

# CorkSport Performance

## AXO-6-117 & -118 Short Ram Intake

Installation Instructions for the CorkSport Performance Short Ram Intake for the 2019+ Mazda 3 2.5L.

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## INTRODUCTION

In this installation guide we have provided step by step instructions to setup, remove the OEM intake and install the CorkSport Performance Intake.

### Advisory:

- The engine bay will be hot after recent vehicle operation. Allow the vehicle to cool or use a fan to cool the engine bay before working on the vehicle.

### TOOLS:

- [1/4" Ratchet](#) (1)
- [10mm Socket-Deep](#) (1)
- [Ratchet Extension - 6in](#) (1)
- [3mm Allen key](#) (1)
- [Small Needle Nose Pliers](#) (1)
- [Phillips Screwdriver](#) (1)

### PARTS:

- [CorkSport AXO MAF Housing](#) (1)
- [CorkSport AXO Intake Silicone](#) (1)
- [CorkSport 3" Filter](#) (1)
- [T-Bolt Clamp Kit](#) (1)

## Step 1 — Getting Started



- First and foremost; **THANK YOU** for becoming a part of the CorkSport Family. We hope to bring you the highest level of Parts, Customer Service, & Support
- ① How To Use These Instructions: The instruction format will relate colored marking in the image to the color dot in the text to the right of the image

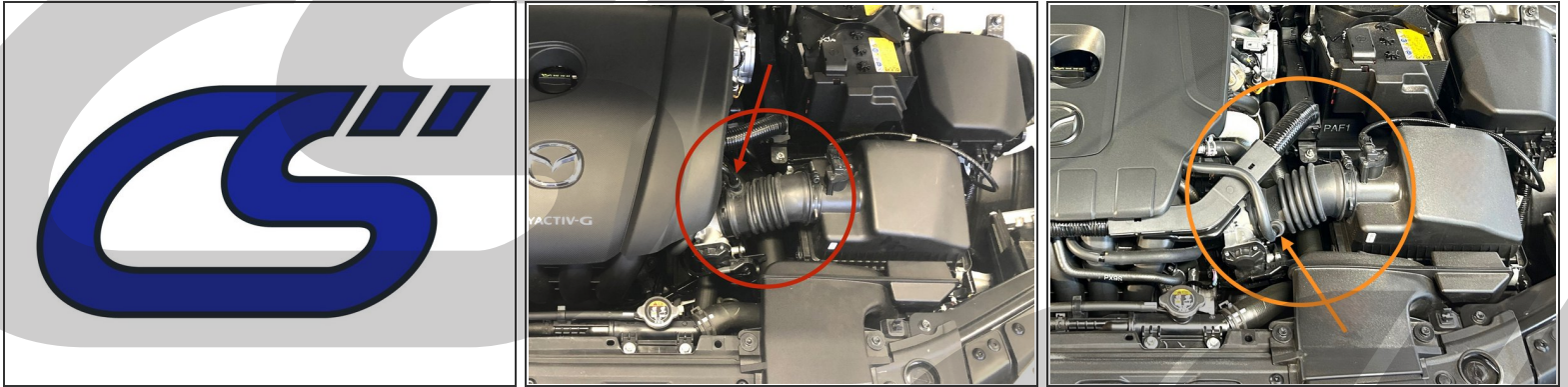
## Step 2 — SRI Operation & CEL Warning



- ⚠ Some early production models may experience a CEL (Check Engine Light) with the use of the Short Ram Intake. If you have an early 2019 model you may need to get an updated PCM (power Control Module) ECU flash from your dealership to prevent this CEL.
- The CEL activated DTC (Diagnostic Trouble Code) #: P061B

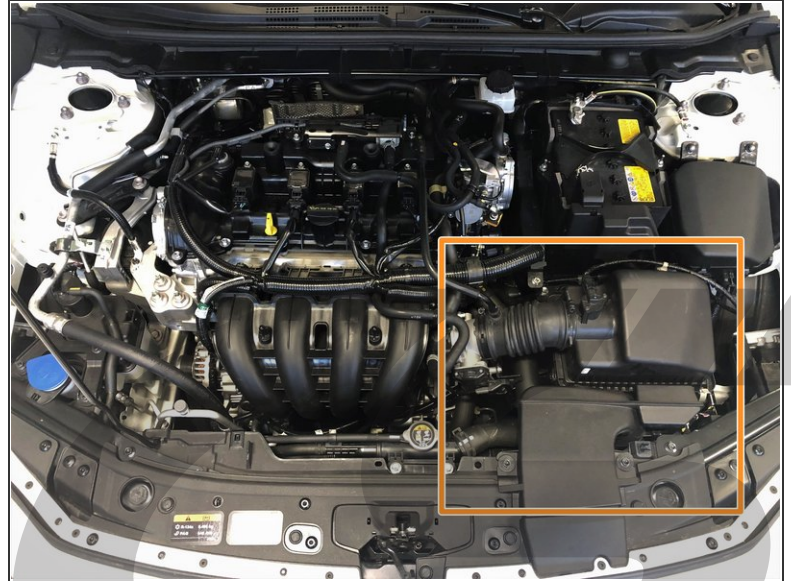
- DTC Description: [PCM] Internal control module torque calculation performance problem
- Mazda has posted a TSB (Technical Service Bulletin) for this CEL even with OEM intake systems. The TSB recommended PCM ECU flash is the flash needed for the CorkSport SRI for early 2019 models.
- Mazda TSB #: 01-015/19
- **Solution: With OEM components installed, schedule an appointment with your local dealership. Request the updated PCM ECU flash per the Mazda TSB.**

