

DTNA Solutions > Service Solutions > Freightliner
 > SS 3162-FTL M2 Plus, 108,114SD Plus and New Cascad...

SS 3162-FTL M2 Plus, 108,114SD Plus and New Cascadia Vehicles, SSL and SSR Non-Functional

Applicable Vehicles

This affects all M2 Plus, 108 / 114SD Plus and New Cascadia Vehicles built from 12/4/2024.

With any of the combination of stalk switch P/Ns, See Table 1

Stalk Switch Left P/N	Stalk Switch Right P/N	Image of P/N on sticker
06-97105-000	06-97100-000	
06-97105-001	06-97100-001	
06-97105-002	06-97100-002	
	06-97100-003	
	06-97099-000	
	06-97099-001	
	06-97099-002	
	06-97099-003	
	06-97099-004	
	06-97099-005	
	06-97099-006	
	06-97099-007	
	06-97099-008	
	06-97099-009	
	06-97099-010	

Table 1 List of affected Stalk Switch P/Ns

At key-on, the operator may experience unintended wiper activation, hazard light activation and neither Stock Switch Left (SSL) nor Stalk Switch Right (SSR), if equipped with a SSR, functioning. If equipped with SSR containing a shift selector, the engine will not crank due to the Single SAM (sSAM) not seeing the selected shift position. This issue will not occur at any time other than key-on.

As a result of the stalk switch being non-functional, active fault codes for both stalk switches (if equipped) would be present i.e. 33/520847/31-Stalk switch right error connection condition exists, 33/520848/31-Stalk switch right error condition exists. A

pop-up message will also appear in the Instrument Cluster Unit (ICU) informing the driver of an issue, see Figure 1 for message examples.

