2000 ENGINE PERFORMANCE

Pin Voltage Charts

INTRODUCTION

NOTE: For pin voltage charts on Passport, see Rodeo in Isuzu PIN VOLTAGE CHARTS article.

Pin voltage (value) charts are used for diagnosing intermittent symptoms and faults that are unable to be resolved during self-diagnostics. Pin voltage tests ensure Powertrain Control Module (PCM) is receiving and transmitting proper voltage and other signals. Before performing tests, ensure engine mechanical condition has been thoroughly inspected and self-diagnostics has been attempted. Available Technical Service Bulletins (TSBs) may also be helpful in correcting a hard to diagnose problem.

PIN VOLTAGE TESTS

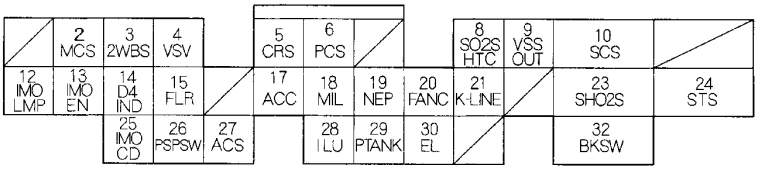
CAUTION: When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION before disconnecting battery.

CAUTION: Before disconnecting battery, obtain anti-theft code for radio. After battery is reconnected, the word CODE will appear on radio display. Enter 5-digit anti-theft code using select buttons and radio will begin working. If code is entered wrong 10 times, leave radio on at least one hour and enter code correctly. Any time radio power is lost, pre-selected radio stations will have to be set. For more information, see owners manual.

NOTE: Unless stated otherwise in testing procedures, preform all voltage tests using a Digital Volt-Ohmmeter (DVOM) with a minimum 10-megohm input impedance. Carefully backprobe PCM harness connector using Backprobe Set (07SAZ-001000A) to avoid connector damage. Voltage readings may vary slightly due to battery condition or charging rate.

NOTE: PCM may also be referred to as ECM. Generator may also be referred to as alternator.

Pin voltage charts are supplied to reduce diagnostic time. Checking pin voltage at the PCM connector determines whether PCM is receiving and transmitting proper voltage signals. Diagnostic charts may also help determine if PCM harness is shorted or open. See **Fig. 1**-**Fig. 34** .



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
2	GRN/WHT	MCS (ENGINE MOUNT CONTROL SOLENOID VALVE)	Drives engine mount control solenoid valve.	At idle: 0 V Above idle: battery voltage
3	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/ WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
5	BLU/GRN	CRS (CRUISE CONTROL SIGNAL)	Detects cruise control signal.	With ignition switch ON (II): pulses
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 167°F (75°C): battery voltage With engine running, engine coolant, above 167°F (75°C): duty controlled
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
9 [2]	BLU/WHT	VSSOUT (VEHICLE SPEED SENSOR OUTPUT SIGNAL)	Sends vehicle speed sensor signal.	Depending on vehicle speed: pulses
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the service check signal shorted with the PGM Tester: 0 V With the service check signal opened: about 5V or battery voltage
12	PNK	IMOLMP (IMMOBILIZER INDICATOR LIGHT)	Drives immobilizer indicator light.	With immobilizer indicator light turned ON: 0 V With immobilizer indicator light turned OFF: battery voltage
13	BLU	IMOEN (IMMOBILIZER ENABLE SIGNAL)	Sends immobilizer enable signal.	
14 [2]	GRN/BLK	D4IND (D4 INDICATOR)	Drives D4 indicator light.	With D4 indicator light turned ON: 0 V With D4 indicator light turned OFF: battery voltage
15	GRN/YEL	FLR (IMMOBILIZER FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage

2: A/T

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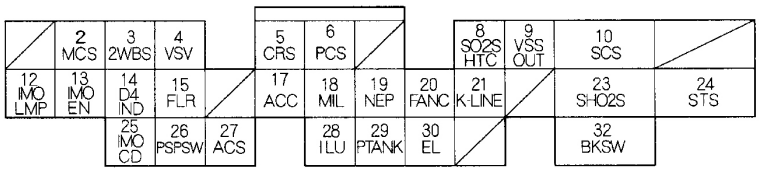
Fig. 1: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Accord 2.3L - 1 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
21	GRY	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses
23	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
24	BLU/ORN	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
25	RED	IMOCD (IMMOBILIZER CODE)	Detects immobilizer signal.	
26	GRN	PSPSW (P/S PRESSURE SWITCH SIGNAL)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5V
28[2]	WHT/RED	ILU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap: opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5—3.5 V With low beam headlights turned on at idle: about 1.5—2.5 V
32	WHT/BLK	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal depressed: battry voltage

2: A/T

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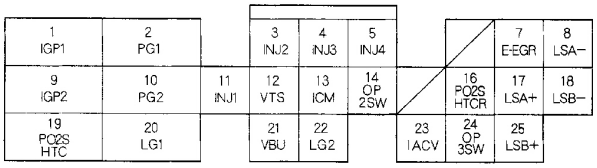
Fig. 2: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Accord 2.3L - 2 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "B" (25-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	With engine running: duty controlled
4	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
5	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
7	PNK	E-EGR	Drives EGR valve.	With EGR operation during driving with fully warmed up engine: duty controlled With EGR not operating: 0 V
8[2]	WHT	LSA-(A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A-SIDE)	A/T clutch pressure control solenoid valve A power supply negative electrode	With ignition switch ON (II): duty controlled
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No.1 FUEL INJECTOR)	Drives No.1 fuel injector.	With engine running: duty controlled
12[4]	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
13	YEL/GRN	ICM (IGNITION CONTROL MODULE)	Sends ignition pulse.	With ignition switch ON (II): battery voltage With engine running: pulses
14[2]	BLU/BLK	OP2SW (2ND OIL PRESSURE SWITCH)	Detects 2nd oil pressure switch.	With ignition switch ON (II): battery voltage
16[3]	GRN/RED	PO2SHTCR (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL RELAY)	Drives primary heated oxygen sensor heater relay.	With ignition switch ON (II): 0 V
17[2]	RED	LSA + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A + SIDE)	A/T clutch pressure control solenoid valve A power supply positive electrode	With ignition switch ON (II): duty controlled
18[2]	GRN	LSB - (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B−SIDE)	A/T clutch pressure control solenoid valve B power supply negative electrode	With ignition switch ON (II): duty controlled
19[3]	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: 0 V
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
21	WHT/YEL	VBU (VOLTAGE BACK UP)	Power source for the ECM/PCM control circuit. Power source for the DTC memory.	Battery voltage at all times
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
23	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: duty controlled
24[2]	BLU/WHT	OP3SW (3RD OIL PRESSURE SWITCH)	Detects 3rd oil pressure switch.	With ignition switch ON (II): battery voltage
25[2]	ORN	LSB + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B + SIDE)	A/T clutch pressure control solenoid valve B power supply positive electrode	With ignition switch ON (II): duty controlled

2: A/T
3: F23A4 engine
4: F23A1, F23A4 engine

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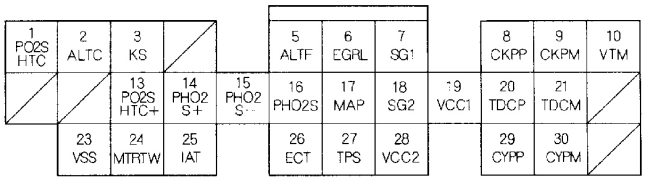
Fig. 3: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (Accord 2.3L - 3 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1 [5]	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed up engine running: battery voltage During driving with small electrical load: 0 V
3 [4]	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
6	WHT/BLK	EGRL (EGR VALVE LIFT SENSOR)	Detects EGR valve lift sensor signal.	At idle: about 1.2 V
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
10 [4]	BLU/BLK	VTM (VTEC PRESSURE SWITCH SIGNAL)	Detects VTEC pressure switch signal.	With engine at low engine speed: 0 V With engine at high engine speed (vehicle running): battery voltage
13 [3]	WHT	PO2SHTC+ (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL + SIDE)	Detects primary heated oxygen sensor heater voltage.	With ignition switch ON (II): battery voltage
14 [3]	RED	PHO2S+ (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1+ SIDE)	Detects primary heated oxygen sensor (sensor 1) signal.	
15 [3]	BLU	PHO2S- (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1-SIDE)	Detects primary heated oxygen sensor (sensor 1) signal.	
16 [5]	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) sigal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times.
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDCP (TDC SENSOR P SIDE)	Detects TDC sensor.	With engine running: pulses
21	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor.	
23 [1]	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheel rotating: cycles 0 V-5 V
24 [6]	YEL/GRN	MTRTW	Sends engine coolant temperature signal.	With ignition switch ON (II): pules
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1-4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1-4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	CYPP (CYP SENSOR P SIDE)	Detects CYP sensor.	With engine running: pulses
30	BLK	CTPM (CYP SENSOR M SIDE)	Ground for CYP sensor.	

1: M/T
3: F23A4 engine
4: F23A1, F23A4 engine
5: F23A1, F23A5 engine
6: '00 model

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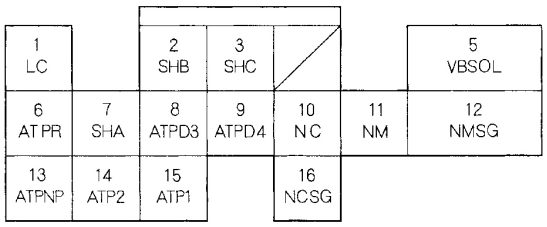
Fig. 4: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Accord 2.3L - 4 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1[2]	YEL	LC (LOCK-UP CONTROL SOLENOID VALVE)	Drives look-up control solenoid valve.	With lock-up ON: battery voltage With lock-up OFF: 0 V
2[2]	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	With engine running in 1st, 2nd gears: battery voltage With engine running in 3rd, 4th gears: about 0 V
3[2]	GRN	SHC (SHIFT CONTROL SOLENOID VALVE C)	Drives shift control solenoid valve C.	With engine running in 1st and 3rd gears: battery voltage With engine running in 2nd and 4th gears: 0 V
5[2]	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source of solenoid valve.	With ignition switch ON (II): battery voltage
6[2]	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 v In any other position: battery voltage
7[2]	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	With engine running in 2nd, 3rd gears: battery voltage With engine running in 1st, 4th gears: about 0 V
8[2]	PNK	ATPD3 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D3 position: 0 V In any other position: battery voltage
9[2]	YEL	ATPD4 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D4 position: 0 V In any other position: about 5V or battery voltage
10[2]	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	With ignition switch ON (II), and front wheels rotating: battery voltage
11[2]	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	With engine running: pulses
12[2]	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13[2]	BLU/WHT	ATPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In Park or Neutral: 0 V In any other position: battery voltage
14[2]	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2nd position: 0 V In any other position: battery voltage
15[2]	BRN	ATP1 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 1st position: 0 V In any other position: battery voltage
16[2]	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

2: A/T
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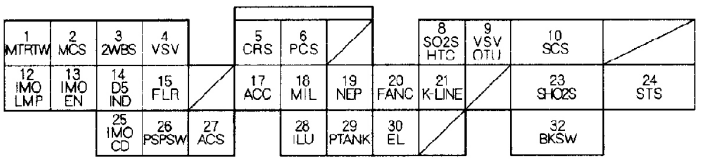
Fig. 5: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Accord 2.3L - 5 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/GRN	MTRTW	Sends engine coolant temperature signal.	With ignition switch ON (II): pulses
2	GRN/WHT	MCS (ENGINE MOUNT CONTROL SOLENOID VALVE)	Drives engine mount control solenoid valve.	At idle: 0 V Above idle: battery voltage
3	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/ WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
5	BLU/GRN	CRS (CRUISE CONTROL SIGNAL)	Detects cruise control signal.	With ignition switch ON (II): pulses
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 147°F (64 °C): battery voltage With engine running, engine coolant, above 147°F (64 °C): duty controlled
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
9	BLU/WHT	VSSOUT (VEHICLE SPEED SENSOR OUTPUT SIGNAL)	Sends vehicle speed sensor signal.	Depending on vehicle speed: pulses
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the service check signal shorted with the PGM Tester: 0 V With the service check signal opened: about 5 V or battery voltage
12	PNK	IMOLMP (IMMOBLIZER INDICATOR LIGHT)	Drives immobilizer indicator light.	With immobilizer indicator light turned ON: 0 V With immobilizer indicator light turned OFF: battery voltage
13	BLU	IMOEN (IMMOBILZER ENABLE SIGNAL)	Sends immobilizer enable signal.	
14	GRN/BLK	D4IND (D4 INDICATOR)	Drives D4 indicator light.	With D4 indicator light turned ON: 0 V With D4 indicator light turned OFF: battery voltage
15	GRN/YEL	FLR (IMMOBILIZER FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
21	GRY	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses
23	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
24	BLU/ORN	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (II): battery voltage With starter switch OFF: 0 V
25	RED	IMOCD (IMMOBILIZER CODE)	Detects immobilizer signal.	
26	GRN	PSPSW (P/S PRESSURE SWITCH SIGNAL)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5V
28	WHT/RED	ILU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap: opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5—3.5 V With low beam headlights turned on at idle: about 1.5—2.5 V
32	WHT/BLK	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V

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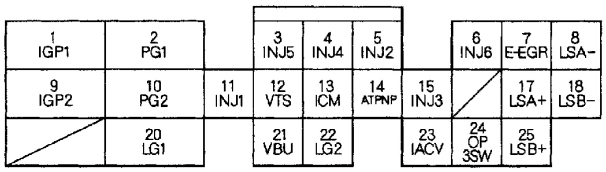
Fig. 6: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Accord 3.0L - 1 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "B" (25-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the PCM control circuit.	With the ignition switch ON (II): battery voltage With the ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
3	BLK/RED	INJ5 (No. 5 FUEL INJECTOR)	Drives No. 5 fuel injector.	With engine running: pulses
4	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
5	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	
6	WHT/BLU	INJ6 (No. 6 FUEL INJECTOR)	Drives No. 6 fuel injector.	
7	PNK	E-EGR	Drives EGR valve.	With EGR operating during driving with fully warmed up engine: duty controlled With EGR not operating: 0 V
8	WHT	LSA − (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A − SIDE)	A/T clutch pressure control solenoid valve A power supply negative terminal	With the ignition switch ON (II): pulses
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the PCM control circuit.	With the ignition switch ON (II): battery voltage With the ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	With engine running: pulses
12	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
14	BLU/WHT	ATPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In Park or Neutral: 0 V In any other position: battery voltage
15	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	With engine running: pulses
17	RED	LSA + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A + SIDE)	A/T clutch pressure control solenoid valve A power supply positive terminal	With the ignition switch ON (II): pulses
18	GRN	LSB − (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B − SIDE)	A/T clutch pressure control solenoid valve B power supply negative terminal	With the ignition switch ON (II): pulses
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
21	WHT/YEL	VBU (VOLTAGE BACK UP)	Power source for the PCM control circuit. Power source for the DTC memory.	Battery voltage at all times
22			Ground for the PCM control circuit.	Less than 1.0 V at all times
23			Drives IAC valve.	With engine running: pulses
24	BLU/WHT	OP3SW (3RD OIL PRESSURE SWITCH)	Detects 3rd oil pressure switch.	With the ignition switch ON (II): battery voltage
25	ORN	LSB + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B + SIDE)	A/T clutch pressure control solenoid valve B power supply positive terminal	With the ignition switch ON (II): pulses

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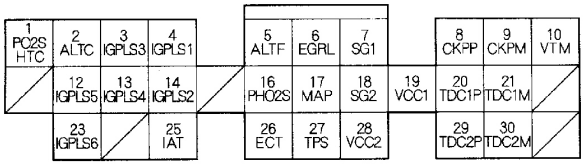
Fig. 7: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (Accord 3.0L - 2 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed-up engine running: approx. 8 V
3	WHT/BLU	IGPLS 3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil.	With ignition switch ON (II): 0 V With engine running: pulses
4	YEL/GRN	IGPLS 1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil.	
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
6	WHT/BLK	EGRL (EGR VALVE LIFT SENSOR)	Detects EGR valve lift sensor signal.	At idle: about 1.2 V
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
10	BLU/BLK	VTM (VTEC PRESSURE SWITCH SIGNAL)	Detects VTEC pressure switch signal.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
12	BLK/RED	IGPLS 5 (No. 5 IGNITION COIL PULSE)	Drives No. 5 ignition coil.	With ignition switch ON (II): 0V With engine running: pulses
13	BRN	IGPLS 4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil.	
14	BLU/RED	IGPLS 2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil.	
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) sigal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times.
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDC1P (TDC SENSOR 1P SIDE)	Detect TDC sensor 1.	With engine running: pulses
21	RED	TDC1M (TDC SENSOR 1M SIDE)	Ground for TDC sensor 1.	
23	BRN/WHT	IGPLS 6 (No. 6 IGNITION COIL PULSE)	Drives No. 6 ignition coil.	With ignition switch ON (II): 0V With engine running: pulses
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1—4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1—4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	TDC2P (TDC2 SENSOR P SIDE)	Detects TDC sensor 2.	With engine running: pulses
30	BLK	TDC2M (TDC2 SENSOR M SIDE)	Ground for TDC sensor 2.	

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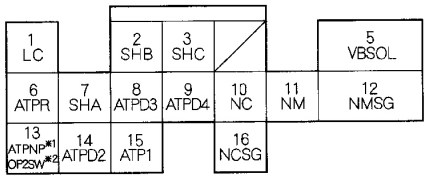
Fig. 8: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Accord 3.0L - 3 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL	LC (LOCK-UP CONTROL SOLENOID VALVE)	Drives lock-up control solenoid valve.	With lock-up ON: battery voltage With lock-up OFF: 0 V
2	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	With engine running in 1st, 2nd gears: battery voltage With engine running in 3rd, 4th gears: about 0 V
3	GRN	SHC (SHIFT CONTROL SOLENOID VALVE C)	Drives shift control solenoid valve C.	With engine running in 1st and 3rd gears: battery voltage With engine running in 2nd and 4th gears: 0 V
5	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source for solenoid valve.	With ignition switch ON (II): battery voltage
6	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 V In any other position: battery voltage
7	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	With engine running in 2nd, 3rd gears: battery voltage With engine running in 1st, 4th gears: about 0 V
8	PNK	ATPD3 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D3 position: 0 V In any other position: battery voltage
9	YEL	ATPD4 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D4 position: 0 V In any other position: about 5 V or battery voltage
10	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	With ignition switch ON (II), and front wheels rotating: battery voltage
11	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	With engine running: pulses
12	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13	BLU/BLK	OP2SW (2ND OIL PRESSURE SWITCH)	Detects 2nd oil pressure switch.	With the ignition switch ON (II): battery voltage
14	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2nd position: 0 V In any other position: battery voltage
15	BRN	ATP1 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 1st position: 0 V In any other position: battery voltage
16	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

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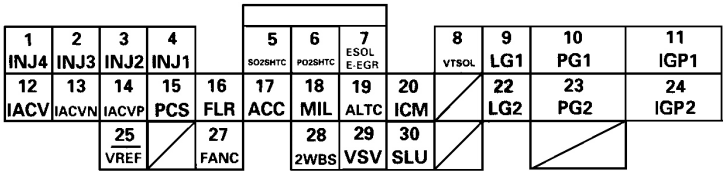
Fig. 9: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Accord 3.0L - 4 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	With engine running: duty controlled
2	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	
4	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	
5	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
6	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
7	PNK	E-EGR	Drives EGR valve.	With EGR operating during driving with fully warmed up engine: duty controlled. With EGR not operating: 0 V
8	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low engine speed: 0 V With engine at high engine speed: battery voltage
9	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
10	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM power circuit.	
11	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
12	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IACV.	With engine running: pulses
15	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant below 154°F (68°C): battery voltage With engine running, engine coolant above 154°F (68°C): duty controlled
16	GRN/YEL	FLR (FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	BLK/RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LAMP)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19 [1]	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed-up engine running: battery voltage During driving with small electrical load: 0 V
20	YEL/GRN	ICM (IGNITION CONTROL MODULE)	Sends ignition pulse.	With ignition switch ON (II): battery voltage With engine running: about 10 V (depending on engine speed)
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
23	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM power circuit.	
24	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
27 [1]	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
28	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
29	LT GRN/WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage

[1] - USA model

(cont'd)

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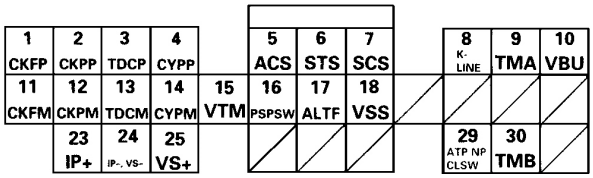
Fig. 10: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Civic D16Y5 Engine With M/T - 1 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLU/RED	CKFP (CKF SENSOR P SIDE)	Detects CKF sensor.	With engine running: pulses
2	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
3	GRN	TDCP (TDC SENSOR P SIDE)	Detects TDC sensor.	With engine running: pulses
4	YEL	CYPP (CYP SENSOR P SIDE)	Detects CYP sensor.	With engine running: pulses
5	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: battery voltage
6	BLU/ORN	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
7	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the connector connected: 0 V With the connector disconnected: 5 V
8	LT BLU	K-LINE (DLC)	Sends and receives scan tool signal.	With ignition switch ON (II): about 5 V
10	WHT/BLU	VBU (VOLTAGE BACK UP)	Power source for the ECM/PCM control circuit. Power source for the DTC memory	Battery voltage at all times
11	WHT/RED	CKFM (CKF SENSOR M SIDE)	Ground for CKF sensor signal.	
12	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor signal.	
13	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor signal.	
14	BLK	CYPM (CKP SENSOR M SIDE)	Ground for CYP sensor signal.	
15	BLU/BLK	VTM (VTEC PRESSURE SWITCH)	Detects VTEC pressure switch signal.	With engine at low engine speed: 0 V With engine at high engine speed: battery voltage
16	GRN	PSPSW (P/S OIL PRESSURE SWITCH)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
17	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V – battery voltage (depending on electrical load)
18	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheels rotating: cycles 0 V – 5 V
23	BLK	IP+ (HO2S PUMP CELL +)	Controls HO2S pump cell.	With ignition switch ON (II): about 0.5 – 5.3 V
24	RED	IP–, VS– (HO2S COMMON)	Reference voltage supply.	With fully warmed up engine at idle: about 2.6 – 2.8 V
25	WHT	VS+ (VS CELL VOLTAGE)	Detects VS cell voltage.	With ignition switch ON (II): about 7 V
29	RED	CLSW (CLUTCH SWITCH)	Detects clutch switch signal.	With clutch pedal released: about 5 V With clutch pedal depressed: 0 V

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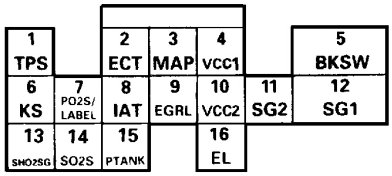
Fig. 11: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Civic D16Y5 Engine With M/T - 2 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
2	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR	Detects ECT sensor signal.	With ignition switch ON(II): about 0.1 – 4.8 V (depending on engine coolant temperature)
3	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON(II): about 3 V At idle: about 1.0 V (depending on engine speed)
4	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source for MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
5	GRN/WHT	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal depressed: battery voltage
7	WHT	LABEL	Detects LABEL resistance.	With engine running: about 0.3 – 4.9 V
8	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
10	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON(II): about 5 V With ignition switch OFF: 0 V
11	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times
12	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
13	GRN/BLK	SHO2SG (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2 GROUND)	Ground for secondary heated oxygen sensor (sensor 2).	
14	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
15	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor.	With fuel fill cap opened: about 2.5 V
16[1]	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V

[1] - USA model

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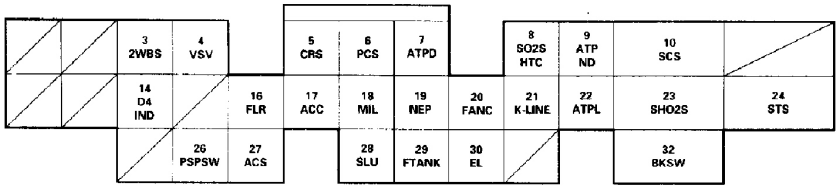
Fig. 12: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Civic D16Y5 Engine With M/T - 3 Of 3)

Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is12V.

Terminal number	Wire color	Terminal name	Description	Signal
3	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
5[1]	BLU/GRN	CRS (CRUISE CONTROL SIGNAL)	Down shift signal input from cruise control unit.	When cruise control is used: pulses
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 154°F (68°C): battery voltage With engine running, engine coolant, above 154°F (68°C): duty controlled
7[2]	YEL	ATPD (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In [O] position: 0 V In other than [O] position: Approx. 5 V
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
9[2]	LT GRN	ATPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In park or neutral: 0 V In any other position Approx. 5 V
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the terminal connected: 0 V With the terminal disconnected: about 5 V or battery voltage
14[1]	GRN/BLK	D4IND (D4 INDICATOR)	Drives D4 indicator light.	With D4 indicator light turned ON: 0 V With D4 indicator light turned OFF: battery voltage
16	GRN/YEL	FLR (FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	BLK/RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
21	BLU/YEL	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses
22[2]	BLU	ATP L (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In [L] position: 0 V In other than [L] position: Approx. 5 V
23	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
24	BLU/WHT	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
26	GRN	PSPSW (P/S PRESSURE SWITCH SIGNAL)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5 V
28[1, 2]	WHT/RED	SLU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V
32	GRN/WHT	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal depressed: battery voltage

1: A/T (D16Y7, D16Y8 engine)
2: CVT (D16Y5 engine)

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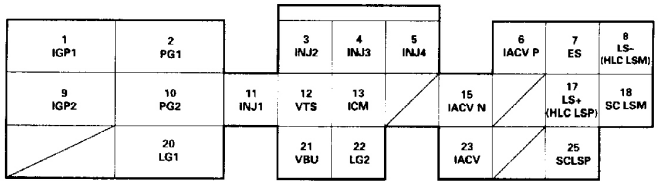
Fig. 13: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Civic Except D16Y5 Engine With M/T - 1 Of 5)

Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

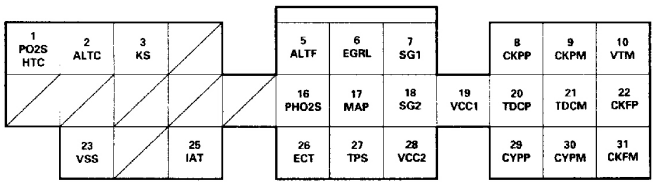
PCM CONNECTOR "B" (25-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	With engine running: duty controlled
4	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
5	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
6	BLK/BLU	IACV P (IDLE AIR CONTROL VALVE POSITIVE SIDE)	Drives IAC valve (positive side).	With engine running: duty controlled
7 2	RED	ESOL (EGR CONTROL SOLENOID VALVE)	Drives EGR control solenoid valve.	With EGR operating during driving with fully warmed up engine: duty controlled With EGR not operating: 0 V
8 2	PNK/BLK	HLC LSM (PH-PL CONTROL LINEAR SOLENOID NEGATIVE SIDE)	Ground for PH-PL control linear solenoid	
8 1	WHT	LS - (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE - SIDE)	A/T clutch pressure control solenoid valve power supply negative electrode.	With ignition switch ON (II): duty controlled
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than at all times
11	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	With engine running: duty controlled
12 3	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
13	YEL/GRN	ICM (IGNITION CONTROL MODULE)	Sends ignition pulse.	With ignition switch ON (II): battery voltage With engine running: pulses
15	ORN	IACV N (IDLE AIR CONTROL VALVE NEGATIVE SIDE)	Drives the IAC valve (negative side).	With engine running: duty controlled
17 1	RED	LS + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE + SIDE)	A/T clutch pressure control solenoid valve power supply positive electrode	With ignition switch ON (II): duty controlled
17 2	GRN/WHT	HLC LSP (PH-PL CONTROL LINEAR SOLENOID POSITIVE SIDE)	Drives PH-PL control linear solenoid	With ignition switch ON (II): Pulsing signal
18 2	PNK/BLU	SC LSM (START CLUTCH LINEAR SOLENOID NEGATIVE SIDE)	Ground for start clutch control linear solenoid	
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
21	WHT/BLU	VBU (VOLTAGE BACK UP)	Power source for the ECM/PCM control circuit. Power source for the DTC memory.	Battery voltage at this times
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
23	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: duty controlled
25 2	YEL	SC LSP (START CLUTCH LINEAR SOLENOID POSITIVE SIDE)	Drives start clutch control linear solenoid.	With ignition switch ON (II): Pulsing signal

1: A/T (D16Y7, D16Y8 engine)
2: CVT (D16Y5 engine)
3: D16Y5, D16Y8, B16A2 engine

G99H08702

Fig. 14: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (Civic Except D16Y5 Engine With M/T - 2 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

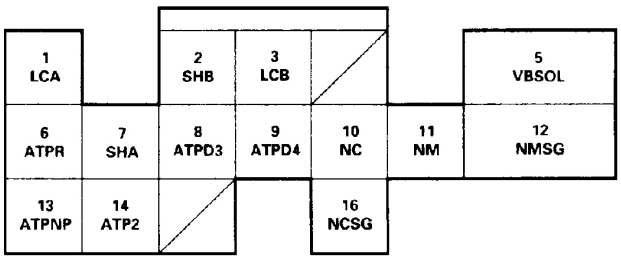
PCM CONNECTOR "C" (31-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed – up engine running: battery voltage During driving with small electrical load: 0 V
3	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V – battery voltage (depending on electrical load)
6[1]	WHT/BLK	EGRL (EGR VALVE LIFT SENSOR)	Detects EGR valve lift sensor signal.	At idle: about 1.2 V
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
10[2]	BLU/BLK	VTM (VTEC PRESSURE SWITCH SIGNAL)	Detects VTEC pressure switch signal.	With engine at low engine speed: 0 V With engine at high engine speed : battery voltage
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) signal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDCP (TDC SENSOR P SIDE)	Detects TDC sensor.	With engine running: pulses
21	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor.	
22	BLU/RED	CKFP (CKF SENSOR P SIDE)	Detects CKF sensor.	With engine running: pulses
23	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheel rotating: cycles 0 V – about 5 V or battery voltage
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	CYPP (CYP SENSOR P SIDE)	Detects CYP sensor.	With engine running: pluses
30	BLK	CYPM (CYP SENSOR M SIDE)	Ground for CYP sensor.	
31	WHT/RED	CKFM (CKF SENSOR M SIDE)	Ground for CKF sensor signal.	

1: CVT (D16Y5 engine)
2: D16Y5, D16Y8, B16A2 engine

G99J08703

Fig. 15: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Civic Except D16Y5 Engine With M/T - 3 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN) (D16Y7, D16Y8 engine) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1[1]	YEL	LC (LOCK-UP CONTROL SOLENOID VALVE A)	Drives look-up control solenoid valve A.	With lock-up ON: battery voltage With lock-up OFF: 0 V
2[1]	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	In 2 position, in 1st and 2nd gear in D4, D3 position: Battery voltage In 1 position, in 3rd gear in D4, D3 in 4th gear in D4 position: 0 V
3[1]	GRN/BLK	LCB (LOCK UP CONTROL SOLENOID VALVE B)	Drives lock-up control solenoid valve B.	When full lock-up: Battery voltage With half lock-up: Pulsing signal
5[1]	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source of solenoid valve.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
6[1]	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 V In any other position: Approx. 10 V
7[1]	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	In 1, 2 position, in 2nd and 3rd gear in D4, D3 position: Battery voltage In 1st gear in D4, D3 position, in 4th gear in D4 position: 0 V
8[1]	PNK	ATPD3 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D3 position: 0 V In any other position: Approx. 10 V
9[1]	YEL	ATPD4 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D4 position: 0 V In any other position: Approx. 5 V
10[1]	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	Depending on vehicle speed: Pulsing signal When vehicle is stopped: 0 V
11[1]	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	With engine running: pulses
12[1]	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13[1]	LT GRN	ATPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In park or neutral: 0 V In any other position: Approx. 10 V
14[1]	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2nd position: 0 V In any other position: Approx. 10 V
16[1]	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

1: A/T (D16Y7, D16Y8 engine)

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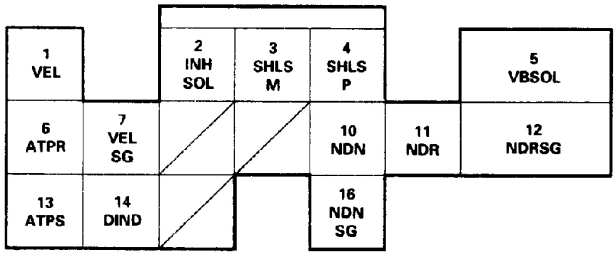
Fig. 16: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Civic D16Y7 & D16Y8 Engine - 4 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN) (D16Y5 engine: CVT)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	WHT/RED	VEL (SECONDARY GEAR SHAFT SPEED SENSOR)	Secondary gear shaft speed sensor.	Depending on vehicle speed: pulses When vehicle is stopped: 0 V
2	GRN/BLK	INHSOL (INHIBITOR SOLENOID CONTROL)	Inhibitor solenoid control.	With inhibitor solenoid ON: battery voltage With inhibitor solenoid OFF: 0 V
3	GRN/YEL	SHLSM (SHIFT CONTROL LINEAR SOLENOID NEGATIVE SIDE)	Ground for shift control linear solenoid.	
4	BLU/WHT	SHLSP (SHIFT CONTROL LINEAR SOLENOID POSITIVE SIDE)	Drives shift control linear solenoid power.	With ignition switch ON (II): pulses
5	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source of solenoid valve.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
6	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 V In any other position: Approx. 10 V
7	BLK/WHT	VELSG (SECONDARY GEAR SHAFT SPEED SENSOR GROUND)	Ground for secondary gear shaft speed sensor.	
10	WHT	NDN (DRIVEN PULLEY SPEED SENSOR)	Detects driven pulley speed sensor signal.	In other than Park or neutral: pulses
11	RED/BLU	NDR (DRIVE PULLEY SPEED SENSOR)	Detects drive pulley speed sensor signal.	In other than Park or neutral: pulses
12	GRN	NDRSG (DRIVE PULLEY SPEED SENSOR GROUND)	Ground for drive pulley speed sensor.	
13	LT GRN/RED	ATPS (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In S position: 0 V In any other position: Approx. 10 V
14	GRN/BLK	DIND (D INDICATOR LIGHT)	Drives D indicator.	With D indicator turned ON: 5 V With D indicator turned OFF: 0 V
16	RED/WHT	NDNSG (DRIVEN PULLEY SPEED SENSOR GROUND)	Ground for driven pulley speed sensor.	

