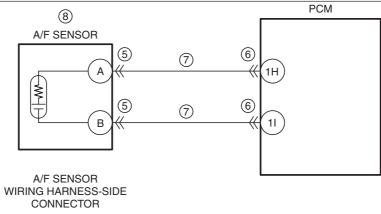
* The PCM monitors the input voltage from the A/F sensor when the engine is running. If the following PCM terminal voltage is above specified for 3 s, the PCM determines that the A/F sensor circuit voltage is high. * PCM terminal 1H: 4.40 V** * PCM terminal 1I: 4.40 V** * MONITORING CONDITIONS** * Battery voltage: 11—16 V** Diagnostic support note** * This is an intermittent monitor (A/F sensor). * The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle. * FREEZE FRAME DATA (Mode 2)/Snapshot data is available. * DTC is stored in the PCM memory. PCM restricts engine torque. * Inhibits the EGR control. * Inhibits the diesel particulate filter regeneration control. * Inhibits engine-stop by operating the i-stop function. A/F sensor connector or terminals malfunction * PCM connector or terminals malfunction * Short to power supply in wiring harness between the following terminals: * A/F sensor terminal A—PCM terminal 1H * A/F sensor terminal B—PCM terminal 1I * A/F sensor malfunction **A/F sensor malfunction**	DTC P0132:00	A/F sensor circuit high input
PCM restricts engine torque. Inhibits the EGR control. Inhibits the diesel particulate filter regeneration control. Inhibits engine-stop by operating the i-stop function. A/F sensor connector or terminals malfunction PCM connector or terminals malfunction PCM connector or terminals malfunction Short to power supply in wiring harness between the following terminals: A/F sensor terminal A—PCM terminal 1H A/F sensor malfunction		terminal voltage is above specified for 3 s, the PCM determines that the A/F sensor circuit voltage is high. — PCM terminal 1H: 4.40 V — PCM terminal 1I: 4.40 V MONITORING CONDITIONS — Battery voltage: 11—16 V Diagnostic support note • This is an intermittent monitor (A/F sensor). • The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available.
POSSIBLE CAUSE • PCM connector or terminals malfunction • Short to power supply in wiring harness between the following terminals: — A/F sensor terminal A—PCM terminal 1H — A/F sensor terminal B—PCM terminal 1I • A/F sensor malfunction		Inhibits the EGR control.Inhibits the diesel particulate filter regeneration control.
• PCM malfunction		A/F sensor connector or terminals malfunction PCM connector or terminals malfunction Short to power supply in wiring harness between the following terminals: A/F sensor terminal A—PCM terminal 1H A/F sensor terminal B—PCM terminal 1I







PCM WIRING HARNESS-SIDE CONNECTOR

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/		1EE	1EA	1DW	1DS	1DC	1DK	1DG		N-	DA10	-							N	1BR	1BM	1BH	1BC	1AX	1AS	1AN	1AI	1AD	1Y	1T	10	1J	1E	1A
								1DH		ĮĮ1	DB 10				-		1CD			1BS	1BN	1BI	1BD	1AY	1AT	1AO	1AJ	1AE	1Z	1U	1P	1K	1F	1B
																				1BT	1BO	1BJ	1BE	1AZ	1AU	1AP	1AK	1AF	1AA	1V	1Q	1L	1G	1C
	1EI	1EG	1EC	1DY	1DU	1DC	1DM	1DI	1D	E 1	DC 10	CY	1CU	1CQ	1CM	1CI	1CE	1CA	1BW	1BU	1BP	1BK	1BF	1BA	1AV	1AQ	1AL	1AG	1AB	1W	1R	1M	1H	1D
$\setminus \mid$	1E	J 1EH	1ED	1DZ	1DV	1DF	1DN	1DJ	1D	F1	DD 10	CZ -	1CV	1CR	1CN	1CJ	1CF	1CB	1BX	1BV	1BQ	1BL	1BG	1BB	1AW	1AR	1AM	1AH	1AC	1X	1S	1N	11	
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Diagnostic Procedure

