

Fuel and Emissions

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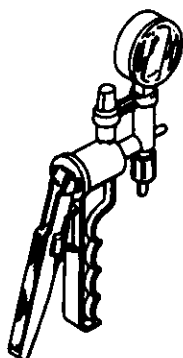
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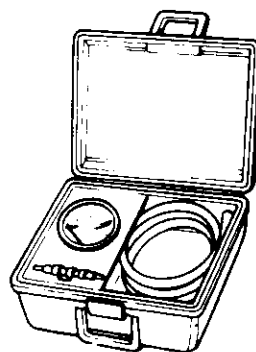
Special Tools

Special Tools

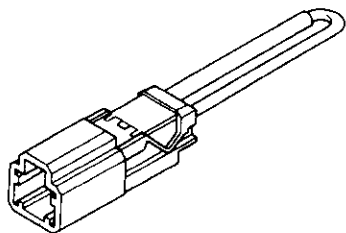
Ref. No.	Tool Number	Description	Qty	Page Reference
①	A973X - 041 - XXXXX	Vacuum Pump/Gauge, 0 - 30 in.Hg	1	11-251, 256, 257, 273, 274, 283, 284, 286, 288, 289, 291, 294, 296, 297
②	07JAZ - 001000B	Vacuum/Pressure Gauge, 0 - 4 in.Hg	1	11-294, 295
③	07PAZ - 0010100	SCS Service Connector	1	11-81
④	07SAZ - 001000A	Backprobe Set	2	11-83
⑤	07406 - 0040001	Fuel Pressure Gauge	1	11-230, 231, 234
⑥	07406 - 004030A	Fuel Pressure Adapter, 6 x 15 mm	1	11-230



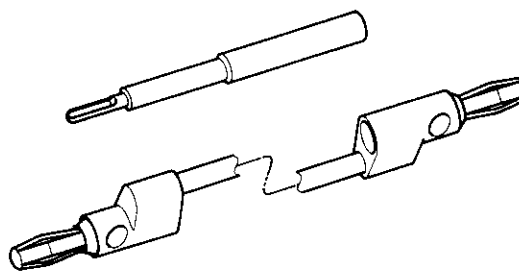
①



②



③



④



⑤



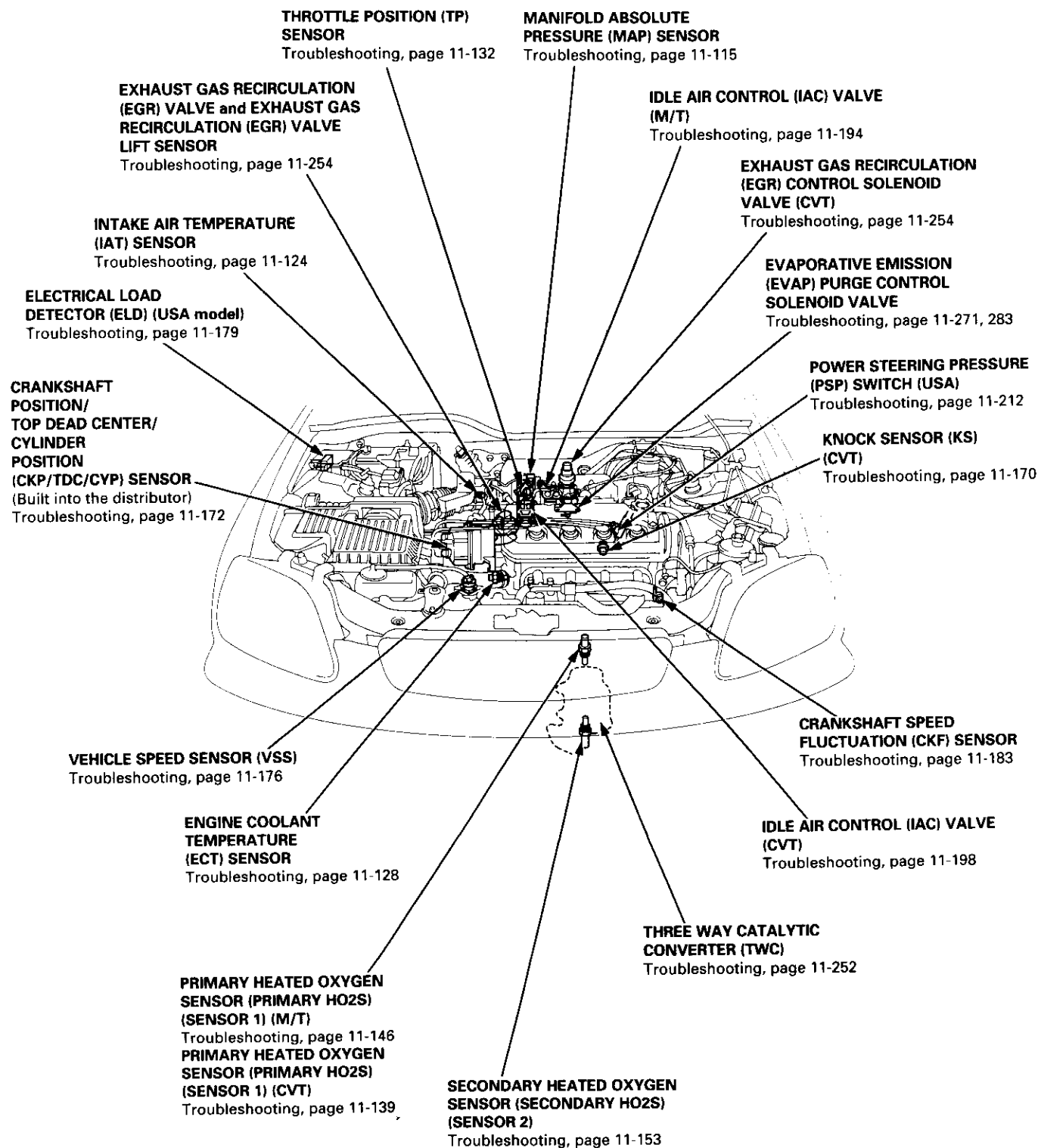
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Component Locations



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D16Y5 engine:

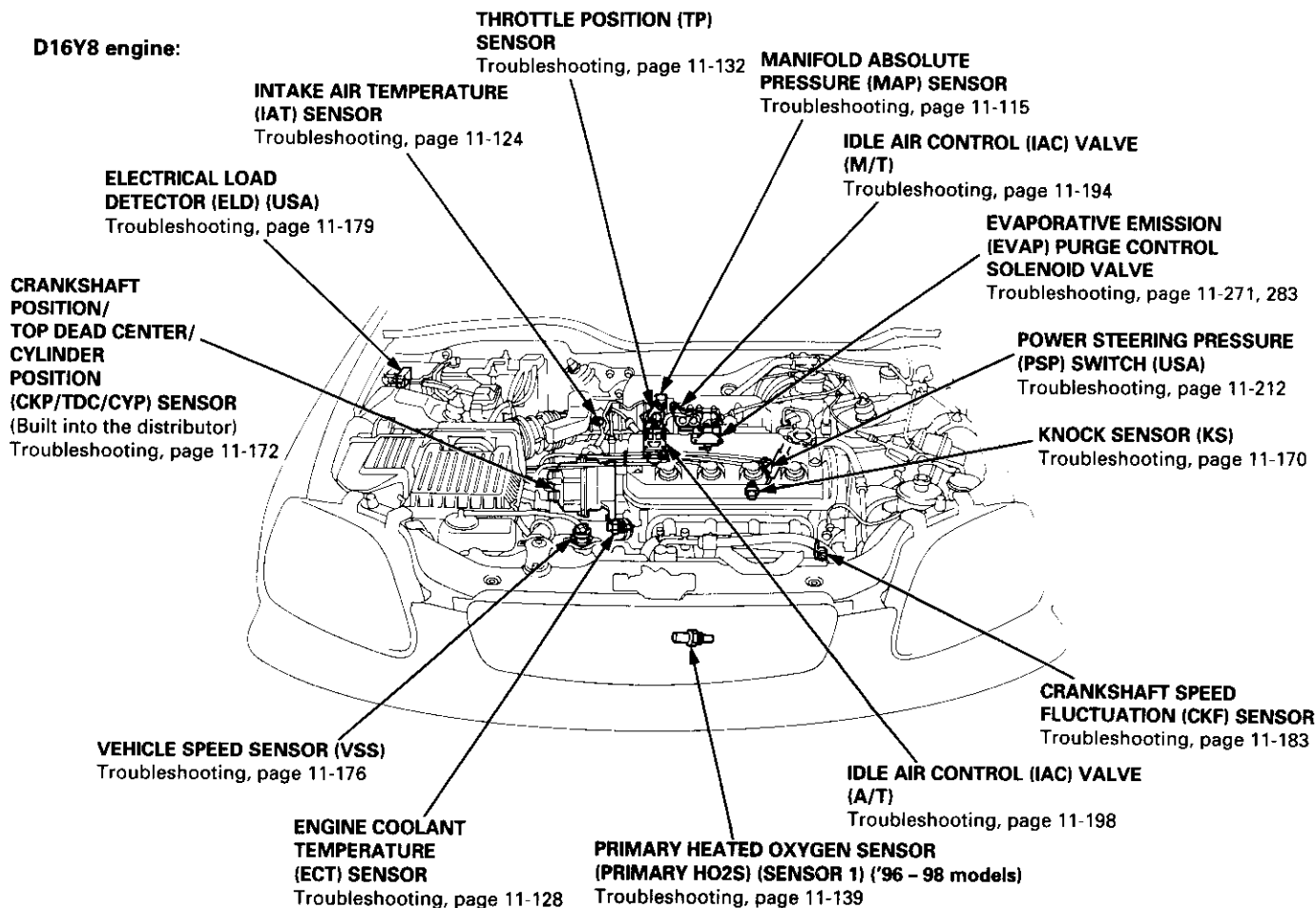


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Component Locations

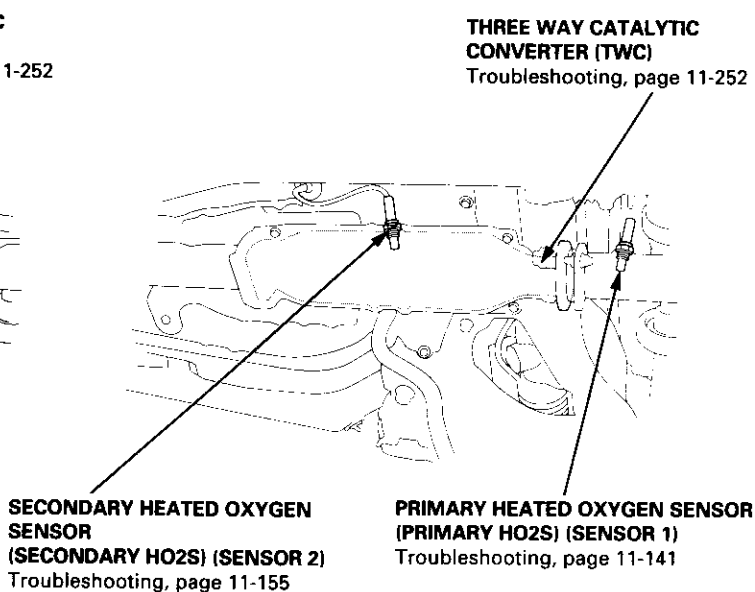
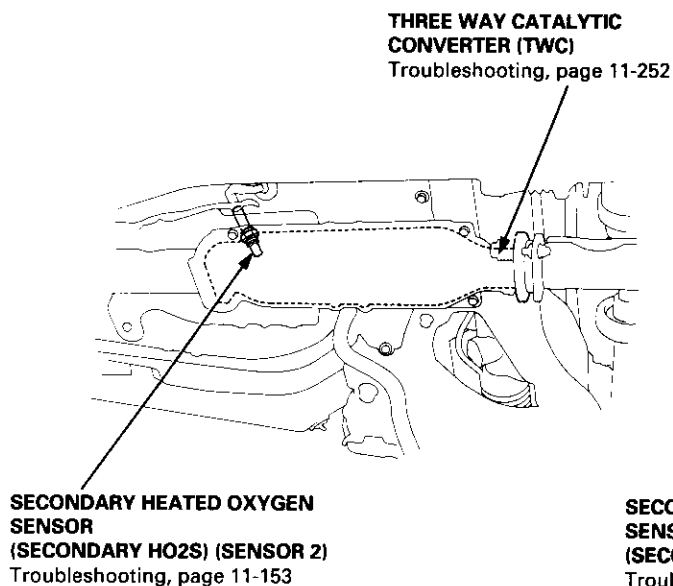
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D16Y8 engine:



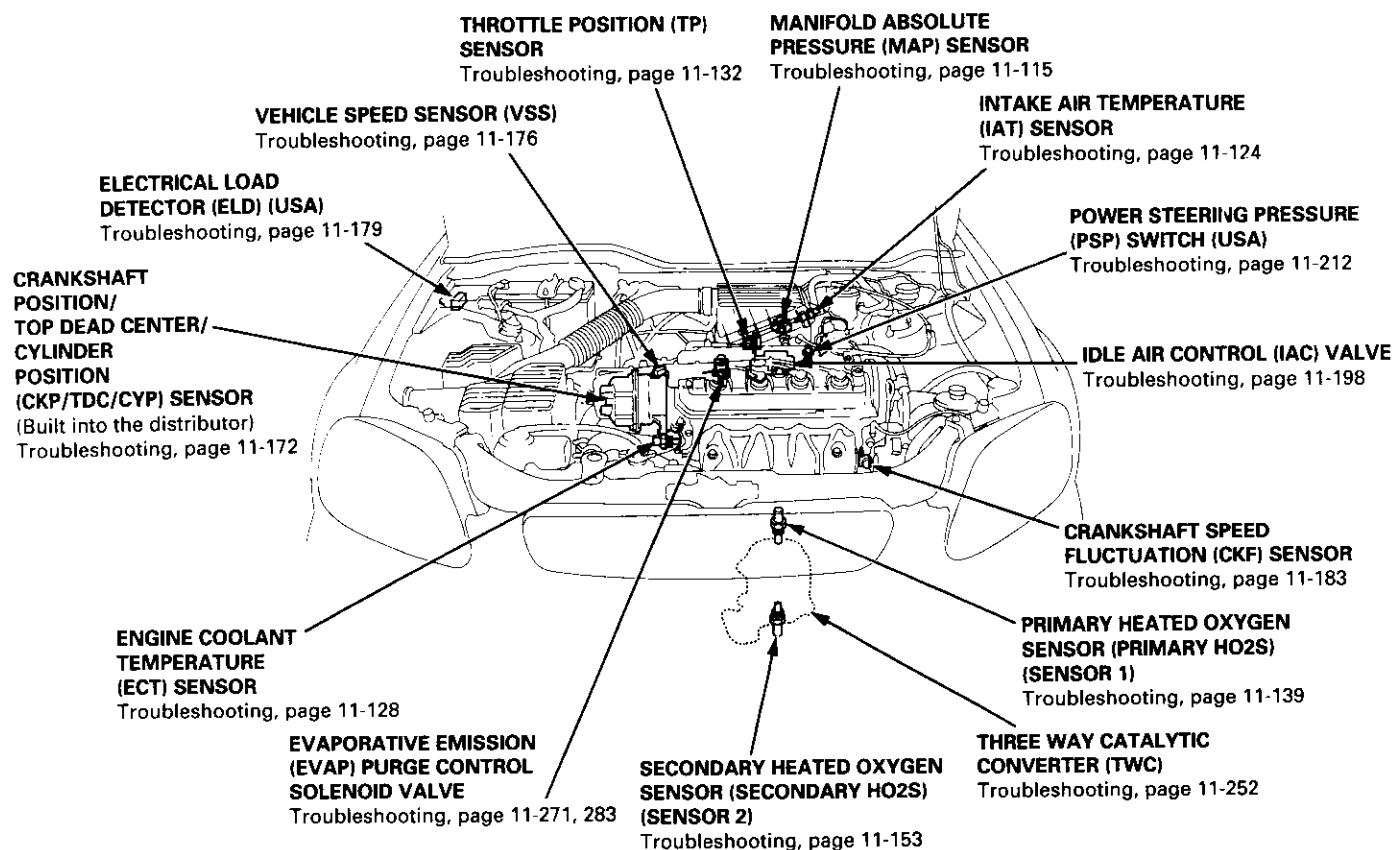
'96 - 98 models:

'99 - 00 models:





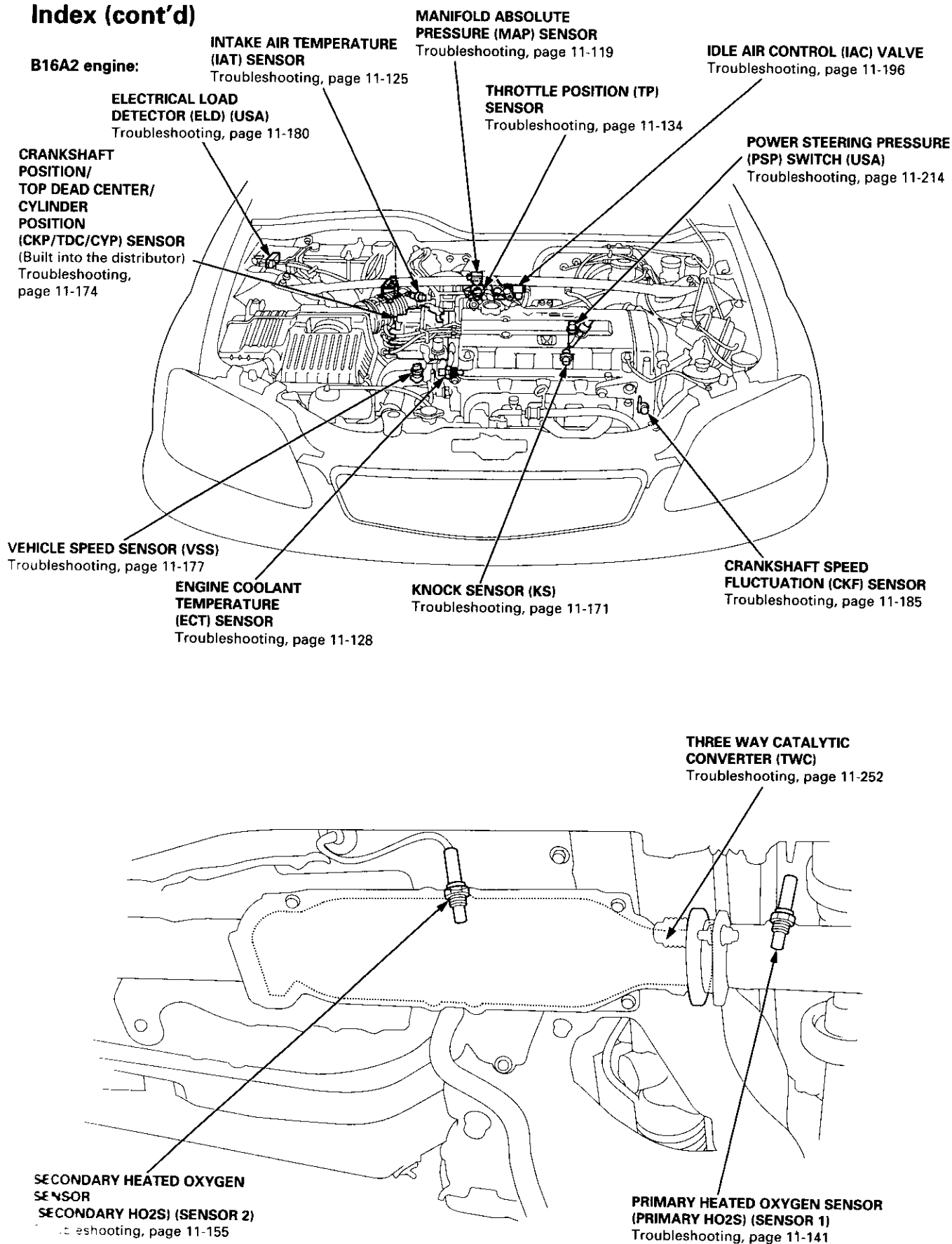
D16Y7 engine:



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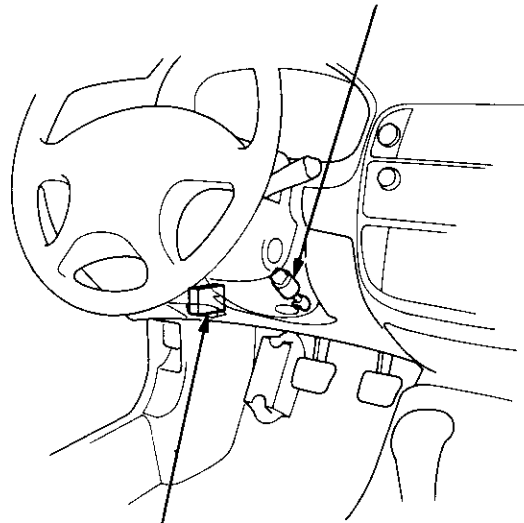
Component Locations

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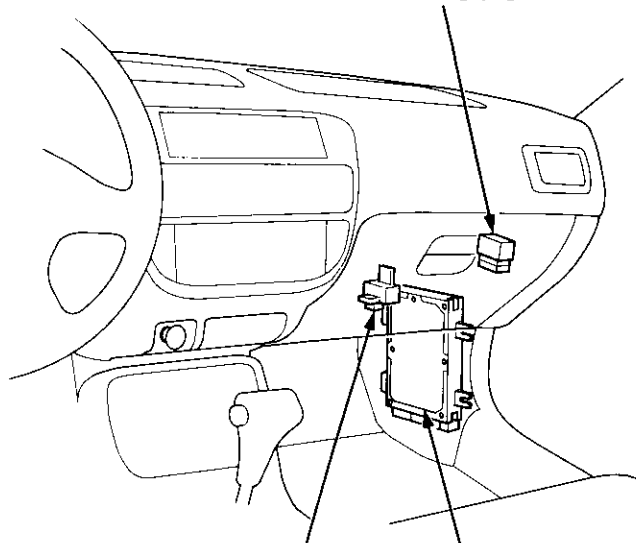
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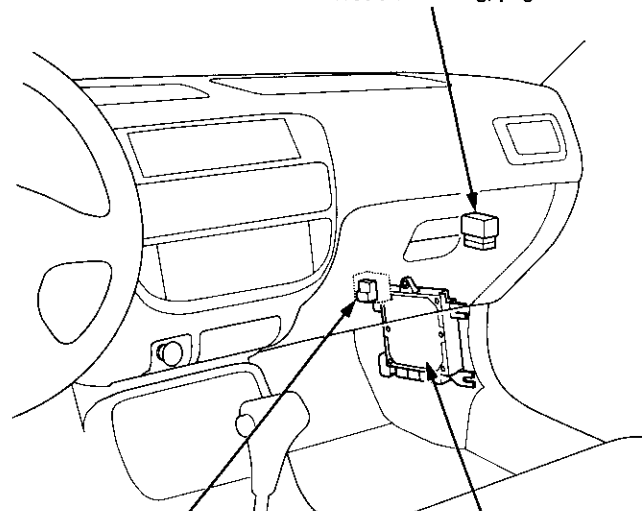


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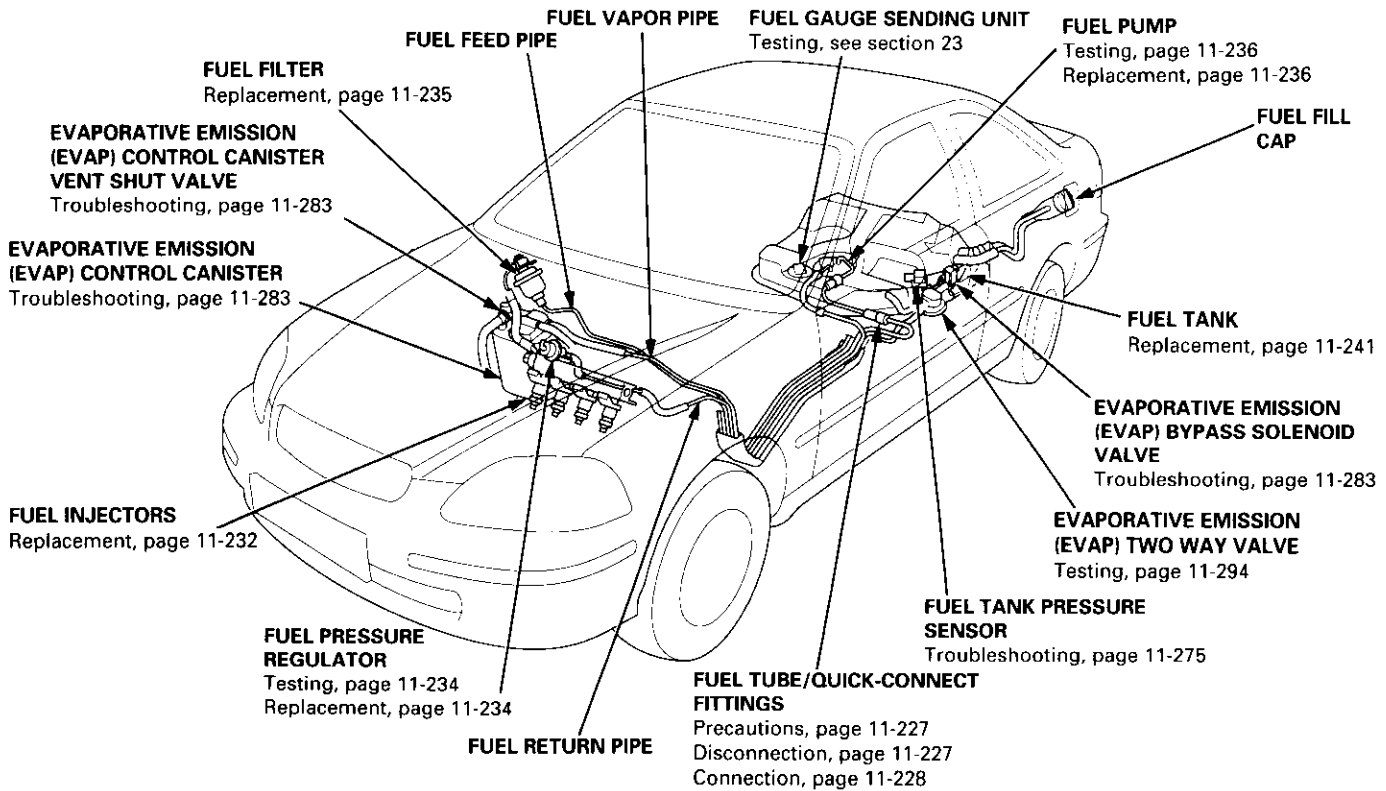
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CONTROL MODULE (PCM)**
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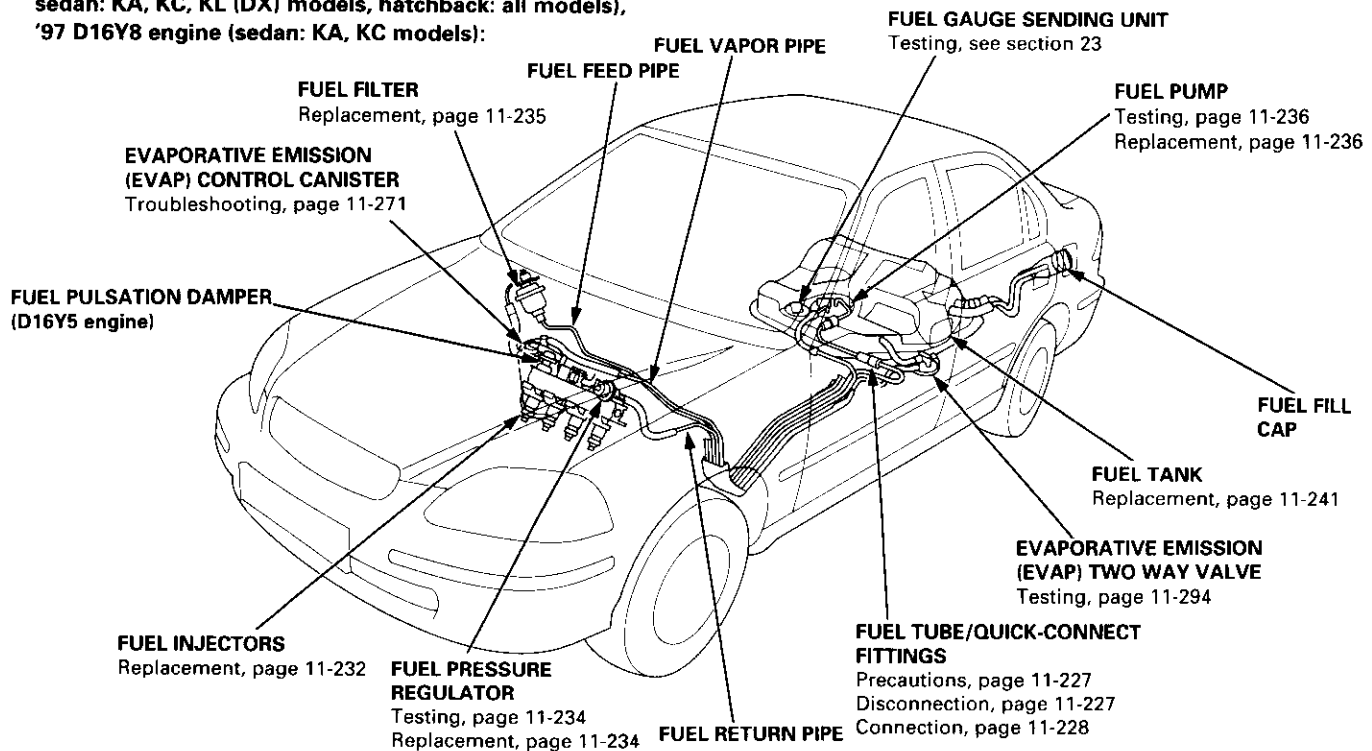
Component Locations

Index (cont'd)

'96 D16Y8 engine (coupe),
'97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model),
'97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models:

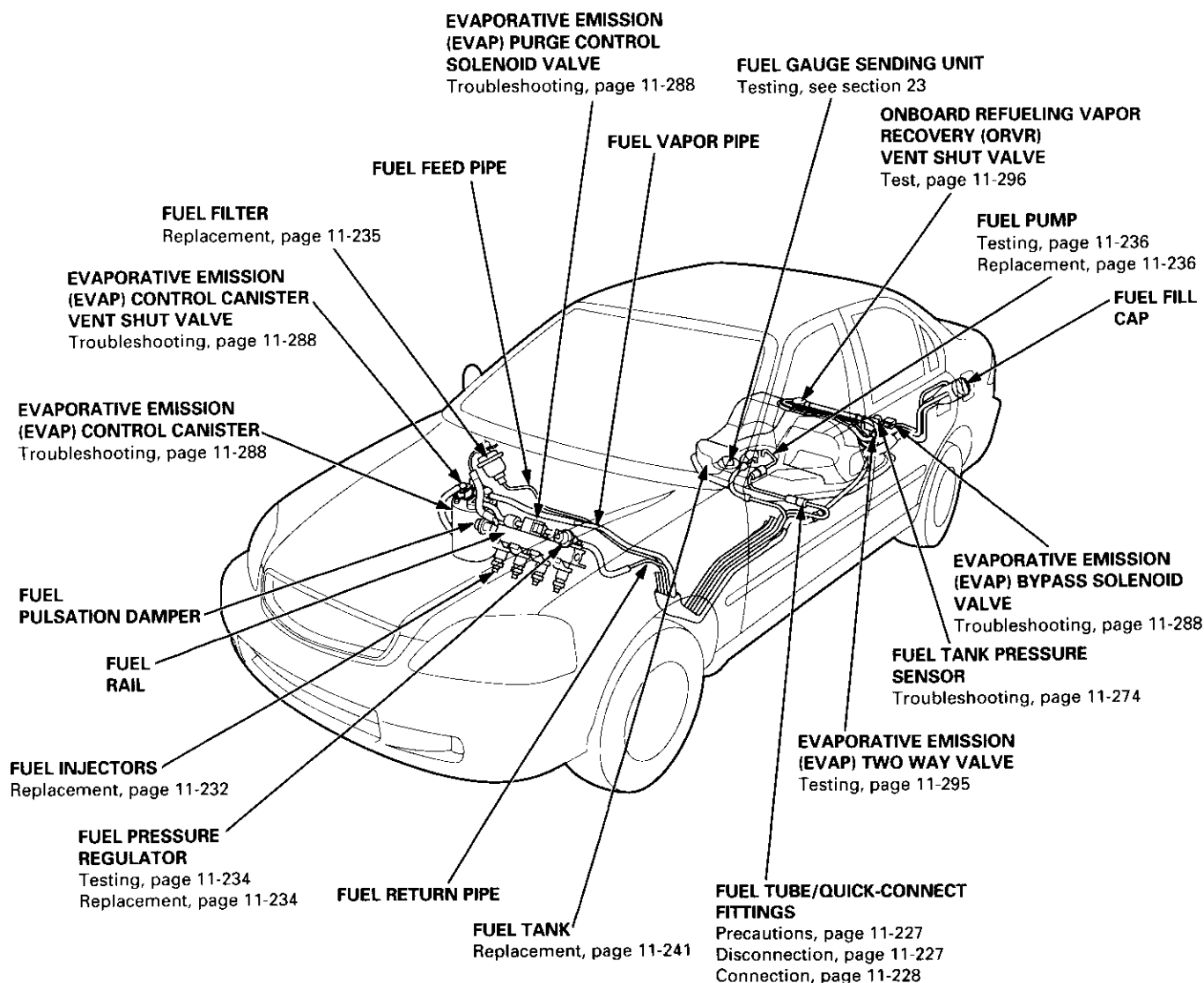


'96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan),
'97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (DX) models, hatchback: all models),
'97 D16Y8 engine (sedan: KA, KC models):





'99 – 00 models:

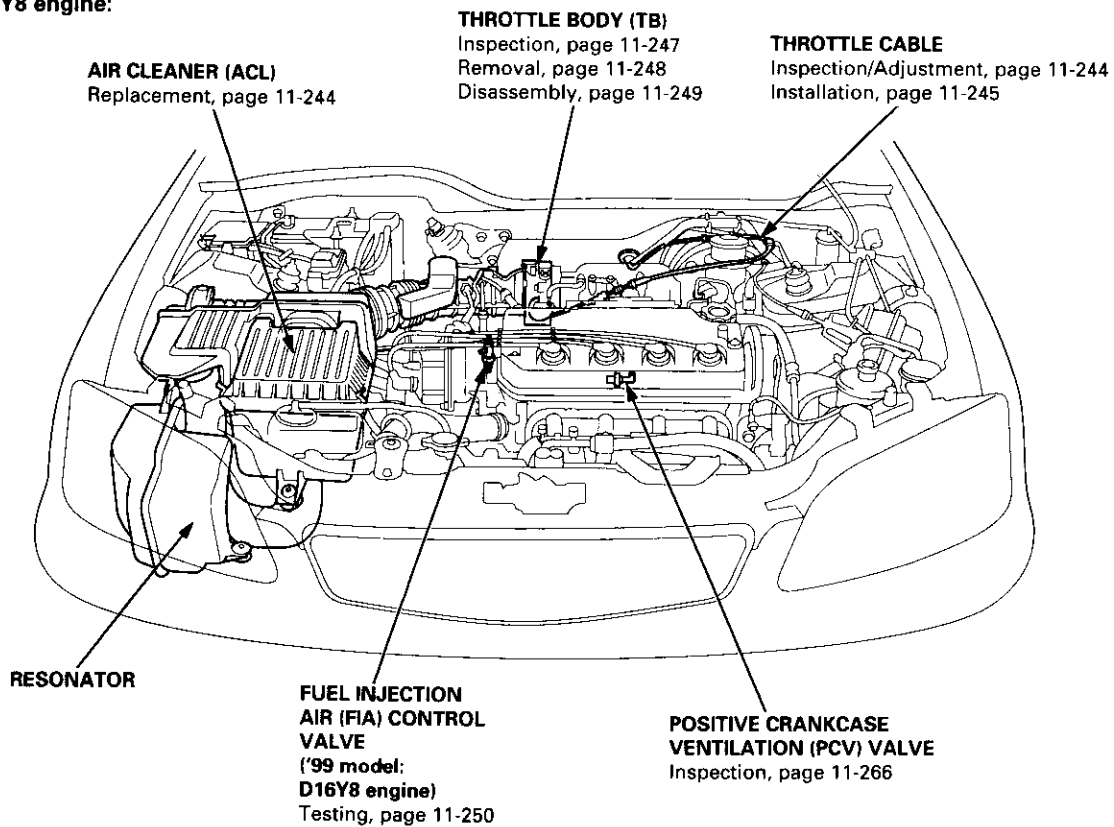


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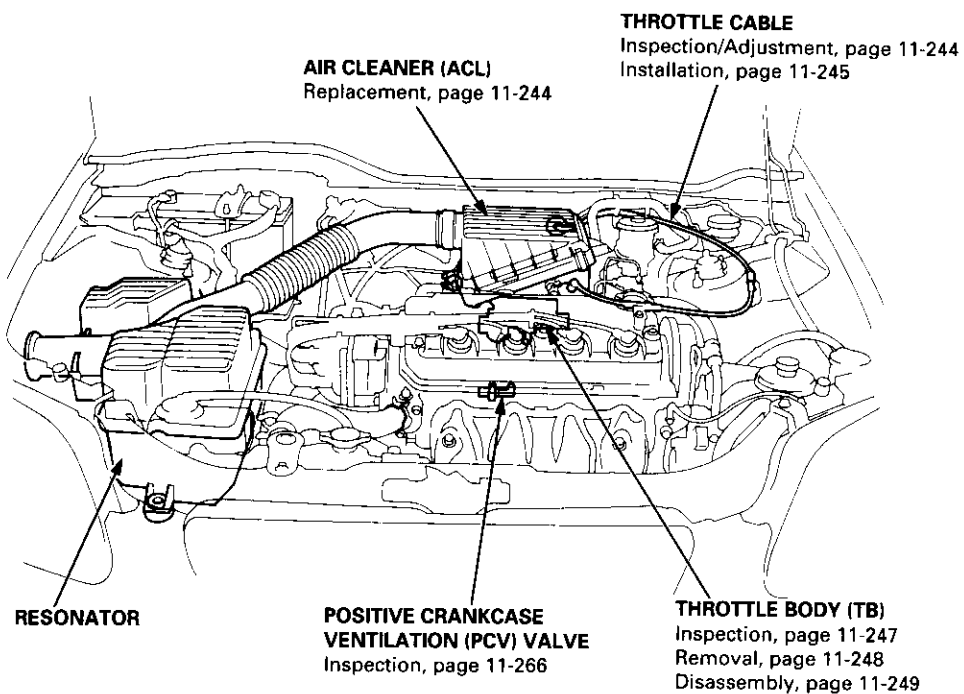
Component Locations

Index (cont'd)

D16Y5, D16Y8 engine:

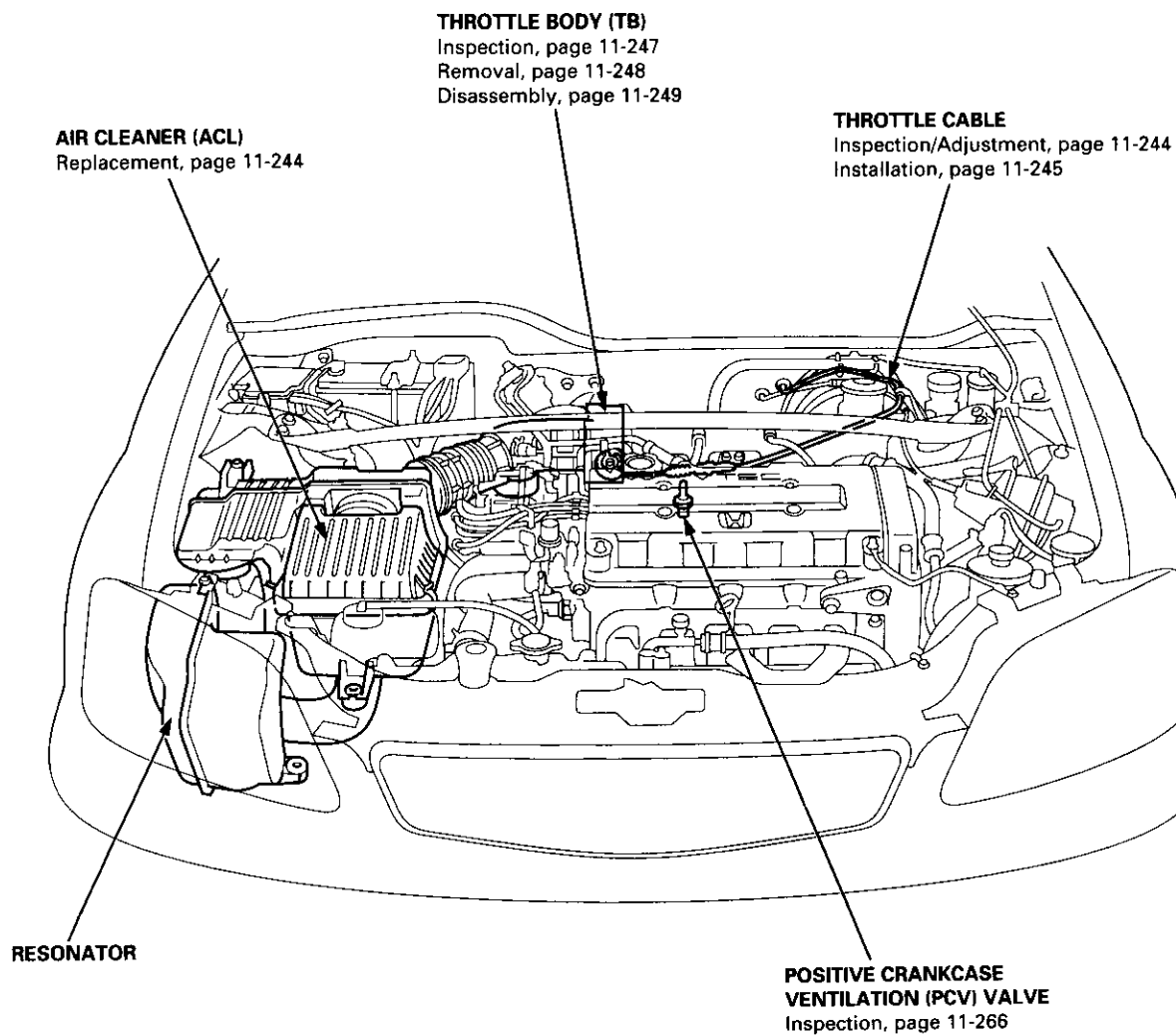


D16Y7 engine:





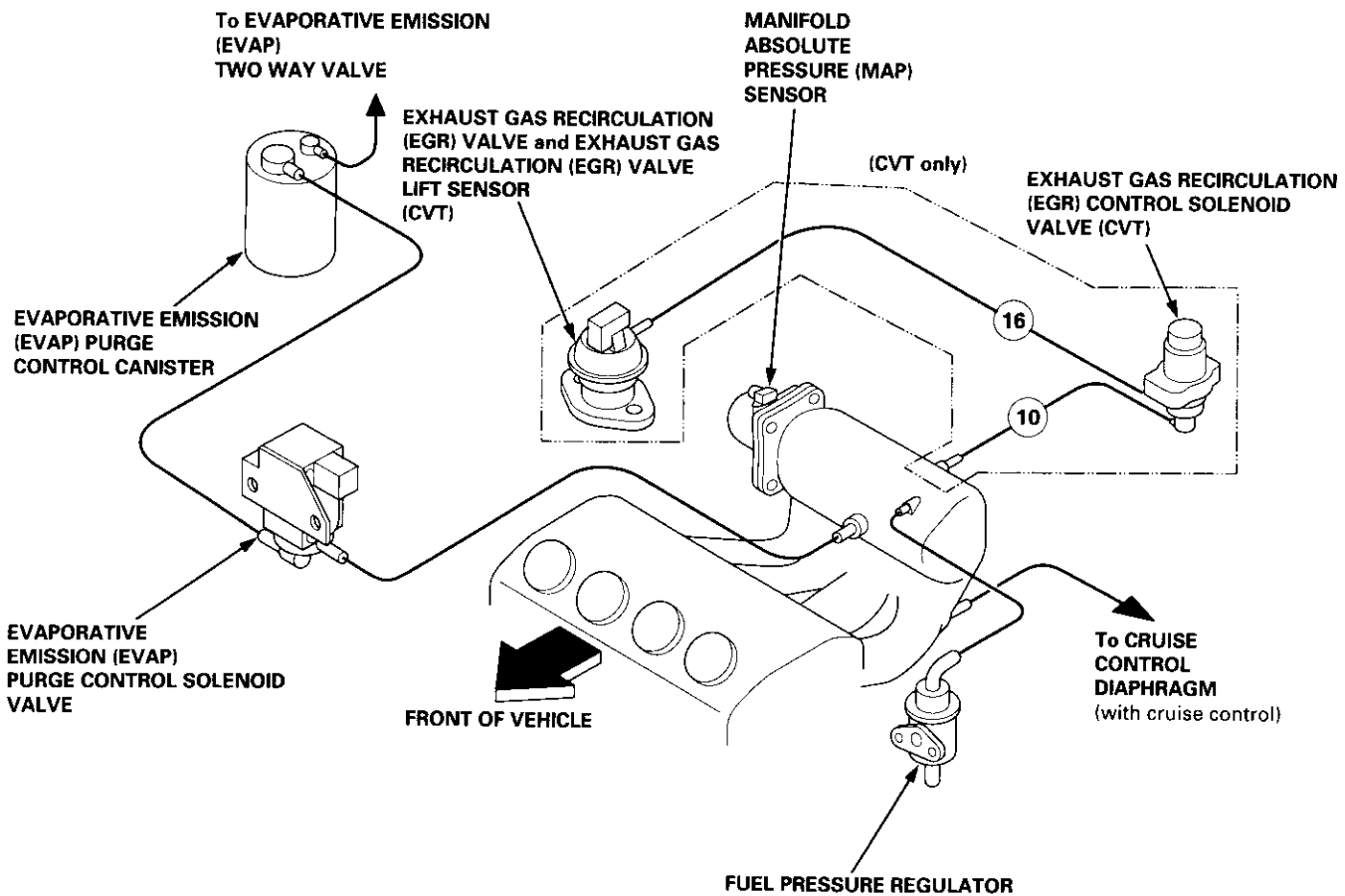
B16A2 engine:



System Description

Vacuum Connections

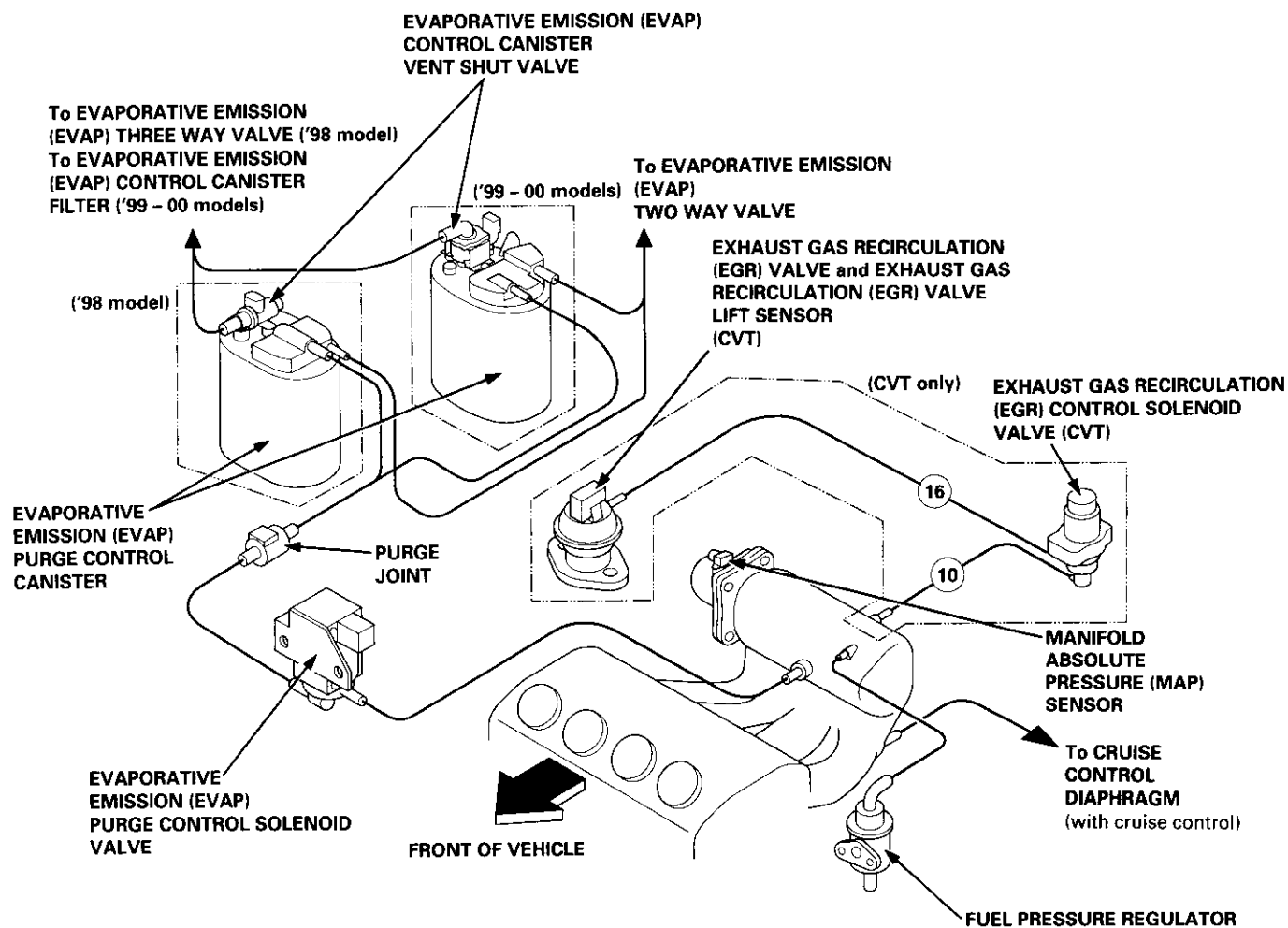
D16Y5 engine ('96 - 97 models):



○: Vacuum hose No.



D16Y5 engine ('98 - 00 models):



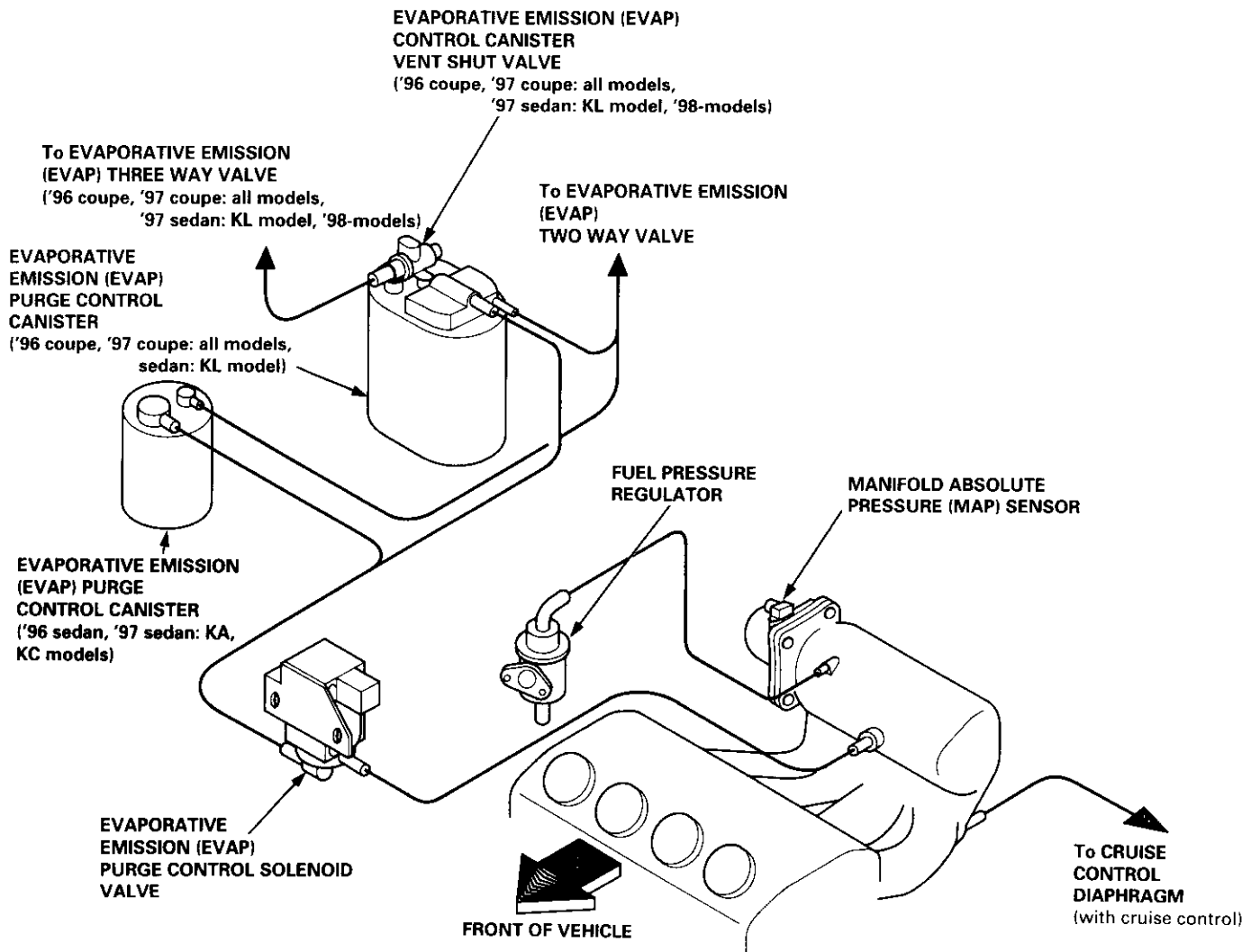
○: Vacuum hose No.

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System Description

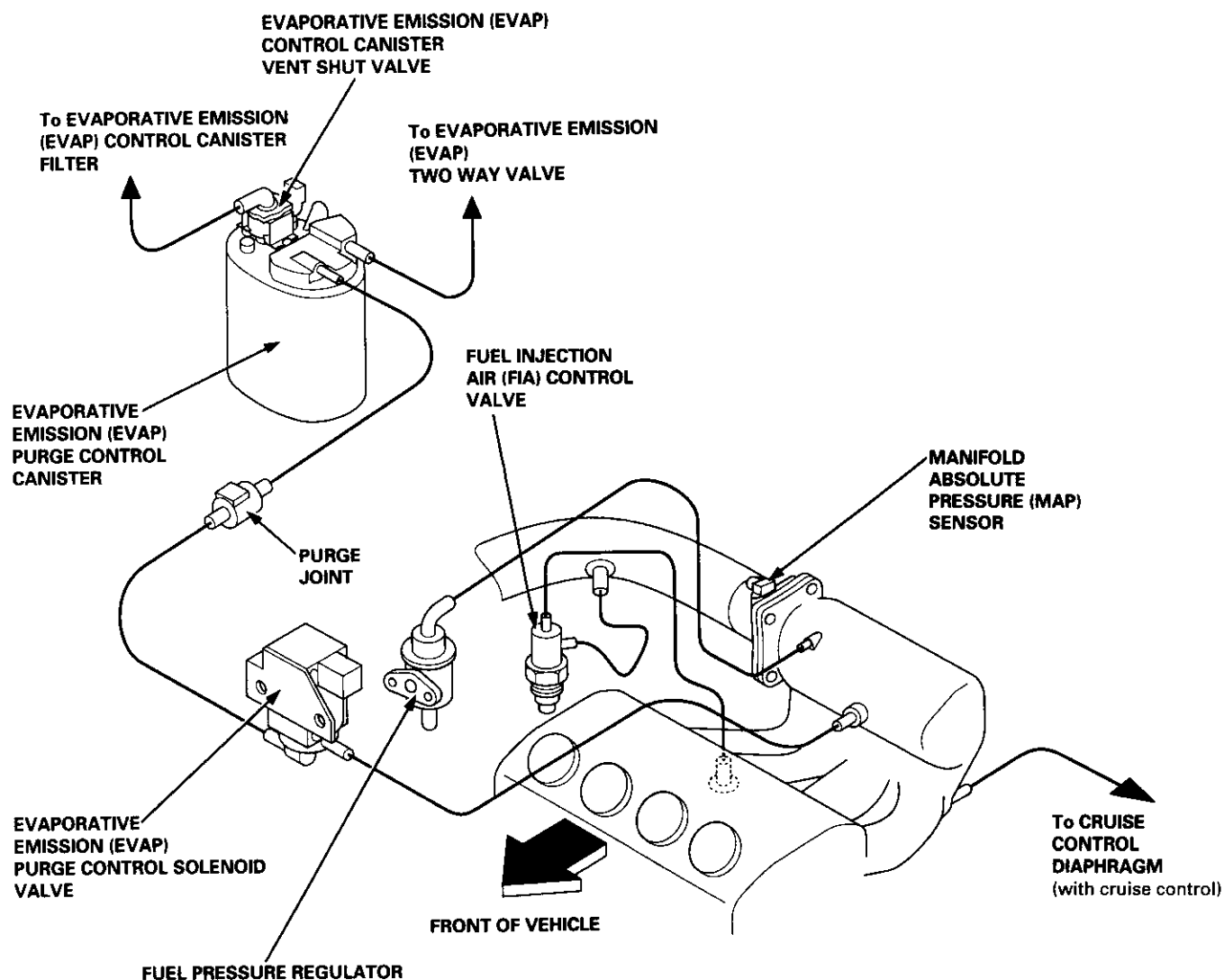
Vacuum Connections (cont'd)

D16Y8 engine ('96 - 98 models):





D16Y8 engine ('99 - 00 models):

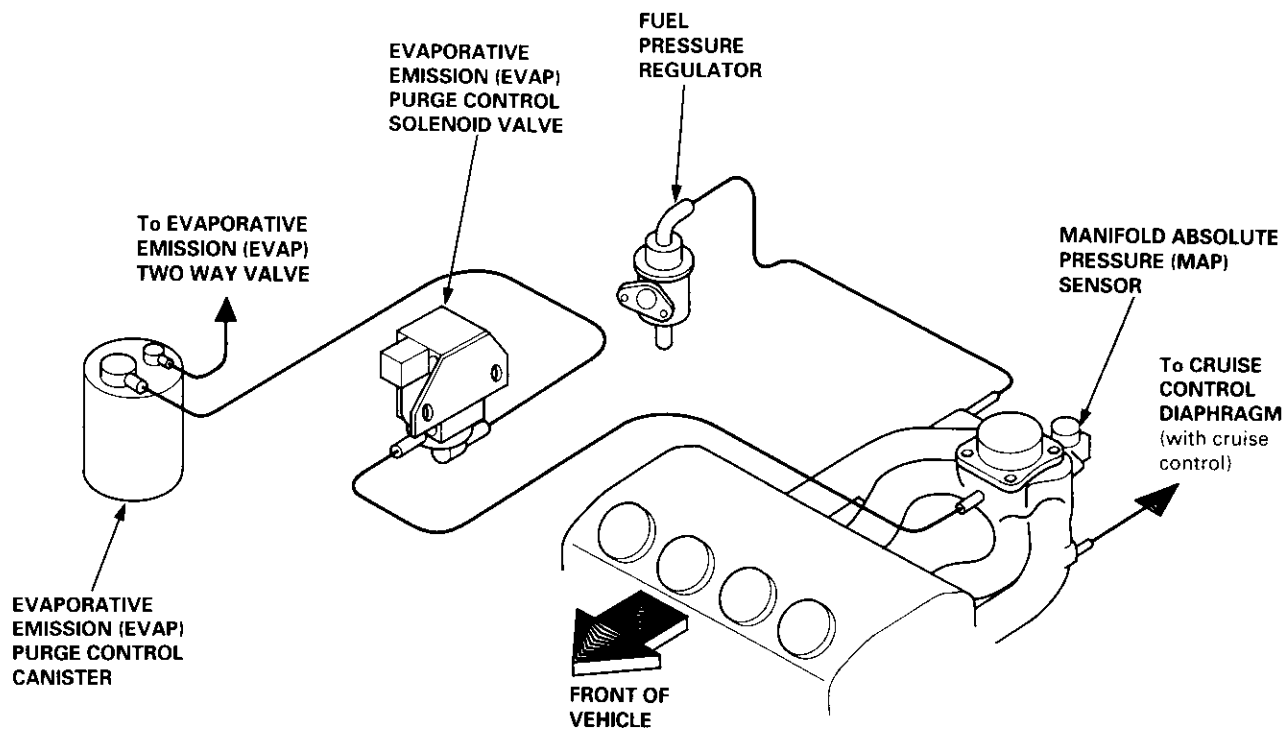


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System Description

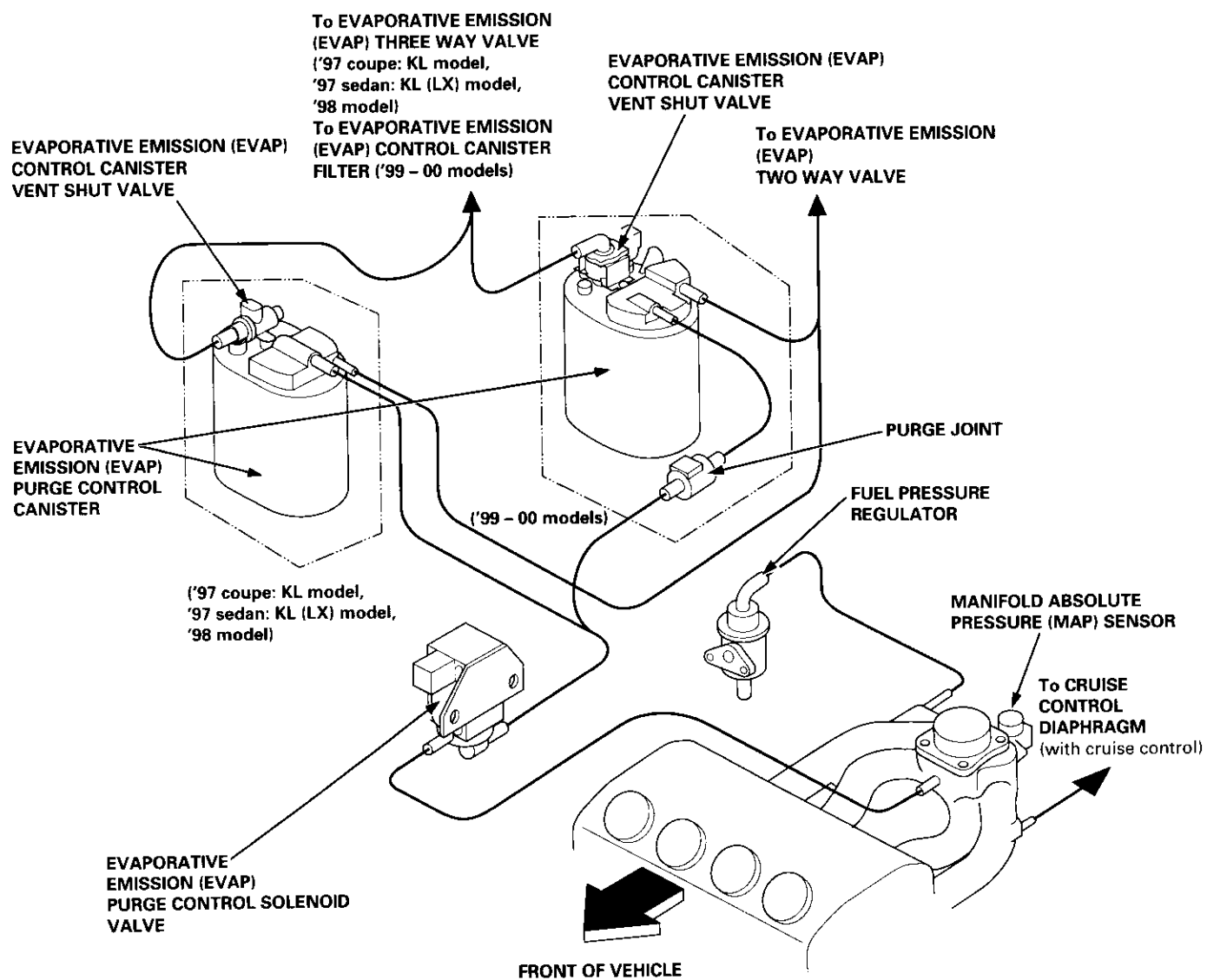
Vacuum Connections (cont'd)

D16Y7 engine ('96 models, '97 coupe: KA, KC models, '97 sedan: KA, KC, KL (DX) models, '97 hatchback: all models):





D16Y7 engine ('97 coupe: KL model, '97 sedan: KL (LX) model, '98 model, '99 model, '00 model):

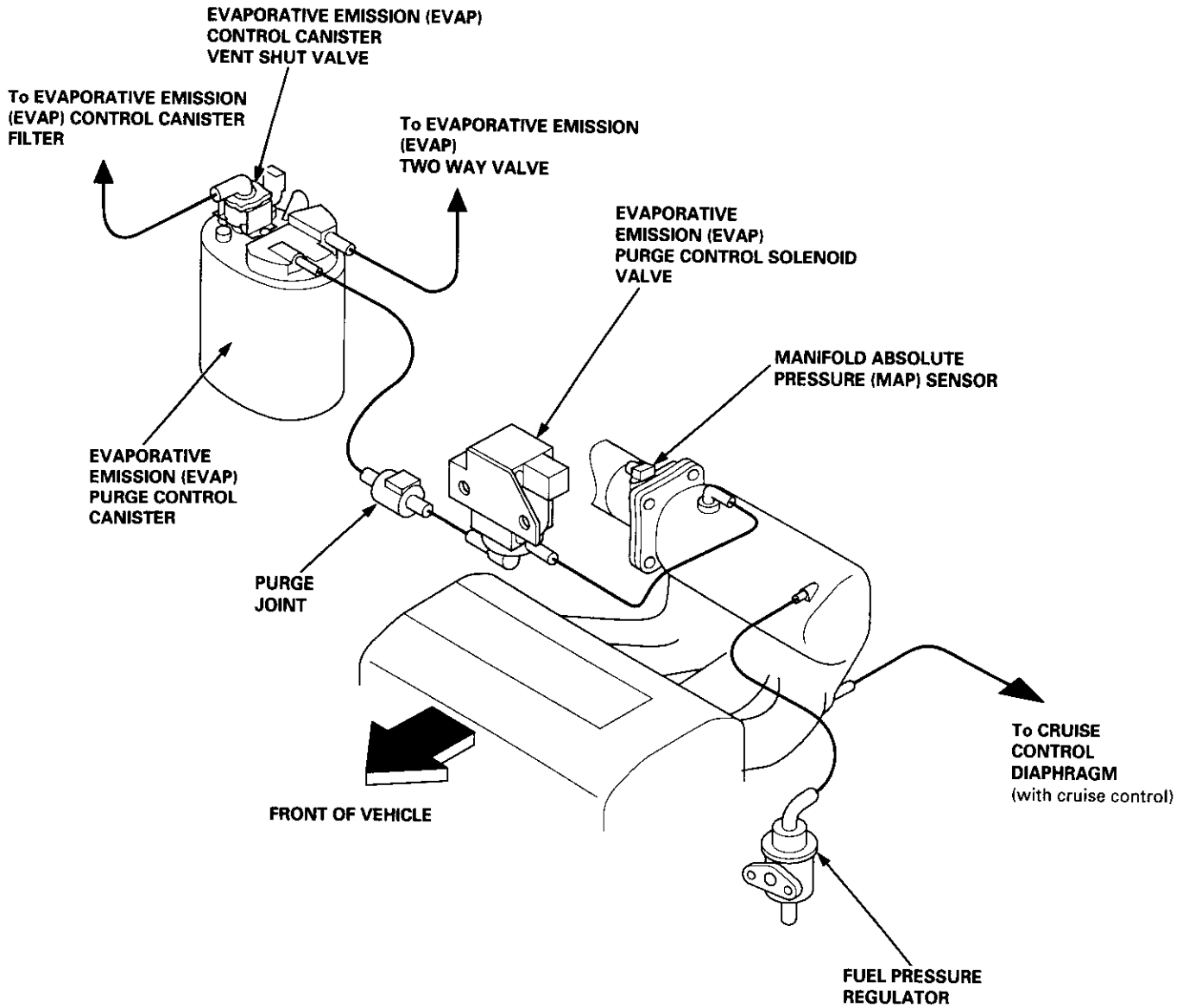


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System Description

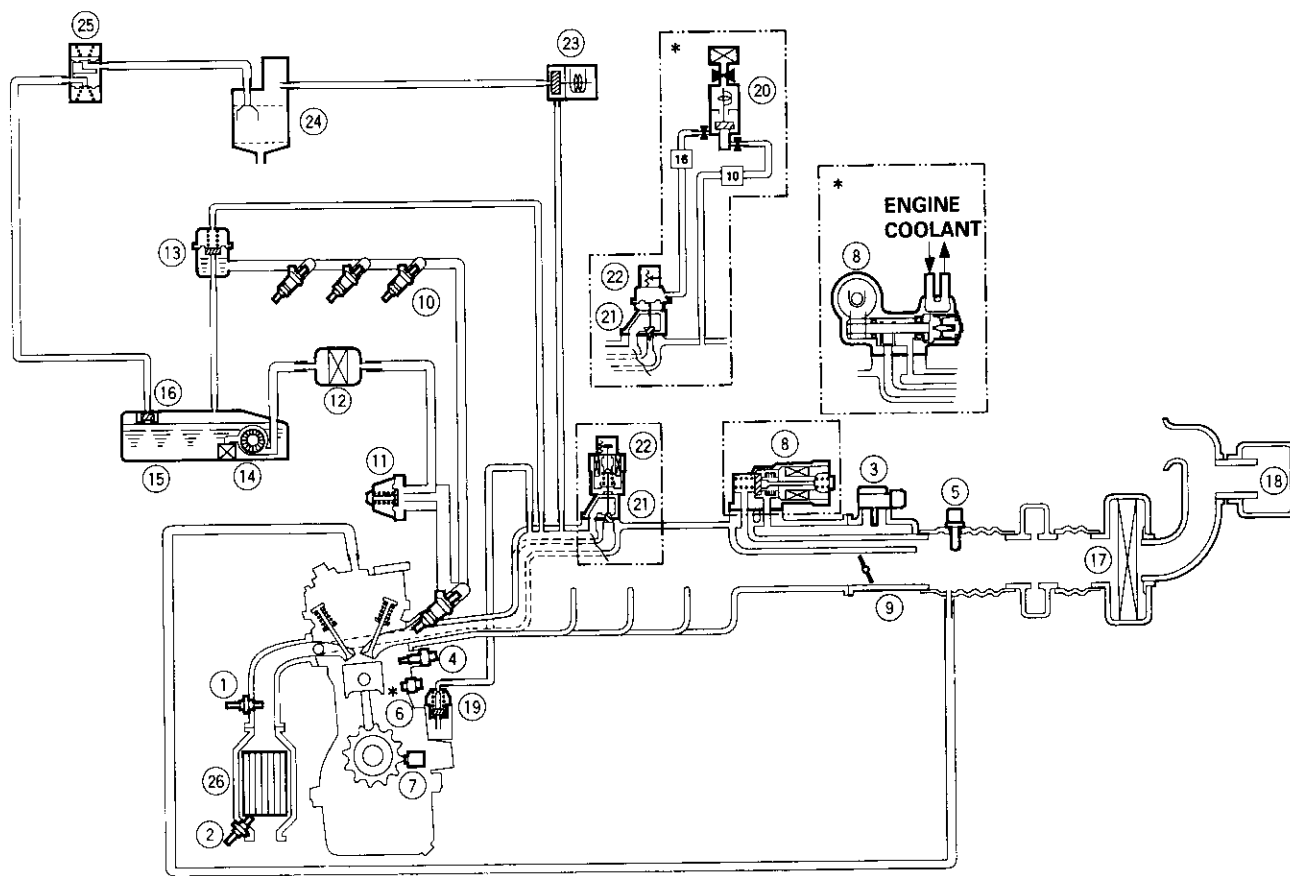
Vacuum Connections (cont'd)

B16A2 engine:





D16Y5 engine ('96 - 97 models):



□: Vacuum hose No.

*: CVT only

- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ KNOCK SENSOR (KS)
- ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑧ IDLE AIR CONTROL (IAC) VALVE
- ⑨ THROTTLE BODY (TB)
- ⑩ FUEL INJECTOR
- ⑪ FUEL PULSATION DAMPER
- ⑫ FUEL FILTER
- ⑬ FUEL PRESSURE REGULATOR
- ⑭ FUEL PUMP (FP)
- ⑮ FUEL TANK

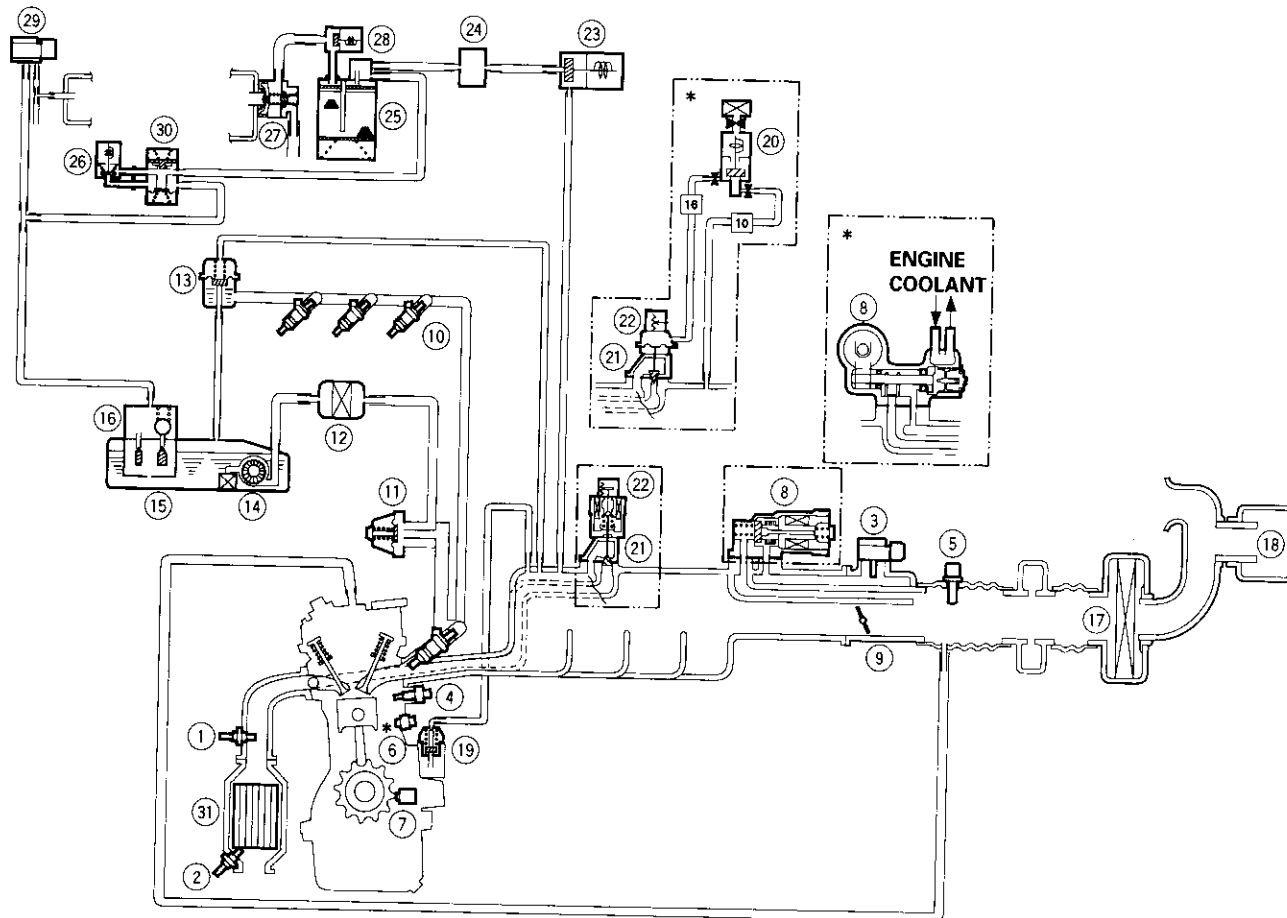
- ⑯ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE
- ⑰ AIR CLEANER
- ⑱ RESONATOR
- ⑲ POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- ⑳ EXHAUST GAS RECIRCULATION (EGR) CONTROL SOLENOID VALVE
- ㉑ EXHAUST GAS RECIRCULATION (EGR) VALVE
- ㉒ EXHAUST GAS RECIRCULATION (EGR) VALVE LIFT SENSOR
- ㉓ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ㉔ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ㉕ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉖ THREE WAY CATALYTIC CONVERTER (TWC)

(cont'd)

System Description

Vacuum Connections (cont'd)

D16Y5 engine ('98 model):

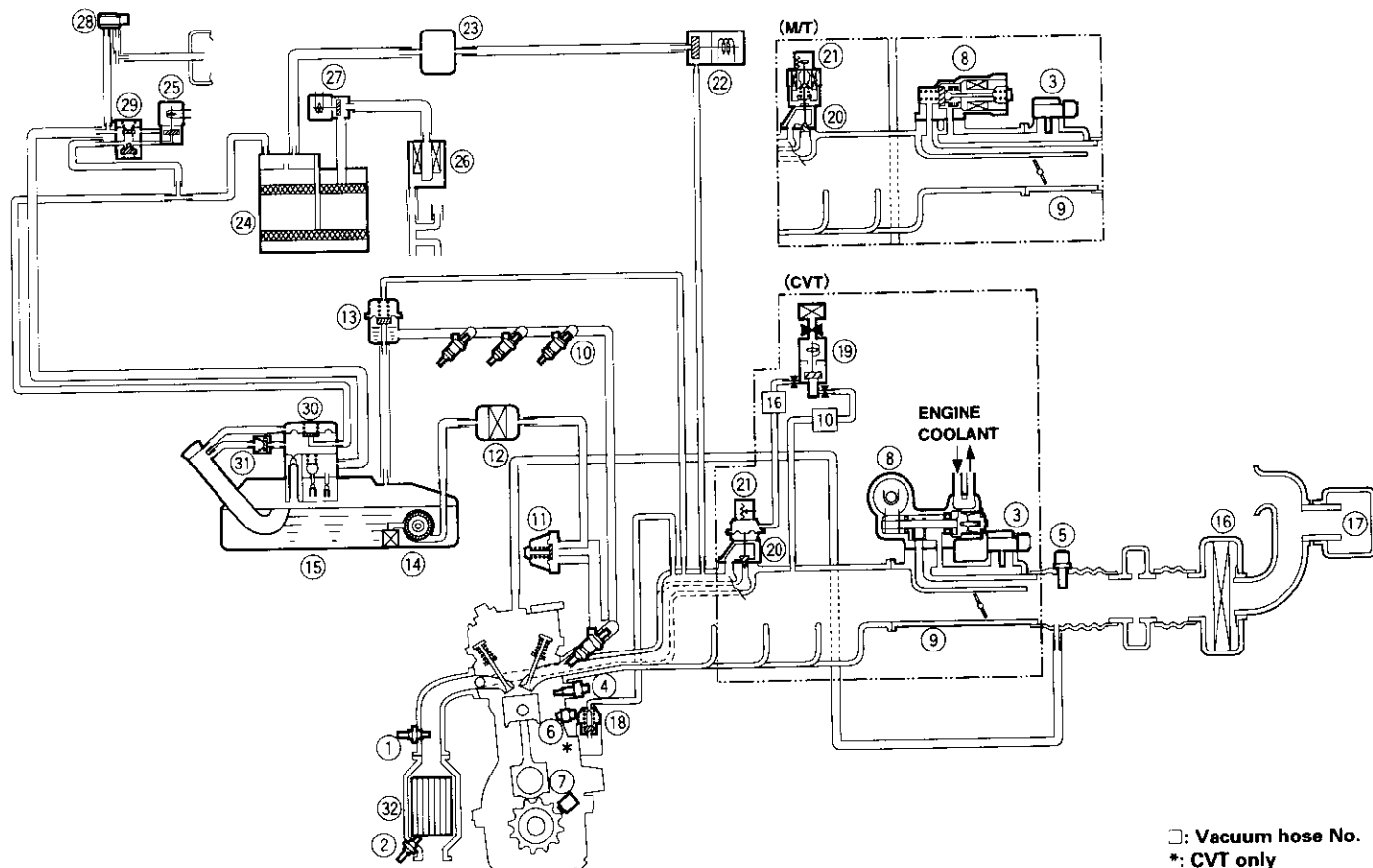


---: Vacuum hose No.
*: CVT only

- | | |
|--|--|
| ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO ₂ S, SENSOR 1) | ⑲ POSITIVE CRANKCASE VENTILATION (PCV) VALVE |
| ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO ₂ S, SENSOR 2) | ⑳ EXHAUST GAS RECIRCULATION (EGR) CONTROL SOLENOID VALVE |
| ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR | ㉑ EXHAUST GAS RECIRCULATION (EGR) VALVE |
| ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR | ㉒ EXHAUST GAS RECIRCULATION (EGR) VALVE LIFT SENSOR |
| ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR | ㉓ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE |
| ⑥ KNOCK SENSOR (KS) | ㉔ PURGE JOINT |
| ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR | ㉕ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER |
| ⑧ IDLE AIR CONTROL (IAC) VALVE | ㉖ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE |
| ⑨ THROTTLE BODY (TB) | ㉗ EVAPORATIVE EMISSION (EVAP) THREE WAY VALVE |
| ⑩ FUEL INJECTOR | ㉘ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE |
| ⑪ FUEL PULSATION DAMPER | ㉙ FUEL TANK PRESSURE SENSOR |
| ⑫ FUEL FILTER | ㉚ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE |
| ⑬ FUEL PRESSURE REGULATOR | ㉛ THREE WAY CATALYTIC CONVERTER (TWC) |
| ⑭ FUEL PUMP (FP) | |
| ⑮ FUEL TANK | |
| ⑯ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE | |
| ⑰ AIR CLEANER | |
| ⑱ RESONATOR | |



D16Y5 engine ('99 - 00 models):



□: Vacuum hose No.
*: CVT only

- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ KNOCK SENSOR (KS)
- ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑧ IDLE AIR CONTROL (IAC) VALVE
- ⑨ THROTTLE BODY (TB)
- ⑩ FUEL INJECTOR
- ⑪ FUEL PULSATION DAMPER
- ⑫ FUEL FILTER
- ⑬ FUEL PRESSURE REGULATOR
- ⑭ FUEL PUMP (FP)
- ⑮ FUEL TANK
- ⑯ AIR CLEANER
- ⑰ RESONATOR
- ⑱ POSITIVE CRANKCASE VENTILATION (PCV) VALVE

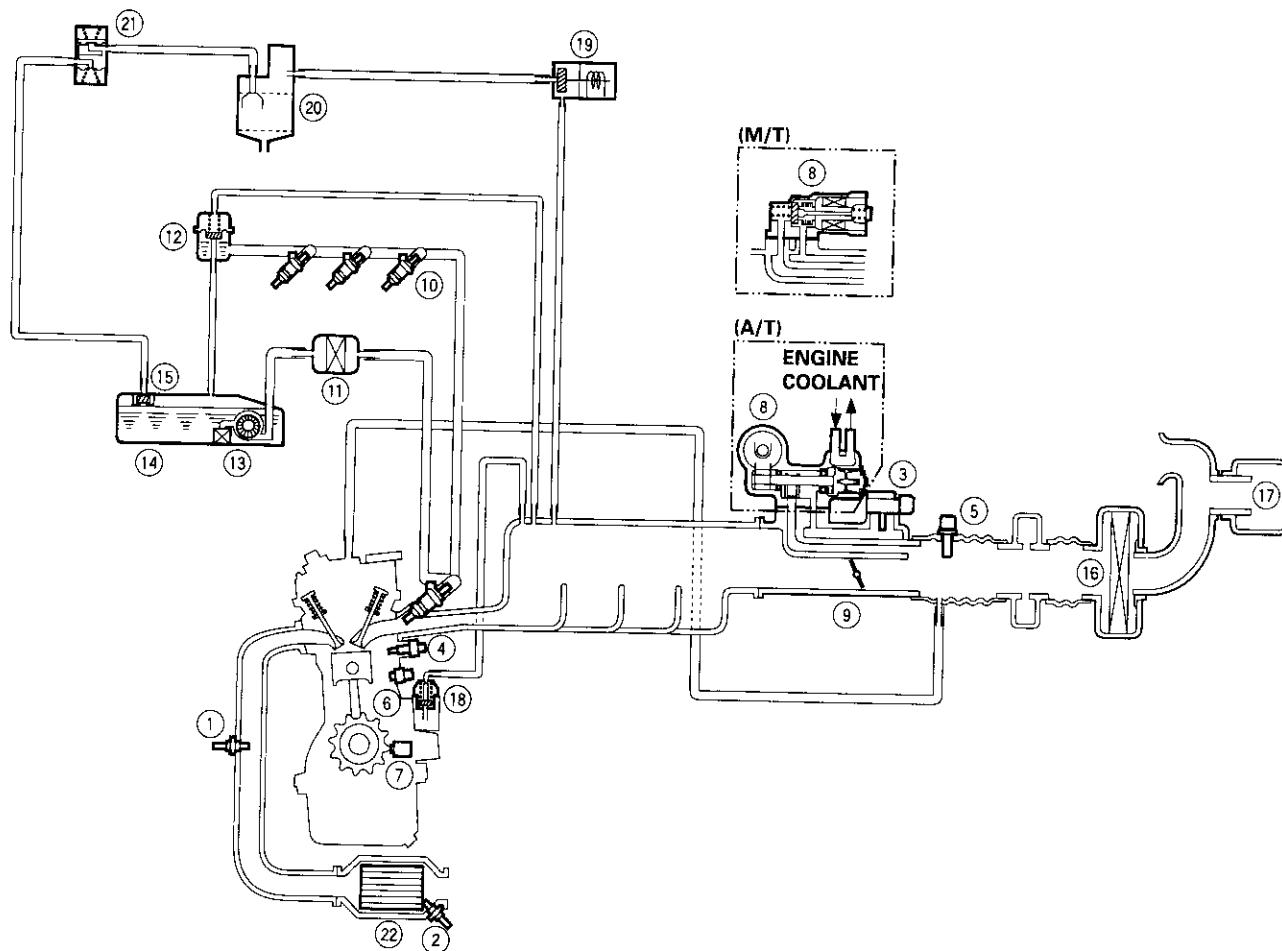
- ⑲ EXHAUST GAS RECIRCULATION (EGR) CONTROL SOLENOID VALVE
- ⑳ EXHAUST GAS RECIRCULATION (EGR) VALVE
- ㉑ EXHAUST GAS RECIRCULATION (EGR) VALVE LIFT SENSOR
- ㉒ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ㉓ PURGE JOINT
- ㉔ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ㉕ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE
- ㉖ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER FILTER
- ㉗ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE
- ㉘ FUEL TANK PRESSURE SENSOR
- ㉙ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉚ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VENT SHUT VALVE
- ㉛ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VAPOR RECIRCULATION VALVE
- ㉜ THREE WAY CATALYTIC CONVERTER (TWC)

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System Description

Vacuum Connections (cont'd)

D16Y8 engine ('96 sedan, '97 sedan: KA, KC models):

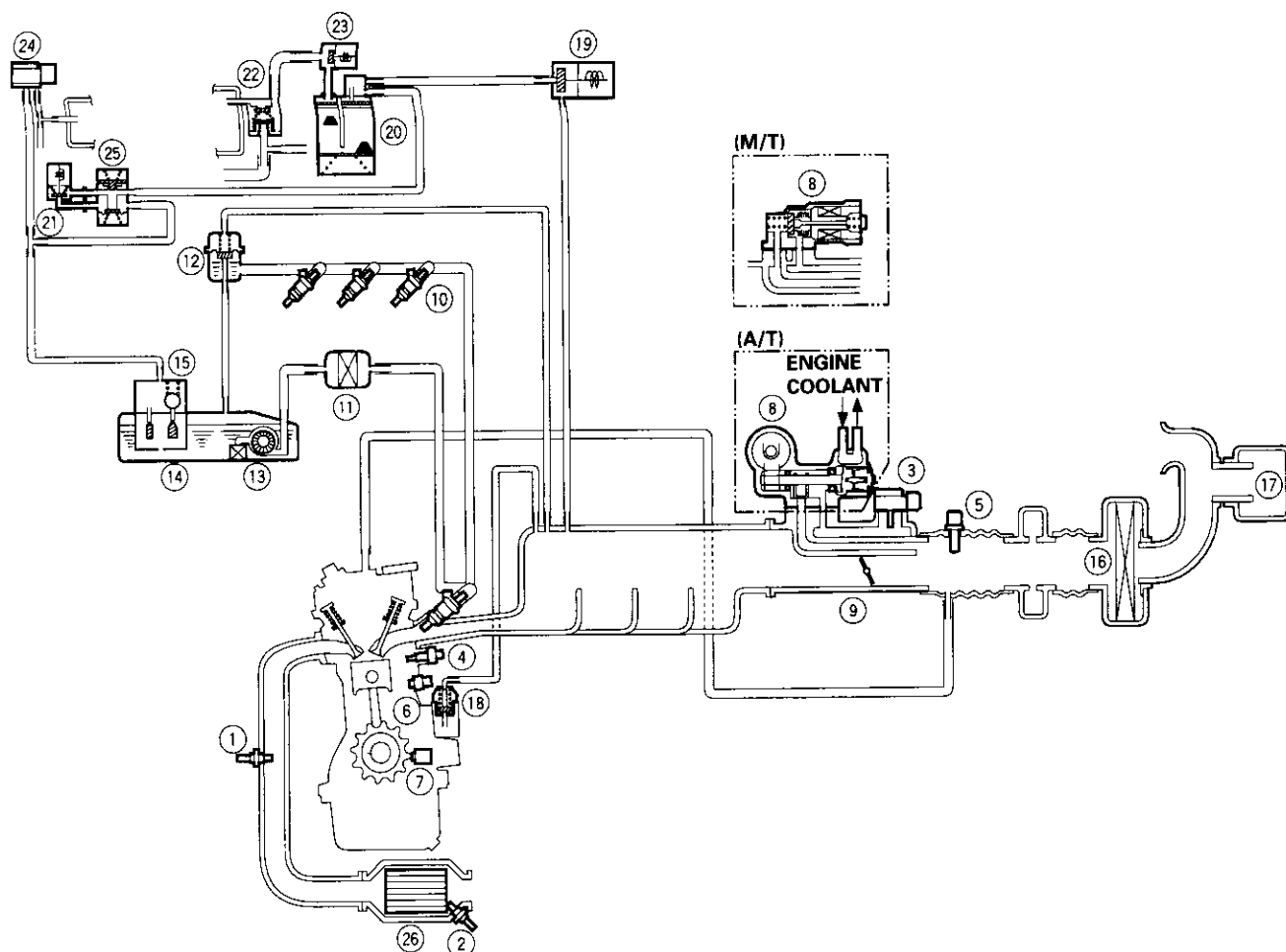


- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ KNOCK SENSOR (KS)
- ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑧ IDLE AIR CONTROL (IAC) VALVE
- ⑨ THROTTLE BODY (TB)
- ⑩ FUEL INJECTOR
- ⑪ FUEL FILTER

- ⑫ FUEL PRESSURE REGULATOR
- ⑬ FUEL PUMP (FP)
- ⑭ FUEL TANK
- ⑮ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE
- ⑯ AIR CLEANER
- ⑰ RESONATOR
- ⑱ POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- ⑲ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ⑳ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ㉑ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉒ THREE WAY CATALYTIC CONVERTER (TWC)



D16Y8 engine ('96 coupe, '97 coupe: all models, '97 sedan: KL model, '98 model):



- 1 PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S, SENSOR 1)
- 2 SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S, SENSOR 2)
- 3 MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- 4 ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- 5 INTAKE AIR TEMPERATURE (IAT) SENSOR
- 6 KNOCK SENSOR (KS)
- 7 CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- 8 IDLE AIR CONTROL (IAC) VALVE
- 9 THROTTLE BODY (TB)
- 10 FUEL INJECTOR
- 11 FUEL FILTER
- 12 FUEL PRESSURE REGULATOR
- 13 FUEL PUMP (FP)
- 14 FUEL TANK
- 15 FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE

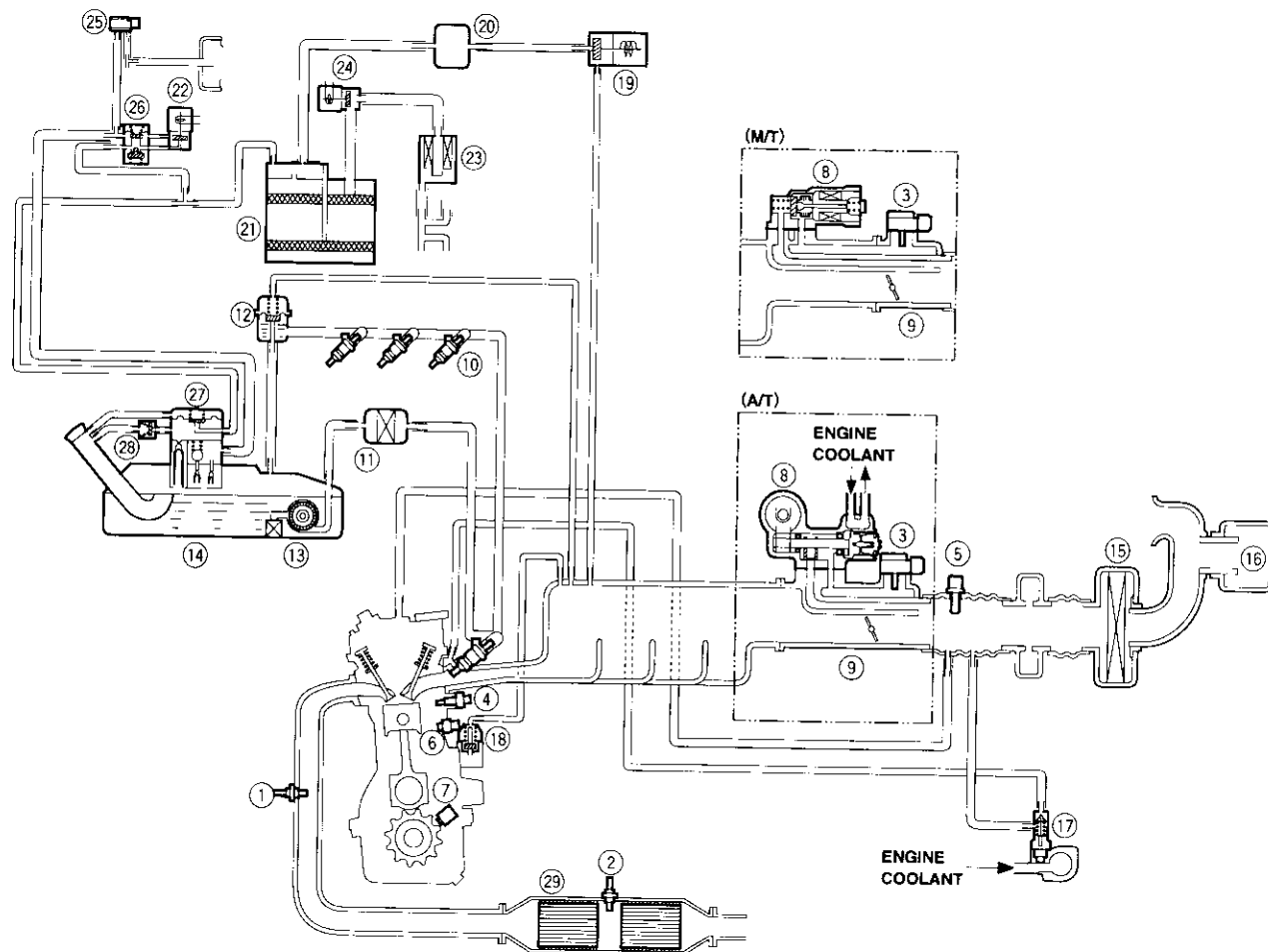
- 16 AIR CLEANER
- 17 RESONATOR
- 18 POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- 19 EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- 20 EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- 21 EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE
- 22 EVAPORATIVE EMISSION (EVAP) THREE WAY VALVE
- 23 EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE
- 24 FUEL TANK PRESSURE SENSOR
- 25 EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- 26 THREE WAY CATALYTIC CONVERTER (TWC)

(cont'd)

System Description

Vacuum Connections (cont'd)

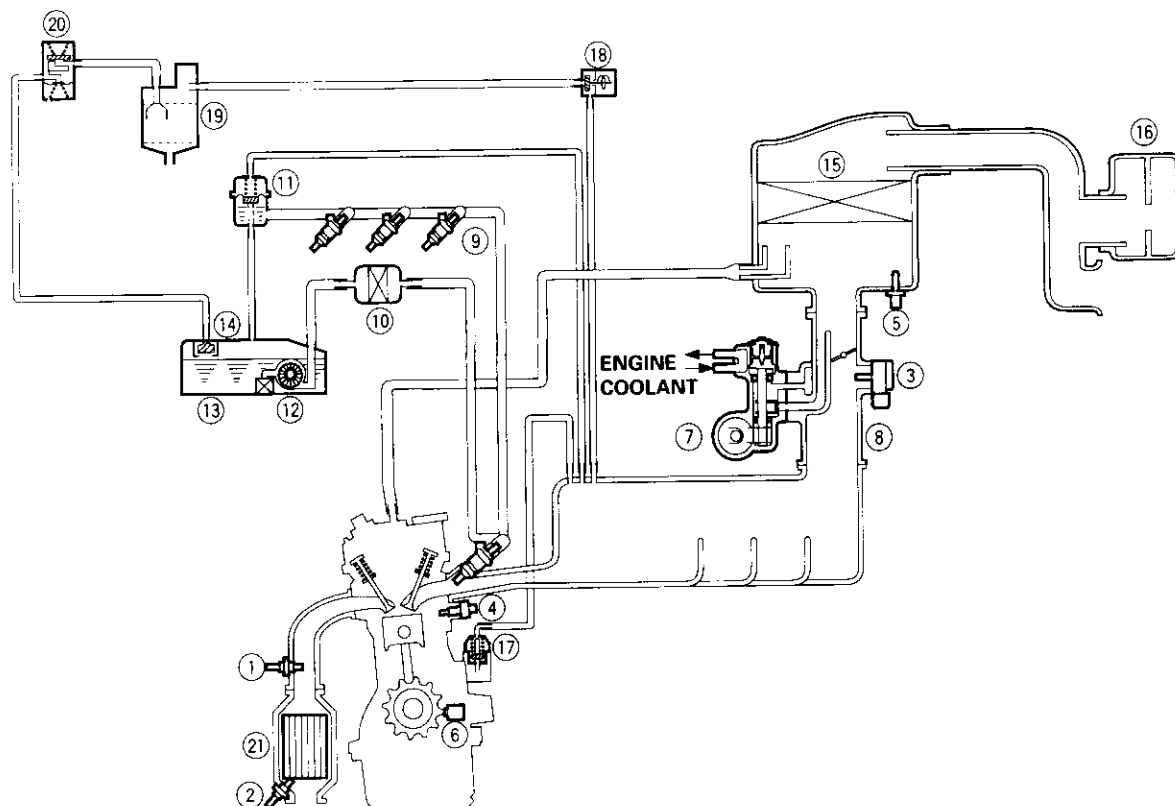
D16Y8 engine ('99 - 00 models):



- | | |
|--|---|
| ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO ₂ S, SENSOR 1) | ⑲ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE |
| ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO ₂ S, SENSOR 2) | ⑳ PURGE JOINT |
| ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR | ㉑ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER |
| ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR | ㉒ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE |
| ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR | ㉓ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER FILTER |
| ⑥ KNOCK SENSOR (KS) | ㉔ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE |
| ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR | ㉕ FUEL TANK PRESSURE SENSOR |
| ⑧ IDLE AIR CONTROL (IAC) VALVE | ㉖ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE |
| ⑨ THROTTLE BODY (TB) | ㉗ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VENT SHUT VALVE |
| ⑩ FUEL INJECTOR | ㉘ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VAPOR RECIRCULATION VALVE |
| ⑪ FUEL FILTER | ㉙ THREE WAY CATALYTIC CONVERTER (TWC) |
| ⑫ FUEL PRESSURE REGULATOR | |
| ⑬ FUEL PUMP (FP) | |
| ⑭ FUEL TANK | |
| ⑮ AIR CLEANER | |
| ⑯ RESONATOR | |
| ⑰ FUEL INJECTION AIR (FIA) CONTROL VALVE | |
| ⑱ POSITIVE CRANKCASE VENTILATION (PCV) VALVE | |



D16Y7 engine ('96 model, '97 coupe: KA, KC models, '97 sedan: KA, KC, KL (DX) models, '97 hatchback: all models):



- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑦ IDLE AIR CONTROL (IAC) VALVE
- ⑧ THROTTLE BODY (TB)
- ⑨ FUEL INJECTOR
- ⑩ FUEL FILTER
- ⑪ FUEL PRESSURE REGULATOR

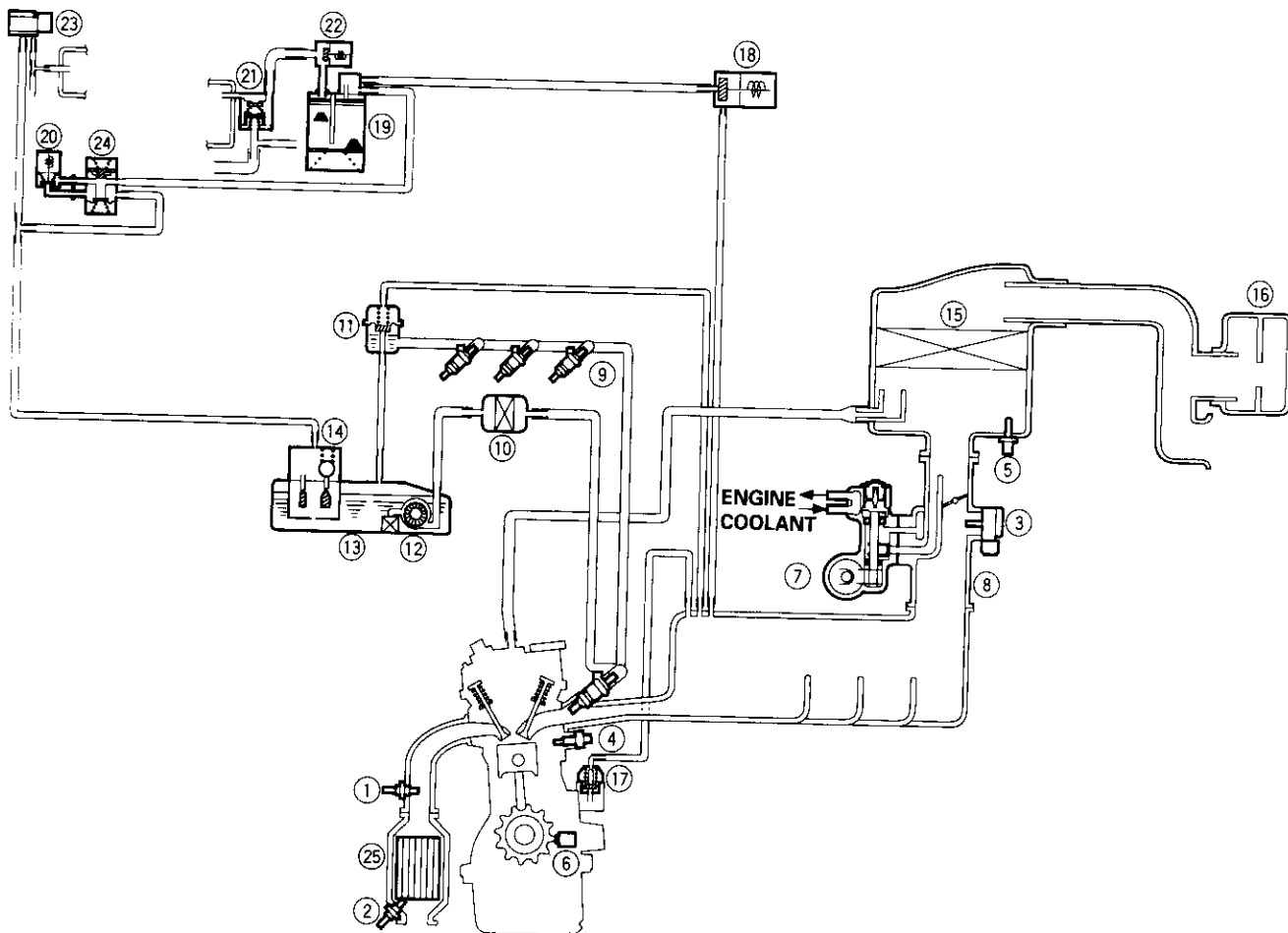
- ⑫ FUEL PUMP (FP)
- ⑬ FUEL TANK
- ⑭ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE
- ⑮ AIR CLEANER
- ⑯ RESONATOR
- ⑰ POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- ⑱ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ⑲ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ⑳ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉑ THREE WAY CATALYTIC CONVERTER (TWC)