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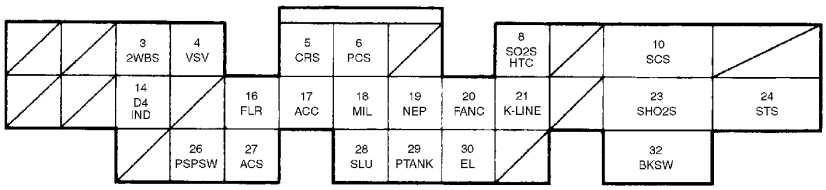
Fig. 17: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Civic D16Y5 Engine With CVT Transaxle - 5 Of 5)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
3	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
5[1]	BLU	CRS (CRUISE CONTROL SIGNAL)	Shift Down signal input from cruise control unit.	When cruise control is used: pulses
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 154°F (68°C): battery voltage With engine running, engine coolant, above 154°F (68°C): duty controlled
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the terminal connected: 0 V With the terminal disconnected: about 5 V or battery voltage
14[1]	GRN/BLK	DIND (D INDICATOR)	Drives D indicator light.	With D indicator light turned ON: battery voltage With D indicator light turned OFF: 0 V
16	GRN/YEL	FLR (FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	BLK/RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
21	BLU/YEL	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses
23	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
24	BLU/WHT	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
26	GRN	PSPSW (P/S PRESSURE SWITCH SIGNAL)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5 V
28[1]	WHT/RED	SLU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V
32	GRN/WHT	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal depressed: battery voltage

1: A/T
2: U. S. Model Only

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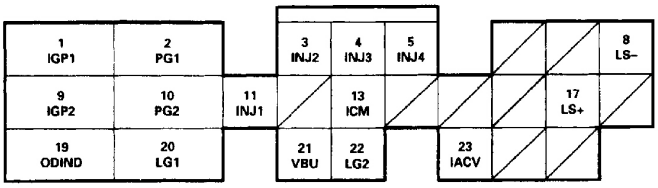
Fig. 18: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (CR-V - 1 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "B" (25-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	With engine running: duty controlled
4	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
5	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
8[1]	WHT	LS– (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE – SIDE)	A/T clutch pressure control solenoid valve power supply negative terminal.	With ignition switch ON (II): duty controlled
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	With engine running: duty controlled
13	YEL/GRN	ICM (IGNITION CONTROL MODULE)	Sends ignition pulse.	With ignition switch ON (II): battery voltage With engine running: pulse
17[1]	RED	LS+ (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE + SIDE)	A/T clutch pressure control solenoid valve power supply positive terminal	With ignition switch ON (II): duty controlled
19	PNK	ODIND (OVER-DRIVE OFF INDICATOR)	Drives OVER-DRIVE OFF indicator light.	With OVER-DRIVE OFF indicator light turned ON: 0 V With OVER-DRIVE OFF indicator light turned OFF: battery voltage
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
21	WHT/BLU	VBU (VOLTAGE BACK UP)	Power source for the ECM/PCM control circuit. Power source for the DTC memory.	Battery voltage at all times
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
23	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: duty controlled

1: A/T

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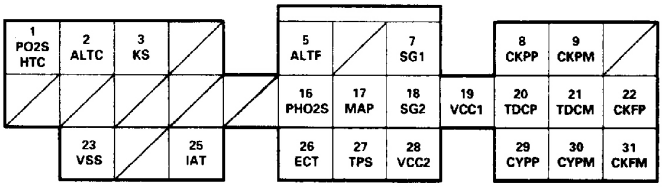
Fig. 19: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (CR-V - 2 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2[1]	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed – up engine running: battery voltage During driving with small electrical load: 0 V
3	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V – battery voltage (depending on electrical load)
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) signal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDCP (TDC SENSOR P SIDE)	Detects TDC sensor.	With engine running: pulses
21	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor.	
22	BLU/RED	CKFP (CKF SENSOR P SIDE)	Detects CKF sensor.	With engine running: pulses
23	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheels rotating: cycles 0 V – about 5 V or battery voltage
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	CYPP (CYP SENSOR P SIDE)	Detects CYP sensor.	With engine running: pulses
30	BLK	CYPM (CYP SENSOR M SIDE)	Ground for CYP sensor.	
31	WHT/RED	CKFM (CKF SENSOR M SIDE)	Ground for CKF sensor signal.	

1: U. S. Model Only

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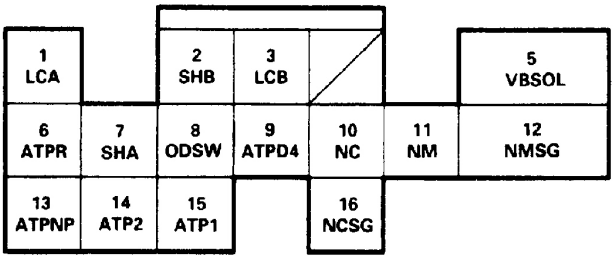
Fig. 20: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (CR-V - 3 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1[1]	YEL	LC A (LOCK-UP CONTROL SOLENOID VALVE A)	Drives lock-up control solenoid valve A.	With lock-up ON: battery voltage With lock-up OFF: 0 V
2[1]	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	In 1st, 2nd position, in 1st and 2nd gear in D position: battery voltage In P, R, N position, in 3rd gear in D4, D3 (D) position, in 4th gear in D position: 0 V
3[1]	GRN/BLK	LC B (LOCK-UP CONTROL SOLENOID VALVE B)	Drives lock-up control solenoid valve B.	With full lock-up: Battery voltage With half lock-up: duty controlled
5[1]	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source of solenoid valve.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
6[1]	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 V In any other position: battery voltage
7[1]	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	In 2nd, R position, in 2nd and 3rd gear in D position: battery voltage In 1st gear in D position, in 4th gear in position, in P, N position: 0 V
8[1]	PNK	ODSW (OVER-DRIVE SWITCH)	Detects OVER-DRIVE switch signal.	With Over-Drive OFF (O/D OFF indicator light turned ON): 0 V With Over-Drive ON (O/D OFF indicator light turned OFF): about 5 V
9[1]	YEL	ATP, D (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D position: 0 V In any other position: battery voltage
10[1]	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	With ignition switch ON (II), and front wheels rotating: pulses
11[1]	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	With engine running: pulses
12[1]	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13[1]	LT GRN	ATPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In park or neutral: 0 V In any other position: about 5 V
14[1]	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2nd position: 0 V In any other position: battery voltage
15[1]	BRN	ATP1 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 1st position: 0 V In any other position: battery voltage
16[1]	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

1: A/T

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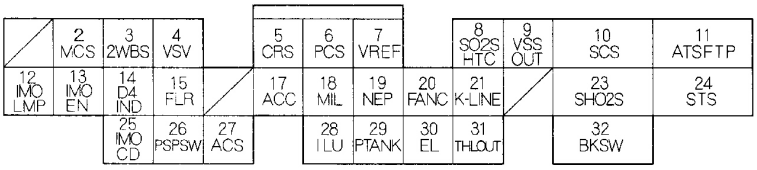
Fig. 21: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (CR-V - 4 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



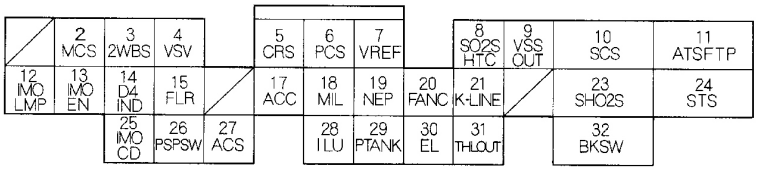
WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
2	GRN/WHT	MCS (ENGINE MOUNT CONTROL SOLENOID VALVE)	Drives engine mount control solenoid valve.	At idle: 0 V Above idle: battery voltage
3	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
5	BLU/GRN	CRS (CRUISE CONTROL SIGNAL)	Detects cruise control signal.	With ignition switch ON (II): pulses
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 147°F (64°C): battery voltage With engine running, engine coolant, above 147°F (64°C): duty controlled
7*	WHT/RED	VREF (REFERENCE VOLTAGE)	Provides reference voltage to ABS/TCS control unit.	With ignition switch ON (II): about 5V With ignition switch OFF: 0V
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
9	BLU/WHT	VSSOUT (VEHICLE SPEED SENSOR OUTPUT SIGNAL)	Sends vehicle speed sensor signal.	Depending on vehicle speed: pulses
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the service check signal shorted with the PGM Tester 0 V With the service check signal opened about 5 V or battery voltage
11*	LT GRN	ATSFTP (A/T GEAR POSITION SWITCH OUTPUT SIGNAL)	Sends A/T gear position switch signal.	With engine running in park position: about 4 V
12	PNK	IMOLMP (IMMOBILIZER INDICATOR LIGHT)	Drives immobilizer indicator light.	With immobilizer indicator light turned ON: 0 V With immobilizer indicator light turned OFF: battery voltage
13	BLU	IMOEN (IMMOBILIZER ENABLE SIGNAL)	Sends immobilizer enable signal.	
14	GRN/BLK	D4IND (D4 INDICATOR)	Drives D4 indicator light.	With D4 indicator light turned ON: 0 V With D4 indicator light turned OFF: battery voltage
15	GRN/YEL	FLR (FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage

* With ABS/TCS
G99E08710

Fig. 22: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Odyssey - 1 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	BLU/RED	FANC (RADIATOR FAN CONTROL)	Drive radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
21	GRY	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses
23	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
24	BLU/ORN	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
25	RED	IMOCD (IMMOBILIZER CODE)	Detects immobilizer signal.	
26	GRN	PSPSW (P/S PRESSURE SWITCH SIGNAL)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5V
28	WHT/RED	ILU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V
31*	RED/BLK	THLOUT (THROTTLE POSITION SENSOR OUTPUT SIGNAL)	Sends TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
32	WHT/BLK	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V

*With ABS/TCS

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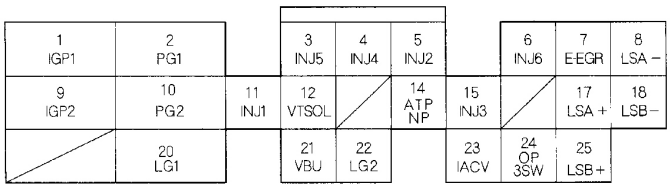
Fig. 23: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Odyssey - 2 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "B" (25-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
3	BLK/RED	INJ5 (No. 5 FUEL INJECTOR)	Drives No. 5 fuel injector.	With engine running: duty controlled
4	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
5	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	
6	WHT/BLU	INJ6 (No. 6 FUEL INJECTOR)	Drives No. 6 fuel injector.	
7	PNK	E-EGR	Drives EGR valve.	With EGR operation during driving with fully warmed up engine: duty controlled With EGR not operating: 0 V
8	WHT	LSA-(A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A-SIDE)	A/T clutch pressure control solenoid valve A power supply negative terminal.	With ignition switch ON (II): duty controlled
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the PCM control circuit.	With the ignition switch ON (II): battery voltage With the ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No.1 FUEL INJECTOR)	Drives No.1 fuel injector.	With engine running: duty controlled
12	GRN/YEL	VTSOL (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
14	BLU/WHT	ATPPNP (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In Park or neutral: 0 V In any other position: battery voltlage
15	BLU	INJ3 (No. 3) FUEL INJECTOR	Drives No. 3 fuel injector.	With engine running: duty controlled
17	RED	LSA + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE A + SIDE)	A/T clutch pressure control solenoid valve A power supply positive electrode	With the ignition switch ON (II): duty controlled
18	GRN	LSB - (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B− SIDE)	A/T clutch pressure control solenoid valve B power supply negative terminal	With ignition switch ON (II): duty controlled
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
21	WHT/YEL	VBU (VOLTAGE BACK UP)	Power source for the PCM control circuit. Power source for the DTC memory.	Battery voltage at this all times
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the PCM control circuit.	Less than 1.0 V at all times
23	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: duty controlled
24	WHT/RED	OP3SW (3RD OIL PRESSURE SWITCH)	Detects 3rd oil pressure switch.	With the ignition switch ON (II): battery voltage
25	ORN	LSB + (A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B + SIDE)	A/T clutch pressure control solenoid valve B power supply positive terminal	With the ignition switch ON (II): duty controlled

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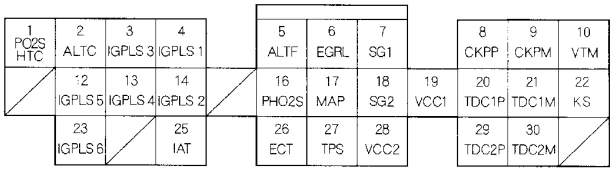
Fig. 24: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (Odyssey - 3 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN) NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed-up engine running: approx. 8V
3	BLU	IGPLS 3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil.	With ignition switch ON (II): 0 V With engine running: pulses
4	YEL/GRN	IGPLS 1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil.	
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
6	WHT/BLK	EGRL (EGR VALVE LIFT SENSOR)	Detects EGR valve lift sensor signal.	At idle: about 1.2 V
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
10	BLU/BLK	VTM (VTEC PRESSURE SWITCH SIGNAL)	Detects VTEC pressure switch signal.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
12	BLK/RED	IGPLS 5 (No. 5 IGNITION COIL PULSE)	Drives No. 5 ignition coil.	With ignition switch ON (II): 0V With engine running: pulses
13	YEL	IGPLS 4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil.	
14	RED	IGPLS 2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil.	
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) sigal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times.
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDCP (TDC SENSOR P SIDE)	Detect TDC sensor 1.	With engine running: pulses
21	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor 1.	
22	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
23	WHT/BLU	IGPLS 6 (No. 6 IGNITION COIL PULSE)	Drives No. 6 ignition coil.	With ignition switch ON (II): 0V With engine running: pulses
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	TDC2P (TDC2 SENSOR P SIDE)	Detects TDC sensor 2.	With engine running: pulses
30	BLK	TDC2M (TDC2 SENSOR M SIDE)	Ground for TDC sensor 2.	

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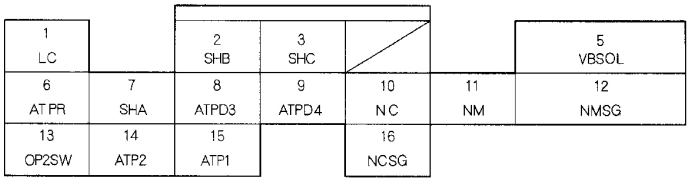
Fig. 25: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Odyssey - 4 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL	LC (LOCK-UP CONTROL SOLENOID VALVE)	Drives look-up control solenoid valve.	With lock-up ON: battery voltage With lock-up OFF: 0 V
2	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	With engine running in 1st, 2nd gears: battery voltage With engine running in 3rd, 4th gears: about 0 V
3	GRN	SHC (SHIFT CONTROL SOLENOID VALVE C)	Drives shift control solenoid valve C.	With engine running in 1st and 3rd gears: battery voltage With the engine running in 2nd and 4th gears: 0 V
5	BLK/YEL	VBSOL (BATTERY VOLTAGE FOR SOLENOID VALVE)	Power source of solenoid valve.	With ignition switch ON (II): battery voltage
6	WHT	ATPR (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 v In any other position: battery voltage
7	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	With engine running in 2nd, 3rd gears: battery voltage With engine running in 1st, 4th gears: about 0 V
8	PNK	ATPD3 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D3 position: 0 V In any other position: battery voltage
9	YEL	ATPD4 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D4 position: 0 V In any other position: approx. 5 V
10	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	With ignition switch ON (II), and front wheels rotating: pulses
11	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	With engine running: pulses
12	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13	BLU/BLK	OP2SW (2ND OIL PRESSURE SWITCH)	Detects 2nd oil pressure switch.	With ignition switch ON (II): battery voltage
14	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2nd position: 0 V In any other position: battery voltage
15	BRN	ATP1 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 1st position: 0 V In any other position: battery voltage
16	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

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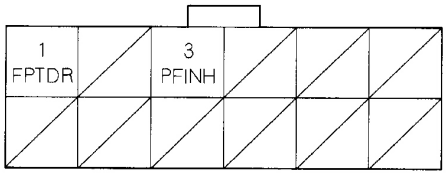
Fig. 26: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Odyssey - 5 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "E" (12-PIN)

NOTE: Standard battery voltage is 12V.

Terminal number	Wire color	Terminal name	Description	Signal
1*	PNK/BLK	FPTDR (FRAME TO POWERTRAIN TORQUE DOWN REQUEST)	Detects engine retard request signal.	With TCS operating: about 5V With TCS not operating: about 2.5 V
3*	LT GRN/RED	PFINH (POWERTRAIN TO FRAME INHIBITION)	Sends TCS operation permission signal.	Permission (normal): about 2.5 V Inhibition (engine coolant temperature below 32°F (0°C)): about 5V Failure (TCS and/or PCM is failure): about 0V

* With ABS/TCS

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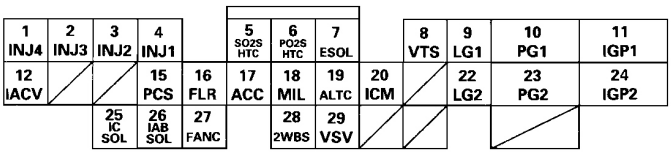
Fig. 27: Identifying PCM 12-Pin Connector "E" Terminals & Pin Voltages (Odyssey - 6 Of 6)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	With engine running: pulses
2	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	
4	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	
5	ORG/BLU	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: 0 V
6	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: 0 V
7	ORG	ESOL (EGR CONTROL SOLENOID VALVE)	Drives EGR control solenoid valve.	With EGR operating during driving with fully warmed up engine: duty controlled With EGR not operating: battery voltage
8	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
9	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
10	BLK	PG1 (POWER GROUND)	Ground for the ECM power circuit.	
11	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
12	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IACV.	With engine running: duty controlled
15	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant below 167°F (75°C) [122°F (50°C)][1] : battery voltage With engine running, engine coolant above 167°F (75°C) [122°F (50°C)][1] : 0 V
16	GRN/ORG	FLR (FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	PNK/BLU	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRY/RED	MIL (MALFUNCTION INDICATOR LAMP)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed-up engine running: battery voltage During driving with small electrical load: 0 V
20	YEL/GRN	ICM (IGNITION CONTROL MODULE)	Sends ignition pulse.	With ignition switch ON (II): battery voltage With engine running: about 10 V (depending on engine speed)
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
23	BLK	PG2 (POWER GROUND)	Ground for the ECM power circuit.	
24	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM control circuit.	With ignition switch ON (II): battery voltage With engine switch OFF: 0 V
25	WHT	ICSOL (INTAKE CONTROL SOLENOID VALVE)	Drives intake control solenoid valve.	With engine running, engine speed above 3,000 rpm: 0 V With engine running, engine speed below 3,000 rpm: battery voltage
26	RED/BLU	IABSOL (INTAKE AIR BYPASS CONTROL SOLENOID VALVE)	Drives IAB control solenoid valve.	With engine running, engine speed below 4,900 rpm: battery voltage With engine running, engine speed above 4,900 rpm: 0 V
27	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage
28	GRN/WHT	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
29	ORG/GRN	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage

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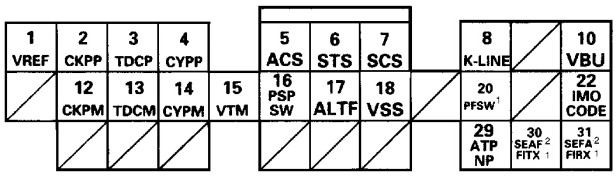
Fig. 28: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (Prelude - 1 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

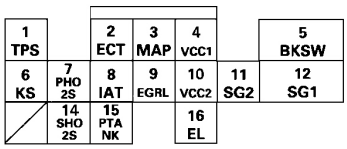
PCM CONNECTOR "C" (31-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	LT GRN/BLK	VREF (REFERENCE VOLTAGE)	Provides reference voltage to TCM or ATTS control unit.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
2	BLU	CKPP (CKP SENSOR SIDE)	Detects CKP sensor.	With engine running: pulses
3	GRN	TDCP (TDC SENSOR SIDE)	Detects TDC sensor.	With engine running: pulses
4	YEL	CYPP (CYP SENSOR SIDE)	Detects CYP sensor.	With engine running pulses
5	BLU/ORN	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: battery voltage
6	BLU/RED	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
7	RED/WHT	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the connector connected: 0 V With the connector disconnected:5 V or battery voltage
8	LT GRN	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): about 5 V
10	WHT/YEL	VBU (VOLTAGE BACK UP)	Power source for the ECM control circuit. Power source for the DTC memory	Battery voltage at all times
12	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor signal.	
13	RED	TDCM (TDC SENSOR M SIDE)	Ground for TDC sensor signal.	
14	BLK	CYPM (CKP SENSOR M SIDE)	Ground for CYP sensor signal.	
15	BLU/BLK	VTM (VTEC PRESSURE SWITCH)	Detects VTEC pressure switch signal.	With engine at low engine speed: 0 V With engine at high engine speed: battery voltage
16	GRN	PSPSW (P/S PRESSURE SWITCH)	Detects PSP switch signal.	At idle with steering wheel in straight ahead position: 0 V At idle with steering wheel at full lock: battery voltage
17	WHT/GRN	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
18	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheels rotating: cycles 0 V – 5 V
20	BRN	PFSW (EVAP PURGE FLOW SWITCH)	Detects EVAP purge flow switch signal.	Purge flowing: 0 V Purge not flowing: about 5 V
22	BRN/YEL	IMO CODE (IMMOBILIZER CODE)	Detects immobilizer signal	
29	LT GRN	ATPNP (A/T GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In N or P position: 0 V In any other position: battery voltage
30 [2]	GRN/BLU	SEAF	Data communication with TCM: ECM control data input	With ignition switch ON (II): pulses
30 [1]	GRN/BLU	FITX	Data communication with ATTS control unit: ECM control data input	With ignition switch ON (II): pulses
31 [2]	GRN/YEL	SEFA	Data communication with TCM: ECM control data output	With ignition switch ON (II): pulses
31 [1]	GRN/YEL	FIRX	Data communication with ATTS control unit: control data output	With ignition switch ON (II): pulses

1. With ATTS
2. A/T

G99E08692

Fig. 29: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (Prelude - 2 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "D" (16-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
2	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
3	RED/GRN	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
4	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source for MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
5	WHT/BLK	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal depressed: battery voltage
6	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
7	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR SENSOR 1)	Detects heated primary oxygen sensor (sensor 1) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
8	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
9	WHT/BLK	EGRL (EGR VALVE LIFT SENSOR)	Detects EGR valve lift sensor signal.	At idle without vacuum: about 1.2 V With 27 kPa (200 mmHg, 8 in. Hg): about 4.3 V
10	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
11	GRN/BLK	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times
12	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
14	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
15	WHT/BLU	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With fuel fill cap opened: about 2.5 V
16	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V

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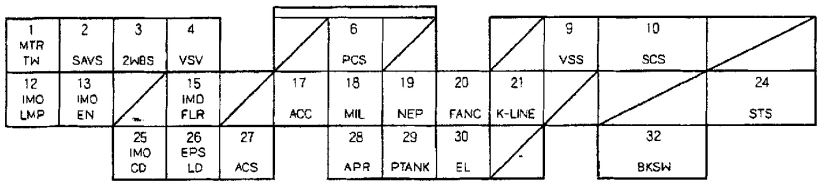
Fig. 30: Identifying PCM 16-Pin Connector "D" Terminals & Pin Voltages (Prelude - 3 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/GRN	MTRTW	Sends ECT signal to ECT gauge.	With ignition switch ON (II): duty controlled
2	RED	SAVS (AIR CONTROL SOLENOID VALVE)	Drives air control valve.	With ignition switch ON (II): battery voltage With air pump working: 0 V
3	ORN	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (II): battery voltage
4	LT GRN/ WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (II): battery voltage
6	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID.VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant, below 149°F (65°C): battery voltage With engine running, engine coolant, above 149°F (65°C): duty controlled
9	BLU/WHT	VSS (VEHICLE SPEED SENSOR INPUT SIGNAL)	Sends vehicle speed sensor signal.	Depending on vehicle speed: pulses
10	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the service check signal shorted with the PGM Tester: 0 V With the service check signal opened: about 5V or battery voltage
12	PNK	IMOLMP (IMMOBILIZER INDICATOR LIGHT)	Drives immobilizer indicator light.	With immobilizer indicator light turned ON: 0 V With immobilizer indicator light turned OFF: battery voltage
13	PNK/BLU	IMOEN (IMMOBILIZER ENABLE SIGNAL)	Sends immobilizer enable signal.	
15	GRN/YEL	IMOFLR (IMMOBILIZER FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	GRN	FANC (RADIATOR FAN CONTROL)	Drives radiator fan relay.	With radiator fan running: 0 V With radiator fan stopped: battery voltage

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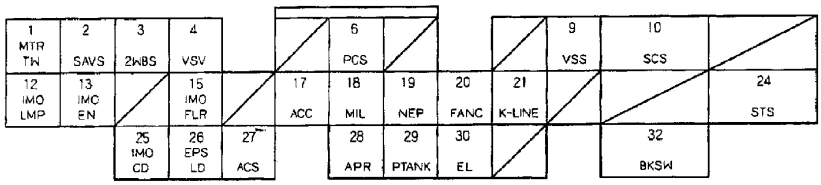
Fig. 31: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (S2000 - 1 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "A" (32-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
21	GRY	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): battery voltage
24	BLU/ORN	STS (STARTER SWITCH SIGNAL)	Detects starter switch signal.	With starter switch ON (III): battery voltage With starter switch OFF: 0 V
25	RED/BLU	IMOCD (IMMOBILIZER CODE)	Detects immobilizer signal.	
26	BLU/BLK	EPSLD (ELECTRICAL P/S LOAD DETECT)	Detects P/S load signal	With steering wheel at full lock: battery voltage momentarily With steering wheel stationary: 0 V
27	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal.	With A/C switch ON: 0 V With A/C switch OFF: about 5V
28	BLU	APR (AIR PUMP RELAY)	Drives air pump relay.	With ignition switch ON (II): 0 V With air pump working: battery voltage
29	LT GRN	PTANK (FUEL TANK PRESSURE SENSOR)	Detects fuel tank pressure sensor signal.	With ignition switch ON (II) and fuel fill cap: opened: about 2.5 V
30	GRN/RED	EL (ELD)	Detects ELD signal.	With parking lights turned on at idle: about 2.5—3.5 V With high beam headlights turned on at idle: about 1.5—2.5 V
32	WHT/BLK	BKSW (BRAKE SWITCH)	Detects brake switch signal.	With brake pedal released: 0 V With brake pedal pressed: battery voltage

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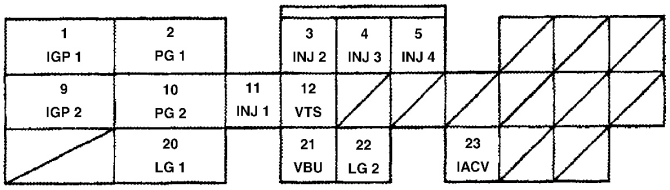
Fig. 32: Identifying PCM 32-Pin Connector "A" Terminals & Pin Voltages (S2000 - 2 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "B" (25-PIN) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	With ignition switch ON (II): battery voltage With engine running: duty controlled
4	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
5	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No.1 FUEL INJECTOR)	Drives No.1 fuel injector.	With ignition switch ON (II): battery voltage With engine running: duty controlled
12	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm (vehicle running): battery voltage
20	BRN/YEL	LG1 (LOGIC GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
21	WHT/RED	VBU (VOLTAGE BACK UP)	Power source for the ECM control circuit. Power source for the DTC memory.	Battery voltage at all times
22	BRN/YEL	LG2 (LOGIC GROUND)	Ground for the ECM control circuit.	Less than 1.0 V at all times
23	BLK/RED	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: duty controlled

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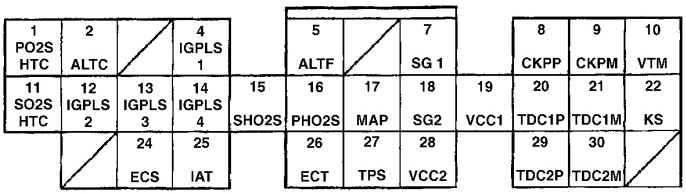
Fig. 33: Identifying PCM 25-Pin Connector "B" Terminals & Pin Voltages (S2000 - 3 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



WIRE SIDE OF FEMALE TERMINALS

PCM CONNECTOR "C" (31-PIN)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal.	With fully warmed up engine running: about 8 V With engine running at low electrical load: 0 V
4	WHT	IGPLS1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil.	With ignition switch ON (II): 0 V With engine running: pulses
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal.	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor.	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor.	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor.	
10	BLU/BLK	VTM (VTEC PRESSURE SWITCH SIGNAL)	Detects VTEC pressure switch signal.	With engine at low engine speed: 0 V With engine at high engine speed (vehicle running): battery voltage
11	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
12	WHT/GRN	IGPLS2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil.	With ignition switch ON (II): 0 V With engine running: pulses
13	WHT/BLK	IGPLS3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil.	
14	WHT/BLU	IGPLS4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil.	
15	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) signal.	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	GRN/RED	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal.	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/YEL	SG2 (SENSOR GROUND)	Sensor ground.	Less than 1.0 V at all times.
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
20	GRN	TDC1P (TDC1 SENSOR P SIDE)	Detects TDC sensor 1.	With engine running: pulses
21	RED	TDC1M (TDC1 SENSOR M SIDE)	Ground for TDC sensor 1.	
22	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
24	WHT/BLK	ECS (AIR PUMP ELECTRIC CURRENT SENSOR)	Detects air pump electric current sensor signal.	With ignition switch ON (II): 0.5 V With air pump working: about 2−5 V
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1−4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1−4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.3 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	TDC2P (TDC2 SENSOR P SIDE)	Detects TDC sensor 2.	With engine running: pulses
30	BLK	TDC2M (TDC2 SENSOR M SIDE)	Ground for TDC sensor 2.	

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Fig. 34: Identifying PCM 31-Pin Connector "C" Terminals & Pin Voltages (S2000 - 4 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2000 ENGINE PERFORMANCE

Sensor Operating Range Charts

INTRODUCTION

NOTE: For sensor operating range charts on Passport, refer to Rodeo in Isuzu SENSOR OPERATING RANGE CHARTS article.

Sensor operating range information can help determine if a sensor is out of calibration. Although an out-of-calibration sensor may not set a trouble code, it may cause driveability problems.

NOTE: Unless stated otherwise in testing procedures, preform all voltage tests using a Digital Volt-Ohmmeter (DVOM) with a minimum 10-megohm input impedance. Carefully backprobe PCM harness connector using Backprobe Set (07SAZ-001000A) to avoid connector damage. Voltage readings may vary slightly due to battery condition or charging rate.

ENGINE COOLANT TEMPERATURE (ECT) SENSOR TEST

Temperature - °F (°C)	(1) Volts
Accord, Odyssey & S2000	
-4 (-20)	5.0
176-200 (80-93)	0.4-0.7
302 (150)	0.0
	(2) Ohms
Civic, CR-V & Prelude	
32 (0)	5,000
104 (40)	1,000
140 (60)	500

(1) Measure voltage at appropriate PCM terminals. See WIRING DIAGRAMS article.

(2) Measure resistance across sensor terminals.

EXHAUST GAS RECIRCULATION (EGR) VALVE LIFT SENSOR VOLTAGE TEST

Position	(1) Volts (Approximate)
All Models	
Idle	1.2
8 In.Hg (27 kPa)	4.3

(1) Measure voltage at appropriate PCM terminals. See WIRING DIAGRAMS article. Voltage should increase smoothly as vacuum is applied.

FUEL TANK PRESSURE SENSOR

Vacuum Applied - In. Hg	Volts
All Models	
-2	.5
0	2.5
2	4.5

INTAKE AIR TEMPERATURE (IAT) SENSOR TEST

Temperature - °F (°C)	(1) Volts
Accord, Odyssey & S2000	
-4 (-20)	5.0
302 (150)	0.0
	(2) Ohms
Civic, CR-V & Prelude	
32 (0)	5,000
104 (40)	1,000
176 (80)	500

(1) Measure voltage at appropriate PCM terminals. See WIRING DIAGRAMS article.

(2) Measure resistance across sensor terminals.

MAP SENSOR VOLTAGE TEST

Vacuum Applied - In. Hg	Volts
Accord, Odyssey & S2000 (1)	
.6	0.5
30	2.9
47	4.5
Civic, CR-V & Prelude (2)	
5	2.5
10	2.0
15	1.5
20	1.0
25	0.5

(1) Check throttle position using scan tool.

(2) Measure voltage at appropriate PCM terminals. See WIRING DIAGRAMS article.

OXYGEN SENSOR VOLTAGE TEST(1)

Condition	Volts
Lean	
Primary	Less Than 0.5
Secondary	Less Than 0.3

Rich	
Primary	Greater Than 1.5
Secondary	Greater Than 0.6
(1) Measure voltage between ground and appropriate oxygen sensor terminal using a high-impedance DVOM. See WIRING DIAGRAMS article.	

THROTTLE POSITION (TP) SENSOR

Condition	Volts/Value
Throttle Valve	
Except S2000	
Fully Closed	(1)0.5/(2)10%
Wide Open	(1)4.5/(2)90%
S2000	
Fully Closed	(1)0.3/(2)6%
Wide Open	(1)4.5/(2)90%
(1) Backprobe terminals at PCM.	
(2) Check throttle position using scan tool.	

VEHICLE SPEED SENSOR (VSS) TEST

Application	(1)Volts
All Models	(2)
(1) Backprobe terminals at PCM.	
(2) Voltage will fluctuate between zero and 5 volts while rotating drive wheel.	

1998-2000 ENGINE PERFORMANCE

PGM-FI System - Civic (GX)

SYSTEM DESCRIPTION

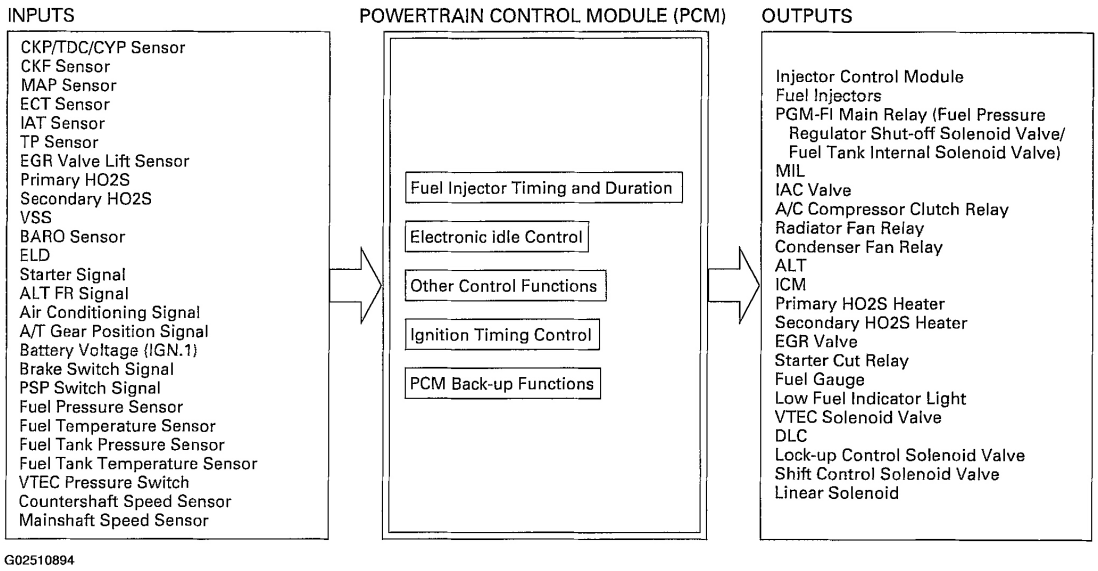


Fig. 1: PGM-FI System Diagram (Inputs & Outputs)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

PGM-FI SYSTEM

The PGM-FI system on this model is a sequential multiport fuel injection system.

FUEL INJECTOR TIMING AND DURATION

The PCM contains memories for the basic discharge durations at various engine speeds and manifold air flow rates. The basic discharge duration, after being read out from the memory, is further modified by signals sent from various sensors to obtain the final discharge duration.

IDLE AIR CONTROL

Idle Air Control Valve (IAC Valve)

When the engine is cold, the A/C compressor is on, the transmission is in gear, the brake pedal is depressed, the P/S load is high, or the alternator is charging, the PCM controls current to the IAC Valve to maintain the correct idle speed.

IGNITION TIMING CONTROL

The PCM contains data for basic ignition timing at various engine speeds and manifold air flow rates. Ignition timing is also adjusted for engine coolant temperature.

OTHER CONTROL FUNCTIONS

1. Starting Control

   When the engine is started, the PCM and injector control module provides a rich mixture by increasing fuel injector duration.

