

# Performance Installs

## ATK-6-889-1x Oil Catch Can

Installation Instructions for the CorkSport Performance Oil Catch Can Kit for the 2018+ Mazda 6 Turbo, 2019+ Mazda CX-5 Turbo, and 2016+ Mazda CX-9.

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## INTRODUCTION

In this installation guide we have provided step by step instructions to remove the necessary OEM components and install the CorkSport Performance Oil Catch Can.

### Advisory:

- Working under the vehicle requires a safe and sturdy location for the vehicle to sit on jackstands.
- 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.
- If you live in an area which gets below zero you need to empty the catch can before the temperatures drop to maintain the functionality.
- There are permanent OEM clamps that will need to be removed by cutting. This can be done with wire cutters however we strongly recommend using a die grinder or rotary tool with a small cutoff wheel.
- Installation instructions were created on a 2018 Mazda 6 Grand Touring Reserve. Install on other models will be similar.

### TOOLS:

- [1/4" Ratchet](#) (1)
- [8mm Socket - Deep](#) (1)
- [10mm Socket-Deep](#) (1)
- [13mm Socket - Deep](#) (1)
- [5/32" Allen Wrench](#) (1)
- [Flathead Screwdriver](#) (1)
- [Small Needle Nose Pliers](#) (1)
- [Wire Cutters](#) (1)
- [Silicone Lubricant Spray](#) (1)
- [Razor Blade](#) (1)
- [Hydraulic Jack](#) (1)
- [Jack Stand](#) (2)

### PARTS:

- [CorkSport Oil Catch Can](#) (1)
- [CorkSport ATK OCC Mounting Bracket](#) (1)
- [CorkSport ATK OCC Hardware and Drain Valve Kit](#) (1)
- [Oil Catch Can Hose](#) (1)  
*12 Feet*

## 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 markings in the image to the color dot in the text to the right of the image
- For clarity, "OCC" in these instructions refers to the "oil catch can"
- Approximate hose lengths are given in the instructions, however, you may need to trim the hose as needed for best fit.

## Step 2 — Lifting the Car



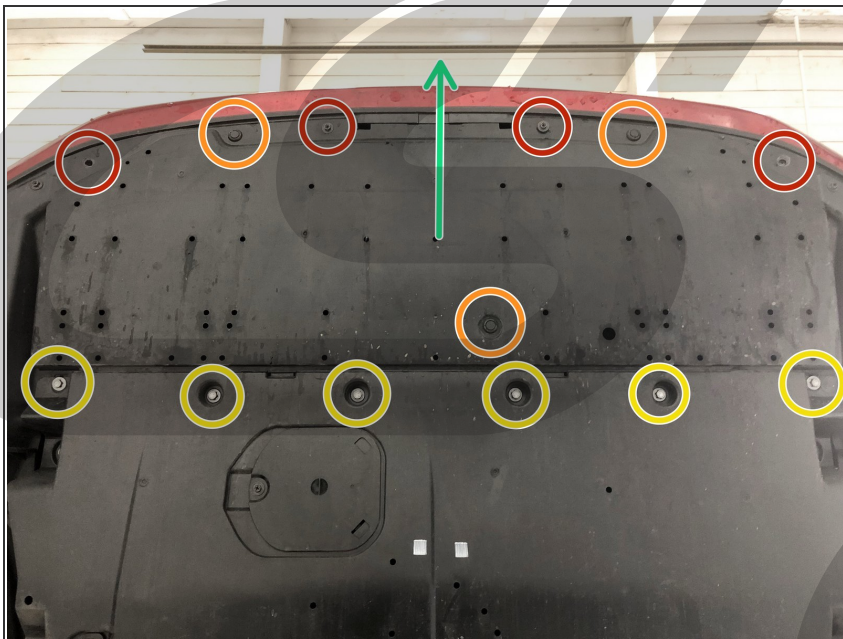
- ⚠️ Ensure the vehicle is parked on a level surface before proceeding.
- Start by lifting up the front of the car using a hydraulic jack and jack stands.
- ⚠️ Be sure to reference your owners manual for jack points and the jack manufacturer's instructions for proper practices.

### Step 3 — OPTIONAL: Front Bumper Removal



- ★ The CS Oil Catch Can Kit can be installed without removing your front bumper. If you would like easier access during install, please see the CorkSport Intercooler Upgrade for full instructions on bumper removal.
- ★ [corksport.com/support/instructions/ATK-6-141-WEB.pdf](https://corksport.com/support/instructions/ATK-6-141-WEB.pdf)
  - Steps 4-9 for Mazda 6 bumper removal.
  - Steps 11-16 for Mazda CX-5 and CX-9 bumper removal.

