



SakeBomb Garage Competition Rear Brake System Installation Guide - Mazda RX-7 (FD3S)



Note: Please read complete install guide before turning a wrench!

DISCLAIMER

By installing this product on a vehicle, the purchaser expressly acknowledges and agrees to assume all responsibility resulting from the use or misuse of this system, or components contained within it. SakeBomb Garage LLC will not be held liable for any damage, injury, or death, consequential or otherwise, due to equipment failure or poor-performance after installation. The purchaser assumes all risk associated with the use or misuse of this system.

SakeBomb Garage LLC offers no warranties for this product whatsoever, expressed or implied, oral or written, to purchasers or users of this product. SakeBomb Garage expressly disclaims any implied warranty of fitness for a particular purpose, including fitness of these systems, parts or equipment for racing or road use. No warranty or representation is made to the product's ability to protect the user from injury or death. The user assumes all risk associated with this system, and is aware that routine maintenance of the components contained within it will be required.

By installing this product the purchaser expressly affirms that they are relying upon their own skill and judgment in selecting and purchasing these goods as suitable for purchasers' intended use. Purchaser understands and agrees that no officer, employee, or dealer for SakeBomb Garage LLC has the authority to make any statement contrary to the terms of this disclaimer and agreement.

Installation

The brake system on any vehicle is a safety device. It is strongly recommended that any personnel performing brake-related replacement or maintenance operations should be competent and certified, using proper tools and equipment.

Brake to Wheel Clearance

The customer is solely responsible for verifying wheel fitment. We have a wheel clearance template available for download on our website.

Brake Noise, Vibration, and Harshness (NVH)

Brake noise can be caused by many factors. Following the bed-in procedures outlined on the following pages will help reduce brake noise as much as possible, but keep in mind that high performance brake pads do tend to make more noise than typical OEM pads. **The customer is solely responsible for any NVH related problems with the brake system (squealing, scraping, vibration, judder, etc.).** Also be aware that floating rotors tend to rattle when cold at low speeds. Any unusual pulsing, unusual noises, etc may be a problem. Discontinue use until the source of this issue has been diagnosed. NVH does not mean ignore abnormal brake noise.

Caliper, Bracket, and Hat

The bells (hats) and caliper brackets are hard anodized aluminum, and as such are subject to corrosion when introduced to corrosive agents such as brake fluid, road salt, wheel cleaners, certain soaps, etc. Use caution when cleaning and servicing the system components.

Please note, the rotor hats used in this kit have been designed to accommodate the slight variances in aged hubs due to rust/corrosion to aid in installation and removal. The hat may exhibit slight amount of "play" in relation to the hub on certain vehicles.

What's in the Box?



- Left anodized aluminum caliper mounting bracket
- Right anodized aluminum caliper mounting bracket
- Four allen socket head caliper mounting bolts (attaches caliper to caliper bracket)
- Four washers for the above bolts
- Left (Drive Side) Rear 330x20mm SBG Competition Brake Disc (#SBG-FD-RBK-COMPL) with attached anodized aluminum hat; Please note the direction of the slot pattern for proper orientation.
- Right (Passenger Side) Rear 330x20mm SBG Competition Brake Disc (#SBG-FD-RBK-COMPR) with attached anodized aluminum hat; Please note the direction of the slot pattern for proper orientation.
- One 8mm allen socket extension bar

Required Tools

- Pair of jack stands
- Torque wrench accurate under 100 lb.-ft.
- Breaker bar for OEM caliper bolt and wheel removal
- 3/8" Socket Set – Metric
- Metal-Cutting Shears
- Pliers
- Metal File
- Large Zip Ties
- Loctite® Threadlocker Blue 242

OPTIONAL:

- Rear disc brake cube for 3/8 in. drive tool (AutoZone Part Number: 25071)
(May be needed to retract rear caliper pistons)

Installation Procedure

Step 1- Wash both brake discs with soap and water

- The discs in our system are coated with a rust inhibitor that must be removed prior to use. Use soap and water to clean them. Dish detergent works well. The discs may start to rust (as they do when you wash your car), so please don't be alarmed when that occurs. The braking surface will be rust free once you start driving the car.

