



KMiata Rear Differential Mount Installation Instructions

KMiata Inc.
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Because U.S., Canadian, state or provincial laws and regulations may prohibit removal or modification of components that were installed by the vehicle's manufacturer to meet emission requirements or to comply with motor vehicle safety regulations applicable to vehicles manufactured for use on public roads, KMiata recommends that vehicles equipped with Motorsports parts not be operated on public roads, and offers such parts only for track or off-highway competitive or performance use. Motorsports parts are intended for off-highway application only. Installation on a vehicle intended for use on public roads may violate U.S., Canadian, state or provincial laws and regulations including those relating to emission requirements and motor vehicle safety standards. In California certain parts may be used legally on a racing vehicle which will never be operated on public roads. In addition, installation of Motorsports parts may adversely affect the warranty coverage on your vehicle. Other local, state, provincial, territorial, or international laws may apply to the use of these parts. Please check your local laws before purchasing or using these parts.

RACING AND MOTORSPORTS IN GENERAL ARE A DANGEROUS SPORT. THIS INCLUDES BOTH PROFESSIONAL, AMATEUR AND DRIVERS EDUCATION EVENTS.

Accidents and failures can occur at any time. Be aware that use of parts and services as well as participation in Motorsports activities carries a significant risk, and the Purchaser assumes all risks. KMiata is not liable for any damage to vehicles or other property due to the use of Motorsports products. Any parts from KMiata should be inspected regularly for any damage or wear.

NA or NB Miata Rear Differential Mount Installation

Thanks for purchasing our rear differential mount. This kit is designed to be a bolt-on solution to mount the front end of a 1.8L Miata differential (1994-2005) to the rear subframe. If you're installing a different engine or transmission in your Miata chassis then deleting the power plant frame (PPF) is typically necessary.



WARNING: It is **REQUIRED** to install polyurethane or Delrin bushings in your differential when using this kit. If you do not, the right arm on your housing **WILL** break under hard driving. The stock bushings are too soft and allow for too much movement relative to the stiff front bushing used in our kit.

Additionally, we highly recommend reinforcing the right housing arm, as mounting the diff to the front of the subframe makes the arm more prone to failure. Check out our popular bolt-on reinforcement plates (pictured above) for an easy and effective solution.

Installing the Aluminum Mount and Bushing on the Differential

Before installing the aluminum mount supplied with your kit, the PPF must be removed from the diff. The easiest way is to lower the diff out of the car. This also provides you with a great opportunity to install your upgraded diff bushings and reinforcement plates.



This mount bolts to the diff housing with the supplied 120mm and 130mm long bolts. The small aluminum figure eight shaped piece found on top of the diff is retained. The front bolt threads into the aluminum mount from the top of the diff, and the rear bolt is inserted from the bottom and secured from the top of the diff with the supplied locking nut and washer.

In order for the mount to sit flush on the bottom of the diff, the dowel protruding out of the bottom of the diff will need to be tapped further into the housing.

Once this is complete, the diff can be bolted back into the car the same way it was removed.

Installing the Lower Mounting Brace

Your kit came with either an NA8 (1994-1997) or NB (1999-2005) lower mounting brace. The NA8 brace is on the left and the NB brace is on the right:



They both install in the exact same manner, with the exception of the third mounting point that's required on the NA8 brace. Since the M12 holes for the OEM subframe brace protrude forward 2 inches on the NA8 subframe, a third mounting point is necessary.

Both versions of the lower brace are designed to bolt below the OEM subframe brace, and the OEM brace must be used with this kit.



If the brace is not installed, the pinion angle will not be correct and the mounting points on the subframe will gradually fatigue and may eventually crack.

Note that later year NB cars have a brace with a bar that attaches between the center two bolt holes which inteferes with our lower brace. If you have one of these later style braces, you can either cut the center bar out or source a brace from an older 1999-2000 NB.

Once the lower brace is bolted in place loosely, the center bolt through the bushing can be added. Install everything loose and then slowly tighten up the brace to the subframe, followed by the center bolt through the mount.

NA8 braces include a single M12 socket cap bolt for the rear mounting point. It is the only bolt supplied with your kit that will fit in that location.

Once installation is complete, check exhaust clearance. It is very possible that your exhaust will need to be modified to clear our brace. Many customers using these parts will have an aftermarket or custom 3 inch exhaust that may need to be raised up a bit for adequate clearance. Make sure your exhaust is not touching the brace and if so, modify it accordingly.

As a final check, use an angle finder to confirm that your diff flange is angled up about 1.5 degrees and matches the angle of the transmission output. If not, adjust the transmission angle accordingly to minimize drivetrain vibration.

As always, please contact us with any installation questions at sales@kmiata.com or 877-587-4255. Thank you for using KMiata products!