

SS 1033322 ABS light illuminating in ICU, ABS solenoids will not self-check

HSA light illuminating in ICU

Applicable Vehicles

Cascadia, M2, Western Star 5700

Symptoms

ABS light illuminated in ICU, and ABS solenoids do not self check or have a delay.

Issue

The LED light in the ICU supporting the HSA indicator that is driven by the ABS ECU connector 3, pin 1 (X3/1) is wired to a 120 ohm resistor, circuit 376N*, that seeks a grounding path through a splice to circuit 378RS- to keep the indicator from flickering under normal operation. The 378RS- circuit terminates at the ABS ECU connector 3, pin 8 (X3/8). This strategy of a steady input to the ABS X3/8 pin through the 120 ohm resistor will cause the X3/8 pin to degrade prematurely, causing the ABS ECU to exhibit symptoms as noted above.

Case Study

See 330 ABS schematics G06-85713-000 (M2), G06-83103-000 (Cascadia), and G06-89354-000 (Western Star 5700). Note the 120 ohm resistor installed inline between circuits 376N* and 378RS-. If the ABS light is illuminated, and the ABS solenoids do not self check or have a delayed self check, unplug the ABS ECU X3, observe if the solenoids self check. If so, correction of this failure involves replacing the ABS controller, and installing a relay jumper assembly part number A66-12083-000 in place of the resistor. In cases where the controller is not yet exhibiting symptoms as noted earlier, do not replace the ABS controller, but install the relay jumper assembly in place of the resistor as a proactive step.

Solution

See the first attachment for general installation instructions for Cascadia Applications. See the second attachment for a basic schematic of the 120 ohm resistor retrofitted with a relay. All applications will require accessing dash 81C splice packs. For M2 dash tap points, see the main cab general reference harness print A06-71941-000 for the 81C ignition splice pack 12 connector DASH_H_SP_12A_PWR_IGN. For Cascadia application dash tap points, see 320 content Service Dash Harness D06-56742-000, page 27, and view respective harness print A06-65941-000 for the 81C splice pack connector DIM_DASH_O_SP_IGN_1A. For Western Star application dash tap points, see harness print A06-89856-000 for the 81C splice pack connector PWR_DASH_O_SP_81C_2A.

Note: all of the splice packs referred to in this solution share the same part number, 23-13141-018. For the terminals, refer to EZ wiring or visit the ecomponents website.