2. Fuel pressure regulator shut-off solenoid valve/fuel tank internal solenoid valve control
   - When the ignition switch is initially turned on, the PCM supplies ground to the PGM-FI main relay that supplies current to the fuel pressure regulator shut-off solenoid valve/fuel tank internal solenoid valve for two seconds to pressurize the fuel system.
   - When the engine is running, the PCM supplies ground to the PGM-FI main relay that supplies current to the fuel pressure regulator shut-off solenoid valve/fuel tank internal solenoid valve.
   - When the engine is not running and the ignition is on, the PCM cuts ground to the PGM-FI main relay which cuts current to the fuel pressure regulator shut-off solenoid valve/fuel tank internal solenoid valve.
3. Fuel Cut-off Control
   - During deceleration with the throttle valve closed, current to the fuel injectors is cut off to improve fuel economy at speeds over 1,000 RPM.
   - Fuel cut-off action also takes place when engine speed exceeds 6,900 RPM, regardless of the position of the throttle valve, to protect the engine from over-revving.
4. A/C Compressor Clutch Relay

   When the PCM receives a demand for cooling from the air conditioning system, it delays the compressor from being energized, and enriches the mixture to assure smooth transition to the A/C mode.

5. Exhaust Gas Recirculation (EGR) Control Solenoid Valve.

   When EGR is required for control of oxides of nitrogen (NOx) emissions, the PCM controls the EGR valve.

6. Alternator Control

   The system controls the voltage generated at the alternator in accordance with the electrical load and driving mode, which reduces the engine load to improve the fuel economy.

PCM FAIL-SAFE/BACK-UP FUNCTIONS

1. Fail-safe Function

   When an abnormality occurs in a signal from a sensor, the PCM ignores that signal and assumes a pre-programmed value for that sensor that allows the engine to continue to run.

2. Back-up Function

   When an abnormality occurs in the PCM itself, the fuel injectors are controlled by a back-up circuit independent of the system in order to permit minimal driving.

3. Self-diagnosis Function [Malfunction Indicator Lamp (MIL)]

   When an abnormality occurs in a signal from a sensor, the PCM supplies ground for the MIL and stores the DTC in erasable memory. When the ignition is initially turned ON (II), the PCM supplies ground for the MIL for two seconds to check the MIL bulb condition.

4. Low fuel Indicator light

   The PCM lights the low fuel indicator light and informs the driver that the fuel level is low.

   The PCM calculates the gas quantity in the fuel tank by using the fuel pressure value detected by the fuel tank pressure sensor and the fuel temperature value detected by the fuel tank temperature sensor, and outputs the signal to the gauge assembly.

   When the PCM detects a malfunction of the fuel tank pressure sensor and/or fuel tank temperature sensor, the PCM blinks the low fuel indicator light and causes the fuel gauge to read empty.

   When the PCM detects a gas leak, the PCM blinks the low fuel indicator light and reduces the fuel meter to 0.

   If the engine is stopped while the low fuel indicator light is blinking, the engine will not start until the PCM is reset.

5. Two Trip Detection Method

   To prevent false indications, the Two Trip Detection Method is used for the HO2S, fuel metering-related, idle control system, ECT sensor and EGR system self-diagnostic functions. When an abnormality occurs, the PCM stores it in its memory. When the same abnormality recurs after the ignition switch is turned OFF and ON (II) again, the PCM informs the driver by lighting the MIL. However, to ease troubleshooting, this function is cancelled when you jump the service check connector. The MIL will then blink immediately when an abnormality occurs.

6. Two (or Three) Driving Cycle Detection Method

   A "Driving Cycle" consists of starting the engine, beginning closed loop operation, and stopping the engine. If misfiring that increases emissions is detected during two consecutive driving cycles, or TWC deterioration is detected during three consecutive driving cycles, the PCM turns the MIL on. However, to ease troubleshooting, this function is cancelled when you jump the service check connector. The MIL will then blink immediately when an abnormality occurs.

POWERTRAIN CONTROL MODULE (PCM)

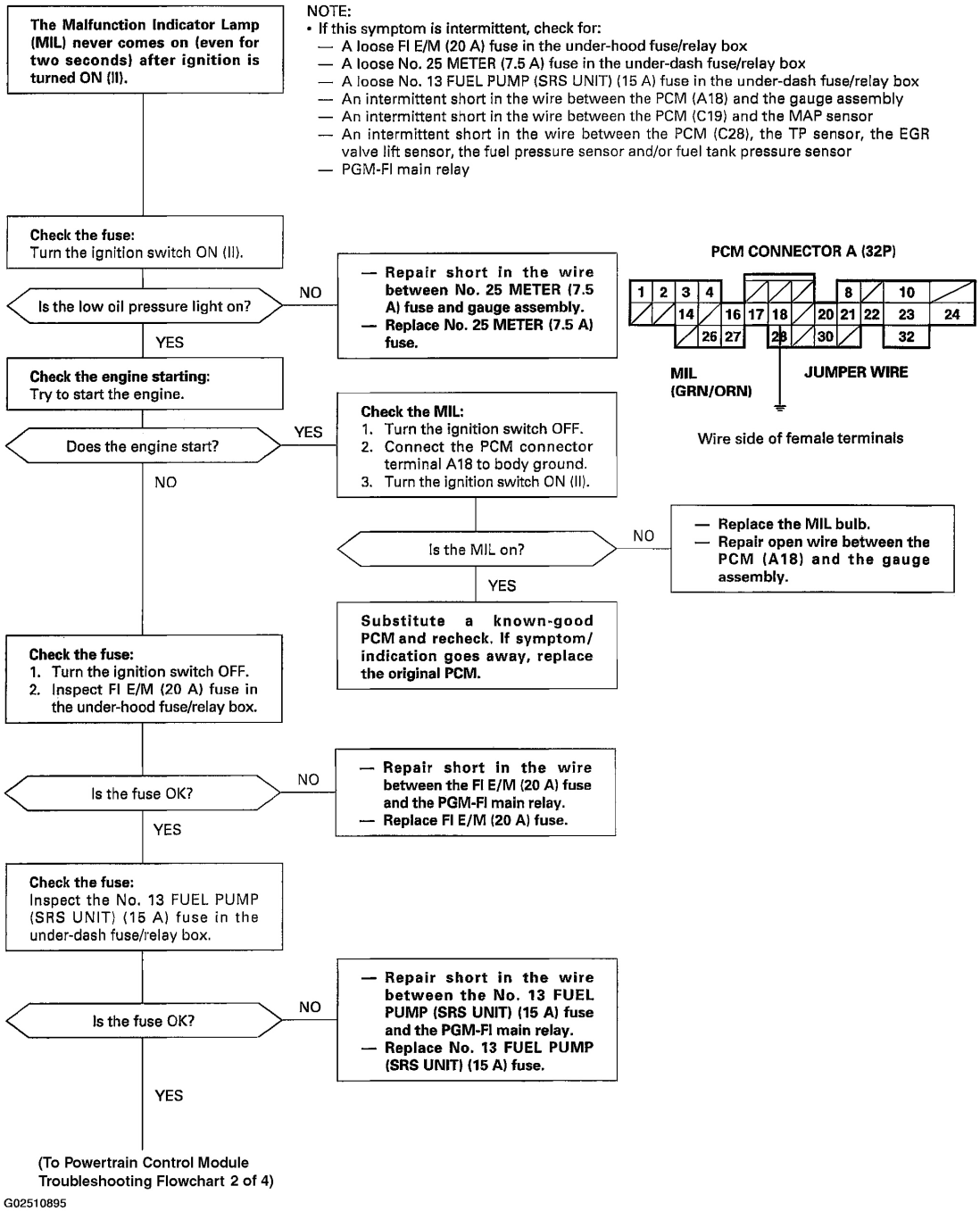


Fig. 2: Powertrain Control Module Troubleshooting Flowchart (1 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

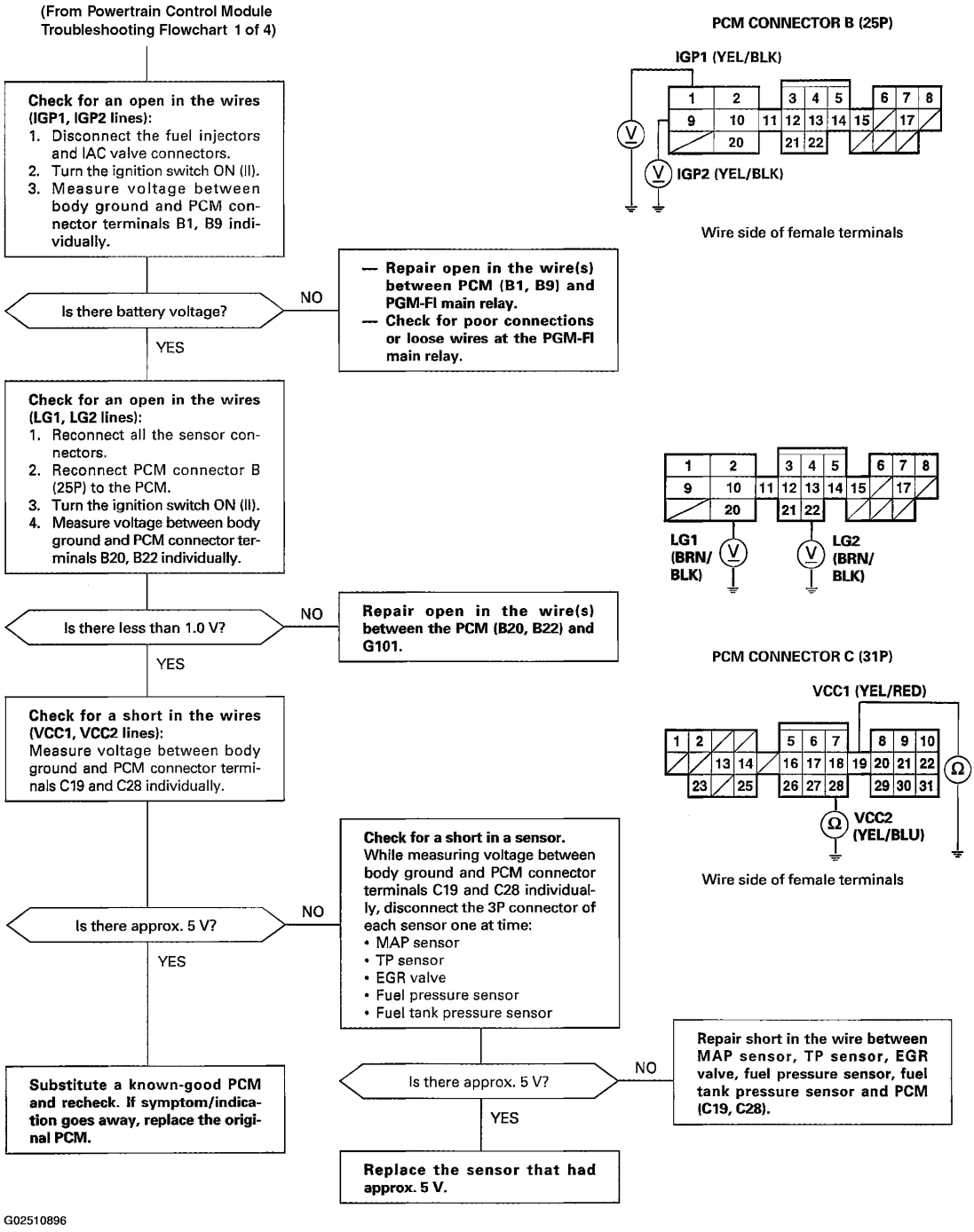


Fig. 3: Powertrain Control Module Troubleshooting Flowchart (2 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

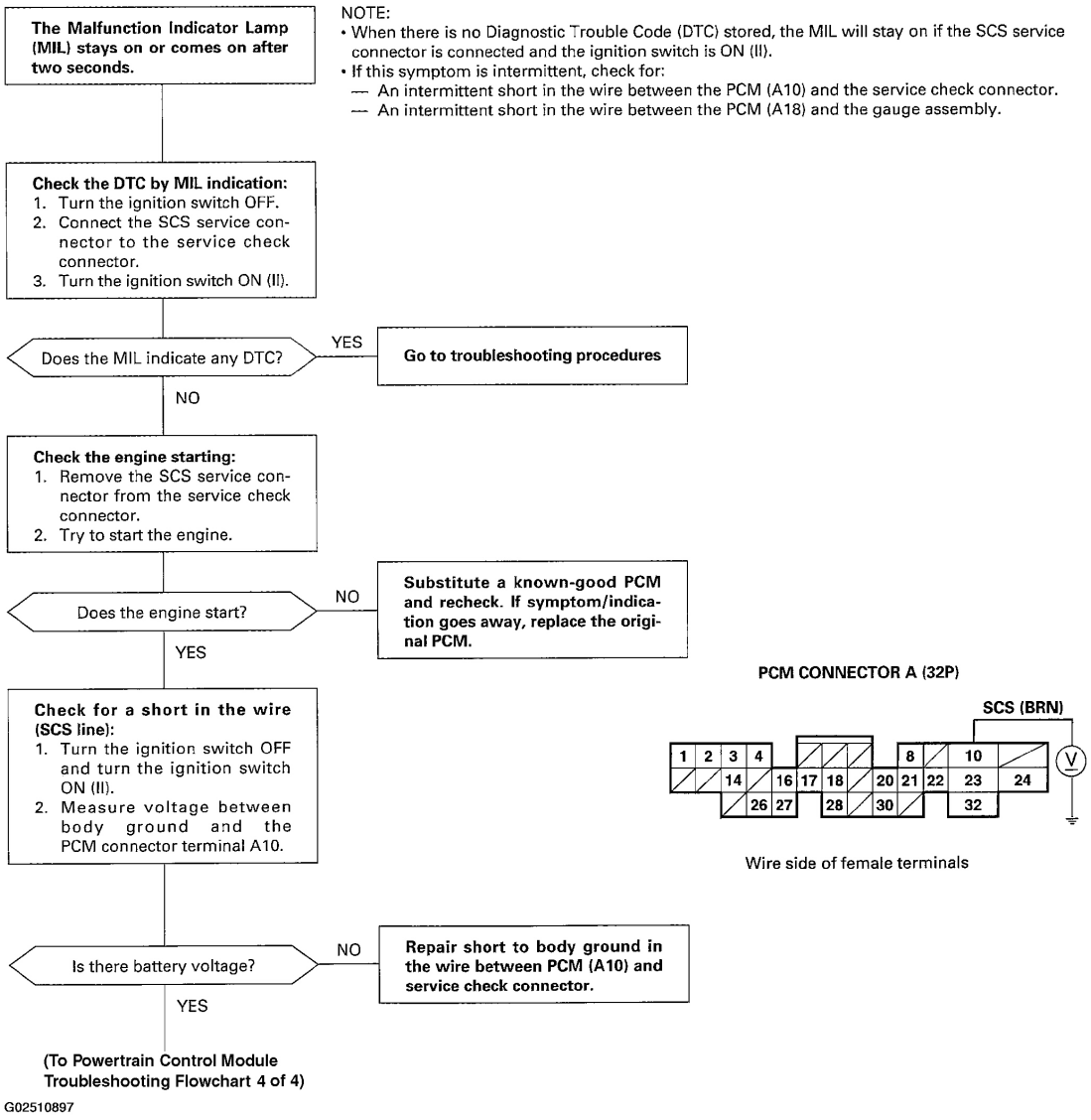


Fig. 4: Powertrain Control Module Troubleshooting Flowchart (3 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

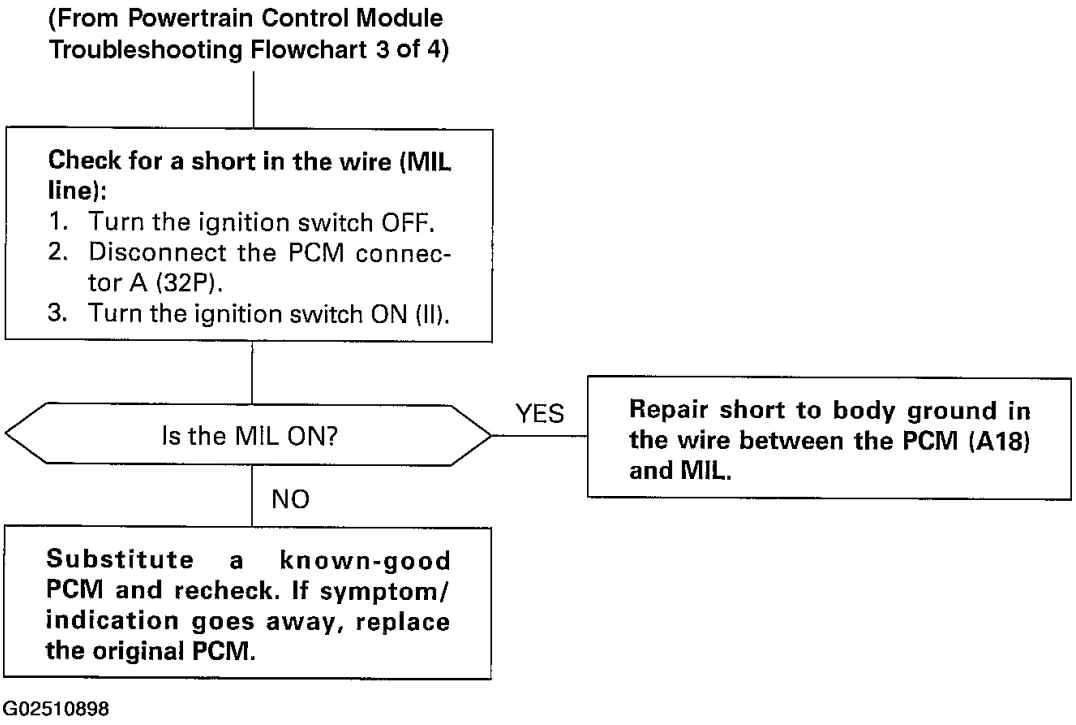


Fig. 5: Powertrain Control Module Troubleshooting Flowchart (4 Of 4)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

LOW FUEL INDICATOR LIGHT

DESCRIPTION

The low fuel indicator light turns on when the fuel level is low.

The low fuel indicator light blinks when a problem is detected with the fuel tank pressure sensor or the fuel tank temperature sensor.

NOTE: If a fuel leak is detected, the fuel pressure regulator shut-off solenoid valve/fuel tank internal solenoid valve will not reopen until the PCM is reset.

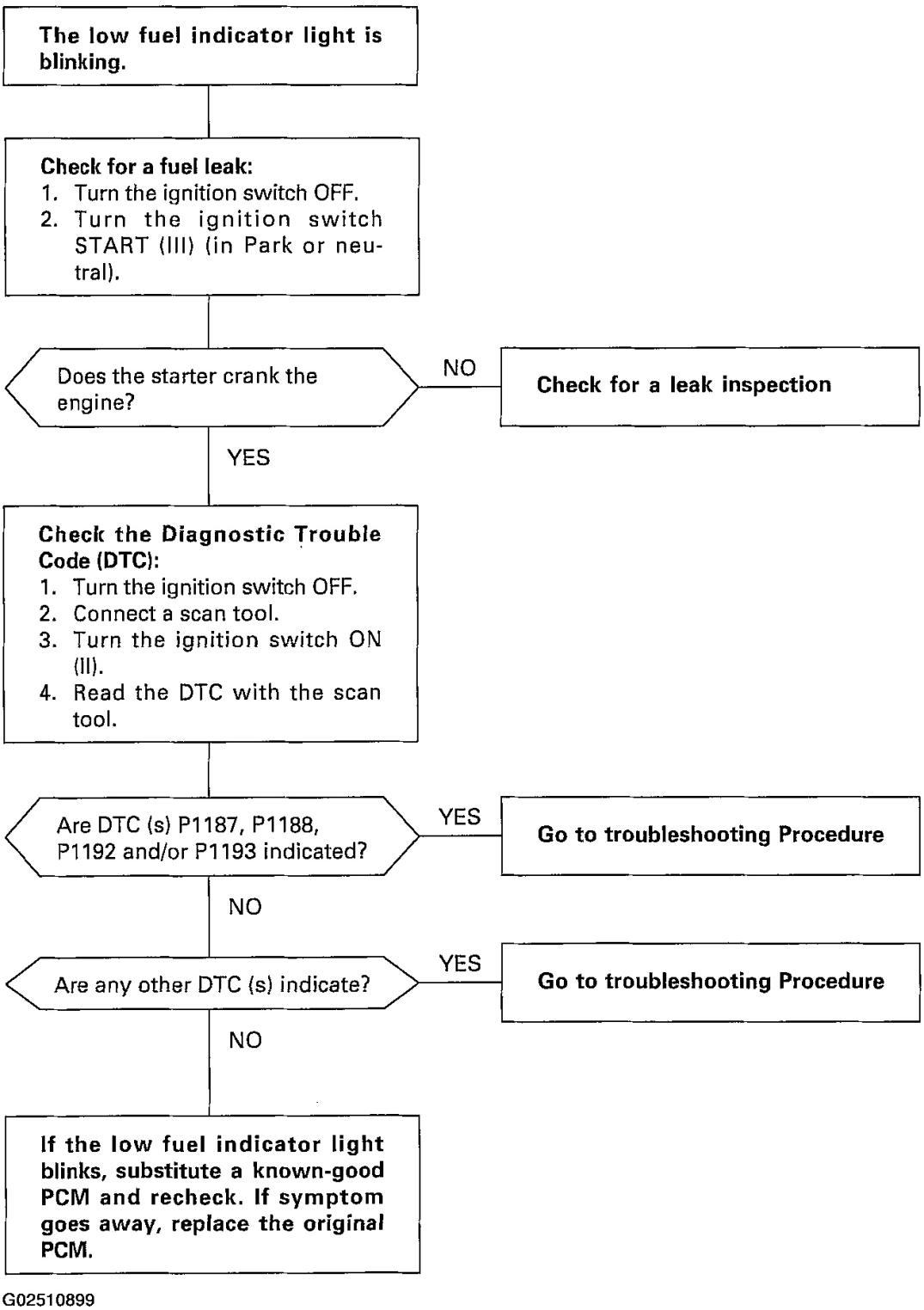


Fig. 6: Low Fuel Indicator Light Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DIAGNOSTIC TROUBLE CODES (DTC) LIST

DTC	Description
DTC P0107	A Low Voltage (High Vacuum) Problem In The Manifold Absolute Pressure (MAP) Sensor
DTC P0108	A High Voltage (Low Vacuum) Problem In The Manifold Absolute Pressure (MAP) Sensor
DTC P1128	Manifold Absolute Pressure (MAP) Lower Than Expected
DTC P1129	Manifold Absolute Pressure (MAP) Higher Than Expected
DTC P0112	A Low Voltage (High Temperature) Problem In The Intake Air Temperature (IAT) Sensor Circuit
DTC P0113	A High Voltage (Low Temperature) Problem In The Intake Air Temperature (IAT) Sensor Circuit
DTC P0116	A Range/Performance Problem In The Engine Coolant Temperature (ECT) Sensor Circuit
DTC P0117	A Low Voltage (High Temperature) Problem In The Engine Coolant Temperature (ECT) Sensor Circuit
DTC P0118	A High Voltage (Low Temperature) Problem In The Engine Coolant Temperature (ECT) Sensor Circuit
DTC P0122	A Low Voltage Problem In The Throttle Position (TP) Sensor Circuit
DTC P0123	A High Voltage Problem In The Throttle Position (TP) Sensor Circuit
DTC P1121	Throttle Position (TP) Lower Than Expected
DTC P1122	Throttle Position (TP) Higher Than Expected
DTC P0131	A Low Voltage Problem In The Primary Heated Oxygen Sensor (HO2S) (Sensor 1) Circuit
DTC P0132	A High Voltage Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Circuit
DTC P0133	A Slow Response Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Circuit
DTC P0137	A Low Voltage Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Circuit
DTC P0138	A High Voltage Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Circuit
DTC P0139	A Slow Response Problem In The Secondary Heated Oxygen Sensor (HO2S) (Sensor 2) Circuit.
DTC P0135, P0141	Heated Oxygen Sensor Heater circuit
DTC P0171, P0172	The Fuel System Is Too Rich/Lean
DTC P0191	A Range/Performance Problem In The Fuel Pressure Circuit
DTC P0192	A Low Voltage (Low Fuel Pressure) Problem In The Fuel Pressure Sensor
DTC P0193	A High Voltage (High Fuel Pressure) Problem In The Fuel Pressure Sensor
DTC P0301, P0302, P0303, P0304	Misfire Detected
DTC P0300, P0301, P0302, P0303, P0304	Random Misfire

DTC P0335, P0336, P1361, P1362, P1381, P1382	CKP Sensor Circuit, TDC Sensor Circuit, CYP Sensor Circuit,
DTC P0501	A Range/Performance Problem In The Vehicle Speed Sensor (VSS) Circuit
DTC P1106	A Range/Performance Problem In The Barometric Pressure (Baro) Sensor Circuit
DTC P1107, P1108	A High/Low Voltage Problem In The Baro Sensor Circuit
DTC P1182	A Low Voltage (High Temperature) Problem In The Fuel Temperature Sensor Circuit
DTC P1183	A High Voltage (Low Temperature) Problem In The Fuel Temperature Sensor Circuit
DTC P1187	A Low Voltage (High Temperature) Problem In The Fuel Tank Temperature Sensor Circuit
DTC P1188	A High Voltage (Low Temperature) Problem In The Fuel Tank Temperature Sensor Circuit
DTC P1192	A Low Voltage (Low Fuel Pressure) Problem In The Fuel Tank Pressure Sensor
DTC P1193	A High Voltage (High Fuel Pressure) Problem In The Fuel Tank Pressure Sensor Circuit
DTC P1297	A Low Voltage Problem In The Electrical Load Detector (ELD) Circuit
DTC P1298	A High Voltage Problem In The Electrical Load Detector (ELD) Circuit
DTC P1336, P1337	CKF Sensor Circuit
DTC P1359	A Problem In The Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) Sensor Circuit
DTC P1607	A PCM Internal Circuit Problem

MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR

DTC P0107: A LOW VOLTAGE (HIGH VACUUM) PROBLEM IN THE MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR

The MAP sensor converts manifold absolute pressure into electrical signals and inputs those signals into the PCM.

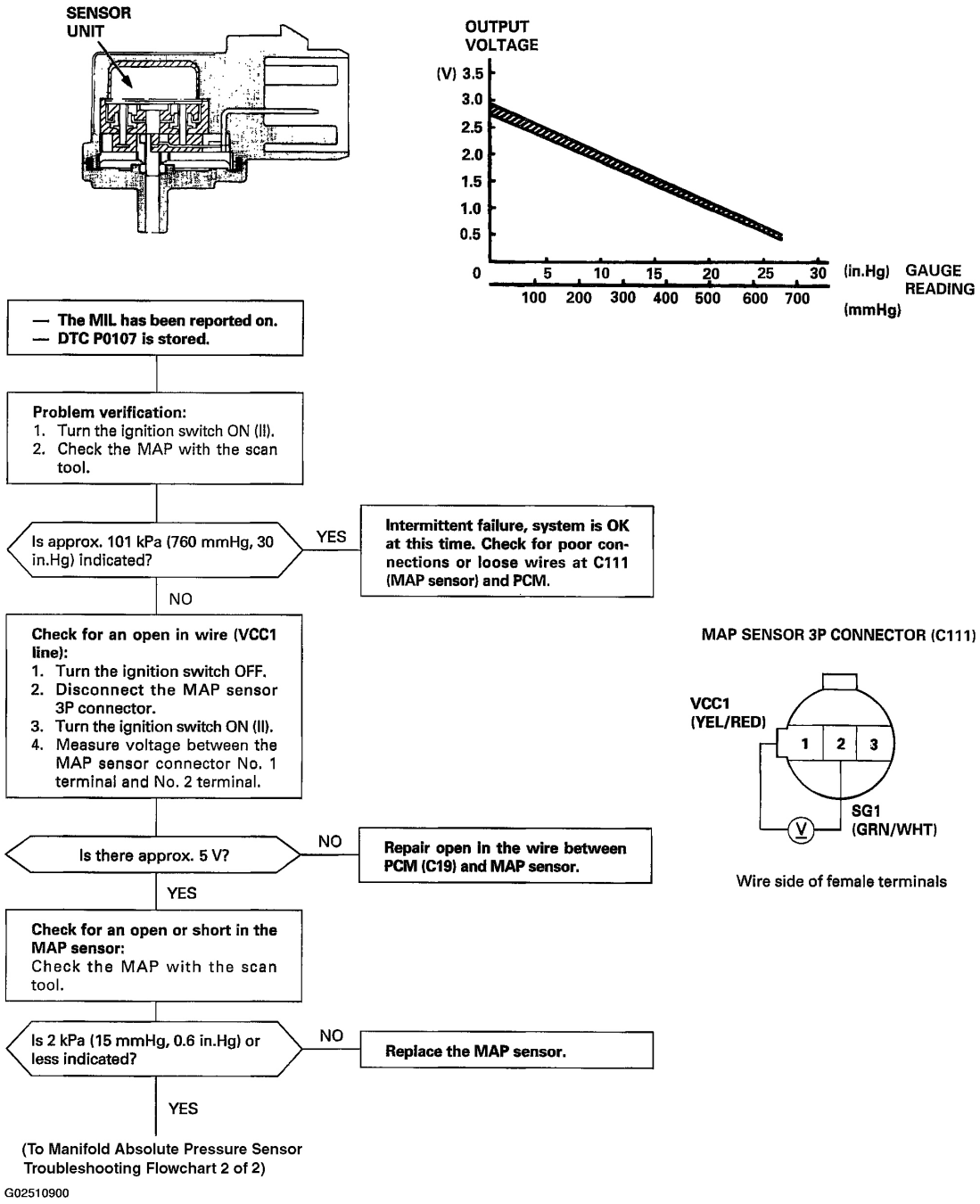


Fig. 7: Manifold Absolute Pressure Sensor Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

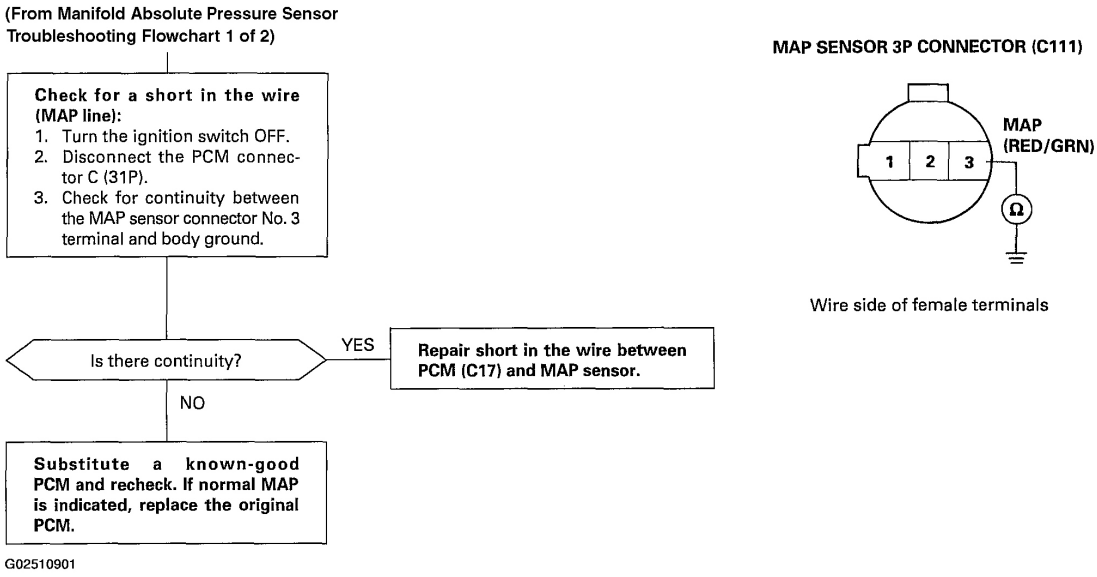


Fig. 8: Manifold Absolute Pressure Sensor Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0108: A HIGH VOLTAGE (LOW VACUUM) PROBLEM IN THE MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR

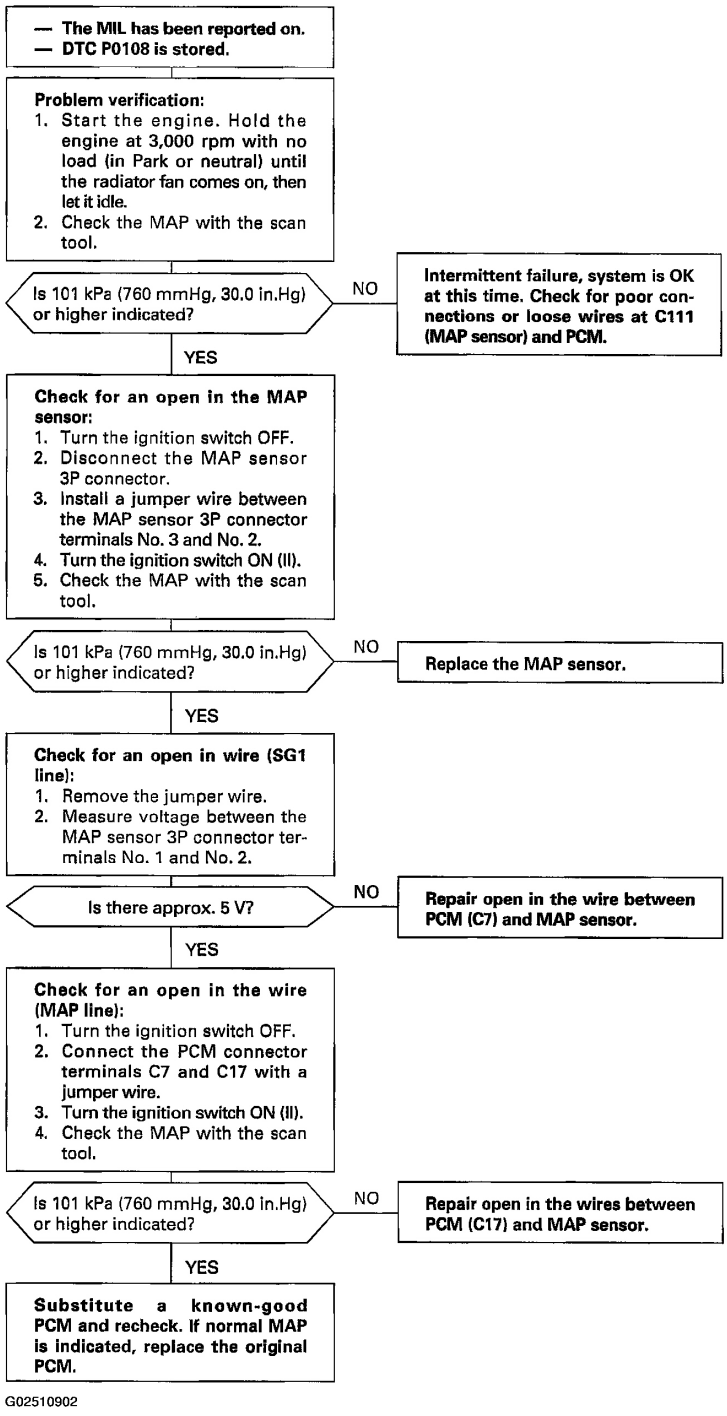


Fig. 9: P0108: A High Voltage (Low Vacuum) Problem In The Manifold Absolute Pressure (MAP) Sensor Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1128: MANIFOLD ABSOLUTE PRESSURE (MAP) LOWER THAN EXPECTED