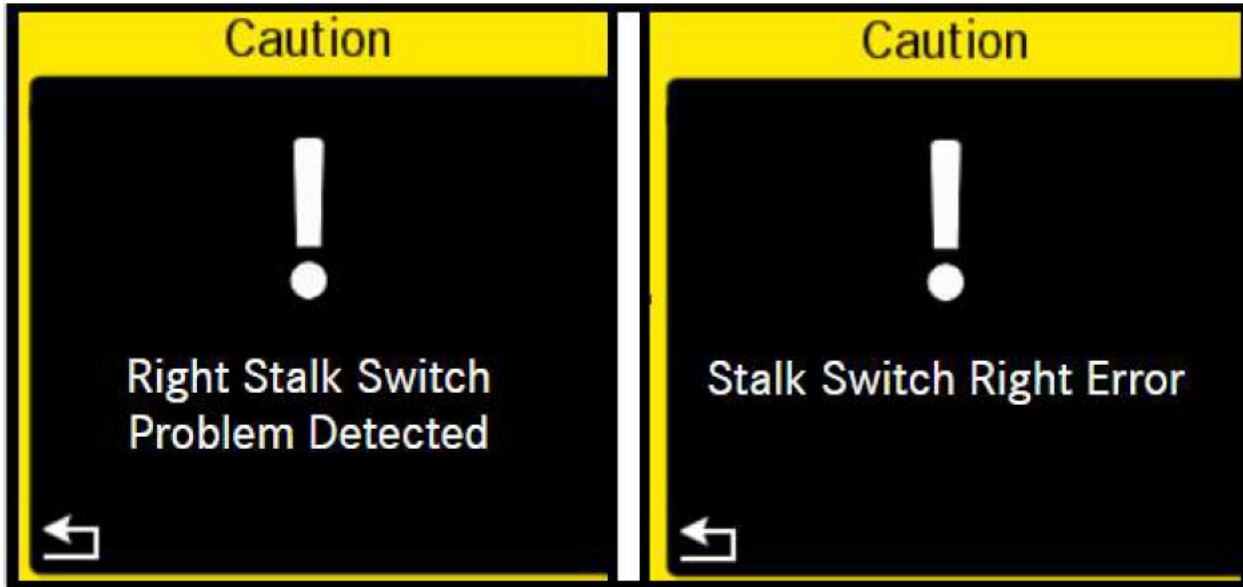


Figure 1 Example of Stalk Switch Right Messages that would appear in the ICU

Issue

Stalk switches used with the applicable vehicles described in this solution, have a current demand that can exceed the limits of the LIN 1 power supply (wire 339F) from the sSAM during an ignition activation. LIN 1 power is connected between the sSAM and both SSL and SSR. If LIN 1 current demand is exceeded, the result is loss of function from both SSL and SSR. Because the failure is current demand related, and current demand on the LIN 1 for this issue is greatest during the initial key on condition, if the issue were to occur, this issue only happens during the ignition activation.

Solution

When encountering this issue, the containment described in this solution will be used until new stalk switches become available.

The containment has two solutions depending on the vehicle's configuration

Containment 1 Vehicles equipped with a Rain Light Sensor (RLS)

For vehicles with a RLS the containment is to install a jumper wire between LIN 1 power (wire 339F) and LIN 2 power (wire 315S). See Figure 2 for the jumper wire pictured in red that will be added.

