

CorkSport Performance

AXO-6-116/-119 Turbo Short Ram Intake & Heat Shield

Installation Instructions for the CorkSport Performance Short Ram Intake and Heat Shield for the 2021+ Mazda 3 & CX30 Turbo and 2022+ CX50 Turbo.

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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)
- 3mm Allen key (1)
- 5mm Allen Key (1)
- Small Flathead Screwdriver (1)
- Phillips Screwdriver (1)
- Blue Threadlocker (1)

PARTS:

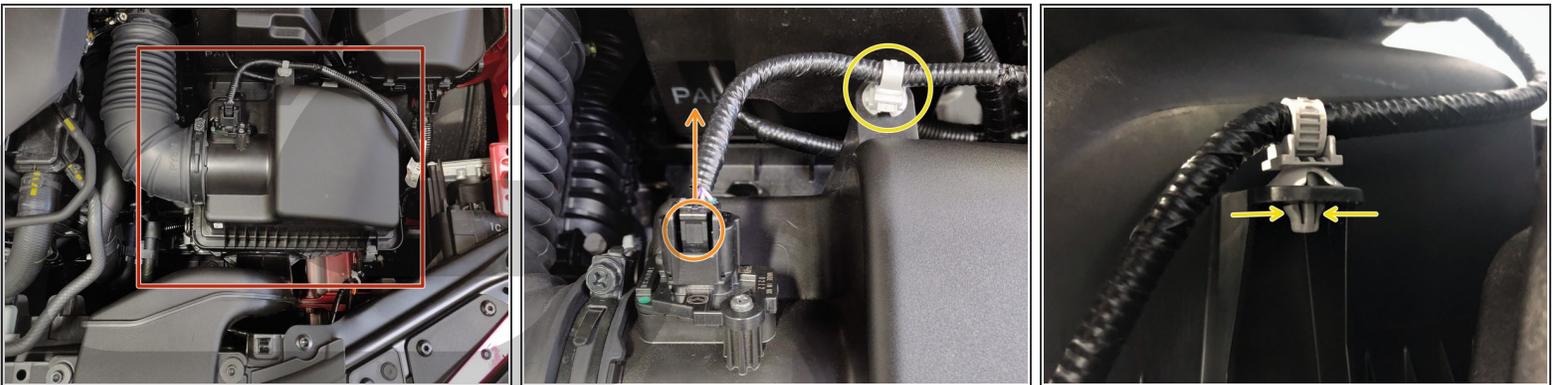
- CorkSport AXO Turbo MAF Housing (1)
- CorkSport AXO Turbo MAF Support Bracket (1)
- CorkSport AXO Turbo Silicone Intake Elbow (1)
- CorkSport 3.5" Dry-Flow Filter (1)
- CS T-Bolt Clamp - 70-78mm (1)
- CS T-Bolt Clamp - 86-94mm (1)
- CS T-Bolt Clamp - 95-103mm (1)
- M4x8mm Socket Head Cap Screw (2)
- M6x10mm Socket Head Cap Screw (2)
- Optional - CorkSport AXO Turbo Heat Shield (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
- ⓘ 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 — Removing the OEM Intake Part 1



