



## MIL Circuit Troubleshooting

1. Connect an OBD II scan tool/Honda PGM Tester. (see page 11-3).
2. Turn the ignition switch ON (II) and read the OBD II scan tool/Honda PGM Tester.

*Does the OBD II scan tool/Honda PGM Tester communicate with the ECM/PCM?*

**YES**—Go to step 3.

**NO**—Go to troubleshooting “DLC Circuit Troubleshooting” (see page 11-117).

3. Check the OBD II scan tool/Honda PGM Tester for DTCs.

*Are any DTCs indicated?*

**YES**—Go to the DTC Troubleshooting Index.

**NO**—Go to step 4.

4. Turn the ignition switch OFF.

5. Turn the ignition switch ON (II) and watch the Malfunction Indicator Lamp (MIL).

*Does the MIL come on and stay on for more than 20 seconds after turning the ignition switch ON (II)?*

**YES**—If the MIL always comes on and stays on, go to step 74. But if the MIL sometimes works normally, first check for these problems.

- An intermittent short in the wire between the ECM/PCM (E29) and the Data Link Connector (DLC).
- An intermittent short in the wire between the ECM/PCM (E31) and the gauge assembly.
- The readiness codes are not set (see page 11-54). (This is indicated if the MIL blinks several times after you turn the ignition switch ON (II) and wait about 20 seconds.)

**NO**—If the MIL is always off, go to step 6. But if the MIL sometimes works normally, first check for these problems.

- A loose No. 10 METER (7.5A) fuse in the under-dash fuse/relay box.
- A loose No. 20 IG (USA: 40A, Canada: 50A) fuse in the under-hood fuse/relay box.
- A loose No. 6 ECU (ECM/PCM) (15A) fuse in the under-hood fuse/relay box.

- A loose No. 17 FUEL PUMP (15A) fuse in the under-dash fuse/relay box.
- A poor connection at ECM/PCM terminal E31.
- An intermittent open in the GRN/ORN wire between the ECM/PCM (E31) and the gauge assembly.
- An intermittent short in the wire between the ECM/PCM (A21) and the manifold absolute pressure (MAP) sensor, intake manifold runner control (IMRC) valve position sensor, or countershaft speed sensor (A/T).
- An intermittent short in the wire between the ECM/PCM (A20) and the throttle position (TP) sensor, mainshaft speed sensor (A/T).
- An intermittent short in the wire between the ECM/PCM (E5) and the fuel tank pressure (FTP) sensor.

6. Check the low oil pressure light (with the ignition switch ON).

*Is the low oil pressure light on?*

**YES**—Go to step 9.

**NO**—Go to step 7.

7. Inspect the No. 10 METER (7.5 A) fuse in the under-dash fuse/relay box.

*Is the fuse OK?*

**YES**—Go to step 8.

**NO**—Repair short in the wire between No. 10 METER (7.5A) fuse and the gauge assembly. Also replace the No. 10 METER (7.5A) fuse. ■

8. Inspect the No. 20 IG (USA: 40A, Canada: 50A) fuse in the under-hood fuse/relay box.

*Is the fuse OK?*

**YES**—Repair open in the wire between the No. 20 IG (USA: 40A, Canada: 50A) fuse and the gauge assembly. If the wires are OK, test the ignition switch (see page 22-93).

**NO**—Repair short in the wire between No. 20 IG (USA: 40A, Canada: 50A) fuse and the under-dash fuse/relay box. Also replace the No. 20 IG (USA: 40A, Canada: 50A) fuse. ■

(cont'd)

# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

9. Try to start the engine.

*Does the engine start?*

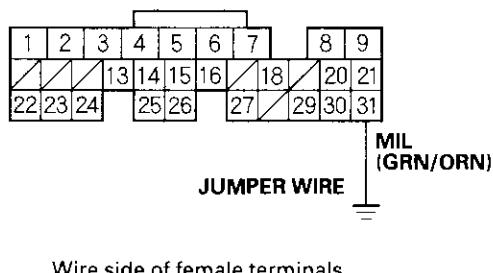
**YES** — Go to step 10.