### Step 4 — Accessing the OCC Mounting Location Part 1



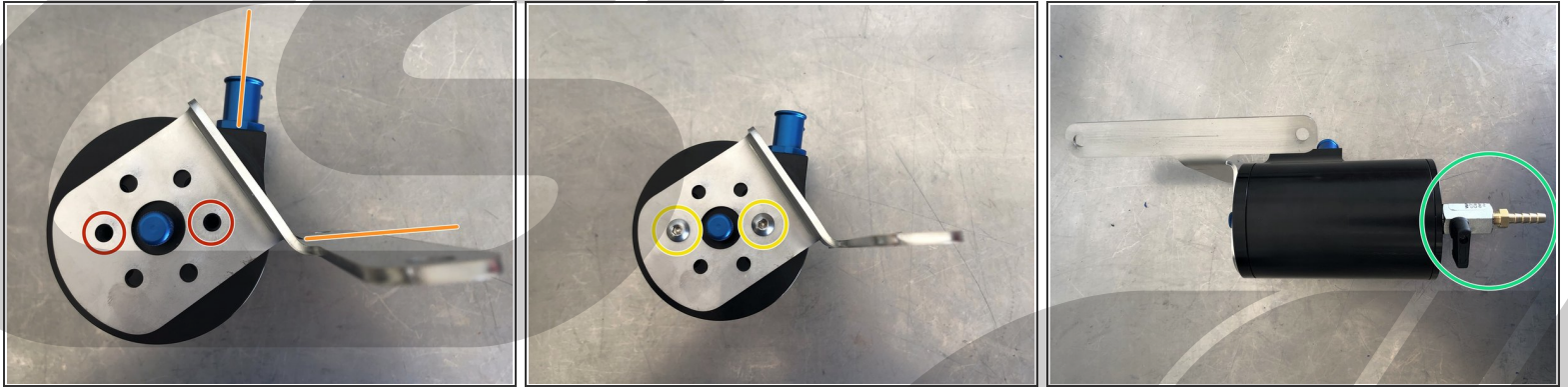
- Go underneath the car and remove the four 8mm bolts along the edge of the bumper using an 8mm socket and ratchet.
- Remove the two small push clips located on the front edge of the bumper.
- Remove the final small push clip located near the middle of the skid tray.
- Remove the six 10mm bolts holding the front section of the skid tray to the chassis.
- Remove the front section of the skid tray from the vehicle.

## Step 5 — Accessing the OCC Mounting Location Part 2



- Remove the four 8mm bolts where the driver's side fender liner attaches to the bumper using an 8mm socket and ratchet.
- ⓘ The fourth 8mm bolt is covered by the front section of the skid tray in the first image. See image 2 for the fourth bolt.
- ⓘ CX-5 and CX-9 owners will have five total bolts instead of four. The fifth bolt will be in a similar location to the bolt shown in image 2.
- Remove the four small push clips that attach the driver's side fender liner to the front bumper.
- The fender liner can be pulled out of the way to access the OCC mounting location.

## Step 6 — Mazda 6 - Setting up the CorkSport OCC



- Align the CS OCC bracket to two holes in the CS OCC as shown.
- The long mounting face should be approximately perpendicular to the ports of the oil catch can.
- Secure the bracket to the OCC using a 5/32" Allen wrench and the two supplied 1/4"-20 x 1/2" button head screws. Tighten to 8-10 ft-lbs.
- Attach the OCC drain kit to the bottom of the OCC. The drain kit comes with complete installation instructions.

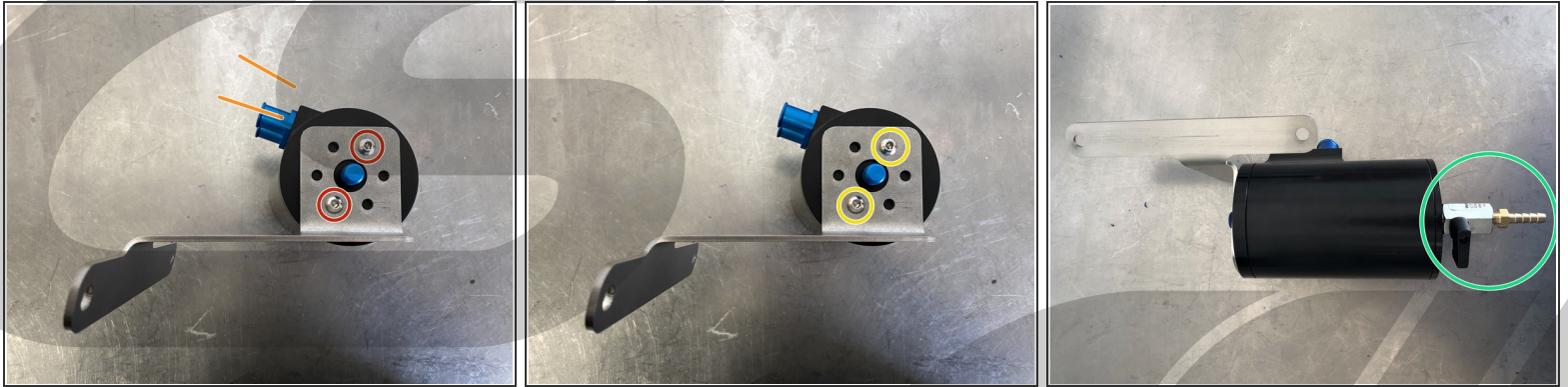
## Step 7 — Mazda 6 - Mounting the CorkSport OCC



- i The images in this step were taken with the bumper removed for clarity.
- Locate the OCC mounting locations on the chassis.
- Using the supplied M8x1.25x25mm bolts and M8 washers, attach the CorkSport OCC to the chassis mounting locations.
- i The two blue ports should face toward the center of the vehicle.
- Using a 13mm socket and ratchet, tighten the OCC mounting bolts to 12-15 ft-lbs



## Step 8 — CX5 & CX9 - Setting up the CorkSport OCC



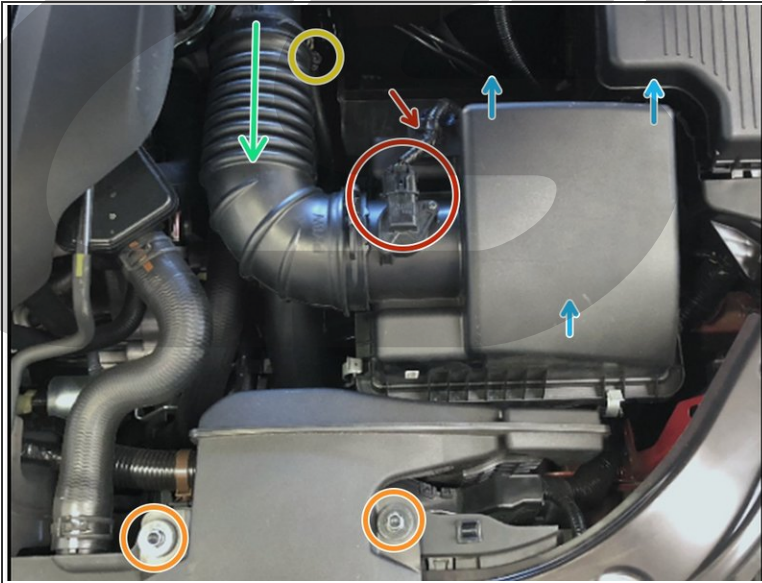
- Align the CS OCC bracket to two holes in the CS OCC as shown.
- The blue ports on the OCC should be somewhere between the orange lines with the bracket matching shown position
- Secure the bracket to the OCC using a 5/32" Allen wrench and the two supplied 1/4"-20 x 1/2" button head screws. Tighten to 8-10 ft-lbs.
- Attach the OCC drain kit to the bottom of the OCC. The drain kit comes with complete installation instructions.

