

CorkSport SkyActiv Short Ram Intake

2013+ CX-5, 2014+ Mazda3, 2014+ Mazda6, and 2016+ CX-3



Thank you for purchasing the CorkSport Power Series SkyActiv Short Ram Intake. One of the easiest and most beneficial performance enhancements you can do for your vehicle, the CorkSport Power Series Short Ram Intake replaces your factory airbox with an open intake system allowing more air into the intake chamber. Please let us know your feedback about the CorkSport SkyActiv Intake by submitting a review at: <http://www.corksport.com/corksport-2013-cx-5-skyactiv-power-series-short-ram-intake-clone.html>

Pre-Installation Notes:



Make sure your vehicle is completely cooled down prior to starting installation. If you are going to work on your 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. Please read these instructions thoroughly prior to starting installation



How our instructions work: To best cover all of our customers experience levels, we have included an overview checklist for the more technically advanced users along with step-by-step instructions for customers that require additional detail.



These installation instructions were written using a 2014 Mazda6 SkyActiv. Other years and models will be similar.

Materials and Time:



General Info.

Part #: Cx5-6-117
Time Est: 1 hours
Wrench Rating: 2/5



Tooling List

10mm Socket
3/8" Drive Ratchet
3mm Allen Wrench
Small Philips Screw Driver
Needle nose Pliers

Optional:
Silicone Grease



Parts List

One (1) Silicon Elbow
Two (2) 83-91mm T-bolt Clamp
One (1) 77-85mm T-Bolt Clamp
One (1) MAF Assembly
One (1) Air Filter

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Checklist

This is an overview of each step in the build. You can use this as a reference and a checklist as you button up the work on your car

1. Remove the Factory Intake

- a) Remove Engine Cover by pulling up on it. (Shown in green square Figure 1a)
- b) Unplug MAF sensor (shown in Figure 1a with a red circle and in Figure 1b close up.)
- c) Remove valve cover hose from intake elbow. Shown removed in Figure 1c
- d) Loosen hose clamp on air box to throttle body (Green Arrow Figure 1d).
- e) Remove Air Box Bracket (Red Arrows Figure 1e).
- f) Disconnect the MAF wiring and pull up on air box lid and remove it from the car (Figure 1f).
- g) Remove two (2) 10mm bolts that hold lower air box (Red Arrows in Figure 1g) and remove it from the car. Simply pull up.
- h) Remove MAF from factory air box with small phillips screw driver (Red arrows Figure 1h).



Take caution handling the MAF because the sensor is exposed inside the MAF housing. Try to handle it only from the end that is outside of the MAF housing.

2. Installing Short Ram Intake



If you purchased the CorkSport Cold Air Box for Mazda 3 or Mazda 6, please refer to those instructions now.

- a) Install silicone elbow onto throttle body with 77-85mm T-Bolt Clamp. Make sure to orient the elbow so the breather tube is facing up. (Red Arrow in Figure 2a)
- b) Install breather tube fitting into the CS silicone elbow facing up (as shown with Green Arrow in Figure 2a) and adjust to the correct angle
- c) Tighten 77-85mm T-Bolt Clamp at throttle body with 10mm Socket (Red arrow in Figure 2a)
- d) Install CS MAF onto CS silicone elbow with AIRFLOW pointing towards the throttle body. This will be the direction of flow. Then tighten the 83-91mm T-Bolt clamp to hold the MAF to the silicon elbow. (Yellow arrow in Figure 2a)
- e) Install air filter on MAF assembly and tighten 83-91mm T-bolt clamp with a 10mm socket. (Red Circle in Figure 2a on previous page)
- f) Install MAF sensor from factory air box. (Red Circles in Figure 2b)
- g) Reconnect wiring for MAF Sensor (this was removed in step 1b).



This completes the installation of your SkyActiv Short Ram Intake. Check for any visible or audible leaks in the system. If there is a leak, the silicone tube may have been over tightened or misaligned. Check out our [knowledgebase](#) for additional install information



Detailed Instructions

1. Remove the Factory Intake

- a) **Remove Engine Cover** by pulling up on it. There are no screws that hold it down. This will help when loosening the intake clamp. (Shown in green square Figure 1a)
- b) **Unplug MAF sensor** (shown in Figure 1a with a red circle and in Figure 1b close up.) Press down on the latch and the sensor will unplug.
- c) **Remove valve cover hose** from intake elbow. It should pull out with a little effort. Shown removed in Figure 1c

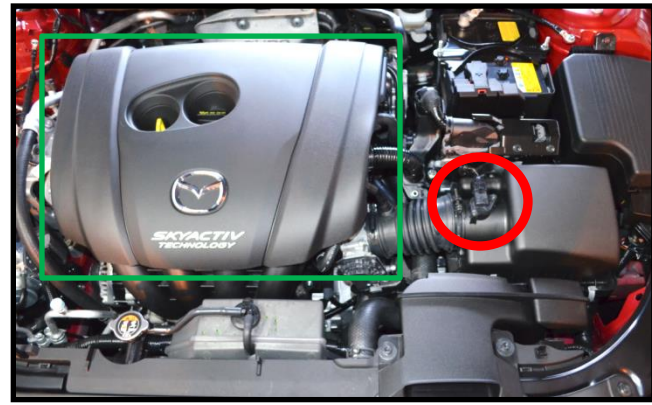


Figure 1a

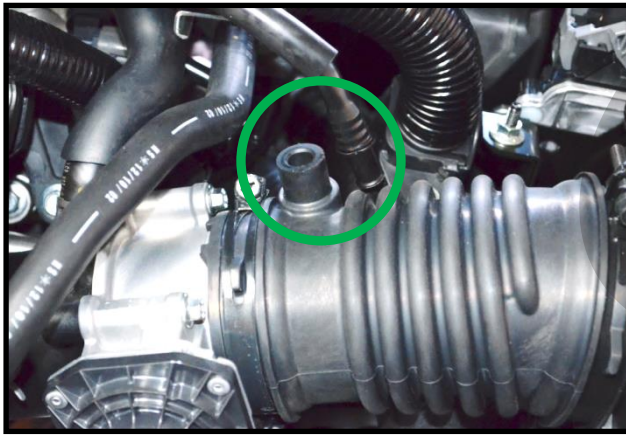


Figure 1c

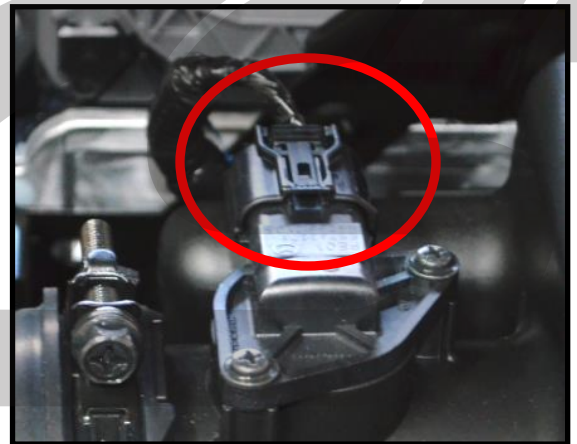


Figure 1b

- d) **Loosen hose clamp on air box to throttle body** (Green Arrow Figure 1d). This will require a large screw driver or a 10mm socket.
- e) **Remove Air Box Bracket** (Red Arrows Figure 1e). They will push off the top of the box but stay on the lower housing of the air box.



Figure 1d

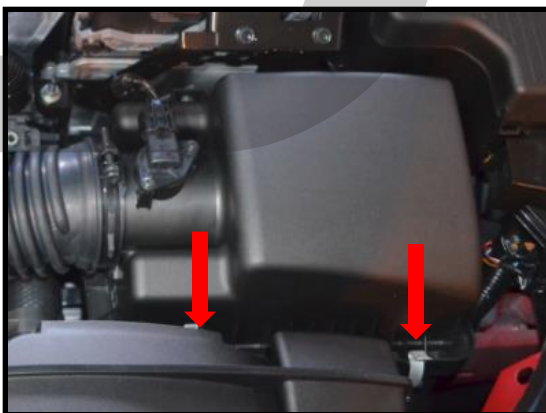


Figure 1e

- f) **Disconnect the MAF wiring and pull up on air box lid and remove it from the car** (Figure 1f). You will need needle nose pliers to compress the sides of the wiring harness tie down.

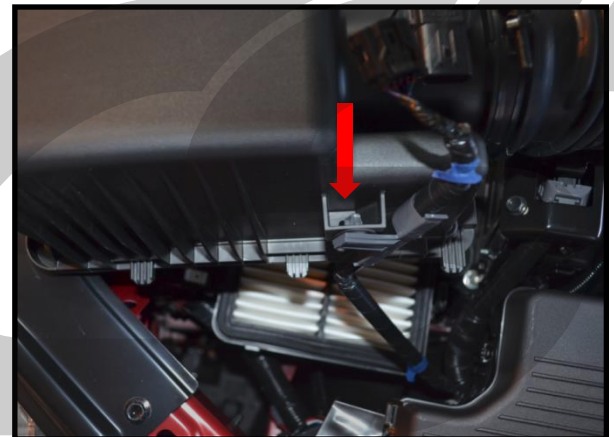


Figure 1f

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Detailed Instructions

1. Remove the Factory Intake continued....

- g) Remove two (2) 10mm bolts that hold the lower air box (Red circles in Figure 1g) and remove it from the car. Simply pull up.
- h) Remove MAF Sensor from factory air box with small Phillips screw driver (Red arrows Figure 1h).



If you purchased the CorkSport Cold Air Box for Mazda 3 or Mazda 6, please refer to those instructions now.

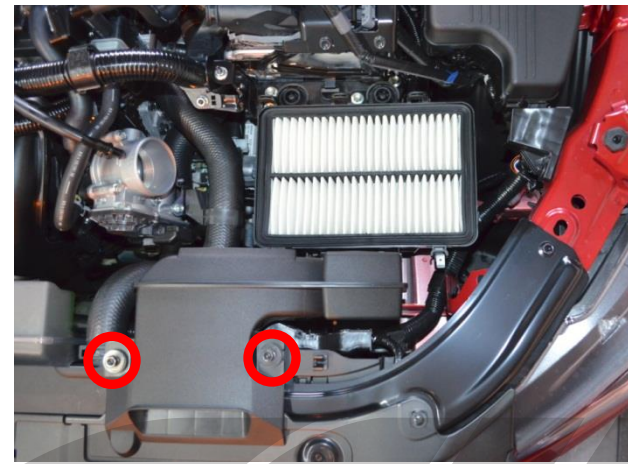


Figure 1g

2. Install the Corksport SkyActiv Short Ram Intake

- a) Install silicone elbow onto throttle body with the 77-85mm T-Bolt Clamp. Make sure to orient the elbow so the breather tube is facing up. (Green Arrow shows the breather tube and Red Arrow in Figure 2a shows the clamp location)
- b) Install breather tube fitting into the CS silicone elbow so that it seats all the way. (as shown with Green Arrow in Figure 2a)
- c) Tighten the 77-85mm T-Bolt Clamp at throttle body with 10mm Socket (Red arrow in Figure 2a)
- d) Install CS MAF onto CS silicone elbow with AIRFLOW pointing towards the throttle body. This will be the direction of flow. Make sure to orient the MAF sensor opening at the top similar to the factory setup. If everything is installed correctly the wiring will come out the backs side as shown. Then tighten a 83-91mm T-Bolt clamp to hold the MAF to the silicone elbow. (Yellow arrow in Figure 2a)

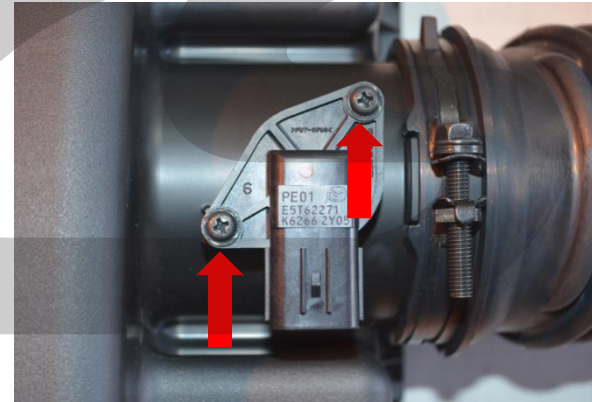


Figure 1h



Make sure the Arrow on the back side of the MAF is pointing towards the throttle body. The MAF sensor wiring will be coming out of the back side of the MAF as shown in Figure 2a.

Throttle Body

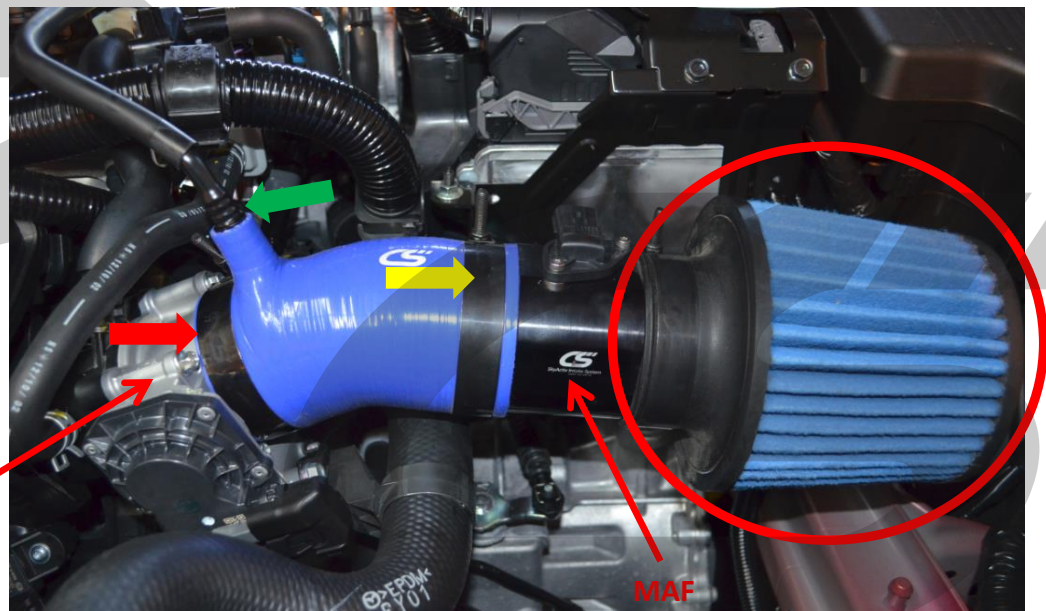


Figure 2a

Detailed Instructions

2. Install the Corksport SkyActiv Short Ram Intake Continued...

- e) Install air filter on MAF assembly and tighten 83-91mm T-bolt clamp with a 10mm socket. (Red Circle in Figure 2a on previous page)
- f) Install MAF sensor from factory air box. Make sure the MAF seals flat and that the o-ring is not pinched between the MAF and housing. If necessary apply a small amount of grease to the o-ring. Start the two provided Allen head screws included with the CS MAF assembly. Double check that the o-ring is not pinched before tightening the two 3mm Allen bolts down. (Red Circles in Figure 2b)
- g) Reconnect wiring for MAF Sensor (Figure 1b).

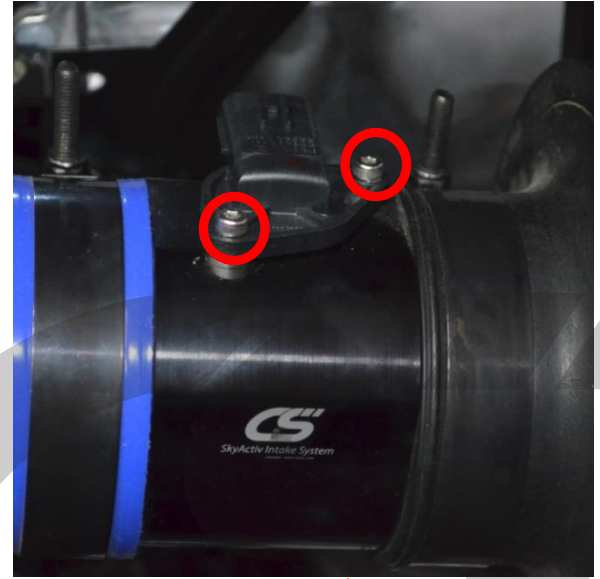


Figure 2b

! This completes the installation of your SkyActiv Short Ram Intake. Check for any visible or audible leaks in the system. If there is a leak, the silicone tube may have been over tightened or misaligned. If you get a Check Engine Light (CEL), check the connection at the Mass Air Flow(MAF) sensor to see if the o'ring was pinched or miss aligned. Check out our [knowledgebase](#) for additional install information

What's Next:

[CORKSPORT 2013+ Mazda CX5 Axle Back Exhaust](#)



Get added power and upgrade the look of your 2013+ Mazda CX5 with the CorkSport Power Series Axle Back Exhaust. As always, the CorkSport Mazda CX-5 exhaust is constructed from T-304 stainless steel and is TIG welded with precision laser cut flanges and features full mandrel bending to eliminate any possible flow restrictions. The CorkSport CX5 Axle Back Exhaust can be found at our online catalog here:

<http://www.corksport.com/corksport-mazda-cx5-axle-back-exhaust.html>