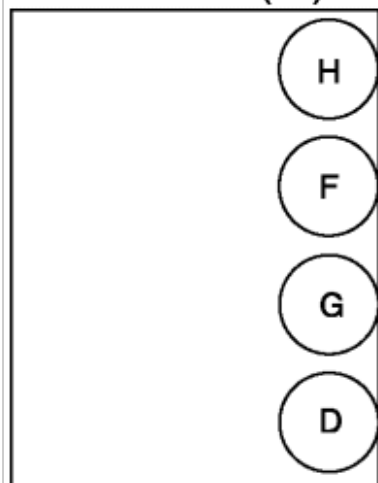


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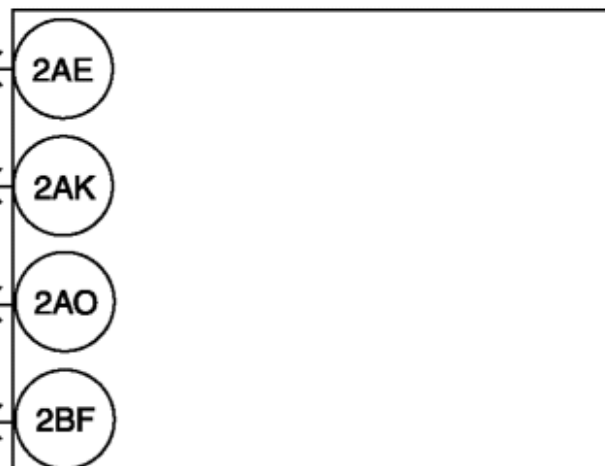
DTC P0132:00, P0152:00 [MZI 3.7 V6]

DTC P0132:00	A/F sensor (RH) circuit high voltage
DTC P0152:00	A/F sensor (LH) circuit high voltage
DETECTION CONDITION	• P0132:00 indicates A/F sensor (RH) circuit high voltage. • P0152:00 indicates A/F sensor (LH) circuit high voltage. • The A/F sensor signals are monitored for an over voltage condition. The code is set when the A/F sensor signal voltage is above the threshold value.
POSSIBLE CAUSE	• A/F sensor connector or terminal malfunction • Short to power supply in A/F sensor • P0132:00: Short to power supply between A/F sensor (RH) terminal H and PCM terminal 2AC • P0152:00: Short to power supply between A/F sensor (LH) terminal H and PCM terminal 2AE • PCM malfunction

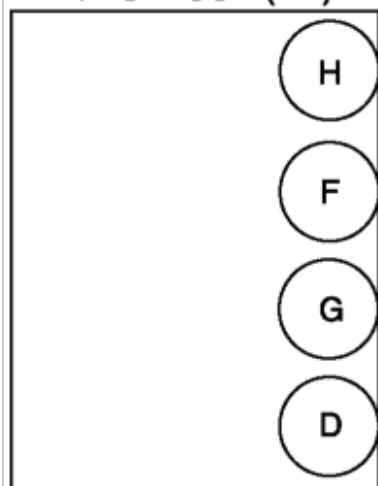
A/F SENSOR (LH)



