

ND HIGH-FLOW MIDPIPE 06-58500



Congratulations on your purchase of performance exhaust from Flyin' Miata! The installation is pretty straightforward. Here are a few things you need to know. If you have any questions during installation or suggestions for improvement to the product or the instructions, please don't hesitate to call or email.

WARNING: Not everyone can perform every installation. It is critical that you be honest with yourself in regards to your ability. We're more than happy to help, but there are only so many things we can do from the other end of a phone / computer. If in doubt, discuss the install with us before you dive in. Improper installation could cause injury and / or death!

Required tools:

- **Standard tool kit: Sockets, wrenches, ratchets, etc.**
- **Floor jack and jackstands or a lift**
- **WD40 or similar**
- **Oxygen sensor socket or wrench (recommended, but a 22mm or 7/8" wrench will suffice)**
- **stud removal tool (optional)**
- **10mm allen key or socket**

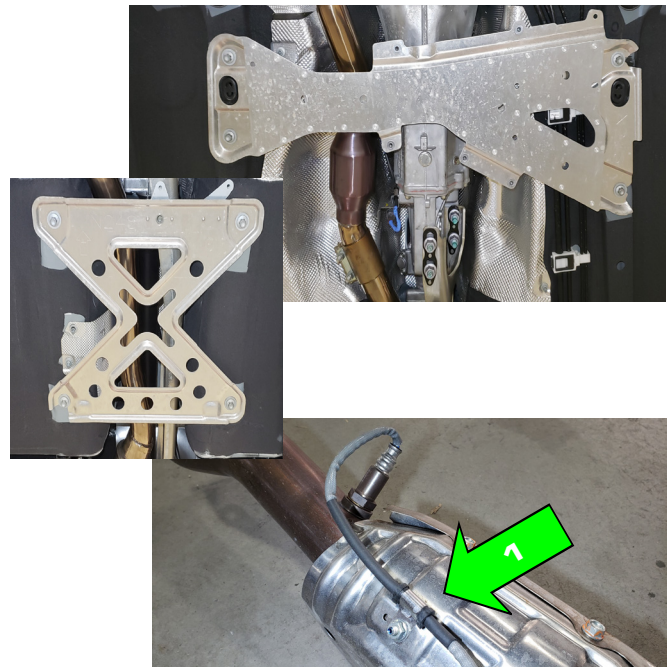
Torque specs

- **Aluminum chassis braces: 14-19 lb-ft**
- **Oxygen sensor and bung: 22-39 lb-ft**
- **Exhaust pipe nuts: 29-37 lb-ft**

1. The first step is to get the car in the air. Be sure that the car is appropriately supported - never get underneath a car supported only by a floor jack - either use jack-stands or a lift.
2. Once you have the car safely supported, thoroughly spray the exhaust hardware with WD40 or similar. If possible, let them soak for awhile. Using hand tools to remove the hardware is a good idea. An air gun might round off or break a seized bolt or nut.

3. Using a 12mm socket or wrench, remove the two aluminum chassis braces from the bottom of the car and set them aside.

4. Unplug the post-cat oxygen sensor and use a 10mm socket or wrench to remove the bolt that secures the wire bracket to the heat shield on the cat (1). Using an oxygen sensor socket or wrench, remove the oxygen sensor from the factory midpipe. Since access to the oxygen sensor can be limited you can remove the sensor after the midpipe has been removed if desired.



5. Locate the flange where the mid-pipe is secured to the exhaust manifold. Using a 14mm socket or wrench, loosen the two nuts. To keep the pipe from accidentally falling, don't fully remove either nut until both ends of the pipe are loose and you're ready to remove it.

6. Locate the single exhaust hanger on the mid-pipe. Spray the midpipe hanger post with some WD40 to aid in removal. Using channel lock pliers, remove the hanger from the post on the mid-pipe, leaving the hanger attached to the post on the rear subframe.
7. Locate the flange where the mid-pipe is secured to the muffler. Using a 14mm socket or wrench, remove the two nuts and springs. It is okay if the studs come out as well, they will not be reused.
8. At this point, finish removing the nut(s) on the manifold studs (from step 5) and carefully remove the midpipe. It is an awkwardly long piece, so an assistant is recommended.