(cont'd)

System Description

Vacuum Connections (cont'd)

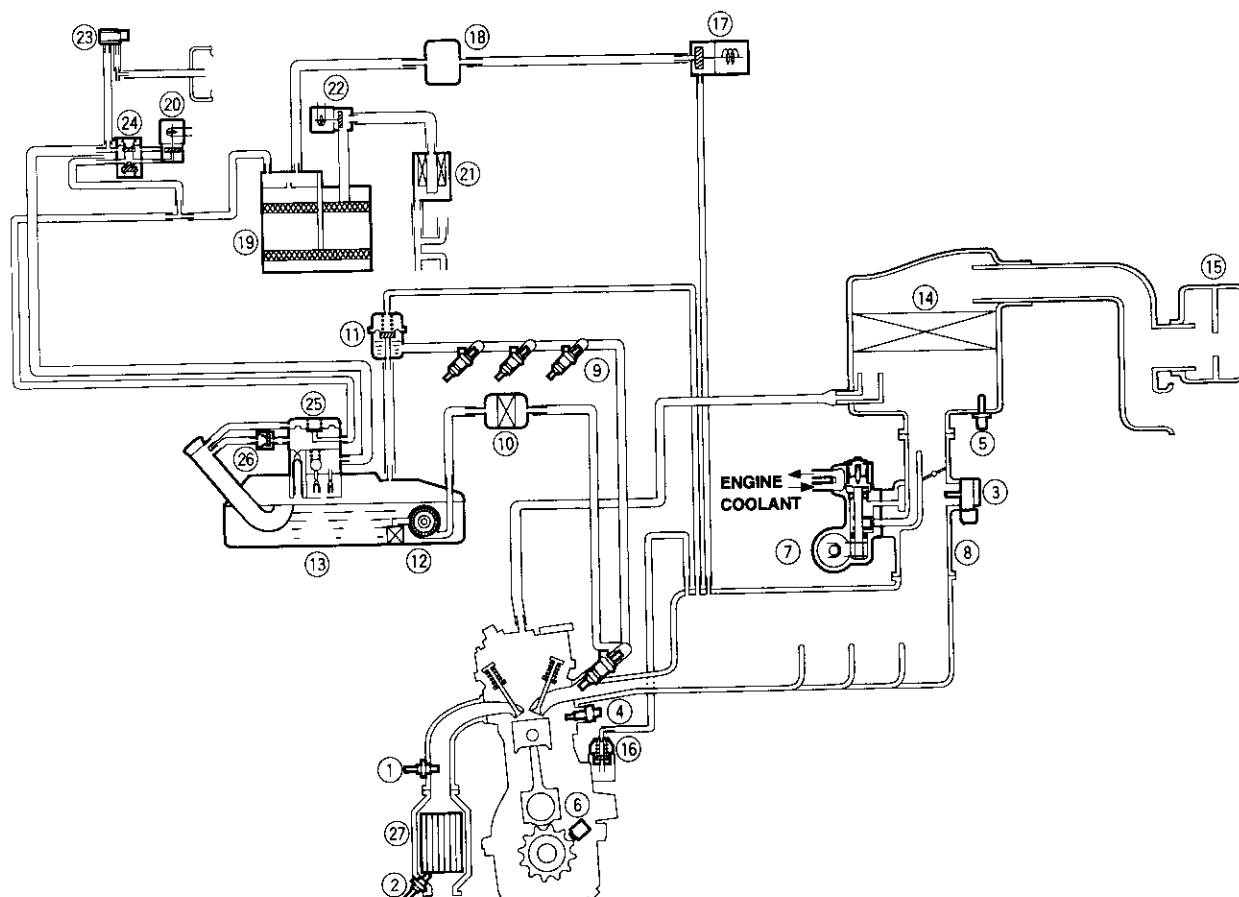
D16Y7 engine ('97 coupe: KL model, sedan: KL (LX) model, '98 model):



- | | | |
|--|---|--|
| ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO ₂ S, SENSOR 1) | ⑩ FUEL FILTER | ⑬ RESONATOR |
| ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO ₂ S, SENSOR 2) | ⑪ FUEL PRESSURE REGULATOR | ⑭ POSITIVE CRANKCASE VENTILATION (PCV) VALVE |
| ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR | ⑫ FUEL PUMP (FP) | ⑮ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE |
| ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR | ⑬ FUEL TANK | ⑯ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER |
| ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR | ⑭ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE | ⑰ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE |
| ⑥ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR | ⑮ AIR CLEANER | ⑱ EVAPORATIVE EMISSION (EVAP) THREE WAY VALVE |
| ⑦ IDLE AIR CONTROL (IAC) VALVE | | ⑳ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE |
| ⑧ THROTTLE BODY (TB) | | ㉑ FUEL TANK PRESSURE SENSOR |
| ⑨ FUEL INJECTOR | | ㉒ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE |
| | | ㉓ THREE WAY CATALYTIC CONVERTER (TWC) |



D16V7 engine ('99 - 00 models):



- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑦ IDLE AIR CONTROL (IAC) VALVE
- ⑧ THROTTLE BODY (TB)
- ⑨ FUEL INJECTOR
- ⑩ FUEL FILTER
- ⑪ FUEL PRESSURE REGULATOR
- ⑫ FUEL PUMP (FP)
- ⑬ FUEL TANK
- ⑭ AIR CLEANER
- ⑮ RESONATOR

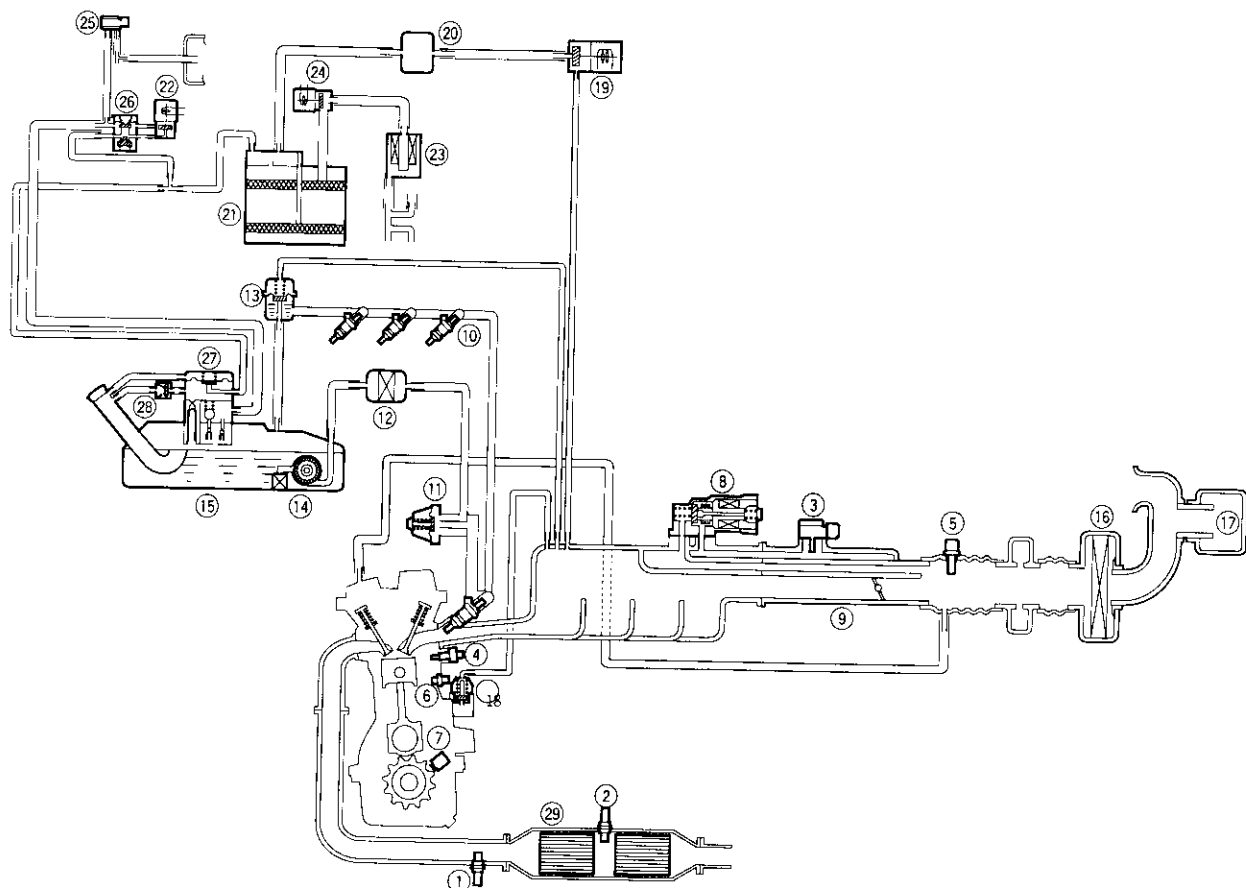
- ⑯ POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- ⑰ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ⑱ PURGE JOINT
- ⑲ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ⑳ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE
- ㉑ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER FILTER
- ㉒ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE
- ㉓ FUEL TANK PRESSURE SENSOR
- ㉔ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉕ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VENT SHUT VALVE
- ㉖ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VAPOR RECIRCULATION VALVE
- ㉗ THREE WAY CATALYTIC CONVERTER (TWC)

(cont'd)

System Description

Vacuum Connections (cont'd)

B16A2 engine:

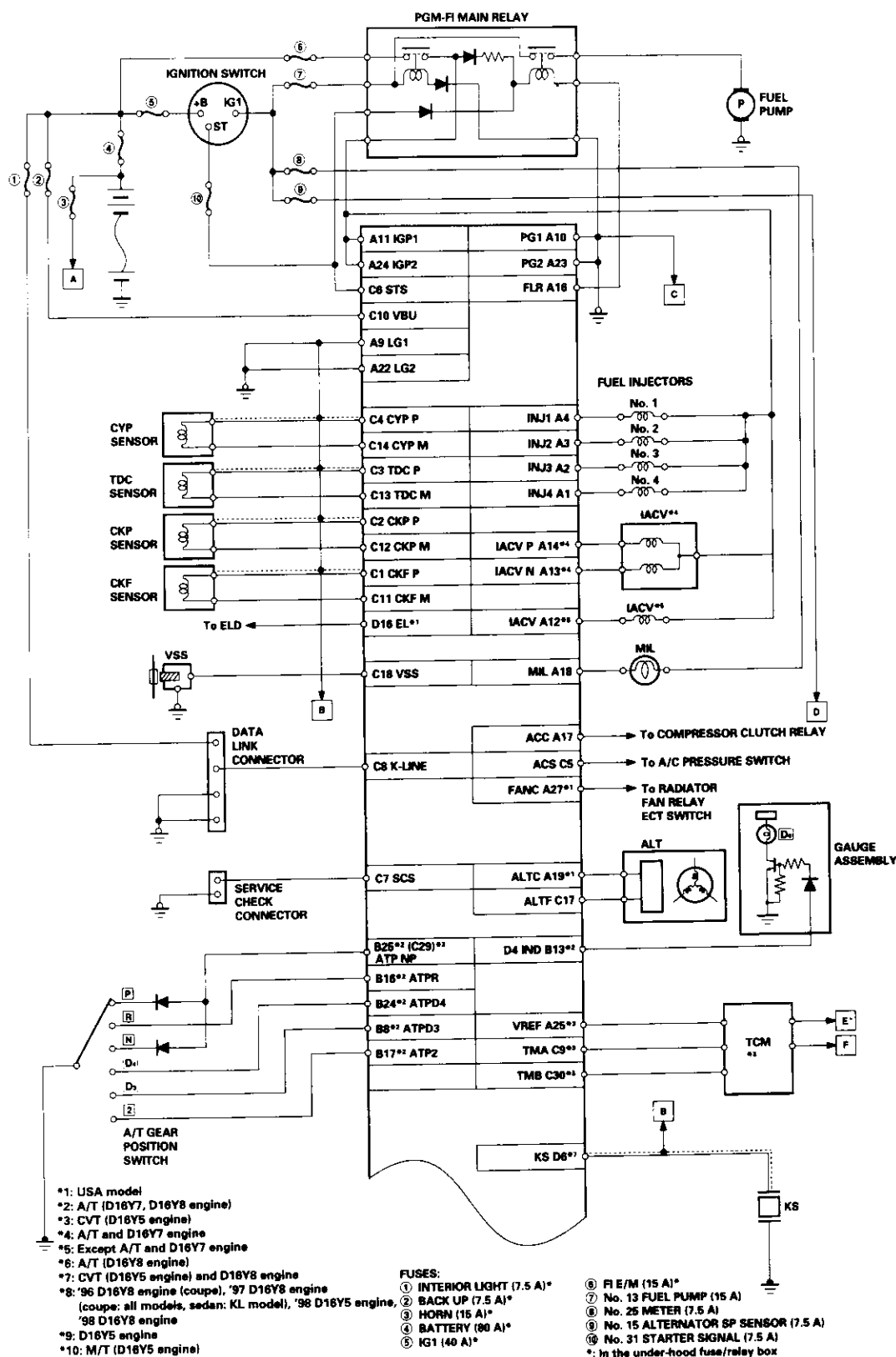


- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S, SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S, SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ KNOCK SENSOR (KS)
- ⑦ CRANKSHAFT SPEED FLUCTUATION (CKF) SENSOR
- ⑧ IDLE AIR CONTROL (IAC) VALVE
- ⑨ THROTTLE BODY (TB)
- ⑩ FUEL INJECTOR
- ⑪ FUEL PULSATION DAMPER
- ⑫ FUEL FILTER
- ⑬ FUEL PRESSURE REGULATOR
- ⑭ FUEL PUMP (FP)
- ⑮ FUEL TANK
- ⑯ AIR CLEANER
- ⑰ RESONATOR
- ⑱ POSITIVE CRANKCASE VENTILATION (PCV) VALVE

- ⑲ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ⑳ PURGE JOINT
- ㉑ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ㉒ EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE
- ㉓ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER FILTER
- ㉔ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER VENT SHUT VALVE
- ㉕ FUEL TANK PRESSURE SENSOR
- ㉖ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉗ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VENT SHUT VALVE
- ㉘ ONBOARD REFUELING VAPOR RECOVERY (ORVR) VAPOR RECIRCULATION VALVE
- ㉙ THREE WAY CATALYTIC CONVERTER (TWC)



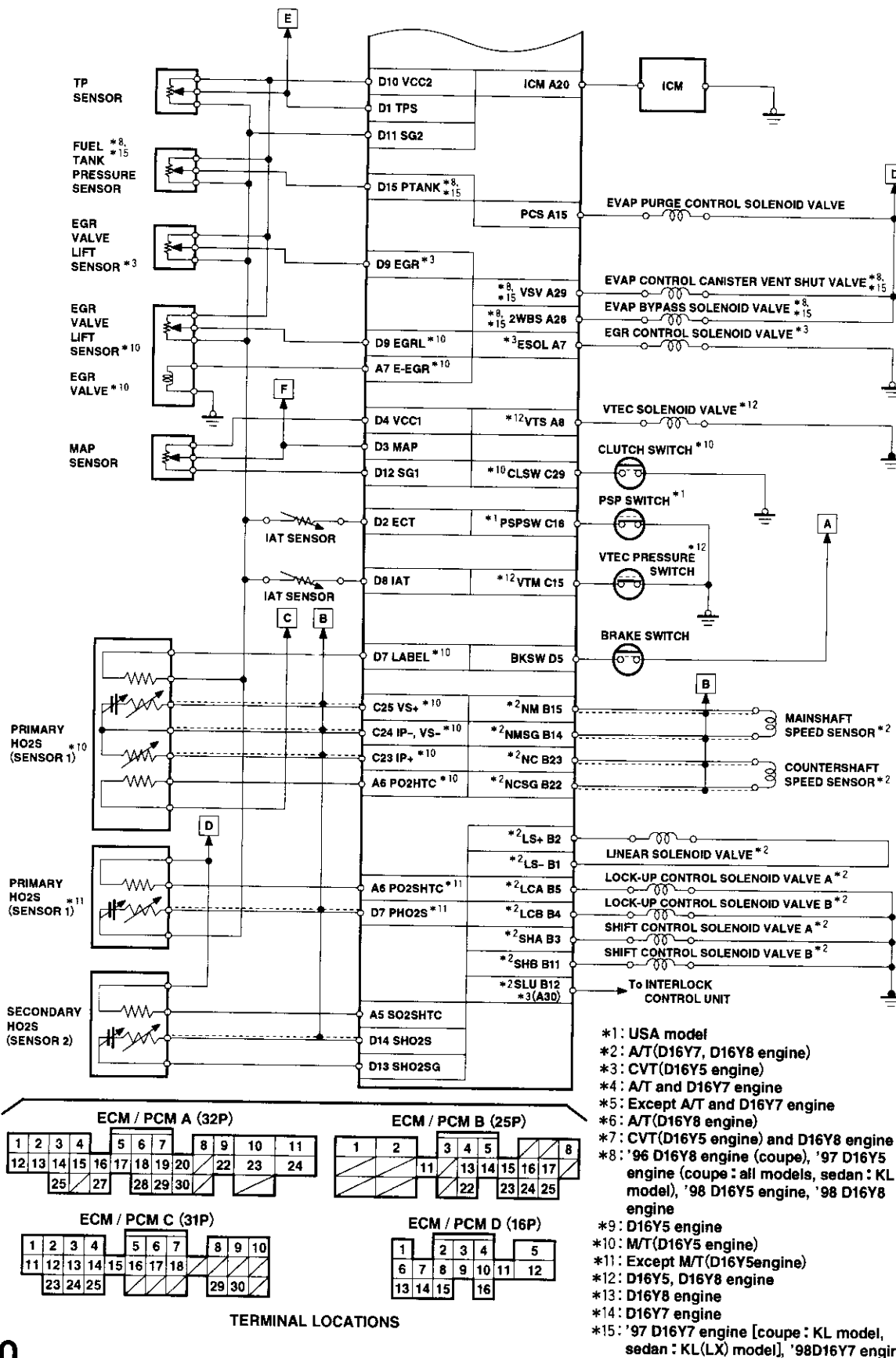
Electrical Connections ('96 - '98 Models, '99 - '00 D16Y5 engine with M/T)

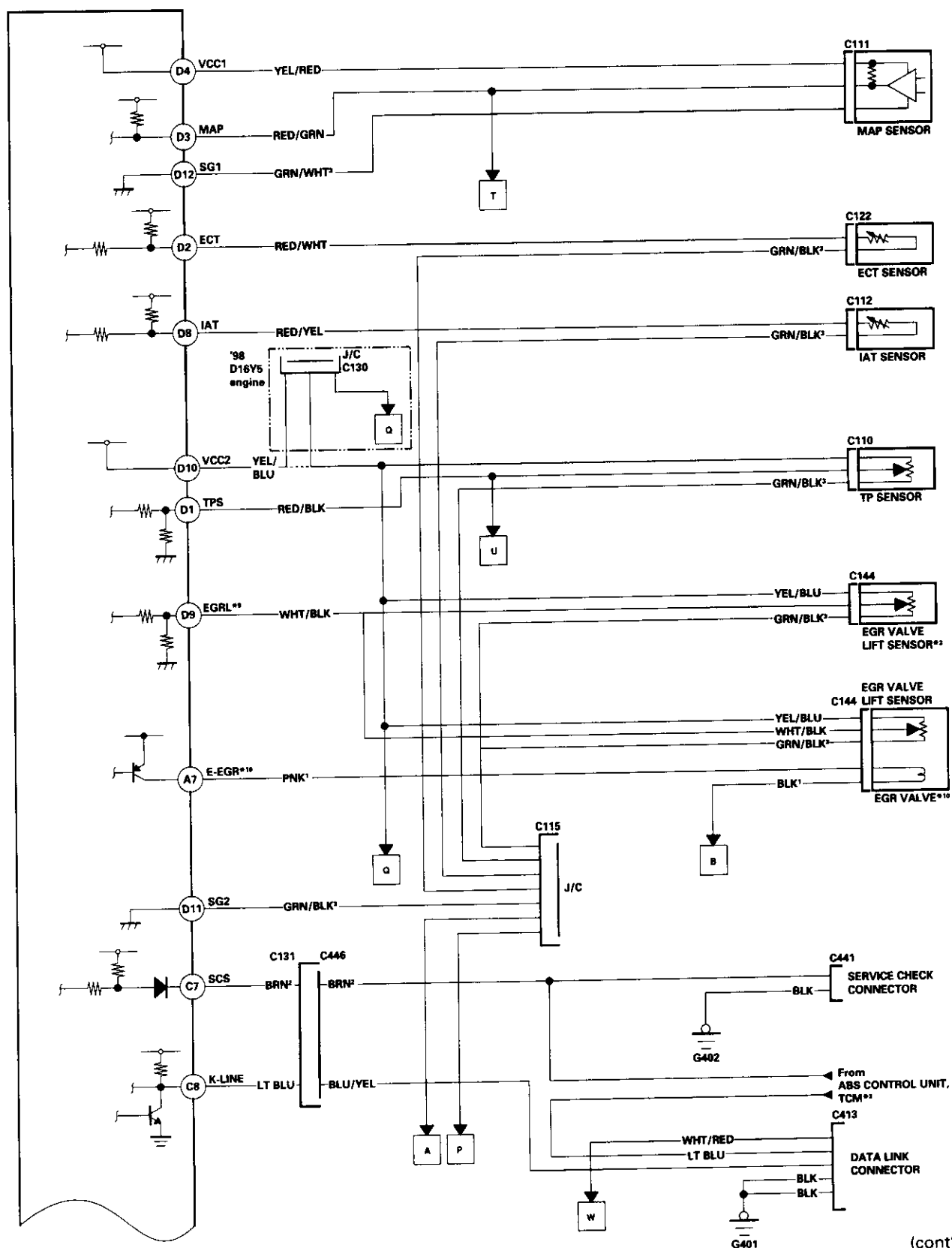


(cont'd)

System Description

Electrical Connections ('96 - '98 Models, '99 - '00 D16Y5 engine with M/T) (cont'd)

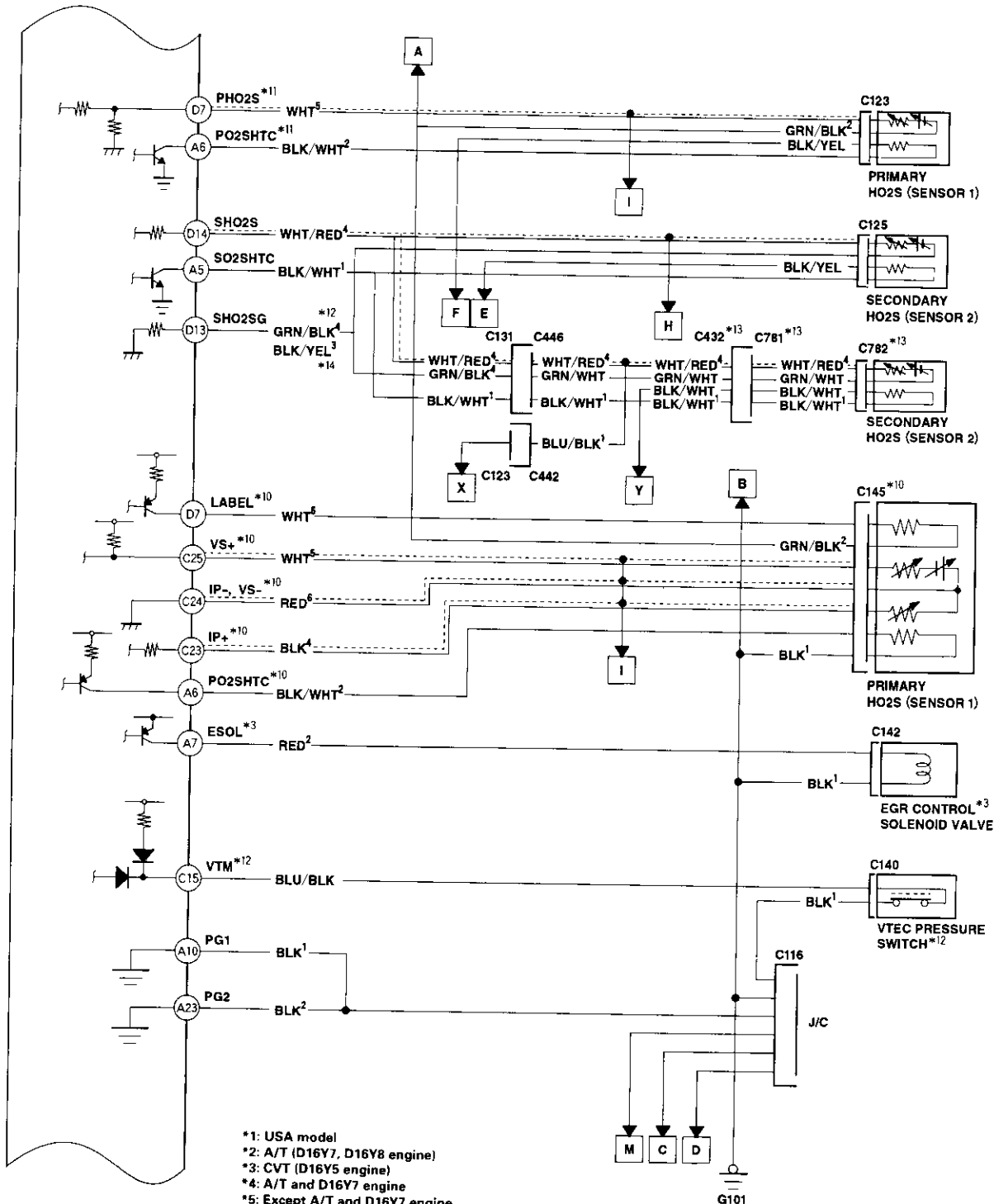




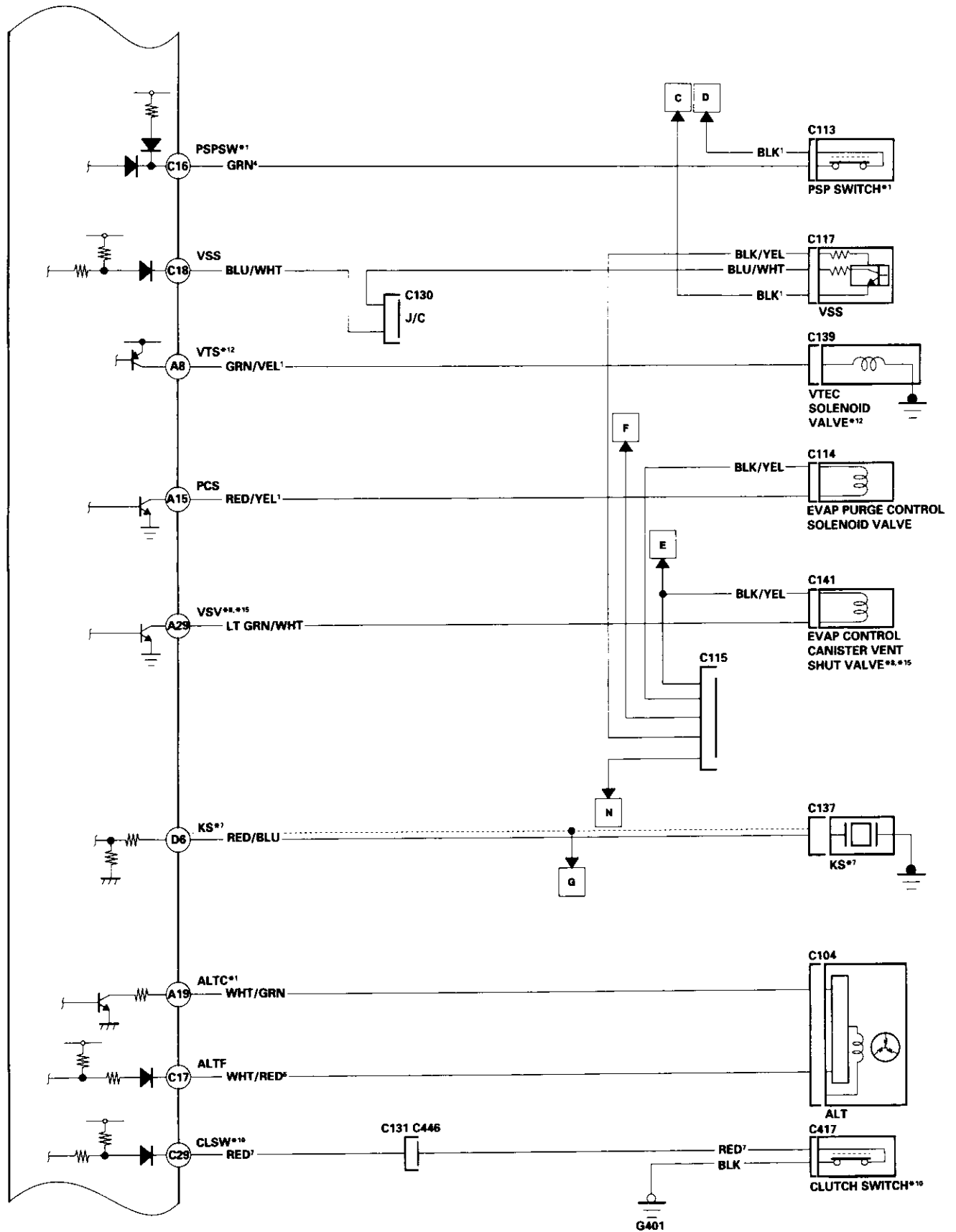
(cont'd)

System Description

Electrical Connections ('96 - '98 Models, '99 - '00 D16Y5 engine with M/T) (cont'd)



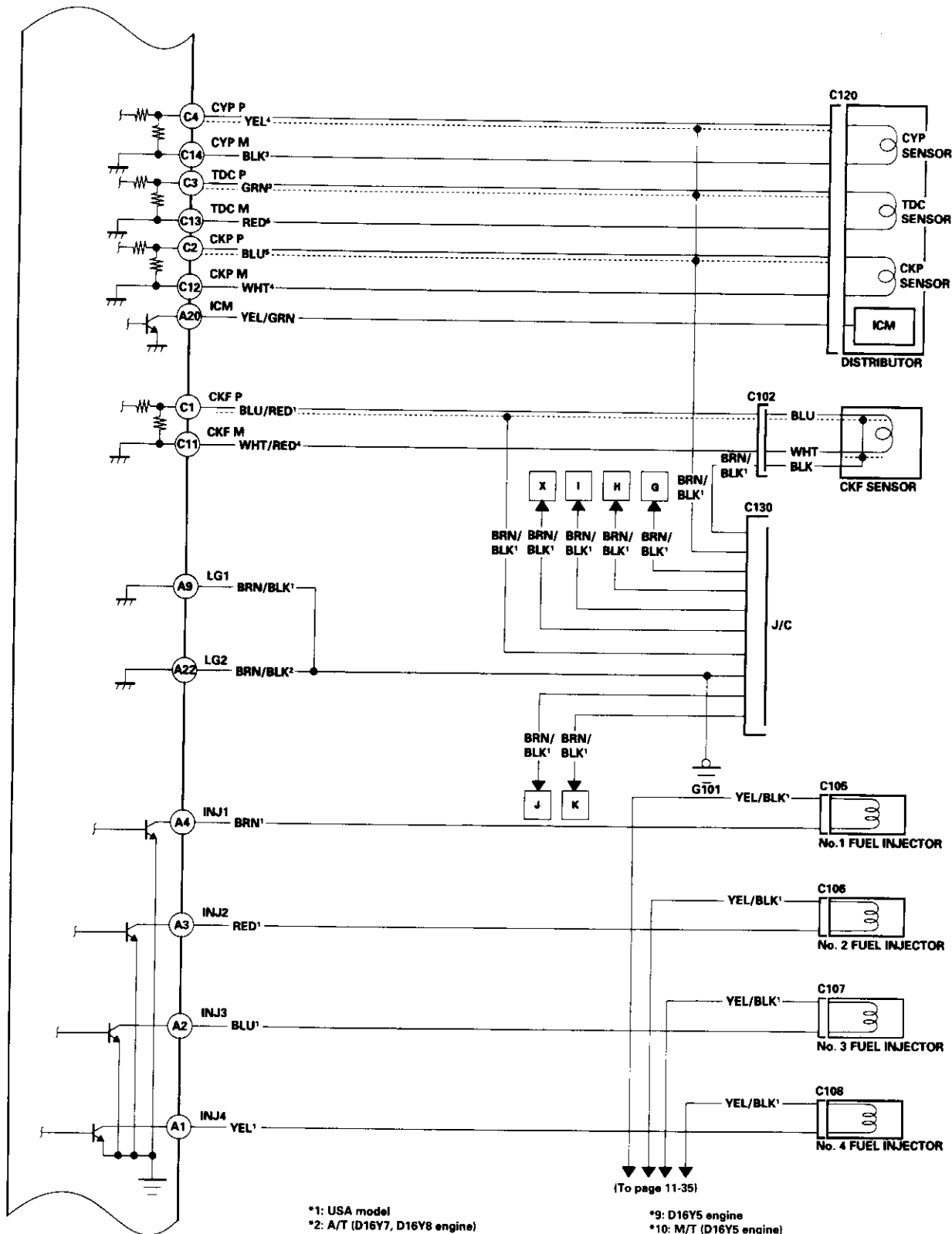
- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: A/T (D16Y8 engine)
- *7: CVT (D16Y5 engine) and D16Y8 engine
- *8: '96 D16Y8 engine (coupe), '97 D16Y5 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 - '00 D16Y5 (M/T) engine
- *9: D16Y5 engine
- *10: M/T (D16Y5 engine)
- *11: Except M/T (D16Y5 engine)
- *12: D16Y5, D16Y8 engine
- *13: D16Y8 engine
- *14: D16Y7 engine
- *15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine



(cont'd)

System Description

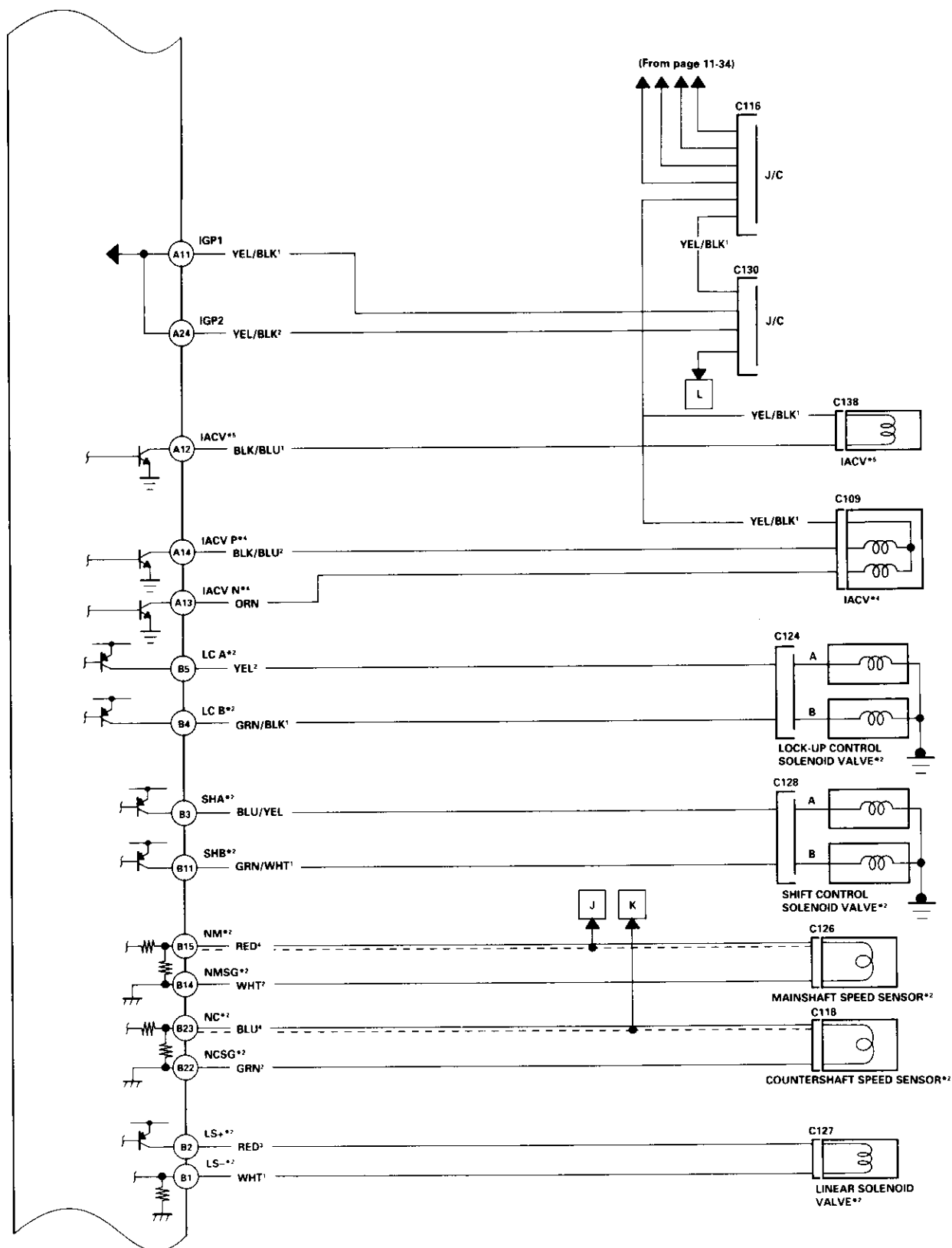
Electrical Connections ('96 - 98 Models, '99 - 00 D16Y5 engine with M/T) (cont'd)



- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: A/T (D16Y8 engine)
- *7: CVT (D16Y5 engine) and D16Y8 engine
- *8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 - 00 D16Y5 (M/T) engine

- *9: D16Y5 engine
- *10: M/T (D16Y5 engine)
- *11: Except M/T (D16Y5 engine)
- *12: D16Y5, D16Y8 engine
- *13: D16Y8 engine
- *14: D16Y7 engine
- *15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine

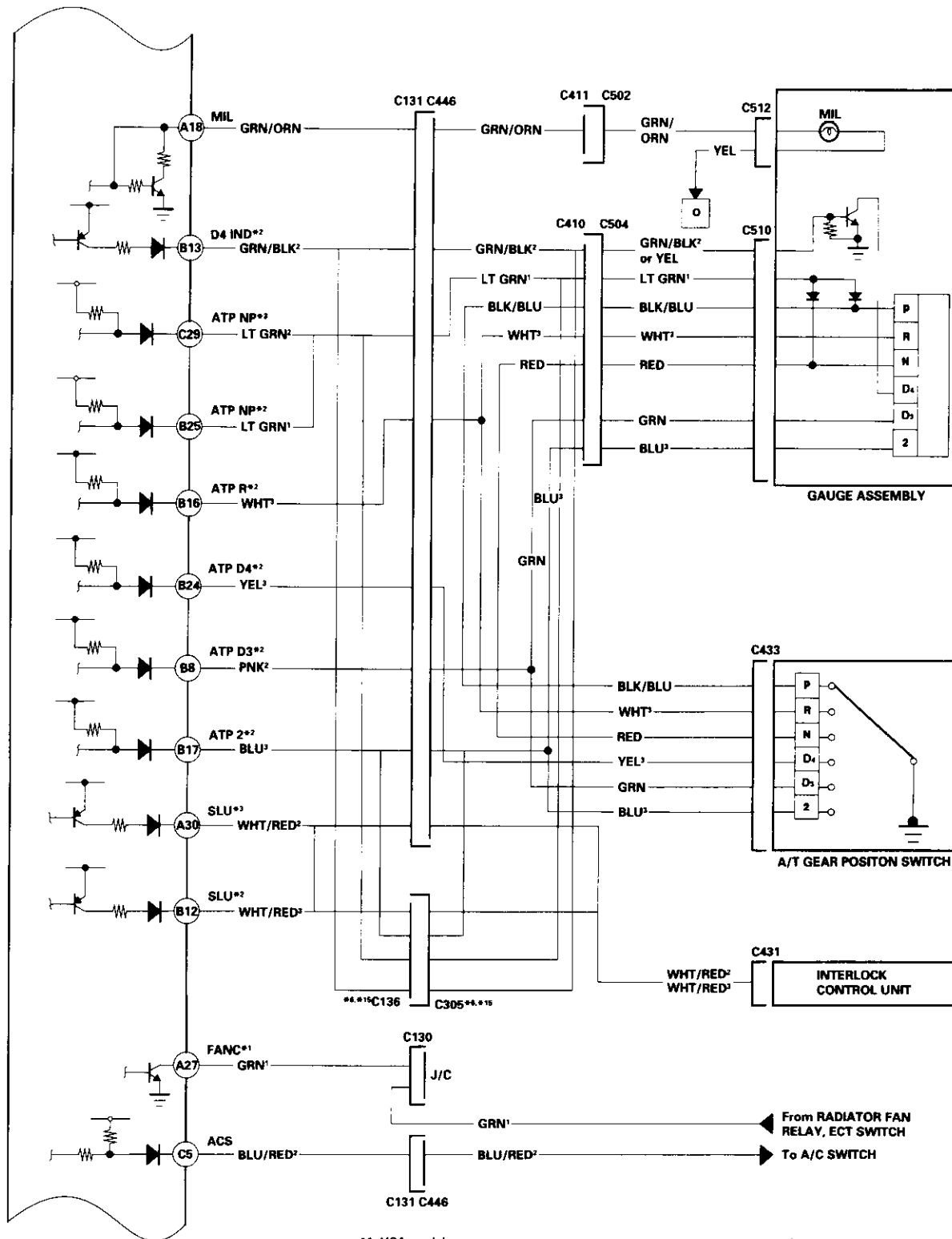
(To page 11-35)



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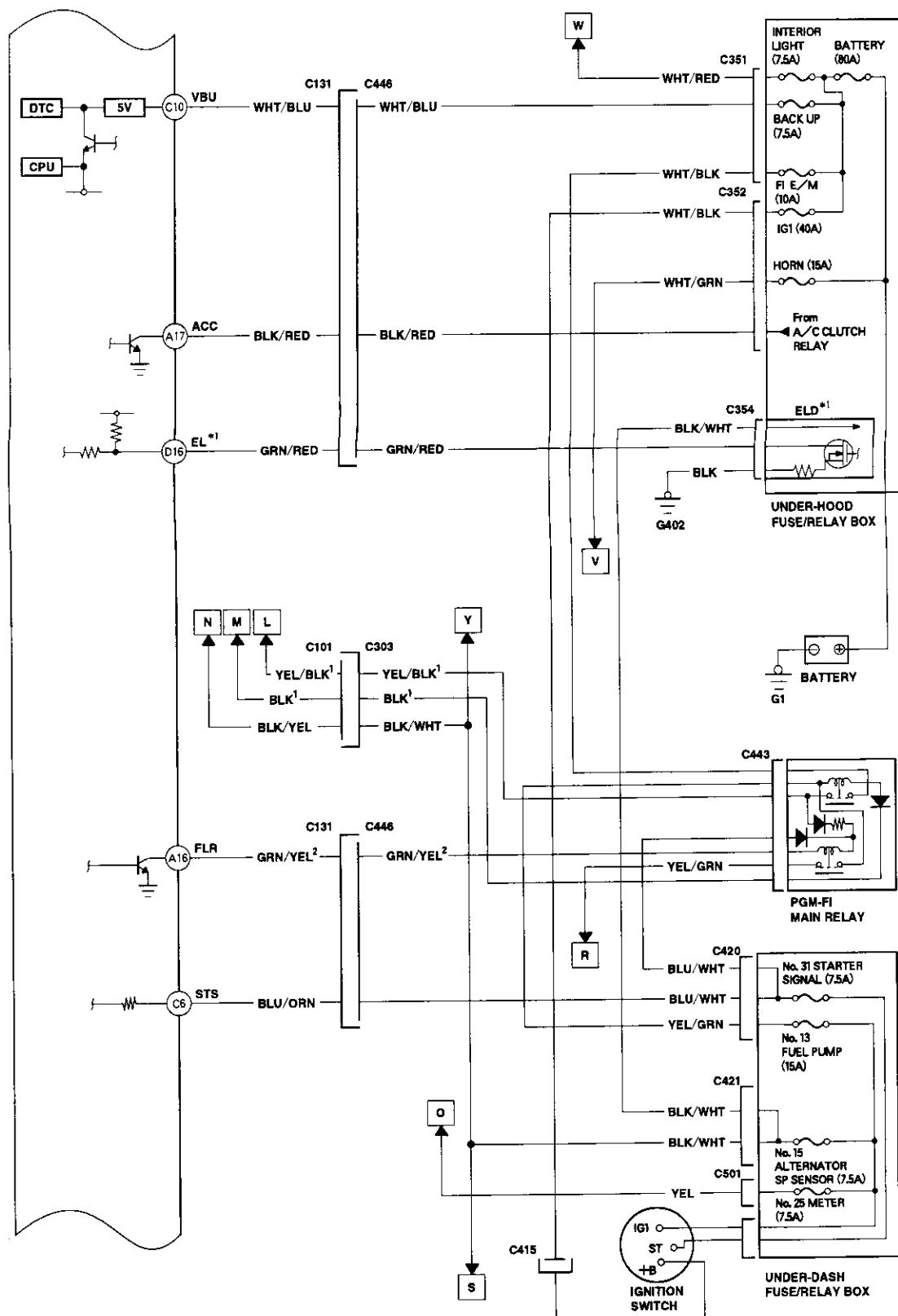
System Description

Electrical Connections ('96 - '98 Models, '99 - '00 D16Y5 engine with M/T) (cont'd)



- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: A/T (D16Y8 engine)
- *7: CVT (D16Y5 engine) and D16Y8 engine
- *8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 - '00 D16Y5 (M/T) engine

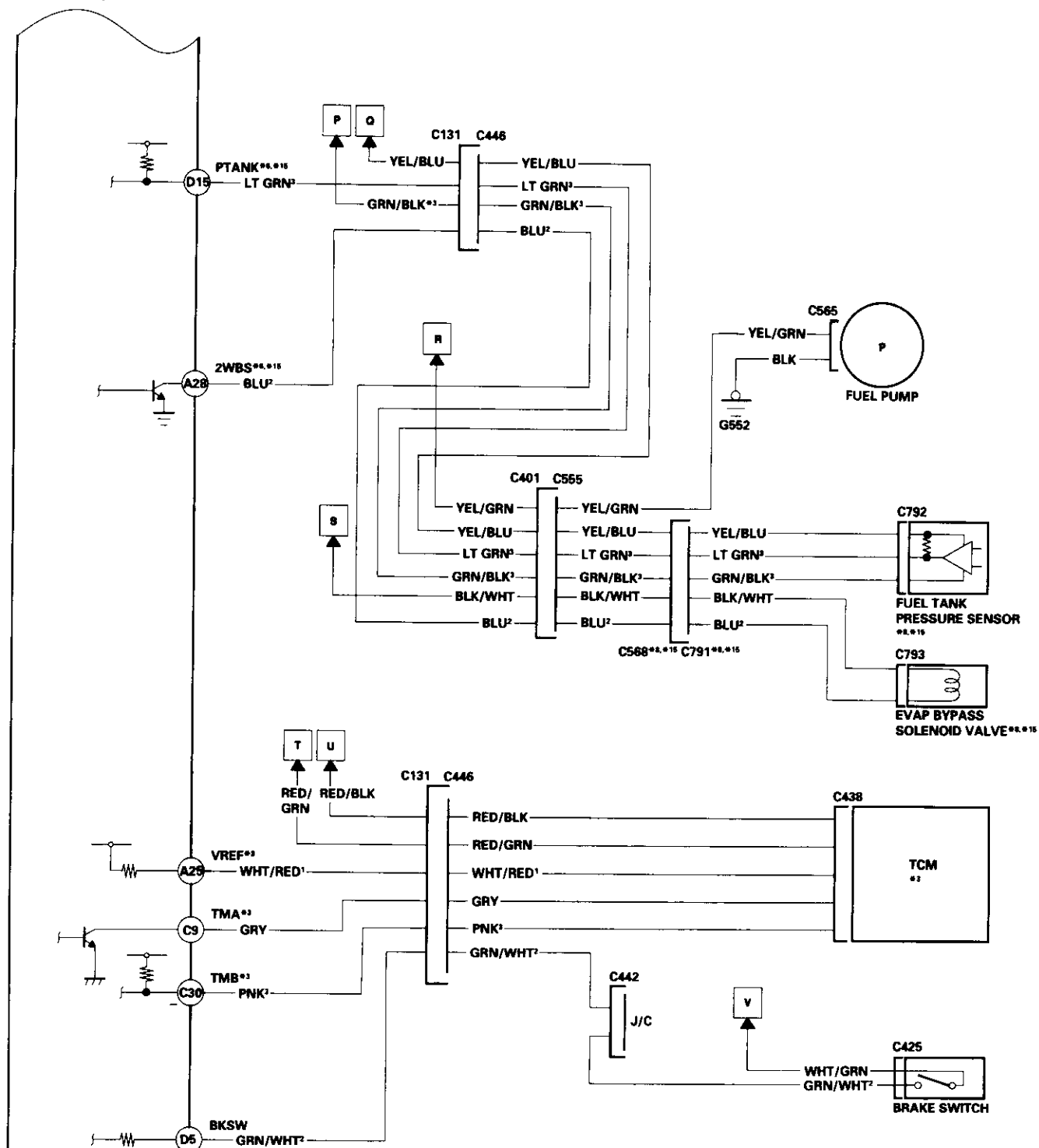
- *9: D16Y5 engine
- *10: M/T (D16Y5 engine)
- *11: Except M/T (D16Y5 engine)
- *12: D16Y5, D16Y8 engine
- *13: D16Y8 engine
- *14: D16Y7 engine
- *15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine



(cont'd)

System Description

Electrical Connections ('96 - 98 Models, '99 - 00 D16Y5 engine with M/T) (cont'd)

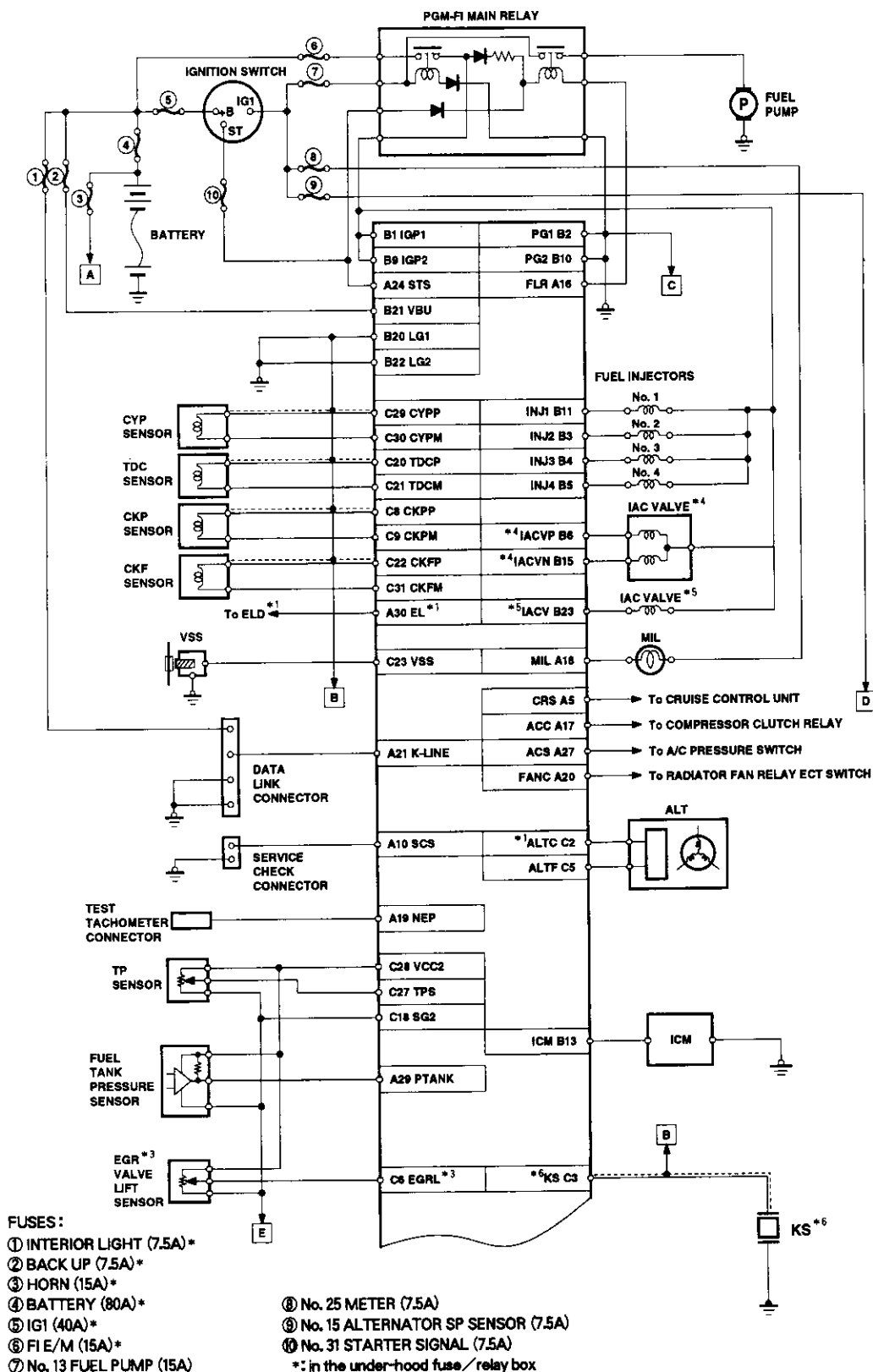


- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: A/T (D16Y8 engine)
- *7: CVT (D16Y5 engine) and D16Y8 engine
- *8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 - 00 D16Y5 (M/T) engine

- *9: D16Y5 engine
- *10: M/T (D16Y5 engine)
- *11: Except M/T (D16Y5 engine)
- *12: D16Y5, D16Y8 engine
- *13: D16Y8 engine
- *14: D16Y7 engine
- *15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine



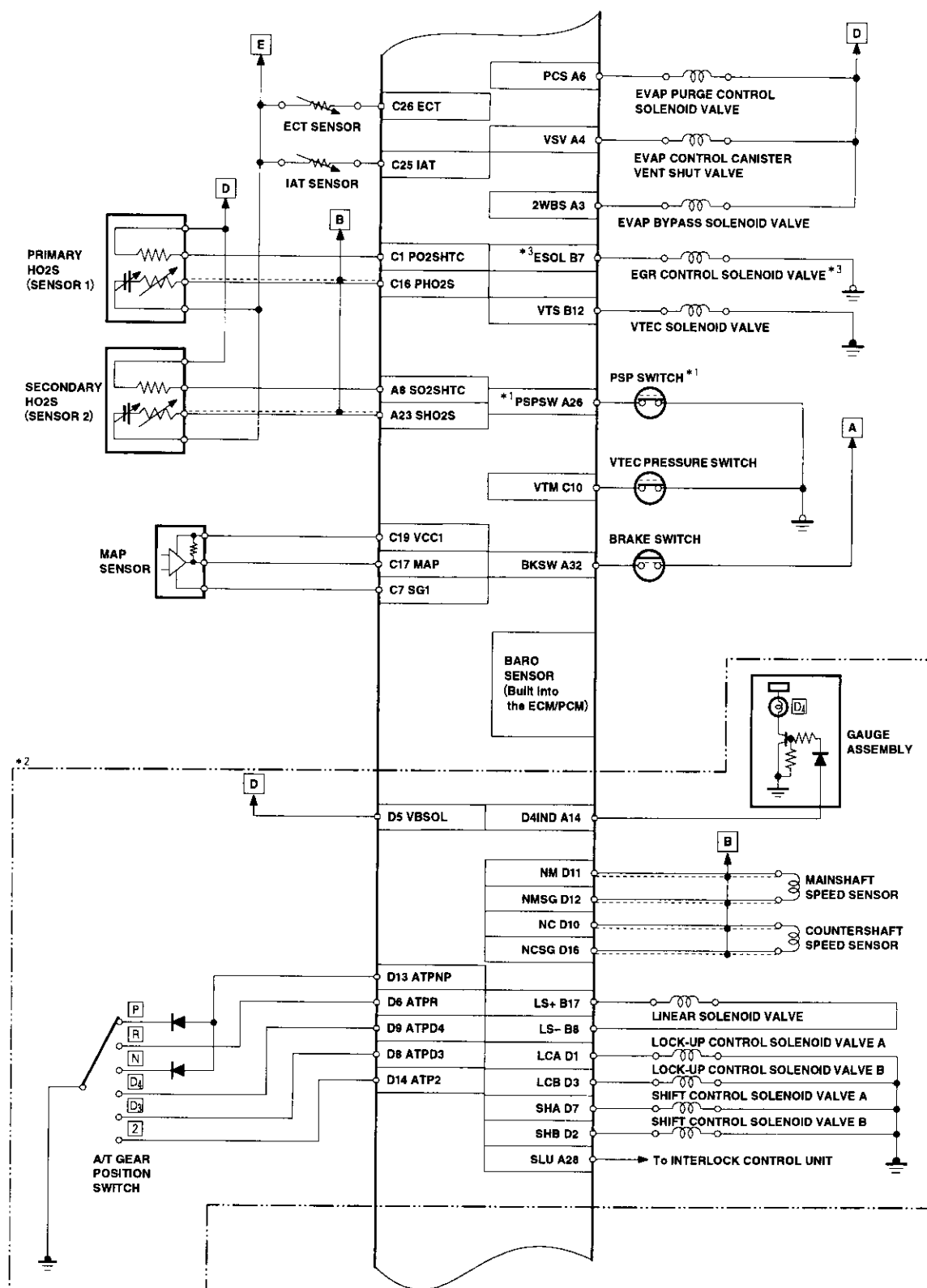
Electrical Connections ('99 – 00 Models except D16Y5 engine with M/T)

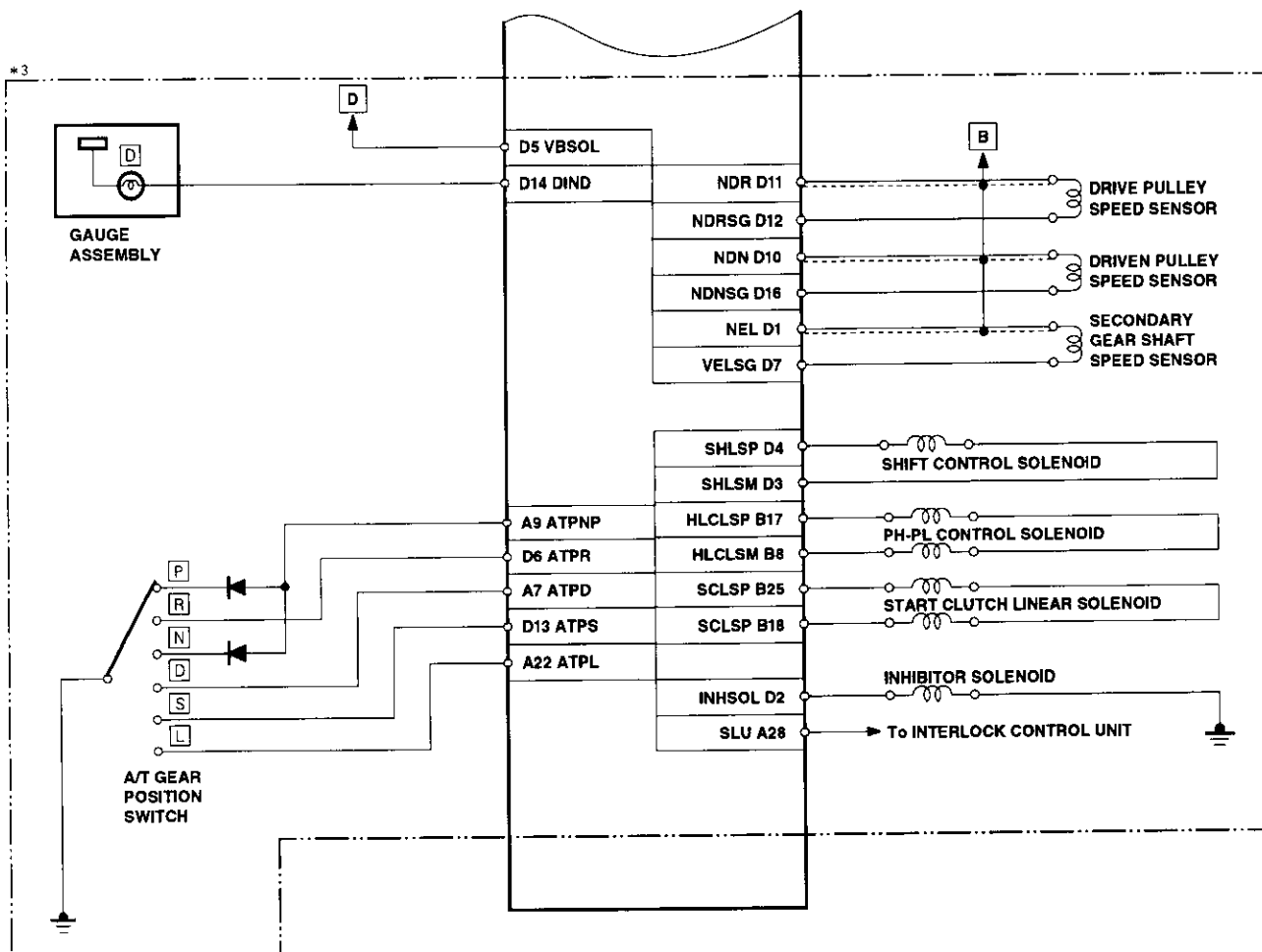


(cont'd)

System Description

Electrical Connections ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)





*1: USA model

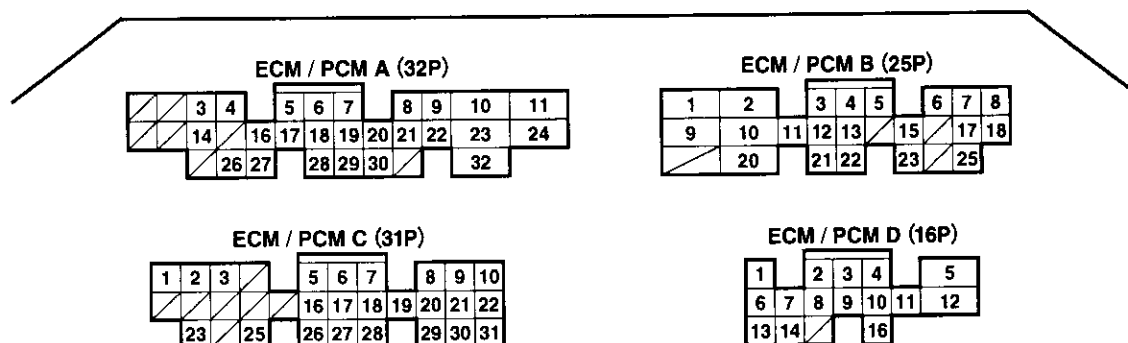
*2: A/T(D16Y7, D16Y8 engine)

*3: CVT(D16Y5 engine)

*4: A/T and D16Y7 engine

*5: Except A/T and D16Y7 engine

*6: CVT(D16Y5 engine), D16Y8 engine and B16A2 engine

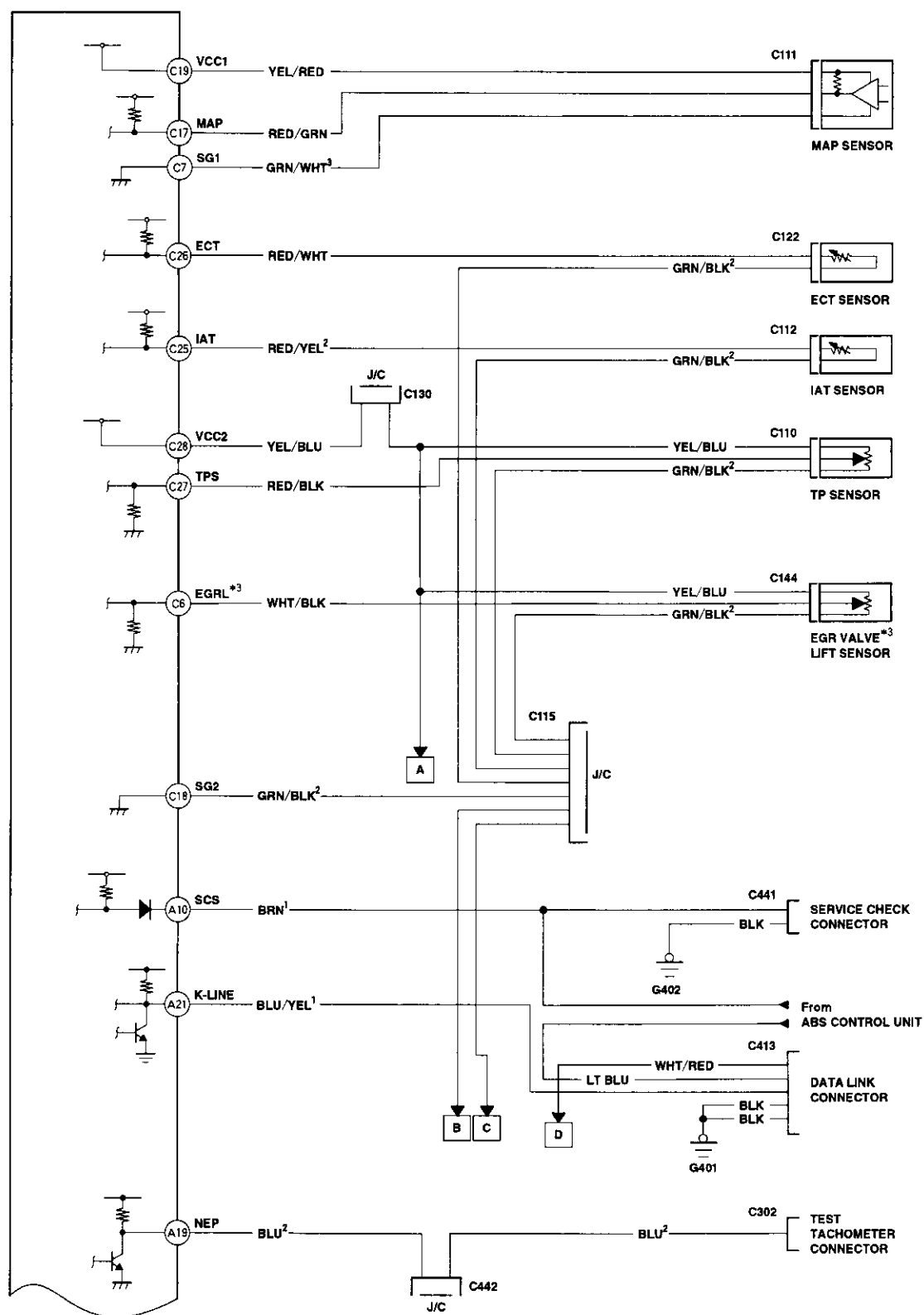


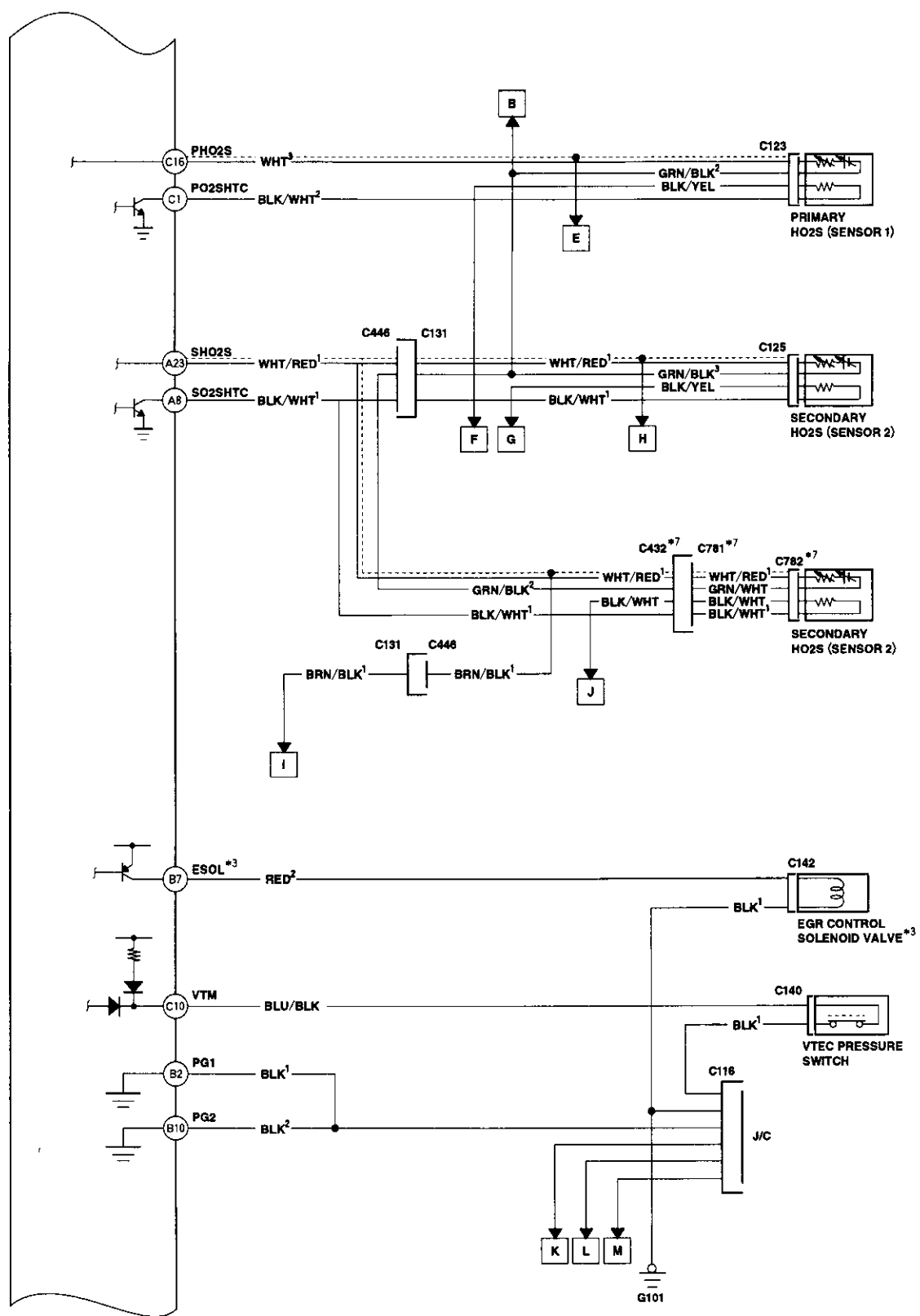
(cont'd)

TERMINAL LOCATIONS

System Description

Electrical Connections ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

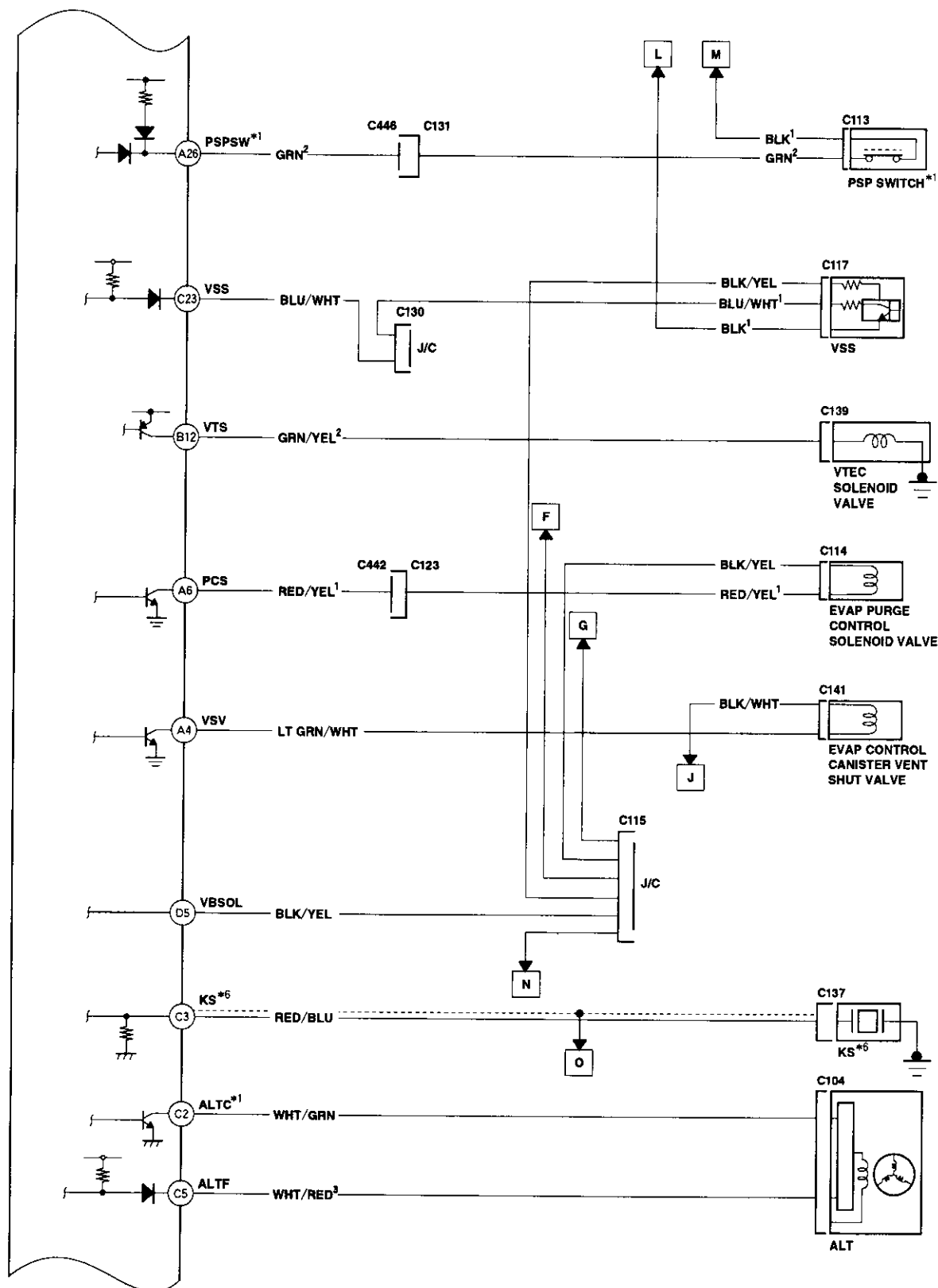


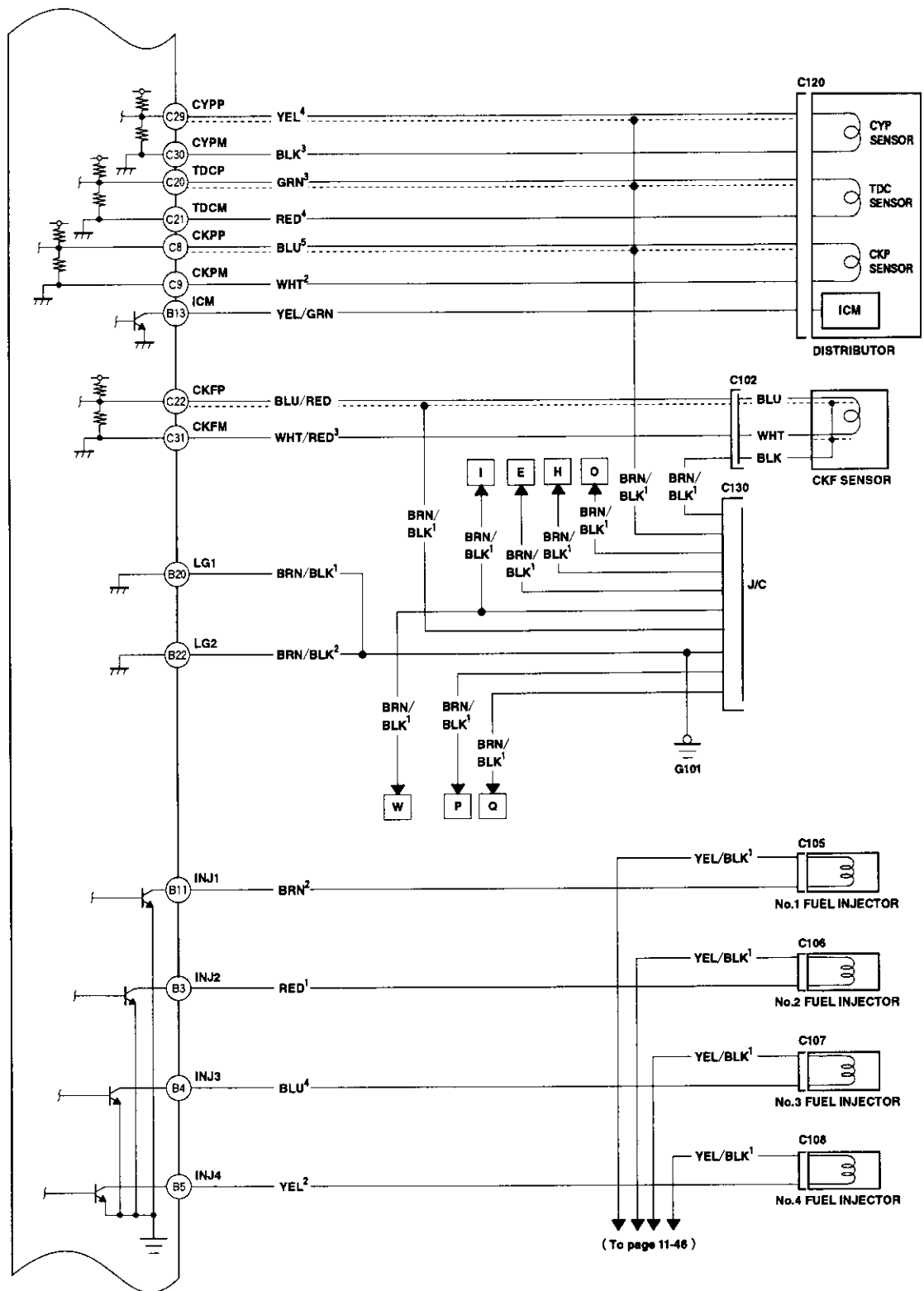


11-43

System Description

Electrical Connections ('99 - 00 Models except D16Y5 engine with M/T) (cont'd)

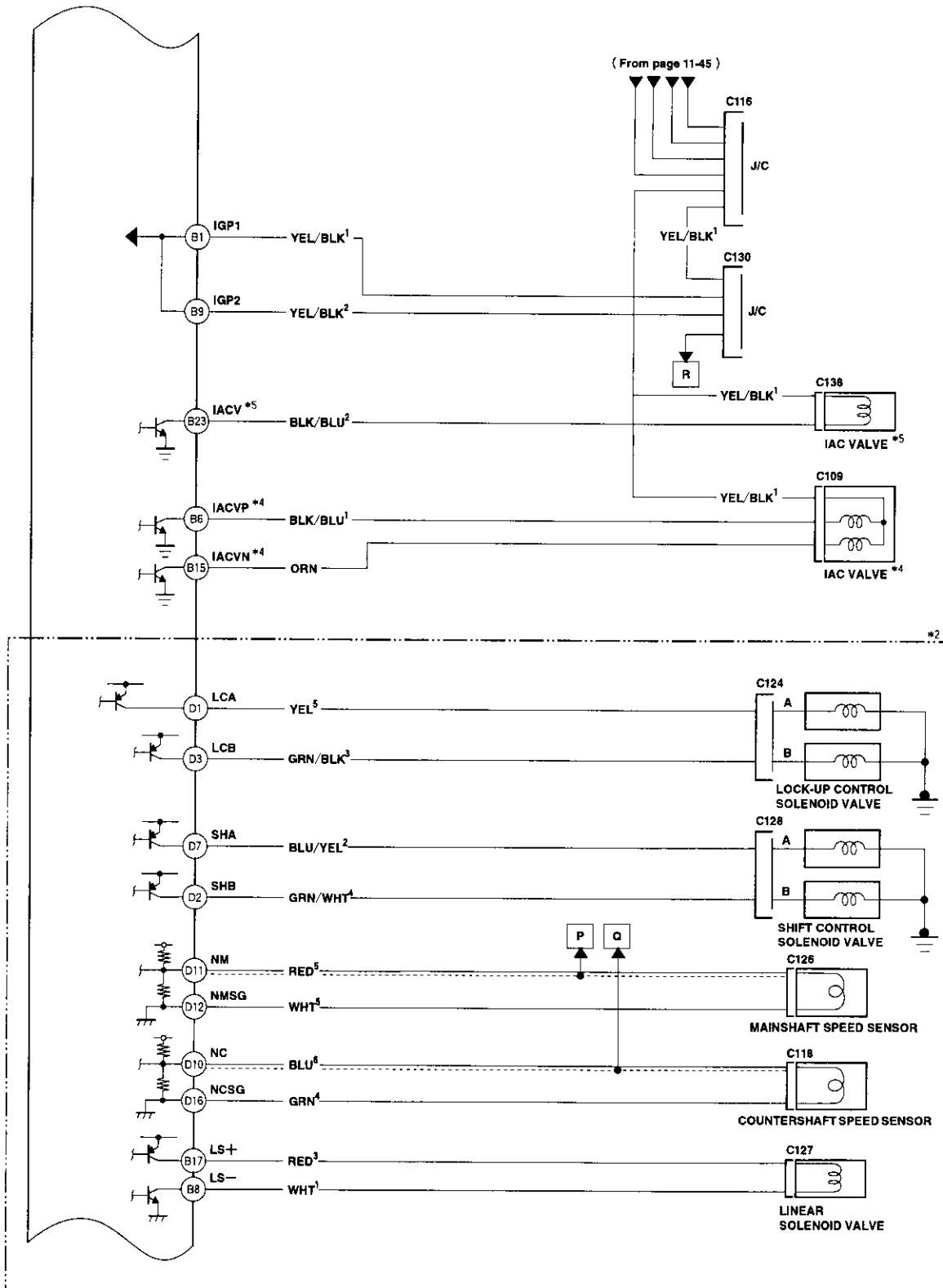


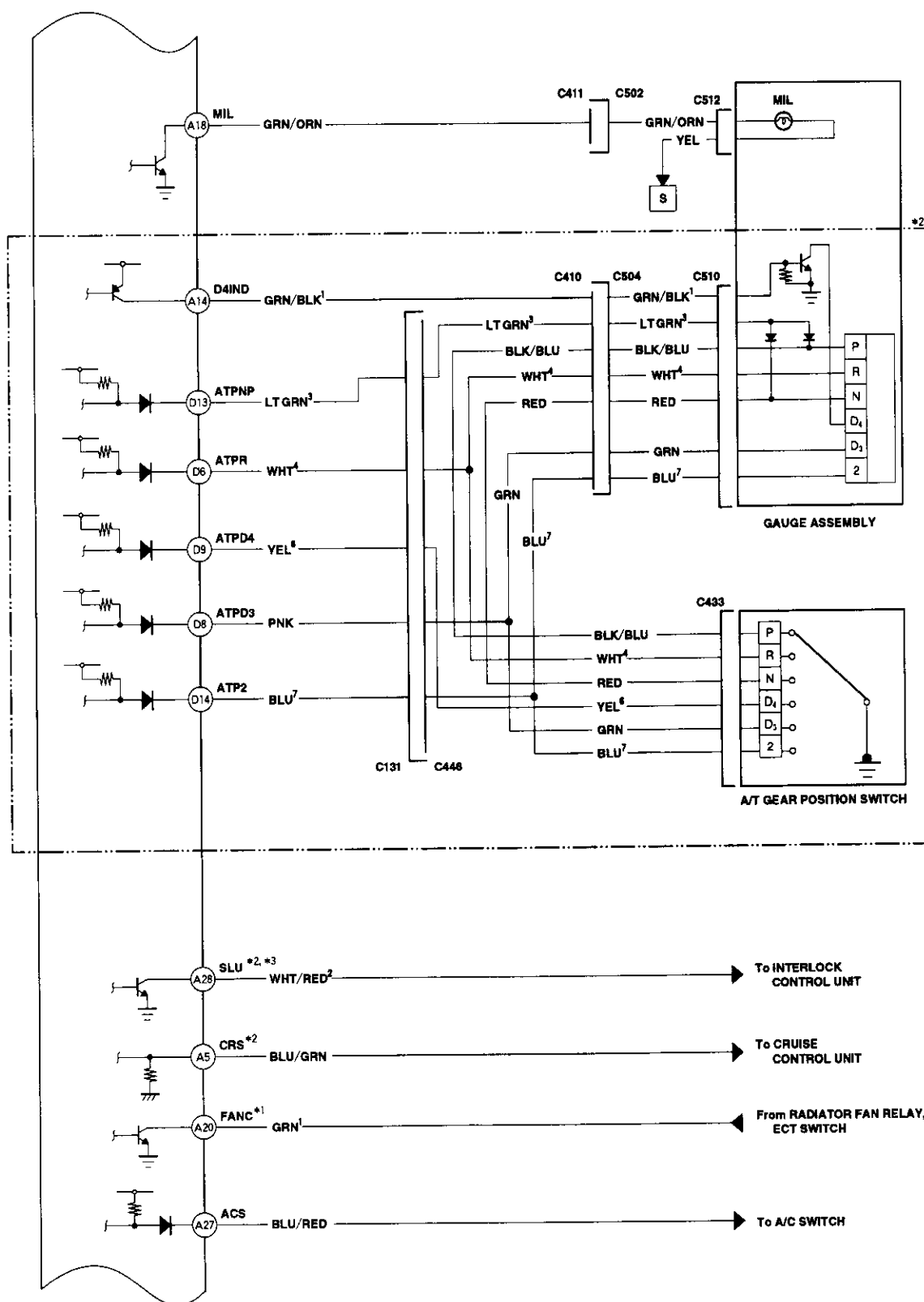


(cont'd)

System Description

Electrical Connections ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

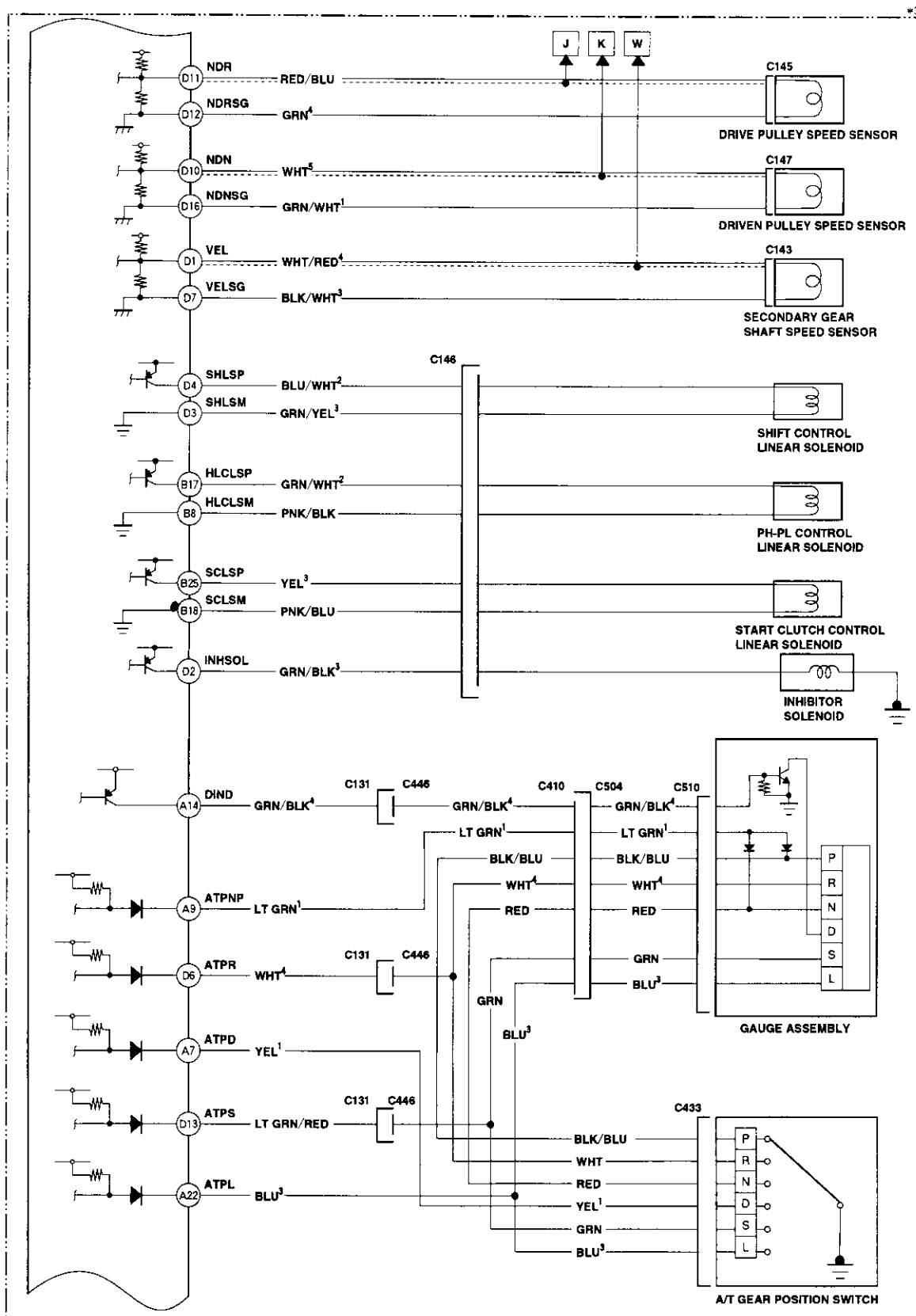


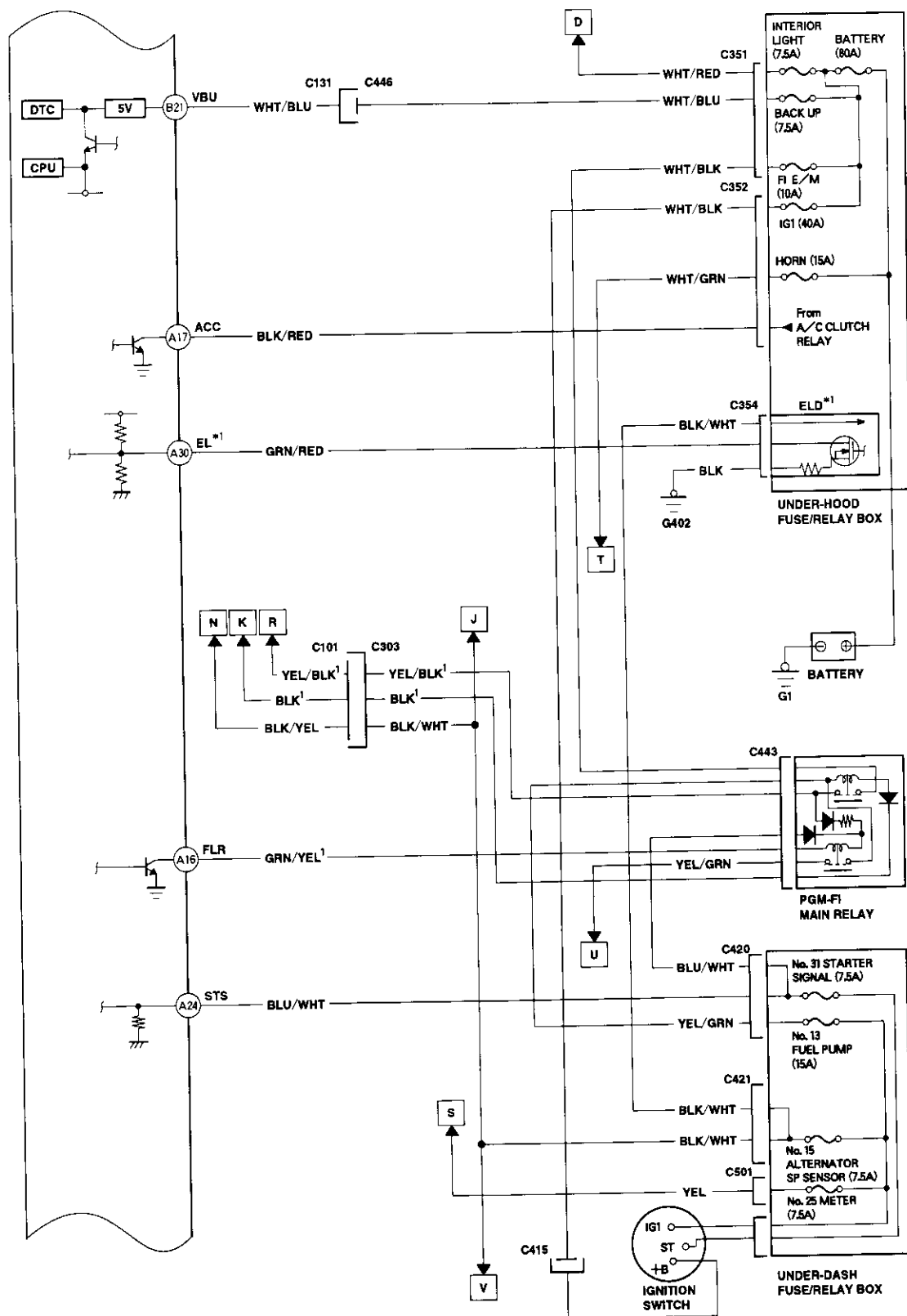


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System Description

Electrical Connections ('99 - 00 Models except D16Y5 engine with M/T) (cont'd)

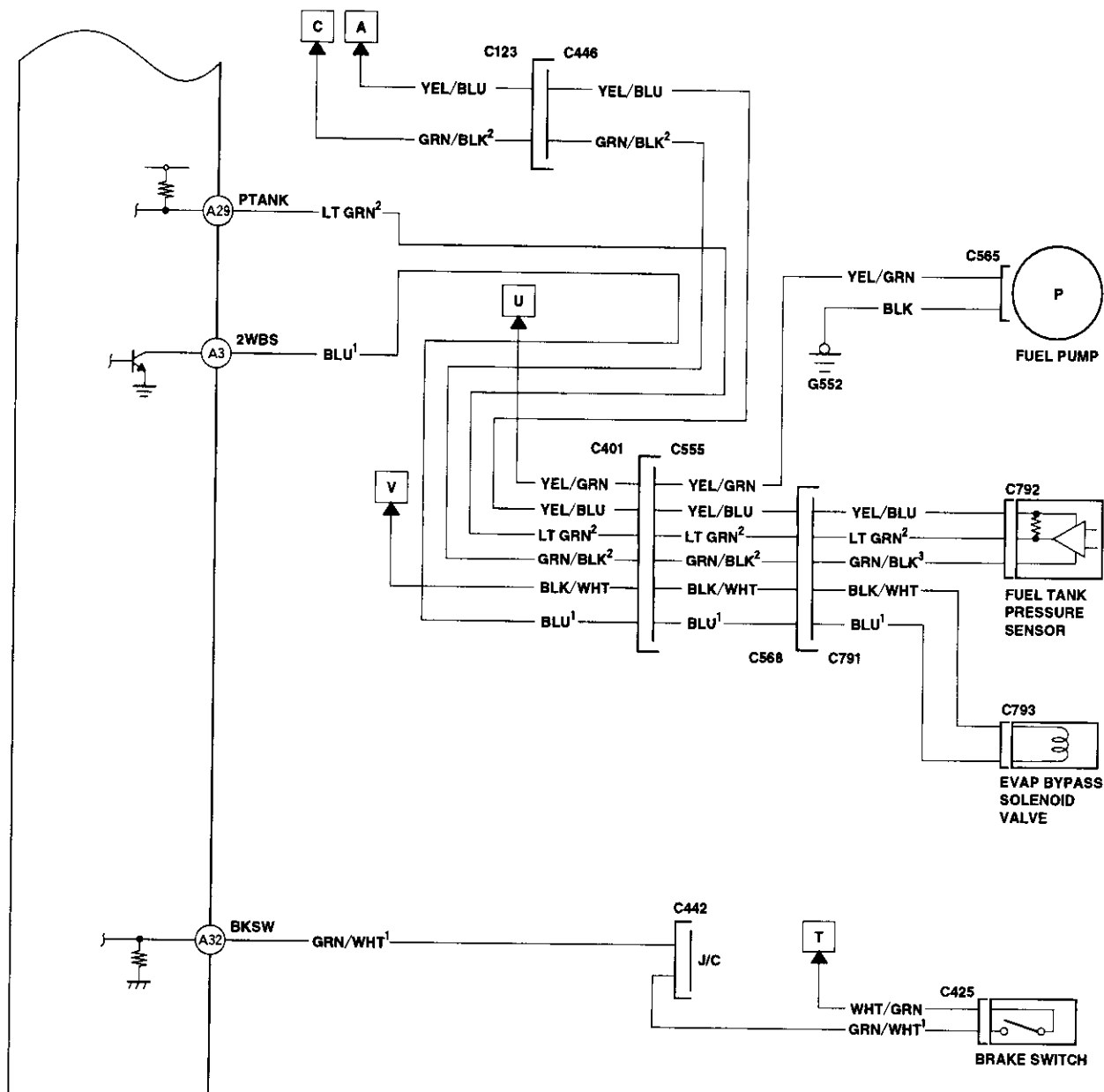




(cont'd)

System Description

Electrical Connections ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

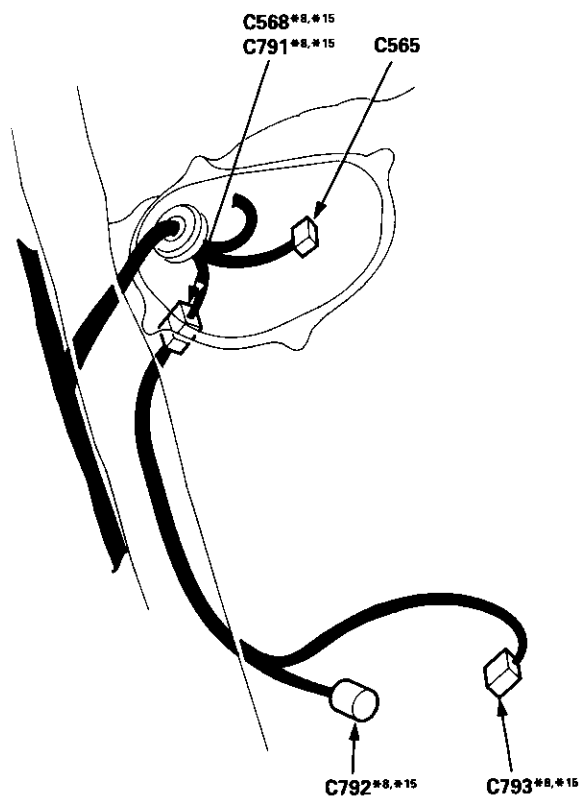


- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: CVT (D16Y5 engine), D16Y8 engine and B16A2 engine
- *7: D16Y8, B16A2 engine



System Connectors [Fuel Pump]

'96 – 98 models, '99 – 00 D16Y5 engine with M/T:

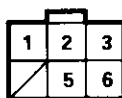


C565



①	BLK
②	YEL/GRN

C568*8,*15



①	BLU ²
②	LT GRN ³
③	BLK/WHT
④	—
⑤	YEL/BLU
⑥	GRN/BLK ³

C792*8,*15



①	YEL/BLU
②	GRN/BLK ³
③	LT GRN ³

C793*8,*15



①	BLK/WHT
②	BLU ²

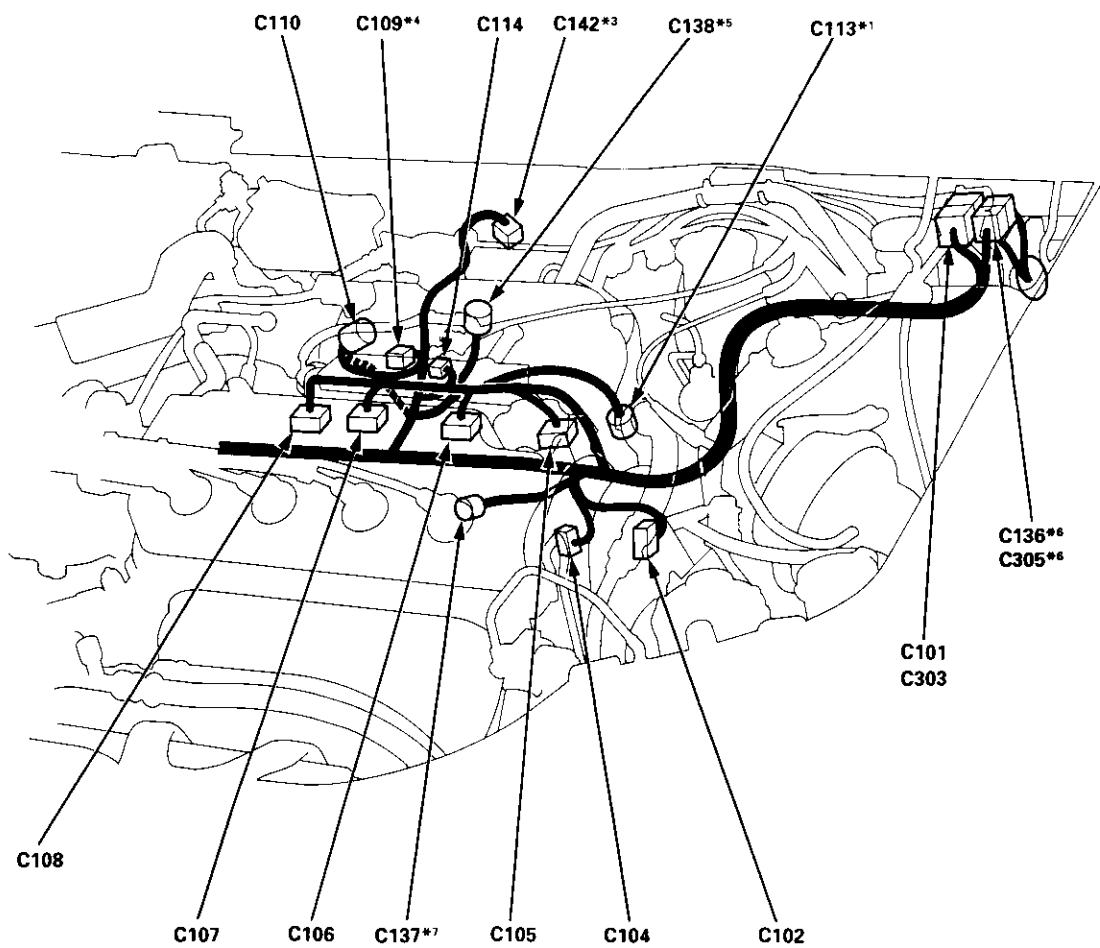
- *1: USA model
- *2: A/T (D16Y7, D16Y8 engine)
- *3: CVT (D16Y5 engine)
- *4: A/T and D16Y7 engine
- *5: Except A/T and D16Y7 engine
- *6: A/T (D16Y8 engine)
- *7: CVT (D16Y5 engine) and D16Y8 engine
- *8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y7 engine, '99 – 00 D16Y5 (M/T) engine
- *9: D16Y5 engine
- *10: M/T (D16Y5 engine)
- *11: Except M/T (D16Y5 engine)
- *12: D16Y5, D16Y8 engine
- *13: D16Y8 engine
- *14: D16Y7 engine
- *15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine

- NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
- ○: Related to Fuel and Emissions System.
 - — Connector with male terminals (double outline): View from terminal side
 - — Connector with female terminals (single outline): View from wire side

System Description

System Connectors [Engine Compartment]

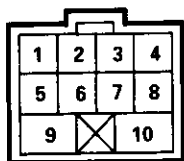
'96 - '98 D16Y5, D16Y8 engine, '99 - 00 D16Y5 engine with M/T:



-----: M/T (D16Y5 engine)



C101



① BLK/YEL	6 WHT/BLU
② BLK ¹	7 YEL/GRN
3 YEL/RED	8 BLU
④ BRN/BLK ¹	9 BLK/WHT
⑤ YEL/BLK ¹	10 BLK/YEL

C102



① WHT/RED ⁴
② BRN/BLK ¹
③ BLU/RED ¹

C104
*1



1 BLK/YEL
② WHT/GRN
3 WHT/BLU
④ WHT/RED ⁴

C104
(Canada)



① WHT/RED ⁵
2 BLK/YEL
3 WHT/BLU

C105



① YEL/BLK ¹
② BRN ¹

C106



① YEL/BLK ¹
② RED ¹

C107



① YEL/BLK ¹
② BLU ¹

C108



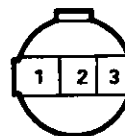
① YEL/BLK ¹
② YEL ¹

C109**



① ORN
② YEL/BLK ¹
③ BLK/BLU ²

C110



① GRN/BLK ³
② RED/BLK
③ YEL/BLU

C113*1



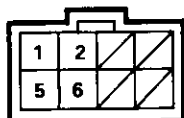
① GRN ⁴
② BLK ¹

C114



① BLK/YEL
② RED/YEL ¹

C136**



① GRN/BLK ²	⑤ LT GRN ²
② WHT/RED ²	⑥ BLU ³
3 _____	7 _____
4 _____	8 _____

C137*7



① RED/BLU
2 _____

C138**



① BLK/BLU ¹
② YEL/BLK ¹

C142**



① BLK ¹
② RED ⁴

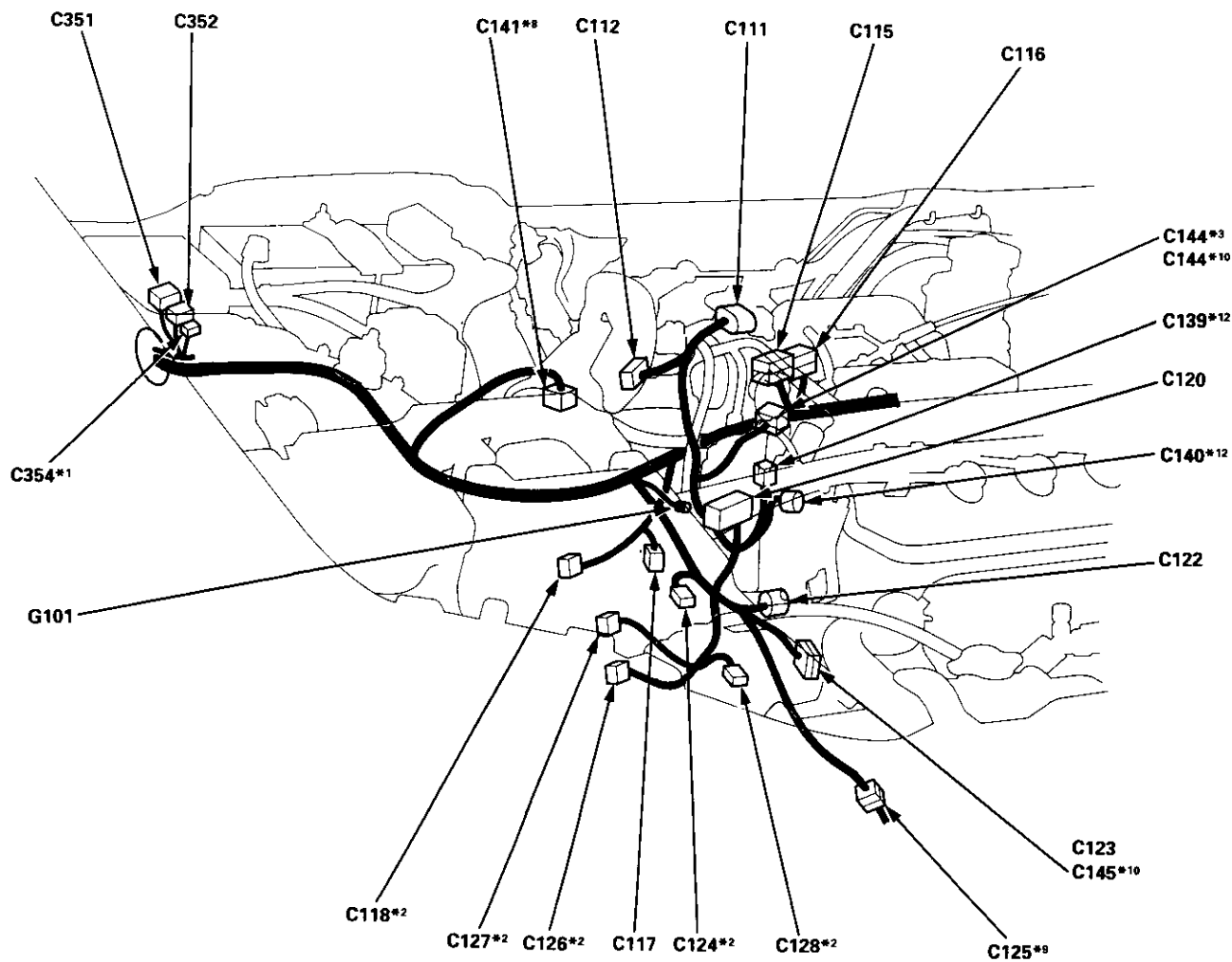
- NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
- : Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

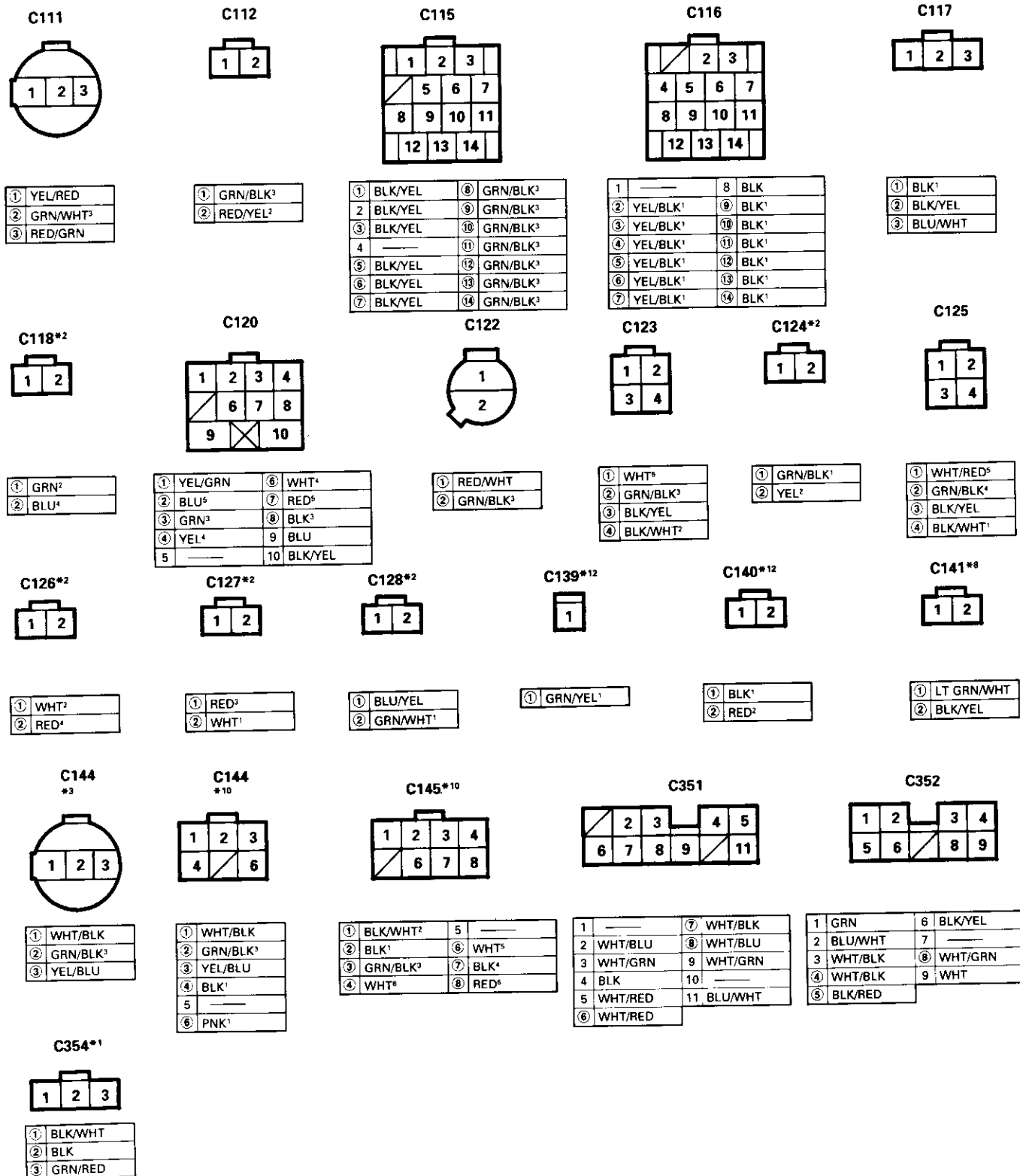
(cont'd)

System Description

System Connectors [Engine Compartment] (cont'd)

'96 - 98 D16Y5, D16Y8 engine, '99 - 00 D16Y5 engine with M/T:





NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

• ○: Related to Fuel and Emissions System.