## Step 9 — CX5 & CX9 - Mounting the CorkSport OCC



- i** The images in this step were taken with the bumper removed for clarity.
- Locate the OCC mounting locations on the chassis.
  - Using the supplied M8x1.25x25mm bolts and M8 washers, attach the CorkSport OCC to the chassis mounting locations.
  - i** The two blue ports should face toward the center of the vehicle.
  - Using a 13mm socket and ratchet, tighten the OCC mounting bolts to 12-15 ft-lbs

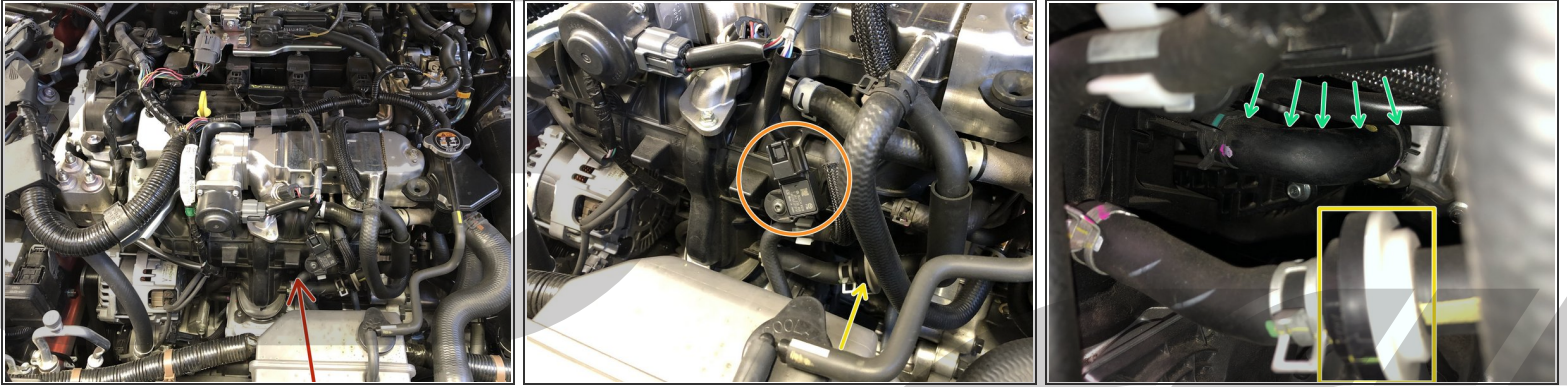
## Step 10 — Removing the OEM Intake and Engine Cover



**i** These instructions show removing the OEM intake. If you have a CS intake, the steps to remove are very similar, but you will not have the bolts circled in orange.

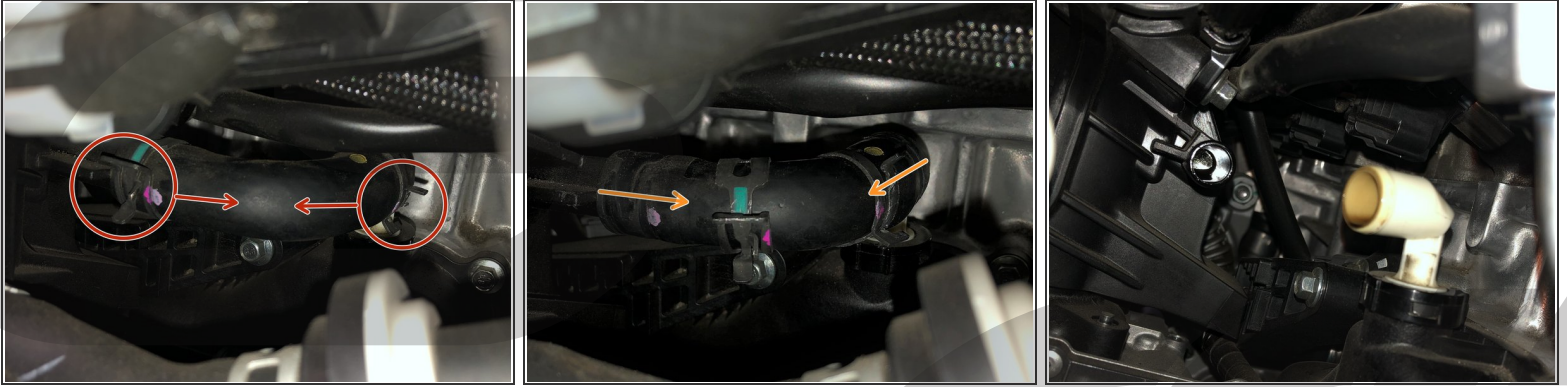
- Unplug the MAF sensor & unclip it from the top of the airbox.
- Remove the two 10mm bolts from the front of the intake.
- Loosen the 10mm clamp that attaches the intake tube to the turbo inlet pipe.
- Pull the intake tube off of the turbo inlet pipe.
- Lift upwards to release the OEM intake from the rubber mounts. Remove it from the vehicle.
- Grip the engine cover from each side and lift it upwards to release it from the rubber grommets. Remove it from the vehicle.

