

CorkSport
MAZDA PERFORMANCE

INSTALLATION INSTRUCTIONS



CORKSPORT Power Series 80mm Cat Back Exhaust

2014-2018 Mazda 3

PART #: AXM-6-102

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PAGE 1



CORKSPORT Power Series 80mm Cat Back Exhaust

2014-2018 Mazda 3

PRODUCT DESCRIPTION:

The CorkSport Power Series 80mm Cat Back Exhaust provides a great looking and sounding exhaust for those who like extra volume. While not subtle like its 60.5mm CorkSport cousin, it provides some unique tones that amplify the driving experience, especially when on the track or attacking a backroad. Other highlights include stainless steel mandrel bent piping, high flowing pass-thru resonators, and the finishing touch; large 100mm tips.

Please let us know your feedback of the by submitting a review at: <https://corksport.com/2014-2018-mazda3-80mm-cat-back-exhaust.html>

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.



Make sure your vehicle is cooled down prior to starting installation. If you are going to work on your car within an hour of having driven it, use a fan to cool off the car.



These instructions were written using a 2018 Mazda 3 2.5L hatchback & sedan. Earlier years & 2.0L models will be similar.

MATERIALS & TIME:

GENERAL INFO:



Time Est:
2hr



Difficulty:
3/5



CEL:
No



Warranty:
2-Year

TOOLING LIST:

- 10mm Socket
- 12mm Socket
- 14mm Socket
- 17mm Socket
- 3/8" Drive Ratchet
- 6" Extension
- Oxygen Sensor Socket
- 1/2" Drive Ratchet
- 10mm Wrench
- 12mm Wrench
- 17mm Wrench
- Flathead Screwdriver
- Lubricant Spray
- Jack Stands
- Floor Jack
- Channel Lock Pliers
- Bungee Cord
- 1/8" Drill Bit or Punch

Optional:

- Exhaust Hanger Pliers
- Push Clip Removal Tool
- Blue Painter's Tape

PARTS LIST:

- One (1) CorkSport 80mm Axleback Section for 2014-2018 MZ3 Hatchback
- **OR**
- One (1) CorkSport 80mm Axleback Section for 2014-2018 MZ3 Sedan
- One (1) CorkSport 80mm Front Midpipe Section for 2014-2018 MZ3
- One (1) CorkSport 80mm Rear Midpipe Section for 2014-2018 MZ3
- Three (3) 80mm Exhaust Gaskets
- Four(4) M10x1.25x35mm Bolts
- Four(4) M10x1.25 Nuts
- Four(4) M10 Lock Washers
- Eight(8) M10 Flat Washers

ORDER OF OPERATIONS & TABLE OF CONTENTS:

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DETAILED INSTRUCTIONS:

1. Removing the OEM Axle Back Section (Hatchback)



Sedan Owners: Skip to Page 6



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) Raise the rear of the vehicle with a hydraulic floor jack, then support with jack stands. You will need to access the midpipe & axle back exhaust sections. Shown in **Figure 1a**.

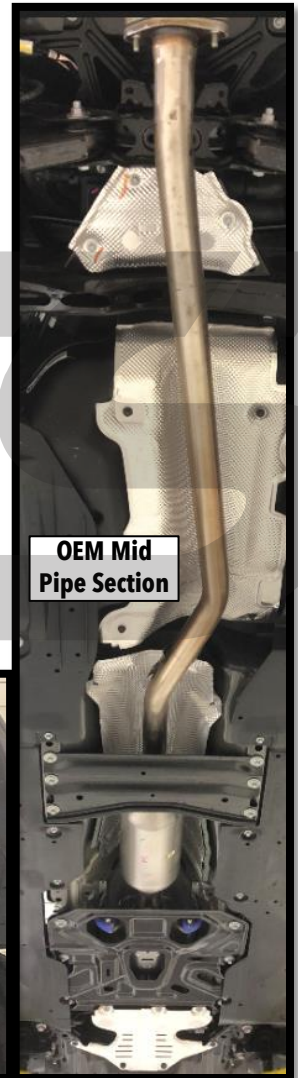
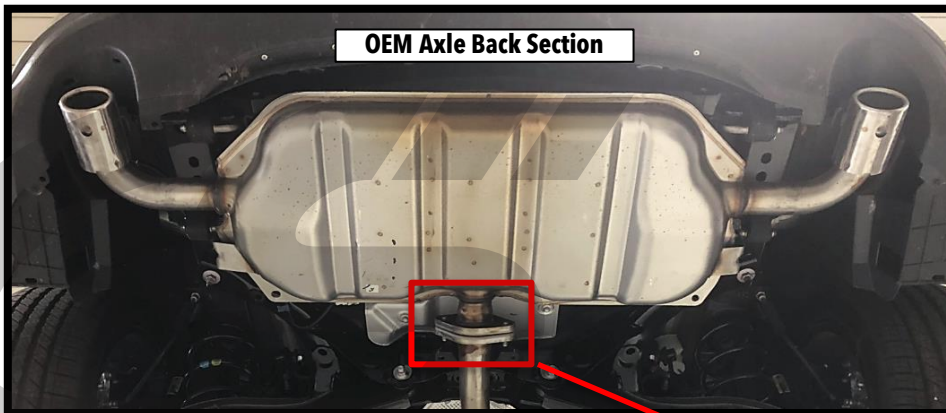


Figure 1a



c) Using a 14mm socket & ratchet, remove the two nuts that connect the OEM axle back section to the OEM midpipe section. Nuts are shown circled in red in **Figure 1b**.