**NO** — Go to step 13.

10. Turn the ignition switch OFF.

11. Connect ECM/PCM connector terminal E31 and body ground with a jumper wire.

**ECM/PCM CONNECTOR E (31P)**



12. Turn the ignition switch ON (II).

*Is the MIL on?*

**YES** — Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

**NO** — Check for an open in the wire between the ECM/PCM (E31) and the gauge assembly. Also check for a blown MIL bulb. If the wires and the bulb are OK, replace the gauge assembly. ■

13. Turn the ignition switch OFF.

14. Inspect the No. 6 ECU (ECM/PCM) (15A) fuse in the under-hood fuse/relay box.

*Is the fuse OK?*

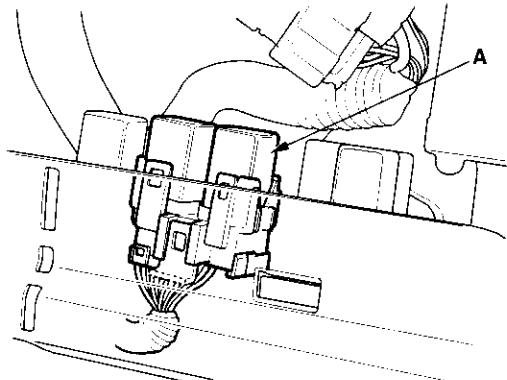
**YES** — Go to step 22.

**NO** — Go to step 15.

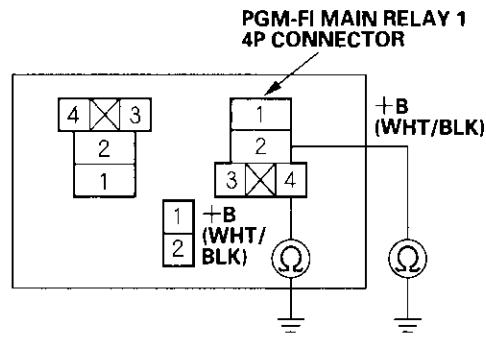
15. Remove the blown No. 6 ECU (ECM/PCM) (15A) fuse in the under-dash fuse/relay box.

16. Remove the glove box (see page 20-65).

17. Remove PGM-FI main relay 1 (A).



18. Check for continuity between body ground and the PGM-FI main relay 1 4P connector terminals No. 2 and No. 4 individually.



*Is there continuity?*

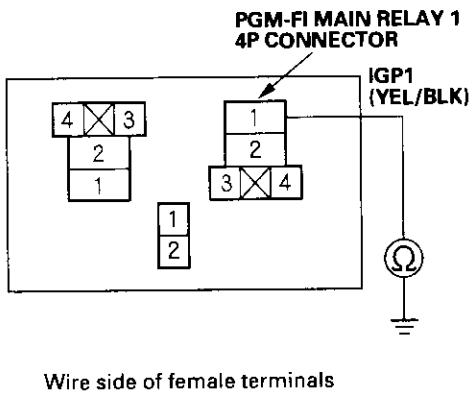
**YES** — Repair short in the wire between the No. 6 ECU (ECM/PCM) (15A) fuse and PGM-FI main relay 1. Also replace the No. 6 ECU (ECM/PCM) (15A) fuse. ■

**NO** — Go to step 19.



19. Disconnect each of the components or connectors below, one at a time, and check for continuity between PGM-FI main relay 1 4P connector terminal No. 1 and body ground.

