# How to add Coolant/Antifreeze to a Vehicle

If you aren't sure where the coolant reservoir is you can look for your vehicle's manual or you can search on the internet for the make and model of your vehicle. When I did a search for my car it brought up pictures of what the reservoir looks like. The cap on the coolant reservoir usually has a picture indicating it is the coolant reservoir


When I checked my antifreeze level it was pretty low. Pictured at the right is a blue line where my antifreeze level was and the arrow shows where the level was supposed to be. You should check the antifreeze level when the vehicle is cold and add the fluid when it's cold.

One of the articles I read on the internet talked about how important it is to get the right mixture of water and antifreeze. The article taught how to buy a tool to test the mixture. (This method is more difficult)

My nephew, who is a mechanic, told me to just go to the automotive store and ask the employees to help me find the premixed antifreeze. Every vehicle has different requirements. The Automotive shop should be able to look up the required antifreeze for your car. The information can also be found in the vehicle owner's manual.


Do not mix different colors or types of coolant in your vehicle. Make sure the correct coolant is used. Mixing of engine coolants may harm your engine's cooling system. The use of an improper coolant may harm engine and cooling system components and may void the warranty.

The Owner's manual has a section on the coolant Maintenance and Specifications for the engine. As an example I have pasted the specifications for my Auto (A Ford Escape)

## Maintenance and Specifications

- **Add Motorcraft Premium Gold Engine Coolant (yellow-colored), VC-7–A (U.S., except CA and OR), VC-7–B (CA and OR only), meeting Ford Specification WSS-M97B51–A1.**

**Note:** Use of Motorcraft Cooling System Stop Leak Pellets, VC-6, may darken the color of Motorcraft Premium Gold Engine Coolant from yellow to golden tan.

- **Do not add/mix an orange-colored, extended life coolant such as Motorcraft Speciality Orange Engine Coolant, VC-2 (US) or CXC-209 (Canada), meeting Ford specification WSS-M97B44–D with the factory-filled coolant.** Mixing Motorcraft Speciality Orange Engine Coolant or any orange-colored extended life product with your factory filled coolant can result in degraded corrosion protection.
- A large amount of water without engine coolant may be added, in case of emergency, to reach a vehicle service location. In this instance, the cooling system must be drained and refilled with a 50/50 mixture of engine coolant and distilled water as soon as possible. Water alone (without engine coolant) can cause engine damage from corrosion, overheating or freezing.
- **Do not use alcohol, methanol, brine or any engine coolants mixed with alcohol or methanol antifreeze (coolant).** Alcohol and other liquids can cause engine damage from overheating or freezing.
- **Do not add extra inhibitors or additives to the coolant.** These can be harmful and compromise the corrosion protection of the engine coolant.

You can use a funnel to help pour the antifreeze into the coolant reservoir.  Fill to the “cold fill” level.

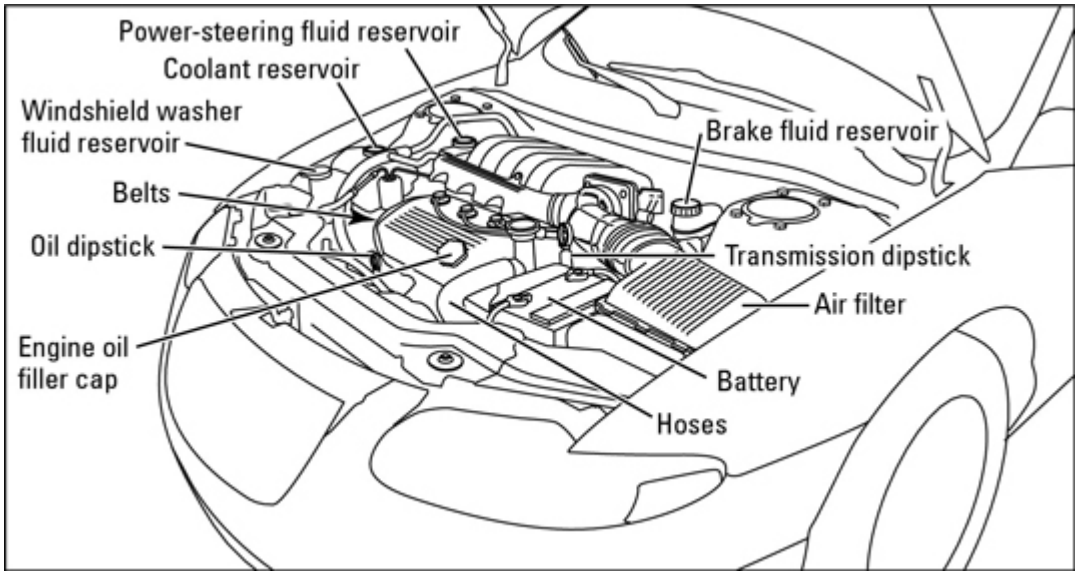
**For all other vehicles, which have a coolant degas system with a pressurized cap, follow the directions in the owner’s manual.**

**When I was trying to learn about my coolant system, I found this helpful article on the internet – http://www.dummies.com/how-to/content/how-to-check-a-vehicles-coolantantifreeze.html**
**It is pasted at the end of this short lesson.**

By **Deanna Sclar** from **Auto Repair For Dummies, 2nd Edition**

The radiator in your vehicle cools your engine and needs water and coolant (antifreeze) to function. Keep the following points in mind as you check the level of the liquid in your cooling system and add more, if necessary:

- **Rather than open the cap on the radiator, just check to see whether the liquid reaches the "Full" line on the side of the coolant reservoir shown here.** It's part of the coolant recovery system. If the liquid doesn't reach the "Full" line, open the bottle and add a 50/50 mix of water and coolant until it does. Some coolants are premixed, so check the bottle to see whether you need to add water or just use it as-is.




*Check the coolant stored in the plastic bottle connected to the radiator.*

Only in an emergency should you add only water to the coolant system. Most modern engines have aluminum cylinder heads, which require the protective anticorrosive properties of antifreeze. A 50/50 mix of liquid or coolant is usually sufficient.

Some coolant recovery systems are pressurized and have a radiator pressure cap instead of a normal cap. Some older vehicles have no coolant reservoir, so to check and add coolant, you have to open the cap on the radiator.

Never add coolant to a hot engine! If you need to add more liquid, wait until the engine has cooled down to avoid the possibility of being burned or cracking your engine block. Don't open the caps on either of these systems when the engine is hot; if you do, hot coolant may be ejected.

- **Coolant is usually red, green, blue, or yellow.** If it looks colorless, looks rusty, or has things floating around in it, flush your cooling system and add new coolant.

- **If the coolant has a sludgy, oily surface, immediately take the vehicle to your mechanic to check for internal** head gasket **leakage.** The service facility has special equipment for performing this check.

- **While you're messing around with your cooling system, feel the radiator hoses, too.** They're the big hoses that go into the top and come out of the bottom of the radiator. If they're leaking, cracked, bulgy, or squishy, they should be replaced.