### Step 3 — Which Intake Do You Have?



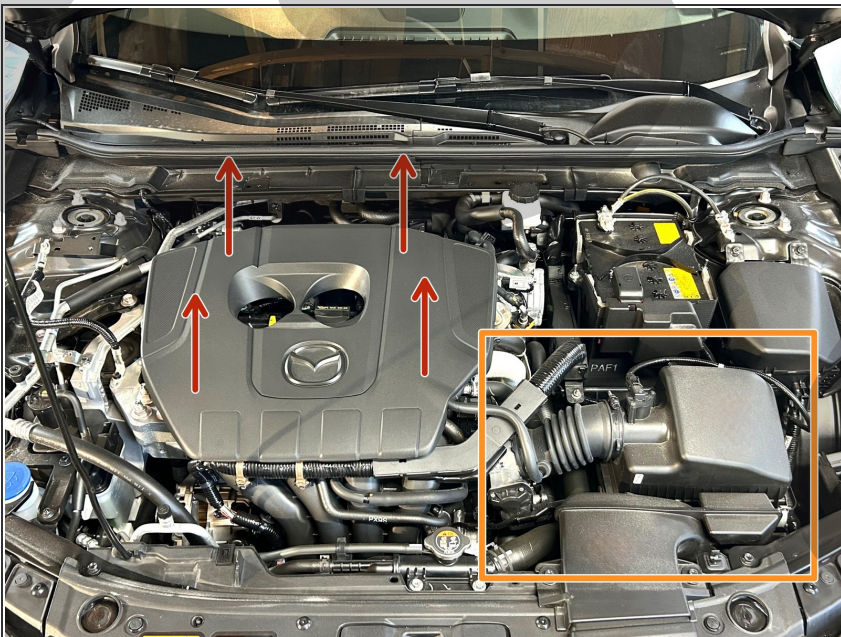
- Mazda has two different intakes for the 2023+ Mazda 3 and the pictures in this step will help you determine which one you have.
  - Option 1: The Top Port intake for 2019-2023 models and some 2023+ models. The vent port on the coupler between the airbox and the throttle body is located on the top as shown.
    - ⓘ Correct CS part number for the top port setup is AXO-6-117-XXXXX
  - Option 2: The Side Port intake for some 2023+ models. The vent port on the coupler between the airbox and the throttle body is located on the side as shown.
    - ⓘ Correct CS part number for the side port setup is AXO-6-118-XXXXX
- ⓘ Where needed, the installation instructions will be split for the two intake types due to minor differences. This will be denoted at the beginning of steps that are split
- ⚠ If your part number does not match your intake port setup, you may have purchased the incorrect intake, give us a call and we can help you out!

## Step 4 — Removing the OEM Top Port Intake Part 1



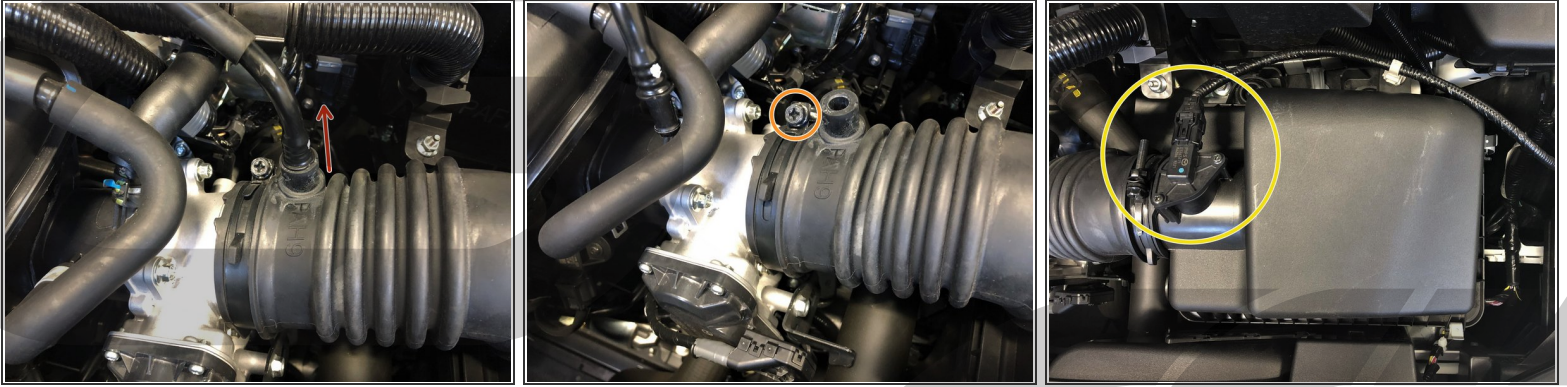
- i The steps for the Top Port intake are shown. Continue onto the next step for the Side Port intake.
- Begin by lifting up vertically on the engine cover. It will pop free from the four mounting points with little effort. Set it aside safe from damage.
- Locate the OEM intake system at the front right of the engine bay.