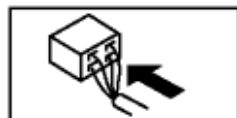
PCM



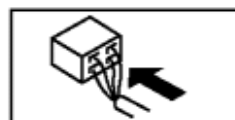
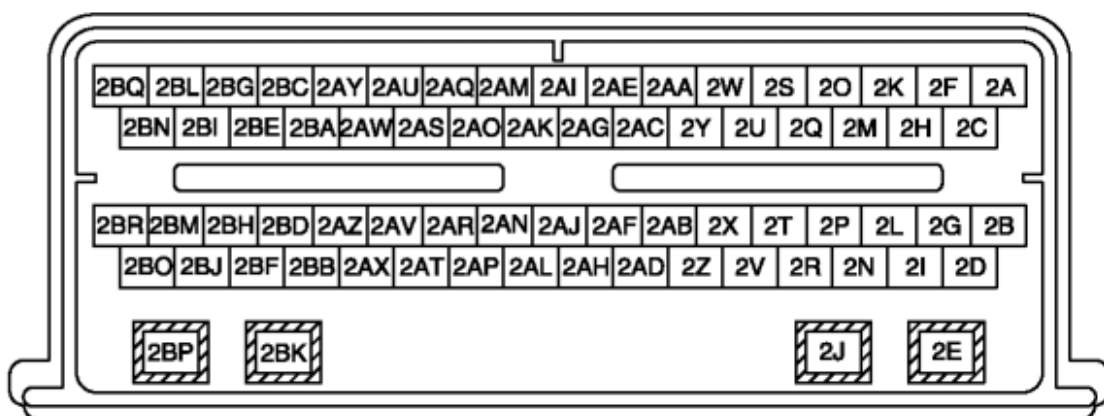
A/F SENSOR (RH)



A/F SENSOR (LH, RH) WIRING HARNESS-SIDE CONNECTOR



PCM WIRING HARNESS-SIDE CONNECTOR



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	VISUALLY INSPECT A/ F SENSOR WIRING HARNESS NOTE: - Disconnect the A/F sensor wiring harness connector. Only the suspect A/F sensor needs to be diagnosed. - Switch the ignition to off. - Disconnect the suspect A/F sensor connector. - Visually inspect the A/F sensor wiring harness. - Check the connector (both halves) for contamination - Make sure the connector pins are fully seated - Is a concern present?	Yes	Repair if necessary. Go to Step 8.
		No	Go to the next step.
4	INSPECT A/ F SENSOR SIGNAL LEVEL TOO HIGH - Connect suspect A/F sensor connector. - Start the engine run it at idle. - Access and monitor the following	Yes	Go to the next step.
		No	Go to Step 6.

	suspect A/F sensor signal PIDs. ▪ P0132:00: O2S11 ▪ P0152:00: O2S21 • Race the engine several times. • Does the PID value change?		
5	PERFORM THOROUGH WIGGLE TEST ON A/ F SENSOR WIRING HARNESS • Switch the ignition to off. • Switch the ignition to ON (Engine off). • Access and monitor the A/F sensor signal PID at Step 4. • Perform a thorough wiggle test on the suspect A/F sensor wiring harness. • Does the voltage change during the wiggle test?	Yes	Repair if necessary. Go to Step 8.
		No	Perform the "INTERMITTENT CONCERN TROUBLESHOOTING". Then go to the next step.
6	INSPECT A/ F SENSOR SIGNAL FOR SHORT CIRCUIT TO POWER SUPPLY INSIDE SENSOR • Switch the ignition to off. • Disconnect the suspect A/F sensor connector. • Start the engine and run it at idle. • Access and monitor the suspect A/F sensor signal PID at Step 4. • Race the engine several times. • Does the PID value change?	Yes	Replace the suspect A/F sensor. (See AIR FUEL RATIO (A/ F) SENSOR REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Then go to Step 9.
		No	Go to the next step.
7	INSPECT A/ F SENSOR CIRCUIT FOR SHORT CIRCUIT TO POWER SUPPLY IN WIRING HARNESS • Switch the ignition to off. • Disconnect the PCM connector. • Switch the ignition to ON (Engine off). • Measure the voltage between suspect A/F sensor terminal H (wiring harness-side) and ground.	Yes	Repair for a short circuit, then go to the next step.
		No	Go to the next step. (The system is operating normal at this time. The concern may have been caused by a loose or corroded connector.)

