



Buy your parts warehouse-direct  
for HUGE savings at  
Cyberpartshouse.com



[Articles](#) / [SAFETY](#) / [TOOL STORE!!](#) / [Keep BAT Alive!](#) / [Search](#) / [Help](#) / [Guestbook](#) / [About Us](#) / [Contact Us](#)

Forums

Navigation

Links & Technical

Trouble Codes

Saturday, September 09, 2006

Get an AlldataDIY Repair Info Subscription

Special Thanks To: [AC Kits.com](#) / [Auto Clinics](#)

## Radiator Replacement

By Paul Amero, BAT Auto

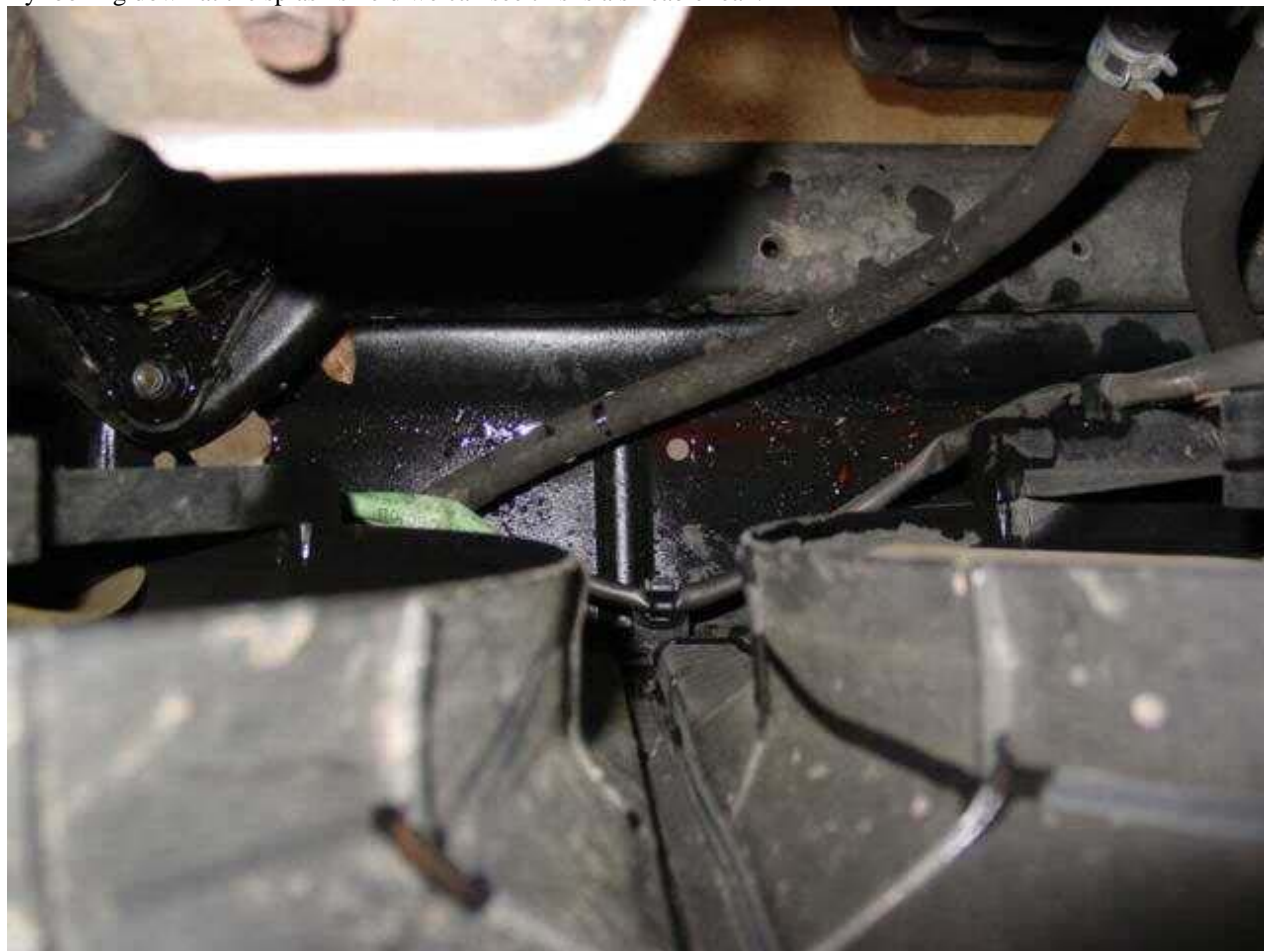
Sooner or later the cooling system of any vehicle is going to need service, be it repair or replacement. Our vehicle today is a 1992 Toyota Camry, 4Cyl and an automatic transmission. The problem was the top tank of the radiator developed a leak. So why not repair it you say. Good question. This is the original radiator and its 11 yrs old. The cost of repair and replacement didn't vary that much so the owner opted for a new radiator considering the rest of the vehicle was in good shape. The coolant, water pump and thermostat was recently replaced by me so the condition of these things was known to be ok and within maintenance specifications so I reused the coolant. The radiator hoses are the next concern. It's recommended by a lot of manufacturers to replace the radiator hoses on a regular basis. I don't know what Toyota radiator hoses are made from, but I can't recall the last time I saw one that failed from age. In fact if you go to a Toyota dealer and ask for a radiator hose they will most likely tell you it's not in stock and will have to be ordered. Even though they are 11 yrs old on this vehicle, based on experience I decided to leave them alone. This does not apply to all vehicles so if your radiator hoses are 5 yrs old, I would recommend you replace them along with the hose clamps.