## Step 5 — Removing the OEM Side Port Intake Part 1



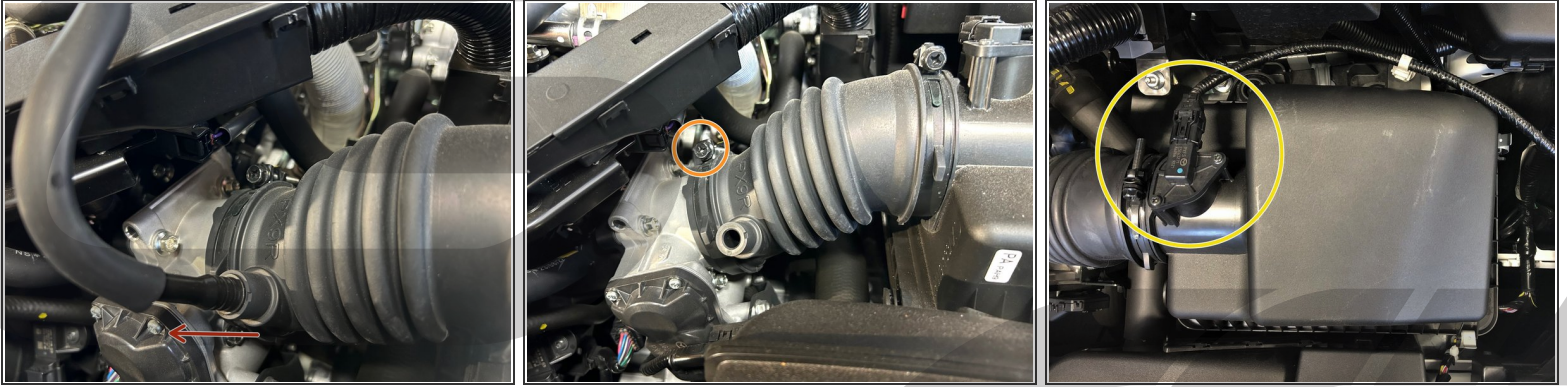
- i The steps for the Side Port intake are shown. Continue onto the next step for the Top Port intake.
- Begin by lifting up vertically on the engine cover. It will pop free from the four mounting points with little effort. Set it aside safe from damage.
- Locate the OEM intake system at the front right of the engine bay.

## Step 6 — Removing the OEM Top Port Intake Part 2



- ⓘ The steps for the Top Port intake are shown. Continue onto the next step for the Side Port intake.
- Near the throttle body, remove the valve cover breather hose by pulling it free from the OEM rubber intake tube.
  - Using a 10mm socket and ratchet, loosen the clamp that attaches the OEM rubber intake tube to the throttle body.
  - Unplug the MAF sensor by pushing down the top tab and sliding the connector rearward.

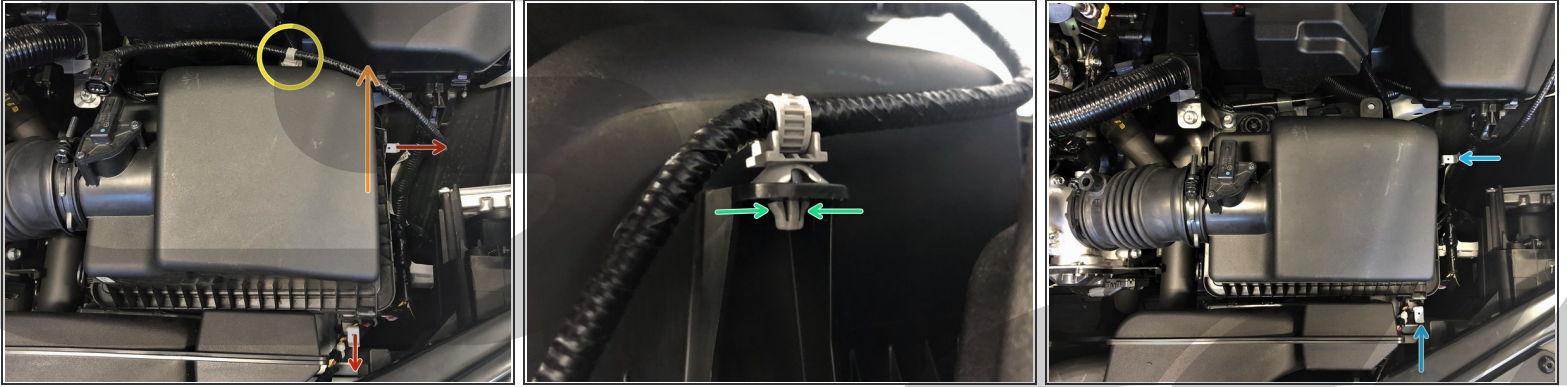
## Step 7 — Removing the OEM Side Port Intake Part 2



- ① The steps for the Side Port intake are shown. Continue onto the next step for the Top Port intake.
- Near the throttle body, remove the valve cover breather hose by pulling it free from the OEM rubber intake tube.
- Using a 10mm socket and ratchet, loosen the clamp that attaches the OEM rubber intake tube to the throttle body.
- The second image shows the tube removed and clamp loosened.
- Unplug the MAF sensor by pushing down the top tab and sliding the connector rearward.

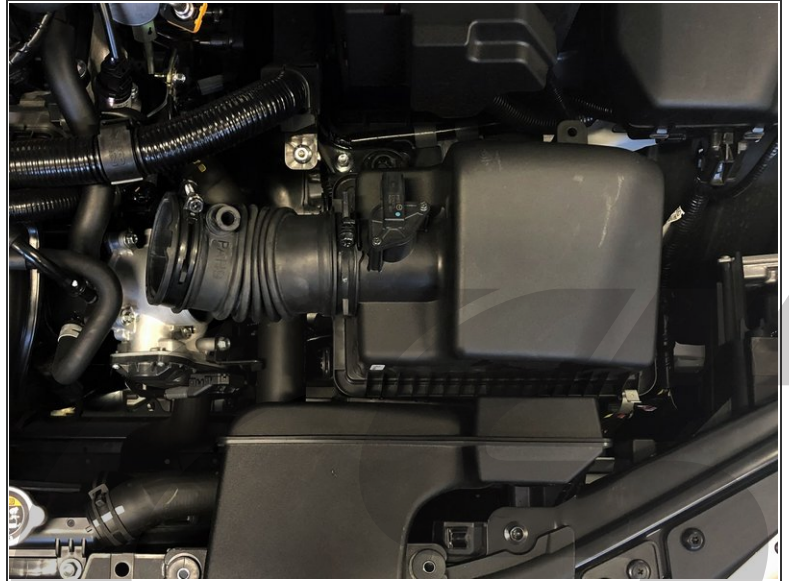
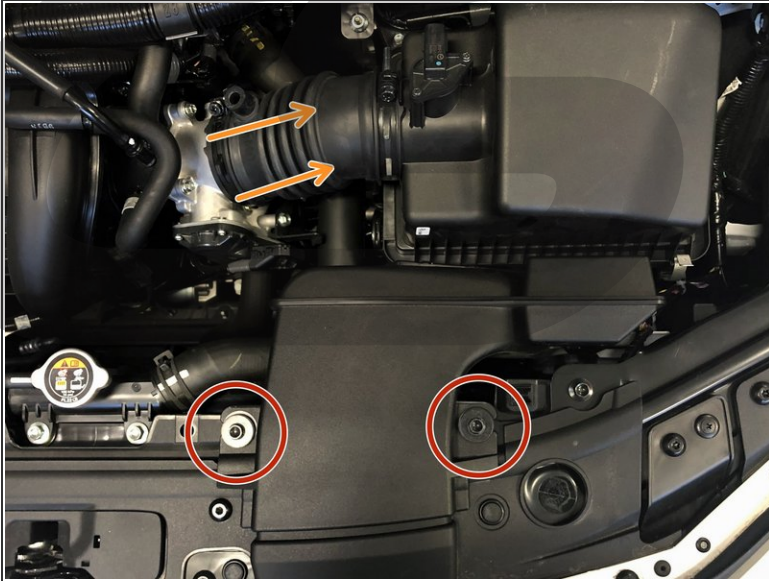


## Step 8 — Removing the OEM Intake Part 3



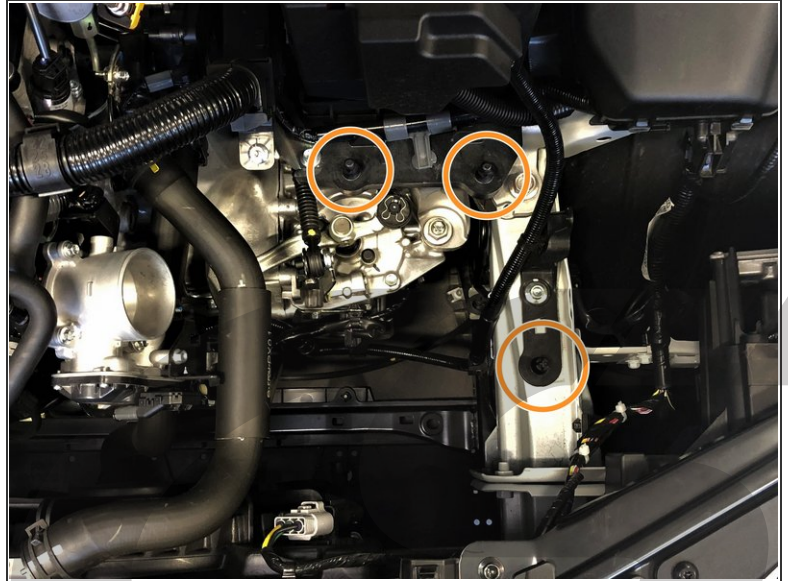
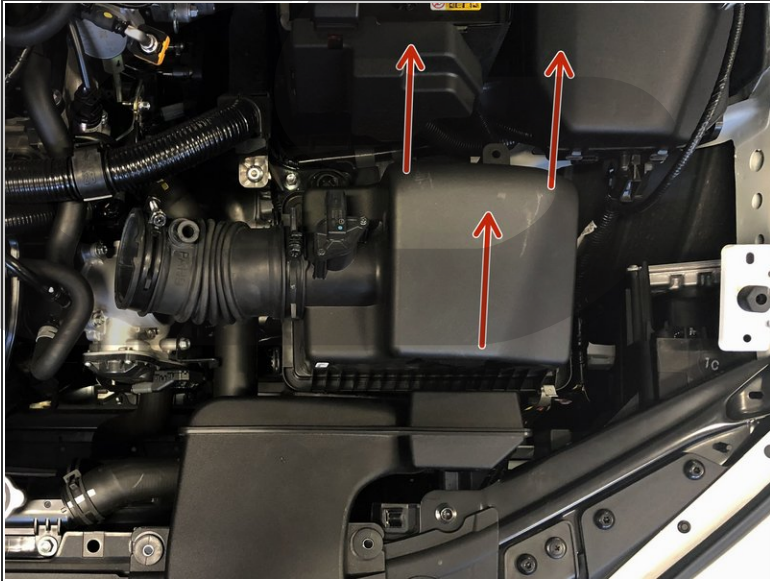
- Detach the top of the airbox from the bottom by pushing the two silver tabs in the directions shown.
- Lift up on the right side of the top of the airbox to gain easier access to the MAF wiring clip that attaches to it.
- The MAF wiring clip is circled in yellow in the first image.
- Using needle nose pliers, squeeze the bottom of the MAF wiring clip and unclip it from the airbox. Set the MAF wiring out of the way.
- We recommend resecuring the top of the airbox to the bottom for easier airbox removal. Reposition the top of the airbox, then reclip the two silver tabs to secure it.