Step 2- Lift and secure vehicle, remove wheels

- Apply the parking brake and chock the front wheels.
- Loosen rear wheel lug nuts using the appropriate socket. Lug size will vary depending on what brand you have. Typical sizes are 17mm, 19mm and 21mm.
- Lift the rear of the car on a flat, clean, and stable surface per manufacturer recommendations.
- Secure the vehicle on two jack stands or one if you'd like to install one side at a time.
*** **Never leave your vehicle supported with only a floor jack** ***
*** **ALWAYS USE JACK STANDS** ***
- Remove rear wheels.

Step 3- Remove OEM caliper

- Using a socket wrench, loosen and remove the two bolts that hold the OEM caliper onto the upright.
- These bolts may be difficult to remove and may require use of a longer breaker bar.
- Remove the caliper from the rotor and support it with zip ties so that it does not hang from the brake line. See the photo below, we hung out brake caliper from the sway bar. The pads can remain installed in the OEM caliper during removal.



- Remove the OEM metal shims (pictured below), you will not re-use them:



Step 4- Remove OEM disc

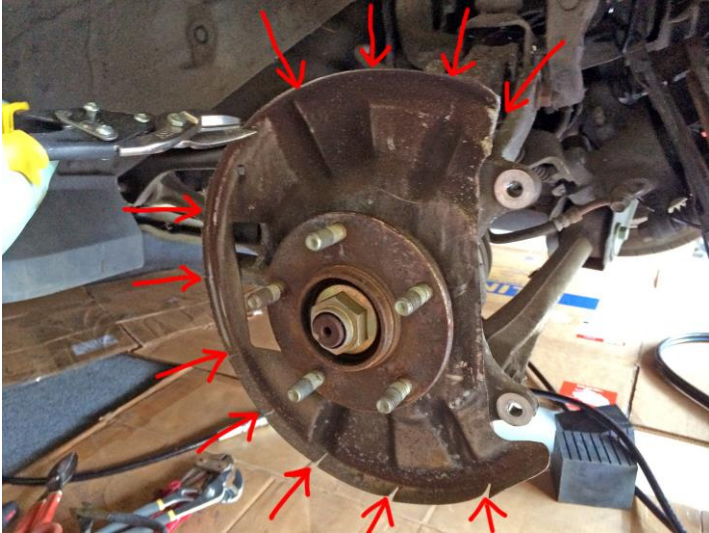
- Once the OEM caliper is removed, you should be able to easily remove the OEM discs.
- If the disks do not come off easily a soft blow mallet may help the process.

Step 5- Cut, Trim, and File the OEM brake dust shields

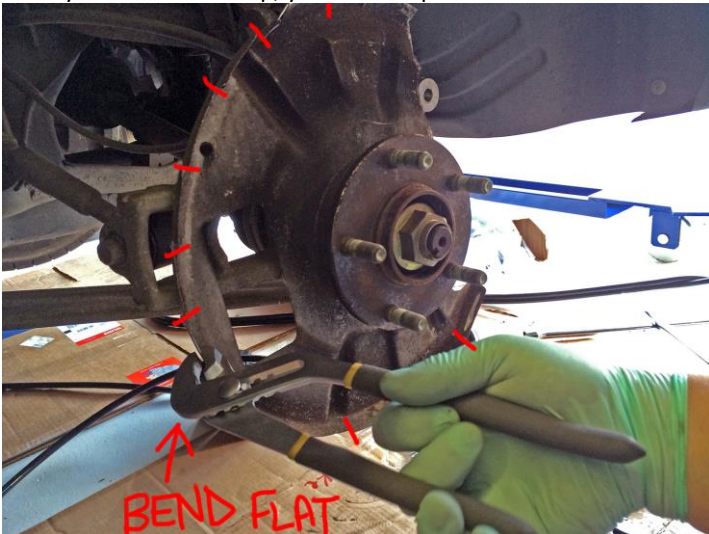
- Now you will need to trim away the brake dust shields to allow for the larger diameter rotor
- Your work area should now look like this:



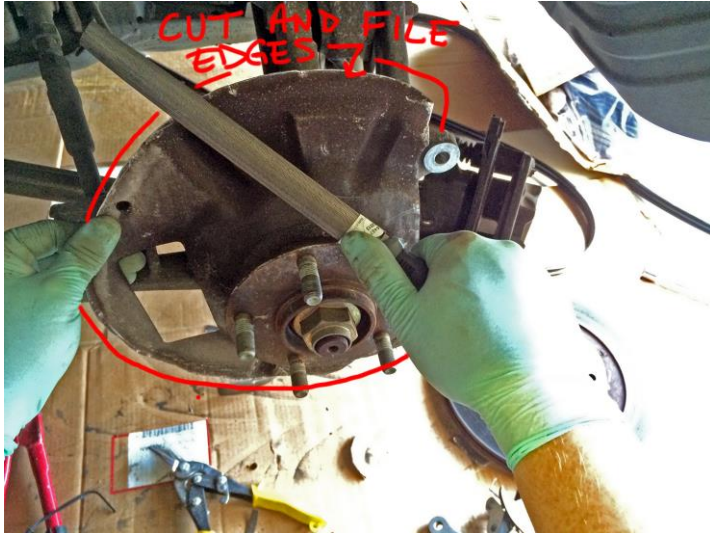
- Use your metal cutting shears to make slits in outer-folded lip of the brake dust shield, noted in red below:



- Once you have slit the lip, you can use pliers to bend the sections flat, as seen below



- Now take your metal shears and trim away the lip, all the way around the shield. After you have removed the lip, take a metal file and remove any sharp edges or remaining corners, as shown below:

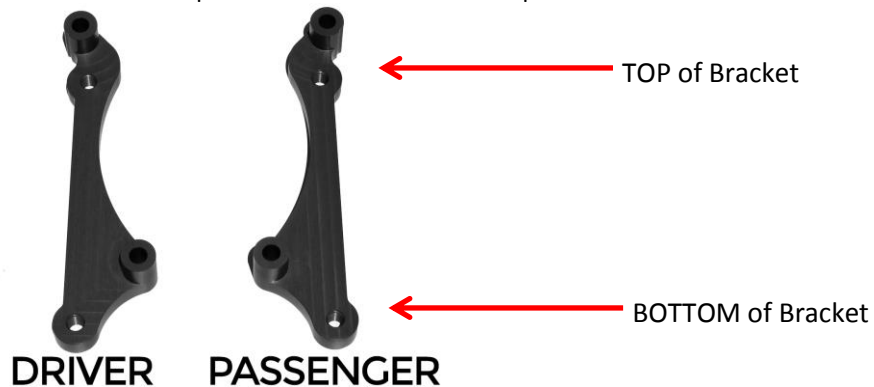


- Here is the final product:

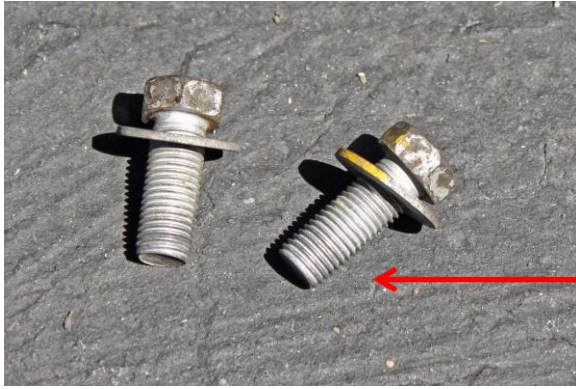


Step 6- Install Caliper Bracket

- The driver and passenger side caliper brackets ARE MIRRORED. Be SURE you install the correct bracket for each side of the car. Please see the below photo to determine which caliper bracket is which:



- Apply Loctite® Threadlocker Blue 242 to the threads of the OEM caliper bolts (shown below) which will be re-used to mount the caliper bracket to the factory caliper bolt holes.