## Step 11 — Locating the PCV Hose



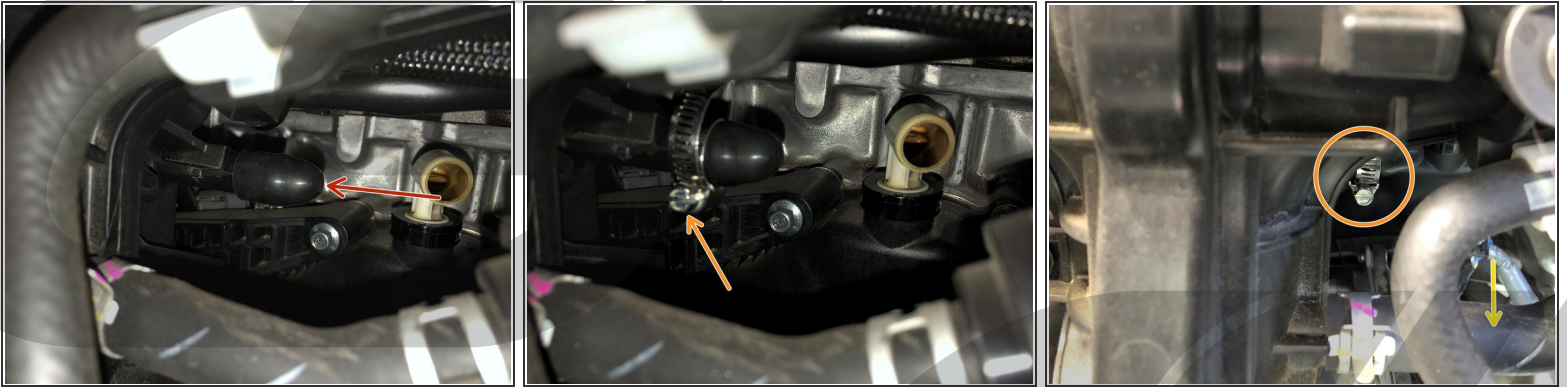
- The PCV is located under the intake manifold at the front of the engine. It is hard to find at first but is fairly easy to access once found.
- Starting at the intake manifold, look under the MAP sensor (circled in orange in image 2).
- Look towards the engine block above the black and white check valve (marked in yellow in images 2 and 3).
- ⓘ The black and white check valve can be seen in a number of images that follow. Use it as a reference if you are not sure where to look.
- The PCV hose passes from the PCV valve to the intake manifold and is 3-4 inches long.

## Step 12 — Removing the PCV Hose



- Using needle nose pliers, loosen the two OEM spring clamps and bring them toward the center of the PCV hose.
- Once complete, pull the hose off the intake manifold, then off the PCV valve.
- ⓘ Both of the parts the hose is removed from are made out of plastic. Use care to not bend or break them.
- ⓘ The PCV valve is designed to rotate. You may need to hold it in position while removing the hose.
- Once the hose is removed, you will be able to see the intake manifold (black) and PCV port (white).
- ⓘ You can also see the oil present on the inside of both of these fittings. This will be caught once the OCC is installed.

## Step 13 — Plugging the Intake Manifold Port



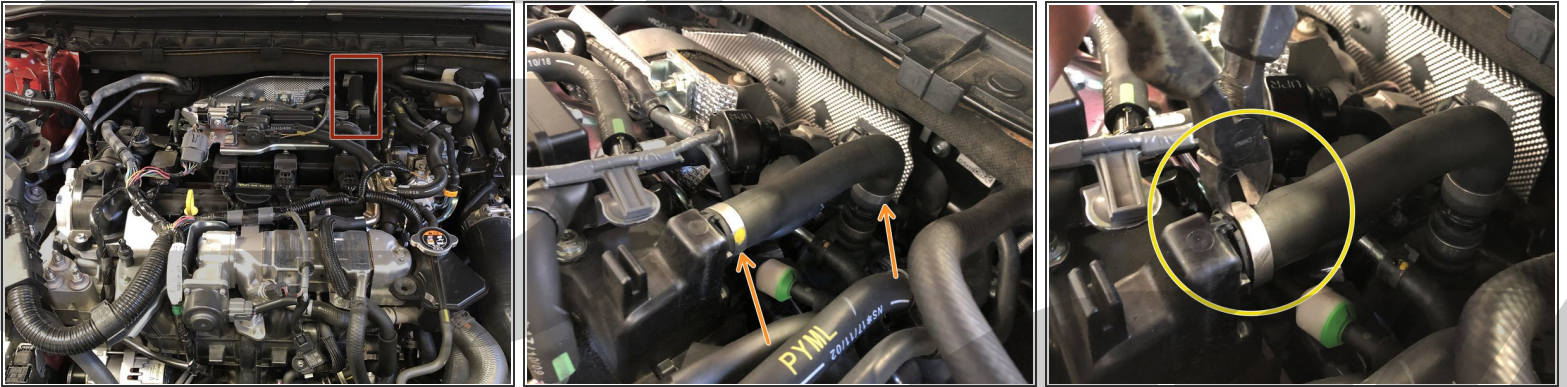
- Place the supplied 1/2" vacuum cap over the port on the intake manifold. Ensure it is fully seated.
- Secure the vacuum clamp with one of the supplied worm gear clamps. Tighten until snug.
  - ⚠ Overtightening this clamp can break the intake manifold. Ensure you do not overtighten.
- ⓘ The orientation shown of the worm gear clamp is the easiest to access for tightening. Image 3 shows how you can access this clamp with a long Flathead screwdriver.
  - The yellow arrow points to the hose with the black and white check valve.

## Step 14 — Installing the new PCV Hose



- Rotate your PCV port until it is pointing toward the driver's side of the vehicle.
- Cut off a 10-11 inch piece of the supplied oil catch can hose.
  - ⓘ Use a sharp razor blade or some hose cutters to ensure an even cut on the hose.
- Slide one end of the hose over the PCV port.
  - ⓘ We recommend using some silicone lubricant spray to help get the OCC hose on the PCV port.
- Secure the new PCV hose with the other supplied worm gear clamp. Tighten until snug with a Flathead screwdriver. The easiest to access clamp orientation is shown.
- ⚠ Overtightening this clamp can break the PCV port. Ensure you do not overtighten.

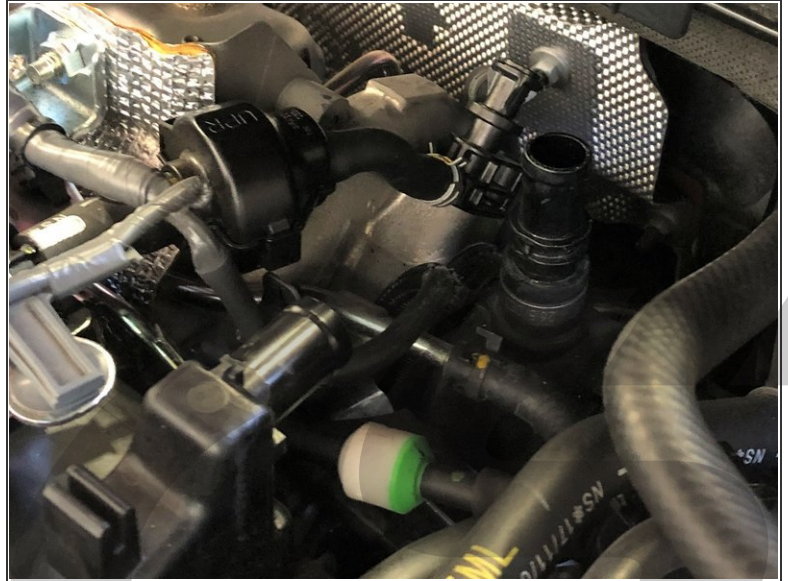
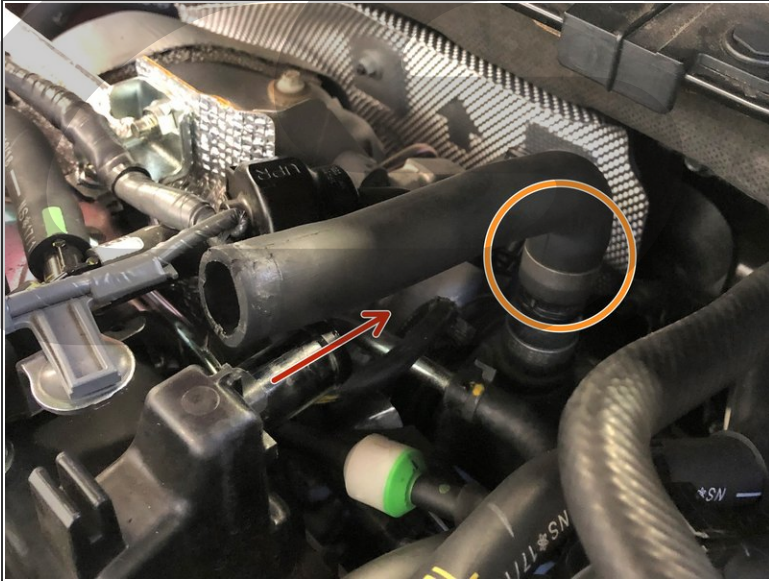
## Step 15 — Removing the OEM Valve Cover Hose Part 1



- Locate the OEM valve cover breather hose. It is located on the rear of the engine, towards the driver's side.
- As shown, the hose uses permanent clamps to secure it to the valve cover and turbo inlet pipe ports.
- ☞ **These permanent OEM clamps will need to be cut to be removed. This can be done with wire cutters however we strongly recommend using a die grinder or rotary tool with a small cutoff wheel.**
- If you do not have access to a die grinder or rotary tool, use wire cutters to cut through the permanent clamps.
- ⓘ Wire cutters will take some time to cut through the permanent clamps. Keep cutting the same location and you will eventually cut through.
- ⚠ Regardless of method of cutting, ensure you do not damage the plastic valve cover port or the plastic fitting of the turbo inlet pipe.

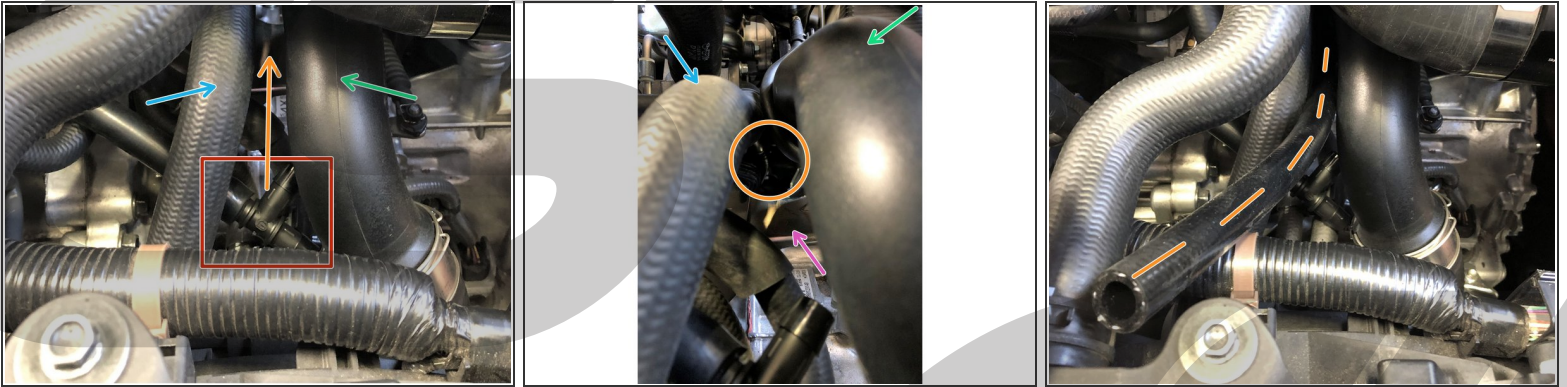


## Step 16 — Removing the OEM Valve Cover Hose Part 2



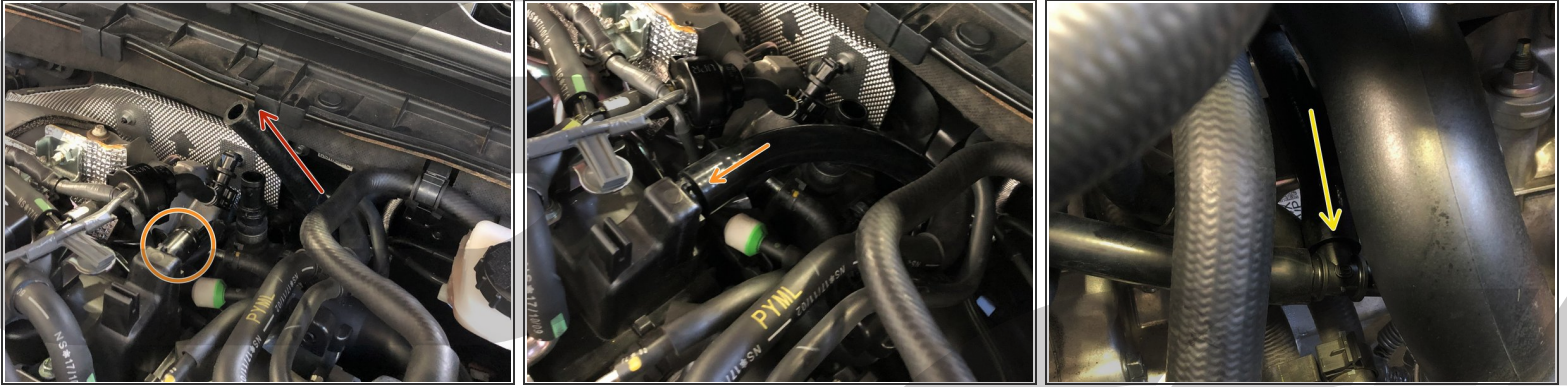
- Once through the first permanent clamp, remove the hose from the valve cover port.
- Repeat the cutting procedure on the turbo inlet pipe permanent clamp.
- Then remove the OEM valve cover breather hose from the vehicle.

## Step 17 — Installing the new Valve Cover Hose Part 1



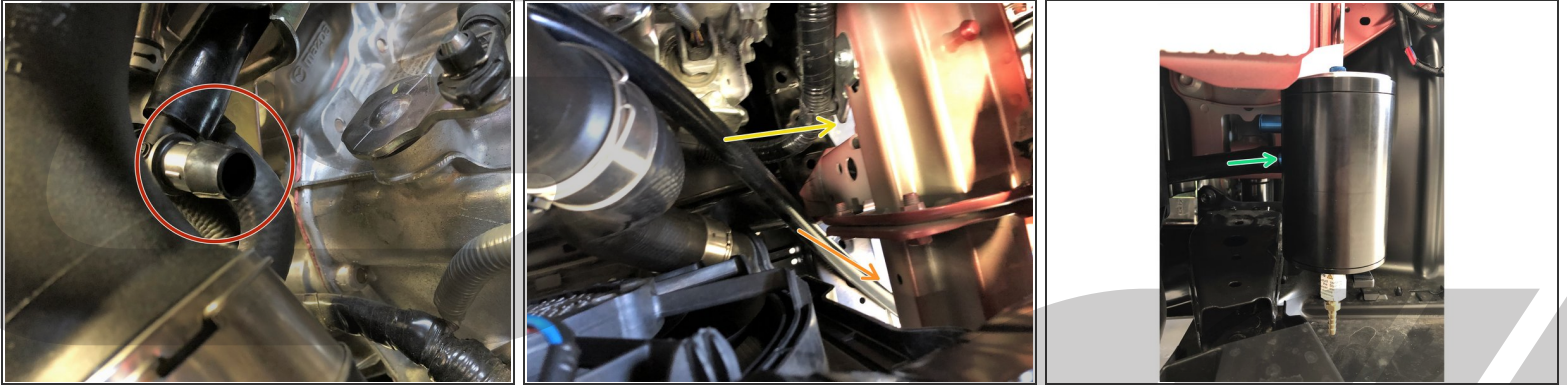
- Install the supplied 5/8" vacuum tee fitting into the newly installed PCV hose. The tee should be oriented as shown, with one open port pointed toward the rear of the vehicle and the other pointed toward the driver's side.
- ⓘ Use silicone spray to help install the tee in the OCC hose.
- Cut a 35-36 inch piece of OCC hose.
- ⓘ Use a sharp razor blade or some hose cutters to ensure an even cut on the hose.
- Route the new hose underneath the hot side intercooler pipe (green arrow) and lower radiator hose (blue arrow). There is a metal bracket (pink arrow) the hose will sit on to keep it away from the transmission linkage.

## Step 18 — Installing the new Valve Cover Hose Part 2



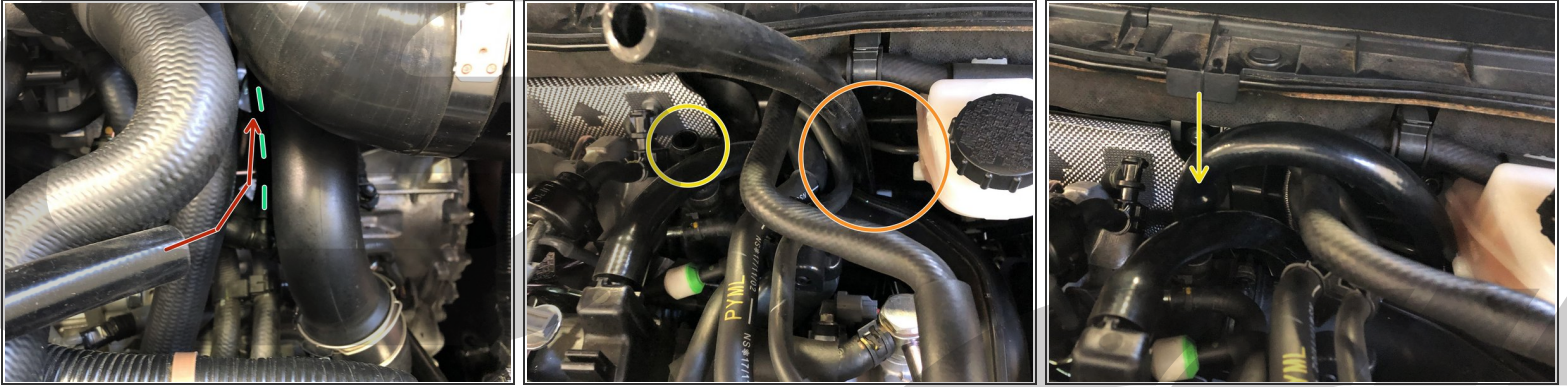
- Once the hose reaches the firewall, bring the hose upwards behind the turbo inlet pipe.
- Attach the hose to the valve cover port.
- Attach the other end of the hose to the vacuum tee.
- ⓘ Use silicone spray if needed to help install the hose on the valve cover and/or the vacuum tee.

## Step 19 — Installing the OCC Inlet Hose



- Cut a 24-25 inch section of OCC hose.
- ⓘ Use a sharp razor blade or some hose cutters to ensure an even cut on the hose.
- Attach this new hose to the remaining open port on the vacuum tee.
- Hose Routing:
  - Mazda 6 - Route the hose to the mounted OCC. Ensure you avoid any moving components or sharp edges in the area.
  - CX5 & CX9 - Route the hose to the mounted OCC. Ensure you avoid any moving components or sharp edges in the area.
- Attach the OCC inlet hose to the lower port of the OCC.
- ⓘ Use silicone spray if needed to help install the hose on the valve cover and/or the vacuum tee.

## Step 20 — Installing the OCC Outlet Hose Part 1



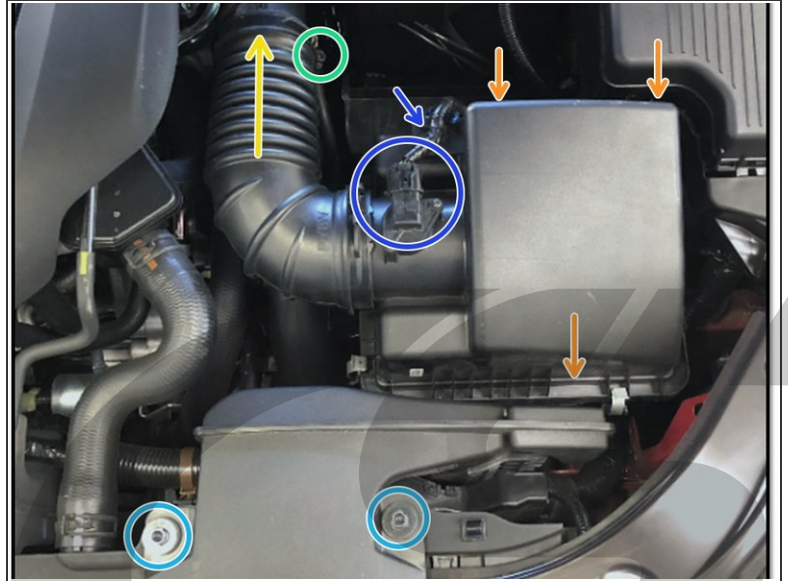
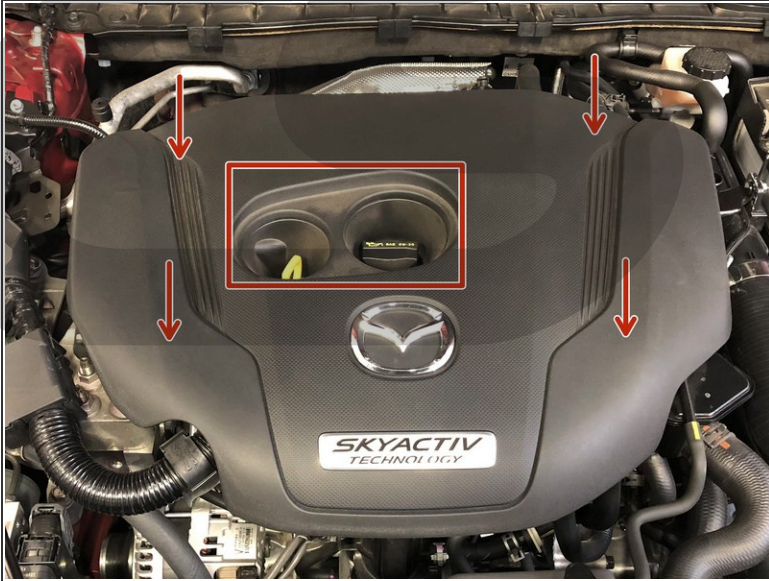
- Cut a 67-68" section of the OCC hose.
- ⓘ Use a sharp razor blade or some hose cutters to ensure an even cut on the hose.
- Route this new hose through the same opening as used in Step 15, above the valve cover breather hose (shown with green lines)
- Once the hose reaches the firewall, bring the hose upwards behind the turbo inlet pipe.
- ⓘ This time the hose is on the opposite side of the miscellaneous hoses in the area. This is to prevent the hose from kinking once connected to the turbo inlet pipe.
- Connect the end of the hose to the turbo inlet pipe fitting.
- ⓘ We strongly recommend using some silicone lubricant spray to make installing onto the turbo inlet pipe easier.

## Step 21 — Installing the OCC Outlet Hose Part 2



- Route the other end of the OCC outlet hose down toward the oil catch can. Follow the routing of the existing OCC inlet hose.
  - Connect the OCC outlet hose to the upper port of the oil catch can.
  - Use the supplied zip ties to secure the OCC lines and make sure they will not interfere with any moving parts or rub on any sharp surfaces.
- ⚠ While securing the hoses, ensure the OCC outlet hose is not kinked near the turbo inlet pipe. Failure to do so can prevent the OCC from functioning properly.

## Step 22 — Reinstalling the Engine Cover and OEM Intake



- Line the engine cover up using the dipstick and oil fill holes. Push down on each of the four corners to pop the engine cover into the four rubber grommets.
- Push the airbox down onto the three rubber mounts. They will pop into place.
- ⓘ Make sure that the lower portion of the OEM airbox is not pinching or kinking any of the oil catch can hoses. There is a small gap between the airbox and the radiator that is perfect for the OCC hoses.
- Push the rubber elbow onto the turbo inlet pipe.
- Tighten the turbo inlet pipe clamp until snug.
- Secure the front of the airbox with the two OEM bolts removed earlier. Tighten to 8-10ft-lbs with a 10mm socket and ratchet.
- Reconnect the MAF sensor by pushing the connector together until it clicks. Also clip the wiring back into the hole on the airbox.
- ⓘ CorkSport intake reinstallation will be similar.

## Step 23 — OPTIONAL: Front Bumper Reinstallation



- If you had removed your bumper for easier access, now is the time to reinstall it. Please see the CorkSport Intercooler Upgrade for full instructions on bumper reinstallation.
- [corksport.com/support/instructions/ATK-6-141-WEB.pdf](https://corksport.com/support/instructions/ATK-6-141-WEB.pdf)
  - Steps 68-71 for Mazda 6.
  - Steps 73-77 for Mazda CX-5 or CX-9.



## Step 24 — Reattaching the Fender Liner



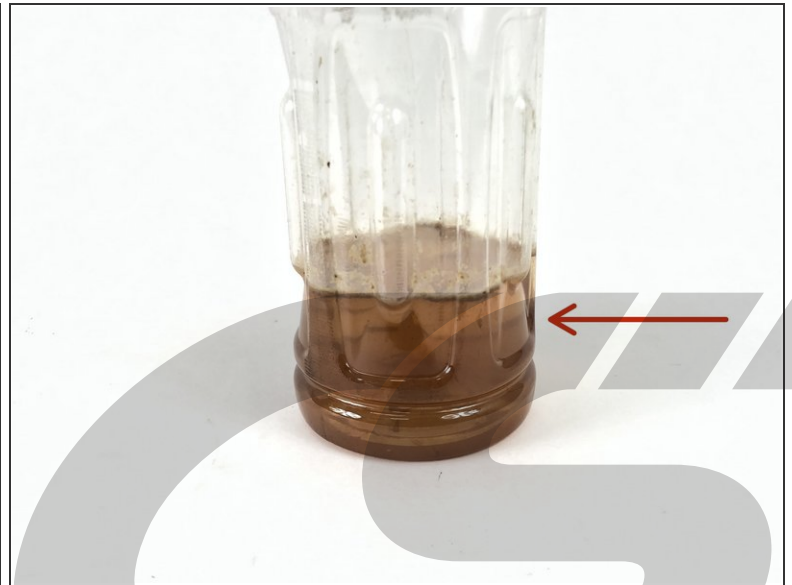
- Reinstall the four small push clips removed in Step 5 to secure the fender liner in front of the driver's side front tire.
- Reinstall the four 8mm bolts removed in step 5 to secure the fender liner to the bottom of the front bumper. Tighten until snug using a socket and ratchet.
- ⓘ The fourth 8mm bolt is covered by the front section of the skid tray in image 2. See image 3 for the fourth bolt.
- ⓘ CX-5 and CX-9 owners will have five total bolts instead of four. The fifth bolt will be in a similar location to the bolt shown in image 3.

## Step 25 — Reinstalling the Front Section of the Skid Tray



- Lift the front section of the engine undertray into position. Slide the center portion of the front edge up above the front bumper as shown.
  - Reinstall the six 10mm bolts that hold the front section of the skid tray to the chassis. Tighten until snug.
  - Reinstall the three small push clips, two near the bumper edge, and one near the center of the skidtray.
  - Reinstall the four 8mm bolts along the edge of the bumper using an 8mm socket and ratchet. Tighten until snug.
- i** All fasteners used in this step were removed in Step 4.

## Step 26 — Maintaining the Oil Catch Can



- i** On first startup, if any check engine lights appear, double check all OCC lines to ensure the connections are secure and the hoses are free from any kinks or holes.
- After the initial installation, the OCC will capture an excessive amount of vapor and contaminants. Drive the vehicle for 500 miles, then empty the catch can.
- Once the first drainage is performed, the OCC only needs to be drained every oil change or every 3 months, whichever comes first.
- !** If you live in a climate that has freezing temperatures, you must empty the OCC before the temperature drops below freezing to ensure OCC function. Service the OCC frequently during the winter months to retain good OCC function.

## Step 27 — Installation Complete



- This completes your installation of the CorkSport Oil Catch Can!
- 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/2018-mazda-6-2.5l-...>
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter.