
PHEV AC Shut Off Valves Diagnosis

Vehicle Type: **Cayenne S E-Hybrid, Panamera S E-Hybrid**

Model Year: **2015 - 2017**

Information: Diagnosis information for the air conditioning chiller and evaporator shut off valves.

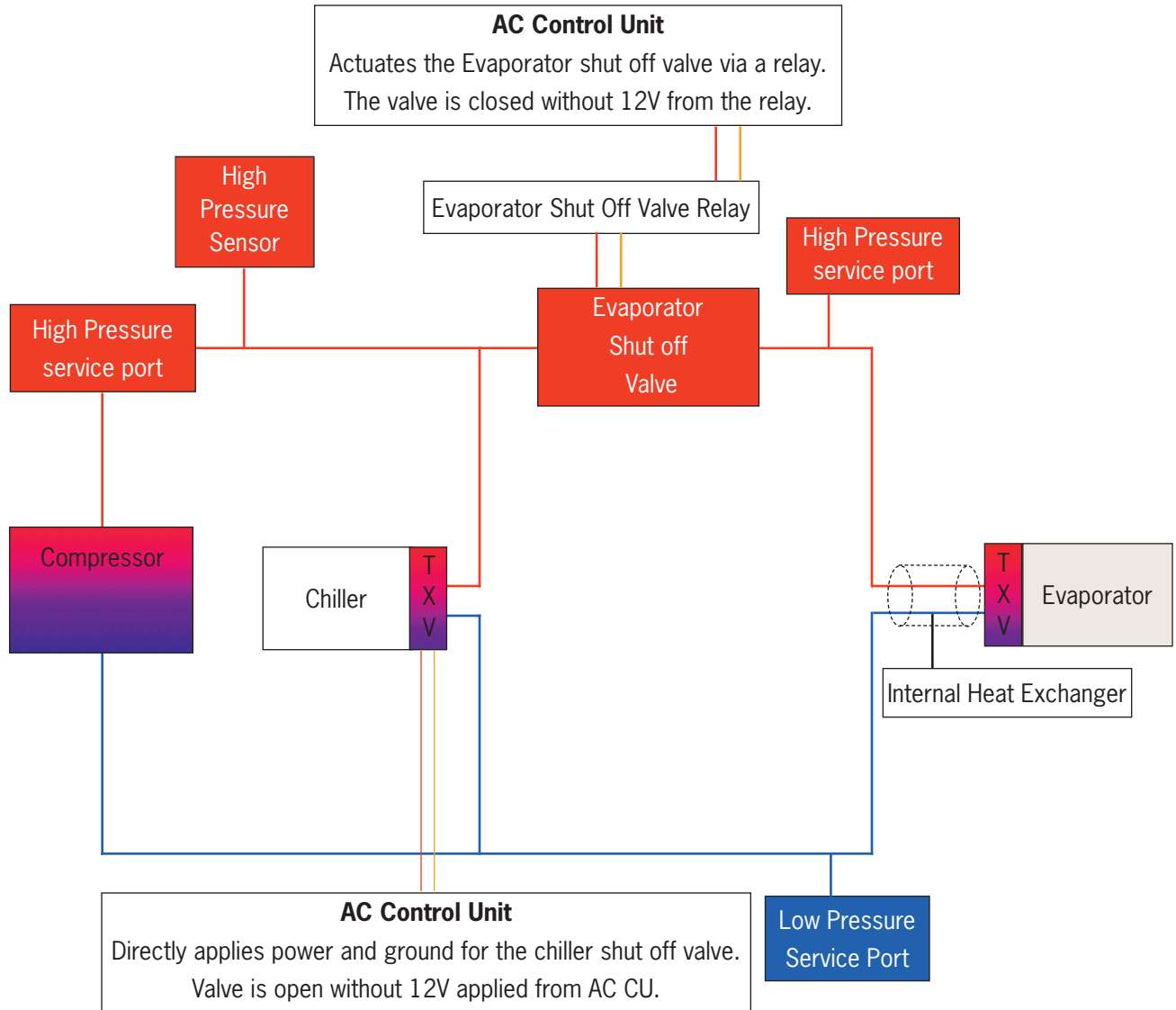
Symptom: No cooling in the passenger compartment.

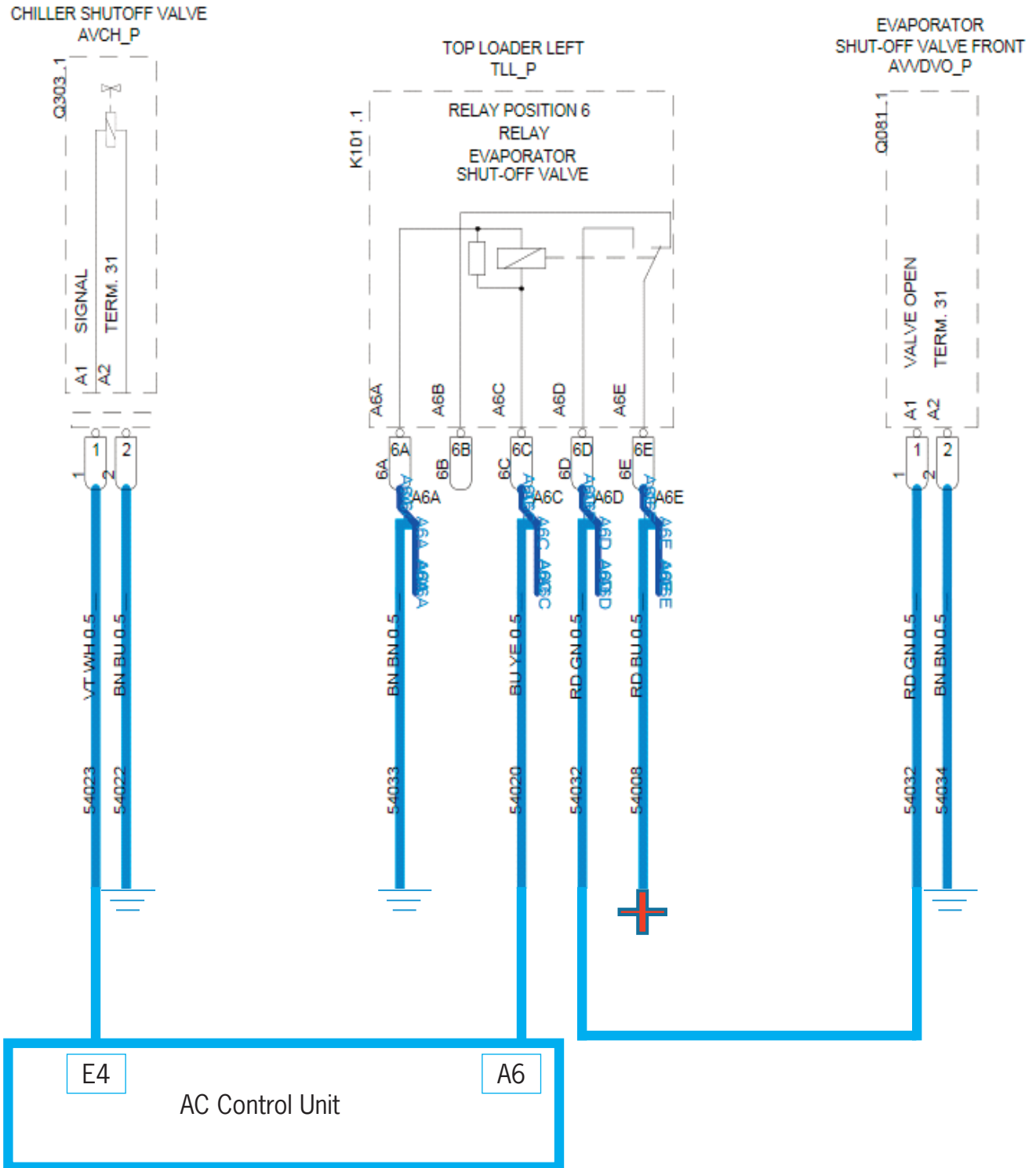
NOTE: A low state of charge of the High Voltage Battery can cause the AC to be deactivated until the state of charge increases to an adequate level. Customers who do not plug their vehicle in on a regular basis may have this issue.

There are two shut off valves in the refrigeration circuit.

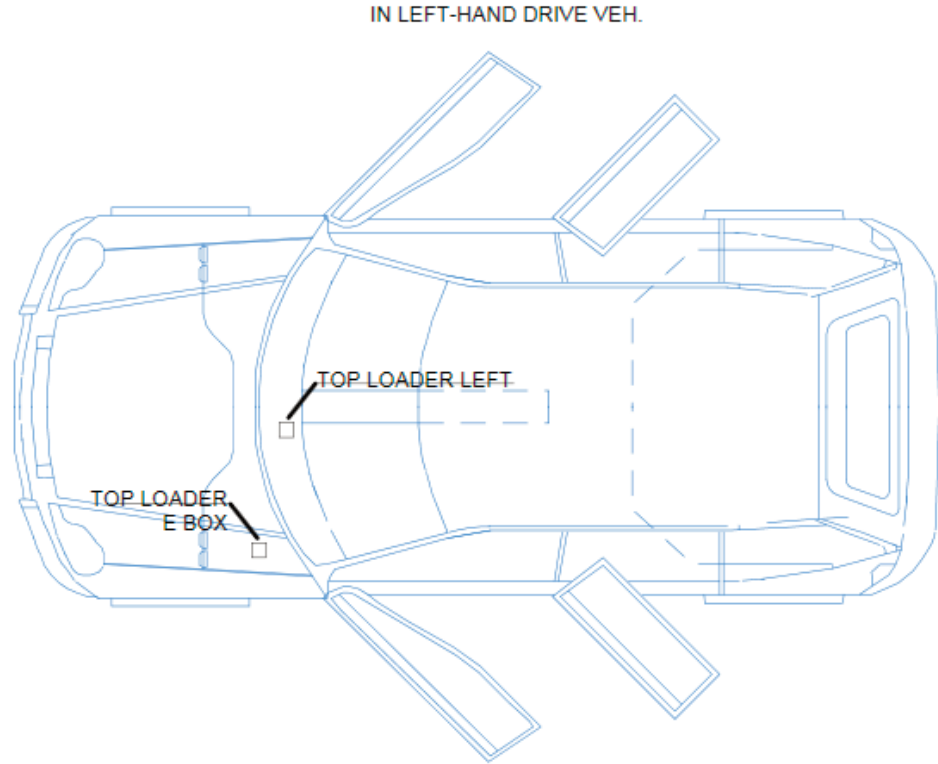
1. The chiller shut off valve is normally open and requires 12V be applied to it from the AC control unit to close it. This would stop cooling of the high voltage battery.
 - a. Power and ground from the AC CU can be checked at the connector of the valve.
2. The evaporator shut off valve is normally closed and requires 12V to be applied to it, via a relay, in order for the valve to open and provide cooling to the passenger compartment.
 - a. The evaporator shut off valve can be diagnosed easily by removing the relay and jumping the load contacts of the relay to see if power makes it to the valve. Power at the valve opens it and the evaporator gets cold with normal AC operation.
 - b. The relay winding circuit can be tested for power and ground from the AC CU.

Refer to the diagrams on the following pages.





The Evaporator Shut Off Valve Relay is in the location shown below in position 6.



Dealership	Service Manager	_____	Shop Foreman	_____	Service Technician	_____	_____	_____	_____
Distribution	Asst. Manager	_____	Warranty Admin.	_____	Service Technician	_____	_____	_____	_____
Routing									

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