

Just Another Silly Blog

Monday, February 17, 2014

1998 Jeep XJ Heater Core/ Evap Core Replacement

Do you smell antifreeze in your cabin? Do your windows fog up from the inside when putting on the heat or defrost? Is the passenger side floor wet and nasty? Any and all of these symptoms can (and probably does) mean that you have a leaking heater core.

Don't panic; you are not alone! Fact is, if your XJ's heater and/or evaporator core have not crapped out, they will in due time. After all, the youngest XJ out there is now a teenager--the equivalent of senior citizen in car years! The bad news is that, at a shop, this job will run you easily over a grand, especially since YOU SHOULD DO BOTH THE HEATER CORE AND EVAPORATOR CORE AT THE SAME TIME. Accessing and removing/reinstalling the HVAC box constitutes more than 90% of the labor (I was quoted 10 hours at the shop!)

The good news: even with limited mechanical ability and basic hand tools, YOU CAN DO THIS! Just take your time (I worked on it over a three day period), stay organized, and prepare for various setbacks and aggravations. There are good resources out there on the net--and I try to site some herein. Study them! This write up is perhaps redundant in light of the fact that others exist, yet I believe there is no such thing as too many perspectives or shared experiences. Where my write up might shine is in the area of providing more detailed pictures in removing the HVAC box from the Jeep.

Disclaimer:

I am not a professional mechanic . . . to be honest, I'm not even that handy. Thanks to great and selflessly helpful posts on sites like naxja.com and jeepforum.com, I was confident enough to give this a try and save myself some cash. (Note: if you are attempting this, you will be well served to also check out this great writeup-<http://www.scribd.com/doc/176480289/Jeep-XJ-Heater-Core-and-Evaporator-Replacement>) This is merely my experience with the project. I had many pics on my camera, so I thought I'd share them. If it turns out to be helpful to someone, that is great.

A Word on tools and supplies:

The bulk of this job can be done with screwdrivers (a drill speeds things up) and a ratchet with standard and deep sockets (8mm, 11mm, and 13mm are all I can remember needing). An offset 7/16 ratcheting box wrench came in handy on one tough to reach bolt behind the head, A/C line disconnects are a must. Basically, your standard tool box will give you all you need.

Organization was key for me. All nuts, bolts and screws were held in zip locks and labeled accordingly. I used liberal amounts of blue painters tape on disconnected plugs to keep them clean and to make them stand out. It would be less than a happy situation to put everything back together and find out something was left unplugged. Sharpie markers were invaluable for labeling everything that might bring uncertainty upon reassembly.

Note: Before beginning, have your A/C system evacuated if need be.

1) Remove Center Bezel



2) Steering Colum Cover Panels (Screws)



3) Light Switch (release button on back)



4) Remove Shroud . . . several screws around shroud, disconnect collar around steering wheel, unclip.

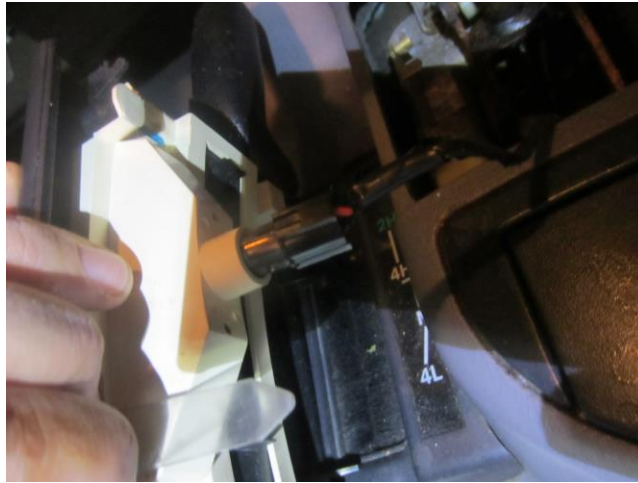


5) Pry upper dash panel (clips)



6) Remove Shifter and transfer case covers (The shifter knob pops of in drive 2— push button and pull; covers pry off; unplug lights.)



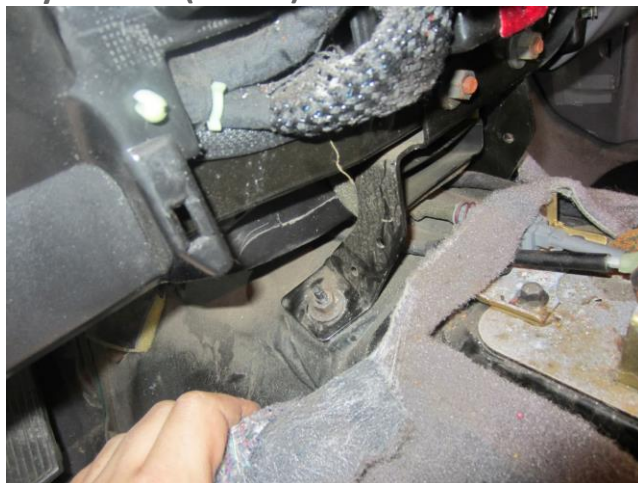


7) Unscrew center console (by shifter and transfer case lever) and remove.





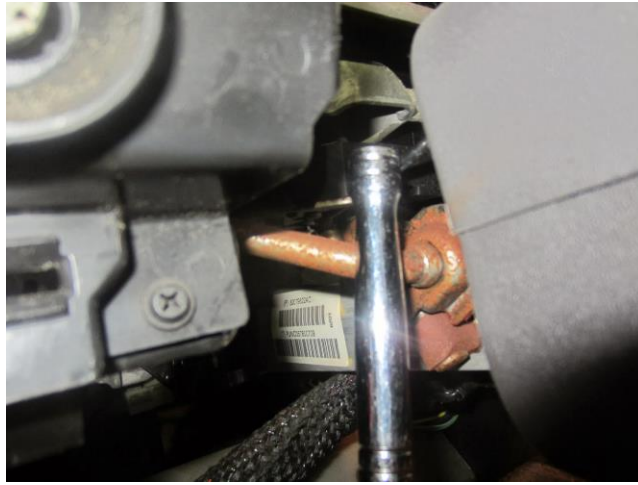
8) Remove bracket on tranny tunnel (4 nuts)



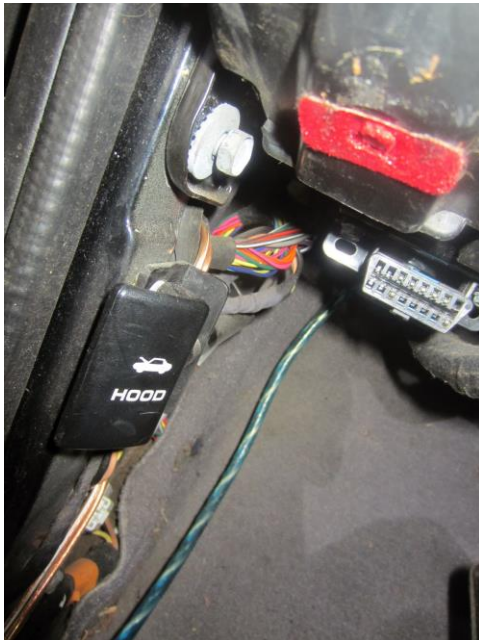


9) Drop steering column (2 nuts on left and right))





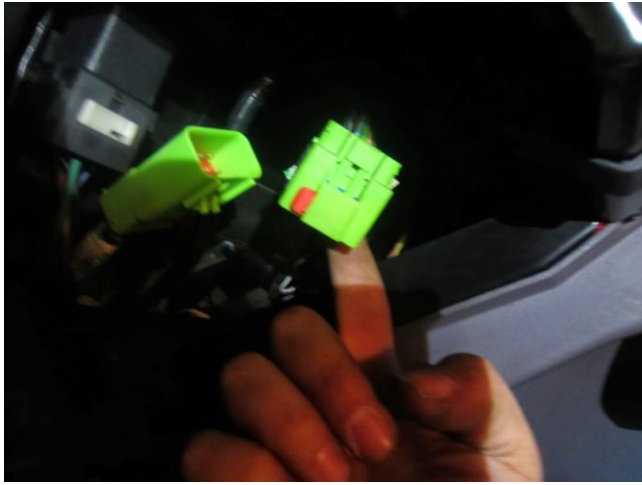
10) Remove kick panels (left and Right) and remove 2 dash mounting nuts. I removed the left vent cover to allow more room for the dash to swing out



11) Remove 6 upper dash bolts (4 bolts, 2 nuts on support stubs) by the windshield. Use extension to avoid cracking windshield.



