

BRAKES

04

SECTION

ON-BOARD DIAGNOSTIC 04-02	PARKING BRAKE SYSTEM . . 04-12
SYMPTOM	ANTILOCK BRAKE
TROUBLESHOOTING 04-03	SYSTEM. 04-13
GENERAL PROCEDURES. . . . 04-10	TECHNICAL DATA 04-50
CONVENTIONAL BRAKE	SERVICE TOOLS. 04-60
SYSTEM 04-11	

04-02

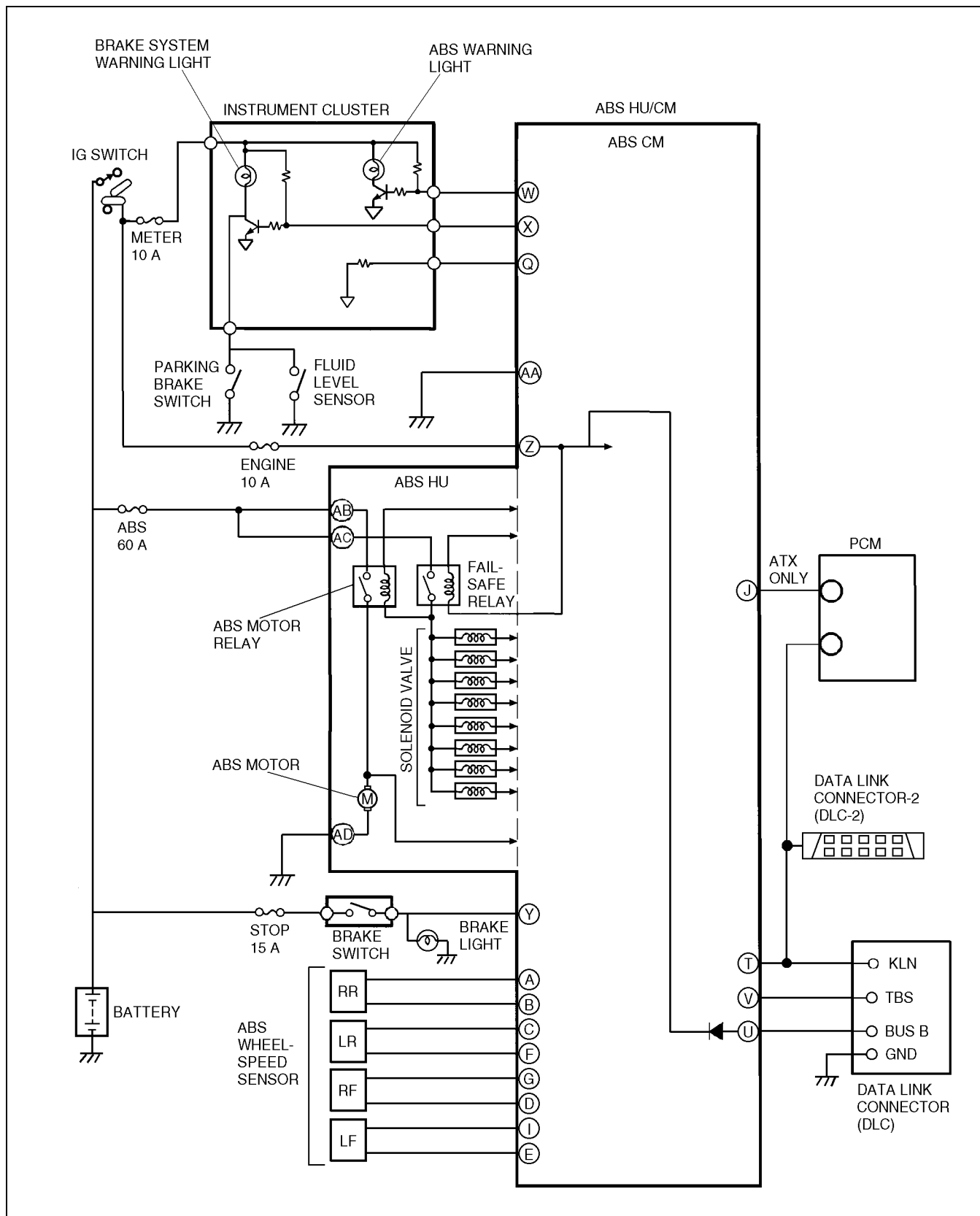
04-02 ON-BOARD DIAGNOSTIC

ABS SYSTEM DIAGRAM. 04-02-2	DTC C1148 (41), C1158 (42),
ABS ON-BOARD DIAGNOSTIC 04-02-3	C1168 (43), C1178 (44), C1233 (46),
On-Board Diagnostic (OBD)	C1234 (45), C1235 (47), C1236 (48) . . . 04-02-12
Test Description 04-02-3	DTC C1194 (24), C1198 (25),
DTCs Retrieving Procedure 04-02-3	C1210 (22), C1214 (23), C1242 (28),
DTCs Clearing Procedure. 04-02-4	C1246 (26), C1250 (29), C1254 (27) . . . 04-02-14
PID/Data Monitor and Record	DTC C1140 (30). 04-02-14
Procedure 04-02-4	DTC C1510 (32), C1511 (33),
Active Command Modes Procedure . . . 04-02-4	C1512 (34), C1513 (35) 04-02-15
DTC Table. 04-02-5	DTC C1186 (51), C1266 (52). 04-02-16
PID/DATA Monitor Table. 04-02-8	DTC C1095 (54), C1096 (53). 04-02-17
Active Command Modes Table. 04-02-10	DTC B1342 (61). 04-02-18
DTC C1145 (11), C1155 (12),	DTC B1318 (63). 04-02-18
C1165 (13), C1175 (14) 04-02-11	

ON-BOARD DIAGNOSTIC

ABS SYSTEM DIAGRAM

A3U040243000W01



A3U0402W001

ABS ON-BOARD DIAGNOSTIC

A3U040243000W02

On-Board Diagnostic (OBD) Test Description

- The OBD test inspects the integrity and function of the ABS and outputs the results when requested by the specific tests.
- On-board diagnostic test also:
 - Provides a quick inspection of the ABS.
 - Is usually performed at the start of each diagnostic procedure.
 - Provides verification after repairs to ensure that no other faults occurred during service.
- The OBD test is divided into 3 tests:
 - Read/clear diagnostic results, PID monitor and record and active command modes.

Read/clear diagnostic results

- This function allows you to read or clear DTCs in the ABS HU/CM memory.

PID/data monitor and record

- This function allows you to access certain data values, input signals, calculated values, and system status information.

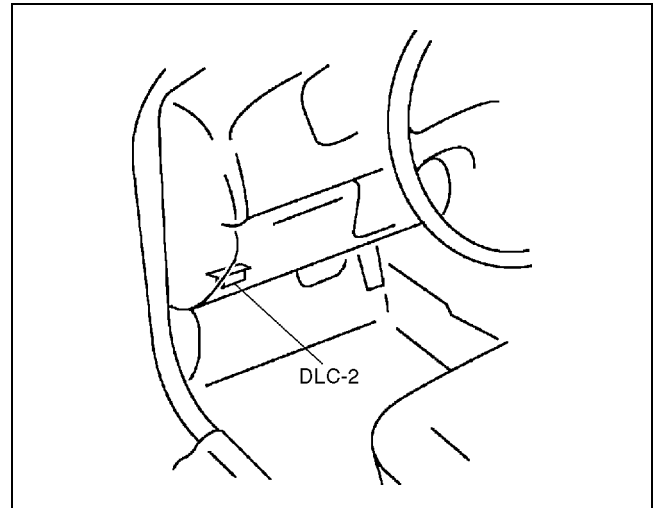
Active command modes

- This function allows you to control devices through the **SST** (WDS or equivalent).

DTCs Retrieving Procedure

Using SST (WDS or equivalent)

1. Connect WDS or equivalent to the vehicle DLC-2 16-pin connector located the left side of the steering column.
2. Retrieve DTC by WDS or equivalent.



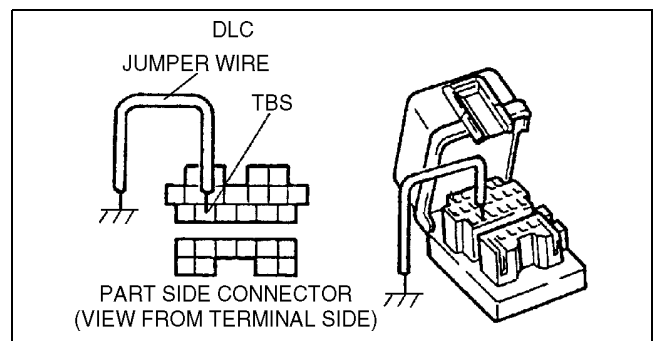
Z3U0102W001

Without using SST (WDS or equivalent)

Caution

- **Connecting the wrong DLC terminal may possibly cause a malfunction. Carefully connect the specified terminal only.**

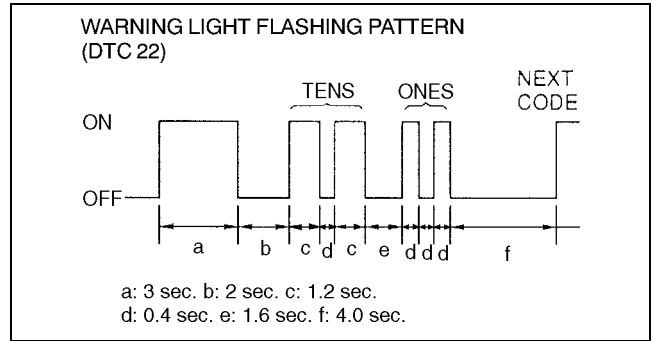
1. Connect the TBS terminal at DLC to body ground using a jumper wire.
2. Turn the ignition key to ON (engine OFF).



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ON-BOARD DIAGNOSTIC

3. After the ABS warning light illuminates for **3 sec**, the ABS warning light indicates DTCs.
4. After completion of repairs, clear DTCs.



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DTCs Clearing Procedure Using SST (WDS or equivalent)

1. After repairs have been made, perform the **DTCs retrieving procedure**.
2. Erase DTC by WDS or equivalent.
3. Ensure that the customer's concern has been resolved.

Note

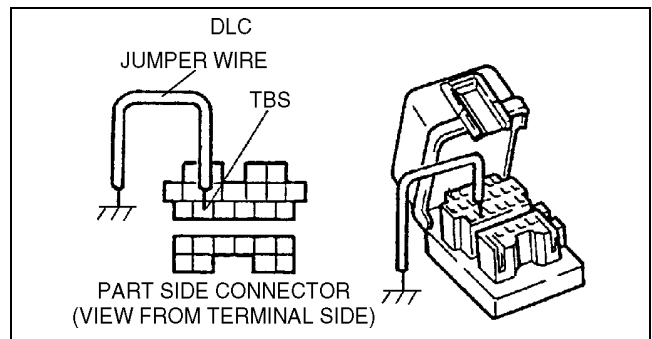
- After repairing the ABS wheel-speed sensor or replacing ABS HU/CM, the ABS and/or BRAKE system warning light may not go off when ignition key is turned ON. In this case, start engine and drive the vehicle at a speed of more than **10 km/h {6.2 mph}** until the ABS and/or BRAKE system warning light goes off.

Without using SST (WDS or equivalent)

Caution

- **Connecting the wrong DLC terminal may possibly cause a malfunction. Carefully connect the specified terminal only.**

1. Connect the TBS terminal at the DLC to body ground using a jumper wire.
2. Turn the ignition key to ON (engine OFF).
3. Output all stored DTCs.
4. After verifying that the first code is repeated, depress the brake pedal **10 times** at intervals of less than **1 second**.
5. Turn the ignition key to OFF and disconnect the jumper wire.
6. Turn the ignition key to ON and verify the ABS warning light turns off after **3 seconds**.



Z3U0402W001

Note

- DTCs cannot be cleared if the following conditions occur:
 - If intervals of depressing the brake pedal exceed **1 second**.
 - The brake switch has failed.
- After repairing the ABS wheel-speed sensor or replacing ABS HU/CM, the ABS and/or BRAKE system warning light may not go off when ignition key is turned ON. In this case, start engine and drive the vehicle at a speed of more than **10 km/h {6.2 mph}** until the ABS and/or BRAKE system warning light goes off.

PID/Data Monitor and Record Procedure

1. Connect WDS or equivalent to the vehicle DLC-2 16-pin connector located the left side of the steering column.
2. Access and monitor PIDs by WDS or equivalent.

Active Command Modes Procedure


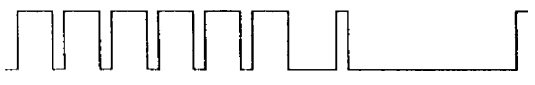


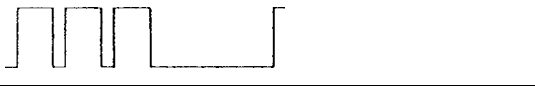
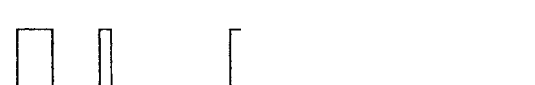
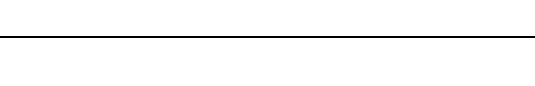
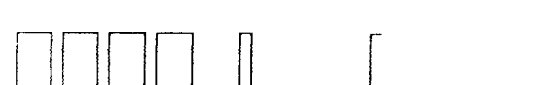

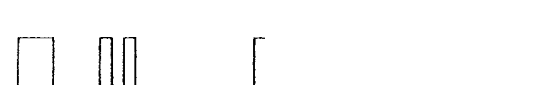
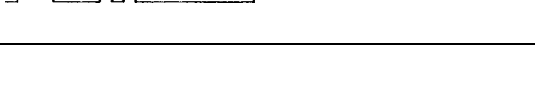
Note

- When driving, the ABS motor and each valve forcibly turn ABS_POWER on, and then each command on. ABS_POWER regulates the power supply for the ABS motor and 8 valves.

1. Connect WDS or equivalent to the vehicle DLC-2 16-pin connector located the left side of the steering column.
2. Turn the ignition key to ON (Engine OFF) or start engine.
3. Activate active command modes by WDS or equivalent.

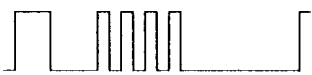



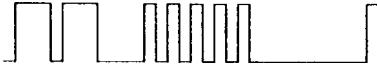



ON-BOARD DIAGNOSTIC

DTC Table



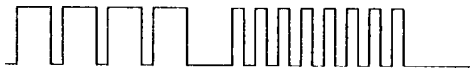
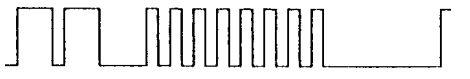
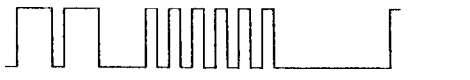
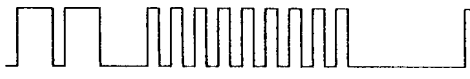
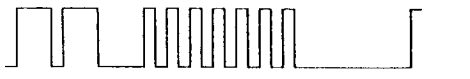
DTC		ABS warning light flashing pattern	DTC definition	Diagnosis system component	Page
WDS or equivalent	ABS warning light				
B1318	63		Battery low voltage	ABS HU/CM power supply	(See 04-02-18 DTC B1318 (63).)
B1342	61		Defective ABS CM	ABS HU/CM (CM)	(See 04-02-18 DTC B1342 (61).)
C1095	54		Circuit failure of ABS motor and/or motor relay	ABS motor, motor relay	(See 04-02-17 DTC C1095 (54), C1096 (53).)
C1096	53		Open circuit of ABS motor and/or motor relay	ABS motor, motor relay	(See 04-02-17 DTC C1095 (54), C1096 (53).)
C1140	30		ABS HU failure	ABS HU/CM (pump)	(See 04-02-14 DTC C1140 (30).)
C1145	11		Circuit failure of RF ABS wheel-speed sensor	Right front ABS wheel-speed sensor	(See 04-02-11 DTC C1145 (11), C1155 (12), C1165 (13), C1175 (14).)
C1148	41		RF ABS wheel-speed sensor and/or sensor rotor malfunction	Right front ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1155	12		Circuit failure of LF ABS wheel-speed sensor	Left front ABS wheel-speed sensor	(See 04-02-11 DTC C1145 (11), C1155 (12), C1165 (13), C1175 (14).)
C1158	42		LF ABS wheel-speed sensor and/or sensor rotor malfunction	Left front ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1165	13		Circuit failure of RR ABS wheel-speed sensor	Right rear ABS wheel-speed sensor	(See 04-02-11 DTC C1145 (11), C1155 (12), C1165 (13), C1175 (14).)
C1168	43		RR ABS wheel-speed sensor and/or sensor rotor malfunction	Right rear ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)

04-02

ON-BOARD DIAGNOSTIC






DTC		ABS warning light flashing pattern	DTC definition	Diagnosis system component	Page
WDS or equivalent	ABS warning light				
C1175	14		Circuit failure of LR ABS wheel-speed sensor	Left rear wheel-speed sensor	(See 04-02-11 DTC C1145 (11), C1155 (12), C1165 (13), C1175 (14).)
C1178	44		LR ABS wheel-speed sensor and/or sensor rotor malfunction	Left rear ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1186	51		Open circuit of fail-safe relay	Fail-safe relay	(See 04-02-16 DTC C1186 (51), C1266 (52).)
C1194	24		LF pressure reduction solenoid valve malfunction	Left front ABS pressure reduction solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1198	25		LF pressure retention solenoid valve malfunction	Left front ABS pressure retention solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1210	22		RF pressure reduction solenoid valve malfunction	Right front ABS pressure reduction solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1214	23		RF pressure retention solenoid valve malfunction	Right front ABS pressure retention solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1233	46		LF ABS wheel-speed sensor input signal missing	Left front ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)

ON-BOARD DIAGNOSTIC

DTC		ABS warning light flashing pattern	DTC definition	Diagnosis system component	Page
WDS or equivalent	ABS warning light				
C1234	45		RF ABS wheel-speed sensor input signal missing	Right front ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1235	47		RR ABS wheel-speed sensor input signal missing	Right rear ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1236	48		LR ABS wheel-speed sensor input signal missing	Left rear ABS wheel-speed sensor/sensor rotor	(See 04-02-12 DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48).)
C1242	28		LR pressure reduction solenoid valve malfunction	Left rear ABS pressure reduction solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1246	26		RR pressure reduction solenoid valve malfunction	Right rear ABS pressure reduction solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1250	29		LR pressure retention solenoid valve malfunction	Left rear ABS pressure retention solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)
C1254	27		RR pressure retention solenoid valve malfunction	Right rear ABS pressure retention solenoid valve	(See 04-02-14 DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27).)

04-02

ON-BOARD DIAGNOSTIC

DTC		ABS warning light flashing pattern	DTC definition	Diagnosis system component	Page
WDS or equivalent	ABS warning light				
C1266	52		Circuit failure of fail-safe relay	Fail-safe relay	(See 04-02-16 DTC C1186 (51), C1266 (52).)
C1510	32		RF ABS wheel-speed sensor and/or ABS HU malfunction	Right front solenoid valve, ABS motor, right front ABS wheel-speed sensor/sensor rotor	(See 04-02-15 DTC C1510 (32), C1511 (33), C1512 (34), C1513 (35).)
C1511	33		LF ABS wheel-speed sensor and/or ABS HU malfunction	Left front solenoid valve, ABS motor, left front ABS wheel-speed sensor/sensor rotor	(See 04-02-15 DTC C1510 (32), C1511 (33), C1512 (34), C1513 (35).)
C1512	34		RR ABS wheel-speed sensor and/or ABS HU malfunction	Right rear solenoid valve, ABS motor, right rear ABS wheel-speed sensor/sensor rotor	(See 04-02-15 DTC C1510 (32), C1511 (33), C1512 (34), C1513 (35).)
C1513	35		LR ABS wheel-speed sensor and/or ABS HU malfunction	Left rear solenoid valve, ABS motor, left rear ABS wheel-speed sensor/sensor rotor	(See 04-02-15 DTC C1510 (32), C1511 (33), C1512 (34), C1513 (35).)

PID/DATA Monitor Table

PID Name (Definition)	Unit/Condition	Condition/Specification	Action	ABS HU/CM terminal
ABS_LAMP (ABS warning light output state)	ON/OFF	<ul style="list-style-type: none"> ABS warning light is illuminated: ON ABS warning light is not illuminated: OFF 	Inspect ABS warning light (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION)	W
ABSLF_I (Left front ABS pressure retention solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSLF_O (Left front ABS pressure reduction solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSLR_I (Left rear ABS pressure retention solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—

ON-BOARD DIAGNOSTIC

PID Name (Definition)	Unit/Condition	Condition/Specification	Action	ABS HU/CM terminal
ABSLR_O (Left rear ABS pressure reduction solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSRF_I (Right front ABS pressure retention solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSRF_O (Right front ABS pressure reduction solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSRR_I (Right rear ABS pressure retention solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABSRR_O (Right rear ABS pressure reduction solenoid valve output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (solenoid valve is activated/deactivated) Not ABS and/or EBD control: OFF (solenoid valve is deactivated) 	Internal fault of ABS HU/CM. Replace ABS HU/CM (See 04-13-5 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) REMOVAL/INSTALLATION)	—
ABS_VOLT (System battery voltage value)	V	<ul style="list-style-type: none"> Ignition key at ON: B+ Idle: 14—16V 	Inspect power supply circuit (See 04-13-6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION)	—
BOO_ABS (Brake pedal switch input)	ON/OFF	<ul style="list-style-type: none"> Brake pedal is depressed: ON Brake pedal is released: OFF 	Inspect brake switch (See 04-11-5 BRAKE SWITCH INSPECTION)	Y
BRAKE_LMP (BRAKE system warning light output state)	ON/OFF	<ul style="list-style-type: none"> BRAKE system warning light is illuminated: ON BRAKE system warning light is not illuminated: OFF 	Inspect BRAKE system warning light (See 09-22-3 INSTRUMENT CLUSTER REMOVAL/INSTALLATION)	X
CCNTABS (Number of continuous DTC)	—	<ul style="list-style-type: none"> DTC is detected: 1—255 DTC is not detected: 0 	Perform inspection using appropriate DTC (See 04-02-3 ABS ON-BOARD DIAGNOSTIC)	—
LF_WSPD (Left front ABS wheel-speed sensor input)	KPH/MPH	<ul style="list-style-type: none"> Vehicle is stopped: 0KPH {0MPH} Indicates vehicle speed 	Inspect ABS wheel-speed sensor/sensor rotor. (See 04-13-9 FRONT/REAR ABS WHEEL-SPEED SENSOR INSPECTION)	I, E

04-02

ON-BOARD DIAGNOSTIC

PID Name (Definition)	Unit/Condition	Condition/Specification	Action	ABS HU/CM terminal
LR_WSPD (Left rear ABS wheel-speed sensor input)	KPH/MPH	<ul style="list-style-type: none"> Vehicle is stopped: 0KPH {0MPH} Indicates vehicle speed 	Inspect ABS wheel-speed sensor/sensor rotor. (See 04-13-9 FRONT/ REAR ABS WHEEL-SPEED SENSOR INSPECTION)	C, F
PMP_MTR (ABS motor relay output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (ABS motor is activated/deactivated) Not ABS and/or EBD control: OFF (ABS motor is deactivated) 	Inspect ABS HU/CM connector and ABS HU/CM (See 04-13-3 ABS HYDRAULIC UNIT (HU)/ CONTROL MODULE (CM) SYSTEM INSPECTION)	—
PMP_STAT (ABS motor output state)	ON/OFF	<ul style="list-style-type: none"> During ABS and/or EBD control: ON/OFF (ABS motor is activated/deactivated) Not ABS and/or EBD control: OFF (ABS motor is deactivated) 	Inspect ABS HU/CM connector and ABS HU/CM (See 04-13-3 ABS HYDRAULIC UNIT (HU)/ CONTROL MODULE (CM) SYSTEM INSPECTION)	—
RF_WSPD (Right front ABS wheel-speed sensor input)	KPH/MPH	<ul style="list-style-type: none"> Vehicle is stopped: 0KPH {0MPH} Indicates vehicle speed 	Inspect ABS wheel-speed sensor/sensor rotor. (See 04-13-9 FRONT/ REAR ABS WHEEL-SPEED SENSOR INSPECTION)	D, G
RR_WSPD (Right rear ABS wheel-speed sensor input)	KPH/MPH	<ul style="list-style-type: none"> Vehicle is stopped: 0KPH {0MPH} Indicates vehicle speed 	Inspect ABS wheel-speed sensor/sensor rotor. (See 04-13-9 FRONT/ REAR ABS WHEEL-SPEED SENSOR INSPECTION)	A, B
ABSVLVRLY (Fail-safe relay output state)	ON/OFF	<ul style="list-style-type: none"> Ignition key at ON: ON Other condition (Power supply circuit is open): OFF 	Inspect ABS HU/CM connector and ABS HU/CM (See 04-13-3 ABS HYDRAULIC UNIT (HU)/ CONTROL MODULE (CM) SYSTEM INSPECTION)	—

Active Command Modes Table

Command Name	Definition	Operation	Note
PMP_MOTOR	ABS motor	ON/OFF	Ignition key at ON (engine OFF), and driving
RF_OUTLET	Right front ABS pressure reduction solenoid valve	ON/OFF	
RF_INLET	Right front ABS pressure retention solenoid valve	ON/OFF	
LF_OUTLET	Left front ABS pressure reduction solenoid valve	ON/OFF	
LF_INLET	Left front ABS pressure retention solenoid valve	ON/OFF	
RR_OUTLET	Right rear ABS pressure reduction solenoid valve	ON/OFF	
RR_INLET	Right rear ABS pressure retention solenoid valve	ON/OFF	
LR_OUTLET	Left rear ABS pressure reduction solenoid valve	ON/OFF	
LR_INLET	Left rear ABS pressure retention solenoid valve	ON/OFF	
ABS_POWER	Fail-safe relay	ON/OFF	
VS_OUTPUT	Vehicle speed signal	KPH/MPH	

Note

- When operating, the ABS motor and each valve forcibly turn ABS_POWER on, and then each command on. ABS_POWER regulates the power supply for the ABS motor and 8 valves.

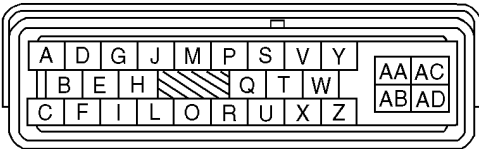
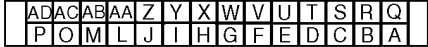

ON-BOARD DIAGNOSTIC

DTC C1145 (11), C1155 (12), C1165 (13), C1175 (14)

A3U040243000W03

Caution

- When attaching the tester lead to the ABS HU/CM or the ABS HU/CM harness connector the SST (49 G066 001) must be used. (See 04-13-6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION.)

DTC	C1145 (11) C1155 (12) C1165 (13) C1175 (14)	RF ABS wheel-speed sensor LF ABS wheel-speed sensor RR ABS wheel-speed sensor LR ABS wheel-speed sensor
DETECTION CONDITION	<ul style="list-style-type: none"> • When open or short circuit is detected. 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Open circuit or short to power circuit of ABS wheel-speed sensor(s) circuit • ABS wheel-speed sensor(s) malfunction 	
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>ABS HU/CM</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> <div style="text-align: center;"> <p>SST (49 G066 001) CONNECTOR</p>  <p>(VIEW FROM TERMINAL SIDE)</p> <p>ABS WHEEL-SENSOR LF, RF LR, RR</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> </div>		

04-02

Diagnostic procedure

STEP	INSPECTION		ACTION
1	INSPECT ABS WHEEL-SPEED SENSOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Turn ignition key to OFF. • Disconnect ABS HU/CM connector. • Connect SST (adapter harness) to ABS HU/CM connector (harness side) with ABS HU/CM disconnected. • Measure resistance between suspected sensor terminals of SST. <ul style="list-style-type: none"> — RF ABS wheel-speed sensor: G—D — LF ABS wheel-speed sensor: E—I — RR ABS wheel-speed sensor: A—B — LR ABS wheel-speed sensor: C—F • Is resistance within 1.3—1.7 kilohm? 	Yes	Go to next step.
		No	Go to Step 3.
2	INSPECT ABS WHEEL-SPEED SENSOR CIRCUIT FOR SHORT TO POWER <ul style="list-style-type: none"> • Turn ignition key to ON (engine OFF). • Inspect voltage between suspected sensor terminal(s) of SST (adapter harness) and ground(s). <ul style="list-style-type: none"> — RF ABS wheel-speed sensor: G, D — LF ABS wheel-speed sensor: I, E — RR ABS wheel-speed sensor: A, B — LR ABS wheel-speed sensor: C, F • Is there any B+? 	Yes	Repair or replace harness for short to power circuit between ABS HU/CM and ABS wheel-speed sensor(s), then go to Step 5.
		No	Go to Step 5.
3	INSPECT ABS WHEEL-SPEED SENSOR <ul style="list-style-type: none"> • Turn ignition key to OFF. • Disconnect suspected sensor connector(s) and inspect resistance between sensor terminals (part side). • Is resistance within 1.3—1.7 kilohm? 	Yes	Go to next step.
		No	Replace ABS wheel-speed sensor, then go to Step 5.

ON-BOARD DIAGNOSTIC

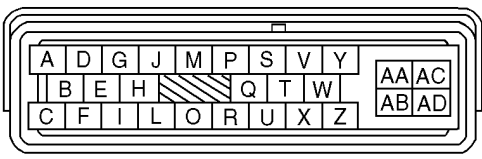
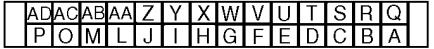

STEP	INSPECTION	ACTION
4	INSPECT ABS HU/CM TO ABS WHEEL-SPEED SENSOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Inspect continuity between suspected sensor terminal(s) of SST and ABS wheel-speed sensor connector. (vehicle harness side) <ul style="list-style-type: none"> — RF ABS wheel-speed sensor (+): G-1 — RF ABS wheel-speed sensor (-): D-2 — LF ABS wheel-speed sensor (+): I-1 — LF ABS wheel-speed sensor (-): E-2 — RR ABS wheel-speed sensor (+): A-1 — RR ABS wheel-speed sensor (-): B-2 — LR ABS wheel-speed sensor (+): C-1 — LR ABS wheel-speed sensor (-): F-2 Is there continuity? 	Yes Repair or replace poor connections of ABS HU/CM connector and/or ABS wheel-speed sensor connector(s), then go to next step.
		No Repair or replace harness for open circuits between ABS HU/CM and ABS wheel-speed sensor(s), then go to next step.
5	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Make sure to reconnect all disconnected connectors. Clear DTC from memory (See 04-02-4 DTCs Clearing Procedure) Is same DTC present? 	Yes Replace ABS HU/CM, then go to next step.
		No Go to next step.
6	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Is there any other DTC present? 	Yes Go to applicable DTC inspection.
		No Troubleshooting completed.

DTC C1148 (41), C1158 (42), C1168 (43), C1178 (44), C1233 (46), C1234 (45), C1235 (47), C1236 (48)

A3U040243000W04

Caution

- When attaching the tester lead to the ABS HU/CM or the ABS HU/CM harness connector the **SST (49 G066 001)** must be used. (See 04-13-6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION.)

DTC	C1148 (41), C1234 (45) C1158 (42), C1233 (46) C1168 (43), C1235 (47) C1178 (44), C1236 (48)	RF ABS wheel-speed sensor/sensor rotor LF ABS wheel-speed sensor/sensor rotor RR ABS wheel-speed sensor/sensor rotor LR ABS wheel-speed sensor/sensor rotor
DETECTION CONDITION	<ul style="list-style-type: none"> C1148 (41), C1158 (42), C1168 (43), C1178 (44): ABS wheel-speed signal is out of specification when just after vehicle has started to move. C1234 (45), C1233 (46), C1235 (47), C1236 (48): ABS wheel-speed signal malfunction (distortion/sudden change) is detected during driving. 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> Short to ground circuit of ABS wheel-speed sensor(s) circuit ABS wheel-speed sensor(s) malfunction Damaged ABS sensor rotor(s) Incorrect clearance between ABS sensor and sensor rotor 	
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>ABS HU/CM</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> <div style="text-align: center;"> <p>SST (49 G066 001) CONNECTOR</p>  <p>(VIEW FROM TERMINAL SIDE)</p> <p>ABS WHEEL-SENSOR LF, RF LR, RR</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> </div>		

ON-BOARD DIAGNOSTIC

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	VERIFY CURRENT INPUT SIGNAL STATUS OF CONCERN IS INTERMITTENT OR CONSTANT <ul style="list-style-type: none"> • Turn ignition key to OFF. • Connect SST (WDS or equivalent) to DLC-2. • Start engine and drive vehicle. • Access LF_WSPD, LR_WSPD, RF_WSPD and RR_WSPD PID using SST (WDS or equivalent) • Are PIDs display vehicle speed and 4 PIDs equal? 	Yes	Go to Step 5.
		No	Go to next step.
2	INSPECT ABS WHEEL-SPEED SENSOR CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Turn ignition key to OFF. • Disconnect ABS HU/CM connector. • Connect SST (adapter harness) to ABS HU/CM connector (harness side) with ABS HU/CM disconnected. • Inspect continuity between suspected sensor terminal(s) of SST (adapter harness) and ground(s). <ul style="list-style-type: none"> — RF ABS wheel-speed sensor: G — LF ABS wheel-speed sensor: I — RR ABS wheel-speed sensor: A — LR ABS wheel-speed sensor: C • Is there continuity? 	Yes	Go to next step.
		No	Go to Step 4.
3	INSPECT ABS WHEEL-SPEED SENSOR FOR SHORT TO GROUND <ul style="list-style-type: none"> • With ignition key at OFF, disconnected suspected sensor connector(s), inspect continuity between suspected sensor terminal(s) 1 (part side) and ground(s). • Is there continuity? 	Yes	Replace ABS wheel-speed sensor(s), then go to Step 8.
		No	Repair or replace harness (short to ground) between ABS HU/CM and ABS wheel-speed sensor connector(s), then go to Step 8.
4	INSPECT SENSOR ROTOR CLEARANCE <ul style="list-style-type: none"> • Jack-up vehicle and support it with safety stands. • Remove suspected wheel(s). • Inspect clearance between sensor and rotor. • Is clearance within 0.3—1.1 mm {0.012—0.043 in}? 	Yes	Go to Step 8.
		No	Replace ABS wheel-speed sensor(s), then go to Step 8.
5	INSPECT ABS WHEEL-SPEED SENSOR OUTPUT PULSE <ul style="list-style-type: none"> • Start engine and drive vehicle. • Inspect output voltage pattern using an oscilloscope. (See 04-13-10 Voltage Pattern Inspection) • Is output voltage pattern okay? 	Yes	Go to Step 8.
		No	Go to next step.
6	INSPECT SENSOR ROTOR FOR DAMAGE <ul style="list-style-type: none"> • Jack-up vehicle and support it with safety stands. • Remove suspected wheel(s). • Visually inspect sensor rotor for missing, deformed and obstructed teeth. Number of teeth: 44 • Is sensor rotor okay? 	Yes	Go to next step.
		No	Replace rotor, then go to Step 8.
7	INSPECT SENSOR ROTOR CLEARANCE <ul style="list-style-type: none"> • Inspect clearance between sensor and rotor. • Is clearance within 0.3—1.1 mm {0.012—0.043 in}? 	Yes	Go to next step.
		No	Replace ABS wheel-speed sensor, then go to next step.

04-02

ON-BOARD DIAGNOSTIC

STEP	INSPECTION	ACTION	
8	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Make sure to reconnected all disconnected connectors. Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) Start engine and drive vehicle at 10 km/h {6.2 mph} or above. Gradually slow down vehicle and stop. Is same DTC present? 	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
9	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Is there any other DTC present? 	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

DTC C1194 (24), C1198 (25), C1210 (22), C1214 (23), C1242 (28), C1246 (26), C1250 (29), C1254 (27)

A3U040243000W05

DTC	C 1210 (22) C 1214 (23) C 1194 (24) C 1198 (25) C 1246 (26) C 1254 (27) C 1242 (28) C 1250 (29)	RF pressure reduction solenoid valve RF pressure retention solenoid valve LF pressure reduction solenoid valve LF pressure retention solenoid valve RR pressure reduction solenoid valve RR pressure retention solenoid valve LR pressure reduction solenoid valve LR solenoid pressure retention valve
DETECTION CONDITION	Solenoid monitor signal does not track in response to solenoid ON/OFF command.	
POSSIBLE CAUSE	<ul style="list-style-type: none"> Open circuit, short to power or short to ground of solenoid valve circuit in ABS HU/CM Stuck solenoid valve in ABS HU/CM 	

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY CURRENT STATUS OF MALFUNCTION <ul style="list-style-type: none"> Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) Start engine and drive vehicle at 10 km/h {6.2 mph} or above at least 1 minute. Gradually slow down and stop vehicle. Is same DTC present? 	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
2	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Is there any other DTC present? 	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

DTC C1140 (30)

A3U040243000W06

DTC	C1140 (30)	ABS HU/CM (pump)
DETECTION CONDITION	Right front and left rear wheels, or left front and right rear wheels lock is detected during ABS operation.	
POSSIBLE CAUSE	Stuck ABS pump in ABS HU/CM	

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	INSPECT ABS HU/CM OPERATION <ul style="list-style-type: none"> Perform ABS HU/CM system inspection. (See 04-13-3 System Inspection) Is it okay? 	Yes	Go to next step.
		No	Replace ABS HU/CM, then go to Step 4.
2	INSPECT CONVENTIONAL BRAKE OPERATION <ul style="list-style-type: none"> Inspect brake fluid level. Start engine. Perform a road test to verify conventional vehicle braking performance. Is there any concern? 	Yes	Inspect conventional brake line, then go to Step 4.
		No	Go to next step.

ON-BOARD DIAGNOSTIC

STEP	INSPECTION	ACTION
3	INSPECT REAR BRAKE DRAGGING <ul style="list-style-type: none"> Turn ignition key to OFF. Jack-up vehicle and support it with safety stand. Release parking brake. Turn rear wheel by hand and inspect for rear brake drag. Is rear brake dragging? 	Yes Repair parking brake system, then go to next step.
		No Go to next step.
4	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) Start engine and drive vehicle at 10 km/h {6.2 mph} or above at least 1 minute. Gradually slow down vehicle and stop. Is same DTC present? 	Yes Replace ABS HU/CM, then go to next step.
		No Go to next step.
5	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Is there any other DTC present? 	Yes Go to applicable DTC inspection.
		No Troubleshooting completed.

04-02

DTC C1510 (32), C1511 (33), C1512 (34), C1513 (35)

A3U040243000W07

DTC	C1510 (32) C1511 (33) C1512 (34) C1513 (35)	RF solenoid valve, ABS motor or RF ABS wheel-speed sensor/sensor rotor LF solenoid valve, ABS motor or LF ABS wheel-speed sensor/sensor rotor RR solenoid valve, ABS motor or RR ABS wheel-speed sensor/sensor rotor LR solenoid valve, ABS motor or LR ABS wheel-speed sensor/sensor rotor
DETECTION CONDITION	<ul style="list-style-type: none"> Wheel lock is detected during ABS operation (pressure reduction inoperative). 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> Low electrical power supply Malfunction of solenoid valve in ABS HU/CM Malfunction of ABS wheel-speed sensor Damaged ABS sensor rotor Stuck ABS motor in ABS HU/CM Malfunction of hydraulic unit of ABS HU/CM 	

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY OTHER DTC HAS RECORDED <ul style="list-style-type: none"> Is DTC B1318 (63) also stored? 	Yes Go to DTC B1318 (63) inspection.
		No Go to next step.
2	VERIFY OTHER DTC HAS RECORDED <ul style="list-style-type: none"> Is any of DTC C1214 (22), C1210 (23), C1198 (24), C1194 (25), C1254 (26), C1246 (27), C1250 (28) and/or C1242 (29) also stored? 	Yes Go to applicable DTC inspection.
		No Go to next step.
3	VERIFY OTHER DTC HAS RECORDED <ul style="list-style-type: none"> Is any of DTC C1145 (11), C1148 (41), C1155 (12) C1158 (42), C1165 (13), C1168 (43), C1175 (14), C1178 (44), C1233 (46), C1234 (45), C1235 (47) and/or C1236 (48) also stored? 	Yes Go to applicable DTC inspection.
		No Go to next step.
4	VERIFY OTHER DTC HAS RECORDER <ul style="list-style-type: none"> Is any of DTC C1095 (59) and/or C1096 (53) also stored? 	Yes Go to applicable DTC inspection.
		No Go to next step.
5	INSPECT ABS HU/CM OPERATION <ul style="list-style-type: none"> Perform ABS HU/CM system inspection.(See 04-13-3 System Inspection) Is it okay? 	Yes Go to next step.
		No Replace ABS HU/CM, then go to next step.
6	VERIFY CURRENT STATUS OF MALFUNCTION <ul style="list-style-type: none"> Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) Start engine and drive vehicle at 10 km/h {6.2 mph} or above at least 1 minute. Gradually slow down and stop vehicle. Is same DTC present? 	Yes Replace ABS HU/CM.
		No Go to next step.
7	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Is there any other DTC present? 	Yes Go to applicable DTC inspection.
		No Troubleshooting completed.

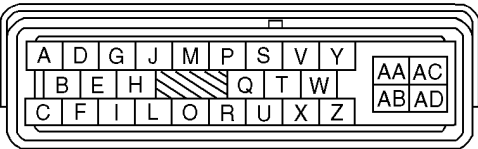
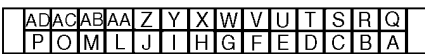
ON-BOARD DIAGNOSTIC

DTC C1186 (51), C1266 (52)

A3U040243000W08

Caution

- When attaching the tester lead to the ABS HU/CM or the ABS HU/CM harness connector the **SST (49 G066 001)** must be used. (See 04-13-6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION.)

DTC	C1186 (51), C1266 (52)	Fail-safe relay
DETECTION CONDITION	<ul style="list-style-type: none"> • C1186 (51): Fail-safe relay in ABS HU/CM stuck OFF when ignition switch is turned ON, fail-safe relay ON is commanded. • C1266 (52): Fail-safe relay in ABS HU/CM stuck ON when ignition switch is turned ON, fail-safe relay OFF is commanded. 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Open circuit, short to power or short to ground circuit of fail-safe relay in ABS HU/CM • Stuck ON or OFF of fail-safe relay in ABS HU/CM • Open circuit of fail-safe relay power supply circuit 	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>ABS HU/CM</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> <div style="text-align: center;"> <p>SST (49 G066 001) CONNECTOR</p>  <p>(VIEW FROM TERMINAL SIDE)</p> </div> </div>		

Diagnostic procedure

STEP	INSPECTION		ACTION
1	INSPECT ABS FUSE CONDITION • Is ABS fuse (60 A) okay?	Yes	Go to next step.
		No	Replace fuse, then go to Step 3.
2	INSPECT FAIL-SAFE RELAY POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT • Turn ignition key to OFF. • Disconnect ABS HU/CM connector. • Connect SST (adapter harness) to ABS HU/CM connector (harness side) with ABS HU/CM disconnected. • Turn ignition key to ON (engine OFF). • Measure voltage between terminal AC of SST (adapter harness) and ground. • Is voltage B+ ?	Yes	Go to next step.
		No	Repair or replace harness for open circuit between battery positive terminal and ABS HU/CM terminal AC, then go to next step.
3	VERIFY TROUBLESHOOTING COMPLETED • Make sure to reconnected all disconnected connectors. • Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) • Is same DTC present?	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
4	VERIFY AFTER REPAIR PROCEDURE • Is there any DTC present?	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

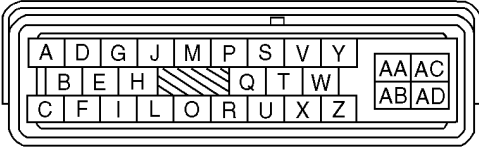
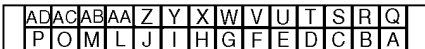
ON-BOARD DIAGNOSTIC

DTC C1095 (54), C1096 (53)

A3U04024300W09

Caution

- When attaching the tester lead to the ABS HU/CM or the ABS HU/CM harnesses connector the **SST (49 G066 001)** must be used. (See 04–13–6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION.)

DTC	C1095 (53), C1096 (54)	Motor relay, ABS Motor
DETECTION CONDITION	<ul style="list-style-type: none"> • C1095 (53): ABS motor stuck OFF when vehicle is started or during ABS operation, ABS motor ON is commanded. • C1096 (54): ABS motor stuck ON when vehicle is started or during ABS operation, ABS motor OFF is commanded. 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Open circuit, or short power or short to ground of motor relay and/or ABS motor in ABS HU/CM • Stuck motor relay and/or ABS motor • Open circuit of ABS motor power supply • Open circuit of ABS motor ground 	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>ABS HU/CM</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> <div style="text-align: center;"> <p>SST (49 G066 001) CONNECTOR</p>  <p>(VIEW FROM TERMINAL SIDE)</p> </div> </div>		

04-02

Diagnostic procedure

STEP	INSPECTION		ACTION
1	VERIFY OTHER DTC HAS RECORDED <ul style="list-style-type: none"> • If any of DTC C1186 (51) and/or C1266 (52) also stored? 	Yes	Go to applicable DTC inspection.
		No	Go to next step.
2	INSPECT ABS FUSE CONDITION <ul style="list-style-type: none"> • Is ABS fuse (60 A) okay? 	Yes	Go to next step.
		No	Replace fuse, then go to Step 5.
3	INSPECT MOTOR RELAY POWER SUPPLY CIRCUIT FOR OPEN <ul style="list-style-type: none"> • Turn ignition key to OFF. • Disconnect ABS HU/CM connector. • Connect SST (adapter harness) to ABS HU/CM connector (harness side) with HU/CM disconnected. • Turn ignition key to ON (engine OFF). • Measure voltage between ABS HU/CM terminal AB (harness side) and ground. • Is voltage B+? 	Yes	Go to next step.
		No	Repair or replace harness for open circuit between battery positive terminal and ABS HU/CM terminal AB, then go to Step 5.
4	INSPECT ABS HU/CM GROUND CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Turn ignition key to OFF. • Inspect continuity between ABS HU/CM terminal AD of SST and ground. • Is there continuity? 	Yes	Go to next step.
		No	Repair or replace harness for open circuit between ABS HU/CM terminal AD and ground, then go to next step.
5	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • Make sure to reconnected all disconnected connectors. • Clear DTC from memory. (See 04–02–4 DTCs Clearing Procedure) • Start engine and drive vehicle at 10 km/h {6.2 mph} or above. • Gradually slow down and stop vehicle. • Is same DTC present? 	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
6	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Is there any other DTC present? 	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

ON-BOARD DIAGNOSTIC

DTC B1342 (61)

A3U040243000W10

DTC B1342 (61)	ABS HU/CM (CM)
DETECTION CONDITION	The on-board diagnostic function detects computer malfunction.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Malfunction of ABS HU/CM

Diagnostic procedure

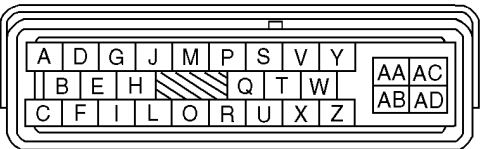
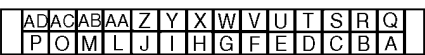
STEP	INSPECTION		ACTION
1	VERIFY CURRENT STATUS OF MALFUNCTION <ul style="list-style-type: none"> • Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) • Start engine and drive vehicle at 10 km/h {6.2 mph} or above. • Is same DTC present? 	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
2	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Is there any other DTC present? 	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

DTC B1318 (63)

A3U040243000W11

Caution

- When attaching the tester lead to the ABS HU/CM or the ABS HU/CM harnesses connector the **SST (49 G066 001)** must be used. (See 04-13-6 ABS HYDRAULIC UNIT (HU)/CONTROL MODULE (CM) INSPECTION.)

DTC B1318 (63)	ABS HU/CM power supply
DETECTION CONDITION	<ul style="list-style-type: none"> • Voltage at Z terminal of ABS HU/CM drops below 10 V when driving vehicle.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Low power supply • Battery and/or generator malfunction • Poor ground or open circuit of ground
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>ABS HU/CM</p>  <p>HARNESS SIDE CONNECTOR (VIEW FROM TERMINAL SIDE)</p> </div> <div style="text-align: center;"> <p>SST (49 G066 001) CONNECTOR</p>  <p>(VIEW FROM TERMINAL SIDE)</p> </div> </div>	

Diagnostic procedure

STEP	INSPECTION		ACTION
1	INSPECT ABS HU/CM POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Turn ignition key to OFF. • Disconnect ABS HU/CM connector. • Connect SST (adapter harness) to ABS HU/CM connector (harness side) with ABS HU/CM disconnected. • Start engine. • Measure voltage between terminal Z of SST (harness side) and ground. • Is voltage above 10 V? 	Yes	Go to next step.
		No	Go to Step 3.

ON-BOARD DIAGNOSTIC

STEP	INSPECTION	ACTION	
2	INSPECT ABS HU/CM GROUND CIRCUIT FOR POOR GROUND AND OPEN CIRCUIT <ul style="list-style-type: none"> • Turn ignition key to OFF. • Measure resistance between terminal AA of SST and ground. • Is resistance within 0—1 ohm? 	Yes	Go to Step 5.
		No	If there is no continuity: <ul style="list-style-type: none"> • Repair or replace harness for open between ABS HU/CM and ground, then go to Step 5. If resistance is not within 0—1 ohm : <ul style="list-style-type: none"> • Repair or replace harness for poor ground then go to Step 5.
3	INSPECT BATTERY POWER <ul style="list-style-type: none"> • Inspect battery. (See 01-50-1 ENGINE TECHNICAL DATA) • Is it okay? 	Yes	Go to next step.
		No	Replace battery, then go to Step 5.
4	INSPECT GENERATOR <ul style="list-style-type: none"> • Inspect generator. (See 01-17-3 GENERATOR INSPECTION) • Is it okay? 	Yes	Go to next step.
		No	Repair or replace generator, then go to Step 5.
5	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • Make sure to reconnected all disconnected connectors. • Clear DTC from memory. (See 04-02-4 DTCs Clearing Procedure) • Is same DTC present? 	Yes	Replace ABS HU/CM, then go to next step.
		No	Go to next step.
6	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Is there any other DTC present? 	Yes	Go to applicable DTC inspection.
		No	Troubleshooting completed.

04-02