- PGM-FI main relay 2
- ECM/PCM connector A (31P)
- Each injector 2P connector
- Idle air control (IAC) valve 3P connector
- Top dead center (TDC) sensor 3P connector
- Crankshaft position (CKP) sensor 3P connector



Wire side of female terminals

*Is there continuity?*

**YES**—Go to step 20.

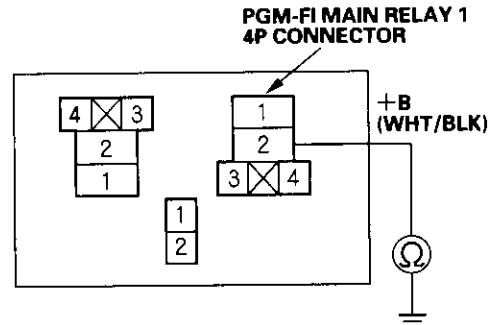
**NO**—Replace the component that made the short to body ground go away when disconnected. If the item is the ECM/PCM, update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM.

Also replace the No. 6 ECU (ECM/PCM) (15 A) fuse. ■

20. Disconnect the connectors of all these components.

- PGM-FI main relay 2
- ECM/PCM connector A (31P)
- Injectors
- Idle air control (IAC) valve
- Top dead center (TDC) sensor
- Crankshaft position (CKP) sensor

21. Check for continuity between PGM-FI main relay 1 4P connector terminal No. 2 and body ground.



Wire side of female terminals

*Is there continuity?*

**YES**—Repair short in the wire between PGM-FI main relay 1 and each item. Also replace the No. 6 ECU (ECM/PCM) (15A) fuse. ■

**NO**—Replace PGM-FI main relay 1. Also replace the No. 6 ECU (ECM/PCM) (15A) fuse. ■

22. Inspect the No. 17 FUEL PUMP (15A) fuse in the under-dash fuse/relay box.

*Is the fuse OK?*

**YES**—Go to step 34.

**NO**—Go to step 23.

23. Remove the blown No. 17 FUEL PUMP (15A) fuse in the under-dash fuse/relay box.

24. Disconnect ECM/PCM connector E (31P).

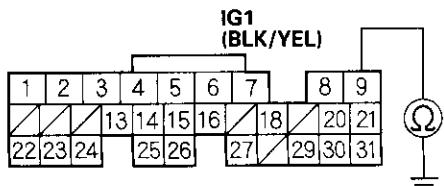
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# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

25. Check for continuity between ECM/PCM connector terminal E9 and body ground.

ECM/PCM CONNECTOR E (31P)



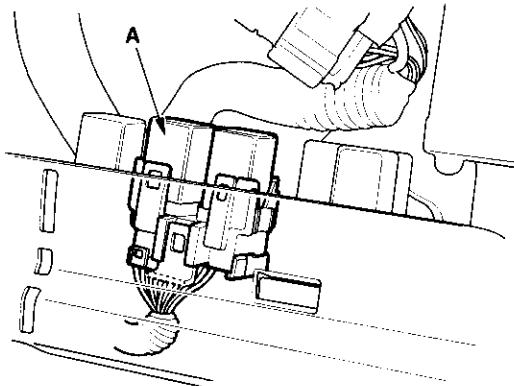
Wire side of female terminals

*Is there continuity?*

**YES** – Go to step 26.

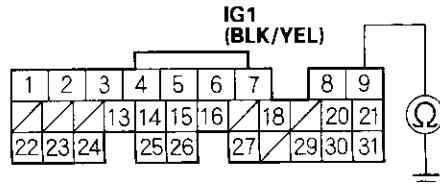
**NO** – Replace the No. 17 FUEL PUMP (15 A) fuse, and update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

26. Remove PGM-FI main relay 2 (A).



27. Check for continuity between ECM/PCM connector terminal E9 and body ground.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there continuity?*

**YES** – Repair short in the wire between the No. 17 FUEL PUMP (15 A) fuse and the ECM/PCM (E9), or the No. 17 FUEL PUMP (15 A) fuse and the PGM-FI main relay 2. Also replace the No. 17 FUEL PUMP (15A) fuse. ■

**NO** – Go to step 28.

28. Remove the rear seat cushion (see page 20-82).

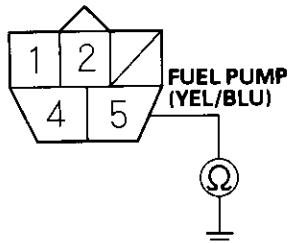
29. Remove the access panel from the floor.