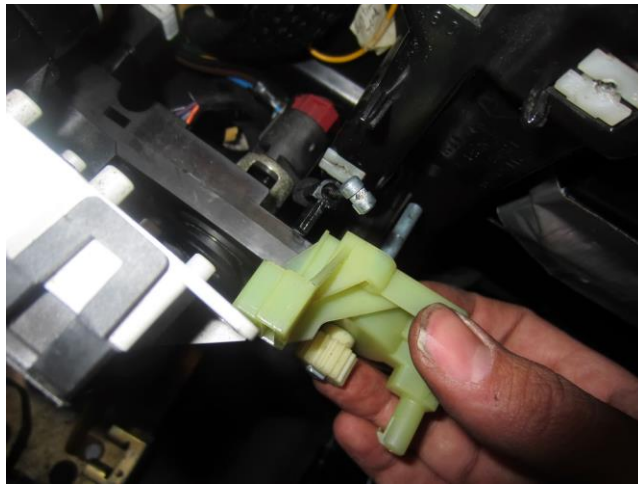
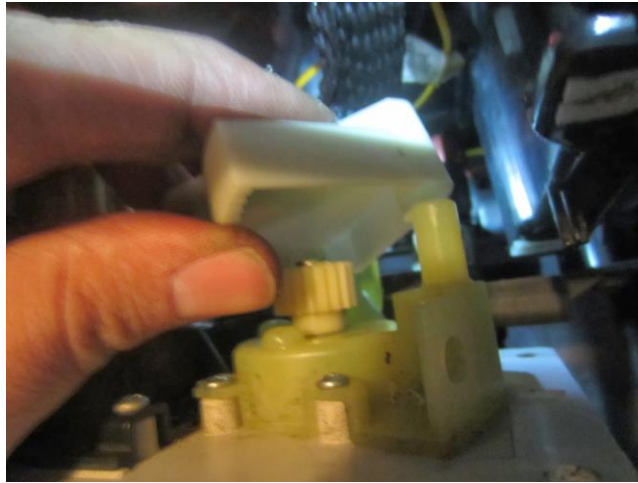
12) remove glove comp (three screws) and unplug green wire harness and vacuum harness. Also, unplug the antenna in the kick panel area while there.





13) Disconnect bleed door cable from HVAC. This was actually one of the hardest parts for me. With cold and brittle parts, I needed to take apart a lot of the parts in the HVAC control box to get the cable out.





14) Swing dash out over steering column and strap/ bungee to the passenger hanger. Take your time and finagle it by pushing up and out. As stated in other write-ups, a partner would be nice here but you can do it alone.

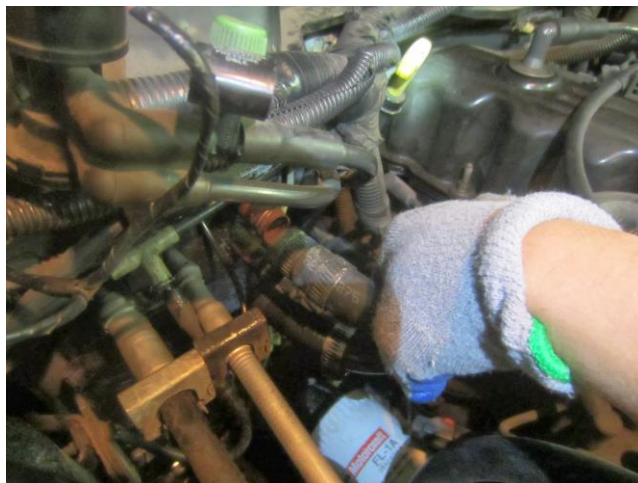




15) Drain Coolant. Not necessary but a having corroded heater core left my coolant in less than stellar shape. No need to be as sloppy about it as I was.



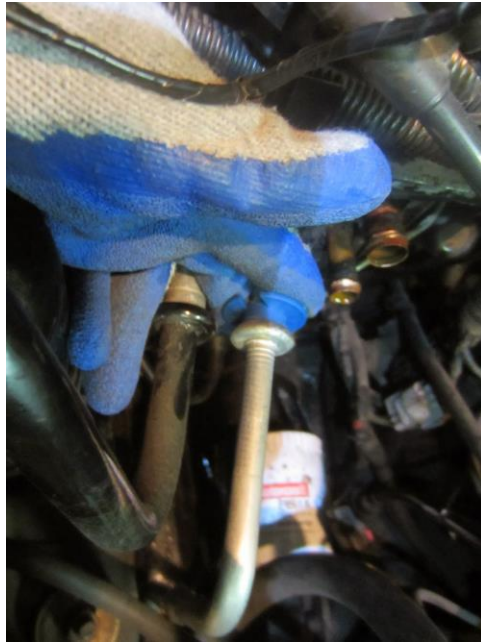
16) Remove hoses from heater core



17) Detach evaporator tubes. First pop guards off by pulling up and remove condenser from the bracket (it is attached to 2 of the bolts holding the hvac to the firewall). Use the proper disconnect tools by clicking them in from the back. (I

got cheap ones so had to file one a bit to make it fit) Bag off (or somehow block) ports to keep out contaminants from the system.





18) Disconnect vacuum line from t fitting.



19) Remove remaining three nuts from the firewall. The one in back of the head IS a PITA. A snap and wire harness hanger must first be removed and then you should be able to get a 11mm or 7/16 box wrench on it. (Note: it helps to pb blast these bolts ahead of time and use offset ratcheting box wrench)



20) Back in the vehicle, disconnect wire harness that passes through HVAC box on the far right. Luckily I saw this before I ripped the box out.



21) Firmly yet cautiously pull the box out.



22) Open up box (many 8 mm bolts + removal or separating of insulation, and disconnecting vac lines and plug) and replace parts. See this detailed writeup for a more in-depth look at how to do all work on the actual HVAC box:

<http://www.scribd.com/doc/176480289/Jeep-XJ-Heater-Core-and-Evaporator-Replacement>

This will give you all you need to know as far as the precise steps, but I'll add pics and short commentary just in case they help.

There is a plug that needs to be disengaged and a shield that (I think) needs to be removed.





Unplug and take out blower motor.



The insulation around the blower motor can be cut with a blade where the box separates. I patched it with insulation glue upon reassembly. The foam around the must be gently peeled off with a scrapper if you plan to reuse . . . I patched mine up a bit and glued it back.





Side by side, the OEM evap (left) and the aftermarket Four Season (right) were just about clones. I was able to transfer all foam from the oem unit.



The OEM heater core was clearly shot. My project was delayed because the OMIX ADA replacement core had a bad fit . . . too big and tubes not exact. I might have been able to make it work without insulation, but found a Spectra Premium (seen next to Oem) locally. Pretty close as far as fit is concerned and it came with foam.



Get your box back together.



23) Reassemble. Simply do everything in reverse . . . Goes MUCH quicker.

It is worth noting a few things: **(1)** the Omix ADA heater core I ordered did not fit well. It was very tight in the box even without insulation. Just not right. Luckily I was able to pick up a Spectra Premium at Advance Auto Parts . . . matched up well with Original core and came with insulation. Also, I was happy with the Four Seasons Evaporator core . . . just about identical to the oem. **(2)** I was lucky in that my foam insulation (except on the heater core) was functional. It was in decent shape so I figured it was better to doctor it up a bit and reuse it rather than fashion something else. **(3)** I had some trouble getting the Steering column back on the two vertical mounts. They would not naturally line up due to the tilt steering spring mechanism. Solution: push HARD on the column mount mechanism with the butt of a hammer while simultaneously pushing the column upward onto the studs. **(4)** I did not notice a loss of PAG oil from the Evaporator Core or other A/C components, so I did not refill any. Before I have refrigerant filled in the system, I'll have the shop vacuum and replenish the PAG to factory specs—I believe 8 ounces.

I hope this can be helpful to someone. Although I did it over 3 days (probably about 10 hrs of actual work), it really wasn't as bad as I thought. There was a few hold ups and pitfalls, but that was expected. All said and done, It was well worth it!