

Make Overheating a Thing of the PAST!!

Tools You Will Need:

- 9/16" Wrench or Socket & Ratchet
- Flat Blade Screwdriver or 5/16" Nut Driver
- Large buckets/tubs/containers.
You will need a couple at least.
- Funnel
- 3/8" Hose
- Laser Pyrometer
(Non Contact Thermometer)
- Compressed Air/Leaf Blower/Shop Vac
- Turkey Baster
(To syphon coolant out of the radiator.)
- Lift, Ramps, Jack or Jack Stands
- Danchuk New Part #18459
Evans Waterless Coolant (4 gallons)
- Danchuk New Part #18460
Evans Prep Fluid (3-4 gallons)
- Danchuk New Part#18461
Evans Coolant Conversion Kit



The key to setting up your cooling system for waterless coolant is getting as much water out of the system as possible. When you have completed the installation you are going to want only 3% or less of water. Any more and the effectiveness decreases drastically. Using the Evans Coolant Conversion Kit and the Prep Fluid you should be able to hit this number with no problems, but we will tell you what to do if you don't. Let's get started.

Note: You will want to begin the conversion with a cool engine. You will be draining all the coolant from the radiator, heater core and engine block and you don't want to get burned. Also, Remember that if you have ethylene glycol anti-freeze in your car to clean up spills immediately and keep pets and children away from it. Ethylene glycol coolant is poisonous to humans and animals.

- 1.) Disconnect the negative battery cable. (Our car has a battery cut off switch, so we turned it to OFF.)



- 2.) Place your large tub or bucket under the radiator under the radiator petcock. Attach your 3/8" hose to the end of the petcock and run it down into the tub or bucket. Open the petcock and remove the radiator cap. Drain all the water or coolant from the radiator until there is no more. Pics 2, 3, 4, & 5



WITH Evans Waterless Coolant

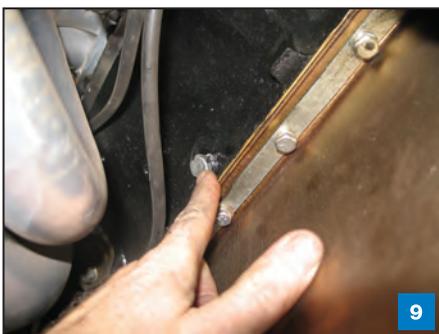
INSTALLATION ARTICLE

How would you like to eliminate corrosion in your cooling system, help your radiator, water pump and heater core last longer and eliminate the need to change your coolant every couple of years? Sound good? Then keep reading because we are going to introduce you to Evans Waterless Coolant and show you what you need to do to switch from conventional coolant to waterless. When you are done you will have a cooling system that will protect your car from -40° to 375°. So overheating will virtually become a thing of the past.

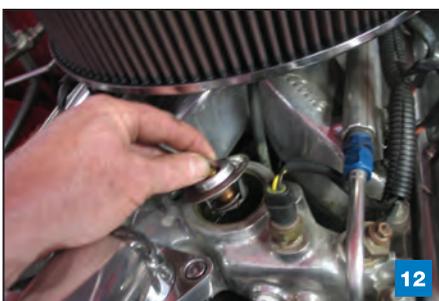
3.) Next we need to remove the coolant that is in the heater core and hoses. Locate and, using your flat blade screwdriver or 5/16" nut driver, disconnect the two heater hoses from the intake manifold and water pump. Place one hose into your tub or bucket. If you have an inline heater valve open it also. Using low pressure compressed air or a leaf blower or shop vac (on the exhaust side of the shop vac), blow air into the other heater hose forcing the coolant out the hose you put in the tub or bucket. Remember, LOW pressure. You can damage your heater core if the pressure is too high. Blow out as much of the coolant as possible. Pics 6, 7, & 8



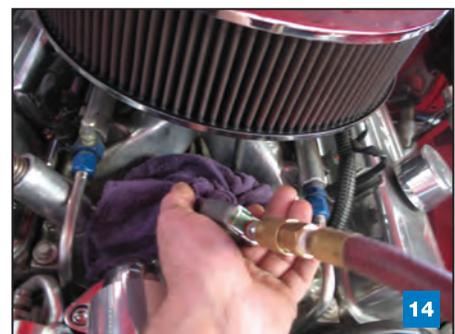
4.) Now we will drain the engine block. Position your tub or bucket under the engine coolant drain plugs above the oil pan on each side of the block. Using your 9/16" wrench or socket and ratchet remove them. We used a funnel under the plugs to keep mess to a minimum. Draining the block is Messy business. Pics 9 & 10



5.) Leaving the engine block drain plugs out, remove the upper radiator hose, thermostat housing and thermostat. Then remove the lower radiator hose from the radiator and point it into your tub or bucket. We want to force coolant from this part of the engine out so we used compressed air and sealed around the end of the air nozzle with a shop rag and then blew air into the engine. The people at Evans recommend using the leaf blower or shop vac instead of compressed air as there is more air volume with the leaf blower, so we recommend you do that instead. Get as much coolant out as possible. Pics 11, 12, 13 & 14



6.) Once you have all the coolant out of the system and the block is dry, re-install everything you removed. Remember. No water left is the object here. If you can leave the cooling system open for a couple of days and allow more moisture to evaporate even better.



7.) Once you have everything buttoned up fill the radiator with the Evans Prep Fluid. The Prep Fluid is designed to remove any remaining water that may be trapped in the system. Use the clip on funnel provided in the Evans Waterless Coolant Conversion Kit to fill the radiator. We used 3-1/4 gallons of Prep Fluid. Pics 15, 16 & 17



6 *Danchuk Update 22.2*



8.) Once you have filled the radiator we will need to check for leaks. Re-install the negative battery cable and start the engine. The Prep Fluid needs to circulate thru the engine to work properly. Let the engine get to operating temp so the thermostat opens and turn on the heater so the heater valve opens and allows the Prep Fluid to flow thru the heater core. We want anywhere there was coolant or water to be filled with the Prep Fluid. We used a Laser Pyrometer to verify the engine was at operating temperature and the hoses were hot. We ran the engine for 10 minutes after that to make sure the Prep Fluid could do its job. Shut off the engine and allow it to cool completely before going on to the next step. Pics 18 & 19

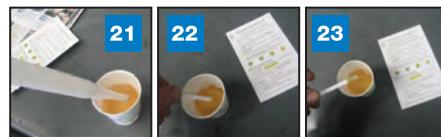


9.) Once the engine is cooled off completely we need to drain all the Prep Fluid from the radiator and engine block. Repeat steps 1 thru 5 above to do this. You can save the Prep Fluid in the original containers for reuse up to 3 times. Just be sure to keep the containers closed tightly. Get as much of the Prep Fluid out of the system as possible. The little that will be left is compatible with the Waterless Coolant and will do no harm.

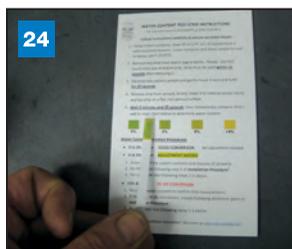
10.) Button everything up again and refill the system, this time with the Evans Waterless Coolant. Use the supplied funnel as you did before to fill the radiator. We put in 3 gallons, started the engine and allowed it to run a while with the radiator cap off to burp the system. After a few minutes we added in what fluid we needed and put the cap back on, allowed the engine to come up to operating temperature and ran it for 10 minutes checking for leaks. Then we shut her down and allowed it to cool again.



11.) At this point we need to test the coolant in the system for water content. The system can contain up to 3% water and be fine, over that amount the Waterless Coolant does not work properly. Evans sells a Refractometer for testing water content but they also provide test strips in the Conversion Kit that will do the job. To use the strips use your turkey baster to remove about 1 oz of fluid from a well-circulated area of the cooling system. We got our sample from the radiator under the cap. Put the fluid into a clean container, cover it and allow it to cool to under 100° F. These steps are critical to get an accurate



reading. Once the coolant sample is under 100° remove a test strip from its container and close the lid tightly. You must use the test strip immediately after removing it from the bottle, do not touch the pad at the end of the test strip. Dip the test strip into your sample and swirl it around for 20 seconds. Then lay it on your bench and wait 2 minutes and 20 seconds. The end of the strip will change col-



or. Once the time is up compare the test strip to the color chart provided to determine the water content of your system. We had 2% so we were good to go. Pics 20, 21, 22, 23 & 24

12.) If you have 3% or less water you are fine. If you have more, 3-5%, you will need to adjust the coolant in the system. You do this by removing 1/2 the fluid volume from the system and replacing it with more Waterless Coolant from a closed container. This should bring the water content to below 3%. If you have over 5% water you will have to do the conversion over again. So this does not happen to you get as much of the old coolant out of the system as you can the first time.

13.) The last step is to install the supplied warning sticker, which will alert anyone working on your car that it has a waterless cooling system and they are not to add water or anything else to the system. Pic 25



That's pretty much it. The Evans system isn't cheap, but as it protects so much better (-40° to 375° F), helps your radiator, heater core, heater control valve and water pump last longer, prevents corrosion and basically lasts the life of the vehicle it is well worth the effort and expense in our book. You will want to check it periodically to be sure the water concentration is below 3% but other than that you don't have to do anything with the coolant ever again.