

AP Racing Performance Brake System Kit # NMB2030 AP 4 Piston, 1PC Disc Brake Upgrade, 2002+ Mini Cooper INSTALLATION INSTRUCTIONS

Please read the instructions completely before installation. You will need the manufacture service manual for portions of this installation.

1. Raise front of vehicle and support with jack stands. Be sure to block the rear wheels to prevent the vehicle from rolling. (Refer to owner's manual for proper jack points).
2. Remove front
3. Remove bolts that hold caliper to spindle with an open-end wrench or socket and lift the caliper off of the rotor. Tech tip: Do not let caliper dangle or hang from OEM brake line. Fasten caliper to a suspension part with wire or tie-rop.
4. Remove the Torx screw holding the rotor to the hub and remove the rotor from hub.
5. Install Brake Pros/AP Racing X-Drilled rotor onto hub and reinstall the Torx screw.
6. Install the Brake Pros/AP Racing caliper to the outside of the mounting tab with the bleeder screws up. Install the 12mm SHCS and washers using a 10mm Allen drive socket, tighten down to the spindle. Torque to 70-80Ft/Lbs.
7. Using a 10mm-flare nut/line wrench loosen hard brake line. Remove retaining clips with flat blade screwdriver. Tech tip: Put a rubber vacuum cap over hard brake line end to keep brake fluid from draining out and emptying master cylinder reservoir.
8. Install stainless steel brake line with a 10mm-flare nut wrench. Connect banjo end of stainless steel line to caliper first. Route brake line up and attach support to metal spindle bracket. Continue to route brake line up to top to where it mounts to steel hard-line. Remove the vacuum cap and install/fasten brake line to existing hard-line.
9. Repeat this procedure on the other side
10. Bleed the brakes. Check brake line fittings for leaks. Retighten and bleed if necessary
11. Reinstall the front wheels and torque to manufactures spec



* The Brake Pros/AP Racing Performance Brake System is designed for aggressive street performance use. Please note the following comments:

A change in pad material will effect the braking abilities, the rotor wear of this system and possibly affect the ABS system. The pad material chosen is the best for its' intended use. For pure race use there are other pad materials available.

Brake Pros/AP RACING BRAKE UPGRADE BREAK- IN PROCEDURE

Bedding of the new brake disc (stress relieving the cast iron disc after it has been bolted to the mounting bell) is of extreme importance if premature warping is to be avoided. This important but often overlooked procedure can keep the brakes from being used to their full potential. The Brake Pros/AP Racing discs are produced from the same castings as the full race discs. When used in the controlled arena of motorsports it is easy to instruct the driver to gradually bring the disc up to working temperature with some moderate braking over a small amount of measured laps, progressively increasing his braking effort until an engineer accesses the disc visually or by temperature readings.

Road car installations, the process needs to be as follows. For the first 10 miles, light braking from 50 to 60 mph down to 30mph if possible in blocks of five. Do not attempt any high speed stops down to zero at this point, as only the outside face of the disc will heat up with the inside mass remaining cool along with the mounting area. For the next 100 miles increase the braking pressures similar to stopping in traffic, again avoiding if possible full stops from 70+ mph. By now, the area around the mounting bolts should be a light blue temper color. This is a good indication that the correct heat soak has been achieved. For the next 100 miles gradually increase the braking effort, only after this can full power stops be used.

Do not leave your foot on the brake when parked after a high speed run. If you do the hot spot created by the pad candistort the disc in that localized area causing a high spot resulting in vibration under braking.

If used at a racetrack the following points must be adhered to as to not warp the disc.

1. At the start of a session use a minimum of one warming up lap for the brakes i.e. gradually increase the effort at each corner and do not drag the brakes under power as in left foot braking
2. Use at least one cooling down lap at the end of the session and if possible stay off the brakes
3. Do not leave your foot on the brake when parked in the paddock after a session. If you do the hot spot created by, the pad can distort the disc in that localized area causing a high spot resulting in vibration under braking.

On the majority of road car installations, race circuit use can be more exacting on the brake system than a fully prepared racecar due to the following. None or minimal cooling, higher chassis weights longer braking distances due to driving technique or tire grip. Therefore, it is very important to check your brake system thoroughly before and after such use. Bear in mind race cars on average cover less than 50 laps of a circuit before being serviced.

PLEASE BE AWARE THAT DISCS USED ON RACETRACKS WILL BE SUBJECT TO HIGHER TEMPERATURES AND WEAR RATES THAN ACHIEVED WITH NORMAL ROAD USE. THIS CAN HAVE AN EFFECT ON THE LIFE OF THE DISC, ESPECIALLY IF HIGH TORQUE COMPETITION BRAKE PADS ARE USED TO REPLACE THE ORIGINAL FAST ROAD BRAKE PADS SUPPLIED WITH THE KIT.

DISC ALONG WITH PADS ARE CONSUMABLE ITEMS

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