

CorkSport Performance

AXO-6-120 CS SRI Air Box

Installation instructions for the CS SRI Airbox for 2.5L Naturally Aspirated 2019+ Mazda3, CX30 & CX50

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INTRODUCTION

Installation instructions for the CS SRI Airbox for 2.5L Naturally Aspirated 2019+ Mazda3, CX30 & CX50



TOOLS:

- [CS Short Ram Intake Kit](#) (1)
- [OEM Fresh Air Duct](#) (1)
- [OEM Air Box Rubber Mounts](#) (3)
- [10mm Socket - Deep](#) (1)
- [Ratchet Wrench](#) (1)
- [Razor Knife](#) (1)
- [Loctite, Purple](#) (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
- ① SRI = Short Ram Intake
- ① For Lid Cover bolt replacement if needed: Thread size = **M5x0.8x12mm**

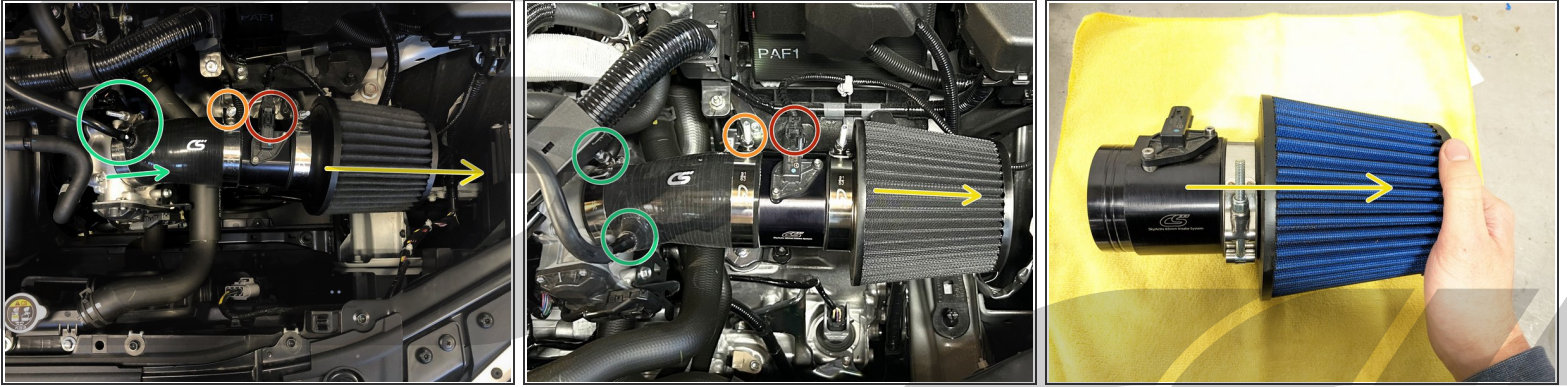
Step 2 — Required Parts



⚠ The OEM Rubber mounts and Snorkel from the Stock Air Box are required for installation. If you already have a CorkSport SRI and do not have these parts, please contact your local Mazda Dealer and purchase:

- **One(1) Snorkel** (AKA "Fresh Air Duct")
 - **Mazda3 Part#:** PAH9-13-200A
 - **Mazda CX30 Part#:** PAJ8-13-200A
 - **Mazda CX50 Part#:** PX9X-13-200A
- **Three(3) Rubber Mounts**
 - **Mazda3/CX30 Part#:** PE01-13-363
 - **Mazda CX50 Part#:** PX9X-13-363

Step 3 — Remove CS SRI



- If your vehicle's Intake System is Factory Stock, please continue to the next step of this guide
- If you already have a CorkSport Short Ram Intake installed on your vehicle, continue to the steps below where removal of both variations are shown
 - Disconnect the MAF Sensor connector and place out of the way
 - ⓘ Between the Fuse Box and fender is recommended
 - Loosen the Clamp connecting the MAF Housing to the Silicone Coupler with a 10mm Socket and Ratchet
 - Remove the MAF Housing and Filter from the vehicle as one assembly
 - Remove the Valve Cover breather hose and loosen the clamp connecting the silicone coupler to the throttle body, then remove from the vehicle
- Skip to Step 14

Step 4 — SRI Operation & CEL Warning



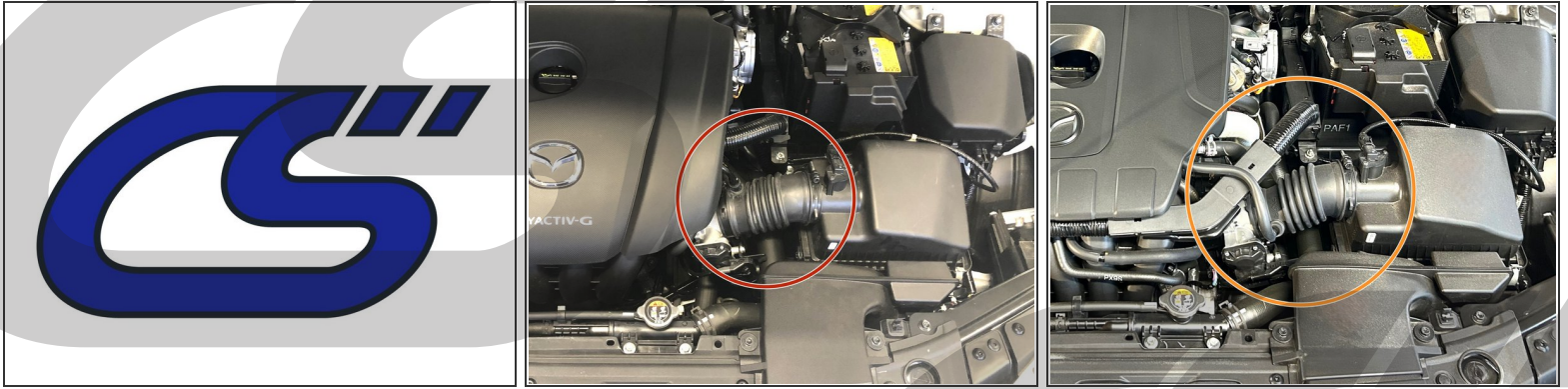
⚠ Some early production models may experience a CEL (Check Engine Light) with the use of the Short Ram Intake. If you have an early 2019 model you may need to get an updated PCM (power Control Module) ECU flash from your dealership to prevent this CEL.