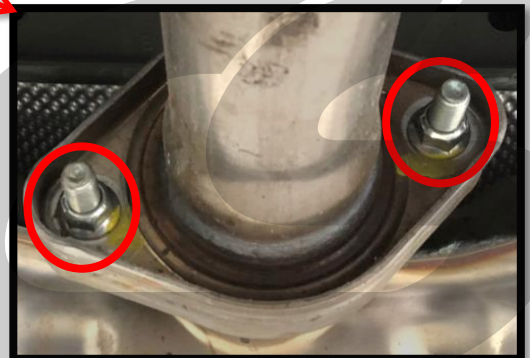


Figure 1b

DETAILED INSTRUCTIONS:

1. Removing the OEM Axle Back Section (Hatchback continued)

d) Using a bungee cord, floor jack, or friend, support the rear portion of the OEM midpipe section. See **Figure 1c** for clarity.

e) Spray the rearmost rubber exhaust hangers with your spray lubricant (WD40, silicone spray, or even glass cleaner work well). Hangers circled in red in **Figure 1d**.

f) Using channel lock pliers remove the rearmost rubber hangers from the OEM axleback section. Hangers circled in red in **Figure 1d**.



Figure 1c



Figure 1d

NOTE Exhaust hanger pliers make removing the rubber hangers much easier & faster.

NOTE Removing the rearmost hangers will allow the rear portion of the OEM axle back to hang downwards as shown in **Figure 1e**.

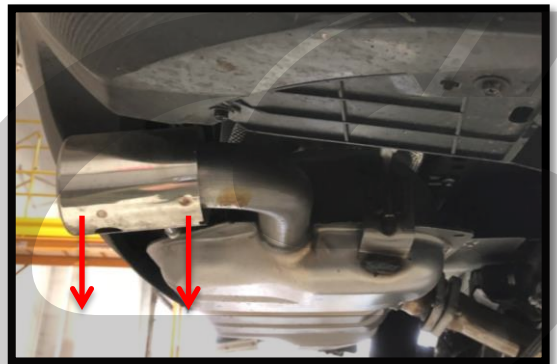


Figure 1e

DETAILED INSTRUCTIONS:

1. Removing the OEM Axle Back Section (Hatchback continued)

g) Remove the two remaining rubber hangers from the OEM axle back section. Circled in blue in Figure 1d on the previous page. The underside will look like Figure 1f upon removal.

NOTE Support the axleback as you remove it from the rubber hangers to keep it from falling to the ground or onto you. The easiest way is to get a friend to help you or use a floor jack.



Figure 1f

2. Removing the OEM Axle Back Section (Sedan)

NOTE Hatchback Owners: Skip to Page 9

! 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.

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

b) Raise the rear of the vehicle with a hydraulic floor jack, then support with jack stands. You will need to access the midpipe & axle back exhaust sections. Shown in Figure 2a.

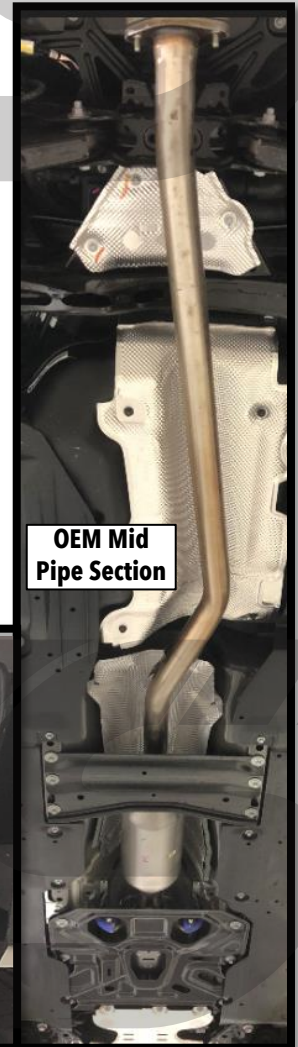


Figure 2a



DETAILED INSTRUCTIONS:

2. Removing the OEM Axle Back Section (Sedan continued)

c) Using a 14mm socket & ratchet, remove the two nuts that connect the OEM axle back section to the OEM midpipe section. Nuts are shown circled in red in **Figure 2b**.

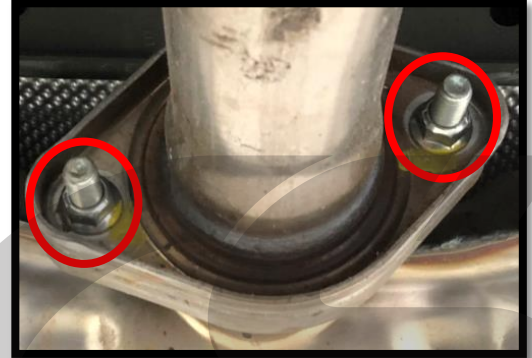


Figure 2b

d) Using a bungee cord, floor jack, or friend, support the rear portion of the OEM midpipe section. See **Figure 2c** for clarity.

e) Spray the rearmost rubber exhaust hangers with your spray lubricant (WD40, silicone spray, or even glass cleaner work well). Hangers circled in red in **Figure 2d**.



Figure 2c

f) Using channel lock pliers remove the rearmost rubber hangers from the OEM axleback section. Hangers circled in red in **Figure 2d**.



Exhaust hanger pliers make removing the rubber hangers much easier & faster.



Figure 2d

DETAILED INSTRUCTIONS:

1. Removing the OEM Axle Back Section (Sedan continued)

NOTE Removing the rearmost hangers will allow the rear portion of the OEM axle back to hang downwards as shown in **Figure 2e**.



Figure 2e

g) Remove the two remaining rubber hangers from the OEM axle back section. **Circled in blue in Figure 2d** on the previous page. The underside will look like **Figure 2f** upon removal.

NOTE Support the axleback as you remove it from the rubber hangers to keep it from falling to the ground or onto you. The easiest way is to get a friend to help you or use a floor jack.



Figure 2f

DETAILED INSTRUCTIONS:

3. Accessing the OEM Midpipe Section (Hatchback & Sedan)

a) Remove four (4) push clips using a flathead screwdriver from the silver underbody shield. These clips are near the front of the vehicle and are circled in red in **Figure 3a**.

b) Remove three (3) 10mm bolts from the silver underbody shield. Shown circled in blue in **Figure 3a**. The silver underbody shield can then be removed from the vehicle.

c) Remove two (2) 10mm bolts from the forward chassis brace. Shown circled in green in **Figure 3a**.

d) Remove twelve (12) 12mm bolts from the chassis braces. Six are located in the forward brace, six are located in the rearward brace. Shown circled in yellow in **Figure 3a**. Two bolts on the forward brace are hard to see and are shown with yellow arrows.

e) Remove the forward chassis brace. There is a tab on each side that must slide out of a slotted hole on each frame rail. Then the brace can be removed by sliding it rearwards.

f) Remove the rearward chassis brace. There is a tab on each side that must slide out of a slotted hole on each frame rail. Then the brace can be removed.

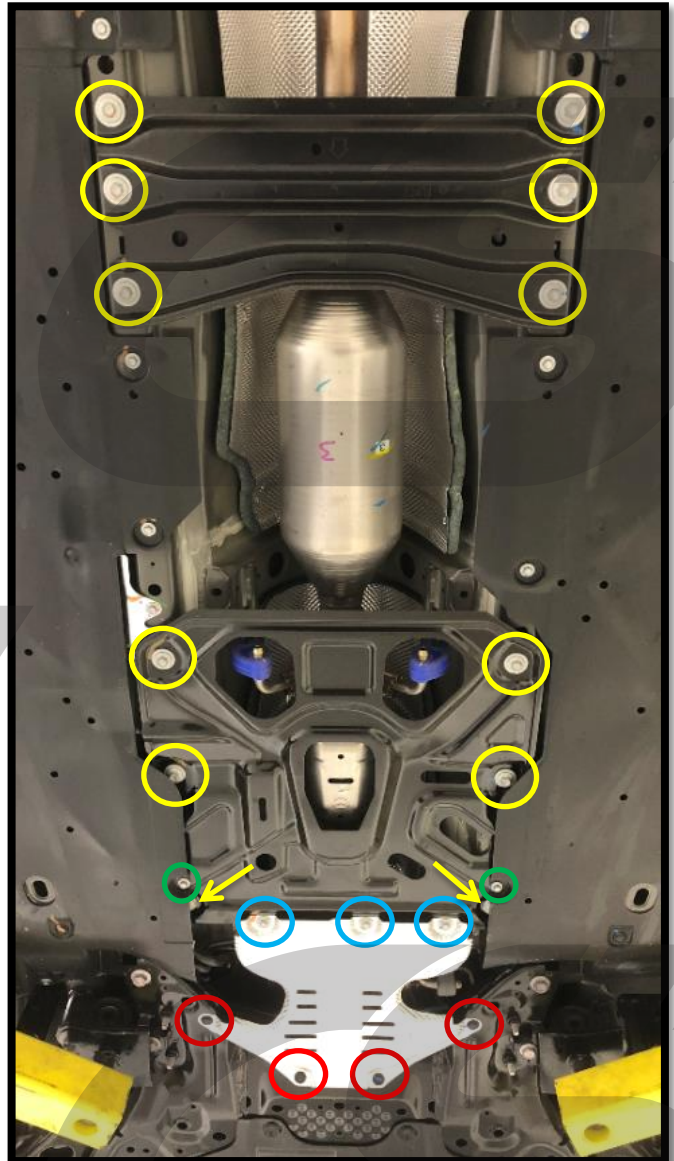


Figure 3a

DETAILED INSTRUCTIONS:

4. Removing the OEM Midpipe Section (Hatchback & Sedan)

a) Trace the oxygen sensor wiring to the left side frame rail and use a flathead screwdriver to remove the black clip from the frame rail. Clip circled in red in **Figure 4a**. Take care to not to break the clip during removal.

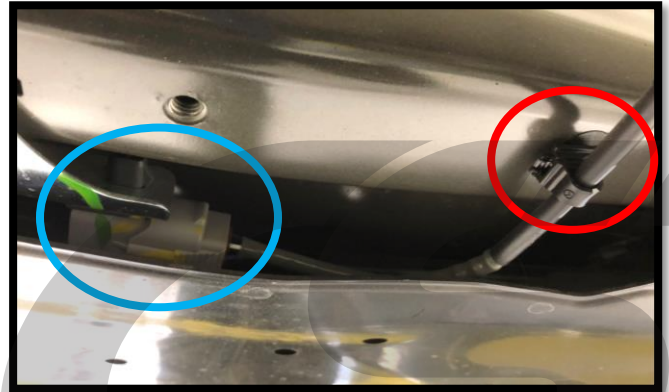


Figure 4a

b) Unplug the oxygen sensor electrical connector. Connector circled in blue in **Figure 4a**.

c) Remove the two 14mm nuts that attach the OEM midpipe section to the OEM header. The nuts are circled in red in **Figure 4b**. The midpipe section will remain supported by the rubber hangers and the rear support method you used in step 1d.

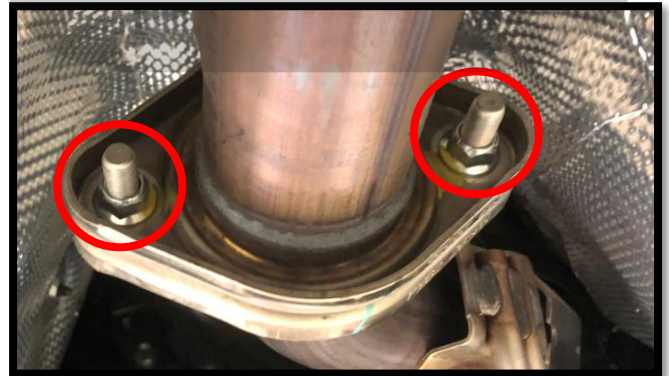


Figure 4b

d) Remove the OEM midpipe section from the two blue rubber hangers. Then remove the OEM midpipe section from the vehicle. The rubber hangers are circled in red in **Figure 4c**.

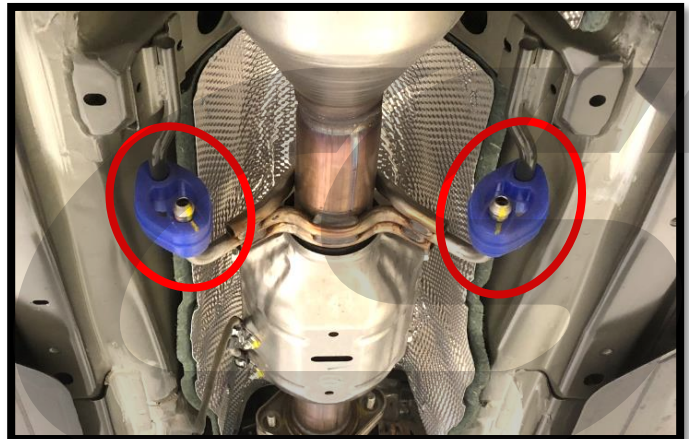


Figure 4c



Support the midpipe section as you remove it from the rubber hangers to keep it from falling to the ground or onto you.

DETAILED INSTRUCTIONS:

5. Installing the CorkSport Midpipes (Hatchback & Sedan)

a) Remove the two (2) 10mm nuts that attach the oxygen sensor wiring to the OEM resonator. **Circled in red in Figure 5a.**

b) Remove the oxygen sensor from the OEM midpipe using a 21mm oxygen sensor socket. Sensor **circled in blue in Figure 5a.**

c) Install the oxygen sensor into the CorkSport front midpipe section using a 21mm oxygen sensor socket. Do not over tighten the sensor, about ½ turn past finger tight is plenty. Sensor shown swapped to the CS midpipe in **Figure 5b.**

d) Attach the CorkSport front midpipe section to the CorkSport rear midpipe section. Use the supplied hardware and a supplied 80mm gasket. See **Figure 5c** for correct flange alignment & **Figure 5d** for proper hardware setup.

NOTE

Ensure you attach the CorkSport midpipe sections together so the routing matches the OEM routing.

NOTE

Ensure flanges are properly aligned when connecting the CorkSport midpipe sections together. Only hand tighten hardware for now.

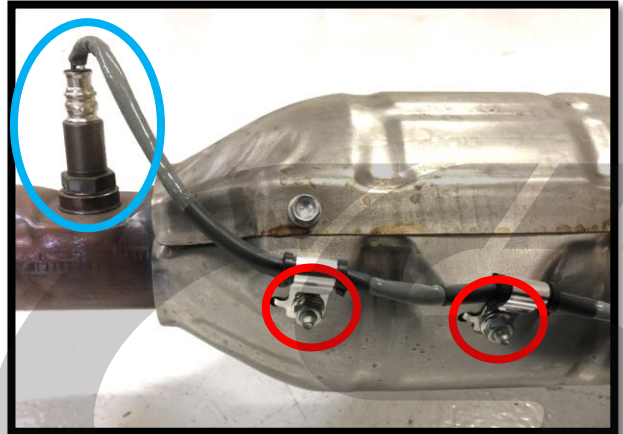


Figure 5a



Figure 5b

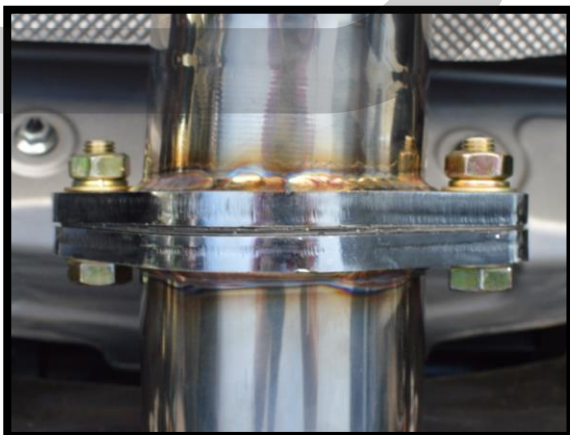
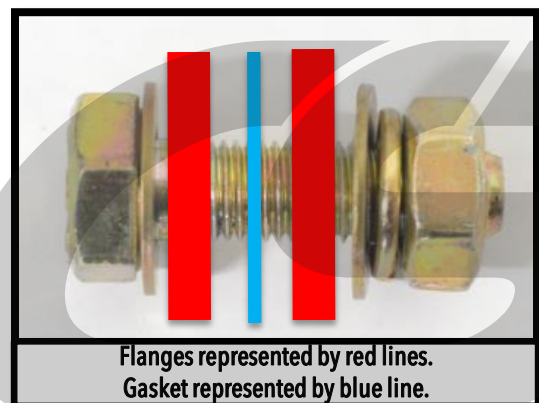


Figure 5c



Flanges represented by red lines.
Gasket represented by blue line.

Figure 5d

DETAILED INSTRUCTIONS:

5. Installing the CorkSport Midpipes (continued)

e) Lift the CorkSport midpipes into place, supporting the rear like you did in step 1d. Then install the CorkSport midpipes onto the OEM blue rubber hangers. Shown installed in **Figure 4e**. Some lubricant spray will help with hanger install.

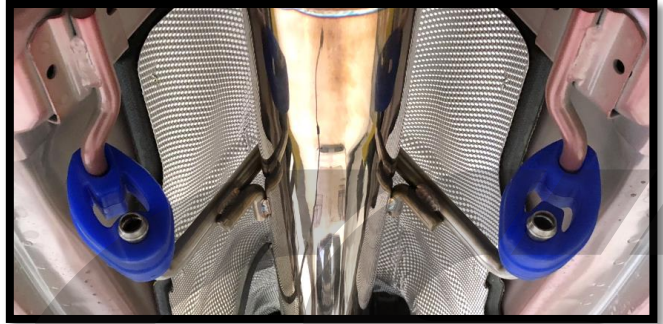


Figure 5e



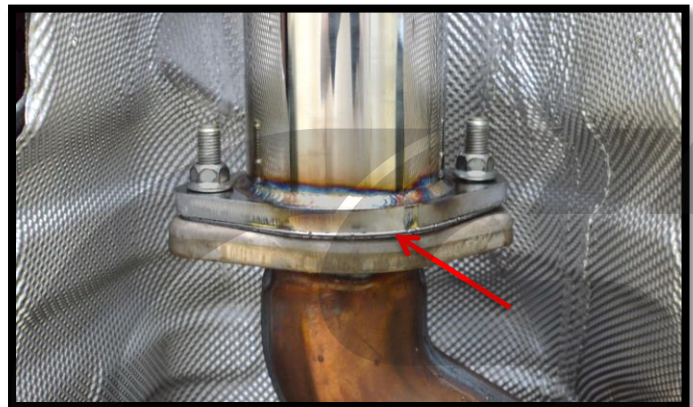
The OEM blue hangers & your rear support method will hold the CorkSport midpipes in place.

f) Remove the OEM copper crush gasket from the OEM header. It may have fallen when you removed the OEM midpipes. If not, it must be removed before CS midpipe installation. Shown with **red arrow** in **Figure 5f**.



Figure 5f

g) Install the CorkSport midpipes to the OEM header using a supplied 80mm gasket & the OEM 14mm nuts. Only hand tighten for now. **Figure 5g** shows the CS midpipes installed on the OEM downpipe. The supplied gasket is shown with the **red arrow**.



Failure to use a supplied gasket can result in an exhaust leak and loud/strange noises coming from the exhaust.

DETAILED INSTRUCTIONS:

6. Installing the CorkSport Axle Back (Hatchback)

Sedan Owners: Skip to Page 15

a) Install the CorkSport axle back onto the rearmost rubber exhaust hangers. Hangers used shown with blue circles in **Figure 6a**. The forward axleback hangers are not used (red x in **Figure 6a**) Be careful to not scratch or damage the exhaust tips or the cutouts in your bumper.



Blue painter's tape can be applied to the exhaust tips or exhaust tip cutouts of your bumper to help prevent any scratches or damage.

b) Attach the CorkSport axle back section onto the CorkSport rear midpipe section. Use the supplied hardware & gaskets like shown in **Figure 5c & 5d**. Only hand tighten for now. **Figure 6b** shows the axleback installed.

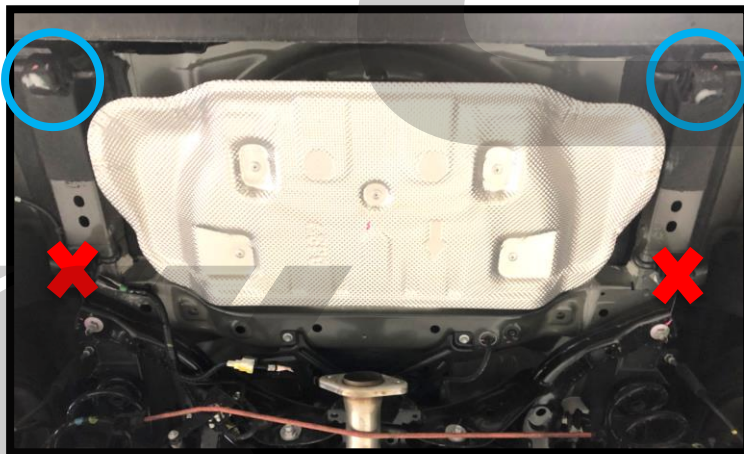


Figure 6a

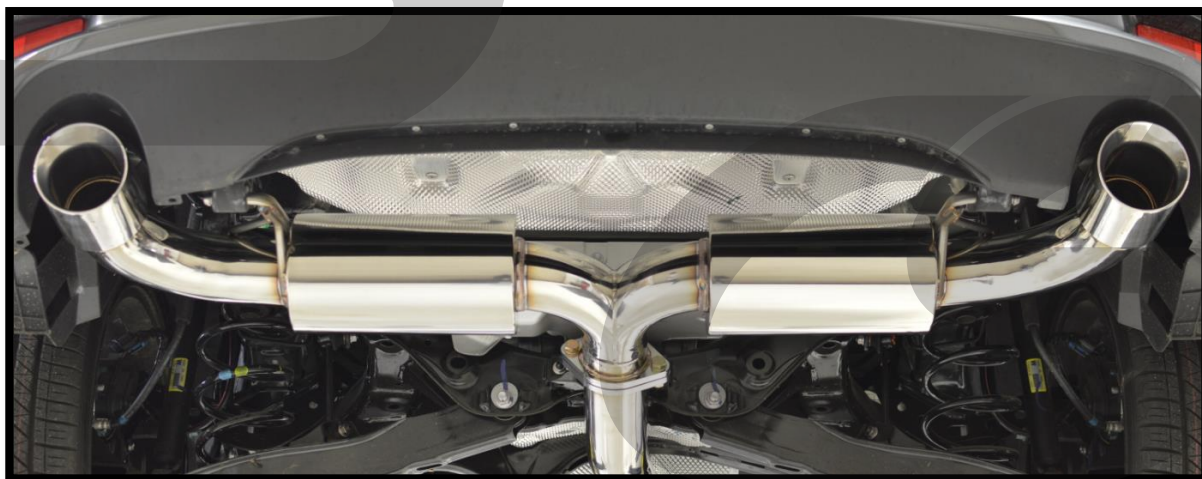


Figure 6b

DETAILED INSTRUCTIONS:

7. Aligning the Exhaust Tips (Hatchback)

a) Align the exhaust tips and hangers so the exhaust is straight & centered. **Figure 7a** shows how the exhaust tips will look when properly aligned.



The tips of the exhaust should fit perfectly within the arched exhaust cut outs in the bumper and should not rub the under body heat shields or sub frame.



Misalignment of the axle back muffler section could result in melting the exhaust cut out sections of the bumper cover. Make sure there is at least a 1/2 inch gap between the exhaust tip and the bumper, all the way around.

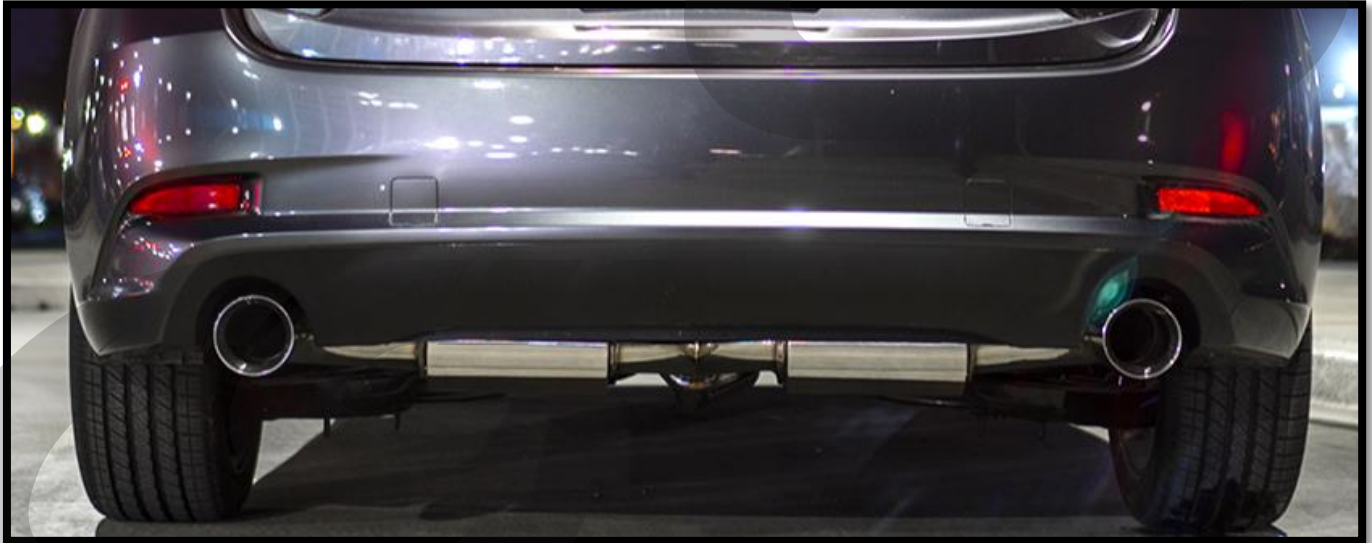


Figure 7a

b) Tighten nuts on OEM downpipe to 35-40 ft-lbs with a 14mm socket.

c) Tighten all supplied hardware to 35-40 ft-lbs. with a 17mm socket & wrench.

d) Double check tip position for clearance. Reference **Figure 7a** for proper positioning.

DETAILED INSTRUCTIONS:

8. Installing the CorkSport Axle Back (Sedan)

Hatchback Owners: Skip to Page 17

a) Install the CorkSport axle back onto the rearmost rubber exhaust hangers. Hangers used shown with blue circles in **Figure 8a**. The forward axleback hangers are not used (red x in **Figure 8a**) Be careful to not scratch or damage the exhaust tips during install.



Blue painter's tape can be applied to the exhaust tips to help prevent any scratches or damage.

b) Attach the CorkSport axle back section onto the CorkSport rear midpipe section. Use the supplied hardware & gaskets like shown in **Figure 5c** & **5d**. Only hand tighten for now. **Figure 8b** shows the axleback installed.

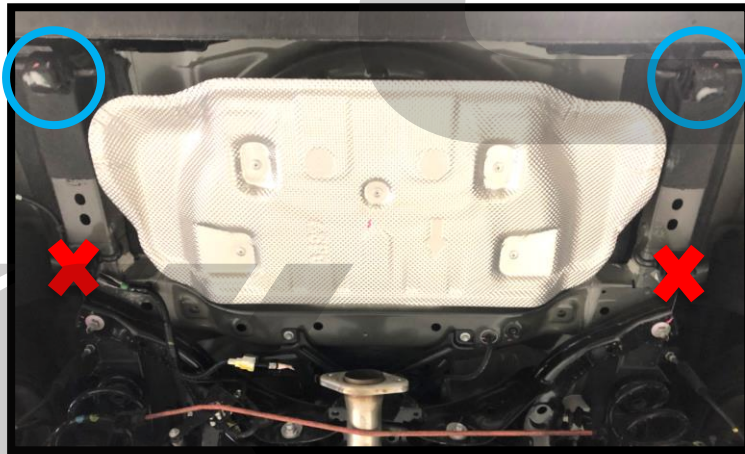


Figure 8a

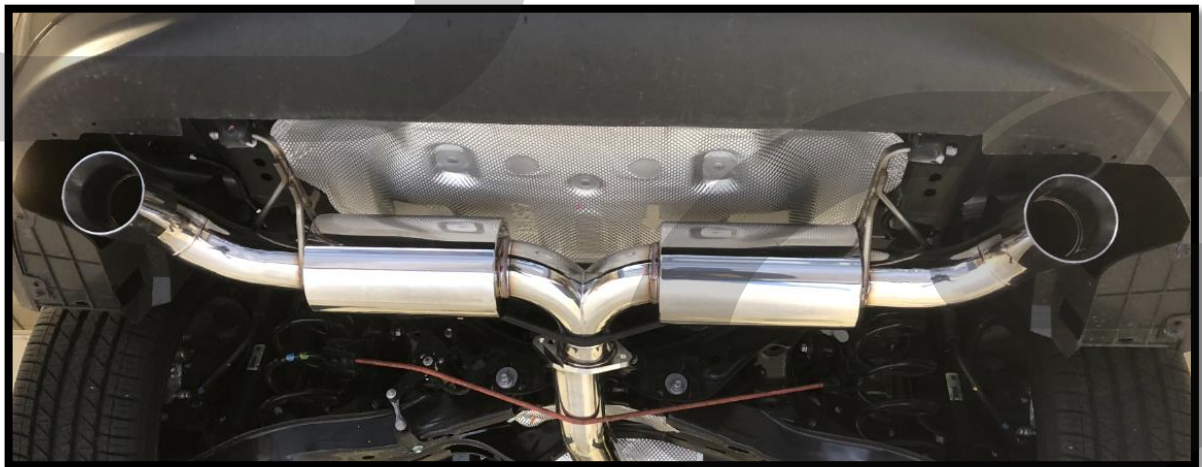


Figure 8b

DETAILED INSTRUCTIONS:

9. Aligning the Exhaust Tips (Sedan)

a) Align the exhaust tips and hangers so the exhaust is straight & centered. **Figure 9a** shows how the exhaust tips will look when properly aligned.



The exhaust tips should be straight & symmetrical, with the top of the tips at approximately the same height as the bottom of the bumper. The exhaust should not rub the bumper, under body heat shields, or sub frame.



Misalignment of the axle back muffler section could result in melting the lowest portions of the bumper. Make sure there is at least a ½ inch gap between the exhaust tip and the bumper, all the way around. Be sure to check the region at the top of the tips (see **red arrows** in image below).



Figure 9a

b) Tighten nuts on OEM header to 35-40 ft-lbs with a 14mm socket.

c) Tighten all supplied hardware to 35-40 ft-lbs. with a 17mm socket & wrench.

d) Double check tip position for clearance. Reference **Figure 9a** for proper positioning.

DETAILED INSTRUCTIONS:

10. Reassembling the Vehicle (Hatchback & Sedan)

a) Plug in your oxygen sensor & reattach the plastic clip that was removed in step 4a. **Figure 4a** shows the plug and clip properly installed.

b) Drill or punch a 1/8" hole in the OEM heat shielding to support the oxygen sensor wiring. Choose a location that leaves slack in the wiring when the rear oxygen sensor wiring bracket is aligned with the hole.

c) Attach the rearward oxygen sensor wiring bracket to the OEM heat shielding using the supplied zip tie. The other oxygen sensor wiring bracket can also be attached in a similar manner if desired. **Figure 10a** shows the wiring attached to the heat shield.

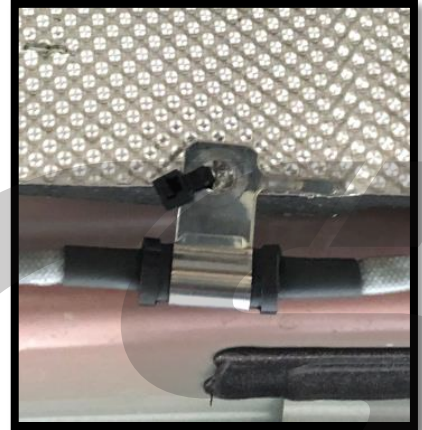




Figure 10b

 Ensure none of the wiring can rub on the sharp bottom edge of the heat shield.

 **NOTE** Steps 10b and 10c above are optional as the wiring will be held up by the forward chassis brace. We strongly recommend securing the wiring though to prevent any chance of snags or rubbing.

d) Position the rearward chassis brace in the proper location. It has one tab on each side that must be inserted into the frame rails before attaching with bolts. **Figure 10b** shows the brace installed for reference.

e) Position the forward chassis brace in the proper location. It fits above the OEM under tray and must be slid into place from the rear. It also has one tab on each side that must be inserted into the frame rails before attaching with bolts. **Figure 10b** shows the brace installed for reference.

f) Secure the chassis bracing with the twelve (12) 12mm bolts removed earlier. Tighten to 15-17 ft-lbs.

g) Secure the OEM under tray with the two (2) 10mm bolts removed earlier. Tighten to 10-14 ft-lbs.

h) Reattach the silver underbody shield using the four (4) push clips & three (3) 10mm bolts removed earlier. **Figure 10c** shows the shield installed for reference. Tighten the 10mm bolts to 10-14 ft-lbs.

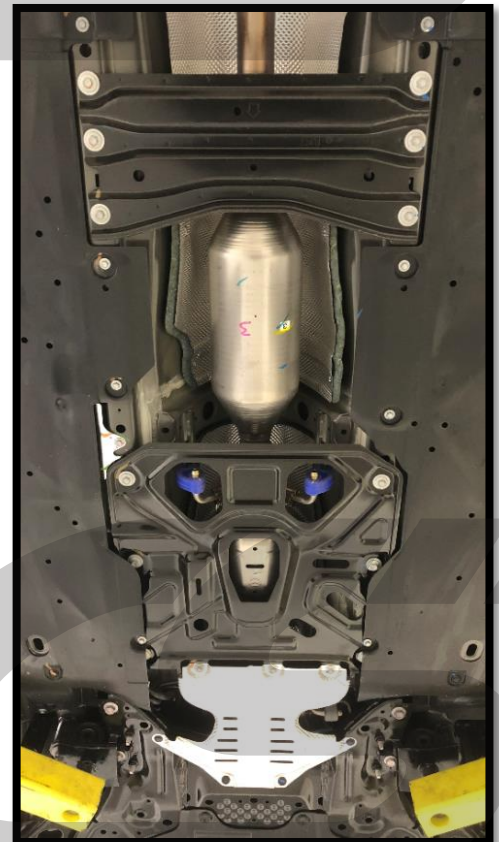


Figure 10c

DETAILED INSTRUCTIONS:

10. Reassembling the Vehicle (Hatchback & Sedan continued)

i) **Bring the car down off the jack stands and start the car.** Use a flashlight to check under the car to ensure that you do not see any visible exhaust fumes and listen for leaks (usually a whispering or tick sound at the flange). If there are leaks, most of the time a flange has been over tightened or is misaligned. There may be a burning off smell as the exhaust is heated for the first time. This smell will go away after some driving.



**This completes the installation of your CorkSport 80mm Cat Back Exhaust.
Enjoy the great sound and upgraded performance!**

WHAT'S NEXT?

CorkSport Short Ram Intake

Dramatically reduce intake restrictions and get an impressive improvement in power throughout the entire RPM range with the Mazda3 SkyActiv Short Ram Intake. The SRI is a staple part for increasing your Mazda3's performance and showed gains of up to 6WHP. This comes with a MAF housing engineered to exact tolerances and manufactured using the latest in computer-aided techniques to ensure an easy install and no Check Engine Lights. Pick yours up today!



CorkSport Big Brake Kit

At just over 7lbs, the aluminum CorkSport Mazda Big Brake Kit shaves almost 7lbs of unsprung weight off of each corner of your Mazda, all while adding more stopping power and a much better pedal feel. Crafted from lightweight billet aluminum, the CorkSport calipers use an opposed piston design that is fixed to provide greatly improved pad wear and caliper rigidity compared to the OEM design. Available in 3 anodized colors, this brake system includes everything you need to easily upgrade your stock braking system and includes high strength steel brackets, calipers, stainless steel braided front brake lines, brake pads, all necessary hardware, and one-piece 325mm rotors. Just install and go, no searching for extra parts or ordering additional items.



CorkSport Suspension Upgrade Kit

Improve the ride and handling of your 2014-2018 Mazda 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. Not only is this a HUGE time saver, you also receive a package discount vs purchasing separately.

