

# ABS WITH EBD & BA & TRAC & VSC SYSTEM (1GR-FE)

## DIAGNOSTIC TROUBLE CODE CHART

05AV7-01

**NOTICE:****When removing the part, turn the ignition switch OFF.****HINT:**

- Using SST 09843-18040, connect the terminals and Tc and CG of DLC3.
- If any abnormality is not found when inspecting parts, inspect the ECU.
- If a malfunction code is displayed during the DTC check, check the circuit listed that code. For details of each code, turn to the page referred to under the "See page" for respective "DTC No." in the DTC chart.

**DTC Chart of ABS:**

DTC No. (See Page)	Detection Item	Trouble Area
C0200/31*1 (★)	Right front wheel speed sensor signal malfunction	<ul style="list-style-type: none"> <li>• Right front, left front, right rear and left rear speed sensor</li> <li>• Each speed sensor circuit</li> <li>• Sensor rotor</li> </ul>
C0205/32*1 (★)	Left front wheel speed sensor signal malfunction	
C0210/33*1 (★)	Right rear wheel speed sensor signal malfunction	
C0215/34*1 (★)	Left rear wheel speed sensor signal malfunction	
C0226/21 (★)	Open or short circuit in brake master cylinder solenoid circuit (SFR circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SFR or SFRH circuit</li> </ul>
C0236/22 (★)	Open or short circuit in brake master cylinder solenoid circuit (SFL circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SFL or SFLH circuit</li> </ul>
C0246/23 (★)	Open or short circuit in brake master cylinder solenoid circuit (SRR circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SRR or SRRH circuit</li> </ul>
C0256/24 (★)	Open or short circuit in brake master cylinder solenoid circuit (SRL circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SRL or SRLH circuit</li> </ul>
C0278/11 (★)	Open or short circuit in ABS solenoid relay circuit	<ul style="list-style-type: none"> <li>• ABS solenoid relay</li> <li>• ABS solenoid relay circuit</li> </ul>
C0279/12 (★)	B+ short circuit in ABS solenoid relay circuit	
C1225/25 (★)	Open or short circuit in brake master cylinder solenoid circuit (SMC (SA1) circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SMC (SA1) circuit</li> </ul>
C1226/26 (★)	Open or short circuit in brake master cylinder solenoid circuit (SPC (SA2) circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SPC (SA2) circuit</li> </ul>
C1227/27 (★)	Open or short circuit in brake master cylinder solenoid circuit (SRC (SA3) circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• SRC (SA3) circuit</li> </ul>
C1228/28 (★)	Open or short circuit in brake master cylinder solenoid circuit (STR circuit)	<ul style="list-style-type: none"> <li>• Brake master cylinder</li> <li>• STR circuit</li> </ul>
C1235/35 (★)	Foreign matters attached on the tip of the right front sensor	<ul style="list-style-type: none"> <li>• Right front, left front, right rear, left rear speed sensor</li> <li>• Sensor rotor</li> </ul>
C1236/36 (★)	Foreign matters attached on the tip of the left front sensor	
C1238/38 (★)	Foreign matters attached on the tip of the right rear sensor	
C1239/39 (★)	Foreign matters attached on the tip of the left rear sensor	

C1241/41 (★)	Low battery positive voltage or abnormally high battery positive voltage	<ul style="list-style-type: none"> <li>• Battery</li> <li>• IC regulator</li> <li>• Power source circuit</li> </ul>
C1242/42*2 (★)	Open circuit in IG2 circuit	<ul style="list-style-type: none"> <li>• Battery</li> <li>• IC regulator</li> <li>• Power source circuit</li> </ul>
C1243/43 (★)	Malfunction in deceleration sensor (constant output)	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Deceleration sensor circuit</li> </ul>
C1244/44 (★)	Open or short circuit in deceleration sensor circuit	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Deceleration sensor circuit</li> </ul>
C1245/45 (★)	Malfunction in deceleration sensor	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Deceleration sensor circuit</li> </ul>
C1246/46 (★)	Malfunction in master cylinder pressure sensor	<ul style="list-style-type: none"> <li>• Master cylinder pressure sensor</li> <li>• Master cylinder pressure sensor circuit</li> </ul>
C1249/49 (★)	Open circuit in stop light switch circuit	Stop light switch circuit
C1251/51*2 (★)	Pump motor is locked Open circuit in pump motor ground	Brake booster pump motor
C1252/52*2 (★)	Brake booster pump motor malfunction	<ul style="list-style-type: none"> <li>• Brake booster pump motor</li> <li>• Brake booster pump motor circuit</li> <li>• Pressure switch (PH or PL)</li> </ul>
C1253/53*2 (★)	Brake booster pump motor relay malfunction	<ul style="list-style-type: none"> <li>• ABS and TRAC motor relay</li> <li>• ABS and TRAC motor relay circuit</li> <li>• Brake booster pump motor circuit</li> </ul>
C1254/54*2 (★)	Pressure switch malfunction	<ul style="list-style-type: none"> <li>• Pressure switch (PH or PL)</li> <li>• Pressure switch circuit</li> </ul>
C1256/56*2 (★)	Accumulator low pressure malfunction	<ul style="list-style-type: none"> <li>• Accumulator</li> <li>• Pressure switch (PH or PL)</li> <li>• Brake booster pump motor</li> </ul>
C1257/57*2 (★)	Power supply drive circuit malfunction	<ul style="list-style-type: none"> <li>• Battery</li> <li>• IC regulator</li> <li>• Power Source circuit</li> </ul>
C1268/68*3 (★)	Transfer L4 position signal transmission failure	<ul style="list-style-type: none"> <li>• Transfer L4 position switch</li> <li>• Transfer L4 position switch circuit</li> </ul>
C1306/96 (★)	Malfunction in speed sensor power supply	<ul style="list-style-type: none"> <li>• Speed sensor</li> <li>• Speed sensor circuit</li> </ul>
C1337/37 (★)	Tires of different size	Tire size
Always ON (★)	Malfunction in skid control ECU	<ul style="list-style-type: none"> <li>• Battery</li> <li>• IC regulator</li> <li>• Power source circuit</li> <li>• Skid control ECU</li> </ul>

\*1: As the DTC cannot be erased by replacing parts alone do either of the following operations.

(1) Clear DTC (See Pub. No. RM 1001U, page 05-307).

(2) At the vehicle speed of 20 km/h (12 mph), drive the vehicle for 30 sec. or more.

\*2: Using the following table, troubled parts can be specified.

\*3: 4WD

★: See Pub. No. RM 1001U

DTC		C1242/42		C1251/51		C1252/52		C1253/53		C1254/54		C1256/56		C1257/57	
BRAKE warning light and buzzer		Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer
Pressure switch	PH					○	○			○		○	○		
	PL					○	○			○		○	○		
Pump motor circuit	Pump motor			○	○	○	○					○	○		
	MTT wire harness					○	○	○							
	MT+ wire harness			○											
	MT- wire harness			○											
Accumulator malfunction												○	○		
Motor relay circuit	MR1 open circuit							○							
	MR2 open circuit							○							
	MR1 welded contact					○	○	○							
	MR2 welded contact					○	○	○							
Brake master cylinder	Pressure leaks					○	○					○	○		
Power source*	IG2 open circuit	○													
ECU	Power supply circuit													○	

\*: When IG2 circuit is open, ABS warning light and BRAKE warning light come on.