- 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.

① Mazda TSB #: 01-015/19

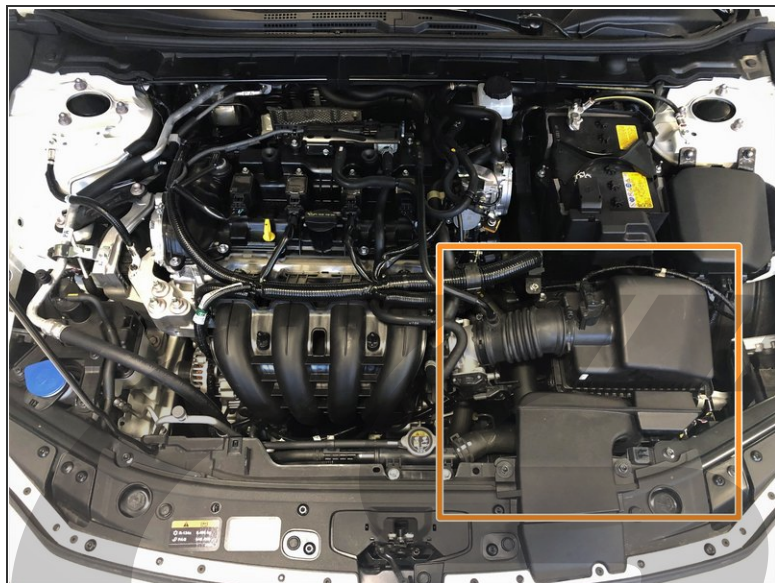
- ① **With OEM components installed, schedule an appointment with your local dealership. Request the updated PCM ECU flash per the Mazda TSB.**

Step 5 — OEM Mazda Intake Differences



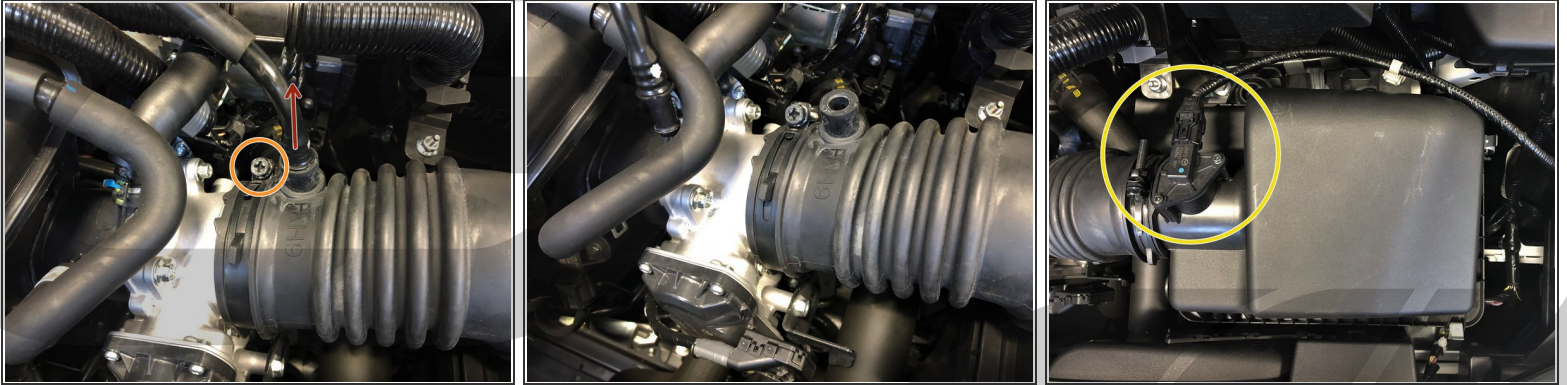
- Mazda has two different intakes for the 2019+ Mazda 3 and the pictures below show the differences.
 - Option 1: The Top Port intake for 2019-2023 models and some 2023+ models. The vent port on the coupler between the airbox and the throttle body is located on the top as shown.
 - ⓘ Correct CS part 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**
- ⓘ Installation of the CS Air Box is very similar for both of these OEM intakes. Only the Top Port intake will be shown in the instructions except for where the installation of the Side Port intake differs.
- ⚠ 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 6 — Removing the OEM Intake - Part 1



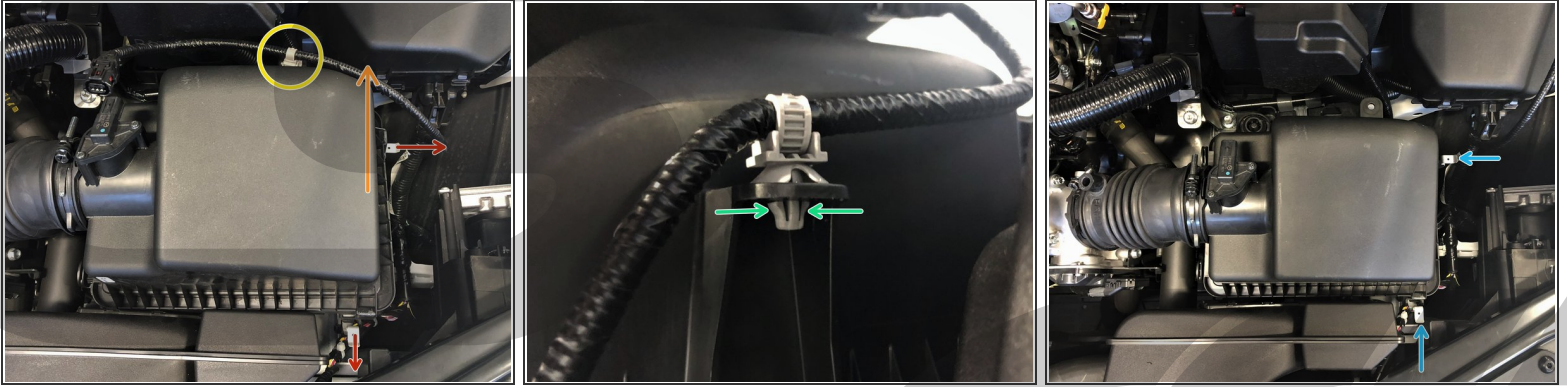
- Begin by lifting up vertically on the engine cover. It will pop free from the four mounting points with little effort. Set it aside safe from damage.
- Locate the OEM intake system at the front-right of the engine bay.