## Step 9 — Removing the OEM Intake Part 4



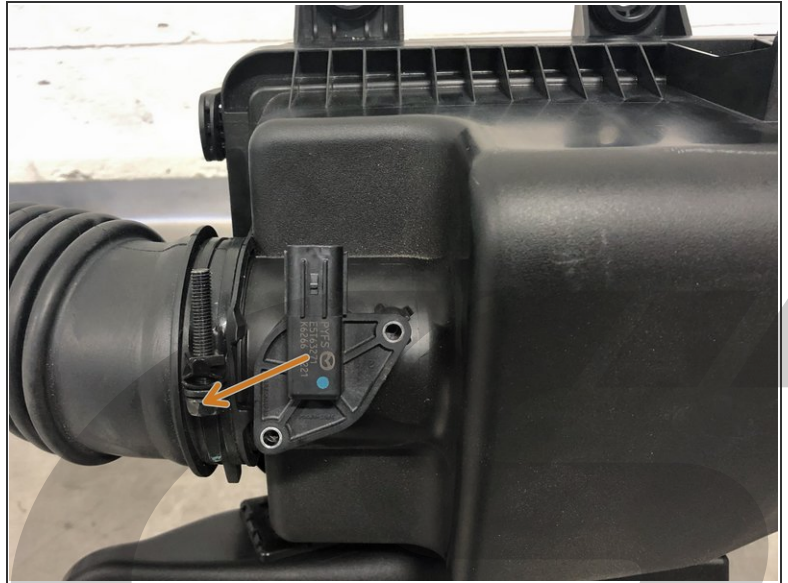
- Using a 10mm socket and ratchet, remove the two 10mm bolts that hold the front of the airbox to the chassis.
- Pull the rubber intake tube free from the throttle body. The second image shows this tube removed.
- ⓘ This tube can get stuck on the throttle body and be somewhat difficult to remove.

## Step 10 — Removing the OEM Intake Part 5



- The OEM intake is ready to be removed from the vehicle.
- Pull upwards vertically to remove the intake from the vehicle. It will pop free from the three rubber mounting grommets with little effort.
- The second image has the three mounting points circled with the airbox removed for reference.

## Step 11 — Swapping the MAF Sensor Part 1



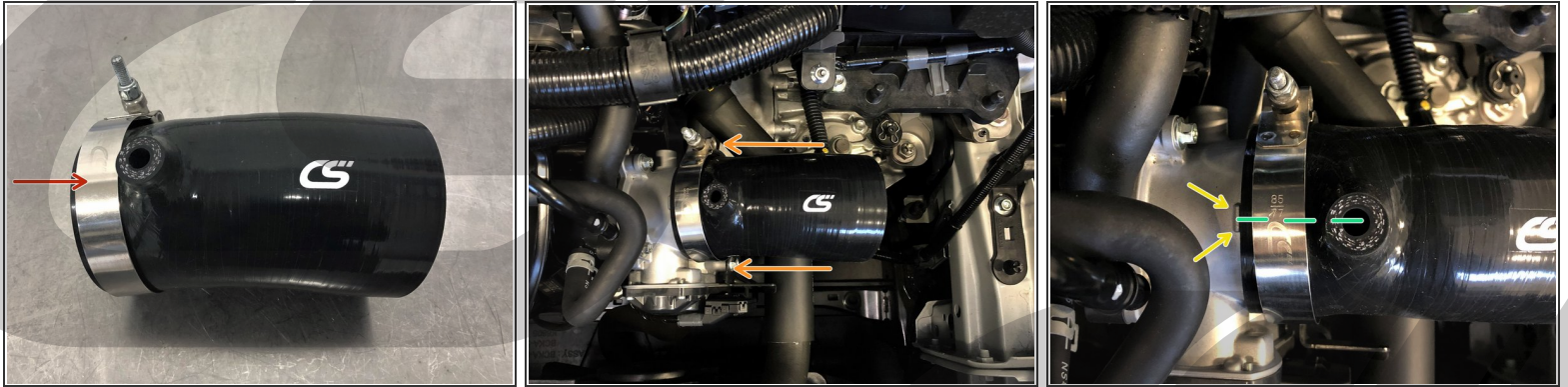
- Using a phillips head screwdriver, remove the two screws that hold the MAF sensor in the OEM intake.
- Remove the MAF sensor by gently pulling it away from the OEM intake.
- ⓘ We recommend threading the phillips head screws back into the OEM intake so you do not lose them if you ever need to reinstall the OEM intake.

## Step 12 — Swapping the MAF Sensor Part 2

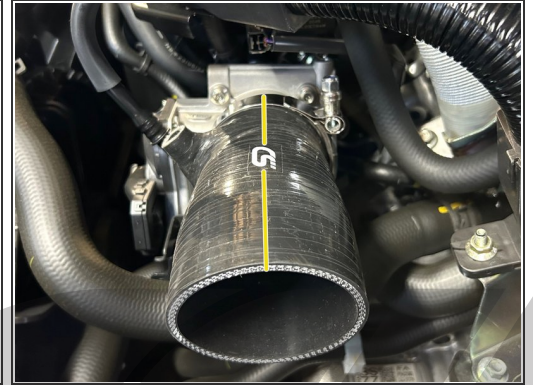
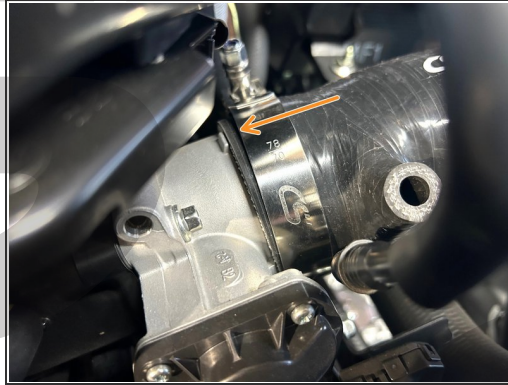


- Unscrew the allen head screws from the CorkSport MAF housing using a 3mm allen wrench.
- Carefully insert the MAF sensor into the CorkSport MAF housing. The holes of the MAF sensor will only line up with the threaded holes of the CS MAF housing in one orientation.
- ⚠ Ensure the MAF sensor O-ring is not pinched or damaged during installation.
- Secure the MAF sensor to the CS MAF housing using the allen head screws removed earlier. Tighten until snug using a 3mm allen wrench.

## Step 13 — Installing the CS AXO Top Port Intake Silicone Part 1

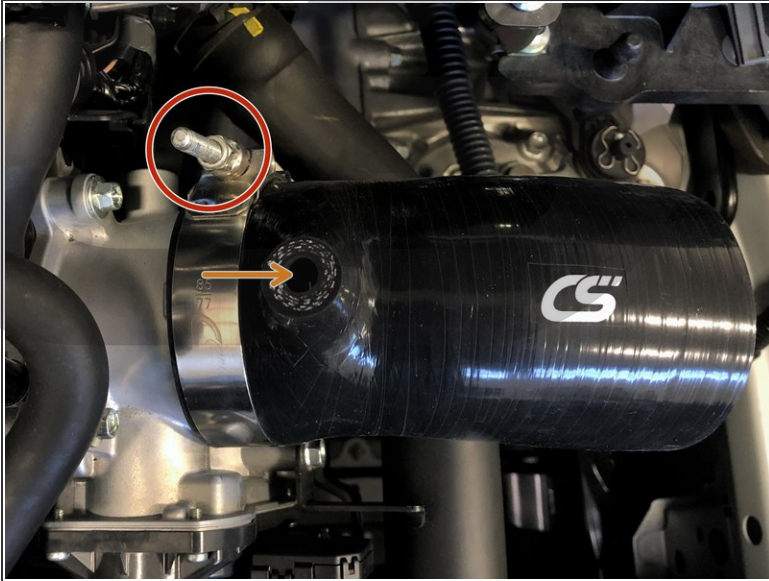


- ① The steps for the Top Port intake are shown. Continue onto the next step for the Side Port intake.
- Slide the 77-85 clamp over the smaller end of the CS intake silicone.
  - ① The clamp orientation shown is the easiest to access once on the vehicle.
- Install the smaller end of the CS intake silicone over the throttle body.
  - Ensure the silicone is flush to the "tabs" around the throttle body.
  - Rotate the silicone until the small hole lines up with the top "tab" on the throttle body.

**Step 14 — Installing the CS AXO Side Port Intake Silicone Part 1**

- ⓘ The steps for the Side Port intake are shown. Continue onto the next step for the Top Port intake.
- Slide the 70-78 clamp over the smaller end of the CS intake silicone.
  - Install the smaller end of the CS intake silicone over the throttle body.
    - ⓘ Ensure the silicone is flush to the "tab" on the throttle body.
  - Rotate the silicone until the CS logo lines up with the top "tab" on the throttle body.