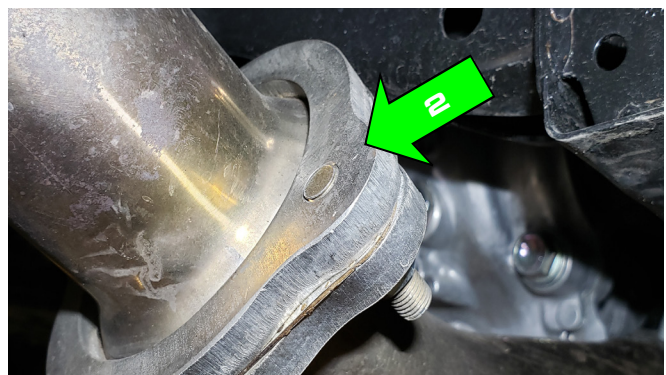


9. If you have not already done so, finish removing the oxygen sensor from the factory midpipe. On the FM midpipe there are accommodations for the sensor to be relocated before or after the cat. Install the oxygen sensor before the cat unless you have reason to install it post cat, such as a deleted primary cat. Install a supplied bung plug into whichever hole is not occupied by the sensor. Torque the oxygen sensor and bung to 22-39 lb-ft.

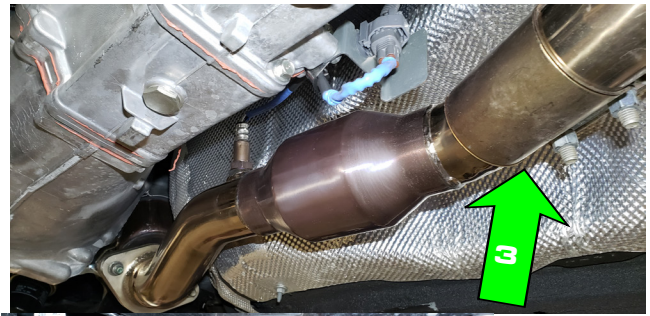
10. Remove the studs from the muffler using a stud removing tool. If you don't have a stud remover, install both nuts from the muffler on one stud and cinch them together. Use a 14mm wrench on the lower nut to remove the stud. Repeat the process for the second stud.



11. Install the studs included with the midpipe into the muffler flange until the end of the stud just sticks through the flange as shown (2).
12. Install the forward section of the FM midpipe by securing the flange end to the factory manifold using the factory donut gasket and original hardware. Snug down the nuts, leaving them loose enough while still allowing for some adjustment.



13. Install the supplied strap clamp (larger of the two supplied clamps) onto the forward section of the midpipe so that only half of the clamp is on the pipe (3). A second set of hands is encouraged for the following: Install the middle section of the midpipe by inserting it into the open end of the strap clamp while also installing the hanger post of the midpipe into the hanger on the rear sub-frame (4). Use a 15mm socket or wrench to snug up the strap clamp nuts enough to keep the joint together while still allowing for some adjustment.



14. Now install the last section of the midpipe. Begin by installing the supplied clamp (smaller of the two supplied clamps) onto the last section and matching up the joint as shown (5). Use a 13mm socket or wrench to snug up the strap clamp nuts enough to keep the joint together while still allowing for some adjustment.

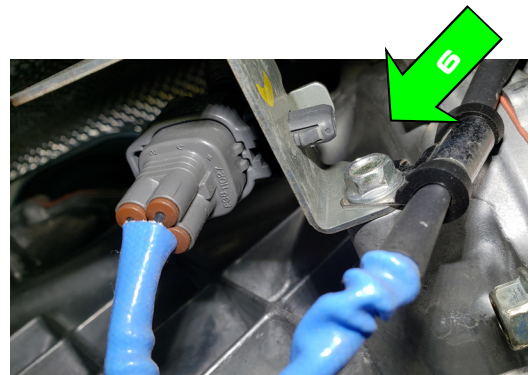


15. Install the supplied flange gasket onto the studs installed in the muffler. The donut gasket does not get used. Now install the last section of the midpipe over the studs in the muffler and snug down the supplied nuts with a 14mm socket or wrench enough to keep the joint together while still allowing for some adjustment.



16. Starting at the front of the system, begin tightening all of the fasteners of the system and check to make sure there is adequate clearance (minimum 1/4" between the pipe and any part of the chassis or drivetrain). Torque the nuts at each pipe flange to 29-37 lb-ft.

17. At the harness end of the oxygen sensor plug, use a 10mm socket or wrench to remove the bolt that holds the support bracket to the transmission. Take your oxygen sensor wires and position the clamp so that it now will share the bolt hole in the transmission along with the original bracket as shown (6). This will keep the sensor wire from dangling and coming into contact with the cat. Ensure there is no tension on the wires once tightened down.



18. Once happy with the fitment ensure everything is tight. Reinstall the factory aluminum braces with a 12mm socket or wrench and tighten to 14-19 lb-ft.

19. We recommend re-tightening all of the exhaust hardware after a couple of drive cycles.