Step 7 — Removing the OEM Intake - Part 2



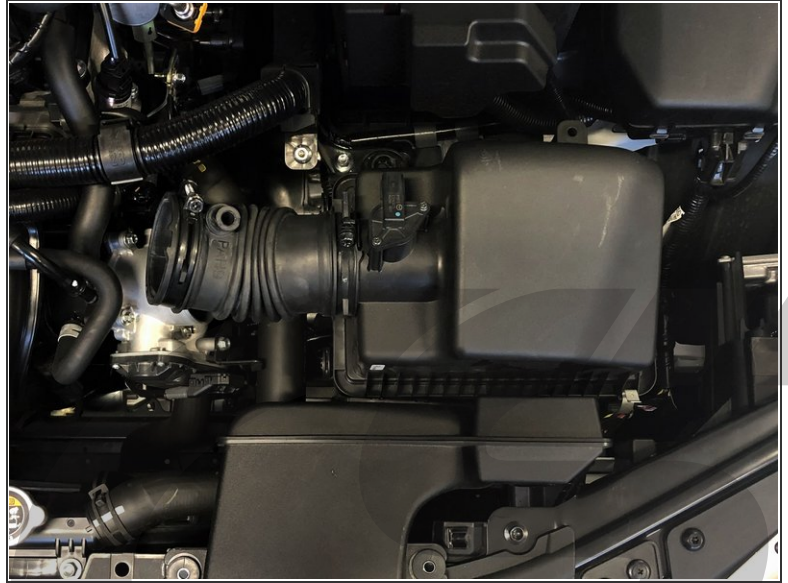
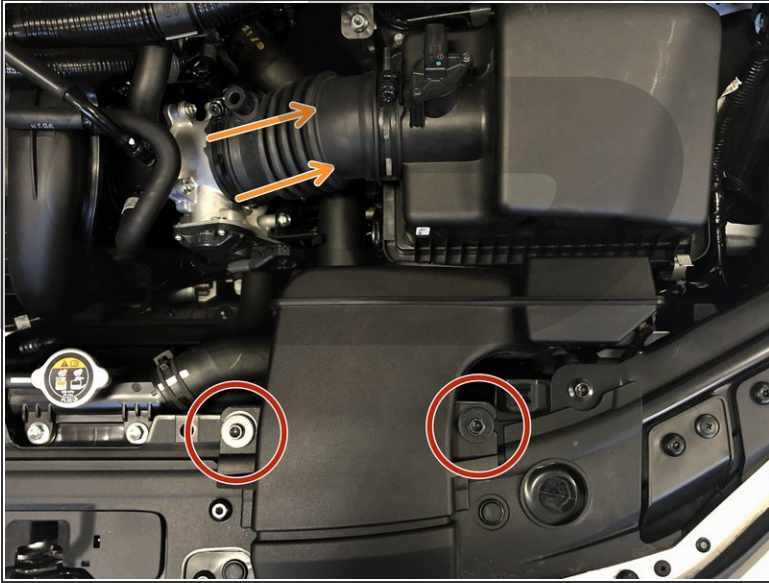
- Near the throttle body, remove the valve cover breather hose by pulling it free from the OEM rubber intake tube.
- Using a 10mm socket and ratchet, loosen the clamp that attaches the OEM rubber intake tube to the throttle body.
- ⓘ The second image shows the tube removed and clamp loosened.
- Unplug the MAF sensor by pushing down the top tab and sliding the connector rearward.

Step 8 — Removing the OEM Intake - Part 3



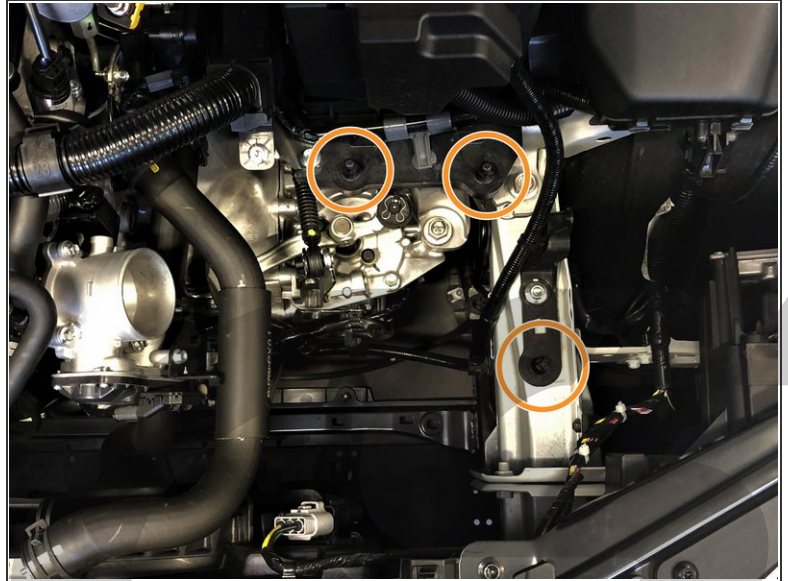
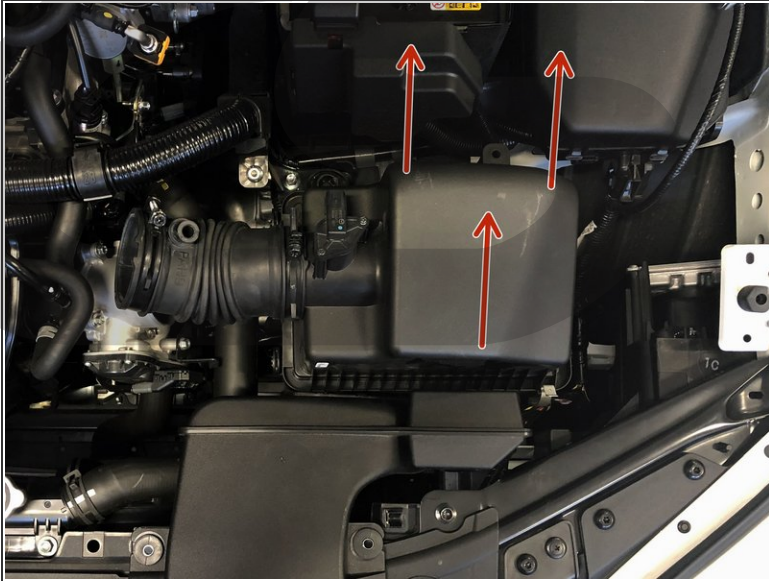
- Detach the top of the airbox from the bottom by pushing the two silver tabs in the directions shown.
- Lift up on the right side of the top of the airbox to gain easier access to the MAF wiring clip that attaches to it.
- The MAF wiring clip is circled in yellow in the first image.
- Using needle nose 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