# DTC Chart of VSC:

DTC No. (See Page)	Detection Item	Trouble Area
C1201/51 (★)	ECM system malfunction	Engine control system
C1203/53 (★)	ECM communication circuit malfunction	<ul style="list-style-type: none"> <li>• TRC+ or TRC - circuit</li> <li>• ENG+ or ENG - circuit</li> <li>• ECM</li> </ul>
C1210/36 (★)	Zero point calibration of yaw rate sensor undone	<ul style="list-style-type: none"> <li>• Yaw rate sensor</li> <li>• Yaw rate sensor circuit</li> <li>• Neutral start switch circuit</li> </ul>
C1223/43 (★)	Malfunction in ABS control system	ABS control system
C1224/44 (★)	Open or short circuit in NE signal circuit	<ul style="list-style-type: none"> <li>• NEO circuit</li> <li>• ECM</li> <li>• Skid control ECU</li> </ul>
C1231/31 (★)	Malfunction in steering angle sensor	<ul style="list-style-type: none"> <li>• Steering angle sensor</li> <li>• Steering angle sensor circuit</li> <li>• +BI circuit</li> </ul>
C1232/32 (★)	Malfunction in deceleration sensor	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Deceleration sensor circuit</li> </ul>
C1233/33 (★)	Open or short circuit in yaw rate sensor circuit	<ul style="list-style-type: none"> <li>• Yaw rate sensor</li> <li>• Yaw rate sensor circuit</li> </ul>
C1234/34 (★)	Malfunction in yaw rate sensor	<ul style="list-style-type: none"> <li>• Yaw rate sensor</li> <li>• Yaw rate sensor circuit</li> </ul>
C1258/58 (05-265)	Transfer 4WD position switch circuit	<ul style="list-style-type: none"> <li>• Transfer 4WD position switch</li> <li>• Transfer 4WD position switch circuit</li> </ul>
C1335/35 (★)	Open circuit in steering angle sensor	<ul style="list-style-type: none"> <li>• Steering angle sensor</li> <li>• Steering angle sensor circuit</li> </ul>
C1336/39 (★)	Zero point calibration of deceleration sensor undone	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Deceleration sensor circuit</li> <li>• Zero point calibration not done</li> </ul>
C1340/47* (★)	Open circuit in center differential lock signal	<ul style="list-style-type: none"> <li>• Center differential lock system</li> <li>• Center differential lock circuit</li> <li>• Center differential lock indicator light circuit</li> </ul>
C1380/64 (★)	Malfunction in stop light operation relay	<ul style="list-style-type: none"> <li>• Stop light operation relay</li> <li>• STP2 circuit</li> </ul>
Always ON (★)	Malfunction of skid control ECU	<ul style="list-style-type: none"> <li>• Battery</li> <li>• IC regulator</li> <li>• Power source circuit</li> <li>• Skid control ECU</li> </ul>

\*: 4WD

HINT:

There is a case that hand-held tester cannot be used when ABS and/or VSC warning light is always on.

★: See Pub. No. RM 1001U

**DTC of ABS sensor check function**

Code No.	Diagnosis	Trouble Area
C1271 / 71	Low output voltage of right front speed sensor	<ul style="list-style-type: none"> <li>• Right front speed sensor</li> <li>• Sensor installation</li> <li>• Sensor rotor</li> </ul>
C1272 / 72	Low output voltage of left front speed sensor	<ul style="list-style-type: none"> <li>• Left front speed sensor</li> <li>• Sensor installation</li> <li>• Sensor rotor</li> </ul>
C1273 / 73	Low output voltage of right rear speed sensor	<ul style="list-style-type: none"> <li>• Right rear speed sensor</li> <li>• Sensor installation</li> <li>• Sensor rotor</li> </ul>
C1274 / 74	Low output voltage of left rear speed sensor	<ul style="list-style-type: none"> <li>• Left rear speed sensor</li> <li>• Sensor installation</li> <li>• Sensor rotor</li> </ul>
C1275 / 75	Abnormal change in output voltage of right front speed sensor	Right front sensor rotor
C1276 / 76	Abnormal change in output voltage of left front speed sensor	Left front speed sensor rotor
C1277 / 77	Abnormal change in output voltage of right rear speed sensor	Right rear sensor rotor
C1278 / 78	Abnormal change in output voltage of left rear speed sensor	Left rear speed sensor rotor
C1279 / 79	Deceleration sensor is faulty	<ul style="list-style-type: none"> <li>• Deceleration sensor</li> <li>• Sensor installation</li> </ul>
C1281 / 81	Master cylinder pressure sensor output signal is faulty	Master cylinder pressure sensor
C1282 / 82*	Transfer indicator (center diff. lock) switch malfunction	Transfer indicator (center diff. lock) switch
C1283 / 83*	Transfer L4 position switch malfunction	Transfer L4 position switch

\*: 4WD

**DTC of VSC sensor check function**

Code No.	Diagnosis	Trouble Area
C0371 / 71	Yaw rate sensor output signal malfunction	<ul style="list-style-type: none"> <li>• Yaw rate sensor</li> <li>• Yaw rate sensor circuit</li> </ul>
C1379 / 74	DAC operating switch malfunction	<ul style="list-style-type: none"> <li>• DAC operating switch</li> <li>• DAC operating switch circuit</li> </ul>