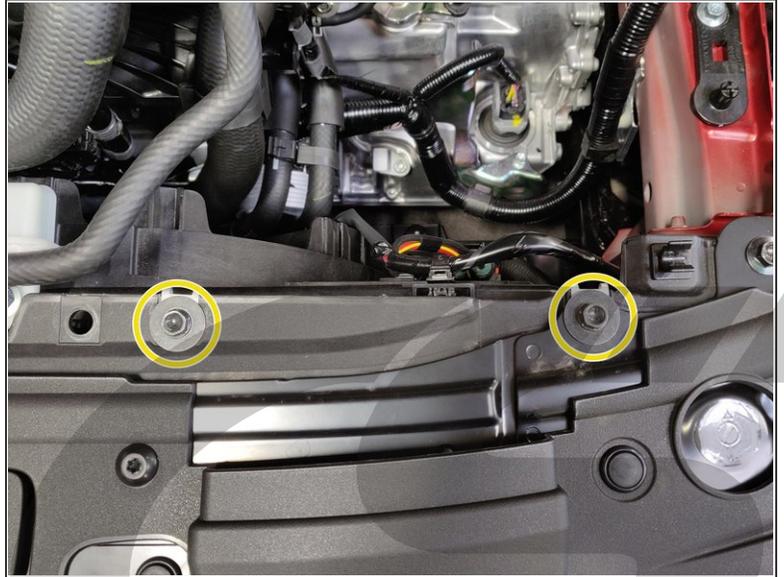
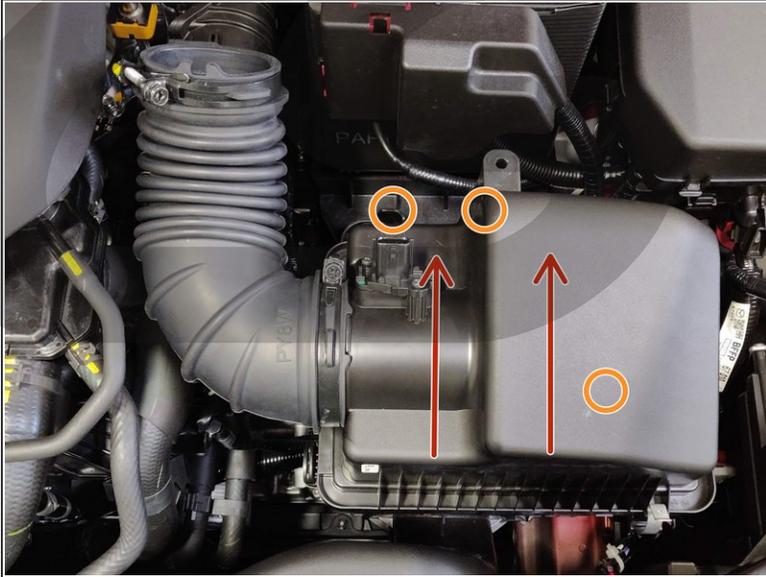
- Locate the OEM intake system in the engine bay.
- Unplug the MAF sensor by pushing down on the top tab and sliding the connector up.
- Using your fingers or a flathead screw driver, squeeze the underside of the clip to release the two locking tabs in the direction shown.
- ⓘ You may have to rotate the clip to get access to each of the locking tabs.
- ⓘ Place the wiring out of the way for later

Step 3 — Removing the OEM Intake Part 2



- Using a 10mm socket and ratchet, loosen the clamp that attaches the OEM rubber intake tube to the turbo inlet pipe.
- Pull the intake tube off of the turbo inlet pipe by grabbing where the clamp is located at and pulling to the front of the car.
- ⓘ Let the intake tube rest on top of the turbo inlet pipe.
- Use the 10mm socket and ratchet again to remove the two bolts that secure the front of the intake.

