

CorkSport
MAZDA PERFORMANCE

INSTALLATION INSTRUCTIONS



CORKSPORT Stage 1 4 Piston Caliper KIT

*2007-2013 Mazdaspeed 3
2004-2013 Mazda 3*

PART #: AXL-3-412-10

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deliver - every time.*

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PAGE 1



CORKSPORT Stage 1 4 Piston Caliper Kit

2007-2013 Mazdaspeed 3
2004-2013 Mazda 3

PRODUCT DESCRIPTION:

The CorkSport 4 Piston Caliper Kit for Mazdaspeed 3 provides an improvement to braking by offering improvements to each component present in the stock system. 4-piston calipers, stainless steel brake lines, upgraded pads, and everything you need to install it on your Speed 3 is included in this kit.

Please let us know your feedback of the by submitting a review at: <https://corksport.com/corksport-mazdaspeed-3-big-brake-caliper-kit.html>

MATERIALS & TIME:

GENERAL INFO:



Time Est:
3hr



Difficulty:
3/5



CEL:
No



Warranty:
2-Year

PRE-INSTALLATION NOTES:



Verify that the car is on a level surface before proceeding. Use appropriate load rated jack stands to support the vehicle.



These instructions were written for reference only and the use of a factory service manual is recommended.



How our instructions work: To best cover all of our customers experience levels, we have included a table of contents/order of operations along with step-by-step instructions.



These instructions were written using a 2013 Mazdaspeed 3. Earlier Mazdaspeed 3 and Mazda 3 will be similar.



There will be slightly increased noise while braking due to the upgraded pads.

TOOLING LIST:

- 3/8" Drive Ratchet
- 1/2" Drive Breaker Bar
- 1/2" Drive Torque Wrench
- 14mm Socket
- 17mm Socket
- 21mm Socket
- 10mm Allen Socket
- 10mm Line Wrench
- 17mm Wrench
- 19mm Wrench
- Hydraulic Jack
- Jack Stands
- Pliers
- Flathead Screwdriver
- Drip Pan
- Dead blow hammer
- Blue Loctite
- 5/32" hose
- Brake Fluid
- Plastic Bottle

PARTS LIST:

- One (1) CorkSport Left Side Brake Caliper
- One (1) CorkSport Right Side Brake Caliper
- Two (2) Caliper Mounting Brackets
- Two (2) Stainless Steel Brake Lines
- Two (2) M10 Banjo Bolts
- Four (4) Crush Washers
- Four (4) M12x35mm Socket Head Cap Screws
- Four (4) M12x60mm Socket Head Cap Screws
- Four (4) Large Washers
- Four (4) Small Washers

ORDER OF OPERATIONS & TABLE OF CONTENTS:

-  **OEM BRAKE REMOVAL**
Section 1: OEM Brake Removal Pg. 4-5

-  **CORKSPORT CALIPER INSTALL**
Section 2: CorkSport Caliper Install Pg. 5-6
Section 3: CorkSport Brake Line Install Pg. 6-7

-  **CORKSPORT BBK SETUP**
Section 4: CorkSport Brake Bleed Pg. 8
Section 5: CorkSport Brake Pad Burnish Pg. 8

DETAILED INSTRUCTIONS:

1. OEM Brake Removal



Verify that the car is on a level surface before proceeding. Use appropriate load rated hydraulic jack and jack stands to support the vehicle.

a) Engage the parking brake and raise the front of the vehicle with a hydraulic floor jack, then support with jack stands.



Please refer to the owners manual for proper jack stand location.

b) Remove the driver-side wheel with a 21mm socket and impact wrench/breaker bar. Other sockets may be needed depending on your lug nuts.

c) Free the brake line using pliers or a screw driver to remove the brake line clip that attaches it to the strut. Shown with red circle in Figure 1a.



When releasing brake fluid, catch it with a drip pan. Brake fluid can take off paint and coatings so be cautious if the fluid is spilled. Using a small vacuum cap will prevent any unnecessary fluid leakage.

d) Remove the 10mm brake line bolt using a 10mm line wrench. Line wrench and brake line shown with red arrows in Figure 1b.

e) Free the brake line using pliers or a screw driver to remove the brake line clip that attaches it to the chassis. Shown with blue arrow in Figure 1b.

Figure 1a

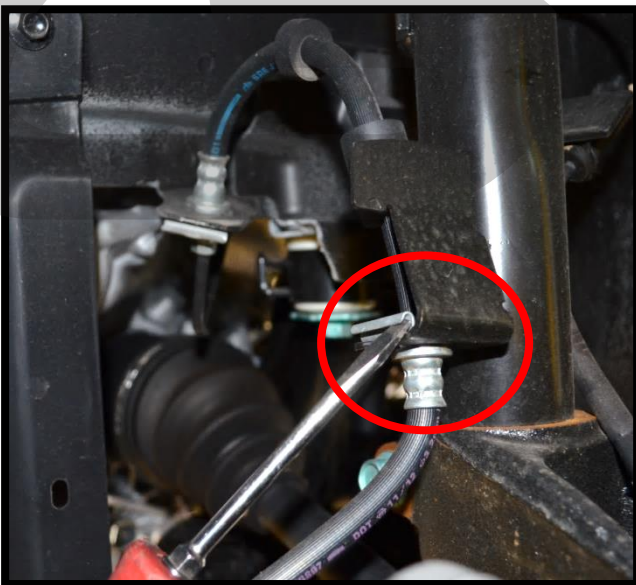
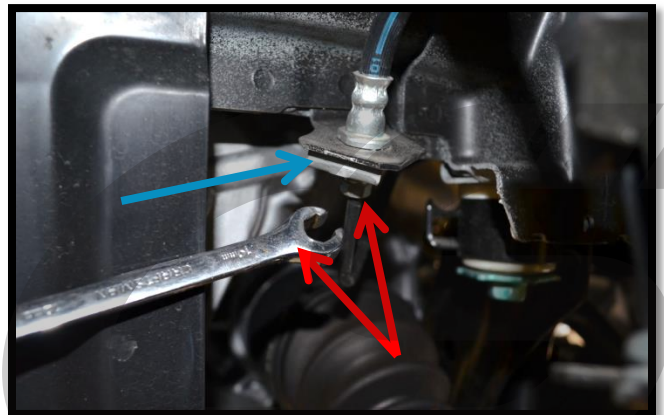


Figure 1b



DETAILED INSTRUCTIONS:

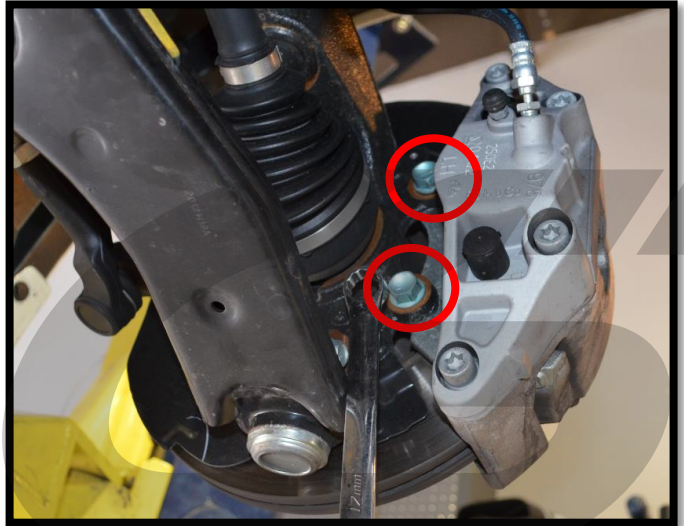
1. OEM Brake Removal (continued)

f) Remove the two 17mm bolts from the back of the caliper using a long 17mm wrench or breaker bar with 17mm socket. Bolts shown with **red circles** in **Figure 1c**.

g) Remove the OEM caliper from the vehicle. The OEM brake line will come with it.

h) Remove the OEM rotor from the vehicle by pulling straight out. You may need to hit the rotor with a dead blow hammer or rubber mallet to help dislodge it from the hub.

Figure 1c



2. CorkSport Caliper Install

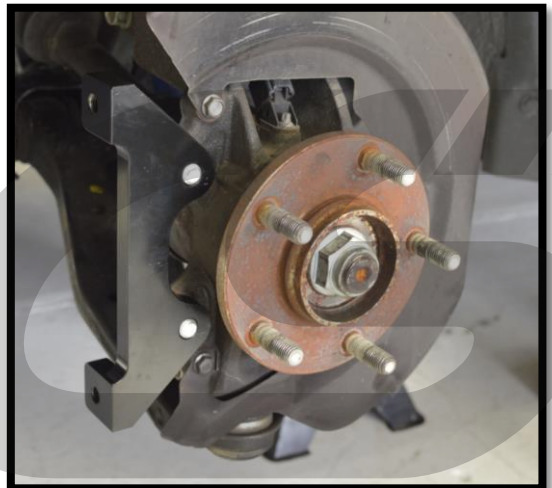
a) Apply blue Loctite or similar thread locker to two supplied M12x35mm bolts.

b) Install a CorkSport caliper bracket using a 10mm Allen socket and the hardware from above. Use one large washer for each bolt. Ensure the flat portion of the bracket faces outward. **Figure 2b** shows the proper bracket orientation. **Torque the bolts to 64-71 ft-lbs.**

Figure 2a



Figure 2b



DETAILED INSTRUCTIONS:

2. CorkSport Caliper Install (continued)

d) Apply blue Loctite or similar thread locker to two supplied M12x60mm bolts.

e) Install the left side CorkSport brake caliper using a 10mm Allen socket and the hardware from above. Use one small washer for each bolt. Ensure the bleed screws face upwards and the sticker matches the direction of forward rotation. **Figure 2c** shows the bolt locations with **blue circles** and correct sticker orientation with a **green circle**. **Torque the bolts to 64-71 ft-lbs.**

Figure 2c



3. CorkSport Brake Line Install

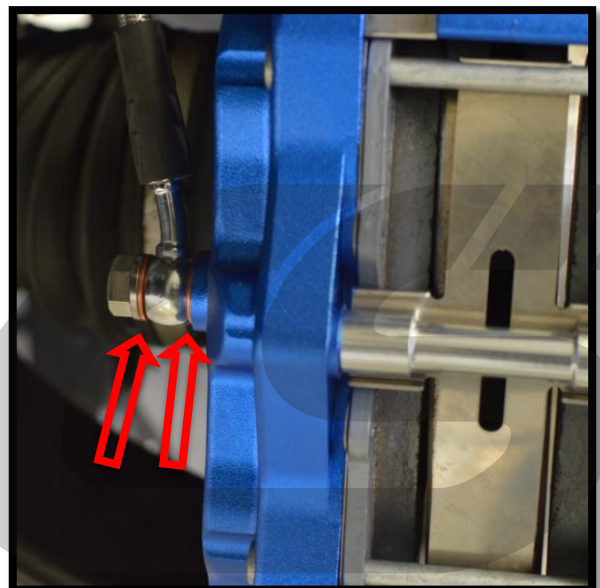
a) Attach one CorkSport brake line to the caliper using one supplied banjo bolt and two crush washers. Ensure the line faces upwards and angles away from the caliper. **Figure 3a** shows the proper line orientation. Ensure there is one crush washer on both sides of the brake line fitting. The **red arrows** in **Figure 3a** show correct crush washer locations.



Improper positioning or failure to use crush washers will cause your brakes to leak and potentially fail.

b) Tighten the banjo bolt to **15-19 ft-lbs** using a 14mm socket. **Do not over tighten.**

Figure 3a



DETAILED INSTRUCTIONS:**3. CorkSport Brake Line Install (continued)**

c) Remove the 19mm locknut present on the other end of the brake line.

d) Place the locknut over the OEM brake line fitting. **Figure 3b** shows the locknut in the correct location with a **red circle**.

e) Fit the CorkSport brake line through the OEM bracket and attach it to the OEM brake line fitting. Tighten together using a 10mm line wrench and a 17mm wrench. **Figure 3b** shows what the line should look like after tightening.



Ensure the brake line does not get twisted while tightening.

f) Attach the locknut to the CorkSport brake line. Tighten with a 19mm and 17mm wrench. This will lock the brake line to the bracket on the chassis. See **Figure 3c** shows the brake line fully installed.

g) Slide the rubber grommet onto the OEM brake line strut mount. The groove in the rubber will fit snugly within the OEM mount. The **red arrow** in **Figure 3d** shows where the isolator should attach.

h) Repeat sections 1-3 for the opposite side of the vehicle.

Figure 3c**Figure 3b****Figure 3d**

DETAILED INSTRUCTIONS:

4. CorkSport Brake Bleed

NOTE For best results, always start with the bleed screw located the furthest away from the master cylinder and work your way closer. There are two bleed screws for each caliper. Start with the outer bleed screw on the passenger side, then passenger inner, driver outer, and finally driver inner.

Method 1 (Preferred): You will need a friend, a short section of 5/32" diameter hose, and a plastic bottle. Put one end of the hose on the bleed screw and the other in the bottle. Have your friend pump the brake pedal 3-5 times until there is sufficient pedal pressure. Then, have them hold the brake pedal firmly as you loosen the bleed screw. The pedal will go to the floor while fluid and air will enter the bottle. Make sure your friend holds the pedal down as you retighten the bleed screw. Repeat the procedure around 3 times per bleed screw, or until you are confident there is no air in the system. Check that your brake fluid level is at "full" after each bleed screw.

Method 2: You will need a two foot section of 5/32" diameter hose and a plastic bottle. Put one end of the hose on the bleed screw and the other in the bottle. Fill the bottle with enough brake fluid to submerge the end of the hose. Loosen the bleed screw and pump the brake pedal until there are no more bubbles coming from the hose in the plastic bottle. Tighten the bleed screw. Before moving on to the next bleed screw, ensure that your brake fluid level is at "full".

NOTE Once completed, ensure there are no fluid leaks before driving and remember to torque your lug nuts to 66-86ft-lbs.

5. CorkSport Brake Pad Bedding

NOTE Follow the steps below to slowly heat and cool the brakes. Do not attempt to stomp on the brakes right after install.

- a) Find an open road and accelerate to about 30MPH.
- b) Brake evenly and smoothly until almost stopped, then accelerate to 30MPH again.
- c) Repeat steps 5a and 5b roughly 10 times.
- d) Repeat steps 5a and 5b but accelerate to 45MPH and stop much quicker.
- e) Repeat step 5d 2-3 times.
- f) Allow 15 minutes for the system to cool. You are now able to brake normally.



This completes the installation of your CorkSport 330mm Big Brake Kit.
Enjoy the upgraded braking performance and improved pedal feel!

WHAT'S NEXT?

CorkSport Adjustable Shock/Strut Assembled Package

Improve the ride and handling of your Mazdaspeed 3 with the CorkSport Adjustable Struts and Shocks, lowering springs, and camber plates. We've taken our performance lowering springs, rebound adjustable struts/shocks, and camber plates and combined them with quality OE pivot bearings, bump stops, and dust boots to create a complete package deal. This package deal comes to your door pre-assembled and ready to install. No need to fight with a spring compressor or risk damaging the OE components that would typically be reused. All this and a savings of \$70 vs. purchasing separately.



CorkSport Mazdaspeed Turbocharger

Experience a boost in performance with our drop-in Mazdaspeed turbocharger. It easily bolts in and replaces your undersized OEM turbo with NO mechanical modifications. The CorkSport turbo supports a range of 250-450 horsepower in your Mazdaspeed. If your Mazdaspeed 3 or Mazdaspeed 6 turbo is worn out or is smoking, you need our turbo. Add the power without the hassle today!



CorkSport Mazdaspeed Camshafts

The CorkSport Mazdaspeed Performance Camshafts are developed with the latest design, manufacturing, and casting technologies and ground to CNC precision for the best performance for your Mazdaspeed. Near factory idling cams for the daily driver and even the aggressive track driver bringing improvement in throttle response and torque to your Mazdaspeed.

