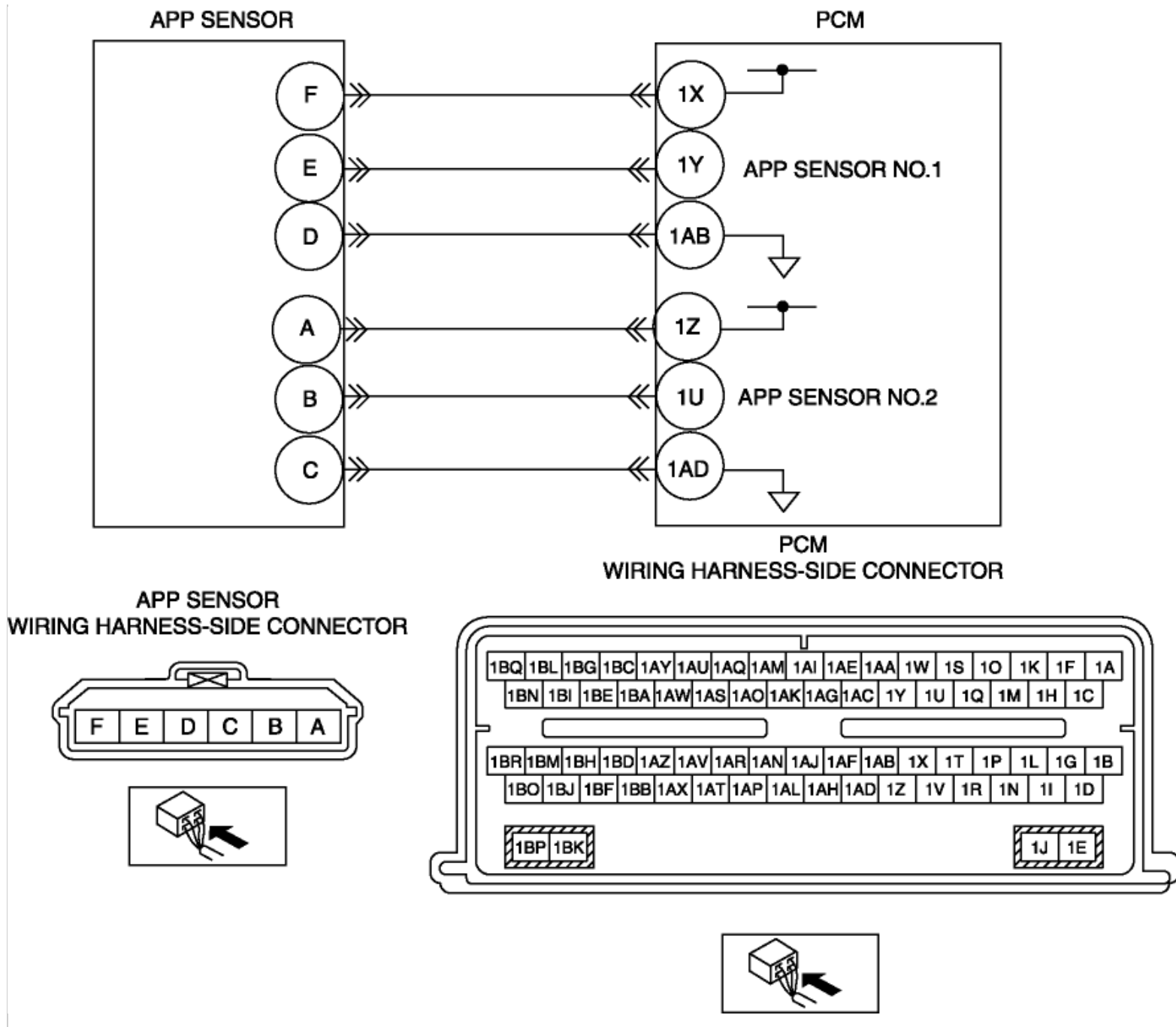


2012 - Mazda6 - Engine

DTC P2138:00 [MZI 3.7 V6]

DTC P2138:00	APP sensor No.1/No.2 voltage correlation
DETECTION CONDITION	The PCM monitors the APP sensor for a concern. The PCM compares the accelerator pedal position information from the APP sensor inputs, APP1 and APP2. If APP sensor inputs APP1 and APP2 disagree on the position of the accelerator pedal by more than the expected value, the DTC is stored.
POSSIBLE CAUSE	- APP sensor circuit malfunction - APP sensor malfunction



Diagnostic procedure

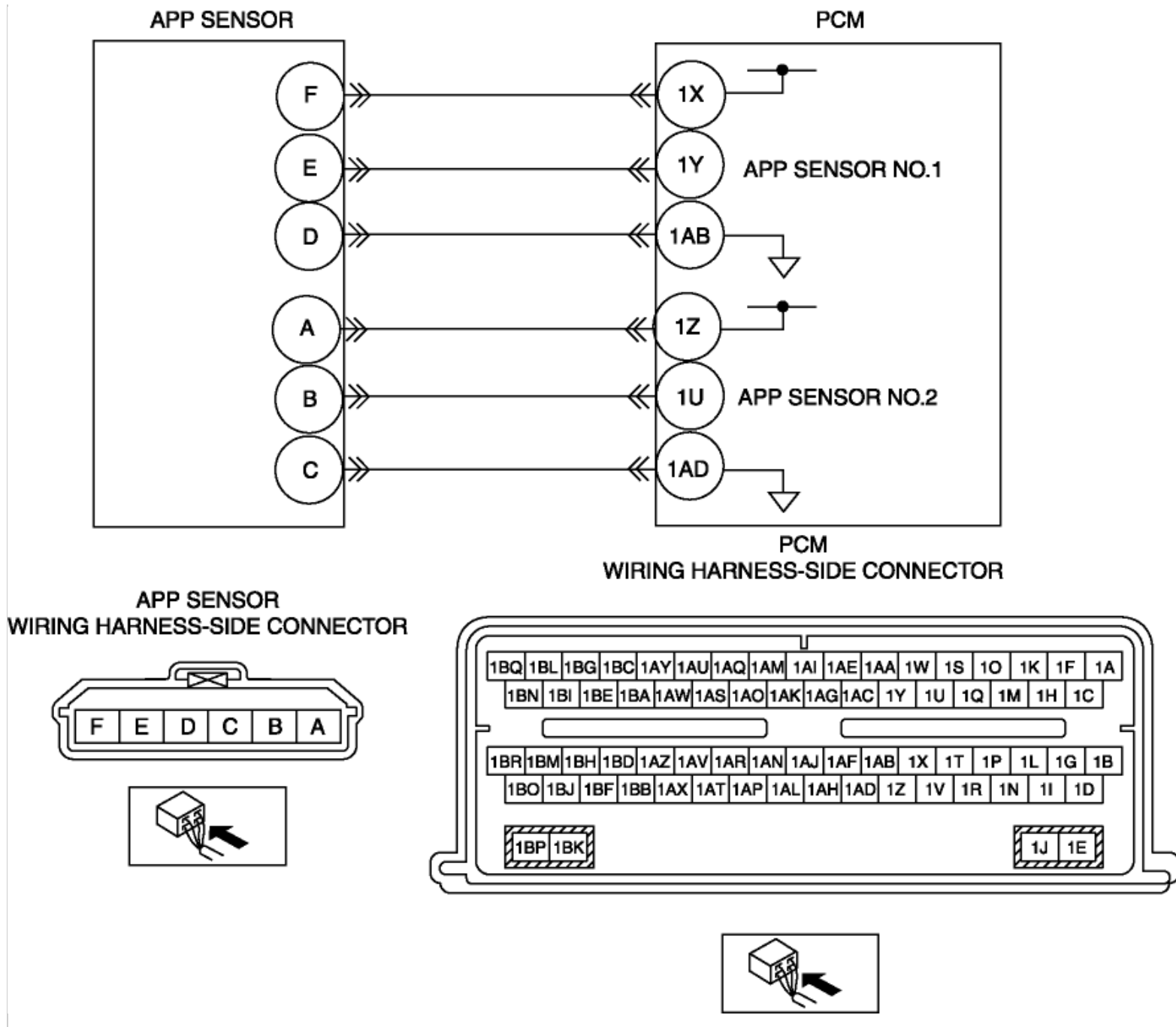
STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step. No Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.

		No	Go to the next step.
3	VERIFY RELATED PENDING CODE OR STORED DTCS NOTE: - Make sure the accelerator pedal is not applied during the KOEO/KOER self-test. - Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) - Are any DTCs present other than P2138:00?	Yes	Go to the appropriate DTC troubleshooting procedures. (See DTC TABLE [MZI 3.7 V6] .)
		No	Go to the next step.
4	INSPECT FOR CORRECT PCM OPERATION - Disconnect all the PCM connectors. - Visually inspect for: - Pushed out pins - Corrosion - Connect all the PCM connectors and verify that they seat correctly. - Retrieve DTCs using the M-MDS. - Is the PENDING CODE for this DTC present?	Yes	Go to the next step.
		No	The system is correctly. Go to the next step.
5	VERIFY TROUBLESHOOTING OF DTC P2138:00 HAS BEEN COMPLETED - Verify that all disconnected connectors reconnected. - Clear the DTC from the PCM memory using the M-MDS. - Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) - Is the PENDING CODE for this DTC present?	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
		No	Go to the next step.
6	VERIFY AFTER REPAIR PROCEDURE - Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) - Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No	Troubleshooting completed.

2012 - Mazda6 - Engine

DTC P2138:00 [MZI 3.7 V6]

DTC P2138:00	APP sensor No.1/No.2 voltage correlation
DETECTION CONDITION	The PCM monitors the APP sensor for a concern. The PCM compares the accelerator pedal position information from the APP sensor inputs, APP1 and APP2. If APP sensor inputs APP1 and APP2 disagree on the position of the accelerator pedal by more than the expected value, the DTC is stored.
POSSIBLE CAUSE	- APP sensor circuit malfunction - APP sensor malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step. No Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.

		No	Go to the next step.
3	VERIFY RELATED PENDING CODE OR STORED DTCS NOTE: • Make sure the accelerator pedal is not applied during the KOEO/KOER self-test. • Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) • Are any DTCs present other than P2138:00?	Yes	Go to the appropriate DTC troubleshooting procedures. (See DTC TABLE [MZI 3.7 V6] .)
		No	Go to the next step.
4	INSPECT FOR CORRECT PCM OPERATION • Disconnect all the PCM connectors. • Visually inspect for: ▪ Pushed out pins ▪ Corrosion • Connect all the PCM connectors and verify that they seat correctly. • Retrieve DTCs using the M-MDS. • Is the PENDING CODE for this DTC present?	Yes	Go to the next step.
		No	The system is correctly. Go to the next step.
5	VERIFY TROUBLESHOOTING OF DTC P2138:00 HAS BEEN COMPLETED • Verify that all disconnected connectors reconnected. • Clear the DTC from the PCM memory using the M-MDS. • Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) • Is the PENDING CODE for this DTC present?	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
		No	Go to the next step.
6	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No	Troubleshooting completed.