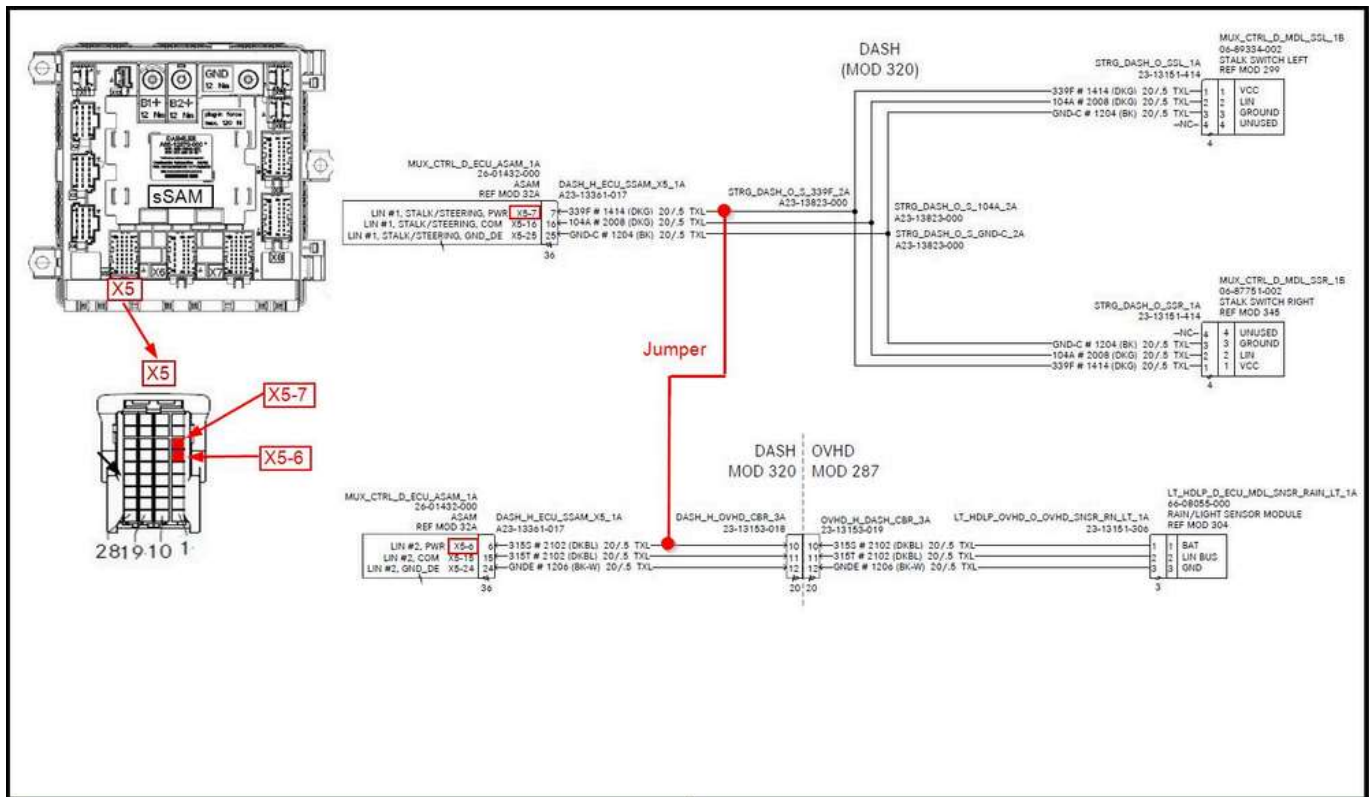


Figure 2 Jumper wire to be installed between wire 339F and 315S

Make the splice between wire 339F and 315S about 4" way from the X5 connector at the sSAM. Because the wires are next to each other at the sSAM, the jumper wire only needs to be about 4" in length. Make the jumper using red 20 GA TXL wire. To make the two splices, use Phillips butt connector P/N PHM 1 1725 (quantity 2) or equivalent part.

Cut wire 339F about 4" from the sSAM and strip 3/8" off the wire insulation of both ends. Install the red marked side of the butt connector on to the sSAM side of the wire and crimp the wire in place. Next take the 4" jumper wire and strip off 3/8" of the insulation off both ends. Insert the other side of the cut 339F wire and one end of the 4" jumper into the blue marked end of the butt connector and crimp it in place.

Next Cut the wire 315S about 4" from the sSAM and strip 3/8" of the wire insulation off both ends. Install the red marked side of the butt connector on to the sSAM side of the wire and crimp the wire in place. Next insert the other side of the cut 315S wire and the remaining end of the 4" jumper into the blue marked end of the butt connector and crimp it in place.

With both connectors crimped in place, use a heat gun to shrink the butt connector and activate the adhesive, this takes a temperature between 300 deg F and 350 deg F, see Figure 3 for the butt connector and jumper wire installation.

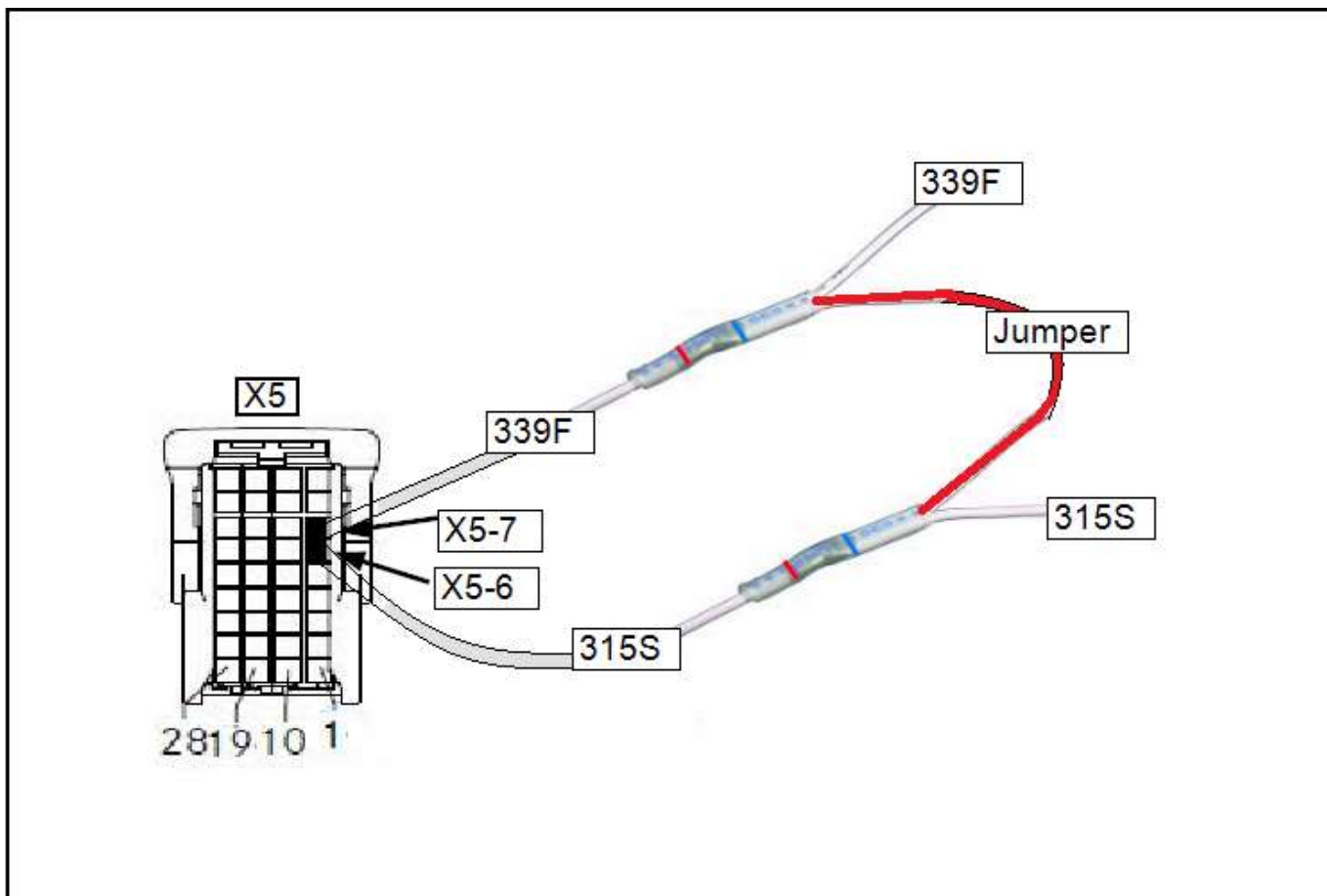


Figure 3 Butt connector and jumper wire installation

Secure the wires to the harness bundle using a tie straps, so that the added jumper is not loose from the harness.

Make sure after reassembling all of the pieces required to access the sSAM to test the functions of both stalk switches (if equipped).

Containment 2 Vehicles equipped without a Rain Light Sensor (RLS)

For vehicles without a RLS the containment is to install a jumper wire between LIN 1 (wire 339F) and Cavity X5-6 of the sSAM, see Figure 4 for the jumper wire pictured in red that will be added.

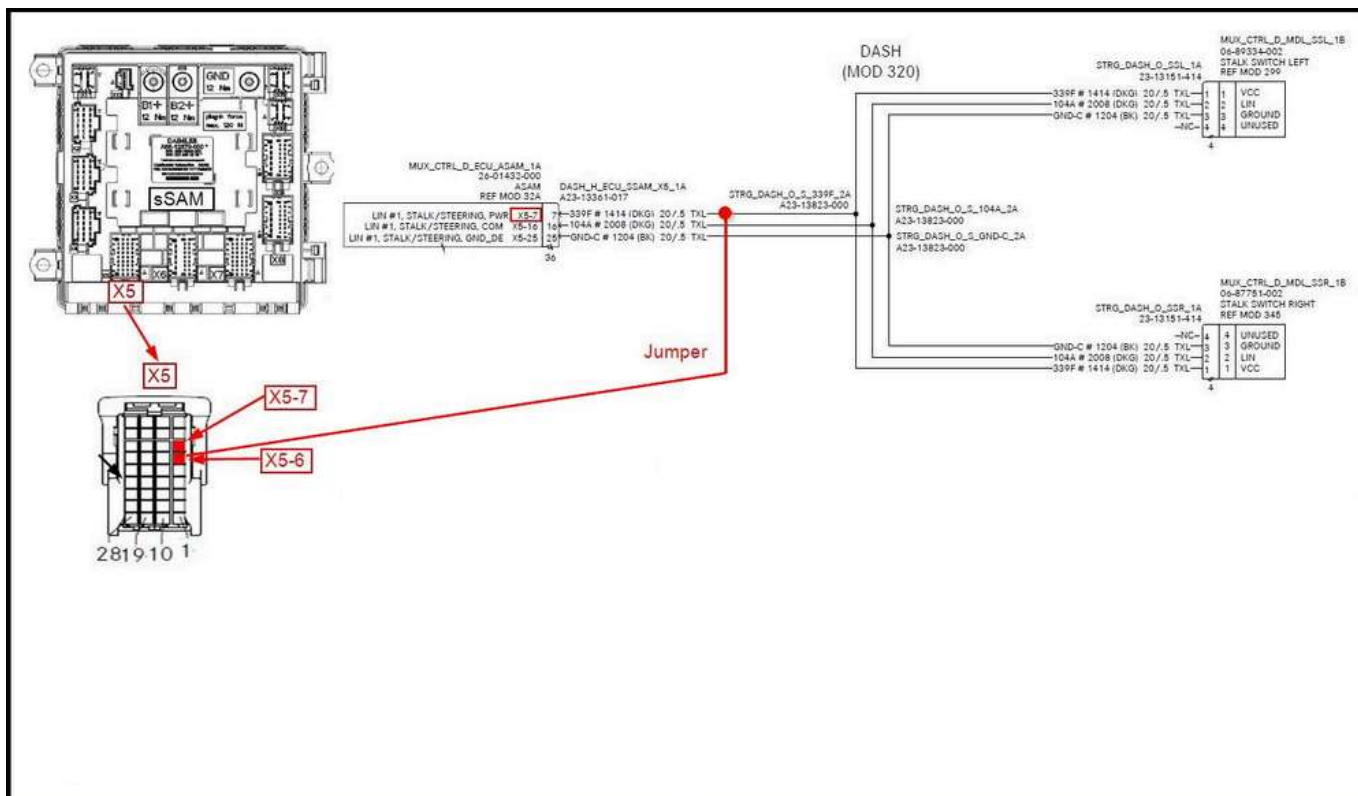


Figure 4 Jumper wire to be installed between wire 339F and Cavity X5-6

Make the splice on wire 339F about 4" way from the X5 connector at the sSAM. Because the cavities are next to each other at the sSAM, the jumper wire only needs to be about 8" in length. Make the jumper using red 20 GA TXL wire. To make the splice, use Phillips butt connector P/N PHM 1 1725 (quantity 1) or equivalent part. Terminal P/N 23-13209-730 (quantity 1) will also be needed to connect the other end of the jumper harness that will be inserted into cavity X5-6.

Cut wire 339F about 4" from the sSAM and strip 3/8" off the wire insulation of both ends. Install the red marked side of the butt connector on to the sSAM side of the wire and crimp the wire in place. Next take the 8" jumper wire and strip off 3/8" of the insulation off both ends. Insert the other side of the cut 339F wire and one end of the 8" jumper into the blue marked end of the butt connector and crimp it in place.

Take the other end of the 8" jumper wire and install terminal P/N 23-13209-730. Unlatching the X5 connector from the sSAM unlatch the terminal lock and install the jumper wire with terminal into cavity X5-6. Make sure to latch the terminal lock and install connector X5 back on to the sSAM.

With the butt connector crimped in place, use a heat gun to shrink the butt connector cover and activate the adhesive, this takes a temperature between 300 deg F and 350 deg F, see Figure 5 for the butt connector and jumper wire installation.

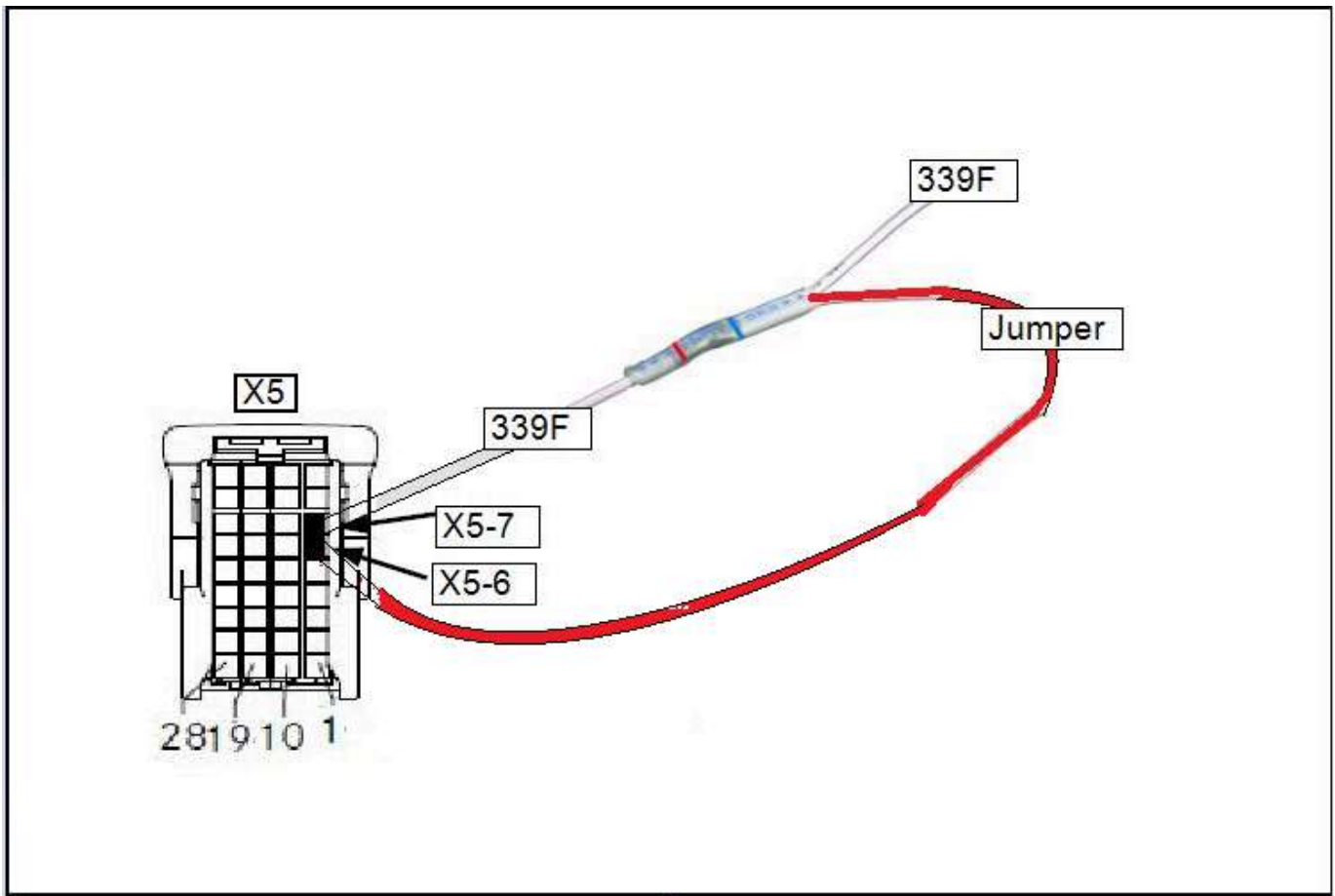


Figure 5 for the butt connector and jumper wire installation

Secure the wires to the harness bundle using a tie straps, so that the added jumper is not loose from the harness.

Make sure after reassembling all of the pieces required to access the sSAM to test the functions of both stalk switches (if equipped).

Labels :

- 108SD
- 114SD
- Electrical
- M2
- New Cascadia

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