ABS & VEHICLE STABILITY CONTROL (VSC) & BRAKE ASSIST (BA) SYSTEM

DI6X1-06

DIAGNOSTIC TROUBLE CODE CHART

NOTICE:

When removing the part, turn the ignition switch OFF.

HINT:

- Using SST 09843–18020, connect the terminals Tc and E₁ of the check connector.
- 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 for 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						
C0278 / 11 ★	Open or short circuit in ABS solenoid relay circuit	ABS solenoid relay ABS solenoid relay circuit						
C0279 / 12 ★	B+ short circuit in ABS solenoid relay circuit	ABS solenoid relay ABS solenoid relay circuit						
C0226 / 21 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SFR circuit)	Hydraulic brake booster SFRR or SFRH circuit						
C0236 / 22 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SFL circuit)	Hydraulic brake booster SFLR or SFLH circuit						
C0246 / 23 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SRR circuit)	Hydraulic brake booster SRRR or SRRH circuit						
C0256 / 24 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SRL circuit)	Hydraulic brake booster SRLR or SRLH circuit						
C1225 / 25 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SA1 circuit)	Hydraulic brake booster SA1 circuit						
C1226 / 26 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SA2 circuit)	Hydraulic brake booster SA2 circuit						
C1227 / 27 ★	Open or short circuit in hydraulic brake booster solenoid circuit (SA3 circuit)	Hydraulic brake booster SA3 circuit						
C1228 / 28 ★	Open or short circuit in hydraulic brake booster solenoid circuit (STR circuit)	Hydraulic brake booster STR circuit						
C0200 / 31* ¹ (DI-79)	Right front wheel speed sensor signal malfunction	Right front speed sensor Speed sensor circuit Sensor rotor						
C0205 / 32*1 (DI-79)	Left front wheel speed sensor signal malfunction	Left front speed sensor Speed sensor circuit Sensor rotor						
C0210 / 33*1 (DI-79)	Right rear wheel speed sensor signal malfunction	Right rear speed sensor Speed sensor circuit Sensor rotor						
C0215 / 34*1 (DI-79)	Left rear wheel speed sensor signal malfunction	Left rear speed sensor Speed sensor circuit Sensor rotor						
C1235 / 35 (DI-79)	Foreign matter is attached on the tip of the right front sensor	Right front speed sensor Speed sensor rotor						
C1236 / 36 (DI-79)	Foreign matter is attached on the tip of the left front sensor	Left front speed sensor Speed sensor rotor						
C1237 / 37 ★	Some tire is different size from the other tires	Tire size						

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C1238∏ 38 (DI-79)	Foreign@natter@s@attached@n@he@ip@f@he@ight@ear@ensor	Right[]ear speed[\$ensor Speed[\$ensor[]otor						
C1239 <u>∏</u> 39 (DI-79)	Foreign@natter@s@attached@n@he@ip@f@he@eft@ear@ensor	Deft[]ear[\$peed[\$ensor] Speed[\$ensor]otor						
C1241 <u>∏</u> [41 ★	Low[battery[voltage[br[abnormally[high[battery[voltage	Battery Clegulator Power[source[circuit]						
C1242 <u>∏</u> [42* ² ★	Open@ircuit[]n[]G2@ircuit	Battery IC regulator Power source circuit						
C1243 <u>∏4</u> 3 ★	Malfunction[]n[deceleration[sensor[]constant[output]	Deceleration[sensor Wire[harness]]or[deceleration[sensor]system						
C1244 <u>∏</u> 44 ★	Open@r[\$hort[&ircuit]]n[deceleration[\$ensor@ircuit	Deceleration Deceleration In the content of the						
C1245 <u>∏4</u> 5 ★	Malfunction in deceleration sensor	Deceleration[sensor Wire[harness]]or[deceleration[sensor[system]])						
C1246 <u>∏4</u> 6 ★	Malfunction[]n[]master[c]ylinder[]pressure[]sensor	Master[cylinder[pressure[sensor Master[cylinder[pressure[sensor[circuit]]]]						
C1249 <u>∏4</u> 9 ★	Open@ircuit[]n[stop[]ight[switch@ircuit	Stop[]ight[switch[&ircuit						
C1251∭51* ² ★	Pump@notor@s@ocked Open@ircuit@n@pump@notor@round	Hydraulic[brake[booster[bump[motor						
C1252∏[52*² ★	Hydraulic[brake[booster[bump[motor[]nalfunction	Hydraulic[brake[booster[bump[motor] Hydraulic[brake[booster[bump[motor[circuit] Pressure[switch[PH[br[PL])						
C1253 <u>∏</u> (\$3*² ★	Hydraulic[brake[booster[bump[motor[]elay[]malfunction	ABS@notor@@r[ABS@notor@@elay ABS@notor@@r[ABS@notor@@elay@ircuit Hydraulic@rake@booster@ump@notor@ircuit						
C1254 <u>∏</u> 54*² ★	Pressure[switch]malfunction	Pressure[switch[PH[pr[PL)] Pressure[switch[circuit]]						
C1256∏ 56*² ★	Accumulator@ow@ressure@nalfunction	Accumulator Pressure[switch[PH[pr[PL]) Hydraulic[brake[booster[pump[motor]]])						
C1257 <u>∏</u> [\$7*² ★	Power[§upply[₫rive[̞circuit[malfunction	Battery Power[source@ircuit Skid@ontrol[ECU						
C1203 <u>∏</u> [5 9	Engine@and@ECT@ECU@ommunication@ircuit@malfunction	IRC+[pr[TRC-[circuit] ENG+[pr[ENG-[circuit] Engine[and[ECT[ECU]						
C1268∏168 ★	Transfer[]_4[position[signal]]ransmission[failure	Transfer L4 position switch Transfer L4 position switch circuit						
Always ON ★	Malfunction in skid control ECU	Battery IC regulator Power source circuit Skid control ECU						

