FS Performance Engineering x RGR Engineering

Mazda Miata NA (1989-1997) Rear Diffuser Installation Instructions A collaboration between two engineering companies.

NOTE: NA6 Miatas might not have subframe bracing. Additional brackets are provided to install on NA6 Miatas.

Tools Needed:

- 10mm wrench/socket
- 12mm wrench/socket
- 14mm wrench/socket
- 17mm wrench/socket
- 19mm wrench/socket (possibly)
- 4mm or 5/32" allen wrench
- A friend (hopefully not a tool)

(5) M6-1.0 x 20mm Countersunk Bolts

(5) M6 Countersunk Washers

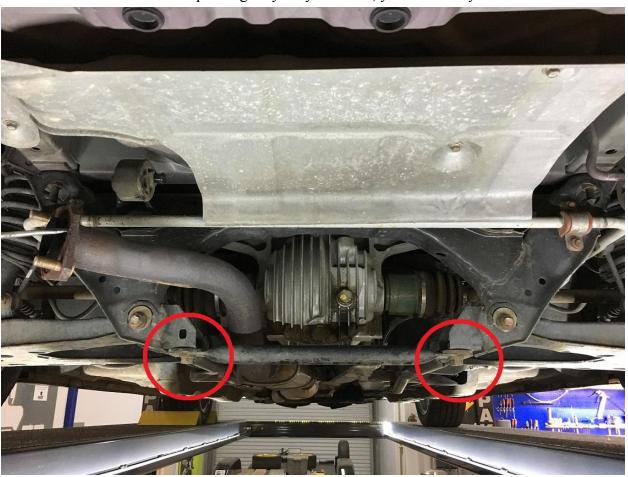
- Blue threadlocker (optional)
- Telescoping magnet, small magnet (very helpful for NA6 chassis)

Included in Kit:	Included for NA6 w/o subframe bracing
(1) Flow Optimized Diffuser	(2) L-shaped Looking Brackets
(1) FSPE x RGR Mounting Bracket	(1) Sway Bar Bracket
(2) M12-1.5 x 40mm bolts	(6) M6-1.0 x 20mm Hex Head Bolts
(2) M12 washers	(4) M6-1.0 Whiznuts
	(2) M6-1.0 Nyloc Nuts
(4) M8 small washers (5/16" ID)	(2) M8-1.25 x 20MM Bolts
(4) M8 whiz nuts	(2) M5-1.25 Nyloc Nuts
	(4) 5/16x1.25" Washers

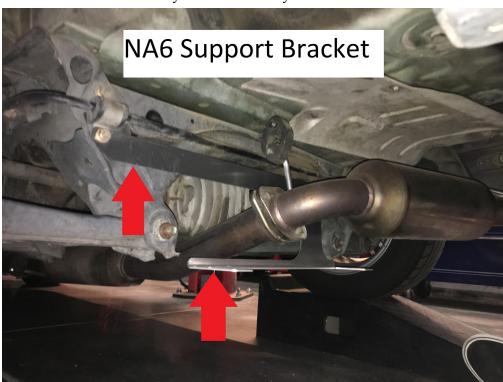
- (1) Threadlocker
- (7) M6-1.0 x 30mm bolts (if you need to lower the back end of your diffuser)
- (7) 10mm Spacers (to fill the gap if you lower the back end of diffuser from bracket)

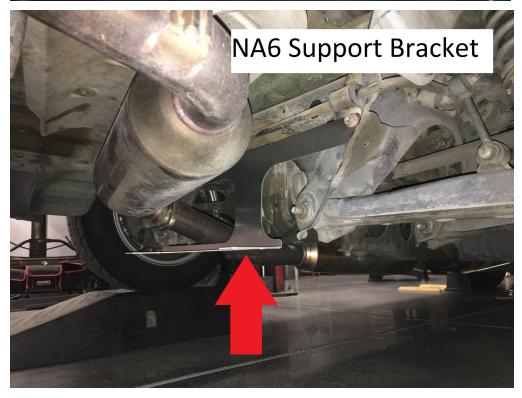
Steps:

- 1. Raise your Miata and secure it with jack stands.
- 2. Remove the two bolts at the rear subframe bracing using a 17mm socket. This bracing is just behind the rear differential. Depending on your year miata, your bolts may have a 19mm head.



3.If you own a NA6 Miata that has no rear subframe bracing, you will need to install our supplied bracket. Identify the lower bolts that hold the rear sway bar on and remove them with your 14mm wrench. Then attach the sway bar bracket we provided. Tighten securely and feel free to use thread locker if you feel necessary.





4. Locate the four nuts/bolts holes that hold the bumper to the tow hooks. Install the supplied bracket using the following hardware.