Step 4 — Removing the OEM Intake Part 3



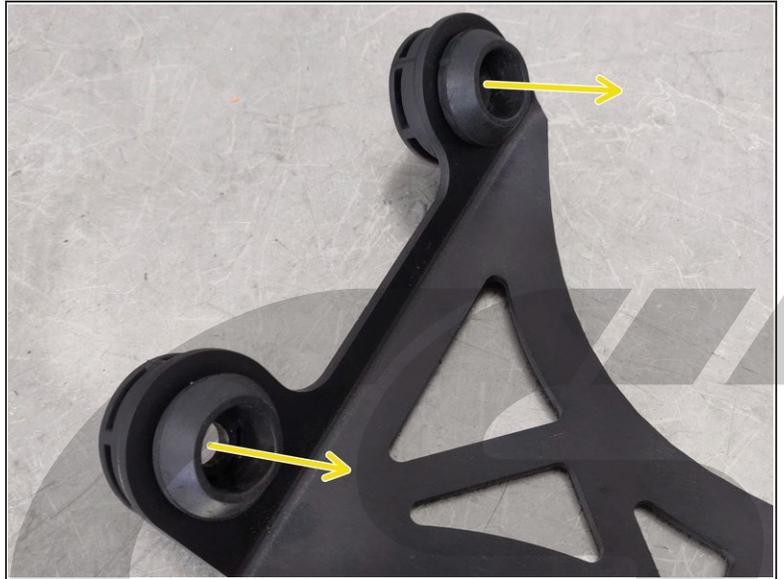
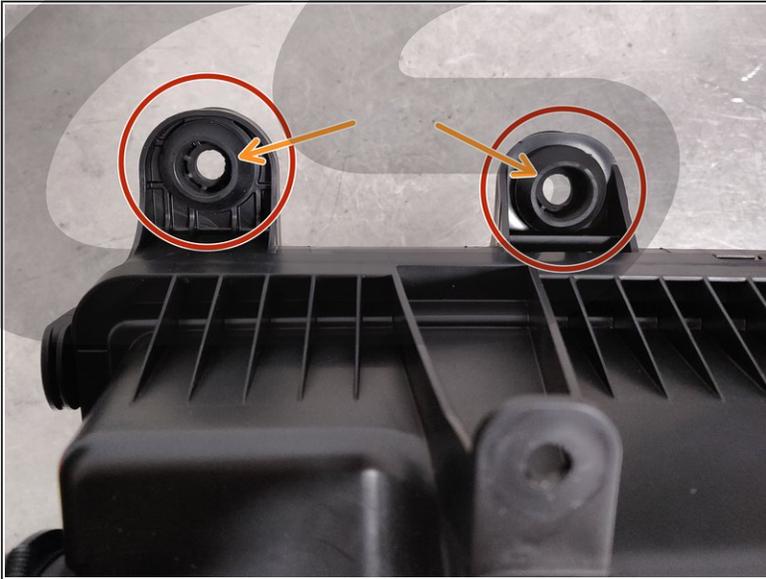
- Pull vertically upwards to remove the OEM intake.
- There are three rubber isolators that will release when lifting upwards and their locations are circled for reference.
- **Optional:** Reinstall the two 10mm bolts that were previously removed from the front air duct for a cleaner look if you are installing the CS SRI only. Leave them out for later if installing the CS Heat Shield.

Step 5 — MAF Sensor Transfer



- Using the Phillips screwdriver remove the two screws holding the MAF sensor to the OEM intake. Carefully pull upwards to remove the MAF 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.
- Unscrew the Socket Head Cap Screws from the CorkSport MAF housing using a 3mm Allen Key.
- Carefully install the MAF sensor into the CorkSport MAF housing and tighten until both screws are snug.
- ⚠ Ensure the MAF sensor O-ring is not pinched or damaged during installation.
- ⓘ The MAF sensor can only be installed in one orientation.

Step 6 — MAF Support Bracket Install Part 1



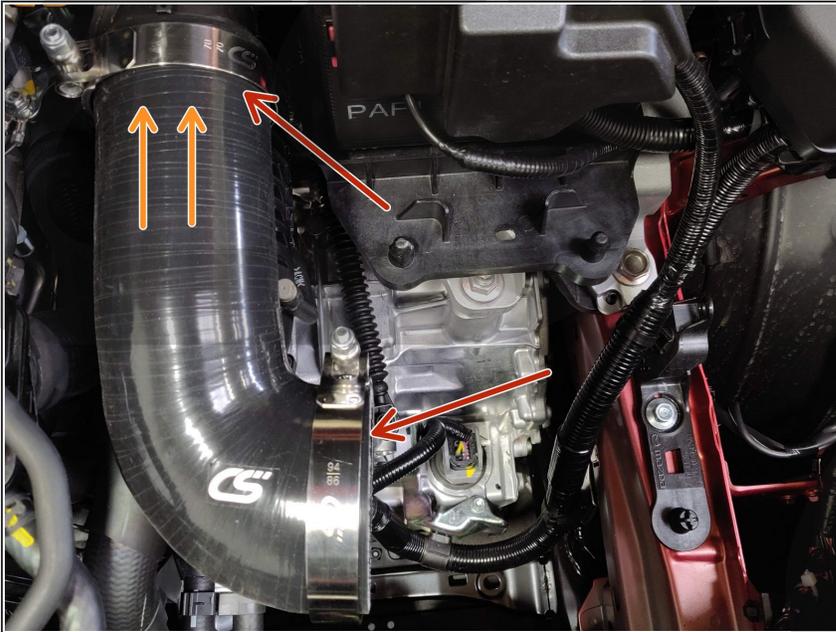
- Looking at the OEM intake, locate the two rubber isolators that are on the back.
- Remove the two isolators by pushing on the top side of the isolator.
- Install the two rubber isolators into the CorkSport MAF support bracket by laying the bracket flat and pushing the angled side of the isolators through the holes in the bracket.
- ⓘ Make sure the rubber isolators are orientated as shown in the picture.

