

## CorkSport Mazdaspeed 3 Exhaust

2010-2013 Mazdaspeed 3



Thank you for purchasing the CorkSport Exhaust for the 2010-2013 Mazdaspeed 3. By upgrading your exhaust to the CorkSport Exhaust, you will get added airflow and improve the look of your Mazdaspeed 3. This exhaust system will replace your muffler with a straight through pipe to minimize exhaust restrictions and provide a nice deep tone. It features mandrel bent 80mm piping for a smooth flow and corrosion-resistant T304 polished Stainless Steel construction with 100mm stainless steel tip/tips for long life. Let us know your feedback by submitting a review today at:

<http://corksport.com/2010-2013-mazdaspeed-3-cat-back-exhaust.html>

### Pre-Installation Notes:



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



**These instructions were written for reference only** and the use of a factory service manual is recommended. Please read these instructions thoroughly prior to starting installation.



**How our instructions work:** To best cover all of our customers experience levels, we have included an overview checklist for the more technically advanced users along with step-by-step instructions for customers that require additional detail.



**These installation instructions were written using a 2013 Mazdaspeed 3.** Other year Mazdaspeed3 models will be similar.

### Materials and Time:



#### General Info.

Part #: Axl-6-102  
Time Est: 1.5 hours  
Wrench Rating: 2/5



#### Tooling List

17mm Socket  
17mm End Wrench  
14mm Socket  
14mm End Wrench  
12mm Socket  
3/8" Drive Ratchet  
6" Extension  
Penetrating Oil/WD-40  
Jack Stands  
Floor Jack



#### Parts List

Refer to front page for included hardware.


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# Part #Axl-6-100

## Checklist


This is an overview of each step in the build. You can use this as a reference and a checklist as you button up the work on your car

-  **For 2010-2013 Mazdaspeed3 Mid-pipe Only Use: Part# Axl-6-103**  
Section 1: Support the Car on Floor Jack/Jackstands or Lift  
Section 2: Remove the Factory Mid-pipe  
Section 4: Install the CorkSport Mid-pipe



-  **For 2010-2013 Mazdaspeed3 Axle back Only Use: Part# Axl-6-101**  
Section 1: Support the Car on Floor Jack/Jackstands or Lift  
Section 3: Remove the Factory Axle Back  
Section 6: Install the CorkSport Dual Exit Axle Back





-  **For 2010-2013 Mazdaspeed3 Catback Exhaust Use: Part#Axl-6-100**  
Section 1: Support the Car on Floor Jack/Jackstands or Lift  
Section 2: Remove the Factory Mid-pipe  
Section 3: Remove the Factory Axle Back  
Section 4: Install the CorkSport Mid-pipe  
Section 5: Install the CorkSport Single Exit Axle Back **or**  
Section 6: Install the CorkSport Dual Exit Axle Back





### 1. Support the Car on Floor Jack/Jackstands or Lift

- a) Use a floor jack and jackstands to gain access to the underside of the vehicle. Shown in [Figure 1a](#).

### 2. Remove the Factory Midpipe

- a) Unbolt the muffler section by removing the two (2) 14mm nuts with a socket wrench ([Figure 2a](#)).
  -  Penetrating oil may aid in removing rusty fasteners.
- b) Remove the eight (8) bolts holding the chassis brace ([green circles in Figure 2b](#)).
- c) Unbolt the exhaust at the downpipe by removing the two (2) 14mm nuts (or 17mm bolts) ([Figure 2c](#)).
- d) Remove the midpipe section by pulling it free from the rubber hangers ([red arrows in Figure 2d](#)).
  -  Using a spray lubricant on the rubber hangers will aid in removing the exhaust.

### 3. Remove the Factory Axle Back

- a) Unbolt the muffler section by removing the two (2) 14mm nuts with a socket wrench ([Figure 3a](#)).
  -  Penetrating oil may aid in removing rusty fasteners.
- b) Pull the muffler section free from the rubber hangers ([green arrows in Figure 3b](#)).
  -  Using a spray lubricant on the rubber hangers will aid in removing the exhaust.
- c) Carefully guide the muffler section pipe up through the sub frame and pull the muffler section out from the rear of the car.

#### 4. Install the CorkSport Mid-pipe

- a) Place the mid-pipe section up into the car and attach it with the rubber hangers (green arrows in Figure 4a).
- b) Tighten the cat-back section to the downpipe. Using the supplied hardware.
- c) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware (Figure 4b).
- d) Replace the chassis brace and fasten it to the car (green circles in Figure 4d).

#### 5. Install the CorkSport Single Exit Axle Back

(2010-2013 Mazdaspeed 3 Single Exit Exhaust)

- a) Guide the axle back section over the sub-frame and hook it into the hangers (green arrows in Figure 5a).
- b) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware (Figure 5b).
- c) Align the exhaust tip and hangers so the exhaust is straight and centered (Figure 5c).



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 one inch gap between the exhaust tip and the bumper.

- d) Fully tighten the two (2) 17mm bolts at the axle-back connection and torque to 35ft-lbs.

#### 6. Install the CorkSport Dual Exit Axle Back

(2010-2013 Mazdaspeed 3 Dual Exit Exhaust)

- a) Guide the axle back section over the sub-frame and hook it into the hangers (green arrows in Figure 6a).
- b) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware (Figure 6b).
- c) Attach the dual exit side of the exhaust the axle back section over the sub-frame and into the hangers (Figure 6c).
- d) Align the exhaust tip and hangers so the exhaust is straight and centered (Figure 6d).



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 one inch gap between the exhaust tip and the bumper.

- e) Fully tighten the two (2) 17mm bolts at the dual exit connection and torque to 35ft-lbs.
- f) Fully tighten the two (2) 17mm bolts at the axle-back connection and torque to 35ft-lbs.



This completes the installation of your CorkSport Exhaust. 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 tick sound at the flange). If there are leaks, 99% 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.

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## Detailed Instructions

 These installation instructions were written using a 2013 Mazdaspeed 3. Other year Mazdaspeed3 models will be similar.

 For 2010-2013 Mazdaspeed3 Mid-pipe Only Use: Part# Axl-6-103

Section 1: Support the Car on Floor Jack/Jackstands or Lift

Section 2: Remove the Factory Mid-pipe

Section 4: Install the CorkSport Mid-pipe



 For 2010-2013 Mazdaspeed3 Axle back Only Use: Part# Axl-6-101

Section 1: Support the Car on Floor Jack/Jackstands or Lift

Section 3: Remove the Factory Axle Back

Section 6: Install the CorkSport Dual Exit Axle Back



 For 2010-2013 Mazdaspeed3 Catback Exhaust Use: Part#Axl-6-100/Axl-6-102

Section 1: Support the Car on Floor Jack/Jackstands or Lift

Section 2: Remove the Factory Mid-pipe

Section 3: Remove the Factory Axle Back

Section 4: Install the CorkSport Mid-pipe

Section 5: Install the CorkSport Single Exit Axle Back or

Section 6: Install the CorkSport Dual Exit Axle Back



### 1. Support the Car on Floor Jack/Jackstands or Lift

- a) Use a floor jack and jackstands to gain access to the underside of the vehicle. You will need to access both the mid-pipe exhaust section and axle-back exhaust section. Shown in [Figure 1a](#).



Always refer to the floor jack and jackstand manufacturers instructions as well as the factory owners manual for your vehicle to determine jacking points and support points. Alternately, use an automotive lift to gain access to the underside of the vehicle. Redundant support mechanisms are recommended.

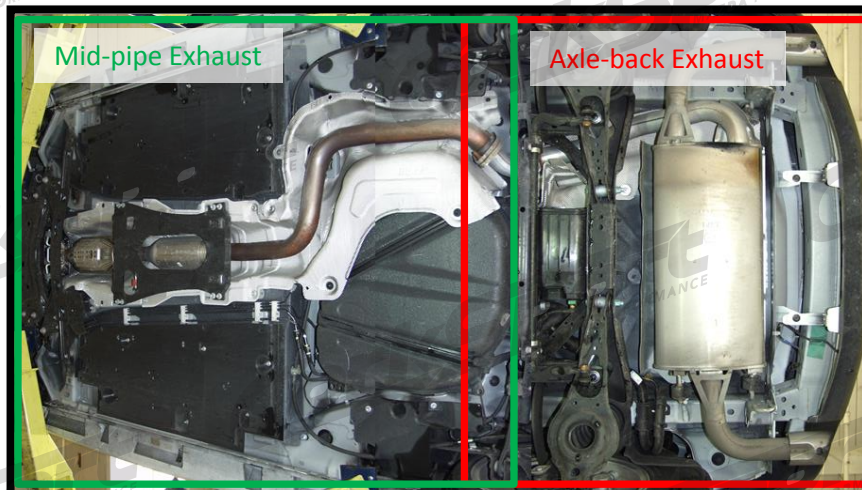



Figure 1a

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## Detailed Instructions

### 2. Remove the Factory Midpipe

 **For Axle back Only Use: Part# Axl-6-101 skip to section:**  
Section 3: Remove the Factory Axle Back

a) **Unbolt the muffler section by removing the two (2) 14mm nuts with a socket wrench (Figure 2a).**


 Penetrating oil may aid in removing rusty fasteners.



Figure 2a

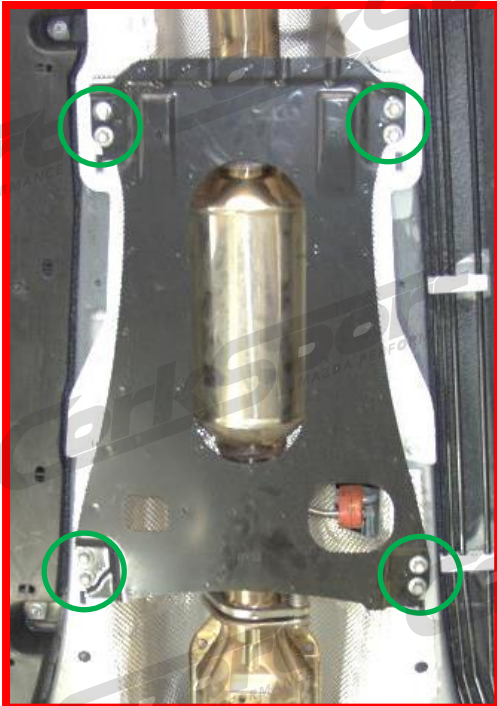
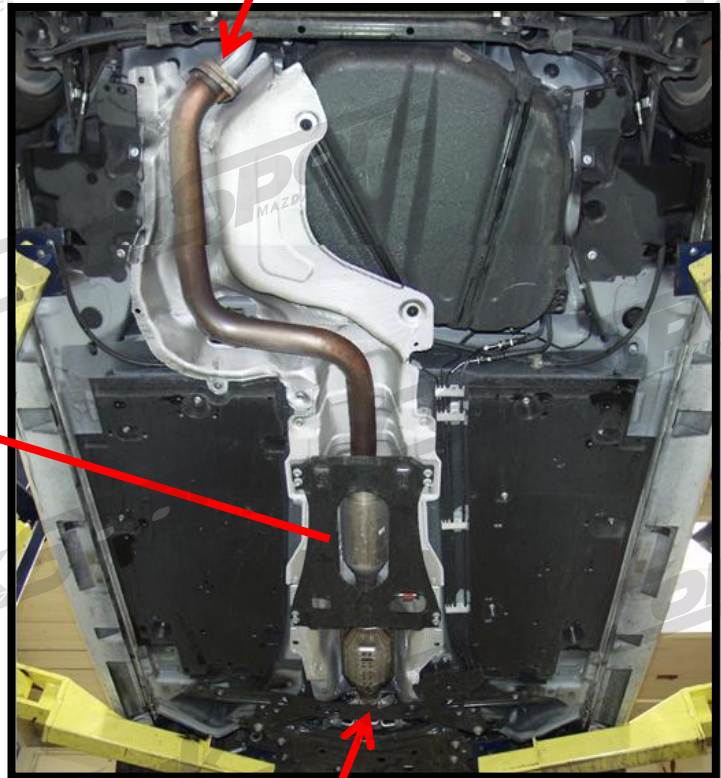


Figure 2b



b) **Using a 12mm socket remove the eight (8) bolts holding the chassis brace (green circles in Figure 2b).** Remove the brace and set it aside.

c) **Unbolt the exhaust at the downpipe by removing the two (2) 14mm nuts (or 17mm bolts) with a socket wrench (Figure 2c).** Save the hardware for re-use with the CorkSport exhaust.



Figure 2c

## 2. Remove the Factory Midpipe Continued...

- d) Remove the midpipe section by pulling it free from the rubber hangers (red arrows in Figure 2d).



Using a spray lubricant on the rubber hangers will aid in removing the exhaust.

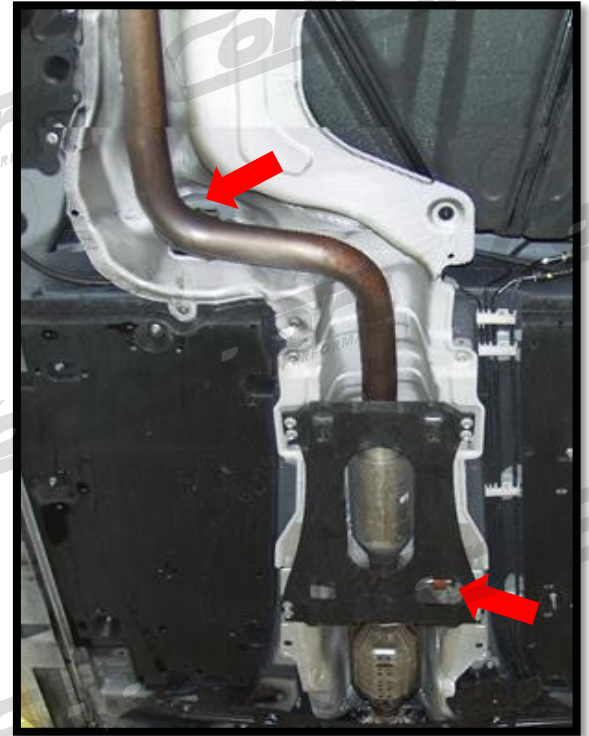


Figure 2d

## 3. Remove the Factory Axle Back

- a) Unbolt the muffler section by removing the two (2) 14mm nuts with a socket wrench (Figure 3a).



Penetrating oil may aid in removing rusty fasteners.



Figure 3a

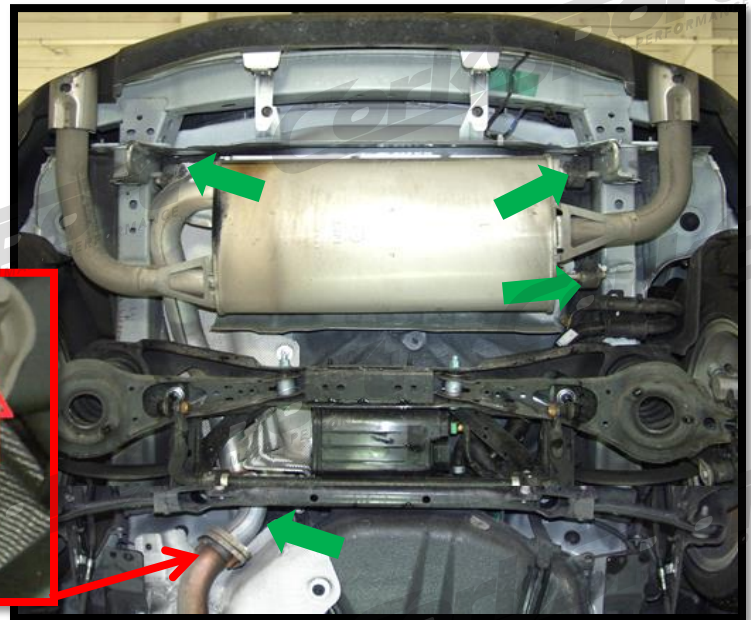


Figure 3b

- b) Pull the muffler section free from the rubber hangers (green arrows in Figure 3b).



Using a spray lubricant on the rubber hangers will aid in removing the exhaust.

- c) Carefully guide the muffler section pipe up through the sub frame and pull the muffler section out from the rear of the car.

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### 4. Install the CorkSport Mid-pipe

a) Place the mid-pipe section up into the car and attach it with the rubber hangers (green arrows in Figure 4a).

b) Tighten the cat-back section to the downpipe. Using the supplied hardware and re-use the downpipe gasket (Figure 4b).



Long 17mm bolts and large flat washers



If installing the cat-back exhaust skip step 4c.

c) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware. Do not tighten at this time (Figure 4c).



Short 17mm bolts, nuts, flat washers and lock washers.

d) Replace the chassis brace and fasten it to the car with the eight (8) 12mm bolts (green circles in Figure 4d). Tighten to 20ft-lbs.

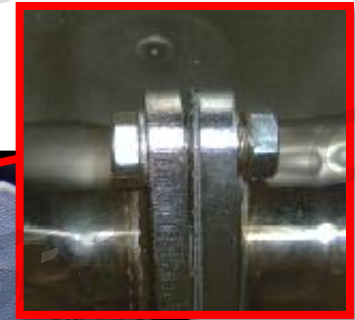


Figure 4c

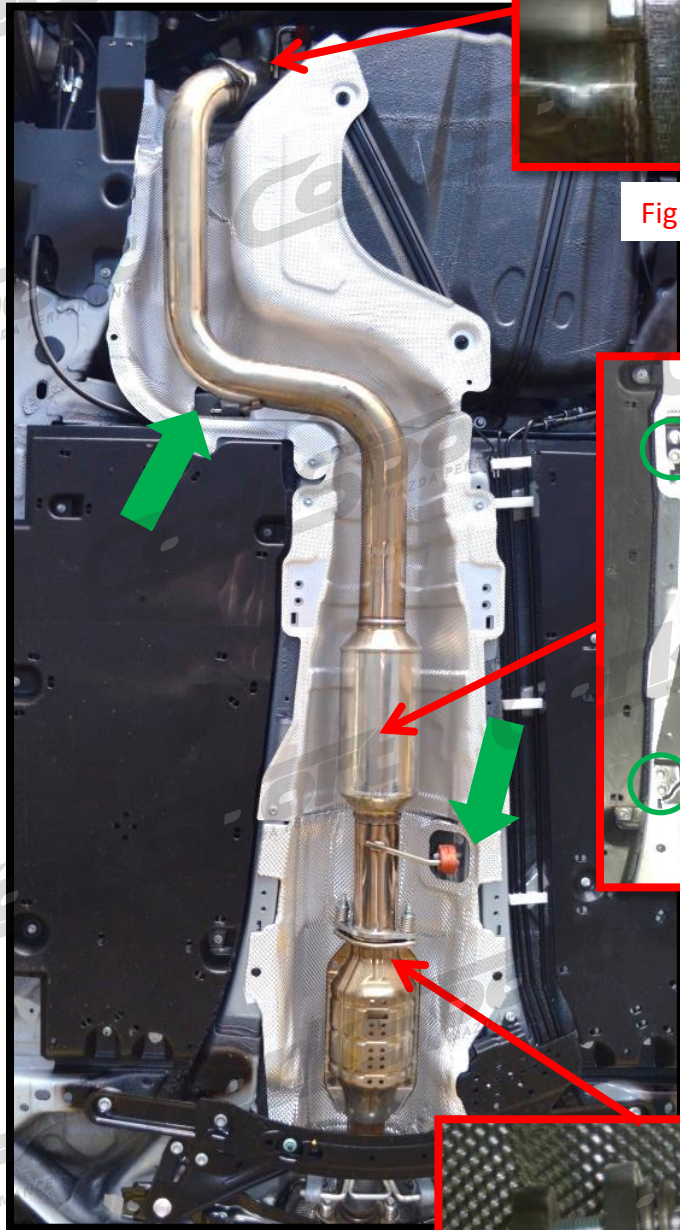


Figure 4a



Figure 4d

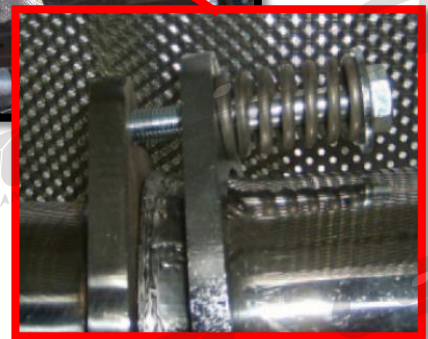


Figure 4b

## 5. Install the CorkSport Single Exit Axle Back

(2010-2013 Mazdaspeed 3 Single Exit Exhaust)

- a) Guide the axle back section over the sub-frame and hook it into the rubber hangers (green arrows in Figure 5a).
- b) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware. Do not tighten at this time (Figure 5b).

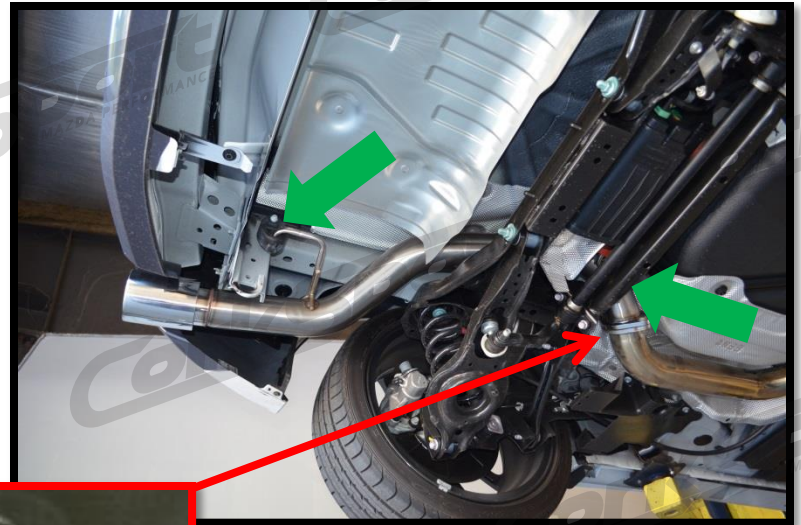


Figure 5a



Short 17mm bolts, nuts, flat washers and lock washers.



Figure 5b

- c) Align the exhaust tip and hangers so the exhaust is straight and centered. Figure 5c shows how the exhaust tip should look when properly aligned. You should have 1" or more clearance around the tip.



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 one inch (1") gap between the exhaust tip and the bumper.



Figure 5c

- d) Fully tighten the two (2) 17mm bolts at the axle-back connection and torque to 35ft-lbs.
- e) Recheck tip section for clearance.

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**6. Install the CorkSport Dual Exit Axle Back**

(2010-2013 Mazdaspeed 3 Dual Exit Exhaust)

- a) Guide the axle back section over the sub-frame and hook it into the rubber hangers (red arrows in Figure 6a).

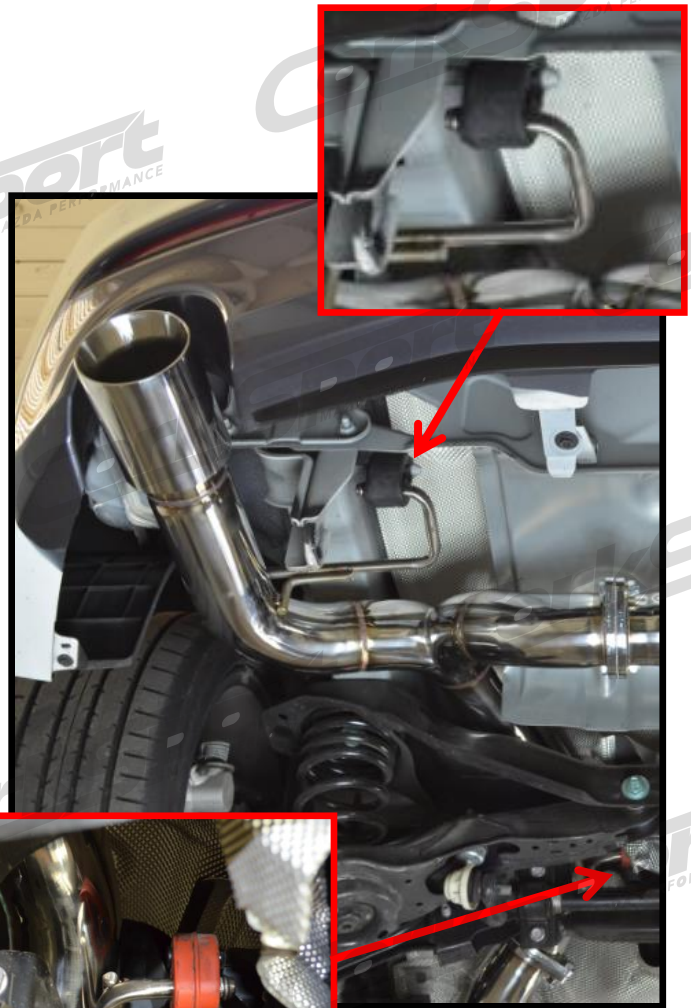
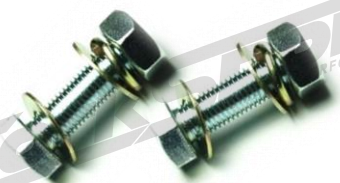


Figure 6a

- b) Attach the mid-pipe section to the axle-back section using the supplied gasket and hardware. Do not tighten at this time (Figure 6b).



Short 17mm bolts, nuts, flat washers and lock washers.



Figure 6b

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### 6. Install the CorkSport Dual Exit Axle Back Continued...

(2010-2013 Mazdaspeed 3 Dual Exit Exhaust)

- c) Attach the passenger exit side of the exhaust the axle back section over the sub-frame and hook it into the rubber hanger (Figure 6c). Leave hand tight at this time.



Short 17mm bolts, nuts, flat washers and lock washers.

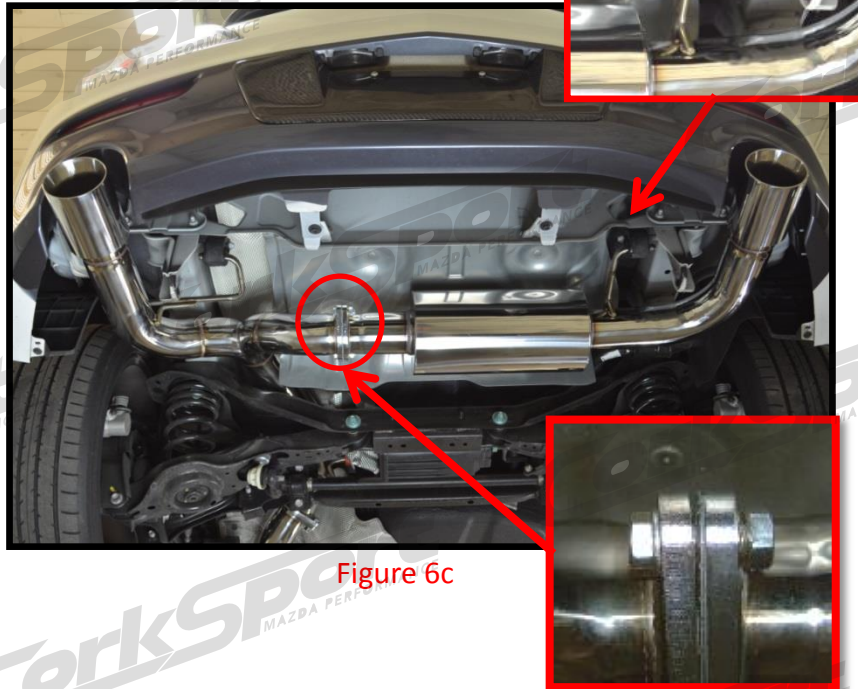


Figure 6c

- d) Align the exhaust tip and hangers so the exhaust is straight and centered. Figure 6d shows how the exhaust tip should look when properly aligned. You should have 1" or more clearance around the tip.



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 one inch (1") gap between the exhaust tip and the bumper.

- e) Fully tighten the two (2) 17mm bolts at the dual exit connection and torque to 35ft-lbs. (red circle in Figure 6c)

- f) Fully tighten the two (2) 17mm bolts at the axle-back connection and torque to 35ft-lbs (Figure 6b).

- g) Recheck tip section for clearance.



Figure 6d

## 7. Trouble shooting exhaust alignment or exhaust tip issues.

- a) **Adjust the rear passenger side to match the drivers side.** Figure 7a shows how the tips should look. If one is higher than the other, you will need to loosen the two (2) M10 bolts holding the two sections together, align the tailpipes, and then retighten the bolts (red arrow in Figure 7b). Your exhaust should now look like Figure 7a.



Figure 7a

- b) **Adjust the alignment of the tips.** If you need to adjust the entire height of the exhaust or make small alignment changes you can do this using a 17mm boxed end wrench and gently prying the hanger down on the bushing side (shown in Figure 7b in the green arrow) until the desired clearance from the bumper is achieved.

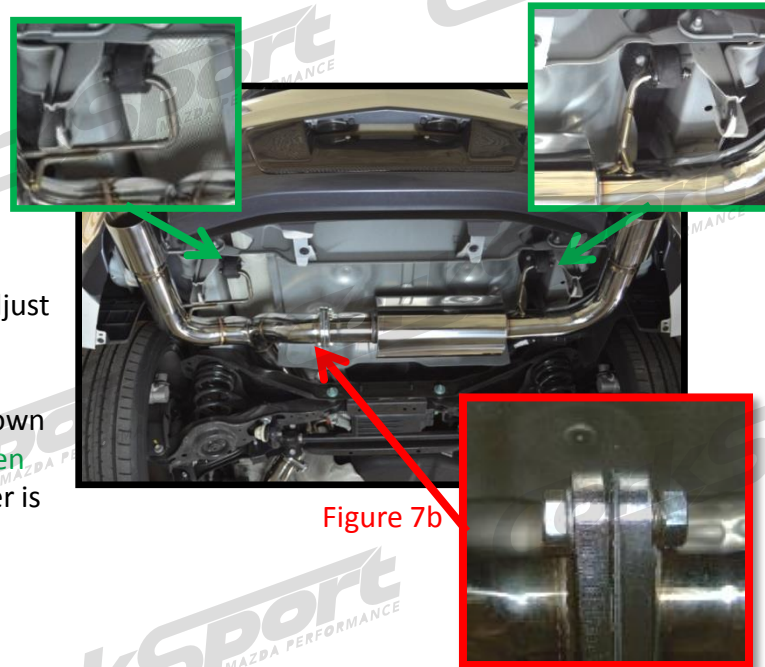


Figure 7b

**!** This completes the installation of your CorkSport Exhaust. 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 tick sound at the flange). If there are leaks, 99% 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.