	ostic Procedure		
STEP	INSPECTION		ACTION
1	IDENTIFY TRIGGER DTC FOR FREEZE FRAME	Yes	Go to the next step.
	DATA (MODE 2)	No	Go to the troubleshooting procedure for DTC on FREEZE
	Perform the Freeze Frame PID Data Access		FRAME DATA (Mode 2).
	Procedure.		(See DTC TABLE [SKYACTIV-D 2.2].)
	(See ON-BOARD DIAGNOSTIC TEST		
	[SKYACTIV-D 2.2].)		
	• Is the DTC P0132:00 on FREEZE FRAME DATA		
	(Mode 2)?		
2	VERIFY FREEZE FRAME DATA (MODE 2)/	Yes	Go to the next step.
	SNAPSHOT DATA AND DIAGNOSTIC	No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data
	MONITORING TEST RESULTS HAVE BEEN		and DIAGNOSTIC MONITORING TEST RESULTS on the
	RECORDED		repair order, then go to the next step.
	Have the FREEZE FRAME DATA (Mode 2)/		
	snapshot data and DIAGNOSTIC MONITORING		
	TEST RESULTS (A/F sensor related) been		
	recorded?		
3	VERIFY RELATED SERVICE INFORMATION	Yes	Perform repair or diagnosis according to the available
	AVAILABILITY		Service Information.
	Verify related Service Information availability.	L	If the vehicle is not repaired, go to the next step.
	Is any related Service Information available?	No	Go to the next step.
4	VERIFY RELATED PENDING CODE AND/OR	Yes	Go to the applicable PENDING CODE or DTC inspection.
	DTC		(See DTC TABLE [SKYACTIV-D 2.2].)
	Switch the ignition off, then ON (engine off).	No	Go to the next step.
	Perform the Pending Trouble Code Access		,
	Procedure and DTC Reading Procedure.		
	(See ON-BOARD DIAGNOSTIC TEST		
	[SKYACTIV-D 2.2].)		
	Are any other PENDING CODEs and/or DTCs		
	present?		
5	INSPECT A/F SENSOR CONNECTOR	Yes	Repair or replace the connector and/or terminals, then go to
	CONDITION		Step 9.
	Switch the ignition off.	No	Go to the next step.
	Disconnect the A/F sensor connector.		'
	Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	Is there any malfunction?		
6	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
	Disconnect the PCM connector.		Step 9.
	Inspect for poor connection (such as damaged/	No	Go to the next step.
	pulled-out pins, corrosion).		,
		I	
	Is there any malfunction?		
7		Yes	Go to the next step.
7	• Is there any malfunction? INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY	Yes No	Go to the next step. Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY		Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO		
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected.		Repair or replace the wiring harness for a possible short to
7	 INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY Verify that the A/F sensor and PCM connectors are disconnected. Switch the ignition ON (engine off). 		Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals		Repair or replace the wiring harness for a possible short to
7	 INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY Verify that the A/F sensor and PCM connectors are disconnected. Switch the ignition ON (engine off). 		Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A		Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B		Repair or replace the wiring harness for a possible short to
7	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V?	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR		Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step.
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off.	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off. • Reconnect all disconnected connectors.	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off. • Reconnect all disconnected connectors. • Inspect the A/F sensor.	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Intermittent concern exists.
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off. • Reconnect all disconnected connectors. • Inspect the A/F sensor. (See AIR FUEL RATIO (A/F) SENSOR	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Intermittent concern exists. • Perform the "INTERMITTENT CONCERN
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off. • Reconnect all disconnected connectors. • Inspect the A/F sensor. (See AIR FUEL RATIO (A/F) SENSOR INSPECTION [SKYACTIV-D 2.2].)	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Intermittent concern exists. • Perform the "INTERMITTENT CONCERN TROUBLESHOOTING" procedure.
	INSPECT A/F SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY • Verify that the A/F sensor and PCM connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the following terminals (wiring harness-side): — A/F sensor terminal A — A/F sensor terminal B • Is the voltage 0 V? INSPECT A/F SENSOR • Switch the ignition off. • Reconnect all disconnected connectors. • Inspect the A/F sensor. (See AIR FUEL RATIO (A/F) SENSOR	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. Replace the A/F sensor, then go to the next step. (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Intermittent concern exists. • Perform the "INTERMITTENT CONCERN

STEP	INSPECTION		ACTION
9	VERIFY DTC TROUBLESHOOTING	Yes	Repeat the inspection from Step 1.
	COMPLETED		If the malfunction recurs, replace the PCM.
	Always reconnect all disconnected connectors.		(See PCM REMOVAL/INSTALLATION [SKYACTIV-D
	Clear the DTC from the PCM memory using the		2.2].)
	M-MDS.		Go to the next step.
	(See AFTER REPAIR PROCEDURE	No	Go to the next step.
	[SKYACTIV-D 2.2].)		
	Perform the KOEO or KOER self test.		
	(See KOEO/KOER SELF TEST [SKYACTIV-D		
	2.2].)		
	Is the same DTC present?		
10	VERIFY AFTER REPAIR PROCEDURE	Yes	Go to the applicable DTC inspection.
	 Perform the "AFTER REPAIR PROCEDURE". 		(See DTC TABLE [SKYACTIV-D 2.2].)
	(See AFTER REPAIR PROCEDURE	No	DTC troubleshooting completed.
	[SKYACTIV-D 2.2].)		
	Are any DTCs present?		