



Installation Instructions

2009-2015 Cadillac CTS-V Heat Exchanger - 80293NDP



AFCO RACING
P.O. Box 548, Boonville, IN 47601
(800)-632-2320
www.AFCOracing.com

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Congratulations on your purchase of the 2009-2015 Cadillac CTS-V heat exchanger. Please read and understand each of the steps involved with the installation of the 80293NDP heat exchanger prior to getting started.

Parts List (80293NDP)

- Heat exchanger (Qty. 1)
- Zip tie (Qty. 5)
- Spacer .40" diameter (Qty. 4)
- Blue grommet (Qty. 4)
- M6 x 1.0 x 30mm bolt (Qty. 4)
- M6 x 18mm washer (Qty. 4)
- #12 Hose clamp (Qty. 3)
- Red plastic plug (Qty. 5)
- Lit 721 Installation manual (Qty. 1)

Tools Needed

- 10mm Socket
- 1/4" Drive ratchet
- 1/4" Extension
- 10mm Wrench
- 1/4" Wrench
- 5/16" Nut driver
- Phillips screwdriver
- Pliers
- Trim tool
- Socket and wrench to remove lug nuts

WARNING:

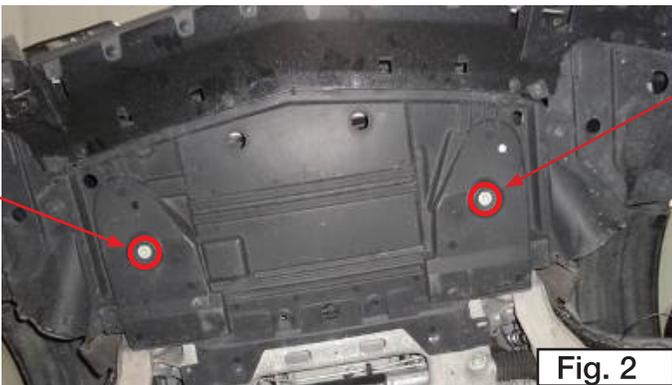
1. Radiator fluid must be handled properly. Please observe local ordinances with regards to handling and disposal.
2. Allow vehicle and components to cool a minimum of 1 hour before handling.
3. Never attempt to open the radiator cap when hot.
4. Do not allow any tools or limbs to contact fans—SERIOUS INJURY MAY RESULT.
5. Always follow directions and disconnect the battery before attempting installation.
6. Retailer is not responsible for personal injury or damage to vehicle resulting from improper installation of this product.
7. Due to vehicle variations / tolerances it is ultimately up to the installer to determine proper installation.

Removal of the Stock Heat Exchanger

1. Disconnect the negative battery terminal.
2. Lift the front of the vehicle, secure on jack stands, and remove the front tires of the vehicle to gain access to the inner fender splash guards.
3. Remove the ten plastic clips from the bottom splash guard from underneath the bumper of the car (Fig. 1).



4. Remove the two 10mm bolts holding the splash guard to the k-member and remove the splash guard (Fig. 2).



5. Remove the three plastic clips holding the bottom of the inner fender well to the bottom of the bumper (Fig. 3).



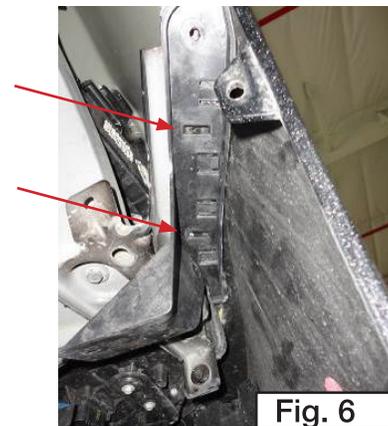
6. Remove the eight plastic clips in the inner fender well and remove the inner fender well (Fig. 4).



