

This is a consolidation of a thread found on Jeep Forum (<http://www.jeepforum.com/forum/f11/my-actual-evaporator-heater-core-removal-installation-thread-592844/>). Credit to "xjguy98" for the original post.

Seeing as how this is a pretty common snag with our Jeeps, I figured I'd add to the list write-ups on how to do it. Lots of pics so sit back and read on.

The first thing I did was disconnect the negative battery terminal. A) because you'll have your doors open and courtesy lights on for a LONG time and B) so your airbags don't go off when you're in the middle of removing the dash.....don't be lazy...DO THIS NOW. After that and while you're waiting for the capacitors to discharge and for your airbags to be safe, go ahead and start removing the following:

- 1) Both front seats (makes access to everything much easier)
- 2) Both lower a-pillar trim panels (or kick panels, whatever you call them)
- 3) The lower steering column cover/metal knee blocker



- 4) Remove the center bezel that covers up your stereo/heater controls/switch panel
- 5) Remove your headlamp knob by reaching up and pressing the release button on the inboard side of the headlamp switch. The knob should just slide out.
- 6) If you have tilt steering, set it to the lowest position and disconnect the rubber steering column surround.
- 7) Remove the instrument cluster bezel (held in by snaps and four screws)

8) Pry the rear edge of the top cover up to disengage the seven snaps.

9) Once clear, pull the entire top cover rearward and disengage the remaining four snaps.

10) Remove your shift knob (it helps if it's in 1-2, sit in the back seat, brace yourself and give it a good pull and it should come off. Don't punch yourself in the face while doing this)

11) Remove the shifter and transfer case bezels and unplug the light bulbs.

12) At this point, you can remove the two screws holding the front of the center console down. Open the console and remove the remaining two screws and the console should be able to be removed. It might take a bit of finessing to get around the parking brake handle though so be careful.

13) Pull the carpet (if you have carpet) back far enough so you can see the two lower nuts holding the panel center support bracket to the tranny tunnel.



14) Remove the two lower nuts and the two upper nuts and remove the bracket from the vehicle.

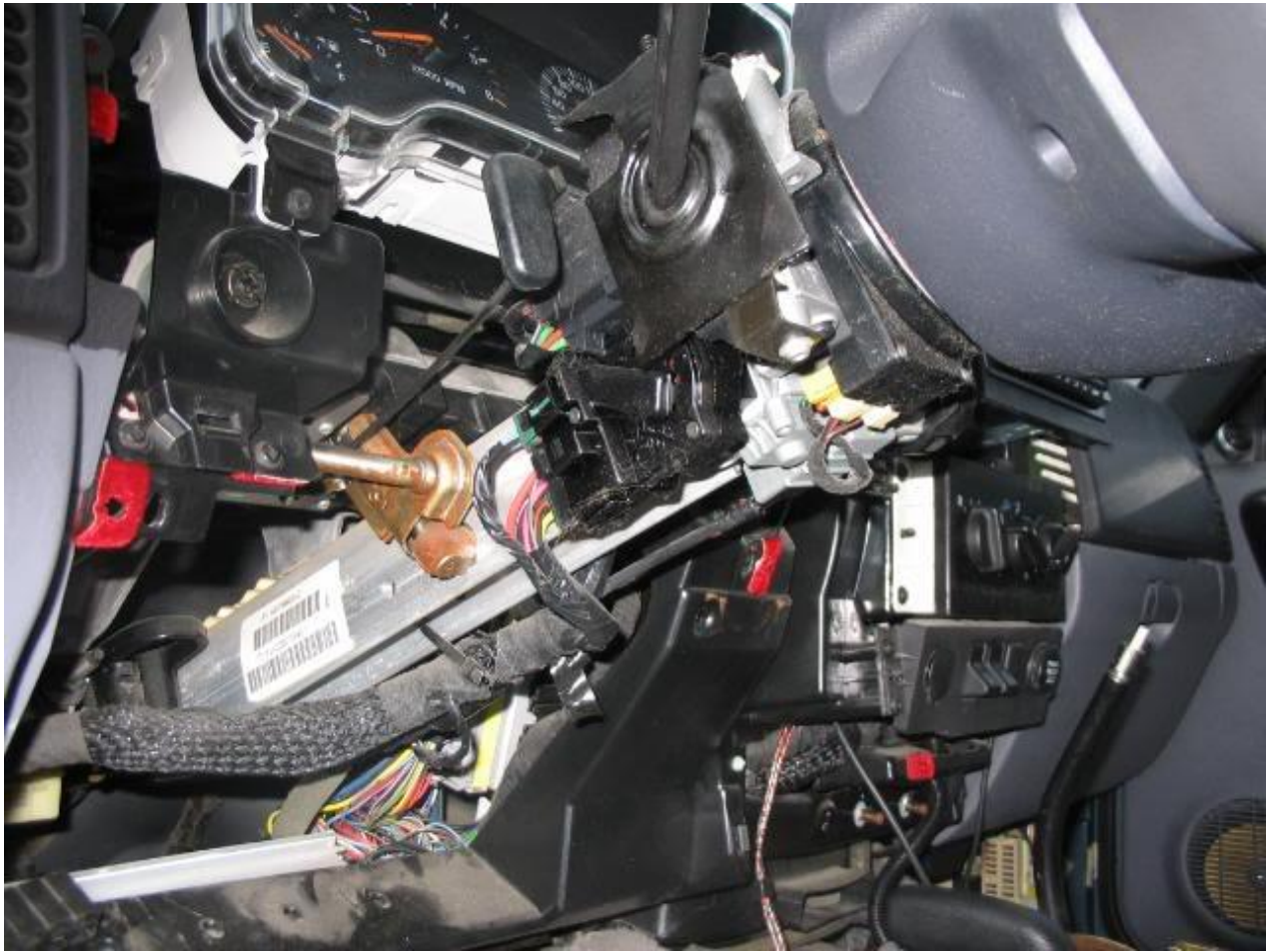
15) At this point in the FSM, it tells you to remove the steering column. From everything I've read, you don't HAVE to but I did. It was a pain and the next time I do this, I'll unbolt it from the bracket but I'll leave it in. You only need to be able to swing the dash out enough to access and remove the HVAC box from the firewall. Anyway....here's how to remove the column if you're so inclined.

