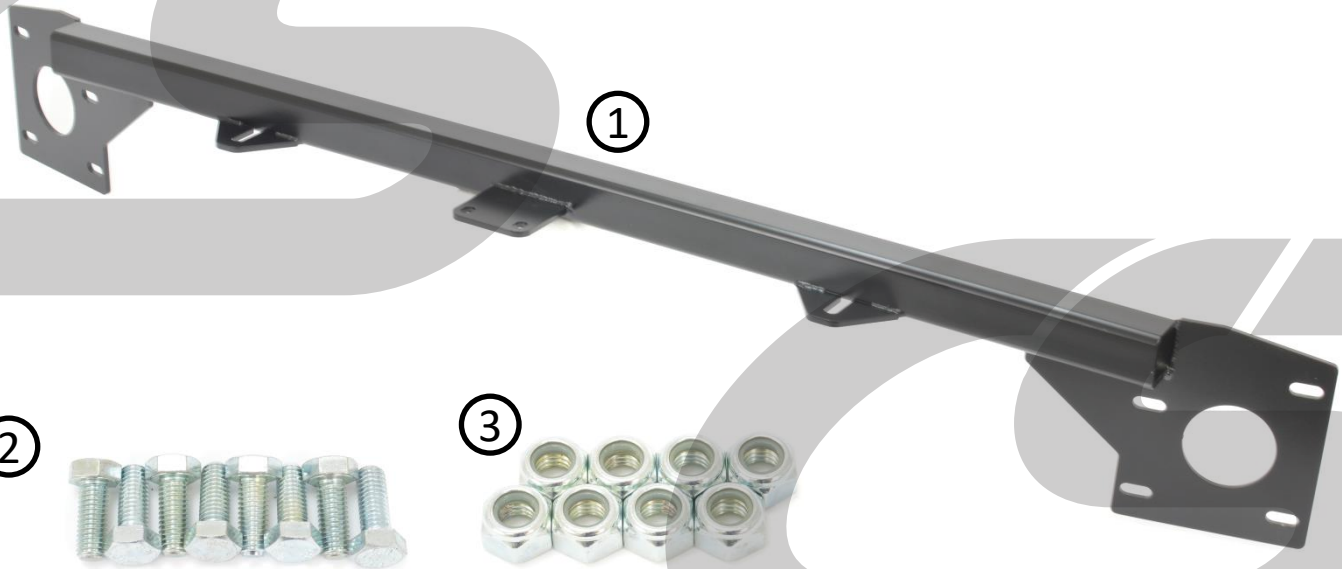
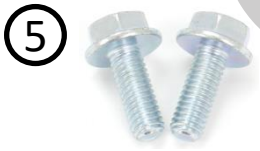
Part # AXE-6-141-10

CorkSport Mazdaspeed 3 Crashbar & FMIC

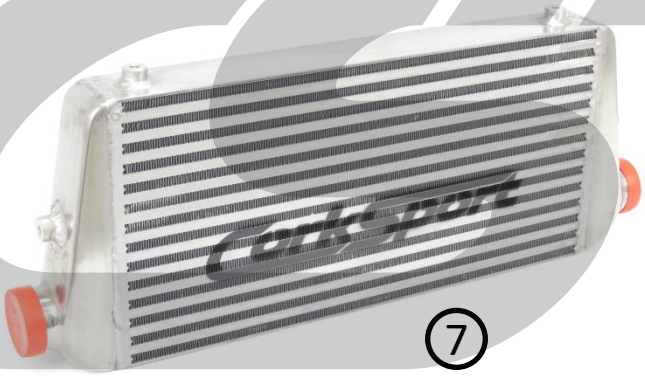
2007-2009 Mazdaspeed 3

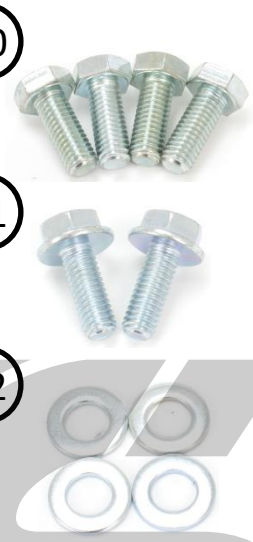




6

---Optional Items---





This package should contain:

1. One (1) CorkSport Crashbar Weldment
2. Eight (8) M8x1.25x20 mm Bolts
3. Eight (8) M8x1.25mm Nyloc Nuts
4. Sixteen (16) M8 Washers
5. Two (2) M6x1x16mm Flange Bolts
6. Two (2) M6x1mm Flange Nuts

---Optional Items---

7. One (1) CorkSport 23.5”x11”x3” FMIC
8. One(1) Driver Side Intercooler Bracket
9. One(1) Passenger Side Intercooler Bracket
10. Four (4) additional M8x1.25x20 mm Bolts
11. Two (2) additional M6x1x16mm Flange Bolts
12. Four (4) additional M8 washers

Part # AXE-6-141-10

CorkSport Mazdaspeed 3 Crashbar & FMIC

2007-2009 Mazdaspeed 3

Thank you for purchasing the CorkSport Crashbar and (optional) Front Mount Intercooler for 2007-2009 Mazdaspeed 3. Constructed from laser cut, precision welded, and powdercoated 0.188" steel, the CorkSport crashbar offers space for a large FMIC with as little modification as possible. Designed for and offered with the 23.5"x11"x3" CorkSport FMIC, the crashbar offers a solution to those seeking big power and thus a big front mount for their Gen1. Please let us know what you think by submitting a review at: https://corksport.com/crashbar-for-2007-2009-mazdaspeed-3.html

Pre-Installation Notes:

This installation requires cutting and drilling. The end result is a more or less permanent modification. Do not attempt unless completely confident in your abilities and are fully committed to using this crashbar. Additionally, it is for offroad use only as it has not been tested for DOT crash safety.

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.

Materials and Time:

General Info.

Part #: AXE-6-141-10
Time Est: 5-6 hour
Wrench Rating: 5/5

Tooling List

Phillips Screwdriver
Flathead Screwdriver
8mm Socket
10mm Socket
15mm Socket
10mm End Wrench
15mm End Wrench
3/8" Drive Ratchet
6" Extension
Reciprocating Saw
Saw Blades for Metal & Plastic
Drill
5/16" Drill Bit
Spray Paint
Grinder or File

Parts List

1. One (1) CorkSport Crashbar Weldment
2. Eight (8) M8x1.25x20 mm Bolts
3. Eight (8) M8x1.25mm Nyloc Nuts
4. Eight (8) M8 Washers
5. Two (2) M6x1x16mm Flange Bolts
6. Two (2) M6x1x16mm Flange Nuts

---Optional Items---

7. One (1) CorkSport 23.5"x11"x3" FMIC
8. One(1) Driver Side Intercooler Bracket
9. One(1) Passenger Side Intercooler Bracket
10. Four (4) additional M8x1.25x20 mm Bolts
11. Two (2) additional M6x1x16mm Flange Bolts
12. Four (4) additional M8 washers

Part # AXE-6-141-10

Order of Operations & Table of Contents

Follow the order of operations listed below for your purchased exhaust system.

Part # AXE-6-141-10
Detailed Instructions

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 to the engine bay and the underside of the car.

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.

2. Removing the Front Bumper & Undertrays

a) **Under the hood, remove four (4) phillips head push clips** from the inlet ducts. Circled in red in Figure 2a.

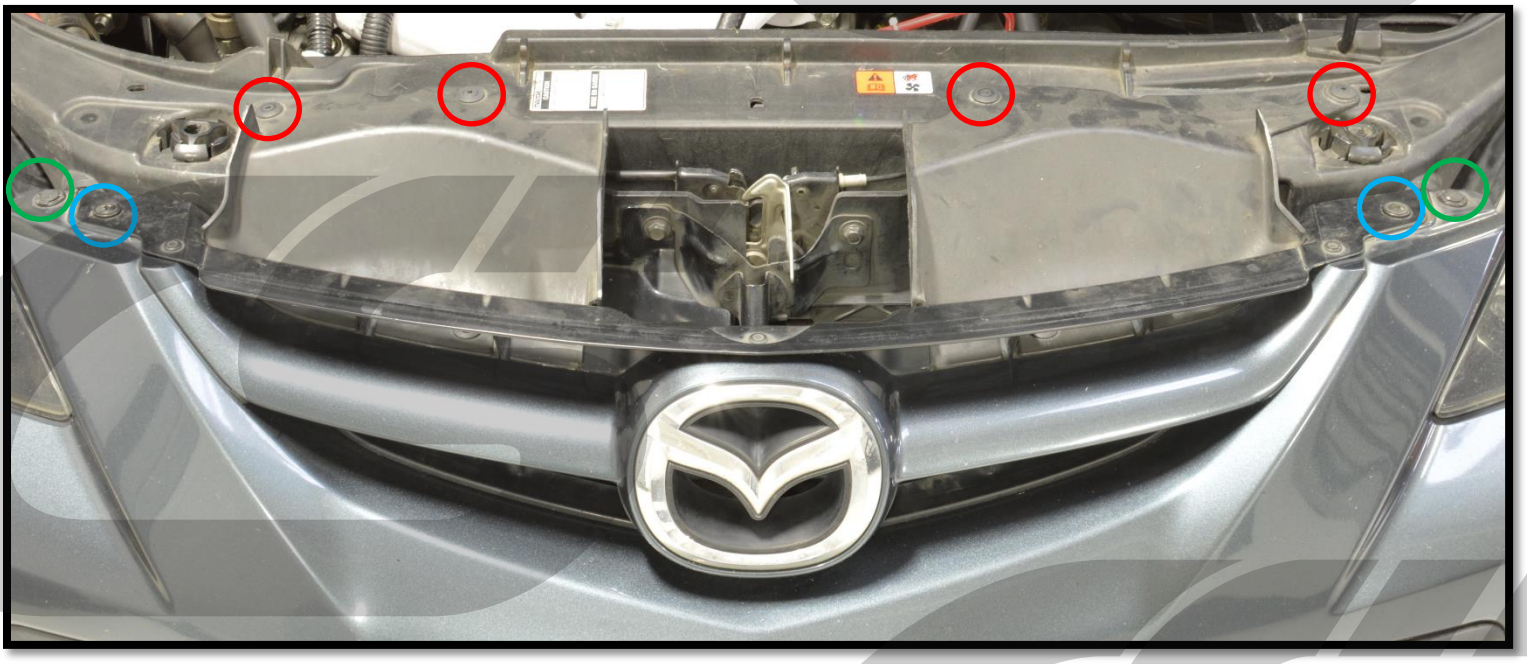


Figure 2a

b) **Remove two (2) phillips head screws from the top of the grill.** Circled in blue in Figure 2a.

c) **Remove two (2) push clips from near the headlights**. Circled in green in Figure 2a.

2. Removing the Front Bumper and Undertrays (continued)

d) **Using a 10mm socket, remove seven (7) bolts** attaching the rear section of the plastic undertray. Circled in red in Figure 2b. Then remove the rear section of the undertray.

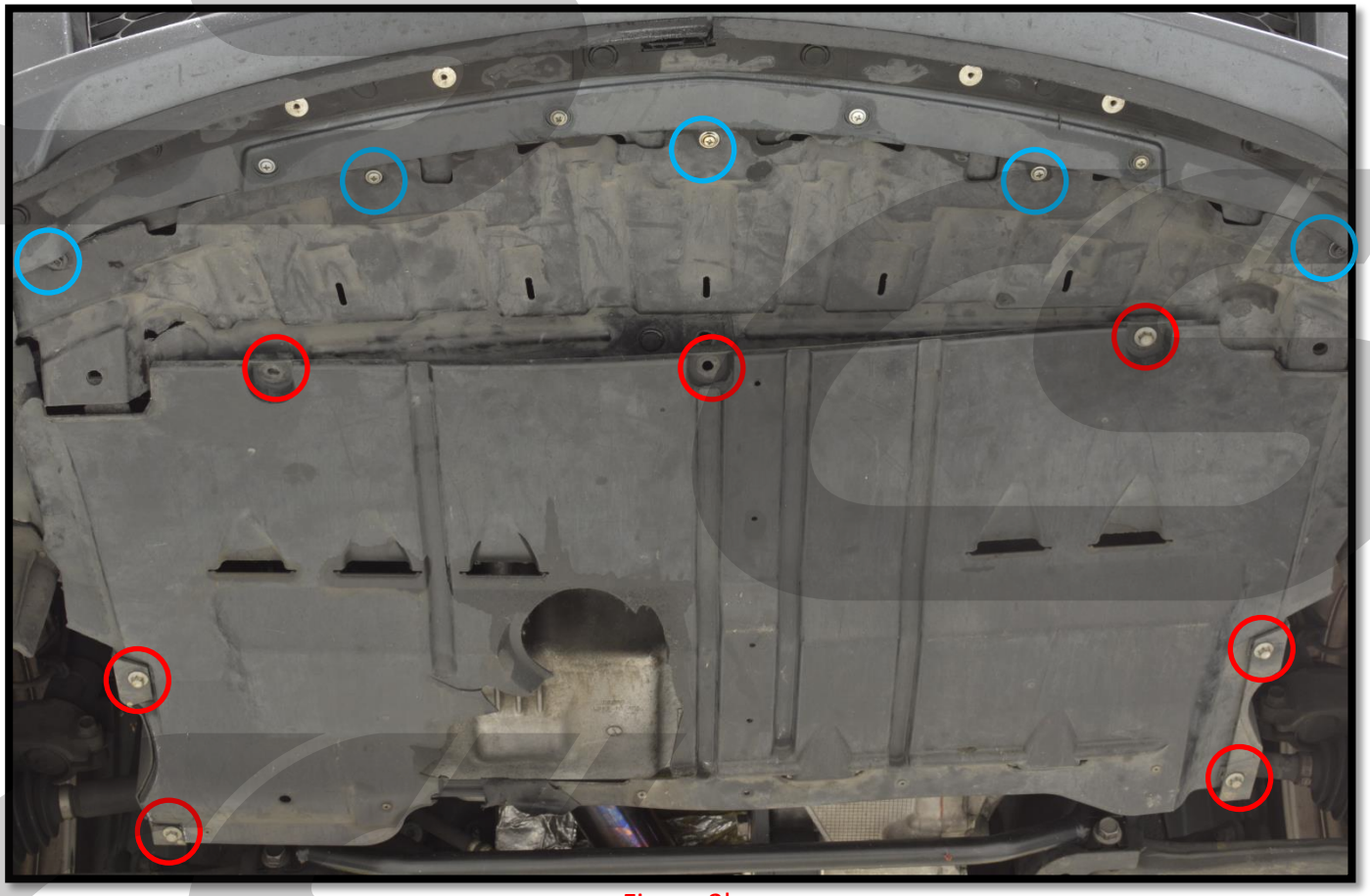


Figure 2b

e) **Using an 8mm socket or phillips screwdriver, remove seven (7) screws** attaching the front section of the undertray to the front bumper. Circled in blue in Figure 2b. Then remove the front section of the undertray.

f) **Using an 8mm socket or phillips screwdriver, remove three (3) screws from <u>each side</u>** that attach the inner fender liner to the front bumper. Circled in red in Figure 2c.

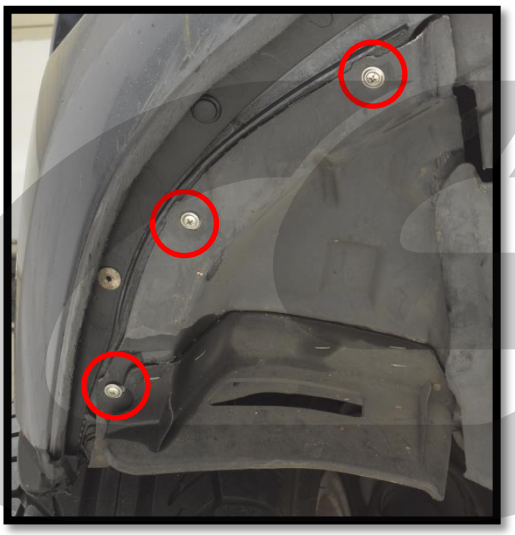


Figure 2c

2. Removing the Front Bumper and Undertrays (continued)

g) **Unplug the wiring harness from each fog light** and unclip the wiring from the bumper. Circled in red in Figure 2d.

Figure 2d

h) **Remove the phillips head screw** from the air temperature sensor bracket. Unclip the wiring harness from the bumper and position out of the way. Wiring shown circled in red in Figure 2e.

i) **Remove two (2) phillips head screws from <u>each side</u> of the inner fender liner.** Shown circled in red in Figure 2f.

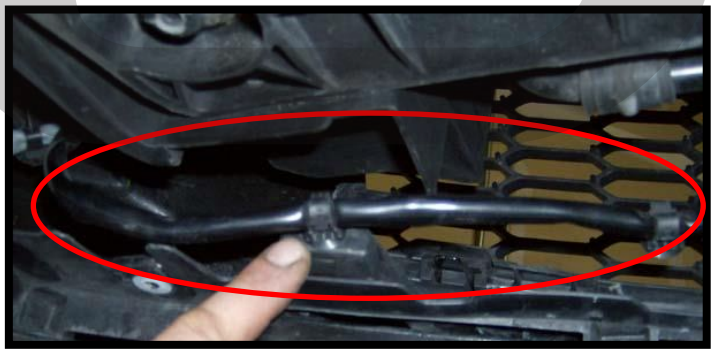


Figure 2e

j) **Gently pull the inner fender liner to locate and remove one (1) 8mm/phillips head screw from <u>each side</u>.** The screw is located where the bumper connects to the front fender. Pull in the direction shown with the blue arrow in Figure 2f. The location is circled in blue in Figure 2f.

k) **Remove the bumper from the vehicle.**

1. Gently pull on the sides of the bumper to release it from the clips located around the headlights and fenders.
2. Pull up and out on the middle of the bumper to release the two (2) clips . If they will not release, they can be accessed from behind the grill.

Figure 2f

Set the bumper on a soft cloth or towel to avoid damaging the paint.

3. Removing the Headlights

a) **Remove one (1) phillips head push clip from the headlight.** Shown circled in red in Figure 3a.

b) **Remove three (3) 10mm bolts from the headlight.** Shown circled in blue in Figure 3a.

Figure 3a

c) **Gently pull on the headlight to release it from its mounting. Then, remove the four (4) electrical connectors from the backside of the headlight.** Shown circled in red in Figure 3b. It will now be free to remove from the vehicle.

d) **Repeat steps 3a-3c for the other headlight.**

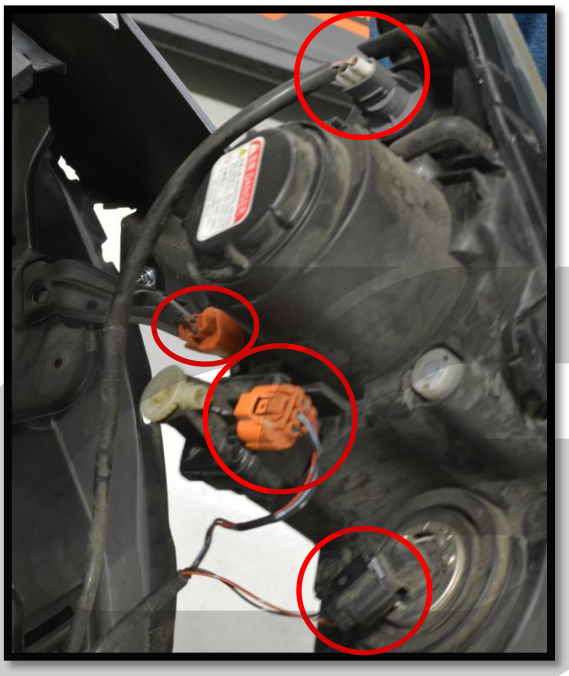


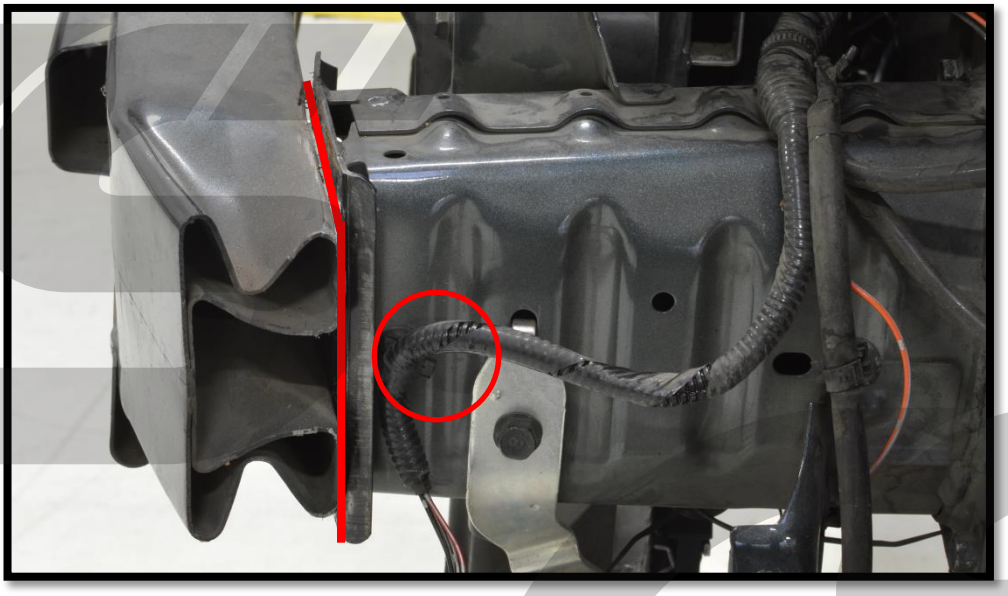
Figure 3b

4. Preparing the OE Crashbar for Cutting

a) **Remove the two clips that connect the OE crashbar foam to the OE crashbar.** Location shown in red in Figure 4a. Then remove the foam from the vehicle.

Figure 4a

b) **Unclip and reposition wiring located on either side of the frame rails out of the way.** Circled in red in Figure 4b.



You will be cutting along the red lines shown in Figure 4b. If your vehicle has any other components that may be damaged by doing so, remove them before continuing.

5. Cutting off the OE Crashbar

a) **Using a reciprocating saw (sawzall) with a metal cutting blade, cut through the welds that hold the OE crashbar to the framerails.** Cut lines shown with red lines in Figure 5a below and in Figure 5b on the next page.

Only cut through the welds. DO NOT cut off the plates on the end of the framerails. Doing so will not allow the CorkSport crashbar to mount correctly.

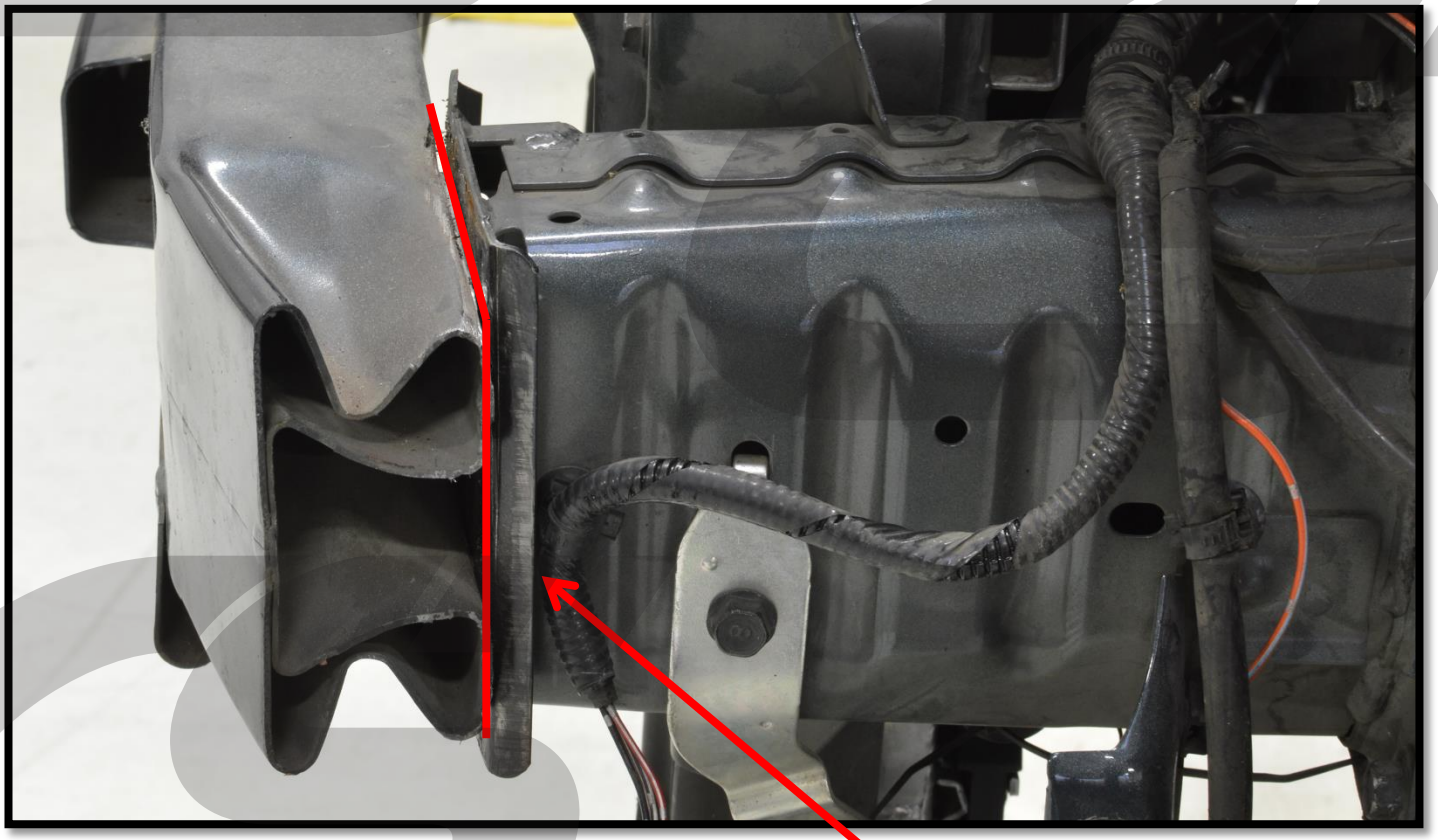


Figure 5a

There are welds located on all four sides of the OE crashbar mounting plates. See next page for more pictures.

5. Cutting off the OE Crashbar (continued)

Only cut through the welds. DO NOT cut off the plates on the end of the framerails. Doing so will not allow the CorkSport crashbar to mount correctly.

DO NOT CUT OFF THE METAL PLATES.

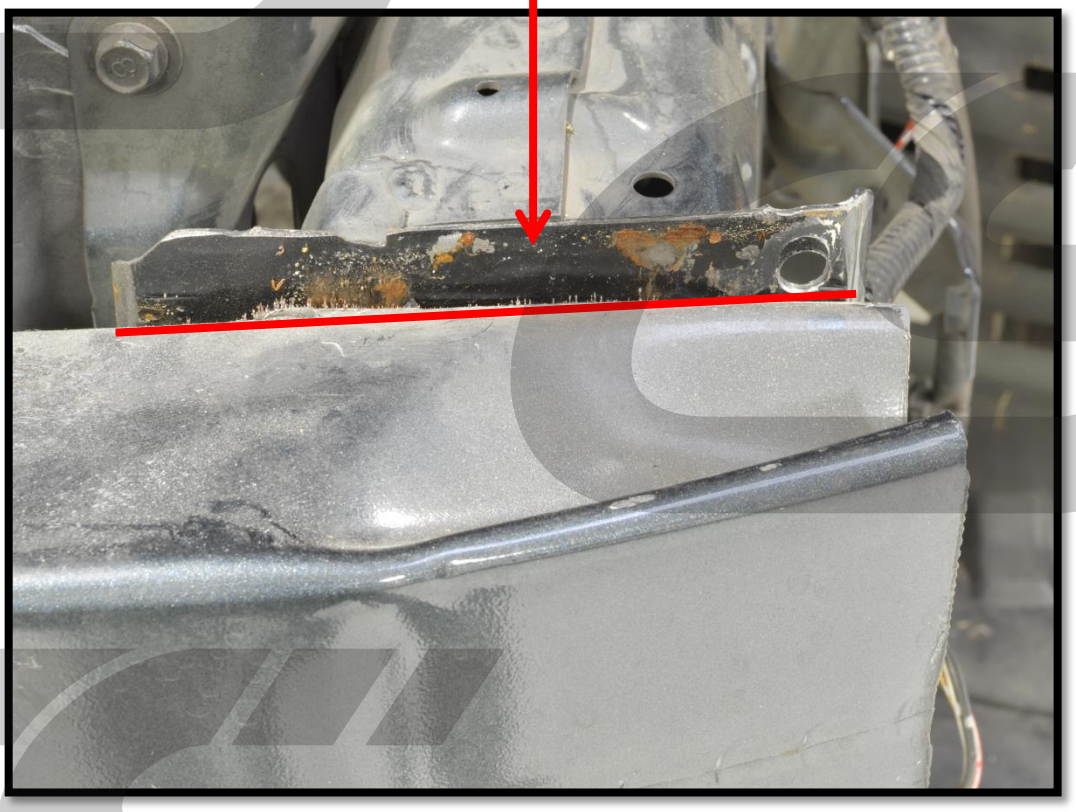


Figure 5b

Figure 5c shows what needs to be leftover after the cutting

Figure 5c

5. Cutting off the OE Crashbar (continued)

b) Repeat step 5a for the other side of the OE crashbar.

NOTE

You do not need to worry about the crashbar falling as you cut its welds. The OE crashbar is still supported by the hood latch support.

c) Remove the two 10mm bolts that attach the OE crashbar to the hood latch support. Shown circled in red in Figure 5d. Support the OE crashbar as you remove these bolts to ensure it does not fall and injure you.

d) Remove the OE crashbar from the vehicle.

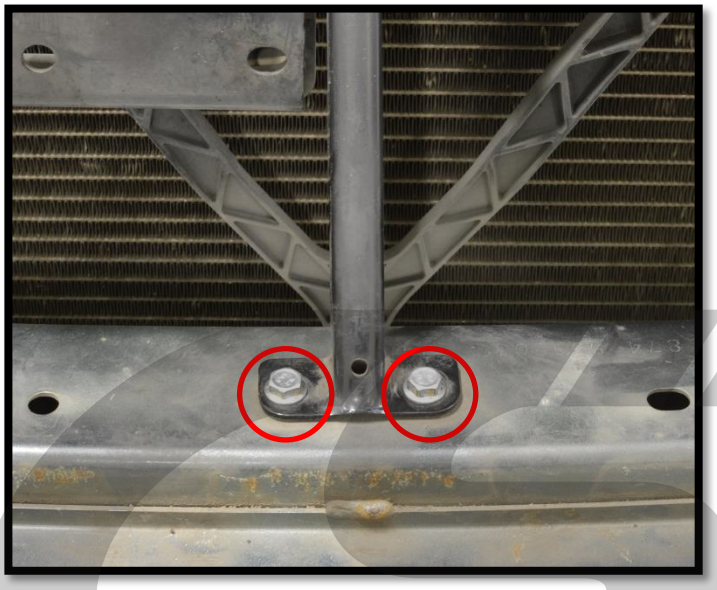


Figure 5d

6. Preparing for the CorkSport Crashbar Install

a) Grind/file remaining weld smooth. This ensures a good mounting surface for the CorkSport Crashbar. See Figure 6a.

b) Apply a coat of spray-paint to prevent rust in any area of exposed metal. Use masking to prevent overspray to other vehicle components.

NOTE

Your vehicle will not have the four outer holes seen in Figure 5e. The vehicle used for pictures already had the CS crashbar installed.

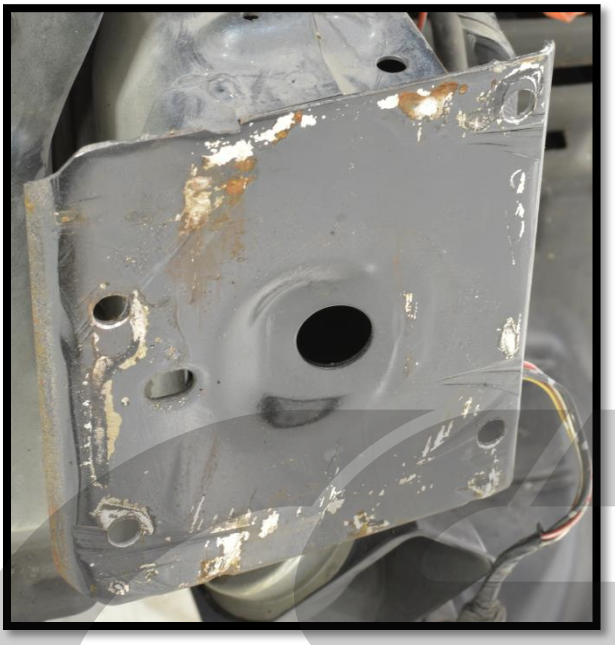


Figure 6a

6. Preparing for the CorkSport Crashbar Install (continued)

c) **Trim the OE headlight surrounds.** From the bottom of the headlight, trim up 3/16 inches. From the inner edge of the headlight, trim 4 ¾ inches outwards. See Figure 6b for clarity.

We recommend using a oscillating cutter to trim the headlights. If you do not have one, a reciprocating saw with a fine tooth blade will work fine.

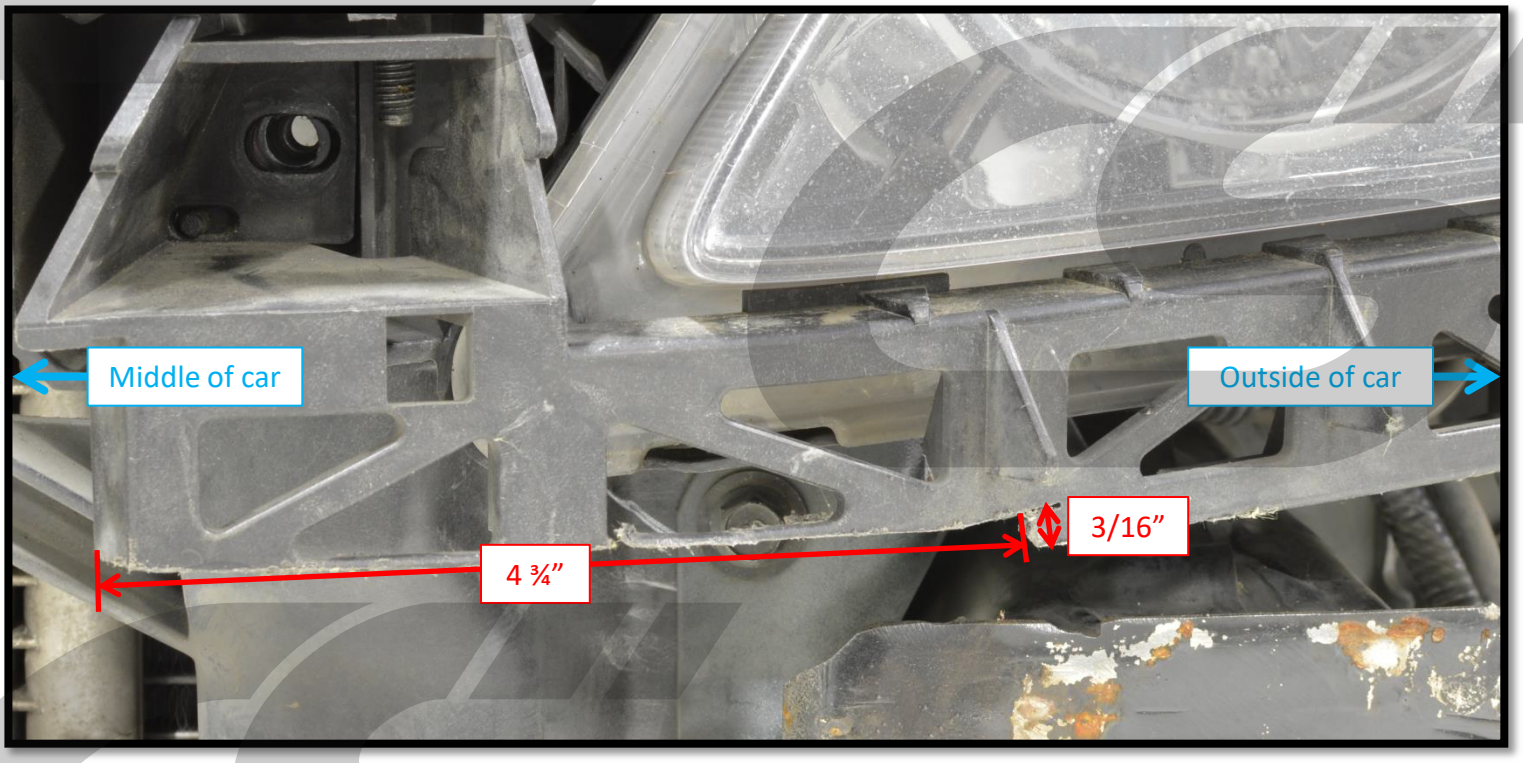


Figure 6b

d) **Repeat trimming on other headlight.**

e) **Reinstall both headlights.** Remember to reconnect all electrical plugs. Tighten 10mm bolts until snug.

7. Installing the CorkSport Crashbar

a) **Loosely bolt the CorkSport Crashbar to the OE hood latch support** using two (2) supplied M6 bolts and nuts (10mm head size). Figure 7a shows the bolts with red circles.

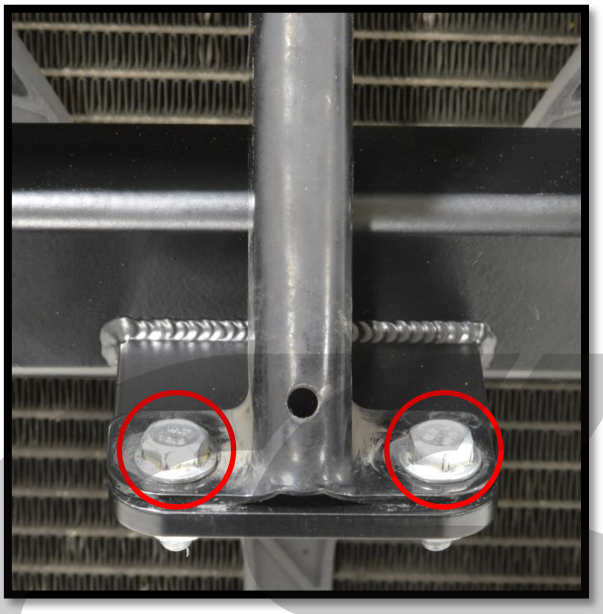


Figure 7a

b) **Center the angled side plates of the CorkSport Crashbar on the plates located at the ends of the framerails.**

c) **Once the crashbar is centered, tighten the two M6 bolts/nuts until snug.** The bottom of the angled side plates should line up with the bottom of the framerail plates like in Figure 7b.

Figure 7b

This is a good time to check your headlight trimming. See the red circle in Figure 7b. You should not be pushing up on the headlight surround.

d) **Mark hole position using the center of the horizontal slots. Do not drill yet.**

Figure 7b to the right shows a prototype crashbar where the mounting slots were vertical instead of horizontal. Your crashbar should have horizontal slots.

e) **Remove the two M6 bolts/nuts and remove the crashbar from the vehicle.**

7. Installing the CorkSport Crashbar (continued)

f) **Verify the hole positioning allows for proper nut fitment on the backside of the framerail plates.** In our testing, this meant about ½ inch from the edge of the plate to the center of each hole. Figure 7c shows this distance.

There can be slight variation to this ½ inch distance due to variance in Mazda's manufacturing. You want the nut to be roughly centered between the side of the framerail and the curved edge of the framerail plate and sitting flat on the plate. See Figure 7d to see proper nut fitment.

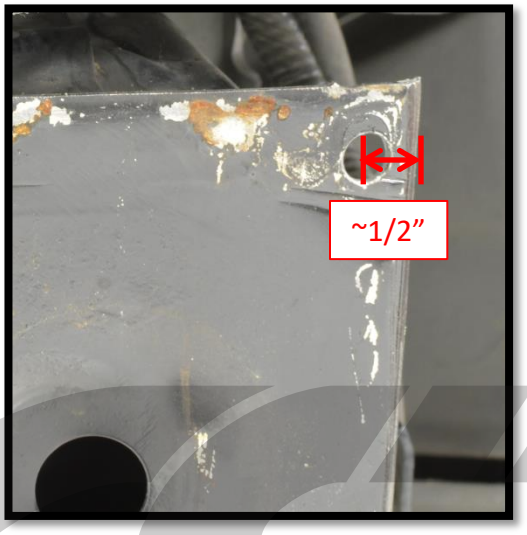


Figure 7c

g) **Once you are satisfied with hole positioning, drill the eight (8) holes with a 5/16 inch drill bit.**

If you would like more freedom for adjustment during install, you can use an 11/32" or 3/8" drill bit.

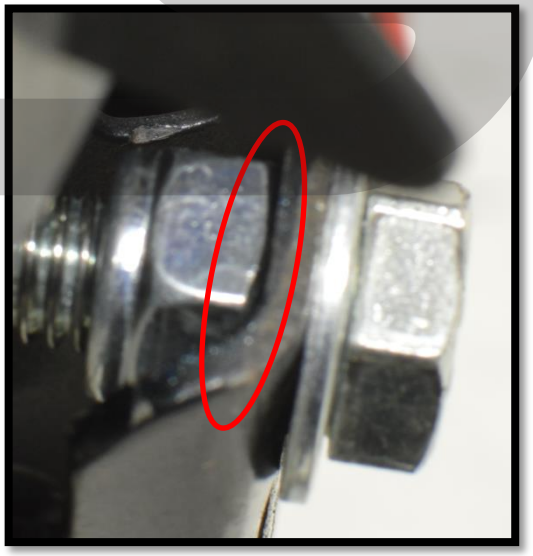


Figure 7d

h) **Reattach the CorkSport crashbar to the OE hood latch support by following steps 7a-7c.**

i) **Attach the angled side plates to the framerail plates** using eight (8) supplied M8 bolts, washers, and Nyloc nuts. See Figure 7e.

j) **Double check the crashbar is centered, then torque the M8 bolts/nuts to 18-24 ft-lbs.**

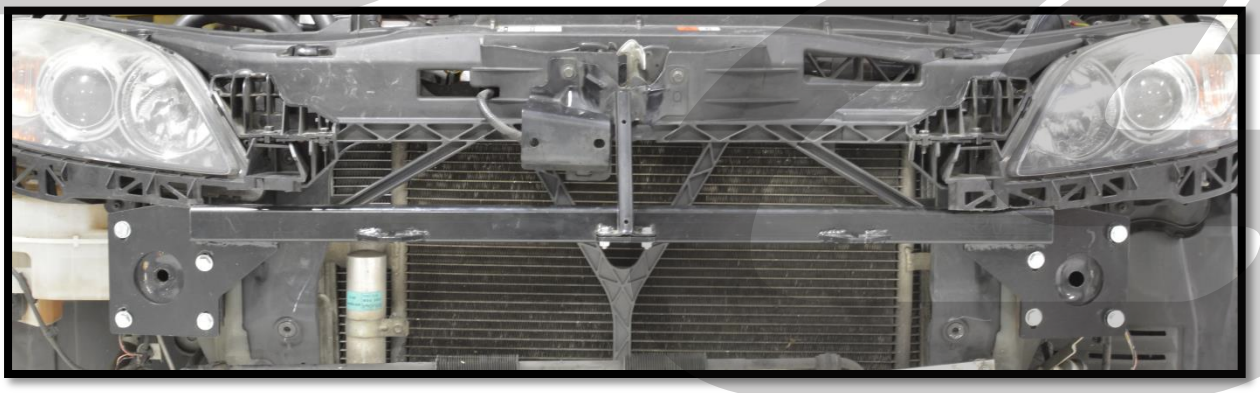


Figure 7e

8. Installing the CorkSport FMIC

If you are not using the CorkSport FMIC, the following steps will not apply and you may need special brackets to fit your intercooler to the CS crashbar.

a) **Using a jack or help from a friend, raise the FMIC into position.** Secure with two (2) supplied M8 bolts and washers. Shown with red circles in Figure 8a.

Figure 8a

b) **Push the intercooler towards the rear of the car.** This provides the greatest amount of clearance between the FMIC/piping and front bumper.

c) **Torque the M8 bolts to 18-24 ft-lbs.**

d) **Attach a supplied bracket to each side of the intercooler** using the supplied M8 bolts and washers. Leave bolts loose for right now. See the red circle in Figure 8b (don't forget a washer like we did!).

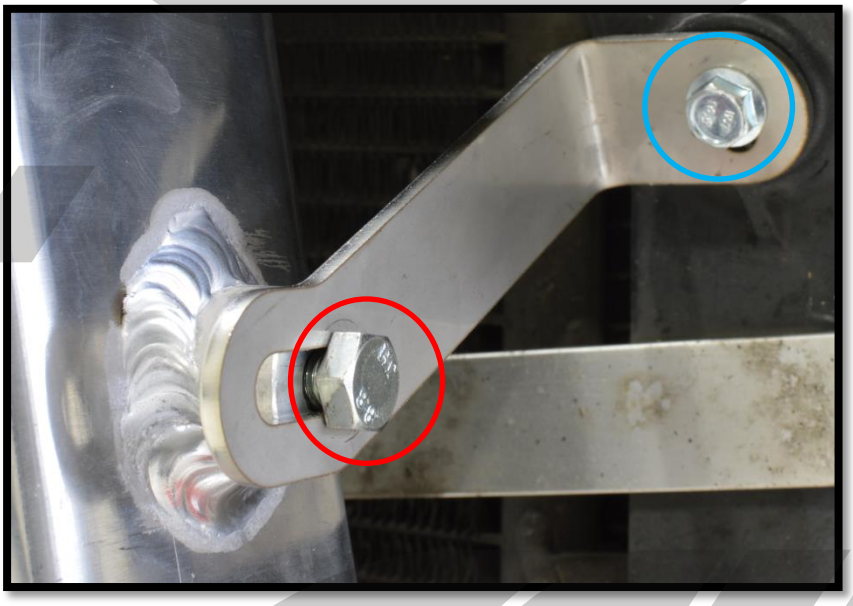


Figure 8b

e) **Using a supplied M6 flange bolt, attach the other end of the brackets to the threaded hole that is at an angle in the radiator core support.** Leave bolts loose for right now. Circled in blue in Figure 8b.

f) **Push bottom of intercooler until it sits vertically.** Then tighten the M8 bolts to 18-24 ft-lbs and the M6 bolts to 10-15 ft-lbs.

The FMIC mounting position may need to be adjusted later to help with bumper/piping fitment. Do this by loosening the four M8 bolts and sliding the intercooler forward/backwards as needed.

9. Trimming the OE Front Bumper for Proper Fitment

We found that the bumper fit best with some clearance trimming for the FMIC piping. You can attempt to fit the bumper without trimming however you may run into issues. We have not tested aftermarket bumpers to see if they need trimming.

a) **Trim the plastic reinforcements at the corners of the opening at the bottom of the OE bumper.** See Figure 9a to see the areas and amount that you need to trim.

We recommend using a oscillating cutter to trim the bumper. If you do not have one, a reciprocating saw with a fine tooth blade will work fine.

b) **Test fit the bumper.** If any areas are still rubbing on the FMIC and/or piping, trim as needed.

c) **Repeat steps 9a-9b until you are satisfied with bumper fitment.**

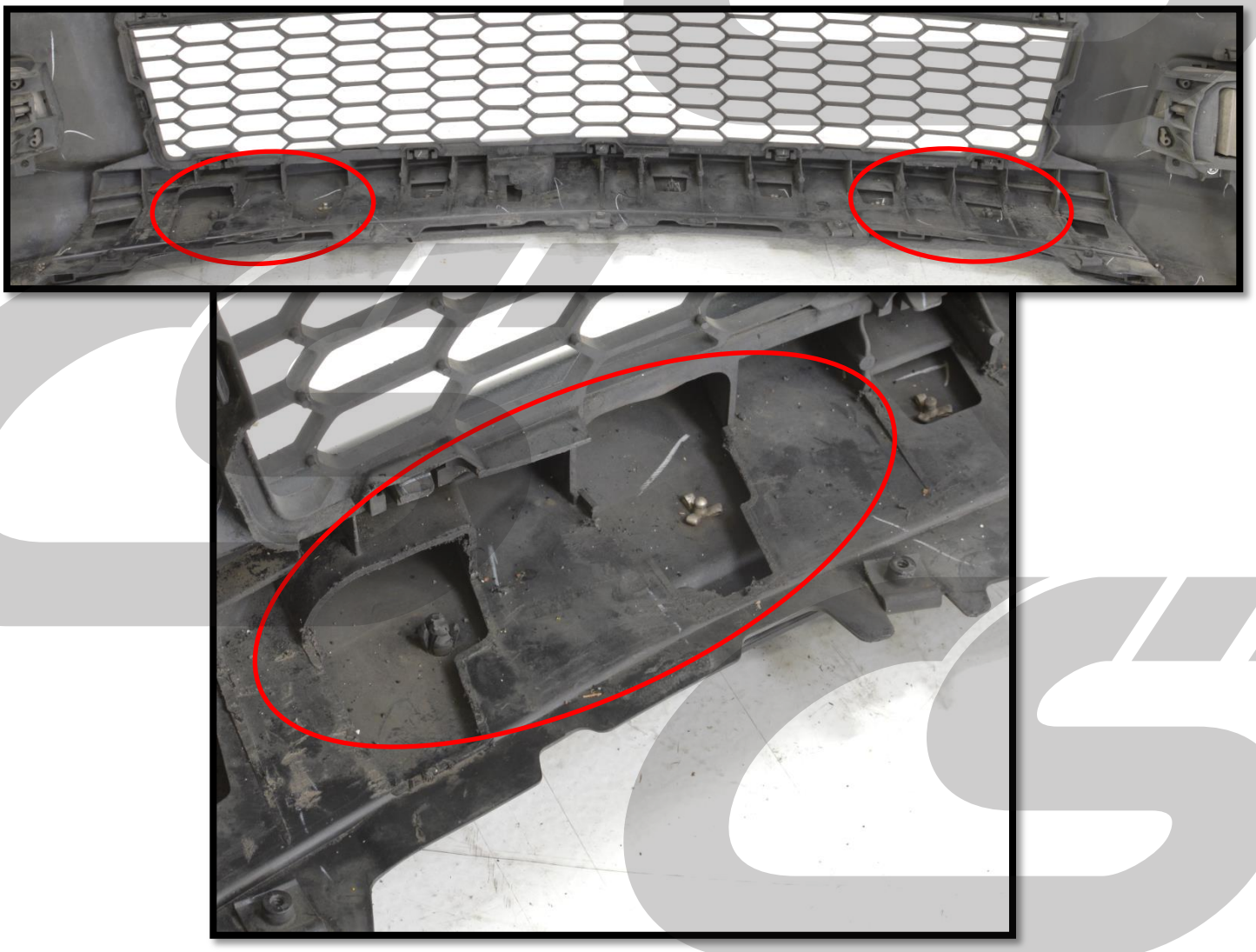


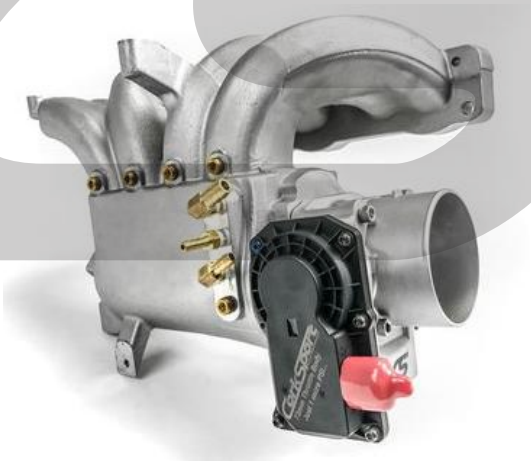
Figure 9a

This completes the installation of your CorkSport Crashbar and optional FMIC. Install your intercooling piping and perform a boost leak test. Then reinstall all OE components, lower your car from the jackstands, and enjoy!

What's Next:

CorkSport Mazdaspeed 3/6 Intake Manifold

Introducing the long-awaited CorkSport Intake Manifold for the DISI-MZR engine found in the Mazdaspeed 3 and Mazdaspeed 6. First impressions will quickly tell you this is a very different design and design goal than typically found in the performance aftermarket options for the MS3 and MS6; that's for good reason. The CorkSport Intake Manifold is a combination of performance and OE fitment without compromise. Equal flow, higher flow, tighter packaging, and TMIC fitment are aspects that define the CorkSport Intake Manifold.



CorkSport Mazdaspeed 3/6 Turbo

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!