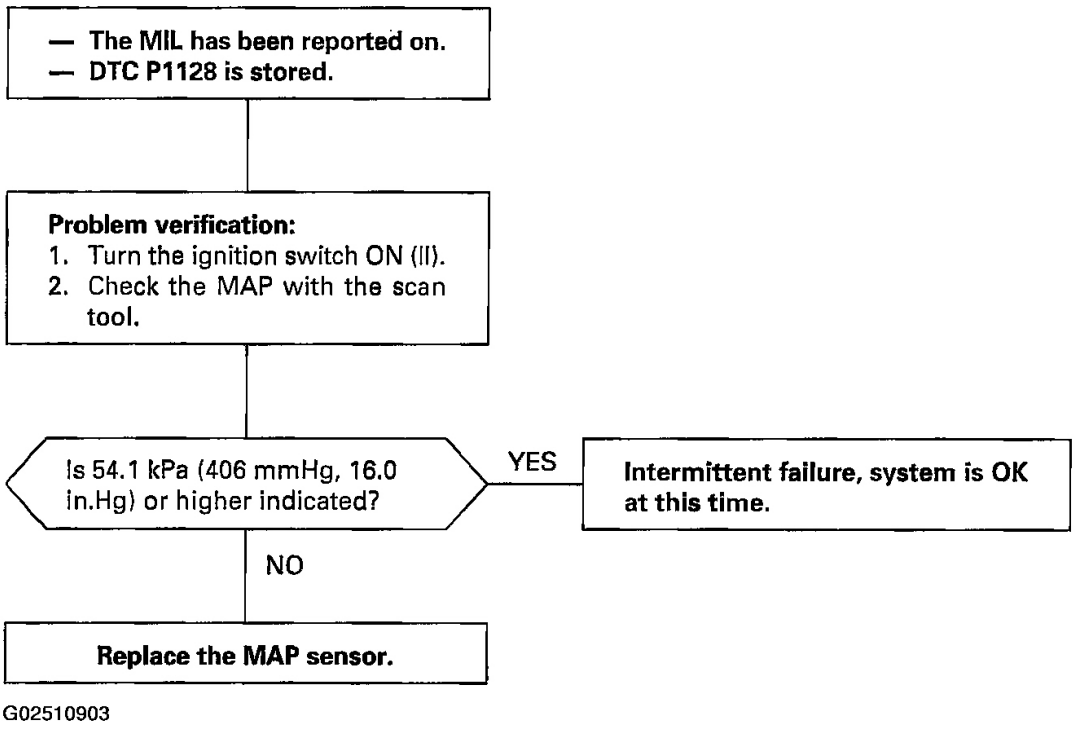


Fig. 10: P1128: Manifold Absolute Pressure (MAP) Lower Than Expected Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1129: MANIFOLD ABSOLUTE PRESSURE (MAP) HIGHER THAN EXPECTED

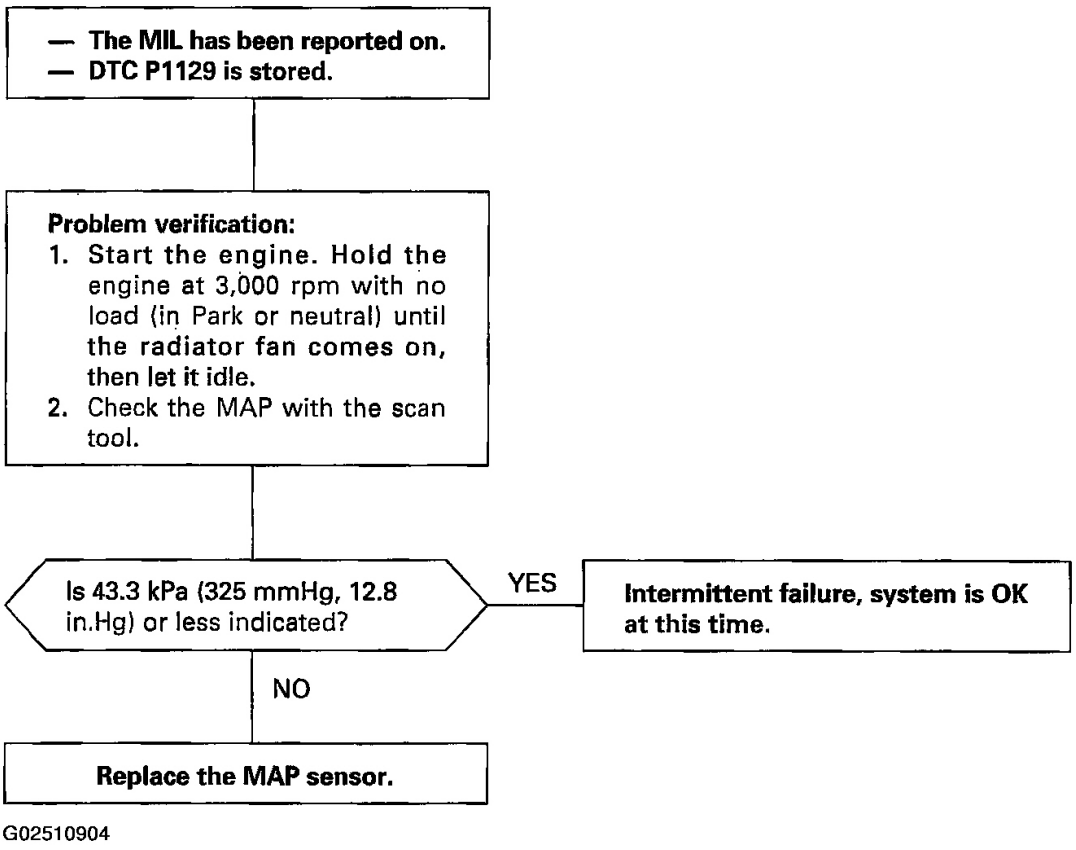


Fig. 11: P1129: Manifold Absolute Pressure (MAP) Higher Than Expected Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

INTAKE AIR TEMPERATURE (IAT) SENSOR

DTC P0112: A LOW VOLTAGE (HIGH TEMPERATURE) PROBLEM IN THE INTAKE AIR TEMPERATURE (IAT) SENSOR CIRCUIT

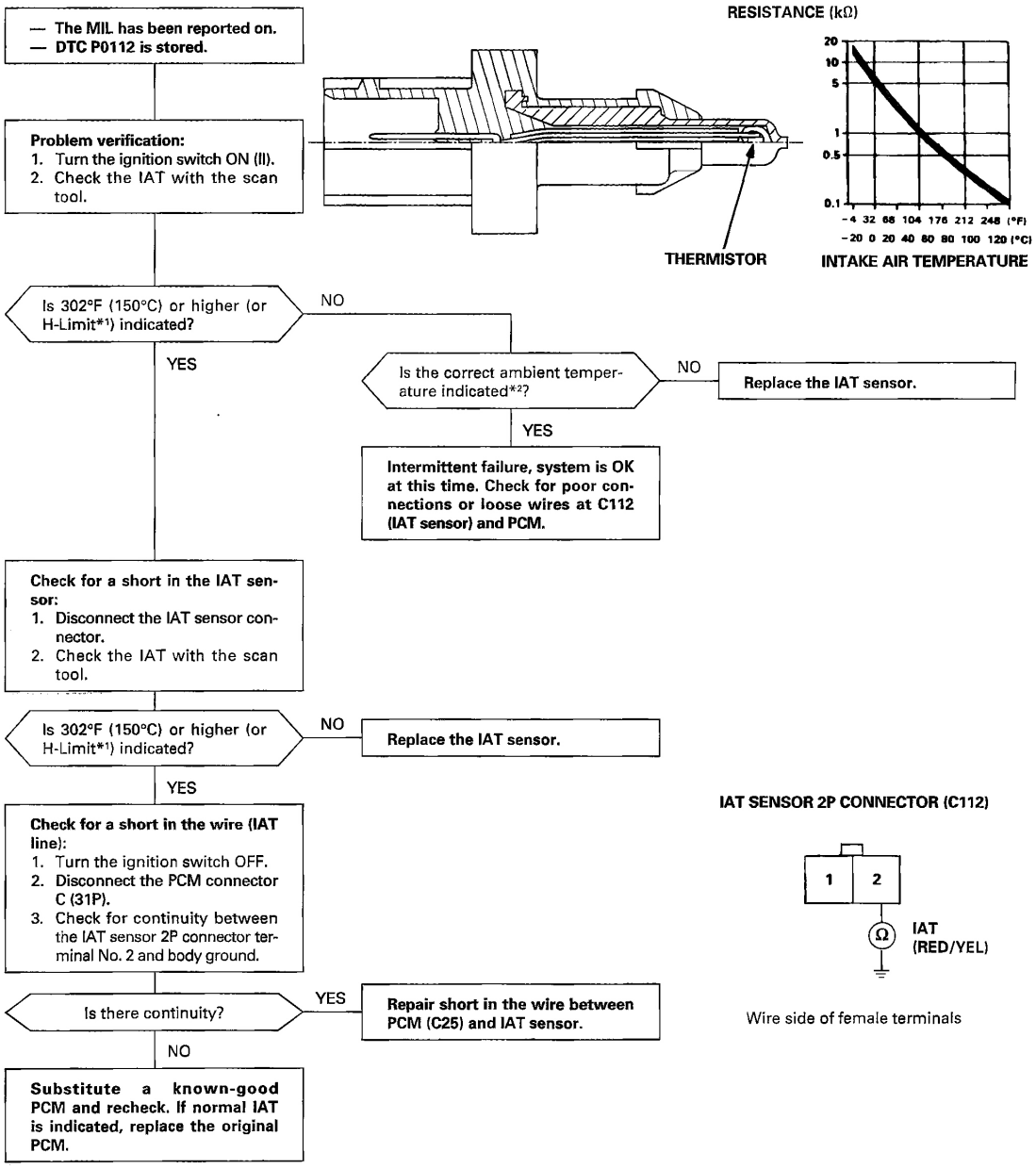


Fig. 12: P0112: A Low Voltage (High Temperature) Problem In The Intake Air Temperature (IAT) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0113: A HIGH VOLTAGE (LOW TEMPERATURE) PROBLEM IN THE INTAKE AIR TEMPERATURE (IAT) SENSOR CIRCUIT

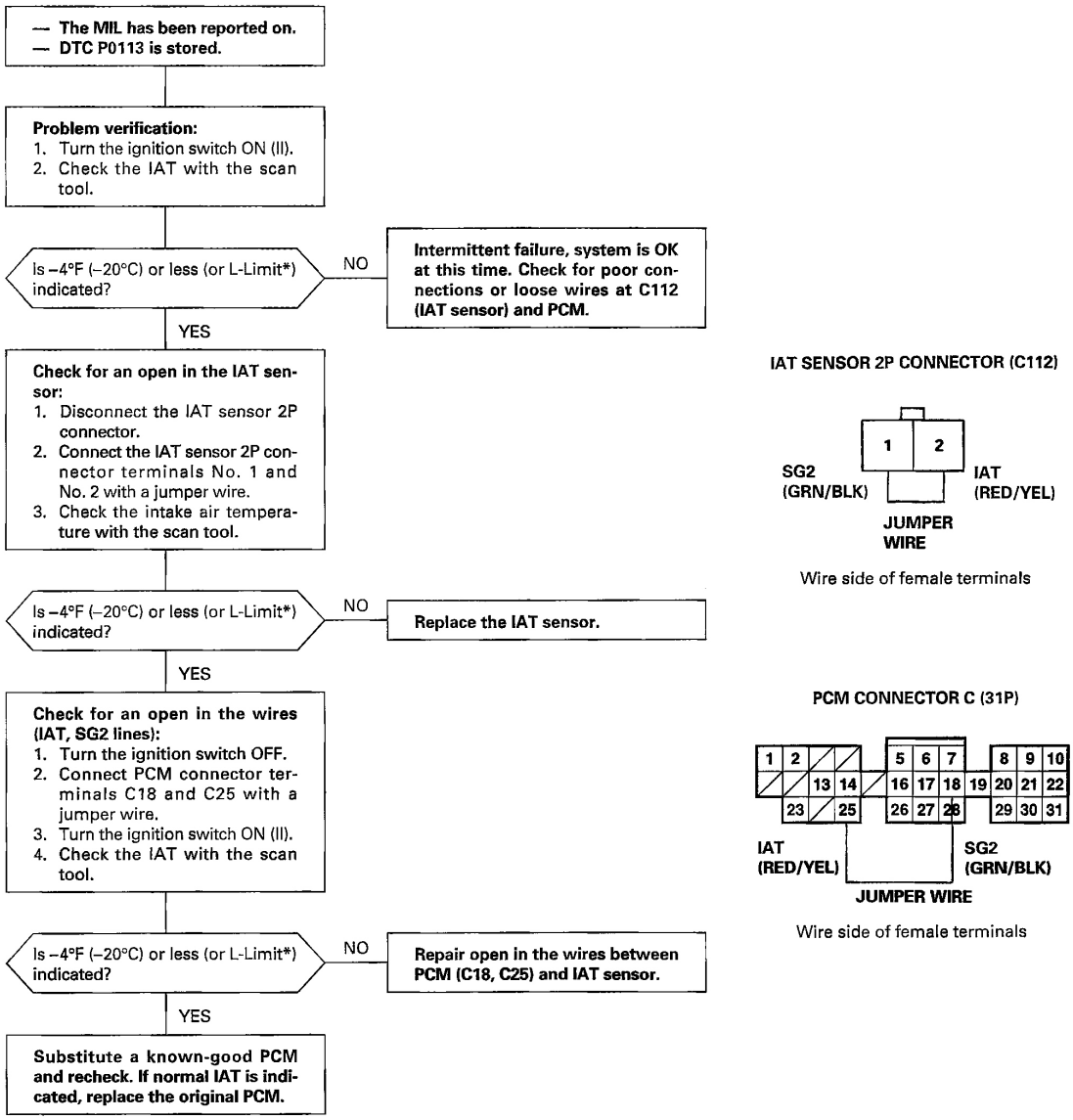


Fig. 13: P0113: A High Voltage (Low Temperature) Problem In The Intake Air Temperature (IAT) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

ENGINE COOLANT TEMPERATURE (ECT) SENSOR

DTC P0116: A RANGE/PERFORMANCE PROBLEM IN THE ENGINE COOLANT TEMPERATURE (ECT) SENSOR CIRCUIT

The ECT Sensor is a temperature dependent resistor (thermistor). The resistance of the thermistor decreases as the engine coolant temperature increases as shown in **Fig. 14** .

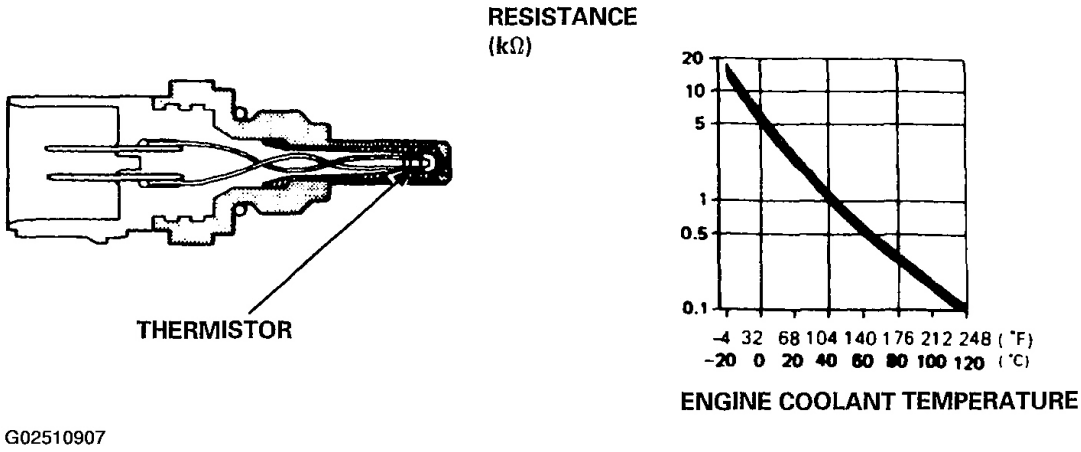


Fig. 14: Resistance Vrs. Temperature Of ECT Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NOTE: If DTC P0117 and/or P0118 are stored at the same time as DTC P0116, troubleshoot those DTCs first, then troubleshoot DTC P0116.

Possible Cause

- ECT sensor deterioration
- Malfunction in the cooling system

Troubleshooting Flowchart

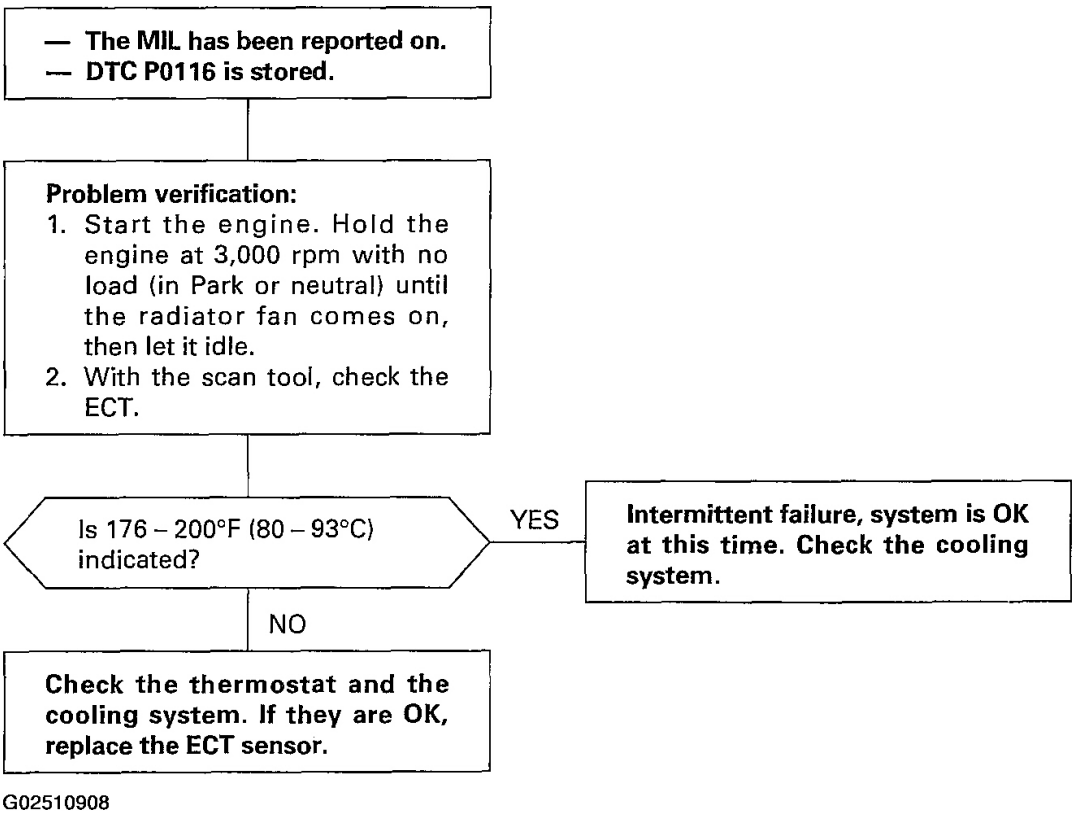


Fig. 15: P0116: A Range/Performance Problem In The Engine Coolant Temperature (ECT) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0117: A LOW VOLTAGE (HIGH TEMPERATURE) PROBLEM IN THE ENGINE COOLANT TEMPERATURE (ECT) SENSOR CIRCUIT

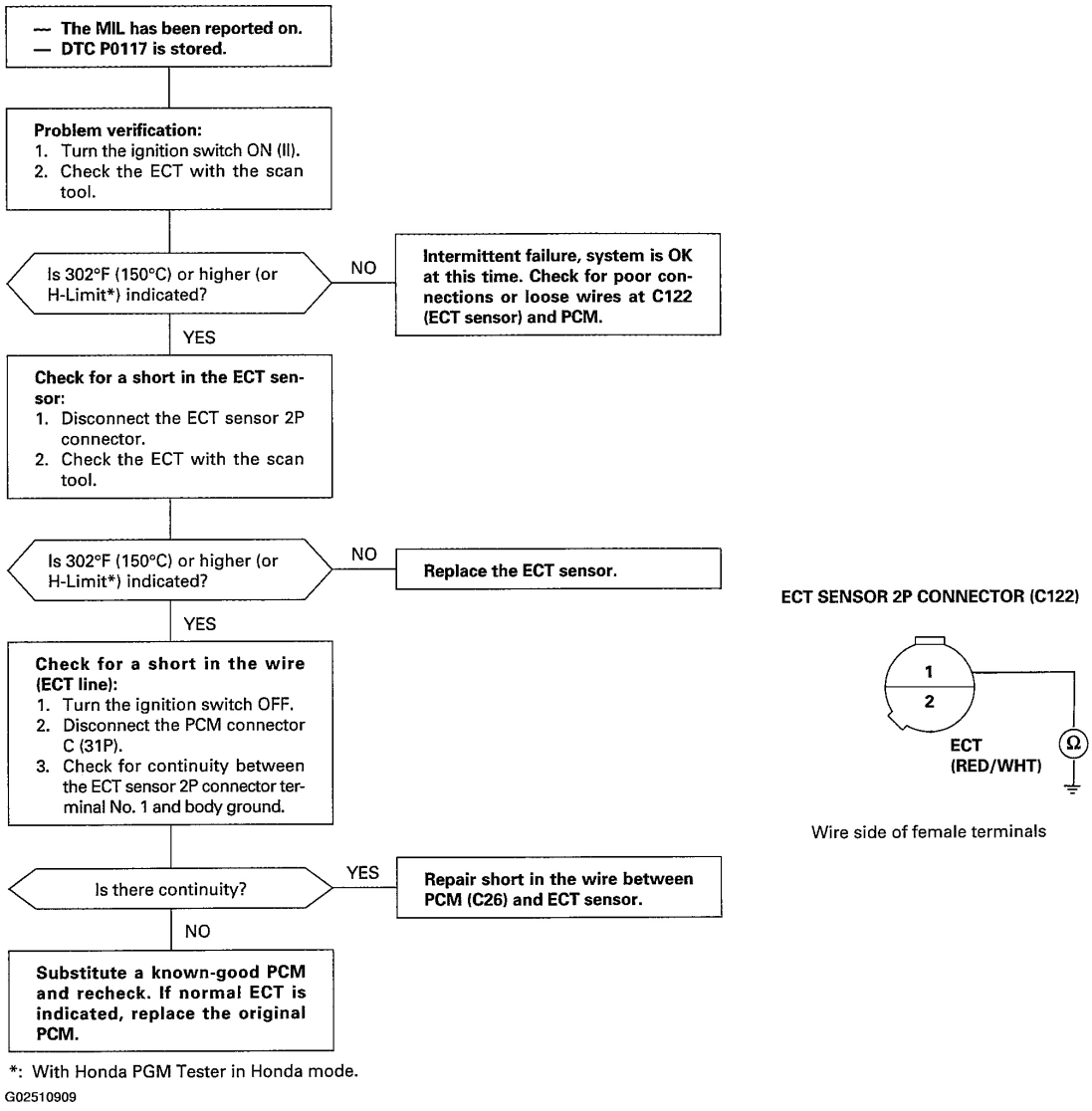
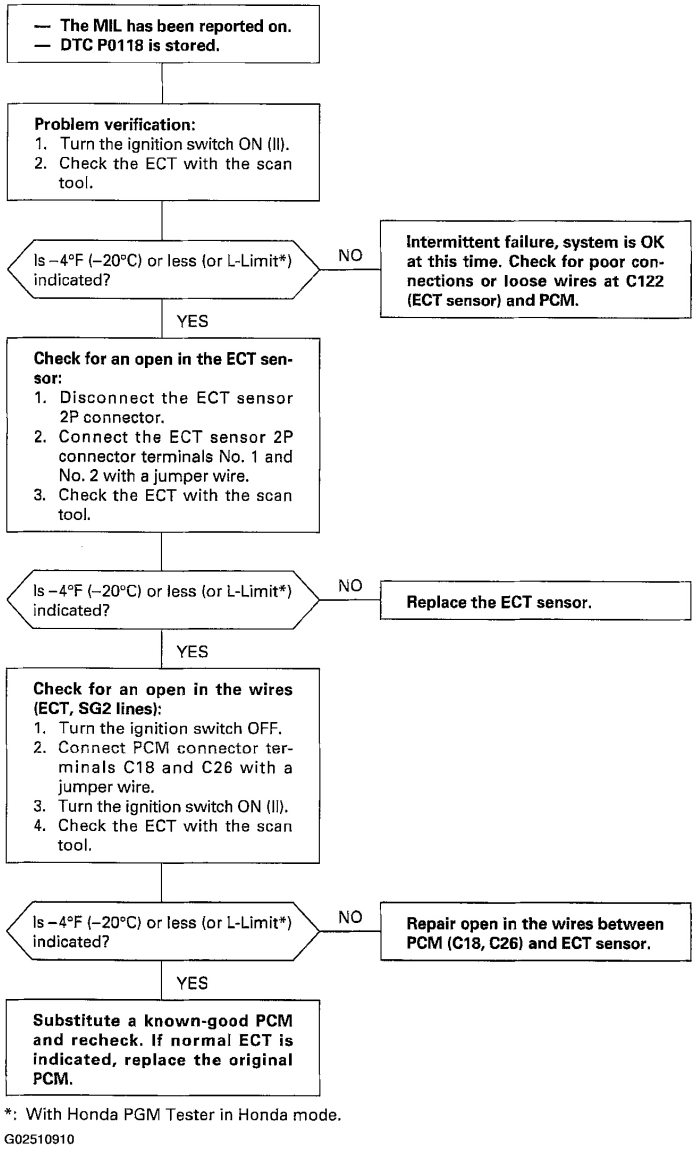
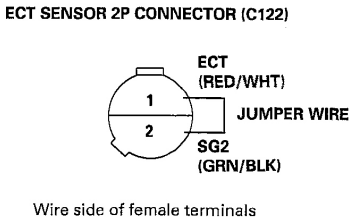


Fig. 16: P0117: A Low Voltage (High Temperature) Problem In The Engine Coolant Temperature (ECT) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0118: A HIGH VOLTAGE (LOW TEMPERATURE) PROBLEM IN THE ENGINE COOLANT TEMPERATURE (ECT) SENSOR CIRCUIT





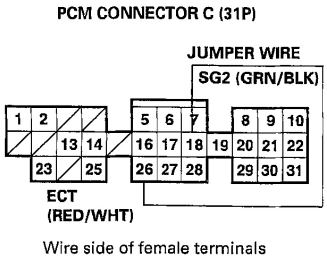


Fig. 17: P0118: A High Voltage (Low Temperature) Problem In The Engine Coolant Temperature (ECT) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

THROTTLE POSITION (TP) SENSOR

DTC P0122: A LOW VOLTAGE PROBLEM IN THE THROTTLE POSITION (TP) SENSOR CIRCUIT

The TP Sensor is a potentiometer. It is connected to the throttle valve shaft. As the throttle position changes, the throttle position sensor varies the voltage signal to the PCM.

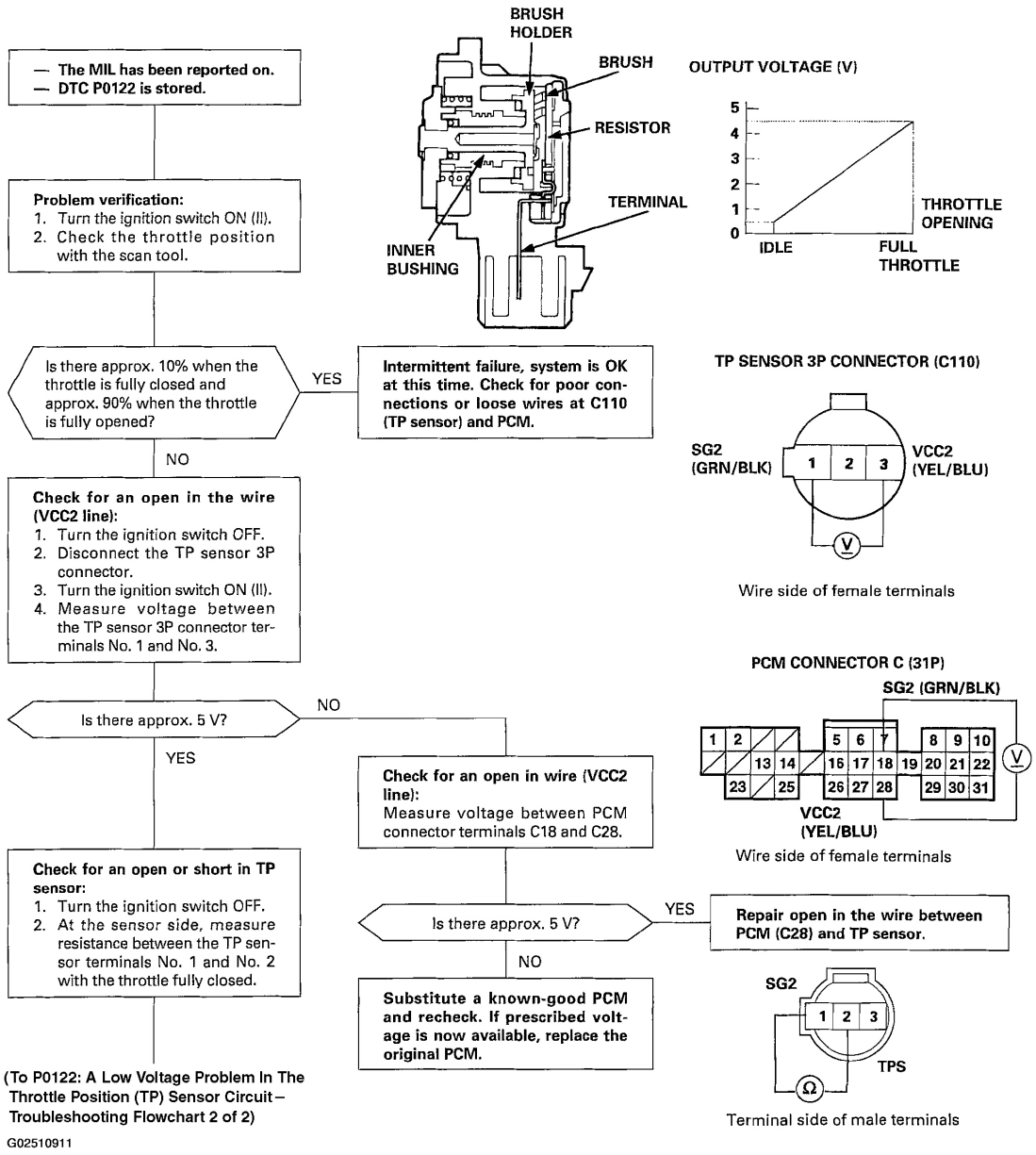


Fig. 18: P0122: A Low Voltage Problem In The Throttle Position (TP) Sensor Circuit Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

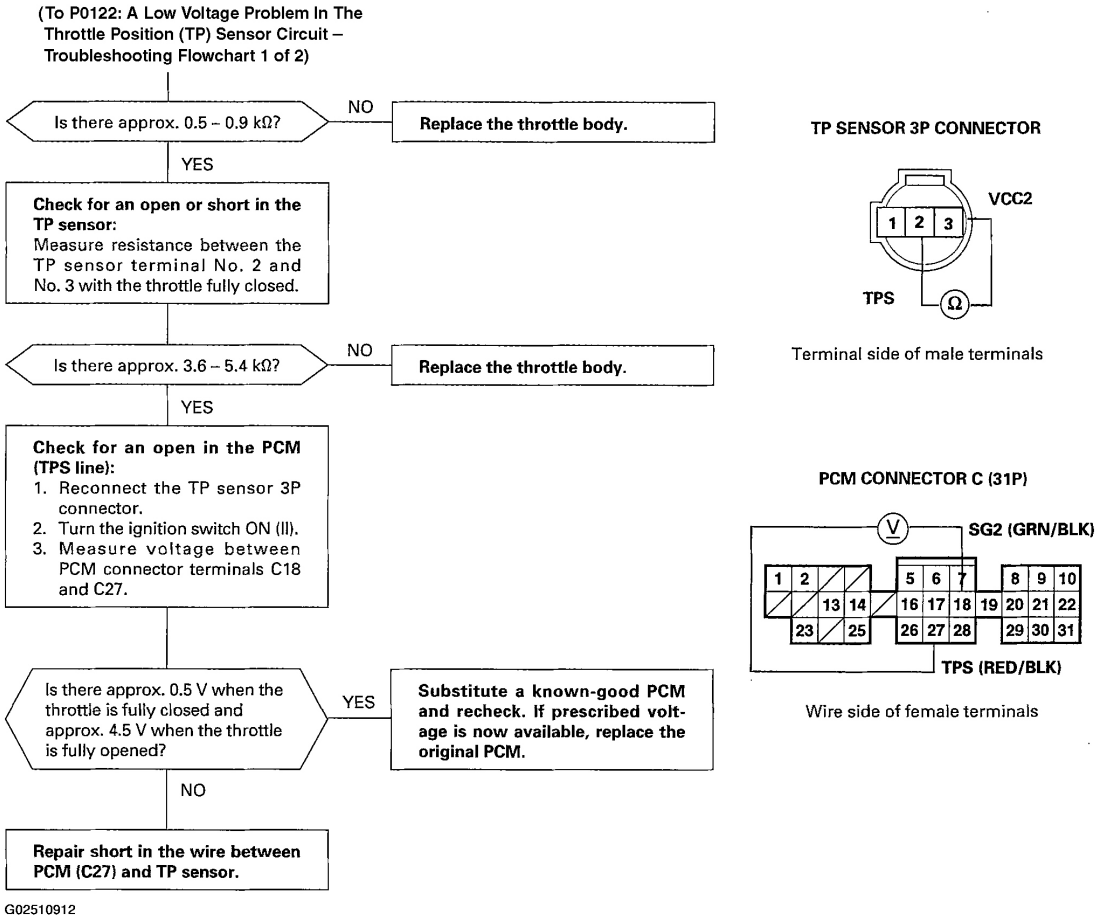


Fig. 19: P0122: A Low Voltage Problem In The Throttle Position (TP) Sensor Circuit Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0123: A HIGH VOLTAGE PROBLEM IN THE THROTTLE POSITION (TP) SENSOR CIRCUIT

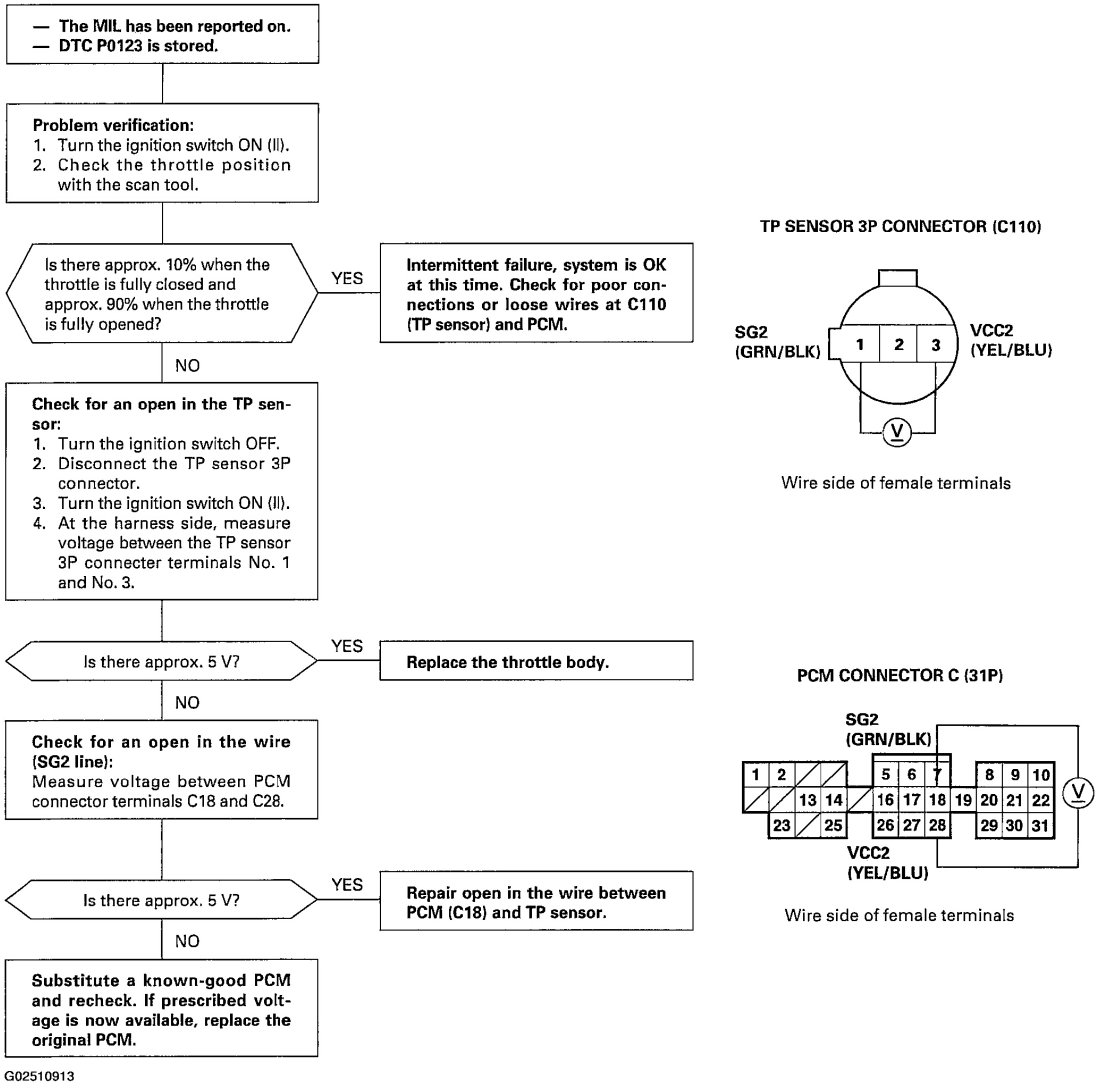


Fig. 20: P0123: A High Voltage Problem In The Throttle Position (TP) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1121: THROTTLE POSITION (TP) LOWER THAN EXPECTED

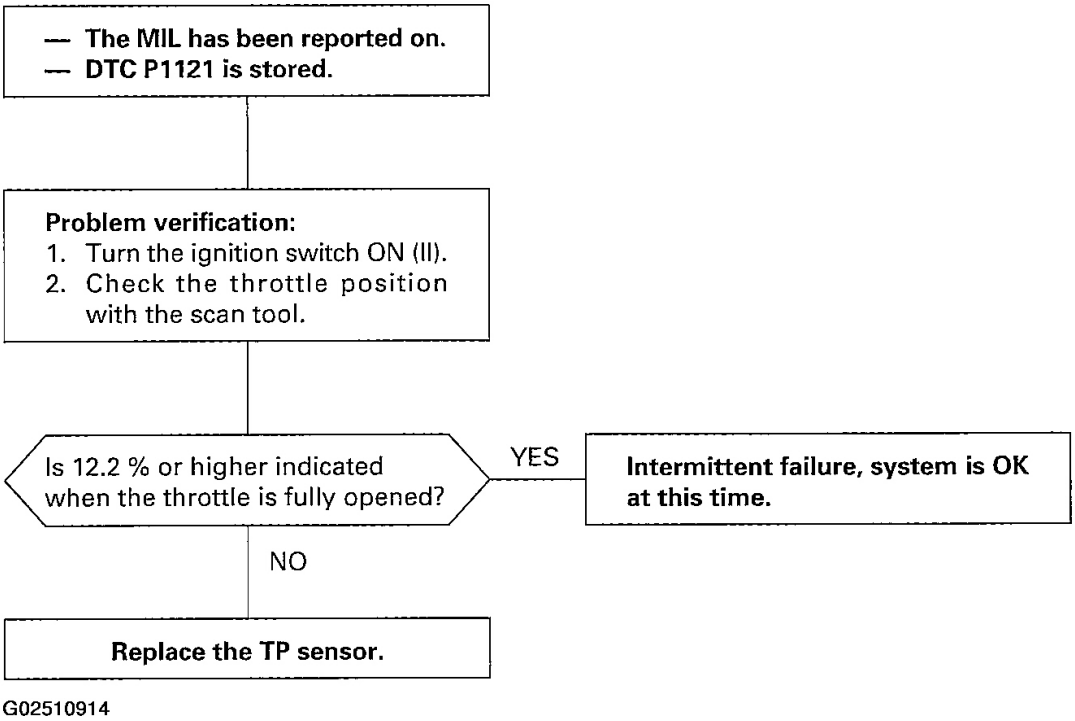


Fig. 21: P1121: Throttle Position (TP) Lower Than Expected Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1122: THROTTLE POSITION (TP) HIGHER THAN EXPECTED

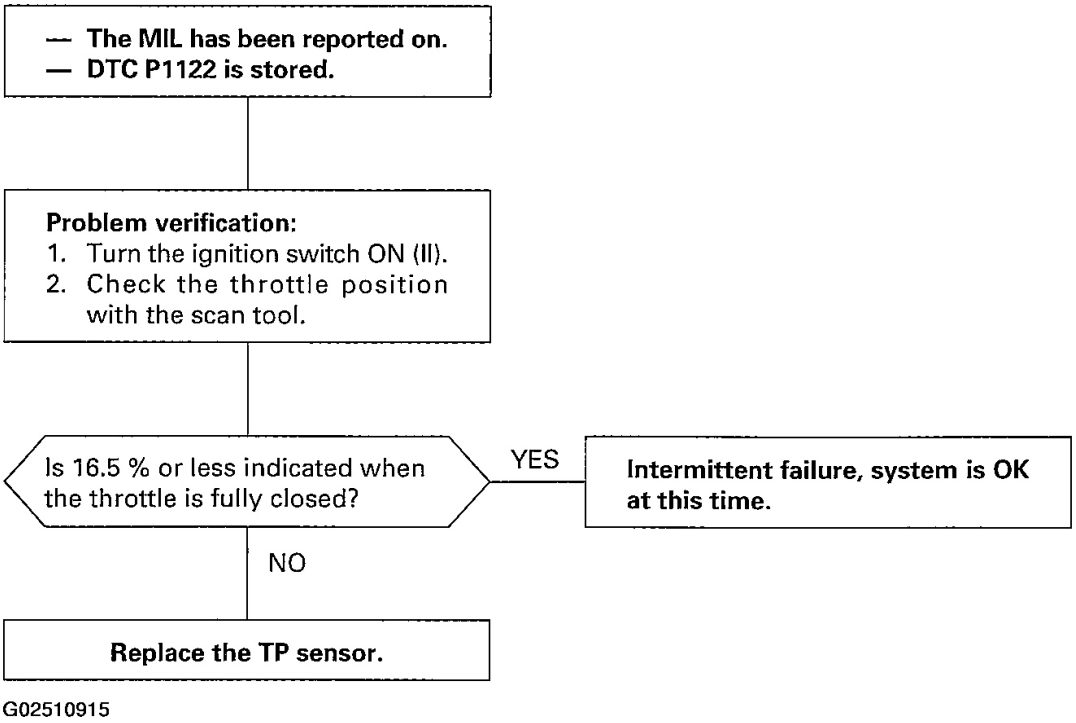


Fig. 22: P1122: Throttle Position (TP) Higher Than Expected
Courtesy of AMERICAN HONDA MOTOR CO., INC.

PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) (SENSOR 1)

The Heated Oxygen Sensor (HO2S) detects the oxygen content in the exhaust gas and signals the PCM. In operation, the PCM receives the signals from the sensor and varies the duration during which fuel is injected. To stabilize the sensor's output, the sensor has an internal heater. The Primary HO2S (Sensor 1) is installed in the exhaust manifold.

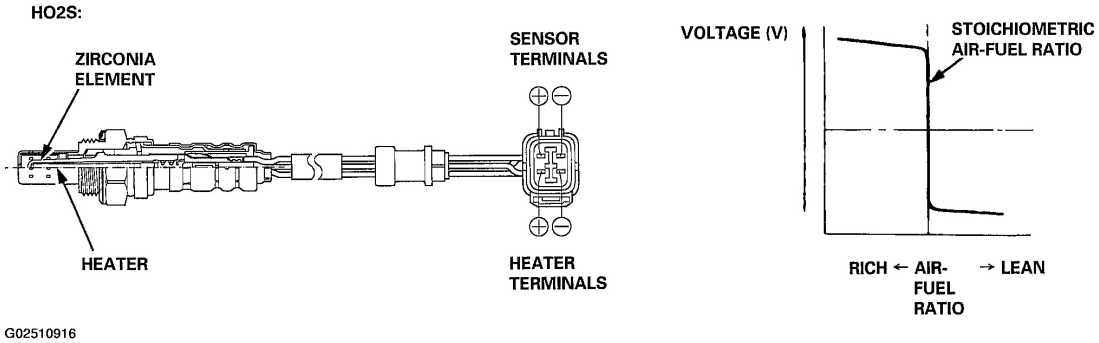


Fig. 23: Identifying Primary Heated Oxygen Sensor (Sensor 1)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0131: A LOW VOLTAGE PROBLEM IN THE PRIMARY HEATED OXYGEN SENSOR (HO2S) (SENSOR 1) CIRCUIT

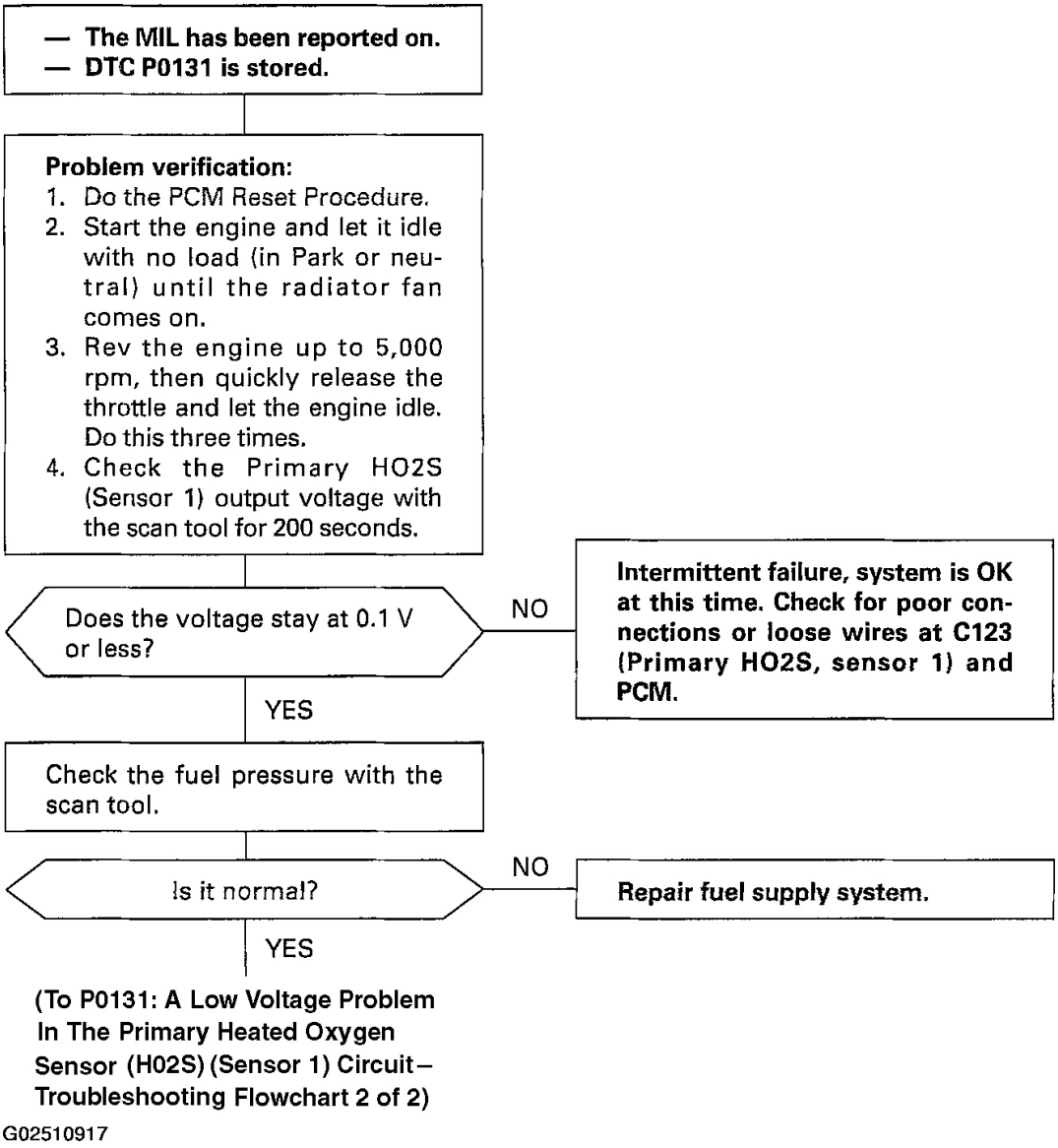


Fig. 24: P0131: A Low Voltage Problem In The Primary Heated Oxygen Sensor (HO2S) (Sensor 1) Circuit Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

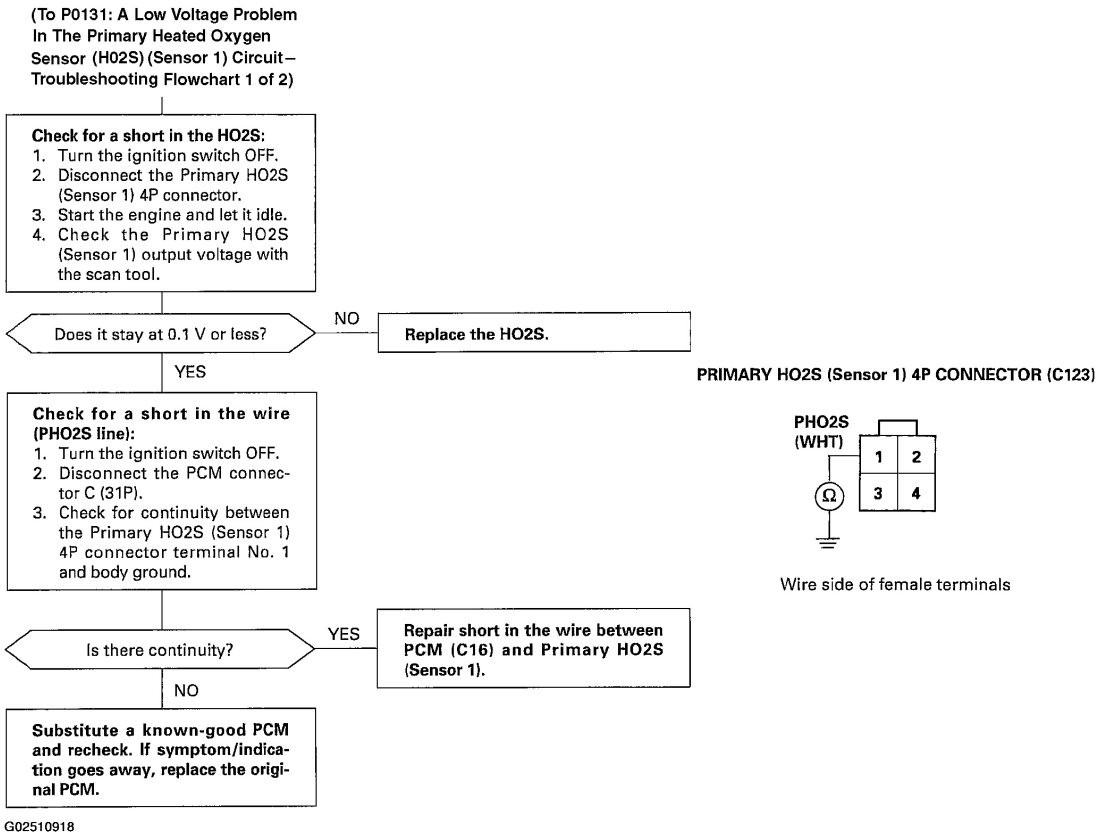


Fig. 25: P0131: A Low Voltage Problem In The Primary Heated Oxygen Sensor (HO2S) (Sensor 1) Circuit Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0132: A HIGH VOLTAGE PROBLEM IN THE PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) (SENSOR 1) CIRCUIT

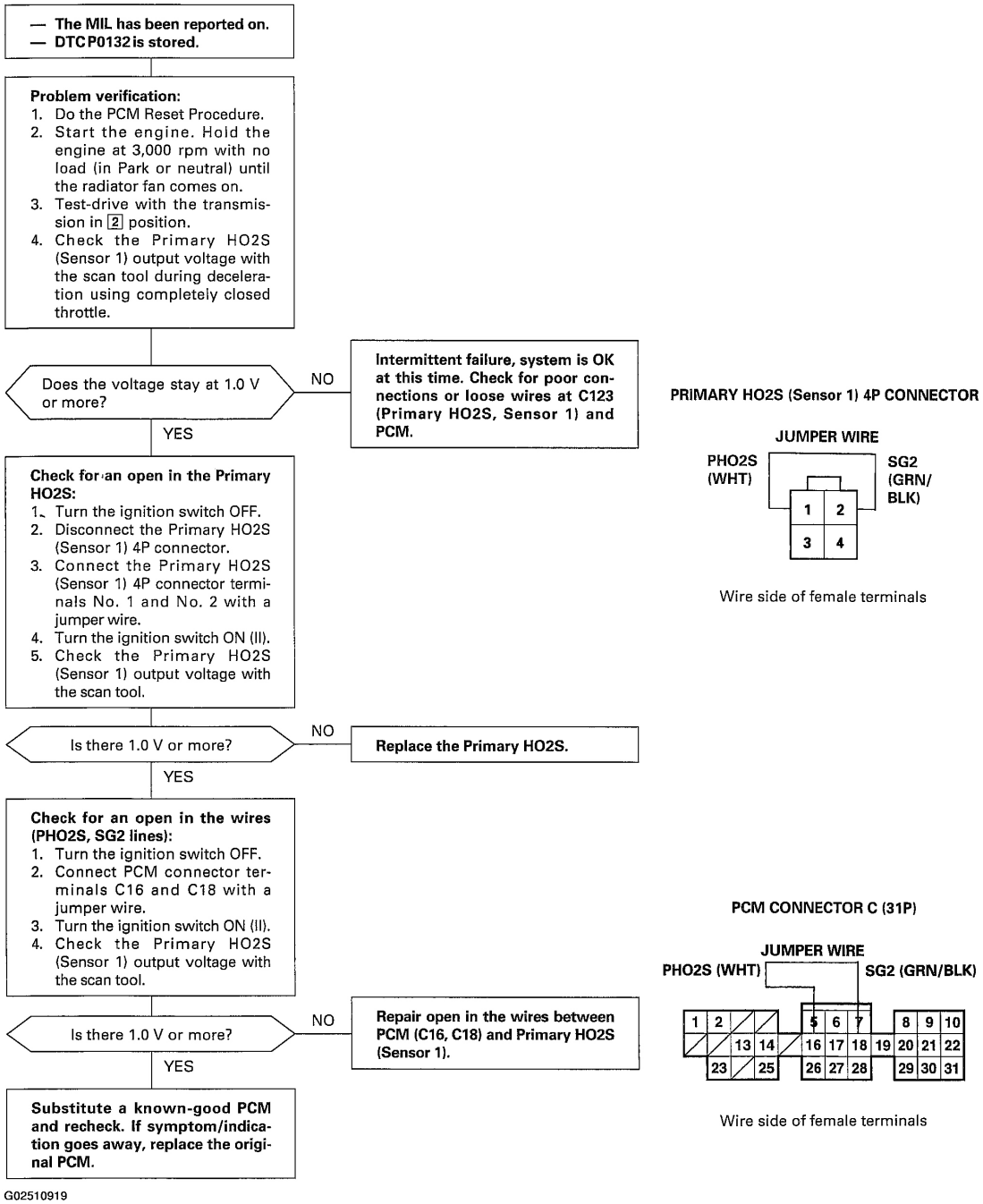


Fig. 26: A High Voltage Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0133: A SLOW RESPONSE PROBLEM IN THE PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) (SENSOR 1) CIRCUIT

Description

By controlling the air/fuel ratio with a Primary HO2S (Sensor 1) and a Secondary HO2S (Sensor 2), the deterioration of the Primary HO2S (Sensor 1) can be evaluated by its feedback period. When the feedback period of the HO2S exceeds a certain value during stable driving conditions, the sensor will be judged as deteriorated.

When deterioration has been detected during two consecutive trips, the MIL comes on and DTC P0133 will be stored.

NOTE: If DTC P0131, P0132 and/or P0135 are stored at the same time as DTC P0133, troubleshoot those DTCs first, then troubleshoot DTC P0133.

Possible Cause

- Primary HO2S (Sensor 1) Deterioration
- Primary HO2S Heater (Sensor 1) Deterioration
- Exhaust system leakage

Troubleshooting Flowchart

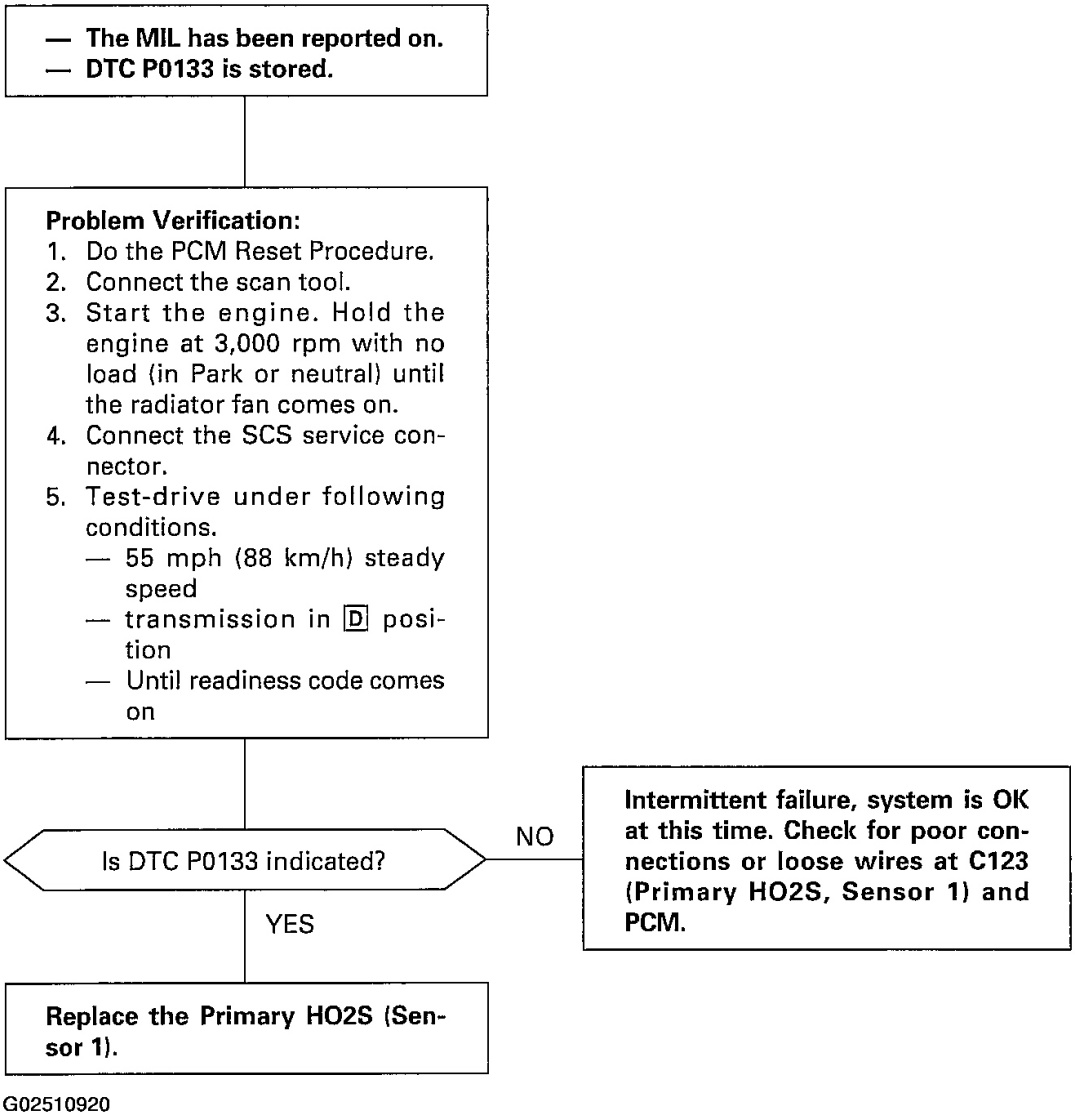


Fig. 27: P0133: A Slow Response Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S) (SENSOR 2)

DTC P0137: A LOW VOLTAGE PROBLEM IN THE SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S) (SENSOR 2) CIRCUIT

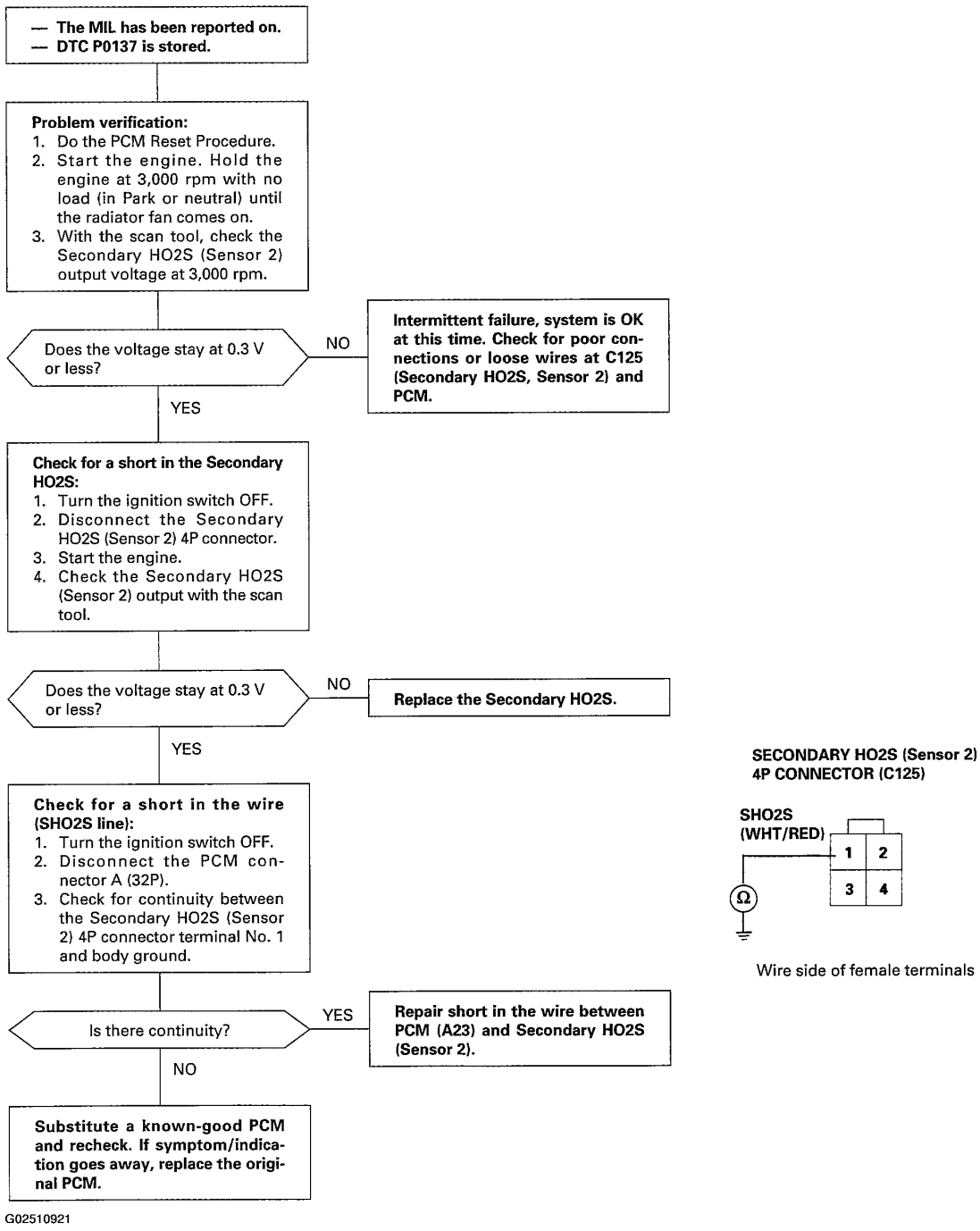


Fig. 28: P0137: A Low Voltage Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0138: A HIGH VOLTAGE PROBLEM IN THE SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S) (SENSOR 2) CIRCUIT

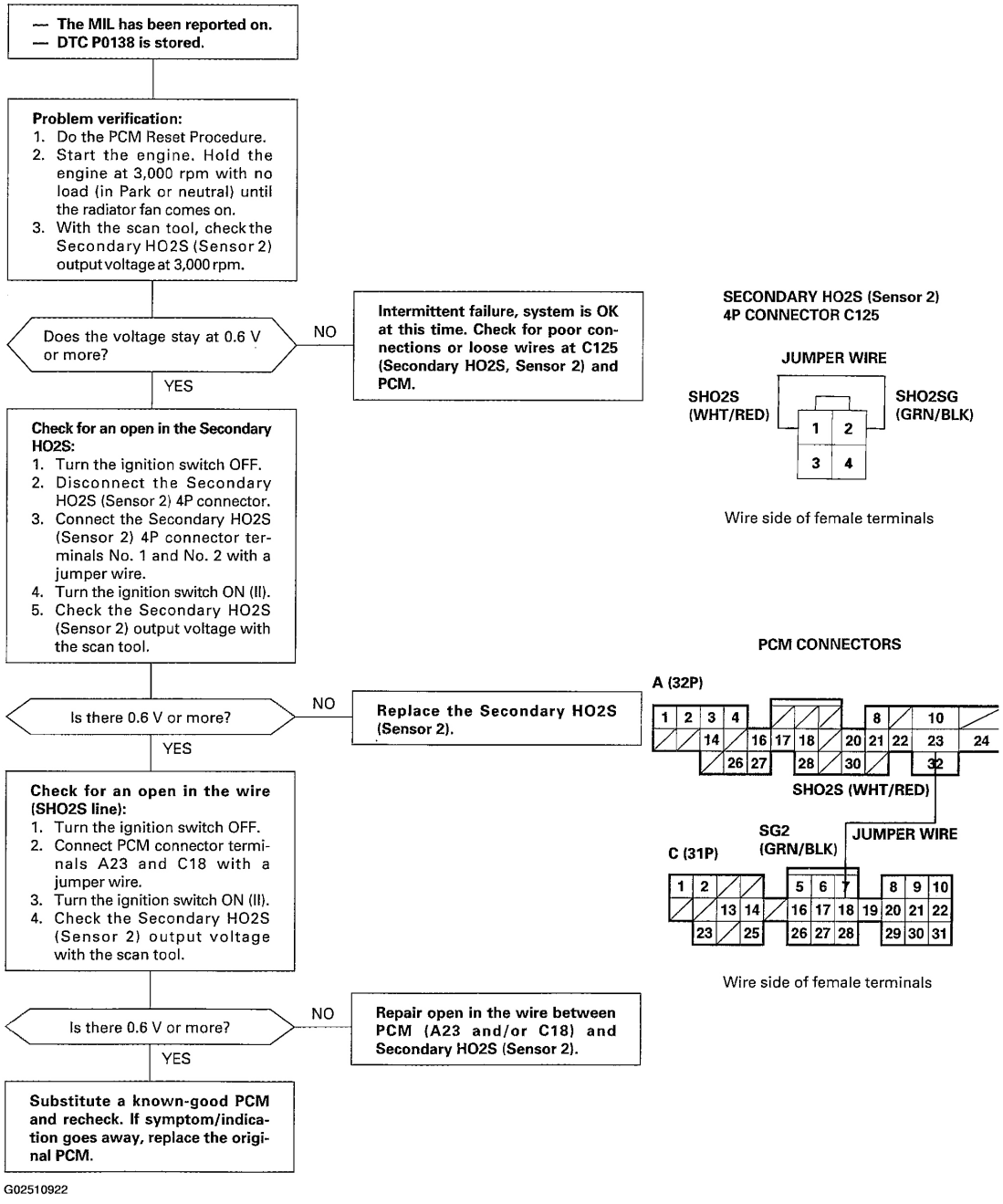


Fig. 29: P0138: A High Voltage Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0139: A SLOW RESPONSE PROBLEM IN THE SECONDARY HEATED OXYGEN SENSOR (HO2S) (SENSOR 2) CIRCUIT.

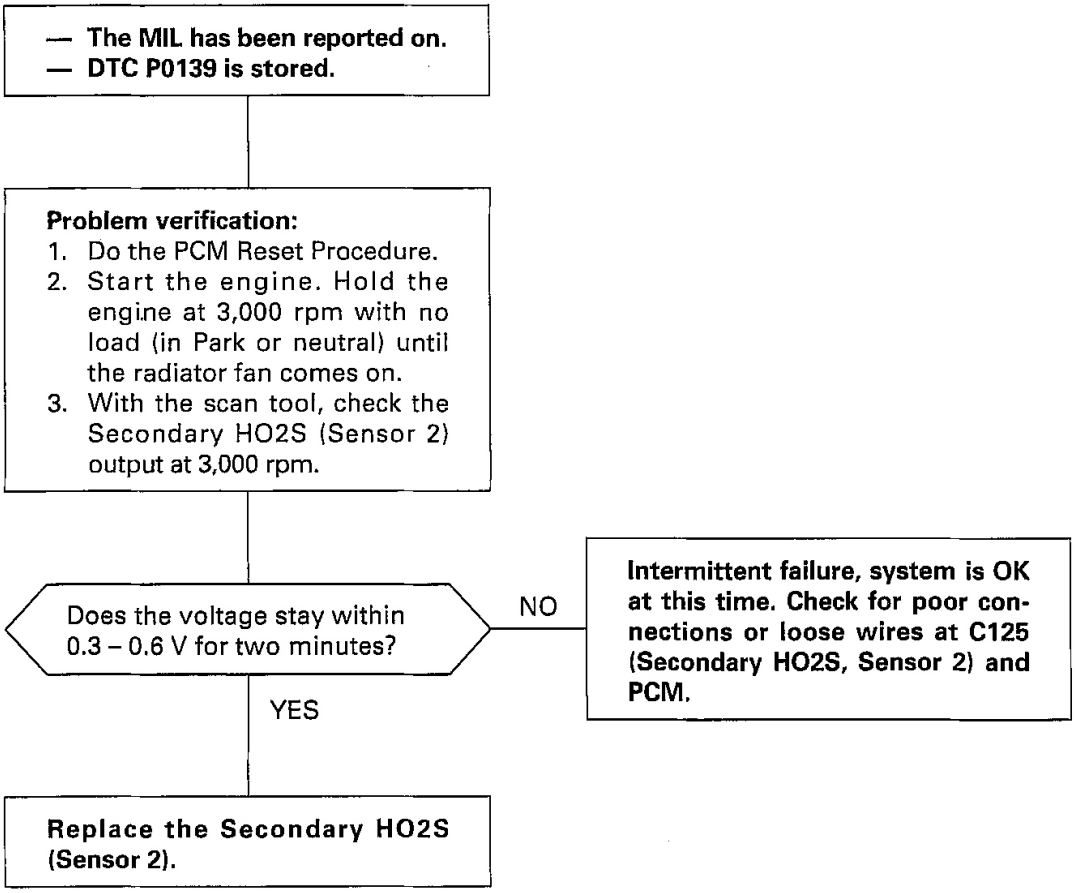


Fig. 30: P0139: A Slow Response Problem In The Secondary Heated Oxygen Sensor (HO2S) (Sensor 2) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

HEATED OXYGEN SENSOR (HO2S) HEATER

DTC P0135, P0141: HEATED OXYGEN SENSOR HEATER CIRCUIT

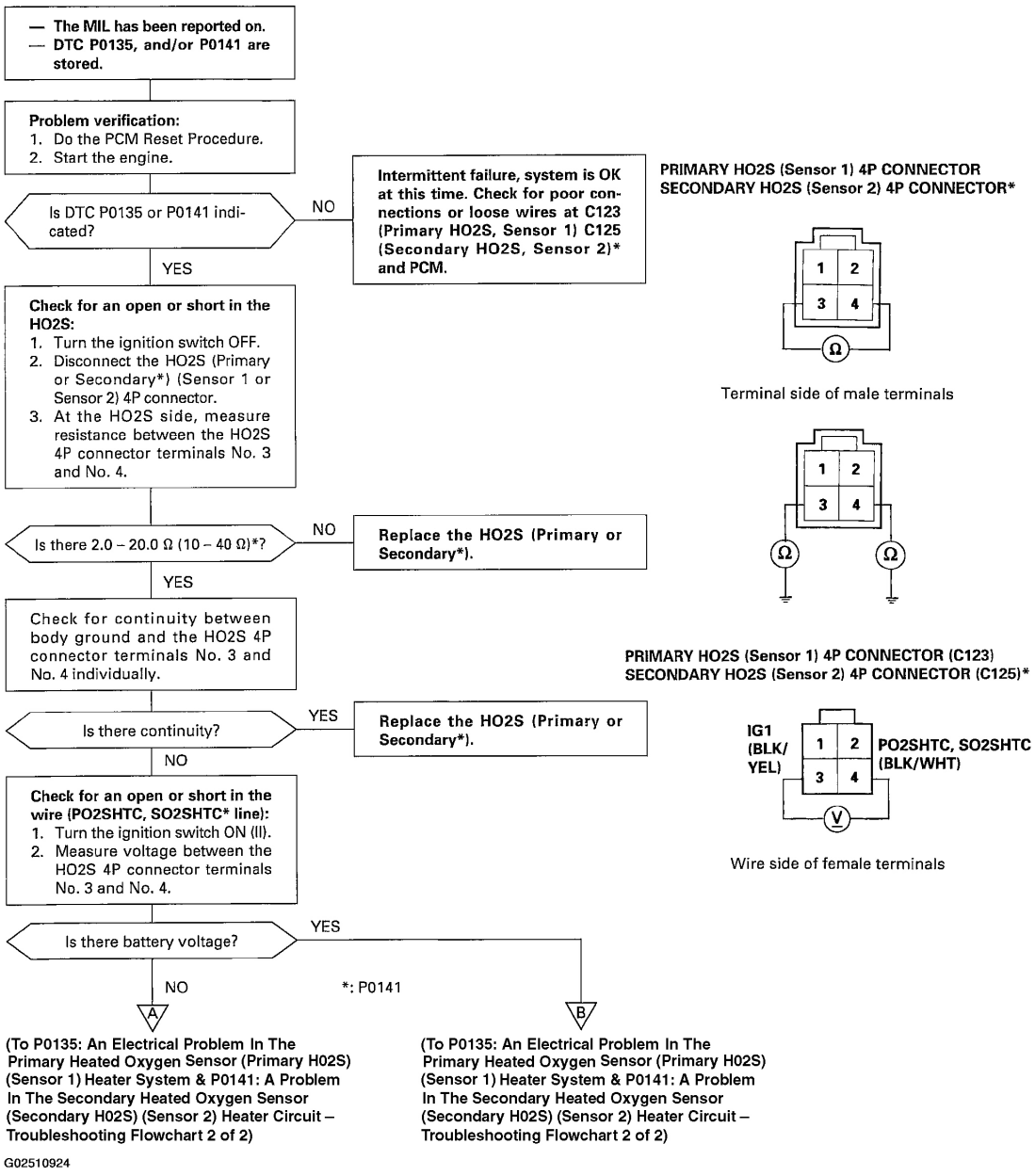


Fig. 31: P0135: An Electrical Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Heater System & P0141: A Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Heater Circuit - Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

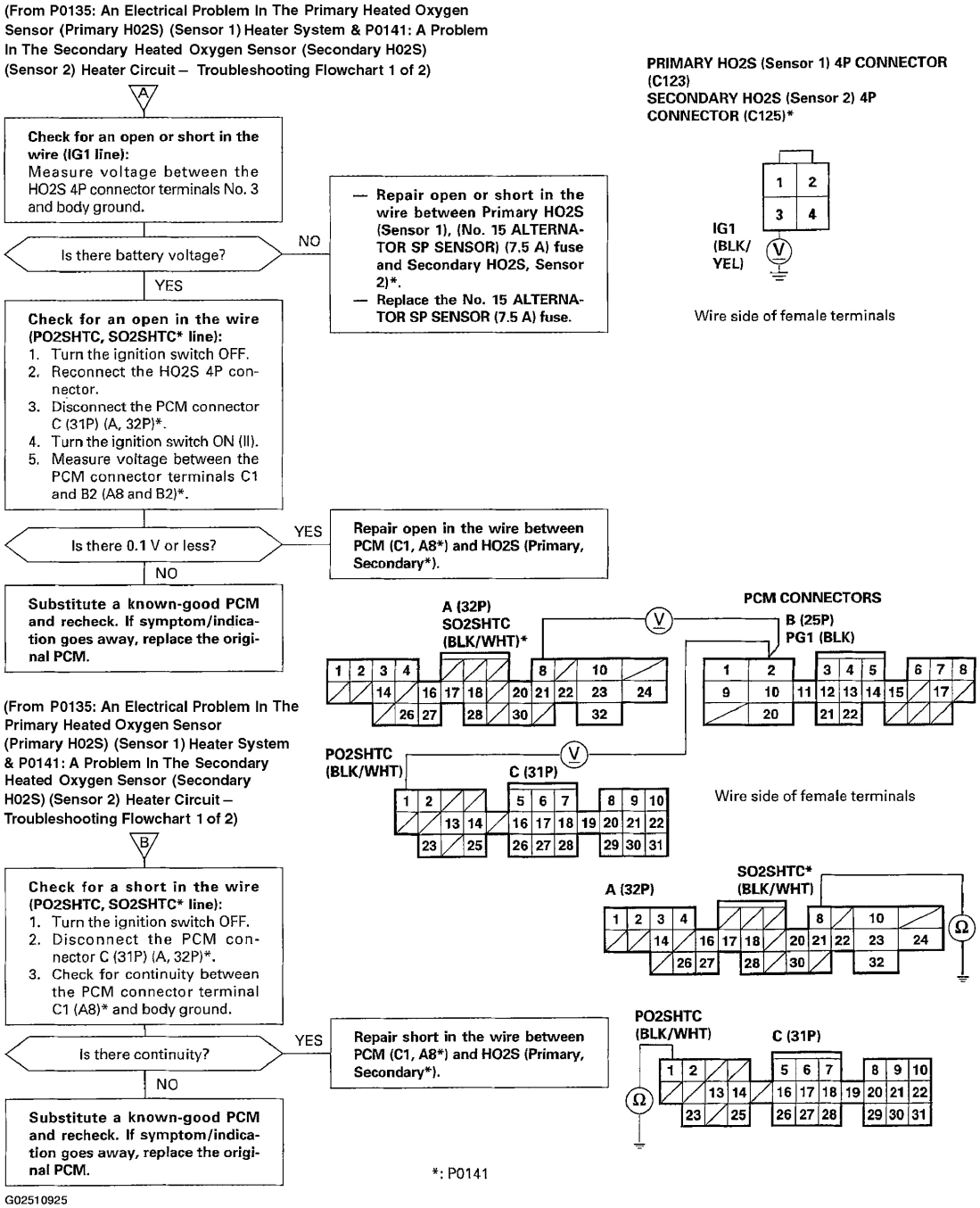


Fig. 32: P0135: An Electrical Problem In The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Heater System & P0141: A Problem In The Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Heater Circuit - Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

FUEL SUPPLY SYSTEM

DTC P0171, P0172: THE FUEL SYSTEM IS TOO RICH/LEAN

Description

By monitoring the Long Term Fuel Trim, long term malfunctions in the fuel system will be detected.

If a malfunction has been detected during two consecutive trips, the MIL will come on and DTC P0171 and/or P0172 will be stored.

NOTE: If some of the DTCs listed below are stored at the same time as DTC P0171 and/or P0172, troubleshoot those DTCs first, then troubleshoot DTC P0171 and/or P0172.

P0107, P0108, P1128-9: MAP Sensor

P0191: Fuel Pressure Sensor

P0135: Primary HO2S Heater

P0137, P0138: Secondary HO2S

P0141: Secondary HO2S Heater

P0401: EGR Flow Insufficient

P1259: VTEC System

P1491: EGR Valve Lift Insufficient

P1498: EGR Valve Lift Sensor High Voltage

Possible Cause

DTC P0171: System Too Lean

- Fuel Feed Line clogged, leaking
- Fuel Pressure Regulator stuck open
- Fuel Filter clogged
- Fuel Injector clogged, air inclusion
- Fuel doesn't meet Owner's Manual spec.
- Primary HO2S (Sensor 1) deteriorated
- EGR System malfunction (too much flow)
- Valve Clearance
- Exhaust leak
- Fuel Pressure Sensor range/performance

DTC P0172: System Too Rich

- Fuel Pressure Regulator clogged, stuck closed
- Fuel Injector leaking
- Fuel doesn't meet Owner's Manual spec.
- Primary HO2S (Sensor 1) deteriorated
- EGR System insufficient flow
- Valve Clearance
- Fuel Pressure Sensor range/performance

Troubleshooting Flowchart

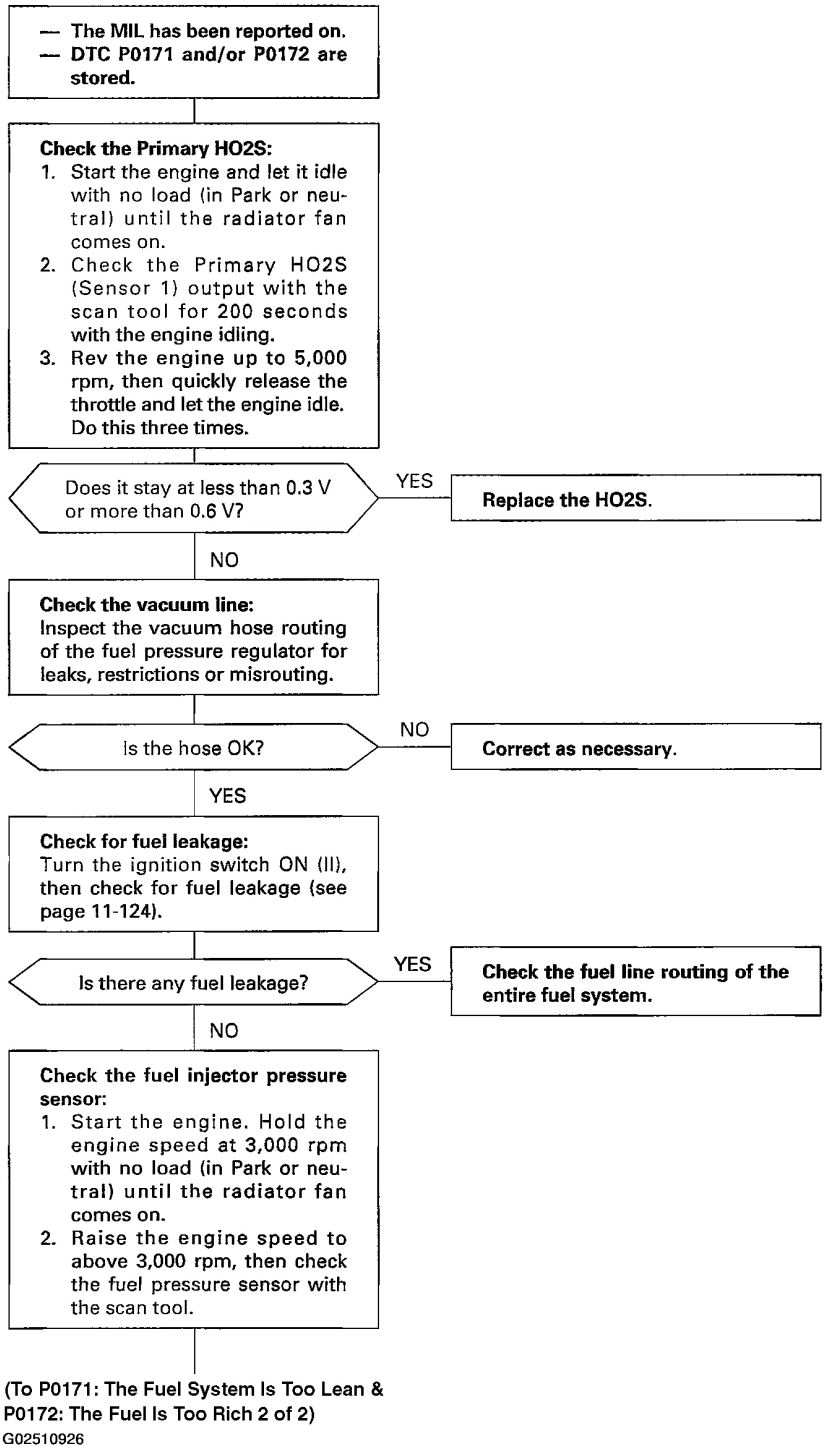


Fig. 33: P0171: The Fuel System Is Too Lean & P0172: The Fuel System Is Too Rich Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

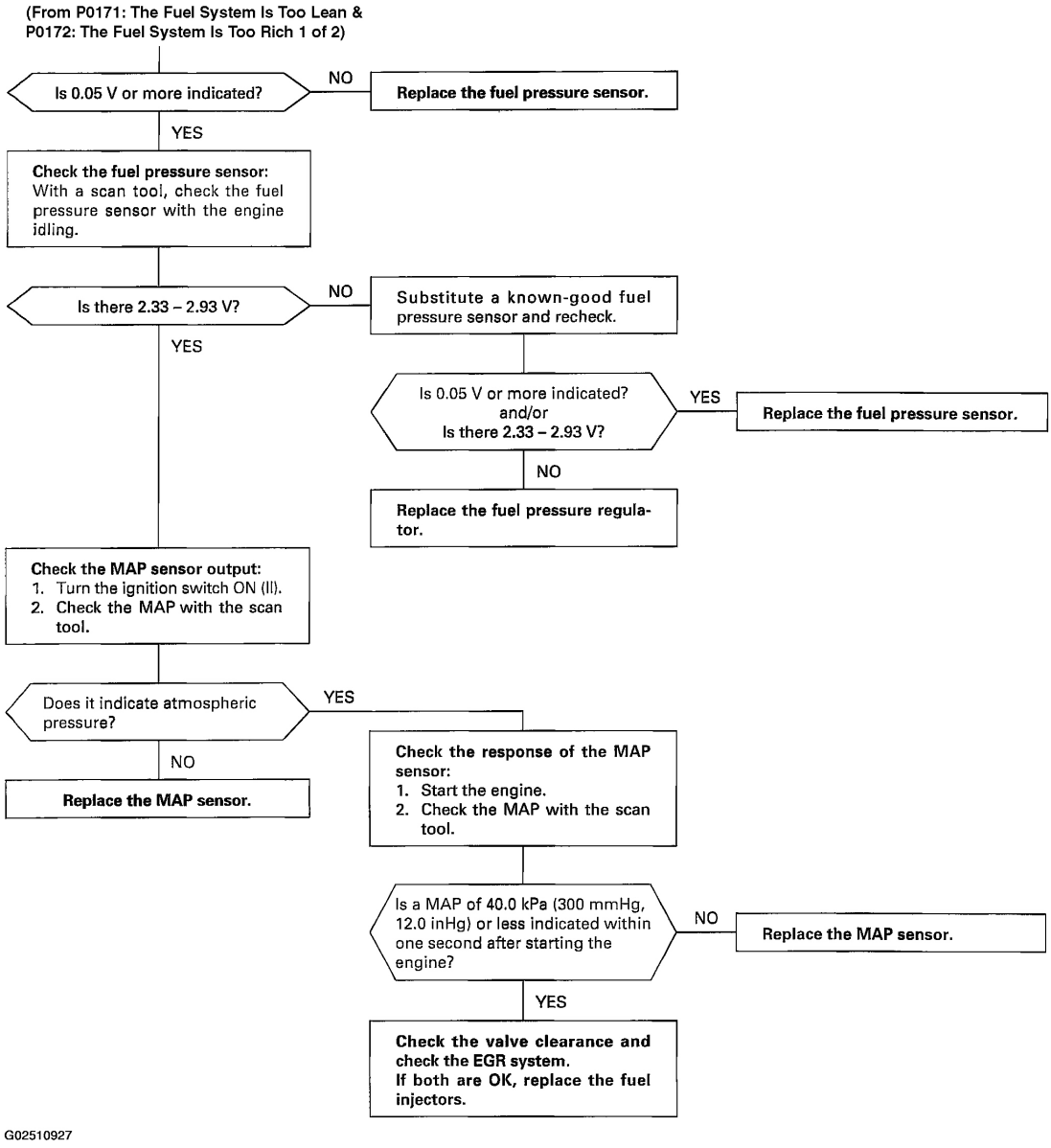


Fig. 34: P0171: The Fuel System Is Too Lean & P0172: The Fuel System Is Too Rich Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

FUEL PRESSURE SENSOR

DTC P0191: A RANGE/PERFORMANCE PROBLEM IN THE FUEL PRESSURE CIRCUIT

The fuel pressure sensor is located on the fuel pressure regulator and it detects fuel injector pressure. This signal is used to correct the fuel injection period by monitoring the fuel injector pressure. It also detects any abnormality in the fuel pressure.

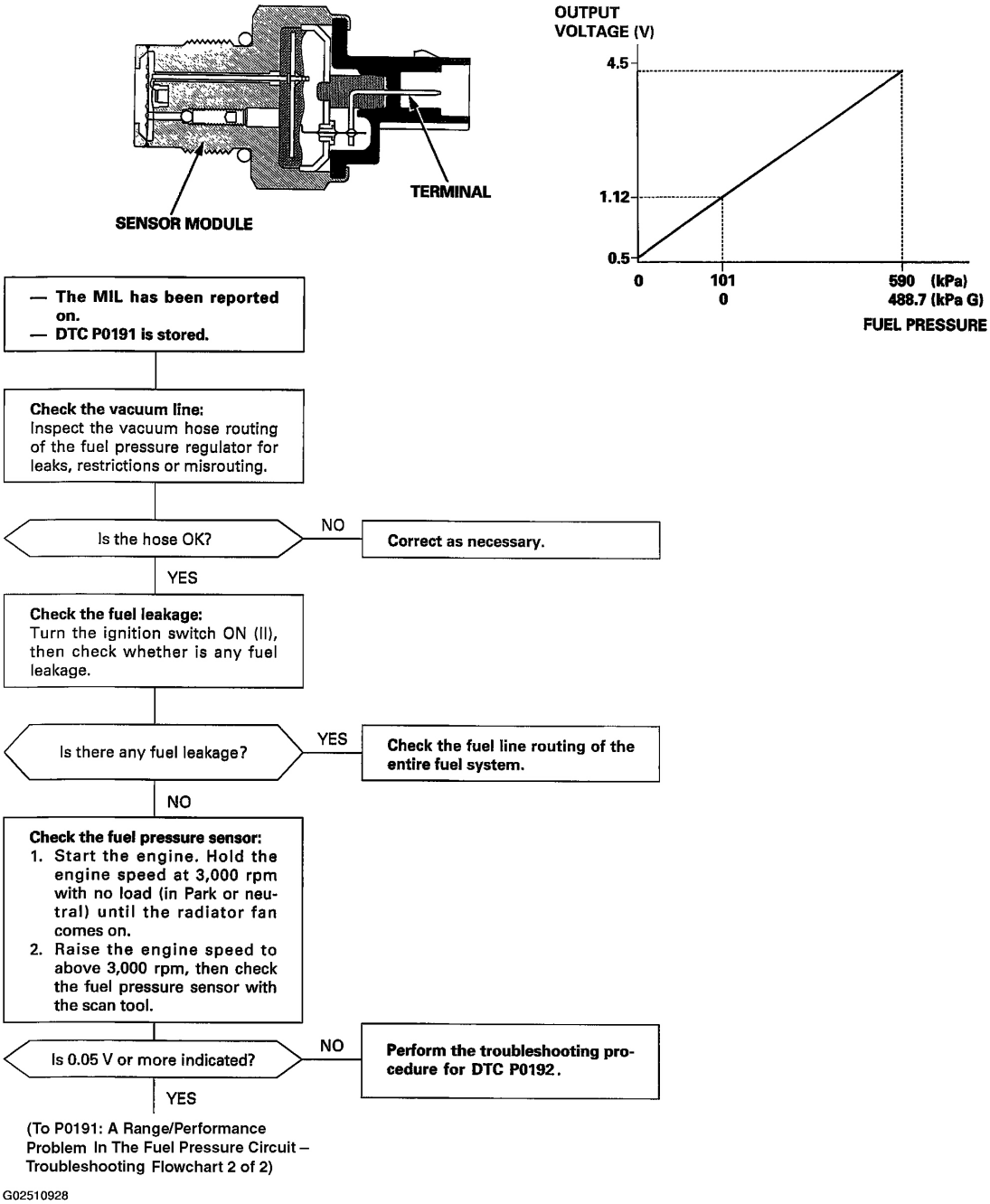


Fig. 35: P0191: A Range/Performance Problem In The Fuel Pressure Circuit Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

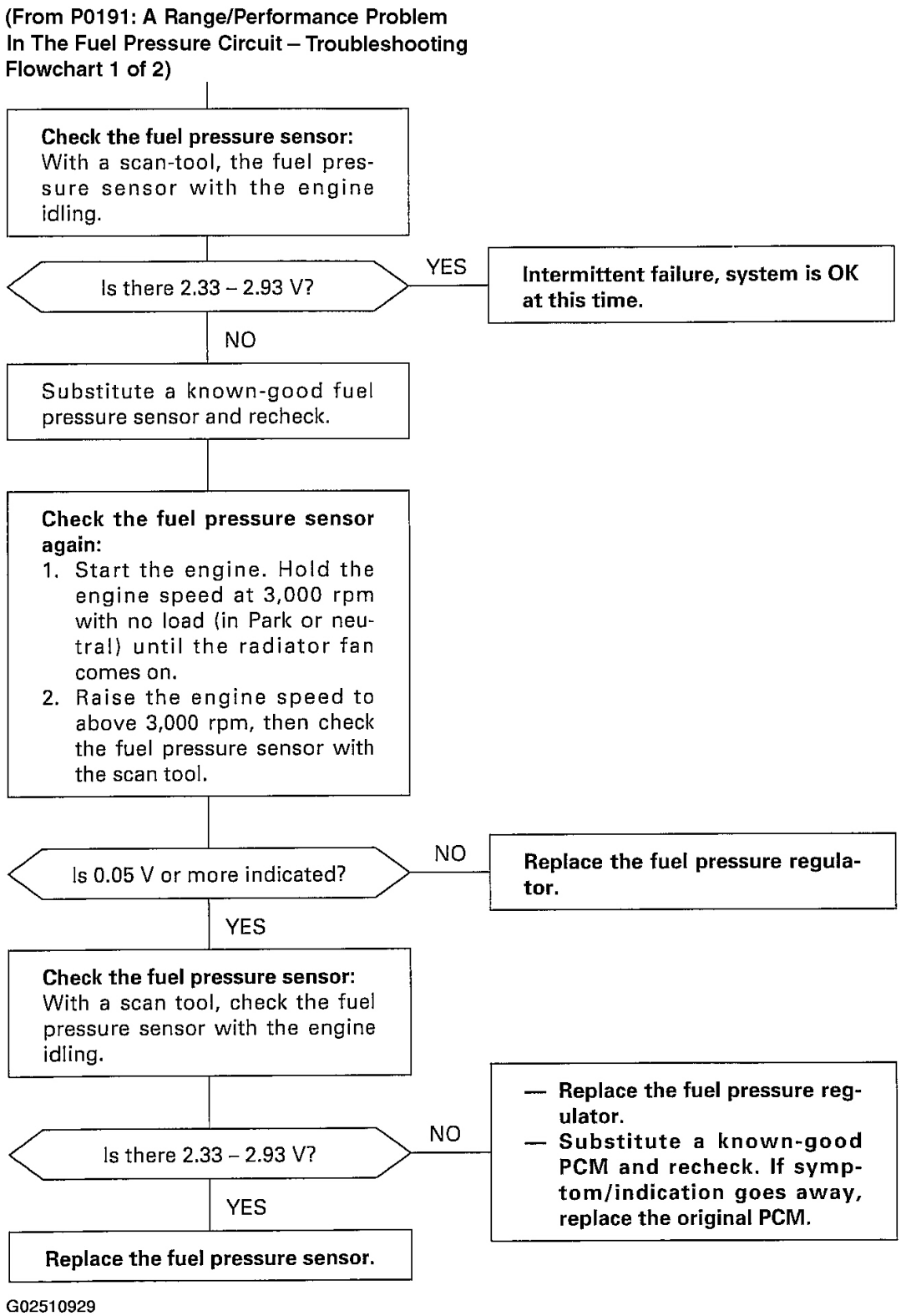
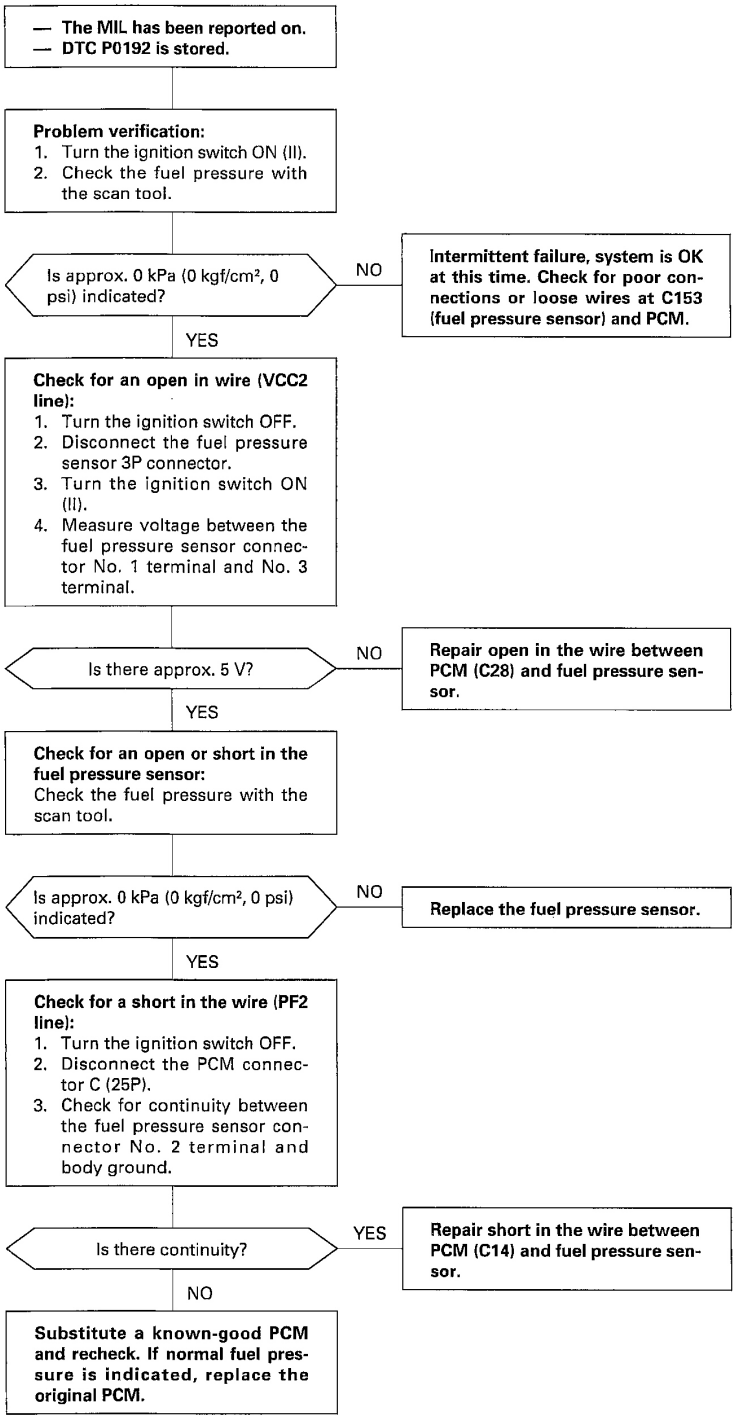
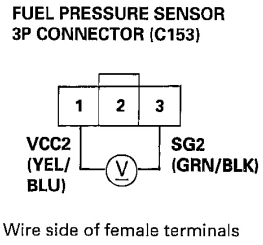


Fig. 36: P0191: A Range/Performance Problem In The Fuel Pressure Circuit Troubleshooting Flowchart

(2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0192: A LOW VOLTAGE (LOW FUEL PRESSURE) PROBLEM IN THE FUEL PRESSURE SENSOR





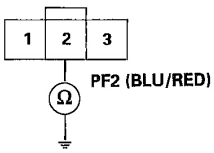


Fig. 37: P0192: A Low Voltage (Low Fuel Pressure) Problem In The Fuel Pressure Sensor Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P0193: A HIGH VOLTAGE (HIGH FUEL PRESSURE) PROBLEM IN THE FUEL PRESSURE

SENSOR

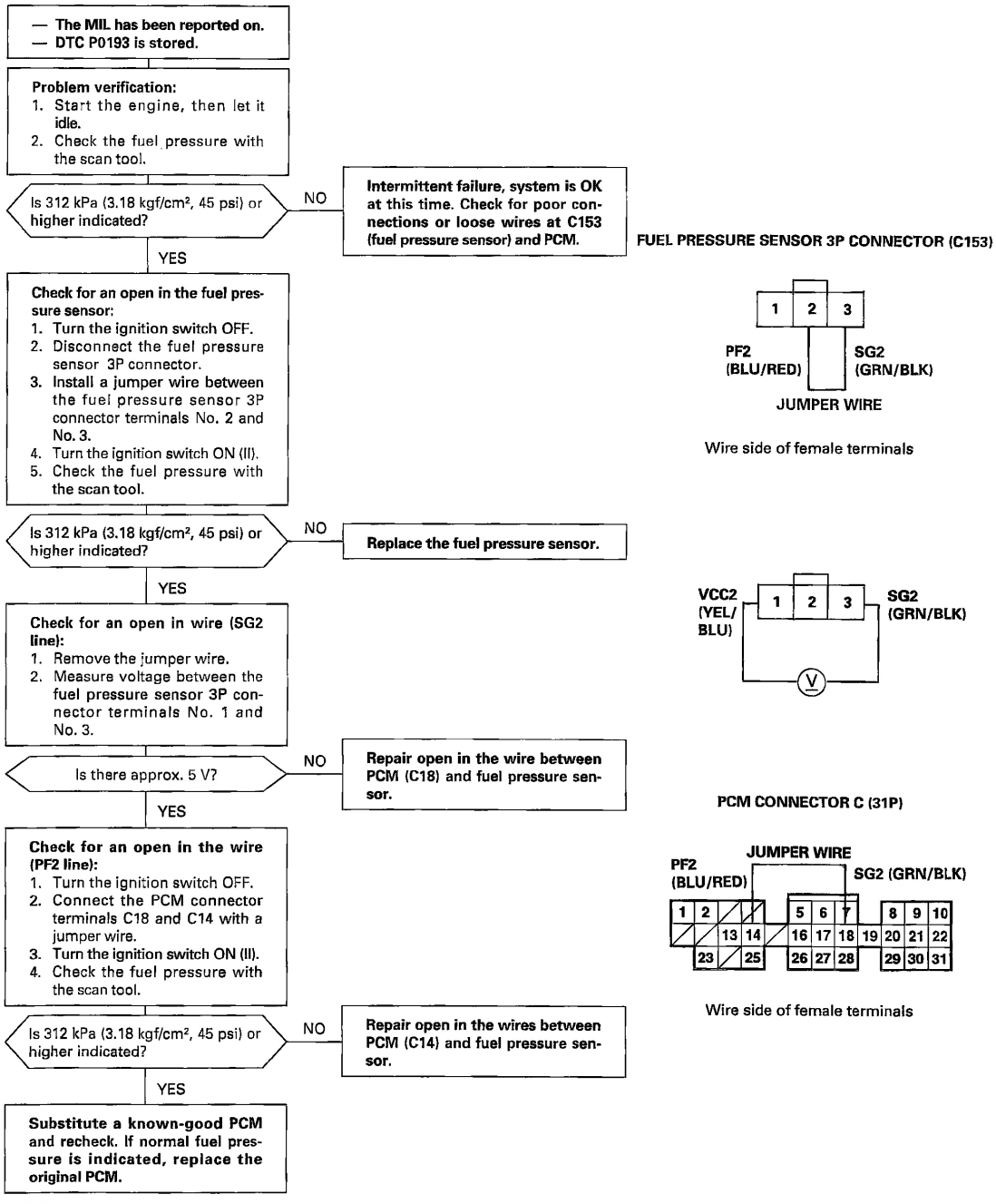


Fig. 38: P0193: A High Voltage (High Fuel Pressure) Problem In The Fuel Pressure Sensor Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

MISFIRE DETECTED IN ONE CYLINDER

DTC P0301, P0302, P0303, P0304: MISFIRE DETECTED

Description

Misfire detection is accomplished by monitoring the crankshaft speed with the crankshaft speed fluctuation (CKF) sensor which is attached to the crankshaft.

If misfiring strong enough to damage the catalyst is detected, the MIL will blink during the time of its occurrence, and DTC P0301, P0302, P0303 or P0304 will be stored. Then, after the misfire has ceased, the MIL will come on.

If misfiring that increases emissions is detected during two consecutive driving cycles, the MIL will come on, and DTC P0301, P0302, P0303 or P0304 will be stored.

NOTE: If some of the DTCs listed below are stored at the same time as a misfire DTC, troubleshoot those DTCs first, then troubleshoot the misfire DTC.

P0131, P0132: HO2S

P0171, P0172: Fuel supply system

P0335, P0336: CKF sensor

P0401, P1491, P1498: EGR system

P1359, P1361, P1362: TDC sensor

P1381, P1382: CYP sensor

Possible Cause

- Fuel injector clogging, fuel leakage, air leakage
- Fuel injector circuit open or shorted
- Injector control module
- Spark plug carbon deposits, fouling, malfunction
- Ignition wires open, leaking
- Distributor malfunction
- Compression low
- Valve clearance out of spec
- VTEC system malfunction
- HO2S
- HO2S circuit

Troubleshooting Flowchart

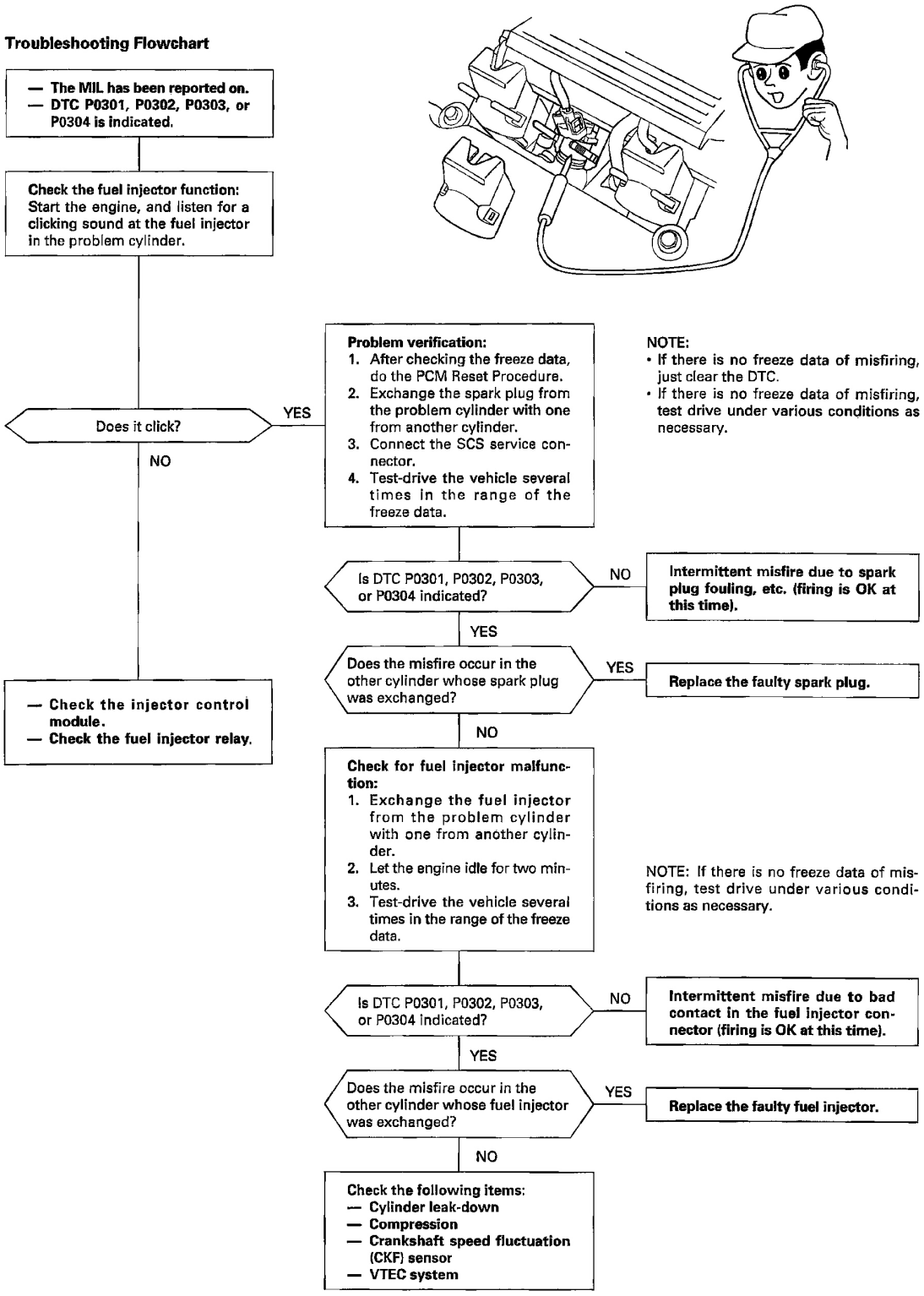


Fig. 39: P0301: Cylinder 1 Misfire Detected; P0302: Cylinder 2 Misfire Detected; P0303: Cylinder 3 Misfire Detected; P0304: Cylinder 4 Misfire Detected - Troubleshooting Flowchart

Courtesy of AMERICAN HONDA MOTOR CO., INC.

RANDOM MISFIRE

DTC P0300, P0301, P0302, P0303, P0304: RANDOM MISFIRE

Description

Misfire detection is accomplished by monitoring the crankshaft speed with the crankshaft speed fluctuation (CKF) sensor which is attached to the crankshaft.

If misfiring strong enough to damage the catalyst is detected, the MIL will blink during the time of its occurrence, and DTC P0300 and some of DTCs P0301 through P0304 will be stored. Then, after misfire has ceased, the MIL will come on.

If misfiring that increases emissions is detected during two consecutive driving cycles, the MIL will come on, and DTC P0300 and some of DTCs P0301 through P0304 will be stored.

NOTE: If some of the DTCs listed below are stored at the same time as a misfire DTC. Troubleshoot those DTCs first, then troubleshoot the misfire DTC.

P1128, P01129: MAP sensor

P0131, P0132: HO2S

P0171, P0172: Fuel metering

P0401, P1491, P1498: EGR system

P0505: Idle Control System

P1253: VTEC System

P1361, P1362: TDC sensor

P1381, P1382: CYP sensor

P1508: IAC valve

Possible Cause

- Fuel line clogging, blockage, leakage
- Fuel filter clogging
- Fuel pressure regulator stuck open
- EGR system malfunction
- Distributor malfunction

- Ignition control module malfunction
- Valves carbon deposit
- Compression low
- VTEC system malfunction
- Fuel does not meet Owner's Manual spec, lack of fuel
- HO2S
- HO2S circuit
- Injector control module

Troubleshooting

By test-driving, determine the conditions during which misfire occurs. Depending on these conditions, test in the order described in **Fig. 40** .

Possible cause / Condition	EGR system	Crankshaft position (CKP)	Fuel pressure	Distributor and Ignition wires	ICM	Valve Clearance
Only low rpm and load	①	③	②			③
Only accelerating			②	①	③	
Only high rpm and load		④	①	②	③	④
Not specification		④	①	②	③	④

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Fig. 40: P0300 & P0301, P0302, P0303, P0304: Random Misfire - Troubleshooting Chart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NOTE: If misfire doesn't recur, some possible causes are fuel that doesn't meet owner's manual spec, lack of fuel, carbon deposits on spark plug, etc.

For testing procedures listed in **Fig. 40** , see the following sections.

- EGR System: **EXHAUST GAS RECIRCULATION (EGR) SYSTEM**
- Crankshaft Position (CKP) Sensor: **Crankshaft Speed Fluctuation (CKF) Sensor**
- Valve Clearance: **VALVE CLEARANCE**

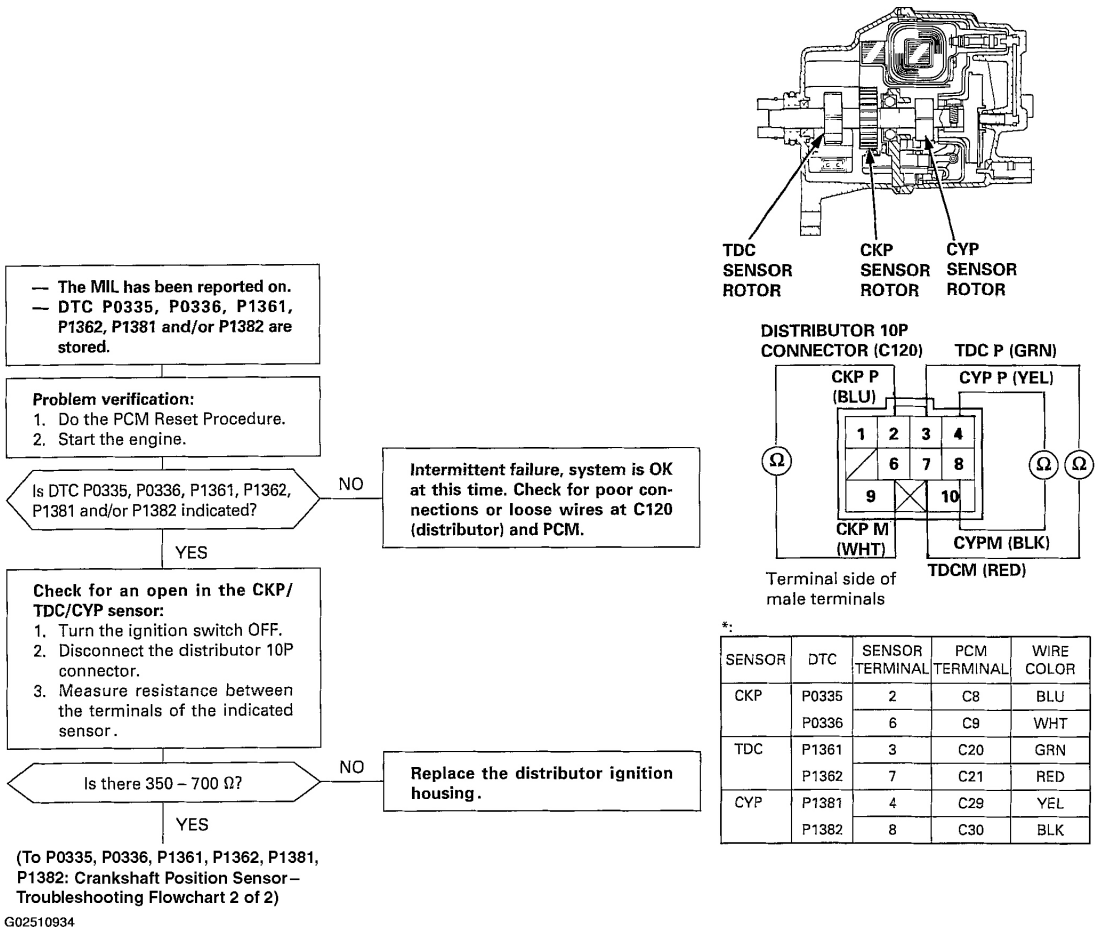
CRANKSHAFT POSITION/TOP DEAD CENTER/CYLINDER POSITION (CKP/TDC/CYP) SENSOR

DTC P0335, P0336, P1361, P1362, P1381, P1382: CKP SENSOR CIRCUIT, TDC SENSOR CIRCUIT, CYP SENSOR CIRCUIT,

Description

The CKP Sensor determines timing for fuel injection and ignition of each cylinder and also detects engine speed. The TDC Sensor determines ignition timing at start-up (cranking) and when crank angle is abnormal. The CYP Sensor detects the position of No. 1 cylinder for sequential fuel injection to each cylinder. The CKP/TDC/CYP Sensor is built into the distributor.

NOTE: If DTC P1359 is stored at the same time as DTC P0335, P0336, P1361, P1362, P1381 and/or P1382, troubleshoot DTC P1359 first, then troubleshoot those DTCs.



*:

SENSOR	DTC	SENSOR TERMINAL	PCM TERMINAL	WIRE COLOR
CKP	P0335	2	C8	BLU
	P0336	6	C9	WHT
TDC	P1361	3	C20	GRN
	P1362	7	C21	RED
CYP	P1381	4	C29	YEL
	P1382	8	C30	BLK

Fig. 41: P0335, P0336, P1361, P1362, P1381, P1382: Crankshaft Position Sensor Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

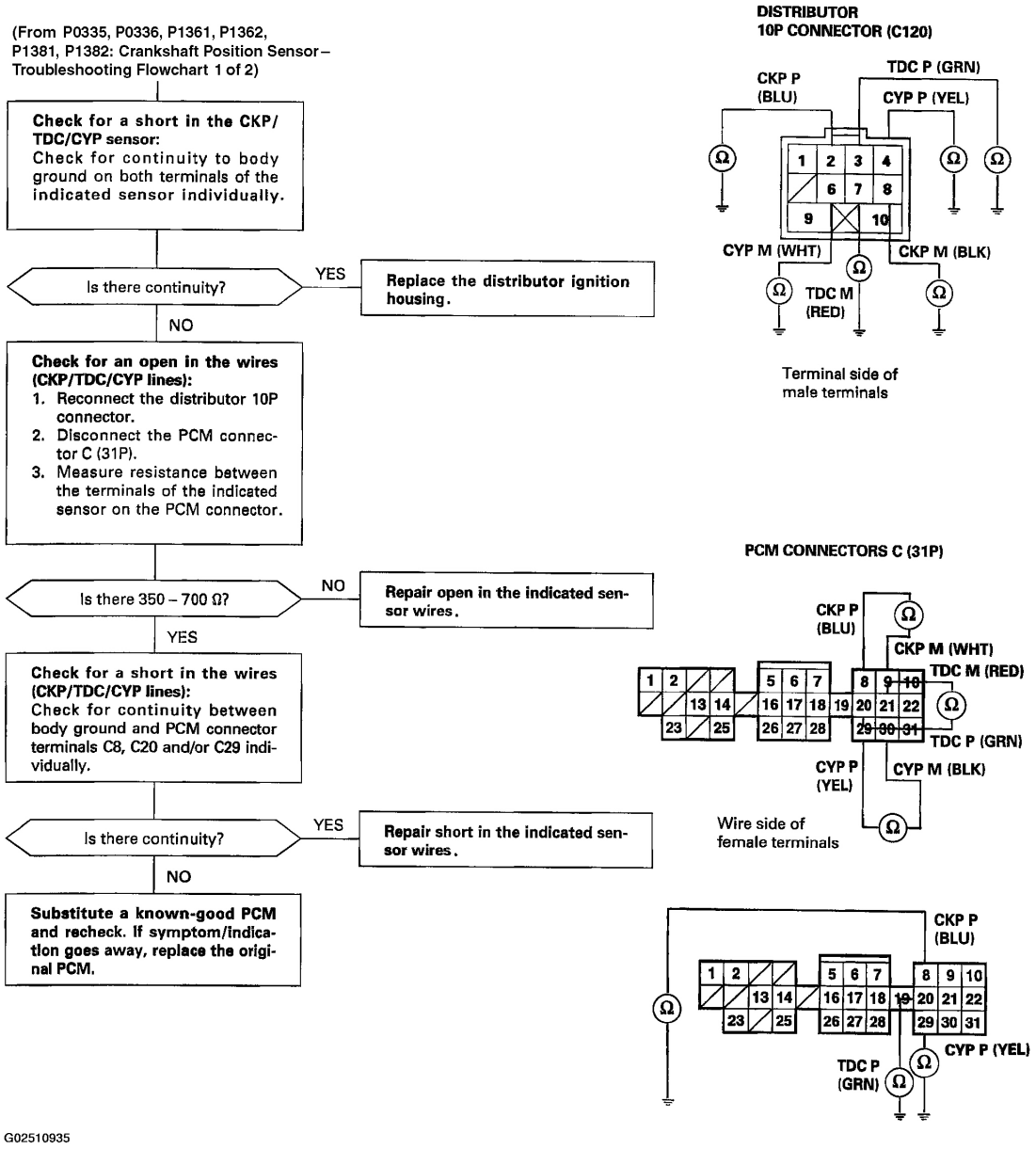


Fig. 42: P0335, P0336, P1361, P1362, P1381, P1382: Crankshaft Position Sensor Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

VEHICLE SPEED SENSOR (VSS)

DTC P0501: A RANGE/PERFORMANCE PROBLEM IN THE VEHICLE SPEED SENSOR (VSS) CIRCUIT

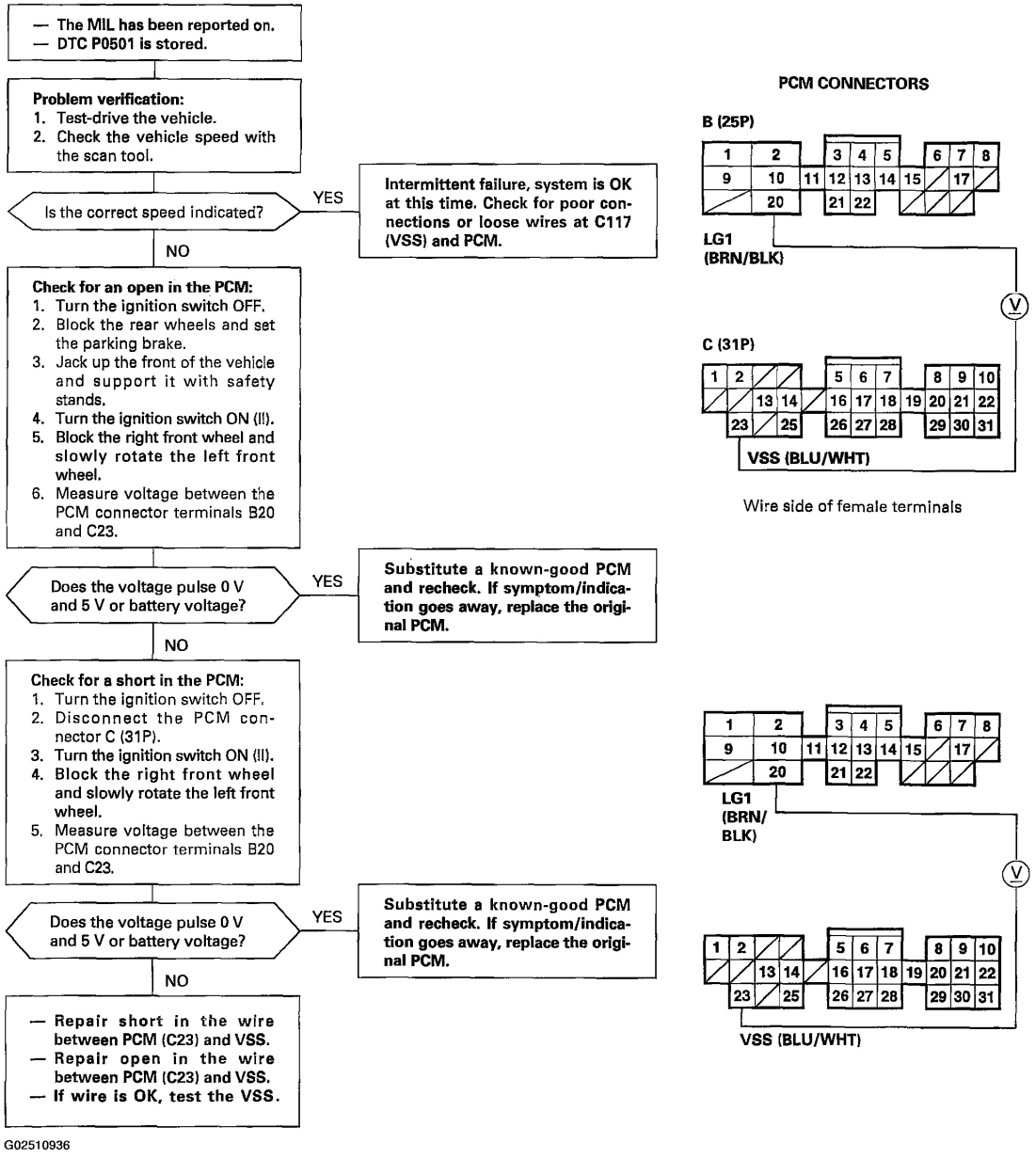


Fig. 43: P0501: A Range/Performance Problem In The Vehicle Speed Sensor (VSS) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

BAROMETRIC PRESSURE (BARO) SENSOR

DTC P1106: A RANGE/PERFORMANCE PROBLEM IN THE BAROMETRIC PRESSURE (BARO) SENSOR CIRCUIT

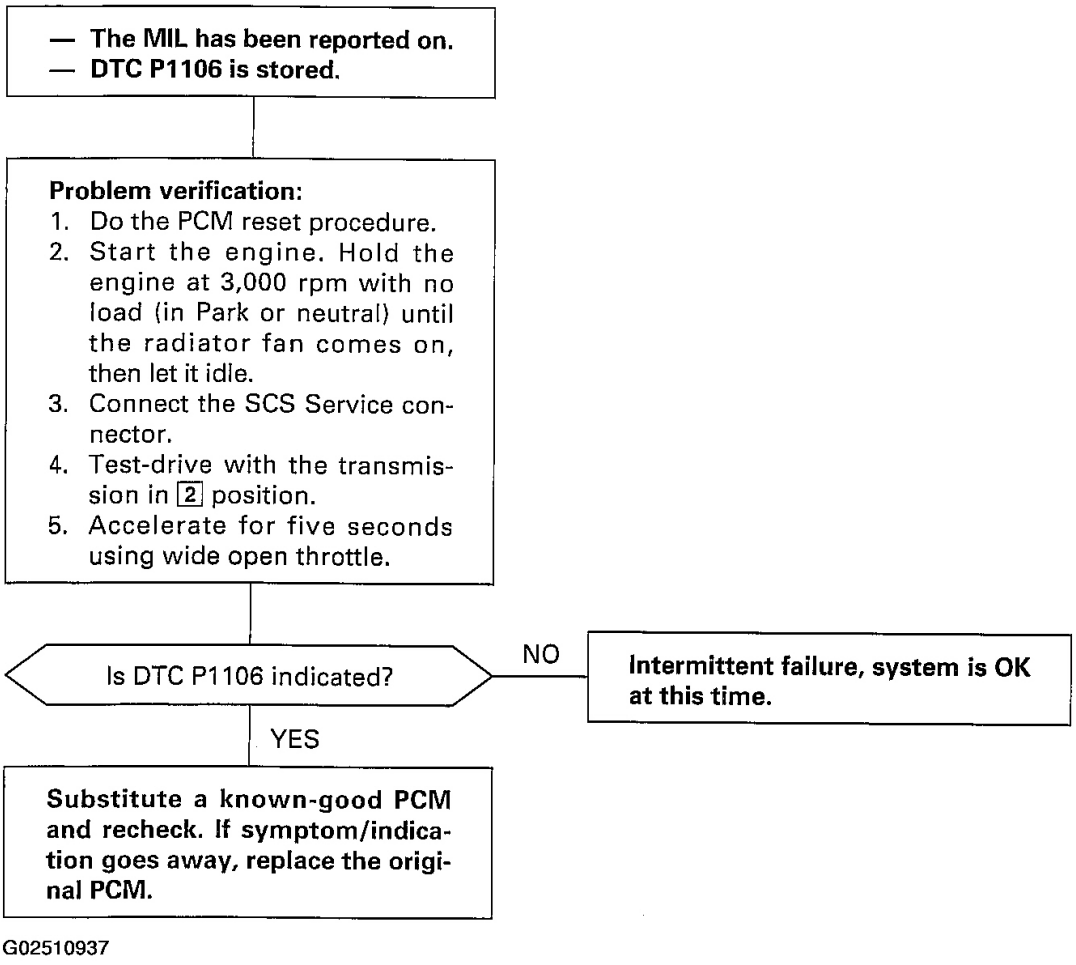


Fig. 44: P1106: A Range/Performance Problem In The Barometric Pressure (Baro) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1107, P1108: A HIGH/LOW VOLTAGE PROBLEM IN THE BARO SENSOR CIRCUIT

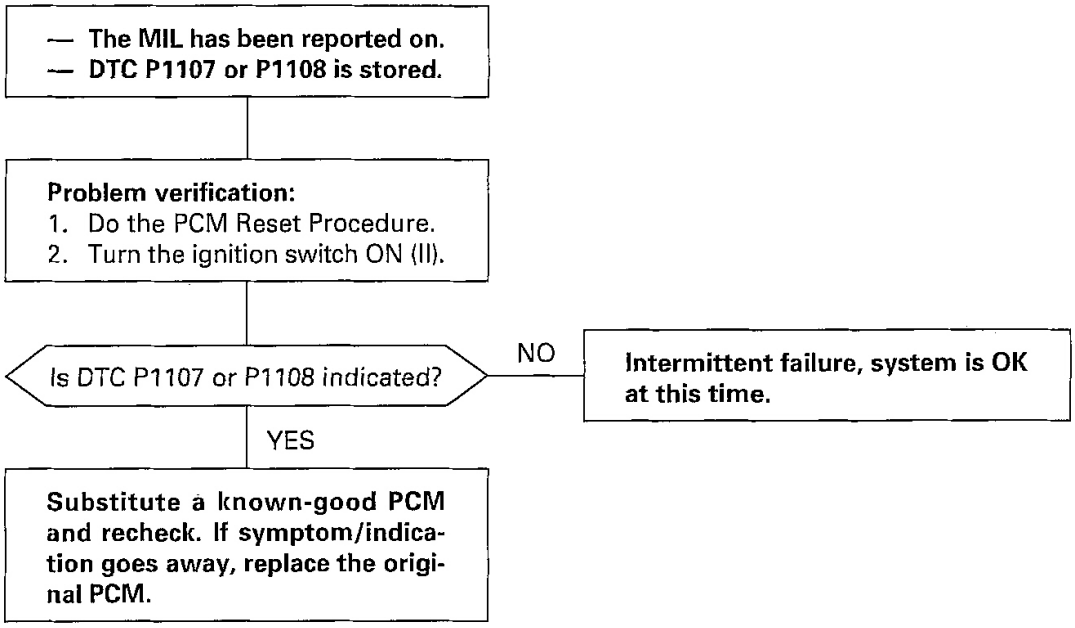
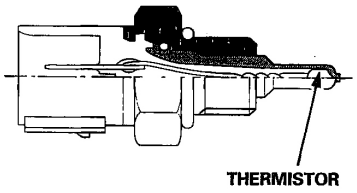


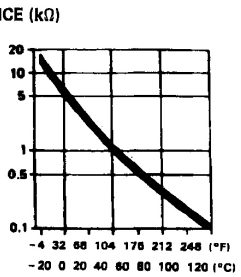
Fig. 45: P1107: A Low Voltage Problem In The Baro Sensor Circuit & P1108: A High Voltage Problem In The Baro Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

FUEL TEMPERATURE SENSOR

DTC P1182: A LOW VOLTAGE (HIGH TEMPERATURE) PROBLEM IN THE FUEL TEMPERATURE SENSOR CIRCUIT

Fuel injector temperature sensor is located on the fuel rail and detects the temperature of the fuel. This signal is used to correct the fuel injection period by fuel temperature.





— The MIL has been reported on.
— DTC P1182 is stored.

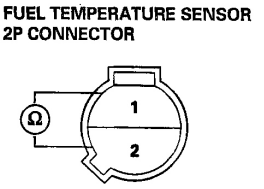
Problem verification:
1. Do the PCM Reset Procedure.
2. Turn the ignition switch ON (II).

Is DTC P1182 indicated?

NO → **Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C151 (fuel temperature sensor) and PCM.**

YES

Check for a short in the fuel temperature sensor:
1. Turn the ignition switch OFF.
2. Disconnect the fuel temperature sensor 2P connector.
3. Measure resistance between the 2 terminals of the fuel temperature sensor.

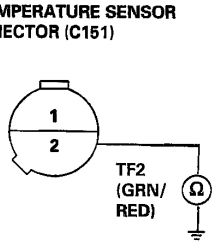


Is the resistance OK (see the graph)?

NO → **Replace the fuel temperature sensor.**

YES

Check for a short in the wire (TF2 line):
1. Turn the ignition switch OFF.
2. Disconnect the PCM connector C (31P).
3. Check for continuity between the fuel temperature sensor 2P connector terminal No. 2 and body ground.



Is there continuity?

YES → **Repair short in the wire between PCM (C13) and fuel temperature sensor.**

NO

Substitute a known-good PCM and recheck. If normal fuel temperature is indicated, replace the original PCM.

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Fig. 46: P1182: A Low Voltage (High Temperature) Problem In The Fuel Temperature Sensor Circuit Troubleshooting Chart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1183: A HIGH VOLTAGE (LOW TEMPERATURE) PROBLEM IN THE FUEL TEMPERATURE SENSOR CIRCUIT

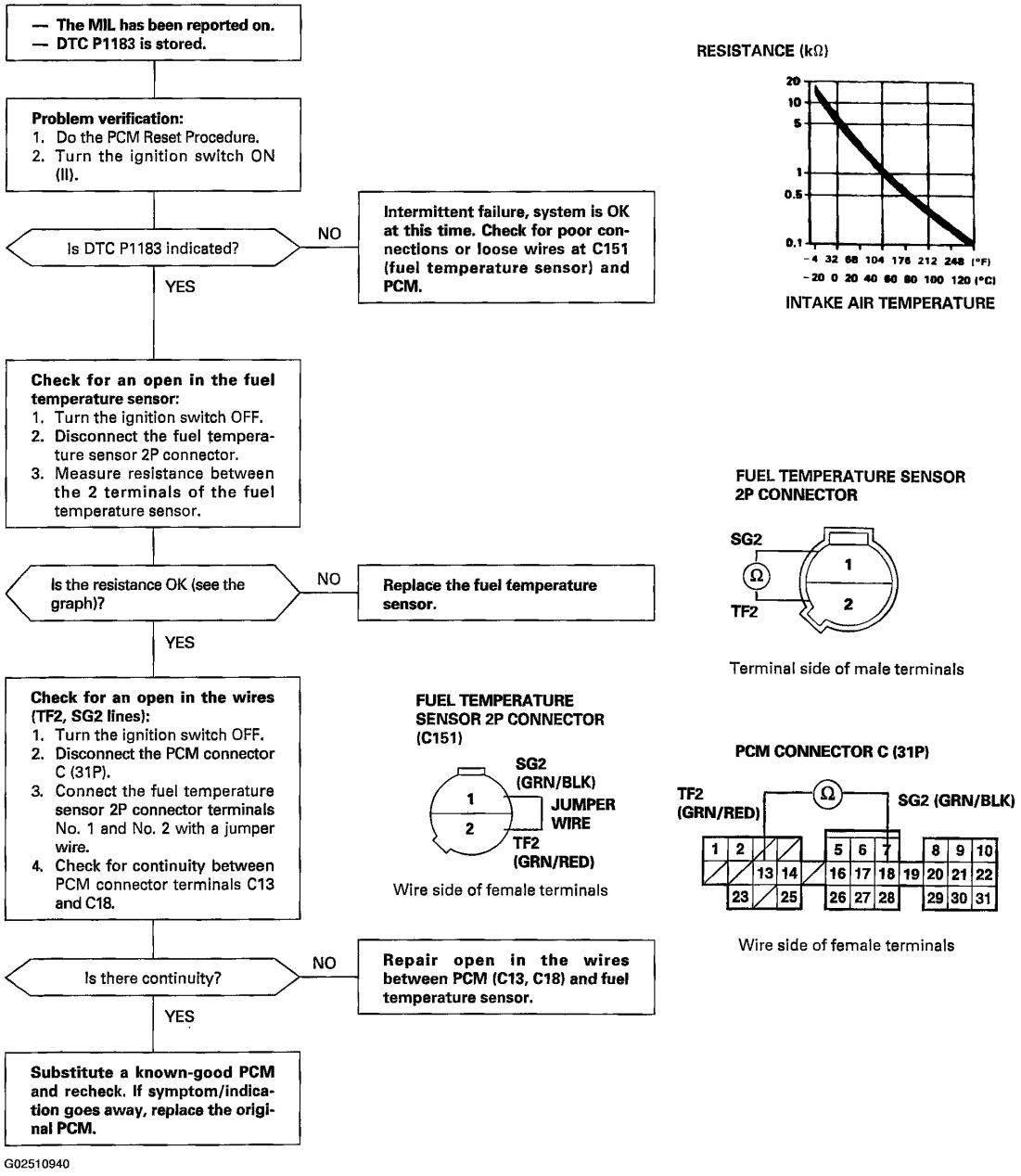


Fig. 47: P1183: A High Voltage (Low Temperature) Problem In The Fuel Temperature Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

FUEL TANK TEMPERATURE SENSOR

DTC P1187: A LOW VOLTAGE (HIGH TEMPERATURE) PROBLEM IN THE FUEL TANK TEMPERATURE SENSOR CIRCUIT

The fuel tank temperature sensor is located on the fuel joint block and detects the temperature of the fuel. This

signal is used to calculate injector duration.

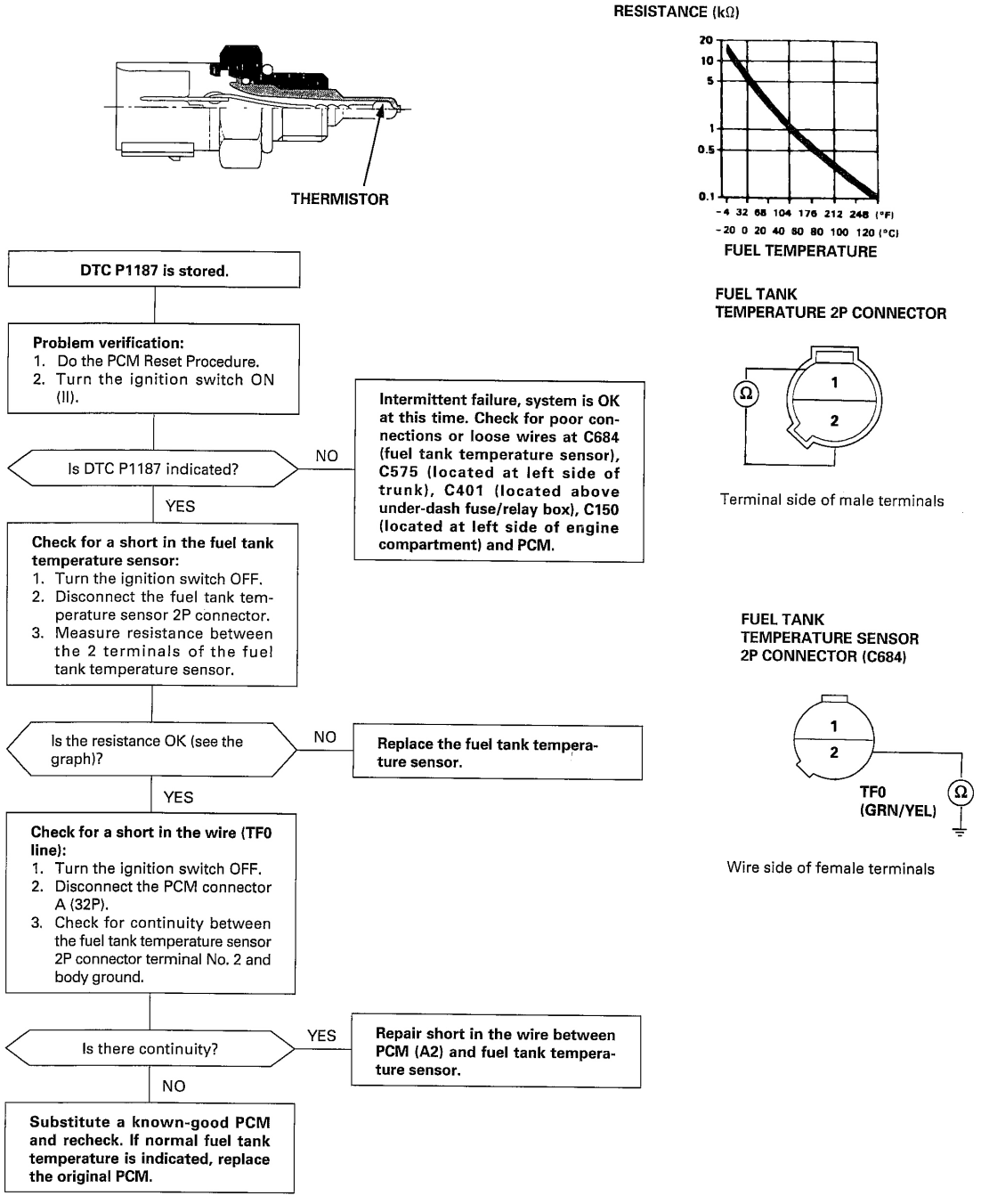


Fig. 48: P1187: A Low Voltage (High Temperature) Problem In The Fuel Tank Temperature Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1188: A HIGH VOLTAGE (LOW TEMPERATURE) PROBLEM IN THE FUEL TANK

TEMPERATURE SENSOR CIRCUIT

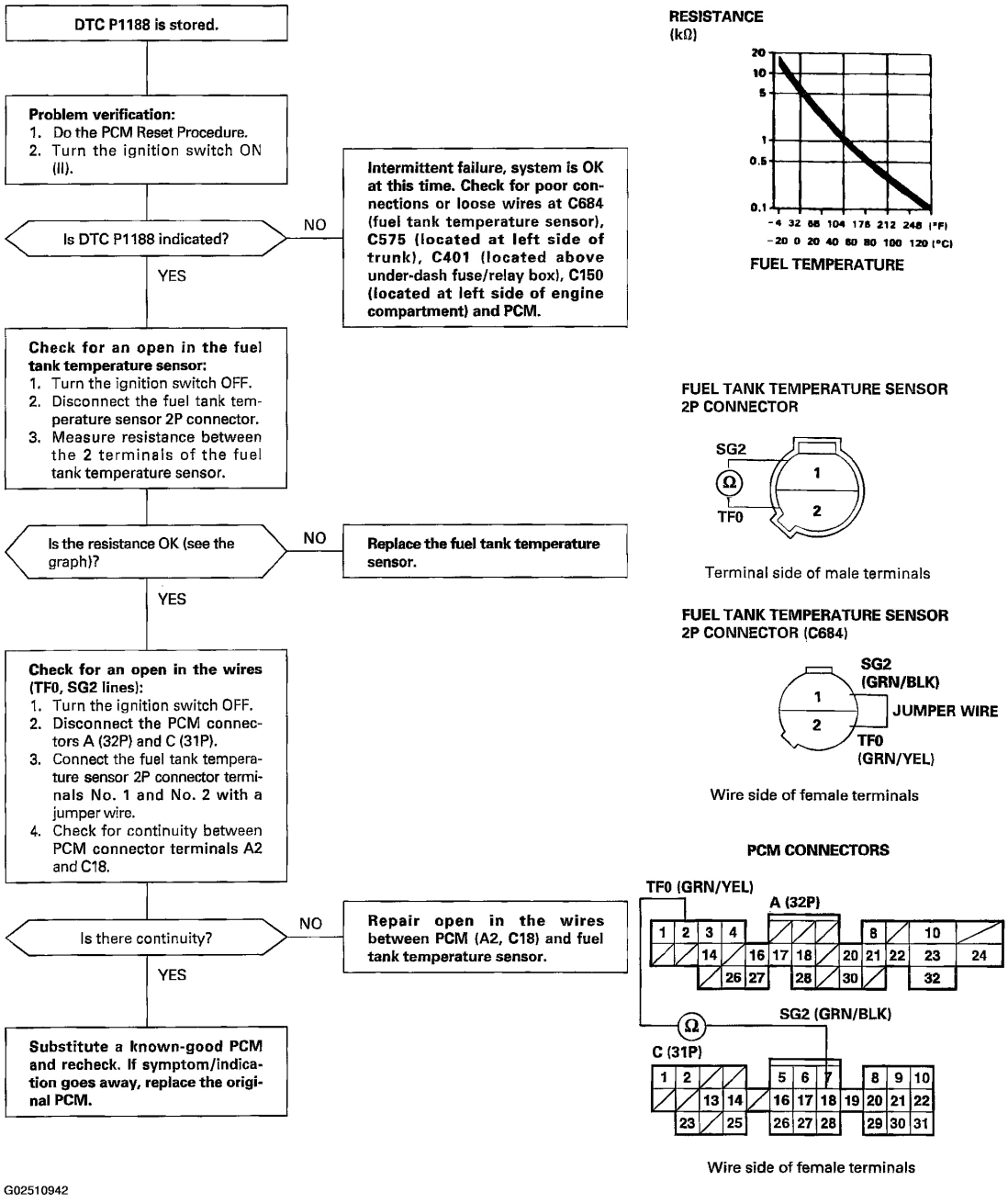


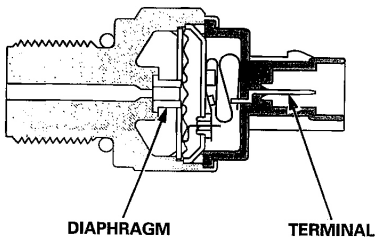
Fig. 49: P1188: A High Voltage (Low Temperature) Problem In The Fuel Tank Temperature Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

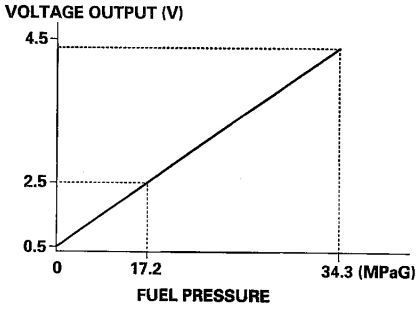
FUEL TANK PRESSURE SENSOR

The fuel tank pressure sensor is located on the fuel joint block, and it detects fuel tank pressure. This signal is

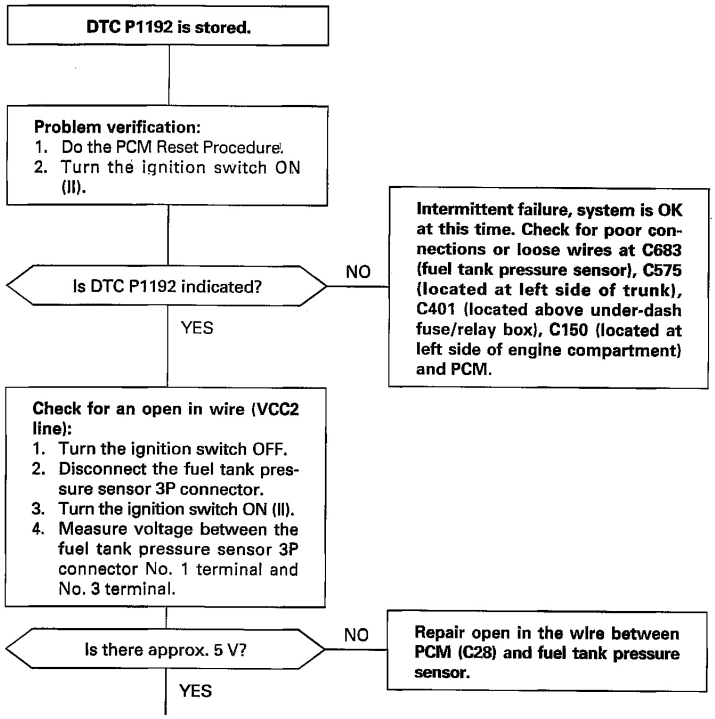
used to calculate the fuel injection duration in the tank and to detect any leakage.

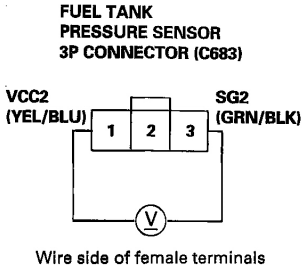
DTC P1192: A LOW VOLTAGE (LOW FUEL PRESSURE) PROBLEM IN THE FUEL TANK PRESSURE SENSOR





P1192 The scan tool indicates Diagnostic Trouble Code (DTC) P1192: A low voltage (low fuel pressure) problem in the Fuel Tank Pressure sensor.





Wire side of female terminals

(To P1192: A Low Voltage (Low Fuel Pressure) Problem In The Fuel Tank Pressure Sensor – Troubleshooting Flowchart 2 of 2)
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Fig. 50: P1192: A Low Voltage (Low Fuel Pressure) Problem In The Fuel Tank Pressure Sensor Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

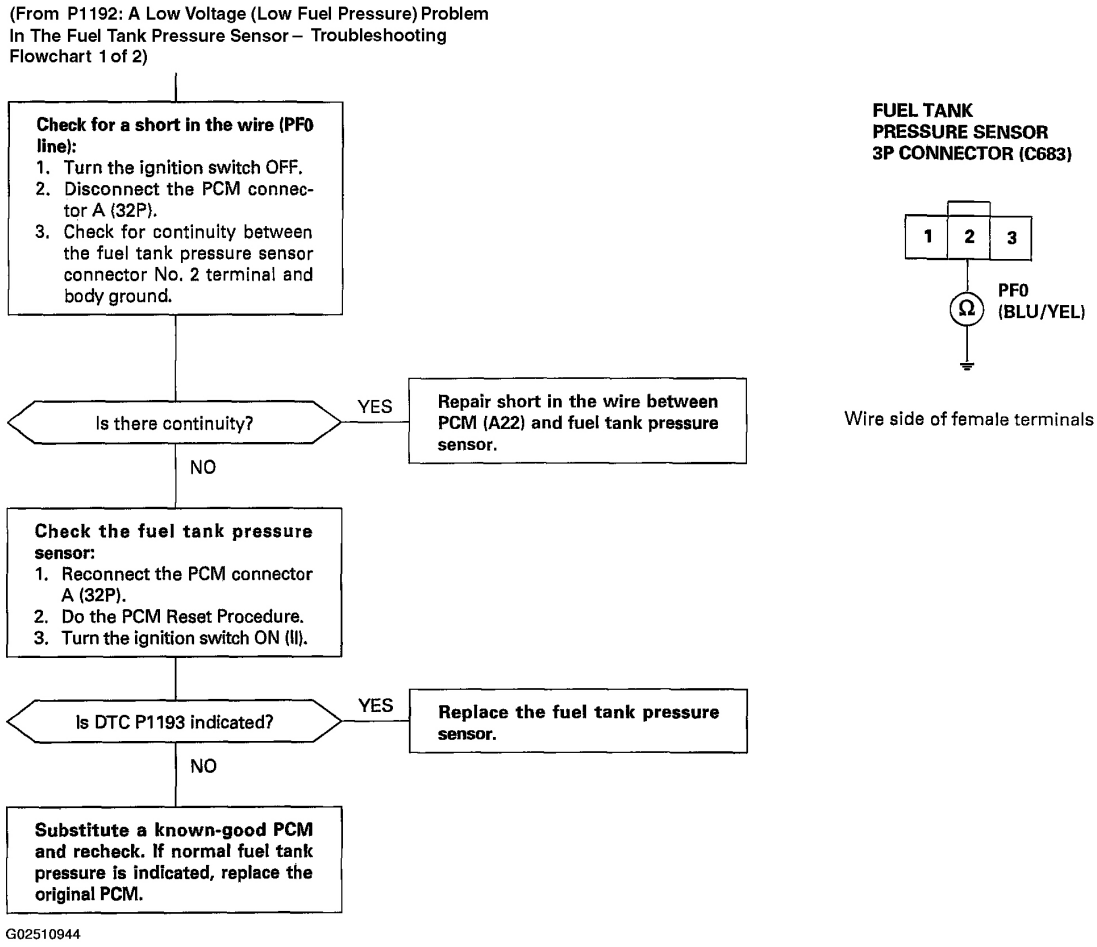

Fig. 51: P1192: A Low Voltage (Low Fuel Pressure) Problem In The Fuel Tank Pressure Sensor Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1193: A HIGH VOLTAGE (HIGH FUEL PRESSURE) PROBLEM IN THE FUEL TANK PRESSURE SENSOR CIRCUIT

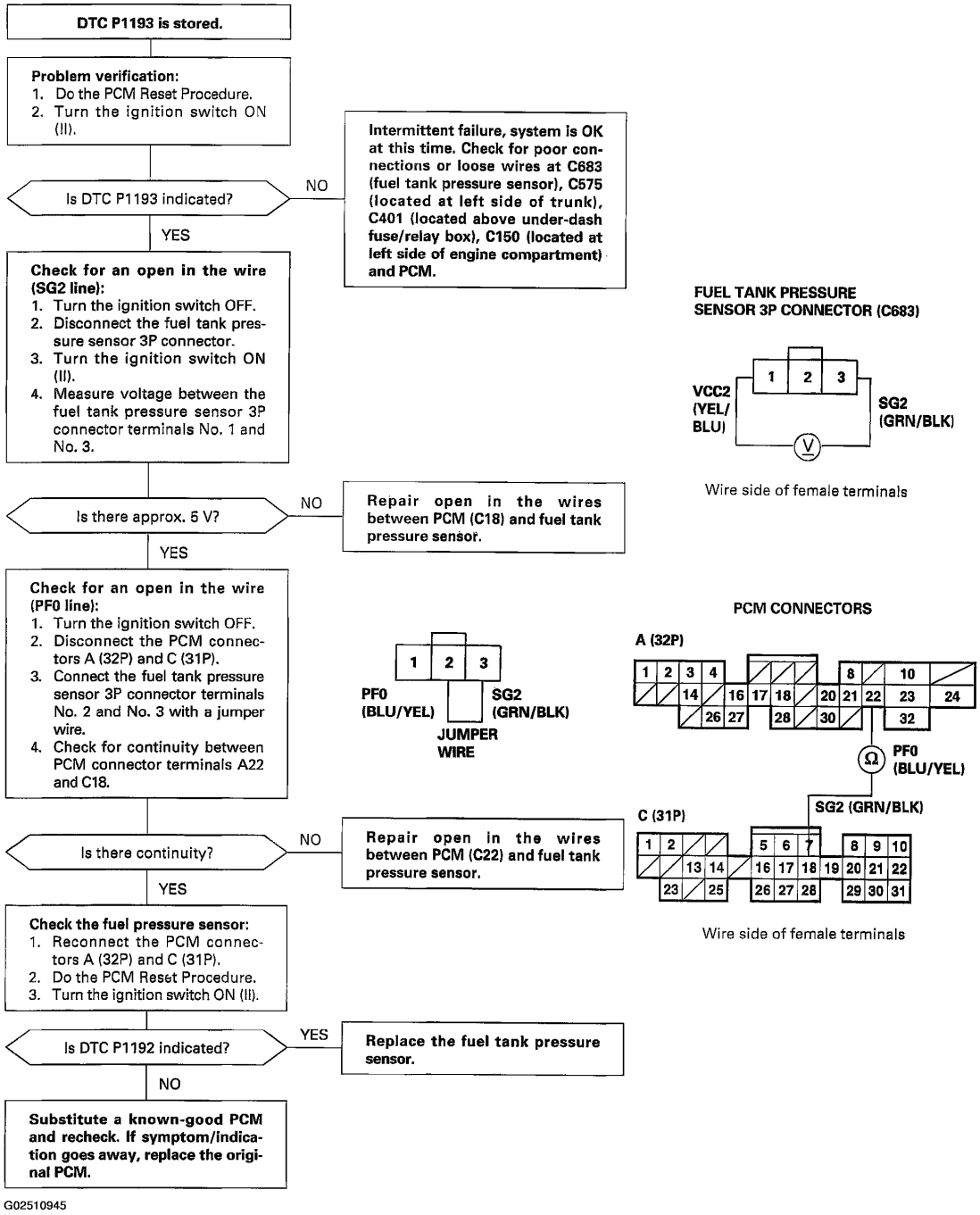

Fig. 52: P1193: A High Voltage (High Fuel Pressure) Problem In The Fuel Tank Pressure Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

ELECTRICAL LOAD DETECTOR (ELD)

DTC P1297: A LOW VOLTAGE PROBLEM IN THE ELECTRICAL LOAD DETECTOR (ELD)

CIRCUIT

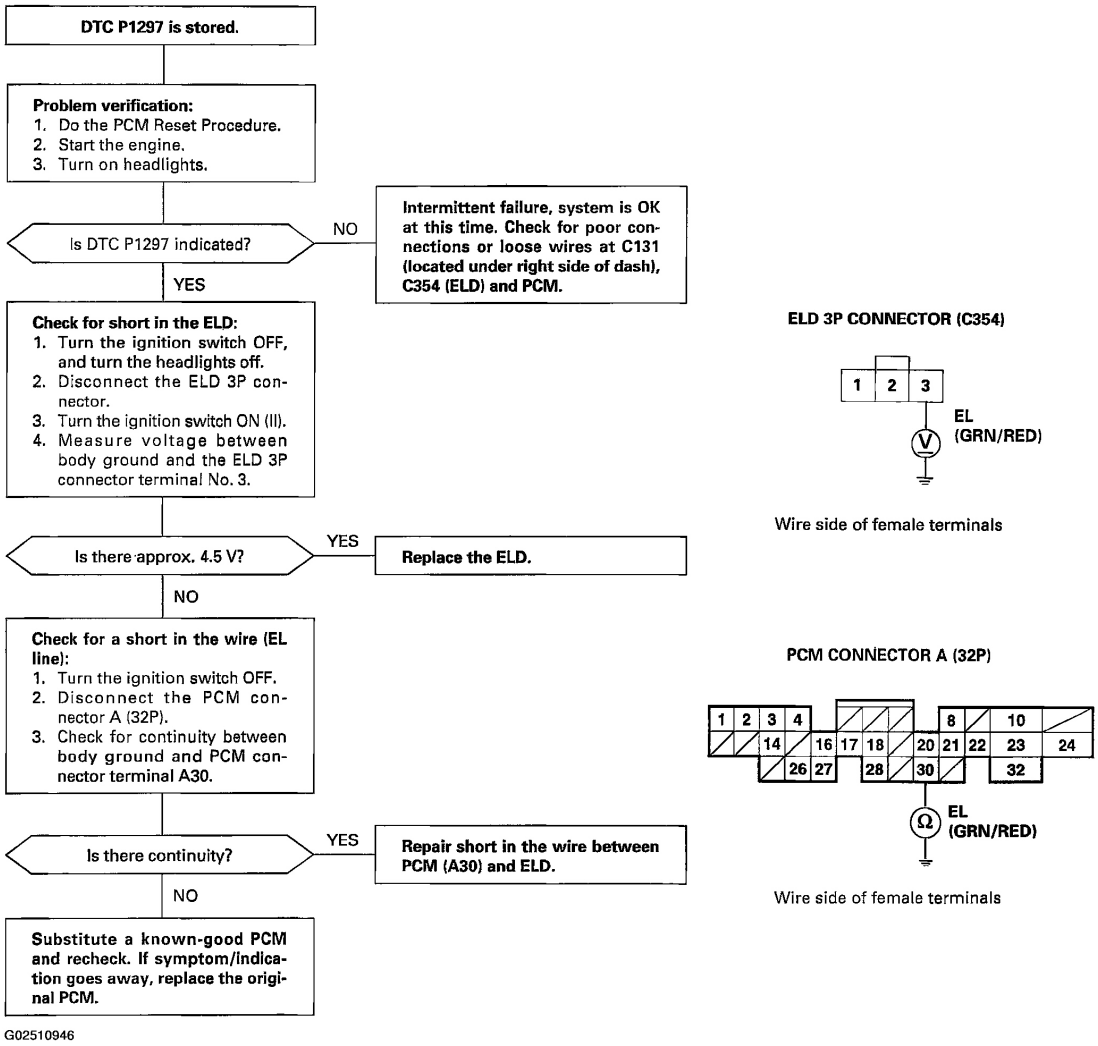

Fig. 53: P1297: A Low Voltage Problem In The Electrical Load Detector (ELD) Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC P1298: A HIGH VOLTAGE PROBLEM IN THE ELECTRICAL LOAD DETECTOR (ELD) CIRCUIT

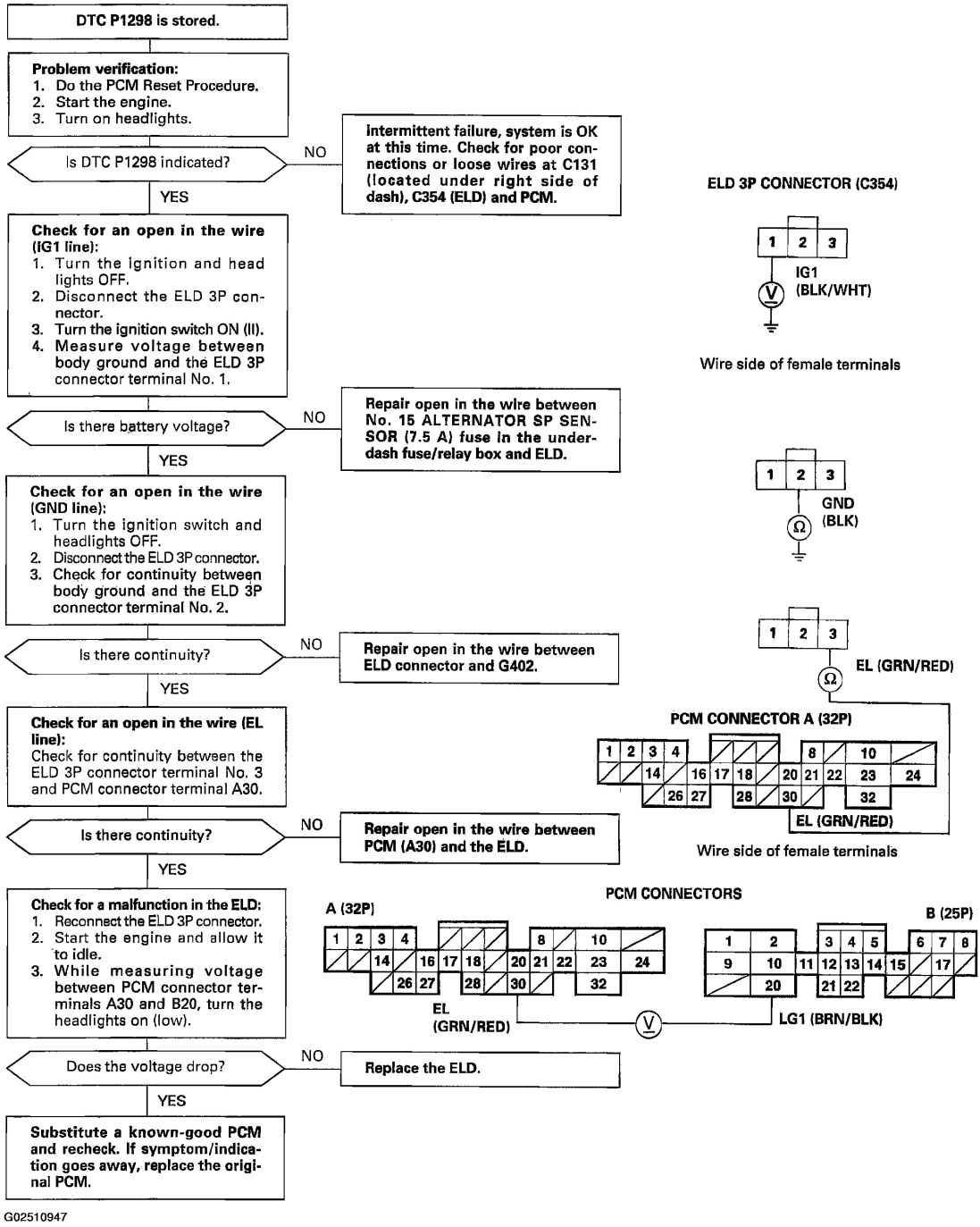

Fig. 54: P1298: A High Voltage Problem In The Electrical Load Detector (ELD) Circuit Troubleshooting Flowchart

Courtesy of AMERICAN HONDA MOTOR CO., INC.

CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR

DTC P1336, P1337: CKF SENSOR CIRCUIT

Description

The diagnostic system has a pulser rotor on the crankshaft and a pulse pick-up sensor on the engine block. The PCM monitors the crankshaft speed fluctuation based on the CKF sensor signal, and judges that an engine misfire occurred if the fluctuation goes beyond a predetermined limit.

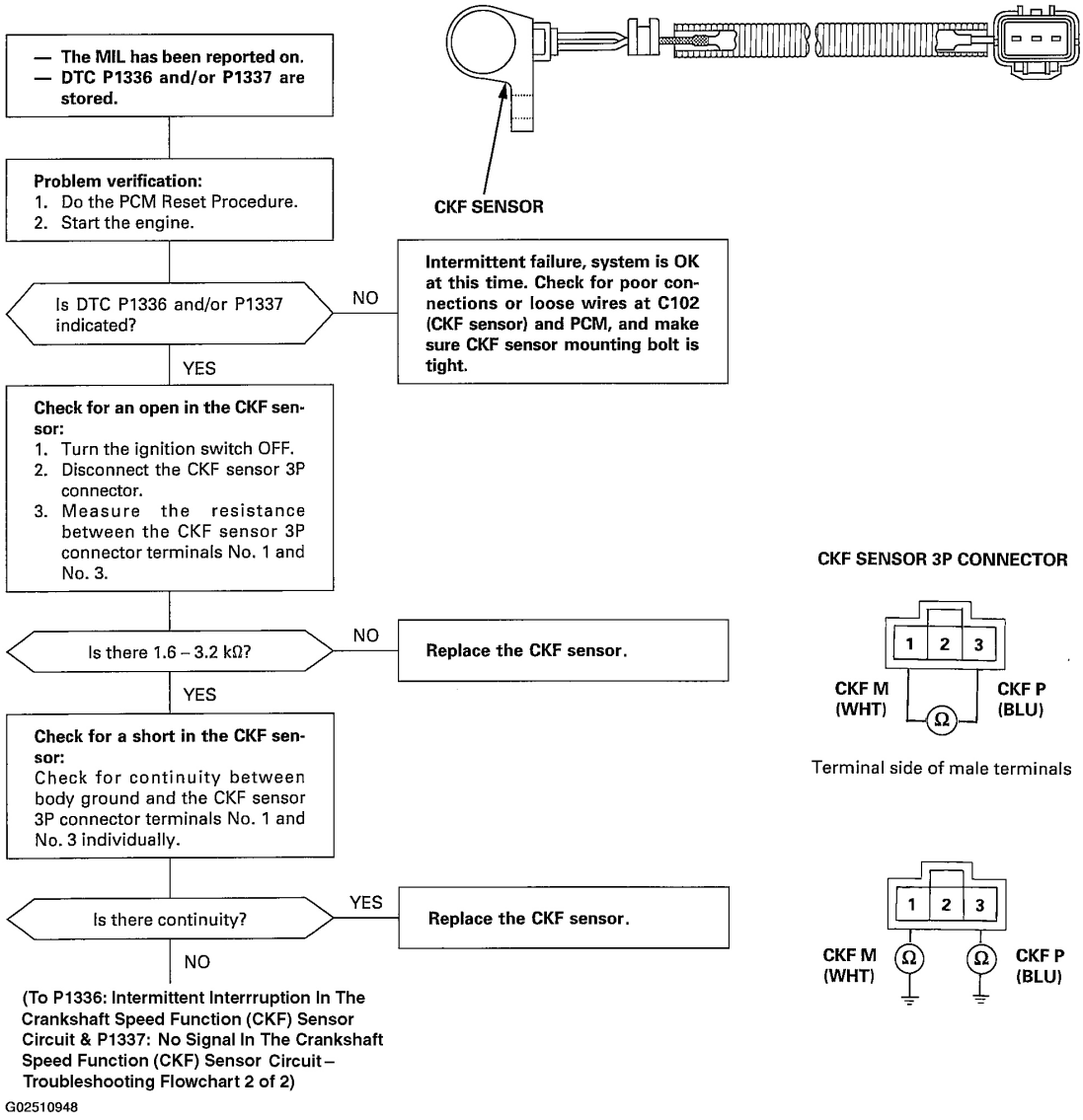

Fig. 55: P1336: Intermittent Interruption In The Crankshaft Speed Fluctuation (CKF) Sensor Circuit & P1337: No Signal In The Crankshaft Speed Fluctuation (CKF) Sensor Circuit - Troubleshooting Flowchart (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

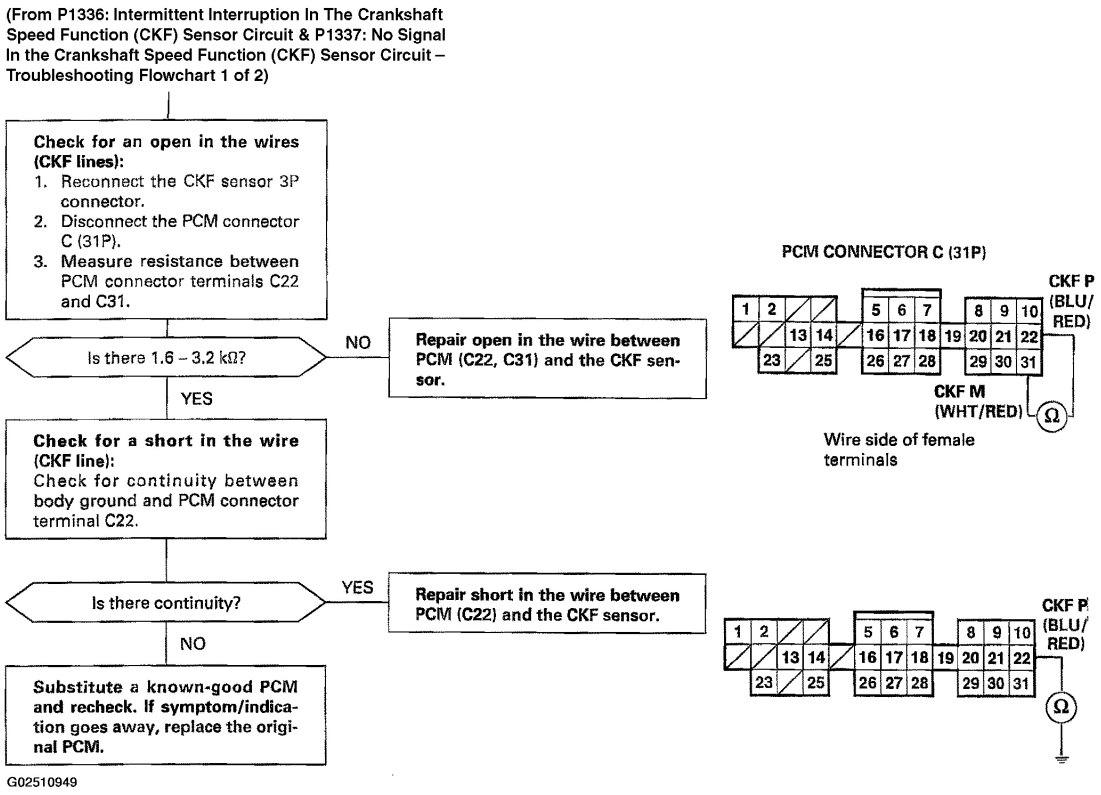

Fig. 56: P1336: Intermittent Interruption In The Crankshaft Speed Fluctuation (CKF) Sensor Circuit & P1337: No Signal In The Crankshaft Speed Fluctuation (CKF) Sensor Circuit - Troubleshooting Flowchart (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CRANKSHAFT POSITION/TOP DEAD CENTER/CYLINDER POSITION (CKP/TDC/CYP) SENSOR

DTC P1359: A PROBLEM IN THE CRANKSHAFT POSITION/TOP DEAD CENTER/CYLINDER POSITION (CKP/TDC/CYP) SENSOR CIRCUIT

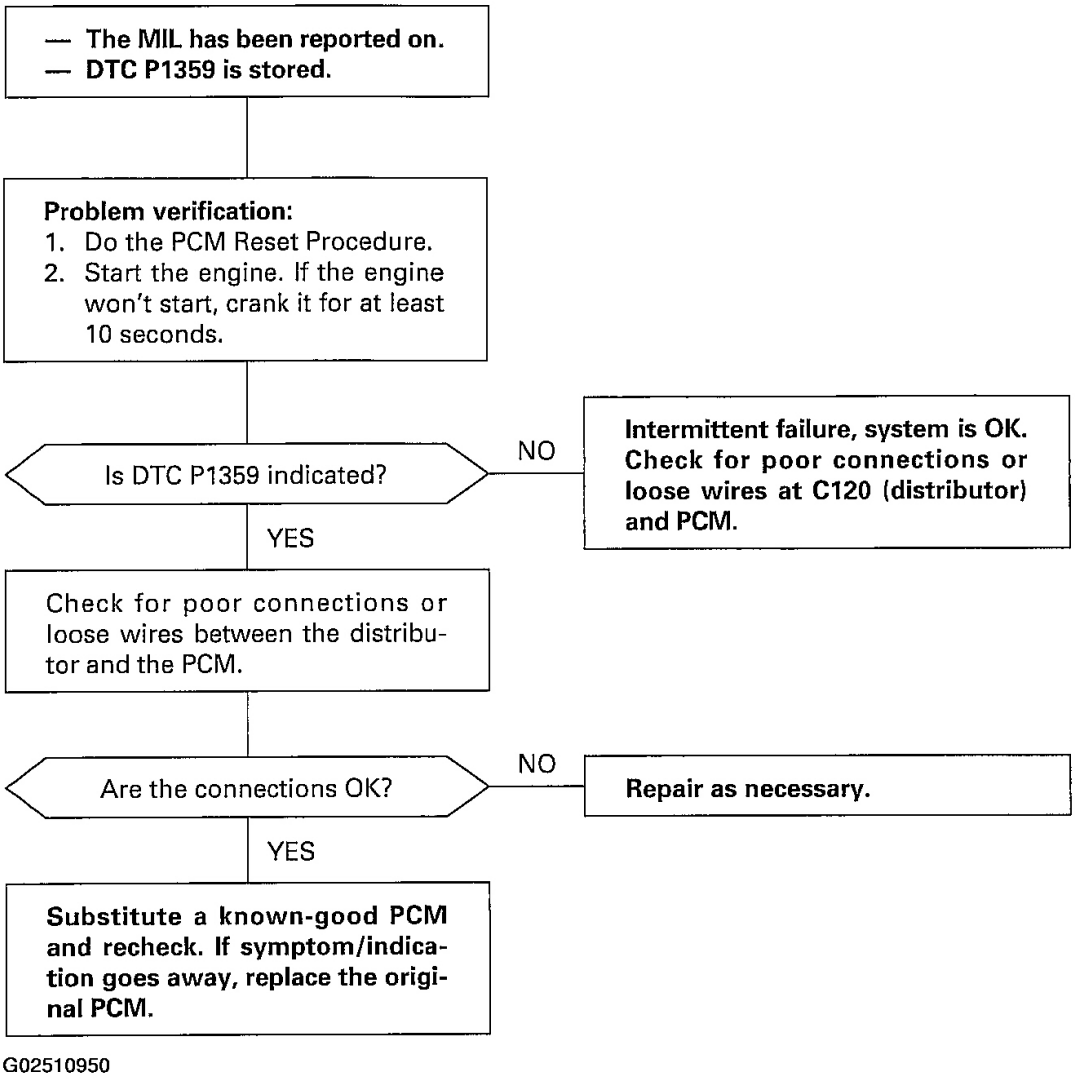

Fig. 57: P1359: A Problem In The Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) Sensor Circuit Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

PCM INTERNAL CIRCUIT

DTC P1607: A PCM INTERNAL CIRCUIT PROBLEM

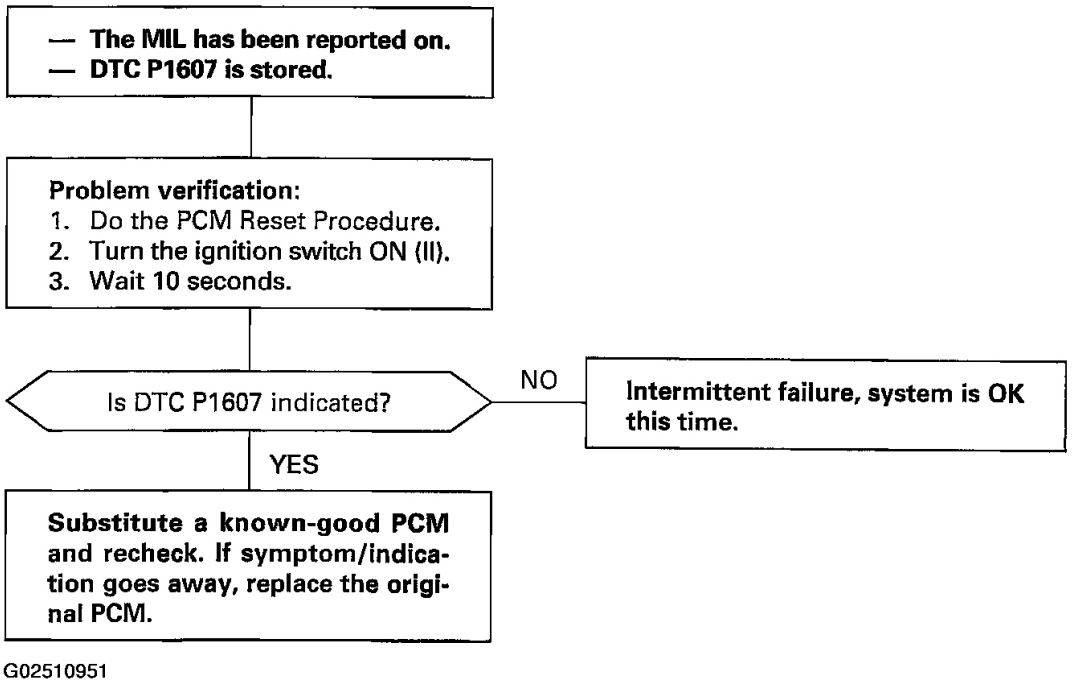

Fig. 58: P1607: A PCM Internal Circuit Problem Troubleshooting Flowchart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