16) I removed the airbag...don't know why...



17) You can pull the steering wheel off the column. I didn't because one of the holes for the puller was stripped so I left it.

18) Remove the lower shroud



19) And upper shroud



- 20) Unbolt the steering column coupler bolt from the intermediate shaft. You may need to turn the wheel in order to access it.
- 21) Disconnect all the electrical connectors associated with the steering column as well as the brake park interlock switch from the ignition cylinder. I removed the ignition cylinder as well but you may not need to. The interlock switch just clips in to the right hand side and drops away.
- 22) Remove the two vertical mounting nuts and the two horizontal mounting nuts from the steering column and support it as you lower it off the bracket. You can now pull the column out of the dash. Here's the dash with the column removed, the wiring harness on the left and the interlock switch and solenoid on the right



Here's a view of the mounting studs and coupler for the steering column:



- 23) Remove the bolts from and disconnect the two big electrical connectors under the left hand side of the dash. The rearmost one should be the gray one and the forward one should be the white one. I had trouble with the white one and left it hooked up so I couldn't COMPLETELY remove the dash. No pics of these because I was pissed off
- 24) Just to the left of the tunnel and under the dash as well is another big grey electrical connector. Remove the bolt and disconnect this, as well as the small yellow airbag connector that should be around the middle of the under-dash area.
- 25) At this point, you can switch sides and roll down the glove box. There are two rubber stoppers and if you remove them, the glove box will rotate clear allowing you to gain access to the rear of the HVAC box.
- 26) On the left hand side of the glovebox opening, you should see the white vacuum connector. Disconnect the two halves. Also, you should see a big green connector for the blower motor. Disconnect this as well.
- 27) Reach under the right hand side by the fuse panel and disconnect the two halves of the antenna cable.
- 28) You can go two different ways with this next step. I tried the by-the-book method and it didn't work so I improvised. The book says to remove the temperature control cable from the HVAC box by unscrewing the blend-air door bellcrank from the door shaft underneath the dash. I couldn't get it unscrewed so I removed the heater control panel, separated the cable from the control head and routed it clear of the dash itself so it hung clear and out of the way. You can do whatever is easiest for you.
- 29) Loosen the left and right dash roll-down screws about 1/4" They're located right next to each courtesy lamp so they're easy to find.

30) Remove the four bolts that secure the upper-forward edge of the dash to the firewall. There are two on the left and two on the right.

31) After the bolts are out, remove the two nuts (upper forward edge) holding the center of the dash to the firewall. The dash won't fall away with these removed as the studs are still holding it in.

32) With some help (I did it alone and it was a struggle for me) lift the dash up off the two center studs and then pull it backwards to clear the roll-down bolts. Your dash area should now (hopefully) resemble this:



At the left of the picture above, you can see one of the big gray body connectors.



At the center of the above picture, you can see the temp control cable, as well as the green blower motor connector and the vacuum connector.

With my dash swung out of the way due to that stubborn connector on the left hand side....it's a mess but it looks worse than it actually was.



NOW, hopefully nothing was left connected and your dash should be out of the vehicle. If you forgot anything (or I forgot to mention anything) now's the time to disconnect or remove it. I found that bagging and labeling EVERYTHING (no matter how small) REALLY helped when I put everything back together. Grab a box for the parts bags and set aside a small corner for the bigger parts. The more organized you are, the easier the job will go for you because it's easy to misplace/lose things.

Anyways....on with the HVAC box. The FSM says to drain the coolant but you don't need to. Just make sure you have a small bucket or Tupperware container to catch the small amount of fluid that will drain from the heater hoses as you disconnect them from the heater core.

1) MAKE SURE IF YOU HAVE REFRIGERANT THAT IT'S EVACUATED BY A PROPER SHOP. DON'T OPEN LINES AND LET IT ESCAPE....IT'S AGAINST THE LAW AND BAD FOR THE ENVIRONMENT. There I said it...

2) Using an A/C line disconnect tool (I paid \$14 for my set at the parts store) disconnect the liquid line from the evaporator inlet and the accumulator from the evaporator outlet. Mine have never been done so they took about 20 minutes for both but they came out. Make sure you cover the lines somehow. I used a couple of bags with zip ties to keep crud out. The less contamination the better.



Here you can see bags over both the accumulator and liquid lines.

3) I was replacing the accumulator as well so after I disconnected it, I removed the old one and transferred the low pressure switch over to the new one.

4) Disconnect both heater hoses from the heater core (using a bucket to catch the drips) I couldn't get mine removed so I disconnected them from the other end, fed them through the firewall and reconnected them to the engine afterwards.





5) Between the evaporator tubes and heater core tubes, you'll see a small vacuum hose. Disconnect it from the tee-fitting.

6) This is the biggest pain I found for this entire job. Removing the five mounting nuts. You'll find one just outboard of the blower motor. The next two are holding the accumulator mounting bracket to the firewall. The next one is just to the right of the engine centerline and above the valve cover (on the firewall, looking forward) and the WORST is about 6" below it behind the cylinder head. I was able to use a 7/16" socket for the first four but the bottom one I had to use a long box end wrench and turn it a little at a time. Be very careful not to drop it as it'll end up on the bellhousing and you'll never get it back.

Here you can see two of the five mounting points as well as the tee fitting for the vacuum line (top right):



7) After you are able to remove the five mounting nuts, go back inside and gently pull the entire HVAC box rearward to clear the studs/drain hose from the firewall. This is what you should end up with:

Almost there....



Gone...





Now it's time to break the box down and actually do what we set out to do. Replace the evaporator or heater core.

1) Unplug the vacuum lines from the floor door actuator on the lower left side of the box as well as unplug the vacuum line from the recirc door actuator on the right side.

Floor Door Actuator:

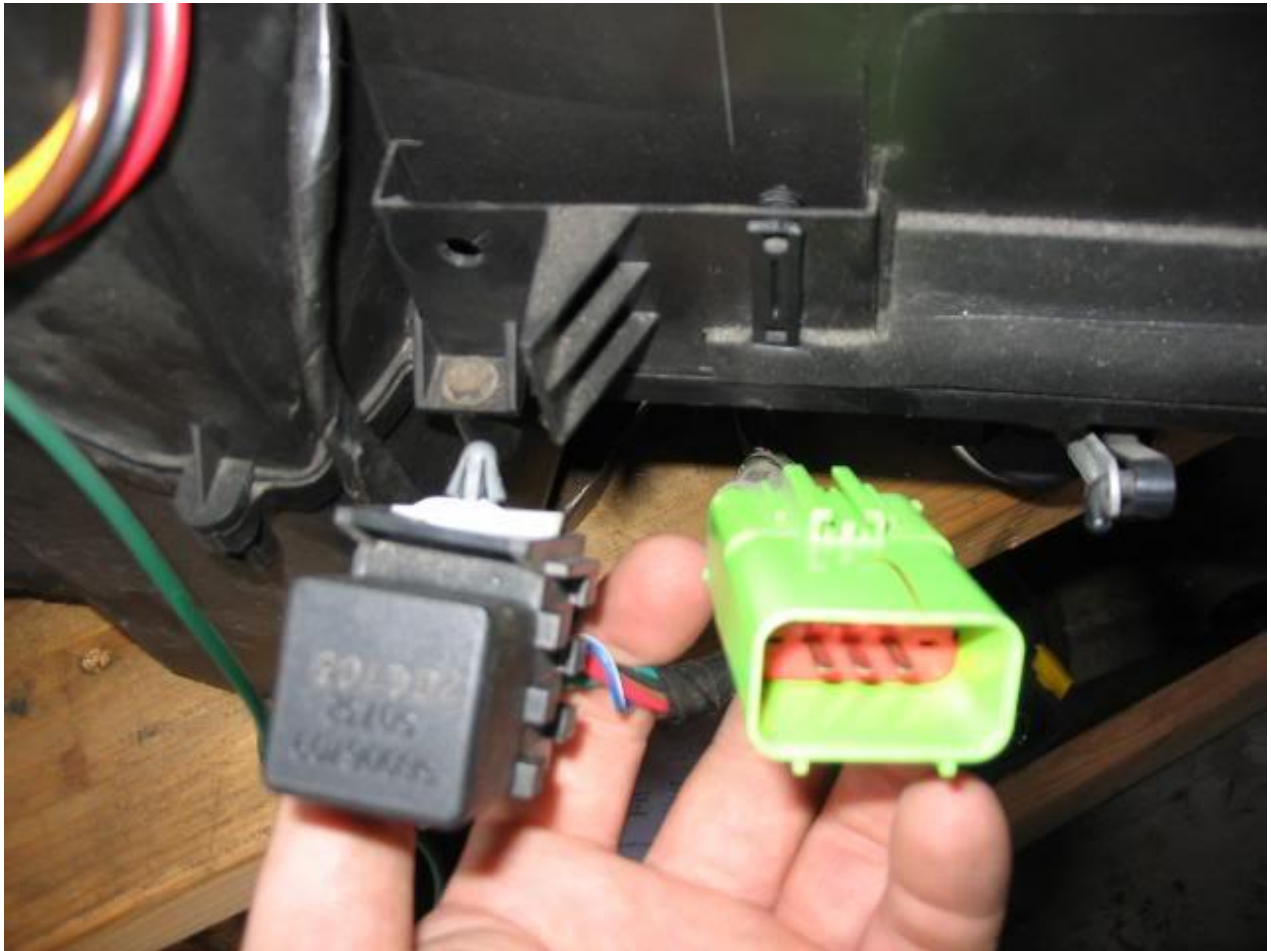


Recirc Door Actuator:



2) Disengage any vacuum line from any clips on the lower half of the housing.

3) Disengage the blower motor harness and relay from their holes in the upper half of the housing:



4) Unplug and remove the blower motor from the housing



5) Remove the foam seals from the blower motor surround and the evap/heater tube surround. I bought new seals (\$60) so I didn't care what the old ones turned out like but I'm sure with patience, a heat gun and a scraper you could salvage both.



6) Pop off the two snap clips on the left forward side of the housing and remove the 14 screws securing the two halves.

7) After making sure everything is disconnected/removed, carefully lift the top half off the bottom half. It might take a bit of coaxing but it should come off easily enough. Set the top half aside.

This is what I was left with. Looking down on the bottom half of the housing:



And this chunk of foam is what sat under the evaporator....nicely rotted away





8) After the two halves are apart, simply lift the old evaporator and heater core out of the housing. When replacing either or both of these, all the foam rubber seals need to be transferred over to the new part. Be careful when taking them off because I don't know of any part numbers for them.

Ye Olde Evap Core:



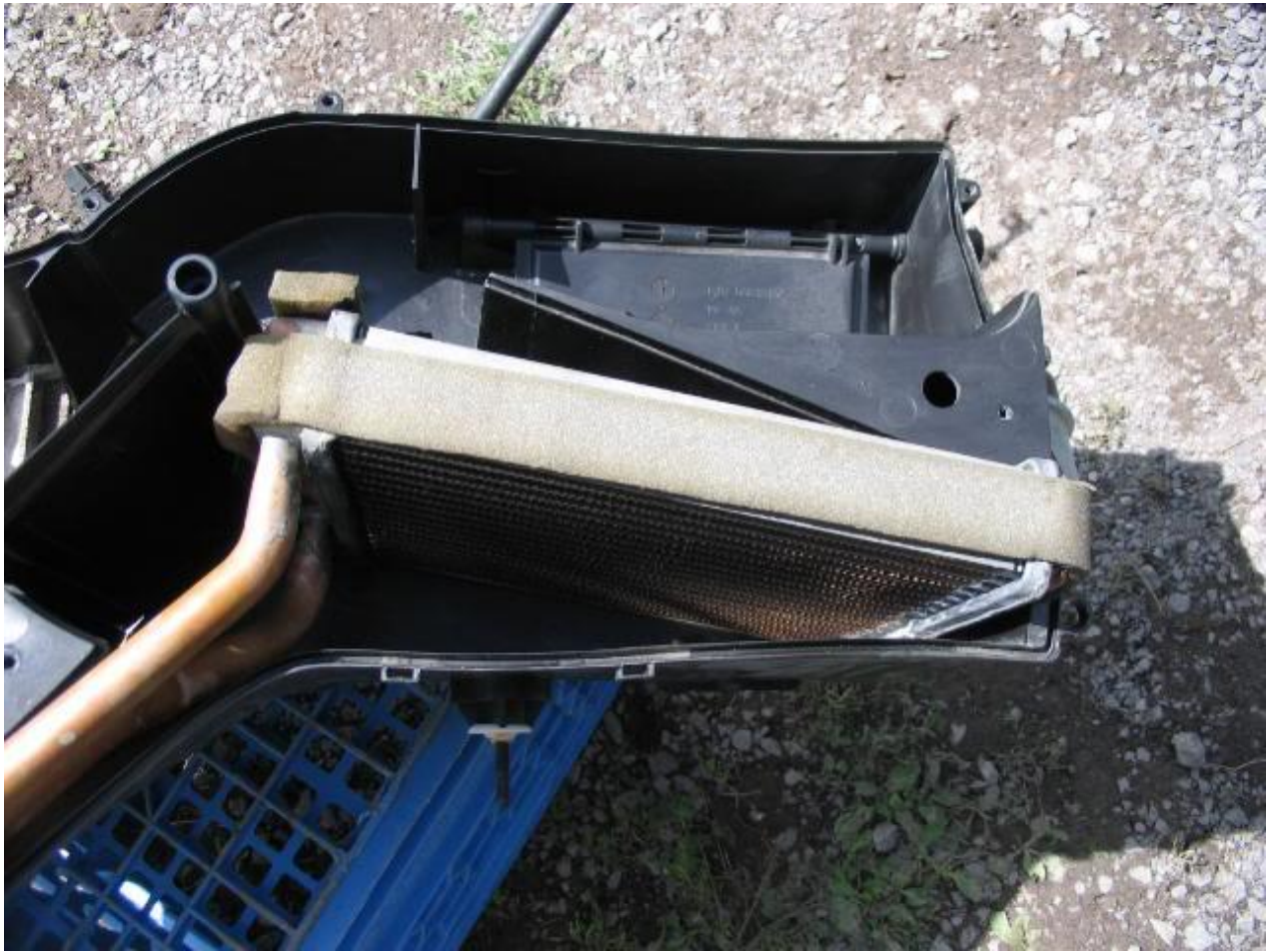


Ye Olde Heater Core (still works though)





New heater core installed with foam (I used spray adhesive to stick the foam on the new cores)





New Evaporator installed:





For installation, just reverse everything you saw above. I used RTV sealant when I reinstalled the blower motor just to make sure it never leaked again.



New foam seals installed on the HVAC box:







HVAC box reinstalled:





New accumulator installed:





When replacing the evaporator, be sure and add 2oz. of PAG100 oil to it before you seal everything up. With the accumulator, I added 4oz.

After the HVAC box is installed and hooked up, simply re-install the dash. I used Eric's idea about adding adhesive felt to all the points where I thought two trim pieces would make contact just to tighten/dampen any contact and reduce noise. Driving the Jeep around today it seemed a lot less prone to those "cracks" that are common with our Jeeps. It took a bit more time to do all that but I think it was worth it. When are you gonna have your dash out again right?

Once you have everything semi-installed and connected, start the Jeep up and check for any problems. My heater core leaked so I need to pull everything apart again and sort that out. As well, my turn signals for some reason don't wanna work but I think it was related to all the pulling and tugging I did with that one connector on the left side. Check your lights, stereo, heater controls, steering (if you removed the steering column) gauge cluster...everything. If something doesn't work, fix it. After you have EVERYTHING working and buttoned up, get the A/C system evacuated again and recharged. Get them to leak check it and if there are leaks, well, get them fixed. I'm not at this stage yet but hopefully in a few days I can sort out the heater core and have my A/C back and blowing cold again.

If anyone has any problems or questions about how to do this, feel free to PM me and I'll get back to you as quick as I can. It's a daunting task to be sure but once you've done it once, it's not so bad.