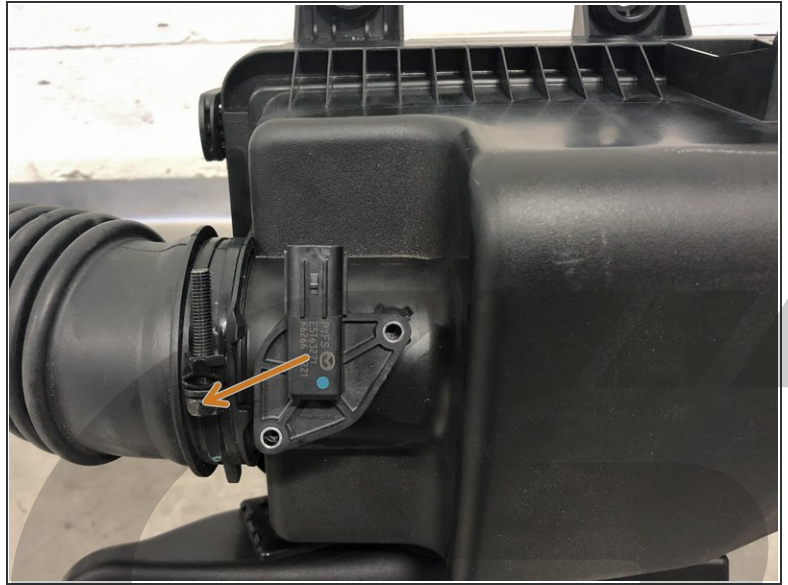
- Using a 10mm socket and ratchet, remove the two 10mm bolts that hold the front of the airbox to the chassis.
- Pull the rubber intake tube free from the throttle body. The second image shows this tube removed.
 - ① This tube can get stuck on the throttle body and be somewhat difficult to remove.

Step 10 — Removing the OEM Intake - Part 5



- The OEM intake is now 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.
- ① 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



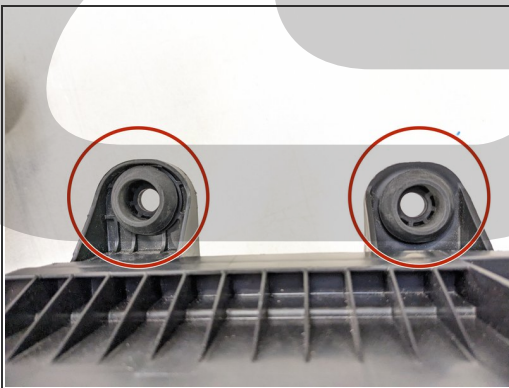
- Unscrew the allen head screws from the CorkSport MAF housing using a 3mm allen wrench.
- Carefully insert the MAF sensor into the CorkSport MAF housing. The holes of the MAF sensor will only line up with the threaded holes of the CS MAF housing in one orientation.
- ⚠ Ensure the MAF sensor O-ring is 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 — Install the Air Filter onto the MAF Housing



- Slide the 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 14 — Preparing the CS SRI Airbox - Part 1



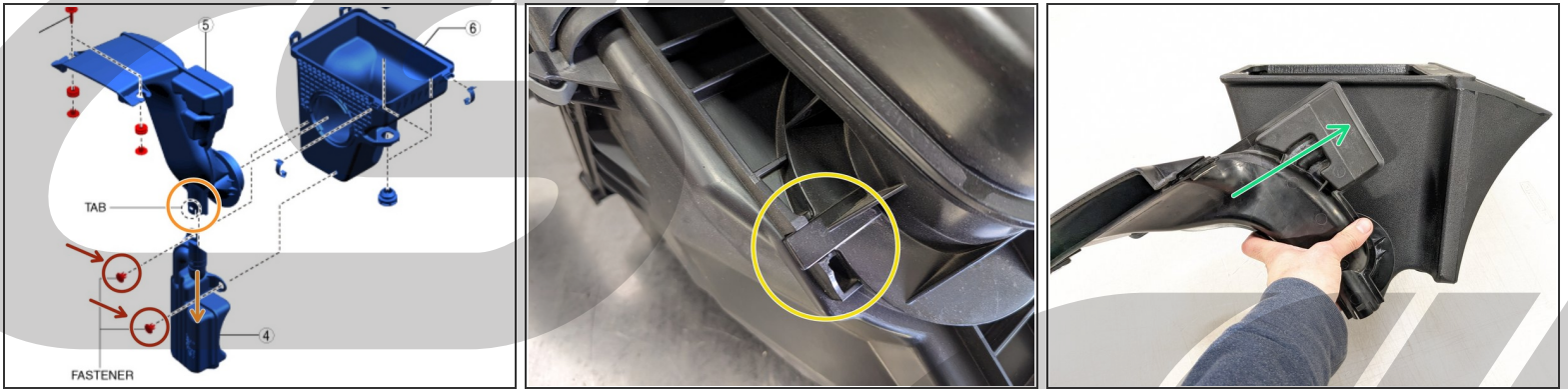
- Remove the Three(3) Rubber Isolators from the OEM Air Box by pushing on the top of the isolator with a Flathead Screwdriver
- ⚠ **If you do not have the Rubber Isolators from the OEM Airbox, please contact your local Mazda Dealer and purchase these parts. Refer to Step 2 for details**