30. Disconnect the fuel pump 5P connector.



31. Check for continuity between fuel pump 5P connector terminal No. 5 and body ground.

## FUEL PUMP 5P CONNECTOR



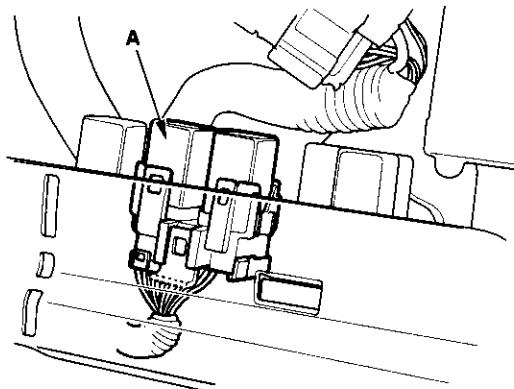
#### Wire side of female terminals

### *Is there continuity?*

**YES**—Repair short in the wire between the fuel pump and PGM-FI main relay 2. Also replace the No. 17 FUEL PUMP (15A) fuse. ■

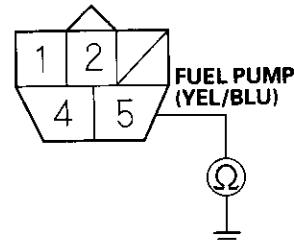
**NO**—Go to step 32.

32. Reinstall PGM-FI main relay 2 (A).



33. Check for continuity between the fuel pump 5P connector terminal No. 5 and body ground.

## **FUEL PUMP 5P CONNECTOR**



#### Wire side of female terminals

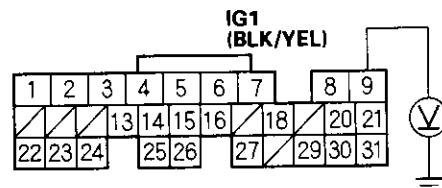
### *Is there continuity?*

**YES**—Replace PGM-FI main relay 2. Also replace the No. 17 FUEL PUMP (15A) fuse. ■

**NO**—Check the fuel pump, and replace it if necessary. Also replace the No. 17 FUEL PUMP (15A) fuse. ■

34. Disconnect ECM/PCM connector E (31P).
35. Turn the ignition switch ON (II).
36. Measure voltage between ECM/PCM connector terminal E9 and body ground.

#### **ECM/PCM CONNECTOR E (31P)**



#### Wire side of female terminals

*Is there battery voltage?*

**YES**—Go to step 37.

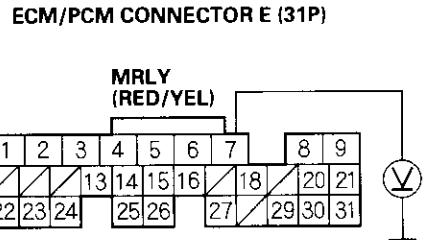
**NO** – Repair open in the wire between the No. 17 FUEL PUMP (15A) fuse and the ECM/PCM (E9). ■

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# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

37. Turn the ignition switch OFF.
38. Measure voltage between ECM/PCM connector terminal E7 and body ground.



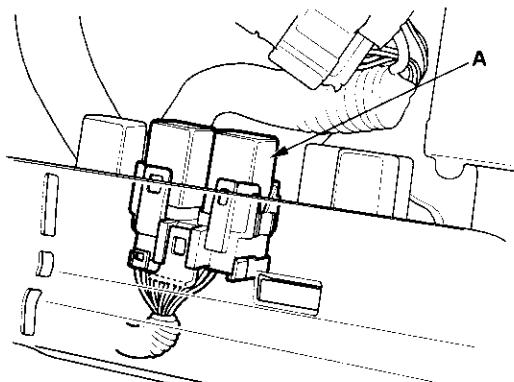
Wire side of female terminals

*Is there battery voltage?*

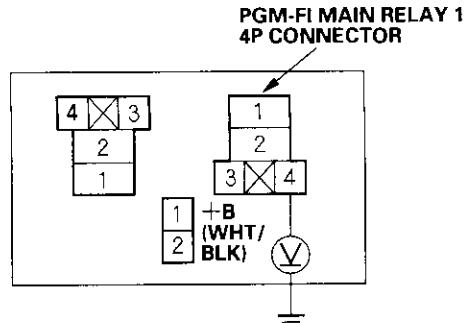
**YES** – Go to step 42.

**NO** – Go to step 39.

39. Remove PGM-FI main relay 1 (A).



40. Measure voltage between PGM-FI main relay 1 4P connector terminal No. 4 and body ground.



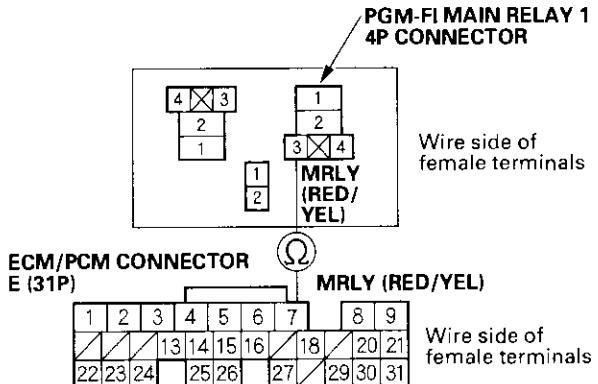
Wire side of female terminals

*Is there battery voltage?*

**YES** – Go to step 41.

**NO** – Repair open in the wire between the No. 6 ECU (ECM/PCM) (15A) fuse and PGM-FI main relay 1. ■

41. Check for continuity between PGM-FI main relay 1 4P connector terminal No. 3 and ECM/PCM connector terminal E7.



*Is there continuity?*

**YES** – Test PGM-FI main relay 1 (see page 22-55). If the relay is OK, update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

**NO** – Repair open in the wire between PGM-FI main relay 1 and the ECM/PCM (E7). ■

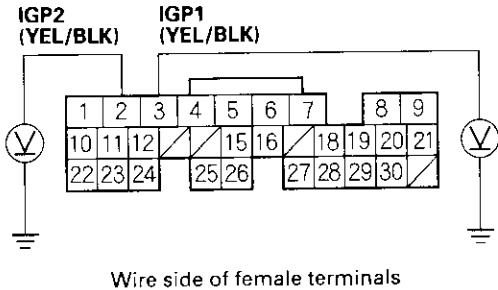


42. Reconnect ECM/PCM connector E (31P).

43. Turn the ignition switch ON (II).

44. Measure voltage between body ground and ECM/PCM connector terminals A2 and A3 individually.

ECM/PCM CONNECTOR A (31P)



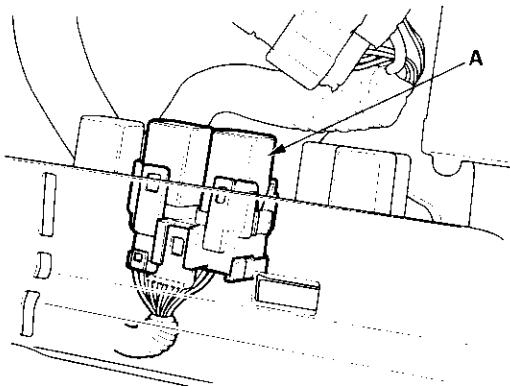
*Is there battery voltage?*

**YES** - Go to step 51.

**NO** - Go to step 45.

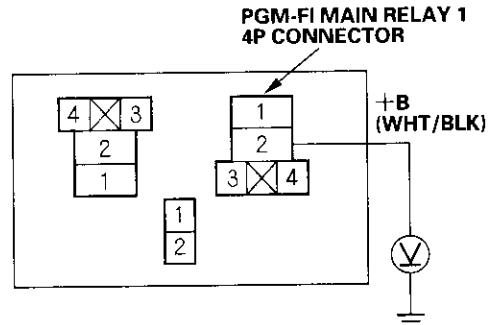
45. Turn the ignition switch OFF.