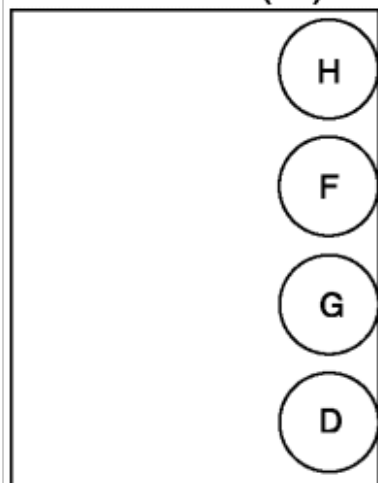
	Is any voltage present?		
8	VERIFY TROUBLESHOOTING OF DTC P0132:00, P0152:00 HAS BEEN COMPLETED - Verify that all disconnected connectors are reconnected. - Switch the ignition to ON (Engine off). - Clear the DTC from the PCM memory using the M-MDS. - Perform the KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) - Is the PENDING CODE for this DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) Go to the next step.
		No	Go to the next step.
9	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.

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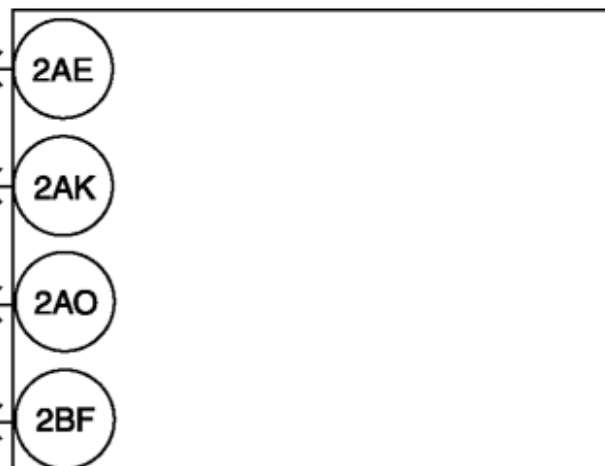
DTC P0132:00, P0152:00 [MZI 3.7 V6]

DTC P0132:00	A/F sensor (RH) circuit high voltage
DTC P0152:00	A/F sensor (LH) circuit high voltage
DETECTION CONDITION	• P0132:00 indicates A/F sensor (RH) circuit high voltage. • P0152:00 indicates A/F sensor (LH) circuit high voltage. • The A/F sensor signals are monitored for an over voltage condition. The code is set when the A/F sensor signal voltage is above the threshold value.
POSSIBLE CAUSE	• A/F sensor connector or terminal malfunction • Short to power supply in A/F sensor • P0132:00: Short to power supply between A/F sensor (RH) terminal H and PCM terminal 2AC • P0152:00: Short to power supply between A/F sensor (LH) terminal H and PCM terminal 2AE • PCM malfunction

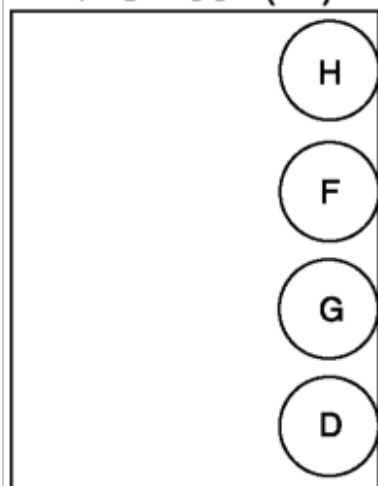
A/F SENSOR (LH)



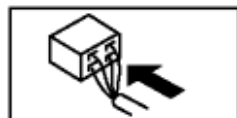
PCM



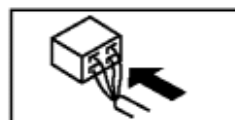
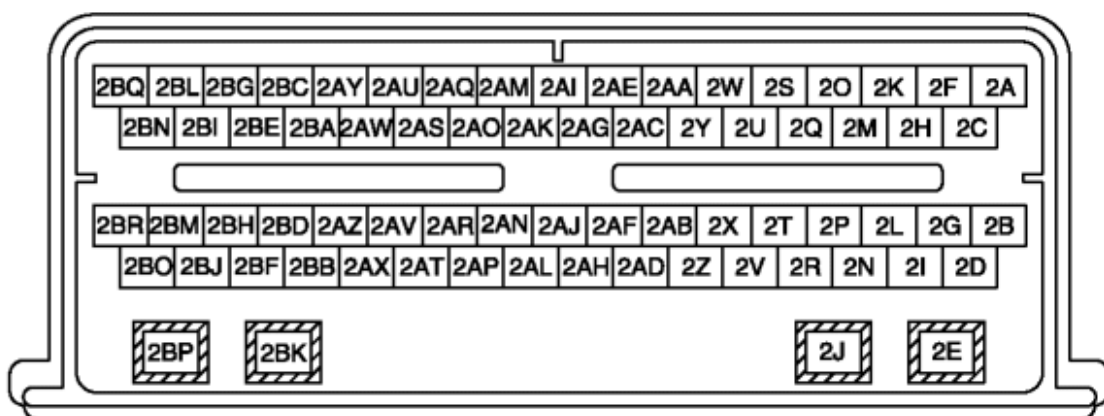
A/F SENSOR (RH)



A/F SENSOR (LH, RH) WIRING HARNESS-SIDE CONNECTOR



PCM WIRING HARNESS-SIDE CONNECTOR



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	VISUALLY INSPECT A/ F SENSOR WIRING HARNESS NOTE: - Disconnect the A/F sensor wiring harness connector. Only the suspect A/F sensor needs to be diagnosed. - Switch the ignition to off. - Disconnect the suspect A/F sensor connector. - Visually inspect the A/F sensor wiring harness. - Check the connector (both halves) for contamination - Make sure the connector pins are fully seated - Is a concern present?	Yes Repair if necessary. Go to Step 8.
		No Go to the next step.
4	INSPECT A/ F SENSOR SIGNAL LEVEL TOO HIGH - Connect suspect A/F sensor connector. - Start the engine run it at idle. - Access and monitor the following	Yes Go to the next step.
		No Go to Step 6.

	suspect A/F sensor signal PIDs. ▪ P0132:00: O2S11 ▪ P0152:00: O2S21 • Race the engine several times. • Does the PID value change?		
5	PERFORM THOROUGH WIGGLE TEST ON A/ F SENSOR WIRING HARNESS • Switch the ignition to off. • Switch the ignition to ON (Engine off). • Access and monitor the A/F sensor signal PID at Step 4. • Perform a thorough wiggle test on the suspect A/F sensor wiring harness. • Does the voltage change during the wiggle test?	Yes	Repair if necessary. Go to Step 8.
		No	Perform the "INTERMITTENT CONCERN TROUBLESHOOTING". Then go to the next step.
6	INSPECT A/ F SENSOR SIGNAL FOR SHORT CIRCUIT TO POWER SUPPLY INSIDE SENSOR • Switch the ignition to off. • Disconnect the suspect A/F sensor connector. • Start the engine and run it at idle. • Access and monitor the suspect A/F sensor signal PID at Step 4. • Race the engine several times. • Does the PID value change?	Yes	Replace the suspect A/F sensor. (See AIR FUEL RATIO (A/ F) SENSOR REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Then go to Step 9.
		No	Go to the next step.
7	INSPECT A/ F SENSOR CIRCUIT FOR SHORT CIRCUIT TO POWER SUPPLY IN WIRING HARNESS • Switch the ignition to off. • Disconnect the PCM connector. • Switch the ignition to ON (Engine off). • Measure the voltage between suspect A/F sensor terminal H (wiring harness-side) and ground.	Yes	Repair for a short circuit, then go to the next step.
		No	Go to the next step. (The system is operating normal at this time. The concern may have been caused by a loose or corroded connector.)

	Is any voltage present?		
8	VERIFY TROUBLESHOOTING OF DTC P0132:00, P0152:00 HAS BEEN COMPLETED - Verify that all disconnected connectors are reconnected. - Switch the ignition to ON (Engine off). - Clear the DTC from the PCM memory using the M-MDS. - Perform the KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) - Is the PENDING CODE for this DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) Go to the next step.
		No	Go to the next step.
9	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.