Step 7 — MAF Support Bracket Install Part 2



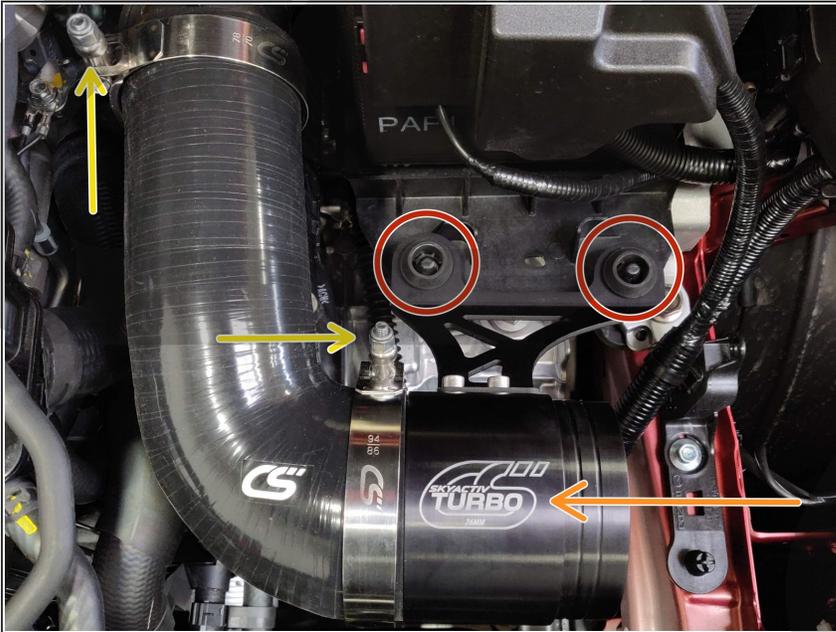
- Apply blue threadlocker to the two supplied M6x10mm Socket Head Cap Screws.
 - ⚠ Failure to use threadlocker could result in the bolts vibrating loose or an air leak in the MAF housing.
- Using the two screws, secure the MAF housing to the MAF support bracket and slide the MAF all the way to the right as shown.
 - ⓘ Make sure the orientation of the bracket is the same as shown.
- Tighten both screws until snug using a 5mm Allen Key.

Step 8 — Installing the CS AXO Turbo Intake Silicone



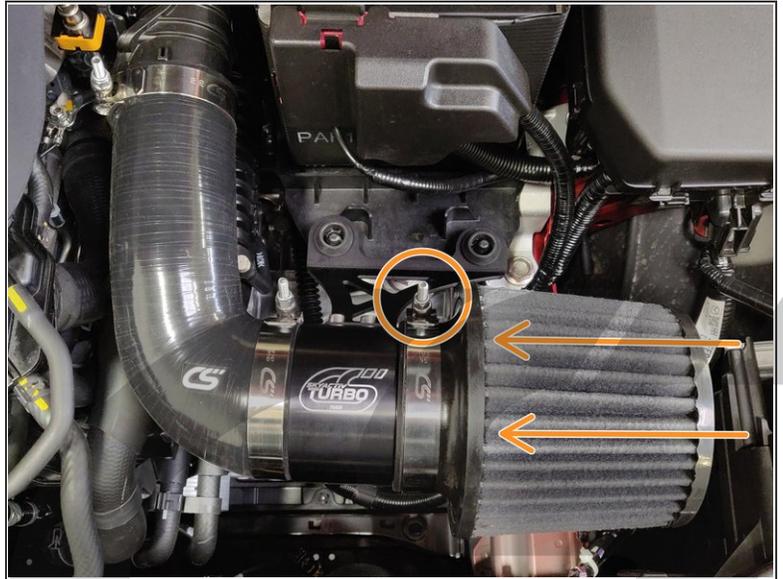
- Place the 70-78mm T-bolt clamp on the smaller end of the CS elbow. Do the same for the 86-94mm T-bolt clamp to the larger end of the elbow making sure the clamps are orientated in the same way as shown.
- ⓘ The clamp orientation shown is the easiest to access once on the vehicle.
- Install the smaller end of the CS intake silicone over the turbo inlet pipe.
- ⓘ Ensure the silicone is flush to the "tabs" around the throttle body.