46. Remove PGM-FI main relay 1 (A).



47. Turn the ignition switch ON (II).

48. Measure voltage between PGM-FI main relay 1 4P connector terminal No. 2 and body ground.



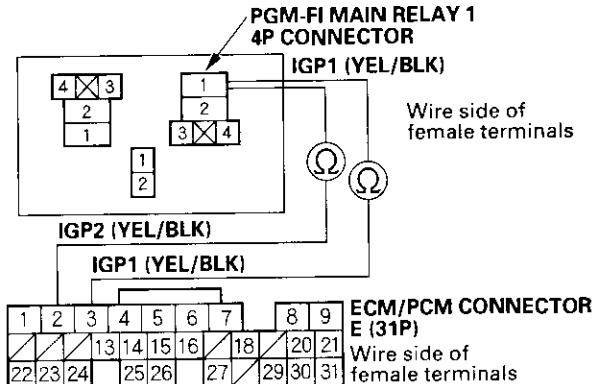
*Is there battery voltage?*

**YES** - Go to step 49.

**NO** - Repair open in the wire between the No. 6 ECU (ECM/PCM) (15A) fuse and PGM-FI main relay 1. ■

49. Turn the ignition switch OFF.

50. Check for continuity between PGM-FI main relay 1 4P connector terminal No. 1 and ECM/PCM connector terminals A2 and A3 individually.



*Is there continuity?*

**YES** - Replace PGM-FI main relay 1. ■

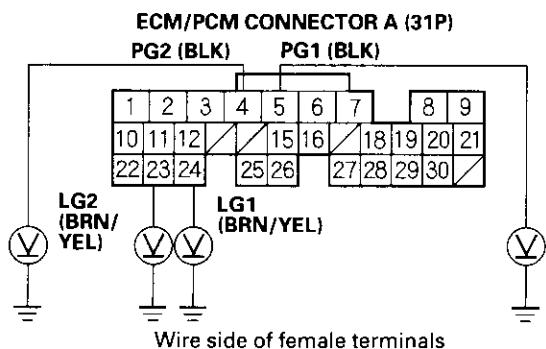
**NO** - Repair open in the wire between PGM-FI main relay 1 and the ECM/PCM (A2, A3). ■

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# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

51. Measure voltage between body ground and ECM/PCM connector terminals A4, A5, A23, and A24 individually.



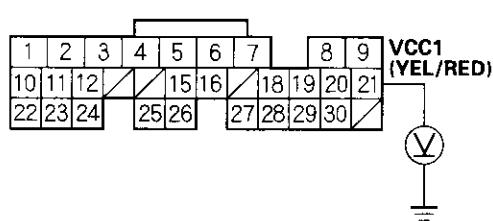
*Is there more than 0.2 V?*

**YES**—Repair open in the wire(s) that had more than 0.2 V between G101 and the ECM/PCM (A4, A5, A23, A24). ■

**NO**—Go to step 52.

52. Measure voltage between body ground and ECM/PCM connector terminal A21.

ECM/PCM CONNECTOR A (31P)



*Is there about 5 V?*

**YES**—Go to step 59.

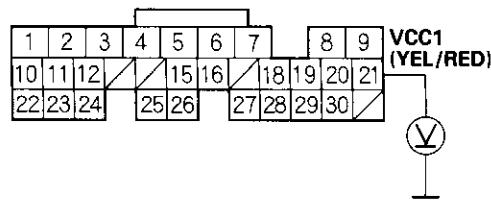
**NO**—Go to step 53.

