SIB 34 09 14 2023-06-14

Wheel Speed Sensor Faults Cannot Be Cleared

MODEL

F10 (M5 Sedan)	F06 (M6 GranCoupe)	F12 (M6 Convertible)	F13 (M6 Coupe)

SITUATION

The Dynamic Stability Control (DSC) warning light comes on while driving.
The following DSC fault codes for the wheel speed sensors are stored:

- 480712
  and/or
- 480715
  and/or
- 480718
  and/or
- 48071B

They cannot be cleared, even though the wheel speed sensors work correctly and no problem can be found with the wiring harness.

CAUSE

Due to high outside temperatures and extremely low atmospheric humidity, an electrostatic discharge (ESD) can occur in the wheel well area. This can transfer to the wheel speed sensor, causing irreparable damage to the DSC control unit.

CORRECTION

Perform the vehicle test with ISTA/D and work through the corresponding DSC test modules. After completing the applicable test modules, and if DSC fault codes 480712, and/or 480715, and/or 480718, and/or 48071B cannot be cleared, replace the DSC control unit and install ground retrofit kit P/N 61 13 7 856 494.
Follow the instructions in attachment B340914_ground_cable_retrofit for DSC replacement and kit installation.

PARTS INFORMATION

Part Number	Description	Quantity
61 13 7 856 494	Ground cable retrofit kit	1
81 22 0 142 156	Brake fluid (12 oz bottle - Bulk container)	As needed
83 19 2 295 229	Contact protection grease	1

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty or the BMW Certified Pre-Owned Program.

Defect Code:	**34 52 10 15 00**	

Labor Operation:	**Labor Allowance:**	**Description:**
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)
And:		
34 51 527	Refer to KSD2	Removing and installing or replacing DSC control unit (includes removing one front tire, one front “rear-section” wheelhouse cover, bleeding the brakes and connecting an approved battery charger/power supply)
And:		
61 00 730	Refer to KSD2	Programming/encoding control unit(s)
And:		
36 10 800	Refer to KSD2	Removing and installing front tire (Other side)
And:		
34 99 000	24 FRU	Work time to remove and install both wheel house covers (front sections), clean the five contact points and install ground cable kit.

Labor operation code 00 00 006 is a Main labor operation. If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the “Search” button, and then enter the applicable flat rate labor operation in the FR code field.

If a control module or component was working properly and/or had no related faults stored prior to vehicle programming and it fails to program correctly or requires initialization, this additional work must be claimed with separate labor operations under the defect code listed above; refer to KSD2.

Repairs to control modules and components with pre-existing conditions are not eligible to be claimed under the defect code listed in this bulletin.

And:

Sublet – Bulk Materials

Sublet Code 4	See sublet reimbursement calculation below	Reimbursement for the used quantity of brake fluid (BMW part number 81 22 01 42 156). Please do not use this part number for claim submission.

Sublet calculation: Reimbursement for the used quantity reimbursement for used quantities of brake fluid (BMW part number 81 22 01 42 156) at dealer net plus handling.

Enter this material cost as one sublet amount and itemize each one in the claim comment section.

Other Repairs

If performing other ISTA diagnostics and related test plans results with **eligible and covered work,** claim this work with the applicable defect code and labor operations listed in KSD2.

Supporting Materials
picture_as_pdf B340914_Ground_Cable_Retrofit.pdf

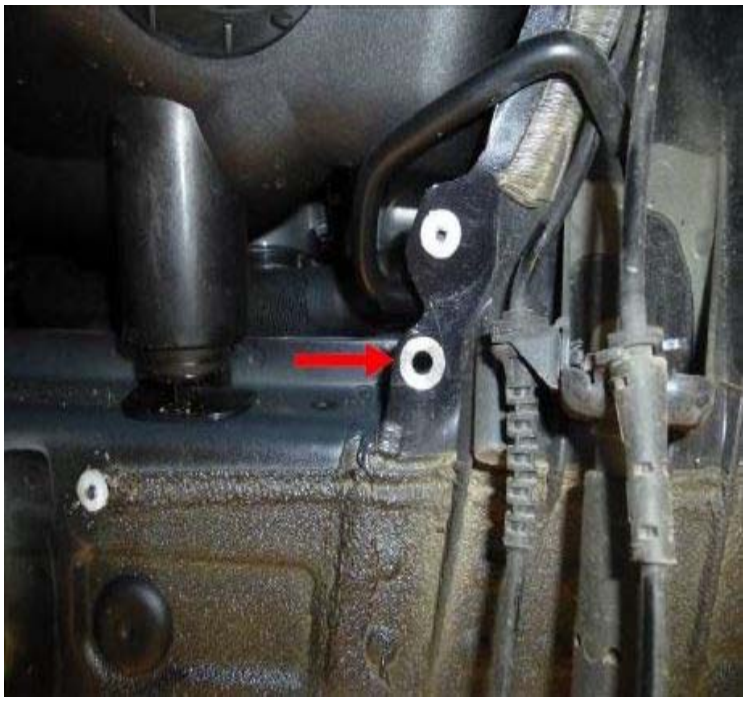
Remove the DSC control unit per RA 34 52 516.

