

# HOTCHKIS SPORT SUSPENSION



## *BMW E46 3 SERIES* *SPORT SWAY BAR SET* *# 22825*

### Tools required:

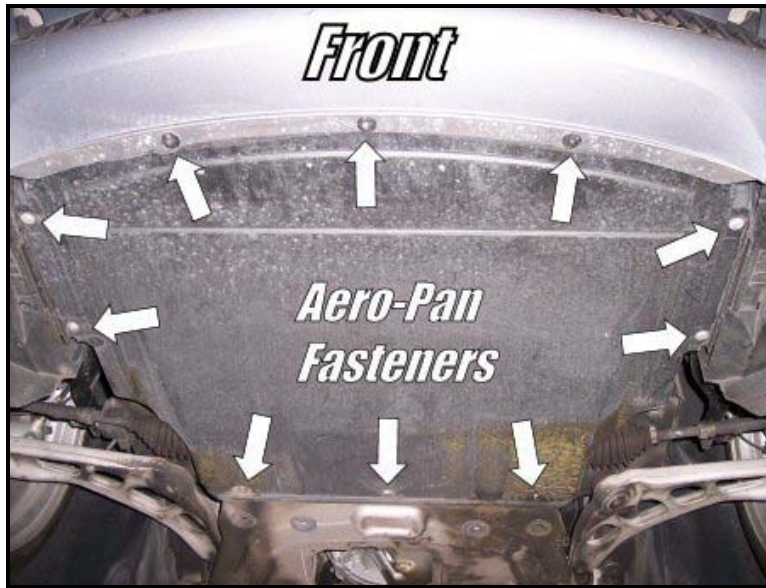
- Hydraulic jack, jack stands, or 4-post lift (shown) torque wrench
- The following sockets or wrenches: 12mm, 13mm, 14mm, 16mm, 17mm,
- The following Allen wrenches: 6mm

### *INSTALLATION OF HOTCHKIS FRONT SWAY BAR*

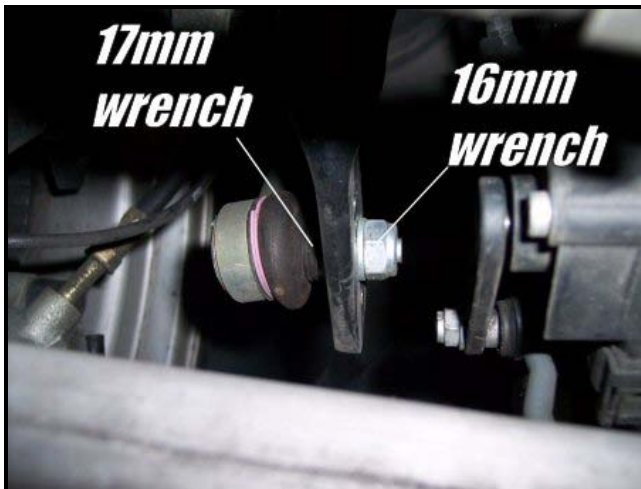
- 1) Drive the front of the vehicle onto floor ramps and securely block the rear wheels of the vehicle. If ramps are not available, use a jack to lift up the front of the vehicle and use jack stands to support it. Do not remove the front wheels during installation for safety.



- 2) Once the vehicle is raised, use a Phillips screwdriver and remove the aero-pan fasteners. Let the pan hang from the front in order to expose the stock front sway bar.



- 3) Take a moment and observe the stock front bar and the way in which it is mounted.
- 4) Remove the lower end link nuts using a 16mm wrench and a 17mm wrench for the wrench flat on the end link itself. Now remove the four bushing bracket nuts and the bar will be free. Save the end link and bushing bracket nuts.





- 5) Apply grease along the inside surface of your polyurethane bushings and attach them to the Hotchkis bar in the approximate mounting locations. Slip the new brackets over the bushings.



- 6) Lift the bar up to the vehicle. The two smaller H-Sport Stickers at the bar's end's should be right-side-up. As you lift the bar to the mounting points, you must place one spacer plate per side between the bushing and the mounting point. This relocates the bushing out of the stock bushing pocket.



- 7) Re-install the bracket nuts and tighten. The front uses the larger of the 2 brackets we provide. Then re-install the end link ends and nuts on one of the three available adjustment holes. We suggest the softer adjustment or the holes at the bar's ends.



- 8) Double-check all hardware once again to make sure all is tight.
- 9) Re-install the aero pan.





# HOTCHKIS HOTCHKIS SPORT SUSPENSION

## *INSTALLATION OF HOTCHKIS REAR SWAY BAR*

- 1) Drive the rear of the vehicle onto floor ramps and securely block the front wheels of the vehicle. If ramps are not available, use a jack to lift up the rear of the vehicle and use jack stands to support it. Do not remove the rear wheels during installation for safety



- 2) Once the vehicle is raised, take a moment and observe the stock rear bar and the way in which it is mounted.
- 3) Free the stock end links from the upper mount within the cast suspension arm for both the driver and passenger sides using a 17mm socket for the top and 13mm socket for the under-side of the arm. You will not re-use the stock end links.



- 4) Remove the stock bushing brackets on both the driver and passenger sides.



- 5) The stock rear bar is now free and can be removed as shown below. If you are having clearance problems, you may have to remove the bushings and brackets or even twist the end links forward to remove the bar.



- 6) Pay close attention to the way the stock end links are mounted to the brackets. These brackets will be used to mount the new end links to the upper cast arms. Remove the stock end links from these brackets and then mount them to the H-Sport end links using the stock hardware. Pay close attention to zerk fitting direction. The lower Zerk Fitting points towards the rear of the car.





- 7) Again using the stock hardware, install the end links to the cast suspension arms making sure the lower grease fitting points towards the rear of the car.



