

ELECTRO HYDRAULIC POWER ASSIST STEERING (EHPAS) ON-BOARD DIAGNOSIS

B3E060201038W02

On-Board Diagnostic (OBD) Test Description

- The OBD test inspects the integrity and function of the EHPAS and outputs the results when requested by the specific tests.
- On-board diagnostic test also:
 - Provides a quick inspection of the EHPAS 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 2 tests:
 - Read/clear diagnostic results, PID monitor and record.

Read/clear diagnostic results

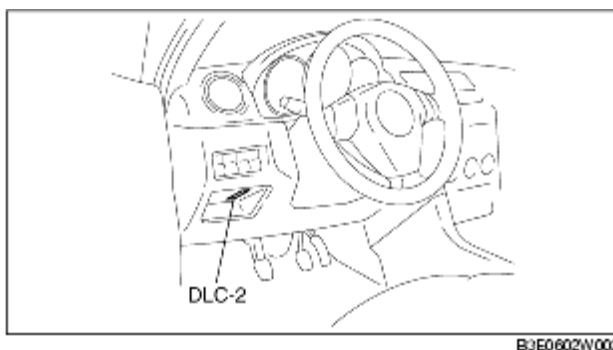
- This function allows reading or clearing of DTCs in the EHPAS control module memory.

PID/Data monitor and record

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

Reading DTCs Procedure

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



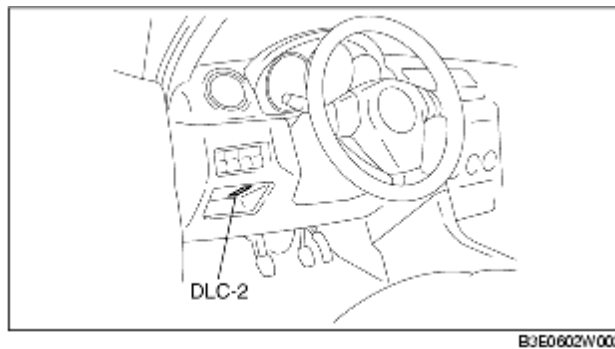
2. Retrieve DTCs using the WDS or equivalent.

Clearing DTCs Procedure

1. After repairs have been made, perform the **Reading DTCs Procedure**.
2. Clear DTCs using the WDS or equivalent.
3. Verify 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.

DTC Table

DTC	Diagnosis system component	Page
WDS or equivalent		
B1238	EHPAS control module	(See DTC B1238.)
B1317	Battery power supply	(See DTC B1317, B1318.)
B1318	Battery power supply	(See DTC B1317, B1318.)
B1342	EHPAS control module	(See DTC B1342.)
B1352	Ignition power supply	(See DTC B1352.)
B2141	EHPAS control module configuration	(See DTC B2141, B2477.)
B2477	EHPAS control module configuration	(See DTC B2141, B2477.)
C1099	Electric power steering oil pump (motor)	(See DTC C1099.)
C1278	P/S angle sensor	(See DTC C1278, C1956.)
C1956	P/S angle sensor	(See DTC C1278, C1956.)
U0073	CAN bus communication error	(See MULTIPLEX COMMUNICATION SYSTEM.)
U0100	Lost communication with the PCM	(See MULTIPLEX COMMUNICATION SYSTEM.)
U2023	Fault received from other modules	(See MULTIPLEX COMMUNICATION SYSTEM.)

PID/DATA Monitor Table

PID Name (Definition)	Unit/ Condition	Condition/Specification	Action	EHPAS control module terminal
CCNT (Number of continuous codes)	-	<ul style="list-style-type: none"> • DTCs are detected: 1-255 • No DTCs are detected: 0 	Perform inspection using appropriate DTC.	-
MTR_AMP (Pump Motor		<ul style="list-style-type: none"> • Indicates pump motor 	Replace the EHPAS control module. (See ELECTRIC	

Operation Current)	A	operation current.	POWER STEERING OIL PUMP (LF) REMOVAL/INSTALLATION.	-
ENGRPM (Engine speed signal)	RPM	• Engine speed 1,000 rpm: 1000 RPM	Inspect the PCM. (See PCM INSPECTION [ZJ, Z6].) (See PCM INSPECTION [LF].)	-
RPM_ACT (Actual pump motor revolution per minutes)	RPM	• Indicates pump motor revolution per minutes.	Replace the EHPAS control module. (See ELECTRIC POWER STEERING OIL PUMP (LF) REMOVAL/INSTALLATION.)	-
RPM_TGT (Target pump motor revolution per minutes)	RPM	• Indicates pump motor target revolution per minutes.	Replace the EHPAS control module. (See ELECTRIC POWER STEERING OIL PUMP (LF) REMOVAL/INSTALLATION.)	-
STEER_RATE (Steering wheel rotation rate)	degree/sec	• Indicates steering wheel rotation rate.	Replace the EHPAS control module. (See ELECTRIC POWER STEERING OIL PUMP (LF) REMOVAL/INSTALLATION.)	3B, 3D
TEMP_BOARD (Printed circuit board temperature)	Celsius/Fahrenheit	• Indicates circuit temperature.	Replace the EHPAS control module. (See ELECTRIC POWER STEERING OIL PUMP (LF) REMOVAL/INSTALLATION.)	-
VPWR (Module supply voltage)	Volt	• IG switch ON: B+	Inspect the battery. (See BATTERY INSPECTION.) Inspect power supply circuit (such as IG switch, fuse).	1B, 2F
VSS (Vehicle speed)	KPH/MPH	• Vehicle is stopped: 0 KPH/0 MPH • Vehicle speed 20 km/h {12 mph}: 20 KPH/12 MPH	Inspect the PCM. (See PCM INSPECTION [ZJ, Z6].) (See PCM INSPECTION [LF].)	-