Here is a look at the tools you will need in the tool dept.



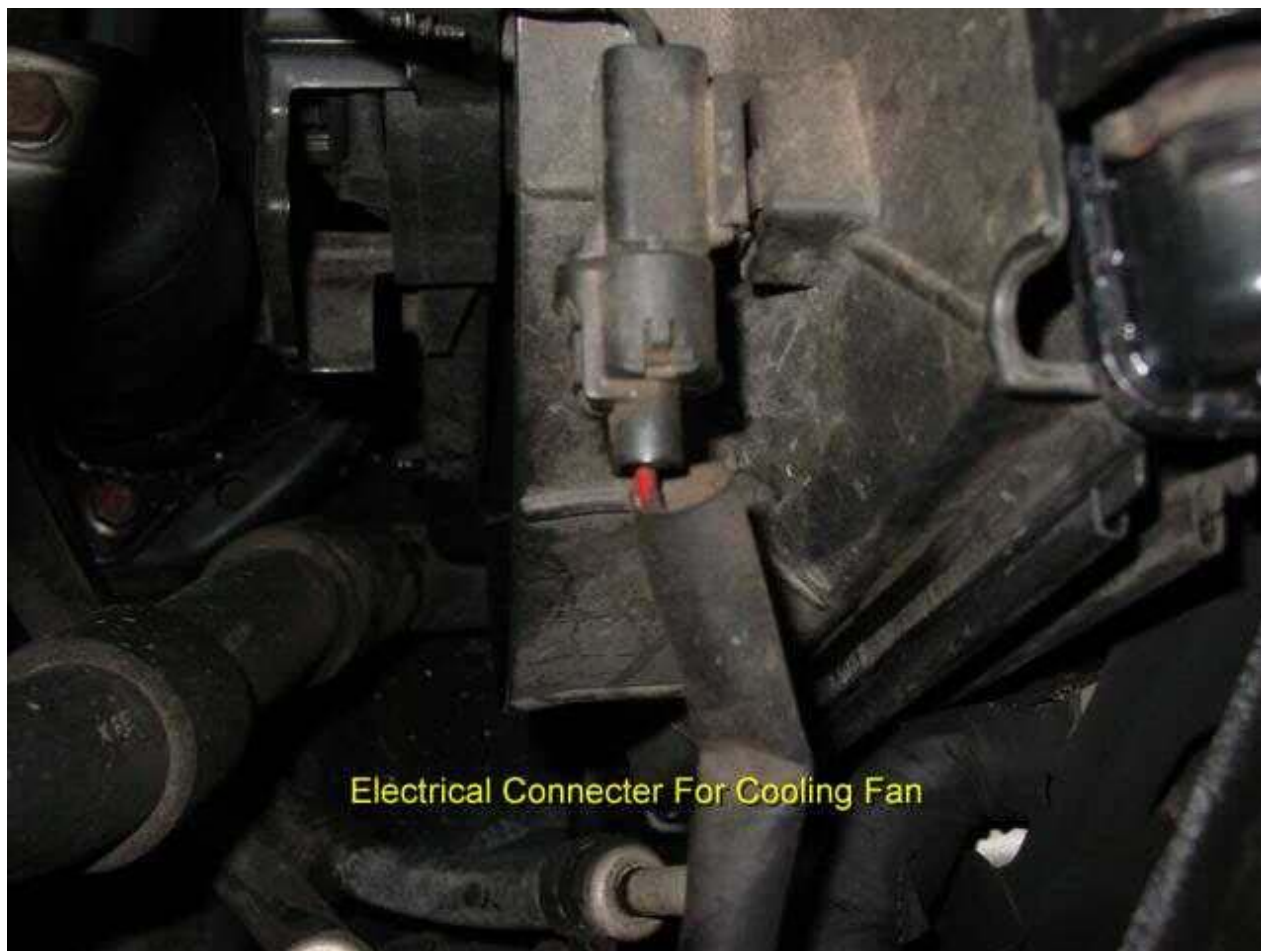
Ok, Lets begin. First step is to remove the radiator cap with the engine and cooling system cold. Let the coolant drain

into a suitable container. Don't forget coolant is poisonous and pets may find it enticing so keep the critters away and wipe up any spills. After the coolant has drained remove the upper radiator hose and move it out of the way. By looking down at the splash shield we can see this is a sizeable leak.



Next we need to remove the electrical connections for the cooling fans.



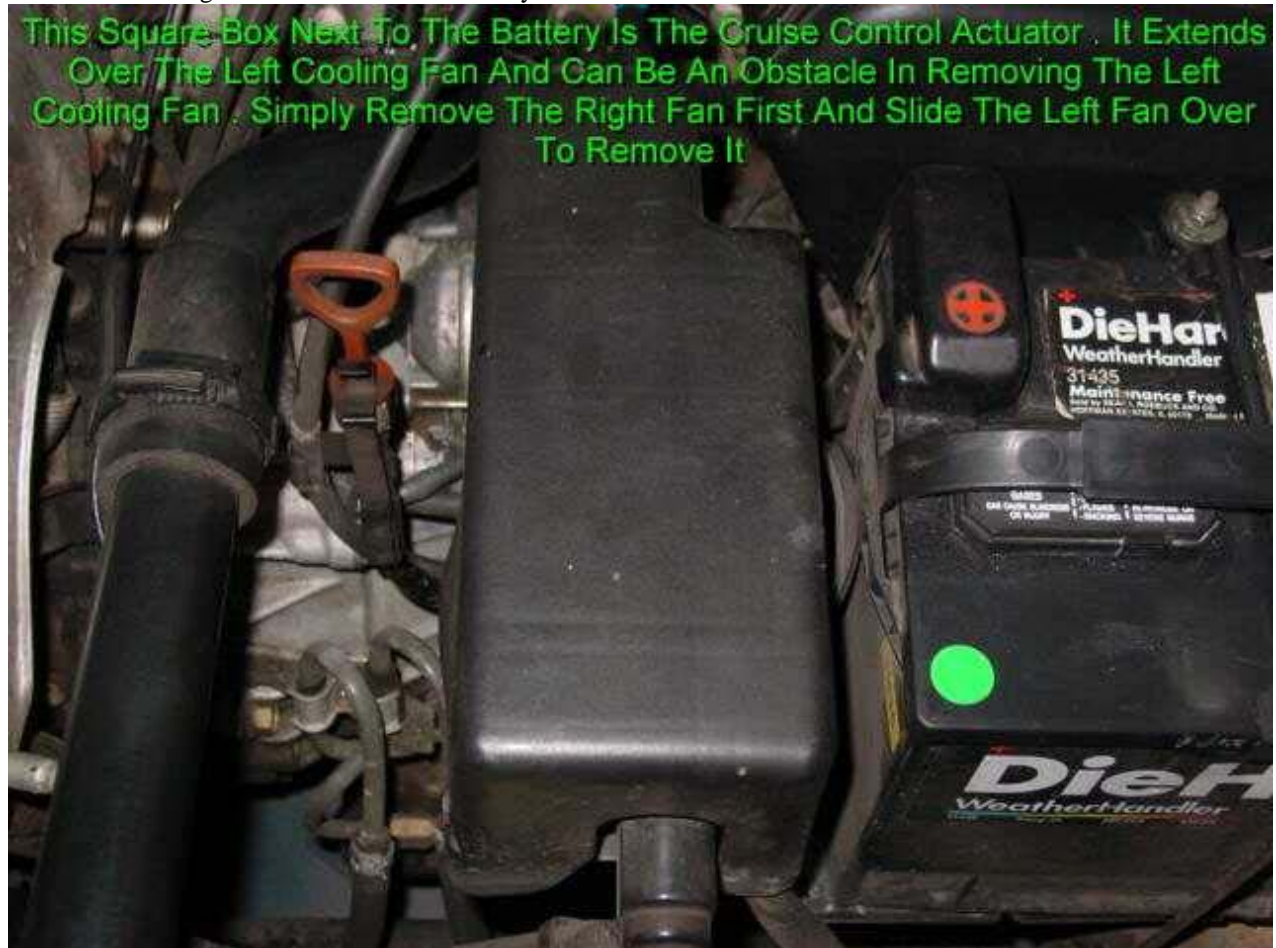


Electrical Connector For Cooling Fan



Electrical Connector For Left Cooling Fan And Cruise Control Actuator

Once all the wiring connectors are out of the way its time to remove the fans.



On our Camry, Remove the right fan first, this opens up a space for the left fan to be removed.

There Are 4 Bolts Holding Both Cooling Fans To The Radiator , Remove Them .



Once the bolts are out of the way the fan and its housing can be removed.





Nothing to it, four, 10mm bolts removed and the fan assembly is out of the way.

The next step is removing the lower radiator hose, the cooling fan temp switch connector and the two transmission cooler lines.



Once those are disconnected, the only thing holding the radiator in place is radiator mounting brackets, they can be removed with a 12mm socket and ratchet



Next step is lifting the radiator out. The lower mounts may come out with the radiator and if they do simply place them back in the radiator support. I went a bit further and cleaned the A/c condenser by flushing all the bugs, dirt and road debris from it. You can do this with a garden or air hose to clean it. Air has to flow thru the condenser before it gets to the radiator so you are not only improving the A/c operation but the engine cooling as well





Before you reinstall the new radiator, remove the cooling fan temp switch from the old radiator and install it in the new radiator. You may or may not get a new drain valve. If the new radiator has a new one, great, if not, reuse the one from the original radiator if it's in good shape, if not; replace it with a new one.

The new radiator is in place; simply install all the parts you removed to get the old radiator out.



Once you have the radiator, hoses, transmission lines, fans and their electrical connections secure, its time to add the coolant. The tool you see, The Spill Free Funnel is simple to use and inexpensive. This tool is available from the Batauto Tool Store and makes refilling any cooling system simple. It allows coolant to go in and air to come out even once an engine is at operating temperature and no spills. Its one of those tools where you look at it and think why I didn't invent it.



The next step is to check for leaks, not only the radiator hoses but the transmission cooling lines. Once everything is all back together drive the vehicle and ensure there are no leaks. You may have to add transmission fluid or coolant in order to restore both fluid levels to appropriate levels. It wouldn't hurt to recheck the fluid levels a few days later to make sure they are sufficient. . The coolant recovery tank will have marks showing the correct levels. All you have to do is fill the recovery tank to the full mark.

That's pretty much it. Radiator cost will vary depending on the vehicle and engine size. For our Camry it was about \$130 and the labor time is about 2 hours. You may want to replace hoses, coolant, thermostat etc. just to do an in depth service.

If you have any questions you can always ask for our assistance at [batauto.com](http://batauto.com)

Your feedback is GREATLY appreciated!! Please email your comments to: [Contact Us](#)

Paul Amero  
Batauto

**96 & newer vehicles are OBD2 systems  
and REQUIRE A SCANNER, unless otherwise stated.**

**Warning:** Please check for manufacturer specific codes and confirm the trouble code descriptions with an appropriate manual.

**Disclaimer:** We cannot guarantee the accuracy of all information.

Please confirm the information with an appropriate manual

We try and make them as accurate as we can, but sometimes we all make mistakes.

[Banner ads/Advertising](#) | [Logo Store](#) | [Disclaimer](#)

[Bruce's Laptops](#) | [Technical Index](#) | [Help](#)

©Copyright 2001-2005 batauto.com, BAT Auto Technical.

All Rights Reserved.

May not be reproduced without express written consent.