Apply Loctite® Threadlocker Blue 242

- Install the caliper bracket using only the BOTTOM BOLT, leaving it only finger-tight.
- Then BEFORE installing the top bolt, grab one set the supplied allen socket head caliper mounting bolts and washers, and slide it through the bracket's top caliper mount bolt hole from the INSIDE facing OUT. See the photo below:



1. Install Bottom Bolt First
2. Slide supplied allen socket head caliper bolt & washer in to place BEFORE attaching top caliper bracket bolt
3. Slide caliper bracket into place, install top bolt and tighten both top & bottom caliper bracket bolts.

- Driver Side Caliper Bracket fully installed with top caliper bolt & washer:



- Mount the SBG Rear Competition Brake Rotor onto the hub assembly.
NOTE: The rotors are DIRECTIONAL, be sure the guide arrow on the rotor is pointing towards the FRONT of the car!
- Apply Loctite® Threadlocker Blue 242 to the end threads of both caliper bolts.
- Slide the rear brake caliper over the brake rotor and line it up with the already installed top caliper bolt. Thread the top caliper bolt into place by hand and then insert the lower caliper bolt & washer through the bottom of the caliper bracket.

IF NECESSARY:

Your rear brake caliper piston may need to be retracted in order to create enough room between the brake pads to slide over the rotor. If so, remove the brake pads and use a rear disc brake retractor tool to spin the rear caliper piston back into place.

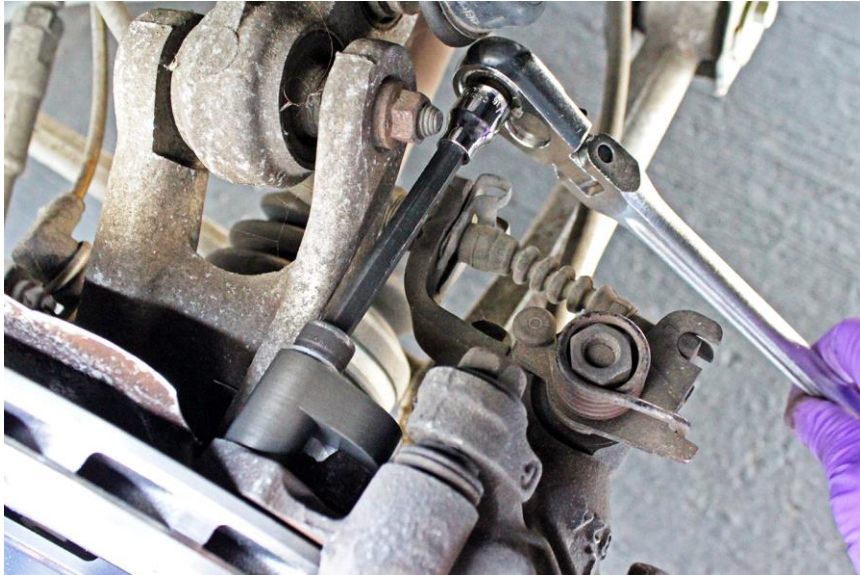


OEM/Rear disc brake cube for 3/8 in. drive tool
(AutoZone Part Number: 25071)

- Now tighten the caliper bolts using your socket wrench. The top caliper bolt requires the use of the 8mm allen socket extension bar, included with your kit. Use a 3/8" 8mm socket to hold the allen socket extension like shown:



- To tighten the top caliper bolt, orient your socket wrench with the allen socket extension as shown:



- Tighten the lower caliper bolt and be sure the rotor spins freely within the caliper

Step 7- Repeat steps 2 through 6 on the opposite side of the car.

- After both sides are installed it's time to bleed your brakes.

Step 8- Install wheels

- Check wheel clearance before tightening. At times adhesive wheel weights inside the wheel barrel could potentially come into contact with your calipers.

Torque your wheels to manufacturer's recommendation.

Step 9- Safety check

- Drive the car at low speeds in a safe location to ensure proper functioning of the brakes.
- If any unusual behavior is witnessed immediately discontinue driving and assess the problem.



**We at SakeBomb Garage would like to thank you again
for choosing us, and for your continued support.**

If you need assistance don't hesitate to contact us at info@sakebombgarage.com

