

Line	Op-Code	Fail Code	Tech	Hours	Type	Amount
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C + Continued

Concern Customer states service soon message displayed. Service message displayed on dashboard after 23S56 recall. Connected FDRS and retrieved codes: P0AC6, P0AC8, P0AFD, and P0C43. Checked connected vehicle tab in PTS to find fault codes having been present before 23S56 recall had been performed. Spoke with customer to find out customer had been having fault messages on dash and was restarting vehicle to clear message and continue driving. P0AC6 and P0AC8 both lead to pinpoint test N which directs to perform a self-test to see if P0ECA sets. P0ECA was never retrieved making the pinpoint test end stating vehicle is cable of operation with 2 temperature related codes set. Fault message will be displayed if a 3rd temperature fault code is set. Disregarding N1 and going to N2. Running battery health tool shows battery module B thermistor at 1.44 degrees Celsius. All other module thermistors show between 24-26 degrees Celsius. P0C43 leads to pinpoint test T which leads to testing of battery pack coolant temperature A which is located externally from battery. Temp sensor readings show normal when compared to ambient temperatures. Followed pinpoint test T to find vehicle operating correctly, pinpoint test inconclusive. After clearing codes, P0AC6 returns immediately as hard fault. Battery health tests show battery module B thermistor fault is always present.

Cause Submitted technical support request with findings and requested to override pinpoint test N1 and continue to N2 for codes P0AC6 and P0AC8. Technical support agreed stating to start with N2 and continue diagnosis. De-energized high voltage system and removed high voltage battery from vehicle. Removed battery cover and disconnected BECM for connector access. Checked resistance between pin 3 and 7 of connector C4816D to find open circuit present. Began removing high voltage battery harness for access to C4904B at battery module 4. Resistance value across pins 3 and 7 changed to specification when harness was disturbed. Wiggling and moving harness showed open circuit occurred when moving connector C4904B. Removed and replaced section of harness containing C4904B and C4804. Wiggled connector to find fault still present. Faulty circuit is internal to battery module. Removed BECM and upper fifth row battery for access. Removed 4th row battery modules. Installed new cooling plate. TMS and battery modules. Performed module balancing. Installed fifth row battery modules and BECM. Pressure testing internal high voltage battery cooling system and inspected for leaks. Installed high voltage battery cover and installed high voltage battery in vehicle. Energized high voltage system and performed cooling system bleed and fill procedure.

Correction Performed self-test to find high voltage battery fault codes did not return. Faulty internal battery module circuitry caused inaccurate battery temperature reading causing incorrect high voltage battery temperature average. Incorrect temperature average resulting in fault codes for external high voltage battery temperature sensor which had no faults and is functioning properly. Please reference Technical Support Request 120593089 for more information.