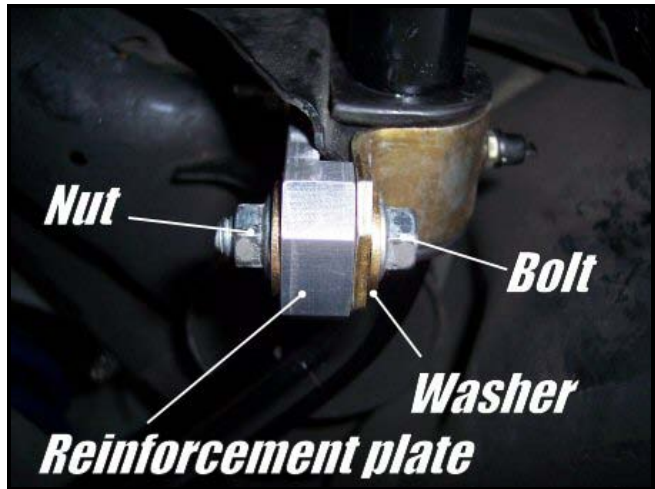
- 9) Apply grease along the inside surface of your polyurethane bushings. Install the rear bushings onto the bar at the approximate mounting location. Now you may install the Hotchkis rear bar with the H-Sport sticker facing the rear, right side up.

Note: The bar ends will mount to the inboard side of the end links.





- 10) Next, slide the bushing brackets over the bushings. Position the bracket onto the stock mounting point. You will need to install the provided aluminum reinforcement plate on the backside of the mount. Fasten the bushing bracket and reinforcement plate together using the provided hardware.



- 11) Attach the end links to the bar ends (inner hole for more roll resistance and the outer hole {near the ends} for less roll resistance) using the 10mm bolts, nylock nuts and small and large washer. Use the large diameter washer to capture the outboard side of the end link bushing and the smaller washer for the inboard side against the sway bar end.

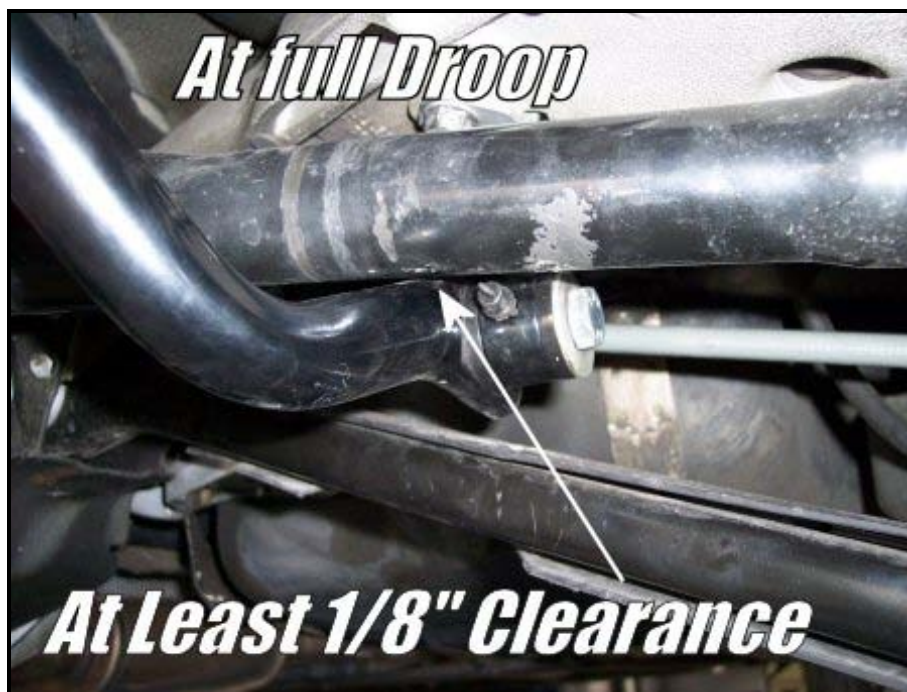




## 12) ***Adjustable length end links***

It may be necessary to adjust the length of the end links for proper sway bar clearance from the drive axles. The procedure for this is quite simple.

- Raise the rear end of the car until the rear suspension is fully extended (i.e. wheels are not touching the floor). This is full droop.
- At this full droop state, check to see if the sway bar is approximately 1/8" away from the drive axle. If not, loosen the hardware and adjust the length accordingly. Having approximately 1/8" of clearance will ensure that the sway bar will never contact the drive axle.
- Adjusting the end link length is as easy as loosening the jam nut and rotating the lower body in or out. You must perform step 11 after each adjustment to determine sway bar clearance.



- 13) Next, fully tighten the jam nut on the end link using an 11/16" open-end wrench. Make sure the heim joint is centered. You may need a flat screw driver or similar tool to hold the heim joint in positioned while you tighten the jam nut.



- 14) Check all hardware once again to make sure everything is tight.

Enjoy you new tubular sway bar kit from Hotchkis! If you need assistance with the install or have any other questions, go to the "instructions" button on our site or call us at the number below.



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	Hotchkis P/N	Item Description	Quantity
1	22810285	Front Anti Roll Bar	1
2	22910285	Rear Anti Roll Bar	1
3	15.12.06.39	Front Bushing Brackets	2
4	23090210	Rear Bushing Brackets	2
5	5348G	Front Bushing 1-3/16"	2
6	5708.01	Rear Bushing 1"	2
7	23410198	Front Spacer Plate	2
8	23410285	Rear Reinforcement Plate	2
9	25826	E46 Endlink Kit	1
10	1746	Hardware Kit, BMW E46	1
11	9.11108	Grease Pack	2
<b>Optional Accessories</b>			
A	25827	E46 Endlink Kit for Lowered Vehicles	1