^{*1:} As the DTC cannot be erased by replacing parts alone do either of the following operations. Clear the DTC (see Pub. No. RM970E, page DI–185).

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

★:Refer to LAND CRUISER Repair Manual Pub. No. RM970E

ABS & VEHICLE STABILITY CONTROL (VSC) & BRAKE ASSIST (BA) SYSTEM

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

DTC		42		51		52		53		54		56		57	
BRAKE warning light and buzzer		Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer	Light	Buzzer
Pressure switch	PH					0	0			0		0	0		
r ressure switch	PL					0	0			0		0	0		
	Pump motor			\circ	0	0	0					0	0		
Pump motor circuit	MTT wire harness					0	0	0							
T diffe motor on our	MT+ wire harness			0											
	MT- wire harness			0											
Accumulator malfunction												0	0		
	MR1 open circuit							0							
	MR2 open circuit							0							
Motor relay circuit	MR1 welded contact					0	0	0							
	MR2 welded contact					0	0	0							
Hydraulic brake booster	Pressure leaks					0	0					0	0		
Power source*	IG2 open circuit	0													
ECU	Power supply circuit													0	

^{*:} When IG1 circuit is open, the ABS warning light and BRAKE warning light come on.

DTC chart of VSC:

DTC No. (See Page)	Detection Item	Trouble Area						
C1231 / 31	Malfunction in steering angle sensor	Steering angle sensor Steering angle sensor circuit						
C1232 / 32 ★	Malfunction in deceleration sensor	Deceleration sensor Deceleration sensor circuit						
C1233 / 33 ★	Open or short circuit in yaw rate sensor circuit	Yaw rate sensor Yaw rate sensor circuit						
C1234 / 34 ★	Malfunction in yaw rate sensor	Yaw rate sensor Yaw rate sensor circuit						
C1335 / 35 ★	Malfunction in steering angle sensor communication circuit	Steering angle sensor Steering angle sensor circuit						
C1210 / 36	Zero point calibration of yaw rate sensor undone	Yaw rate sensor Yaw rate sensor circuit Neutral start switch circuit (P range)						
C1336 / 39	Zero point calibration of deceleration sensor	Deceleration sensorDeceleration sensor circuitNeutral start switch (P range) circuit						
C1289 / 41*	Malfunction in VGRS control system	VGRS control system						
C1223 / 43 ★	Malfunction in ABS control system	ABS control system						
C1224 / 44	Open or short circuit in NE signal circuit	NEO circuit Engine and ECT ECU Skid control ECU						
C1340 / 47 ★	Open circuit in center differential lock signal	Center differential lock system Center differential lock circuit						
C1291 / 48*	VGRS ECU communication circuit malfunction	VSC+ or VSC- circuit AFS+ or AFS- circuit Engine and ECT ECU						
C1201 / 51	Engine and ECT ECU system malfunction	Engine control system						
C1203 / 53	Engine and ECT ECU communication circuit malfunction	TRC+ or TRC- circuit ENG+ or ENG- circuit Engine and ECT ECU						
C1290 <u>∏</u> 66 (DI–87)	Zero point calibration of steering sensor undone	Steering angle sensor zero point calibration undone Yaw rate sensor zero point calibration undone						
Always ON ★	Malfunction in skid control ECU Open circuit in VSC TRC warning light circuit	Power source circuit VSC TRC warning light circuit						

^{*:} w/ VGRS only

HINT:

There is a case that hand-held tester cannot be used when the VSC TRC warning light is always on.

★:Refer to LAND CRUISER Repair Manual Pub. No. RM970E.