

SS 1034544 SSAM Fault 520197/31 - MQ Switch Malfunction Troubleshooting

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SSAM Fault 520880/13, 520881/13, 521964/3 and 521964/4 MSF Sub-bus switch faults

Applicable Vehicles

New Cascadia

Symptoms:

Active SSAM fault code 520197/31; Cabin CAN switches inoperative, including hazard lights

Troubleshooting:

Refer to G66-01087-001 for MSF wiring diagrams. Found in PartsPro module 860.

If none of the Cabin CAN switches work, and all show 'Missing' on the MSF Sub Bus Switches tab from the Instrumentation tab of Diagnosticlink, and the Service Solution 1033351 did not resolve the issue, then follow the instructions below:

To troubleshoot:

If CKT 14F and/or 507A are shorted to ground anywhere in the daisy chain (see attached wiring diagram), then none of the Cabin CAN switches will work. One symptom of this issue will be the 4-way flashers are also inoperative.

Verify battery power on circuit 14F at the MSF Primary Slave X1/1 (from the sSAM). If no power, there may be a defective output from the sSAM or a shorted circuit 14F. If no power at the sSAM X5/4 (by backprobing), unplug the X5 connector at the sSAM, and retest at SSAM X5/4. If still no battery power, then attempt to reflash the sSAM and re-evaluate. If still no power from sSAM X5/4, then replace the sSAM and retest.

If there is power on circuit 14F at the primary slave X1/1 and the ground is OK at X1/3, then check for continuity on circuit 507A between the sSAM and the MSF primary slave, repair as necessary. Also, check for damaged/spread pins.

Then remove connectors from X2, X3 and X4 from the primary slave, keeping the harness from the sSAM connected to the primary slave. Cycle the ignition and after waiting 30 seconds to reset the MSF, turn the ignition back on and see if the Hazards work.

If no hazard function, then try another MSF primary slave (no programming required).

If hazards do work, then leave the hazards flashing and start re-connecting the slave jumpers (X2, X3, and X4). When the hazards stop flashing, the offending downstream circuit has now been identified.

Suspect issue may be downstream of the 14-way jumper that goes to the sleeper, or any other switch in the loop. One way to isolate the sleeper is to disconnect the 14-way connector going to the sleeper and again, cycle the ignition. If the hazards start to work, then the issue is downstream of the 14-way connector. If they still do not work, then the issue is from the MSF primary slave connector to the 14-way connector.

Labels :

Electrical

New Cascadia

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Comments



Just had one in for this fault all dash switches inop and showing missing. Followed the troubleshooting, test ASAM, issue still present, ran overlay between ASAM and MSF issue still present. Ended up being the LDW off switch. Found by removing all switches and jumpers from the MSF. Installed one at a time issue and faults returned with LDW switch was installed. New LDW switch all is working properly.

Never seen an individual switch cause this, I have the wiring issues or corrosion before.