Step 15 — Preparing the CS SRI Airbox - Part 2



- Install Two(2) Rubber Isolators into the Rear Bracket, as shown
- Install the last Rubber Isolator into the Air Box in the location shown
- ① Install by pushing the Rubber Isolator as far into the hole as possible by hand, then use a flathead screwdriver to fully push the isolator through the hole
- Loosely install the Bracket with the Rubber Isolators onto the back of the Airbox with the provided **M6 hardware**
 - If installing with the **top port intake use the bottom slots**
 - If installing with the **side port intake use the top slots**
- ① Leave loose for final assembly in the vehicle

Step 16 — Preparing the CS SRI Airbox - Part 3



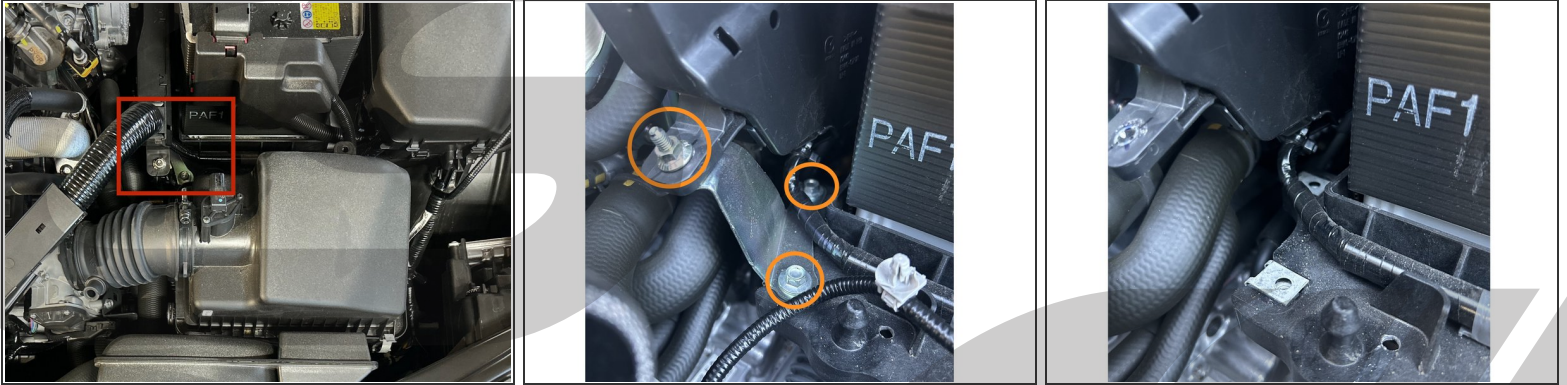
⚠ If you do not have the OEM Snorkel, please contact your local Mazda Dealer and purchase One(1) Fresh Air Duct. Refer to Step 2 for details

- With a Flathead Screwdriver, remove the Two(2) plastic push pins in the locations shown
- With a Flathead Screwdriver, separate the two halves of the Snorkel by lifting up the Tab shown and pulling downward
- Remove the Snorkel from the OEM Airbox by gently lifting on the tab shown and rotating Counter-clockwise
- Install the OEM Snorkel into the CS SRI Airbox by aligning the tabs with the cutout on the front of the AirBox, then rotating Clockwise until upright

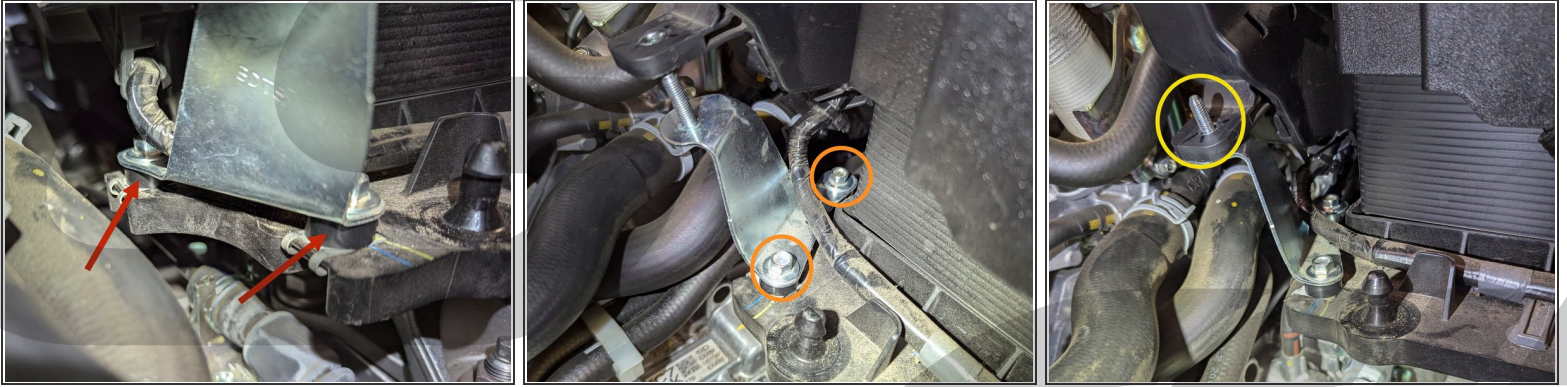
Step 17 — Preparing the CS SRI Airbox - Part 4



- Lay down a clean microfiber towel on a workbench
- Remove the **Five(5) bolts** securing the plastic lid cover with a 3mm Allen Wrench and place the Acrylic Lid Cover on the Clean Microfiber Towel
 - ① For bolt replacement if needed: Thread size = M5x0.8x12mm
 - ① To further prevent scratches or damages to the Plastic Lid Cover, keep protective film installed until the final assembly step
- Insert the CS SRI Silicon Elbow into the Side of the Airbox as shown until the port contacts the weather stripping on the CS Airbox

