

# INSTALLATION INSTRUCTIONS



## **CORKSPORT** **Short Ram Intake System**

*2018+ Mazda 6 2.5T, 2018+ CX-5 2.5T, & 2016+ CX-9*

**PART #: ATK-6-117-XXXXX & -119-10**

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*We absolutely, positively,  
deliver - every time.*

**CORKSPORT.COM**

# CORKSPORT Short Ram Intake & Heat Shield System

2018+ Mazda 6 2.5T, 2018+ CX-5 2.5T, & 2016+ CX-9

## PRODUCT DESCRIPTION:

The CorkSport Power Series Short Ram Intake System replaces your restrictive factory airbox with a free flowing intake system to get more power and sound out of your 2.5L SkyActiv Turbo. Increase efficiency, power, and style under your hood with the CorkSport Short Ram Intake. Each component in the CS intake system was designed for function and fitment to get the best out of your Mazda 6 Turbo. Dynamometer testing showed gains of 8-12WHP and some of the best noises we've heard from a short ram intake that installs in as little as 30minutes!

Please let us know your feedback of the by submitting a review at: <https://corksport.com/2018-mazda-6-turbo-2.5l-short-ram-intake-system.html>

## PRE-INSTALLATION NOTES:



Make sure your vehicle is completely cooled down prior to starting installation. If you are going to work on you 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.



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 2018 Mazda 6 Grand Touring Reserve. Other 2018+ Mazda 6 2.5T will be similar.



These instructions include steps to install the SRI by itself or with the optional CS heatshield. You may need to skip steps depending on your setup.

## MATERIALS & TIME:

### GENERAL INFO:



Time Est:  
1hr



Difficulty:  
2/5



CEL:  
No



Warranty:  
2-Year

### TOOLING LIST:

- 10mm Socket
- 1/4" or 3/8" drive Ratchet
- 3mm Allen Wrench or Socket
- 5mm Allen Wrench or Socket
- Phillips Head Screwdriver
- Blue Thread Locker
- Needle Nose Pliers

### PARTS LIST:

- One (1) CorkSport Silicone Intake Elbow
- One (1) CorkSport 76mm MAF Assembly
- One (1) CorkSport Dry Flow 3.5" Inlet Filter
- One (1) CorkSport MAF Support Bracket
- One (1) 70-78mm T-Bolt Clamp
- One (1) 86-94mm T-Bolt Clamp
- One (1) 95-103mm T-Bolt Clamp
- Two (2) M6x12mm Socket Head Cap Screw

### OPTIONAL:

- One (1) Assembled CorkSport Heatshield for SRI
- One (1) CorkSport Silicone Coupler



# ORDER OF OPERATIONS & TABLE OF CONTENTS:

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 **OEM INTAKE REMOVAL**  
Section 1: OEM Intake Removal from Vehicle

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 **CORKSPORT INTAKE SETUP**  
Section 2: MAF Sensor Transfer  
Section 3: MAF Support Bracket Installation

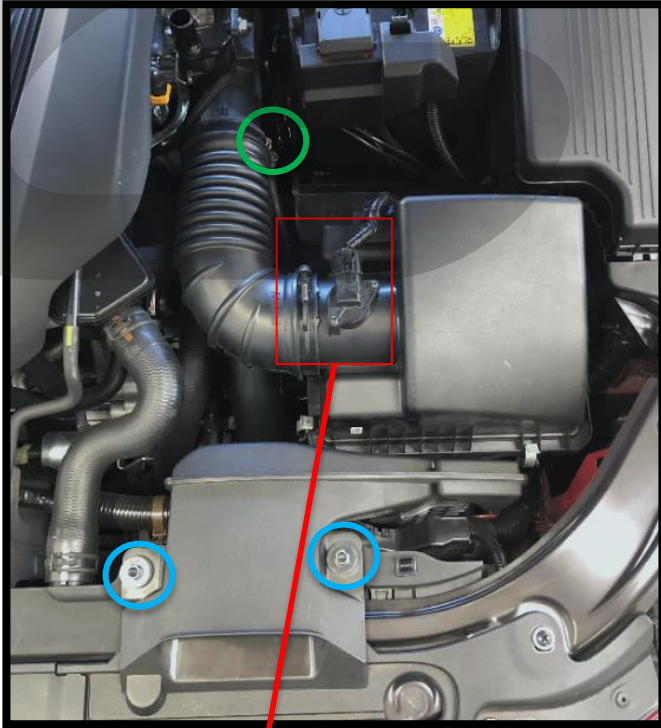
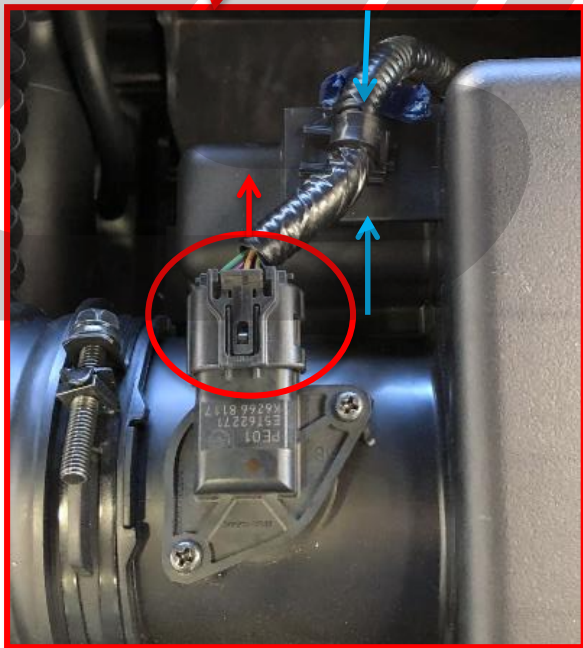
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 **CORKSPORT INTAKE INSTALLATION**  
Section 4: CorkSport Intake Installation  
Section 5: CorkSport Heatshield Installation

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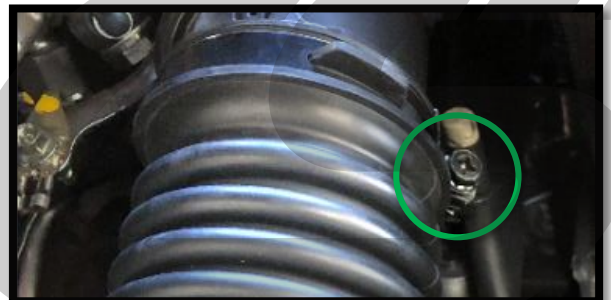
**DETAILED INSTRUCTIONS:****Figure 1a****Figure 1b**

## 1. OEM Intake Removal



If you are **ONLY** installing the CS heatshield, skip to Section 5 on page 9.

