Poor Airflow or Cooling After Extended Highway Driving With A/C On

Currently Applies To: All models with A/C

Got a vehicle in your shop for a complaint of poor airflow from the vents, poor cooling, or both, after extended highway driving with the A/C on? This can be a hard one to duplicate—not to mention troubleshoot—so here's a handy procedure that can help make that job go a little easier:

1. Park the vehicle indoors where the A/C condenser has free airflow. To simulate driving conditions, try running a large fan placed as close as possible in front of the vehicle.
2. Insert a thermocouple or electronic thermometer in the center vent so you can monitor the center vent temperature from outside the vehicle.
3. Start the engine, and use an accelerator pedal jack to set the engine speed between **1,500 and 2,000 rpm**.
4. Turn on the A/C, and set it to its lowest temperature and highest fan speed in RECIRC mode. Then close the hood and all the doors. (A cool interior will cause the A/C compressor and the radiator and condenser fans to cycle more often than normal.)
5. Monitor the center vent temperature.
   - If the center vent temperature stays **below 34° F**, follow normal system troubleshooting in the applicable S/M or in ISIS.
   - If the center vent temperature fluctuates while you're running the test, the expansion valve could be internally freezing and thawing due to moisture in the A/C system. Hook up the R-134a refrigerant recovery/recycling/charging station, and check for a vacuum on the low-pressure side. The pressure will gradually go negative as the moisture freezes and then positive as it thaws. If needed, recover the refrigerant and then pull a deep vacuum (about 500 microns) on the system.
6. Rerun this test to check your work.
   - If the center vent temperature is now OK, you're done with this repair.
   - If the center vent temperature is still not right, then continue with normal system troubleshooting.