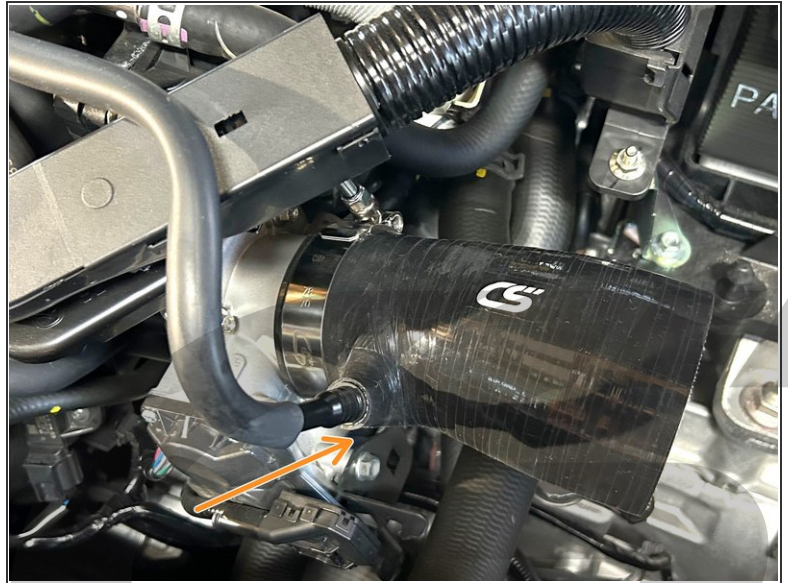
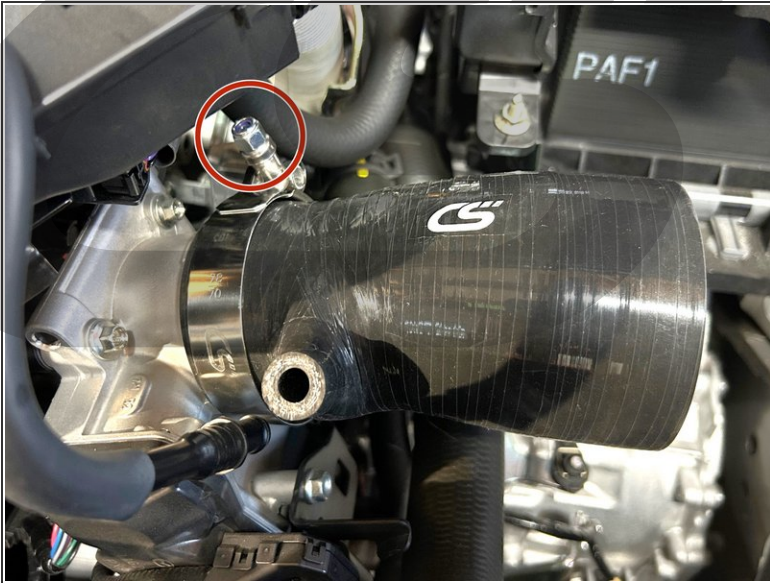
## Step 15 — Installing the CS AXO Top Port Intake Silicone Part 2



- ① The steps for the Top Port intake are shown. Continue onto the next step for the Side Port intake.
- Once happy with silicone alignment, tighten the clamp with a 10mm socket and ratchet.
  - ① Ensure the clamp is straight and even, with a small gap from the end of the silicone.
  - ① When tight, the silicone around the edges of the clamp will bulge slightly.
- Insert the valve cover breather hose into the small hole in the CS intake silicone.
  - ① If having difficulty inserting this hose, use a small amount of water or glass cleaner to provide lubrication.

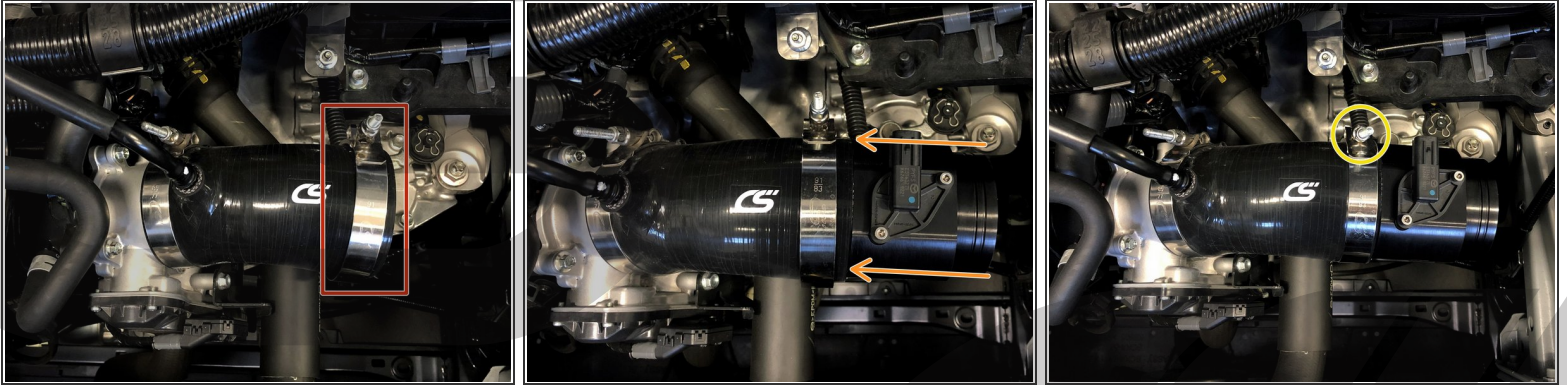


## Step 16 — Installing the CS AXO Side Port Intake Silicone Part 2



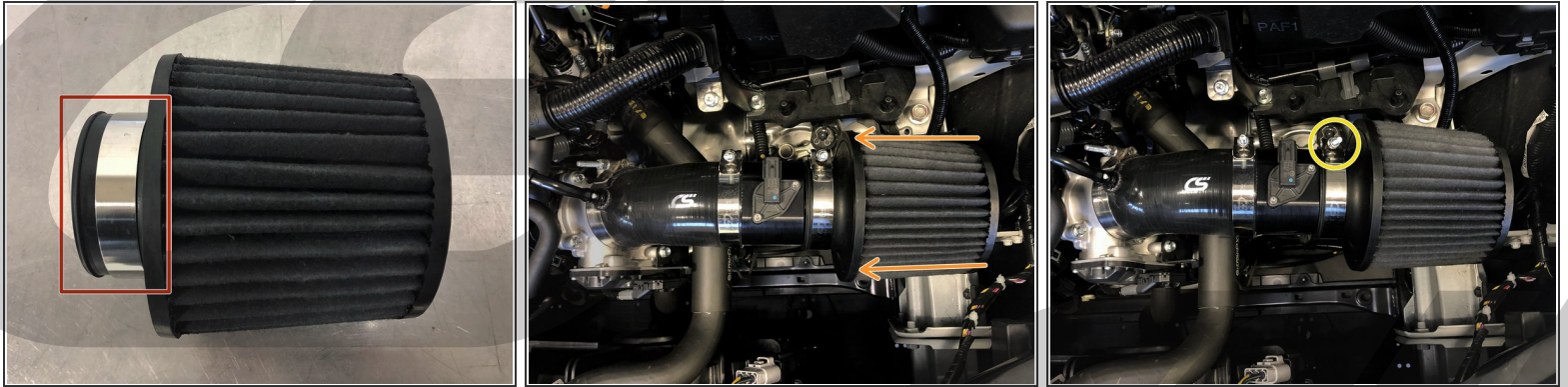
- ① The steps for the Side Port intake are shown. Continue onto the next step for the Top Port intake.
- Once happy with silicone alignment, tighten the clamp from the top with a 10mm socket and ratchet with an 6in extension.
  - ① Ensure the clamp is straight and even, with a small gap from the end of the silicone.
  - ① When tight, the silicone around the edges of the clamp will bulge slightly.
- Insert the valve cover breather hose into the port in the CS intake silicone.
  - ① If having difficulty inserting this hose, use a small amount of water or glass cleaner to provide lubrication.

## Step 17 — Installing the CS MAF Housing



- Slide one of the 83-91mm clamps over the end of the CS intake silicone.
- Install the CorkSport MAF Housing into the end of the CS intake silicone.
  - ⚠ Ensure the MAF housing is in the orientation shown, with the MAF plug pointing towards the rear of the vehicle. Incorrect orientation can result in CELs.
- Once aligned, tighten the 83-91mm clamp using a 10mm socket and ratchet.
  - ⓘ Ensure the clamp is straight and even, with a small gap from the end of the silicone.
  - ⓘ When tight, the silicone around the edges of the clamp will bulge slightly.

## Step 18 — Installing the CS Dry-Flow Filter



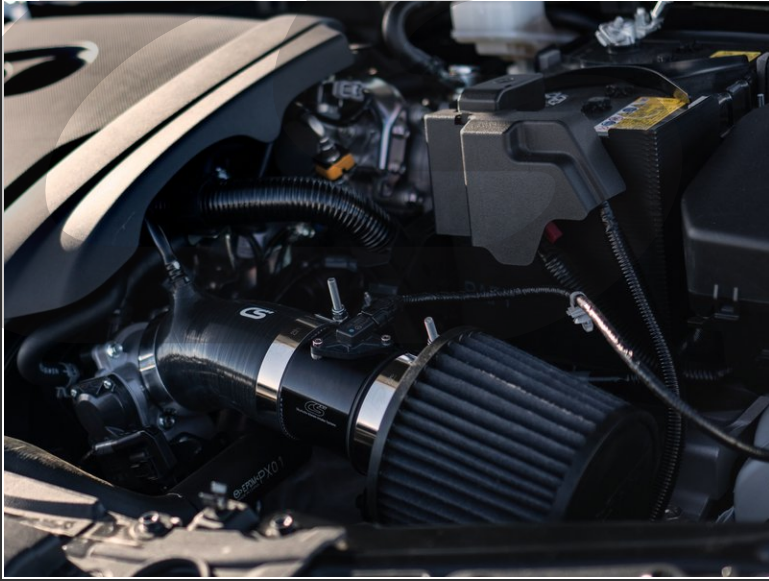
- Slide the remaining 83-91mm clamp over the end of the CorkSport Dry-Flow Filter.
- Install the filter onto the end of the MAF housing.
- Ensure the filter is fully seated on the MAF housing, then tighten the clamp with a 10mm socket and ratchet.
  - ⓘ Ensure the clamp is straight and even, with a small gap from the end of the filter.
  - ⓘ When tight, the filter around the edges of the clamp will bulge slightly.

## Step 19 — Finishing Touches



- Plug in the MAF sensor. It will click when fully plugged in.
- ⓘ Ensure the MAF wiring is out of the way and will not rub on anything or get stuck in any moving parts.
- OPTIONAL: Reinstall the two 10mm bolts removed in Step 9 for a clean look.
- Reinstall the engine cover by aligning it to the oil fill and dipstick, then pushing down gently until it pops into place.
- The third image has the engine cover mounting locations circled for reference.

## Step 20 — Installation Complete



- This completes your installation of the CorkSport Performance Short Ram Intake!
  - ① Listen for any strange noises upon first start up. If any are present, you may have a vacuum leak and need to readjust the clamps and/or silicone. Added engine noise and/or suction sounds are normal.
- Contact us with any questions or concerns at [sales@corksport.com](mailto:sales@corksport.com) or (360) 260-2675.
- Please leave a review here: <https://corksport.com/>
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter.