## PETETUTITS

## ND MX-5 Miata Seat Lowering Kit Instructions - rev. 4



Thanks for choosing our seat lowering kit for your ND Miata! We've been through many hours of fitting, testing, and multiple design iterations developing these mounts to provide the lowest possible seat height along with the most comfortable and engaging seat position. We hope you enjoy this modification as much as we do! We also hope you find the product to be of quality design and construction, and these instructions to be straightforward and thorough. Please read through these instructions $100 \%$ before you begin. NOTE: Once, installed, you cannot move the seat fore/aft freely as before. You will be locked into the position unless you loosen and re-tighten the sliding bolts.

WARNING: Not everyone can perform every installation. THIS ONE CAN BE PARTICULARLY TRICKY DUE TO TIGHT CONSTRAINTS!! 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 result in injury.

## Parts List per seat:

Pair of seat lowering brackets
M10 Tab nuts - $2 x$
M10 Split-lock washer - 1x
M10 Large flat washers - 5x
M10x16mm fine thread bolts - $2 x$
Zip ties-3x

## Tools Required:

Socket wrench with External Torx E12 socket (breaker bar may be required)
14 mm combination wrenches (stubby AND swivel/ratcheting versions)
10 mm socket or combination wrench
Standard or needle-nose pliers

1. Using the E12 external hex socket, remove the two front seat bolts. These have locking compound from the factory, so they may be tough to break loose. Tilt the seatback forward and slide the seat all the way forward to gain access to the two rear bolts and remove those also.

2. Open the hood and disconnect the negative battery cable. Disconnect wiring harness connector from underneath front of seat. Pull the white locking clip forward to allow thumbnail access to the tab underneath, press down and remove the connector from the seat. This one can be a little tricky, take your time.

3. Now the seat can be removed from the car. This is easiest with the top down and with the seatback mostly upright. Prepare a clean, flat surface and place the seat on its back, allowing access to remove the factory seat rails.
4. Hidden behind the recline adjustment handle there is a phillips head screw that needs to be removed. Next, at the front of the same plastic trim piece there is a plastic clip holding the trim to the seat frame. You can remove the clip with a pair of pliers or carefully flex the trim piece, sliding it off the plastic pin. The trim will still be attached to the seat, but you will be able to flex it out of the way to access a bolt in a later step.
5. Using a 10 mm wrench or socket, remove the two small bolts near the front of each seat rail.

6. Next remove the fore/aft sliding adjustment handle from the seat. There is a small torsion spring attached to a pin where the handle pivots. Remove the spring with pliers and then remove the pin and the handle. You may need to temporarily remove the electric harness plug from its bracket to gain enough clearance to remove the pin.
7. Now you will be able to remove the four 14mm bolts from the seat assembly and remove the factory seat rails. One of the bolts holds the seat belt receiver and will remain connected to it along with a small wiring harness you should be careful not to damage. As you remove the factory rails, there will be a steel tube at the rear of the seat that can fall away if the sliders are spread apart. Put this assembly and the seat rails aside. You will not reuse them.
8. Use a zip tie on each side of the seat to fasten each of the small, loose brackets to the seat frame to prevent rattling after the install. Be sure to keep the "head" of the zip ties positioned as shown, on the inside of the bracket.


NOTE: Pics on this page show previous 2-slot design. --Current design has 4 slots per rail--
9. Locate the new pair of mounting rails for the left or right seat you are working with and position them at the inner and outer sides of the seat as labeled. Position the rear end of the new rails inside the flange at the rear of the seat, and outside of the threaded tube at the front end of the seat. You will reuse the 14 mm bolts from the previous step to attach the new rails. Install the two front slot bolts with the supplied M10 flat washers through the front slots and into the threaded tube in the seat, but leave them just loose enough to slide in the slots freely.

For the outside rear slot bolt, use the M10 split-lock washer under the bolt head and through the seat frame, then sandwich a large M10 washer between the seat frame and the new rail. Finish with one of the M10 tab nuts positioned such that it rotates and stops on the new rail in tightening direction. Tighten this bolt until the split-lock washer is compressed about $90 \%$. You want the rail to barely slide with a good amount of force. You will not be able to reach this bolt to completely to tighten it after reinstalling the seat since the plastic trim will be in the way. Hence the lockwasher to keep things in check on this corner. Upon final torquing of the other three bolts, the new rails will be in a tight angular bind preventing any sliding. It IS possible to reach this bolt for complete torquing by cutting an access hole in the outer trim panel.

On the inside rear bolt position, insert the seat belt receiver bolt through the seat frame through the rail slot, and install the other M10 tab nut on the backside of the new rail, being sure to again position the pointed end of the tab such that it rotates and stops on the new rail in tightening direction, once installed back in the car. Tighten this to barely loose, just like the front bolts.

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10. Carefully reinstall the seat into the car. It's best to have the seatback tilted all the way forward. Position the seat, sliding the rails as necessary to access and line up the front mounting holes with the front holes in the floor. Use the factory Torx bolts here, just starting the first couple threads. Now slide the seat all the way forward and install the supplied hex head bolts into the rear holes in the floor. You can optionally use the last two M10 flat washers here between the rails and the floor to prevent compressing the carpet as you tighten the bolts. Up to you. This area is very tight and is best reached using a short 14 mm open end wrench. Some ratcheting/swiveling wrenches may also work here. Tighten fully and slide the seat rearward and fully tighten the front floor bolts.
11. Sit down in the car and slide the seat into your ideal seating position. Carefully get out of the car making sure not to move the seat and use a 14 mm combination wrench to tighten the three sliding rail bolts that you can reach (all but the rear outside bolt). The partially detached plastic trim from step 4 will allow you to access the front outside bolt. Both inside bolts are tricky to reach, so take your time here and don't burn your knuckles too much on the carpet. Once everything is locked down, check the seating
 position again and go for a drive. If necessary, loosen the three bolts again and reposition, then re-tighten.
12. Once you are satisfied with seating position, you can reinstall the Phillips screw into the trim behind the reclining handle. If desired, you can use a zip tie to reattach the front of the plastic trim through the slot where the plastic clip was, to an available hole in the seat frame.


That's it, now go enjoy!!