Step 9 — Installing the CS AXO Turbo MAF Assembly



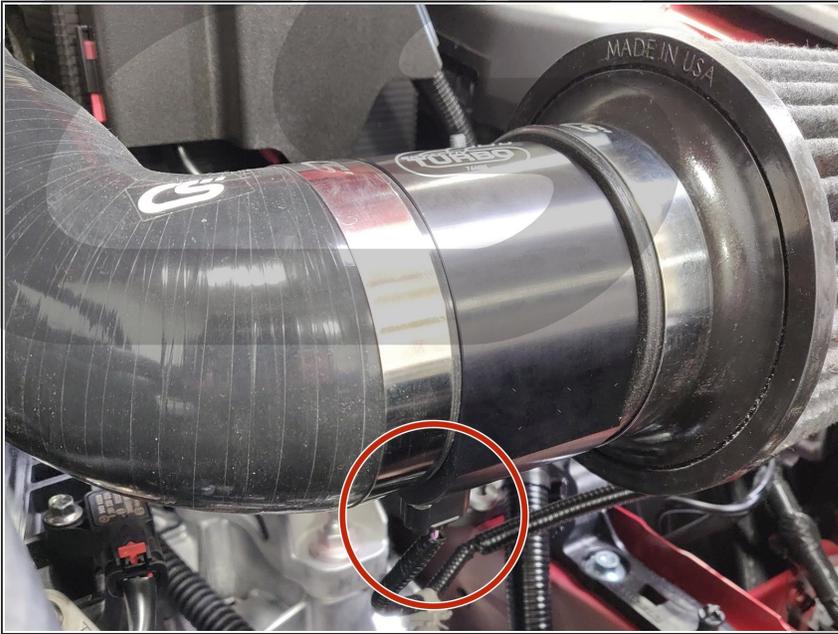
- Press the rubber isolators that are installed on the CorkSport MAF support bracket over the two circled pegs.
 - Insert the MAF housing into the larger end of the CorkSport elbow.
 - Once happy with silicone alignment, tighten the clamps with a 10mm socket and ratchet.
- ⓘ Ensure the clamps are straight and even, with a small gap from the end of the silicone.
- ⓘ When tight, the silicone around the edges of the clamps will bulge slightly.

Step 10 — Installing the CS 3.5" Dry-Flow Filter



- Slide the 95-103mm T-bolt clamp over the end of the CorkSport 3.5" Dry-Flow Filter and make sure orientation matches as shown.
- Install the CorkSport 3.5" Dry-Flow Filter onto the end of the MAF housing and 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 silicone.
- ⓘ When tight, the silicone around the edges of the clamp will bulge slightly.

Step 11 — Reconnecting the MAF Sensor Wiring



- ⓘ If you are installing the CS Heat Shield then you can skip to **Step 12**.
- Locate the MAF sensor wiring and plug it back into the MAF on the underside of the MAF housing.
- ⓘ Ensure the MAF wiring is out of the way and will not rub on anything or get stuck in any moving parts.
- ⚠ Failure to reconnect the MAF sensor wiring will result in CELs and/or poor vehicle performance.
- ⓘ This completes your installation of the CorkSport Performance Short Ram Intake!

Step 12 — Installing the CorkSport SRI Heat Shield



- i** The installation of the CorkSport Heat Shield requires you to backtrack a few steps. This is intentional as it allows the CS SRI silicone and MAF housing to be properly aligned beforehand.
- Start by using a 10mm socket to loosen the 70-78mm clamp that connects to the turbo inlet pipe.
 - Now slide the silicone off of the turbo inlet pipe by pulling towards the front of the car.
 - Remove the SRI assembly by lifting up on the MAF housing bracket to remove the rubber isolators from the two pegs and set aside for later.

Step 13 — Removing the OEM Air Duct



- Now locate the OEM intake that was removed earlier and find the tab that is circled on the side of the air duct.
- Using a flat head screw driver pry up on the plastic tab while twisting the air duct counter-clock wise to release it from the groove.
- After the tab has been rotated out of the groove a little ways, turn the air duct to the same orientation shown and pull towards you to remove it.

Step 14 — Remove and Install Rubber Isolator and Air Duct



- Remove the rubber isolator from the OEM intake that is circled by pushing on the top side of the isolator and pulling on the bottom.
- Install the rubber isolator into the CorkSport Heat Shield by pushing the angled side of the isolator through the bottom of the hole shown.
- ⓘ Make sure the rubber isolator is orientated as shown in the picture.
- Insert the OEM air duct into the lower hole in the CS Heat Shield as shown

Step 15 — Install the CorkSport Heat Shield



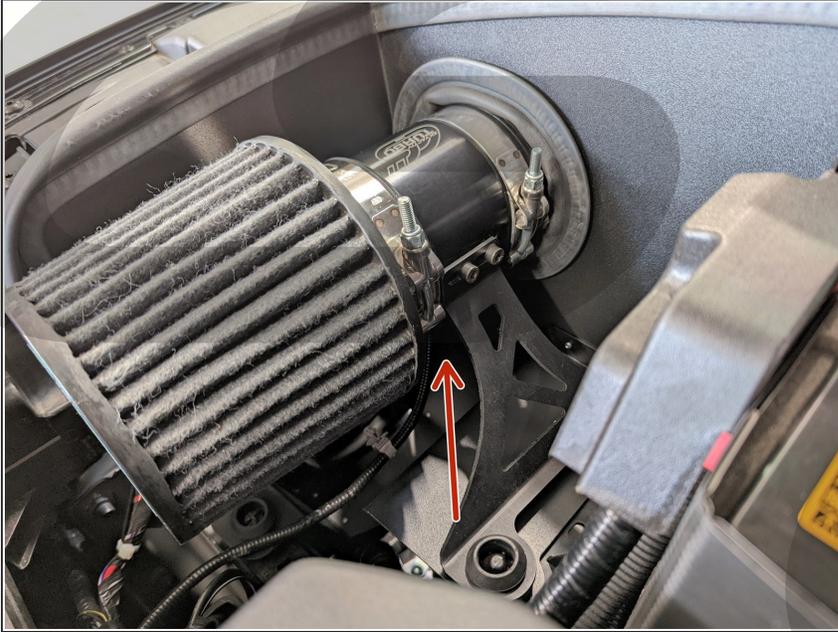
- Make sure the two 10mm bolts that hold the air duct are removed from the two locations circled.
- Place the CS Heat Shield with the OEM air duct into the engine bay and line up the three holes circled with the pegs. Push down on the rubber isolator once it is centered on the peg until it is fully seated.
- Reinstall the two 10mm bolts into the air duct and tighten until they are snug.

Step 16 — Reinstall the CorkSport SRI



- Remove the 70-78mm clamp from the end of the CS SRI and set it aside.
- Place the end of the silicone through the hole in the heat shield.
- Maneuver the SRI until it is in the position shown and place the two rubber isolators over the pegs and press down until they are fully installed.
- Place the 70-78mm clamp back over the end of the silicone.
- Install the end of the silicone over the turbo inlet pipe.
 - ⓘ Ensure the silicone is flush to the "tabs" around the throttle body.
- Once the silicone is installed, tighten the clamp with a 10mm socket and ratchet.
 - ⓘ When tight, the silicone around the edges of the clamps will bulge slightly.

Step 17 — Reconnecting the MAF Sensor Wiring



- Locate the MAF sensor wiring and plug it back into the MAF on the underside of the MAF housing.
- ⓘ Ensure the MAF wiring is out of the way and will not rub on anything or get stuck in any moving parts.
- ⚠ Failure to reconnect the MAF sensor wiring will result in CELs and/or poor vehicle performance.

Step 18 — Installation Complete



- This completes your installation of the CorkSport Performance Short Ram Intake and Heat Shield!
- ⓘ 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 or (360) 260-2675.
- Please leave a review here: <https://corksport.com>
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter.