

# ON-BOARD DIAGNOSIS [ABS]

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B3E040243000W02

## 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 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

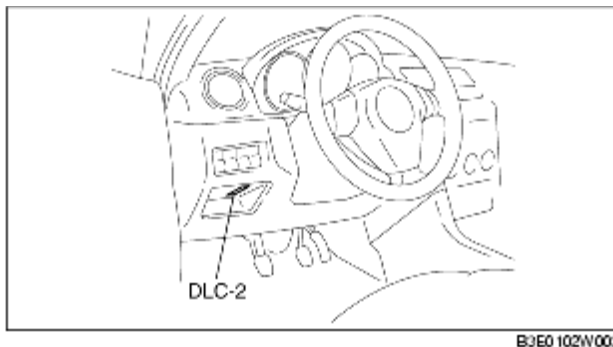
- This function allows you to access certain data values, input signals, calculated values, and system status information.

## Active command modes

- This function allows you to control devices through the WDS or equivalent.

## Reading DTCs Procedure

1. Connect the WDS or equivalent to the vehicle DLC-2 connector.



2. Retrieve DTC using the WDS or equivalent.

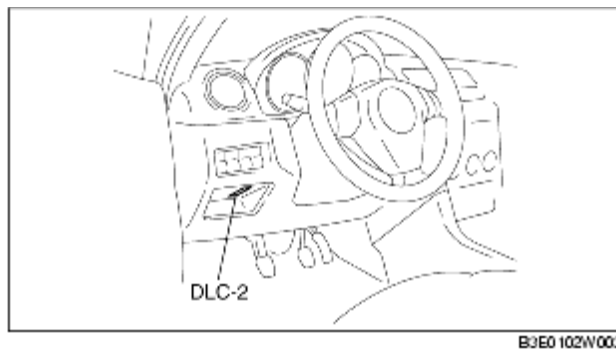
## Clearing DTCs Procedures

1. After repairs have been made, perform the **DTCs reading procedure**.
2. Erase DTC using the WDS or equivalent.

3. Ensure that the customer's concern has been resolved.

## PID/Data Monitor and Record Procedure

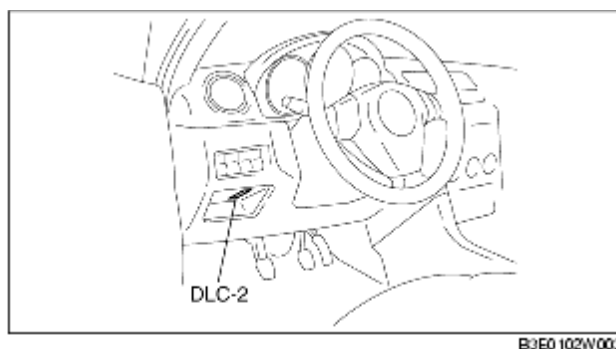
1. Connect the WDS or equivalent to the vehicle DLC-2 connector.



2. Access and monitor PIDs using the WDS or equivalent.

## Active Command Modes Procedure

1. Connect the WDS or equivalent to the vehicle DLC-2 16-pin connector.



2. Turn the ignition switch to the ON position (engine off) or start the engine.
3. Activate active command modes using the WDS or equivalent.

## DTC Table

DTC		
WDS or equivalent	System malfunction location	Page
B1317	Power supply system	(See <a href="#">DTC B1317, B1318 [ABS].</a> )
B1318	Power supply system	(See <a href="#">DTC B1317, B1318 [ABS].</a> )
B1342	ABS HU/CM (internal malfunction)	(See <a href="#">DTC B1342, C1267 [ABS].</a> )
C1095	Pump motor, motor relay	(See <a href="#">DTC C1095 [ABS].</a> )
C1141	LF ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1142	RF ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
		(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )

C1143	LR ABS sensor rotor	( <a href="#">C1235, C1236 [ABS].</a> )
C1144	RR ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1145	RF ABS wheel-speed sensor	(See <a href="#">DTC C1145, C1155, C1165, C1175 [ABS].</a> )
C1155	LF ABS wheel-speed sensor	(See <a href="#">DTC C1145, C1155, C1165, C1175 [ABS].</a> )
C1165	RR ABS wheel-speed sensor	(See <a href="#">DTC C1145, C1155, C1165, C1175 [ABS].</a> )
C1175	LR ABS wheel-speed sensor	(See <a href="#">DTC C1145, C1155, C1165, C1175 [ABS].</a> )
C1233	LF ABS wheel-speed sensor/ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1234	RF ABS wheel-speed sensor/ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1235	RR ABS wheel-speed sensor/ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1236	LR ABS wheel-speed sensor/ABS sensor rotor	(See <a href="#">DTC C1141, C1142, C1143, C1144, C1233, C1234, C1235, C1236 [ABS].</a> )
C1267	ABS HU/CM (internal malfunction)	(See <a href="#">DTC B1342, C1267 [ABS].</a> )
C1446	Brake switch	(See <a href="#">DTC C1446 [ABS].</a> )
U1900	CAN line	(See <a href="#">DTC U1900, U2012, U2523 [ABS].</a> )
U2012	CAN line	(See <a href="#">DTC U1900, U2012, U2523 [ABS].</a> )
U2523	CAN line	(See <a href="#">DTC U1900, U2012, U2523 [ABS].</a> )

## PID/DATA Monitor Table

PID name (definition)	Unit/Condition	Operation condition (reference)	Action	ABS HU/CM terminal
BOO_ABS (Brake pedal switch input)	On/Off	<ul style="list-style-type: none"> <li>Brake pedal depressed: On</li> <li>Brake pedal released: Off</li> </ul>	Inspect the brake switch.	-
CCNTABS (Number of continuous codes)	-	<ul style="list-style-type: none"> <li>DTCs detected: <b>1-255</b></li> <li>No DTCs detected: <b>0</b></li> </ul>	Perform the DTC inspection.	-
LF_WSPD (Left front ABS wheel-speed sensor input)	KPH, MPH	<ul style="list-style-type: none"> <li>Vehicle stopped: <b>0 KPH, 0 MPH</b></li> <li>Vehicle running: Vehicle speed</li> </ul>	Inspect the ABS wheel-speed sensor.	I, K
LR_WSPD (Left rear ABS wheel-speed sensor input)	KPH, MPH	<ul style="list-style-type: none"> <li>Vehicle stopped: <b>0 KPH, 0 MPH</b></li> <li>Vehicle running: Vehicle speed</li> </ul>	Inspect the ABS wheel-speed sensor.	U, W
RF_WSPD (Right front ABS wheel-speed sensor input)	KPH, MPH	<ul style="list-style-type: none"> <li>Vehicle stopped: <b>0 KPH, 0 MPH</b></li> <li>Vehicle running: Vehicle speed</li> </ul>	Inspect the ABS wheel-speed sensor.	Q, O
RR_WSPD (Right rear ABS wheel-speed sensor input)	KPH, MPH	<ul style="list-style-type: none"> <li>Vehicle stopped: <b>0 KPH, 0 MPH</b></li> <li>Vehicle running: Vehicle speed</li> </ul>	Inspect the ABS wheel-speed sensor.	E, C

## Active Command Modes Table

Command name	Output part	Operation	Operating condition
LF_INLET	LF inlet solenoid valve	On/Off	Ignition switch at ON
LF_OUTLET	LF outlet solenoid valve		
LR_INLET	LR inlet solenoid valve		
LR_OUTLET	LR outlet solenoid valve		
PMP_MOTOR	Pump motor		
RF_INLET	RF inlet solenoid valve		
RF_OUTLET	RF outlet solenoid valve		
RR_INLET	RR inlet solenoid valve		
RR_OUTLET	RR outlet solenoid valve		