53. Turn the ignition switch OFF.

54. Disconnect the 3P connector from each of these sensors, one at a time, and measure voltage between body ground and ECM/PCM connector terminal A21 with the ignition switch ON (II).

- Manifold absolute pressure (MAP) sensor
- Intake manifold runner control (IMRC) valve position sensor (K20A3 engine)
- Countershaft speed sensor (A/T)

ECM/PCM CONNECTOR A (31P)



*Is there about 5 V?*

**YES**—Replace the sensor that restored 5 V when disconnected. ■

**NO**—Go to step 55.

55. Turn the ignition switch OFF.

56. Disconnect the 3P connectors from the following sensors.

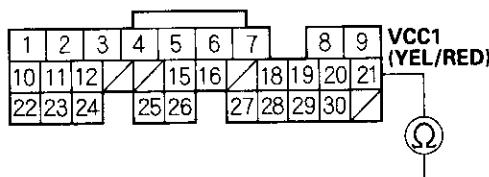
- Manifold absolute pressure (MAP) sensor
- Intake manifold runner control (IMRC) valve position sensor (K20A3 engine)
- Countershaft speed sensor (A/T)

57. Disconnect ECM/PCM connector A (31P).



58. Check for continuity between ECM/PCM connector terminal A21 and body ground.

ECM/PCM CONNECTOR A (31P)



Wire side of female terminals

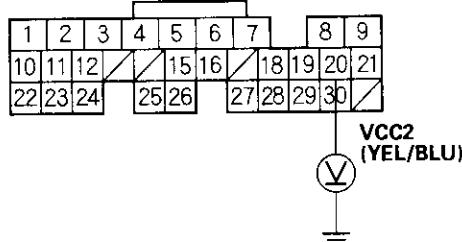
*Is there continuity?*

**YES**—Repair short in the wire between the ECM/PCM (A21) and the MAP sensor, the IMRC valve position sensor, or the countershaft speed sensor (A/T). ■

**NO**—Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

59. Measure voltage between body ground and ECM/PCM connector terminal A20.

ECM/PCM CONNECTOR A (31P)



Wire side of female terminals

*Is there about 5 V?*

**YES**—Go to step 66.

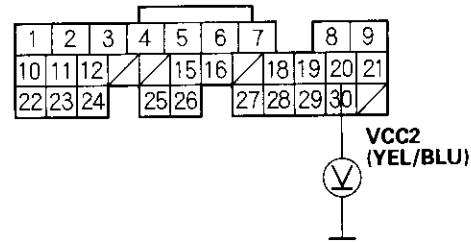
**NO**—Go to step 60.

60. Turn the ignition switch OFF.

61. Disconnect the 3P connector from each of these sensors, one at a time, and measure voltage between body ground and ECM/PCM connector terminal A20 with the ignition switch ON (II).

- Throttle position (TP) sensor
- Mainshaft speed sensor (A/T)

ECM/PCM CONNECTOR A (31P)



Wire side of female terminals

*Is there about 5 V?*

**YES**—Replace the sensor that restored 5 V when disconnected. ■

**NO**—Go to step 62.

62. Turn the ignition switch OFF.

63. Disconnect the 3P connectors from the following sensors.

- Throttle position (TP) sensor
- Mainshaft speed sensor (A/T)

64. Disconnect ECM/PCM connector A (31P).

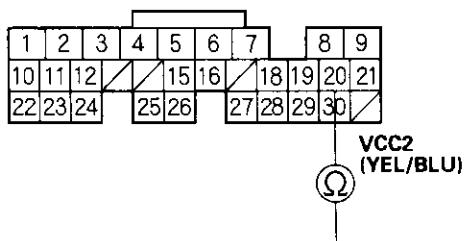
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# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

65. Check for continuity between ECM/PCM connector terminal A20 and body ground.

ECM/PCM CONNECTOR A (31P)



Wire side of female terminals

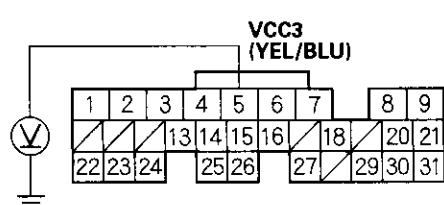
*Is there continuity?*

**YES**—Repair short in the wire between the ECM/PCM (A20) and the TP sensor or mainshaft speed sensor (A/T). ■

**NO**—Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

66. Measure voltage between body ground and ECM/PCM connector terminal E5.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there about 5 V?*

**YES**—Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

**NO**—Go to step 67.

67. Turn the ignition switch OFF.

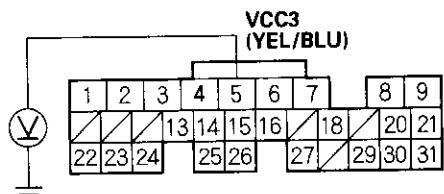
68. Disconnect the fuel tank pressure (FTP) sensor 3P connector.

69. Turn the ignition switch ON (II).



70. Measure voltage between body ground and ECM/PCM connector terminal E5.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there about 5 V?*

**YES** – Replace the FTP sensor. ■

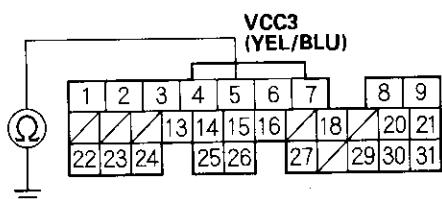
**NO** – Go to step 71.

71. Turn the ignition switch OFF.

72. Disconnect ECM/PCM connector E (31P).

73. Check for continuity between ECM/PCM connector terminal E5 and body ground.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there continuity?*

**YES** – Repair short in the wire between the ECM/PCM (E5) and the FTP sensor. ■

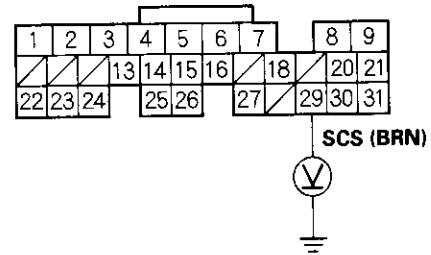
**NO** – Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

74. Turn the ignition switch OFF.

75. Turn the ignition switch ON (II).

76. Measure voltage between ECM/PCM connector terminal E29 and body ground.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there about 5 V (or battery voltage)?*

**YES** – Go to step 80.

**NO** – Go to step 77.

77. Turn the ignition switch OFF.

78. Disconnect ECM/PCM connector E (31P).

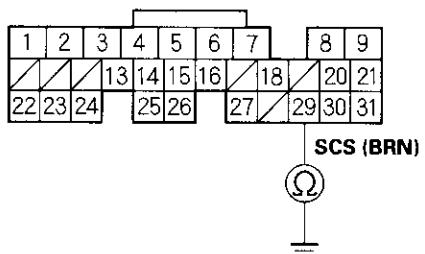
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# PGM-FI System

## MIL Circuit Troubleshooting (cont'd)

79. Check for continuity between ECM/PCM connector terminal E29 and body ground.

ECM/PCM CONNECTOR E (31P)



Wire side of female terminals

*Is there continuity?*

**YES** – Repair short in the wire between the DLC and the ECM/PCM (E29). ■

**NO** – Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■

80. Turn the ignition switch OFF.

81. Disconnect ECM/PCM connector E (31P).

82. Turn the ignition switch ON (II).

*Is the MIL on?*

**YES** – Repair short in the wire between the gauge assembly and the ECM/PCM (E31). If the wires are OK, replace the gauge assembly. ■

**NO** – Update the ECM/PCM if it does not have the latest software, or substitute a known-good ECM/PCM, then recheck (see page 11-6). If the symptom/indication goes away with a known-good ECM/PCM, replace the original ECM/PCM. ■