7. Remove the two 10mm bolts that hold the front nose to the fender (Fig. 5).

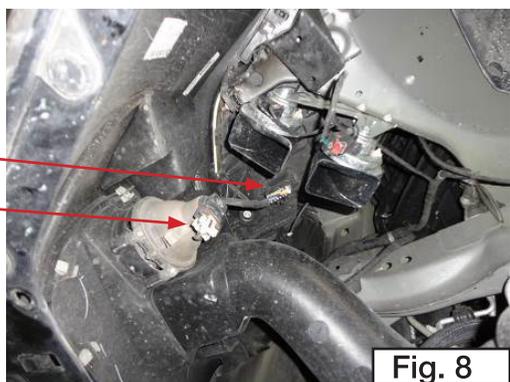
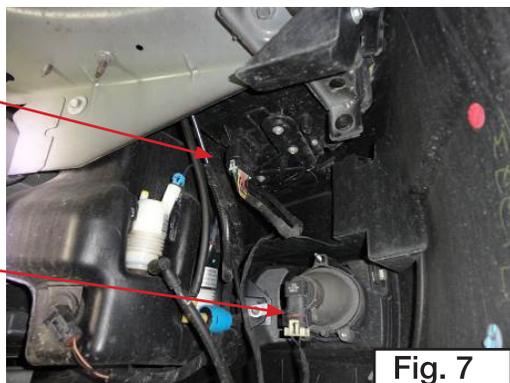


8. Carefully depress the two clips holding the plastic bumper support to the fender (Fig. 6). Pull down on the plastic support in order to remove it.

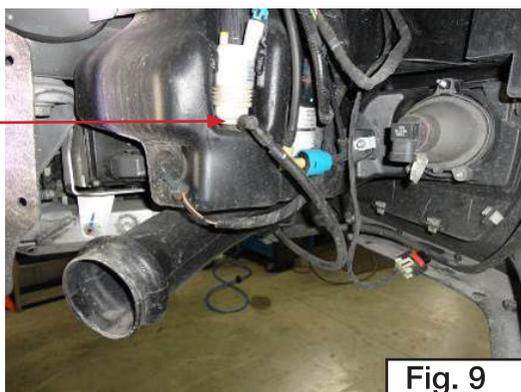


9. Repeat steps 5-8 on the opposite side of the vehicle.

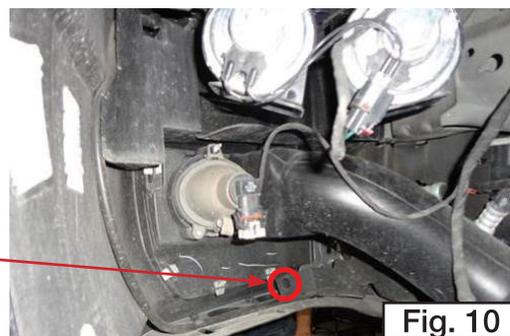
10. Unplug the main wire harness on each side of the bumper, which are located in the fender above the fog lights (Figs. 7 & 8). Unplug the fog light wire harness from each side (Figs. 7 & 8).



11. The washer fluid will have to be drained or a cap can be placed over the barb in order to disconnect the washer fluid hose from the reservoir that runs to the headlight washer nozzles (Fig. 9).



12. Remove the plastic clip attaching the rubber air deflector to the bottom of the bumper on each side (Fig. 10).



13. From the top side of the car, remove the six plastic screws that hold the engine bay cover to the radiator support (Fig. 11).



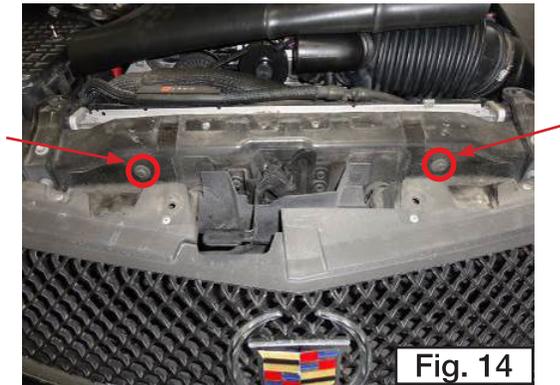
14. Remove the rubber gasket from the fenders that seals the hood to the fenders, leaving it attached to the radiator support cover (Fig. 12). Remove the radiator support cover.



