

MAZDA 3 FRONT SWAY BAR Installation Instructions

TOOLS REQUIRED:

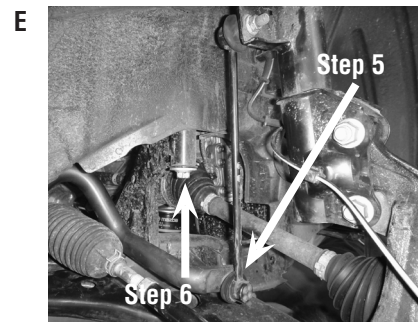
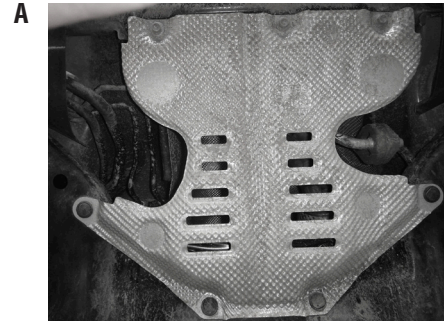
- Torque wrench
- 3/8" ratchet
- 12" & 30" 3/8" ratchet extension
- 17mm universal joint socket (or)
- 17mm shallow socket with a universal joint
- 10mm socket
- WD40 or equivalent
- 17&19mm deep socket
- 14mm socket
- 5mm Hex
- 14mm Crows Foot socket (optional)

ESTIMATED TIME: 2 hrs. **PEOPLE REQUIRED:** 2

Note: If you are installing the Racing Beat Heavy Duty End links, begin with the installation instructions for the end links before proceeding, except do not make the connection to the sway bar yet. If not, proceed to step #1.

Read these installation instructions before starting:

1. Loosen the front wheel lug nuts, then raise the car and place on safety stands. NEVER work under a car supported only by a floor jack! Remove the front wheels.
2. Remove the aluminum heat shield protecting the exhaust pipe. Remove the large plastic tray under the engine. (Photo A) Remove the plastic fastener from each wheel well as shown in Photo B.
3. Unscrew the three (3) 17mm head securing bolts from the left and right side of the steering rack by using a 30" extension and universal joint. To access these bolts, guide the socket extension through an opening as shown in Photo C and have an assistant position the socket head onto each bolt. This process allows access to the steering rack bolts and prevents undue stress on the steering column during the following steps.
4. Remove the 17mm head bolt from the rear of the rear engine mount. (Photo D)
5. Remove the 14mm head nuts which attach the sway bar ends to the end links. (Photo E)
6. Remove both (left & right) UPPER subframe bolts -17mm head. (Photo E)
7. Loosen the FORWARD subframe bolts a total of three (3) turns each. (17mm head - one bolt per side) Photo F
8. Remove the rubber hanger that connects the exhaust pipe to the subframe. Spray the rubber hanger with WD40 to ease the removal.
9. Remove the two (2) nuts that assemble the exhaust pipe. To avoid removing the large under chassis brace, Photo G shows one method of removing the exhaust retaining nuts by using a 14mm deep socket, a universal joint and a 12" extension. Separate the exhaust system by pulling the system rearward, allowing the rear flange to clear the studs mounted on the forward flange - then push the exhaust system aside. This step will allow the engine/subframe to drop without binding on the exhaust system in the following steps.



NOTE: Support the subframe rear with a floor jack in the following steps.

10. Remove the four (4) 19mm head bolts at the REAR of the subframe. (Photo H) Now lower the supporting floor jack, allowing the rear of the subframe to hang down.

11. Remove the sway bar retaining brackets on both sides. (14mm head bolts)

12. Remove the sway bar from the car. (If you are installing the Racing Beat End links, proceed with Step 3 in the instructions supplied with the links.) It is usually easiest to shift the bar to the right side, slip the bar out at the right side first, then rotate the left side of the bar to extract it from the chassis.

Installation

12. Lubricate the urethane bushings with the supplied grease. Install the Racing Beat sway bar in the reverse order of removal. (Install the bushings and clamps, using the supplied washers, once the bar is in the car.) Use the floor jack to raise the subframe back into position. Make certain the original exhaust gasket is in place when reconnecting the exhaust!

13. Retighten the attachment bolts using the following torque specifications:

Sway bar ends to links:

- 14mm head nuts: 40-45 ft/lbs

Stock end links - If needed, insert a 5mm hex wrench into the end of the end link stud to prevent the stud from rotating. Place a 14mm Crows Foot Socket onto your torque wrench and place the socket onto the retaining nut. While firmly holding the hex wrench, use the torque wrench to tighten the retaining nuts to 40-45 ft/lbs. Alternatively, you may be able to use a box or open end wrench to partially tighten the nut and then finish torquing with a 14mm socket

Sway bar retaining brackets:

- 14mm head bolts: 30-36 ft/lbs

Others:

- Forward subframe bolt - 17mm head: 65-75 ft/lbs
- Rear subframe bolt - 19mm head: 60-69 ft/lbs
- Upper subframe bolt - 17mm head: 65-75 ft/lbs
- Steering rack bolt - 17mm head: 55-69 ft/lbs
- Rear engine mount - 17mm head: 69-85 ft/lbs
- Exhaust pipe nuts - 25-28 ft/lbs
- Misc - 14mm Head bolts: 28 ft/lbs

