### 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T

PERFORMANCE INTERCOOLER
PARTS LIST & INSTALLATION GUIDE



#### PARTS INCLUDED

1PC Aluminum Intercooler 3PC Tree Clips

#### **TOOLS NEEDED**

Flathead Screwdriver 7mm Socket 10mm Socket 3/8" Drive Ratchet Pop-Clip Removal Tool T15 Torx Socket Needlenose Pliers Pick Tool

### INSTALL TIME 2 Hours INSTALL DIFFICULTY \*\*OPPOSITE OF THE PROPERTY \*\*OPPOSITE OF THE PROPERTY OF THE PROPERTY

#### **DISCLAIMER**

- Raise vehicle only on jack stands or on a vehicle lift.
- Allow vehicle to cool completely prior to attempting installation.
- Do not run the engine or drive the vehicle while overheating; serious damage can occur.
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.
- Mishimoto suggests that a trained professional install all Mishimoto products.

CAUTION: Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

NOTE: Set the vehicle on an automotive lift or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.

INSTALL BRIEFING: This file contains two separate install guides, one for the intercooler and one for the pipes. The first six pages are steps on how to install the Mishimoto Intercooler. Following the end of those steps are a new set of pages and steps just for the intercooler pipes. You'll see this in the titles. If you are installing both products at the same time, please understand that some steps may be duplicated. Read through both sets of instructions prior to starting your install to have a clear understanding of how to install both at the same time.

#### **INSTALL PROCEDURE**

- 1. Remove the two pop-clips that secure the upper edge of the front bumper. (2x pop-clips)
- Remove the six screws that secure the upper edge of the front bumper. Do not remove the screws that secure the black plastic alignment tabs. (6x T15 Torx screws)



 Remove the five screws that secure the air diverter to the driver side of the vehicle and remove the air diverter. Repeat this process on the passenger-side. (10x 7mm screws)

## 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T PERFORMANCE INTERCOOLER

**INSTALLATION GUIDE** 





Remove the eight screws that secure the lower edge of the bumper. (8x 7mm screws)



Remove the four screws and six bolts that secure the splash panel to the underside of the vehicle. Then remove the splash panel. (4x 7mm screws, 6x 10mm bolts)



Remove the front wheels from the vehicle. It is possible to perform this install without removing the wheels, but it makes accessing everything much easier. (10x lug nuts)



- 7. Remove the seven screws and one pop-clip that secure the driver-side fender liner to the vehicle. (7x T15 screws, 1x pop-clip)
- 8. Unseat the liner from the fender and pull it back to expose the front of the wheel well.
- 9. Remove the four screws that secure the bumper to the front edge of the fender. (4x 7mm screws)



10. Remove the two screws that secure the bumper to the fender and loosen the inner screw. (3x 7mm screws)



- 11. Pull the upper corner of the bumper away from the fender to release it from the vehicle.
- 12. Release the two tree-clips that secure the lighting harness to the vehicle. Then release the harness connector from the body and disconnect it. To release this connector, slide the red lock tab out of the connector and depress the black tab. (2x tree-clips)



## 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T PERFORMANCE INTERCOOLER

**INSTALLATION GUIDE** 



- 13. Remove the seven screws and one pop-clip that secure the passenger-side fender liner to the vehicle. (7x T15 screws, 1x pop-clip)
- 14. Unseat the liner from the fender and pull it back to expose the front of the wheel well.
- 15. Remove the two screws that secure the bumper to the fender and loosen the inner screw. (3x 7mm screws)
- 16. Remove the four screws that secure the bumper to the front edge of the fender. (4x 7mm screws)
- 17. Pull the upper corner of the bumper away from the fender to release it from the vehicle.
- 18. Lift the top edge of the bumper to free it from the alignment tabs.
- 19. Remove the front bumper by sliding it forward off the nose of the vehicle.
- 20. Use a pop-clip removal tool to pull out the clips that secure both the upper and lower shrouding.



21. Remove the top two shrouding pieces once they're free. (12x pop-clips)



22. There are spring washers located around the stock radiator. Use a flathead screwdriver to

wedge these free. (5x spring washers)



23. Remove the bolts that hold up the lower transmission bracket and let it rest at its lowest position. (2x 10mm bolts)



24. Separate the car horn from the front bumper. (1x 10mm bolt)



25. Disconnect the temp sensor wiring from the plastic shrouding. (2x tree clips)

# 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T PERFORMANCE INTERCOOLER

**INSTALLATION GUIDE** 





26. Remove the radiator stay ends and upper shroud. (4x 10mm bolts)



27. Remove the bolts that secure the AC condenser. Then, slide the condenser upward to free it from the tabs at the top. Lower the unit to give yourself some space to reach the intercooler. (2x 10mm bolts)



28. Remove the bolts that secure the lower section of the intercooler. (2x 10mm bolts)



29. Pull the ring clips off the intercooler end tank connections. Then, take the hot and cold-side pipes off the intercooler. (2x ring clips)



30. Remove the rubber shrouding on the driver side, in between the headlight and radiator. (1x pop-clip)



- 31. Lower the stock intercooler from the vehicle.
- 32. Install the Mishimoto intercooler by lifting it up into the same location as the stock component and letting it rest on the lower brackets. The AC condenser was removed for this image to give a better view of the step, but you can still install the part without removing the condenser.



## 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T

PERFORMANCE INTERCOOLER INSTALLATION GUIDE



33. Connect the hot and cold-side pipes to the intercooler and secure each connection with a ring clip. (2x ring clips)



- 34. Secure the bottom of the intercooler with the original hardware. (2x 10mm bolts)
- 35. Secure the AC condenser to the intercooler with the original hardware. (2x 10mm bolts)
- 36. Reinstall the larger ducting piece, feeding it up and behind the front bumper.



- Lift the transmission cooler bracket up and bolt it back onto the lower edge of the bumper. (2x 10mm bolts)
- 38. There are three tree clips included in your kit. Use them to replace the spring washers you removed earlier, only the areas on the intercooler. The other two locations at the top edges will get the original spring washers.
  - (3x tree clips, 2x spring washers)
- 39. Reinstall the radiator stay end shroud. (4x 10mm bolts)





- 40. Reinstall the two side shrouding pieces above the bumper, and then secure both the bottom and lower shroud pieces with the original clips. (12x pop-clips).
- 41. Reinstall the car horn. (1x 10mm bolt)
- 42. Install the front bumper. Align the pins on the bumper with the holes in the fender as you slide the bumper over the nose of the vehicle. Lift the top edge of the bumper over the alignment tabs. Check the fender gap on both sides.
- 43. Install the eight screws that secure the bumper to the front edge of the fenders. (8x 7mm screws)
- 44. Install the screws that secure the bumper to the bottom of the fenders. (6x 7mm screws)
- 45. Reconnect the lighting harness, lock the connector with the red tab, and secure it to the vehicle with the integrated tree-clips. (3x tree-clips)

### 2016+ CHEVROLET CAMARO 2.0T & 2013+ CADILLAC ATS 2.0T

PERFORMANCE INTERCOOLER INSTALLATION GUIDE



- 46. Push the driver-side fender liner back into place and make sure the edges are fully seated behind the ducting. Then secure the fender liner with the original hardware. Repeat this process on the passenger side.
  - (14x T15 Torx screws, 2x pop-clips)
- 47. Install the pop-clips that secure the upper edge of the front bumper. (2x pop-clips)
- 48. Install the six screws that secure the upper edge of the bumper. (6x T15 Torx screws)
- 49. Install the splash panel to the underside of the vehicle and secure it with the original hardware. (8x 10mm bolts)
- 50. Install both air diverters and secure them with the original hardware. If you forgot which side is which, look on the underside of the diverters. The driver-side will be marked LH and the passenger-side will be marked RH. (10x 7mm screws)
- 51. Install the four screws that secure the splash panel to the fender liner. (4x 7mm screws)
- 52. Install the eight screws that secure the front edge of the bumper. (8x 7mm screws)
- 53. Reinstall the front wheels. Torque the lug nuts to 140 lb ft in a star pattern. (10x lug nuts)

Congratulations! You have finished installing the Mishimoto 2016+ Chevrolet Camaro 2.0T/2013+ Cadillac ATS 2.0T Performance Intercooler.

# 2016+ CHEVY CAMARO 2.0T INTERCOOLER PIPE KIT PARTS LIST AND INSTALLATION GUIDE



#### **PARTS INCLUDED**

2PC | ALUMINUM PIPES W/ CNC-MACHINED QUICK-DISCONNECTS

1PC | ALUMINUM PIPE W/ CNC-MACHINED 2-BOLT FLANGE

**2PC | QUICK-DISCONNECT SPRING CLIPS** 

1PC | 2.75" 90° SILICONE COUPLER

1PC | 2.25" TO 2.5" SILICONE TRANSITION COUPLER

1PC | 2.5" T-BOLT CLAMP

1PC | 2.75" T-BOLT CLAMP

2PC | 3" T-BOLT CLAMPS

MOUNTING HARDWARE

#### **TOOLS NEEDED**

T20 TORX SOCKET 1/4" DRIVER

7MM SOCKET 1/4" DRIVE EXTENSION(S)

10MM SOCKET FLATHEAD SCREWDRIVER

13MM SOCKET SMALL PICK

1/4" DRIVE RATCHET

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#### **DISCLAIMER**

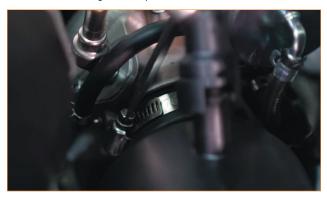
- · Raise vehicle only on jack stands or on a vehicle lift.
- Allow vehicle to cool completely prior to attempting installation.
- Do not run the engine or drive the vehicle while overheating; serious damage can occur.
- Please dispose of any liquids properly.
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.
- Mishimoto suggests that a trained professional install all Mishimoto products.

#### **CAUTION**

Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

#### **INSTALL PROCEDURE**

- 01. Set the vehicle on an automotive lift or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.
- Loosen the clamp that secures the air intake to the turbocharger inlet. (1x worm gear clamp)



**03.** Disconnect the CCV hose from the intake by sliding the locking tab over and pulling the hose off the port.



# 2016+ CHEVY CAMARO 2.0T INTERCOOLER PIPE KIT INSTALLATION GUIDE



04. Disconnect the mass airflow (MAF) sensor, and release the harness from the intake tubing. To release the connector, slide the red locking tab up, depress the black tab and pull the connector off the sensor.



05. Separate the intake from the turbocharger, and remove the intake by lifting it upward. The airbox is held in by three pegs and grommets.



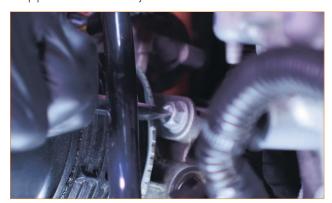
- **06.** Remove the five screws that secure the air diverter to the driver side of the vehicle, and remove the air diverter. Repeat this process on the passenger side. (10x 7mm screws)
- **07.** Remove the eight screws that secure the lower edge of the bumper. (8x 7mm screws)
- **08.** Remove the four screws and eight bolts that secure the splash panel to the underside of the vehicle. Then remove the splash panel. (4x 7mm screws, 8x 10mm bolts)



09. Remove the two bolts that secure the hot-side intercooler pipe to the turbocharger outlet. Then remove the turbocharger gasket and set it aside. (2x 13mm bolts)



10. Disconnect the cold-side pipe from the throttle body. There is a gray lock-ring that secures this connection. To separate the pipe, turn the gray ring counterclockwise, and pull the pipe off the throttle body.



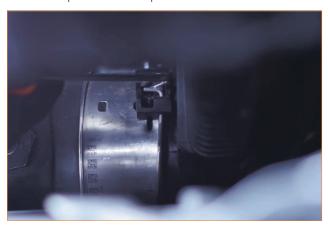
# 2016+ CHEVY CAMARO 2.0T INTERCOOLER PIPE KIT INSTALLATION GUIDE



11. Disconnect the sensor from the cold-side pipe. To release this connector, slide the locking mechanism upward. You will feel the connector start to slide off. Once the locking mechanism is disengaged, the connector will be easy to separate.



12. Reach down through the engine bay on the passenger side, and use a pick to lift the circlip on the cold-side pipe until it locks into the detent, as shown here. This detent will hold the circlip in the unlocked position.



13. Reach down through the engine bay on the driver side, and use a pick to lift the circlip on the hot-side pipe until it locks into the detent. This detent will hold the circlip in the unlocked position.

14. Reach up from underneath the vehicle on the passenger side, and use a pick to unseat the other side of the circlip on the hot-side pipe. Then remove the circlip and separate the pipe from the intercooler.



15. Reach up from underneath the vehicle, and pull down on the circlip to lock it into the detent. Then separate the pipe from the intercooler. Here you can see the channel on the intercooler where the circlip locks into place. Keep that in mind for when you install the Mishimoto pipes.



16. Remove the hot-side pipe from the vehicle. The pipe can be separated into two pieces by loosening the worm gear clamp. To remove it in one piece, slide it back toward the firewall, and feed the intercooler connection past the turbo first.

## 2016+ CHEVY CAMARO 2.0T INTERCOOLER PIPE KIT

**INSTALLATION GUIDE** 



17. Remove the cold-side pipe from the vehicle. Here you can see the locking ring that holds the pipe onto the throttle body, and the plastic piece that houses the circlip ends and detents.



18. Remove the screw that secures the sensor to the cold-side pipe. Then remove the sensor by pulling it directly outward. Transfer the sensor to the Mishimoto cold-side pipe, and secure it with the provided bolt. Do not reuse the original screw on the Mishimoto cold-side pipe. (1x T20 screw, 1x 10mm bolt)



19. Inside the quick-disconnect fitting on each pipe, there is a rubber seal. Transfer the seals from the stock pipes to the Mishimoto pipes, taking care not to reverse the direction of the seals.



- 20. Lower the cold-side pipe into place, and slide the quick-disconnect fitting over the intercooler outlet until it locks. You will hear an audible click when the circlip drops into the channel on the intercooler.
- 21. Locate the silicone elbow and clamps in your kit. The end of the elbow with the Mishimoto logo will attach to the throttle body. This is important for a good seal due to the ridge on the inside of the elbow.
- 22. Slip one of the provided T-bolt clamps over the silicone elbow. Lubricate the inside of the coupler, and install it to the cold-side pipe. Install the other clamp over the silicone elbow, and attach the coupler to the throttle body. Make sure that the ridge on the coupler engages the channel on the throttle body to ensure a tight seal. (2x T-bolt clamps)
- 23. Make sure the coupler is fully seated over both the pipe and the throttle body, and then tighten the clamps to secure the coupler.



# 2016+ CHEVY CAMARO 2.0T INTERCOOLER PIPE KIT INSTALLATION GUIDE



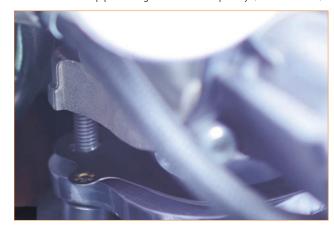
- 24. Connect the wiring harness to the sensor on the cold-side pipe, and push down the locking mechanism to secure the connection.
- 25. Locate the coupler and clamps in your hot-side pipe kit. There are two different sizes of the clamps included to accommodate each side of the coupler.
- 26. Install the lower section of the hot-side pipe by sliding it down past the turbocharger and feeding it toward the front of the vehicle. Push the pipe over the quick-disconnect fitting on the intercooler until the circlip locks into place.



27. Lubricate the transition coupler, and install the wider end over the lower section of the hot-side pipe. Then slip the wider clamp over the coupler, followed by the smaller clamp. Lubricate the upper section of the hot-side pipe and lower it into place. Slip it into the coupler, and turn the pipe until the two-bolt flange aligns with the turbo outlet flange. (2x T-bolt clamps)



28. Reinstall the turbo charger gasket between the hot-side pipe and the turbocharger outlet. Then install the two original bolts to secure the pipe and tighten them completely. (2x 13mm bolt)



- 29. Adjust the coupler on the hot-side pipe so that both sections are engaged, and then tighten the clamps to secure the coupler.
- 30. Reinstall the air intake. Slip the fresh air duct of the airbox into place under the radiator support. Install the intake hose to the turbocharger inlet, and tighten the clamp that secures it. Align the pegs on the airbox with the grommets on the body of the car, and push the airbox down to engage them. Reinstall the CCV hose to the intake. Connect the MAF harness to the intake tube and reconnect the MAF sensor. Lock the connector with the red tab. (1x worm gear clamp)
- 31. Install the splash panel to the underside of the vehicle, and secure it with the original hardware. (8x 10mm bolts, 4x 7mm screws)
- 32. Secure the lower edge of the front bumper with the original hardware. (8x 7mm screws)
- 33. Install both air diverters to the vehicle and secure them with the original hardware. If you forgot which side is which, look on the underside of the diverters. The driver side will be marked **LH** and the passenger side will be marked **RH**. (10x 7mm screws)

**Congrats! You just finished installing** the 2016+ Chevy Camaro 2.0T Intercooler Pipe Kit.