applications:

BMW E90, 335i RWD

Contents in the box: 440-503003-N (F&R Set)

Qty	Part #	Description
1	00P-0P2384-N	1.25" E90 Front Sway Bar
1	00P-0P2386-N	1.125" E90 Rear Sway Bar
2	00P-0P1065-B	Front Bushing Bracket
2	00P-0P2418-B	Rear Bushing Bracket
2	00P-0C1658-B	1.25" Front Bushing
2	00P-0C1670-B	1.125" Rear Bushing
2	00P-0C1007-A	.05 oz Grease Packet

Difficulty of Installation: Beginner |-----x-----| **Advanced**

Reason: This installation requires the lowering of the rear sub frame, and is best performed on a 2 post lift. The front sway bar installation does not require sub frame disassembly.

Expected Installation Time: 6 Hours

Recommended Tools:

- 16mm box end
- 13mm thin wall socket
- 13 mm deep socket
- 8, 10, 13, 15, 16, 17, 18 mm sockets
- 3/8" drive ratchet
- 3/8" drive extension
- Allen Wrench Set
- Complete Male & Female Metric Torx Socket Set
- 3/4 box end wrench
- 3/8" drive Torque Wrench
- 2 Post Lift and Screw Jack (preferred)
- Transmission Jack

This procedure is best performed on a vehicle lift by qualified mechanics, while it is possible to install these sway bars using a floor jack and jack stands, it is not recommended.

Note that rear sub frame removal will also require that the rear brake lines be disconnected. The brake system will need to be bled after the install process and before driving. This should be done by a qualified mechanic.

Front OEM Sway Bar Removal

1. Using proper jacking points and a 2 post lift, raise the vehicle in the air.
2. Using a 17mm socket remove the front wheels.
3. Remove the engine under tray, and the two front splash guards using a 8mm socket.



4. Using a 16mm and 18mm wrench disconnect the front end links at the OEM sway bar.



Front aFe Control Sway Bar Installation

1. In the same orientation as the OEM bar was removed, install the new sway bar by positioning the aFe front sway bar in place. It may be easier to hook the end link studs in place before attempting to mount the brackets so the bar will hang on its own.



Driver Side



Passenger Side

2. Apply a generous amount of supplied grease on the supplied bushing and install on the bar. Install the supplied bushing bracket using the OEM bolts, and a 13mm thin wall socket. Torque bolts to 25 lb-ft
3. Reattach the sway bar end links to the sway bar using a 16mm and 18mm wrench. Torque nuts to 25 lb-ft
4. Reinstall all the under carriage splash guards and shields.
5. Reinstall the front wheels using a 17mm socket and torque to 90 lb-ft

Rear OEM Sway Bar Removal

1. Using proper jacking points, lift and support the rear of the car on jack stands.
2. Using a 17mm socket remove the wheels.
3. Using a T45 Torx remove the 8 bolts that hold the support brace to the vehicle.



4. Remove the rear section of the exhaust from the vehicle.
5. Using a 11mm wrench, disconnect the brake hard lines. Use a catch can to collect the brake fluid.



6. Remove the outer plastic covers using a T30 socket.



7. Using a E14 torx socket, and a 14 mm 12 point socket, remove the bolts that hold the rear chassis reinforcement to the body.



8. Release the plastic clips from the sub frame so the wire harness can have room to move freely.



9. Using a 10 mm socket, remove the beat shield covering the drive shaft.



10. Disconnect the rear end links from the OEM sway bar using 16mm and 18mm wrenches.



11. Using either a floor jack, or a trans jack, support the rear differential. Remove the rear shock mount bolts. Next remove the (2) remaining sub frame bolts using a Torx E18 socket. You might want to mark the position of the mounts that have exhaust hangers for future installation.



12. It is also necessary to unbolt the passenger side upper lateral control arm on the spindle (outboard) side using a 18mm socket. The control arms will interfere with bar removal and reinstallation. Take note of the wires clipped to this member. If the wires must be separated from the control arm bracket, secure them out of the way so they do not get caught and damaged while moving the sway bar in and out.



13. The next step will require the drop of the rear sub frame, it is important to make sure you have slack in both the ABS, and ride height sensor wires as the sub frame comes down. Slowly lower the sub frame just enough to get an E12 socket on the OEM bushing brackets. (approximately 2") Remove the (4) bolts attaching the sway bar bushings.



14. To remove the OEM Sway bar from the vehicle, rotate the passenger side upper control arm out of the way. The sway bar will come out the driver's side by rotating the bar to clear any remaining suspension components.

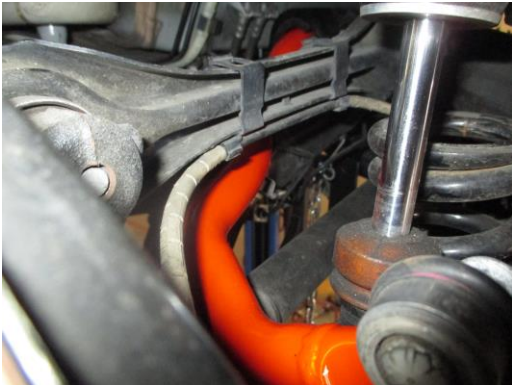


Rear aFe Control Sway Bar Installation

1. In the same orientation as the OEM bar was removed, install the new sway bar by sliding in through the driver's side of the sub frame.



2. It is important to properly position the sway bar arms on the driver's side before proceeding to the passenger side. Make sure the sway bar is in the correct position under the driver's side control arm, and aligning with the end link. Proceed to the passenger side, rotate the control arm up, and position the bar on the passenger side. When positioned, re-attach the upper control and torque 18 mm bolt to 42 lb-ft



Drivers Side

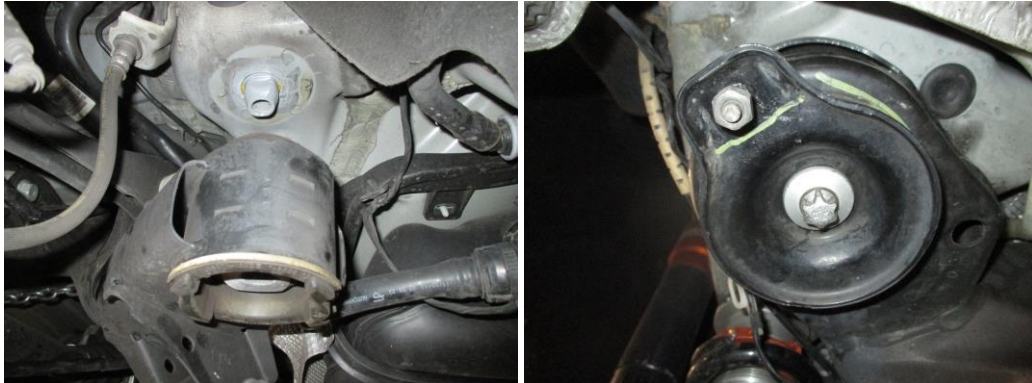


Passenger Side

3. Apply a generous amount of supplied grease on the bushing and install on the bar by separating the slit in the bushing. Install the CNC machined aluminum bushing bracket using the OEM E12 Torx bolts. Torque bolts to 25 lb-ft



4. Raise the sub-frame back into position. The front mounts have positioning pins, for alignment. Be careful not to pinch any lines, or wires. Torque the sub frame bolts to 65 lb-ft. Make sure the mounts for the exhaust are in the same location as previously removed.



5. Reinstall the OEM reinforcement bar, and reinstall the splash guards.



6. Reattach the plastic clips and properly secure the wire harness.
7. Reinstall the OEM endlinks to the aFe sway bar. It might help to jack up the lower control arm to raise the end link. Connect the end link and torque to 25 lb-ft
8. Reinstall the exhaust system, the support brace. and wheels. Be sure to properly torque wheels.
9. **Re-connect the rear brake lines and properly bleed the brake system.**
10. Re-check all your work, and lower vehicle from vehicle lift, and take for test drive.
11. **When all work is complete take the vehicle to alignment shop for a proper wheel alignment.**



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