15. Remove one plastic clip from each side of the bumper cover that attaches it to the radiator support (Fig. 13).



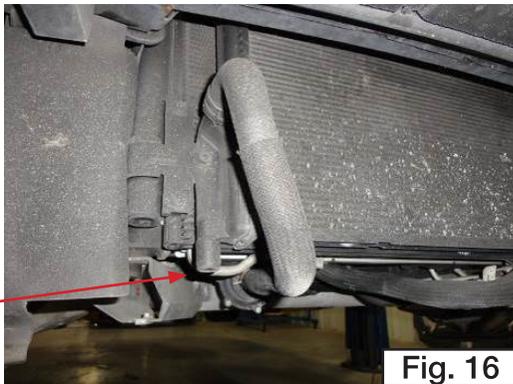
16. Remove the two 10mm bolts towards the center of the grille opening of the nose that attach it to the radiator support (Fig. 14).



17. At this point, the nose of the car should be removed and set aside (Fig. 15).



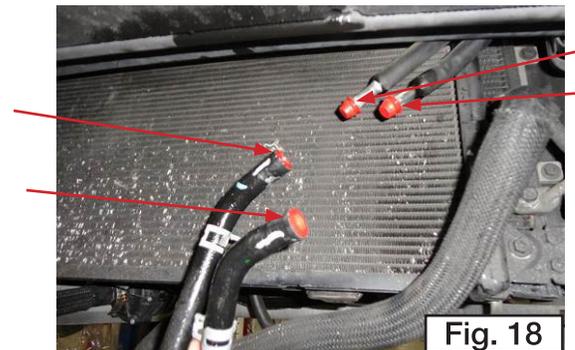
18. Drain the coolant from the heat exchanger by removing the 3/8" hex plug located on the passenger side of the heat exchanger (Fig. 16). Removing the 3/8" plug on the upper driver side will allow the coolant to drain quicker.



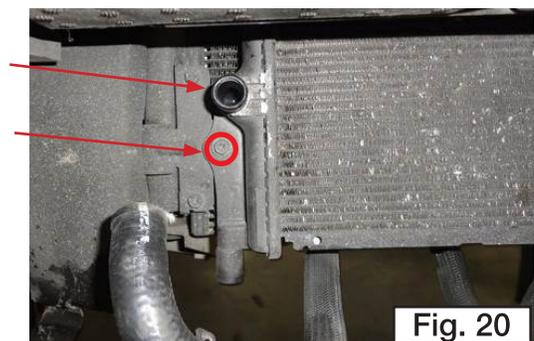
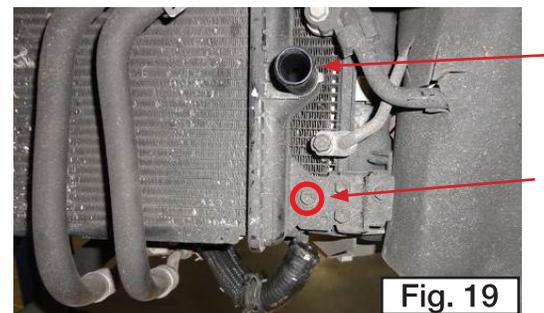
19. Remove the one 10mm bolt holding the oil cooler lines to the radiator support (Fig. 17).



20. Using the provided red plastic plugs, remove the oil cooler lines from the oil cooler and plug the lines and oil cooler to prevent oil from leaking (Fig. 18).



21. Remove the driver side and passenger side coolant hoses from the heat exchanger. Remove the bottom two 10mm bolts holding the heat exchanger to the condenser (Figs. 19 & 20).



22. Remove the top two 10mm bolts from the heat exchanger (Figs. 21 & 22). The heat exchanger should be removed at this time.



Fig. 21

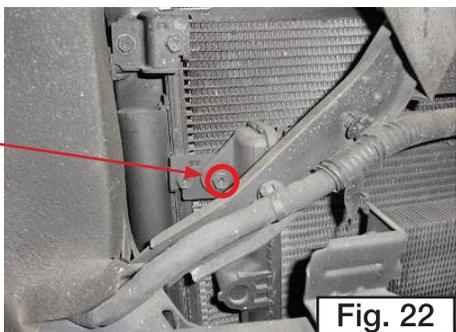


Fig. 22

Installation of the AFCO Heat Exchanger

23. Place all four rubber grommets onto the heat exchanger, washer side facing the front of the vehicle (Fig. 23). Insert the .40" diameter aluminum spacer into the center of each grommet.

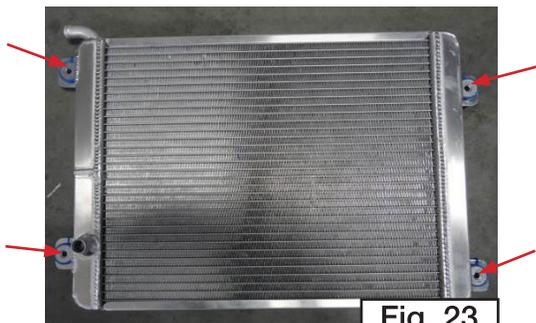


Fig. 23

24. Insert the top two M6 x 30mm bolts with a washer into the blue rubber grommets before placing the heat exchanger into the vehicle (Figs. 24 & 25). Bolt the heat exchanger onto the condenser in the factory location, the black bracket on the condenser may have to be loosened to allow adjustment for the heat

exchanger to be attached. Install the bottom bolts through the rubber grommets and into the condenser mounts (Fig. 26).

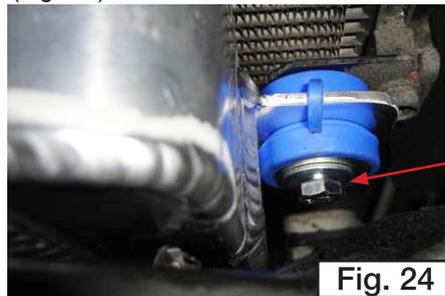


Fig. 24

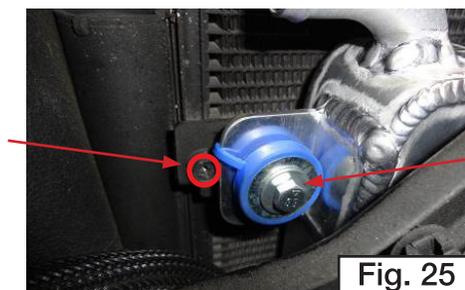


Fig. 25

25. Tighten the bolts until the blue grommet compresses approximately 1/16" or until the bolt bottoms out on the aluminum spacer.
26. Remove the factory hose clamps from the hoses and use the provided hose clamps. An extra hose clamp is provided to use on the hose end attached to the coolant pump. Attach the factory passenger side hose to the bottom outlet of the AFCO heat exchanger (Fig. 26).

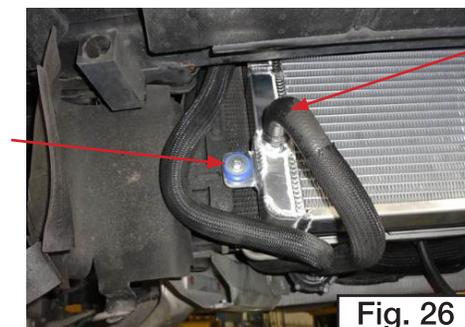


Fig. 26

27. Route the factory hose that previously ran to the driver side of the vehicle to the upper inlet on the passenger side of the AFCO heat exchanger. Zip tie this hose to the support bar to keep the hose away from the heat exchanger bracket. The end attached to the coolant pump may need to be rotated to prevent kinking of the hose. Move this hose to the outside of the lower hose to prevent the hose from being cut or kinked (Figs. 27 & 28).

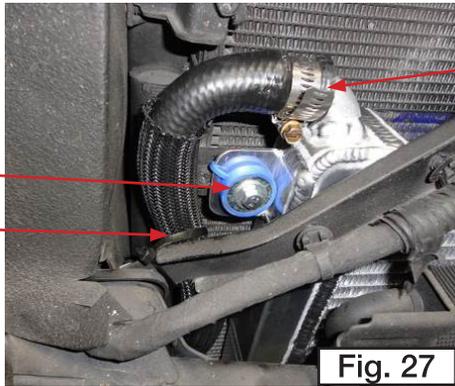


Fig. 27



Fig. 28

28. Reattach the factory oil cooler lines to the oil cooler in the same orientation that they were removed. Make sure to orientate the hose clamps away from the core of the heat exchanger to prevent any damage (Fig. 29).

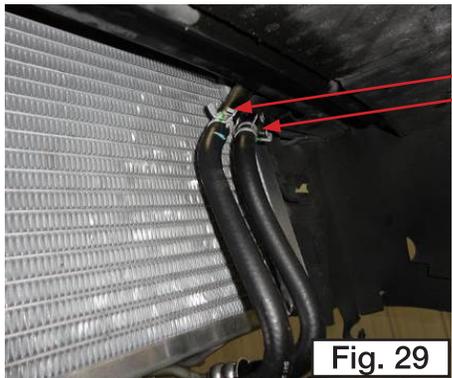


Fig. 29

29. Verify all bolts, nuts, and hose connections are tight.

30. Loosen the upper bleeder valve on the driver side of the heat exchanger with a 1/4" wrench (Fig. 30). Fill the supercharger coolant system with the recommended OEM coolant until a steady stream is coming out of the bleeder valve (Fig. 31). Close the bleeder valve and finish filling the coolant to the recommended level. Verify that there are no leaks.

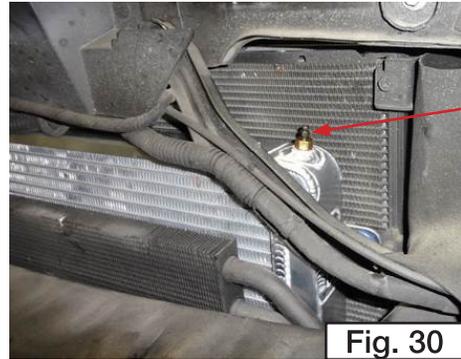


Fig. 30



Fig. 31

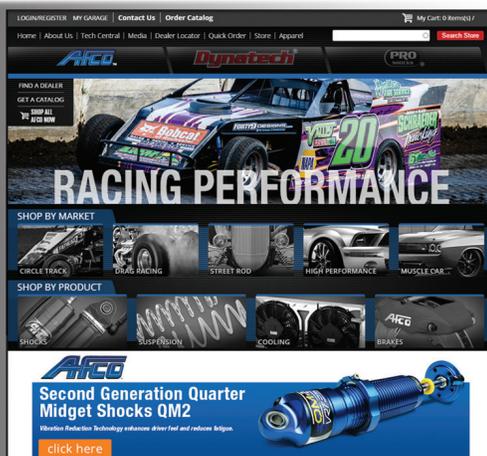
31. Reconnect the negative battery cable, start the vehicle, and allow the car to idle until warm.
32. Once the pump turns on, the level in the fill port will drop. Continue adding coolant until the recommended level is achieved. This system will hold approximately 1/4 – 3/4 gallons of coolant.
33. Continue to run the vehicle for 5 minutes to verify that all air is purged from the system. Check the system for leaks while waiting.
34. Once the system is checked, install all of the components in reverse order of removal.





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800-632-2320 | 977 Hyrock Blvd. Boonville, IN 47601

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