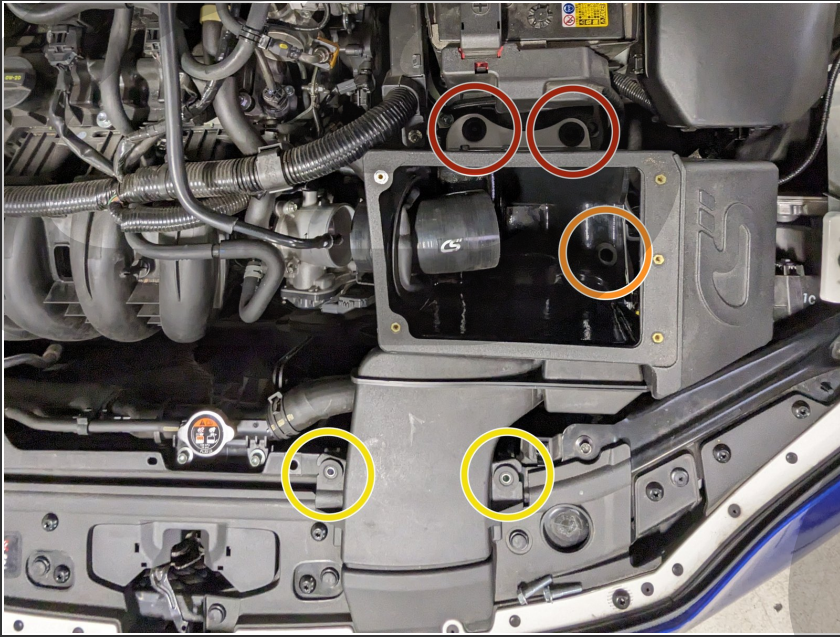
Step 18 — Installing Wiring Harness Spacer Part 1 (Side Port Intake Only)

- ❗ If you have a top port intake, these two steps are not required. You will have two unused spacers leftover in your hardware kit. Skip to Step 20 to continue your install.
- The side port intake has a different wiring harness routing than the original top port intake. As a result, the wiring harness is close to the corner of the CS airbox. To gain more clearance, the wiring harness must be spaced upwards
- Locate where the wiring harness is attached to the front corner of the battery tray (OEM intake shown in place for location reference)
- Remove the two 10mm bolts and one 10mm nut that attach the silver wiring harness bracket to the battery box
- Remove the bracket temporarily as shown

Step 19 — Installing Wiring Harness Spacer Part 2 (Side Port Intake Only)

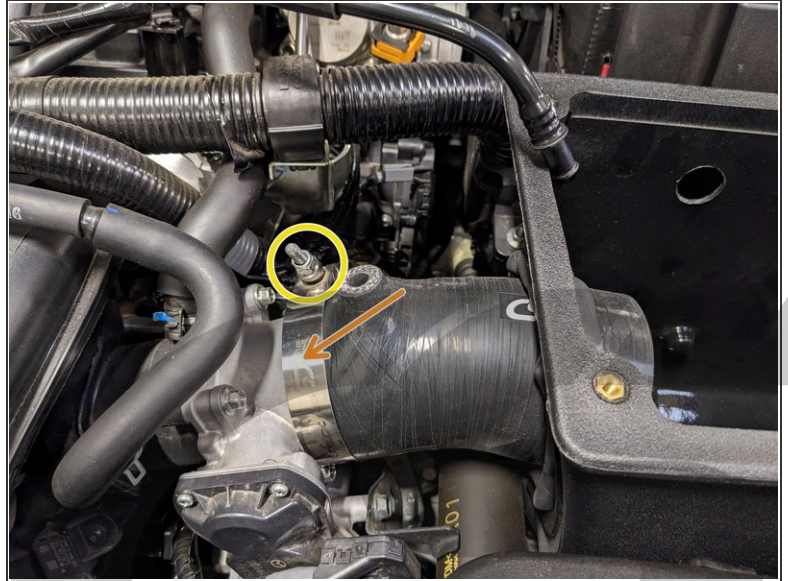
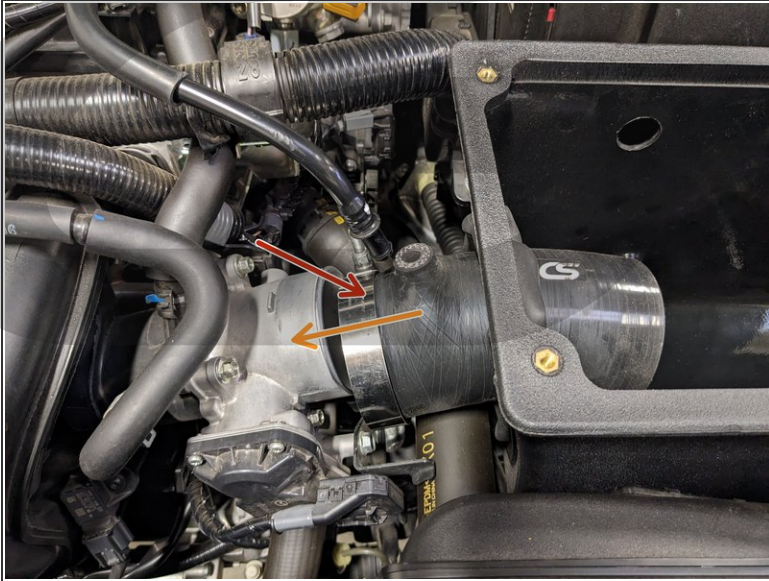
- Install the supplied spacers in between the bracket and battery box as shown
- Secure the bracket with the OEM bolts removed earlier. Tighten until snug with a 10mm socket or wrench
- Place the wiring harness over the stud on the bracket and secure with the 10mm nut removed earlier. Tighten until snug
- ⓘ These spacers will position the wiring harness slightly further up, just enough for proper airbox clearance

Step 20 — Installing the CS SRI Airbox



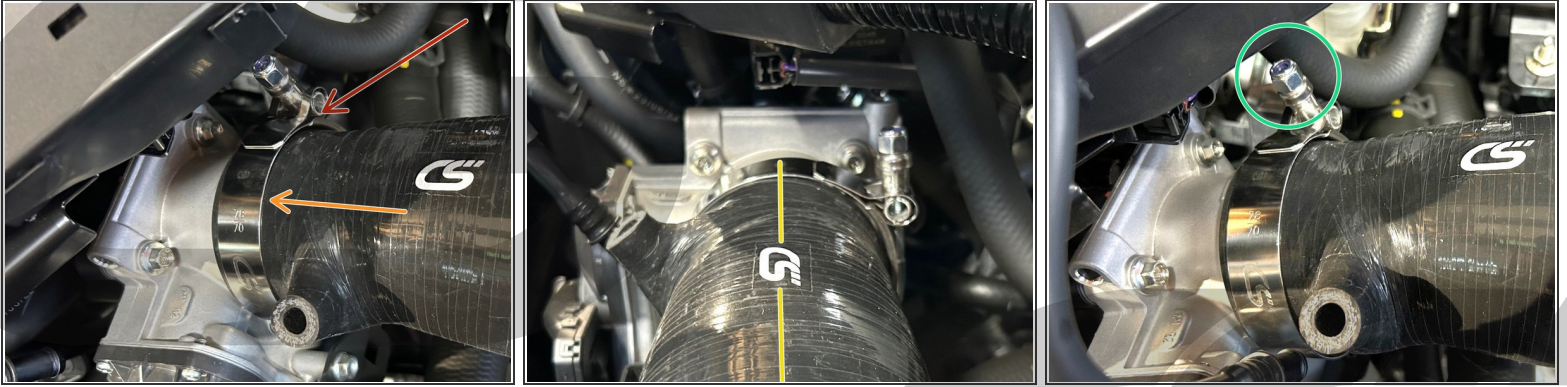
- Maneuver the Airbox Assembly into the vehicle, being sure to align the Rubber Isolator mounts with the protruding studs in the Battery tray and Chassis Rail
- Reach behind the Airbox and push on each Rubber Isolator in the Rear Bracket until it is fully seated and you feel a positive "click"
- Reach into the Airbox and push onto the rubber isolator until it is fully seated and you feel a positive "click"
- Align the two holes in the OEM Air Snorkel and install the **Two(2) 10mm bolts** to secure it in place
- Maneuver the airbox around until you have the most clearance to engine bay components. Then, with a 8mm or 10mm wrench, tighten the Two(2) bolts on the rear of the Airbox, securing the Bracket

Step 21 — Installing the CorkSport SRI - Part 1 Top Port



- ① The steps for the Top Port intake are shown below. Continue onto the next step for the Side Port intake.
- For the Top 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.
 - ① Ensure the silicone is flush to the "tab" on the throttle body.
- 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.

Step 22 — Installing the CorkSport SRI - Part 1 Side Port



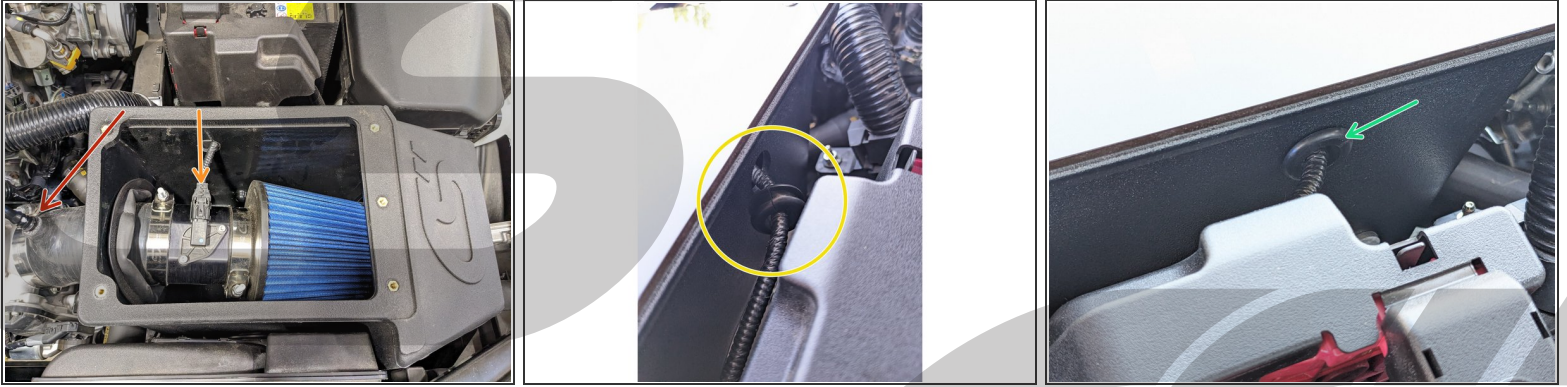
- For the Side Port Intake, slide the 70-78 clamp over the smaller end of the CS intake silicone.
 - ⓘ The clamp orientation shown is the easiest to access once on the vehicle.
- Install the smaller end of the CS intake silicone over the throttle body.
 - ⓘ Ensure the silicone is flush to the "tab" on the throttle body.
- Rotate the silicone until the CS logo lines up with the top "tab" on the throttle body.
- Once happy with silicone alignment, tighten the clamp from the top with a 10mm socket and ratchet with an 6in extension.
 - ⓘ 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 23 — Installing the CorkSport SRI - Part 2



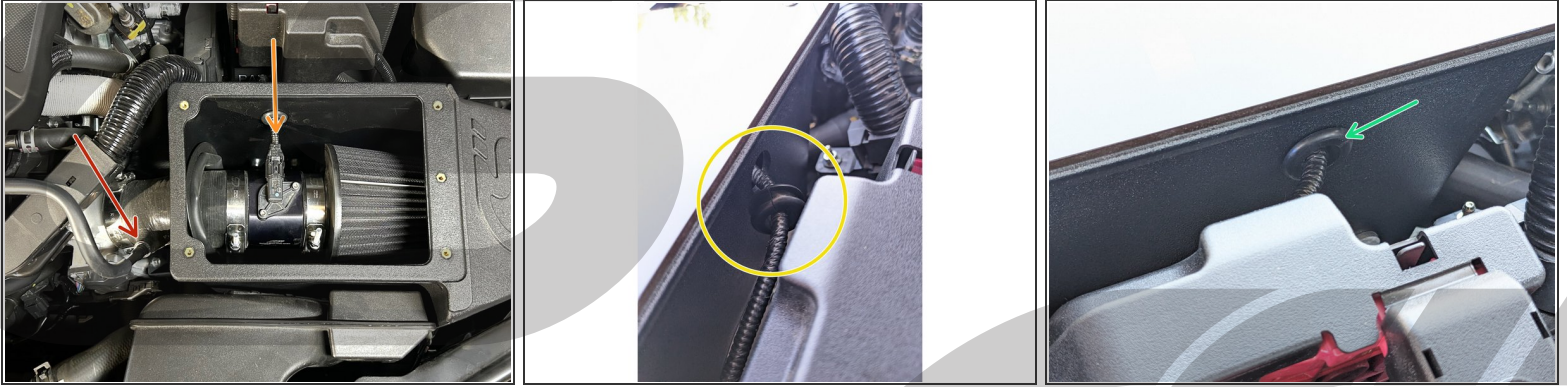
- Slide the 83-91mm clamp over the end of the CS intake silicone
- Insert the MAF housing and Filter assembly into the Air Box as shown
- Push the MAF Housing into the Large End of the Silicone elbow. Push until the silicone is completely against the wall of the MAF Housing
- Ensure the MAF housing is in the orientation shown, with the MAF plug pointing towards the rear of the vehicle and upwards toward the hole in the back of the CS Airbox. Incorrect orientation can result in CELs or snagged wires
- Once aligned, tighten the 83-91mm clamp using a 10mm socket and ratchet.
 - ① 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 24 — Installing the CorkSport SRI - Part 3 Top Port



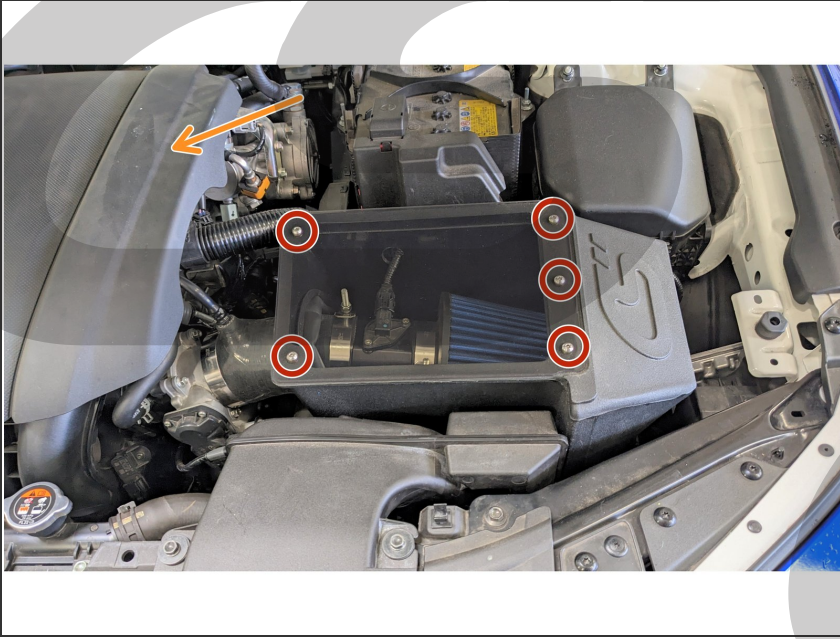
- ① The steps for the Top Port intake are shown below. Continue onto the next step for the Side Port intake.
- Reinstall the Valve Cover Breather hose by firmly pushing into the port
- Insert the MAF Sensor Connector into the Airbox through the hole on the backside of the Airbox and plug in the MAF sensor. It will click when fully seated
- Install the pre-sliced Rubber Grommet by opening it and placing over the MAF Sensor Wiring as shown
- Install the Rubber Grommet into the hole by pushing firmly until it is flush with the surface of the box
- Pull enough wire through the grommet to alleviate any tension in the wire
- ① Ensure enough wire is in the air box by wiggling the filter up and down and check for tension in the wire. If any tension is present, bring more wire into the air box

Step 25 — Installing the CorkSport SRI - Part 3 Side Port



- Reinstall the Valve Cover Breather hose by firmly pushing into the port
- Insert the MAF Sensor Connector into the Airbox through the hole on the backside of the Airbox and plug in the MAF sensor. It will click when fully seated
- Install the pre-sliced Rubber Grommet by opening it and placing over the MAF Sensor Wiring as shown
- Install the Rubber Grommet into the hole by pushing firmly until it is flush with the surface of the box
- Pull enough wire through the grommet to alleviate any tension in the wire
- ① Ensure enough wire is in the air box by wiggling the filter up and down and check for tension in the wire. If any tension is present, bring more wire into the air box

Step 26 — Installing the Acrylic Lid Cover



- Carefully remove and discard the protective film on the Acrylic Lid Cover
- Carefully grab the Acrylic Lid Cover and align it with the Five(5) mounting points on the top of the Airbox
 - ⓘ Recommended: Apply a small drop of purple loctite to the threads of each M5 bolt for extra security.
- Loosely install the **Five(5) M5 bolts** with a 3mm Allen Key or Wrench
 - ⓘ For bolt replacement if needed:
Thread size = M5x0.8x12mm
- Ensure the Lid is aligned with the edges of the box, then tighten the bolts until snug
 - ⚠ Do not use power tools. Bolts must be snug, do not overtighten
- Reinstall the Engine Cover if it has been removed

Step 27 — Installation Complete



- This completes your installation of the CorkSport Performance Short Ram Intake Airbox!
- ❗ 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
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter