

2016+ CHEVY CAMARO 2.0T OIL COOLER KIT

PARTS LIST AND INSTALLATION GUIDE



PARTS INCLUDED

- 3PC** | APPLICATION-SPECIFIC MOUNTING BRACKETS
- 1PC** | HORN RELOCATION MOUNTING BRACKET
- 1PC** | 25-ROW OIL COOLER (SLEEK SILVER OR STEALTH BLACK)
- 1PC** | 4/4" STAINLESS STEEL BRAIDED HOSE WITH STRAIGHT -10AN FITTINGS
- 1PC** | 1PC 4*10" STAINLESS STEEL BRAIDED HOSE WITH STRAIGHT AND 45° -10AN FITTINGS
- 1PC** | M22 OIL SANDWICH PLATE (THERMOSTATIC OR NON-THERMOSTATIC)
- 1PC** | M22 X 1.5 SANDWICH PLATE ADAPTER
- 2PC** | M20 X -10AN SANDWICH PLATE FITTINGS WITH DOWTY SEALS, BLACK
- 2PC** | THERMAL HEAT WRAP, 12" LENGTHS
- 4PC** | ZIP TIES
- 1PC** | 4" HOSE
- MOUNTING HARDWARE

TOOLS NEEDED

T15 TORX SOCKET	1/2" EXTENSION
7MM SOCKET	TORQUE WRENCH
10MM SOCKET	PANEL TOOL
1/4" RATCHET	FLATHEAD SCREWDRIVER
1/4" DRIVER	DIAGONAL CUTTERS
1/4" EXTENSION(S)	POP-CLIP PLIERS
1" SOCKET	10MM WRENCH
22MM SOCKET	-10 AN WRENCH
27MM SOCKET	STRAP WRENCH
1/2" RATCHET	MASKING TAPE

INSTALL TIME **2-3 HOURS**

INSTALL DIFFICULTY

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.

NOTE

Installing an oil cooler adds additional maintenance to vehicle ownership. All oil line connections should be regularly checked for leaks and retorqued. The oil filter center-bolt adapter must be retorqued every time the oil filter is removed.

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.

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02. 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.



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 two tree-clips that secure the upper edge of the front bumper. (2x tree-clips)



07. 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)

08. Remove the five screws that secure the air diverter on the driver side, and then the other five screws on the passenger side. Remove the air diverter. (10x 7mm screws)



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



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10. 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)



11. Remove the front wheels from the vehicle. It is possible to perform this install without removing the wheels, but doing so makes accessing everything much easier. (10x lug nuts)
12. Remove the seven screws and one pop-clip that secure the driver-side fender liner to the vehicle. (7x T15 screws, 1x pop-clip)
13. Unseat the liner from the fender, and pull it back to expose the front of the wheel well.



14. Remove the four screws that secure the bumper to the front edge of the fender. (4x 7mm screws)



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



16. Pull the upper corner of the bumper away from the fender to release it from the vehicle.
17. 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)



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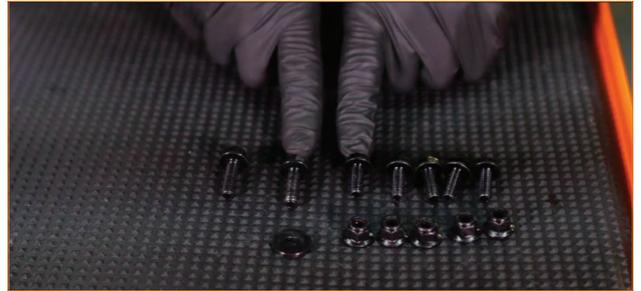
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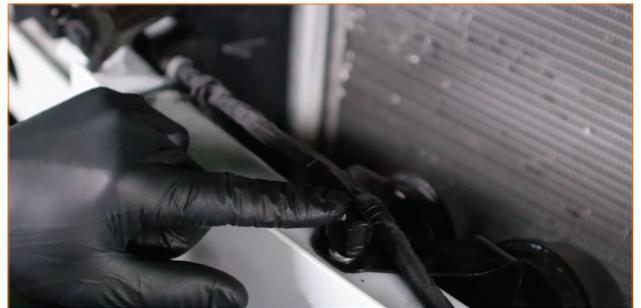
18. Remove the seven screws and one pop-clip that secure the passenger-side fender liner to the vehicle. (7x T15 screws, 1x pop-clip)
19. Unseat the liner from the fender, and pull it back to expose the front of the wheel well.
20. Remove the two screws that secure the bumper to the fender, and loosen the inner screw. (3x 7mm screws)
21. Remove the four screws that secure the bumper to the front edge of the fender. (4x 7mm screws)
22. Pull the upper corner of the bumper away from the fender to release it from the vehicle.
23. Lift the top edge of the bumper to free it from the alignment tabs.
24. Remove the front bumper by sliding it forward off the nose of the vehicle.
25. Remove the three pop-clips and six screws that secure the rear splash panel to the underside of the vehicle. (3x pop-clips, 4x 10mm screws, 2x T15 Torx screws)



26. Locate the hardware in your kit. There are two different bolt sizes. One of the larger bolts will be used to attach the horn to the relocation bracket. The other large bolt, along with the plastic washer, will attach the cooler to the crash bar. The smaller bolts and Nyloc nuts will secure the brackets to the cooler.



27. Locate the horn assembly on the crash bar, and separate the wiring harness from the stud that secures it. Then remove the stud. (1x 10mm stud)



28. Locate the small bracket with the threaded insert in your kit. Lift the horn assembly off the crash bar, and install the bracket in its place. Orient the bracket so that the threaded insert faces toward the passenger side, and secure it with the stud you just removed. Then reattach the wiring harness to the stud. (1x 10mm stud)



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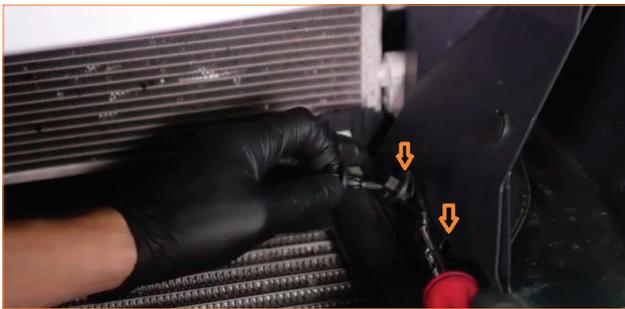
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29. Place the horn assembly on top of the bracket you just installed, and secure it with one of the long bolts. (1x long 10mm bolt)



30. Remove the two pop-clips that secure the air diverter to the ducting. (2x pop-clips)



31. Remove the bolt that secures the bottom of the driver-side support strut. (1x 10mm bolt)



32. Locate the large bracket with the threaded insert in your kit. Attach this bracket to the passenger side of the oil cooler with the provided hardware, but do not fully tighten it yet. (2x 10mm bolts, 2x Nyloc nuts)



33. Locate the angled bracket in your kit. Attach this bracket to the driver-side of the oil cooler with the provided hardware, but do not fully tighten it yet. (2x 10mm bolts, 2x Nyloc nuts)



34. Locate the last bracket in your kit. Attach this bracket to the forward-most hole on the bottom of the driver side of the cooler with the provided hardware. Thread the bolt in, but do not fully tighten it. (1x 10mm bolt, 1x Nyloc nut)



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35. Slip the Mishimoto cooler and attached brackets under the crash bar while tilting the cooler up to clear the AC condenser. Align the angled bracket with the support strut, and thread in the bolt that originally held the strut. (1x 10mm bolt)



36. Align the driver-side bracket with the hole in the crash bar, and secure it with the provided bolt and washer. (1x 10mm bolt, 1x plastic washer)



37. Align the lower bracket in your kit with the holes in the air diverter, and reinstall the two pop-clips to secure it. (2x pop-clips)



38. Now that all the brackets are attached, go back and tighten all the bolts that secure the cooler to the brackets.
39. Place a drain pan underneath the vehicle, and remove the oil filter from the engine. Wipe off the mating surface with a clean rag.
40. Lubricate the gasket on the Mishimoto sandwich plate with fresh engine oil, and then install the sandwich plate to the engine using the provided center bolt. Orient the sandwich plate so that the threaded ports face forward, and then snug the center bolt. (1x center bolt)



41. Install the two provided fittings to the sandwich plate, and tighten them completely. (2x fittings)



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42. Remove the push-nut that secures the ducting to the driver side of the radiator, and separate the ducting from the plastic stud. (1x push-nut)

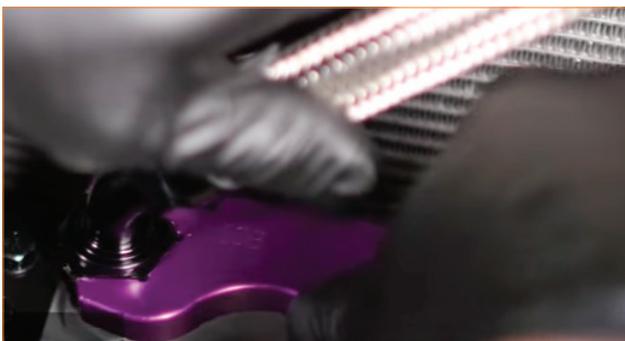


43. Locate the hose in your kit with two straight fittings. Pass one end of this hose through the ducting on the side of the radiator.



44. Locate the hose in your kit with a 45° fitting. Pass the end with the 45° fitting alongside the first hose.

45. Attach the 45° fitting to the port on the oil cooler that is closest to the center of the vehicle, and tighten it completely.



46. Attach the straight fitting to the port on the oil cooler that is closest to the driver side of the vehicle, and tighten it completely.

47. Lead both hoses down through the engine bay. They should follow the curve of the forward-most AC line and pass in front of the stabilizer bar.



48. Locate the silicone sleeve in your kit. Slip the sleeve over the stabilizer bar where the oil lines cross under it, and secure the sleeve with the short zip ties included with your kit.



49. Lead the oil lines over the steering rack, back to the sandwich plate. Attach the lines to the fittings on the sandwich plate, and tighten them completely.



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- 50. Adjust the position of the sandwich plate so that the oil lines flow smoothly. Then tighten the center bolt to 35 ft-lb using a torque wrench.
- 51. Reinstall the oil filter, or install a new filter.
- 52. Locate the heat wrap included with your kit. Be sure to wear gloves when handling this material, as it contains fiberglass and can irritate your skin. Install the wrap over the oil lines where they run past the AC lines, and then pull off the protective strips and squeeze the wrap to engage the adhesive.



- 53. Secure the oil lines to the AC line with the long zip ties included with your kit. Then snip off the excess zip tie.



- 54. 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. Install the CCV hose to the intake. You will hear an audible click when the hose is engaged. Connect the MAF harness to the intake tube, and reconnect the MAF sensor. Lock the connector with the red tab. (1x worm-gear clamp)

- 55. Check the oil level, and top it off as needed with GM-approved engine oil. Start the engine, and allow it to idle for a few seconds. Then shut off the engine and check the oil level once more. Start the engine and allow it to warm up to operating temperature. While the vehicle is warming up, inspect all the oil line connections, the sandwich plate, and the oil filter for leaks. If oil is leaking from any of the connections, shut off the engine. Loosen the leaking connection and retorque it. Once the vehicle is fully warmed up, shut off the engine and check the oil once more.
- 56. Reinstall the rear splash panel to the underside of the vehicle, and secure it with the original hardware. There are two tabs at the rear of the splash panel that must slip over the subframe support. (3x pop-clips, 4x 10mm screws, 2x T15 Torx screws)
- 57. Apply masking tape to the bottom edge of the front fenders. This will protect the paint while you reinstall the front bumper.
- 58. 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.
- 59. Install the eight screws that secure the bumper to the front edge of the fenders. (8x 7mm screws)
- 60. Install the six screws that secure the bumper to the bottom of the fenders. (6x 7mm screws)
- 61. Check the fender gap on both sides, and then remove the masking tape from the fenders.
- 62. Reconnect the lighting harness, lock the connector with the red tab, and secure it to the vehicle with the integrated tree-clips. (2x tree-clips)
- 63. 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)

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- 64. Install the two tree-clips that secure the upper edge of the front bumper. (2x tree-clips)
- 65. Install the six screws that secure the upper edge of the bumper. (6x 7mm screws)
- 66. Install the splash panel to the underside of the vehicle, and secure it with the original hardware. (8x 10mm bolts)
- 67. 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)

- 68. Install the four screws that secure the splash panel to the fender liner. (4x 7mm screws)
- 69. Install the eight screws that secure the front edge of the bumper. (8x 7mm screws)
- 70. Reinstall the front wheels. Torque the lug nuts in a star pattern to 140 ft-lb. (10x lug nuts)

Congrats! You just finished installing the 2016+ Chevy Camaro 2.0T Oil Cooler Kit.