- Unplug the MAF Sensor by squeezing the top of the wiring connector and pulling toward the rear of the vehicle. Shown in **Figure 1a** and **1b**.
- Disconnect the wiring clip on the MAF sensor wiring by squeezing the underside in the direction shown in **Figure 1b** with **blue arrows**.
- Remove the two 10mm bolts from the front of the OEM intake. **Circled in blue** in **Figure 1a**. Also shown more clearly in **Figure 1c** below.
- Loosen the clamp where the OEM intake connects to the turbo inlet pipe using a 10mm socket. **Circled in green** in **Figure 1a** and shown more clearly in **Figure 1d** below.

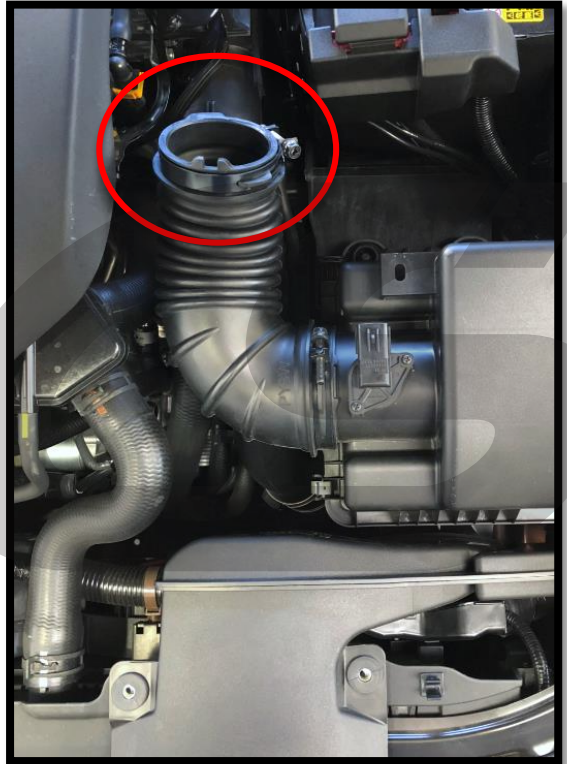
**Figure 1c****Figure 1d**



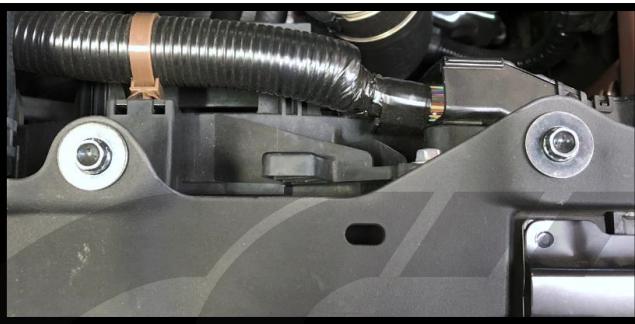
## DETAILED INSTRUCTIONS:

### 1. OEM Intake Removal (continued)

- e) Pull the OEM intake tube off of the turbo inlet pipe. Pull from where the clamp was loosened in the previous step towards the front of the vehicle. Shown removed in **Figure 1e**.
- f) Pull vertically upwards to remove the OEM intake from the vehicle. There are three rubber mounts that will pop off of mounting pegs upon removal
- g) **Optional:** Reinstall the two 10mm bolts removed in step 1c for a clean look. Shown in **Figure 1f**. **Skip this step if installing the CS heatshield.**



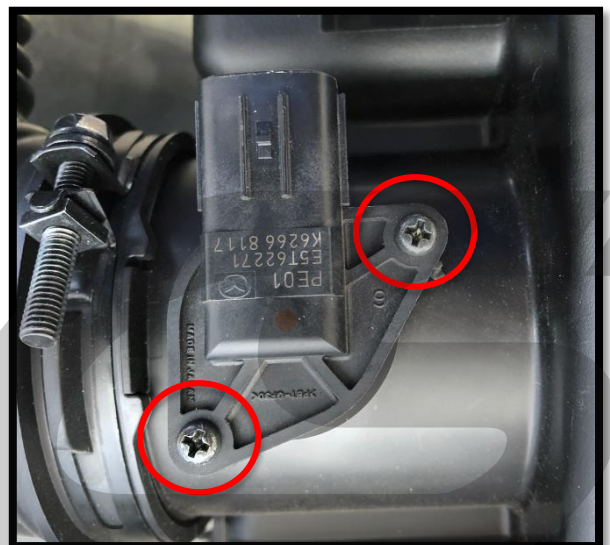
**Figure 1e**



**Figure 1f**

### 2. MAF Sensor Transfer

- a) Remove two Phillips head screws that secure the MAF sensor to the OEM intake. **Circled in red in Figure 2a.**
- b) Carefully pull upward on the MAF sensor to remove it from the OEM intake. Twisting slightly while pulling may help with removal.



**Figure 2a**

## DETAILED INSTRUCTIONS:

### 2. MAF Sensor Transfer (continued)

- c) Remove the two small Allen head screws from the CorkSport MAF assembly using a 3mm Allen wrench or socket.

- d) Carefully insert the MAF sensor into the CorkSport MAF housing. Note the orientation shown in **Figure 2b**.