Remove the nuts using a 14mm wrench/socket and install the supplied bracket as shown. Tighten securely. If you don't have one (or both) tow hooks you will be fine. If you are missing nuts we have provided the M8 whiz nuts and washers to use. Keep in mind that your bracket will have five holes that have pre-installed nuts, not six open holes like the pic shown.



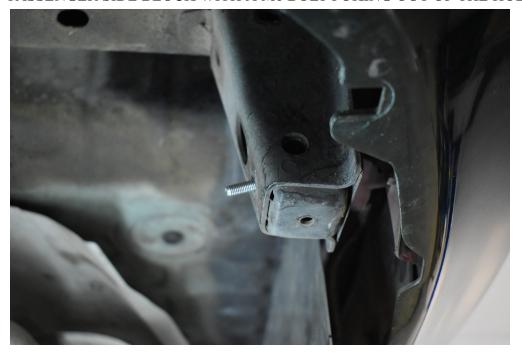




5. If you own a Miata WITH rear subframe bracing, skip to the next step.

NA6 Miatas without rear subframe bracing, please install the L-shaped brackets to the rear blocks on the frame. The tow hooks are bolted to the blocks. This is where your telescoping magnet comes into play. You want to get the bolts into the holes from the inside. On one of them you will even need to hold a washer on the bolt. Just check out ALL of the pictures.

PASSENGER SIDE BLOCK WITH A M6 BOLT POKING OUT OF THE HOLE:



BLOCK WITH A M6 BOLT AND $\frac{1}{4}$ " SMALL WASHER BEING PUT THROUGH BIG HOLE INTO SMALL HOLE ON SIDE. We used the magnet here.



WHAT IT LOOKS LIKE WHEN BRACKET IS INSTALLED... <u>except your tab on the</u> <u>bottom will be folded the opposite way!!!</u> Use the WIZNUTS here and threadlocker if you want. Do both sides and tighten securely.



6. With help from a friend, install the diffuser using the following...

Keep in mind that some NA6 Miatas might have rear subframe bracing.

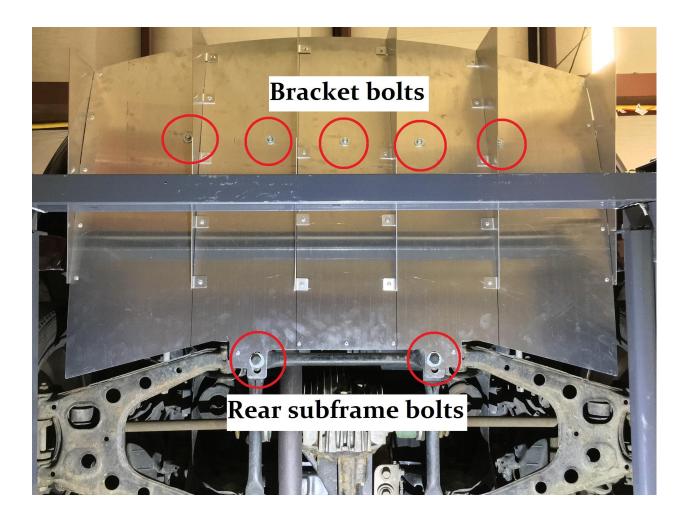
NA8 MIATAS: (2) M12-1.5 x 40mm bolts and (2) M12 washers into the rear subframe. You are replacing the OEM bolts. Hand tighten.

NA6 MIATAS: (2) M8-1.25 x 20mm bolts w/ a LARGE fender washer (1.25" OD) on the bottom **and** top and a M8 nyloc nut on top. You are attaching the diffuser to the sway bar bracket. Don't tighten all the way.

NA8 & NA6 MIATAS: Using (5) M6-1.0 x 20mm countersunk bolts facing up with (5) countersuck washers, install the diffuser to the tow hook bracket as shown. Don't tighten all the way. If you have a NA6 miata you might have to use 10mm spacers and the longer M6-1.0 x 30mm bolts.

NA6 MIATAS: Use (2) M6-1.0 x 20mm bolts facing upward w/ (2) ½" fender washers (1" OD) on the bottom up through the diffuser and into the L-brackets. Then use ½" small washers and M6 nyloc nuts on top. Don't tighten all the way.

Important note: The picture shows 5 bolts. This is for the Miatas with subframe bracing. Miata without will use a total of 7 bolts along the back.



- 7. Adjust the diffuser forward/backward as you would like and tighten securely every single bolt/nut that has been installed. Blue threadlocker can be used on the subframe bolts for high speed applications.
- 8. Enjoy your new FSPE x RGR rear diffuser! Remember to send us pictures once it is installed.



Questions or Concerns?

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