To improve conductivity, clean the contact area for the DSC bracket with sandpaper.

Fit the short ground cable from the retrofit kit.

Remove the wheel arch cover front section for the left front wheel.

Remove the right front wheel and wheel arch cover front section.



Using a suitable tool (flat countersink), machine the front contact area to bare metal on both the left- and right-hand sides of the body until they are smooth.

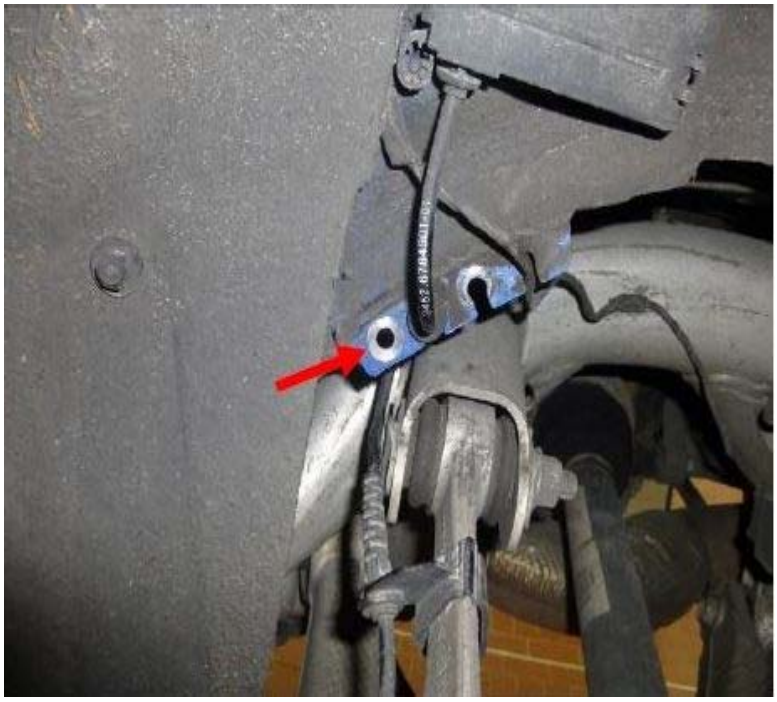
This will ensure electrical conductivity.

Protect the reworked body attachment points using contact protection grease (83 19 2 295 229).

Use the existing mounting bolts to screw the ground cable (750 mm) from the ESD ground cable set onto the relevant front wheel speed sensor (L and R). Torque to 8 Nm.

Route the ground cable along the wheel-speed sensor cable. Use a hex bolt (M6x14, 9 905 525) and a hex nut (M6, 9 915 702) to screw the other relevant ground cable end onto the prepared body attachment point (8 Nm). Secure it using the cable straps (1 372 391).

Remove the rear wheels.



Using a suitable tool (flat countersink), machine the rear contact area to bare metal on both the left- and right-hand sides of the body until they are smooth.

This will ensure electrical conductivity.

Protect the reworked body attachment points using contact protection grease (83 19 2 295 229).

Use the existing mounting bolts to bolt the ground cable (500 mm) from the ESD ground cable set onto the relevant rear wheel speed sensor (L and R). Torque to 8 Nm.

Route the ground cable along the wheel-speed sensor cable. Use a hex bolt (M6x14, 9 905 525) and a hex nut (M6, 9 915 702) to screw the other relevant ground cable end onto the prepared body attachment point (torque 8 Nm). Secure it using the cable straps (1 372 391).

NOTE: Ensure correct routing in the marked area; the ground cables must have sufficient clearance.

Use an ohmmeter to check that all of the newly attached ground cables are working (zero resistance between the wheel hub and the vehicle’s ground).

Install the DSC control unit per RA 34 52 516.