**NOTE** Ensure the O-ring on the MAF sensor is not pinched or damaged before securing.

- e) Secure the MAF sensor with the two provided Allen head screws. Tighten until snug using 3mm Allen wrench or socket. **Figure 2b** shows the MAF sensor installed in the CorkSport MAF housing.

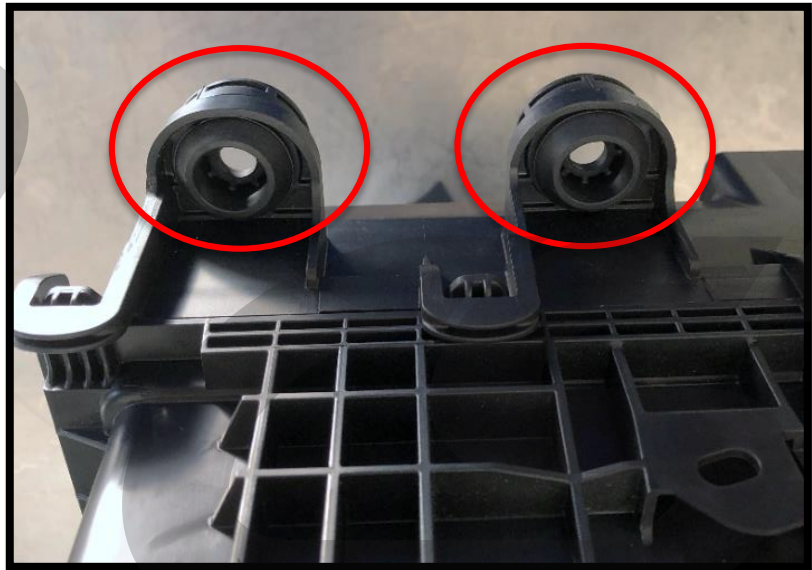


**Figure 2b**

### 3. MAF Support Bracket Installation

- a) Locate the two rubber isolators from the rear of the OEM airbox. Shown **circled in red** in **Figure 3a**.

- b) Remove the rubber isolators from the OEM airbox. Push on the angled portion of the isolator to free them from the airbox.




**Figure 3a**

## DETAILED INSTRUCTIONS:

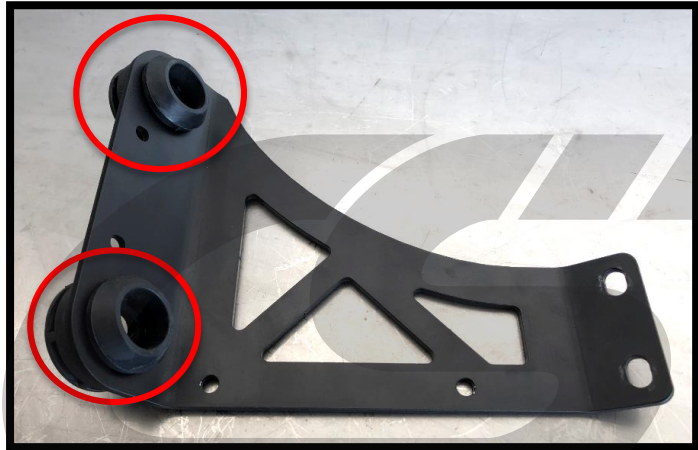
### 3. MAF Support Bracket Installation (continued)

- c) Swap the rubber isolators to the CorkSport MAF support bracket. Note the orientation shown in **Figure 3b**.

- d) Apply blue thread locker to the two supplied M6x12mm bolts. Shown in **Figure 3c**.

 Failure to use thread locker could result in the bolts vibrating loose or an air leak in the MAF housing.

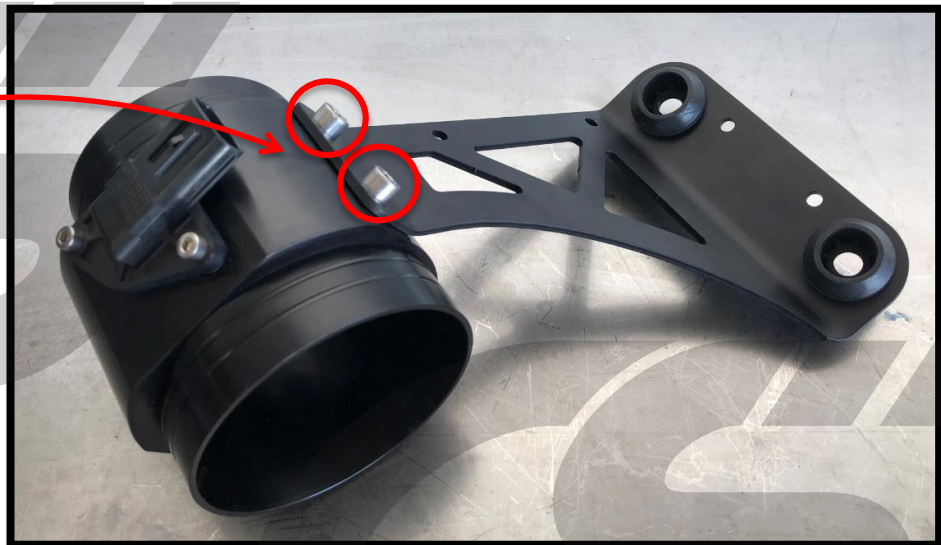
- e) Secure the MAF support bracket to the MAF housing using the M6x12mm bolts. Tighten until snug using 5mm Allen wrench or socket. Note the orientation shown in **Figure 3d**.



**Figure 3b**



**Figure 3c**



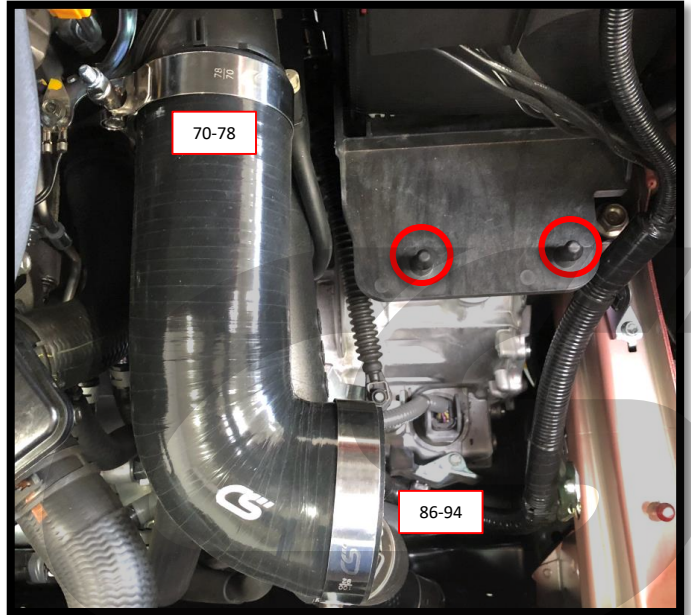
**Figure 3d**



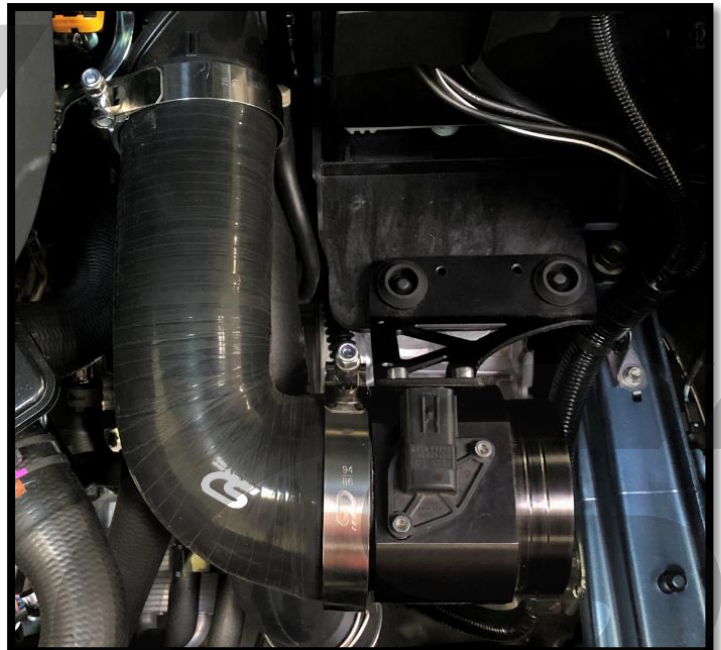
## DETAILED INSTRUCTIONS:

### 4. CorkSport Intake Installation

- a) Place the 70-78mm T-bolt clamp on the smaller end of the CorkSport Intake Elbow.
- b) Place the 86-94mm T-bolt clamp on the larger end of the CorkSport Intake Elbow.
- c) Insert the smaller end of the CorkSport intake Elbow onto the OEM turbo inlet pipe. Shown in **Figure 4a**.
- d) Press the rubber isolators installed into the CorkSport MAF support bracket onto the two pegs **circled in red** in **Figure 4a**.
- e) Insert the MAF housing into the larger end of the CorkSport Intake Elbow.
- f) Fully seat both sides of the CorkSport Intake Elbow and then tighten the two T-bolt clamps. Shown positioned correctly but loose in **Figure 4b**.



**Figure 4a**



**Figure 4b**

**NOTE**

To ensure a good seal, the T-bolt clamps should be tightened until the silicone near the edges of the clamp begins to bulge slightly.



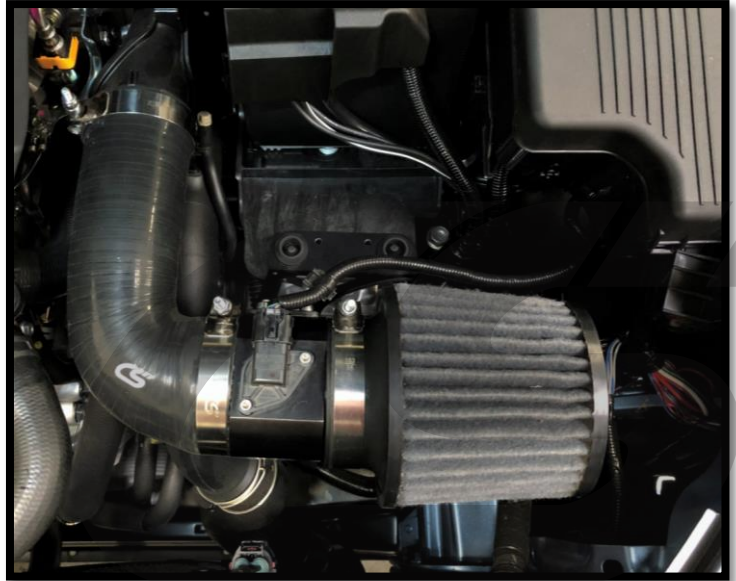
## DETAILED INSTRUCTIONS:

### 4. CorkSport Intake Installation

- g) Place the 95-103mm T-bolt clamp on the end of the CorkSport air filter.
- h) Insert the CorkSport filter onto the CorkSport MAF housing. Tighten the T-Bolt clamp to secure filter to MAF housing. **Figure 4c** shows the filter installed in the vehicle.
- i) Reconnect the MAF Sensor wiring to the MAF sensor.



Failure to reconnect MAF sensor wiring will result in CELs and/or a poor running vehicle.



**Figure 4c**

### 5. CorkSport Heatshield Installation

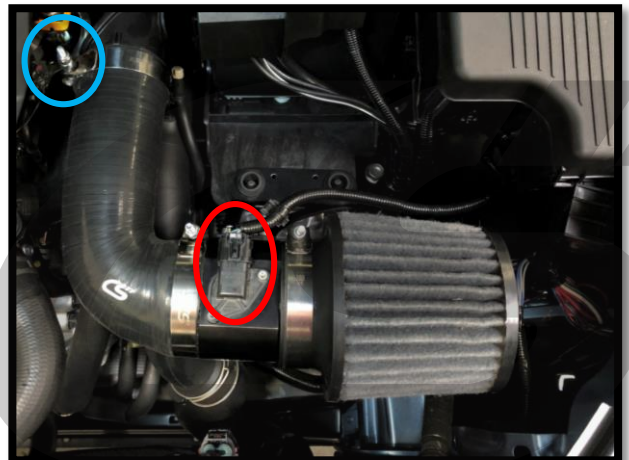


If you are NOT installing the CorkSport Heatshield, your SRI install is complete!



You will be backtracking somewhat if installing the SRI and heatshield at the same time. This is intentional. The standard SRI instructions serve to align the silicone, MAF housing, and filter to make installing the heatshield easier.

- a) Unplug the MAF Sensor by squeezing the top of the wiring connector and pulling toward the rear of the vehicle. Shown in **circled in red** in **Figure 5a**.
- b) Loosen the 70-78mm clamp installed in step 4f using a 10mm socket and ratchet. This clamp is **circled in blue** in **Figure 5a**.

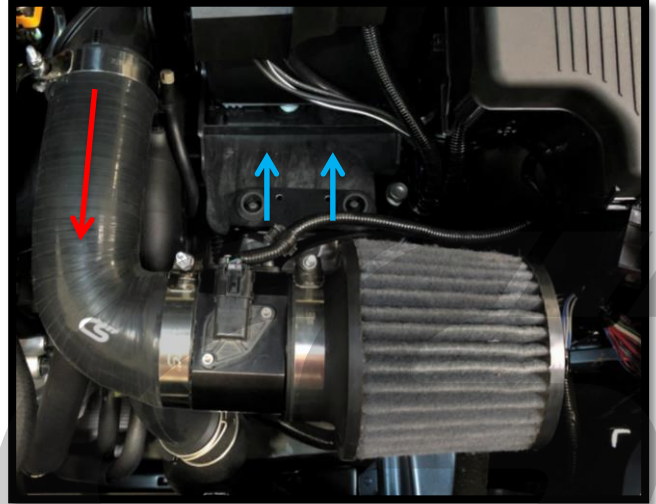


**Figure 5a**

## DETAILED INSTRUCTIONS:

### 5. CorkSport Heatshield Installation (continued)

- c) Pull the CS SRI silicone free from the turbo inlet pipe by pulling in the direction of the **red arrow** in **Figure 5b**.
- d) Remove the CS SRI from the vehicle as a unit by pulling the support bracket upwards and off the two mounting pegs. Pull in the direction shown with **blue arrows** in **Figure 5b**. Place the CS SRI to the side for the time being.
- e) Locate the locking tab that connects the OEM fresh air duct to the OEM airbox (**circled in red** in **Figure 5c**).
- f) Pull the locking tab upwards & rotate the fresh air duct counter clockwise to remove the fresh air duct from the airbox. Follow the **blue arrows** in **Figure 5c** to remove the air duct. Two components shown separated in **Figure 5d**.



**Figure 5b**



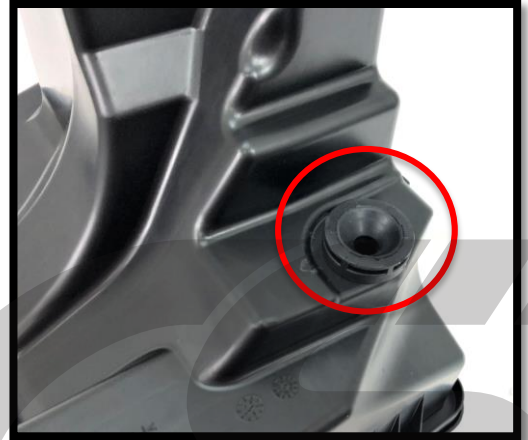
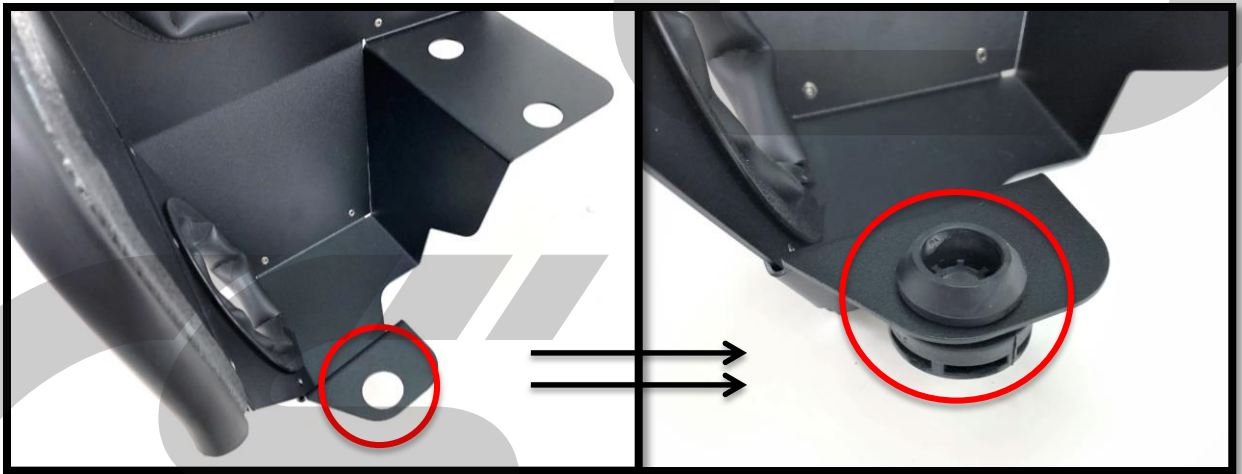
**Figure 5c**



**Figure 5d**

**DETAILED INSTRUCTIONS:****5. CorkSport Heatshield Installation  
(continued)**

- g) Remove the final rubber isolator from the bottom of the OEM airbox. **Circled in red** in **Figure 5e**.
- h) Install this rubber isolator into the CorkSport Heatshield in the location shown **circled in red** in **Figure 5f**. Ensure it is installed in the orientation shown.

**Figure 5e****Figure 5f**

- i) Install the OEM fresh air duct into the bottom hole of the CS heatshield as shown in **Figure 5g**. On the next page, **Figure 5h** shows more detailed images of the fresh air duct installation for the CX-5.

**Figure 5g**



## DETAILED INSTRUCTIONS:

### 5. CorkSport Heatshield Installation (continued)



Figure 5h below shows the difference between Mazda 6 and CX-5 fresh air ducts. The CX-5 duct is shorter and will not sit completely inside the CS heatshield like the Mazda 6.

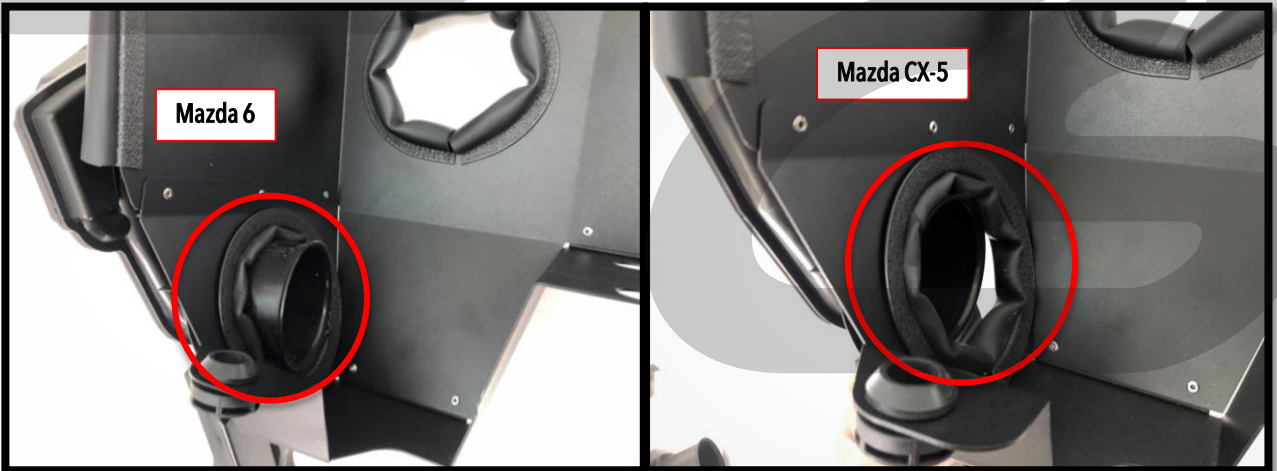


Figure 5h

- j) To solve the difference in length, a silicone coupler has been included. Install the silicone coupler into the end of the CX-5 outlet as shown below in Figure 5i. The silicone coupler can also be used in the Mazda 6 and CX-9 air ducts if desired.

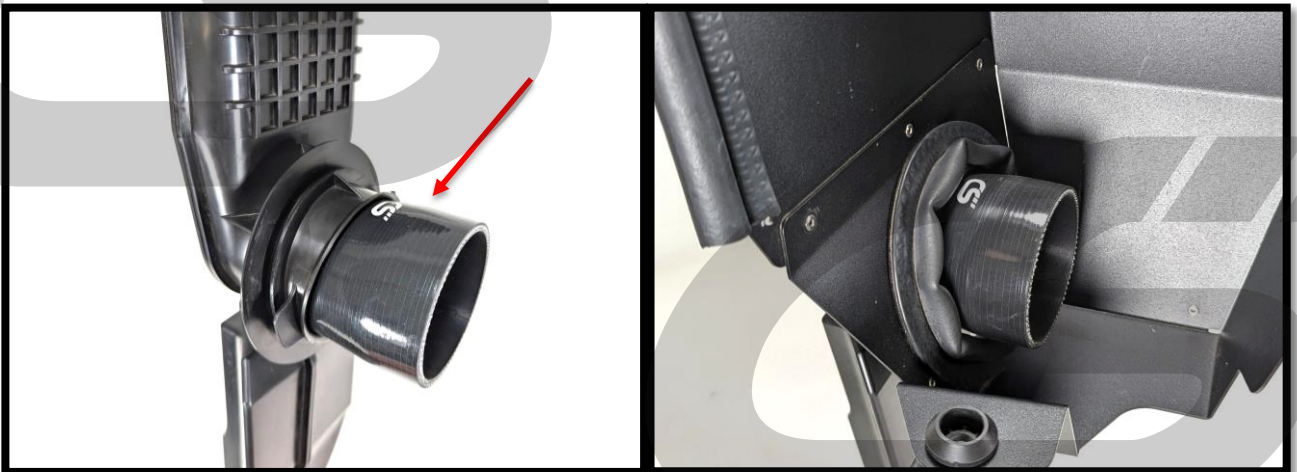


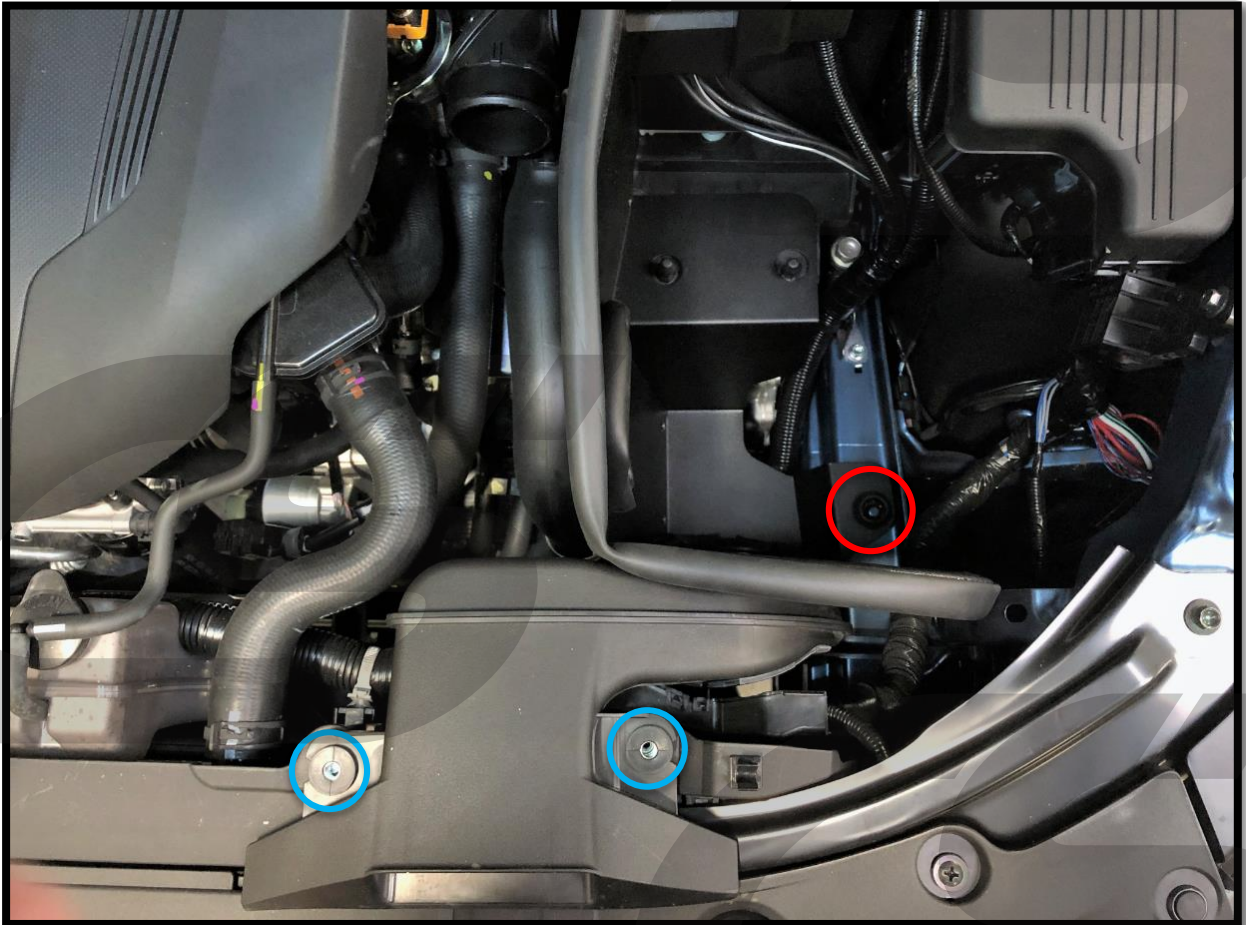
Figure 5i



## **DETAILED INSTRUCTIONS:**

### **5. CorkSport Heatshield Installation (continued)**

- j) Insert the CorkSport heatshield with OEM air duct into the engine bay. Align the rubber isolator onto the metal peg on the frame rail. Push down until the isolator is secure to hold the heatshield in position. Rubber isolator shown **circled in red** in **Figure 5J**.
- k) Secure the OEM air duct by installing the two OEM 10mm bolts removed earlier. Tighten these bolts until snug. Locations **Circled in blue** in **Figure 5J**.

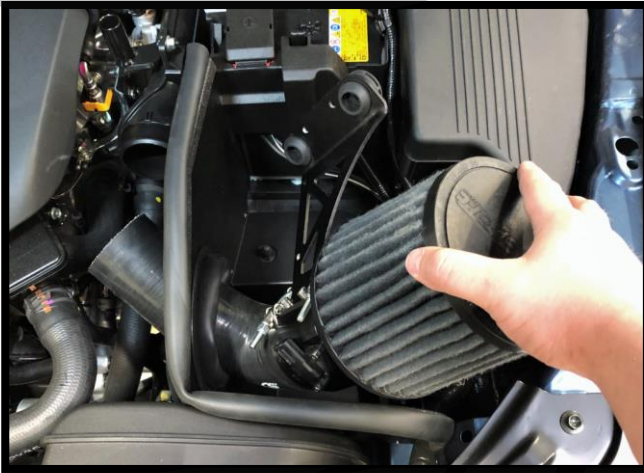


**Figure 5J**

## DETAILED INSTRUCTIONS:

### 5. CorkSport Heatshield Installation (continued)

- l) Remove the 70-78mm clamp from the end of the CS SRI and set it aside.
- m) Insert the CS SRI through the heatshield as shown in **Figure 5k**. Maneuver the SRI until it is in a position similar to **Figure 5l**.

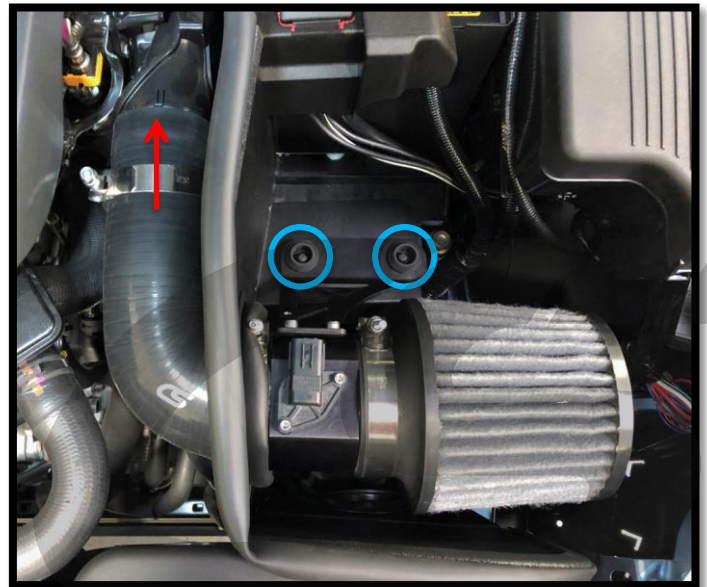


**Figure 5k**



**Figure 5l**

- n) Replace the 70-78mm clamp onto the end of the CS SRI.
- o) Push the end of the CS SRI onto the turbo inlet pipe. The **red arrow** in **Figure 5m** shows the direction the SRI silicone must be installed onto the turbo inlet pipe.
- p) Secure the two isolators of the SRI support bracket onto the two plastic studs **circled in blue** in **Figure 5m**.



**Figure 5m**

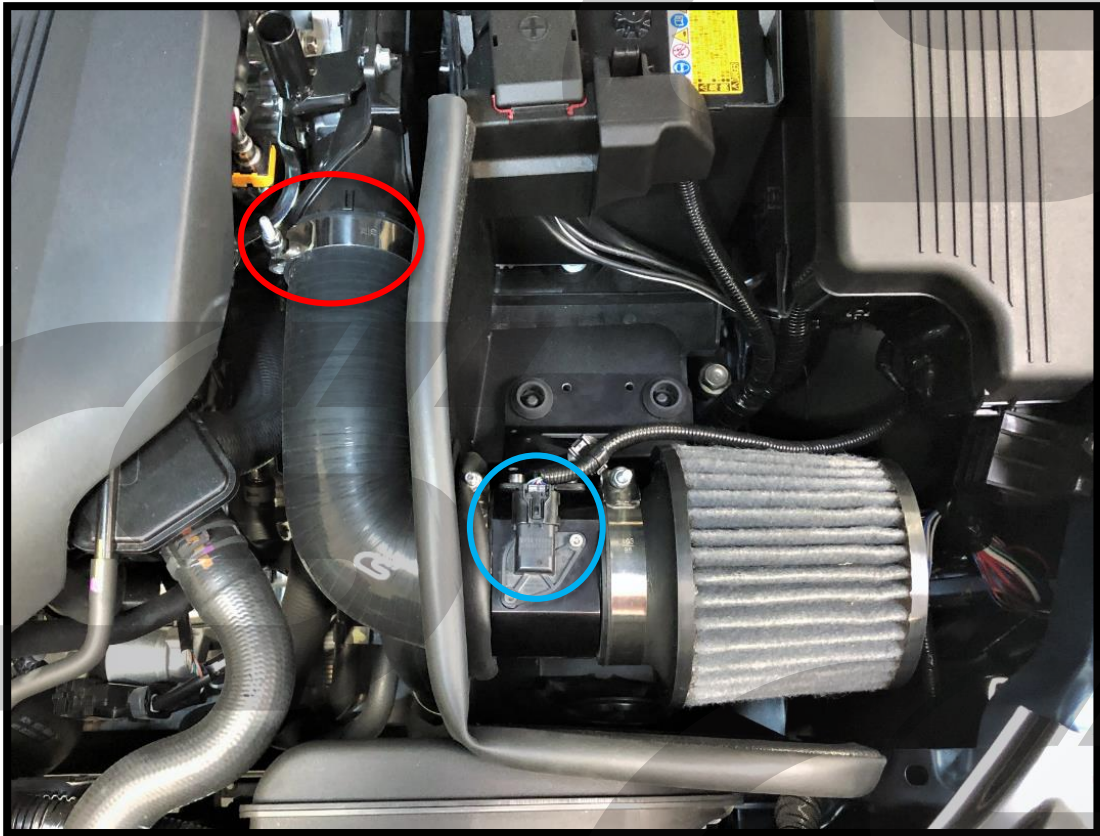
## **DETAILED INSTRUCTIONS:**

### **5. CorkSport Heatshield Installation (continued)**

- l) Reposition the 70-78mm clamp onto the turbo inlet pipe and tighten the clamp until secure. Clamp shown tight in Figure 5n with red circle.
- m) Reconnect the MAF sensor wiring to the MAF sensor. Shown plugged in in Figure 5n with blue circle.



Failure to reconnect MAF sensor wiring will result in CELs and/or a poor running vehicle.



**Figure 5n**



**This completes the installation of your CorkSport Short Ram Intake System.  
Enjoy the upgraded engine performance and sound!**



## WHAT'S NEXT?

### CorkSport Exhaust Systems

We are proud to introduce the CorkSport Exhausts for the 2.5L Turbocharged engine. With the first turbocharged Mazdas to come to the USA since 2013, Mazda did a little too well at quieting down the SkyActiv 2.5T. The CorkSport Exhaust systems use fully polished 80mm piping and pass through resonators to wake up your Mazda, adding both sound and power. Available in cat back and axle back variants for Mazda 6 and CX-9, axle back for CX-5.



### CorkSport Intercooler Kit

The CorkSport Intercooler for the 2018+ Mazda 6 2.5T, CX-5, and CX-9 improves cooling efficiency through its large 27x6x3.5" core and optimized fin design. Keep your boost temperatures low and power high even during back to back pulls in hot weather. The CS FMIC kit is a complete, direct bolt on with no cutting or drilling for proper fitment and everything you need for install. This means brackets, hardware, clamps, custom silicone elbows, and adapters to work with the OEM intercooler piping. Plus, it makes power on its own and is ready for any future CS mods as it will support 400 HP!



### CorkSport Intercooler Piping Upgrade Kit

The CorkSport Intercooler Piping Upgrade for the 2018+ Mazda 6, CX-5, and CX-9 2.5T is a perfect match for the CS FMIC Upgrade. Replace the small plastic OEM piping with smooth flowing, large diameter aluminum piping and reinforced silicone couplers. 2.25" diameter hot side piping gets the boost to your CorkSport intercooler as fast as possible, while 3" cold side piping improves throttle response and reduces boost lag. Eliminating the sharp bends and diameter reductions of the OEM piping also allows your turbo to hit its boost targets easier and more efficiently, carrying your power to redline better! Plus the kit adds a subtle visual boost to your engine bay with black textured powder coat.