• — Connector with male terminals (double outline): View from terminal side

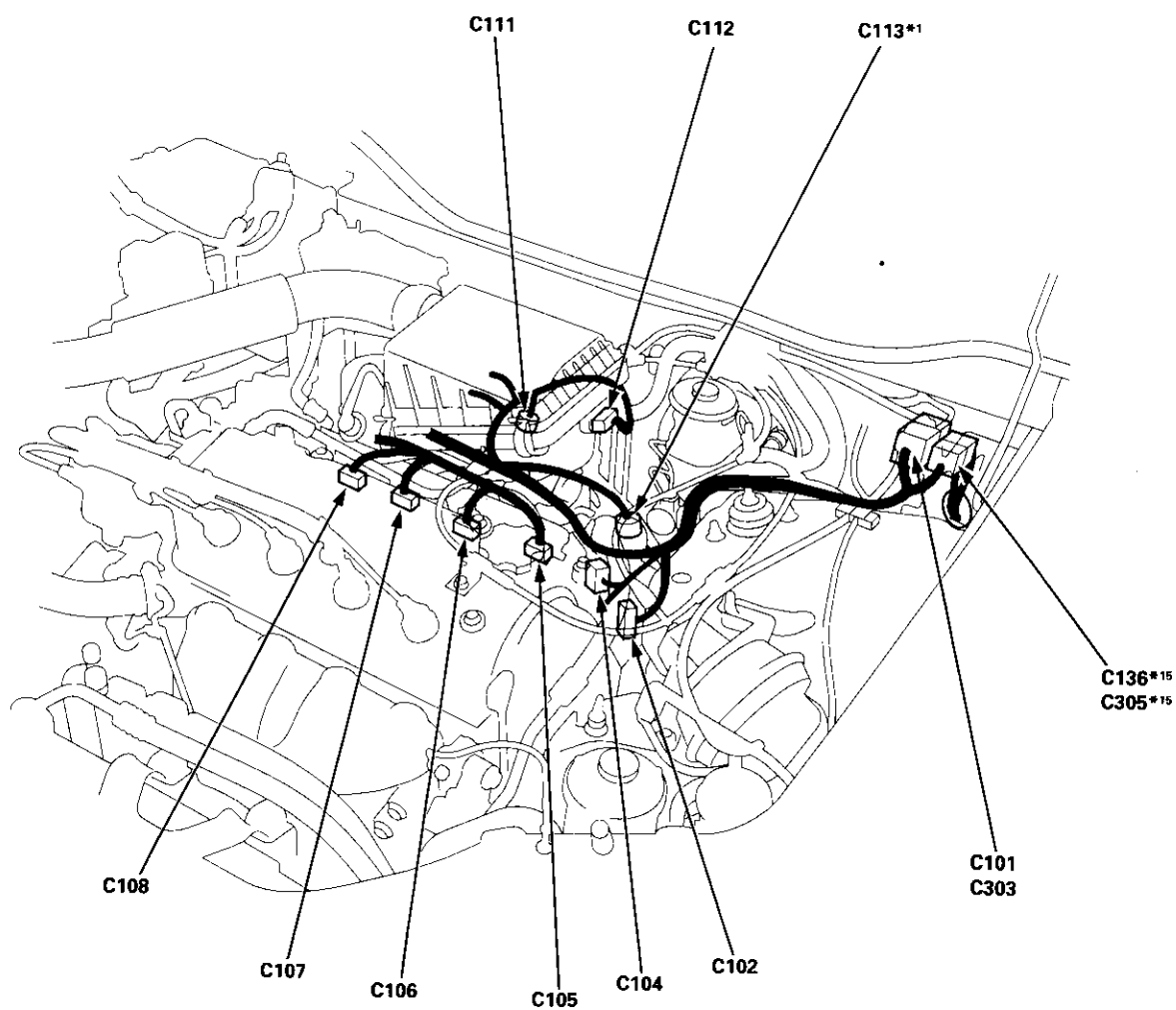
• — Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

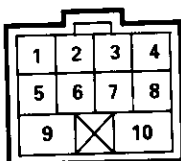
System Connectors [Engine Compartment] (cont'd)

'96 - '98 D16Y7 engine:



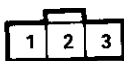


C101



① BLK/YEL	6 WHT/BLU
② BLK ¹	7 YEL/GRN
3 YEL/RED	8 BLU
④ BRN/BLK ¹	9 BLK/WHT
⑤ YEL/BLK ¹	10 BLK/YEL

C102



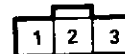
① WHT/RED ⁴
② BRN/BLK ¹
③ BLU/RED ¹

C104
*1



1 BLK/YEL
② WHT/GRN
3 WHT/BLU
④ WHT/RED ⁵

C104
(Canada)



① WHT/RED ⁵
2 BLK/YEL
3 WHT/BLU

C105



① YEL/BLK ¹
② BRN ¹

C106



① YEL/BLK ¹
② RED ¹

C107



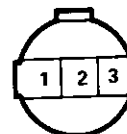
① YEL/BLK ¹
② BLU ¹

C108



① YEL/BLK ¹
② YEL ¹

C111



① YEL/RED
② GRN/WHT ³
③ RED/GRN

C112



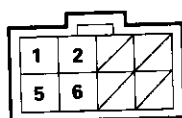
① GRN/BLK ³
② RED/YEL ²

C113*1



① GRN ⁴
② BLK ¹

C136*15



① GRN/BLK ²	⑤ WHT ²
② WHT/RED ²	⑥ BLU ³
3 _____	7 _____
4 _____	8 _____

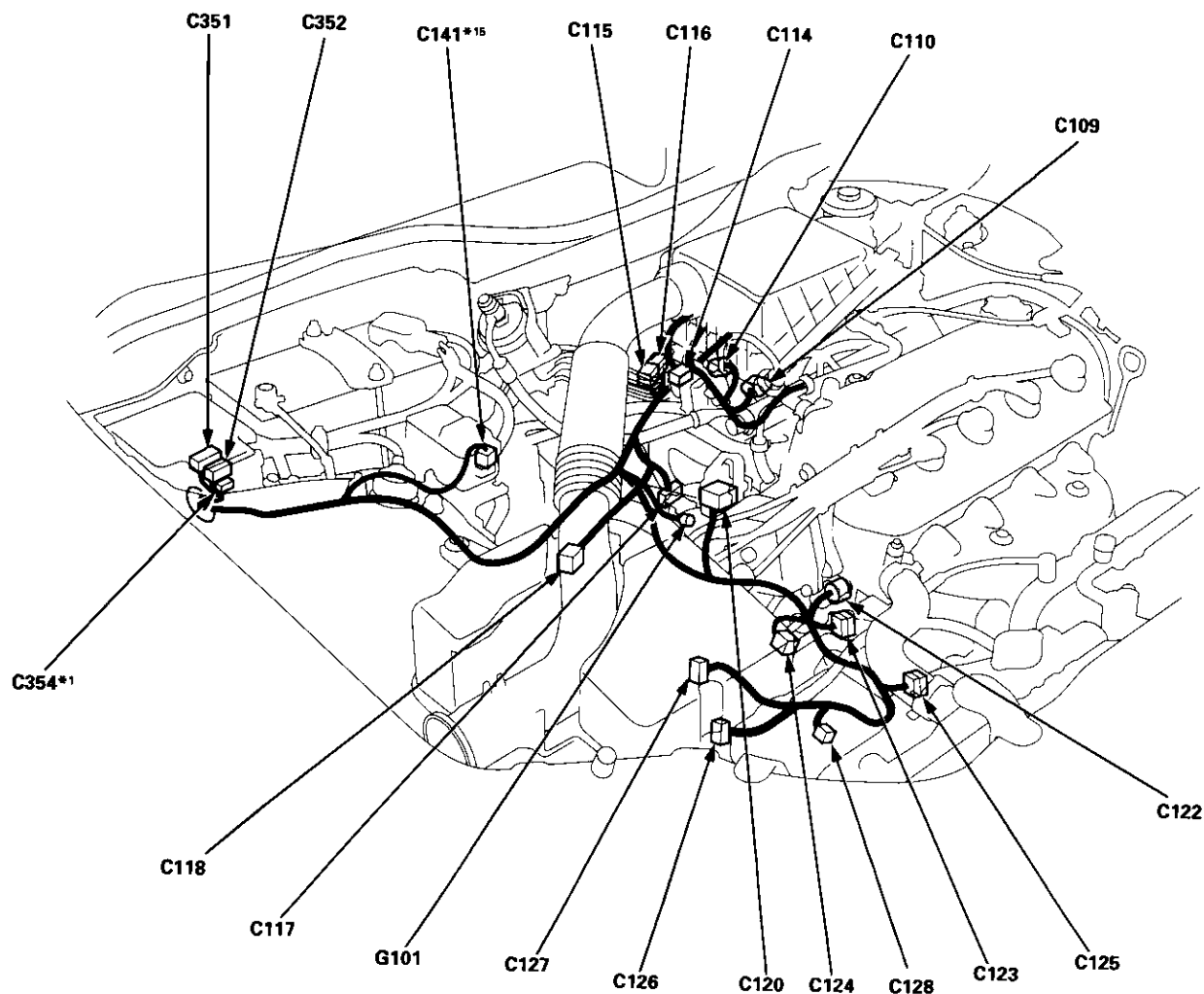
- NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
- : Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

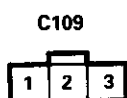
(cont'd)

System Description

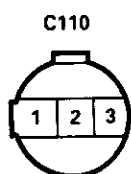
System Connectors [Engine Compartment] (cont'd)

'96 - 98 D16Y7 engine:





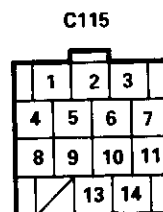
①	ORN
②	YEL/BLK ¹
③	BLK/BLU ²



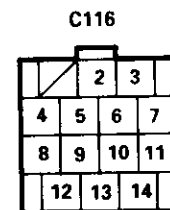
①	GRN/BLK ³
②	RED/BLK
③	YEL/BLU



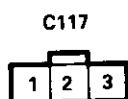
①	BLK/YEL
②	RED/YEL ¹



①	BLK/YEL	⑧	GRN/BLK ³
②	BLK/YEL	⑨	GRN/BLK ³
③	BLK/YEL	⑩	GRN/BLK ³
④	BLK/YEL	⑪	GRN/BLK ³
⑤	BLK/YEL	⑫	—
⑥	BLK/YEL	⑬	GRN/BLK ³
⑦	BLK/YEL	⑭	GRN/BLK ³



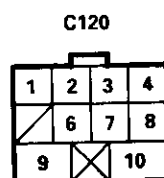
①	—	⑧	BLK
②	YEL/BLK ¹	⑨	BLK ¹
③	YEL/BLK ¹	⑩	BLK ¹
④	YEL/BLK ¹	⑪	BLK ¹
⑤	YEL/BLK ¹	⑫	BLK ¹
⑥	YEL/BLK ¹	⑬	BLK ¹
⑦	YEL/BLK ¹	⑭	BLK ¹



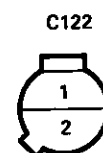
①	BLK ¹
②	BLK/YEL
③	BLU/WHT



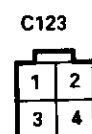
①	GRN ²
②	BLU ⁴



①	YEL/GRN	⑥	WHT ⁴
②	BLU ⁵	⑦	RED ⁵
③	GRN ³	⑧	BLK ³
④	YEL ⁴	⑨	BLU
⑤	—	⑩	BLK/YEL



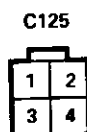
①	RED/WHT
②	GRN/BLK ³



①	WHT ⁶
②	GRN/BLK ³
③	BLK/YEL
④	BLK/WHT ²



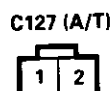
①	GRN/BLK ¹
②	YEL ²



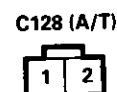
①	WHT/RED ⁵
②	RED/YEL ³
③	BLK/YEL
④	BLK/WHT ¹



①	WHT ²
②	RED ⁴



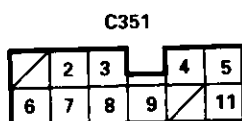
①	WHT ¹
②	RED ³



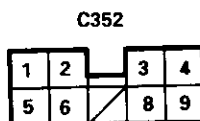
①	BLU/YEL
②	GRN/WHT ¹



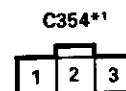
①	LT GRN/WHT
②	BLK/YEL



1	—	⑦	WHT/BLK
2	WHT/BLU	⑧	WHT/BLU
3	WHT/GRN	⑨	WHT/GRN
4	BLK	⑩	—
5	WHT/RED	⑪	BLU/WHT
⑥	WHT/RED		



1	GRN	6	BLK/YEL
2	BLU/WHT	7	—
3	WHT/BLK	⑧	WHT/GRN
④	WHT/BLK	9	WHT
⑤	BLK/RED		



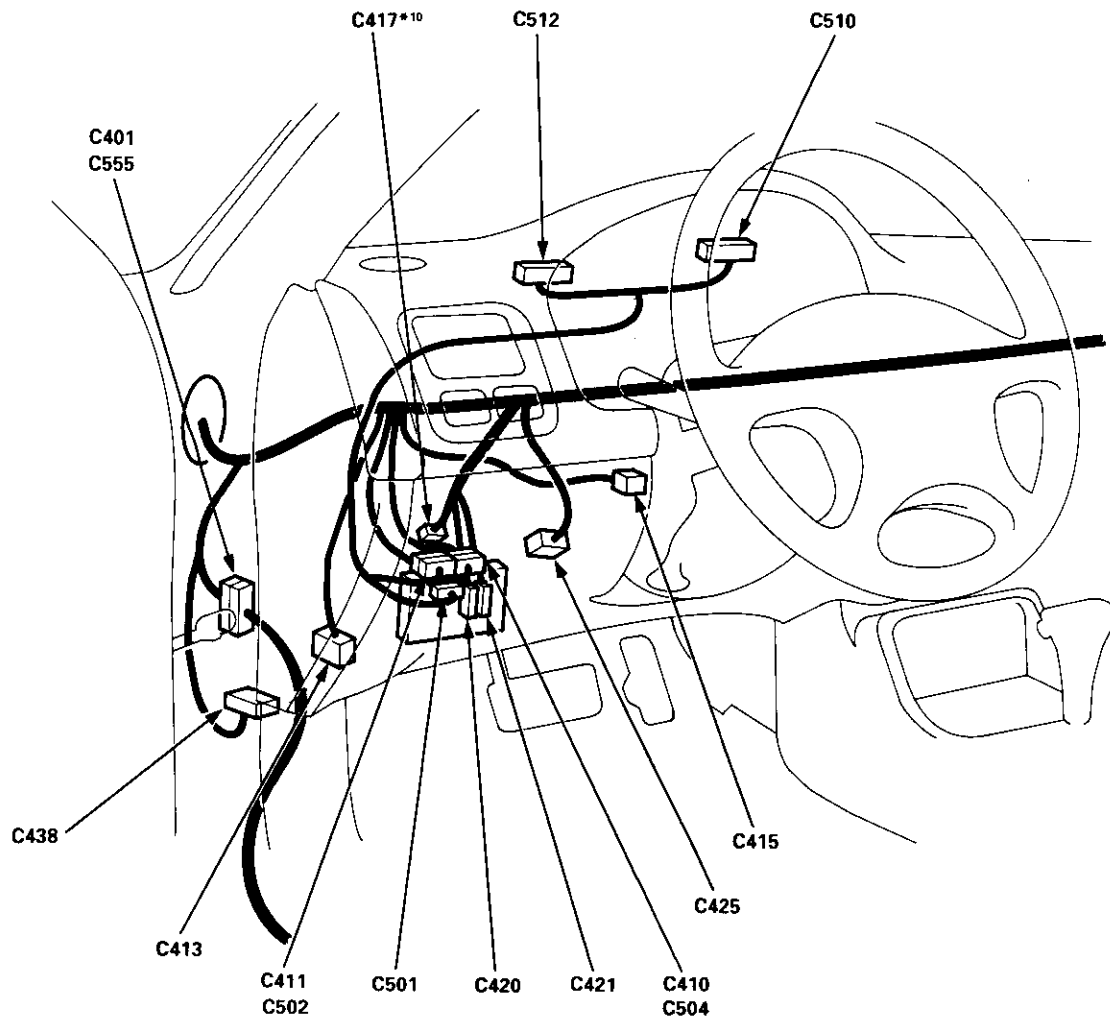
①	BLK/WHT
②	BLK
③	GRN/RED

- NOTE:
- Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
 - : Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

System Description

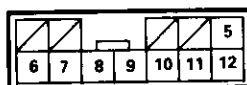
System Connectors [Dash and Floor]

'96 - 98 models, '99 - 00 D16Y5 engine with M/T:



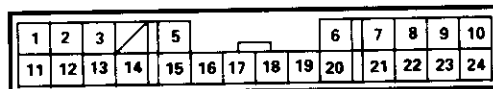


C410 (A/T)



1	7	BLK/BLU
2	8	BRN
3	9	BLU ² *2
4	10	GRN ² *2
5	11	GRN/BLK ² *2
6	12	LT GRN ^{1/2}

C411



1	RED/GRN ^{1/2}	13	LT GRN/RED
2	WHT*	14	LT GRN/BLK
3	YEL*	15	WHT/BLK
4	—	16	RED/YEL*
5	BLU (SRS)	17	RED/WHT*
6	GRY*	18	WHT/BLU
7	BLU/RED*	19	BLU
8	RED/BLU**	20	RED/BLU
9	LT GRN**	21	GRN/ORN
10	BLU/YEL (ABS)	22	BLU/WHT
11	YEL/GRN	23	YEL/RED
12	RED	24	BLU/RED (ABS)

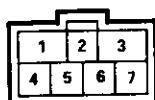
*: Security Alarm System
**: Cruise Control

C413



1	—	9	—
2	—	10	—
3	—	11	—
4	—	12	BLK
5	—	13	BLK
6	LT BLU	14	—
7	—	15	BLU/YEL
8	WHT/RED	16	—

C415



1	BLK/YEL*
2	BLK/WHT
3	BLU/RED
4	WHT/BLK
5	BLK
6	WHT
7	WHT/GRN

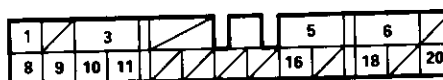
*: Security Alarm System

C417^{1/2}



1	RED ²
2	BLK

C420



1	RED/BLU (Canada)	11	BLK/WHT
2	—	12	—
3	BLK	13	—
4	—	14	—
5	WHT/GRN	15	—
6	WHT/BLU	16	BLK/WHT (Canada)
7	—	17	—
8	YEL/GRN	18	WHT/GRN
9	BLK/YEL	19	—
10	BLK/WHT	20	WHT/RED

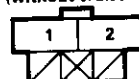
C421



1	RED/YEL	10	GRN/YEL
2	BLK/BLU (ABS)	11	—
3	RED/GRN	12	BLK/WHT
4	GRN/BLK	13	BLK/WHT
5	RED/BLU	14	GRN/RED
6	WHT/BLU	15	—
7	—	16	GRN/RED
8	—	17	RED/BLK
9	RED/WHT	18	RED/BLK

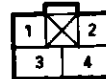
C425

(without cruise control) (with cruise control)



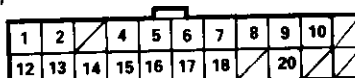
1	GRN/WHT ²
2	WHT/GRN
3	—
4	—

C425



1	LT GRN
2	GRY
3	GRN/WHT ²
4	WHT/GRN

C438**



1	GRN/BLK	12	GRN/WHT
2	RED/GRN	13	LT BLU
3	—	14	BRN
4	RED/BLK	15	WHT/RED
5	BLU/WHT	16	ORN/BLU
6	PNK ²	17	GRN
7	GRY	18	GRN/RED
8	RED/BLU	19	—
9	WHT	20	WHT/RED ¹
10	RED/BLU	21	—
11	—	22	—

C501



1	RED/GRN	11	YEL/BLK
2	BLK/BLU	12	BLK/YEL
3	WHT/BLU	13	YEL/GRN
4	BLK	14	—
5	GRN/WHT	15	RED/BLK
6	GRN/RED	16	—
7	GRN/ORN	17	—
8	BLU/YEL	18	BLK/WHT
9	GRN/YEL	19	YEL/RED
10	YEL	20	—

C510 (A/T)

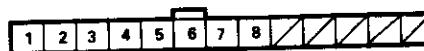


1	YEL	8	BLK
2	RED/BLK	9	GRN/BLK ²
3	RED	10	GRN
4	BLU ¹	11	RED
5	—	12	WHT ²
6	—	13	BLK/BLU
7	—	14	LT GRN ¹ (2)

*2

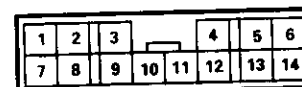
1	YEL	8	BLK
2	RED/BLK	9	YEL
3	RED	10	GRN
4	BLU ¹	11	RED
5	—	12	WHT ²
6	BRN	13	BLK/BLU
7	—	14	LT GRN

C512



1	WHT/BLK	8	BLU
2	GRN/BLK	9	—
3	YEL/RED	10	—
4	YEL	11	—
5	GRN/ORN	12	—
6	RED/GRN	13	—
7	GRN/RED	14	—

C555



1	BLK/WHT ² *15	8	LT GRN ³ *15
2	LT GRN/BLK*	9	BLU ² *15
3	LT GRN*	10	GRN
4	YEL/BLU ² *15	11	LT GRN/RED
5	GRN/BLK ³ *15	12	GRN/BLK
6	RED/BLU	13	GRN/WHT
7	WHT/GRN	14	YEL/GRN

*: coupe

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

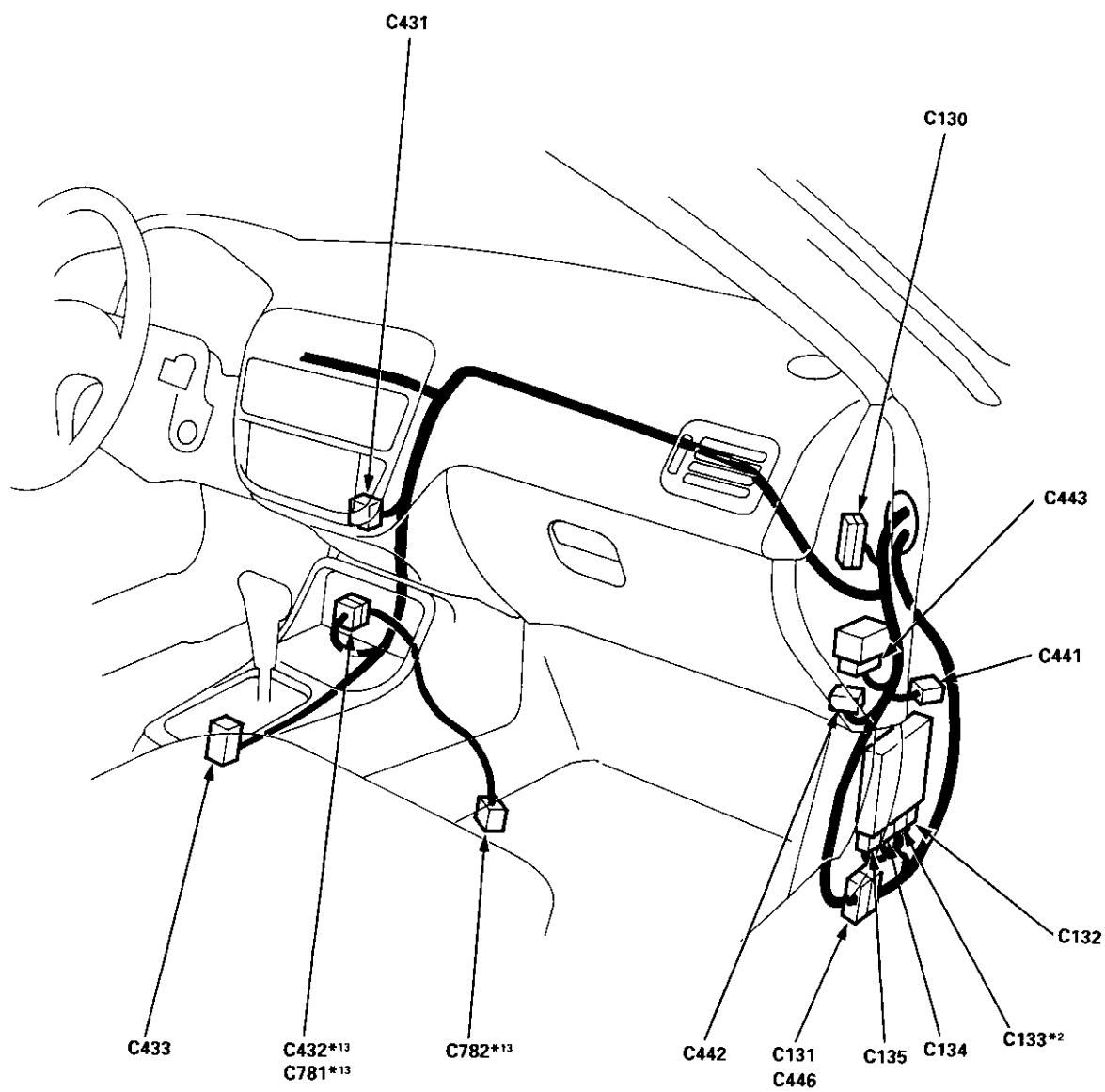
- : Related to Fuel and Emissions System.
- Connector with male terminals (double outline): View from terminal side
- Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

System Connectors [Dash and Floor] (cont'd)

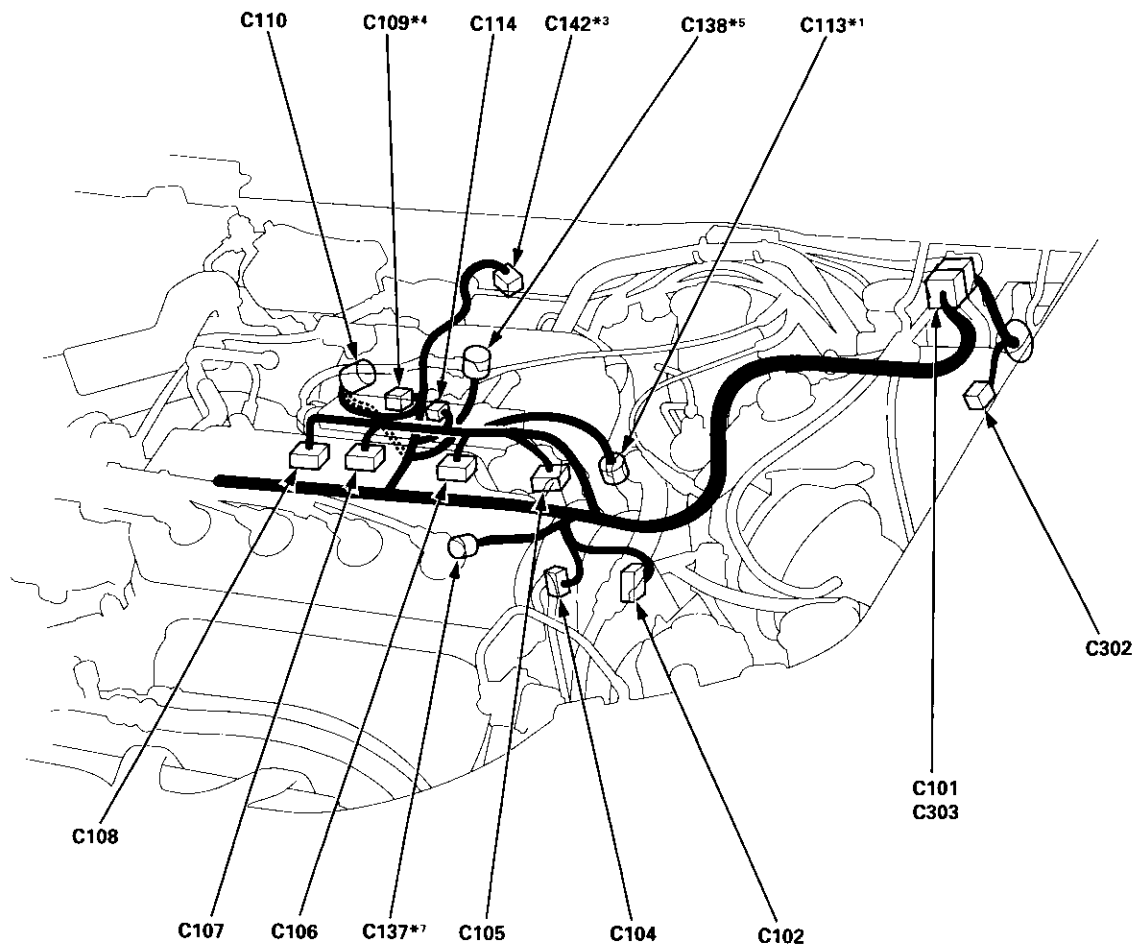
'96 - 98 models, '99 - 00 D16Y5 engine with M/T:



System Description

System Connectors [Engine Compartment]

'99 - 00 D16Y5 (CVT), D16Y8 engine:



*1: USA model

*2: A/T (D16Y7, D16Y8 engine)

*3: CVT (D16Y5 engine)

*4: A/T and D16Y7 engine

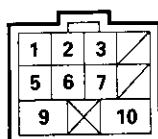
*5: Except A/T and D16Y7 engine

*6: CVT (D16Y5 engine),
D16Y8 engine and
B16A2 engine

*7: D16Y8, B16A2 engine

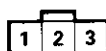


C101



① BLK/YEL	6 WHT/BLU
② BLK ¹	7 YEL/GRN
3 YEL/RED	8 —
4 —	9 BLK/WHT
⑤ YEL/BLK ¹	10 BLK/YEL

C102



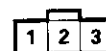
① WHT/RED ³
② BRN/BLK ¹
③ BLU/RED

C104
*1



1 BLK/YEL
② WHT/GRN
3 WHT/BLU
④ WHT/RED ³

C104
(Canada)



① WHT/RED ³
2 BLK/YEL
3 WHT/BLU

C105



① YEL/BLK ¹
② BRN ²

C106



① YEL/BLK ¹
② RED ¹

C107



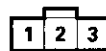
① YEL/BLK ¹
② BLU ⁴

C108



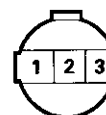
① YEL/BLK ¹
② YEL ²

C109*4



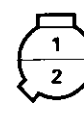
① ORN
② YEL/BLK ¹
③ BLK/BLU ¹

C110



① GRN/BLK ²
② RED/BLK
③ YEL/BLU

C113*1



① GRN ²
② BLK ¹

C114



① BLK/YEL
② RED/YEL ¹

C137*7



① RED/BLU
2 —

C138*5



① BLK/BLU ²
② YEL/BLK ¹

C142*3



① BLK ¹
② RED ²

C302



1 —
② BLU ²

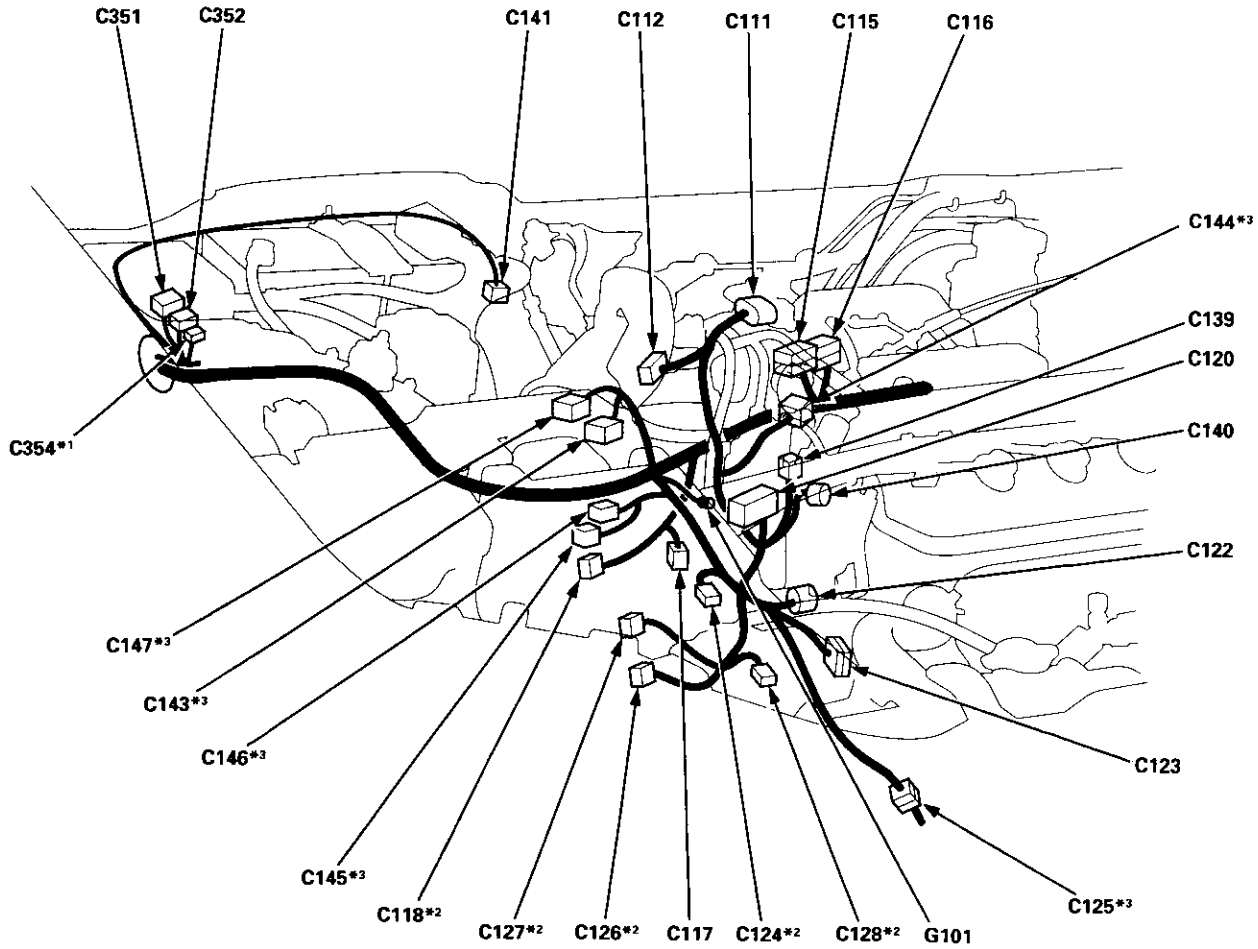
NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
• ○: Related to Fuel and Emissions System.
• — Connector with male terminals (double outline): View from terminal side
— Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

System Connectors [Engine Compartment] (cont'd)

'99 - 00 D16Y5 (CVT), D16Y8 engine:





C111



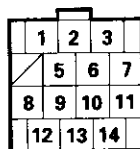
① YEL/RED
② GRN/WHT ³
③ RED/GRN

C112



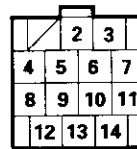
① GRN/BLK ²
② RED/YEL ²

C115



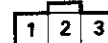
① BLK/YEL	⑧ GRN/BLK ²
2 BLK/YEL	⑨ GRN/BLK ²
③ BLK/YEL	⑩ GRN/BLK ²
4 —	⑪ GRN/BLK ²
⑤ BLK/YEL	⑫ GRN/BLK ²
⑥ BLK/YEL	⑬ GRN/BLK ²
⑦ BLK/YEL	⑭ GRN/BLK ²

C116



1 —	8 BLK
② YEL/BLK ¹	⑨ BLK ¹
③ YEL/BLK ¹	⑩ BLK ¹
④ YEL/BLK ¹	⑪ BLK ¹
⑤ YEL/BLK ¹	⑫ BLK ¹
⑥ YEL/BLK ¹	⑬ BLK ¹
⑦ YEL/BLK ¹	⑭ BLK ¹

C117

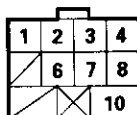


① BLK ¹
② BLK/YEL
③ BLU/WHT ¹

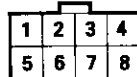
C118*²

① GRN ⁴
② BLU ⁵

C120



① YEL/GRN	⑥ WHT ²
② BLU ⁵	⑦ RED ⁴
③ GRN ³	⑧ BLK ³
④ YEL ⁴	9 —
5 —	10 BLK/YEL

C120*³

① YEL/GRN	5 BLK/YEL
② BLU ⁵	⑥ WHT ²
③ GRN ³	⑦ RED ⁴
④ YEL ⁴	⑧ BLK ³

C122



① RED/WHT
② GRN/BLK ²

C123



① WHT ³
② GRN/BLK ²
③ BLK/YEL
④ BLK/WHT ²

124*²

① GRN/BLK ³
② YEL ⁵

C125



① WHT/RED ¹
② GRN/BLK ²
③ BLK/YEL
④ BLK/WHT ¹

C126*²

① WHT ⁵
② RED ⁵

C127*²

① RED ⁵
② WHT ¹

C128*²

① BLU/YEL ²
② GRN/WHT ⁴

C139



① GRN/YEL ²

C140



① BLU/BLK
② BLK ¹

C141



① LT GRN/WHT
② BLK/YEL

C143*³

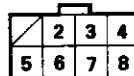
① BLK/WHT ³
② WHT/RED ⁴

C144*³

① WHT/BLK
② GRN/BLK ³
③ YEL/BLU

C145*³

① GRN ⁴
② RED/BLU

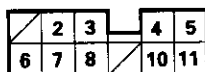
C146*³

1 —	⑤ GRN/BLK ³
② GRN/WHT ²	⑥ PNK/BLK
③ BLU/WHT ²	⑦ GRN/YEL ³
④ YEL ³	⑧ PNK/BLU

C147*³

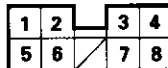
① RED/WHT ⁵
② WHT ⁵

C351

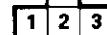


1 —	⑦ WHT/BLK
2 WHT/BLU	⑧ WHT/BLU
3 WHT/GRN	9 WHT/GRN
4 BLK	10 —
5 WHT/RED	11 BLU/WHT
⑥ WHT/RED	

C352



1 GRN	6 BLK/YEL
2 BLU/WHT	7 —
3 WHT/BLK	⑧ WHT/GRN
④ WHT/BLK	9 WHT
⑤ BLK/RED	

C354*¹

① BLK/WHT
② BLK
③ GRN/RED

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

• ○: Related to Fuel and Emissions System.

• — Connector with male terminals (double outline): View from terminal side

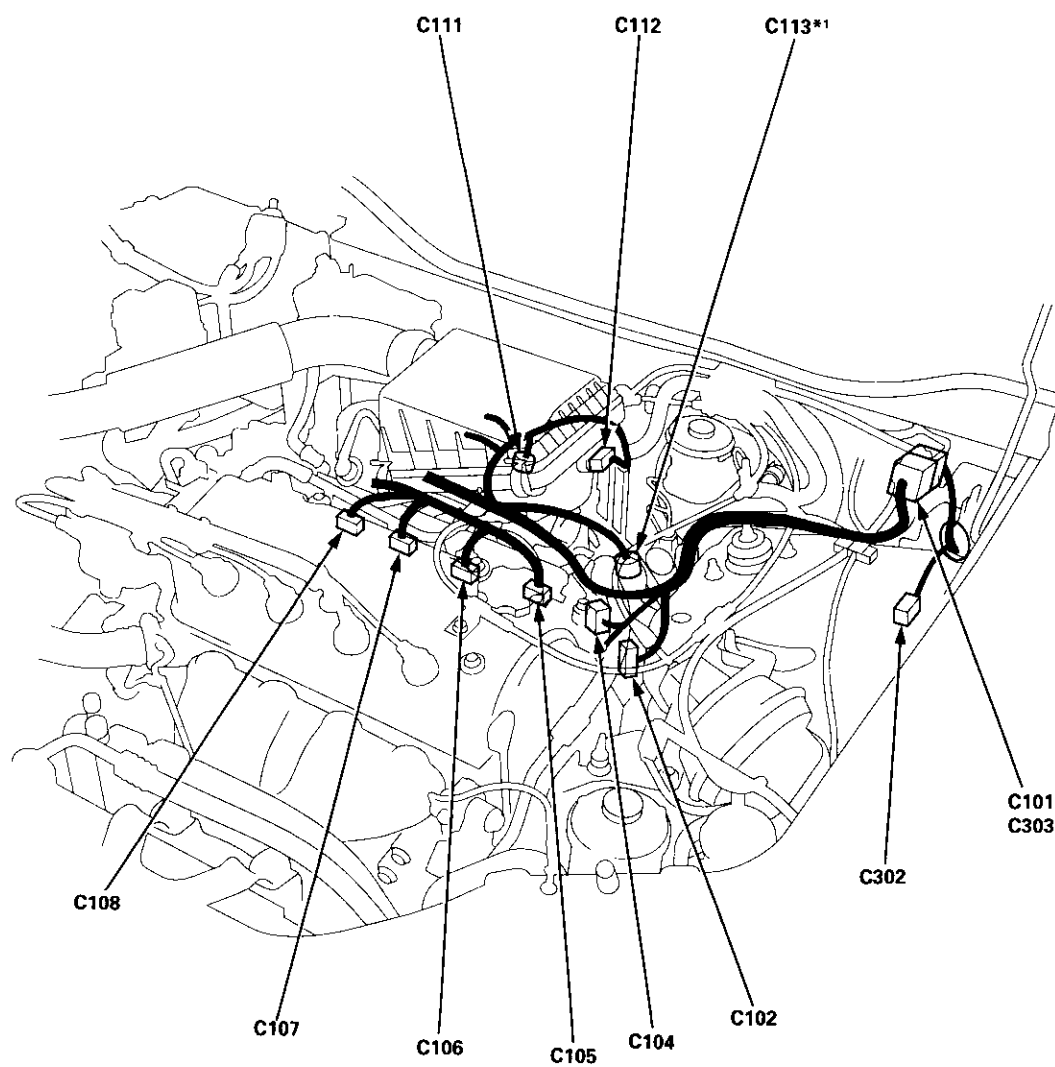
— Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

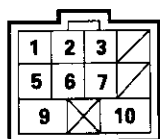
System Connectors [Engine Compartment] (cont'd)

'99 - 00 D16Y7 engine:



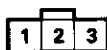


C101



① BLK/YEL	6 WHT/BLU
② BLK ¹	7 YEL/GRN
3 YEL/RED	8 —
4 —	9 BLK/WHT
⑤ YEL/BLK ¹	10 BLK/YEL

C102



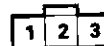
① WHT/RED ³
② BRN/BLK ¹
③ BLU/RED

C104*¹



1 BLK/YEL
② WHT/GRN
3 WHT/BLU
④ WHT/RED ³

C104
(Canada)



① WHT/RED ³
2 BLK/YEL
3 WHT/BLU

C105



① YEL/BLK ¹
② BRN ²

C106



① YEL/BLK ¹
② RED ¹

C107



① YEL/BLK ¹
② BLU ⁴

C108



① YEL/BLK ¹
② YEL ²

C111



① YEL/RED
② GRN/WHT ³
③ RED/GRN

C112



① GRN/BLK ²
② RED/YEL ²

C113*¹



① GRN ²
② BLK ²

C302



② BLU ²

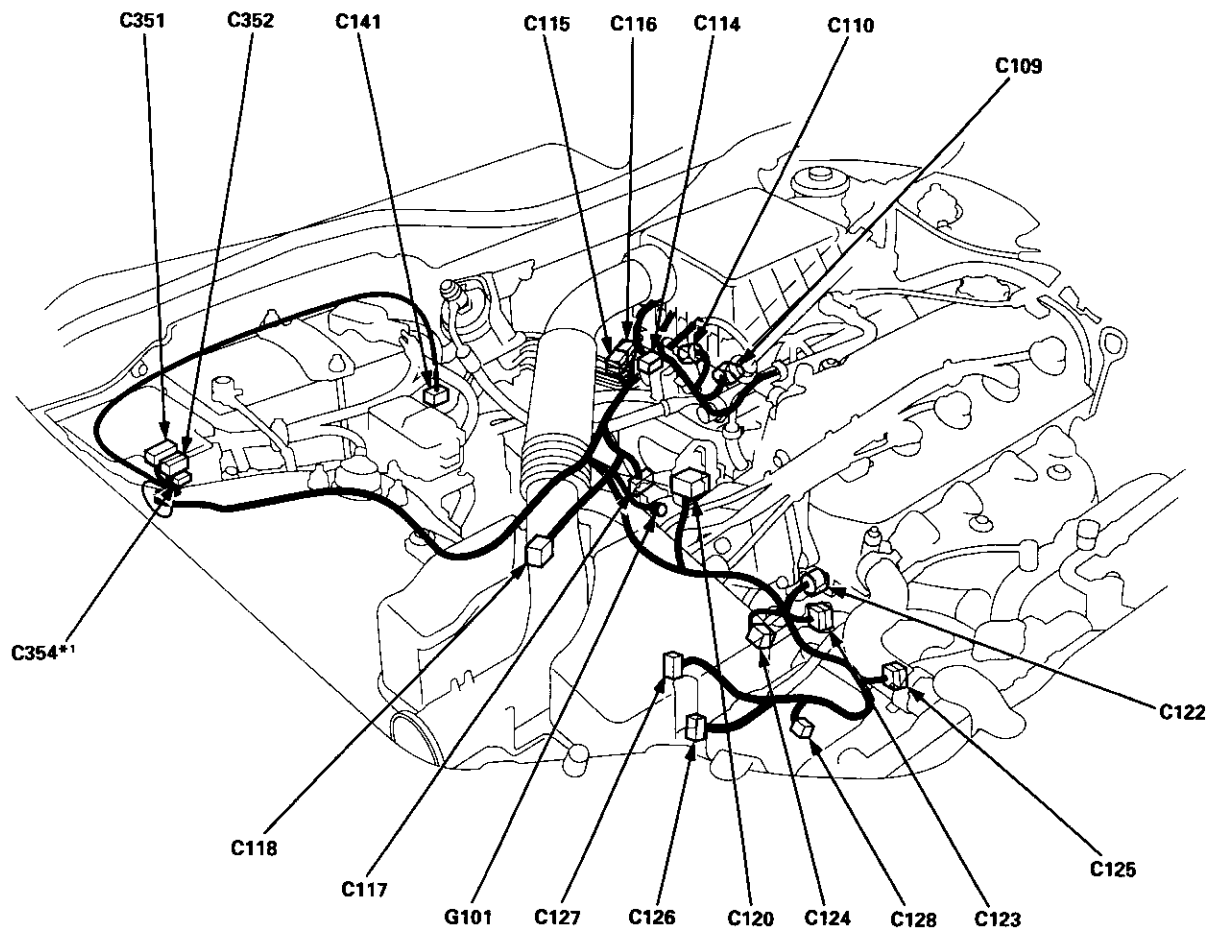
NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
 • ○: Related to Fuel and Emissions System.
 • — Connector with male terminals (double outline): View from terminal side
 • — Connector with female terminals (single outline): View from wire side

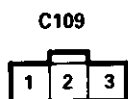
(cont'd)

System Description

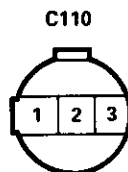
System Connectors [Engine Compartment] (cont'd)

'99 - 00 D16Y7 engine:





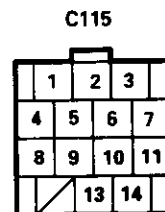
①	ORN
②	YEL/BLK ¹
③	BLK/BLU ¹



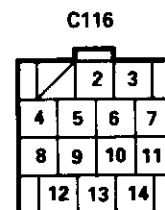
①	GRN/BLK ²
②	RED/BLK
③	YEL/BLU



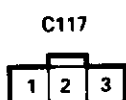
①	BLK/YEL
②	RED/YEL ¹



①	BLK/YEL	⑧	GRN/BLK ²
2	BLK/YEL	⑨	GRN/BLK ²
③	BLK/YEL	⑩	GRN/BLK ²
④	BLK/YEL	⑪	GRN/BLK
⑤	BLK/YEL	12	—
⑥	BLK/YEL	⑬	GRN/BLK ²
⑦	BLK/YEL	⑭	GRN/BLK ²



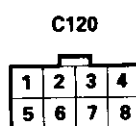
1	—	8	BLK
②	YEL/BLK ¹	⑨	BLK ¹
③	YEL/BLK ¹	⑩	BLK ¹
④	YEL/BLK ¹	⑪	BLK ¹
⑤	YEL/BLK ¹	⑫	BLK ¹
⑥	YEL/BLK ¹	⑬	BLK ¹
⑦	YEL/BLK ¹	⑭	BLK ¹



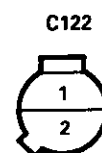
①	BLK ¹
②	BLK/YEL
③	BLU/WHT ¹



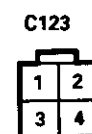
①	GRN ⁴
②	BLU ⁴



①	YEL/GRN	5	BLK/YEL
②	BLU ⁵	⑥	WHT ²
③	GRN ³	⑦	RED ⁴
④	YEL ⁴	⑧	BLK ³



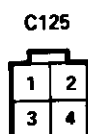
①	RED/WHT
②	GRN/BLK ²



①	WHT ³
②	GRN/BLK ²
③	BLK/YEL
④	BLK/WHT ²



①	GRN/BLK ³
②	YEL ⁵



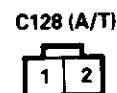
①	WHT/RED ¹
②	RED/YEL ²
③	BLK/YEL
④	BLK/WHT ¹



①	WHT ⁵
②	RED ⁵



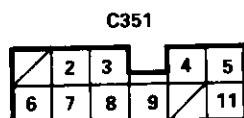
①	WHT ³
②	RED ¹



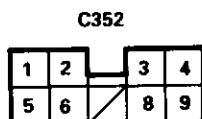
①	BLU/YEL ²
②	GRN/WHT ⁴



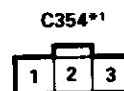
①	LT GRN/WHT
②	BLK/YEL



1	—	⑦	WHT/BLK
2	WHT/BLU	⑧	WHT/BLU
3	WHT/GRN	9	WHT/GRN
4	BLK	10	—
5	WHT/RED	11	BLU/WHT
⑥	WHT/RED		



1	GRN	6	BLK/YEL
2	BLU/WHT	7	—
3	WHT/BLK	⑧	WHT/GRN
④	WHT/BLK	9	WHT
⑤	BLK/RED		



①	BLK/WHT
②	BLK
③	GRN/RED

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

• ○: Related to Fuel and Emissions System.

• — Connector with male terminals (double outline): View from terminal side

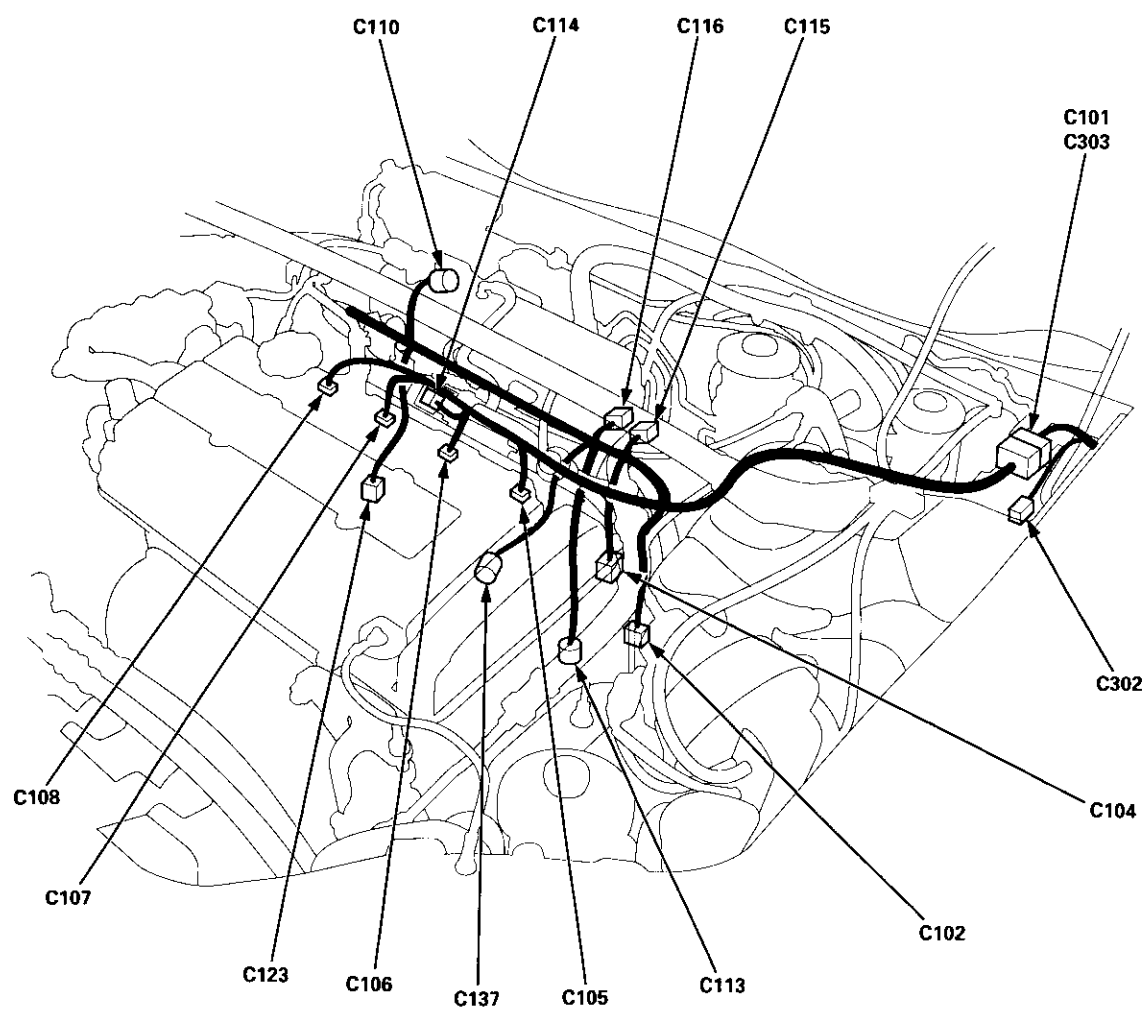
• — Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

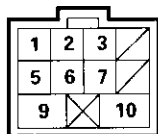
System Connectors [Engine Compartment] (cont'd)

B16A2 engine:





C101



① BLK/YEL	6 WHT/BLU
② BLK ¹	7 YEL/GRN
③ YEL/RED	8 —
4 —	9 BLK/WHT
⑤ YEL/BLK ¹	10 BLK/YEL

C102



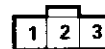
① WHT/RED ³
② BRN/BLK ¹
③ BLU/RED

C104
#1



1 BLK/YEL
② WHT/GRN
3 WHT/BLU ²
④ WHT/RED ³

C104
(Canada)



① WHT/RED ³
2 BLK/YEL
3 WHT/BLU

C105



① YEL/BLK ¹
② BRN ²

C106



① YEL/BLK ¹
② RED ¹

C107



① YEL/BLK ¹
② BLU ⁴

C108



① YEL/BLK ¹
② YEL ²

C110



① GRN/BLK ²
② RED/BLK
③ YEL/BLU

C113



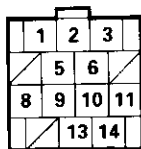
① GRN ²
② BLK ¹

C114



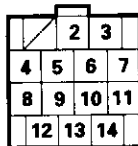
① BLK/YEL
② RED/YEL ¹

C115



① BLK/YEL	⑧ GRN/BLK ²
2 BLK/YEL	⑨ GRN/BLK ²
③ BLK/YEL	⑩ GRN/BLK ²
4 —	⑪ GRN/BLK ²
⑤ BLK/YEL	12 —
⑥ BLK/YEL	⑬ GRN/BLK ²
7 —	⑭ GRN/BLK ²

C116



1 —	8 BLK
② YEL/BLK ¹	⑨ BLK ¹
③ YEL/BLK ¹	⑩ BLK ¹
④ YEL/BLK ¹	⑪ BLK ¹
⑤ YEL/BLK ¹	⑫ BLK ¹
⑥ YEL/BLK ¹	⑬ BLK ¹
⑦ YEL/BLK ¹	⑭ BLK ¹

C123



① WHT ³
② GRN/BLK ²
③ BLK/YEL
④ BLK/WHT ²

C137



① RED/BLU
2 —

C138



① BLK/BLU ¹
② YEL/BLK ¹

C302



1 —
② BLU ²

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

• ○: Related to Fuel and Emissions System.

• — Connector with male terminals (double outline): View from terminal side

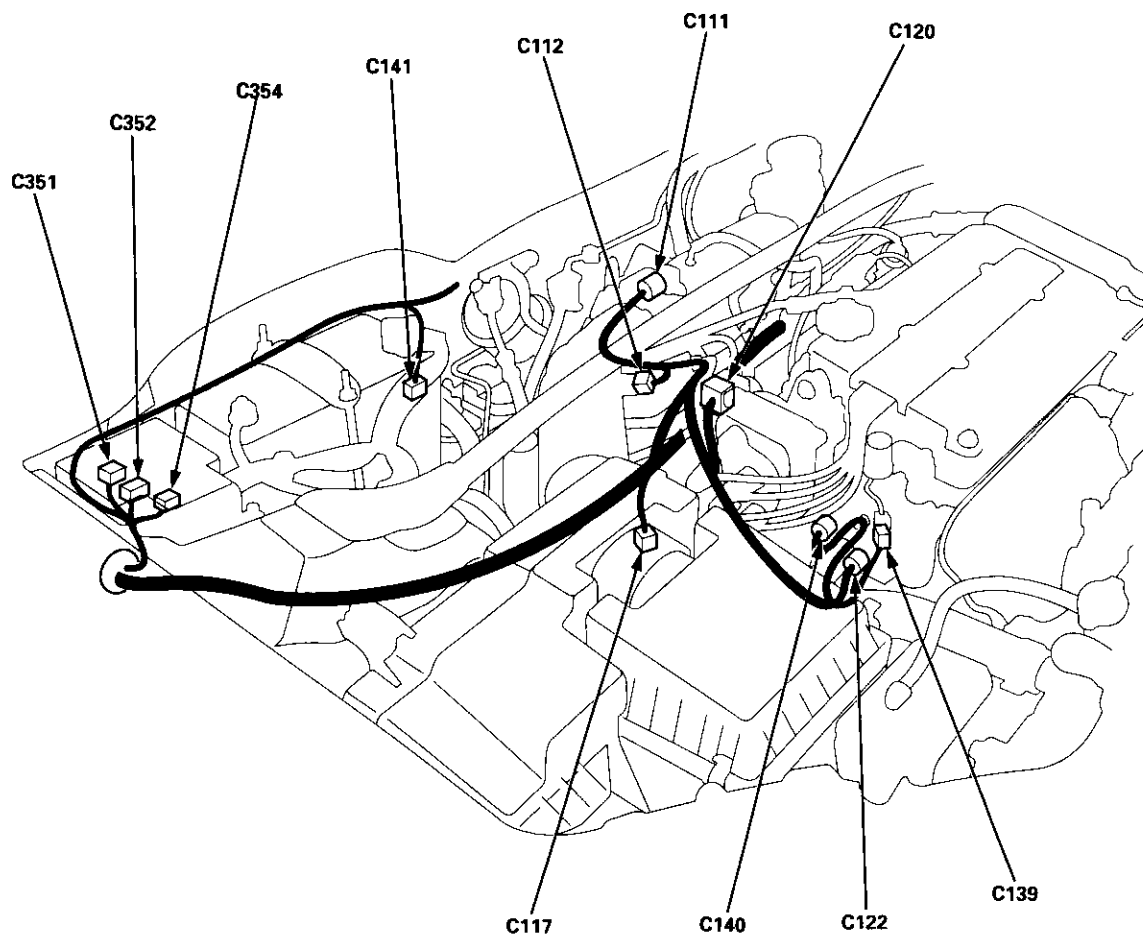
• — Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

System Connectors [Engine Compartment] (cont'd)

B16A2 engine:





C111



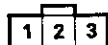
①	YEL/RED
②	GRN/WHT ³
③	RED/GRN

C112



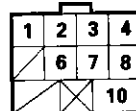
①	GRN/BLK ²
②	RED/YEL ²

C117



①	BLK ¹
②	BLK/YEL
③	BLU/WHT ¹

C120



①	YEL/GRN	⑥	WHT ²
②	BLU ⁵	⑦	RED ⁴
③	GRN ³	⑧	BLK ³
④	YEL ⁴	9	—
5	—	10	BLK/YEL

C122



①	RED/WHT
②	GRN/BLK ²

C139*12



①	GRN/YEL ²
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C140



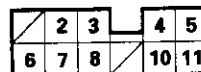
①	BLU/BLK
②	BLK ¹

C141



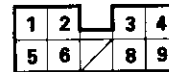
①	LT GRN/WHT
②	BLK/YEL

C351



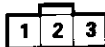
1	—	⑦	WHT/BLK
2	WHT/BLU	⑧	WHT/BLU
3	WHT/GRN	9	WHT/GRN
4	BLK	10	—
5	WHT/RED	11	BLU/WHT
⑥	WHT/RED		

C352



1	GRN	6	BLK/YEL
2	BLU/WHT	7	—
3	WHT/BLK	⑧	WHT/GRN
④	WHT/BLK	9	WHT
⑤	BLK/RED		

C354*1



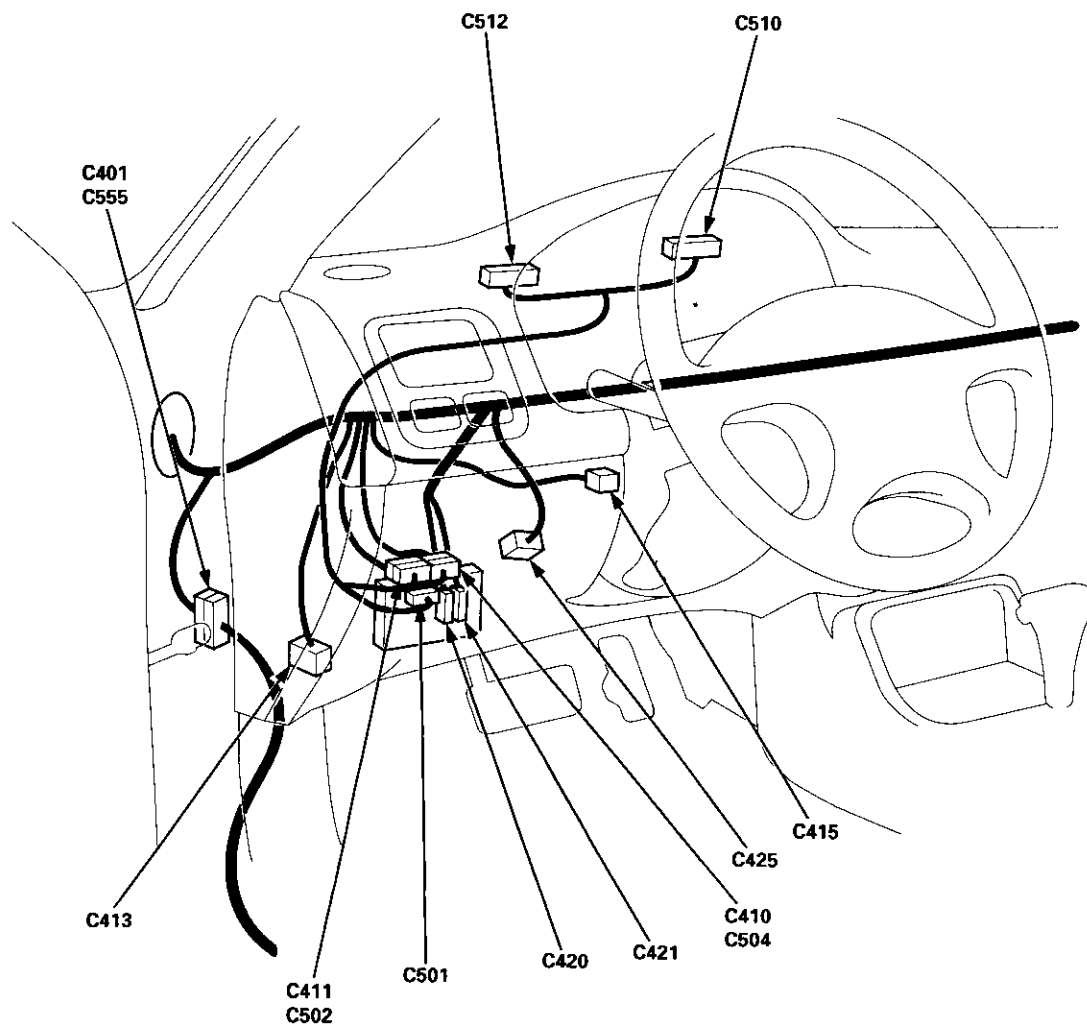
①	BLK/WHT
②	BLK
③	GRN/RED

- NOTE: ● Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
- : Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

System Description

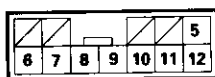
System Connectors [Dash and Floor]

('99 – 00 models except D16Y5 engine with M/T)



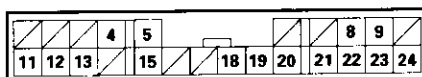


C410 (A/T)



1	_____	7	BLK/BLU
2	_____	8	_____
3	_____	9	BLU ^{1,2}
4	_____	10	GRN
5	WHT*	11	GRN/BLK ^{1,4}
6	RED	12	LT GRN ^{1,3}

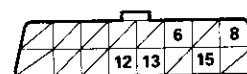
C411



1	_____	13	LT GRN/RED
2	_____	14	_____
3	_____	15	WHT/BLK
4	BLU/YEL	16	_____
5	BLU (SRS)	17	_____
6	_____	18	WHT/BLU
7	_____	19	BLU
8	RED/BLU*	20	RED/BLU
9	LT GRN*	21	GRN/ORN
10	_____	22	BLU/WHT
11	YEL/GRN	23	YEL/RED
12	RED	24	BLU/RED (ABS)

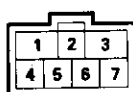
*: Cruise Control

C413



1	_____	9	_____
2	_____	10	_____
3	_____	11	_____
4	_____	12	BLK
5	_____	13	BLK
6	LT BLU	14	_____
7	_____	15	BLU/YEL ¹
8	WHT/RED	16	_____

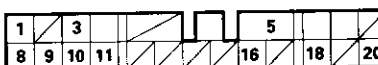
C415



1	BLK/YEL*
2	BLK/WHT
3	BLU/RED
4	WHT/BLK
5	BLK
6	WHT
7	WHT/BLU
8	WHT/GRN

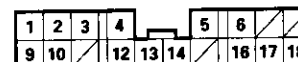
*: Security Alarm System

C420



1	RED/BLU (Canada)	11	BLK/WHT
2	_____	12	_____
3	BLK	13	_____
4	_____	14	_____
5	WHT/GRN	15	_____
6	WHT/BLU	16	BLK/WHT (Canada)
7	_____	17	_____
8	YEL/GRN	18	WHT/GRN
9	BLK/YEL	19	_____
10	BLK/WHT	20	WHT/RED

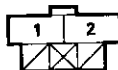
C421



1	RED/YEL	10	GRN/YEL
2	BLK/BLU (ABS)	11	_____
3	RED/GRN	12	BLK/WHT
4	GRN/BLK	13	BLK/WHT
5	RED/BLU	14	GRN/RED
6	WHT/BLU	15	_____
7	_____	16	GRN/RED
8	_____	17	RED/BLK
9	RED/WHT	18	RED/BLK

C425

(without cruise control)



1	GRN/WHT ¹
2	WHT/GRN
3	_____
4	_____

C425

(with cruise control)



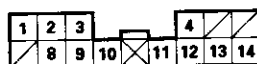
1	LT GRN
2	GRY
3	GRN/WHT ¹
4	WHT/GRN

C501



1	RED/GRN	11	YEL/BLK
2	BLK/BLU	12	BLK/YEL
3	WHT/BLU	13	YEL/GRN
4	BLK	14	_____
5	GRN/WHT	15	RED/BLK
6	GRN/RED	16	_____
7	GRN/ORN	17	_____
8	BLU/YEL	18	BLK/WHT
9	GRN/YEL	19	YEL/RED
10	YEL	20	_____

C510 (A/T)



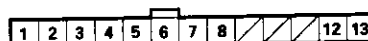
*2

1	YEL	8	BLK
2	RED/BLK	9	GRN/BLK ¹
3	RED	10	GRN
4	BLU ¹	11	RED
5	_____	12	WHT ¹
6	BRN	13	BLK/BLU
7	_____	14	LT GRN ²

*3

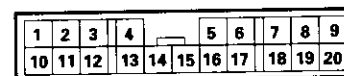
1	YEL	8	BLK
2	RED/BLK	9	GRN/BLK ¹
3	RED	10	GRN
4	BLU ¹	11	RED
5	_____	12	WHT ¹
6	_____	13	BLK/BLU
7	_____	14	LT GRN ²

C512



1	WHT/BLK	8	BLU
2	GRN/BLK	9	_____
3	YEL/RED	10	_____
4	YEL	11	_____
5	GRN/ORN	12	RED
6	RED/GRN	13	RED/BLK
7	GRN/RED	14	_____

C555



1	GRN/ORN	11	WHT/GRN
2	BLK/WHT	12	LT GRN ²
3	GRN/WHT	13	BLU ¹
4	BLU/BLK	14	GRN
5	YEL/BLU	15	LT GRN/RED
6	GRN/BLK ²	16	GRN/BLK
7	RED/BLU	17	GRN/WHT
8	WHT/RED	18	YEL/GRN
9	BLU/RED	19	YEL/RED
10	BLU/WHT	20	BLU/YEL

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

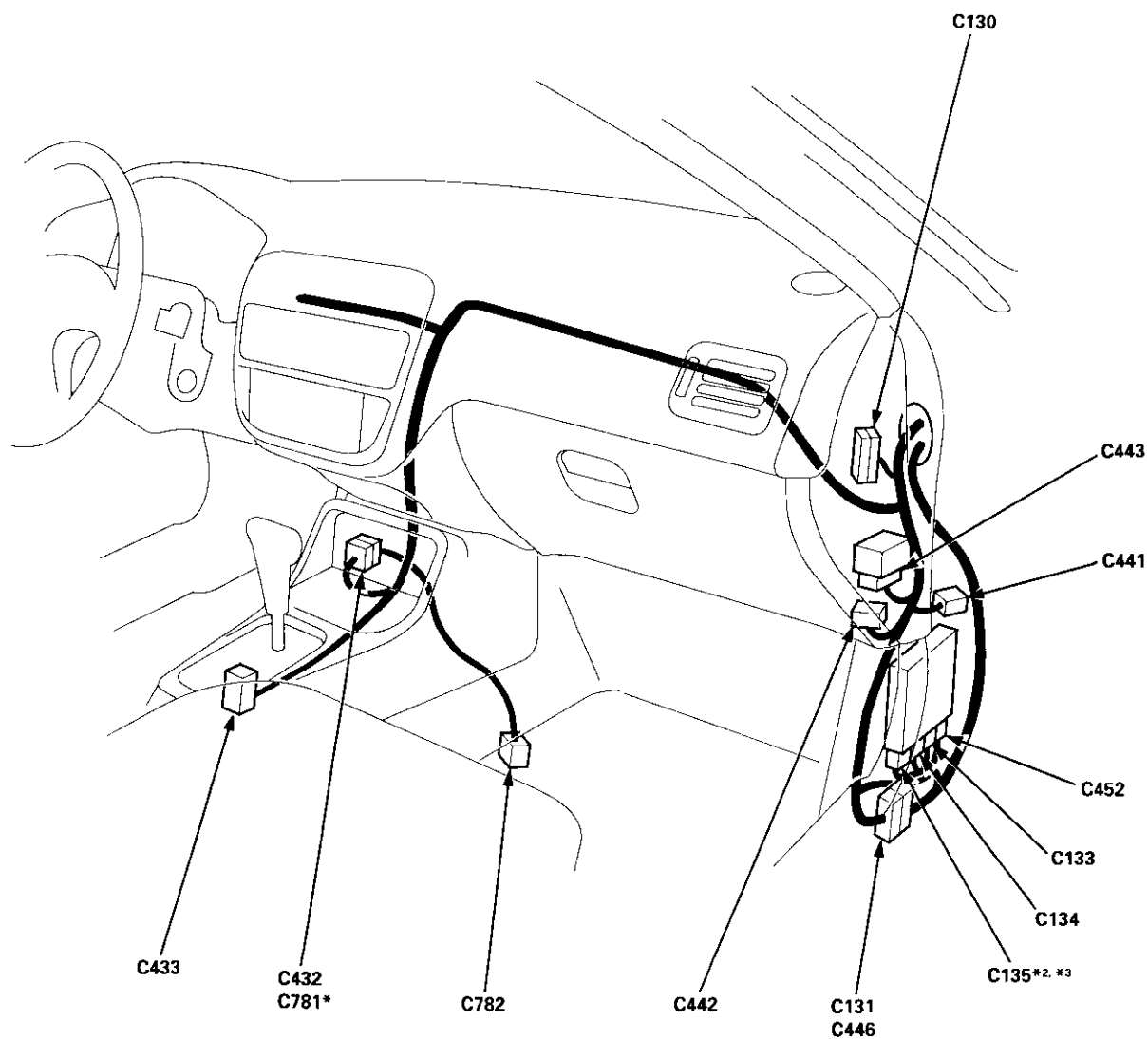
- ○: Related to Fuel and Emissions System.
- — Connector with male terminals (double outline): View from terminal side
- — Connector with female terminals (single outline): View from wire side

(cont'd)

System Description

System Connectors [Dash and Floor] (cont'd)

('99 – 00 models except D16Y5 engine with M/T)





C130

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

① YEL/BLU	⑩ BRN/BLK
② YEL/BLU	⑪ BRN/BLK
③ YEL/BLU	⑫ BRN/BLK
④ YEL/BLK	⑬ BRN/BLK
⑤ YEL/BLK	⑭ BRN/BLK
⑥ YEL/BLK	⑮ BRN/BLK
⑦ YEL/BLK	⑯ BRN/BLK
⑧ BLU/WHT	⑰ BRN/BLK
⑨ BLU/WHT	⑱ BRN/BLK
⑪ BLU/WHT	⑳ BRN/BLK

C131

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

① BLK/WHT	⑩ BLU
② WHT/RED	⑪ YEL
③ WHT	⑫ GRN/BLK
④ LT GRN	⑬ PNK
⑤	⑭ LT GRN/RED
⑥ YEL	⑮
⑦ GRN	⑯
⑧ GRN/BLK	⑰ GRN/BLK
⑨ GRN	⑱ BLU/WHT
⑪ WHT/BLU	⑳ YEL/BLU
⑫	㉑ RED/YEL
⑬	㉒ BRN/BLK

C133 (ECM/PCM-B)

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24

① YEL/BLK	⑩ BLK	⑱
② BLK	⑪ BRN	⑲ BRN/BLK
③ RED	⑫ GRN/YEL	⑳ WHT/BLU
④ BLU	⑬ YEL/GRN	㉑ BRN/BLK
⑤ YEL	⑭	㉒ BLK/BLU
⑥ BLK/BLU	⑮ ORN	㉓
⑦ RED	⑯	㉔ YEL
⑧ WHT	⑰ RED	
⑨ PNK/BLK	⑱ GRN/WHT	
⑪ YEL/BLK	⑲ PNK/BLU	

C134 (ECM/PCM-C)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

① BLK/WHT	⑩	⑲ RED/YEL
② WHT/GRN	⑪	⑳ RED/WHT
③ RED/BLU	⑫	㉑ RED/BLK
④	⑬ WHT	㉒ YEL/BLU
⑤ WHT/RED	⑭ RED/GRN	㉓ YEL
⑥ WHT/BLK	⑮ GRN/BLK	㉔ BLK
⑦ GRN/WHT	⑯ YEL/RED	㉕ WHT/RED
⑧ BLU	⑰ GRN	
⑨ WHT	⑱ RED	
⑪ BLU/BLK	㉑ BLU/RED	
⑫	㉒ BLU/WHT	
⑬	㉓	

C135 (PCM-D)*

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

① YEL	⑩ YEL
② GRN/WHT	⑪ BLU
③ GRN/BLK	⑫ RED
④	⑬ WHT
⑤ BLK/YEL	⑭ LT GRN
⑥ WHT	⑮ BLU
⑦ BLU/YEL	⑯
⑧ PNK	⑰ GRN

C135 (PCM-D)*

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

① WHT/RED	⑩
② GRN/BLK	⑪ WHT
③ GRN/YEL	⑫ RED/BLU
④ BLU/WHT	⑬ GRN
⑤ BLK/YEL	⑭ LT GRN/RED
⑥ WHT	⑮ GRN/BLK
⑦ BLK/WHT	⑯
⑧	⑰ RED/WHT

C432

1	2	3	4
---	---	---	---

① BLK/WHT
② GRN/BLK
③ WHT/RED
④ BLK/WHT

C433*2, *3

1	2	3	4	5	6	7
8	9	10	11	12	13	14

① BLK	⑧
②	⑨ PNK
③ YEL/RED	⑩ BLK/WHT
④ GRN/BLK	⑪ BLK/RED
⑤ BLU	⑫ BLK/BLU
⑥ GRN	⑬ WHT
⑦ YEL	⑭ RED

* Cruise control

C441

1	2
---	---

① BRN
② BLK

C442

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

① BRN/BLK	⑩ GRN/RED
② BRN/BLK	⑪ GRN/RED
③ BRN/BLK	⑫ GRN/RED
④ BLU/WHT	⑬
⑤ BLU/WHT	⑭
⑥ BLU/WHT	⑮
⑦ GRN/WHT	⑯ BLU
⑧ GRN/WHT	⑰ BLU
⑨ GRN/WHT	⑱ BLU
⑪ GRN/WHT	㉑ BLU

C443

1	2	3
4	5	6

① GRN/YEL	⑤ YEL/GRN
② BLU/WHT	⑥ YEL/BLK
③ BLK	⑦ WHT/BLK
④ YEL/GRN	

C452 (ECM/PCM-A)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33

①	⑩	⑲
② BLU	⑪ GRN/BLK	⑳ GRN
③ LT GRN/WHT	⑫	㉑ BLU/RED
④ BLU/GRN	⑬ GRN/YEL	㉒ WHT/RED
⑤ RED/YEL	⑭ BLK/RED	㉓ LT GRN
⑦ YEL	⑮ GRN/ORN	㉔ GRN/RED
⑧ BLK/WHT	⑯ BLU	㉕
⑨ LT GRN	⑰ GRN	㉖ GRN/WHT
⑪	⑱ BLU/YEL	
⑫ BRN	㉑ BLU	
⑬	㉒ WHT/RED	
⑭	㉓ BLU/WHT	

C782

1	2
3	4

① WHT/RED
② GRN/WHT
③ BLK/WHT
④ BLK/WHT

NOTE: • Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).

• ○: Related to Fuel and Emissions System.

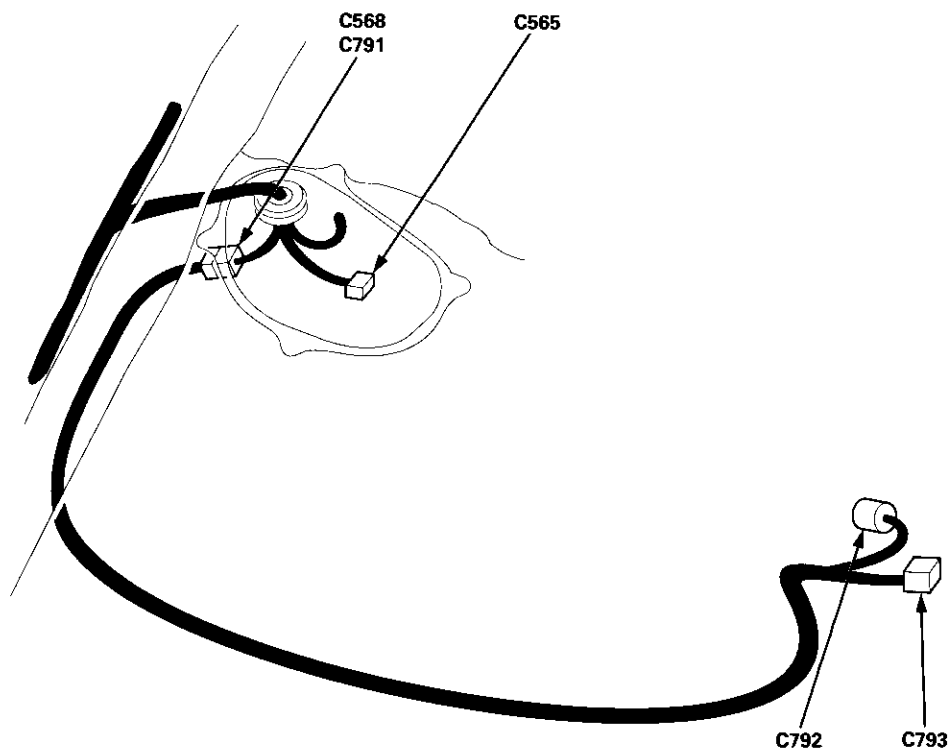
— Connector with male terminals (double outline): View from terminal side

— Connector with female terminals (single outline): View from wire side

System Descriptions

System Connectors [Fuel Pump]

('99 - 00 models except D16Y5 engine with M/T)



C565



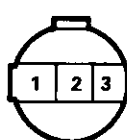
①	BLK
②	YEL/GRN

C568



①	BLU ¹
②	LT GRN ²
③	BLK/WHT
④	—
⑤	YEL/BLU ¹
⑥	GRN/BLK ²

C792



①	YEL/BLU
②	GRN/BLK ²
③	LT GRN ²

C793



①	BLK/WHT
②	BLU ¹

- NOTE:
- Different wires with the same color have been given a number suffix to distinguish them (for example, YEL/BLK¹ and YEL/BLK² are not the same).
 - ○: Related to Fuel and Emissions System.
 - — Connector with male terminals (double outline): View from terminal side
 - — Connector with female terminals (single outline): View from wire side



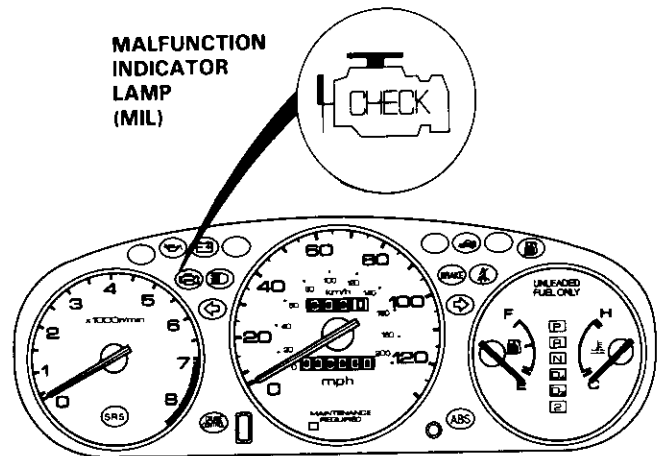
Troubleshooting Procedures

I. How To Begin Troubleshooting

When the Malfunction Indicator Lamp (MIL) has been reported on, or there is a driveability problem, use the appropriate procedure below to diagnose and repair the problem.

A. When the MIL has come on:

1. Connect the Honda PGM Tester or an OBD II scan tool to the 16P Data Link Connector (DLC) located near the left kick panel.
2. Turn the ignition switch ON (II).
3. Check the DTC and note it. Also check and note the freeze frame data. Refer to the Diagnostic Trouble Code Chart and begin troubleshooting.



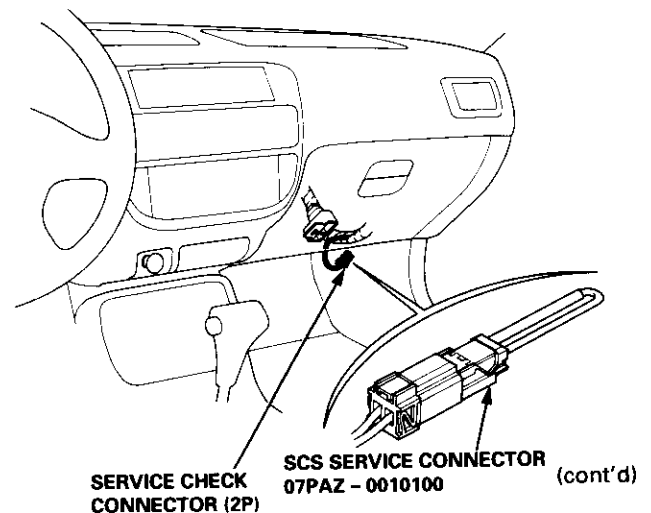
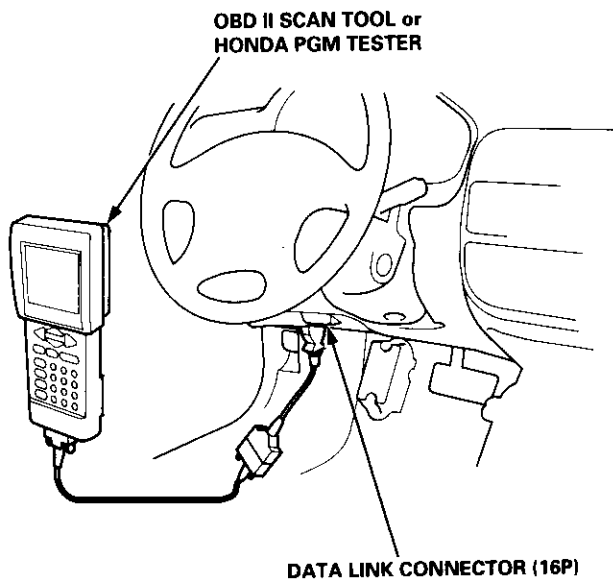
NOTE:

- See the OBD II scan tool or Honda PGM Tester user's manuals for specific operating instructions.
- The scan tool or tester can read the Diagnostic Trouble Codes (DTC), freeze frame data, current data, and other Engine Control Module (ECM)/Powertrain Control Module (PCM) data.
- Freeze frame data indicates the engine conditions when the first malfunction, misfire or fuel trim malfunction was detected. It can be useful information when troubleshooting.

B. When the MIL has not come on, but there is a driveability problem, refer to the Symptom Chart on page 11-84.

C. DTCs will be indicated by the blinking of the Malfunction Indicator Lamp (MIL) with the SCS service connector connected.

Connect the SCS service connector to Service Check Connector as shown. (The 2P Service Check Connector is located under the dash on the passenger's side of the vehicle.) Turn the ignition switch ON (II).



Troubleshooting

Troubleshooting Procedures (cont'd)

II. Engine Control Module (ECM)/Powertrain Control Module (PCM) Reset Procedure

NOTE: Resetting the ECM/PCM will erase any stored DTCs and any freeze data. It will also restart all readiness code monitors.

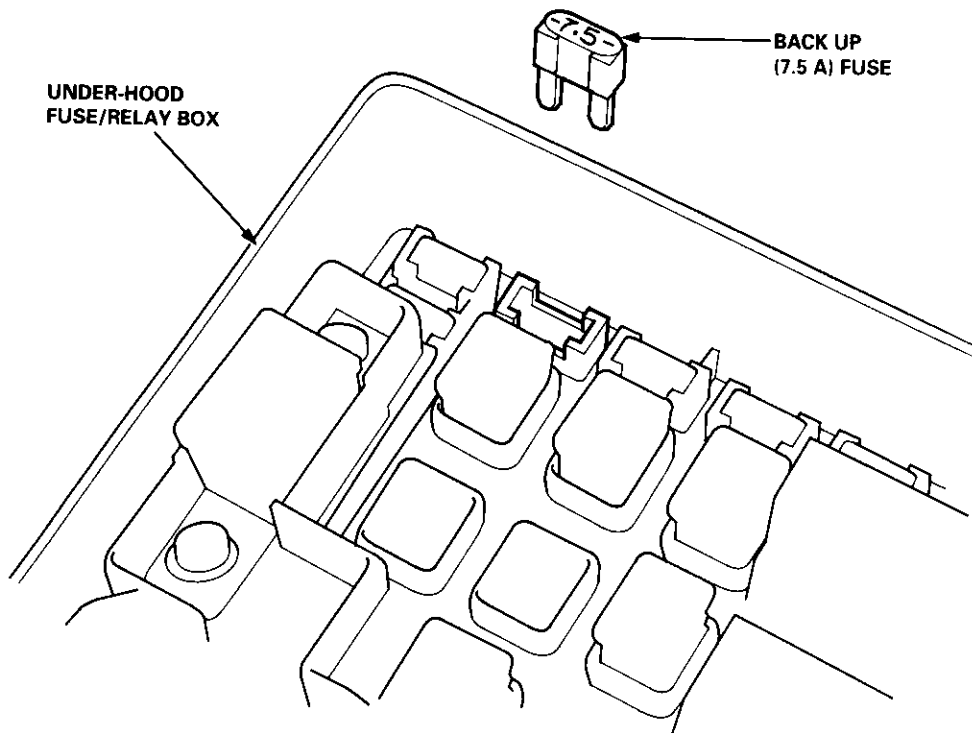
Either of the following actions will reset the ECM/PCM.

- Use the OBD II scan tool or Honda PGM Tester to clear the ECM's/PCM's memory.

NOTE: See the OBD II scan tool or Honda PGM Tester user's manuals for specific operating instructions.

- Turn the ignition switch OFF. Remove the BACK UP (7.5 A) fuse from the under-hood fuse/relay box for 10 seconds.

NOTE: Removing the BACK UP (7.5 A) fuse cancels the clock and the radio presets. Make note of the customer's presets so you can reset them.



III. Final Procedure (this procedure must be done after any troubleshooting)

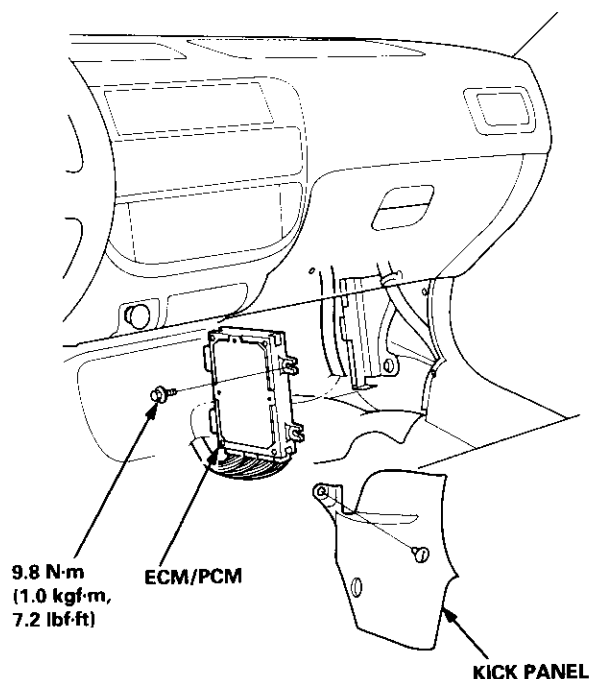
1. Remove the SCS Service Connector if it is connected.

NOTE: If the SCS service connector is connected and there are no DTCs stored in the ECM/PCM, the MIL will stay on when the ignition switch is turned ON (II).

2. Do the ECM/PCM Reset Procedure.
3. Turn the ignition switch OFF.



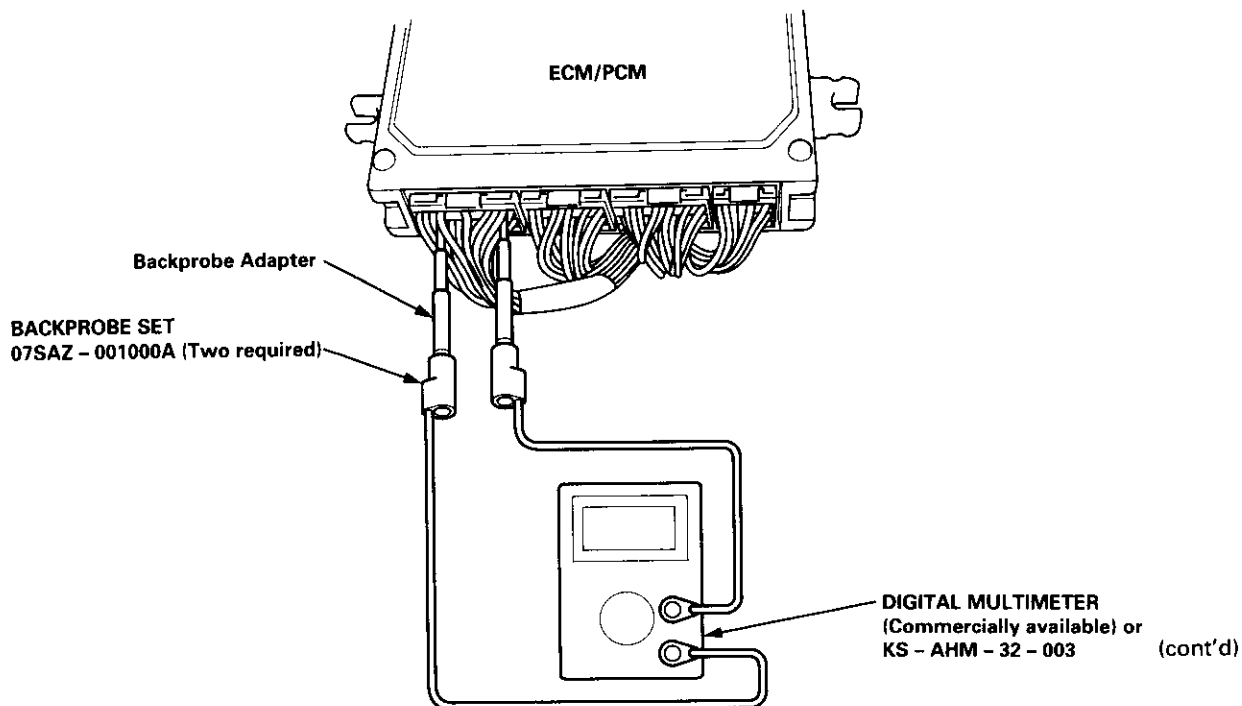
If the inspection for a particular code requires voltage or resistance checks at the ECM/PCM connectors, remove the right kick panel. Pull the carpet back to expose the ECM/PCM. Remove the ABS control unit if so equipped. Unbolt the ECM/PCM bolt. Turn the ignition switch OFF, and connect the backprobe sets and a digital multimeter as described below. Check the system according to the procedure described for the appropriate code(s) listed on the following pages.



The illustration shows '96 - '98 models.

How to Use the Backprobe Sets

Connect the backprobe adapters to the stacking patch cords, and connect the cords to a multimeter. Using the wire insulation as a guide for the contoured tip of the backprobe adapter, gently slide the tip into the connector from the wire side until it comes in contact with terminal end of the wire.

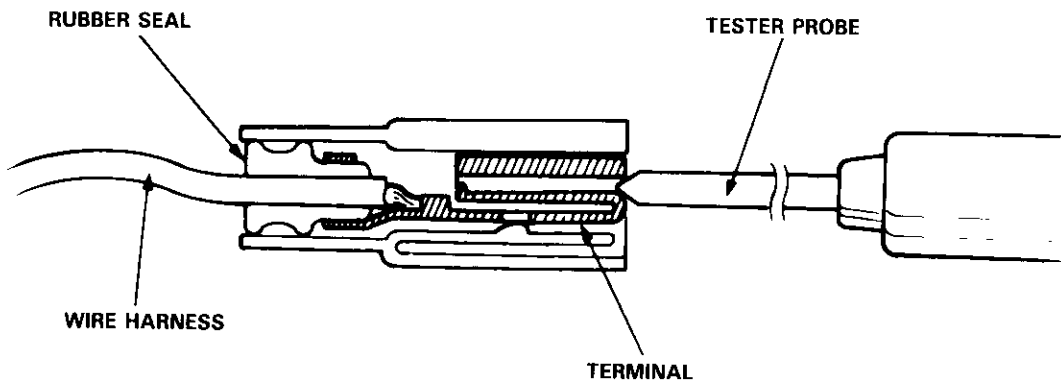


Troubleshooting

Troubleshooting Procedures (cont'd)

CAUTION:

- Puncturing the insulation on a wire can cause poor or intermittent electrical connections.
- Bring the tester probe into contact with the terminal from the terminal side of wire harness connectors in the engine compartment. For female connectors, just touch lightly with the tester probe and do not insert the probe.



Symptom Chart

Listed below are symptoms and probable causes for problems that DO NOT cause the Malfunction indicator Lamp (MIL) to come on. If the MIL was reported on, go to page 11-81.

Troubleshoot each probable cause in the order listed (from left to right) until the symptom is eliminated.

The probable cause and troubleshooting page reference can be found below.

*: '99 - 00 models

SYMPTOM	PROBABLE CAUSE
Engine will not start	4, 2, 3, 5, 20, 14, 1
Hard starting	2, 4, 11, 16, 13, 19
Cold fast idle too low	7, 8, 6, 16
Cold fast idle too high	7, 8, 10, 9
Idle speed fluctuates	7, 8, 10, 9
Misfire or rough running	Troubleshoot for misfire on pages 11-166, 167
Low power	2, 9, 10, 12, 17, 16, 18, 20
Engine stalls	2, 4, 11, 7, 20, 8, 5, 15
Difficult to refuel*	19, 21
Fuel overflows during refueling*	19, 21

Other Probable Causes for an engine that will not start:

- Compression
- Starting system
- Intake air leakage
- Overheating
- Engine locked up
- Battery
- Timing belt



Probable Cause List (For the DTC Chart, see page 11-97)

*: '99 – 00 models

Probable Cause	Page	System
1	11-107	Engine Control Module (ECM)/Powertrain Control Module (PCM)
2	11-230, 231	Fuel pressure
3	11-237	PGM-FI main relay
4	Section 23	Ignition system
5	11-172, 183	Crankshaft Position/Top Dead Center/Cylinder Position sensor circuit, CKF sensor circuit
6	11-124	Intake Air Temperature (IAT) sensor circuit
7	11-194	Idle Air Control (IAC) Valve
8	11-220 – 223	Idle speed adjustment
9	11-247	Throttle body
10	11-244	Throttle cable
11	11-115	Manifold Absolute Pressure (MAP) sensor
12	11-132	Throttle Position (TP) sensor
13	11-178	Barometric pressure (BARO) sensor
14	Section 14, 11-218	A/T gear position signal (see page 11-216) or clutch switch signal
15	11-210	Brake switch signal
16	11-244	Air Cleaner
17	—	Intake air pipe
18	11-252	Three Way Catalytic Converter (TWC)
19	11-267	Evaporative emission (EVAP) control
20	—	Contaminated fuel
21*	11-296	ORVR vent shut valve

(cont'd)

Troubleshooting

Troubleshooting Procedures (cont'd)

ECM/PCM Data

By connecting the OBD II scan tool or the Honda PGM Tester to the 16P data link connector (DLC), various data can be retrieved from the ECM/PCM. The items listed in the table below conform to the SAE recommended practice.

The Honda PGM Tester also reads data beyond that recommended by SAE.

Understanding this data will help to find the causes of intermittent failures or engine problems.

NOTE:

- The "operating values" given below are approximate values and may be different depending on the environment and the individual vehicle.
- Unless noted otherwise, "at idle speed" means idling with the engine completely warmed up, A/T in position **P** or **N**, M/T in neutral, and the A/C and all accessories turned off.

Data	Description	Operating Value	Freeze Data
Diagnostic Trouble Code (DTC)	If the ECM /PCM detects a problem, it will store it as a code consisting of one letter and four numbers. Depending on the problem, an SAE-defined code (P0xxx) or a Honda-defined code (P1xxx) will be output to the tester.	If no problem is detected, there is no output.	YES
Engine Speed	The ECM/PCM computes engine speed from the signals sent from the Crankshaft Position sensor. This data is used for determining the time and amount of fuel injection.	Nearly the same as tachometer indication.	YES
Vehicle Speed	The ECM/PCM converts pulse signals from the Vehicle Speed Sensor (VSS) into speed data.	Nearly the same as speedometer indication	YES
Manifold Absolute Pressure (MAP)	The absolute pressure caused in the intake manifold by engine load and speed.	With engine stopped: Nearly the same as atmospheric pressure At idle speed: 24 – 37 kPa (180 – 280 mmHg, 7.1 – 11.0 inHg)	YES
Engine Coolant Temperature (ECT)	The ECT sensor converts coolant temperature into voltage and signals the ECM/PCM. The sensor is a thermistor whose internal resistance changes with coolant temperature. The ECM/PCM uses the voltage signals from the ECT sensor to determine the amount of injected fuel.	With cold engine: Same as ambient temperature and IAT With engine warmed up: 176 – 194°F (80 – 90°C)	YES
Heated Oxygen Sensor (HO2S) (Primary, Sensor 1) (Secondary Sensor 2)	The Heated Oxygen Sensor detects the oxygen content in the exhaust gas and sends voltage signals to the ECM/PCM. Based on these signals, the ECM/PCM controls the air/fuel ratio. When the oxygen content is high (that is, when the ratio is leaner than the stoichiometric ratio), the voltage signal is lower. When the oxygen content is low (that is, when the ratio is richer than the stoichiometric ratio), the voltage signal is higher.	0.0 – 1.25 V At idle speed: about 0.1 – 0.9 V	NO (Sensor 1)



Data	Description	Operating Value	Freeze Data
HO2S Feedback Loop Status	Loop status is indicated as "open" or "closed". Closed: Based on the HO2S output, the ECM/PCM determines the air/fuel ratio and controls the amount of injected fuel. Open: Ignoring HO2S output, the ECM/PCM refers to signals from the TP, MAP, and ECT sensors to control the amount of injected fuel.	At idle speed: closed	YES
Short Term Fuel Trim	The air/fuel ratio correction coefficient for correcting the amount of injected fuel when HO2S feedback is in the closed loop status. When the signal from the HO2S is weak, short term fuel trim gets higher, and the ECM/PCM increases the amount of injected fuel. The air/fuel ratio gradually gets richer, causing a higher HO2S output. Consequently, the short term fuel trim is lowered, and the ECM/PCM reduces the amount of injected fuel. This cycle keeps the air/fuel ratio close to the stoichiometric ratio when in closed loop status.	$\pm 20\%$	YES
Long Term Fuel Trim	Long term fuel trim is computed from short term fuel trim and indicates changes occurring in the fuel supply system over a long period. If long term fuel trim is higher than 1.00, the amount of injected fuel must be increased. If it is lower than 1.00, the amount of injected fuel must be reduced.	$\pm 20\%$	YES
Intake Air Temperature (IAT)	The IAT sensor converts intake air temperature into voltage and signals the ECM/PCM. When intake air temperature is low, the internal resistance of the sensor increases, and the voltage signal is higher.	With cold engine: Same as ambient temperature and ECT	YES
Throttle Position	Based on the accelerator pedal position, the opening angle of the throttle valve is indicated.	At idle speed: approx. 10 %	YES
Ignition Timing	Ignition timing is the ignition advance angle set by the ECM/PCM. The ECM/PCM matches ignition timing to the driving conditions.	At idle speed: $12^\circ \pm 2^\circ$ (B16A2 engine: $16^\circ \pm 2^\circ$) BTDC with the SCS service connector connected.	NO
Calculated Load Value (CLV)	CLV is the engine load calculated from the MAP data.	At idle speed: 15 – 35 % At 2,500 rpm with no load: 12 – 30%	YES

Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement '96 - 98 Models, '99 - 00 D16Y5 engine with M/T)

ECM/PCM CONNECTOR A (32P)

1	2	3	4		5	6	7		8	9	10	11
INJ4	INJ3	INJ2	INJ1		SO2SHTC	PO2SHTC	ESOL E-EGR		VTSOL	LG1	PG1	IGP1
12	13	14	15	16	17	18	19	20		22	23	24
IACV	IACVN	IACVP	PCS	FLR	ACC	MIL	ALTC	ICM		LG2	PG2	IGP2
		25		27		28	29	30				
		VREF		FANC		2WBS	VSV	SLU				

ECM/PCM CONNECTOR A (32P)

Wire side of female terminals

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 (III): 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 (III): battery voltage With fully warmed up engine running: duty controlled
7	RED*3	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
	PNK*10	E-EGR	Drives EGR valve.	With EGR operating during driving with fully warmed up engine: duty controlled. With EGR not operating: 0 V
8*12	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 (III): battery voltage With ignition switch OFF: 0 V
12*5	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IACV.	With engine running: duty controlled
13*4	ORN	IACV N (IDLE AIR CONTROL VALVE NEGATIVE SIDE)	Drives the IAC valve (negative side).	
14*4	BLK/BLU	IACV P (IDLE AIR CONTROL VALVE POSITIVE SIDE)	Drives IAC valve (positive side).	
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 (III): battery voltage With ignition switch OFF: 0 V
25*6	WHT/RED	VREF (REFERENCE VOLTAGE)	Provides reference voltage to TCM.	With ignition switch ON (III): about 5 V 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*8, *15	BLU	2WBS (EVAP BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve.	With ignition switch ON (III): battery voltage
29*8, *15	LT GRN/WHT	VSV (EVAP CONTROL CANISTER VENT SHUT VALVE)	Drives EVAP control canister vent shut valve.	With ignition switch ON (III): battery voltage
30*3	WHT/RED	SLU (INTERLOCK CONTROL UNIT)	Detects interlock control unit signal.	With ignition switch ON (II) and brake pedal depressed: battery voltage

*1: USA model

*2: A/T (D16Y7, D16Y8 engine)

*3: CVT (D16Y5 engine)

*4: A/T and D16Y7 engine

*5: Except A/T and D16Y7 engine

*6: A/T (D16Y8 engine)

*7: CVT (D16Y5 engine) and D16Y8 engine

*8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model),

'98 D16Y5 engine, '98 D16Y8 engine, '99 - 00 D16Y5 (M/T) engine

*9: D16Y5 engine

*10: M/T (D16Y5 engine)

*11: Except M/T (D16Y5 engine)

*12: D16Y5, D16Y8 engine

*13: D16Y8 engine

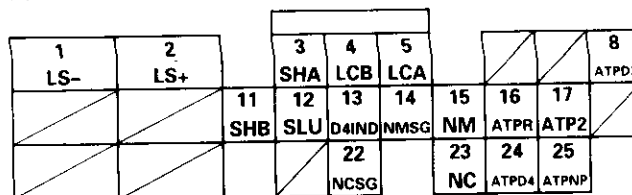
*14: D16Y7 engine

*15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model),

'98 D16Y7 engine



PCM CONNECTOR B (25P)



Wire side of female terminals

PCM CONNECTOR B (25P)*2

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	WHT	LS- (LINEAR SOLENOID VALVE - SIDE)	Ground for linear solenoid valve.	With ignition switch ON (II): pulses
2	RED	LS+ (LINEAR SOLENOID VALVE + SIDE)	Drives linear solenoid valve.	With ignition switch ON (II): pulses
3	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
4	GRN/BLK	LC B (LOCK-UP CONTROL SOLENOID VALVE B)	Drives lock-up control solenoid valve B.	With lock-up ON: battery voltage With lock-up OFF: 0 V
5	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
8	PNK	ATPD3 (A/T GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D₃ position: 0 V In any other position: battery voltage
11	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	With engine running in 1st, 2nd: battery voltage With engine running in 3rd, 4th: about 0 V
12	WHT/RED	SLU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (II) and brake pedal depressed: 0 V
13	GRN/BLK	D4 IND (D4 INDICATOR LIGHT)	Drives D4 indicator light.	With D₄ indicator light turned ON: battery voltage With D₄ indicator light turned OFF: 0 V
14	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
15	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signal.	With engine running: pulses
16	WHT	ATPR (A/T GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In R position: 0 V In any other position: battery voltage
17	BLU	ATP2 (A/T GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2 position: 0 V In any other position: battery voltage
22	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	
23	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signal.	With ignition switch ON (II), and front wheels rotating: pulses
24	YEL	ATPD4 (A/T GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D₄ position: 0 V In any other position: 5 V
25	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

*1: USA model

*2: A/T (D16Y7, D16Y8 engine)

*3: CVT (D16Y5 engine)

*4: A/T and D16Y7 engine

*5: Except A/T and D16Y7 engine

*6: A/T (D16Y8 engine)

*7: CVT (D16Y5 engine) and D16Y8 engine

*8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 - 00 D16Y5 (M/T) engine

*9: D16Y5 engine

*10: M/T (D16Y5 engine)

*11: Except M/T (D16Y5 engine)

*12: D16Y5, D16Y8 engine

*13: D16Y8 engine

*14: D16Y7 engine

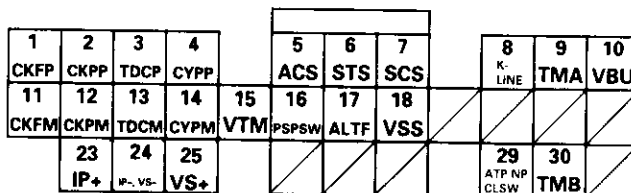
*15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98D16Y7 engine

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Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement ('96 – 98 Models '99 – 00 D16Y5 engine with M/T) (cont'd)

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)

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: about 5 V or battery voltage
8	LT BLU	K-LINE (DLC)	Sends and receives scan tool signal.	With ignition switch ON (II): about 5 V
9*3	GRY	TMA	Data communication with TCM: ECM control data output	With ignition switch ON (II): pulses
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 (CYP SENSOR M SIDE)	Ground for CYP sensor signal.	
15*12	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*10	BLK	IP+ (HO2S PUMP CELL +)	Controls HO2S pump cell.	With ignition switch ON (II): about 0.5 – 5.3 V
24*10	RED	IP-, VS- (HO2S COMMON)	Reference voltage supply.	With fully warmed up engine at idle: about 2.6 – 2.8 V
25*10	WHT	VS+ (VS CELL VOLTAGE)	Detects VS cell voltage.	With ignition switch ON (II): about 7 V
29	LT GRN*3	ATP N/P (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
	RED*10	CLSW (CLUTCH SWITCH)	Detects clutch switch signal.	With clutch pedal released: about 5 V With clutch pedal depressed: 0 V
30	PNK*3	TMB	Data communication with TCM: ECM control data input	With ignition switch ON (II): pulses

*1: USA model

*2: A/T (D16Y7, D16Y8 engine)

*3: CVT (D16Y5 engine)

*4: A/T and D16Y7 engine

*5: Except A/T and D16Y7 engine

*6: A/T (D16Y8 engine)

*7: CVT (D16Y5 engine) and D16Y8 engine

*8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 – 00 D16Y5 (M/T) engine

*9: D16Y5 engine

*10: M/T (D16Y5 engine)

*11: Except M/T (D16Y5 engine)

*12: D16Y5, D16Y8 engine

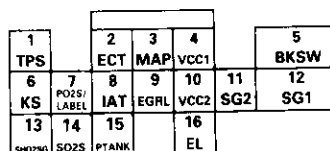
*13: D16Y8 engine

*14: D16Y7 engine

*15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98D16Y7 engine



ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)

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
6*7	RED/BLU	KS (KNOCK SENSOR)	Detects KS signal.	With engine knocking: pulses
7	WHT*11	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
	WHT*10	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)
9*3	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
13	GRN/BLK*12 RED/YEL*14	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*8, *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

*2: A/T (D16Y7, D16Y8 engine)

*3: CVT (D16Y5 engine)

*4: A/T and D16Y7 engine

*5: Except A/T and D16Y7 engine

*6: A/T (D16Y8 engine)

*7: CVT (D16Y5 engine) and D16Y8 engine

*8: '96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine, '98 D16Y8 engine, '99 – 00 D16Y5 (M/T) engine

*9: D16Y5 engine

*10: M/T (D16Y5 engine)

*11: Except M/T (D16Y5 engine)

*12: D16Y5, D16Y8 engine

*13: D16Y8 engine

*14: D16Y7 engine

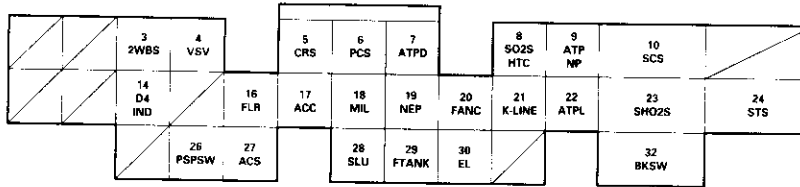
*15: '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98D16Y7 engine:

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Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement ('99 – 00 Models except D16Y5 engine with M/T)

ECM/PCM CONNECTOR A (32P)



ECM/PCM CONNECTOR A (32P)

Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

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 (III): 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*3	YEL	ATPD (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In position: 0 V In other than position: Approx. 5 V
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (III): battery voltage With fully warmed up engine running: duty controlled
9*3	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*3	BLU	ATP L (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In position: 0 V In other than 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,*3	WHT/RED	SLU (INTERLOCK CONTROL UNIT)	Drives interlock control unit.	With ignition switch ON (III) 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

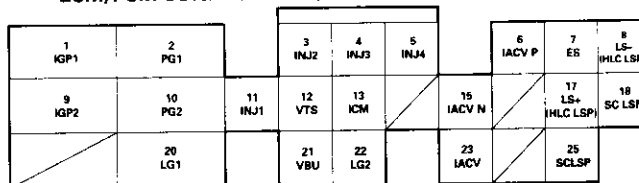
*1: A/T (D16Y7, D16Y8 engine)

*2: M/T

*3: CVT (D16Y5 engine)



ECM/PCM CONNECTOR B (25P)



Wire side of female terminals

PCM CONNECTOR B (25P)

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/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*3	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*3	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*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
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*3	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*3	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*3	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)

*4: D16Y5, D16Y8, B16A2 engine

*2: M/T

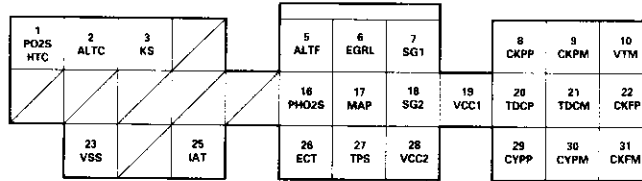
*3: CVT (D16Y5 engine)

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Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

ECM/PCM CONNECTOR C (31P)



ECM/PCM CONNECTOR C (31P)

Wire side of female terminals

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: 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*3	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 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: 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: A/T (D16Y7, D16Y8 engine)

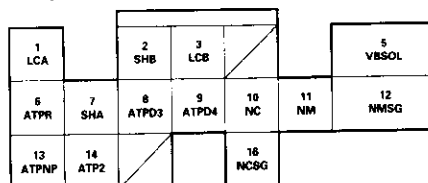
*2: M/T

*3: CVT (D16Y5 engine)

*4: D16Y5, D16Y8, B16A2 engine



ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P) (D16Y7, D16Y8 engine)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1*	YEL	LCA (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*	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	In [2] position, in 1st and 2nd gear in [D ₄], [D ₃] position: Battery voltage In [1] position, in 3rd gear in [D ₄], [D ₃] in 4th gear in [D ₄] position: 0 V
3*	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*	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*	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	In [1], [2] position, in 2nd and 3rd gear in [D ₄], [D ₃] position: Battery voltage In 1st gear in [D ₄], [D ₃] position, in 4th gear in [D ₄] position: 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: Approx. 10 V
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.	Depending on vehicle speed: Pulsing signal When vehicle is stopped: 0 V
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*	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*	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*	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	

*1: A/T (D16Y7, D16Y8 engine)

*2: M/T

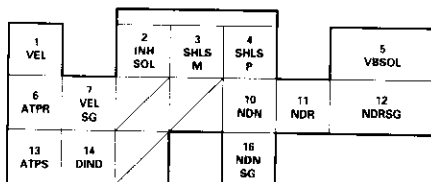
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Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

ECM/PCM Connector D (16P)

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P) (D16Y5 engine: CVT)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1*3	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*3	GRN/BLK	INH SOL (INHIBITOR SOLENOID CONTROL)	Inhibitor solenoid control.	With inhibitor solenoid ON: battery voltage With inhibitor solenoid OFF: 0 V
3*3	GRN/YEL	SHLSM (SHIFT CONTROL LINEAR SOLENOID NEGATIVE SIDE)	Ground for shift control linear solenoid.	
4*3	BLU/WHT	SHLSP (SHIFT CONTROL LINEAR SOLENOID POSITIVE SIDE)	Drives shift control linear solenoid power.	With ignition switch ON (II): pulses
5*3	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*3	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*3	BLK/WHT	VELSG (SECONDARY GEAR SHAFT SPEED SENSOR GROUND)	Ground for secondary gear shaft speed sensor.	
10*3	WHT	NDN (DRIVEN PULLEY SPEED SENSOR)	Detects driven pulley speed sensor signal.	In other than Park or neutral: pulses
11*3	RED/BLU	NDR (DRIVE PULLEY SPEED SENSOR)	Detects drive pulley speed sensor signal.	In other than Park or neutral: pulses
12*3	GRN	NDRSG (DRIVE PULLEY SPEED SENSOR GROUND)	Ground for drive pulley speed sensor.	
13*3	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*3	GRN/BLK	DIND (D INDICATOR LIGHT)	Drives D indicator.	With D indicator turned ON: 5 V With D indicator turned OFF: 0 V
16*3	RED/WHT	NDNSG (DRIVEN PULLEY SPEED SENSOR GROUND)	Ground for driven pulley speed sensor.	

*3: CVT (D16Y5 engine)



Diagnostic Trouble Code (DTC) Chart

DTC (MIL indication*)	Detection Item	Probable Cause	Page
P0106* ¹⁵ (5)	Manifold Absolute Pressure Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Vacuum connection • MAP sensor 	11-115
P0107 (3)	Manifold Absolute Pressure Circuit Low Input	<ul style="list-style-type: none"> • Open or short in MAP sensor circuit • MAP sensor • ECM/PCM • TCM*¹ 	11-117
P0108 (3)	Manifold Absolute Pressure Circuit High Input	<ul style="list-style-type: none"> • Open in MAP sensor circuit • MAP sensor • ECM/PCM 	11-121
P0111* ¹⁴ , * ¹⁵ (10)	Intake Air Temperature Circuit Range/Performance Problem	<ul style="list-style-type: none"> • IAT sensor 	11-124
P0112 (10)	Intake Air Temperature Circuit Low Input	<ul style="list-style-type: none"> • Short in IAT sensor circuit • IAT sensor • ECM/PCM 	11-125
P0113 (10)	Intake Air Temperature Circuit High Input	<ul style="list-style-type: none"> • Open in IAT sensor circuit • IAT sensor • ECM/PCM 	11-126
P0116 (86)	Engine Coolant Temperature Circuit Range/Performance Problem	<ul style="list-style-type: none"> • ECT sensor • Cooling system 	11-128
P0117 (6)	Engine Coolant Temperature Circuit Low Input	<ul style="list-style-type: none"> • Short in ECT sensor circuit • ECT sensor • ECM/PCM 	11-129
P0118 (6)	Engine Coolant Temperature Circuit High Input	<ul style="list-style-type: none"> • Open in ECT sensor circuit • ECT sensor • ECM/PCM 	11-130
P0122 (7)	Throttle Position Circuit Low Input	<ul style="list-style-type: none"> • Open or short in TP sensor circuit • TP sensor • ECM/PCM • TCM*¹ 	11-132
P0123 (7)	Throttle Position Circuit High Input	<ul style="list-style-type: none"> • Open in TP sensor circuit • TP sensor • ECM/PCM 	11-136
P0131* ² (1)	Primary Heated Oxygen Sensor Circuit Low Voltage (Sensor 1)	<ul style="list-style-type: none"> • Short in Primary HO2S (Sensor1) circuit • Primary HO2S (Sensor 1) • Fuel supply system • ECM/PCM 	11-139
P0132* ² (1)	Primary Heated Oxygen Sensor Circuit High Voltage (Sensor 1)	<ul style="list-style-type: none"> • Open in Primary HO2S (Sensor 1) circuit • Primary HO2S (Sensor 1) • ECM/PCM 	11-143
P0133* ² (61)	Primary Heated Oxygen Sensor Slow Response (Sensor 1)	<ul style="list-style-type: none"> • Primary HO2S (Sensor1) • Exhaust system 	11-145
P0135* ² (41)	Primary Heated Oxygen Sensor Heater Circuit Malfunction (Sensor 1)	<ul style="list-style-type: none"> • Open or short in Primary HO2S (Sensor 1) heater circuit • ECM 	11-157

*: The DTCs in parenthesis will be indicated by the blinking of the Malfunction Indicator Lamp (MIL) when the SCS service connector is connected

*1: D16Y5 engine (CVT)

*2: Except D16Y5 engine (M/T)

*14: '97 model

*15: '96 model

*16: '98 model

(cont'd)

Troubleshooting

Diagnostic Trouble Code (DTC) Chart (cont'd)

DTC (MIL indication)	Detection Item	Probable Cause	Page
P0137 (63)	Secondary Heated Oxygen Sensor Circuit Low Voltage (Sensor 2)	<ul style="list-style-type: none"> • Short in Secondary HO2S (Sensor 2) circuit • Secondary HO2S (Sensor 2) • ECM/PCM 	11-153
P0138 (63)	Secondary Heated Oxygen Sensor Circuit High Voltage (Sensor 2)	<ul style="list-style-type: none"> • Open in Secondary HO2S (Sensor 2) circuit • Secondary HO2S (Sensor 2) • ECM/PCM 	11-154
P0139 (63)	Secondary Heated Oxygen Sensor Slow Response (Sensor 2)	<ul style="list-style-type: none"> • Secondary HO2S (Sensor 2) 	11-156
P0141 (65)	Secondary Heated Oxygen Sensor Heater Circuit Malfunction (Sensor 2)	<ul style="list-style-type: none"> • Open or short in Secondary HO2S (Sensor 2) heater circuit • ECM/PCM 	11-157
P0171 (45)	System Too Lean	<ul style="list-style-type: none"> • Fuel supply system • Primary HO2S (Sensor 1) • MAP sensor • Contaminated fuel • Valve clearance • Exhaust leakage 	11-164
P0172 (45)	System Too Rich	<ul style="list-style-type: none"> • Fuel supply system • Primary HO2S (sensor 1) • MAP sensor • Contaminated fuel • Valve clearance 	11-164
P0300*16, *17 and some of P0301 (71) P0302 (72) P0303 (73) P0304 (74)	Random Misfire	<ul style="list-style-type: none"> • Ignition system • Fuel supply system • MAP sensor • EGR system • IAC valve • Contaminated fuel • Lack of fuel 	11-166
P0301 (71) P0302 (72) P0303 (73) P0304 (74)	<ul style="list-style-type: none"> — Cylinder 1 — Cylinder 2 — Cylinder 3 — Cylinder 4 Misfire Detected	<ul style="list-style-type: none"> • Fuel Injector • Fuel Injector circuit • Ignition system • Low compression • Valve clearance 	11-167
P0325*3 (23)	Knock Sensor (KS) Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in Knock Sensor (KS) circuit • Knock Sensor (KS) • ECM/PCM 	11-170
P0335 (4)	Crankshaft Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Crankshaft Position Sensor • Crankshaft Position Sensor circuit • ECM/PCM 	11-172
P0336 (4)	Crankshaft Position Sensor Range/Performance	<ul style="list-style-type: none"> • Crankshaft Position Sensor • Timing belt skipped teeth 	11-172
P0401*4 (80)	Exhaust Gas Recirculation Insufficient Flow Detected	<ul style="list-style-type: none"> • EGR valve • EGR line 	11-255
P0420 (67)	Catalyst System Efficiency Below Threshold	<ul style="list-style-type: none"> • Three Way Catalytic converter • Secondary HO2S 	11-253

*3: D16Y5 engine (CVT), D16Y8 engine and B16A2 engine

*4: D16Y5 engine

*16: '98 model

*17: '99 - 00 models



DTC (MIL indication)	Detection Item	Probable Cause	Page
P0441*5 (92)	Evaporative Emission Control System Insufficient Purge Flow	<ul style="list-style-type: none"> • EVAP Purge Control Solenoid Valve • Open or short in EVAP Purge Control Solenoid Valve circuit • EVAP Control Canister • Vacuum lines • ECM/PCM 	11-271
P0451*17 (91)	Fuel Tank Pressure Sensor Circuit Range/Performance	<ul style="list-style-type: none"> • Fuel Tank Pressure Sensor • ECM/PCM 	11-274
P0452*6 (91)	Fuel Tank Pressure Sensor Circuit Low Input	<ul style="list-style-type: none"> • Short in Fuel Tank Pressure Sensor circuit • Fuel Tank Pressure Sensor • ECM/PCM 	11-275
P0453*6 (91)	Fuel Tank Pressure Sensor Circuit High Input	<ul style="list-style-type: none"> • Open in Fuel Tank Pressure Sensor circuit • Fuel Tank Pressure Sensor • ECM/PCM 	11-279
P0500*12 (17)	Vehicle Speed Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Vehicle Speed Sensor • Vehicle Speed Sensor circuit • ECM 	11-176
P0501*13 (17)	Vehicle Speed Sensor Circuit Range/Performance	<ul style="list-style-type: none"> • Vehicle Speed Sensor • Vehicle Speed Sensor circuit • PCM 	11-176
P0505 (14)	Idle Control System Malfunction	<ul style="list-style-type: none"> • IAC valve • Throttle Body 	11-192
P0700*13 and some of P0715 P0720 P0730 P0740 P0753 P0758 (70)*	Automatic Transaxle	—	Section 14
P0700*1 and P0725 (70)*	Automatic Transaxle	—	Section 14
P1106*14, *16, *17 (13)	Barometric Pressure Circuit Range/Performance Problem	• ECM/PCM (Baro sensor)	11-178
P1107 (13)	Barometric Pressure Circuit Low Input	• ECM/PCM (Baro sensor)	11-178
P1108 (13)	Barometric Pressure Circuit High Input	• ECM/PCM (Baro sensor)	11-178
P1121*14, *16, *17 (7)	Throttle Position Lower Than Expected	• TP sensor	11-138
P1122*14, *16, *17 (7)	Throttle Position Higher Than Expected	• TP sensor	11-138
P1128*14, *16, *17 (5)	Manifold Absolute Pressure Lower Than Expected	• MAP sensor	11-123
P1129*14, *16, *17 (5)	Manifold Absolute Pressure Higher Than Expected	• MAP sensor	11-123

*: The  indicator light and the Malfunction Indicator Lamp (MIL) may come on simultaneously.

*1: D16Y5 engine (CVT)

*5: '96 D16Y5 engine, D16Y7 engine, D16Y8 engine (sedan), '97 D16Y5 engine, D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (DX) models, hatchback: all models), D16Y8 engine (sedan: KA, KC models)

*6: '96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models, '99-all models, '00-all models

*12: Except A/T (D16Y7, D16Y8 engine)

*13: A/T (D16Y7, D16Y8 engine)

*14: '97 model

*16: '98 model

*17: '99 – 00 models

(cont'd)

Troubleshooting

Diagnostic Trouble Code (DTC) Chart (cont'd)

DTC (MIL indication)	Detection Item	Probable Cause	Page
P1162*7 (48)	Primary Heated Oxygen Sensor (Sensor 1) Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in Primary HO2S (Sensor 1) • Primary HO2S (Sensor 1) 	11-146
P1163*7 (61)	Primary Heated Oxygen Sensor (Sensor 1) Circuit Slow Response	<ul style="list-style-type: none"> • Primary HO2S (Sensor 1) 	11-145
P1164*7 (61)	Primary Heated Oxygen Sensor (Sensor 1) Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Primary HO2S (Sensor 1) 	11-150
P1165*7 (61)	Primary Heated Oxygen Sensor (Sensor 1) Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Primary HO2S (Sensor 1) 	11-150
P1166*7 (41)	Primary Heated Oxygen Sensor (Sensor 1) Heater System Electrical Problem	<ul style="list-style-type: none"> • Open or short in Primary HO2S (Sensor 1) heater circuit • Primary HO2S (Sensor 1) • ECM/PCM 	11-161
P1167*7 (41)	Primary Heated Oxygen Sensor (Sensor 1) Heater System Malfunction	<ul style="list-style-type: none"> • Open in Primary HO2S (Sensor 1) VS+ circuit • Primary HO2S (Sensor 1) Heater • Primary HO2S (Sensor 1) 	11-163
P1168*7 (48)	Primary Heated Oxygen Sensor (Sensor 1) LABEL Low Input	<ul style="list-style-type: none"> • Short in Primary HO2S (Sensor 1) LABEL circuit 	11-151
P1169*7 (48)	Primary Heated Oxygen Sensor (Sensor 1) LABEL High Input	<ul style="list-style-type: none"> • Open in Primary HO2S (Sensor 1) LABEL circuit • Short in ground circuit 	11-152
P1259*8 (22)	VTEC System Malfunction	<ul style="list-style-type: none"> • VTEC Solenoid Valve • Open or short in VTEC Solenoid Valve circuit • VTEC Pressure Switch • Open or short in VTEC Pressure Switch circuit • ECM/PCM 	Section 6
P1297*9 (20)	Electrical Load Detector Circuit Low Input	<ul style="list-style-type: none"> • Electrical Load Detector • Electrical Load Detector circuit • ECM/PCM 	11-179
P1298*9 (20)	Electrical Load Detector Circuit High Input	<ul style="list-style-type: none"> • Electrical Load Detector • Electrical Load Detector circuit • ECM/PCM 	11-181
P1300 *14, *15 and some of P0301 (71) P0302 (72) P0303 (73) P0304 (74)	Random Misfire	<ul style="list-style-type: none"> • Ignition system • Fuel supply system • MAP sensor • EGR system • IAC valve • Contaminated fuel • Lack of fuel 	11-166

*7: D16Y5 engine (M/T)

*8: D16Y5, D16Y8 engine

*9: USA model

*14: '97 model

*15: '96 model



DTC (MIL indication)	Detection Item	Probable Cause	Page
P1336 (54)	Crankshaft Speed Fluctuation Sensor Intermittent Interruption	• CKF sensor	11-183
P1337 (54)	Crankshaft Speed Fluctuation Sensor No Signal	• CKF sensor • CKF sensor circuit • ECM/PCM	11-183
P1359 (8)	Crankshaft Position/Top Dead Center Sensor Disconnected	• CKP/TDC sensor circuit	11-187
P1361 (8)	Top Dead Center Sensor Intermittent Interruption	• TDC sensor	11-172
P1362 (8)	Top Dead Center Sensor No Signal	• TDC sensor • TDC sensor circuit • ECM/PCM	11-172
P1381 (9)	Cylinder Position Sensor Intermittent Interruption	• CYP sensor	11-172
P1382 (9)	Cylinder Position Sensor No Signal	• CYP sensor • CYP sensor circuit • ECM/PCM	11-172
P1456*6 (90)	Evaporative Emission Control System Leak Detected (Fuel Tank Area)	• Fuel fill cap • Vacuum connection • Fuel tank • Fuel tank pressure sensor • EVAP bypass solenoid valve • EVAP two way valve • EVAP control canister vent shut valve • EVAP control canister • EVAP purge control solenoid valve	11-283
P1457*6 (90)	Evaporative Emission Control System Leak Detected (EVAP Control Canister Area)	• Vacuum connection • EVAP control canister • Fuel tank pressure sensor • EVAP bypass solenoid valve • EVAP two way valve • EVAP control canister vent shut valve • Fuel Tank • EVAP purge control solenoid valve	11-283


*6: '96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models, '99-all models, '00-all models.

(cont'd)

Troubleshooting

Diagnostic Trouble Code (DTC) Chart (cont'd)

DTC (MIL indication)	Detection Item	Probable Cause	Page
P1491*4 (12)	EGR Valve Lift Insufficient Detected	<ul style="list-style-type: none"> • EGR valve (with lift sensor) • EGR valve lift sensor circuit • EGR control solenoid valve (A/T) • EGR control solenoid valve circuit • EGR line • EGR valve circuit (M/T) • ECM 	11-256
P1498*4 (12)	EGR Valve Lift Sensor High Voltage	<ul style="list-style-type: none"> • EGR valve (with lift sensor) • EGR valve lift sensor circuit • ECM 	11-265
P1508*10 (14)	Idle Air Control Valve Circuit Failure	<ul style="list-style-type: none"> • IAC valve • IAC valve circuit • ECM 	11-194
P1509*11 (14)	Idle Air Control Valve Circuit Failure	<ul style="list-style-type: none"> • Open or short in IAC valve circuit • IAC valve • ECM/PCM 	11-198
P1607 (-)	Engine Control Module/Powertrain Control Module Internal Circuit Failure A	<ul style="list-style-type: none"> • ECM/PCM 	11-188
P1655*1 (30)	TMA/TMB Signal Line Failure	<ul style="list-style-type: none"> • Open or short in TMA/TMB circuit 	11-189
P1705 P1706 P1753 P1758 P1768 P1785 P1790 P1791 P1793 P1870 P1873 P1879 P1885 P1886 P1888 P1890 P1891	Automatic Transaxle	—	Section 14

*: The  indicator light and the Malfunction Indicator Lamp (MIL) may come on simultaneously.

*4: D16Y5 engine (M/T)

*10: Except A/T and D16Y7 engine

*11: A/T and D16Y7 engine

*18: D16Y5 engine (CVT) (except '99 – 00 models)



How to Read Flowcharts

A flowchart is designed to be used from start to final repair. It's like a map showing you the shortest distance. But beware: If you go off the "map" anywhere but a "stop" symbol, you can easily get lost.

START

(bold type)

Describes the conditions or situation to start a troubleshooting flowchart.

ACTION

Asks you to do something; perform a test, set up a condition etc.

DECISION

Asks you about the result of an action, then sends you in the appropriate troubleshooting direction.

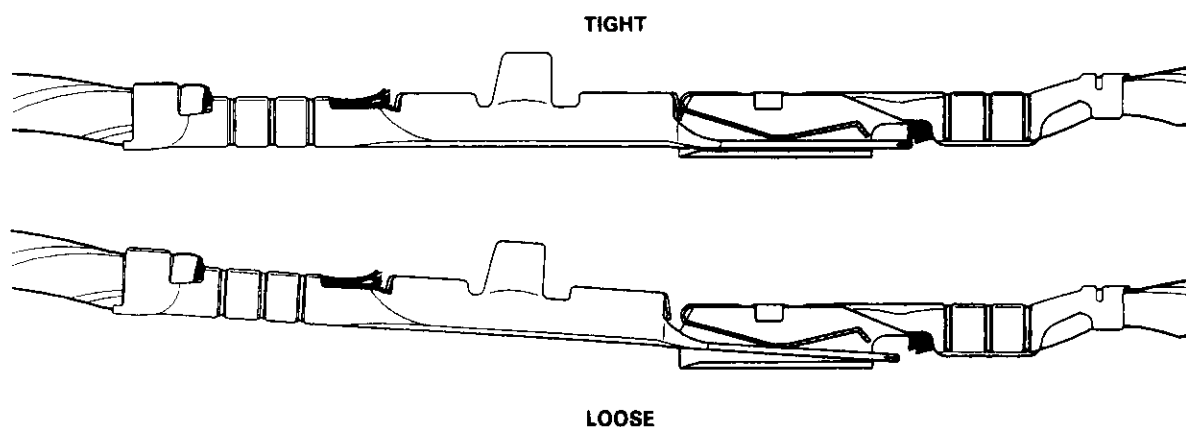
STOP

(bold type)

The end of a series of actions and decisions, describes a final repair action and sometimes directs you to an earlier part of the flowchart to confirm your repair.

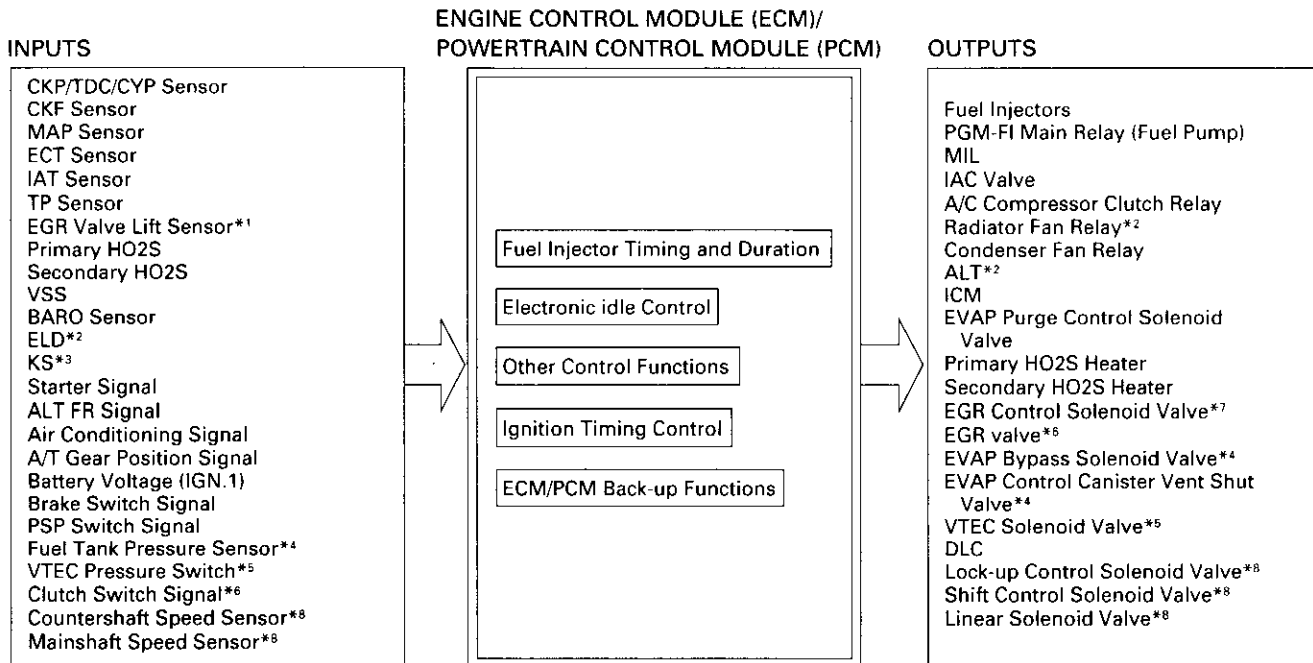
NOTE:

- The term "Intermittent Failure" is used in these charts. It simply means a system may have had a failure, but it checks out OK at this time. If the Malfunction Indicator Lamp (MIL) on the dash does not come on, check for poor connections or loose wires at all connectors related to the circuit that you are troubleshooting (see illustration below).
- Most of the troubleshooting flowcharts have you reset the Engine Control Module (ECM)/Powertrain Control Module (PCM) and try to duplicate the Diagnostic Trouble Code (DTC). If the problem is intermittent and you can't duplicate the code, do not continue through the flowchart. To do so will only result in confusion and, possibly, a needlessly replaced ECM/PCM.
- "Open" and "Short" are common electrical terms. An open is a break in a wire or at a connection. A short is an accidental connection of a wire to ground or to another wire. In simple electronics, this usually means something won't work at all. In complex electronics (like ECM's/PCM's), this can sometimes mean something works, but not the way it's supposed to.



PGM-FI System

System Description



*1: D16Y5 engine

*2: USA model

*3: CVT (D16Y5 engine), D16Y8 engine and B16A2 engine

*4: '96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models, '99-all models, '00-all models

*5: D16Y5, D16Y8, B16A2 engine

*6: M/T (D16Y5 engine)

*7: CVT (D16Y5 engine)

*8: A/T (D16Y7, D16Y8 engine)

*9: '96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (LX) models, hatchback: all models), '97 D16Y8 engine (sedan: KA, KC models)

PGM-FI System

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

Fuel injector Timing and Duration

The ECM/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 ECM/PCM controls current to the IAC Valve to maintain the correct idle speed.

Ignition Timing Control

- The ECM/PCM contains memories for basic ignition timing at various engine speeds and manifold air flow rates. Ignition timing is also adjusted for engine coolant temperature.
- A knock control system was adopted which sets the ideal ignition timing for the octane rating of the gasoline used.*3

Other Control Functions

1. Starting Control
When the engine is started, the ECM/PCM provides a rich mixture by increasing fuel injector duration.
2. Fuel Pump Control
 - When the ignition switch is initially turned on, the ECM/PCM supplies ground to the PGM-FI main relay that supplies current to the fuel pump for two seconds to pressurize the fuel system.
 - When the engine is running, the ECM/PCM supplies ground to the PGM-FI main relay that supplies current to the fuel pump.
 - When the engine is not running and the ignition is on, the ECM/PCM cuts ground to the PGM-FI main relay which cuts current to the fuel pump.



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 the following rpm:
 - D16Y5 engine (M/T): 850 rpm
 - D16Y5 engine (CVT), D16Y8 engine (USA M/T): 920 rpm
 - D16Y8 engine (USA A/T), D16Y7 engine (USA A/T): 910 rpm
 - D16Y8 engine (Canada M/T), D16Y7 engine (Canada): 990 rpm
 - D16Y8 engine (Canada M/T): 1,000 rpm
 - B16A2 engine: 970 rpm
 - Fuel cut-off action also takes place when engine speed exceeds 6,900 rpm (D16Y5, D16Y7 engine; D16Y8 engine: 7,000 rpm, B16A2 engine: 8,100 rpm), regardless of the position of the throttle valve, to protect the engine from over-revving. With '99 D16Y7 engine (A/T) and '99 D16Y8 engine (A/T), the PCM cuts the fuel at engine speeds over 5,000 rpm when the vehicle is not moving.
4. **A/C Compressor Clutch Relay**

When the ECM/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. **Evaporative Emission (EVAP) Purge Control Solenoid Valve***⁹

When the engine coolant temperature is above 154°F (68°C), the ECM/PCM controls the EVAP purge control solenoid valve which controls vacuum to the EVAP purge control canister.

Evaporative Emission (EVAP) Purge Control Solenoid Valve**⁴
When the engine coolant temperature above 154°F (68°C), intake air temperature above 32°F (0°C) and vehicle speed above 0 mile (0 km/h) or [A/C compressor clutch on and intake air temperature above 160°F (41°C)], the ECM/PCM controls the EVAP purge control solenoid valve which controls vacuum to the EVAP purge control canister.
6. **Exhaust Gas Recirculation (EGR) Control Solenoid Valve****⁷

When EGR is required for control of oxides of nitrogen (NOx) emissions, the ECM controls the EGR control solenoid valve which supplies regulated vacuum to the EGR valve.
7. **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.

ECM/PCM Fail-safe/Back-up Functions

1. **Fail-safe Function**

When an abnormality occurs in a signal from a sensor, the ECM/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 ECM/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 ECM/PCM supplies ground for the MIL and stores the DTC in erasable memory. When the ignition is initially turned on, the ECM/PCM supplies ground for the MIL for two seconds to check the MIL bulb condition.
4. **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, EGR system and EVAP control system self-diagnostic functions. When an abnormality occurs, the ECM/PCM stores it in its memory. When the same abnormality recurs after the ignition switch is turned OFF and ON (II) again, the ECM/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.
5. **Two (or Three) Driving Cycle Detection Method**

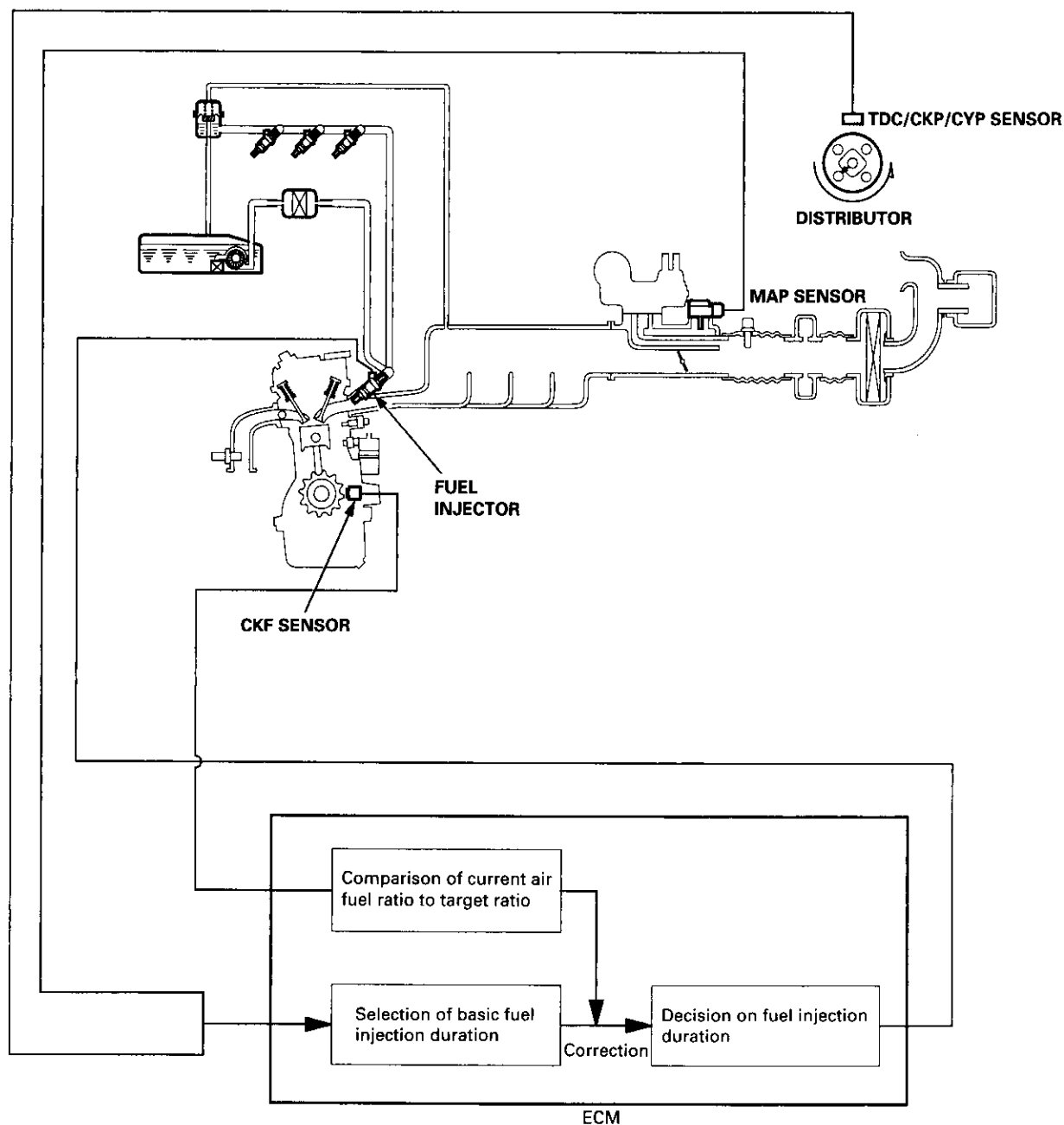
A "Driving Cycle" consists of starting the engine, beginning closed loop operation, and stopping the engine. If misfiring that increases emissions is detected during two consecutive driving cycles, or TWC deterioration is detected during three consecutive driving cycles, the ECM/PCM turns the MIL on. 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.

(cont'd)

PGM-FI System

System Description (cont'd)

Lean Burn Control (D16Y5 engine: CVT)



The lean burn control system is based on the characteristic increase in crankshaft angular acceleration which occurs in when the air-fuel ratio gets leaner.

The CKF sensor, which is mounted on the crankshaft, monitors engine speed. If crankshaft angular acceleration falls below a certain level (target air-fuel ratio level), the amount of injected fuel is reduced.

If crankshaft angular acceleration exceeds this level, the amount of fuel is increased.

This system improves fuel economy and driveability by controlling the amount of injected fuel in the lean burn range immediately before combustion starts to deteriorate.



Engine Control Module/Powertrain Control Module (ECM/PCM) '96 – '98 Models, '99 – '00 D16Y5 engine with M/T

The Malfunction Indicator Lamp (MIL) never comes on (even for two seconds) after ignition is turned on.

Turn the ignition switch ON (II).

Is the low oil pressure light on?

NO

- Repair short or open in the wire between No. 25 (METER) (7.5 A) fuse and gauge assembly.
- Replace No. 25 (METER) (7.5 A) fuse.

YES

Try to start the engine.

Does the engine start?

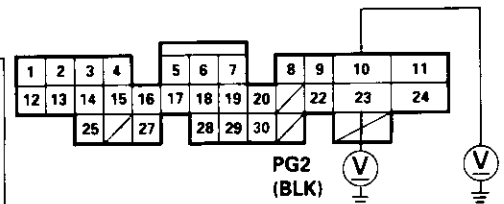
NO

Check for an open in the wires (PG lines):

1. Turn the ignition switch ON (II).
2. Measure voltage between body ground and ECM/PCM connector terminals A10 and A23 individually.

ECM/PCM CONNECTOR A (32P)

PG1 (BLK)



Wire side of female terminals

Is there less than 1.0 V?

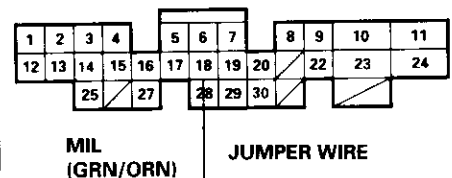
NO

Repair open in the wire(s) between ECM/PCM and G101 (located at the thermostat housing) that had more than 1.0 V.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTOR A (32P)



Wire side of female terminals

Is the MIL on?

NO

- Repair open in the wires between ECM/PCM (A18) and gauge assembly.
- Replace the MIL bulb.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

NOTE: If this symptom is intermittent, check for a loose fuse No. 25 (METER 7.5 A) in the under-dash fuse/relay box, a poor connection at ECM/PCM terminal A18, or an intermittent open in the GRN/ORN wire between the ECM/PCM (A18) and the gauge assembly.

(cont'd)

PGM-FI System

Engine Control Module/Powertrain Control Module (ECM/PCM) '96 – 98 Models, '99 – 00 D16Y5 engine with M/T) (cont'd)

The Malfunction Indicator Lamp (MIL) stays on or comes on after two seconds.

Check the Diagnostic Trouble Code (DTC):

1. Connect a scan tool or Honda PGM Tester.
2. Turn the ignition switch ON (II).
3. Read the DTC with the scan tool or Honda PGM Tester.

Are any DTC(s) indicated?

YES

Go to troubleshooting procedures (see page 11-81).

NO

Check the DTC by MIL indication:

1. Turn the ignition switch OFF.
2. Connect the SCS service connector to the service check connector.
3. Turn the ignition switch ON (II).

Does the MIL indicate any DTC?

YES

- Repair open or short in wire between the ECM/PCM (C8) and Data Link Connector.
- Go to troubleshooting procedure (see page 11-81).

NO

Try to start the engine.

Does the engine start?

NO



(To page 11-109)

YES

Check for a short in the wire (SCS line):

1. Disconnect the SCS service connector.
2. Stop the engine and turn the ignition switch ON (II).
3. Measure voltage between the ECM/PCM connector terminal C7 and body ground.

Is there approx. 5 V?

NO

Repair short to body ground in the wire between ECM/PCM (C7) and service check connector.

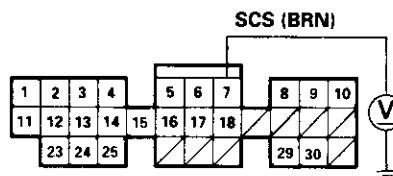
YES

(To page 11-109)

NOTE:

- When there is no Diagnostic Trouble Code (DTC) stored, the MIL will stay on if the SCS service connector is connected and the ignition switch is on.
- If this symptom is intermittent, check for:
 - A loose FI E/M (15 A) fuse in the under-hood fuse/relay box
 - A loose No. 13 FUEL PUMP fuse (15 A) in the under-dash fuse/relay box
 - An intermittent short in the wire between the ECM/PCM (C7) and the service check connector
 - An intermittent short in the wire between the ECM/PCM (A18) and the gauge assembly
 - An intermittent short in the wire between the ECM/PCM (D4) and the MAP sensor
 - An intermittent short in the wire between the ECM/PCM (D10), the TP sensor, the EGR valve lift sensor (D16Y5 engine) and/or the Fuel tank pressure sensor ('96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models)
 - PGM-FI main relay
- See the OBD II scan tool or Honda PGM Tester user's manuals for specific operating instructions.

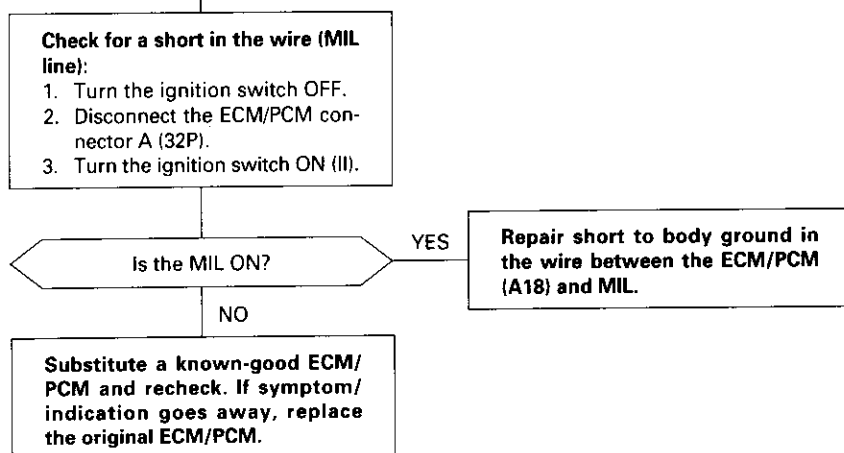
ECM/PCM CONNECTOR C (31P)



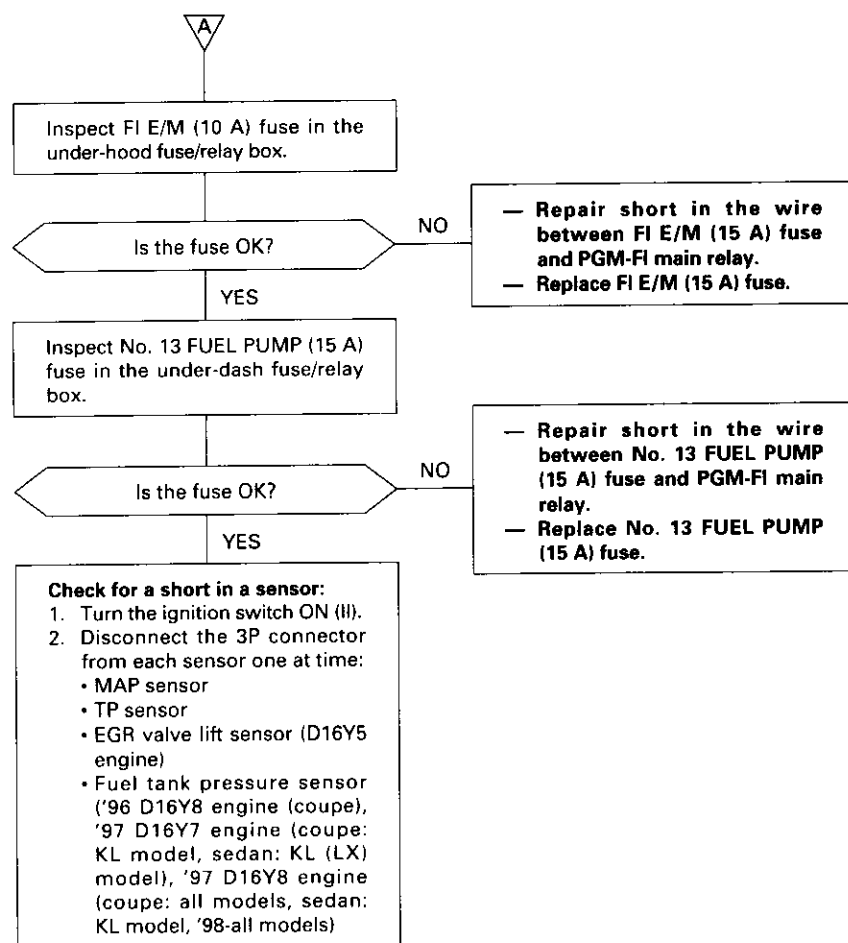
Wire side of female terminals



(From page 11-108)



(From page 11-108)



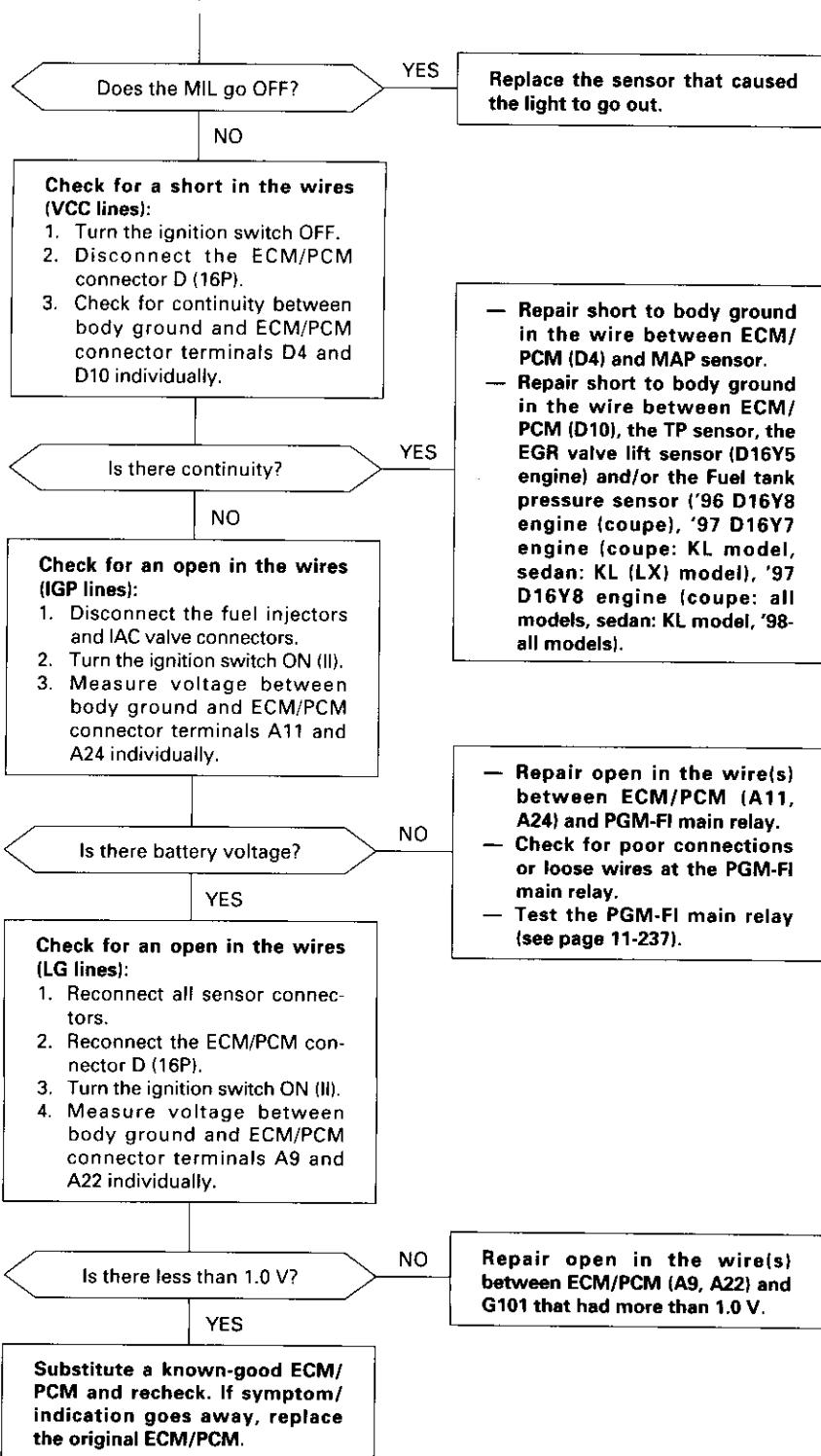
(To page 11-110)

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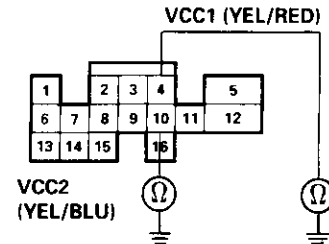
PGM-FI System

Engine Control Module/Powertrain Control Module (ECM/PCM) ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T) (cont'd)

(From page 11-109)

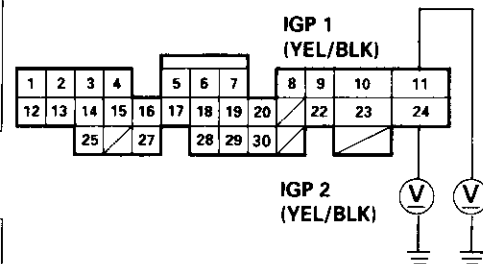


ECM/PCM CONNECTOR D (16P)

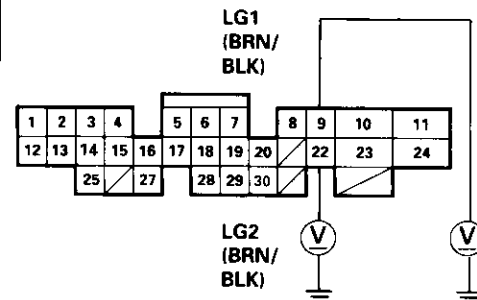


Wire side of female terminals

ECM/PCM CONNECTOR A (32P)



Wire side of female terminals





Engine Control Module/Powertrain Control Module (ECM/PCM) (‘99 – 00 Models except D16Y5 engine with M/T)

The Malfunction Indicator Lamp (MIL) never comes on (even for two seconds) after ignition is turned ON (II).

Turn the ignition switch ON (II).

Is the low oil pressure light on?

YES

Try to start the engine.

Does the engine start?

NO

1. Turn the ignition switch OFF.
2. Inspect FI E/M (15 A) fuse in the under-hood fuse/relay box.

Is the fuse OK?

YES

Inspect No. 13 FUEL PUMP (15 A) fuse in the under-dash fuse/relay box.

Is the fuse OK?

YES

(To page 11-112)

NOTE:

- When there is no Diagnostic Trouble Code (DTC) stored, the MIL will stay on if the SCS service connector is connected and the ignition switch is on.
- If this symptom is intermittent, check for:
 - A loose No. 25 (METER) (7.5 A) fuse in the under-dash fuse/relay box
 - A loose FI E/M (15 A) fuse in the under-hood fuse/relay box
 - A loose No. 13 FUEL PUMP fuse (15 A) in the under-dash fuse/relay box
 - An intermittent short in the wire between the ECM/PCM (A18) and the gauge assembly
 - An intermittent short in the wire between the ECM/PCM (C19) and the MAP sensor
 - An intermittent short in the wire between the ECM/PCM (C28), the TP sensor, the EGR valve lift sensor (D16Y5 engine) and/or the Fuel tank pressure sensor ('96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98-all models, '99-all models, '00-all models.
 - PGM-FI main relay
- See the OBD II scan tool or Honda PGM Tester user's manuals for specific operating instructions.

— Repair short or open in the wire between No. 25 (METER) (7.5 A) fuse and gauge assembly.
— Replace No. 25 (METER) (7.5 A) fuse.

Check for an open in the wire or bulb (MIL line):
1. Turn the ignition switch OFF.
2. Connect the ECM/PCM connector terminal A18 to body ground with a jumper wire.
3. Turn the ignition switch ON (II).

Is the MIL on?

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

— Repair short in the wire between FI E/M (15 A) fuse and PGM-FI main relay.
— Replace FI E/M (15 A) fuse.

— Repair short in the wire between No. 13 FUEL PUMP (15 A) fuse and PGM-FI main relay.
— Replace No. 13 FUEL PUMP (15 A) fuse.

ECM/PCM CONNECTOR A (32P)

	3	4	5	6	7	8	9	10	11
14	16	17	18	19	20	21	22	23	24
26	27	28	29	30				32	

MIL (GRN/ORN)

JUMPER WIRE

Wire side of female terminals

— Repair open in the wires between ECM/PCM (A18) and gauge assembly.
— Replace the MIL bulb.

(cont'd)

PGM-FI System

Engine Control Module/Powertrain Control Module (ECM/PCM) ('99 – 00 Model except D16Y5 (M/T) engine) (cont'd)

(From page 11-111)

Check for an open in the wires (IGP lines):
1. Disconnect the fuel injector and IAC valve connectors.
2. Turn the ignition switch ON (II).
3. Measure voltage between body ground and ECM/PCM connector terminals B1 and B9 individually.

Is there battery voltage?

YES

NO

- Repair open in the wire(s) between ECM/PCM (B1, B9) and PGM-FI main relay.
- Check for poor connections or loose wires at the PGM-FI main relay.
- Test the PGM-FI main relay (see page 11-237).

Check for an open in the wires (PG, LG lines):
1. Reconnect the fuel injector and IAC valve connectors.
2. Measure voltage between body ground and ECM/PCM connector terminals B2, B10, B20 and B22 individually.

Is there less than 1.0 V?

YES

NO

- Repair open in the wire(s) between ECM/PCM and G101 (located at the left side of the intake manifold) that had more than 1.0 V.**

Check for a short in the wires (VCC1, VCC2 lines):
Measure voltage between body ground and ECM/PCM connector terminals C19 and C28 individually.

Is there approx. 5 V?

YES

NO

- Check for a short in a sensor:**
While measuring voltage between body ground and ECM/PCM connector terminals C19 and C28 individually, disconnect the 3P connector of each sensor one at a time:
- MAP sensor
 - TP sensor
 - EGR valve
 - Fuel tank pressure sensor

Is there approx. 5 V?

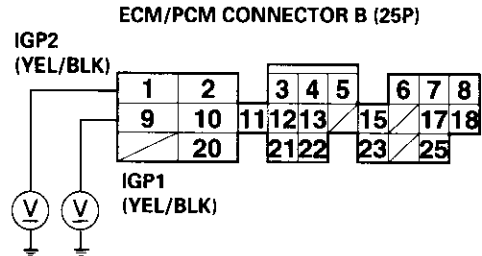
YES

NO

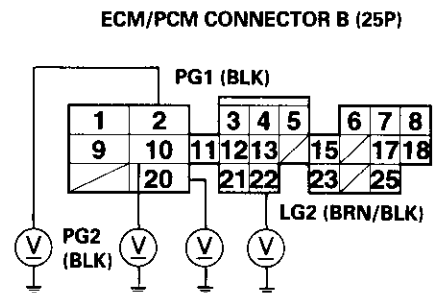
- Repair short in the wire between MAP sensor, TP sensor, EGR valve, Fuel tank pressure sensor and ECM/PCM (C19, C28).**

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

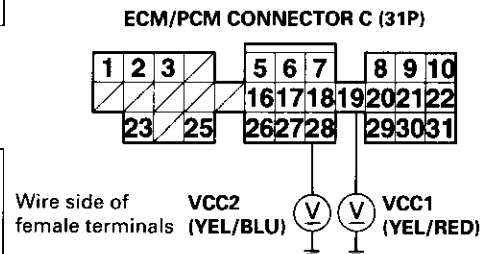
Replace the sensor that had approx. 5 V.



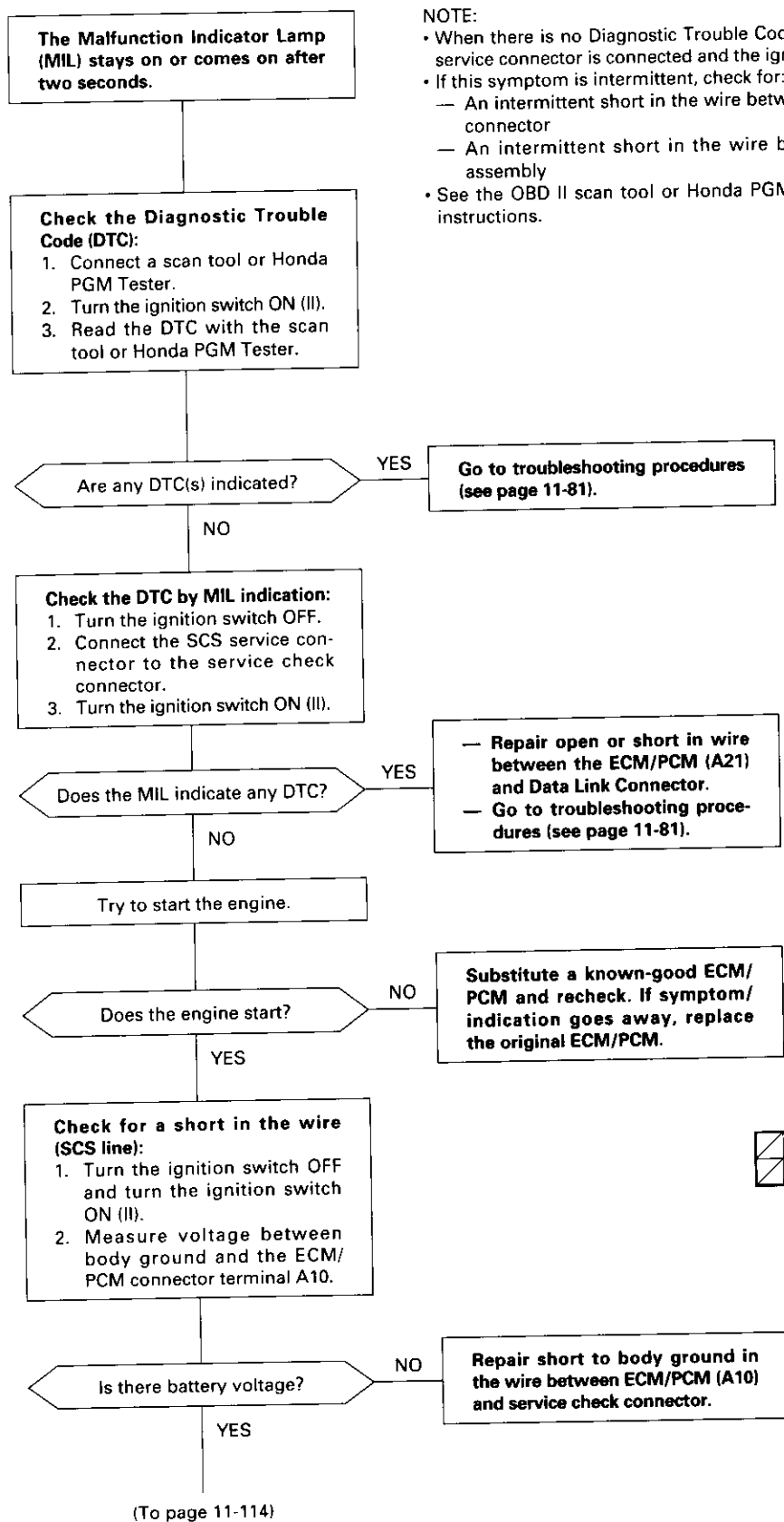
Wire side of female terminals



Wire side of female terminals



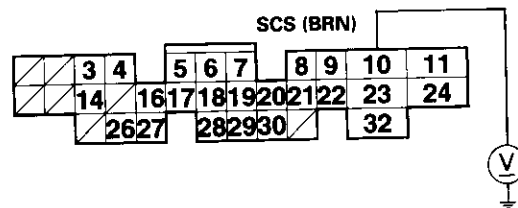
Wire side of female terminals



NOTE:

- When there is no Diagnostic Trouble Code (DTC) stored, the MIL will stay on if the SCS service connector is connected and the ignition switch is ON (II).
- If this symptom is intermittent, check for:
 - An intermittent short in the wire between the ECM/PCM (A10) and the service check connector
 - An intermittent short in the wire between the ECM/PCM (A18) and the gauge assembly
- See the OBD II scan tool or Honda PGM Tester user's manuals for specific operating instructions.

ECM/PCM CONNECTOR A (32P)

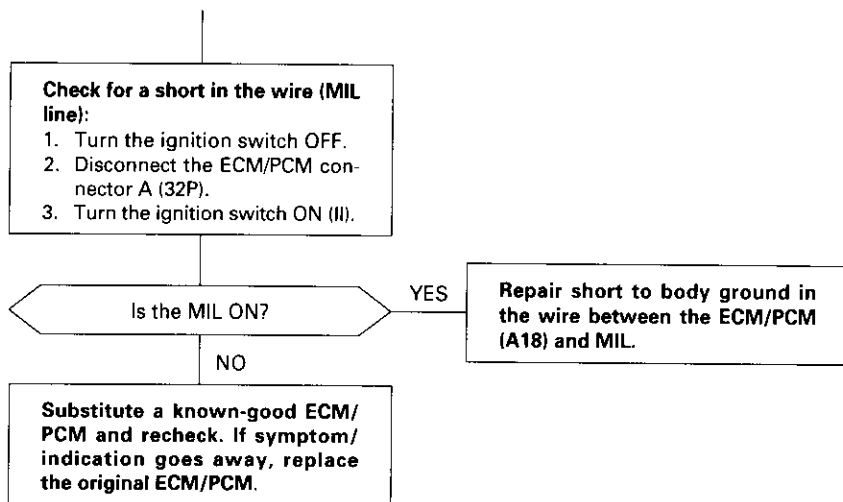


(cont'd)

PGM-FI System

Engine Control Module/Powertrain Control Module (ECM/PCM) '99 – 00 Models except D16Y5 engine with M/T) (cont'd)

(From page 11-113)



Manifold Absolute Pressure (MAP) Sensor ('96 Models) (cont'd)

(From page 11-115)

A

Check for poor response:

1. Start the engine. Hold the engine at 3,000 rpm with A/T in **N** or **P** position, M/T in neutral until the radiator fan comes on, then turn the ignition switch OFF.
2. Start the engine.
3. Check the MAP with the scan tool.

Is a MAP of 40.0 kPa (300 mmHg, 12.0 in.Hg) or less indicated within one second after starting the engine?

NO

Replace the MAP sensor.

YES

The MAP sensor is OK at this time.

(From page 11-115)

B

Check for poor response:

1. Start the engine. Hold the engine at 3,000 rpm with A/T in **N** or **P** position, M/T in neutral until the radiator fan comes on, then turn the ignition switch OFF.
2. Start the engine.
3. Check the MAP with the scan tool.

Is a MAP of 40.0 kPa (300 mmHg, 12.0 in.Hg) or less indicated within one second after starting the engine?

NO

Replace the MAP sensor.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.



Manifold Absolute Pressure (MAP) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T)

P0107

The scan tool indicates Diagnostic Trouble Code (DTC) P0107: A low voltage (high vacuum) problem in the Manifold Absolute Pressure (MAP) sensor.

- The MIL has been reported on.
- DTC P0107 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the MAP with the scan tool.

Is approx. 101 kPa (760 mmHg, 30 in.Hg) indicated?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C111 (MAP sensor) and ECM/PCM.

NO

Check for an open in wire (VCC1 line):

1. Turn the ignition switch OFF.
2. Disconnect the MAP sensor connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the MAP sensor connector No. 1 terminal and No. 2 terminal.

Is there approx. 5 V?

NO

Repair open in the wire between ECM/PCM (D4) and MAP sensor.

YES

Check for an open or short in the MAP sensor:
Check the MAP with the scan tool.

Is approx. 2 kPa (15 mmHg, 0.6 in.Hg) or less indicated?

NO

Replace the MAP sensor.

(D16Y5 engine (with CVT))

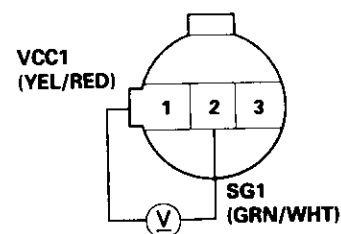
YES

Check for a short in the TCM:

1. Turn the ignition switch OFF.
2. Disconnect the 22P connector from the TCM.
3. Turn the ignition switch ON (II).
4. Check the MAP with the scan tool.

(To page 11-118)

MAP SENSOR 3P CONNECTOR (C111)



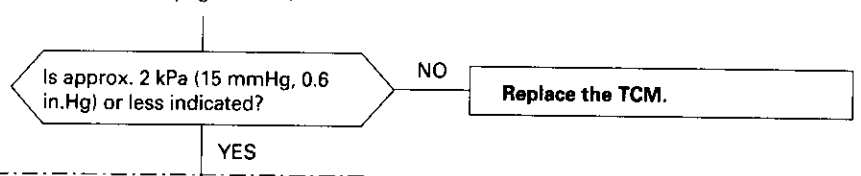
Wire side of female terminals

(cont'd)

PGM-FI System

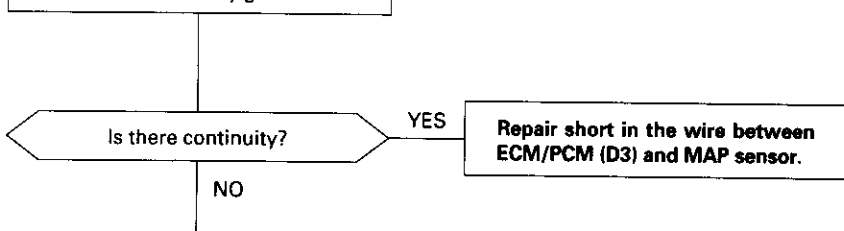
Manifold Absolute Pressure (MAP) Sensor '96 – 98 Models, '99 – 00 D16Y5 engine with M/T) (cont'd)

(From page 11-117)



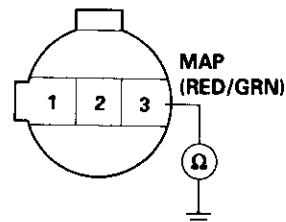
Check for a short in the wire (MAP line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P).
3. Check for continuity between the MAP sensor connector No. 3 terminal and body ground.



Substitute a known-good ECM/PCM, and recheck. If normal MAP is indicated, replace the original ECM/PCM.

MAP SENSOR 3P CONNECTOR (C111)



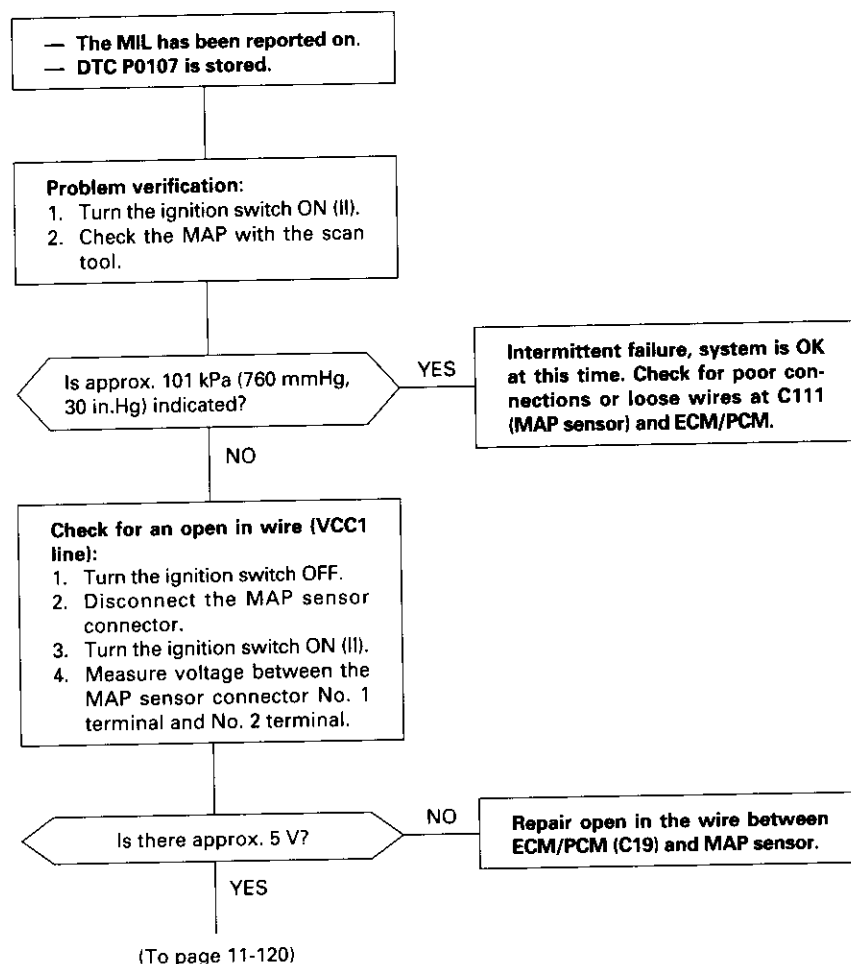
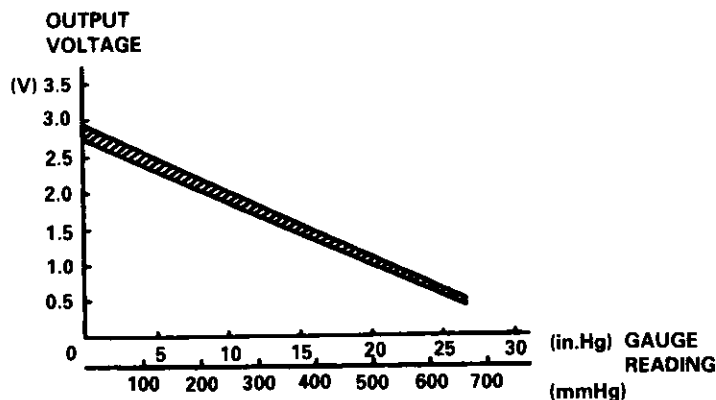
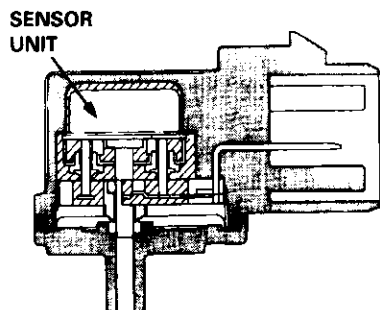
Wire side of female terminals



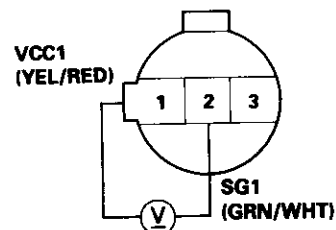
Manifold Absolute Pressure (MAP) Sensor (‘99 – 00 Models except D16Y5 engine with M/T)

P0107 The scan tool indicates Diagnostic Trouble Code (DTC) P0107: A low input (high vacuum) problem in the Manifold Absolute Pressure (MAP) sensor.

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



MAP SENSOR 3P CONNECTOR (C114)



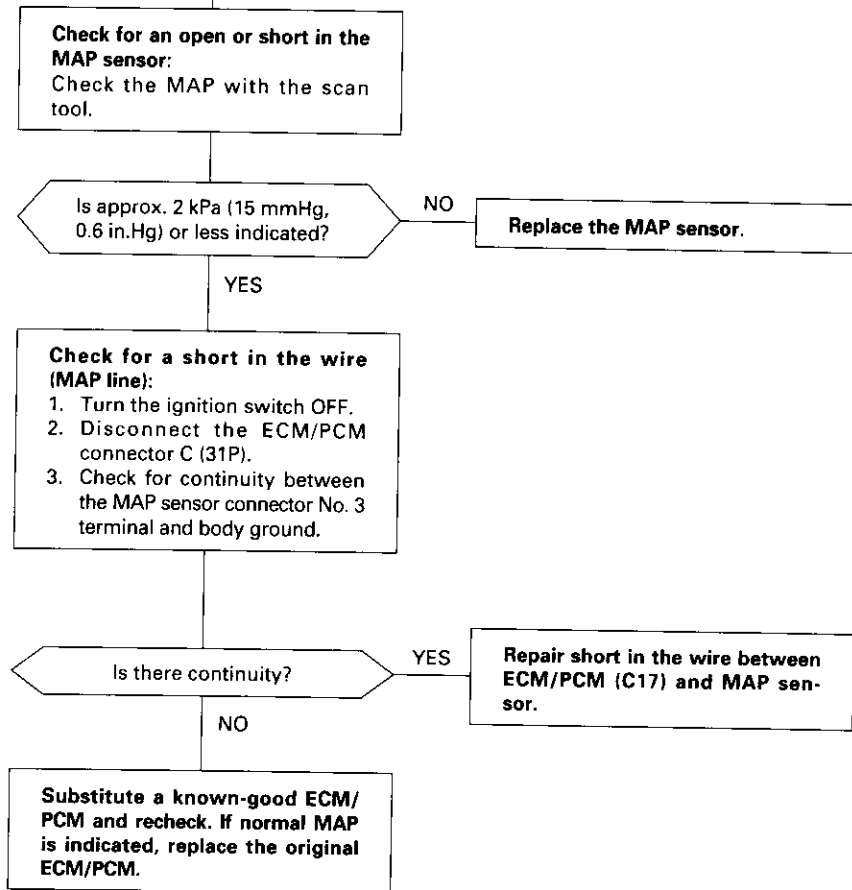
Wire side of female terminals

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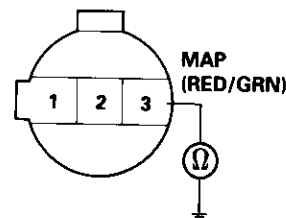
PGM-FI System

Manifold Absolute Pressure (MAP) Sensor ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

(From page 11-119)



MAP SENSOR 3P CONNECTOR (C114)



Wire side of female terminals



Manifold Absolute Pressure (MAP) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T)

P0108

The scan tool indicates Diagnostic Trouble Code (DTC) P0108: A high voltage (low vacuum) problem in the Manifold Absolute Pressure (MAP) sensor.

- The MIL has been reported on.
- DTC P0108 is stored.

Problem verification:

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
2. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30.0 in.Hg) or higher indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C111 (MAP sensor) and ECM/PCM.

YES

Check for an open in the MAP sensor:

1. Turn the ignition switch OFF.
2. Disconnect the MAP sensor 3P connector.
3. Install a jumper wire between the MAP sensor 3P connector terminals No. 3 and No. 2.
4. Turn the ignition switch ON (II).
5. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30.0 in.Hg) or higher indicated?

NO

Replace the MAP sensor.

YES

Check for an open in wire (SG1 line):

1. Remove the jumper wire.
2. Measure voltage between the MAP sensor 3P connector terminals No. 1 and No. 2.

Is there approx. 5 V?

NO

Repair open in the wire between ECM/PCM (D12) and MAP sensor.

YES

Check for an open in the wire (MAP line):

1. Turn the ignition switch OFF.
2. Connect the ECM/PCM connector terminals D3 and D12 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30.0 in.Hg) or higher indicated?

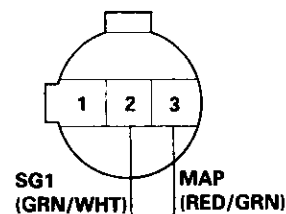
NO

Repair open in the wires between ECM/PCM (D3) and MAP sensor.

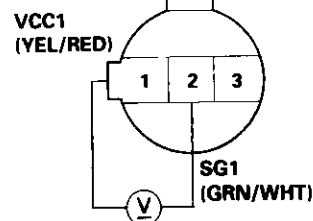
YES

Substitute a known-good ECM/PCM and recheck. If normal MAP is indicated, replace the original ECM/PCM.

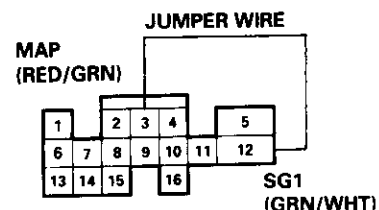
MAP SENSOR 3P CONNECTOR (C111)



Wire side of female terminals



ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

(cont'd)

PGM-FI System

Manifold Absolute Pressure (MAP) Sensor ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

P0108 The scan tool indicates Diagnostic Trouble Code (DTC) P0108: A high voltage (low vacuum) problem in the Manifold Absolute Pressure (MAP) sensor.

- The MIL has been reported on.
- DTC P0108 is stored.

Problem verification:

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
2. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30 in.Hg) or higher indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C111 (MAP sensor) and the ECM/PCM.

YES

Check for an open in the MAP sensor:

1. Turn the ignition switch OFF.
2. Disconnect the MAP sensor 3P connector.
3. Install a jumper wire between the MAP sensor 3P connector terminals No. 3 and No. 2.
4. Turn the ignition switch ON (II).
5. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30 in.Hg) or higher indicated?

NO

Replace the MAP sensor.

YES

Check for an open in wire (SG1 line):

1. Remove the jumper wire.
2. Measure voltage between the MAP sensor 3P connector terminals No. 1 and No. 2.

Is there approx. 5 V?

NO

Repair open in the wire between the ECM/PCM (C7) and the MAP sensor.

YES

Check for an open in the wire (MAP line):

1. Turn the ignition switch OFF.
2. Install a jumper wire on the ECM/PCM connectors between C7 and C17.
3. Turn the ignition switch ON (II).
4. Check the MAP with the scan tool.

Is 101 kPa (760 mmHg, 30 in.Hg) or higher indicated?

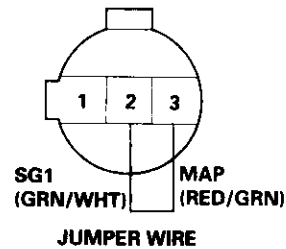
NO

Repair open in the wires between the ECM/PCM (C17) and the MAP sensor.

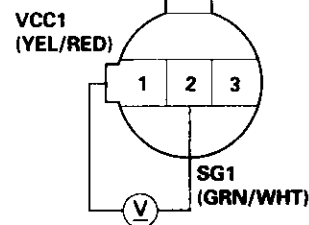
YES

Substitute a known-good ECM/PCM and recheck. If normal MAP is indicated, replace the original ECM/PCM.

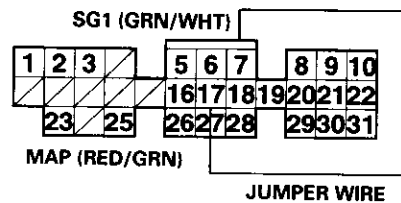
MAP SENSOR 3P CONNECTOR (C111)



Wire side of female terminals



ECM/PCM CONNECTOR C (31P)



Wire side of female terminals



Manifold Absolute Pressure (MAP) Sensor (cont'd)

P1128 The scan tool indicates Diagnostic Trouble Code (DTC) P1128: Manifold Absolute Pressure (MAP) lower than expected.

- The MIL has been reported on.
- DTC P1128 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the MAP with the scan tool.

Is 54.1 kPa (406 mm Hg, 16.0 in. Hg) or higher indicated?

YES

Intermittent failure, system is OK at this time.

NO

Replace the MAP sensor.

P1129 The scan tool indicates Diagnostic Trouble Code (DTC) P1129: Manifold Absolute Pressure (MAP) higher than expected.

- The MIL has been reported on.
- DTC P1129 is stored.

Problem verification:

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
2. Check the MAP with the scan tool.

Is 43.3 kPa (325 mm Hg, 12.8 in. Hg) or less indicated?

YES

Intermittent failure, system is OK at this time.

NO

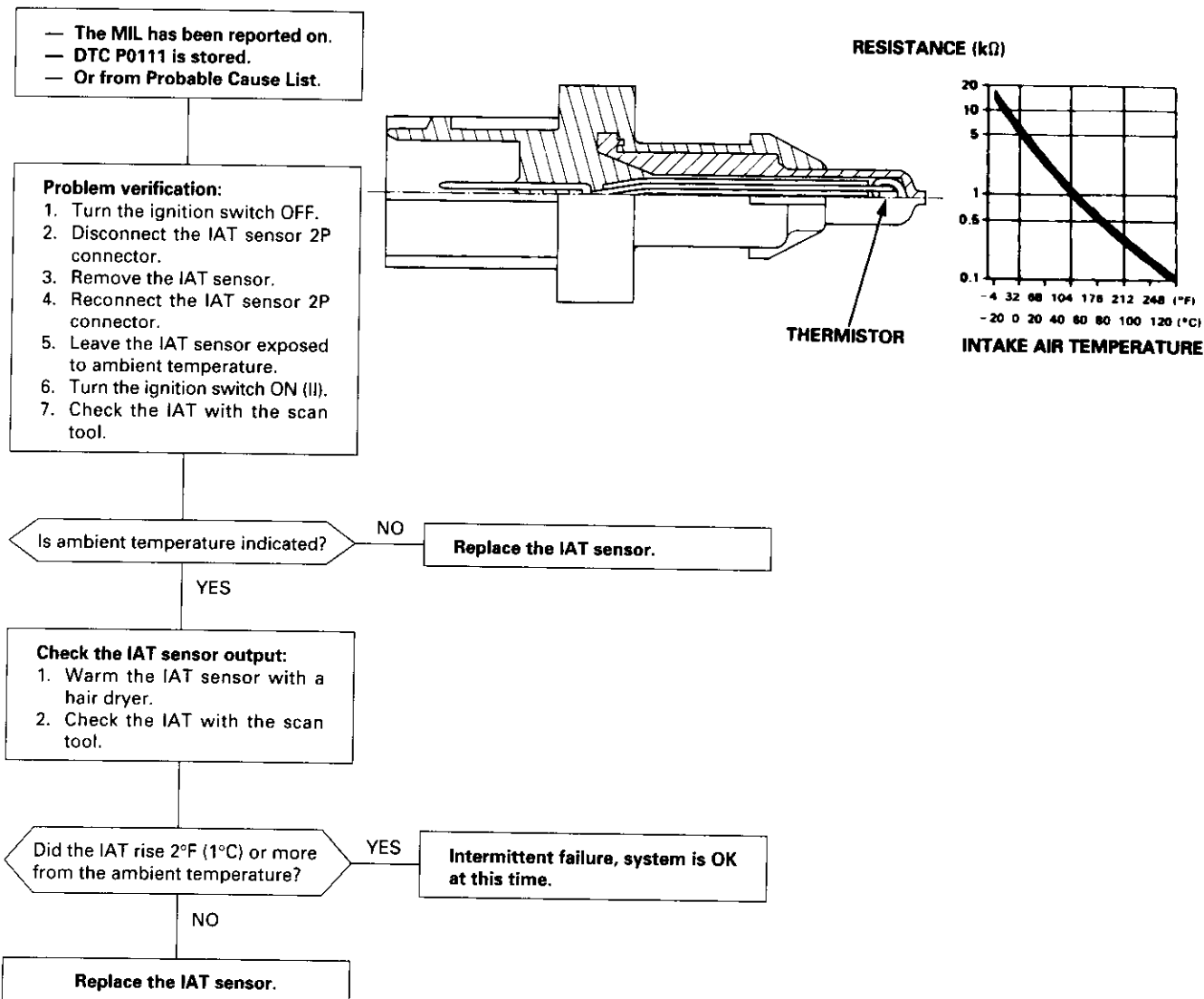
Replace the MAP sensor.

PGM-FI System

Intake Air Temperature (IAT) Sensor ('96 – 97 Models)

P0111 The scan tool indicates Diagnostic Trouble Code (DTC) P0111: A range/performance problem in the Intake Air Temperature (IAT) Sensor circuit.

The IAT Sensor is a temperature dependant resistor (thermistor). The resistance of the thermistor decreases as the intake air temperature increases as shown below.





Intake Air Temperature (IAT) Sensor

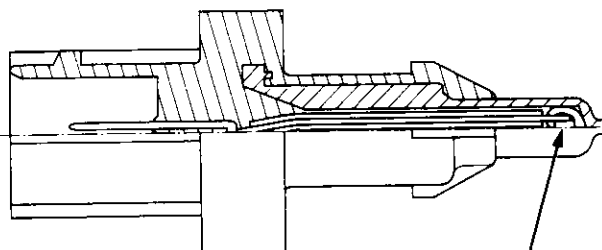
P0112

The scan tool indicates Diagnostic Trouble Code (DTC) P0112: A low voltage (high temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

- The MIL has been reported on.
- DTC P0112 is stored.

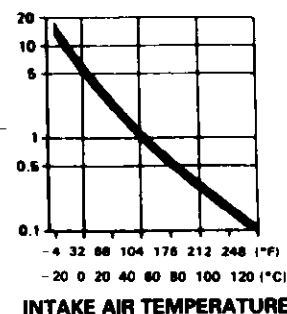
Problem verification:

1. Turn the ignition switch ON (II).
2. Check the IAT with the scan tool.



THERMISTOR

RESISTANCE (k Ω)



Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Is the correct ambient temperature indicated*2?

NO

Replace the IAT sensor.

*2: If the engine is warm, it will be higher than ambient temperature.

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C112 (IAT sensor) and ECM/PCM.

Check for a short in the IAT sensor:

1. Disconnect the IAT sensor connector.
2. Check the IAT with the scan tool.

Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Replace the IAT sensor.

YES

Check for a short in the wire (IAT line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P) (C (31P))*1.
3. Check for continuity between the IAT sensor 2P connector terminal No. 2 and body ground.

Is there continuity?

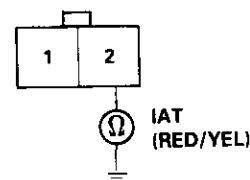
YES

Repair short in the wire between ECM/PCM (D8 (C25))*1 and IAT sensor.

NO

Substitute a known-good ECM/PCM and recheck. If normal IAT is indicated, replace the original ECM/PCM.

IAT SENSOR 2P CONNECTOR (C112)



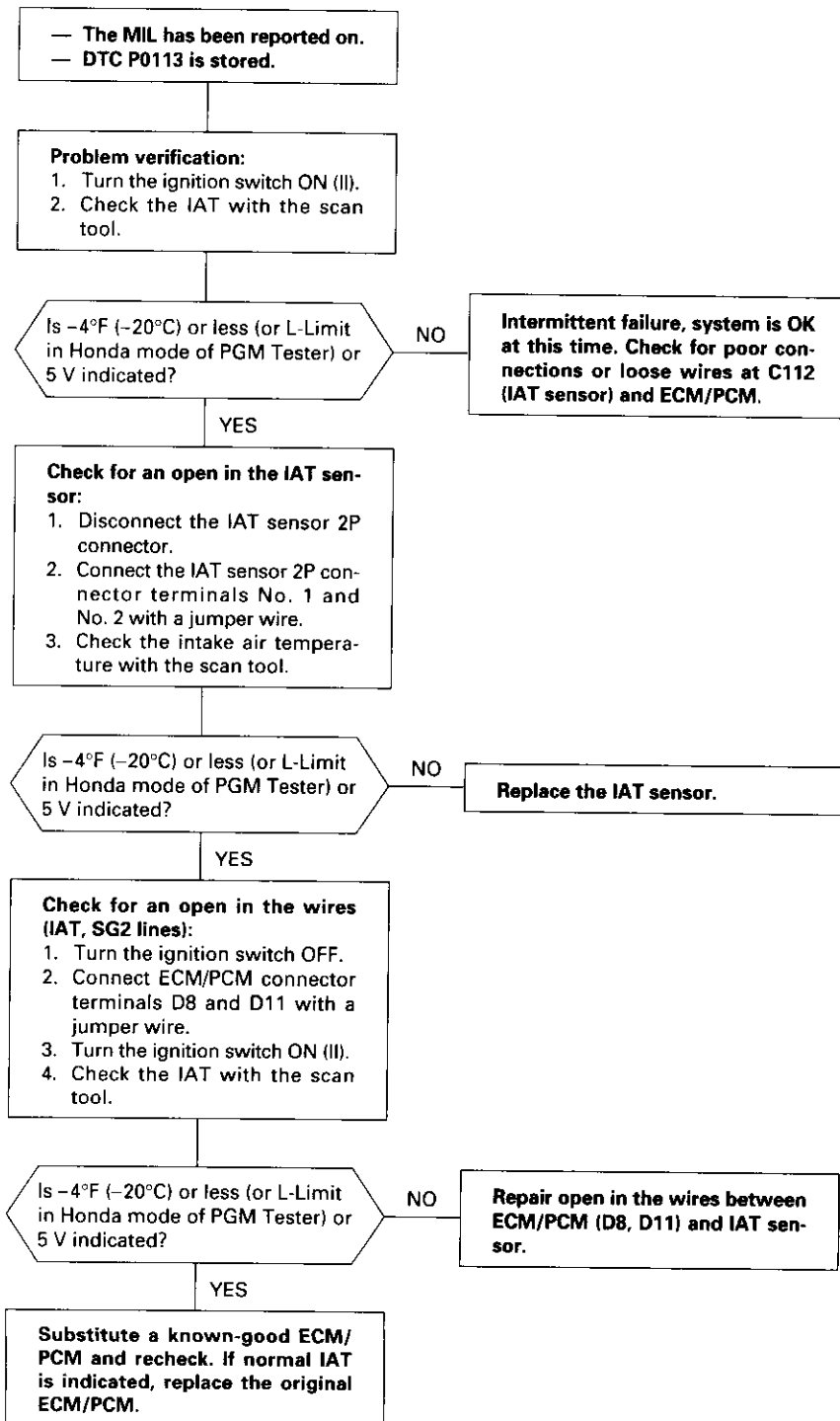
Wire side of female terminals

*1: '99 - 00 models except D16Y5 engine with M/T.

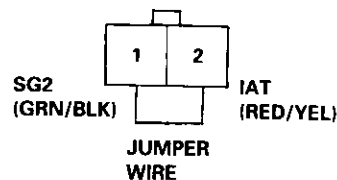
PGM-FI System

Intake Air Temperature (IAT) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T)

P0113 The scan tool indicates Diagnostic Trouble Code (DTC) P0113: A high voltage (low temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

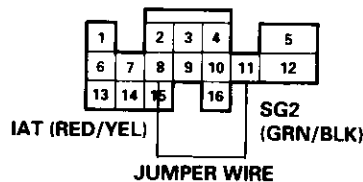


IAT SENSOR 2P CONNECTOR (C112)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals



Intake Air Temperature (IAT) Sensor (‘99 – 00 Models except D16Y5 engine with M/T)

P0113

The scan tool indicates Diagnostic Trouble Code (DTC) P0113: A high voltage (low temperature) problem in the Intake Air Temperature (IAT) sensor circuit.

- The MIL has been reported on.
- DTC P0113 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the IAT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C112 (IAT sensor) and ECM/PCM.

YES

Check for an open in the IAT sensor:

1. Disconnect the IAT sensor 2P connector.
2. Connect the IAT sensor 2P connector terminals No. 1 and No. 2 with a jumper wire.
3. Check the intake air temperature with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Replace the IAT sensor.

YES

Check for an open in the wires (IAT, SG2 lines):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals C18 and C25 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the IAT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

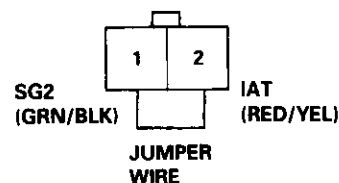
NO

Repair open in the wires between ECM/PCM (C18, C25) and IAT sensor.

YES

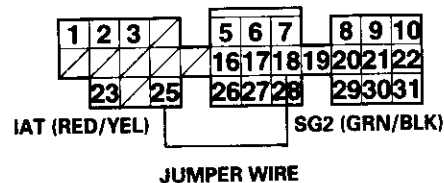
Substitute a known-good ECM/PCM and recheck. If normal IAT is indicated, replace the original ECM/PCM.

IAT SENSOR 2P CONNECTOR (C112)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



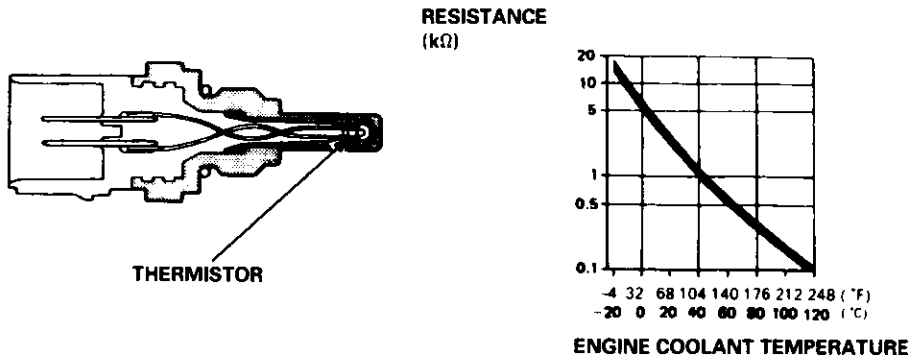
Wire side of female terminals

PGM-FI System

Engine Coolant Temperature (ECT) Sensor

P0116 The scan tool indicates Diagnostic Trouble Code (DTC) P0116: A range/performance problem in the Engine Coolant Temperature (ECT) Sensor circuit.

The ECT Sensor is a temperature dependant resistor (thermistor). The resistance of the thermistor decreases as the engine coolant temperature increases as shown below.

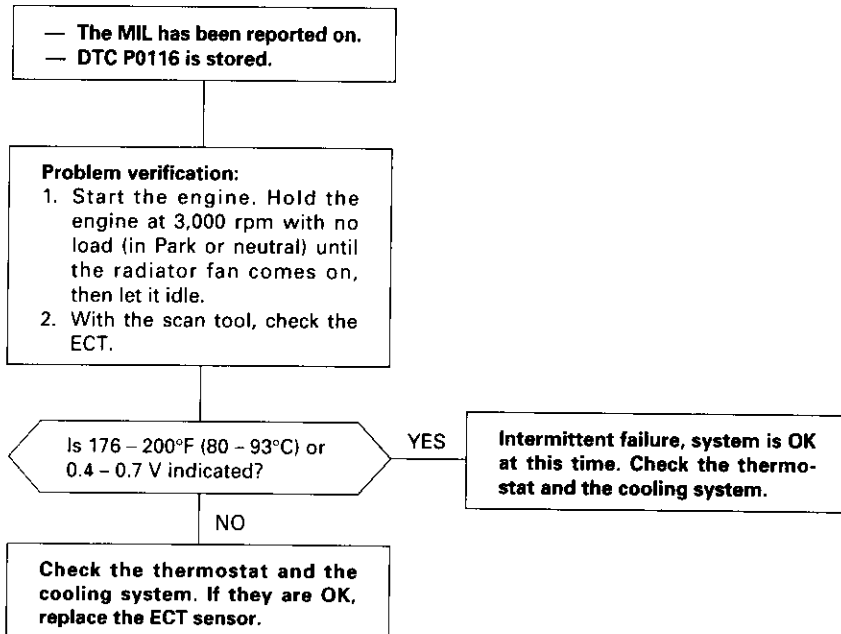


NOTE: If DTC P0117 and/or P0118 are stored at the same time as DTC P0116, troubleshoot those DTCs first, then recheck for DTC P0116.

Possible Cause

- ECT sensor deterioration
- Malfunction in the thermostat and cooling system

Troubleshooting Flowchart





P0117 The scan tool indicates Diagnostic Trouble Code (DTC) P0117: A low voltage (high temperature) problem in the Engine Coolant Temperature (ECT) sensor circuit.

- The MIL has been reported on.
- DTC P0117 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the ECT with the scan tool.

Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C122 (ECT sensor) and ECM/PCM.

YES

Check for a short in the ECT sensor:

1. Disconnect the ECT sensor 2P connector.
2. Check the ECT with the scan tool.

Is 302°F (150°C) or higher (or H-Limit in Honda mode of PGM Tester) or 0 V indicated?

NO

Replace the ECT sensor.

YES

Check for a short in the wire (ECT line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P) (C 31P))*.
3. Check for continuity between the ECT sensor 2P connector terminal No. 1 and body ground.

Is there continuity?

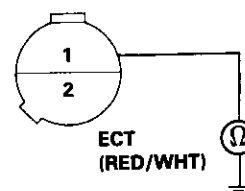
YES

Repair short in the wire between ECM/PCM (D2 (C26))* and ECT sensor.

NO

Substitute a known-good ECM/PCM and recheck. If normal ECT is indicated, replace the original ECM/PCM.

ECT SENSOR 2P CONNECTOR (C122)



Wire side of female terminals

*: '99 - 00 models except D16Y5 engine with M/T.

(cont'd)

PGM-FI System

Engine Coolant Temperature (ECT) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T) (cont’d)

P0118

The scan tool indicates Diagnostic Trouble Code (DTC) P0118: A high voltage (low temperature) problem in the Engine Coolant Temperature (ECT) sensor circuit.

- The MIL has been reported on.
- DTC P0118 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C122 (ECT sensor) and ECM/PCM.

YES

Check for an open in the ECT sensor:

1. Disconnect the ECT sensor 2P connector.
2. Connect the ECT sensor 2P connector terminals No. 1 and No. 2 with a jumper wire.
3. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Replace the ECT sensor.

YES

Check for an open in the wires (ECT, SG2 lines):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals D2 and D11 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

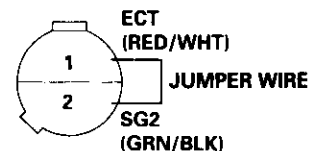
NO

Repair open in the wires between ECM/PCM (D2, D11) and ECT sensor.

YES

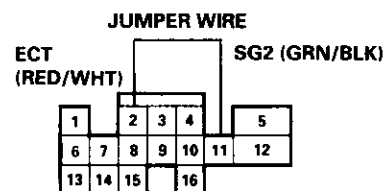
Substitute a known-good ECM/PCM and recheck. If normal ECT is indicated, replace the original ECM/PCM.

ECT SENSOR 2P CONNECTOR (C122)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals



Engine Coolant Temperature (ECT) Sensor ('99 – 00 Models except D16Y5 engine with M/T)

P0118

The scan tool indicates Diagnostic Trouble Code (DTC) P0118: A high voltage (low temperature) problem in the Engine Coolant Temperature (ECT) sensor circuit.

- The MIL has been reported on.
- DTC P0118 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C122 (ECT sensor) and ECM/PCM.

YES

Check for an open in the ECT sensor:

1. Disconnect the ECT sensor 2P connector.
2. Connect the ECT sensor 2P connector terminals No. 1 and No. 2 with a jumper wire.
3. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

NO

Replace the ECT sensor.

YES

Check for an open in the wires (ECT, SG2 lines):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals C18 and C26 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the ECT with the scan tool.

Is -4°F (-20°C) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

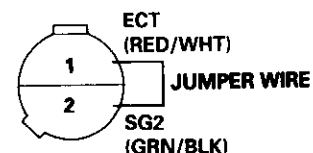
NO

Repair open in the wires between ECM/PCM (C18, C26) and ECT sensor.

YES

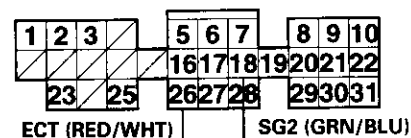
Substitute a known-good ECM/PCM and recheck. If normal ECT is indicated, replace the original ECM/PCM.

ECT SENSOR 2P CONNECTOR (C122)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



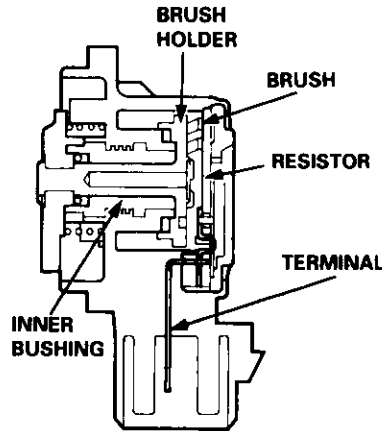
JUMPER WIRE

Wire side of female terminals

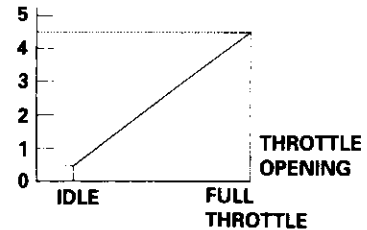
Throttle Position (TP) Sensor ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

P0122 The scan tool indicates Diagnostic Trouble Code (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 ECM/PCM.



OUTPUT VOLTAGE (V)



- The MIL has been reported on.
- DTC P0122 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the throttle position with the scan tool.

Is there approx. .49 V when the throttle is fully closed and approx. 4.5 V when the throttle is fully opened?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C110 (TP sensor) and ECM/PCM.

NO

Check for an open in the wire (VCC2 line):

1. Turn the ignition switch OFF.
2. Disconnect the TP sensor 3P connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the TP sensor 3P connector terminals No. 1 and No. 3.

Is there approx. 5 V?

YES

Check for an open or short in TP sensor:

1. Turn the ignition switch OFF.
2. At the sensor side, measure resistance between the TP sensor terminals No. 1 and No. 2 with the throttle fully closed.

(To page 11-133)

NO

Check for an open in wire (VCC2 line):
Measure voltage between ECM/PCM connector terminals D10 and D11.

Is there approx. 5 V?

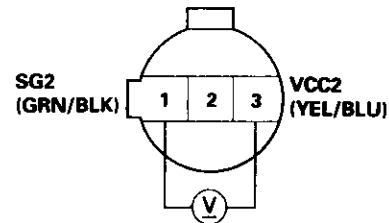
NO

Substitute a known-good ECM/PCM and recheck. If prescribed voltage is now available, replace the original ECM/PCM.

YES

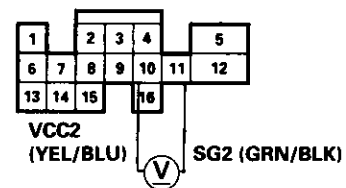
Repair open in the wire between ECM/PCM (D10) and TP sensor.

TP SENSOR 3P CONNECTOR (C110)

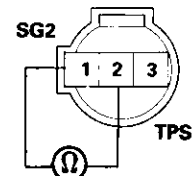


Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



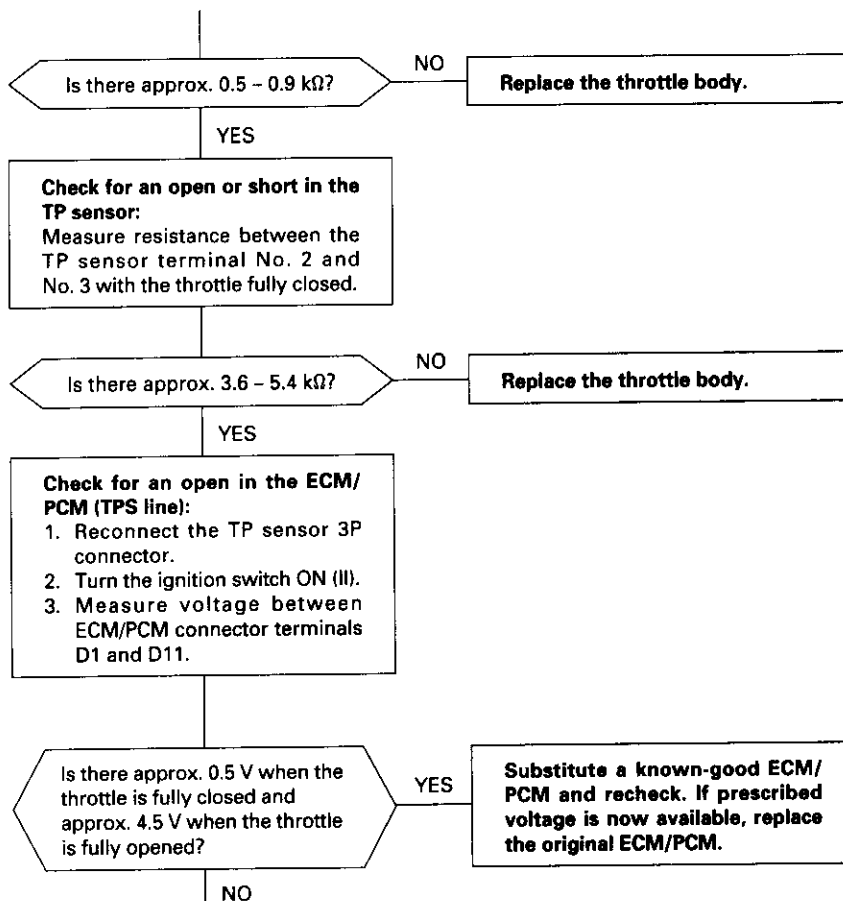
Wire side of female terminals



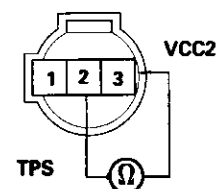
Terminal side of male terminals



(From page 11-132)

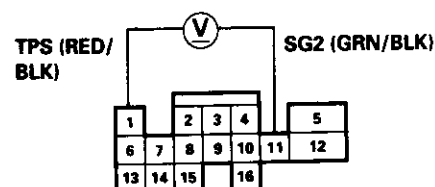


TP SENSOR 3P CONNECTOR



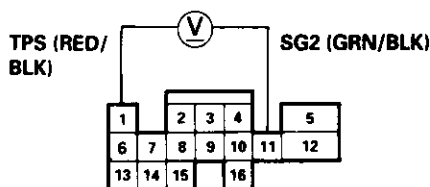
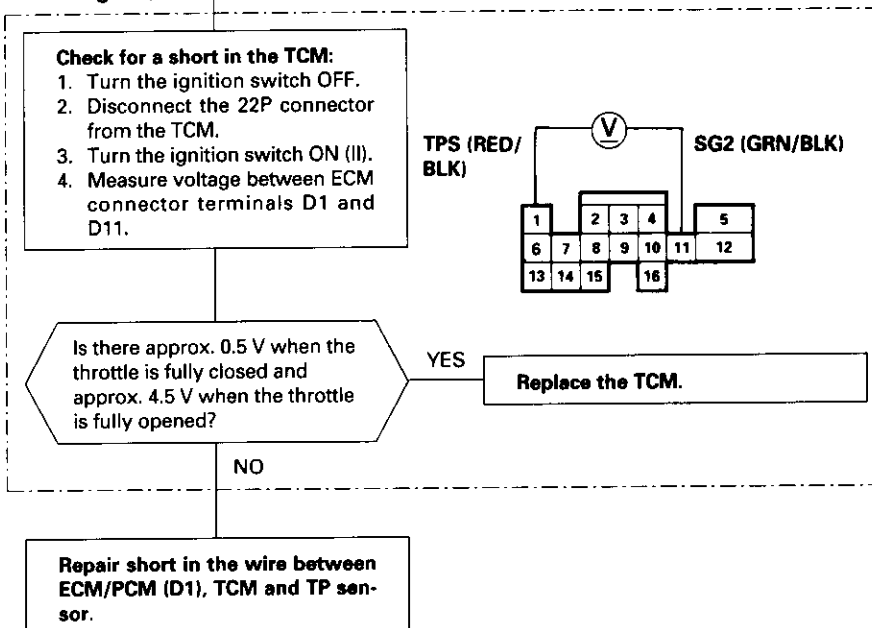
Terminal side of male terminals

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

(D16Y5 engine (CVT))

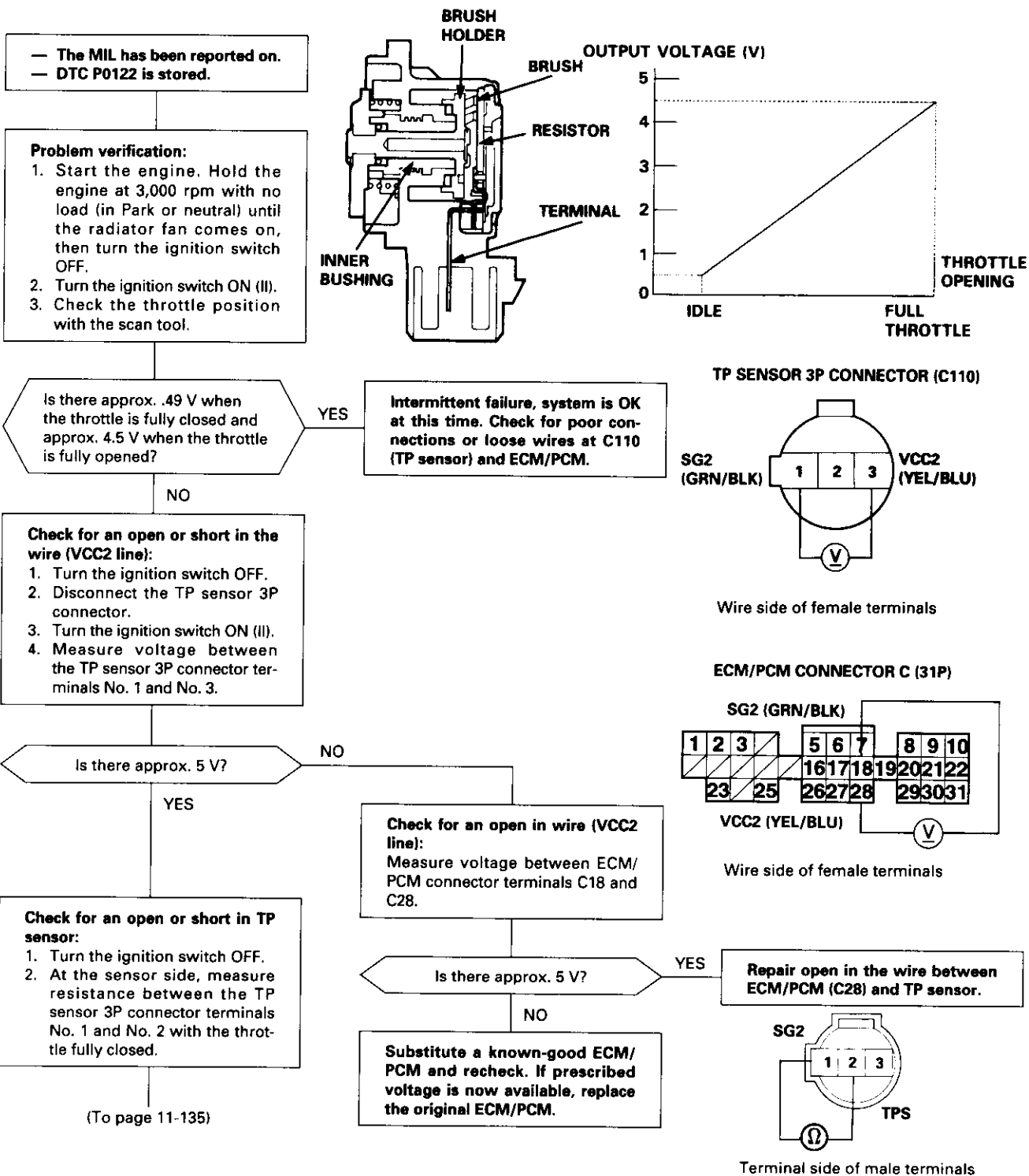


PGM-FI System

Throttle Position (TP) Sensor ('99 – 00 Models except D16Y5 engine with M/T)

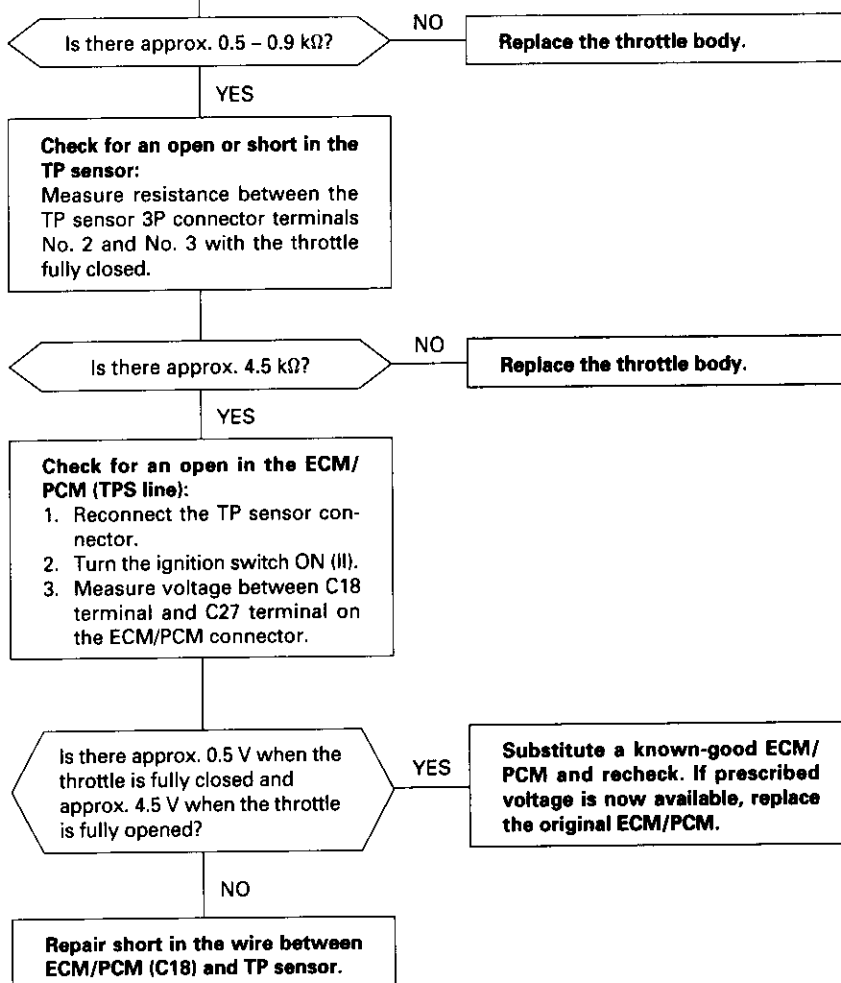
P0122 The scan tool indicates Diagnostic Trouble Code (DTC) P0122: A low voltage problem in the Throttle Position (TP) sensor circuit.

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 ECM/PCM.

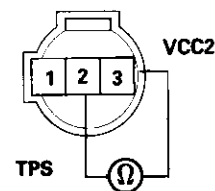




(From page 11-134)

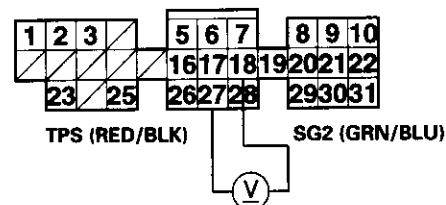


TP SENSOR 3P CONNECTOR



Terminal side of male terminals

ECM/PCM CONNECTOR C (31P)

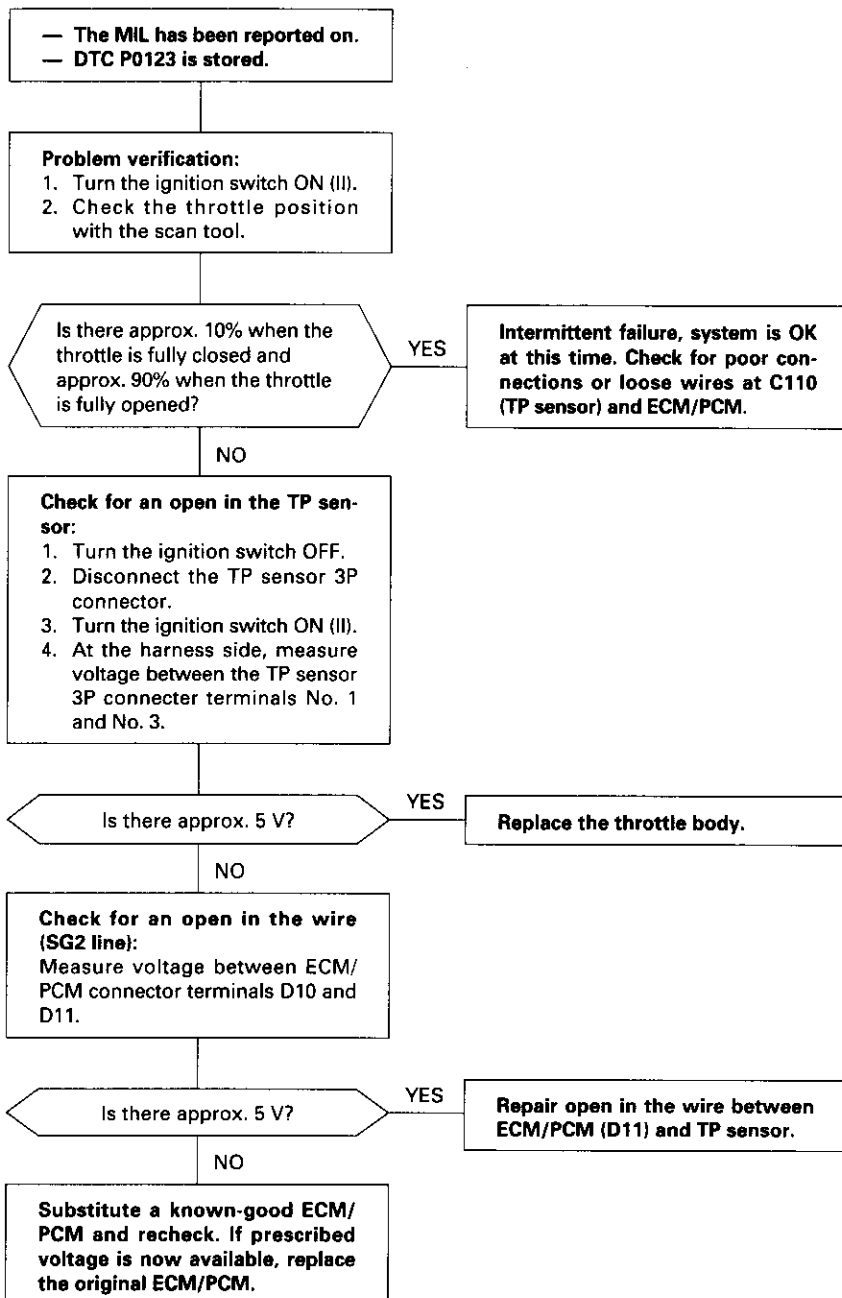


Wire side of female terminals

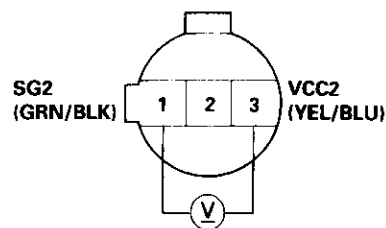
PGM-FI System

Throttle Position (TP) Sensor ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

P0123 The scan tool indicates Diagnostic Trouble Code (DTC) P0123: A high voltage problem in the Throttle Position (TP) sensor circuit.

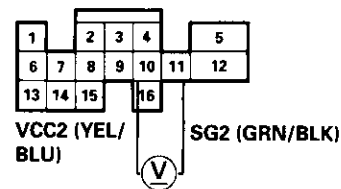


TP SENSOR 3P CONNECTOR (C110)



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals



Throttle Position (TP) Sensor ('99 – 00 Models except D16Y5 engine with M/T)

P0123

The scan tool indicates Diagnostic Trouble Code (DTC) P0123: A high voltage problem in the Throttle Position (TP) sensor circuit.

- The MIL has been reported on.
- DTC P0123 is stored.

Problem verification:

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then turn the ignition switch OFF.
2. Turn the ignition switch ON (II).
3. Check the throttle position with the scan tool.

Is there approx. 10% when the throttle is fully closed and approx. 90% when the throttle is fully opened?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C110 (TP sensor) and ECM/PCM.

NO

Check for an open in the TP sensor:

1. Turn the ignition switch OFF.
2. Disconnect the TP sensor 3P connector.
3. Turn the ignition switch ON (II).
4. At the wire harness side, measure voltage between the TP sensor 3P connector terminals No. 1 and No. 3.

Is there approx. 5 V?

YES

Replace the throttle body.

NO

Check for an open in the wire (SG2 line):

Measure voltage between ECM/PCM connector C (31P) terminals C18 and C28.

Is there approx. 5 V?

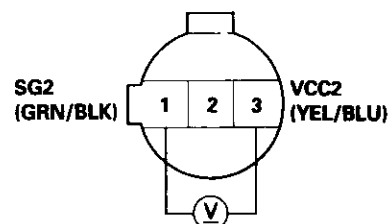
YES

Repair open in the wire between ECM/PCM (C18) and TP sensor.

NO

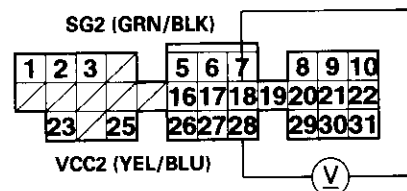
Substitute a known-good ECM/PCM and recheck. If prescribed voltage is now available, replace the original ECM/PCM.

TP SENSOR 3P CONNECTOR (C110)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

(cont'd)

Throttle Position (TP) Sensor (cont'd)

P1121 The scan tool indicates Diagnostic Trouble Code (DTC) P1121: Throttle Position (TP) lower than expected.

- The MIL has been reported on.
- DTC P1121 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the throttle position with the scan tool.

Is TP *% or higher indicated when the throttle is fully opened?

YES

Intermittent failure, system is OK at this time.

NO

Replace the throttle body.

*: 11.8 (D16Y5 engine)
12.9 (D16Y7 engine)
12.2 (D16Y8 engine)
13.7 (B16A2 engine)

P1122 The scan tool indicates Diagnostic Trouble Code (DTC) P1122: Throttle Position (TP) higher than expected.

- The MIL has been reported on.
- DTC P1122 is stored.

Problem verification:

1. Turn the ignition switch ON (II).
2. Check the throttle position with the scan tool.

Is TP *% or less indicated when the throttle is fully closed?

YES

Intermittent failure, system is OK at this time.

NO

Replace the throttle body.

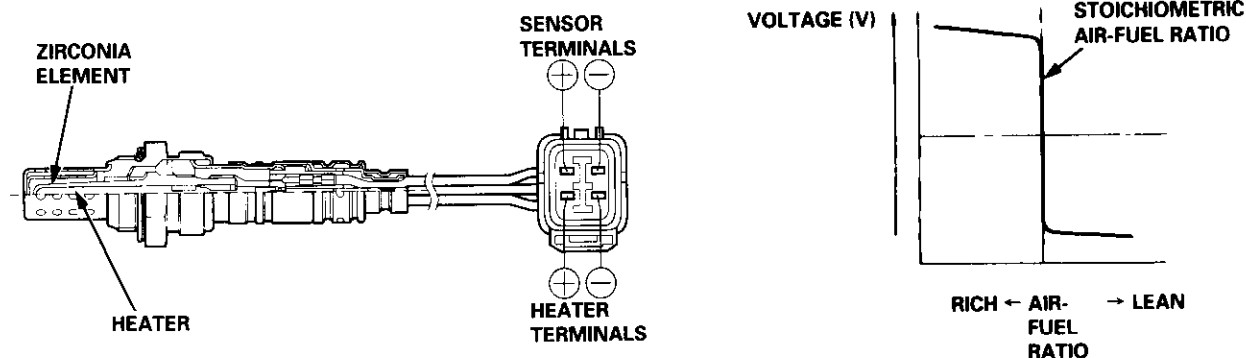
*: 16.5 (D16Y5, D16Y8 engine)
16.9 (D16Y7 engine)
16.5 (B16A2 engine)



Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) ('96 – 98 Models except D16Y5 engine with M/T)

The Heated Oxygen Sensor (HO2S) detects the oxygen content in the exhaust gas and signals the ECM/PCM. In operation, the ECM/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.

HO2S:



P0131 The scan tool indicates Diagnostic Trouble Code (DTC) P0131: A low voltage problem in the Primary Heated Oxygen Sensor (HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P0131 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. Test-drive with the A/T in **2** position (M/T in 4th gear)
4. Check the Primary HO2S (Sensor 1) output voltage with the scan tool during acceleration using wide open throttle.

Does the voltage stay at 0.1 V or less?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C123 (Primary HO2S, sensor 1) and ECM/PCM.

YES

Check the fuel pressure.

Is it normal?

NO

Repair fuel supply system.

YES

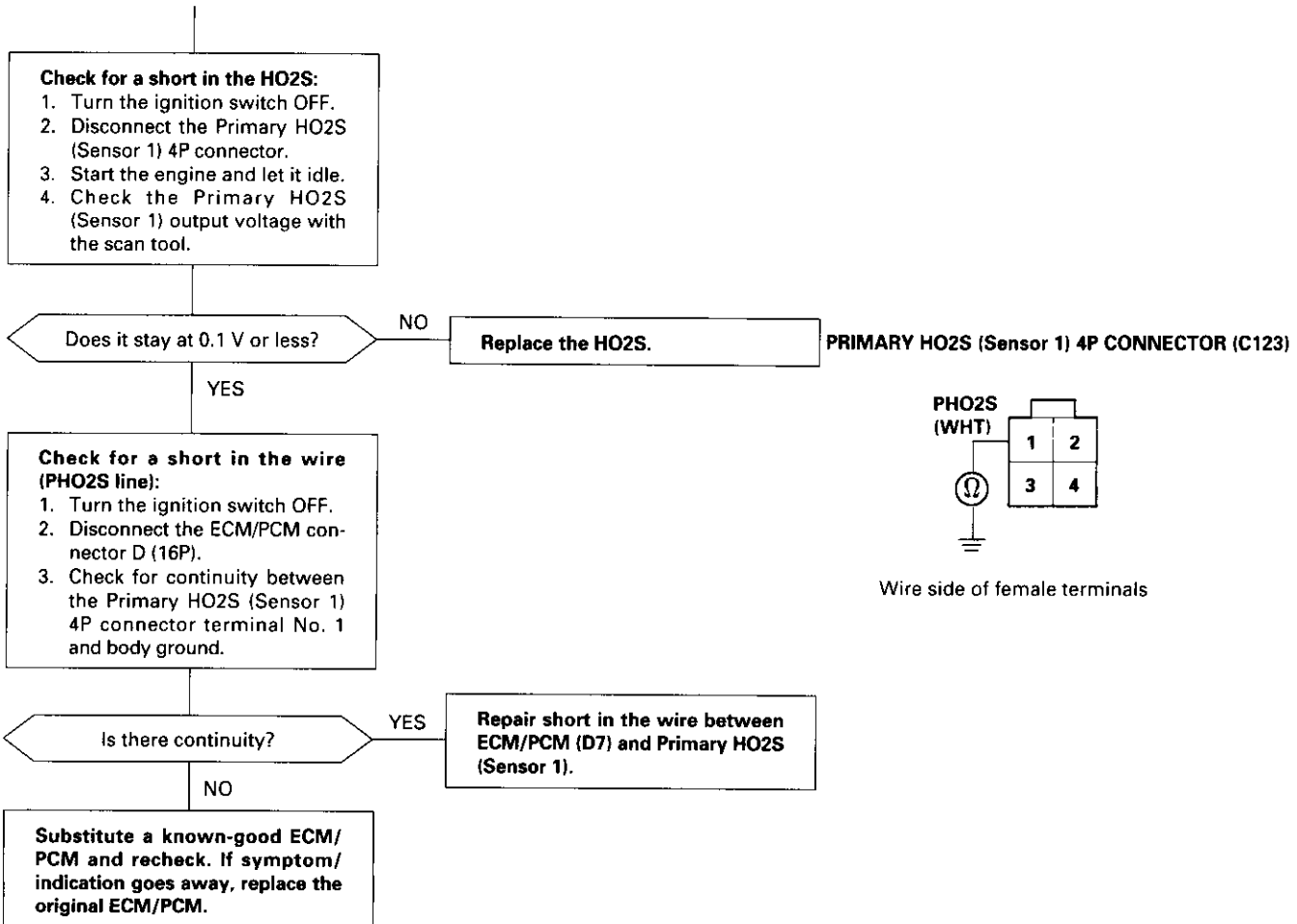
(To page 11-140)

(cont'd)

PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) ('96 – 98 Models except D16Y5 engine with M/T) (cont'd)

(From page 11-139)





Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) ('99 – 00 Models except D16Y5 engine with M/T)

The Heated Oxygen Sensors (HO2S) detect the oxygen content in the exhaust gas and signals the ECM/PCM. In operation, the ECM/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 exhaust manifold (D16Y8, B16A2 engine: exhaust pipe A).

HO2S:

ZIRCONIA
ELEMENT

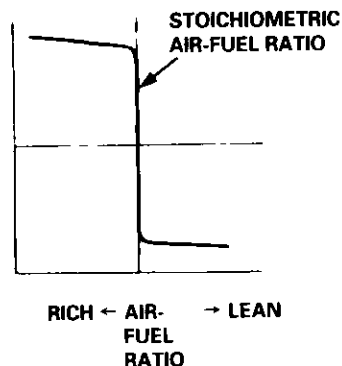
HEATER

SENSOR
TERMINALS



HEATER
TERMINALS

VOLTAGE (V)



P0131

The scan tool indicates Diagnostic Trouble Code (DTC) P0131: A low voltage problem in the Primary Heated Oxygen Sensor (HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P0131 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. Check the Primary HO2S (Sensor 1) output voltage with the scan tool during acceleration using wide open throttle.

Does the voltage stay at 0.5 V
or less?

NO

Intermittent failure, system is OK
at this time. Check for poor con-
nections or loose wires at C123
(Primary HO2S, Sensor 1) and
ECM/PCM.

YES

Check the fuel pressure (see page
11-109).

Is it normal?

NO

Repair fuel supply system.

YES

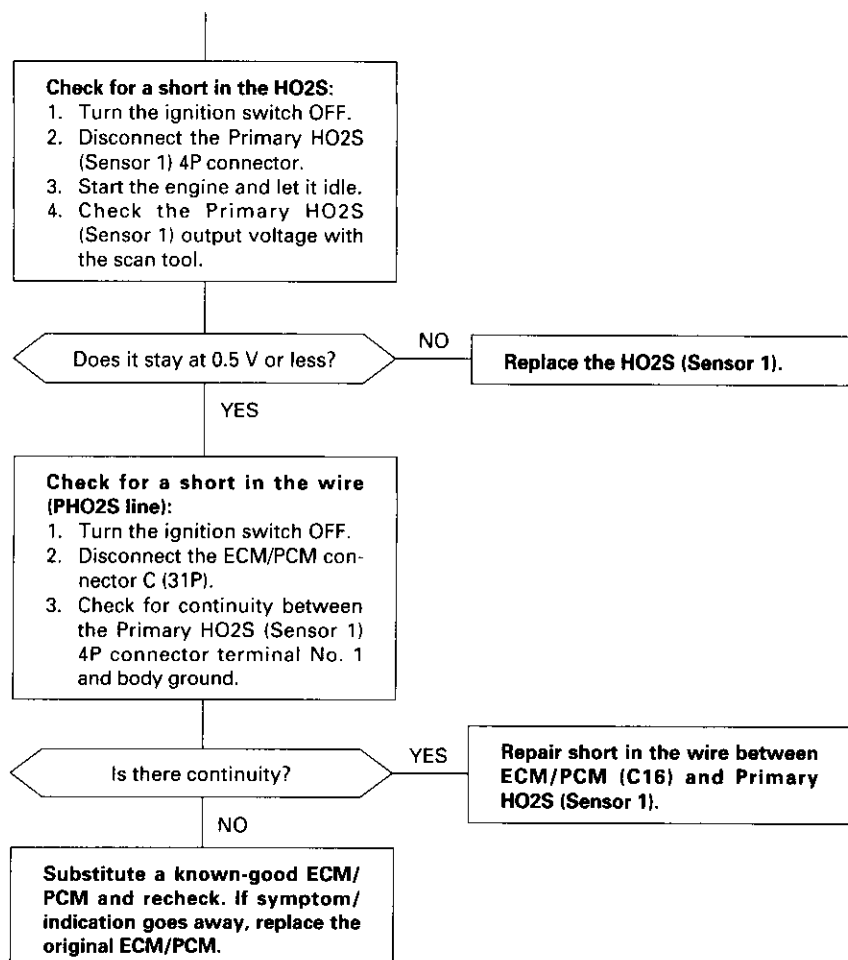
(To page 11-142)

(cont'd)

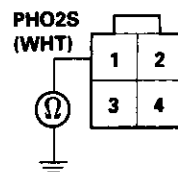
PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

(From page 11-141)



PRIMARY HO2S (Sensor 1) 4P CONNECTOR (C123)



Wire side of female terminals



Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) (’96 – 98 Models except D16Y5 engine with M/T)

P0132

The scan tool indicates Diagnostic Trouble Code (DTC) P0132: A high voltage problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P0132 is stored.

Problem verification:

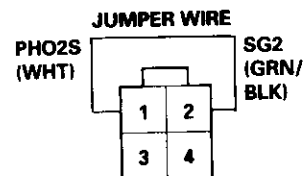
1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. Test-drive with the A/T in **2** position (M/T in 4th gear).
4. Check the Primary HO2S (Sensor 1) output voltage with the scan tool during deceleration using completely closed throttle.

Does the voltage stay at 1.0 V or more?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C123 (Primary HO2S, Sensor 1) and ECM/PCM.

PRIMARY HO2S (Sensor 1) 4P CONNECTOR (C123)



Wire side of female terminals

Check for an open in the Primary HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Primary HO2S (Sensor 1) 4P connector.
3. Connect the Primary HO2S (Sensor 1) 4P connector terminals No. 1 and No. 2 with a jumper wire.
4. Turn the ignition switch ON (II).
5. Check the Primary HO2S (Sensor 1) output voltage with the scan tool.

Is there 1.0 V or more?

NO

Replace the Primary HO2S.

YES

Check for an open in the wire (PHO2S line):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals D7 and D11 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the Primary HO2S (Sensor 1) output voltage with the scan tool.

Is there 1.0 V or more?

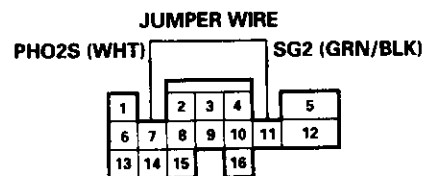
NO

Repair open in the wire between ECM/PCM (D7) and Primary HO2S (Sensor 1).

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) ('99 – 00 Models except D16Y5 engine with M/T)

P0132 The scan tool indicates Diagnostic Trouble Code (DTC) P0132: A high voltage problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P0132 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. Check the Primary HO2S (Sensor 1) output voltage with the scan tool during deceleration using completely closed throttle.

Does the voltage stay at 1.5 V or more?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C123 (Primary HO2S, Sensor 1) and ECM/PCM.

YES

Check for an open in the Primary HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Primary HO2S (Sensor 1) connector.
3. Connect the Primary HO2S (Sensor 1) 4P connector terminals No. 1 and No. 2 with a jumper wire.
4. Turn the ignition switch ON (II).
5. Check the Primary HO2S (Sensor 1) output voltage with the scan tool.

Is there 1.5 V or more?

NO

Replace the Primary HO2S.

YES

Check for an open in the wire (PHO2S line):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals C16 and C18 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the Primary HO2S (Sensor 1) output voltage with the scan tool.

Is there 1.5 V or more?

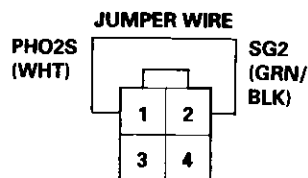
YES

Repair open in the wire between ECM/PCM (C16) and Primary HO2S (Sensor 1).

NO

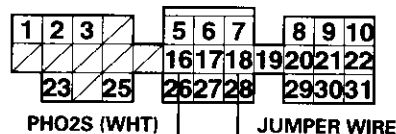
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

PRIMARY HO2S (Sensor 1) 4P CONNECTOR (C123)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



SG2 (GRN/BLK)

Wire side of female terminals



Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1)

P0133 The scan tool indicates Diagnostic Trouble Code (DTC) P0133: A slow response problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

* **P1163** The scan tool indicates Diagnostic Trouble Code (DTC) P1163: 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.

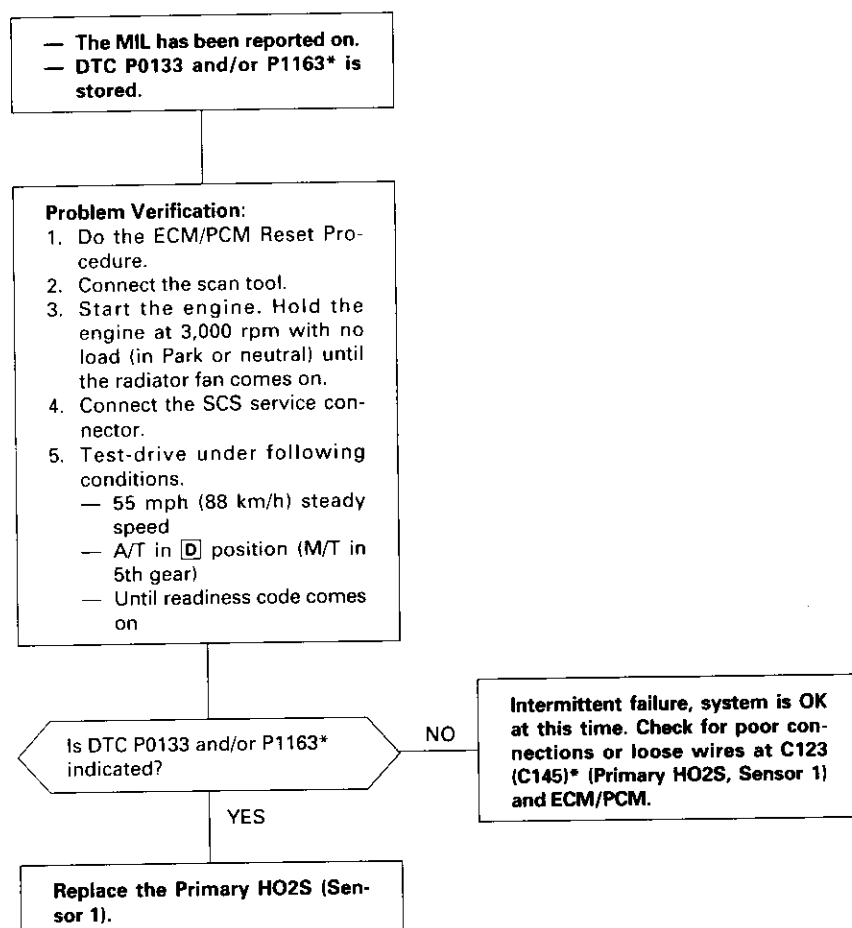
When deterioration has been detected during two consecutive trips, the MIL comes on and DTC P0133 or P1163* will be stored.

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. If DTC P1162, P1168 and/or P1169 are stored at the same time as DTC P1163, troubleshoot those DTCs first, then recheck for DTC P1163.

Possible Cause

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

Troubleshooting Flowchart



*: P1163 (D16Y5 engine with M/T)

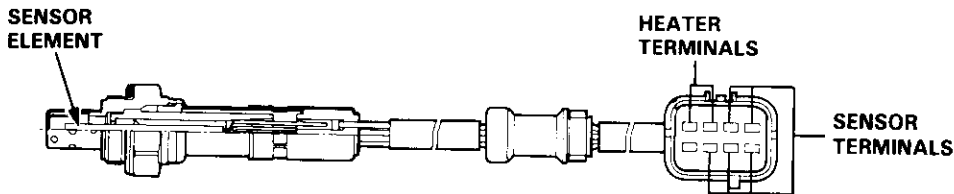
PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) (D16Y5 engine with M/T)

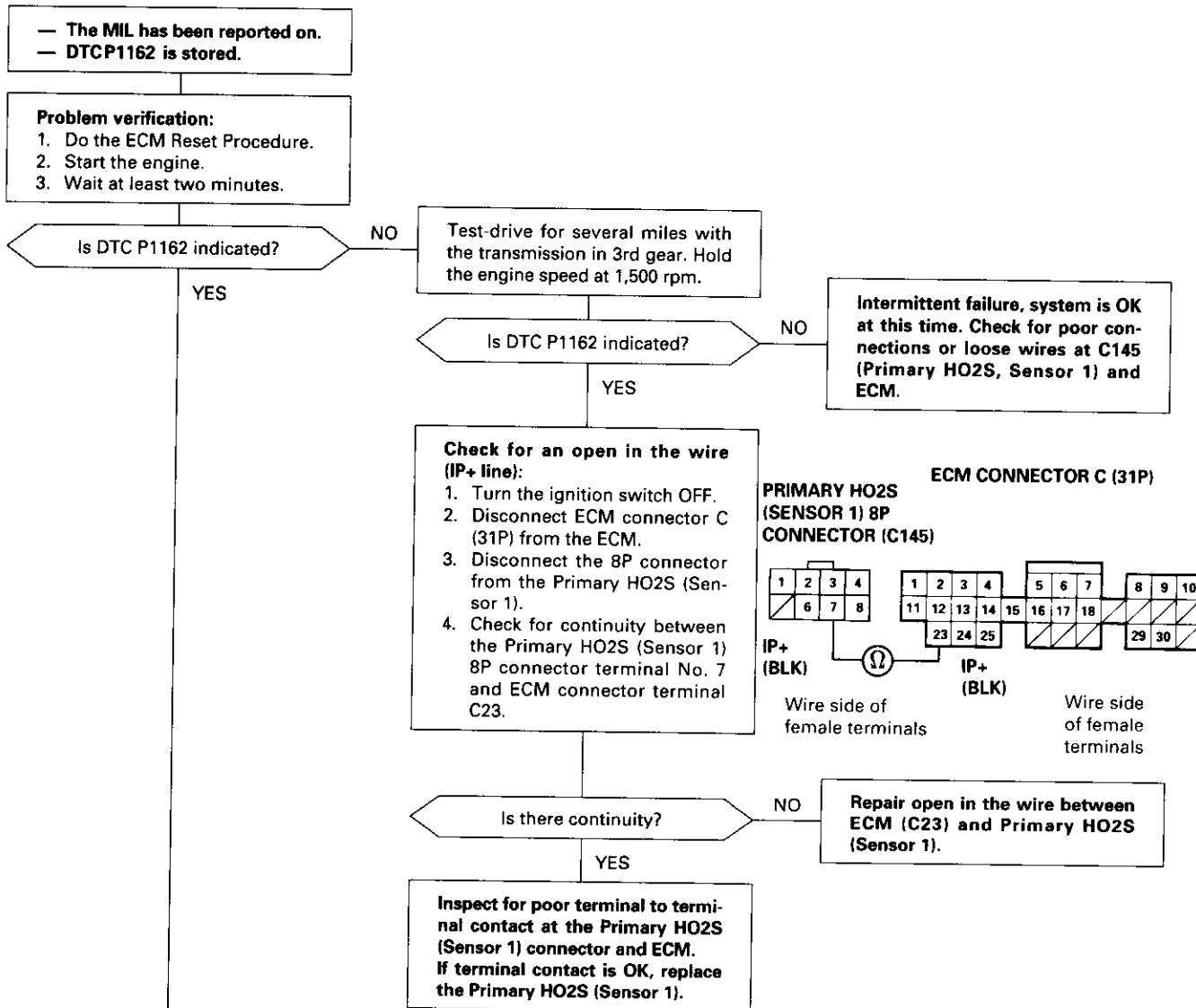
P1162 The scan tool indicates Diagnostic Trouble Code (DTC) P1162: A malfunction in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

Description

The Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) operates over a wide air/fuel range. The Primary HO2S (Sensor 1) is installed in the exhaust manifold.



NOTE: If DTC P1162 is stored at the same time as DTC P1167, troubleshoot DTC P1162 first, then recheck for DTC P1167.



(To page 11-147)



(From page 11-146)

Check the ECM input voltage (IP-/VS- line):

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON (II).
3. Measure voltage between ECM connector terminals C24 and D11.

Is there more than 0.5 V?

YES

YES

(To page 11-148)

NO

Check the ECM:

1. Turn the ignition switch OFF.
2. Disconnect ECM connector C (31P) from the ECM.
3. Check for continuity between body ground and ECM connector terminal C24.

Is there continuity?

YES

Check for a short in the wire (IP-/VS- line):

1. Disconnect the 8P connector from the Primary HO2S (Sensor 1).
2. Check for continuity between body ground and ECM connector terminal C24.

Is there continuity?

NO

Replace the Primary HO2S (Sensor 1).

Check the ECM output voltage (VS+ line):

Measure voltage between ECM connector terminals C25 and D11.

Is there more than 0.5 V?

NO

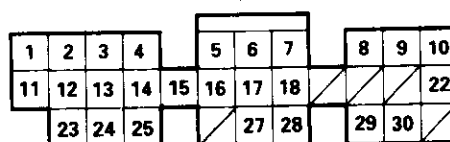
Check for a short in the wire (VS+ line):

1. Turn the ignition switch OFF.
2. Disconnect ECM connector C (31P) from the ECM.
3. Check for continuity between body ground and ECM connector terminal C25.

(To page 11-148)

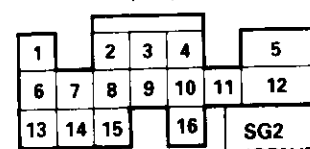
ECM CONNECTORS

C (31P)



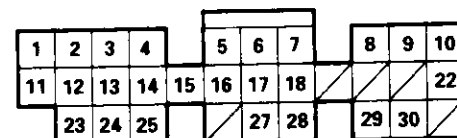
IP-/VS- (RED)

D (16P)



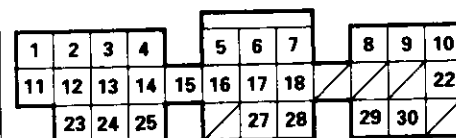
SG2 (GRN/BLK)

Wire side of female terminals



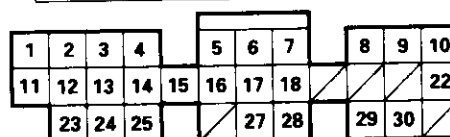
IP-/VS- (RED)

- Repair open in the wire between ECM (C24) and Primary HO2S (Sensor 1).
- Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.



IP-/VS- (RED)

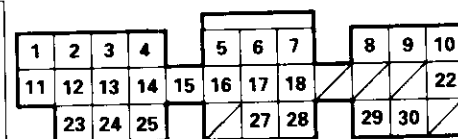
Repair short in the wire between the Primary HO2S (Sensor 1) and ECM (C24).



VS+ (WHT)



SG2 (GRN/BLK)



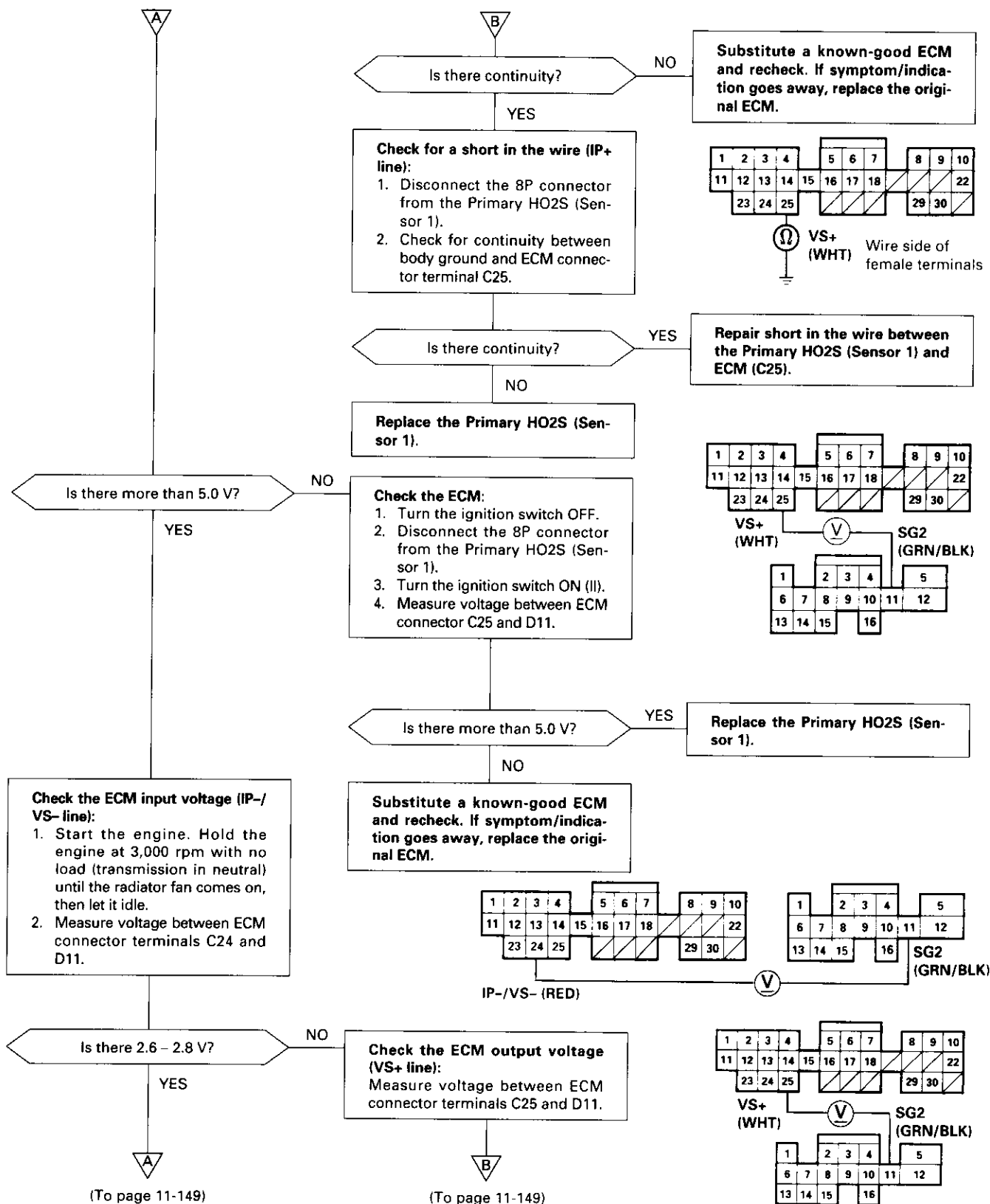
VS+ (WHT)

(cont'd)

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) (D16Y5 engine with M/T) (cont'd)

(From page 11-147)

(From page 11-147)



PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) (D16Y5 engine with M/T) (cont'd)

P1164 The scan tool indicates Diagnostic Trouble Code (DTC) P1164: A range/performance problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P1164 is stored.

Problem Verification:

1. Do the ECM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on.
3. Connect the SCS service connector.
4. Test-drive in 4th gear. Starting at 1,600 rpm, accelerate using wide open throttle for at least 5 seconds. Then decelerate for at least 5 seconds with the throttle completely closed.

Is DTC P1164 indicated?

YES

Replace the Primary HO2S (Sensor 1).

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C145 (Primary HO2S, Sensor 1) and ECM.

P1165 The scan tool indicates Diagnostic Trouble Code (DTC) P1165: A range/performance problem the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) circuit.

- The MIL has been reported on.
- DTC P1165 is stored.

Problem Verification:

1. Do the ECM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on.
3. Connect the SCS service connector.
4. Test-drive under following conditions.
 - 55 mph steady speed
 - Transmission in 5th gear
 - Until readiness code comes on

Is DTC P1165 indicated?

YES

Replace the Primary HO2S (Sensor 1).

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C145 (Primary HO2S, Sensor 1) and ECM.

**P1168**

The scan tool indicates Diagnostic Trouble Code (DTC) P1168: A low voltage problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) LABEL circuit.

- The MIL has been reported on.
- DTC P1168 is stored.

Problem verification:

1. Do the ECM Reset Procedure.
2. Start the engine.
3. Wait at least two minutes.

Is DTC P1168 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C145 (Primary HO2S, Sensor 1) and ECM.

YES

Check the ECM:

1. Turn the ignition switch OFF.
2. Disconnect the ECM connector D (16P).
3. Check for continuity between ECM connector terminal D7 and body ground.

Is there continuity?

NO

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

YES

Check for a short in the wires (LABEL line):

1. Disconnect the Primary HO2S (Sensor 1) 8P connector.
2. Check for continuity between ECM connector terminal D7 and body ground.

Is there continuity?

NO

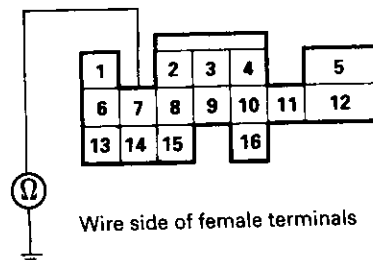
Replace the Primary HO2S (Sensor 1).

YES

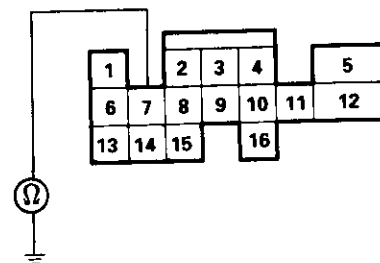
Repair short in the wires between the Primary HO2S (Sensor 1) and ECM (D7).

ECM CONNECTOR D (16P)

LABEL (WHT)



LABEL (WHT)

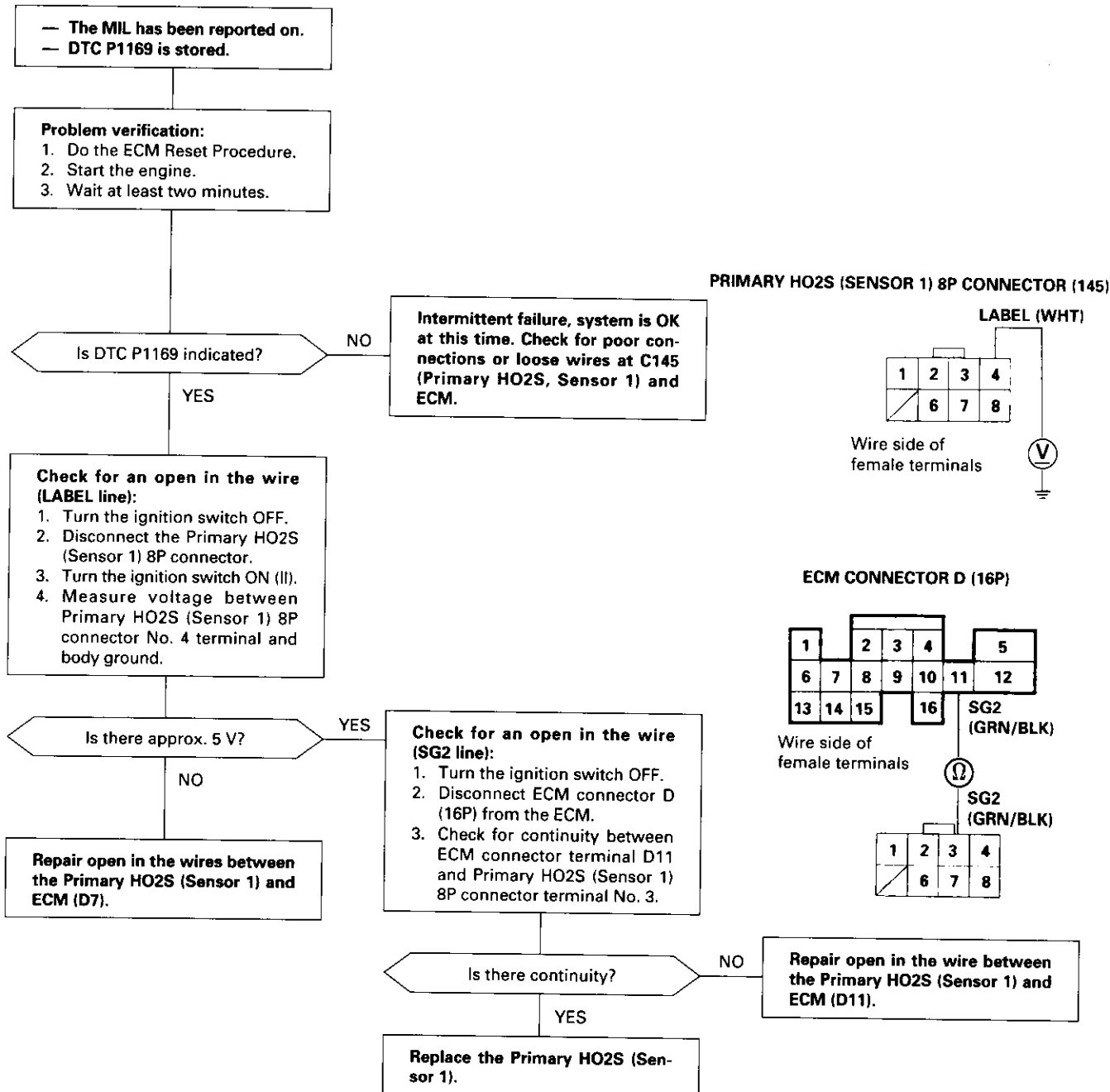


(cont'd)

PGM-FI System

Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) (D16Y5 engine with M/T) (cont'd)

P1169 The scan tool indicates Diagnostic Trouble Code (DTC) P1169: A high voltage problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) LABEL circuit.





Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2)

P0137

The scan tool indicates Diagnostic Trouble Code (DTC) P0137: A low voltage problem in the Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) circuit.

- The MIL has been reported on.
- DTC P0137 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. With the scan tool, check the Secondary HO2S (Sensor 2) output voltage at 3,000 rpm.

Does the voltage stay at 0.3 V or less?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131* (located under right side of dash), C432* (located under middle of dash), C125 (C782)* (Secondary HO2S) (Sensor 2) and ECM/PCM.

YES

Check for a short in the Secondary HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Secondary HO2S (Sensor 2) 4P connector.
3. Start the engine.
4. Check the Secondary HO2S (Sensor 2) output with the scan tool.

Does the voltage stay at 0.3 V or less?

NO

Replace the Secondary HO2S.

YES

Check for a short in the wire (SHO2S line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P) (A (32P))^{*2}.
3. Check for continuity between the Secondary HO2S (Sensor 2) 4P connector terminal No. 1 and body ground.

Is there continuity?

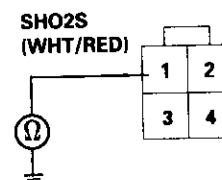
YES

Repair short in the wire between ECM/PCM (D14 (A23)^{*2}) and Secondary HO2S (Sensor 2).

NO

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

SECONDARY HO2S (Sensor 2)
4P CONNECTOR (C125, C782*)



Wire side of female terminals

*1: D16Y8 engine

*2: '99 - 00 models except D16Y5 engine with M/T

(cont'd)

PGM-FI System

Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) ('96 - 98 Models; '99 - 00 D16Y5 engine with M/T)

P0138 The scan tool indicates Diagnostic Trouble Code (DTC) P0138: A high voltage problem in the Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) circuit.

- The MIL has been reported on.
- DTC P0138 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. With the scan tool, check the Secondary HO2S (Sensor 2) output voltage at 3,000 rpm.

Does the voltage stay at 0.6 V or more?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131* (located under right side of dash), C432* (located under middle of dash), C125 (C782)* (Secondary HO2S Sensor 2) and ECM/PCM.

YES

Check for an open in the Secondary HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Secondary HO2S (Sensor 2) 4P connector.
3. Connect the Secondary HO2S (Sensor 2) 4P connector terminals No. 1 and No. 2 with a jumper wire.
4. Turn the ignition switch ON (II).
5. Check the Secondary HO2S (Sensor 2) output voltage with the scan tool.

Is there 0.6 V or more?

NO

Replace the Secondary HO2S (Sensor 2).

YES

Check for an open in the wire (SHO2S line):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals D14 and D13 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the Secondary HO2S (Sensor 2) output voltage with the scan tool.

Is there 0.6 V or more?

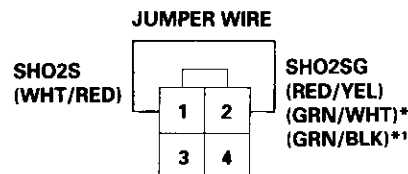
NO

Repair open in the wire between ECM/PCM (D13 and/or D14) and Secondary HO2S (Sensor 2).

YES

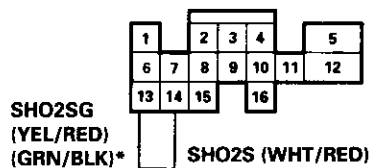
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

SECONDARY HO2S (Sensor 2)
4P CONNECTOR C125 (C782)*



Wire side of female terminals

ECM/PCM CONNECTOR D (16P)



JUMPER WIRE

Wire side of female terminals

*: D16Y8 engine
*1: D16Y5 engine



Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) ('99 – 00 Models except D16Y5 engine with M/T)

P0138

The scan tool indicates Diagnostic Trouble Code (DTC) P0138: A high voltage problem in the Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) circuit.

- The MIL has been reported on.
- DTC P0138 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. Check the Secondary HO2S (Sensor 2) output voltage at 3,000 rpm with the scan tool.

Does the voltage stay at 0.6 V or more?

NO

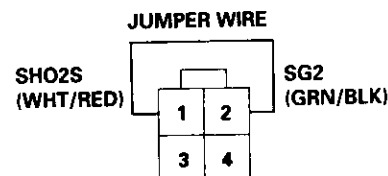
Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131* (located under right side of dash), C432* (located under middle of dash), C125 (C782)* (Secondary HO2S Sensor 2) and ECM/PCM.

YES

Check for an open in the Secondary HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Secondary HO2S (Sensor 2) 4P connector.
3. Connect the Secondary HO2S (Sensor 2) 4P connector terminals No. 1 and No. 2 with a jumper wire.
4. Turn the ignition switch ON (II).
5. Check the Secondary HO2S (Sensor 2) output voltage with the scan tool.

SECONDARY HO2S (Sensor 2)
4P CONNECTOR C125 (C782)*



Wire side of female terminals

Is there 0.6 V or more?

NO

Replace the Secondary HO2S (Sensor 2).

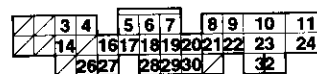
YES

Check for an open in the wire (SHO2S line):

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminals A23 and C18 with a jumper wire.
3. Turn the ignition switch ON (II).
4. Check the Secondary HO2S (Sensor 2) output voltage with the scan tool.

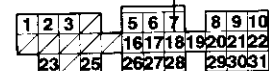
ECM/PCM CONNECTORS

A (32P)



SG2 (GRN/BLK)

SG2 (GRN/BLK) C (31P)



Wire side of female terminals

Is there 0.6 V or more?

NO

Repair open in the wire between ECM/PCM (A23) and Secondary HO2S (Sensor 2).

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

*: D16Y8 engine

PGM-FI System

Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2)

P0139 The scan tool indicates Diagnostic Trouble Code (DTC) P0139: A slow response problem in the Secondary Heated Oxygen Sensor (HO2S) (Sensor 2) circuit.

- The MIL has been reported on.
- DTC P0139 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
3. With the scan tool, check the Secondary HO2S (Sensor 2) output at 3,000 rpm.

Does the voltage stay within 0.3 – 0.6 V for two minutes?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131* (located under right side of dash), C432* (located under middle of dash) C125 (C782)* (Secondary HO2S) (Sensor 2) and ECM/PCM.

YES

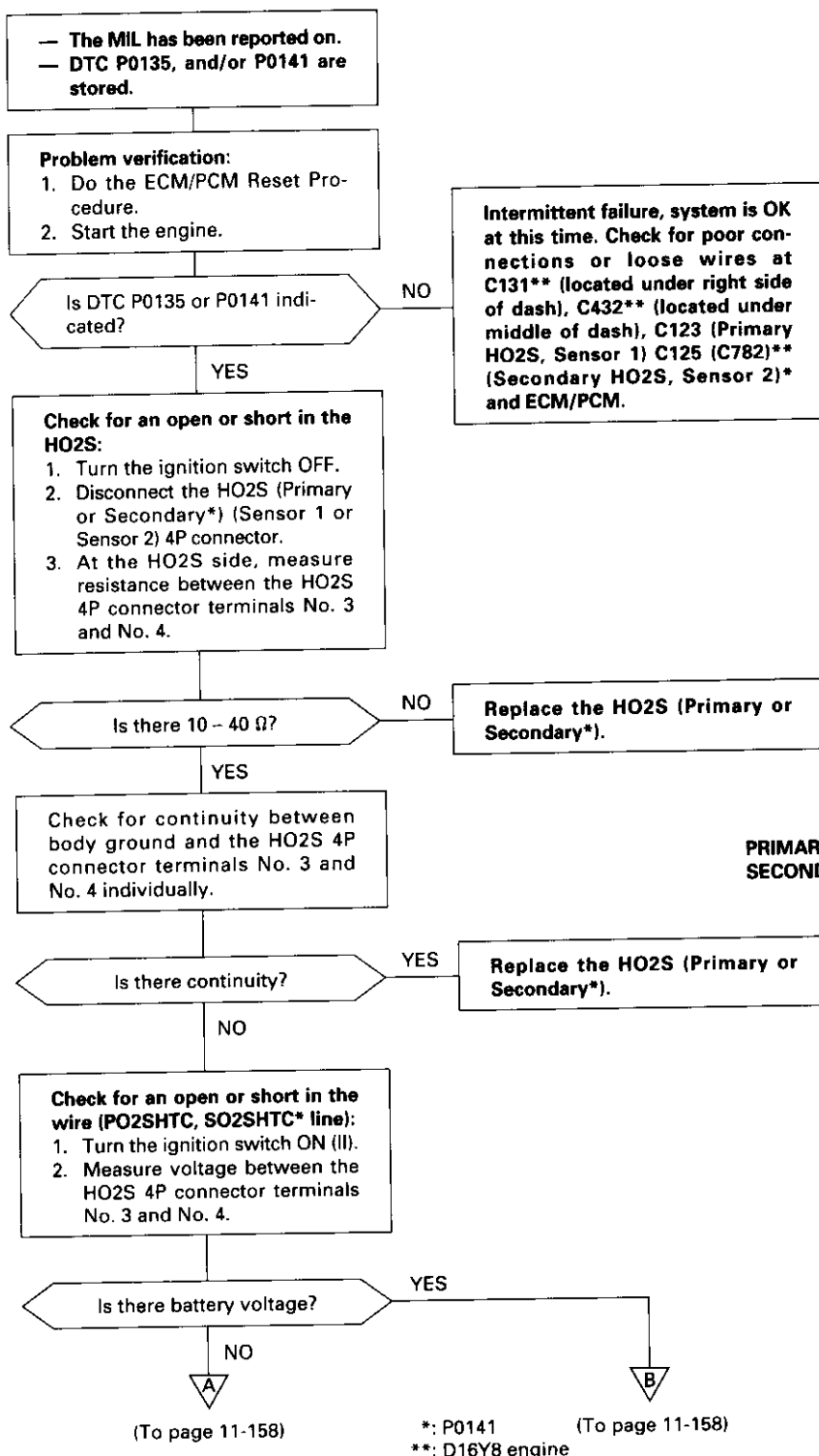
Replace the Secondary HO2S (Sensor 2).

*: D16Y8 engine

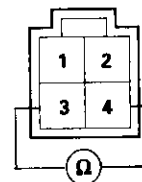


Heated Oxygen Sensor (HO2S) Heater ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

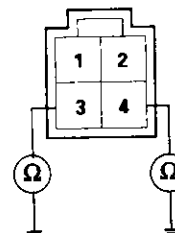
- P0135** The scan tool indicates Diagnostic Trouble Code (DTC) P0135: An electrical problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Heater system (Except D16Y5 engine with M/T).
- P0141** The scan tool indicates Diagnostic Trouble Code (DTC) P0141: A problem in the Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Heater circuit.



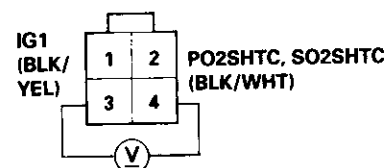
PRIMARY HO2S (Sensor 1) 4P CONNECTOR
SECONDARY HO2S (Sensor 2) 4P CONNECTOR*



Terminal side of male terminals

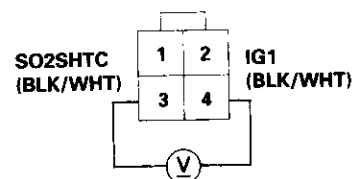


PRIMARY HO2S (SENSOR 1) 4P CONNECTOR (C123)
SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C125)*



Wire side of female terminals

SECONDARY HO2S (SENSOR 2)
4P CONNECTOR (C782)**

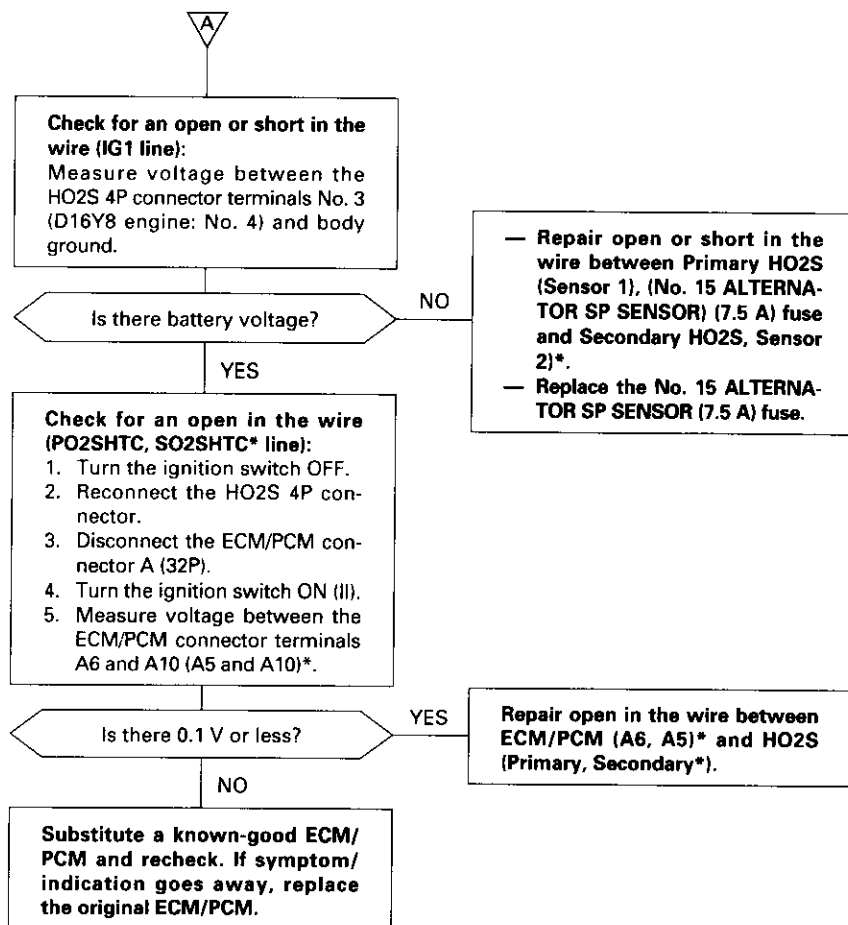


Wire side of female terminals

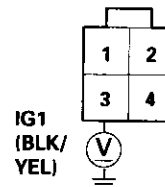
(cont'd)

Heated Oxygen Sensor (HO2S) Heater ('96 - 98 Models, '99 - 00 D16Y5 engine with M/T) (cont'd)

(From page 11-157)

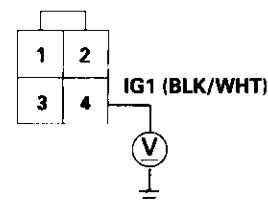


PRIMARY HO2S (SENSOR 1) 4P CONNECTOR (C123)
SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C125)*



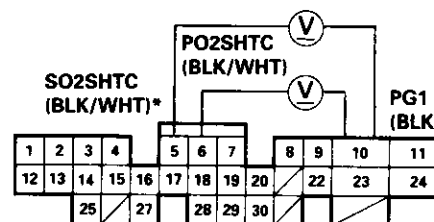
Wire side of female terminals

SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C782)**



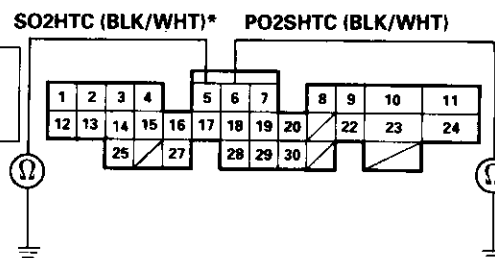
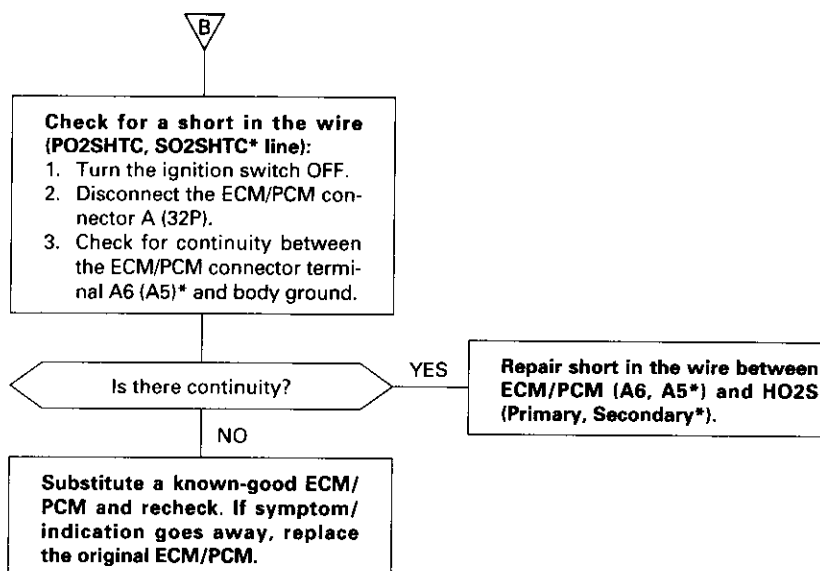
Wire side of female terminals

ECM/PCM CONNECTOR A (32P)



Wire side of female terminals

(From page 11-157)



*: P0141

** : D16Y8 engine



Heated Oxygen Sensor (HO2S) Heater ('99 – 00 Models except D16Y5 engine with M/T)

- P0135** The scan tool indicates Diagnostic Trouble Code (DTC) P0135: An electrical problem in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Heater system (Except D16Y5 engine with M/T).
- P0141** The scan tool indicates Diagnostic Trouble Code (DTC) P0141: A problem in the Secondary Heated Oxygen Sensor (Secondary HO2S) (Sensor 2) Heater circuit.

— The MIL has been reported on.
— DTC P0135, and/or P0141 are stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.

Is DTC P0135 or P0141 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131** (located under right side of dash), C432** (located under middle of dash), C123 (Primary HO2S, Sensor 1) C125 (C782)** (Secondary HO2S, Sensor 2)* and ECM/PCM.

YES

Check for an open or short in the HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the HO2S (Primary or Secondary*) (Sensor 1 or Sensor 2) 4P connector.
3. At the HO2S side, measure resistance between the HO2S 4P connector terminals No. 3 and No. 4.

Is there 10 – 40 Ω ?

NO

Replace the HO2S (Primary or Secondary*).

YES

Check for continuity between body ground and the HO2S 4P connector terminals No. 3 and No. 4 individually.

Is there continuity?

YES

Replace the HO2S (Primary or Secondary*).

NO

Check for an open or short in the wire (PO2SHTC, SO2SHTC* line):

1. Turn the ignition switch ON (II).
2. Measure voltage between the HO2S 4P connector terminals No. 3 and No. 4.

Is there battery voltage?

YES

NO

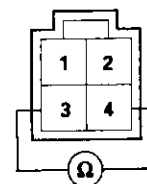
(To page 11-160)

*: P0141

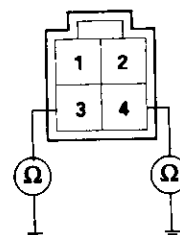
** : D16Y8 engine

(To page 11-160)

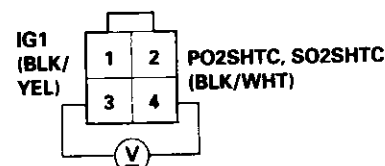
PRIMARY HO2S (Sensor 1) 4P CONNECTOR SECONDARY HO2S (Sensor 2) 4P CONNECTOR*



Terminal side of male terminals

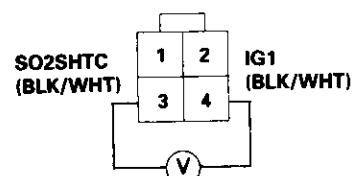


PRIMARY HO2S (SENSOR 1) 4P CONNECTOR (C123) SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C125)*



Wire side of female terminals

SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C782)**



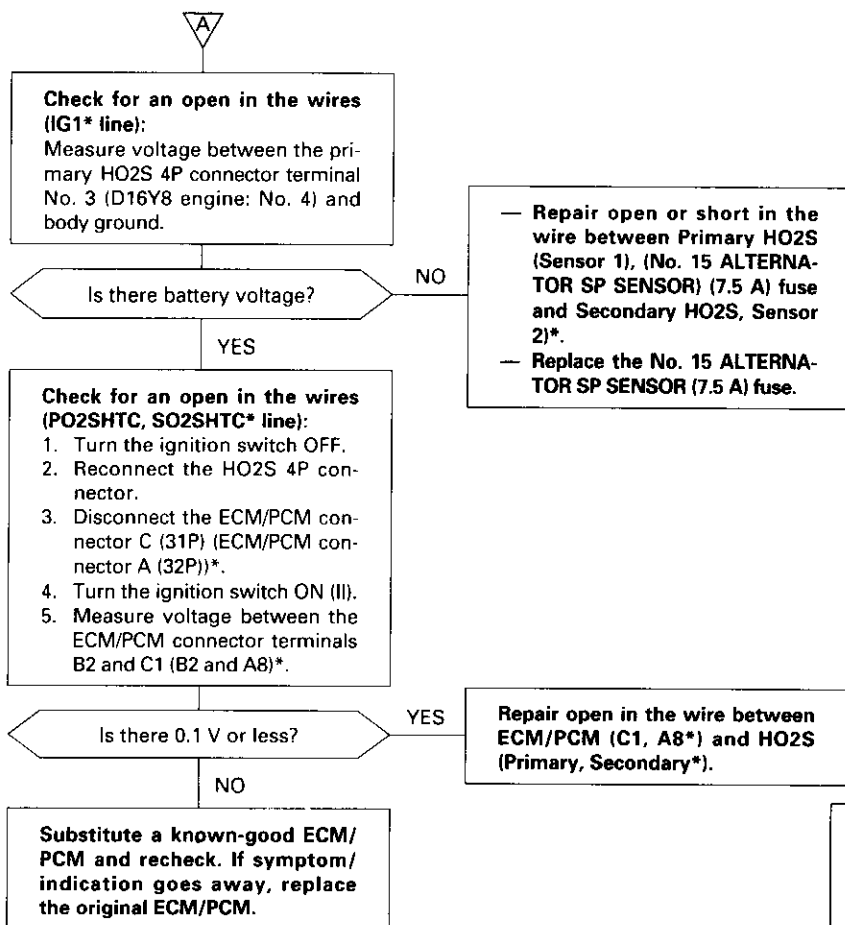
Wire side of female terminals

(cont'd)

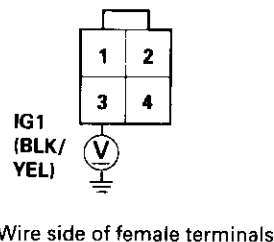
PGM-FI System

Heated Oxygen Sensor (HO2S) Heater ('99 – 00 Models except D16Y5 engine with M/T) (cont'd)

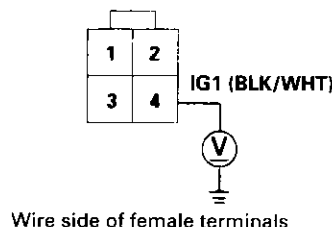
(From page 11-159)



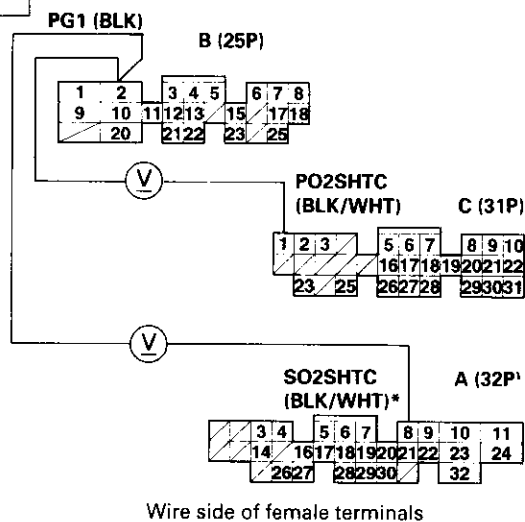
PRIMARY HO2S (SENSOR 1) 4P CONNECTOR (C123)
SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C125)*



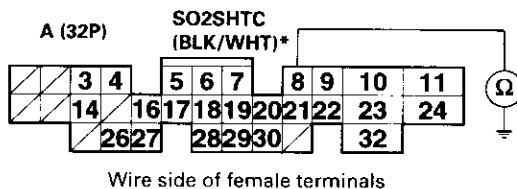
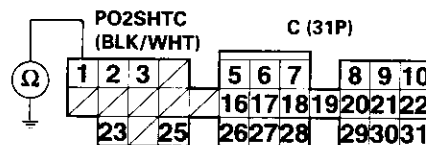
SECONDARY HO2S (SENSOR 2) 4P CONNECTOR (C782)**



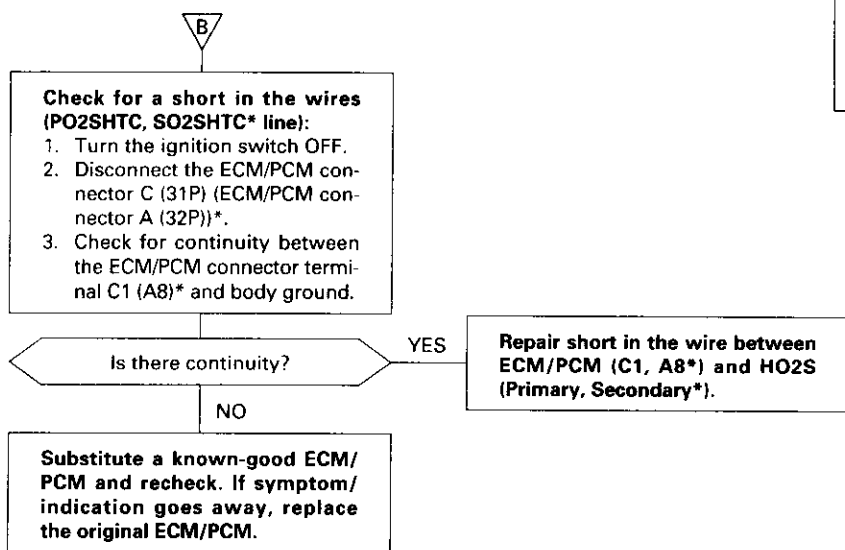
ECM/PCM CONNECTORS



ECM/PCM CONNECTORS



(From page 11-159)



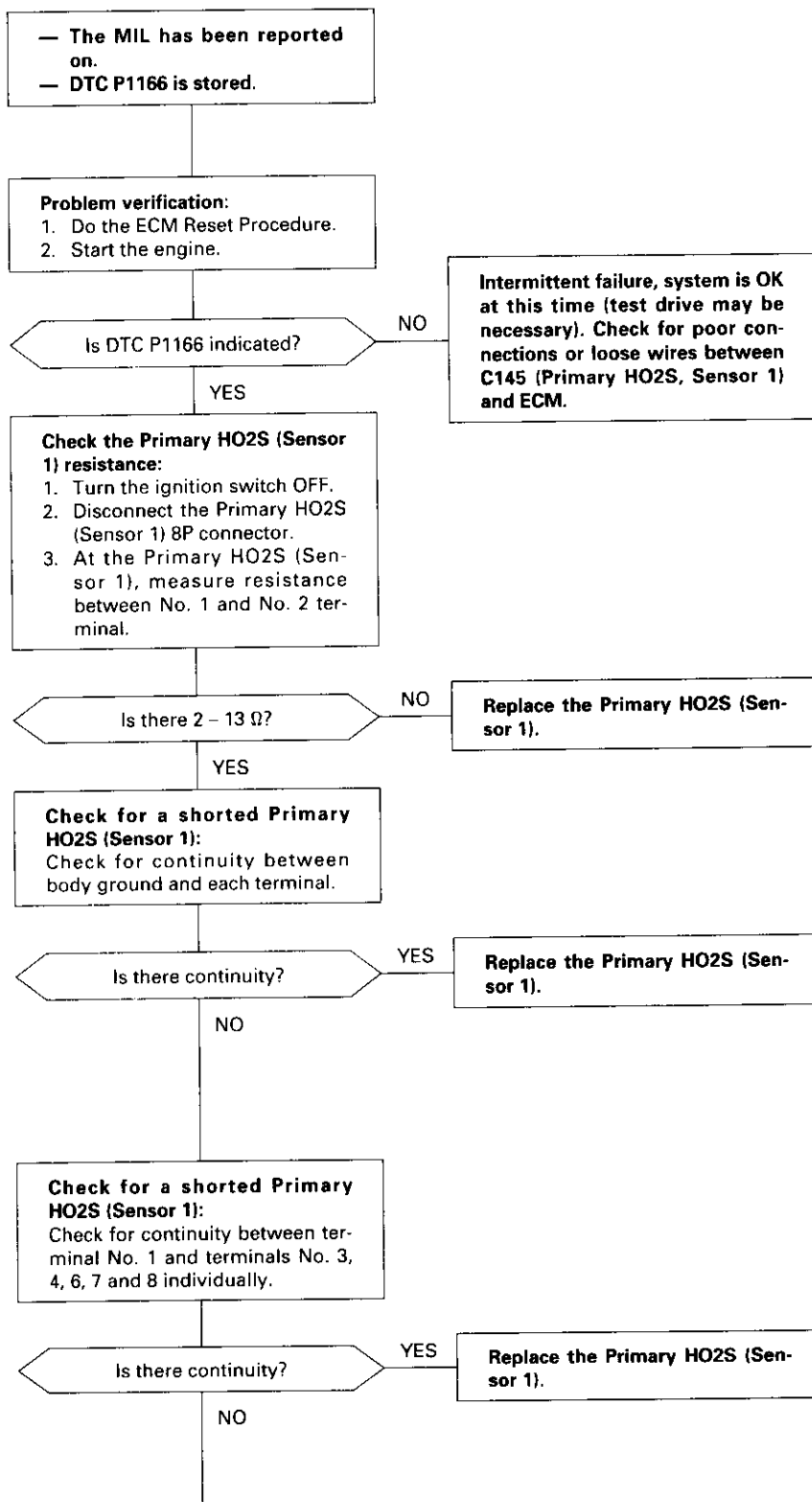
*: P0141

** : D16Y8 engine



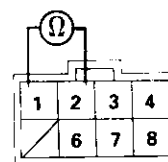
Heated Oxygen Sensor (HO2S) Heater (D16Y5 engine with M/T)

P1166 The scan tool indicates Diagnostic Trouble Code (DTC) P1166: An electrical problem in the Primary Heated Oxygen Sensor (Primary HO2S) Heater system.

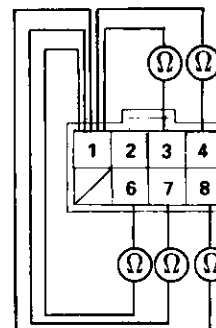
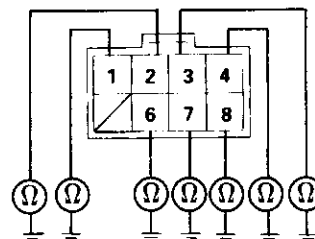


(To page 11-162)

PRIMARY HO2S (SENSOR 1) 8P CONNECTOR



Terminal side of male terminals



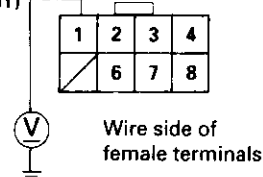
(cont'd)

Heated Oxygen Sensor (HO2S) Heater (D16Y5 engine with M/T) (cont'd)

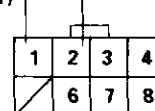
(From page 11-161)

PRIMARY HO2S (SENSOR 1) 8P CONNECTOR (C145)

PO2SHTC
(BLK/WHT)



PO2SHTC
(BLK/WHT) PG (BLK)



Check the PO2SHTC circuit:

1. Start engine and keep engine rpm at idle.
2. At the engine wire harness, measure voltage between Primary HO2S (Sensor 1) 8P connector terminal No. 1 terminal and body ground.

Is there more than 5 V?

YES

Check for an open in the wire (PG line):
Measure voltage between Primary HO2S (Sensor 1) 8P connector terminals No. 1 and No. 2.

Is there more than 5 V?

NO

Repair open in the wire between the HO2S and G101 (located at thermostat housing).

YES

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

Check for a short in the wire (PO2SHTC line):

1. Turn the ignition switch OFF.
2. Disconnect ECM connector A (32P) from the ECM.
3. Check for continuity between ECM connector terminal A6 and body ground.

Is there continuity?

YES

Repair short in the wire between the ECM (A6) and the Primary HO2S (Sensor 1).

NO

Check for an open in the wire (PO2SHTC line):

Check for continuity between ECM connector terminal A6 and the Primary HO2S (Sensor 1) 8P connector terminal No. 1.

Is there continuity?

NO

Repair open in the wire between ECM (A6) and the Primary HO2S (Sensor 1).

YES

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

ECM CONNECTOR A (32P)

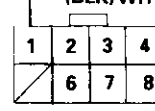


Wire side of female terminals

PO2SHTC
(BLK/WHT)



PO2SHTC
(BLK/WHT)





P1167 The scan tool indicates Diagnostic Trouble Code (DTC) P1167: A system malfunction in the Primary Heated Oxygen Sensor (Primary HO2S) (Sensor 1) Heater circuit.

- The MIL has been reported on.
- DTC P1167 is stored.

Problem Verification:

1. Do the ECM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on.

Is DTC1167 indicated?

YES

Check for an open in the wire (VS+ line):

1. Turn the ignition switch OFF.
2. Disconnect the Primary HO2S (Sensor 1) 8P connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the Primary HO2S (Sensor 1) 8P connector terminal No. 6 and body ground.

Is there more than 5 V?

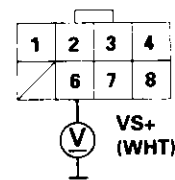
YES

Replace the Primary HO2S (Sensor 1).

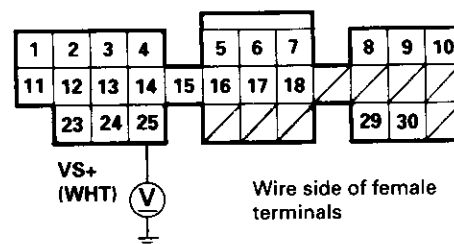
NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C145 (Primary HO2S, Sensor 1) and ECM.

PRIMARY HO2S (SENSOR 1) 8P CONNECTOR (C145)



ECM CONNECTOR C (31P)



Check the ECM:

Measure voltage between the ECM connector terminal C25 and body ground.

Is there more than 5 V?

YES

Repair open in the wire ECM (C25) and Primary HO2S (Sensor 1).

NO

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

PGM-FI System

Fuel Supply System

P0171 The scan tool indicates Diagnostic Trouble Code (DTC) P0171: The fuel system is too lean.

P0172 The scan tool indicates Diagnostic Trouble Code (DTC) P0172: The fuel system is too rich.

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 recheck for DTC P0171 and/or P0172.

P0106-8, P1128*³, *⁵, P1129*³, *⁵: MAP Sensor

P0135: Primary HO2S Heater

P0137, P0138: Secondary HO2S

P0141: Secondary HO2S Heater

P0401: EGR Flow Insufficient*¹

P0441: EVAP System Insufficient Purge Flow*⁶

P1259: VTEC System*²

P1491: EGR Valve Lift Insufficient*¹

P1498: EGR Valve Lift Sensor High Voltage*¹

*¹: D16Y5 engines

*²: D16Y5, D16Y8, B16A2 engine

*³: '97 models

*⁴: '96 models

*⁵: '98 – 00 models

*⁶: '96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan KA, KC, KL (DX) models, hatchback: all models), '97 D16Y8 engine (sedan: KA, KC models)

Possible Cause

DTC P0171
System too lean

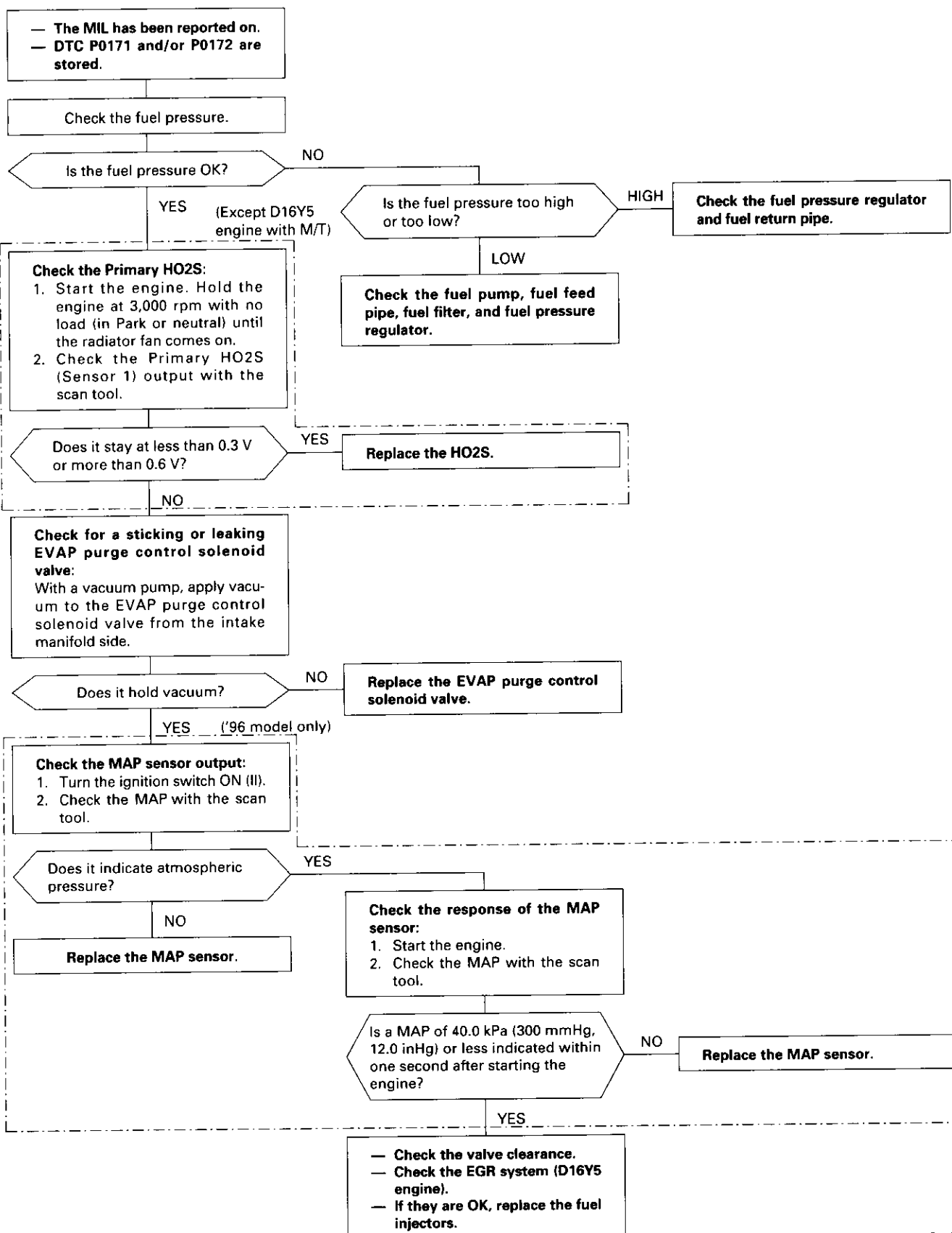
- Fuel Pump insufficient flow/pressure
- Fuel Feed Line clogged, leaking
- Fuel Pressure Regulator stuck open
- Fuel Filter clogged
- Fuel Injector clogged, air inclusion
- Gasoline doesn't meet Owner's Manual spec.
- Primary HO2S (Sensor 1) deteriorated
- MAP Sensor range/performance*⁴
- EGR System malfunction (too much flow)*¹
- Valve Clearance
- Exhaust leak

DTC P0172
System too rich

- Fuel Pressure Regulator clogged, stuck closed
- Fuel Return Pipe clogged
- Fuel Injector leaking
- Gasoline doesn't meet Owner's Manual spec.
- Primary HO2S (Sensor 1) deteriorated
- MAP Sensor range/performance*⁴
- EGR System insufficient flow*¹
- EVAP Purge Control Solenoid Valve leaking, stuck opened
- Valve Clearance



Troubleshooting Flowchart



PGM-FI System

Random Misfire

P0300*5 or **P1300***3,*4 and **P0301 through P0304**

The scan tool indicates Diagnostic Trouble Code (DTC) P0300*5 or P1300*3,*4 and some of P0301 – 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*5 or P1300*3,*4 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*5 or P1300*3,*4 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 recheck for the misfire DTC.

P0106*4, P0107, P0108, P1128*3,*5, P1129*3,*5: MAP sensor

P0131, P0132: HO2S

P0171, P0172: Fuel metering

P0401, P1491, P1498: EGR system*1

P0505: Idle Control System

P1253: VTEC System*2

P1361, P1362: TDC sensor

P1381, P1382: CYP sensor

P1508: IAC valve

Possible Cause

- Fuel pump insufficient fuel pressure, amount of flow
- Fuel line clogging, blockage, leakage
- Fuel filter clogging
- Fuel pressure regulator stuck open
- EGR system malfunction*1
- Distributor malfunction
- Ignition coil wire open, leakage
- Ignition control module malfunction
- MAP sensor range/performance, poor response*4
- Valves carbon deposit
- Compression low
- IAC valve malfunction*4
- VTEC system malfunction*2
- Fuel does not meet Owner's Manual spec., lack of fuel
- HO2S
- HO2S circuit

*1: D16Y5 engine

*2: D16Y5, D16Y8, B16A2 engine

*3: '97 models

*4: '96 models

*5: '98 – 00 models

Troubleshooting

By test-driving, determine the conditions during which misfire occurs. Depending on these conditions, test in the order described in the table below.

Possible cause	EGR*1 system	Crankshaft position (CKP) sensor	Fuel pressure	Distributor and Ignition wires	ICM	Valve Clearance	IAC Valve	MAP sensor
Page								
Condition	11-255	section 6	11-230, 231	section 23	section 23	section 6	11-194	11-115
Only low rpm and load	③	⑤	④			⑤	①	②
Only accelerating			②	①	③			④
Only high rpm and load		⑤	①	②	③	⑤		④
Not specific		⑤	①	②	④	⑤		③

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.



Misfire Detected in One Cylinder

P0301 The scan tool indicates Diagnostic Trouble Code (DTC) P0301: Cylinder 1 misfire detected.

P0302 The scan tool indicates Diagnostic Trouble Code (DTC) P0302: Cylinder 2 misfire detected.

P0303 The scan tool indicates Diagnostic Trouble Code (DTC) P0303: Cylinder 3 misfire detected.

P0304 The scan tool indicates Diagnostic Trouble Code (DTC) P0304: Cylinder 4 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 recheck for the misfire DTC.

P0106*4, P0107, P0108, P1128*3, *5, P1129*3, *5: MAP sensor

P0131, P0132: HO2S

P0171, P0172: Fuel supply system

P0335, P0336: CKF sensor

P0401, P1491, P1498: EGR system

P0441: EVAP system Insufficient purge flow*6

P1359, P1361, P1362: TDC sensor

P1381, P1382: CYP sensor

*4: '96 models

*6: '96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan KA, KC, KL (DX) models, hatchback: all models), '97 D16Y8 engine (sedan: KA, KC models)

Possible Cause

- Fuel injector clogging, fuel leakage, air leakage
- Fuel injector circuit open or shorted
- Spark plug carbon deposits, fouling, malfunction
- Ignition wires open, leaking
- Distributor malfunction
- Compression low
- Valve clearance out of spec
- VTEC system malfunction (D16Y5, D16Y8, B16A2 engine)
- HO2S
- HO2S circuit

(cont'd)

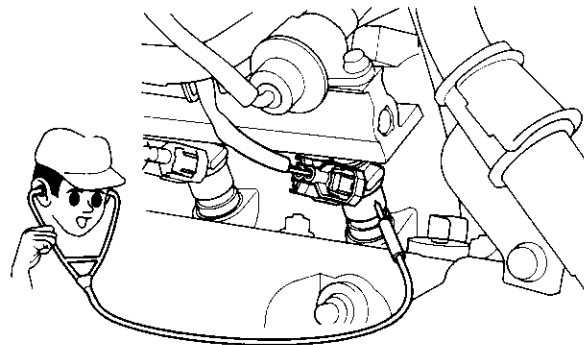
PGM-FI System

Misfire in Detected One Cylinder (cont'd)

Troubleshooting Flowchart

- The MIL has been reported on.
- DTC P0301, P0302, P0303, or P0304 is indicated.

Check the fuel injector function:
Start the engine, and listen for a clicking sound at the fuel injector in the problem cylinder.



Does it click?

NO

YES

Check for an open or short in the harness between ECM/PCM and the fuel injector.

Are the wires OK?

NO

Repair open or short in the wire.

YES

- Replace the fuel injector.
- Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

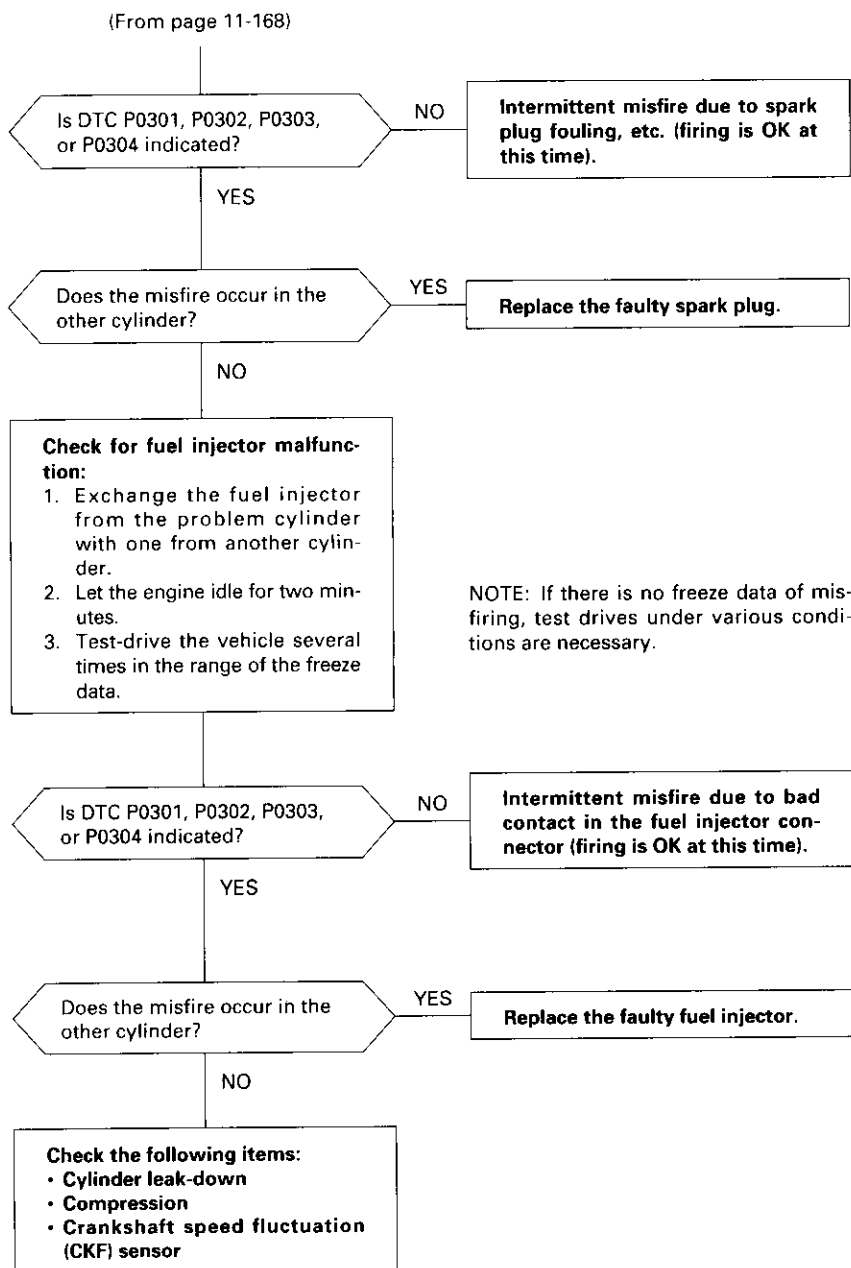
Problem verification:

1. After checking and recording the freeze data, do the ECM/PCM Reset Procedure.
2. Exchange the spark plug from the problem cylinder with one from another cylinder.
3. Connect the SCS service connector.
4. Test-drive the vehicle several times in the range of the freeze data.

NOTE:

- If there is no freeze data of misfiring, just clear the DTC.
- If there is no freeze data of misfiring, test drives under various conditions are necessary.

(To page 11-169)



PGM-FI System

Knock Sensor (KS) ('96 – 98 D16Y5 engine with CVT and '96 – 98 D16Y8 engine)

P0325

The scan tool indicates Diagnostic Trouble Code (DTC) P0325: A malfunction in the circuit of the Knock Sensor (KS).

- The MIL has been reported on.
- DTC P0325 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Hold the engine at 3,000 – 4,000 rpm for at least 60 seconds.

Is DTC P0325 indicated?

NO

Intermittent failure, system is OK at this time (test drive may be necessary).
Check for poor connections or loose wires between C137 (knock sensor (KS)) and ECM/PCM.

YES

Check for a short in the wire (KS line):

1. Turn the ignition switch OFF.
2. Disconnect the knock sensor 2P connector.
3. Disconnect the ECM/PCM connector D (16P).
4. Check for continuity between ECM/PCM connector terminals D6 and body ground.

Is there continuity?

YES

Repair short in the wire between ECM/PCM (D6) and knock sensor.

NO

Check for an open in the wire (KS line):

Check for continuity between ECM/PCM connector terminal D6 and knock sensor 2P connector terminal No. 1.

Is there continuity?

NO

Repair open in the wire between ECM/PCM (D6) and knock sensor.

YES

Substitute a known-good knock sensor and recheck.

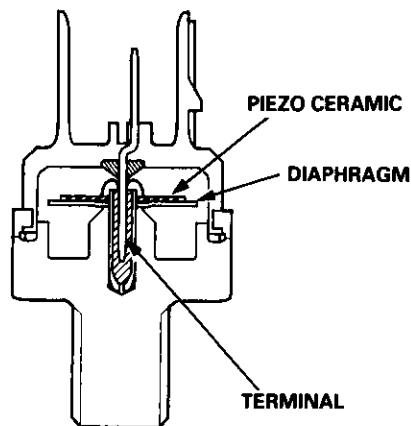
Is DTC P0325 indicated?

NO

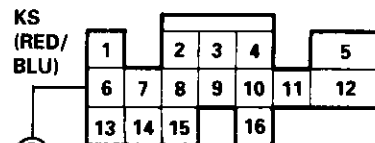
Replace the original knock sensor.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

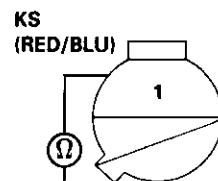


ECM/PCM CONNECTOR D (16P)



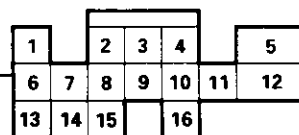
Wire side of female terminals

KS 2P CONNECTOR (C137)



Wire side of female terminals

KS (RED/BLU)





Knock Sensor (KS) ('99 – 00 D16Y5 engine with CVT, '99 – 00 D16Y8 engine and B16A2 engine

P0325

The scan tool indicates Diagnostic Trouble Code (DTC) P0325: A malfunction in the circuit of the Knock Sensor (KS).

- The MIL has been reported on.
- DTC P0325 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Hold the engine at 3,000 – 4,000 rpm for at least 60 seconds.

Is DTC P0325 indicated?

NO

Intermittent failure, system is OK at this time (test drive may be necessary).
Check for poor connections or loose wires at C137 (knock sensor (KS)) and ECM/PCM.

YES

Check for a short in the wire (KS line):

1. Turn the ignition switch OFF.
2. Disconnect the knock sensor 1P connector.
3. Check for continuity between ECM/PCM connector terminal C3 and body ground.

Is there continuity?

YES

Repair short in the wire between ECM/PCM (C3) and knock sensor.

NO

Check for an open in the wire (KS line):

Check for continuity between ECM/PCM connector terminal C3 and knock sensor connector terminal No. 1.

Is there continuity?

NO

Repair open in the wire between ECM/PCM (C3) and knock sensor.

YES

Substitute a known-good knock sensor and recheck.

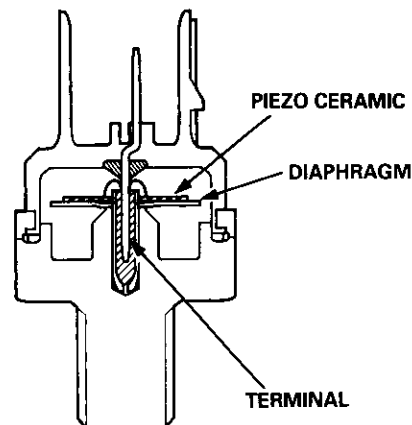
Is DTC P0325 indicated?

NO

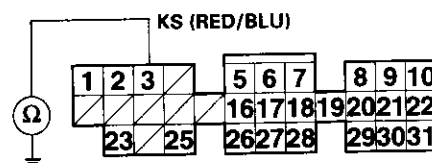
Replace the original knock sensor.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

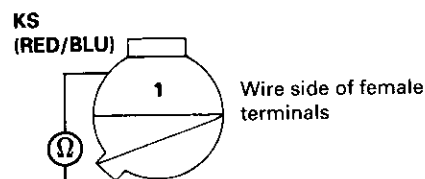


ECM/PCM CONNECTOR C (31P)



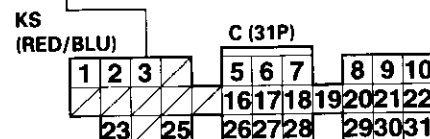
Wire side of female terminals

KS 2P CONNECTOR (C137)



Wire side of female terminals

ECM/PCM CONNECTOR



Wire side of female terminals

PGM-FI System

Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) Sensor ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

P0335 The scan tool indicates Diagnostic Trouble Code (DTC) P0335: A malfunction in the Crankshaft Position (CKP) sensor circuit.

P0336 The scan tool indicates Diagnostic Trouble Code (DTC) P0336: A range/performance problem in the Crankshaft Position (CKP) sensor circuit.

P1361 The scan tool indicates Diagnostic Trouble Code (DTC) P1361: Intermittent interruption in the Top Dead Center (TDC) sensor circuit.

P1362 The scan tool indicates Diagnostic Trouble Code (DTC) P1362: No signal in the Top Dead Center (TDC) sensor circuit.

P1381 The scan tool indicates Diagnostic Trouble Code (DTC) P1381: Intermittent interruption in the Cylinder Position (CYP) sensor circuit.

P1382 The scan tool indicates Diagnostic Trouble Code (DTC) P1382: No signal in the Cylinder Position (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 recheck for those DTCs.

D16Y5 engine:

D16Y7, D16Y8 engines:

— The MIL has been reported on.
— DTC P0335, P0336, P1361, P1362, P1381 and/or P1382 are stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.

Is DTC P0335, P0336, P1361, P1362, P1381 and/or P1382 indicated?

YES

Check for an open in the CKP/TDC/CYP sensor:

1. Turn the ignition switch OFF.
2. Disconnect the distributor 10P connector.
3. Measure resistance between the terminals of the indicated sensor (*see table).

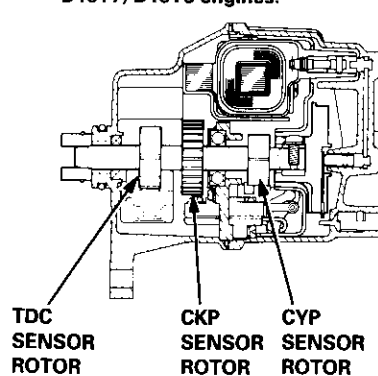
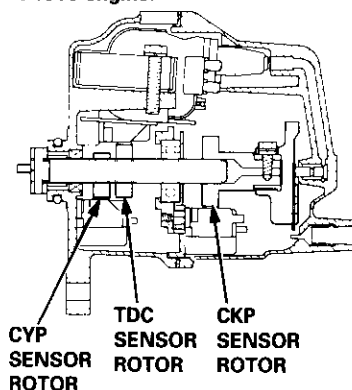
Is there 350 – 700 Ω?

YES

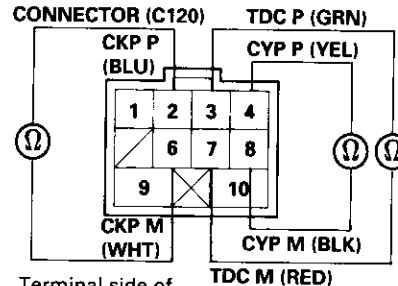
(To page 11-173)

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C120 (distributor) and ECM/PCM.



DISTRIBUTOR 10P CONNECTOR (C120)



Terminal side of male terminals

SENSOR	DTC	SENSOR TERMINAL	ECM/PCM TERMINAL	WIRE COLOR
CKP	P0335	2	C2	BLU
	P0336	6	C12	WHT
TDC	P1361	3	C3	GRN
	P1362	7	C13	RED
CYP	P1381	4	C4	YEL
	P1382	8	C14	BLK



(From page 11-172)

**Check for a short in the CKP/
TDC/CYP sensor:**

Check for continuity to body ground on both terminals of the indicated sensor individually (*see table).

Is there continuity?

YES

Replace the distributor ignition housing (see section 23).

NO

**Check for an open in the wires
(CKP/TDC/CYP lines):**

1. Reconnect the distributor 10P connector.
2. Disconnect the ECM/PCM connector C (31P).
3. Measure resistance between the terminals of the indicated sensor on the ECM/PCM connector (*see table).

Is there 350 – 700 Ω ?

NO

Repair open in the indicated sensor wires (*see table).

YES

**Check for a short in the wires
(CKP/TDC/CYP lines):**

Check for continuity between body ground and ECM/PCM connector terminals C2, C3 and/or C4 individually.

Is there continuity?

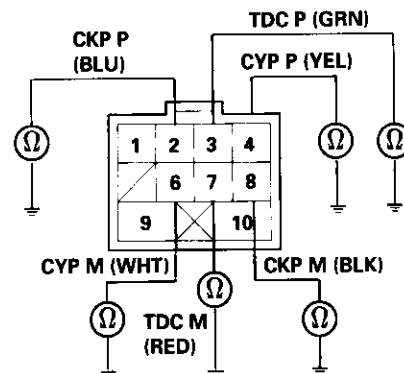
YES

Repair short in the indicated sensor wires (*see table).

NO

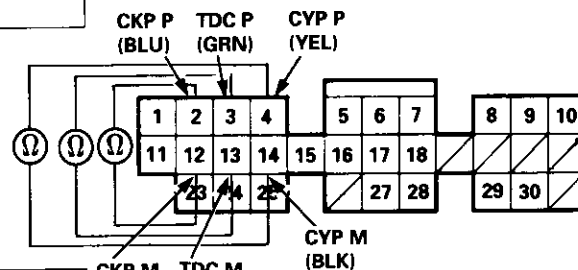
Substitute a known-good ECM/PCM, and recheck. If symptom/indication goes away, replace the original ECM/PCM.

**DISTRIBUTOR
10P CONNECTOR (C120)**

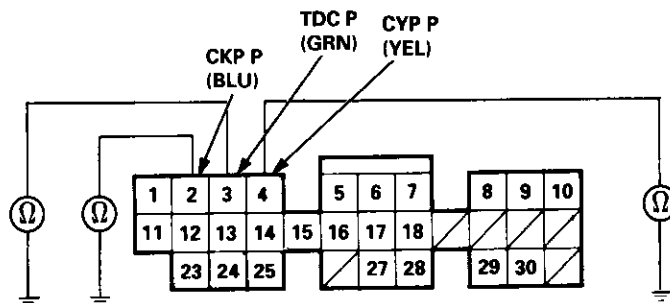


Terminal side of male terminals

ECM/PCM CONNECTORS C (31P)



Wire side of female terminals



Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) Sensor ('99 – 00 Models except D16Y5 engine with M/T)

- P0335** The scan tool indicates Diagnostic Trouble Code (DTC) P0335: A malfunction in the Crankshaft Position (CKP) sensor circuit.
- P0336** The scan tool indicates Diagnostic Trouble Code (DTC) P0336: A range/performance problem in the Crankshaft Position (CKP) sensor circuit.
- P1361** The scan tool indicates Diagnostic Trouble Code (DTC) P1361: Intermittent interruption in the Top Dead Center (TDC) sensor circuit.
- P1362** The scan tool indicates Diagnostic Trouble Code (DTC) P1362: No signal in the Top Dead Center (TDC) sensor circuit.
- P1381** The scan tool indicates Diagnostic Trouble Code (DTC) P1381: Intermittent interruption in the Cylinder Position (CYP) sensor circuit.
- P1382** The scan tool indicates Diagnostic Trouble Code (DTC) P1382: No signal in the Cylinder Position (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 recheck for those DTCs.

D16Y5 engine:

D16Y7, D16Y8, B16A2 engines:

— The MIL has been reported on.
— DTC P0335, P0336, P1361, P1362, P1381 and/or P1382 are stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.

Is DTC P0335, P0336, P1361, P1362, P1381 and/or P1382 indicated?

YES

Check for an open in the CKP/TDC/CYP sensor:

1. Turn the ignition switch OFF.
2. Disconnect the distributor 10P connector.
3. Measure resistance between the terminals of the indicated sensor (*see table).

Is there 350 – 700 Ω ?

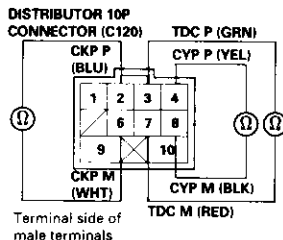
YES

(To page 11-175)

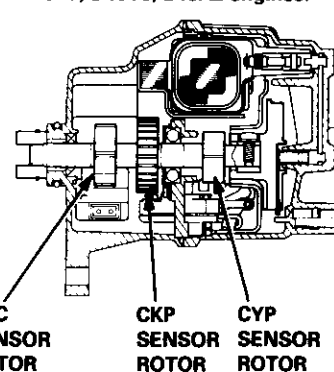
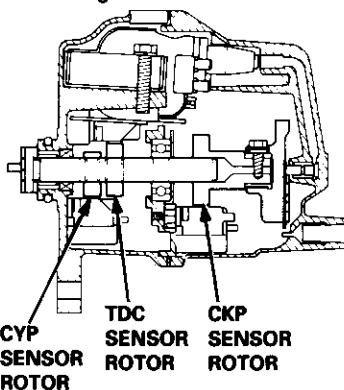
NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C120 (distributor) and ECM/PCM.

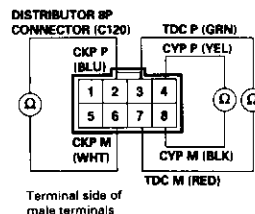
D16Y5, B16A2 engine:



Replace the distributor ignition housing (see section 23).



D16Y7, D16Y8 engine:



Terminal side of male terminals

※:

SENSOR	DTC	SENSOR TERMINAL	ECM/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



(From page 11-174)

Check for a short in the CKP/TDC sensor:
Check for continuity to body ground on both terminals of the indicated sensor individually.

Is there continuity?

YES

Replace the CKP/TDC sensor.

NO

Check for an open in the wires (CKP/TDC lines):

1. Reconnect the CKP/TDC sensor 4P connector.
2. Disconnect the ECM/PCM connector C (31P).
3. Measure resistance between the terminals of the indicated sensor on the ECM/PCM connector (*see table).

Is there 350 – 700 Ω ?

NO

Repair open in the indicated sensor wires (*see table).

YES

Check for a short in the wires (CKP/TDC lines):

Check for continuity between body ground and ECM/PCM connector terminals C8, C20 and/or C29 individually.

Is there continuity?

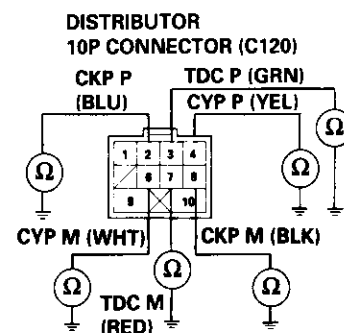
YES

Repair short in the indicated sensor wires (*see table).

NO

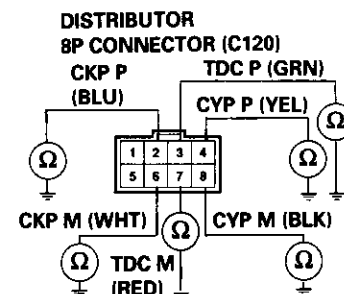
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

D16Y5, B16A2 engine:



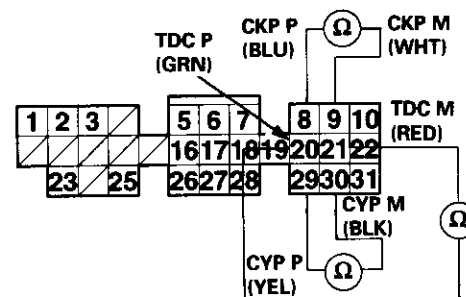
Terminal side of male terminals

D16Y7, D16Y8 engine:



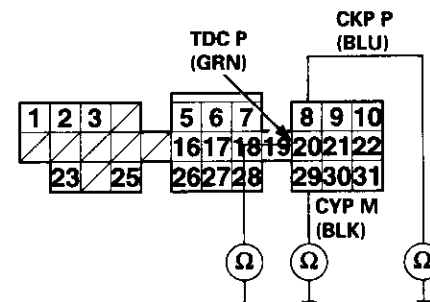
Terminal side of male terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

PGM-FI System

Vehicle Speed Sensor (VSS) ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

P0500 The scan tool indicates Diagnostic Trouble Code (DTC) P0500: A malfunction problem in the Vehicle Speed Sensor (VSS) circuit [except A/T (D16Y7, D16Y8 engine)].

P0501 The scan tool indicates Diagnostic Trouble Code (DTC) P0501: A range/performance problem in the Vehicle Speed Sensor (VSS) circuit [A/T (D16Y7, D16Y8 engine)].

- The MIL has been reported on.
- DTC P0500 or P0501 is stored.

Problem verification:

1. Test-drive the vehicle.
2. Check the vehicle speed with the scan tool.

Is the correct speed indicated?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C117 (VSS) and ECM/PCM.

NO

Check for an open in the ECM/PCM:

1. Turn the ignition switch OFF.
2. Block the rear wheels and set the parking brake.
3. Jack up the front of the vehicle and support it with safety stands.
4. Turn the ignition switch ON (II).
5. Block the right front wheel and slowly rotate the left front wheel.
6. Measure voltage between the ECM/PCM connector terminals C18 and A9.

Does the voltage pulse 0 V and 5 V?

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

NO

Check for a short in the ECM/PCM:

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector C (31P).
3. Turn the ignition switch ON (II).
4. Block the right front wheel and slowly rotate the left front wheel.
5. Measure voltage between the ECM/PCM connector terminals C18 and A9.

Does the voltage pulse 0 V and 5 V?

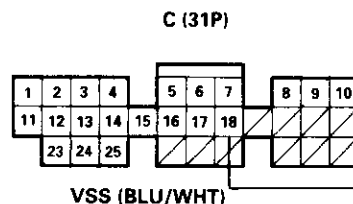
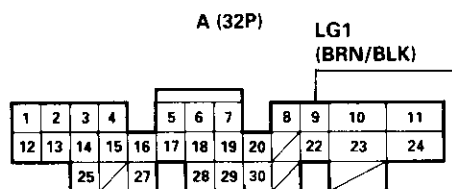
YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

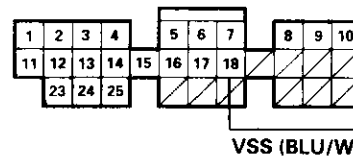
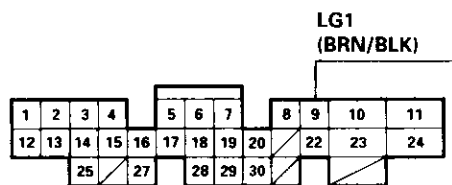
NO

- Repair short in the wire between ECM/PCM (C18) and VSS, TCM.
- Repair open in the wire between ECM/PCM (C18) and VSS.
- If wire is OK, test the VSS (see section 23).

ECM/PCM CONNECTORS



Wire side of female terminals





Vehicle Speed Sensor (VSS) ('99 – 00 Models except D16Y5 engine with M/T)

P0500 The scan tool indicates Diagnostic Trouble Code (DTC) P0500: A malfunction problem in the Vehicle Speed Sensor (VSS) circuit [except A/T (D16Y7, D16Y8 engine)].

P0501 The scan tool indicates Diagnostic Trouble Code (DTC) P0501: A range/performance problem in the Vehicle Speed Sensor (VSS) circuit [A/T (D16Y7, D16Y8 engine)].

- The MIL has been reported on.
- DTC P0500 or P0501 is stored.

Problem verification:

1. Test-drive the vehicle.
2. Check the vehicle speed with the scan tool.

Is the correct speed indicated?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C117 (VSS) and ECM/PCM.

NO

Check for an open in the ECM/PCM:

1. Turn the ignition switch OFF.
2. Block the rear wheels and set the parking brake.
3. Jack up the front of the vehicle and support it with safety stands.
4. Turn the ignition switch ON (II).
5. Block the right front wheel and slowly rotate the left front wheel.
6. Measure voltage between the ECM/PCM connector terminals C23 and B20.

Does the voltage pulse 0 V and 5 V or battery voltage?

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

NO

Check for a short in the ECM/PCM:

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector C (31P).
3. Turn the ignition switch ON (II).
4. Block the right front wheel and slowly rotate the left front wheel.
5. Measure voltage between the ECM/PCM connector terminals C23 and B20.

Does the voltage pulse 0 V and 5 V or battery voltage?

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

NO

- Repair short in the wire between ECM/PCM (C23) and VSS, TCM.
- Repair open in the wire between ECM/PCM (C23) and VSS.
- If wire is OK, test the VSS (see section 23).

ECM/PCM CONNECTORS

B (25P)

1	2	3	4	5	6	7	8
9	10	11	12	13	15	17	18
20	21	22	23	25			

LG1 (BRN/BLK)

C (31P)

1	2	3	4	5	6	7	8	9	10
16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31				



VSS (BLU/WHT)

Wire side of female terminals

ECM/PCM CONNECTORS

B (25P)

1	2	3	4	5	6	7	8
9	10	11	12	13	15	17	18
20	21	22	23	25			

LG1 (BRN/BLK)

C (31P)

1	2	3	4	5	6	7	8	9	10
16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31				



VSS (BLU/WHT)

Wire side of female terminals

PGM-FI System

Barometric Pressure (BARO) Sensor

P1106 The scan tool indicates Diagnostic Trouble Code (DTC) P1106: A range/performance problem in the Barometric Pressure (BARO) Sensor circuit.

- The MIL has been reported on.
- DTC P1106 is stored.

Problem verification:

1. Do the ECM/PCM reset procedure.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Connect the SCS service connector.
4. Test-drive with the A/T in **2** position, M/T in 4th gear.
5. Accelerate for five seconds using wide open throttle.

Is DTC P1106 indicated?

NO

Intermittent failure, system is OK at this time.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

P1107 The scan tool indicates Diagnostic Trouble Code (DTC) P1107: A low voltage problem in the Baro sensor circuit.

P1108 The scan tool indicates Diagnostic Trouble Code (DTC) P1108: A high voltage problem in the Baro sensor circuit.

- The MIL has been reported on.
- DTC P1107 or P1108 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Turn the ignition switch ON (II).

Is DTC P1107 or P1108 indicated?

NO

Intermittent failure, system is OK at this time.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.



Electrical Load Detector (ELD) ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

P1297

The scan tool indicates Diagnostic Trouble Code (DTC) P1297: A low voltage problem in the Electrical Load Detector (ELD) circuit.

— DTC P1297 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.
3. Turn on headlights.

Is DTC P1297 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131 (located under right side of dash), C354 (ELD) and ECM/PCM.

YES

Check for short in the ELD:

Measure voltage between body ground and the ELD 3P connector terminal No. 3.

Is there approx. 4.5 V?

YES

Replace the ELD.

NO

Check for a short in the wire (EL line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector D (16P).
3. Check for continuity between body ground and ECM/PCM connector terminal D16.

Is there continuity?

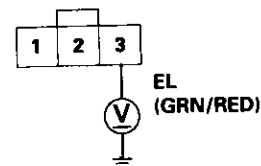
YES

Repair short in the wire between ECM/PCM (D16) and ELD.

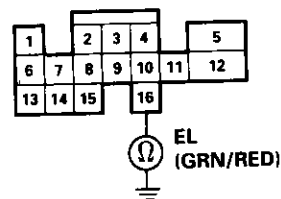
NO

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ELD 3P CONNECTOR (C354)



ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

PGM-FI System

Electrical Load Detector (ELD) ('99 – 00 Models except D16Y5 engine with M/T)

P1297 The scan tool indicates Diagnostic Trouble Code (DTC) P1297: A low voltage problem in the Electrical Load Detector (ELD) circuit.

— DTC P1297 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.
3. Turn on headlights.

Is DTC P1297 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131 (located under right side of dash), C354 (ELD) and ECM/PCM.

YES

Check for short in the ELD:

Measure voltage between body ground and the ELD 3P connector terminal No. 3.

Is there approx. 4.5 V?

YES

Replace the ELD.

NO

Check for a short in the wire (EL line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector A (32P).
3. Check for continuity between body ground and ECM/PCM connector terminal A30.

Is there continuity?

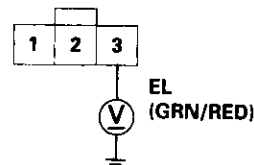
YES

Repair short in the wire between ECM/PCM (A30) and ELD.

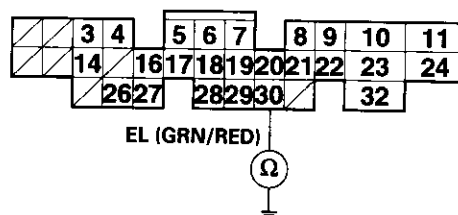
NO

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ELD 3P CONNECTOR (C354)



ECM/PCM CONNECTOR A (32P)

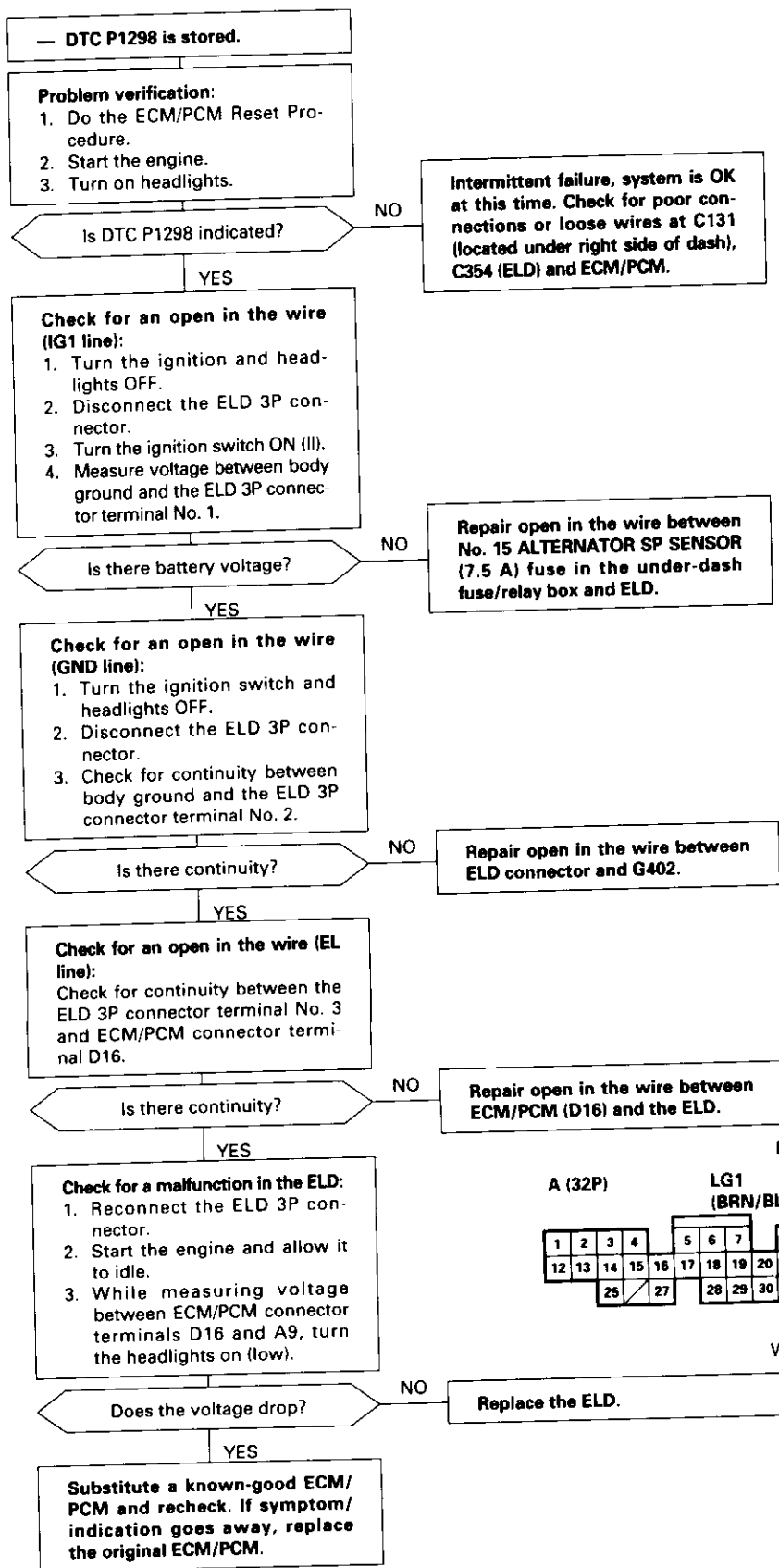


Wire side of female terminals

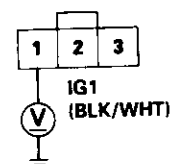


Electrical Load Detector (ELD) ('96 - '98 Models, '99 - '00 D16Y5 engine with M/T)

P1298 The scan tool indicates Diagnostic Trouble Code (DTC) P1298: A high voltage problem in the Electrical Load Detector (ELD) circuit.

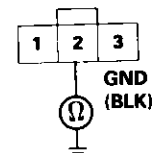


ELD 3P CONNECTOR (C354)

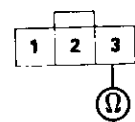


Wire side of female terminals

ELD 3P CONNECTOR (C354)



Wire side of female terminals



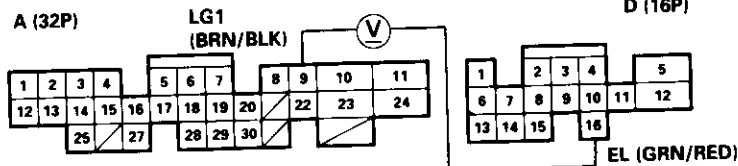
EL (GRN/RED)

ECM/PCM CONNECTOR D (16P)



Wire side of female terminals

ECM/PCM CONNECTORS



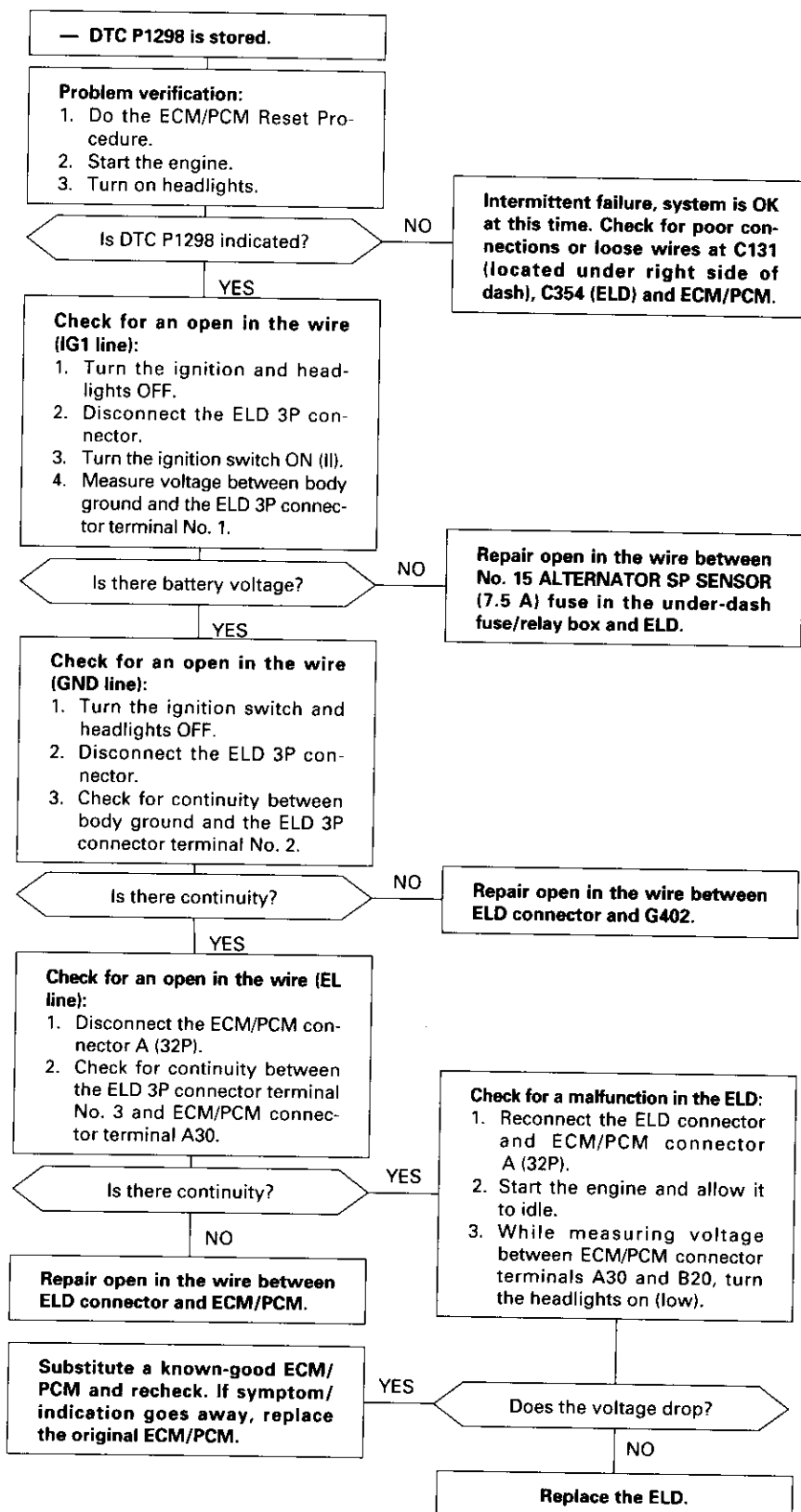
Wire side of female terminals

D (16P)

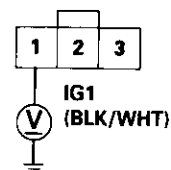
EL (GRN/RED)

Electrical Load Detector (ELD) ('99 - 00 Models except D16Y5 engine with M/T)

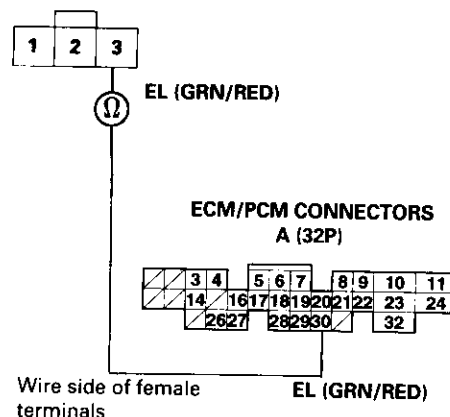
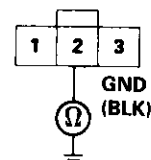
P1298 The scan tool indicates Diagnostic Trouble Code (DTC) P1298: A high voltage problem in the Electrical Load Detector (ELD) circuit.



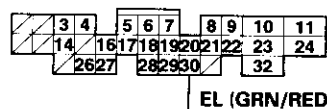
ELD 3P CONNECTOR (C354)



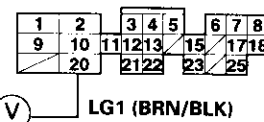
ELD 3P CONNECTOR (C354)



ECM/PCM CONNECTORS A (32P)



ECM/PCM CONNECTORS B (25P)





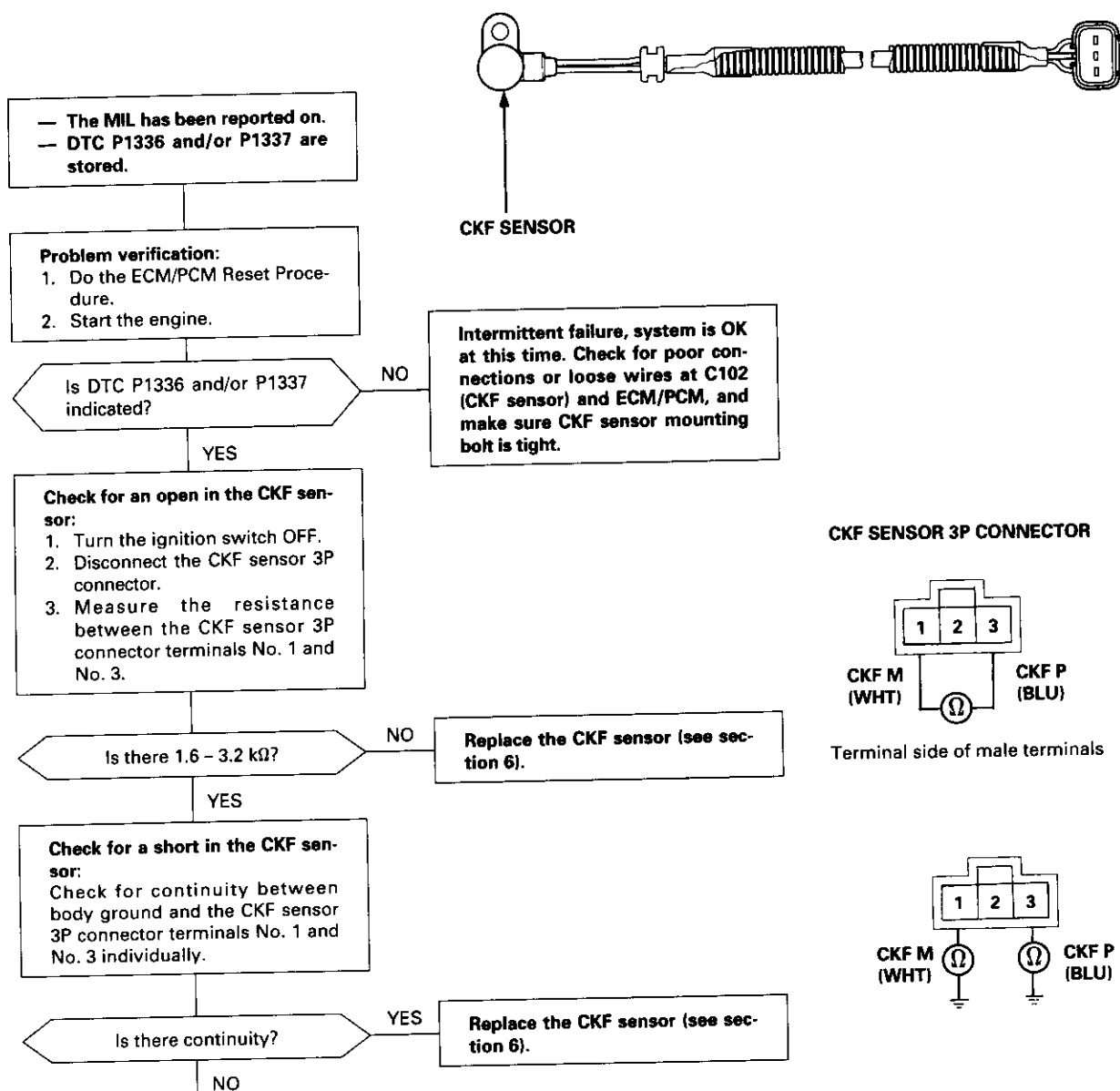
Crankshaft Speed Fluctuation (CKF) Sensor (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T)

P1336 The scan tool indicates Diagnostic Trouble Code (DTC) P1336: Intermittent interruption in the Crankshaft Speed Fluctuation (CKF) sensor circuit.

P1337 The scan tool indicates Diagnostic Trouble Code (DTC) P1337: No signal in the Crankshaft Speed Fluctuation (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 ECM/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.

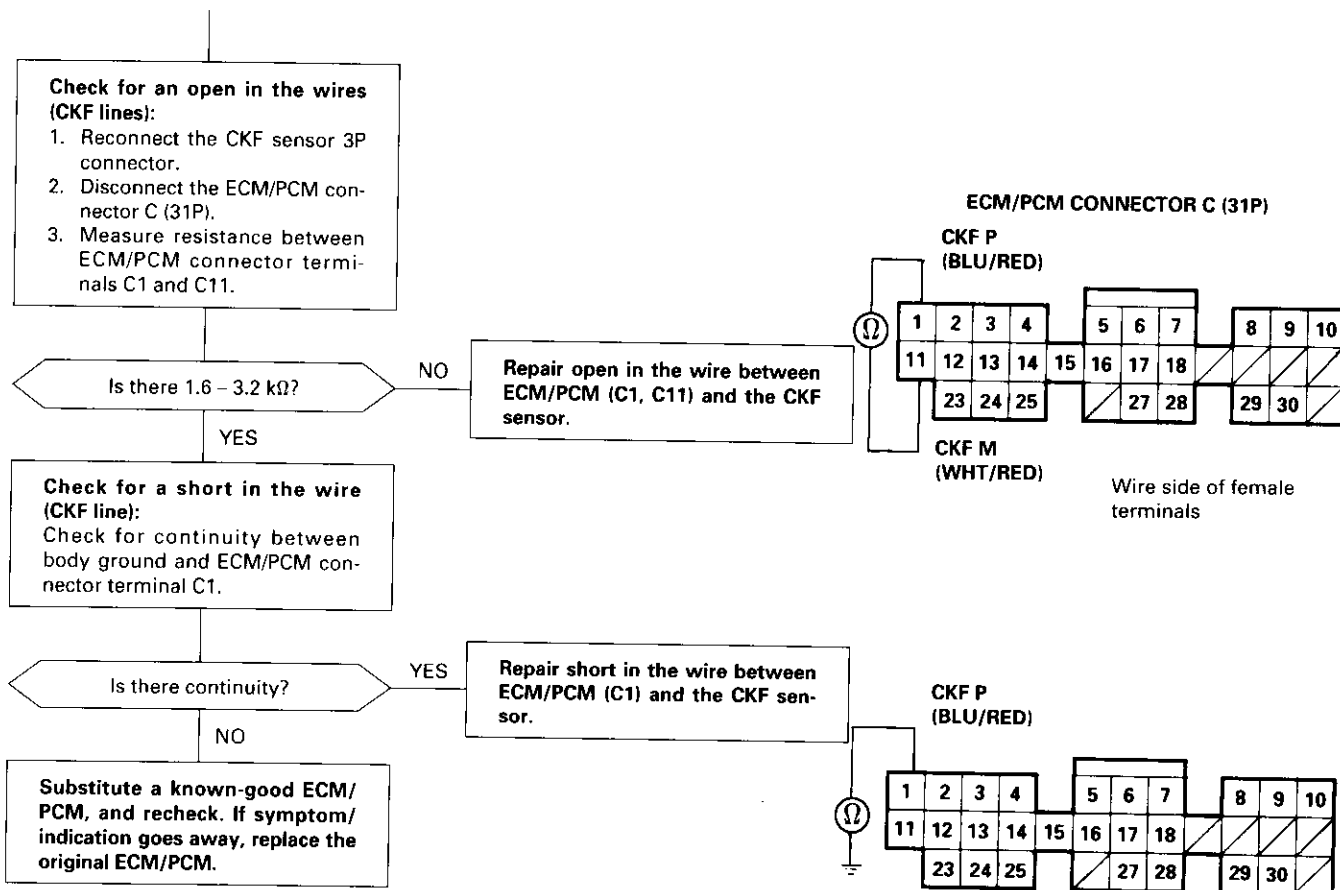


(cont'd)

PGM-FI System

Crankshaft Speed Fluctuation (CKF) Sensor ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T) (cont'd)

(From page 11-183)





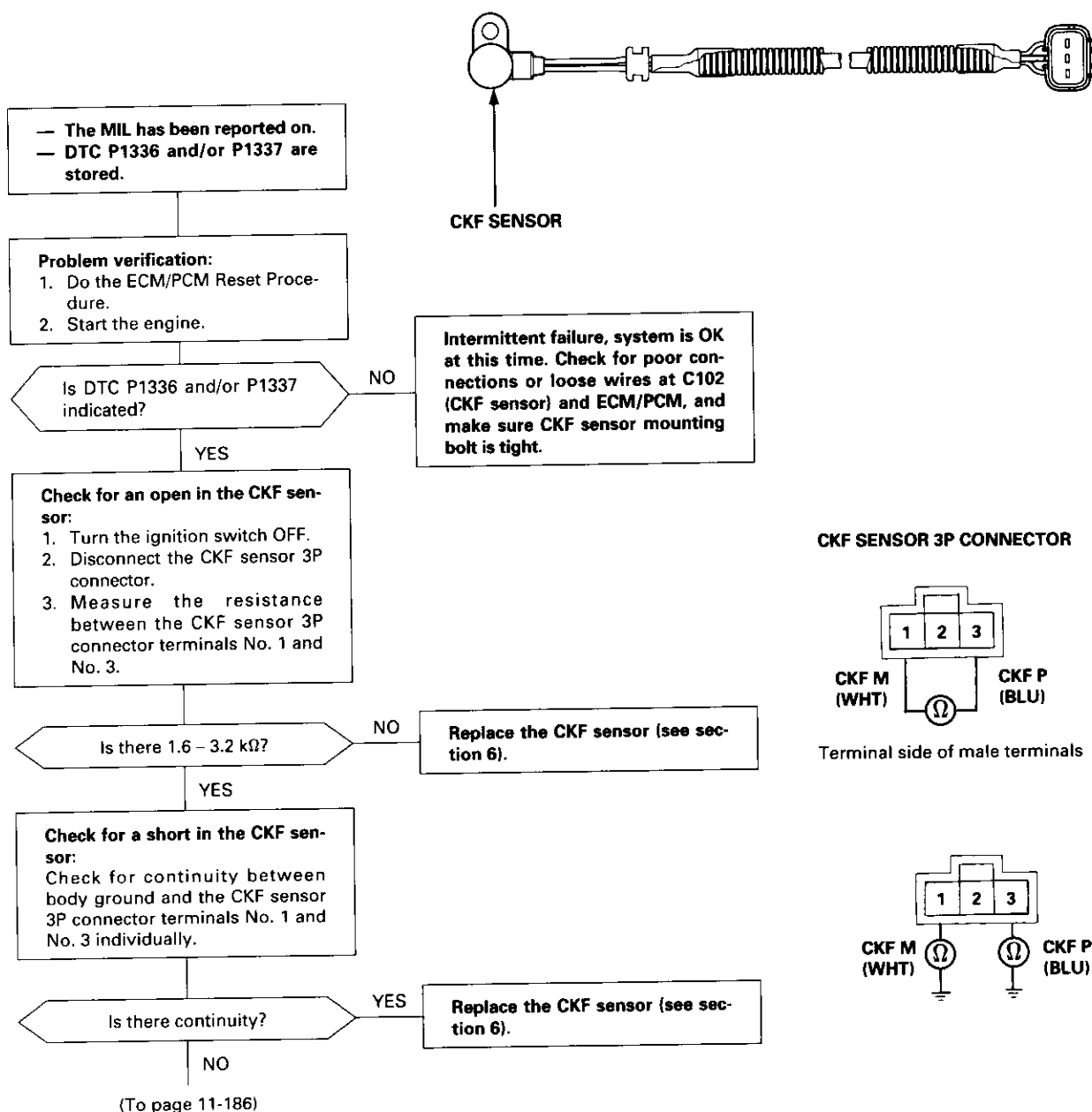
Crankshaft Speed Fluctuation (CKF) Sensor (‘99 – 00 Models except D16Y5 engine with M/T)

P1336 The scan tool indicates Diagnostic Trouble Code (DTC) P1336: Intermittent interruption in the Crankshaft Speed Fluctuation (CKF) sensor circuit.

P1337 The scan tool indicates Diagnostic Trouble Code (DTC) P1337: No signal in the Crankshaft Speed Fluctuation (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 ECM/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.

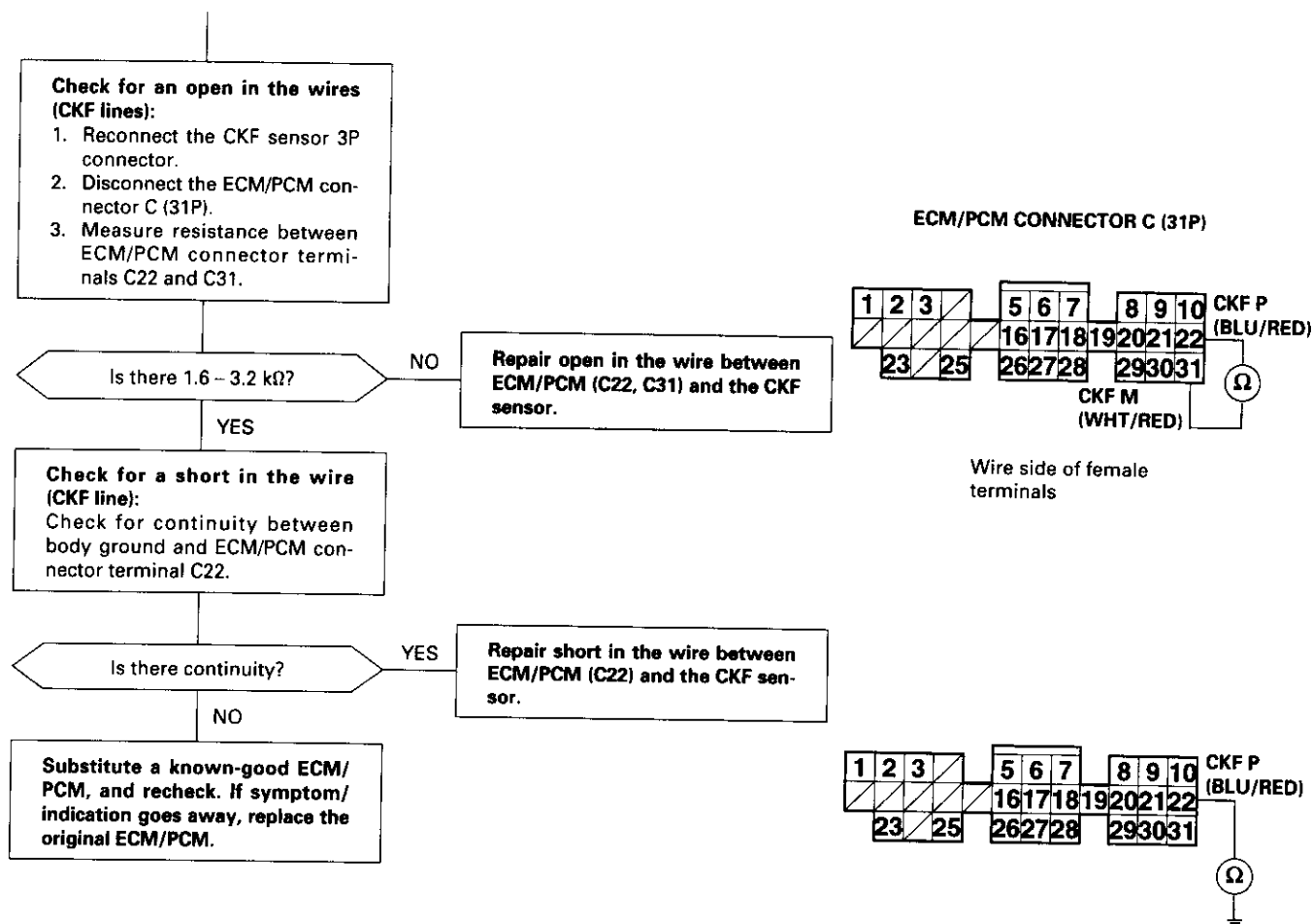


(cont'd)

PGM-FI System

Crankshaft Speed Fluctuation (CKF) Sensor '99 – 00 Models except D16Y5 engine with M/T (cont'd)

(From page 11-185)





Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) Sensor

P1359

The scan tool indicates Diagnostic Trouble Code (DTC) P1359: A problem in the Crankshaft Position/Top Dead Center/Cylinder Position (CKP/TDC/CYP) sensor circuit.

- The MIL has been reported on.
- DTC P1359 is stored.

Problem verification:

1. Do the ECM Reset Procedure.
2. Start the engine. If the engine won't start, crank it for at least 10 seconds.

Is DTC P1359 indicated?

NO

Intermittent failure, system is OK. Check for poor connections or loose wires at C120 (distributor) and ECM/PCM.

YES

Check for poor connections or loose wires between the distributor and the ECM/PCM.

Are the connections OK?

NO

Repair as necessary.

YES

Substitute a known-good ECM/PCM, and recheck. If symptom/indication goes away, replace the original ECM/PCM.

PGM-FI System

ECM/PCM Internal Circuit

P1607 The scan tool indicates Diagnostic Trouble Code (DTC) P1607: An ECM/PCM Internal Circuit Problem.

- The MIL has been reported on.
- DTC P1607 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Turn the ignition switch ON (II).
3. Wait 10 seconds.

Is DTC P1607 indicated?

NO

Intermittent failure, system is OK this time.

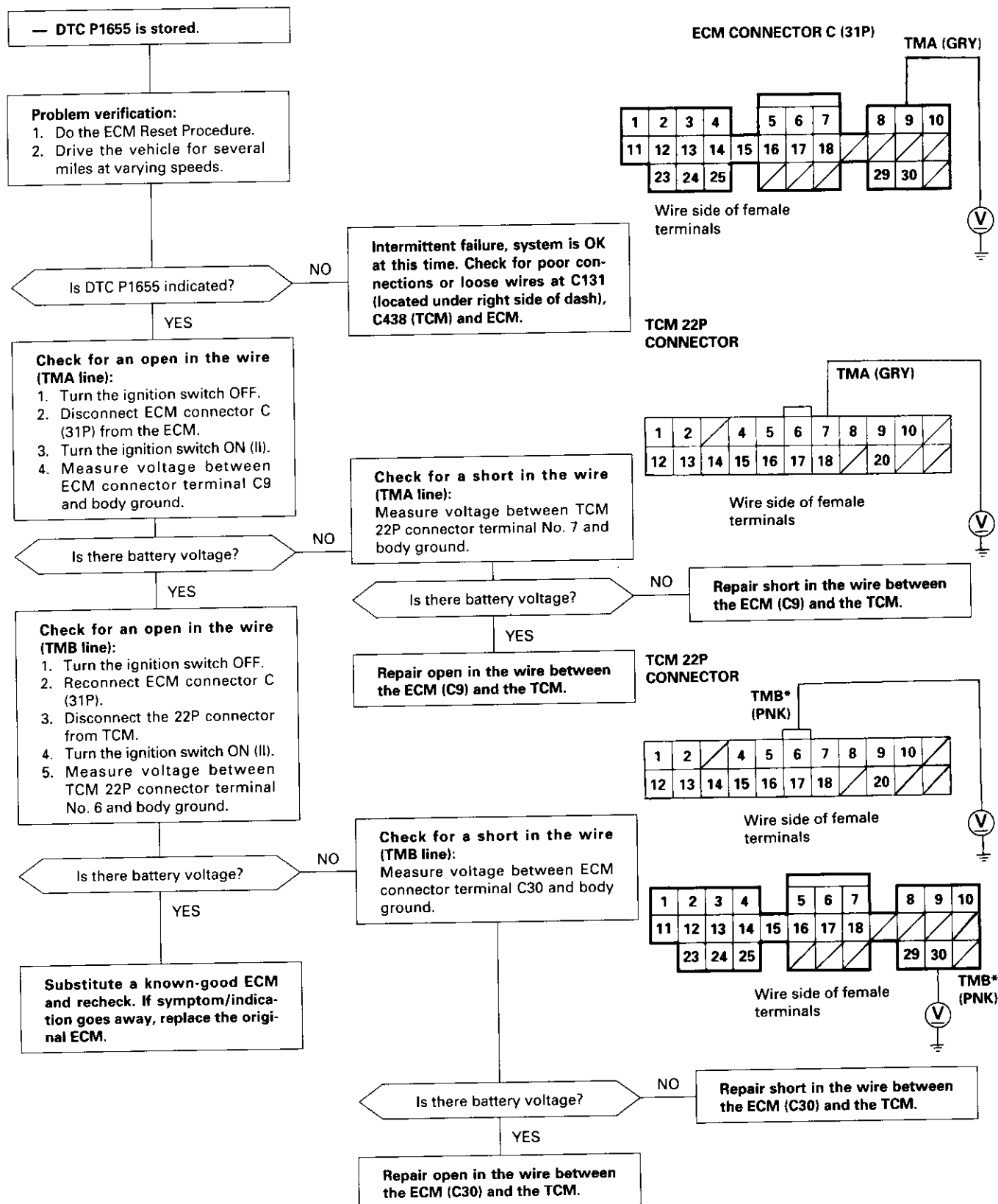
YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.



A/T Signal (TMA/TMB) ('96 – 98 D16Y5 engine with CVT)

P1655 The scan tool indicates Diagnostic Trouble Code (DTC) P1681: TMA/TMB signal line failure.



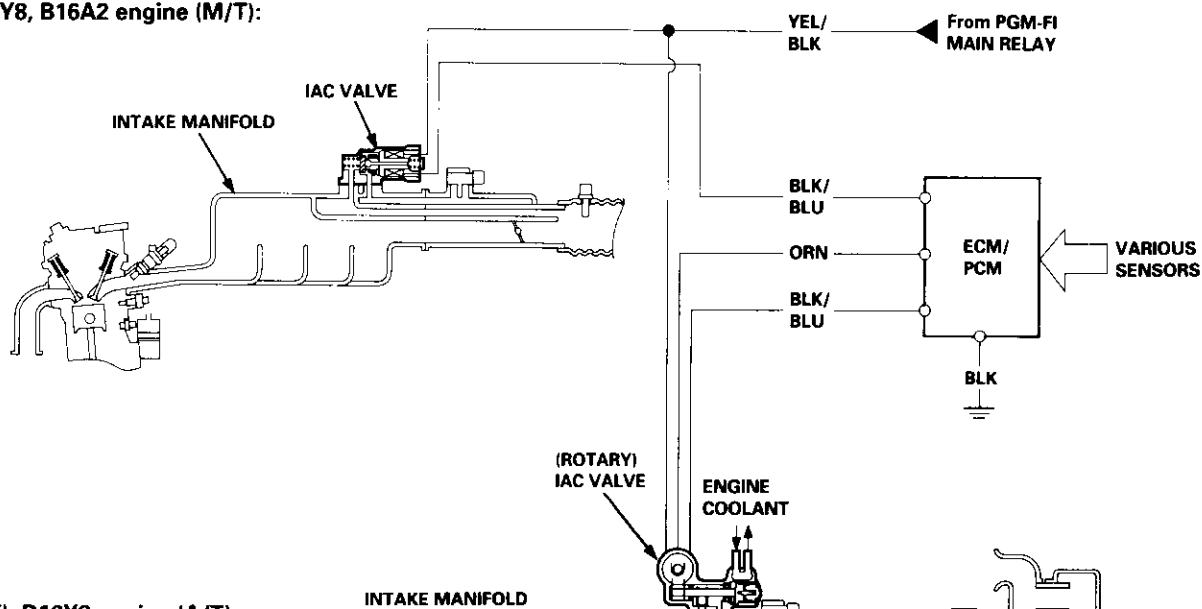
Idle Control System

System Description

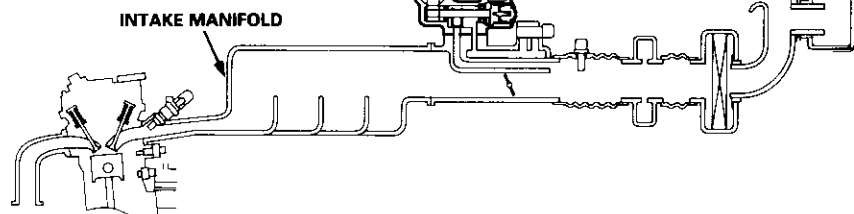
The idle speed of the engine is controlled by the Idle Air Control (IAC) Valve.

The valve changes the amount of air bypassing into the intake manifold in response to electric current controlled by the ECM/PCM. When the IAC Valve is activated, the valve opens to maintain the proper idle speed.

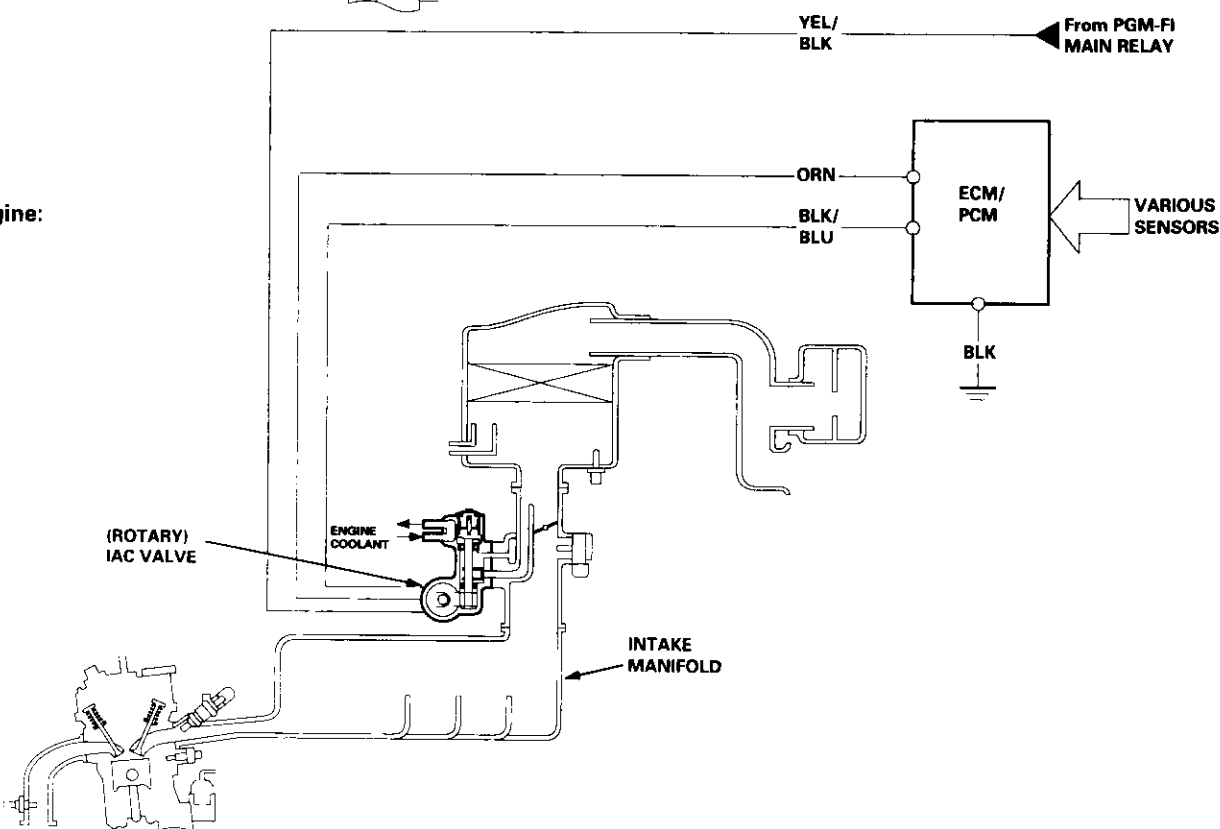
D16Y5, D16Y8, B16A2 engine (M/T):



D16Y5 (CVT), D16Y8 engine (A/T):

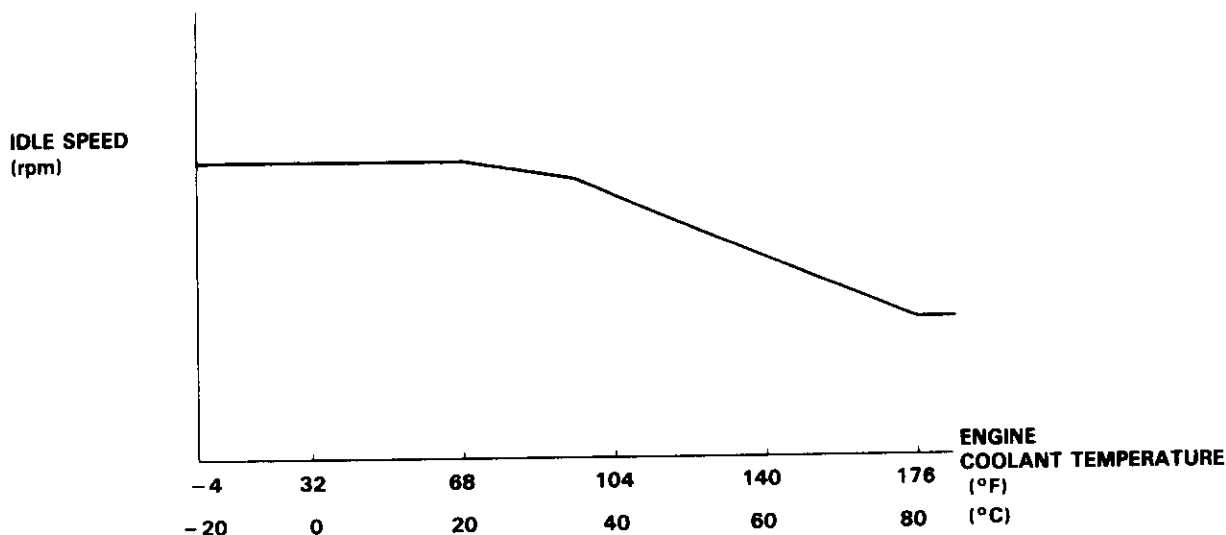


D16Y7 engine:





1. After the engine starts, the IAC valve opens for a certain time. The amount of air is increased to raise the idle speed about 150 – 300 rpm.
2. When the coolant temperature is low, the IAC valve is opened to obtain the proper fast idle speed. The amount of bypassed air is thus controlled in relation to the engine coolant temperature.



1. When the idle speed is out of specification and the scan tool does not indicate Diagnostic Trouble Code (DTC) P0505 or P1508, check the following items:
 - Adjust the idle speed (see page 11-220)
 - Starter switch signal (see page 11-202)
 - Air conditioning signal (see page 11-204)
 - ALT FR signal (see page 11-208)
 - Brake switch signal (see page 11-210)
 - PSP switch signal (except Canada model) (see page 11-212)
 - A/T gear position signal (see section 14, D16Y5 engine (CVT): page 11-216)
 - Clutch switch signal (D16Y5 engine with M/T) (see page 11-218)
 - Hoses and connections
 - IAC valve and its mounting O-rings
2. If the above items are normal, substitute a known-good IAC valve and readjust the idle speed (see page 11-220).

If the idle speed still cannot be adjusted to specification (and the scan tool does not indicate DTC P0505 or P1508) after IAC valve replacement, substitute a known-good ECM/PCM and recheck. If symptom goes away, replace the original ECM/PCM.

Idle Control System

Idle Control System

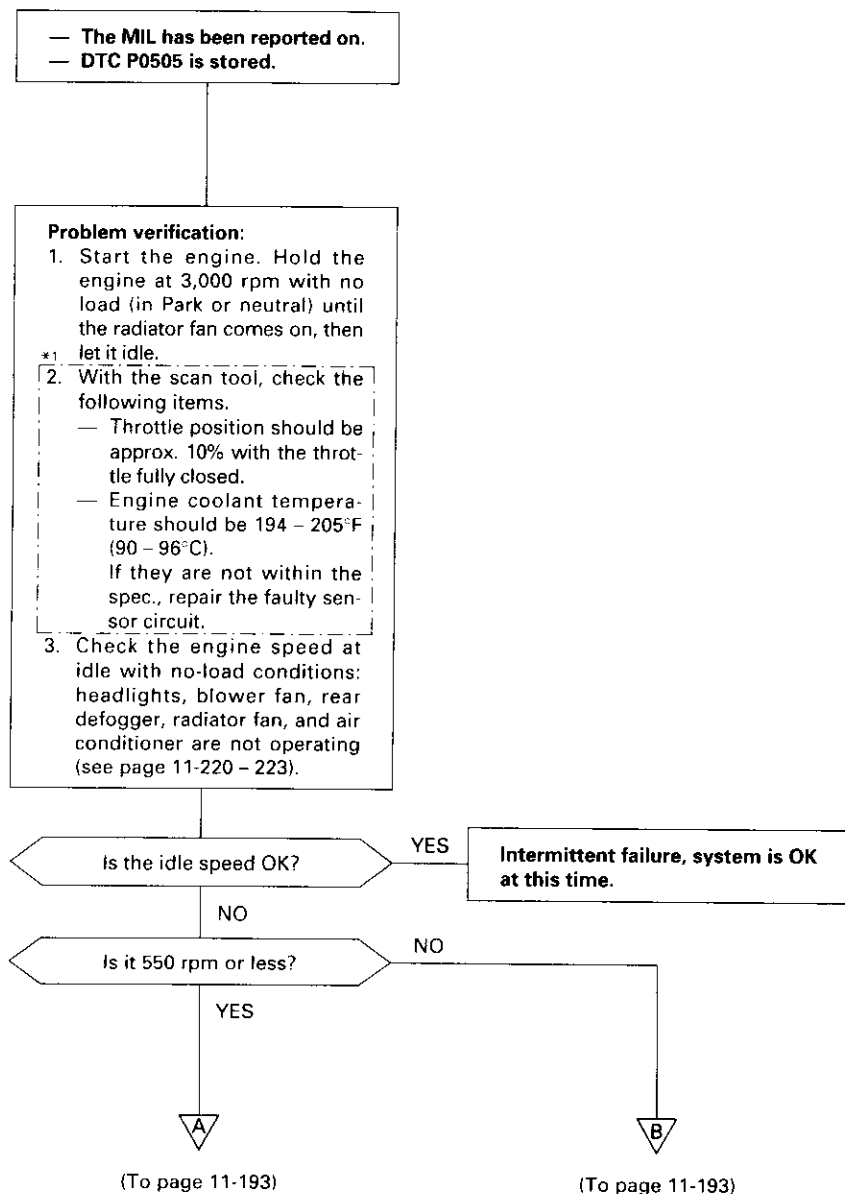
P0505 The scan tool indicates Diagnostic Trouble Code (DTC) P0505: Idle control system malfunction.

NOTE: If DTC P1508 or P1509 is stored at the same time as DTC P0505, troubleshoot DTC P1508 or P1509 first, then recheck for DTC P0505.

Possible Cause

- IAC valve mechanical malfunction
- Throttle body clogged port, improper adjustment
- Intake manifold gasket leakage
- Intake air hose loose leakage
- Vacuum leak
- ECT sensor incorrect output
- Throttle Position sensor incorrect output*¹

Troubleshooting Flowchart



*1: '96 models only



(From page 11-192)

A

(A/T and D16Y7 engine)

Check the IAC valve:
Disconnect the 3P connector from the IAC valve.

Does the engine speed increase?

NO

Replace the IAC valve.

YES

(D16Y5, D16Y8 engine with M/T B16A2 engine)

Check the IAC valve:
Disconnect the 2P connector from the IAC valve.

Does the engine speed drop or the engine stall?

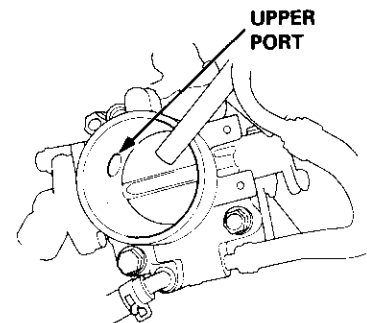
NO

Replace the IAC valve.

YES

Adjust the (base) idle speed (see page 11-220 – 223). If it's impossible, clean the ports in the throttle body.

D16Y5, D16Y8, B16A2 engine:



(From page 11-192)

B

Check for vacuum leaks:

1. Turn the ignition switch OFF.
2. Remove the intake air duct from the throttle body.
3. Start the engine and let it idle.
4. Put your finger on the lower port in the throttle body.

Does the engine speed drop?

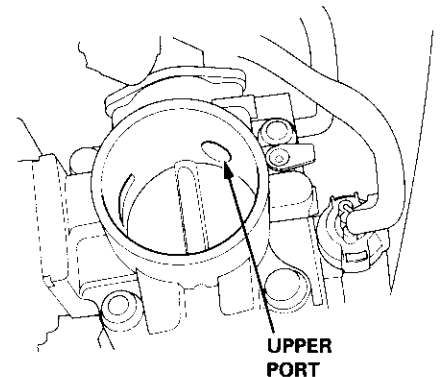
NO

Check for vacuum leaks, make sure the throttle valve is completely closed, and repair as necessary.

YES

Adjust the idle speed (see page 11-220 – 223). If it's impossible, replace the IAC valve.

D16Y7 engine:

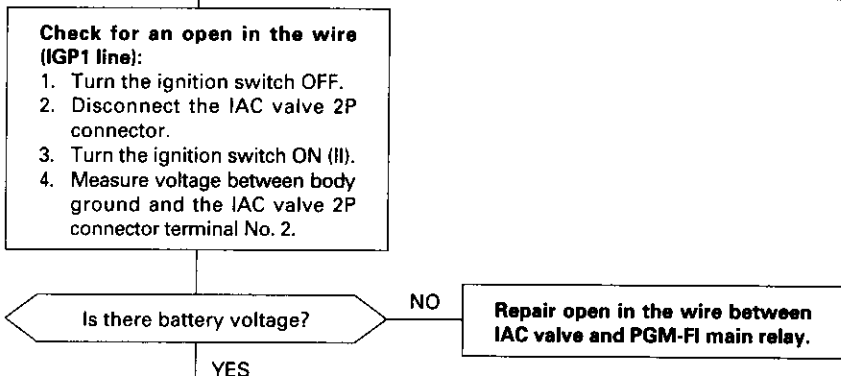
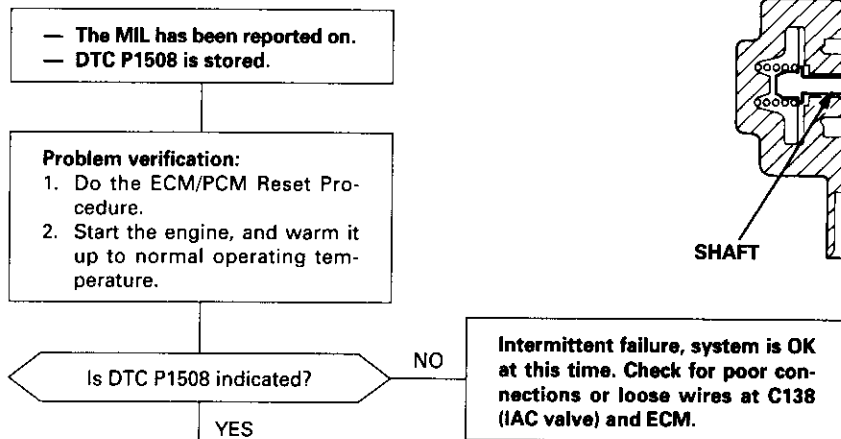
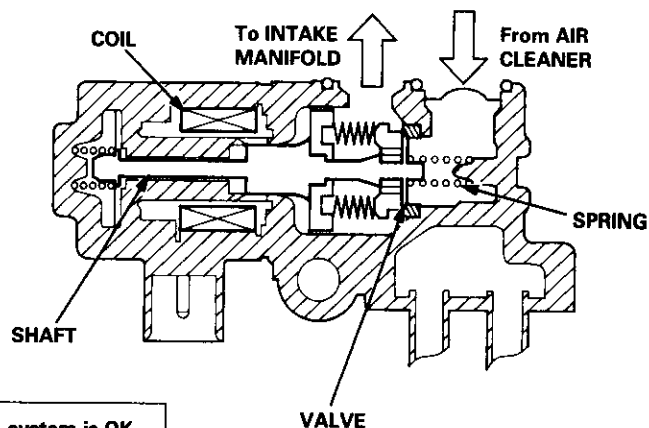


Idle Control System

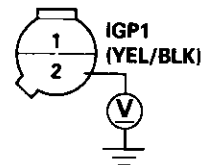
Idle Air Control (IAC) Valve ('96 – 98 D16Y5, D16Y8 engine with M/T)

P1508 The scan tool indicates Diagnostic Trouble Code (DTC) P1508: A problem in the Idle Air Control (IAC) valve circuit.

The IAC Valve changes the amount of air bypassing the throttle body in response to a current signal from the ECM in order to maintain the proper idle speed.

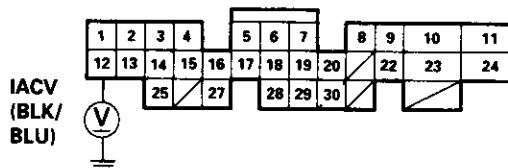


IAC VALVE 2P CONNECTOR (C138)



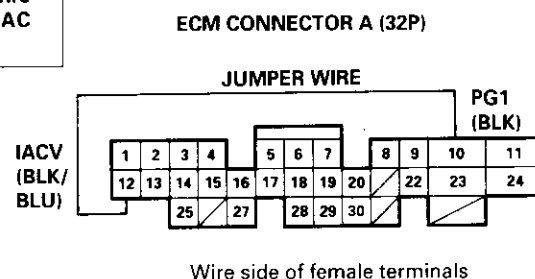
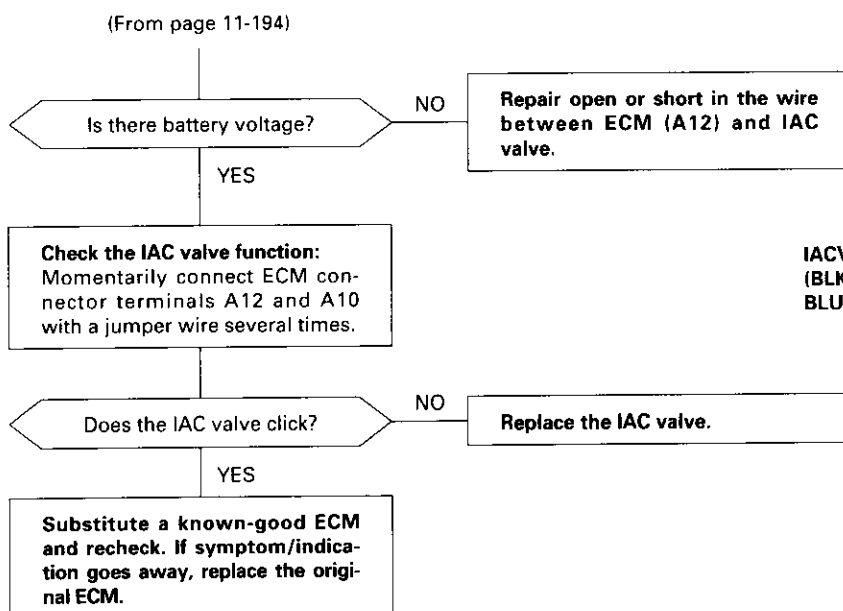
Wire side of female terminals

ECM CONNECTOR A (32P)



Wire side of female terminals

(To page 11-195)

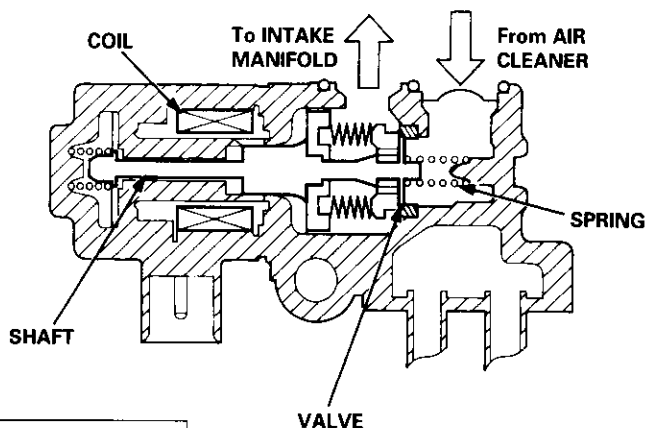


Idle Control System

Idle Air Control (IAC) Valve ('99 – 00 D16Y8 engine with M/T, B16A2 engine)

P1508 The scan tool indicates Diagnostic Trouble Code (DTC) P1508: A problem in the Idle Air Control (IAC) valve circuit.

The IAC Valve changes the amount of air bypassing the throttle body in response to a current signal from the ECM in order to maintain the proper idle speed.



— The MIL has been reported on.
— DTC P1508 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine, and warm it up to normal operating temperature.

Is DTC P1508 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C138 (IAC valve) and ECM.

YES

Check for an open in the wire (IGP1 line):

1. Turn the ignition switch OFF.
2. Disconnect the IAC valve 2P connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between body ground and the IAC valve 2P connector terminal No. 2.

Is there battery voltage?

NO

Repair open in the wire between IAC valve and PGM-FI main relay.

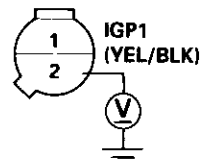
YES

Check for an open or short in the wire (IACV line):

1. Turn the ignition switch OFF and reconnect the IAC valve connector.
2. Disconnect the ECM connector B (25P).
3. Turn the ignition switch ON (II).
4. Measure voltage between body ground and ECM connector terminal B23.

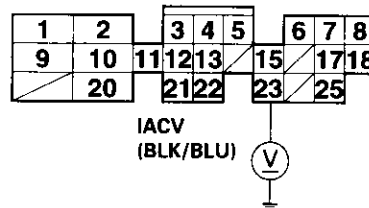
(To page 11-197)

IAC VALVE 2P CONNECTOR (C138)

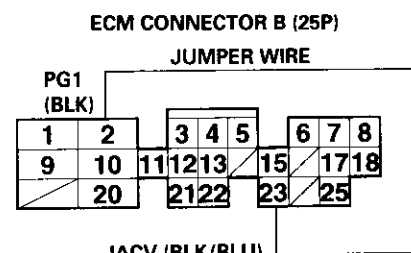
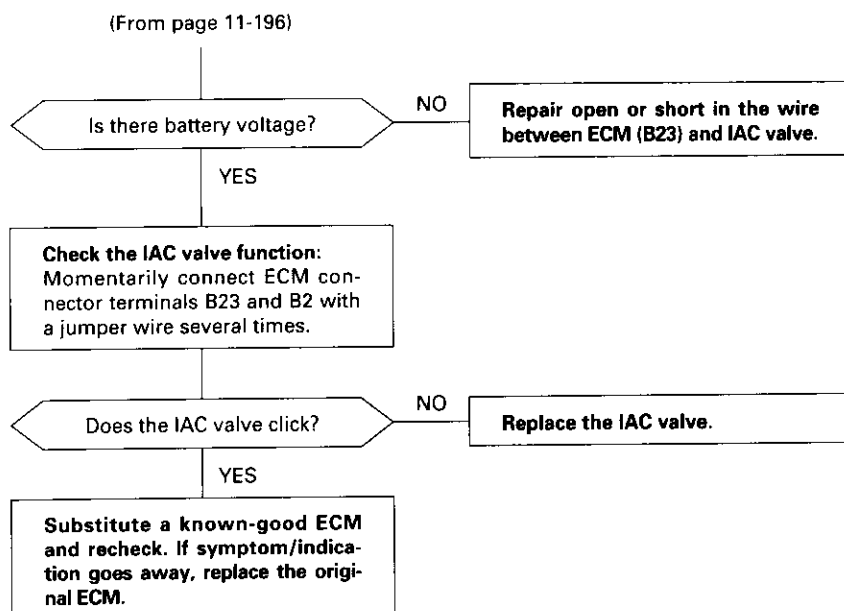


Wire side of female terminals

ECM CONNECTOR B (25P)



Wire side of female terminals



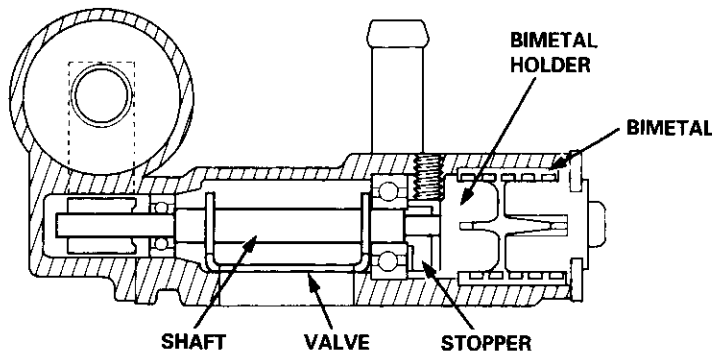
Wire side of female terminals

Idle Control System

Idle Air Control (IAC) Valve ('96 – 98 A/T and D16Y7 engine)

P1509 The scan tool indicates Diagnostic Trouble Code (DTC) P1509: A problem in the idle Air Control (IAC) valve circuit.

The (Rotary) IAC Valve changes the amount of air bypassing the throttle body in response to a current signal from the ECM/PCM in order to maintain the proper idle speed.



— The MIL has been reported on.
— DTC P1509 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Turn the ignition switch ON (II).

Is DTC P1509 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C109 (IAC valve) and ECM/PCM.

YES

Check for an open in the wires (PG lines):

Measure voltage between body ground and ECM/PCM connector terminals A10 and A23 individually.

Is there more than 1.0 V?

YES

Repair open in the wires between ECM/PCM and G101 (located at the thermostat housing).

NO

Check the ECM/PCM input voltage:

1. Turn the ignition switch OFF.
2. Disconnect ECM/PCM connector A (32P) from the ECM/PCM.
3. Turn the ignition switch ON (II).
4. Measure voltage between body ground and ECM/PCM connector terminals A14 and A13* individually.

Is there battery voltage?

NO

A (To page 11-199)

YES

Check the IAC valve:

1. Turn the ignition switch OFF.
2. Disconnect the IAC valve 3P connector.
3. Measure resistance between IAC valve 3P connector terminal No. 2 and terminals No. 1 and 3 individually.

Is there 16 – 28 Ω ?

NO

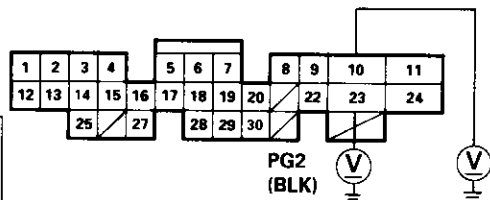
Replace the IAC valve.

YES

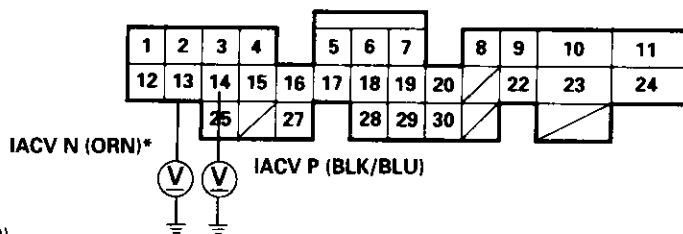
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTOR A (32P)

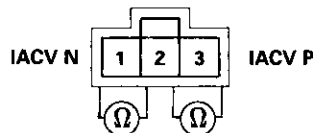
PG1 (BLK)



Wire side of female terminals



IAC VALVE 3P CONNECTOR



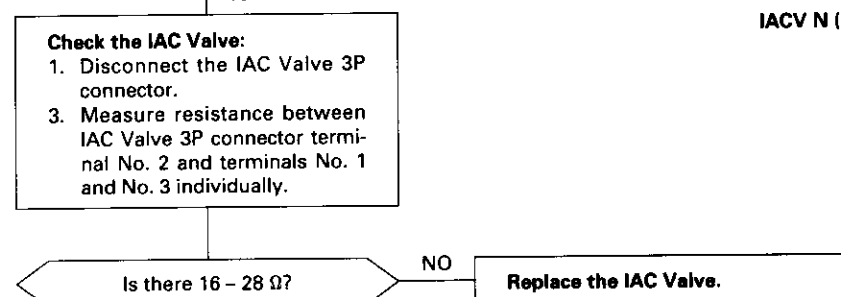
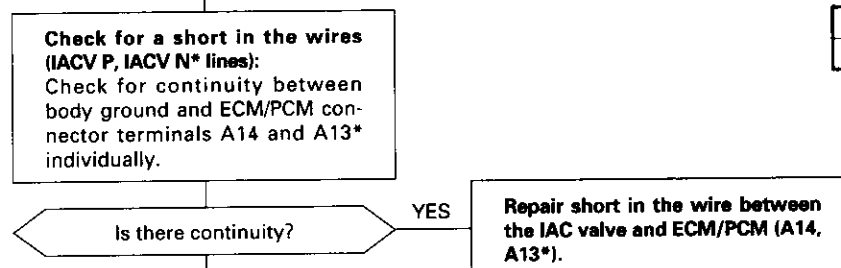
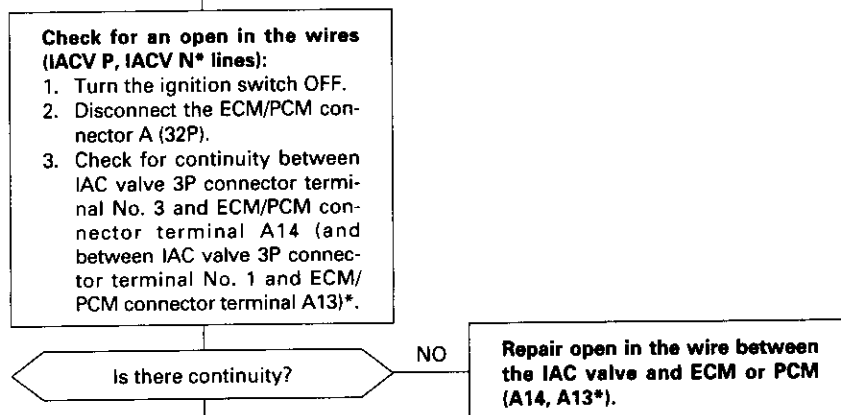
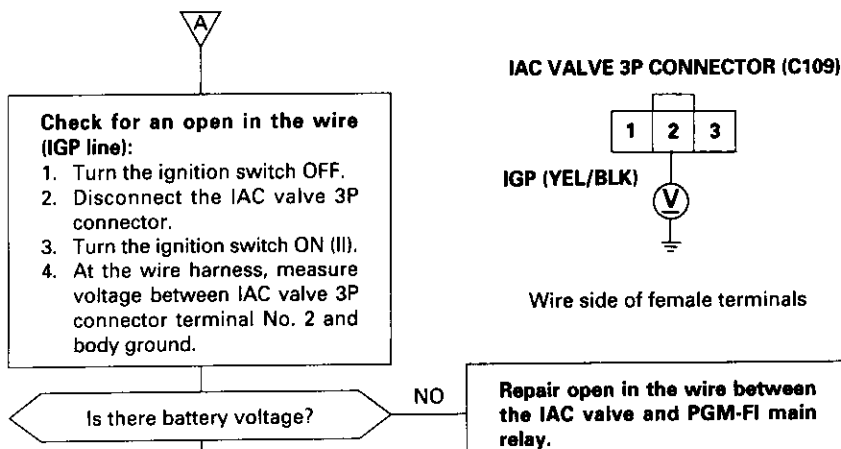
IGP

Terminal side of male terminals

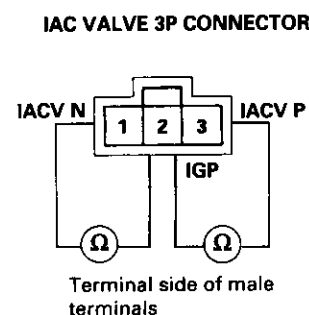
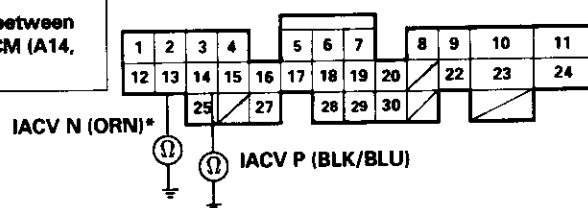
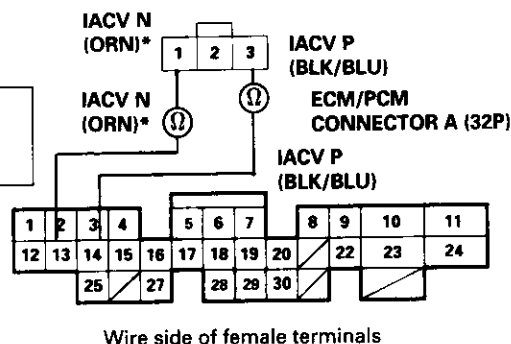
*: IACV N line



(From page 11-198)



Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.



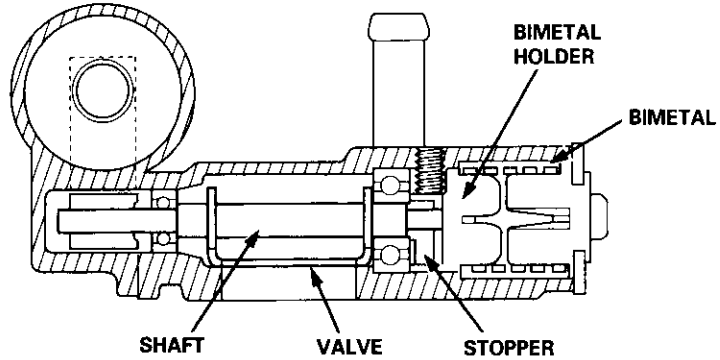
*: IACV N line

Idle Control System

Idle Air Control (IAC) Valve ('99 – 00 A/T and D16Y7 engine)

P1509 The scan tool indicates Diagnostic Trouble Code (DTC) P1509: A problem in the idle Air Control (IAC) valve circuit.

The (Rotary) IAC Valve changes the amount of air bypassing the throttle body in response to a current signal from the ECM/PCM in order to maintain the proper idle speed.



— The MIL has been reported on.
— DTC P1509 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Turn the ignition switch ON (II).

Is DTC P1509 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C109 (IAC valve) and ECM/PCM.

YES

Check for an open in the wires (PG lines):

Measure voltage between body ground and ECM/PCM connector terminals B2 and B10 individually.

Is there more than 1.0 V?

YES

Repair open in the wires between ECM/PCM and G101 (located at the thermostat housing).

NO

Check the ECM/PCM input voltage:

1. Turn the ignition switch OFF.
2. Disconnect ECM/PCM connector A (32P) from the ECM/PCM.
3. Turn the ignition switch ON (II).
4. Measure voltage between body ground and ECM/PCM connector terminals B6 and B15* individually.

Is there battery voltage?

NO

A (To page 11-201)

YES

Check the IAC valve:

1. Turn the ignition switch OFF.
2. Disconnect the IAC valve 3P connector.
3. Measure resistance between IAC valve 3P connector terminal No. 2 and terminals No. 1 and 3 individually.

Is there 16 – 28 Ω?

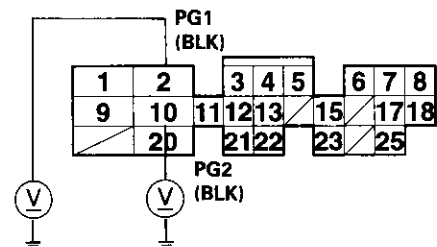
NO

Replace the IAC valve.

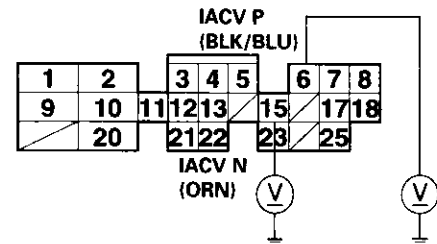
YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

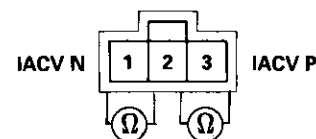
ECM/PCM CONNECTOR B (25P)



Wire side of female terminals



IAC VALVE 3P CONNECTOR



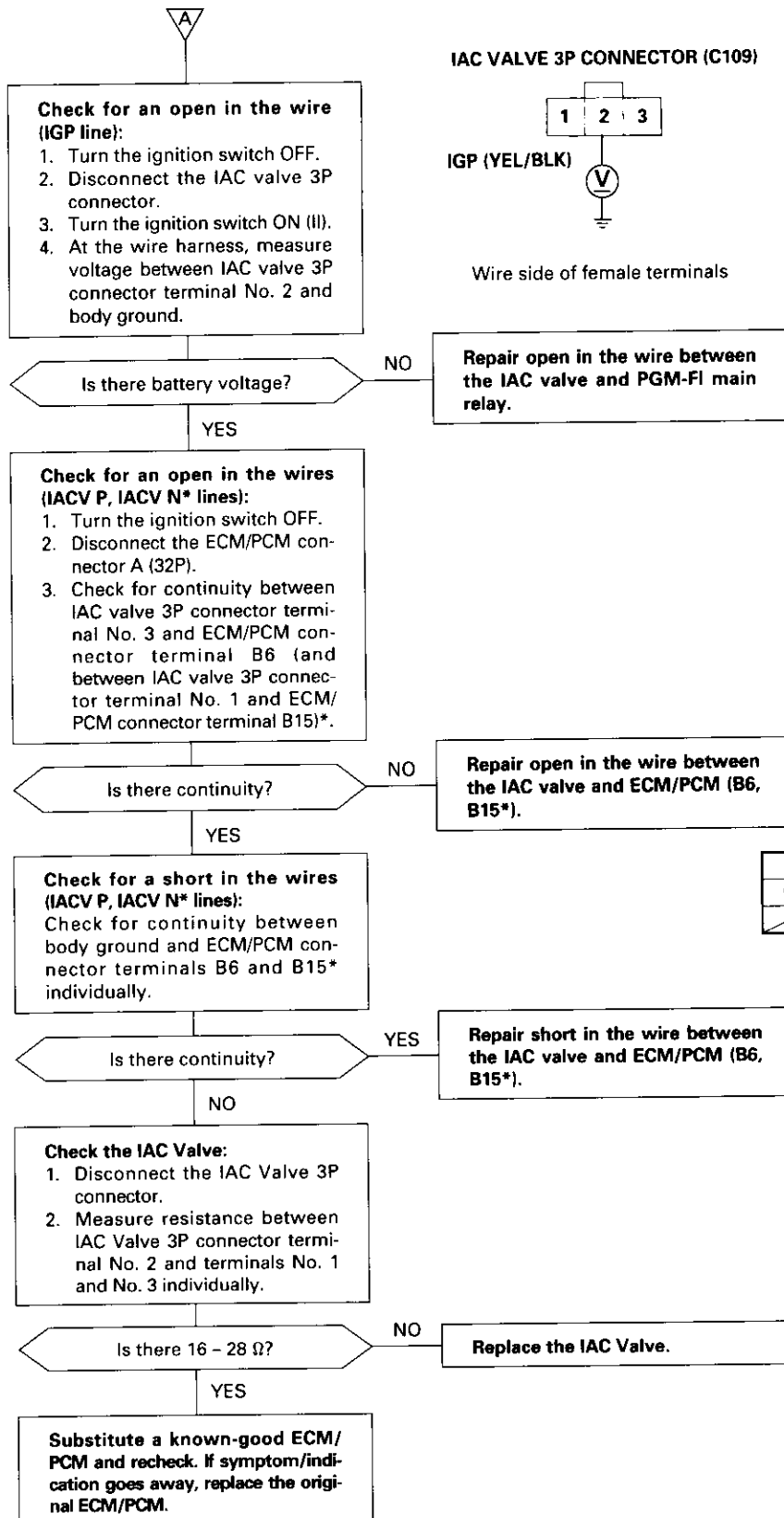
IGP

Terminal side of male terminals

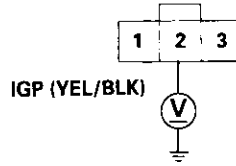
*: IACV N line



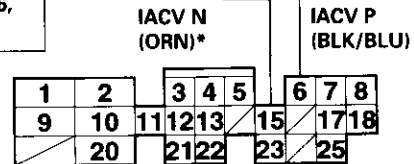
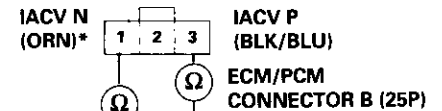
(From page 11-200)



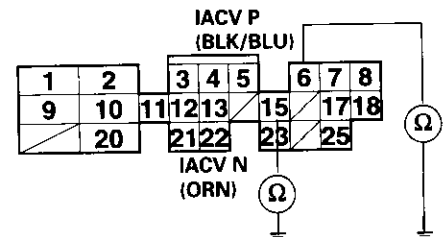
IAC VALVE 3P CONNECTOR (C109)



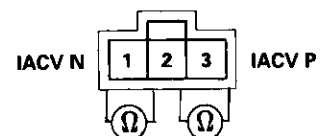
Wire side of female terminals



Wire side of female terminals



IAC VALVE 3P CONNECTOR



IGP

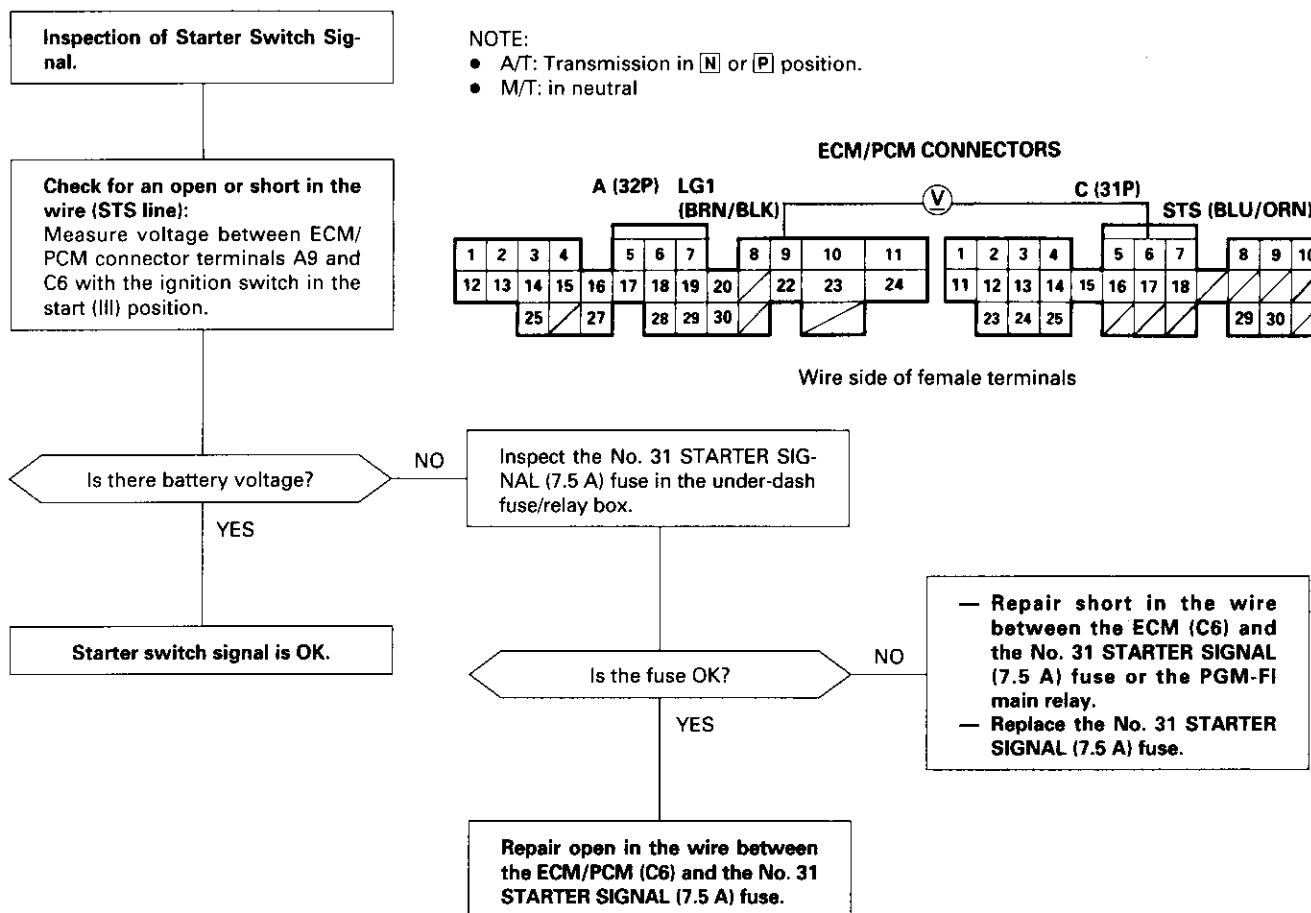
Terminal side of male terminals

*: IACV N line

Idle Control System

Starter Switch Signal ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

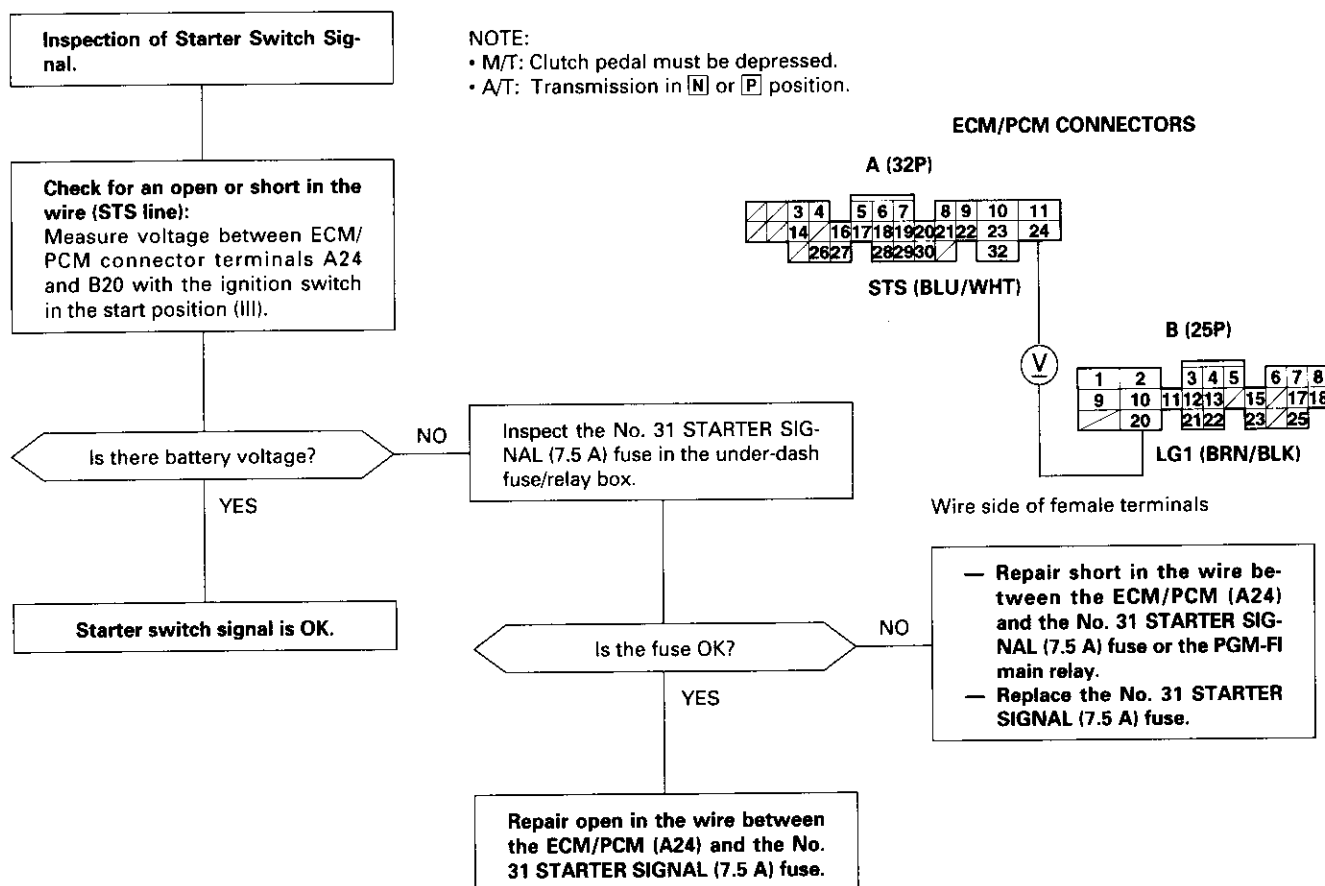
This signals the ECM/PCM when the engine is cranking.





Starter Switch Signal ('99 – 00 Models except D16Y5 engine with M/T)

This signals the ECM/PCM when the engine is cranking.



Idle Control System

Air Conditioning Signal ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

This signals the ECM/PCM when there is a demand for cooling from the air conditioning system.

Inspection of Air Conditioning Signal.

Check for a short in the wire (ACS line):

1. Turn the ignition switch OFF.
2. Disconnect the A/C pressure switch 2P connector (see section 22).
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals C5 and A9.

Is there approx. 5 V?

YES

Check for an open in the wire (ACC line):

1. Turn the ignition switch OFF.
2. Reconnect the A/C pressure switch 2P connector.
3. Turn the ignition switch ON (II).
4. Momentarily connect ECM/PCM connector terminals A9 and A17 with a jumper wire several times.

(To page 11-205)

Check for a short in the wire (ACS line):

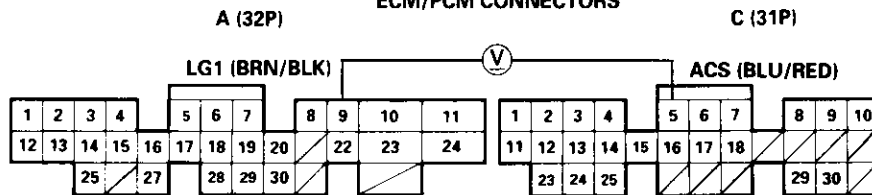
1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector C (31P).
3. Check for continuity between body ground and ECM/PCM connector terminal C5.

Is there continuity?

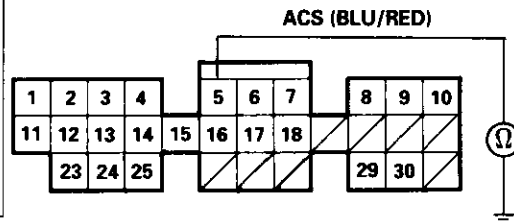
NO

- Substitute a known-good ECM/PCM and recheck. If prescribed voltage is now available, replace the original ECM/PCM.
- See the air conditioner inspection (see section 22).

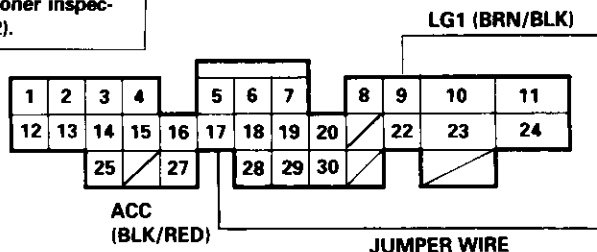
ECM/PCM CONNECTORS



Wire side of female terminals

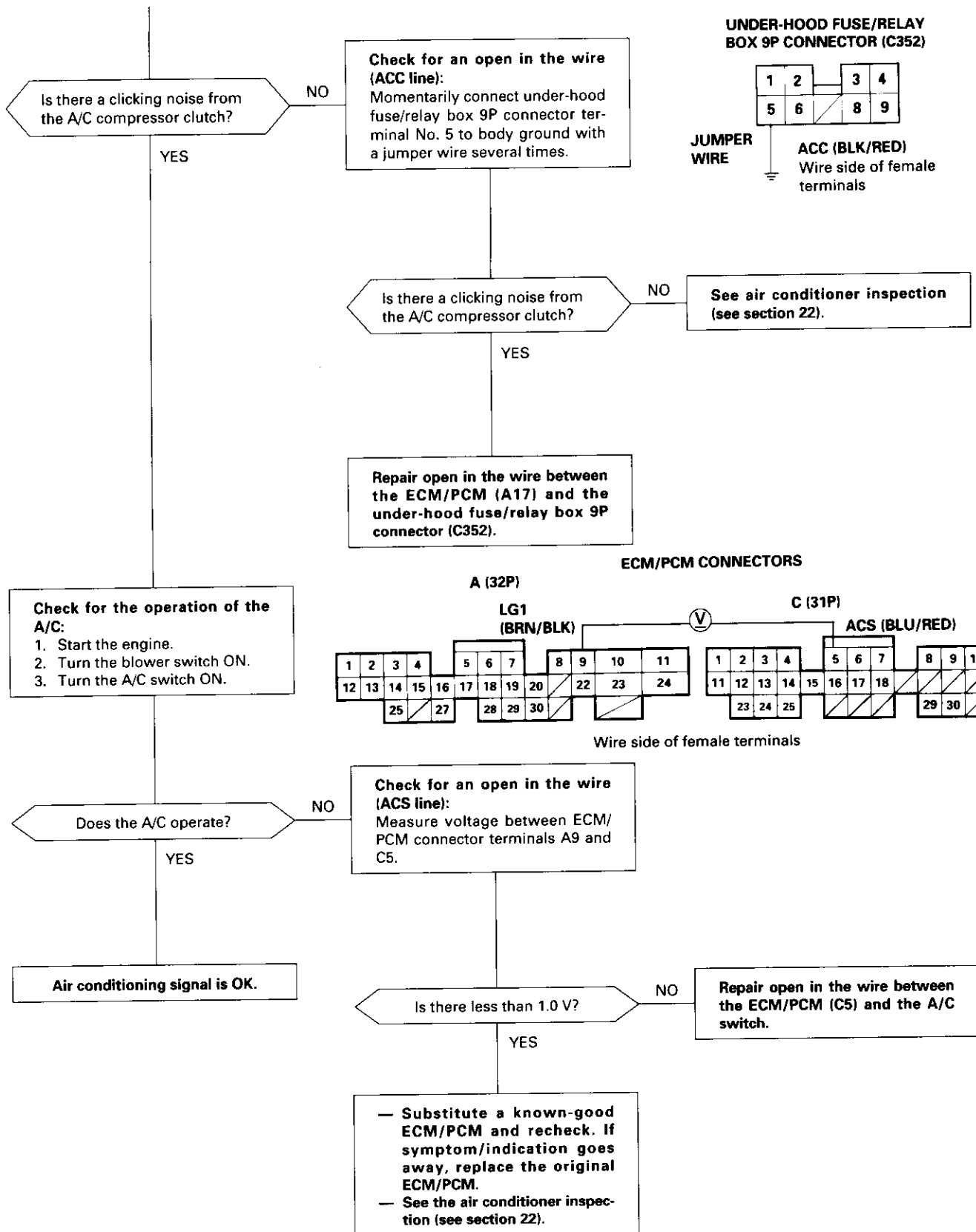


Repair short in the wire between the ECM/PCM (C5) and the A/C pressure switch.





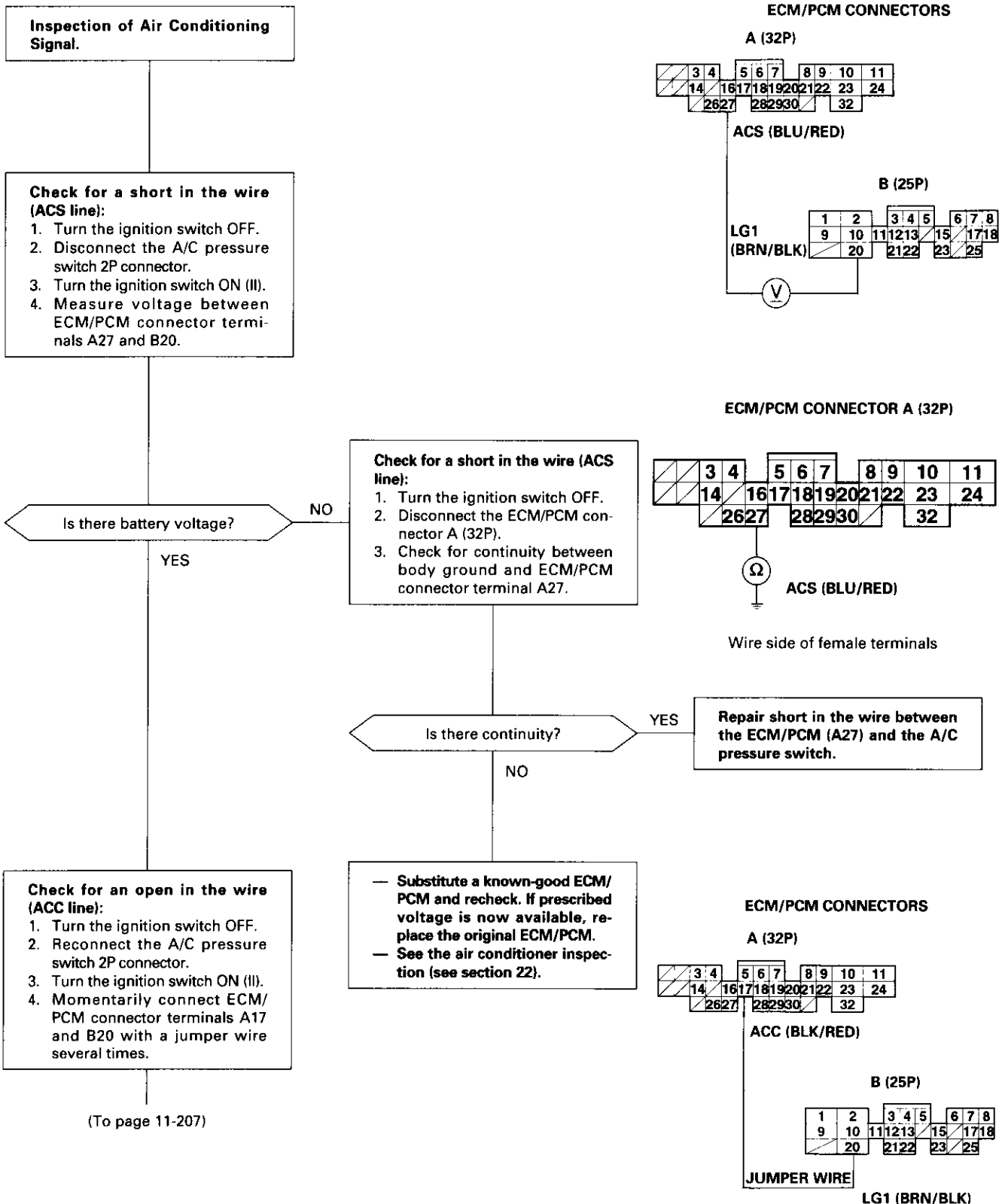
(From page 11-204)



Idle Control System

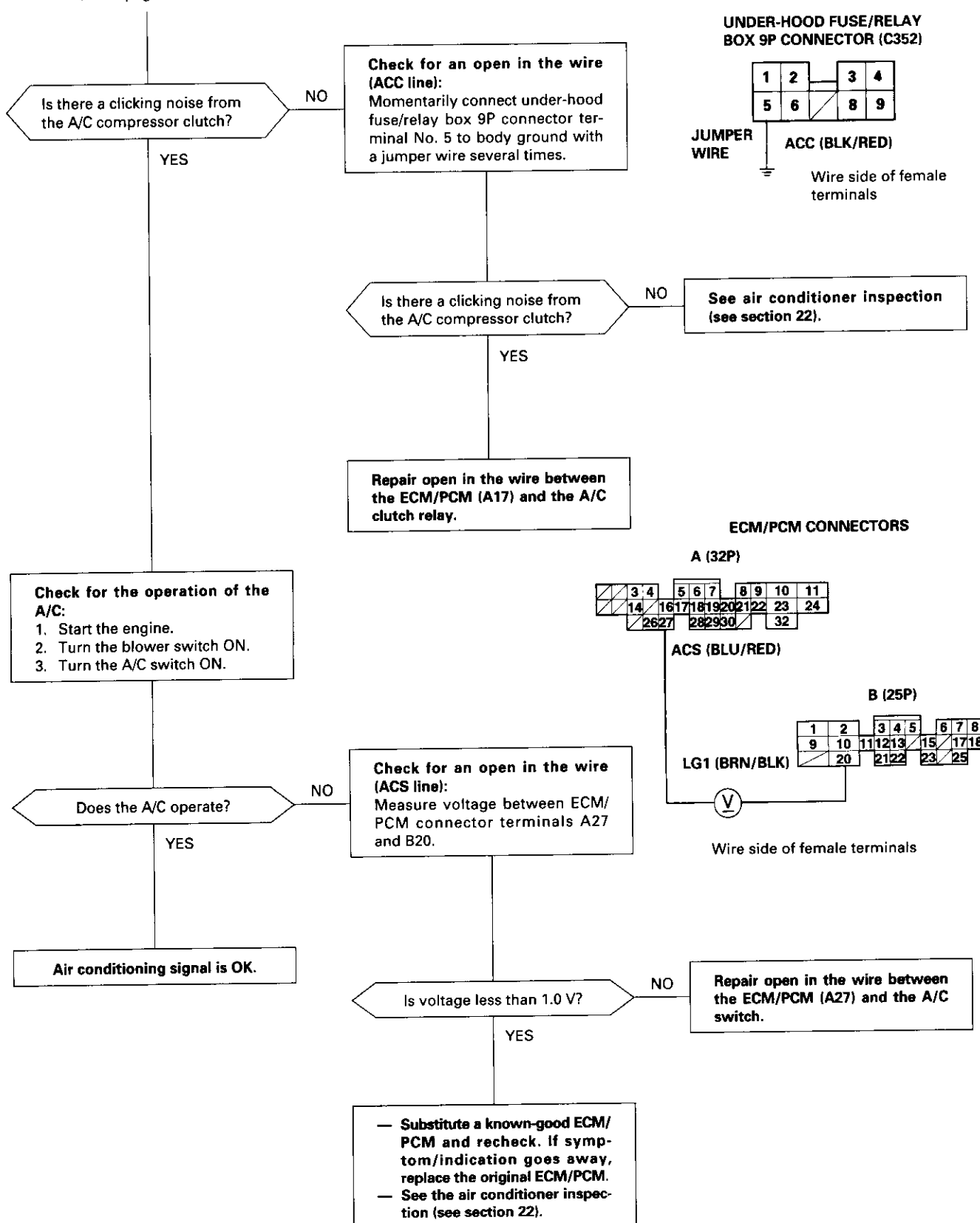
Air Conditioning Signal ('99 – 00 Models except D16Y5 engine with M/T)

This signals the ECM/PCM when there is a demand for cooling from the air conditioning system.





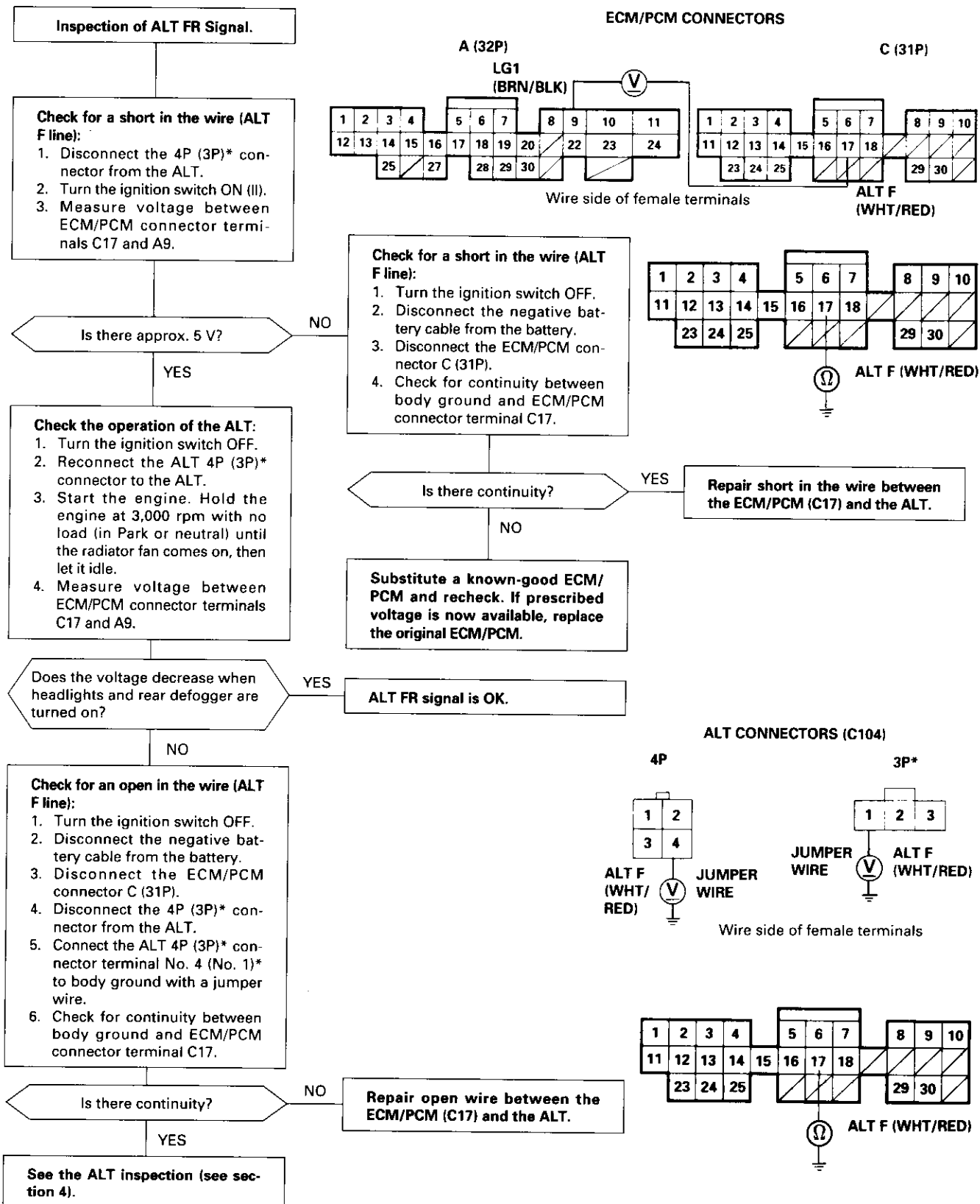
(From page 11-206)



Idle Control System

Alternator (ALT) FR Signal ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

This signals the ECM/PCM when the Alternator (ALT) is charging.

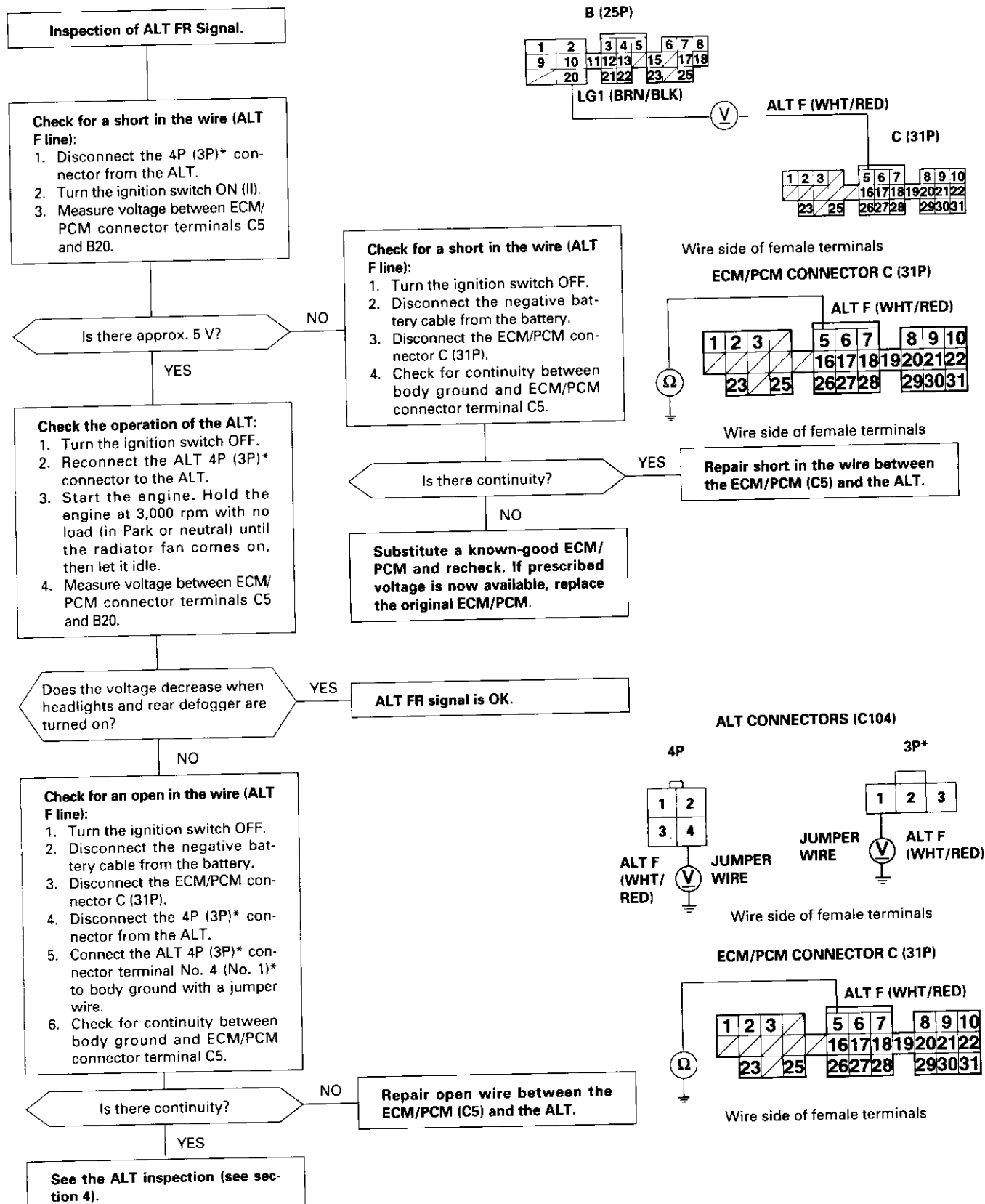


*: Canada model



Alternator (ALT) FR Signal ('99 - 00 Models except D16Y5 engine with M/T)

This signals the ECM/PCM when the Alternator (ALT) is charging.

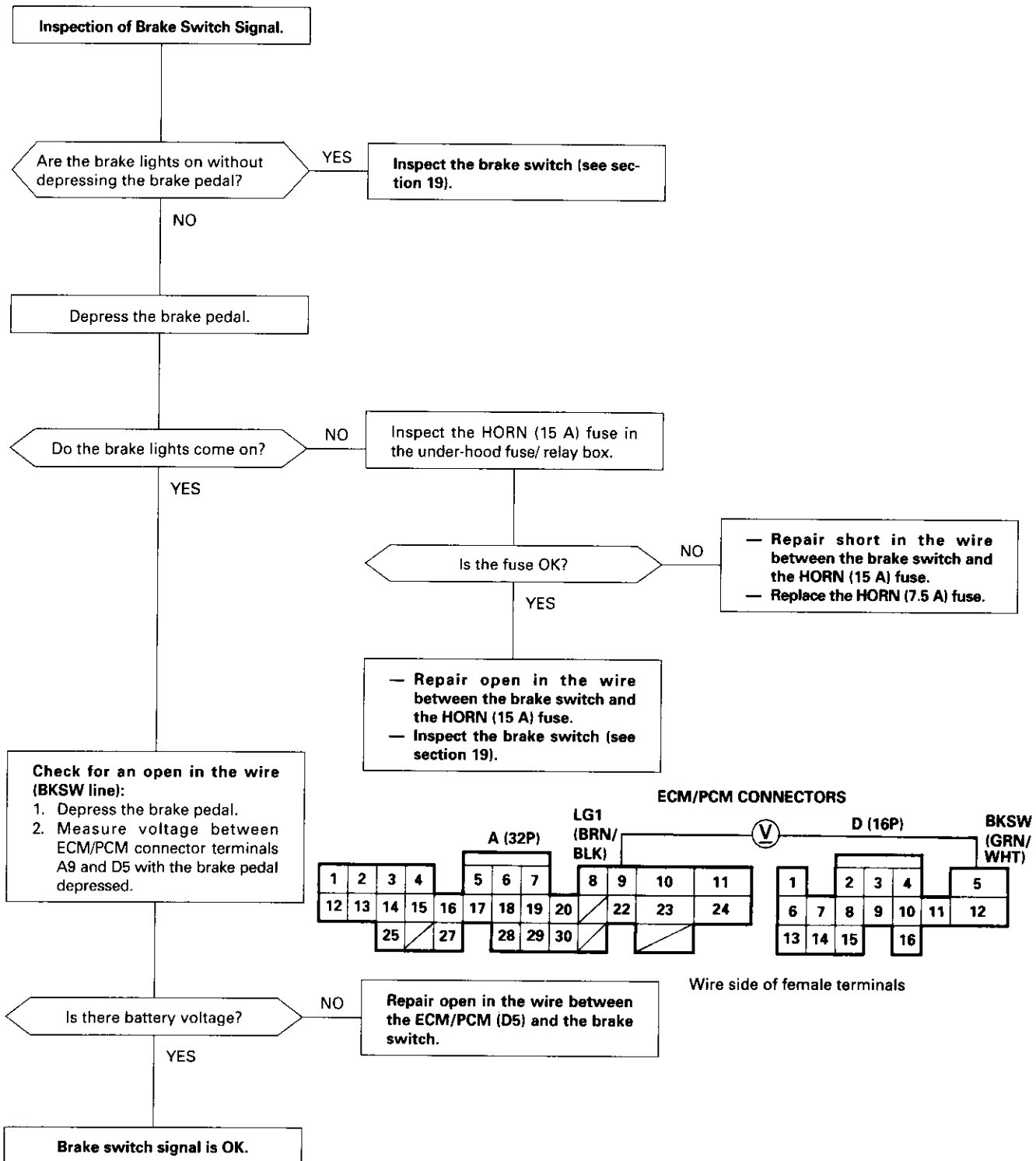


*: Canada model

Idle Control System

Brake Switch Signal ('96 – 98 Models, '99 – 00 D16Y5 engine with M/T)

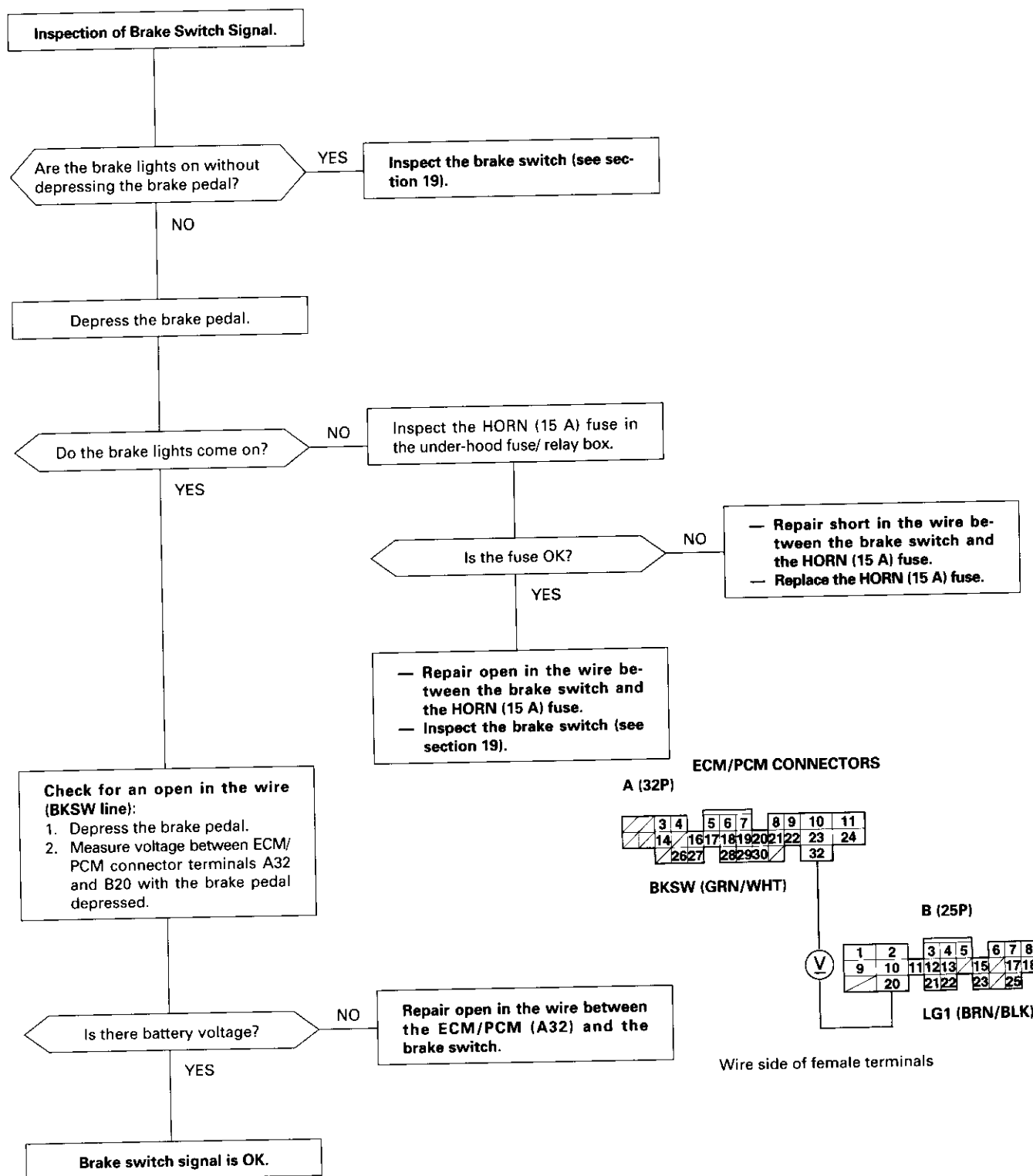
This signals the ECM/PCM when the brake pedal is depressed.





Brake Switch Signal ('99 – 00 Models except D16Y5 engine with M/T)

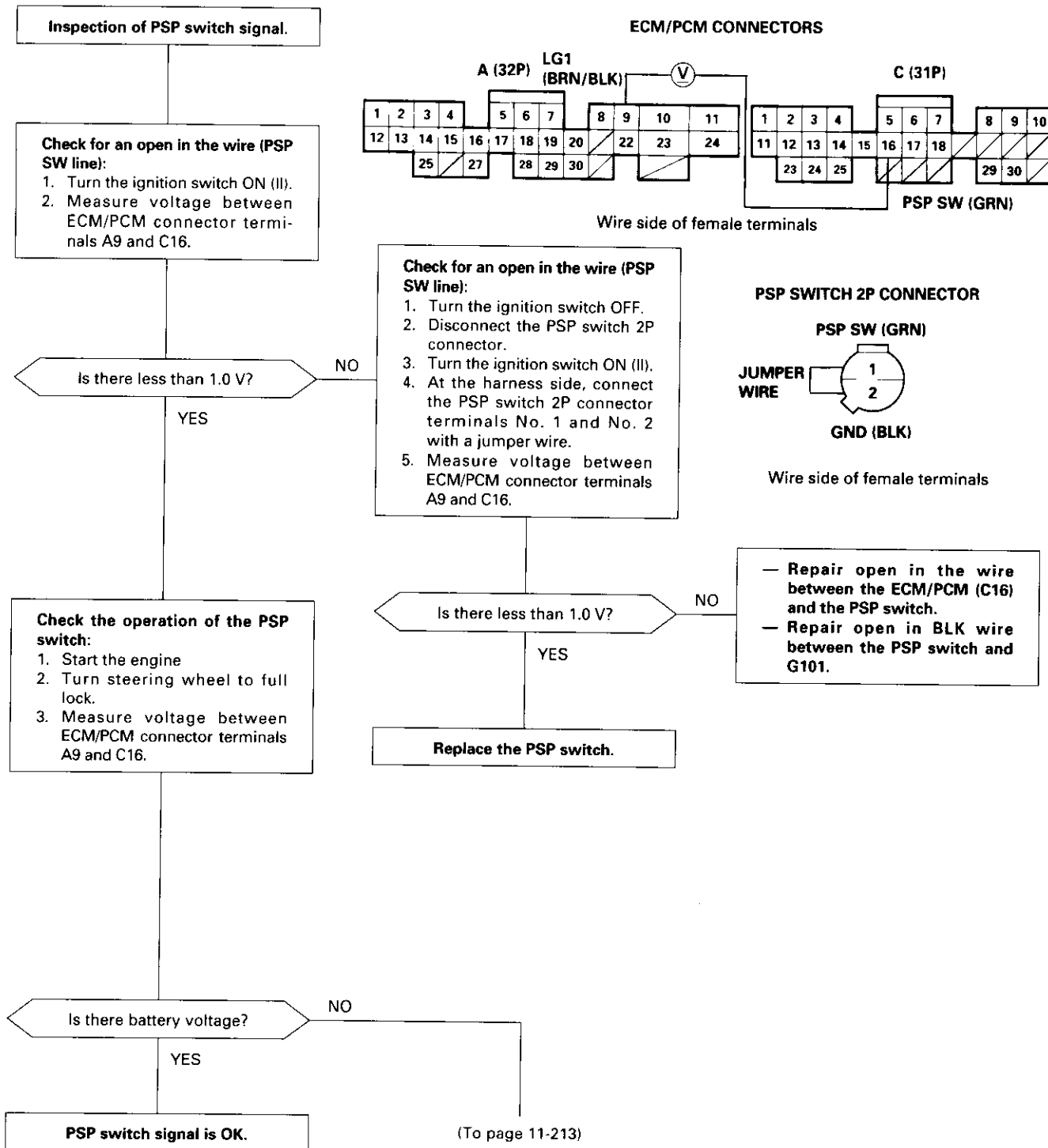
This signals the ECM/PCM when the brake pedal is depressed.



Idle Control System

Power Steering Pressure (PSP) Switch Signal (’96 – 98 Models, ’99 – 00 D16Y5 engine with M/T) (USA)

This signals the ECM/ PCM when the power steering load is high.



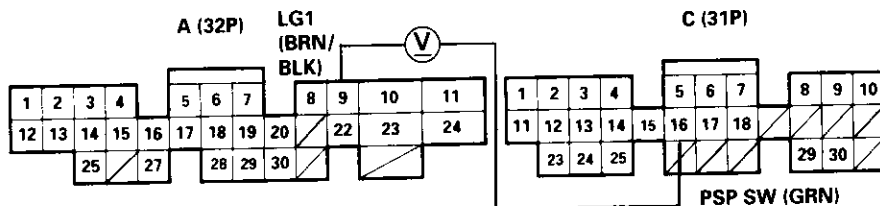


(From page 11-212)

Check for a short in the PSP switch:

1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the PSP switch.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A9 and C16.

ECM/PCM CONNECTORS



Wire side of female terminals

Is there battery voltage?

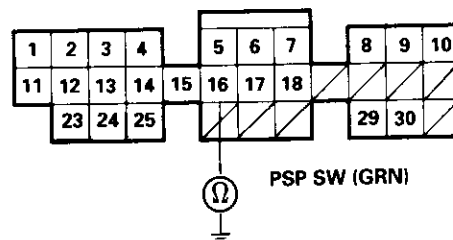
YES

Replace the PSP switch.

NO

Check for a short in the wire (PSP SW line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector C (31P).
3. Check for continuity between body ground and ECM/PCM connector terminal C16.



Is there continuity?

YES

Repair short in the wire between the ECM/PCM (C16) and the PSP switch.

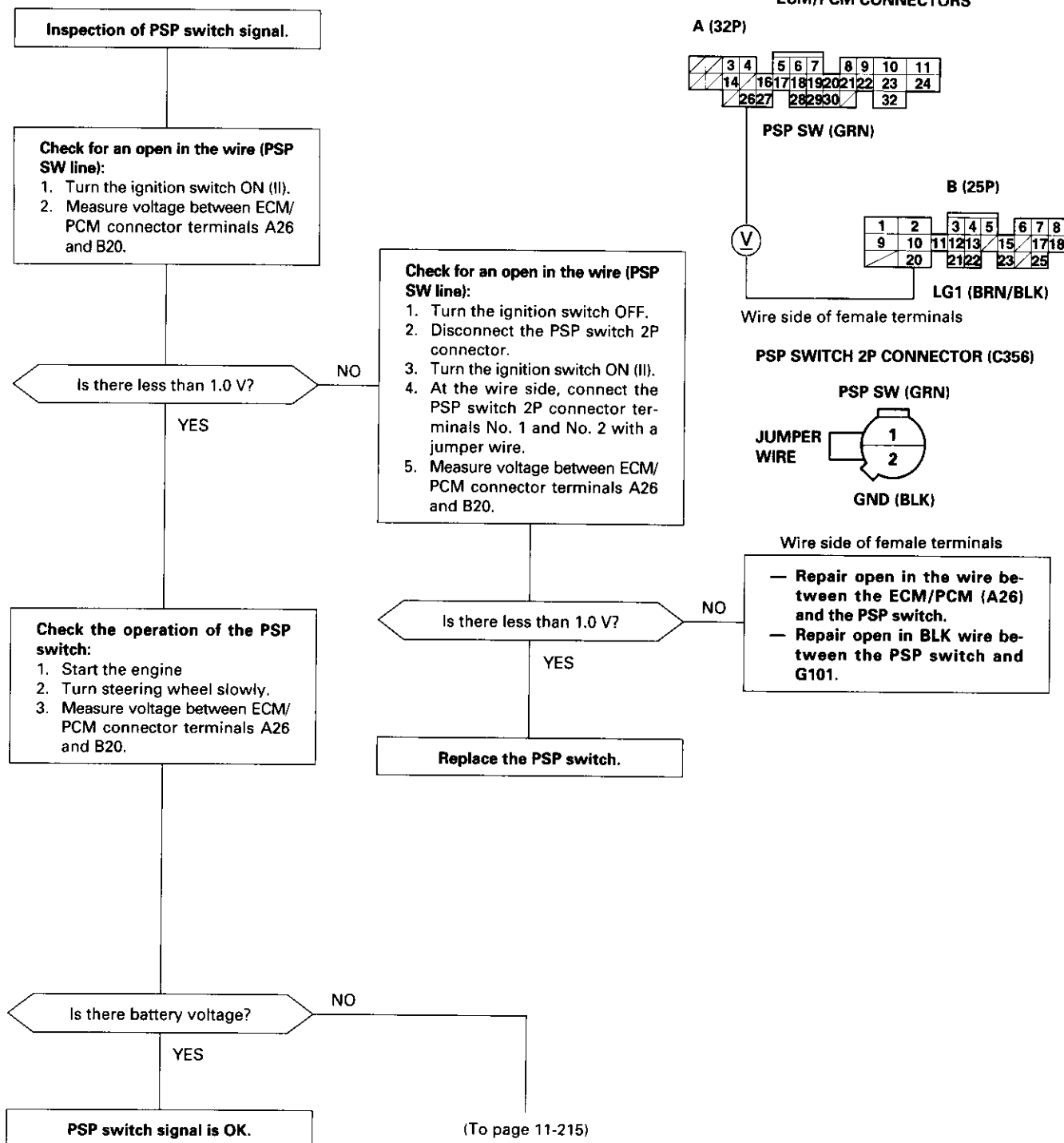
NO

Substitute a known-good ECM/PCM and recheck. If prescribed voltage is now available, replace the original ECM/PCM.

Idle Control System

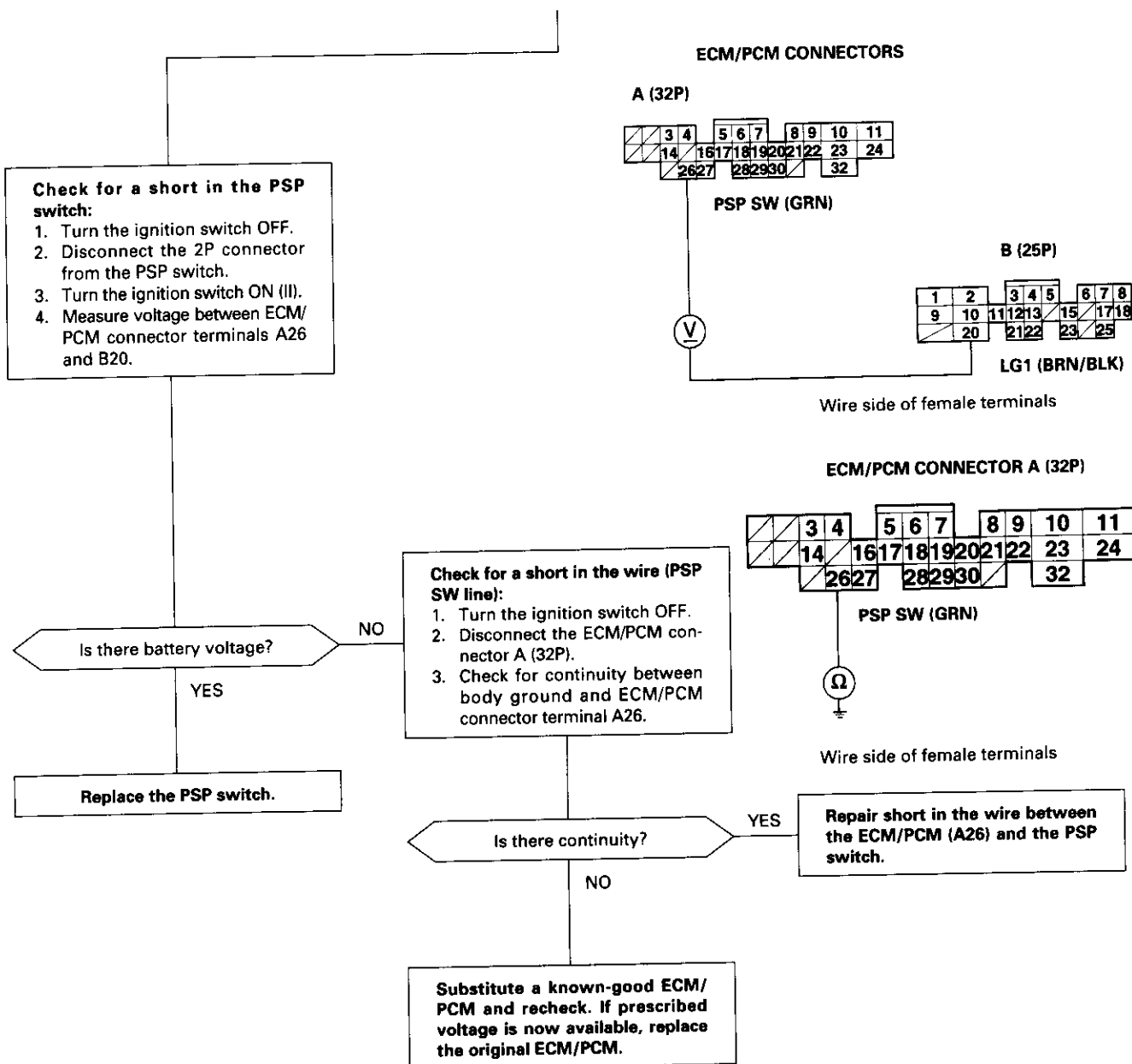
Power Steering Pressure (PSP) Switch Signal (‘99 – 00 Models except D16Y5 engine with M/T) (USA)

This signals the ECM/PCM when the power steering load is high.





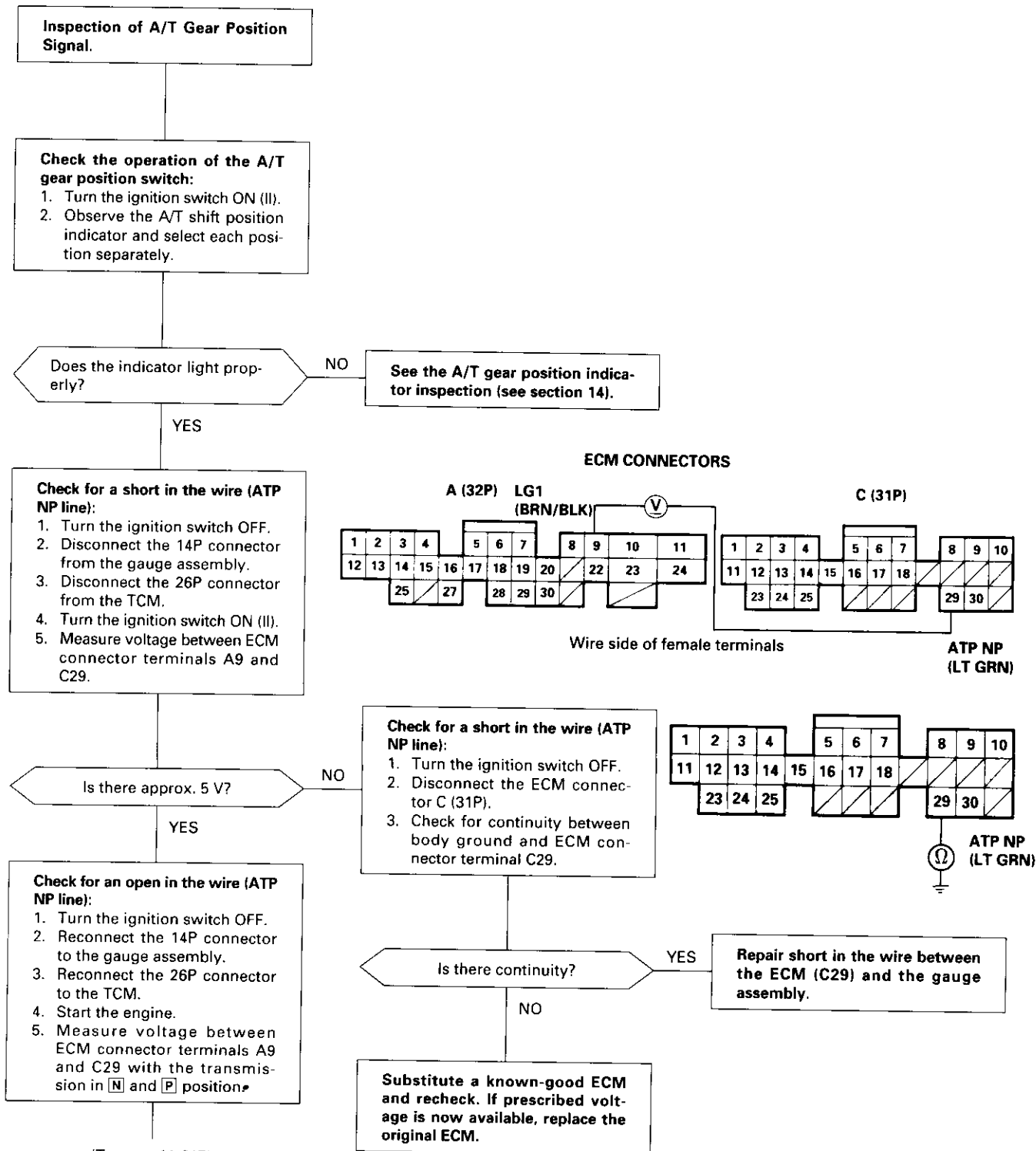
(From page 11-214)



Idle Control System

Automatic Transaxle (CVT) Gear Position Signal ('96 – 98 D16Y5 engine with CVT)

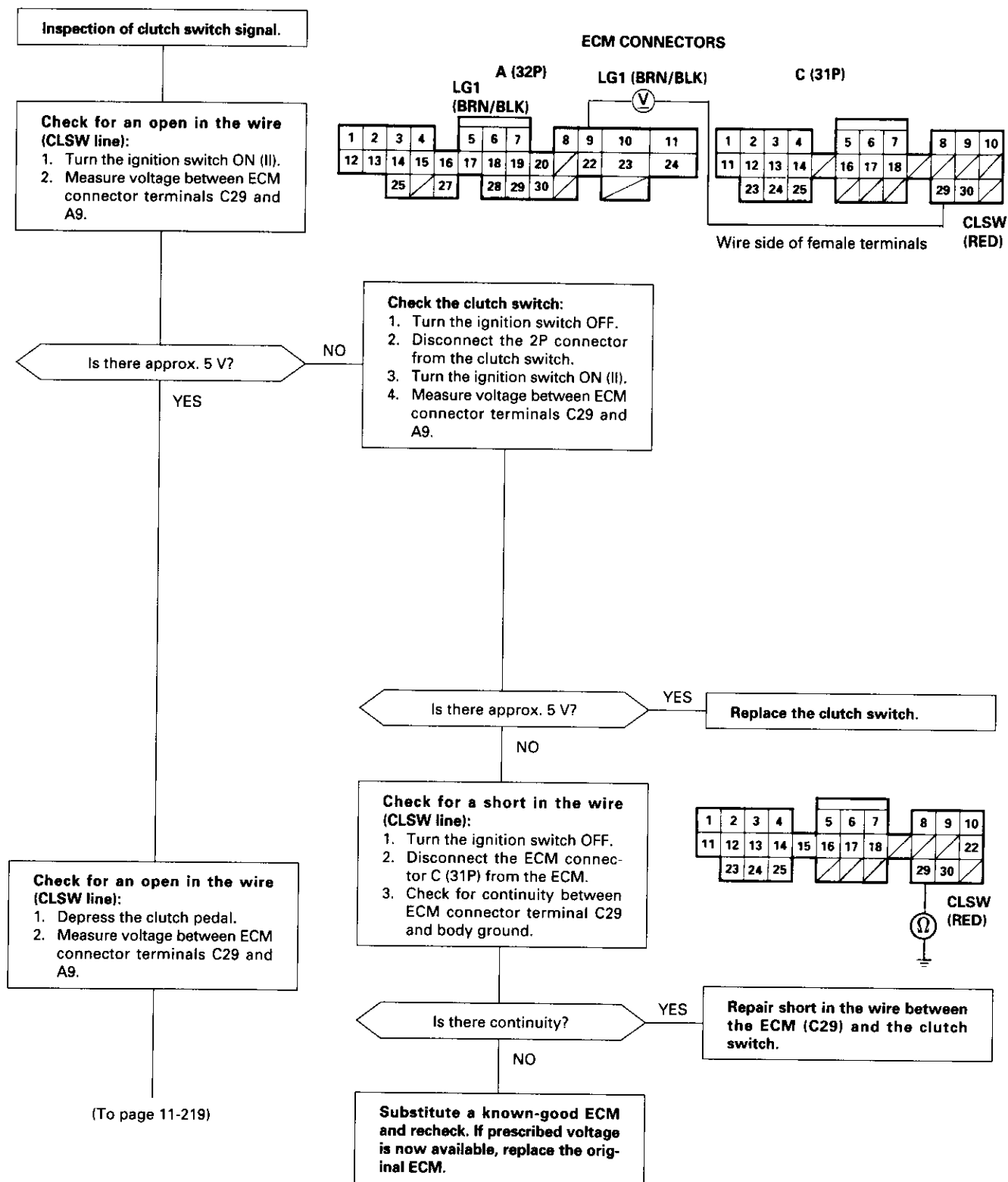
This signals the ECM when the transmission is in **N** or **P** position.



Idle Control System

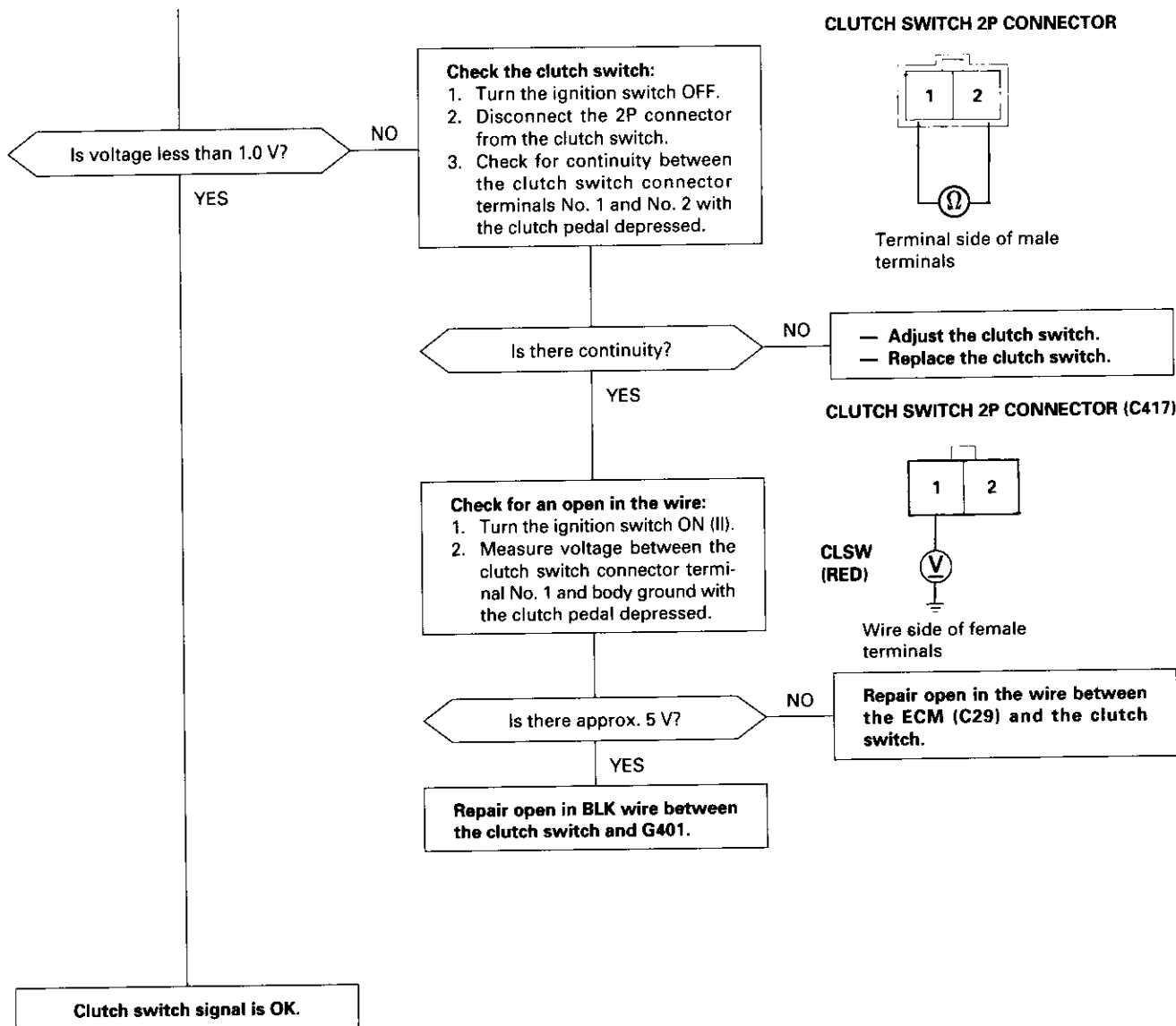
Clutch Switch Signal (D16Y5 engine with M/T)

This signals the ECM when the clutch is engaged.





(From page 11-218)



Idle Control System

Idle Speed Setting

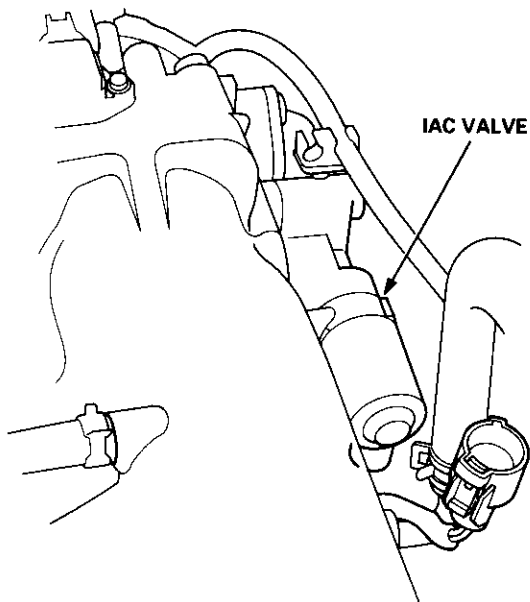
Inspection/Adjustment

'96, '97 D16Y5, '96 – 00 D16Y8 engine with M/T

NOTE:

- Before setting the idle speed, check the following items:
 - The MIL has not been reported on.
 - Ignition timing
 - Spark plugs
 - Air cleaner
 - PCV system
- (Canada) Pull the parking brake lever up. Start the engine, then check that the headlights are off.

1. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on, then let it idle.
2. Connect a tachometer.
3. Disconnect the IAC valve connector.

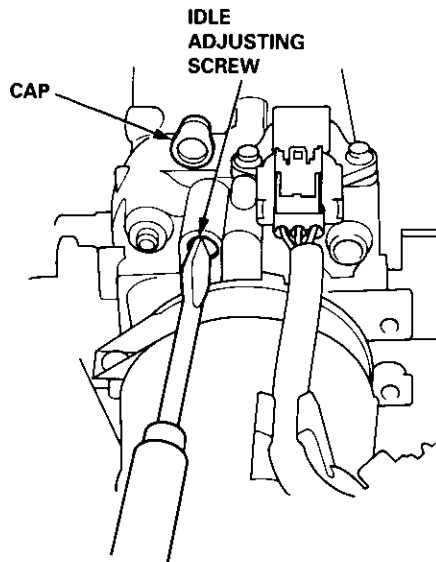


4. If the engine stalls, restart the engine with the accelerator pedal slightly depressed. Stabilize the rpm at 1,000, then slowly release the pedal until the engine idles.
5. Check idling in no-load conditions: headlights, blower fan, rear defogger, radiator fan, and air conditioner are not operating.

Idle speed should be:
450 ± 50 rpm

Adjust the idle speed, if necessary, by removing the cap and turning the idle adjusting screw.

NOTE: After adjusting the idle speed in this step, recheck the ignition timing (see section 23). If it is out of spec, go back to step 4.



6. Turn the ignition switch OFF.
7. Reconnect the 2P connector on the IAC valve, then do the ECM reset procedure.
8. Restart and idle the engine with no-load conditions for one minute, then check the idle speed.

NOTE: (Canada) Pull the parking brake lever up. Start the engine, then check that the headlights are off.

Idle speed should be:
670 ± 50 rpm (USA)
750 ± 50 rpm (Canada)

9. Idle the engine for one minute with headlights (Low) ON, and check the idle speed.

Idle speed should be:
750 ± 50 rpm

10. Turn the headlights off. Idle the engine for one minute with heater fan switch at HI and air conditioner on, then check the idle speed.

Idle speed should be:
810 ± 50 rpm

NOTE: If the idle speed is not within specification, see Symptom Chart on page 11-84.



'96, '97 D16Y5 engine with CVT, '96 – 00 D16Y8 engine with A/T and '96 – 00 D16Y7 engine

Adjust the idle speed using a Honda PGM Tester if possible. If not, use the following procedure:

NOTE:

- Leave the IAC valve connected.
- Before setting the idle speed, check the following items:
 - The MIL has not been reported on.
 - Ignition timing
 - Spark plugs
 - Air cleaner
 - PCV system

1. Connect a tachometer.
2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Check the idle speed with no-load conditions: headlights, blower fan, rear defogger, radiator fan, and air conditioner are not operating.

Idle speed should be:

USA:

**D16Y5 engine with CVT, D16Y7 engine with A/T,
D16Y8 engine with A/T:**
700 ± 50 rpm (in **N** or **P** position)
D16Y7 engine with M/T:
670 ± 50 rpm

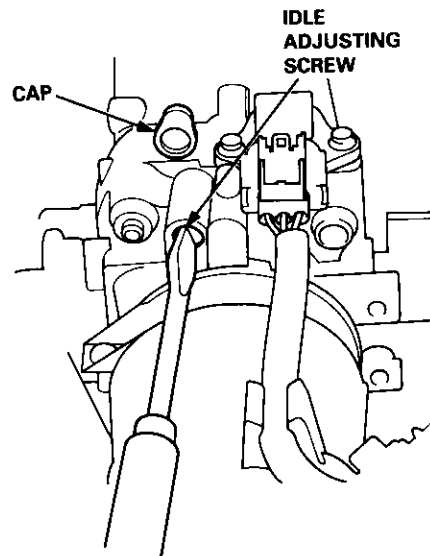
Canada:

D16Y8 engine, D16Y7 engine:

M/T	750 ± 50 rpm
A/T	750 ± 50 rpm (in N or P position)

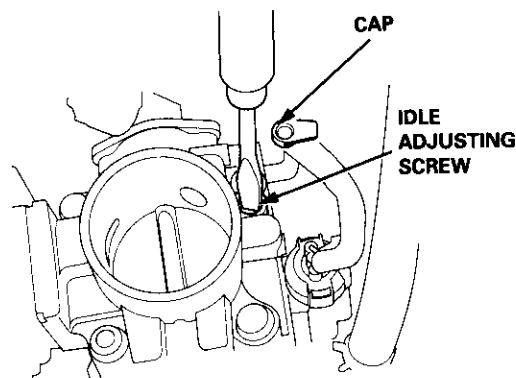
4. Adjust the idle speed, if necessary, by removing the cap and turning the idle adjusting screw 1/2-turn clockwise or counterclockwise.

D16Y5, D16Y8 engine:



D16Y7 engine:

NOTE: When you remove the ACL housing, do not disconnect the IAT sensor connector.



5. After turning the idle adjusting screw 1/2-turn, check the idle speed again. If it is out of spec, turn the idle adjusting screw 1/2-turn again.
NOTE: Do not turn the idle adjusting screw more than 1/2-turn without checking the idle speed.
6. Idle the engine for one minute with heater fan switch at HI and air conditioner on, then check the idle speed.

Idle speed should be:

M/T	810 ± 50 rpm
A/T, CVT	810 ± 50 rpm (in N or P position)

NOTE:

- Do not turn the idle adjusting screw when the air conditioner is on.
- If the idle speed is not within specification, see Symptom Chart on page 11-84. (cont'd)

Idle Control System

Idle Speed Setting (cont'd)

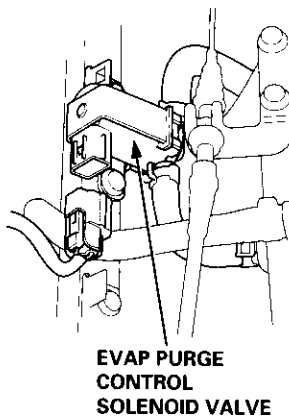
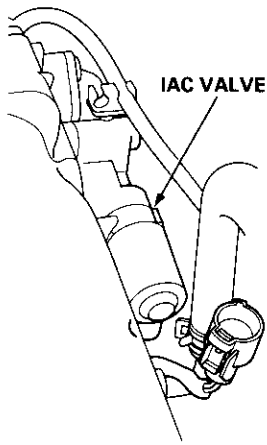
Inspection/Adjustment

'98 D16Y5 engine with M/T, '99 - 00 B16A2 engine

NOTE: Before setting the idle speed, check the following items:

- The MIL has not been reported on.
- Ignition timing
- Spark plugs
- Air cleaner
- PCV system

1. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on, then let it idle.
2. Connect a tachometer.
3. Disconnect the IAC valve 2P connector and the EVAP purge control solenoid valve 2P connector.

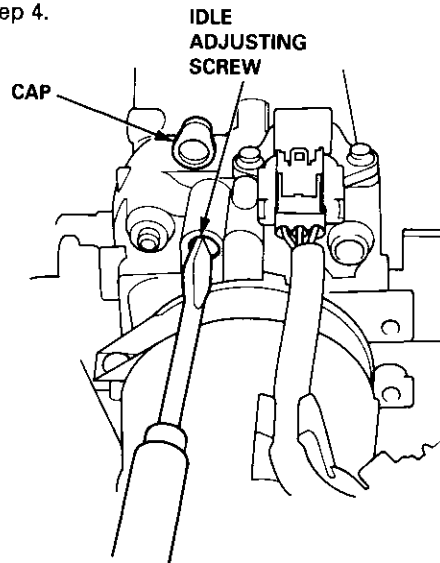


4. If the engine stalls, restart the engine with the accelerator pedal slightly depressed. Stabilize the rpm at 1,000, then slowly release the pedal until the engine idles.
5. Check idling in no-load conditions: headlights, blower fan, rear defogger, radiator fan, and air conditioner are not operating.

Idle speed should be:
450 ± 50 rpm

If necessary, adjust the idle speed, by removing the cap and turning the idle adjusting screw.

After adjusting the idle speed recheck the ignition timing (see section 23). If it is out of spec, go back to step 4.



6. Turn the ignition switch OFF.
7. Reconnect the 2P connectors to the IAC valve and the EVAP purge control solenoid valve, then do the ECM reset procedure.
8. Restart and idle the engine with no-load conditions for one minute, then check the idle speed.
Idle speed should be:
USA:
D16Y5 engine: 670 ± 50 rpm
B16A2 engine: 700 ± 50 rpm
Canada:
B16A2 engine: 750 ± 50 rpm
9. Idle the engine for one minute with headlights (Low) ON, and check the idle speed.
Idle speed should be:
750 ± 50 rpm
10. Turn the headlights off. Idle the engine for one minute with heater fan switch at HI and air conditioner on, then check the idle speed.
Idle speed should be:
810 ± 50 rpm

If the idle speed is not within specification, see Symptom Chart on page 11-84.



'98 - 00 D16Y5 engine with CVT

Adjust the idle speed using a Honda PGM Tester if possible. If not, use the following procedure:

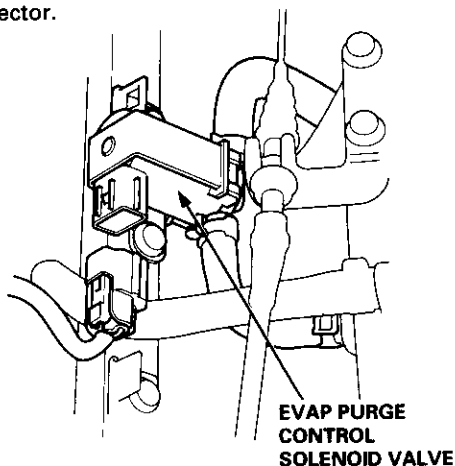
NOTE:

- Leave the IAC valve connected.
- Before setting the idle speed, check the following items:
 - The MIL has not been reported on.
 - Ignition timing
 - Spark plugs
 - Air cleaner
 - PCV system

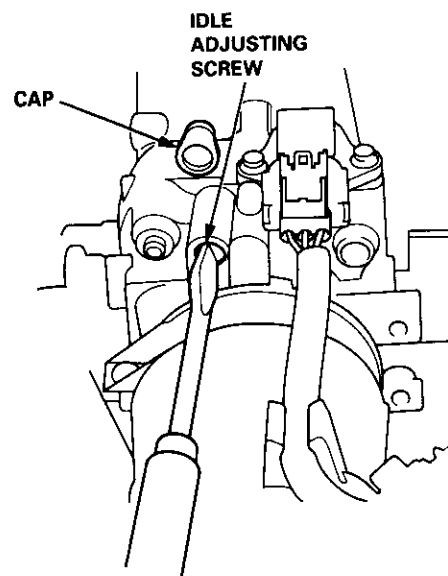
1. Connect a tachometer.
2. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in **N** or **P** position) until the radiator fan comes on, then let it idle.
3. Check the idle speed under no-load conditions: head lights, blower fan, rear defogger, radiator fan, and air conditioner are not operating.

Idle speed should be: 700 ± 50 rpm

- If the idle speed is within the specification, the procedure is complete.
 - If the idle speed is out of specification, go to step 4.
4. If the idle speed is 810 ± 50 rpm, this means the EVAP system is purging the canister. To stop the purging temporarily, raise the engine speed above 1,000 rpm with the accelerator pedal. Slowly release the pedal, and recheck the idle speed.
 - If the idle speed is within the specification, the procedure is complete.
 - If the idle speed is out of specification, go to step 5.
 5. Disconnect the EVAP purge control solenoid valve 2P connector.



6. Remove the cap and turn the idle adjusting screw 1/2-turn clockwise or counterclockwise.



7. After turning the idle adjusting screw 1/2-turn, check the idle speed again. If it is out of spec, turn the idle adjusting screw 1/2-turn again.

NOTE: Do not turn the idle adjusting screw more than 1/2-turn without checking the idle speed.

8. Turn the ignition switch OFF. Reconnect the EVAP purge control solenoid valve 2P connector, then do the ECM reset procedure.
9. Start the engine. Idle the engine for one minute with heater fan switch at HI and air conditioner on, then check the idle speed.

Idle speed should be:

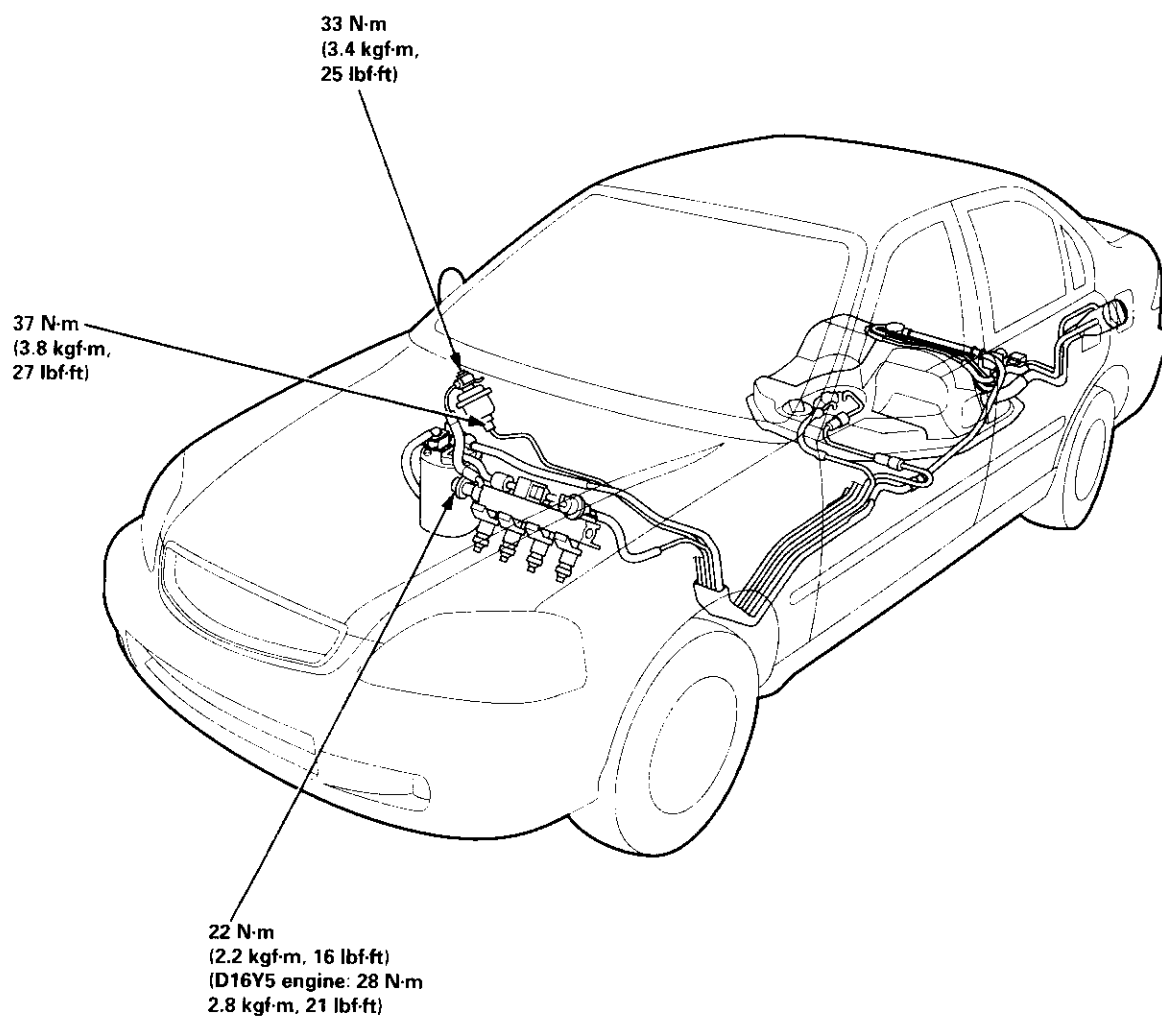
810 ± 50 rpm (in **N or **P** position)**

If the idle speed is not within specification, see Symptom Chart on page 11-84.

Fuel Supply System

Fuel Lines

NOTE: Check fuel system lines, hoses, fuel filter, and other components for damage, leaks and deterioration, and replace if necessary.

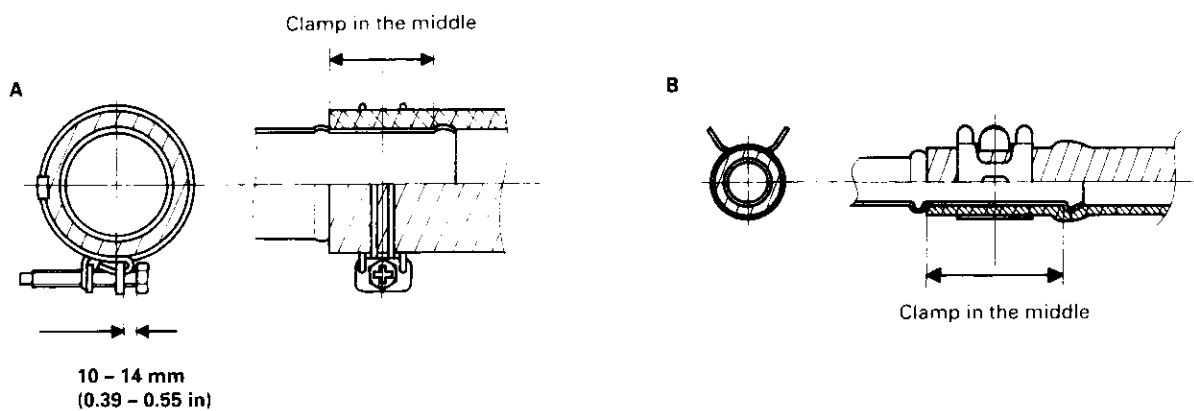
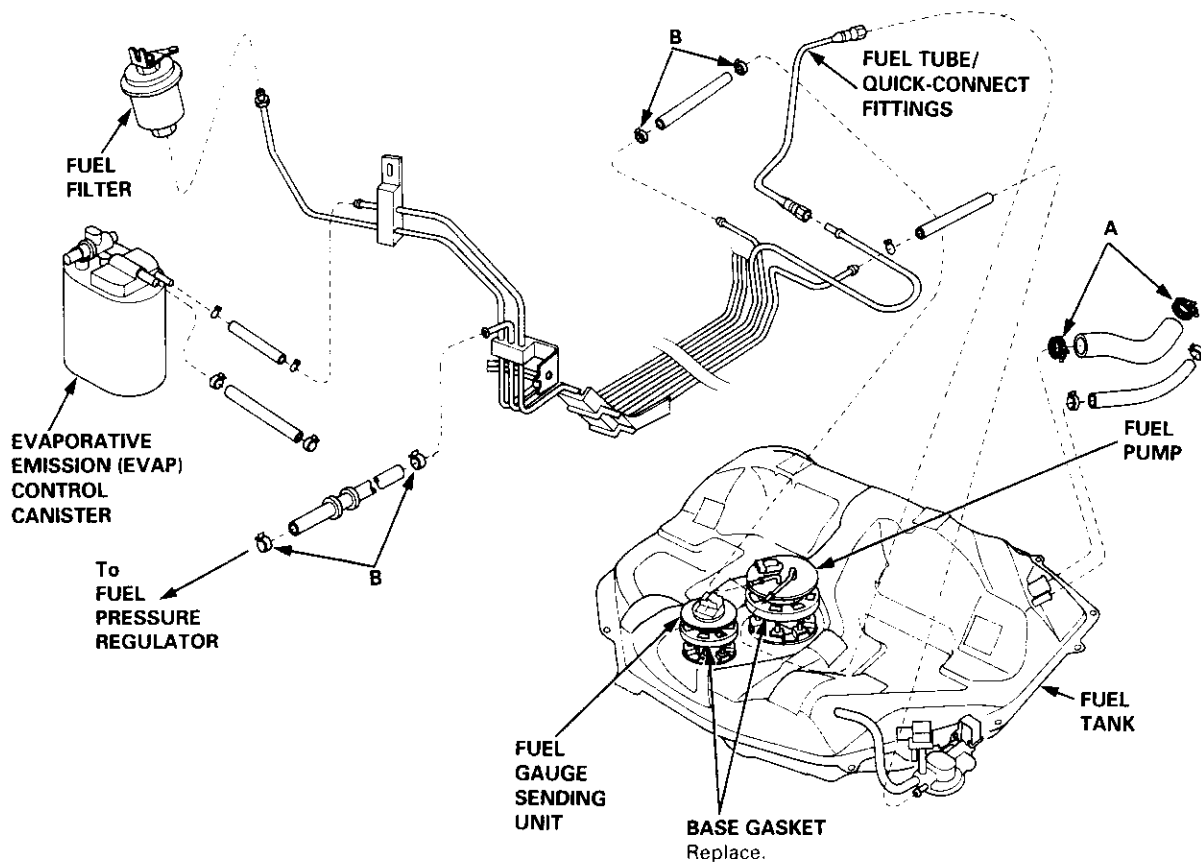


The illustration shows '99 – 00 models.



'96 - 98 models:

NOTE: Check all hose clamps and retighten if necessary.



(cont'd)

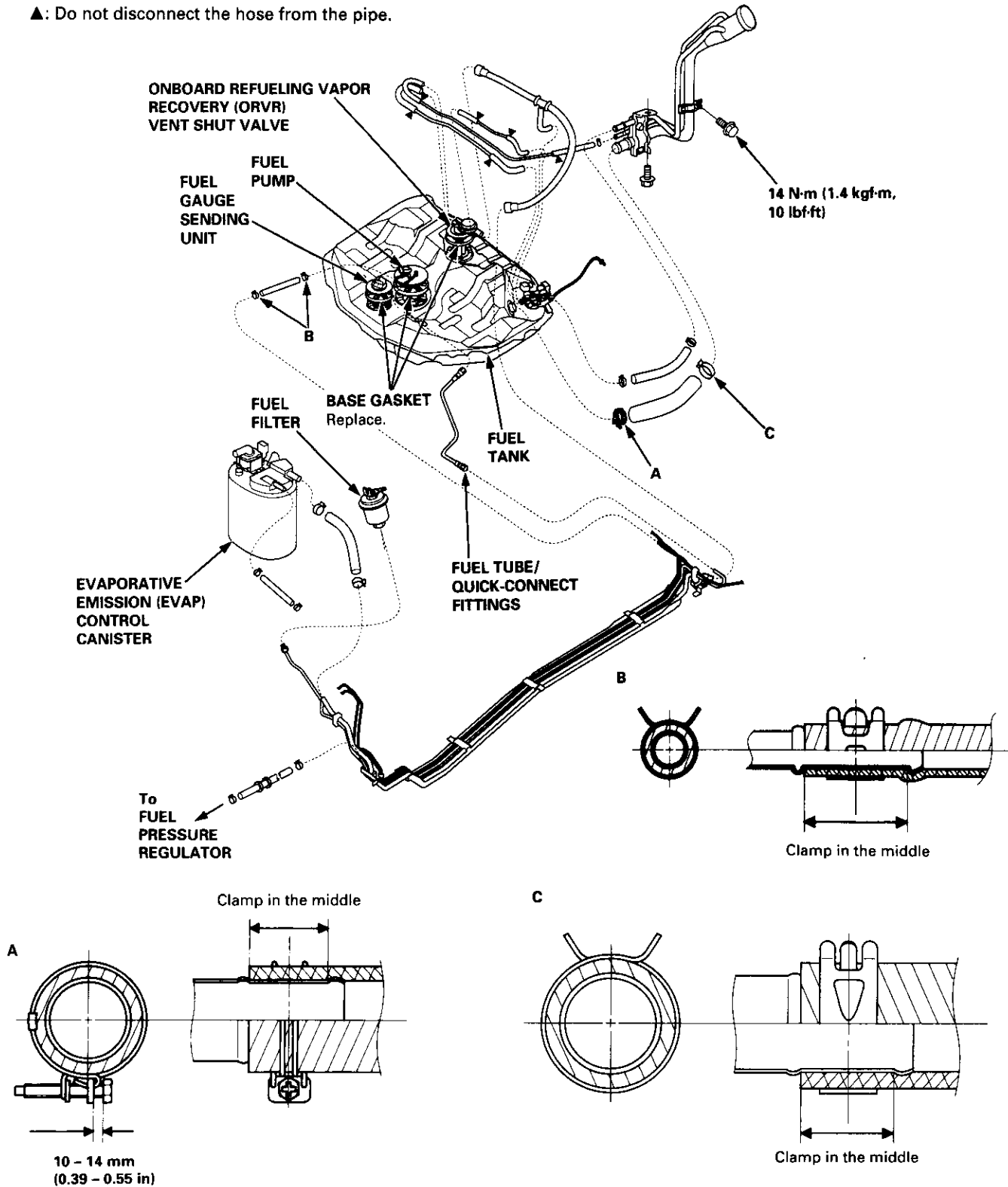
Fuel Supply System

Fuel Lines (cont'd)

'99 - 00 models:

NOTE: Check all hose clamps and retighten if necessary.

▲: Do not disconnect the hose from the pipe.





Fuel Tube/Quick-Connect Fittings

Precautions

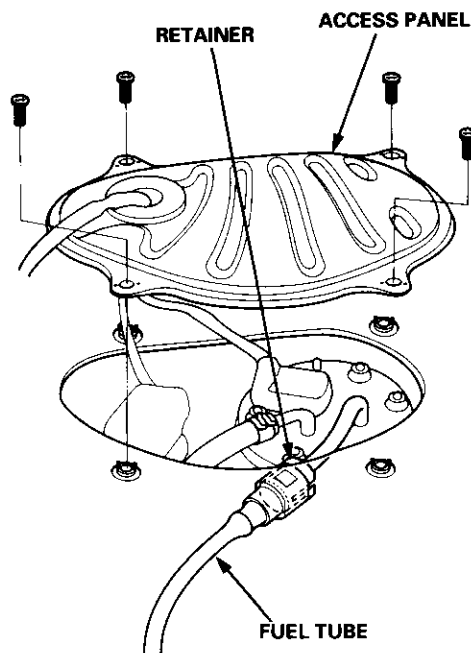
⚠ WARNING Do not smoke while working on the fuel system. Keep open flames away from your work area.

The fuel tube/quick-connect fittings assembly connects the in-tank fuel pump with the fuel feed pipe. For removing or installing the fuel pump and fuel tank, it is necessary to disconnect or connect the quick-connect fittings. Pay attention to following:

- The fuel tube/quick-connect fittings assembly is not heat-resistant; be careful not to damage it during welding or other heat-generating procedures.
- The fuel tube/quick-connect fittings assembly is not acid-proof; do not touch it with a shop towel which was used for wiping battery electrolyte. Replace the fuel tube/quick-connect fittings assembly if it came into contact with electrolyte or something similar.
- When connecting or disconnecting the fuel tube/quick-connect fittings assembly, be careful not to bend or twist it excessively. Replace it if damaged.

A disconnected quick-connect fitting can be reconnected, but the retainer on the mating pipe cannot be reused once it has been removed from the pipe. Replace the retainer when

- Replacing the fuel pump.
- Replacing the fuel feed pipe.
- It has been removed from the pipe.
- It is damaged.



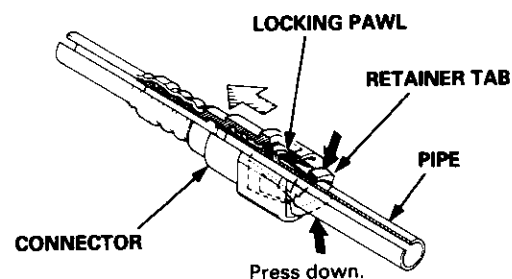
Disconnection

⚠ WARNING Do not smoke while working on the fuel system. Keep open flames away from your work area.

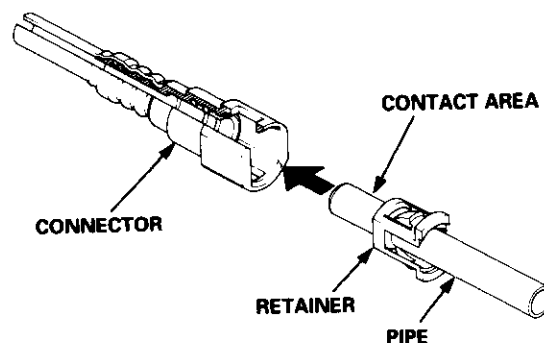
1. Relieve fuel pressure (see pages 11-230, 231).
2. Check the fuel quick-connect fittings for dirt, and clean if necessary.
3. Hold the connector with one hand and press down the retainer tabs with the other hand, then pull the connector off.

NOTE:

- Be careful not to damage the pipe or other parts. Do not use tools.
- If the connector does not move, keep the retainer tabs pressed down, and alternately pull and push the connector until it comes off easily.
- Do not remove the retainer from the pipe; once removed, the retainer must be replaced with a new one.



4. Check the contact area of the pipe for dirt and damage.
 - If the surface is dirty, clean it.
 - If the surface is rusty or damaged, replace the fuel pump or fuel feed pipe.

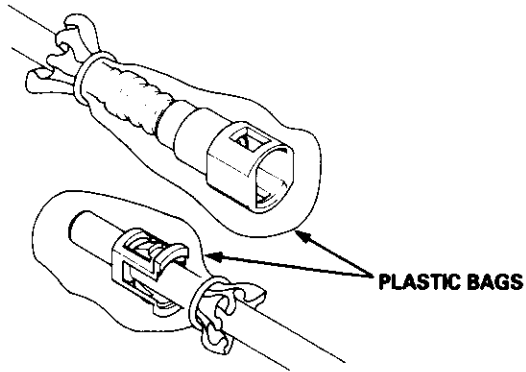


(cont'd)

Fuel Supply System

Fuel Tube/Quick-Connect Fittings (cont'd)

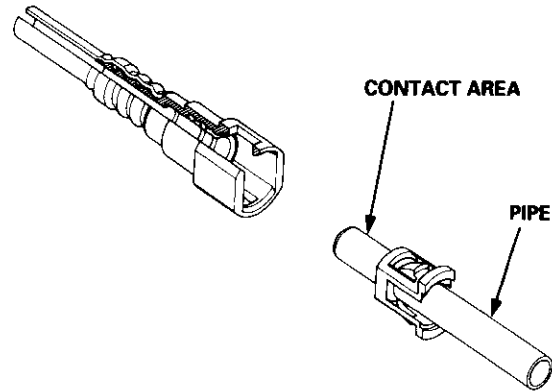
5. To prevent damage and keep out foreign matter, cover the disconnected connector and pipe end with plastic bags.



Connection

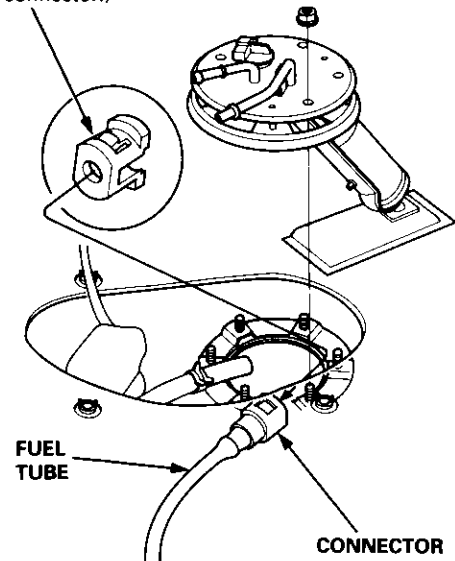
⚠ WARNING Do not smoke while working on the fuel system. Keep open flames away from your work area.

1. Check the pipe contact area for dirt and damage, and clean if necessary.



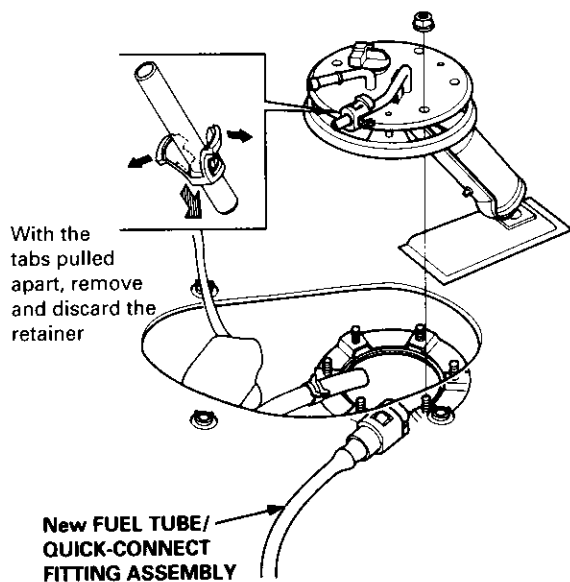
2. Insert a new retainer into the connector if the retainer is damaged, or after
 - replacing the fuel pump.
 - replacing the fuel feed pipe.
 - removing the retainer from the pipe.

New RETAINER
(Insert into the connector.)





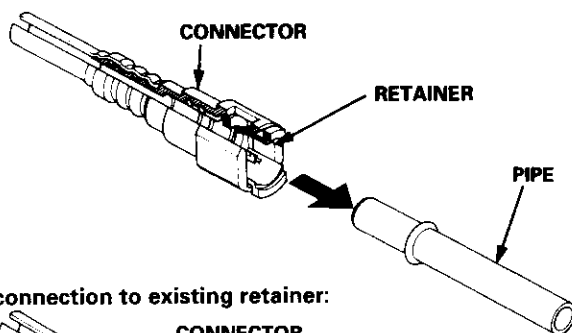
Before connecting a new fuel tube/quick-connect fitting assembly, remove the old retainer from the mating pipe.



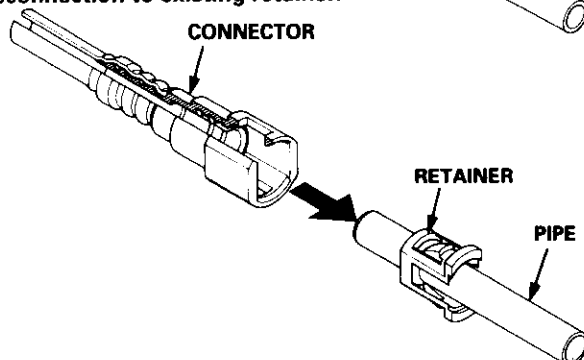
3. Align the quick-connect fittings with the pipe, and align the retainer locking pawls with the connector grooves. Then press the quick-connect fittings onto the pipe until both retainer pawls lock with a clicking sound.

NOTE: If it is hard to connect, put a small amount of new engine oil on the pipe end.

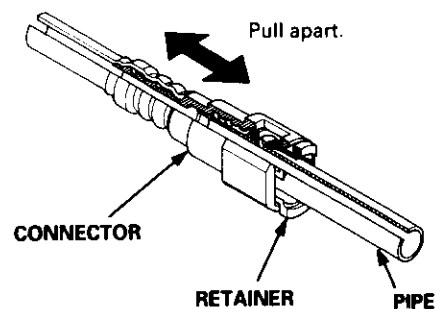
Connection with new retainer:



Reconnection to existing retainer:



4. Make sure the connection is secure and the pawls are firmly locked into place; check visually and by pulling the connector.



5. Reconnect the battery negative cable, and turn the ignition switch ON (II). The fuel pump will run for about two seconds, and fuel pressure will rise. Repeat two or three times, and check that there is no leakage in the fuel supply system.

Fuel Supply System

System Description

The fuel supply system consists of a fuel tank, in-tank high pressure fuel pump, PGM-FI main relay, fuel filter, fuel pressure regulator, fuel injectors, and fuel delivery and return lines. This system delivers pressure-regulated fuel to the fuel injectors and cuts the fuel delivery when the engine is not running.

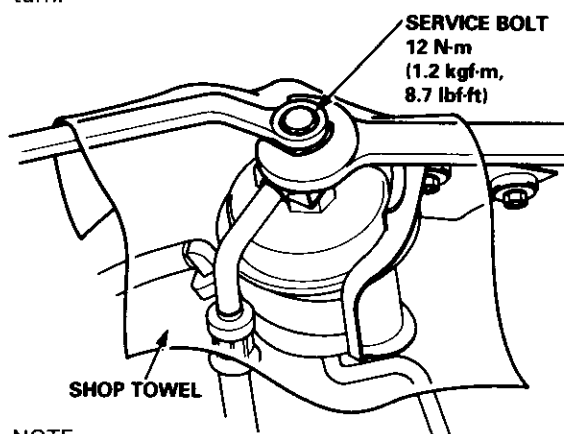
Fuel Pressure ('96 Models)

Relieving

Before disconnecting fuel pipes or hoses, release pressure from the system by loosening the 6 mm service bolt on top of the fuel filter.

⚠ WARNING

- Do not smoke while working on the fuel system. Keep open flames or sparks away from your work area.
 - Be sure to relieve fuel pressure while the ignition switch is off.
1. Write down the frequencies for the radio's preset buttons.
 2. Disconnect the battery negative cable from the battery negative terminal.
 3. Remove the fuel fill cap.
 4. Use a box end wrench on the 6 mm service bolt at the fuel filter while holding the special banjo bolt with another wrench.
 5. Place a rag or shop towel over the 6 mm service bolt.
 6. Slowly loosen the 6 mm service bolt one complete turn.



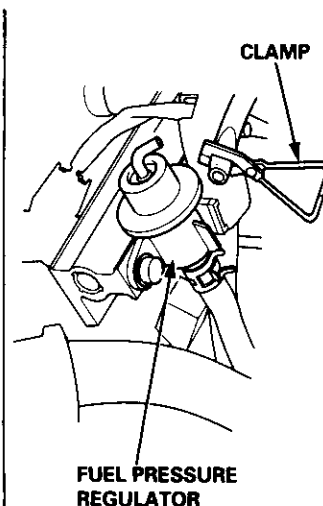
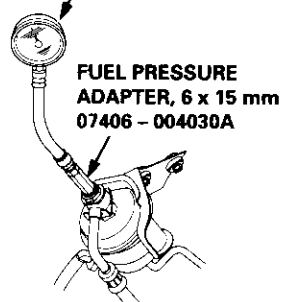
NOTE:

- A fuel pressure gauge can be attached at the 6 mm service bolt hole.
- Always replace the washer between the service bolt and the special banjo bolt whenever the service bolt is loosened.
- Replace all washers whenever the bolts are removed.

Inspection

1. Relieve fuel pressure.
2. Remove the service bolt on the fuel filter while holding the banjo bolt with another wrench. Attach the special tool.

FUEL PRESSURE GAUGE
07406 - 0040001



3. Start the engine. Measure the fuel pressure with the engine idling and the vacuum hose of the fuel pressure regulator disconnected from the fuel pressure regulator and pinched. If the engine will not start, turn the ignition switch ON (II), wait for two seconds, turn it off, then back on again and read the fuel pressure.

Pressure should be:

260 - 310 kPa (2.7 - 3.2 kgf/cm², 38 - 46 psi)

4. Reconnect vacuum hose to the fuel pressure regulator.

Pressure should be:

200 - 250 kPa (2.0 - 2.5 kgf/cm², 28 - 36 psi)

If the fuel pressure is not as specified, first check the fuel pump (see page 11-236). If the fuel pump is OK, check the following:

- If the fuel pressure is higher than specified, inspect for:
 - Pinched or clogged fuel return hose or line.
 - Faulty fuel pressure regulator (see page 11-234).
- If the fuel pressure is lower than specified, inspect for:
 - Clogged fuel filter.
 - Faulty fuel pressure regulator (see page 11-234).
 - Fuel line leakage.



Fuel Pressure ('97 and later Models)

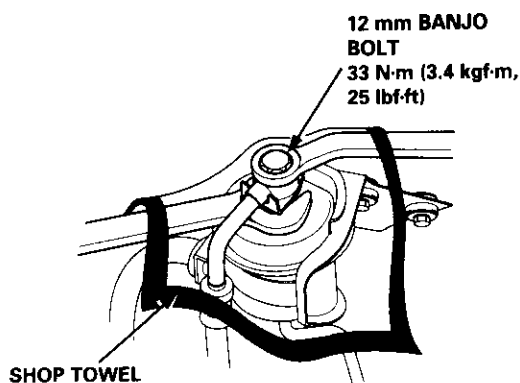
Relieving

Before disconnecting fuel pipes or hoses, release pressure from the system by loosening the 12 mm banjo bolt on top of the fuel filter.

⚠ WARNING

- Do not smoke while working on the fuel system. Keep open flames or sparks away from your work area.
- Be sure to relieve fuel pressure while the ignition switch is off.

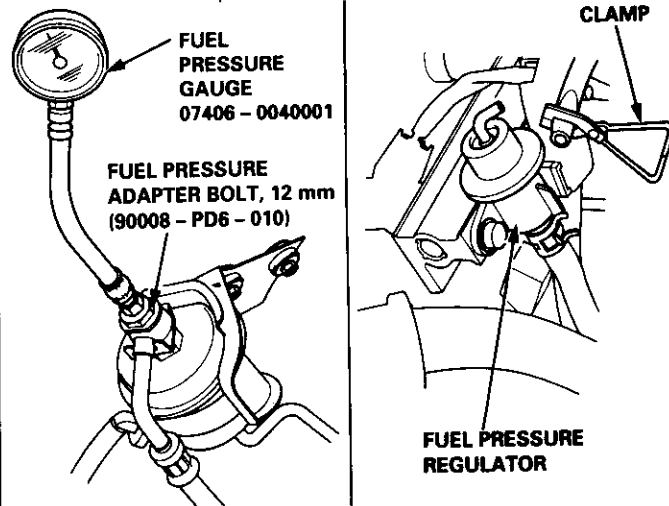
1. Write down the frequencies for the radio's preset buttons.
2. Disconnect the battery negative cable from the battery negative terminal.
3. Remove the fuel fill cap.
4. Use a box end wrench on the 12 mm banjo bolt at the fuel filter while holding the fuel filter with another wrench.
5. Place a rag or shop towel over the 12 mm banjo bolt.
6. Slowly loosen the 12 mm banjo bolt one complete turn.



NOTE: Replace all the washers whenever the 12 mm banjo bolt is loosened or removed.

Inspection

1. Relieve fuel pressure.
2. Remove the 12 mm banjo bolt from the fuel filter while holding the fuel filter with another wrench. Attach the special tools.



3. Start the engine. Measure the fuel pressure with the engine idling and the vacuum hose of the fuel pressure regulator disconnected from the fuel pressure regulator and pinched. If the engine will not start, turn the ignition switch ON (II), wait for two seconds, turn it off, then back on again and read the fuel pressure.

Pressure should be:

except B16A2 engine:

260 - 310 kPa (2.7 - 3.2 kgf/cm², 38 - 46 psi)

B16A2 engine:

270 - 320 kPa (2.8 - 3.3 kgf/cm², 40 - 47 psi)

4. Reconnect vacuum hose to the fuel pressure regulator.

Pressure should be:

except B16A2 engine:

200 - 250 kPa (2.0 - 2.5 kgf/cm², 28 - 36 psi)

B16A2 engine:

210 - 260 kPa (2.1 - 2.6 kgf/cm², 30 - 37 psi)

If the fuel pressure is not as specified, first check the fuel pump (see page 11-236). If the fuel pump is OK, check the following:

- If the fuel pressure is higher than specified, inspect for:
 - Pinched or clogged fuel return hose or line.
 - Faulty fuel pressure regulator (see page 11-234).
- If the fuel pressure is lower than specified, inspect for:
 - Clogged fuel filter.
 - Faulty fuel pressure regulator (see page 11-234).
 - Fuel line leakage.

Fuel Supply System

Fuel Injectors

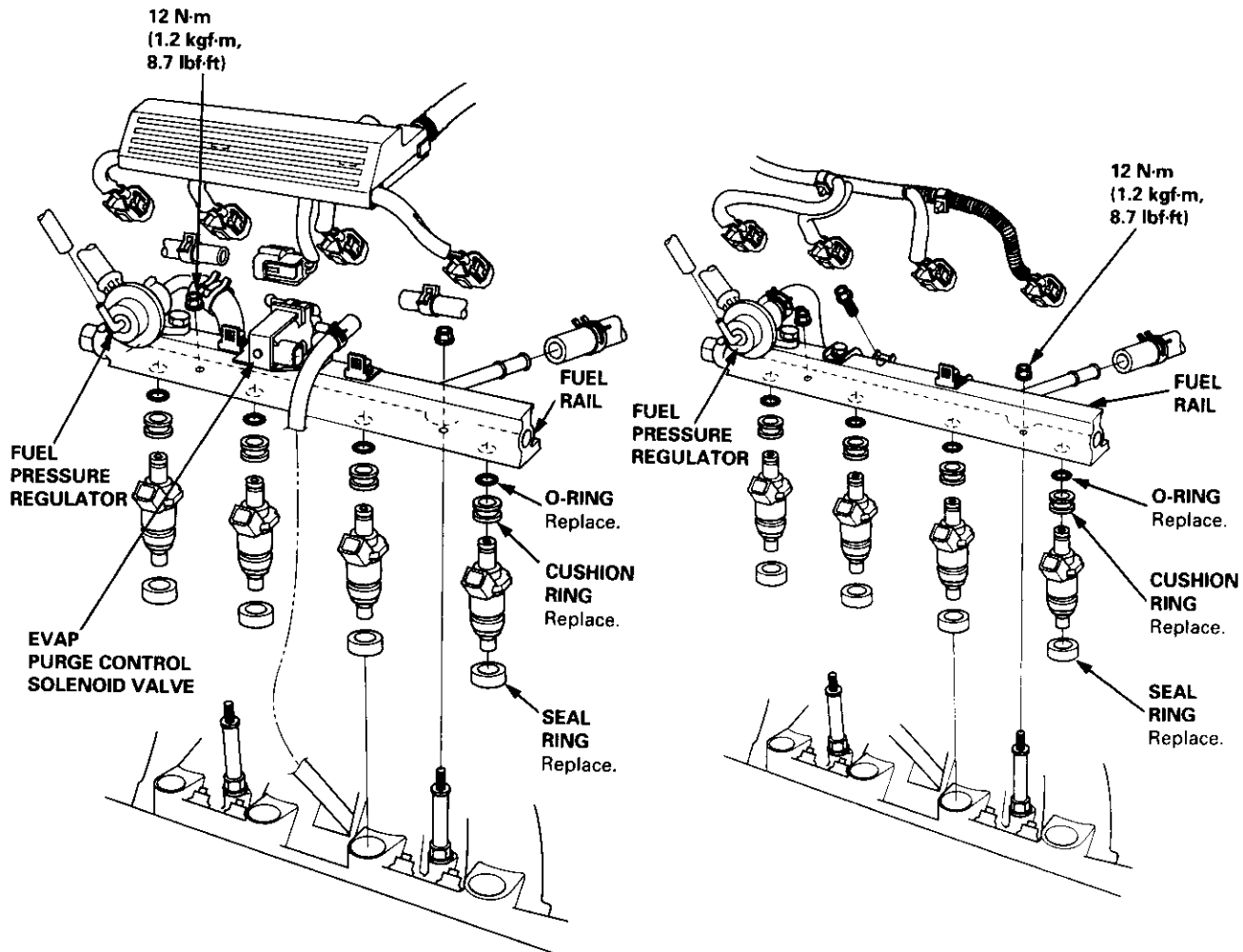
Replacement

⚠ WARNING Do not smoke when working on the fuel system. Keep open flames away from your work area.

1. Relieve the fuel pressure (see pages 11-230, 231).
2. Disconnect the connectors from the fuel injectors (D16Y7 engine: Remove the air cleaner).
3. Disconnect the vacuum hoses from the fuel pressure regulator. Place a shop towel over the fuel return hose, then disconnect it from the fuel pressure regulator. Disconnect the vacuum hoses and 2P connector from the EVAP purge control solenoid valve.
4. Remove the retainer nuts on the fuel rail.
5. Disconnect the fuel rail.
6. Remove the fuel injectors from the intake manifold.

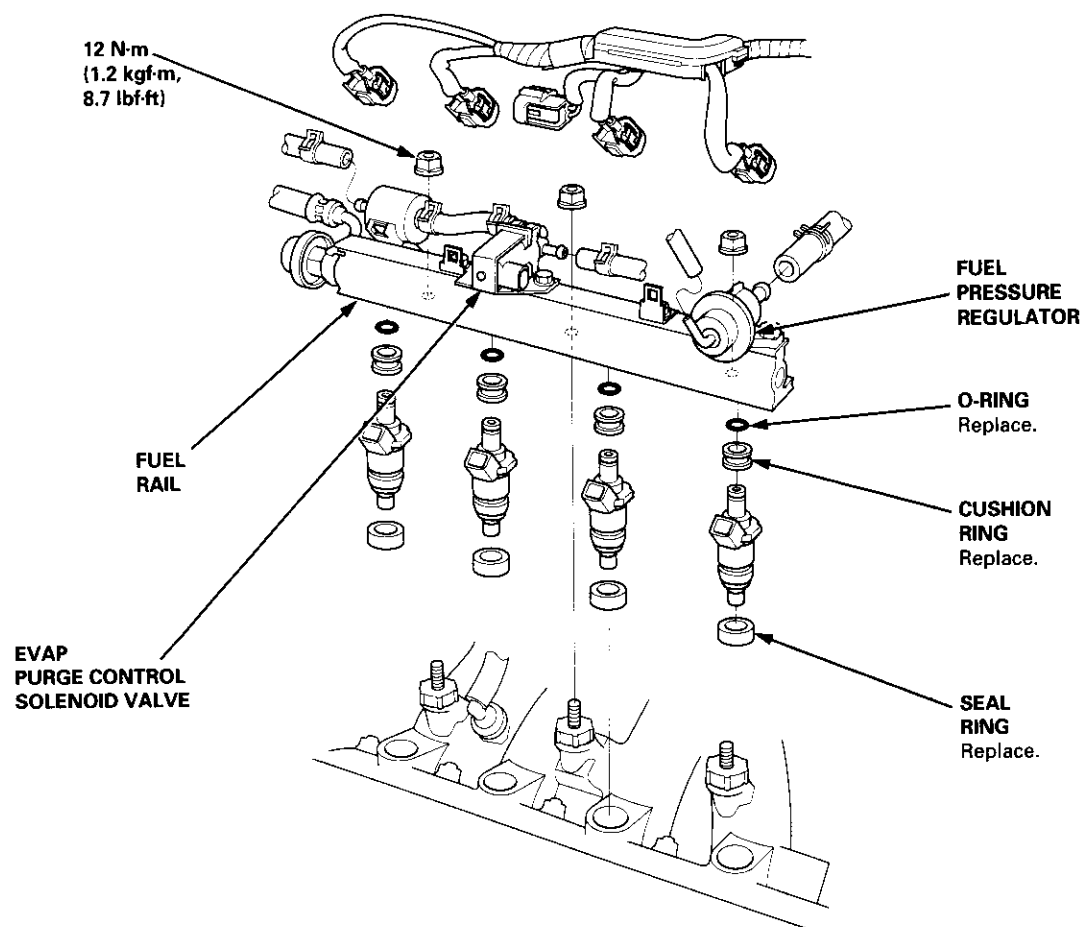
D16Y5, D16Y8 engine:

NOTE: Illustration shows D16Y8 engine.
D16Y5 engine is similar.

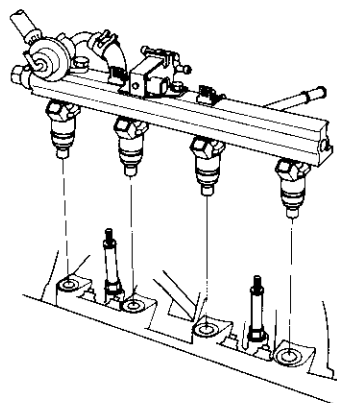




B16A2 engine:



7. Slide new cushion rings onto the fuel injectors.
8. Coat new O-rings with clean engine oil, and put them on the fuel injectors.
9. Insert the fuel injectors into the fuel rail first.
10. Coat new seal rings with clean engine oil, and press them into the intake manifold.
11. To prevent damage to the O-rings, install the fuel injectors in the fuel rail first, then install them in the intake manifold.



12. Install and tighten the retainer nuts.
13. Connect the vacuum hoses and fuel return hose to the fuel pressure regulator. Connect the vacuum hoses and 2P connector to the EVAP purge control solenoid valve.
14. Install the connectors on the fuel injectors (D16Y7 engine: Install the air cleaner).
15. Turn the ignition switch ON (II), but do not operate the starter. After the fuel pump runs for approximately two seconds, the fuel pressure in the fuel line rises. Repeat this two or three times, then check whether there is any fuel leakage.

Fuel Supply System

Fuel Pressure Regulator

Testing

⚠ WARNING Do not smoke during the test. Keep open flames away from your work area.

1. Attach the special tool(s) to the service port on the fuel filter (see pages 11-230, 231).

Pressure should be:

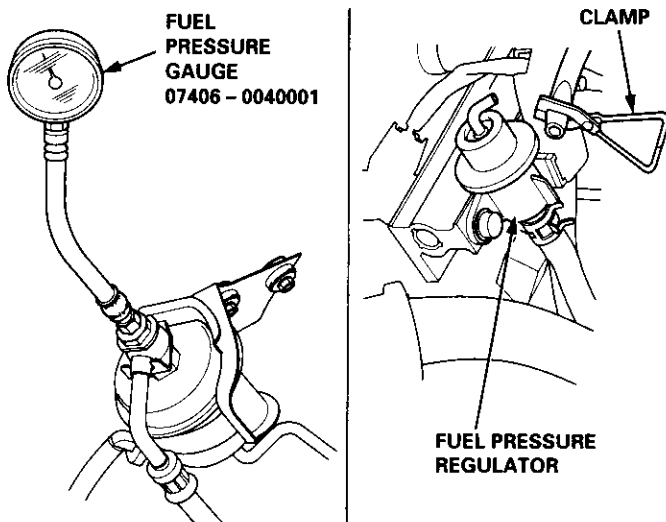
except B16A2 engine

260 – 310 kPa (2.7 – 3.2 kgf/cm², 38 – 46 psi)

B16A2 engine:

270 – 320 kPa (2.8 – 3.3 kgf/cm², 40 – 47 psi)

(with the fuel pressure regulator vacuum hose disconnected and pinched)



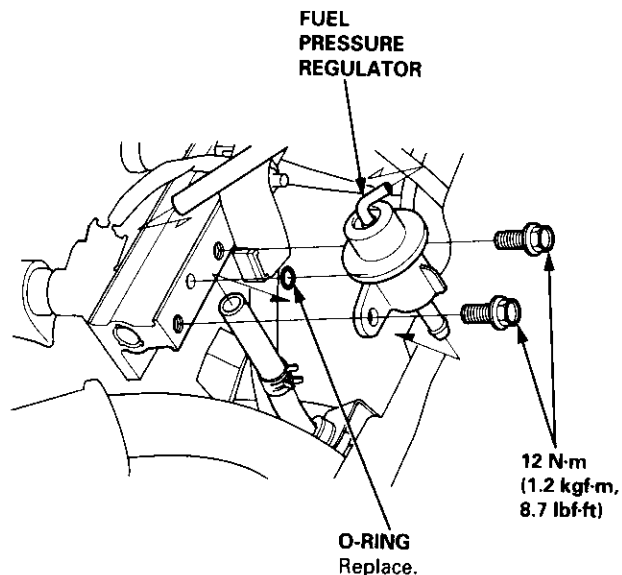
2. Reconnect the vacuum hose to the fuel pressure regulator.
3. Check that the fuel pressure rises when the vacuum hose from the fuel pressure regulator is disconnected again.

If the fuel pressure did not rise, replace the fuel pressure regulator.

Replacement

⚠ WARNING Do not smoke while working on fuel system. Keep open flame away from your work area.

1. Place a shop towel under the fuel pressure regulator, then relieve fuel pressure (see pages 11-230, 231).
2. Disconnect the vacuum hose and fuel return hose.
3. Remove the two 6 mm retainer bolts and the fuel pressure regulator.



4. Apply clean engine oil to a new O-ring, and carefully install it into its proper position.
5. Install the fuel pressure regulator in the reverse order of removal.



Fuel Filter

Replacement

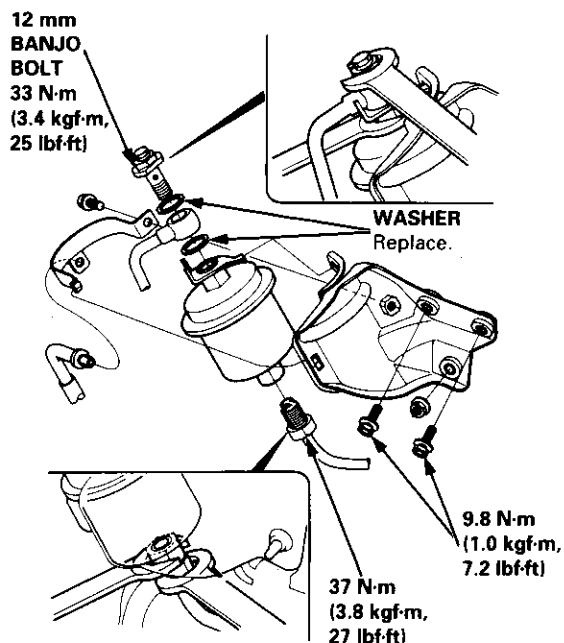
⚠ WARNING

- Do not smoke while working on fuel system. Keep open flame away from your work area.
- While replacing the fuel filter, be careful to keep a safe distance between battery terminals and any tools.

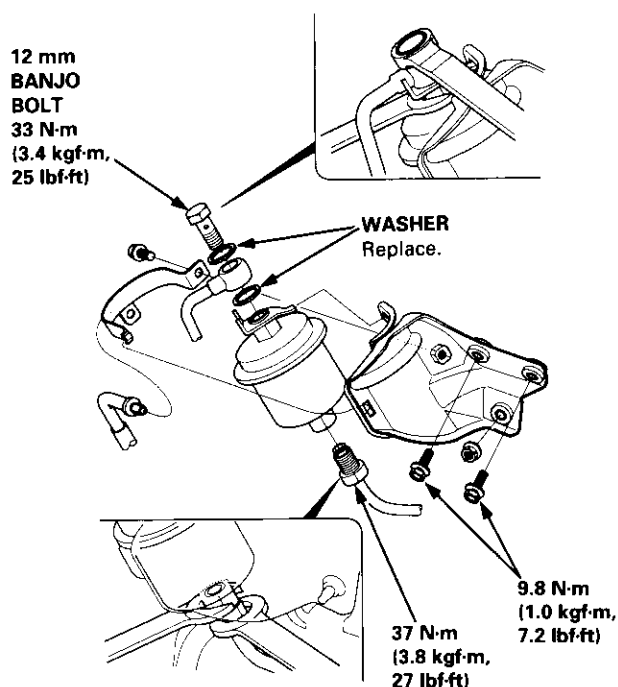
The fuel filter should be replaced whenever the fuel pressure drops below the specified value [260 – 310 kPa (2.7 – 3.2 kgf/cm², 38 – 46 psi), (270 – 320 kPa (2.8 – 3.3 kgf/cm², 40 – 47 psi))* with the fuel pressure regulator vacuum hose disconnected and pinched] after making sure that the fuel pump and the fuel pressure regulator are OK. *: B16A2 engine

1. Place a shop towel under and around the fuel filter.
2. Relieve fuel pressure (see pages 11-230, 231).
3. Remove the 12 mm banjo bolt and the fuel feed pipe from the fuel filter, while supporting it with the another wrench, as shown.
4. Remove the fuel filter clamp and fuel filter.
5. Install the new fuel filter in the reverse order removal, and note these items:
 - When assembling, use new washers as shown.
 - Clean the flared joint of high pressure hoses thoroughly before reconnecting them.

'96 MODELS:



'97 AND LATER MODELS:



Fuel Supply System

Fuel Pump

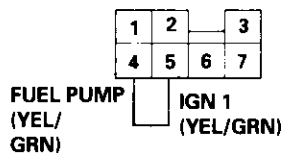
Testing

⚠ WARNING Do not smoke during the test. Keep open flame away from your work area.

If you suspect a problem with the fuel pump, check that the fuel pump actually runs; when it is ON (II), you will hear some noise if you hold your ear to the fuel fill port with the fuel fill cap removed. The fuel pump should run for two seconds when ignition switch is first turned ON (II). If the fuel pump does not make noise, check it as follows:

1. Remove the seat cushion (see section 20).
2. Remove the access panel from the floor.
3. Make sure the ignition switch is OFF, then disconnect the fuel tank 2P connector.
4. Connect the PGM-FI main relay 7P connector terminal No. 4 and No. 5 with a jumper wire.

PGM-FI MAIN RELAY 7P CONNECTOR (C443)

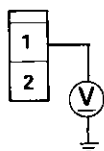


JUMPER WIRE

Wire side of female terminals

5. Check that battery voltage is available between the fuel pump connector terminal No. 1 and body ground when the ignition switch is turned ON (II).

2P CONNECTOR (C565)



FUEL PUMP (YEL/GRN)

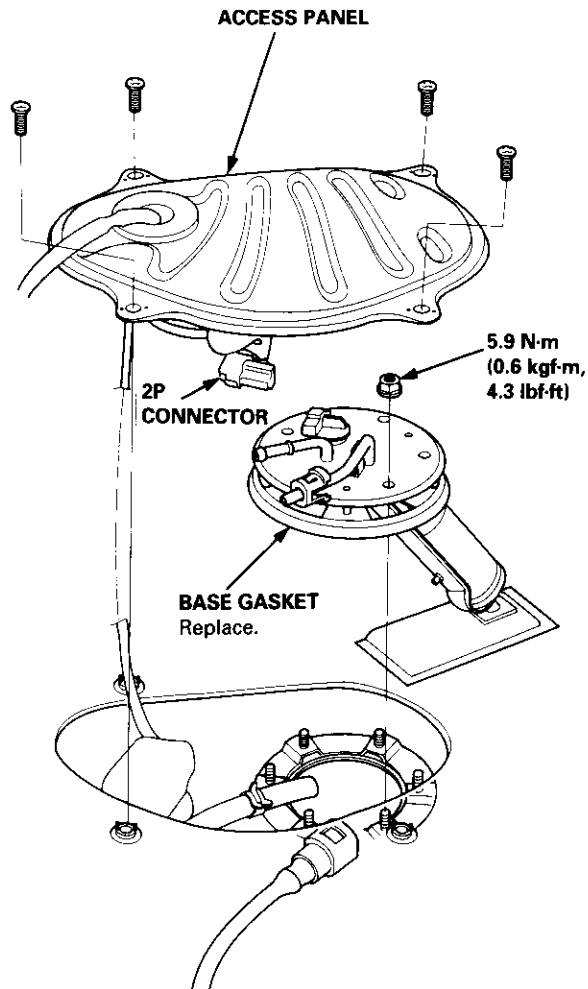
Wire side of female terminals

- If battery voltage is available, check the fuel pump ground. If the ground is OK, replace the fuel pump.
- If there is no voltage, check the wire harness (see page 11-238).

Replacement

⚠ WARNING Do not smoke while working on fuel system. Keep open flames away from your work area.

1. Remove the seat cushion (see section 20).
2. Remove the access panel from the floor.



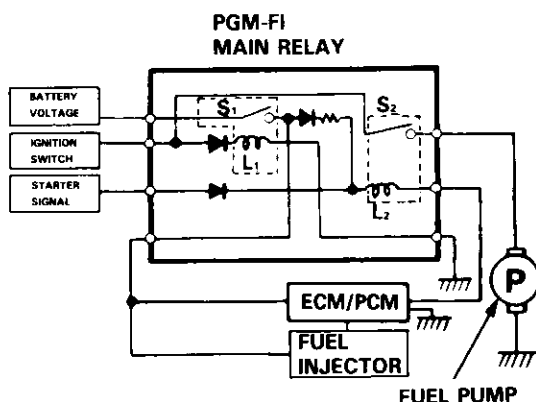
3. Disconnect the 2P connector from the fuel pump.
4. Remove the fuel pump mounting nuts.
5. Remove the fuel pump from the fuel tank.
6. Install parts in the reverse order of removal.



PGM-FI Main Relay

Description

The PGM-FI main relay actually contains two individual relays. This relay is located at the right side of the cowl. One relay is energized whenever the ignition is on which supplies the battery voltage to the ECM/PCM, power to the fuel injectors, and power for the second relay. The second relay is energized for two seconds when the ignition is switched ON (II), and when the engine is running, to supply power to the fuel pump.



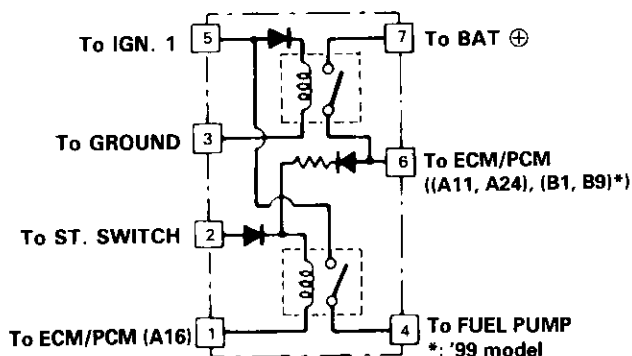
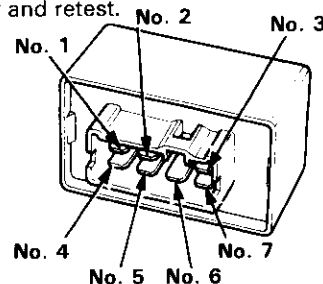
Relay Testing

NOTE:

- If the engine starts and continues to run, the PGM-FI main relay is OK.
- Use the terminal numbers below; ignore the terminal numbers molded into the relay.

1. Remove the PGM-FI main relay.
2. Attach the battery positive terminal to the No. 2 terminal and the battery negative terminal to the No. 1 terminal of the PGM-FI main relay. Then check for continuity between the No. 5 terminal and No. 4 terminal of the PGM-FI main relay.

- If there is continuity, go on to step 3.
- If there is no continuity, replace the PGM-FI main relay and retest.



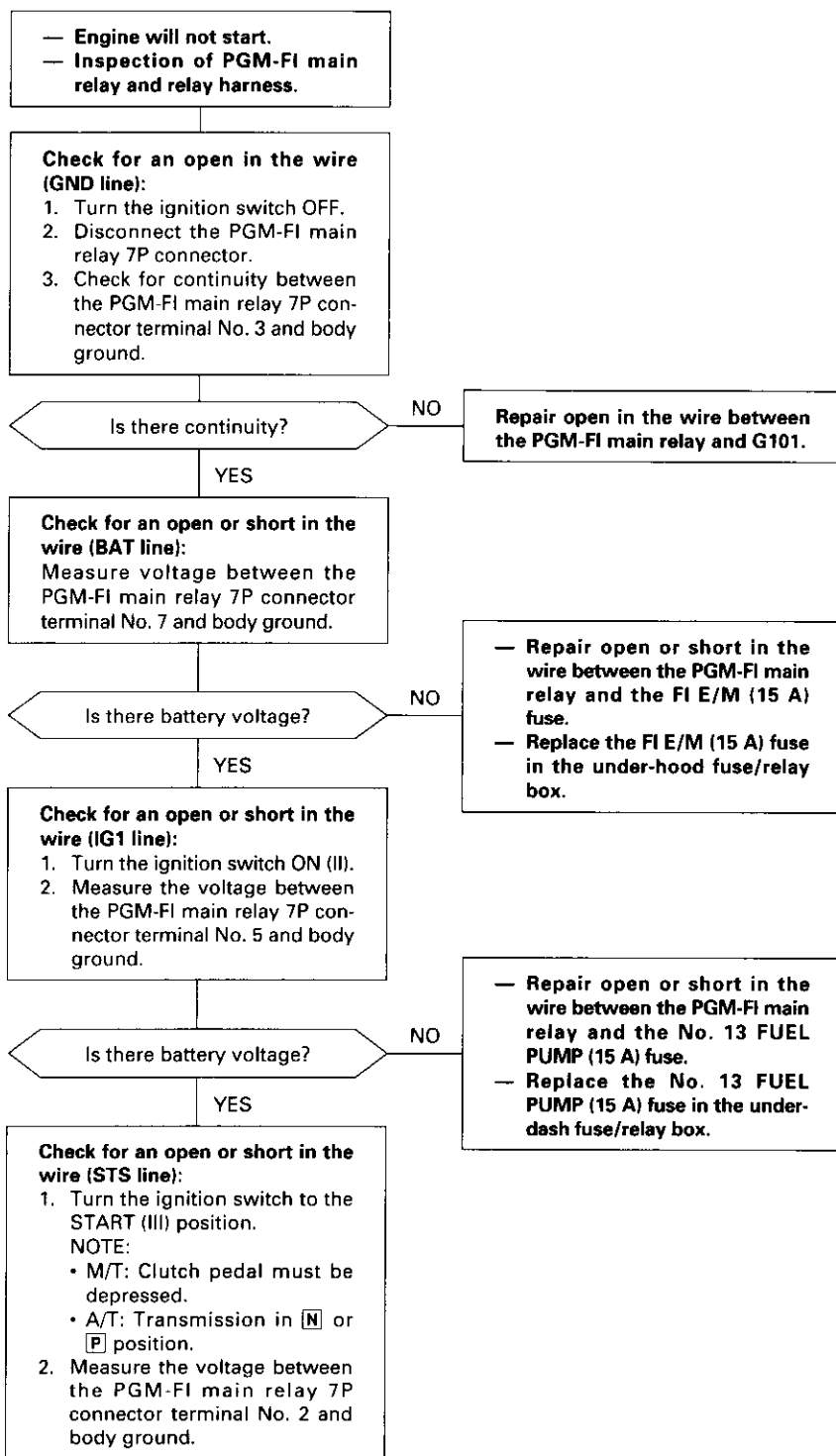
3. Attach the battery positive terminal to the No. 5 terminal and the battery negative terminal to the No. 3 terminal of the PGM-FI main relay. Then check that there is continuity between the No. 7 terminal and No. 6 terminal of the PGM-FI main relay.
 - If there is continuity, go on to step 4.
 - If there is no continuity, replace the PGM-FI main relay and retest.
4. Attach the battery positive terminal to the No. 6 terminal and the battery negative terminal to the No. 1 terminal of the PGM-FI main relay. Then check that there is continuity between the No. 5 terminal and No. 4 terminal of the PGM-FI main relay.
 - If there is continuity, the PGM-FI main relay is OK. If the fuel pump still does not work, go to Harness Testing on the next page.
 - If there is no continuity, replace the PGM-FI main relay and retest.

(cont'd)

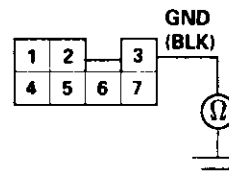
Fuel Supply System

PGM-FI Main Relay (cont'd)

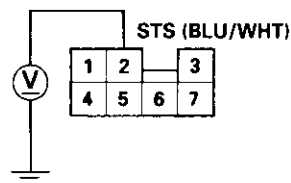
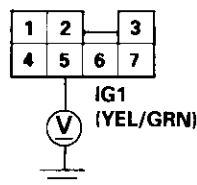
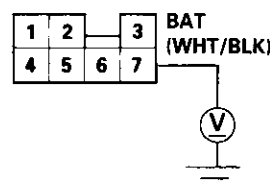
Circuit Troubleshooting



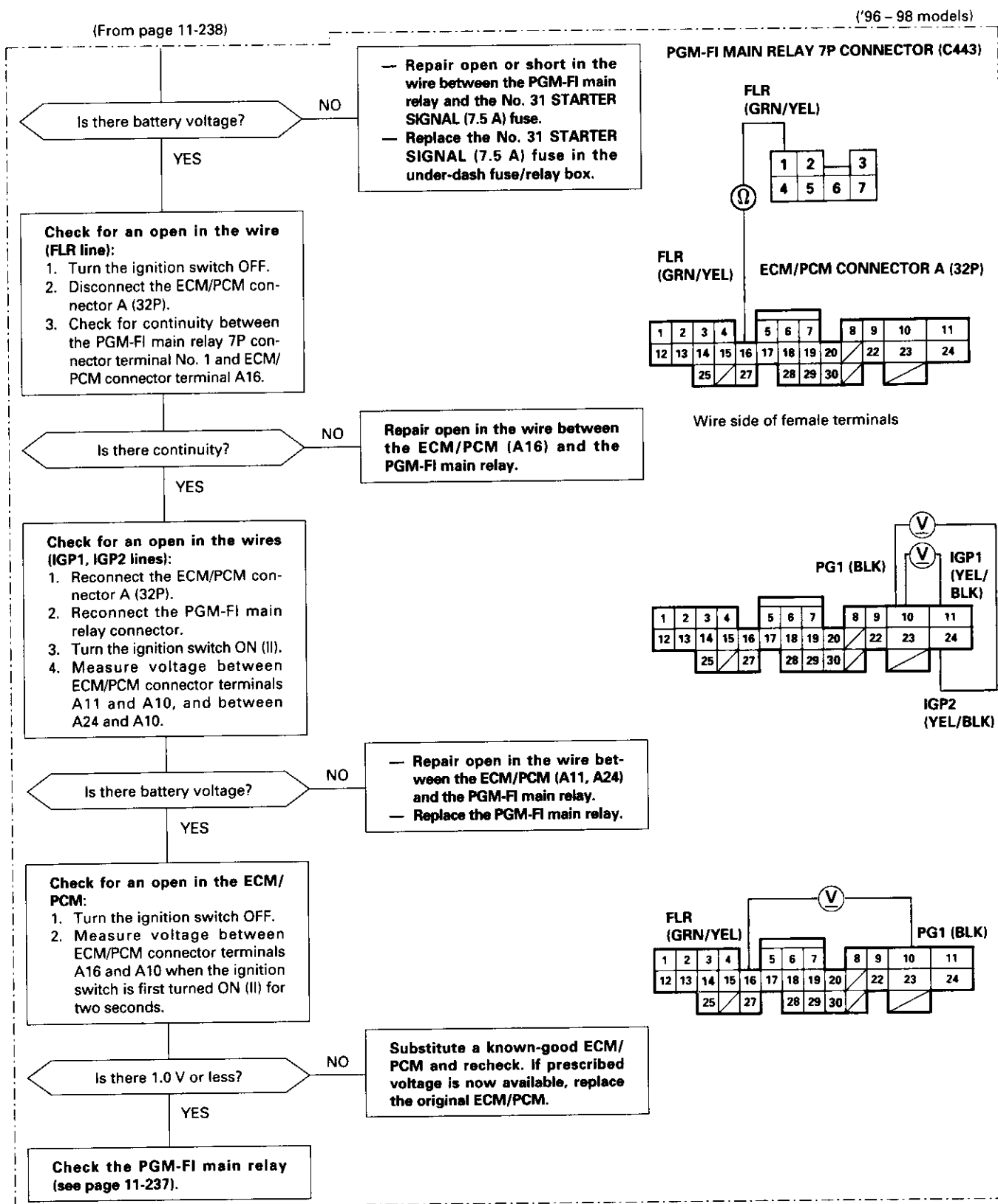
PGM-FI MAIN RELAY 7P CONNECTOR (C443)



Wire side of female terminals



'96 - 98 models: (To page 11-239)
'99 - 00 models: (To page 11-240)



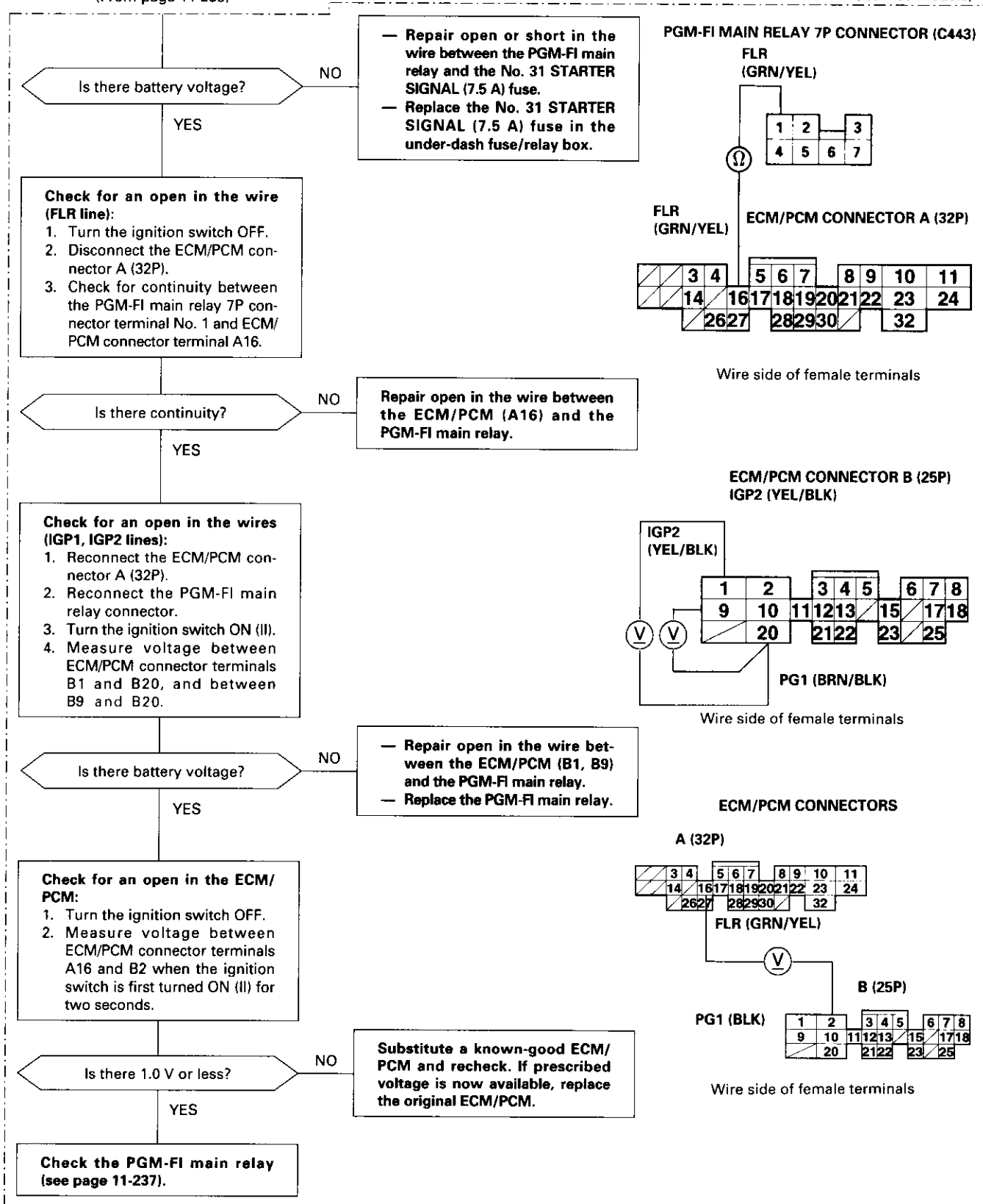
(cont'd)

Fuel Supply System

PGM-FI Main Relay (cont'd)

(From page 11-238)

('99 - 00 models)





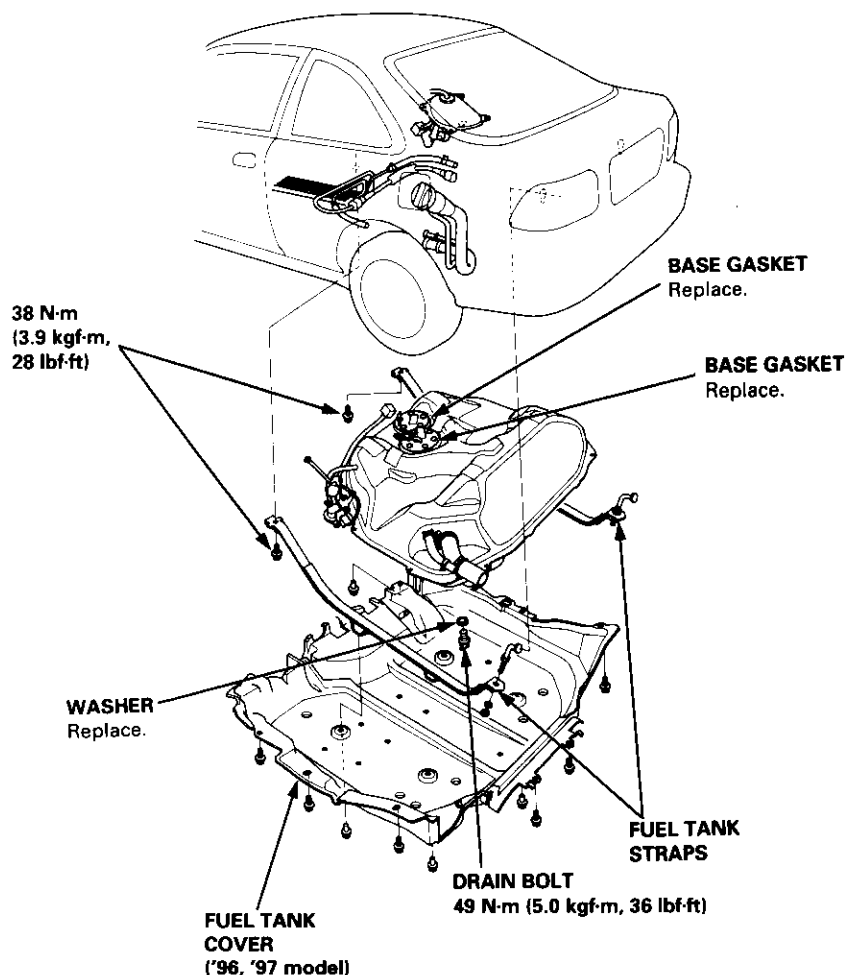
Fuel Tank

'96 - 98 models:

Replacement

▲ WARNING Do not smoke while working on fuel system. Keep open flame away from your work area.

1. Relieve the fuel pressure (see pages 11-230, 231).
2. Remove the seat cushion (see section 20).
3. Remove the access panel from the floor.
4. Disconnect the 2P (C565) and 3P (C564) connectors ('96 D16Y8 engine (coupe) '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model '98-all models); and 6P (C568) connector).
5. Disconnect the hose and quick-connect fittings (see pages 11-225, 227).
6. Jack up the vehicle, and support it with jackstands.
7. Remove the fuel tank cover ('96, '97 model) or the fuel hose joint protector.
8. Remove the drain bolt, and drain the fuel into an approved container.
9. Disconnect the hoses (see page 11-225). Slide back the clamps, then twist hoses as you pull, to avoid damaging them.
10. Place a jack, or other support, under the tank.
11. Remove the strap nuts, and let the straps fall free.
12. Remove the fuel tank. If it sticks on the undercoat applied to its mount, carefully pry it off the mount.
13. Install the drain bolt with a new washer, then coat the drain bolt with Noxrust 124B, Allow the Noxrust dry for 20 minutes.
14. Install the remaining parts in the reverse order of removal.



(cont'd)

Fuel Supply System

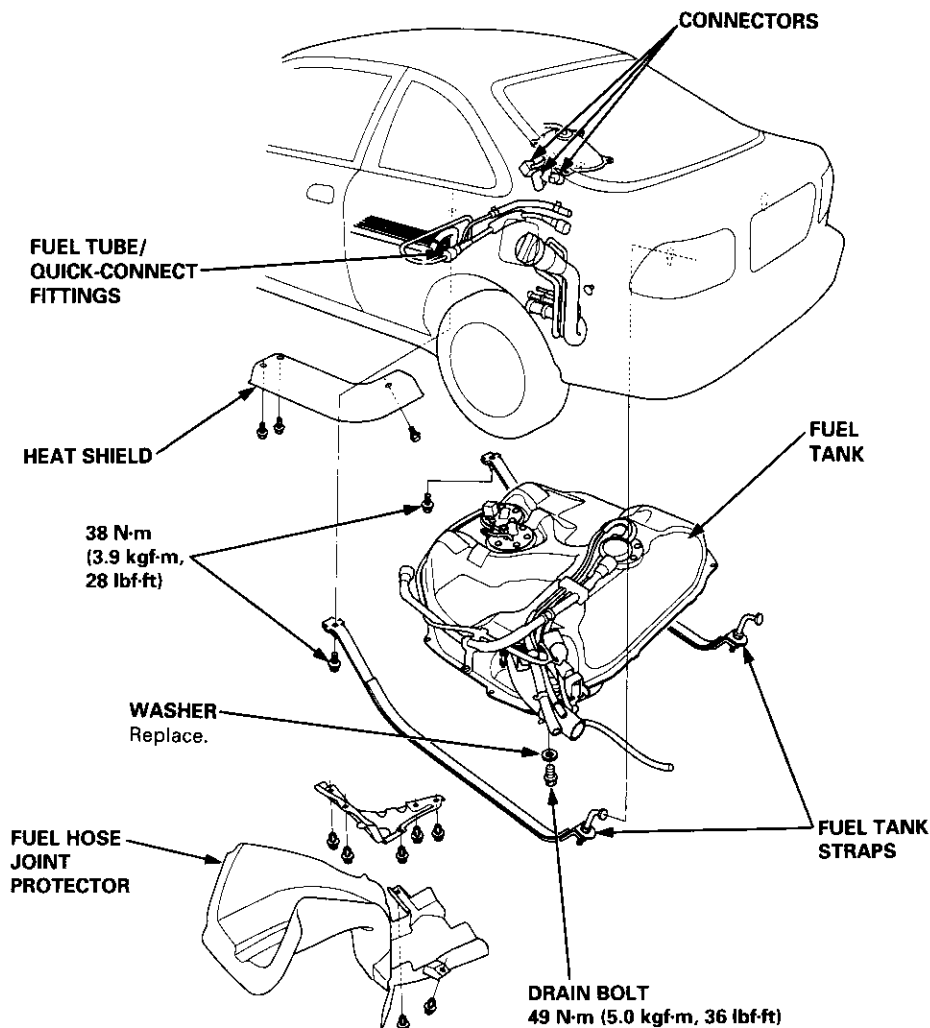
Fuel Tank (cont'd)

'99 – 00 models:

Replacement

⚠ WARNING Do not smoke while working on fuel system. Keep open flame away from your work area.

1. Relieve the fuel pressure (see pages 11-230, 231).
2. Remove the seat cushion (see section 20).
3. Remove the access panel from the floor.
4. Disconnect the 2P (C565) and 3P (C564) connectors and 6P (C568) connector.
5. Disconnect the hose and quick-connect fittings (see pages 11-226, 227).
6. Jack up the vehicle, and support it with jackstands.
7. Remove the fuel hose joint protector and heat shield.
8. Remove the drain bolt, and drain the fuel into an approved container.
9. Disconnect the hoses (see page 11-226). Slide back the clamps, then twist hoses as you pull, to avoid damaging them.
10. Place a jack, or other support, under the tank.
11. Remove the strap nuts, and let the straps fall free.
12. Remove the fuel tank. If it sticks on the undercoat applied to its mount, carefully pry it off the mount.
13. Install the drain bolt with a new washer, then coat the drain bolt with Noxrust 124B, Allow the Noxrust dry for 20 minutes.
14. Install the remaining parts in the reverse order of removal.



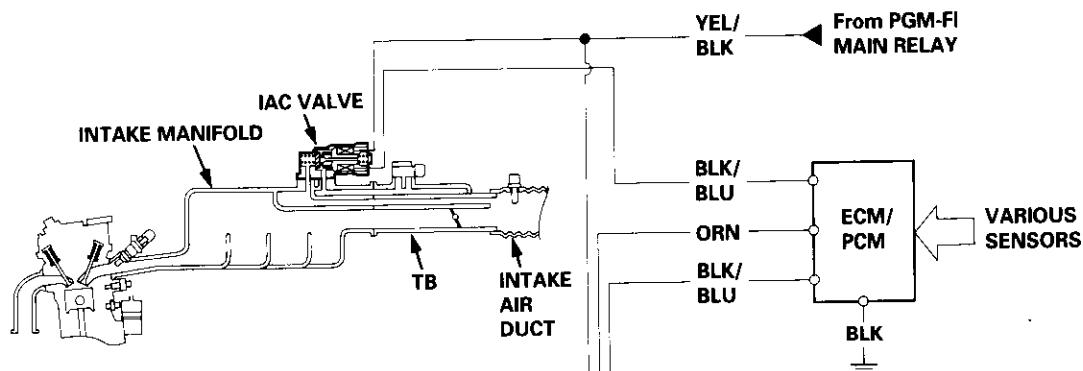


Intake Air System

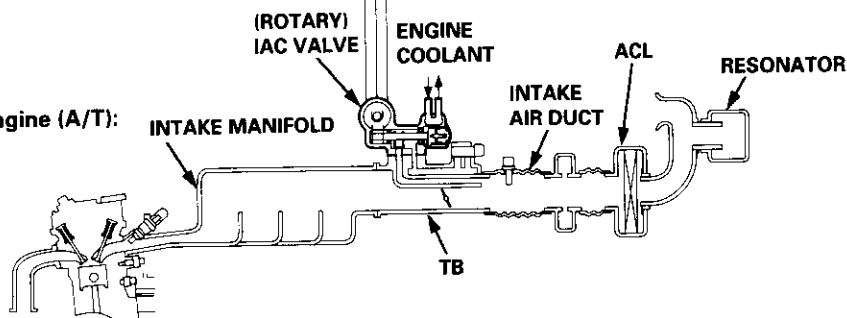
System Description

The system supplies air for all engine needs. It consists of the intake air pipe, Air Cleaner (ACL), intake air duct, Throttle Body (TB), Idle Air Control (IAC) Valve and intake manifold. A resonator in the intake air pipe provides additional silencing as air is drawn into the system.

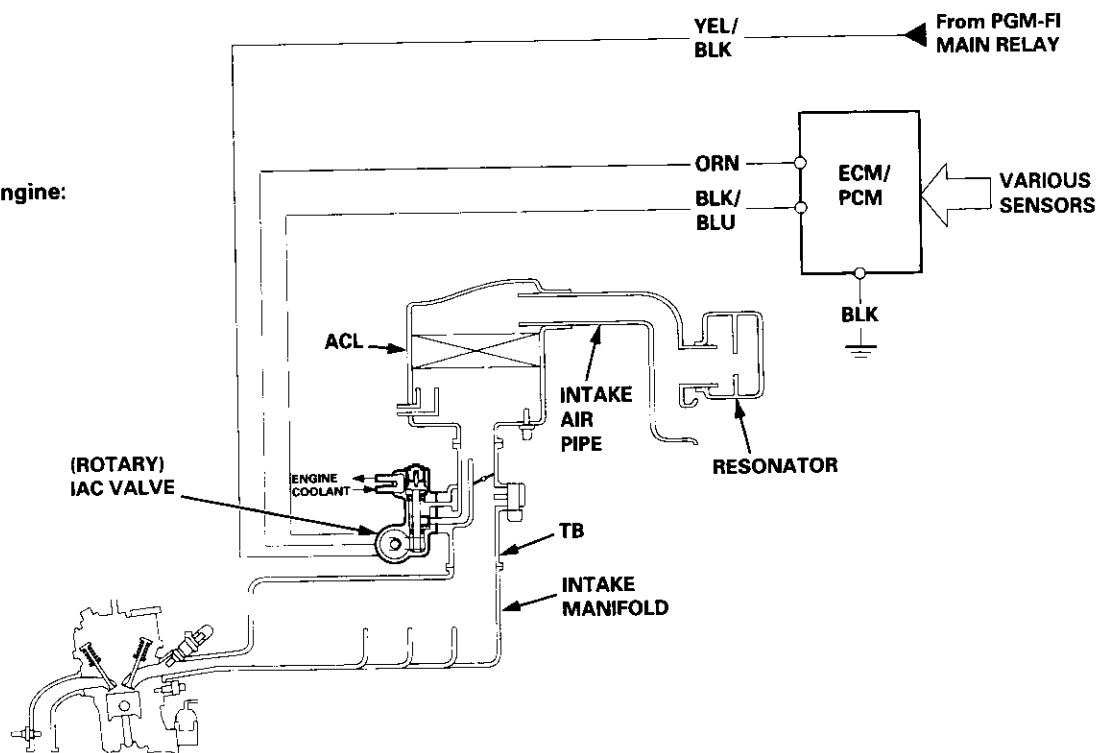
D16Y5, D16Y8, B16A2 engine (M/T)



D16Y5 engine (CVT), D16Y8 engine (A/T):



D16Y7 engine:



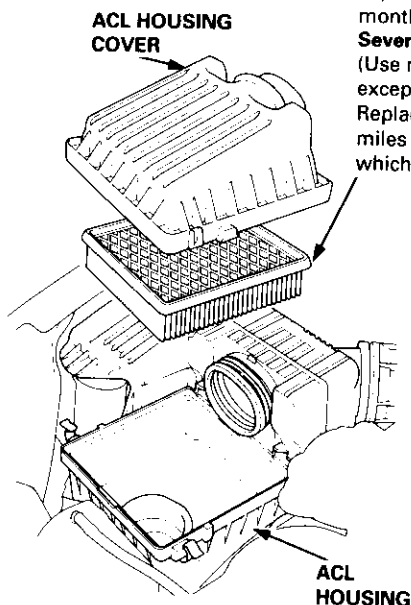
Intake Air System

Air Cleaner (ACL)

NOTE: Do not clean the ACL element it with compressed air (except dry type).

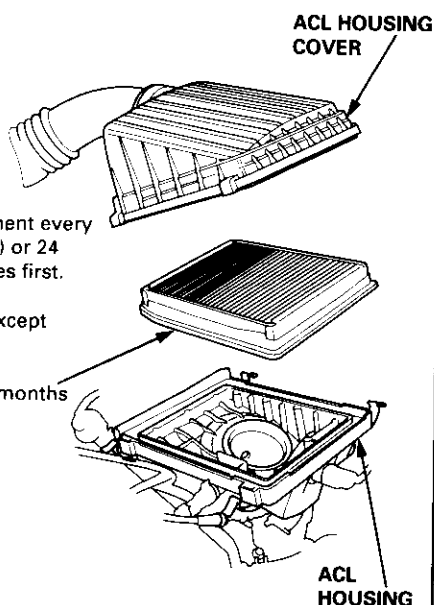
D16Y5, D16Y8, B16A2 engine:

ACL ELEMENT
Normal conditions:
Replace air cleaner element every 30,000 miles (48,000 km) or 24 months whichever comes first.
Severe conditions:
(Use normal schedule except in dusty conditions)
Replace every 15,000 miles (24,000 km) or 12 months whichever comes first.



D16Y7 engine:

ACL ELEMENT
Normal conditions:
Replace air cleaner element every 30,000 miles (48,000 km) or 24 months whichever comes first.
Severe conditions:
(Use normal schedule except in dusty conditions)
Replace every 15,000 miles (24,000 km) or 12 months whichever comes first.

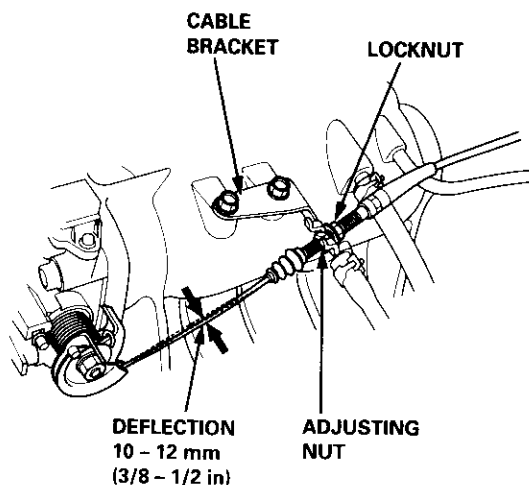


Throttle Cable

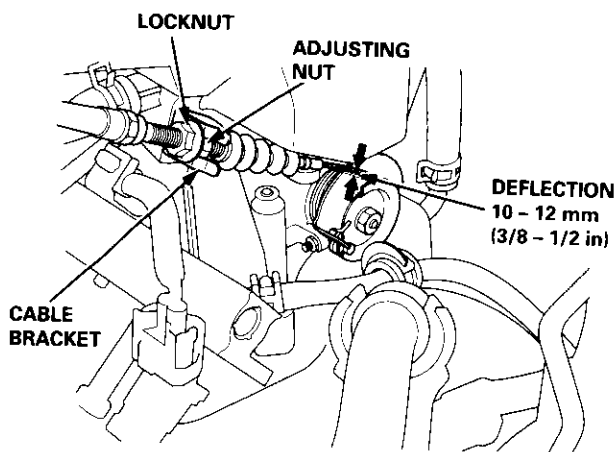
Inspection/Adjustment

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
2. Check that the throttle cable operates smoothly with no binding or sticking. Repair as necessary.
3. Check cable free play at the throttle linkage. Cable deflection should be 10 – 12 mm (3/8 – 1/2 in.).

D16Y5, D16Y8 engine:

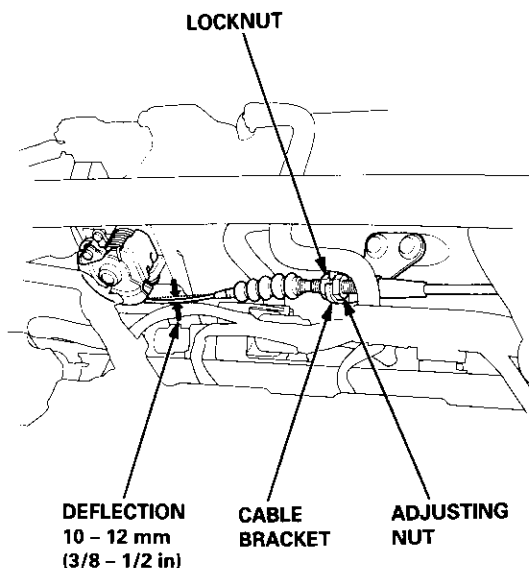


D16Y7 engine:





B16A2 engine:



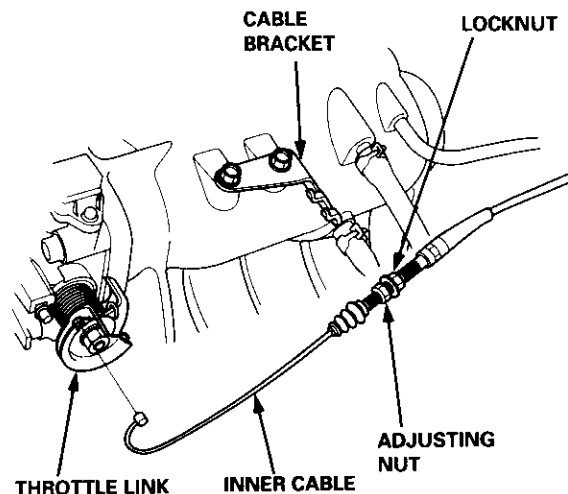
4. If deflection is not within specs, loosen the locknut, turn the adjusting nut until the deflection is as specified, then retighten the locknut.
5. With the cable properly adjusted, check the throttle valve to be sure it opens fully when you push the accelerator pedal to the floor. Also check the throttle valve to be sure it returns to the idle position whenever you release the accelerator pedal.

Installation

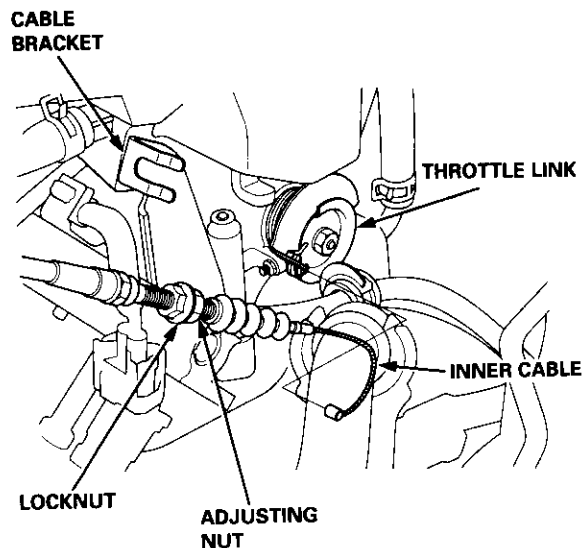
D16Y5, D16Y8, D16Y7 engine:

1. Open the throttle valve fully, then install the throttle cable in the throttle linkage, and install the cable housing in the cable bracket.

D16Y5, D16Y8 engine:



D16Y7 engine:



2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Hold the cable sheath, removing all slack from the cable.

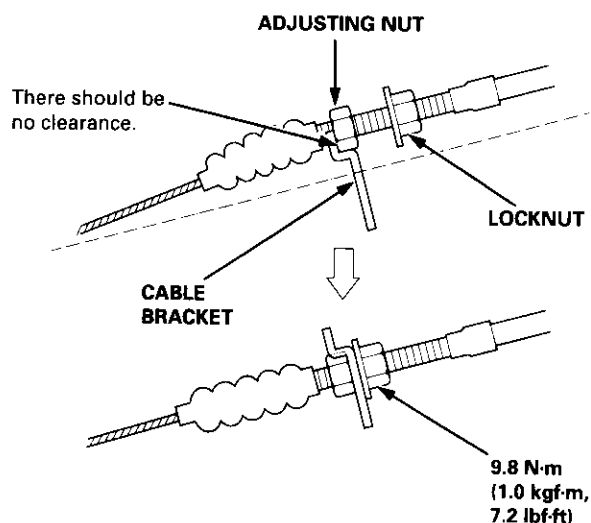
(cont'd)

Intake Air System

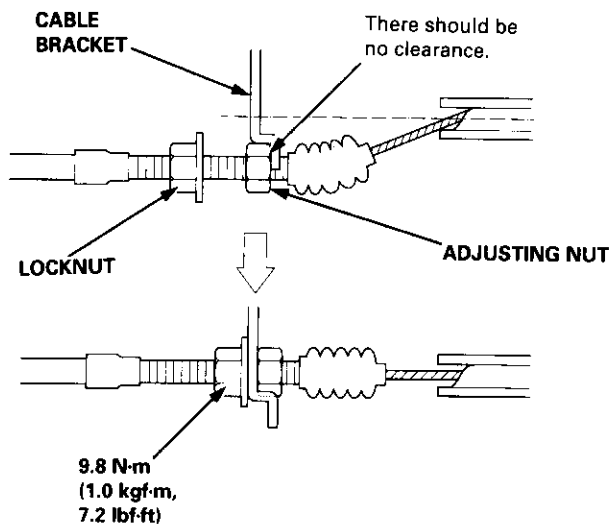
Throttle Cable (cont'd)

4. Set the locknut on the cable bracket. Adjust the adjusting nut so that its free play is 0 mm.
5. Remove the cable sheath from the throttle bracket, reset the adjusting nut and tighten the locknut.

D16Y5, D16Y8 engine:

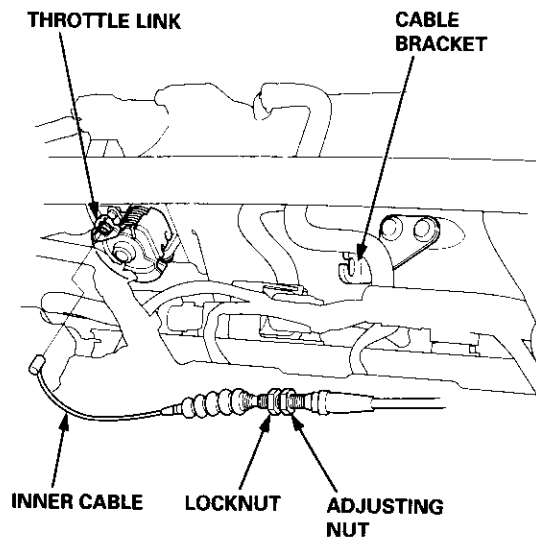


D16Y7 engine:

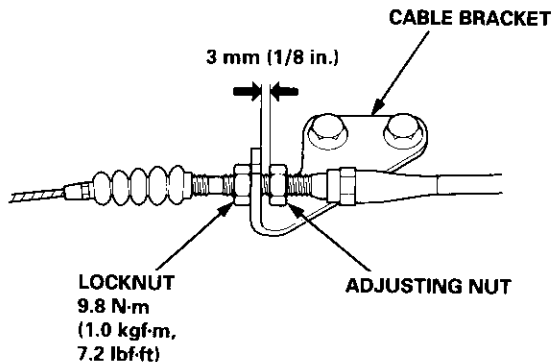


B16A2 engine:

1. Open the throttle valve fully, then install the throttle cable in the throttle linkage, and install the cable housing in the cable bracket.



2. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
3. Hold the throttle link to the throttle lever; there should be no clearance.
4. Hold the cable sheath, removing all slack from the cable.
5. Turn the adjusting nut until it is 3 mm (1/8 in.) away from the cable bracket.



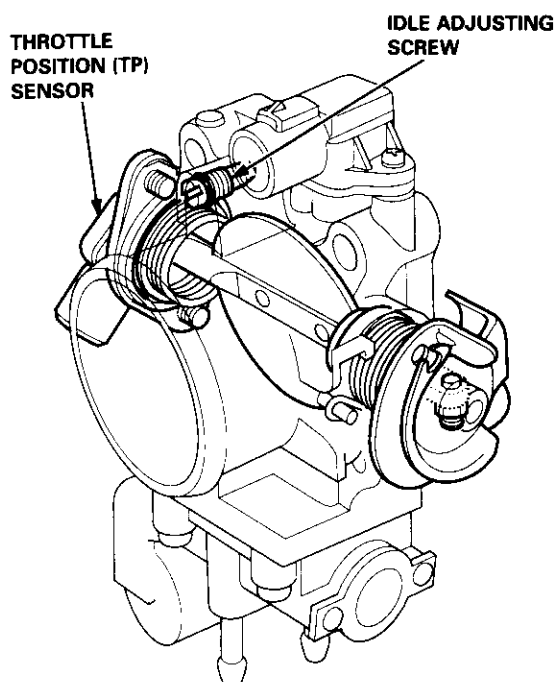
6. Tighten the locknut. The cable deflection should now be 10 – 12 mm (3/8 – 1/2 in.). If not, see Inspection/Adjustment.



Throttle Body

Description

The throttle body is either a single-barrel side-draft type (D16Y5, D16Y8, B16A2 engine) or a down-draft type (D16Y7 engine). The lower portion of the throttle valve is heated by engine coolant from the cylinder head. The idle adjusting screw which regulates the bypass air is located on the top of the throttle body.



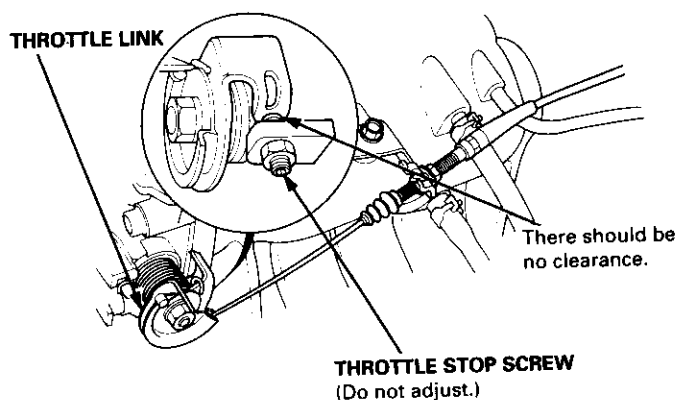
Inspection

1. Check that the throttle cable operates smoothly without binding or sticking.

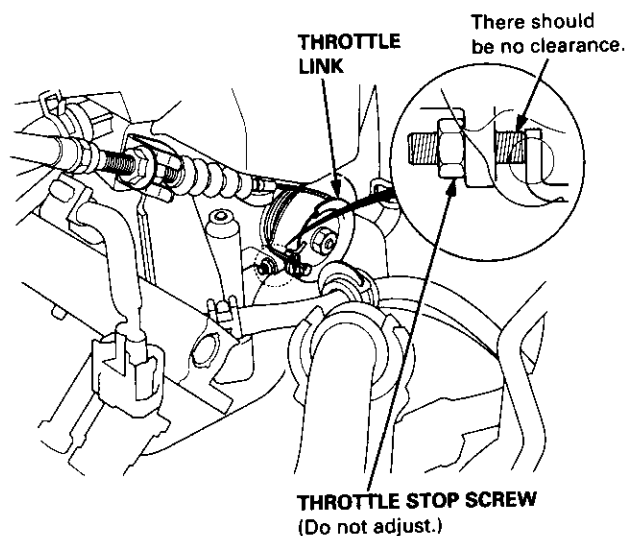
If there are any abnormalities, check for:

- Excessive wear or play in the throttle valve shaft.
- Sticky or binding throttle lever at the fully closed position.
- Clearance between throttle stop screw and throttle lever at the fully closed position.

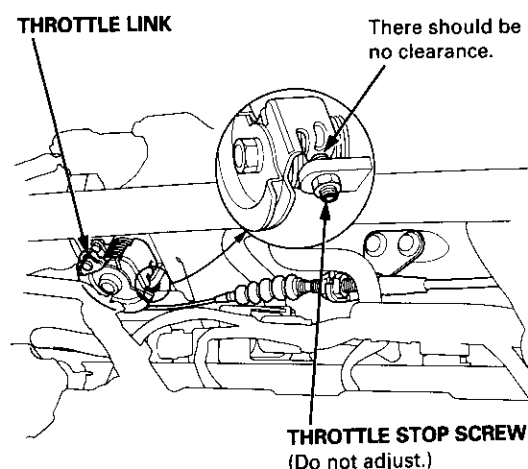
D16Y5, D16Y8 engine:



D16Y7 engine:



B16A2 engine:



Replace the throttle body if there is excessive play in the throttle valve shaft or if the shaft is binding or sticking.

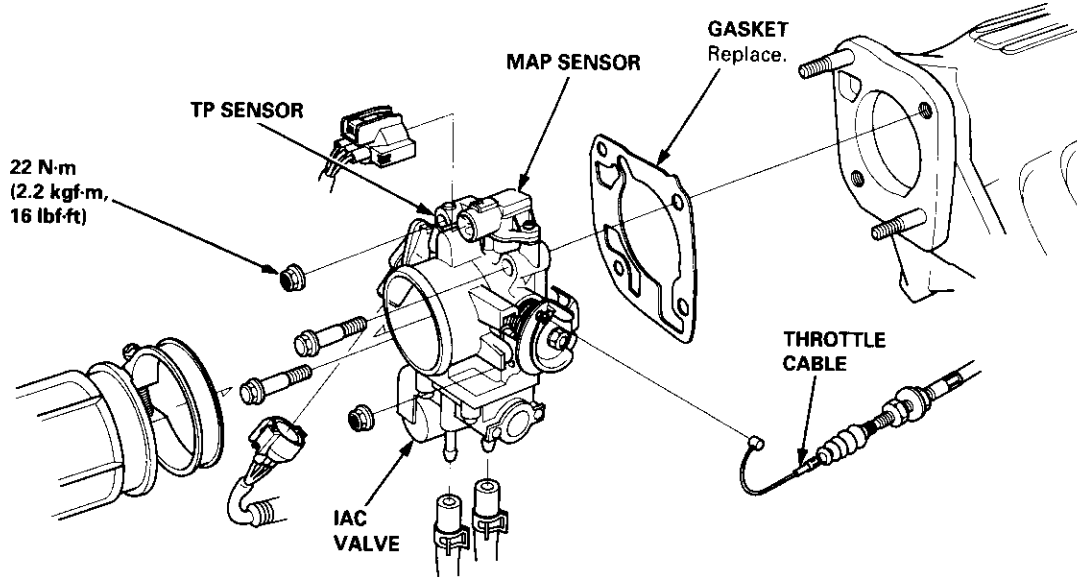
(cont'd)

Intake Air System

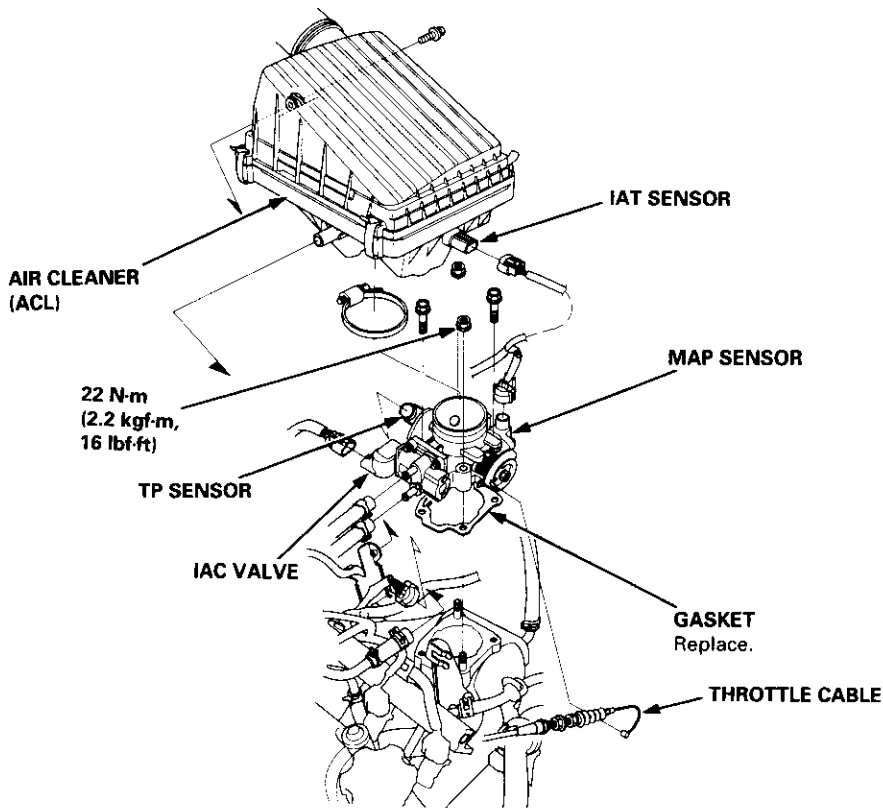
Throttle Body (cont'd)

Removal

D16Y5, D16Y8, B16A2 engine:



D16Y7 engine:



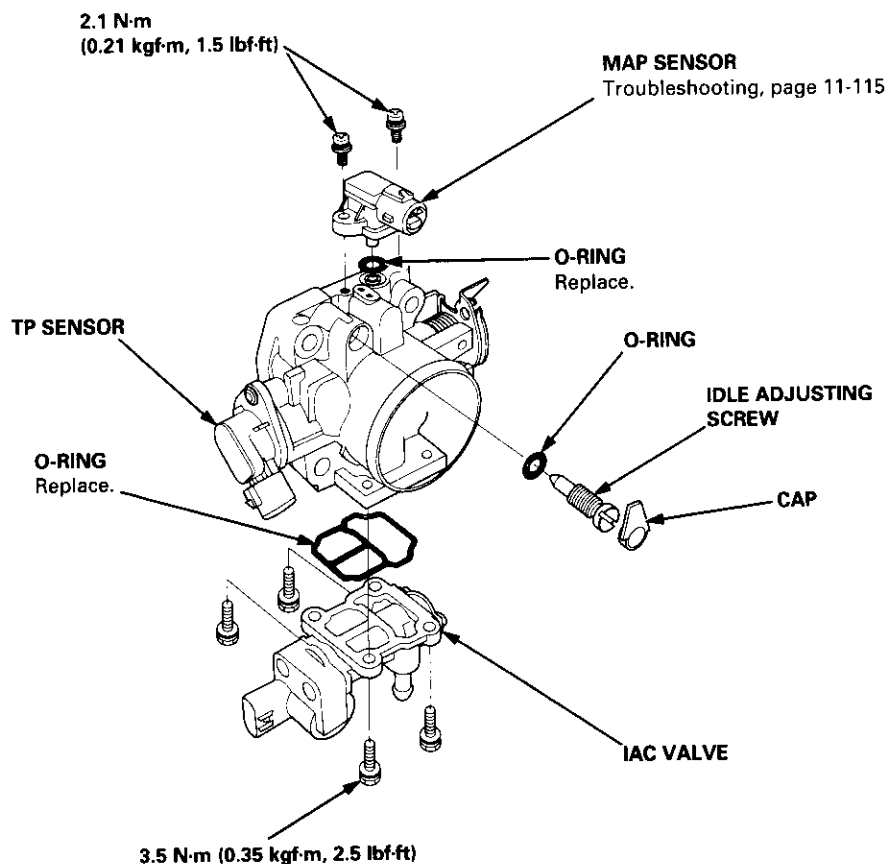
NOTE:

- Do not adjust the throttle stop screw.
- After reassembly, adjust the throttle cable (see page 11-244).
- The TP sensor is not removable.

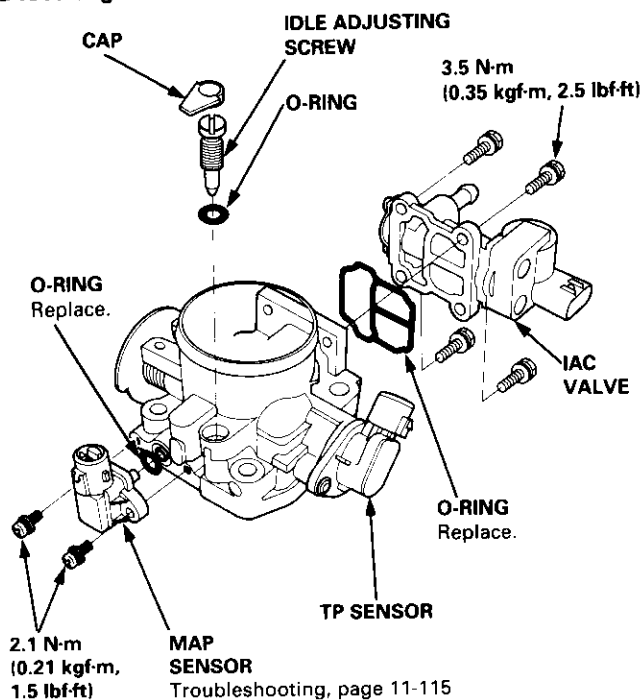


Disassembly

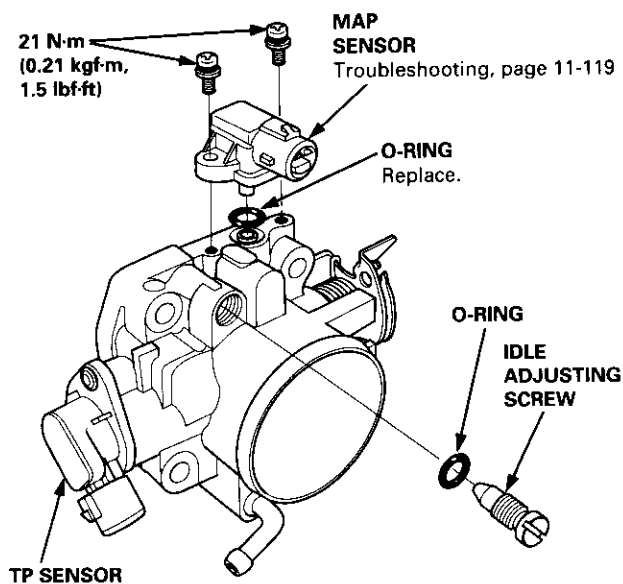
D16Y5, D16Y8 engine:



D16Y7 engine:



B16A2 engine:

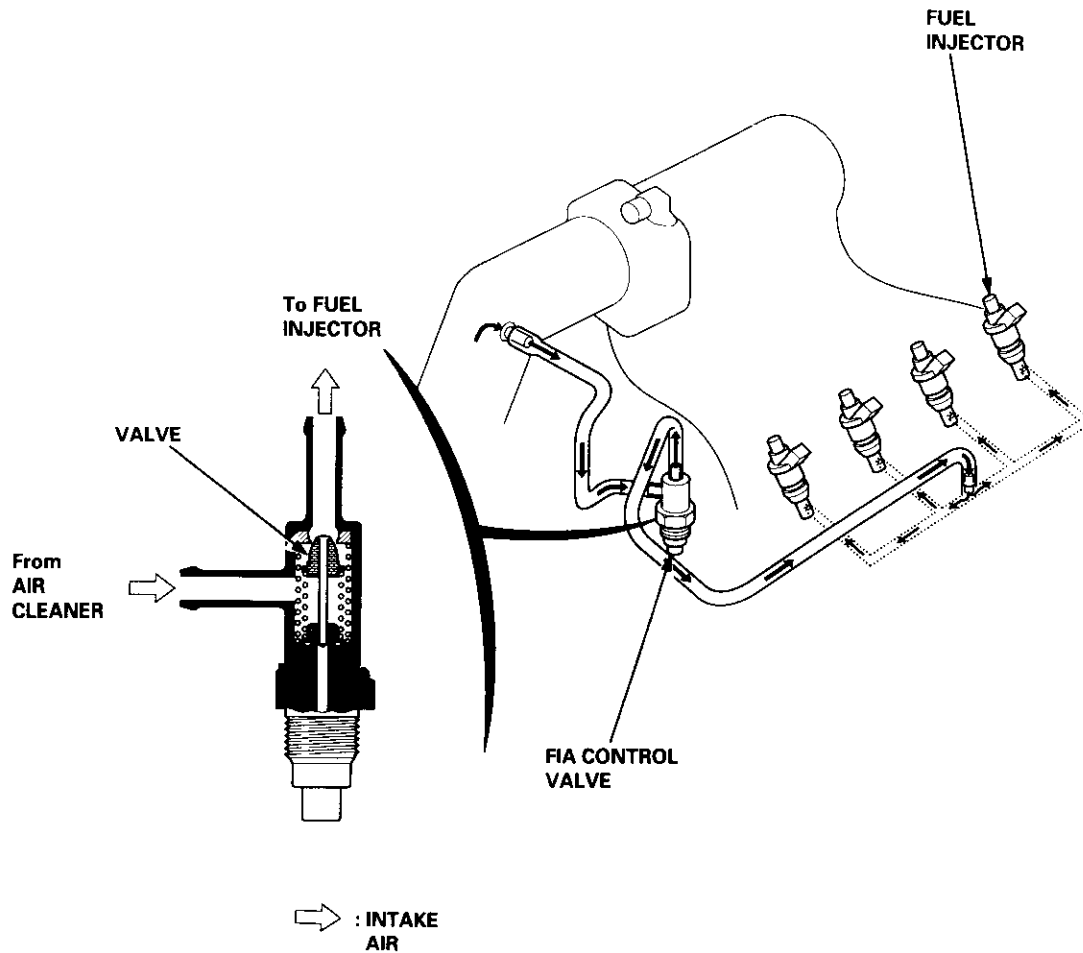


Intake Air System

Fuel Injection Air (FIA) Control System ['99 – 00 D16Y8 engine]

Description

When the engine running [engine coolant below 149°F (65°C)], the fuel Injection Air (FIA) Control Valve sends intake air to the fuel injectors.



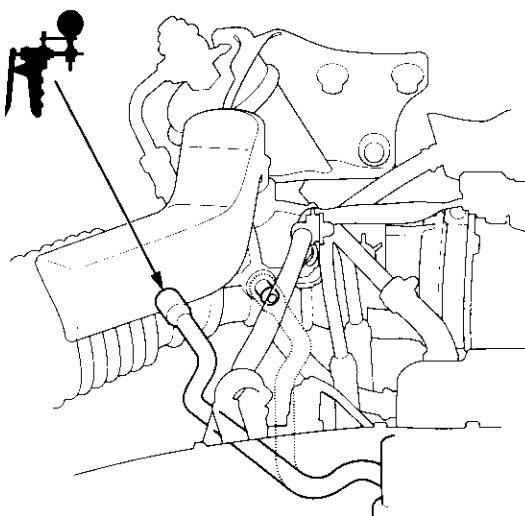


Fuel Injection Air (FIA) Control Valve Testing

1. Start the engine.
2. Remove the vacuum hose from the fitting on the intake air duct, and connect a vacuum gauge to the hose.

NOTE: Engine coolant temperature must be below 149°F (65°C).

VACUUM PUMP/GAUGE,
0 - 30 in.Hg.
A973X - 041 -XXXXX



3. Raise and lower the engine speed, and make sure the vacuum gauge reading changes as the engine speed changes.

If vacuum reading does not change check these items:

- The vacuum lines of FIA system for misrouting, leakage, breakage and clogging.
- The FIA control valve for cracks or damage.
- The cooling system (see section 10).

4. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle and recheck.

If vacuum reading changes check these items:

- The FIA control valve for cracks or damage.
- The cooling system (see section 10).

Emission Control System

System Description

The emission control system includes a Three Way Catalytic Converter (TWC), Exhaust Gas Recirculation (EGR) system*, Positive Crankcase Ventilation (PCV) system and Evaporative Emission (EVAP) Control system. The emission control system is designed to meet federal and state emission standards.

*: D16Y5 engine

Tailpipe Emission

Inspection

⚠ WARNING Do not smoke during this procedure. Keep any open flame away from your work area.

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on, then let it idle.
2. Connect a tachometer.
3. Check and, if necessary, adjust the idle speed (see page 11-220 - 223).
4. Warm up and calibrate the CO meter according to the meter manufacturer's instructions.
5. Check idle CO with the headlights, heater blower, rear window defogger, cooling fan, and air conditioner off.

NOTE: (Canada) Pull the parking brake lever up. Start the engine, then check that the headlights are off.

CO meter should indicate 0.1% maximum.

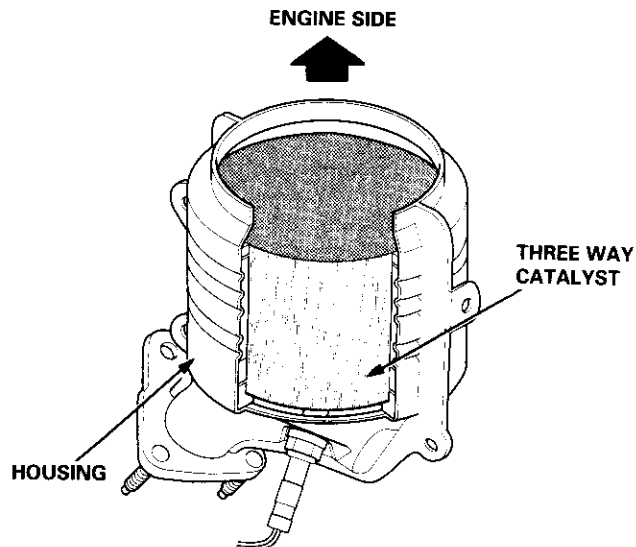
NOTE: '98 D16Y5 engine - If the idle speed increases to 810 ± 50 rpm, this means the EVAP system is purging the canister. To stop the purging temporarily, raise the engine speed above 1,000 rpm with the accelerator pedal, then slowly release the pedal.

Three Way Catalytic Converter (TWC)

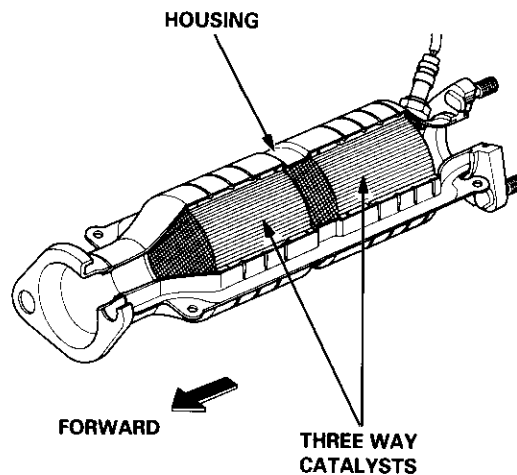
Description

The Three Way Catalytic Converter (TWC) is used to convert hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) in the exhaust gas to carbon dioxide (CO₂), dinitrogen (N₂) and water vapor.

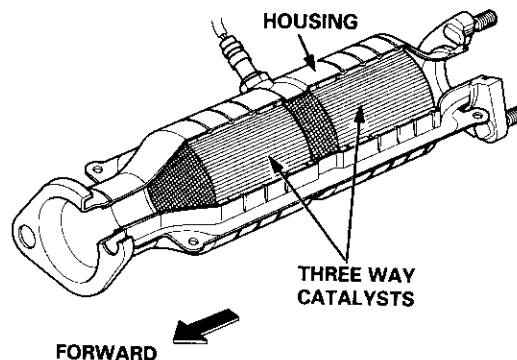
D16Y5, D16Y7 engine:



'96 - '98 D16Y8 engine:



'99 - '00 D16Y8, B16A2 engine:





P0420 The scan tool indicates Diagnostic Trouble Code (DTC) P0420: Catalyst system efficiency below threshold.

Description

This system evaluates the catalyst's capacity by means of the HO₂S (Primary and Secondary) output during stable driving conditions. If deterioration has been detected during two consecutive driving cycles, the MIL comes on and DTC P0420 will be stored.

NOTE: If some of the DTCs listed below are stored at the same time as DTC P0420, troubleshoot those DTCs first, then recheck for DTC P0420.

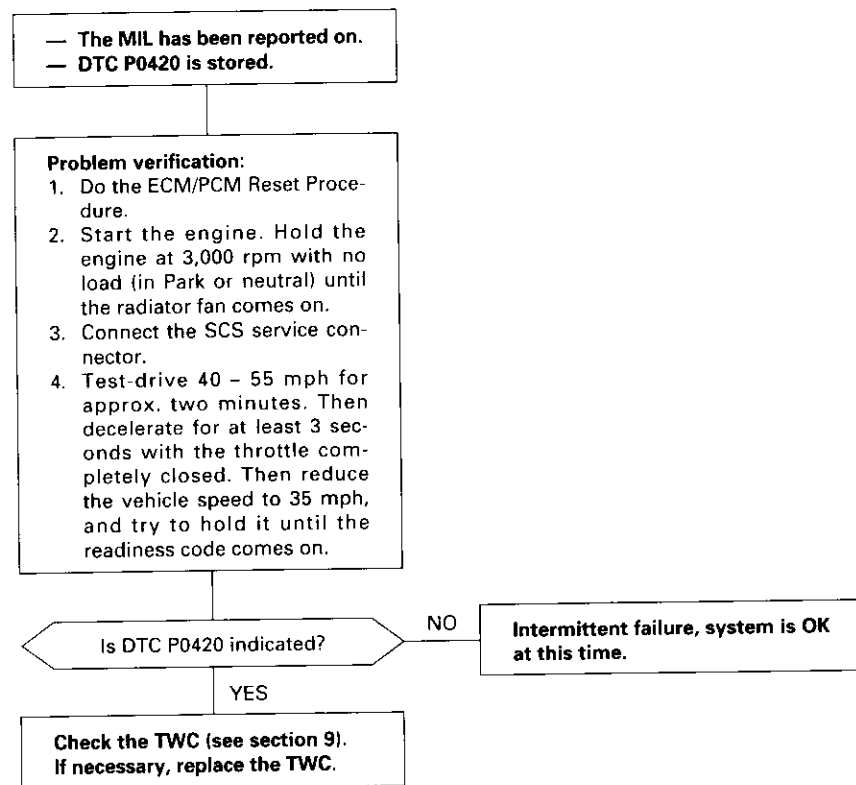
P0137, P0138: Secondary HO₂S (Sensor 2)

P0141: Secondary HO₂S (Sensor 2) Heater

Possible Cause

- TWC Deterioration
- Exhaust system leakage

Troubleshooting Flowchart



Emission Control System

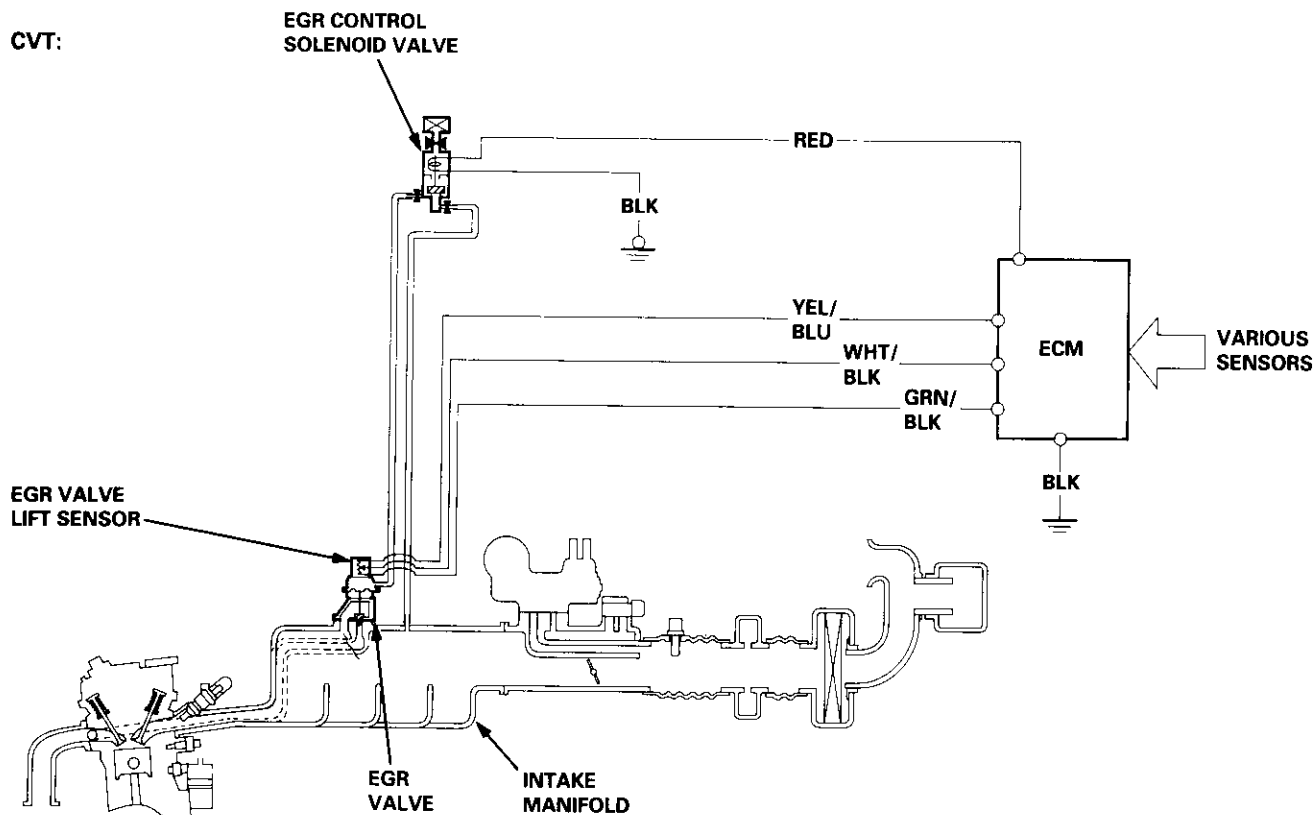
Exhaust Gas Recirculation (EGR) System (D16Y5 engine)

Description

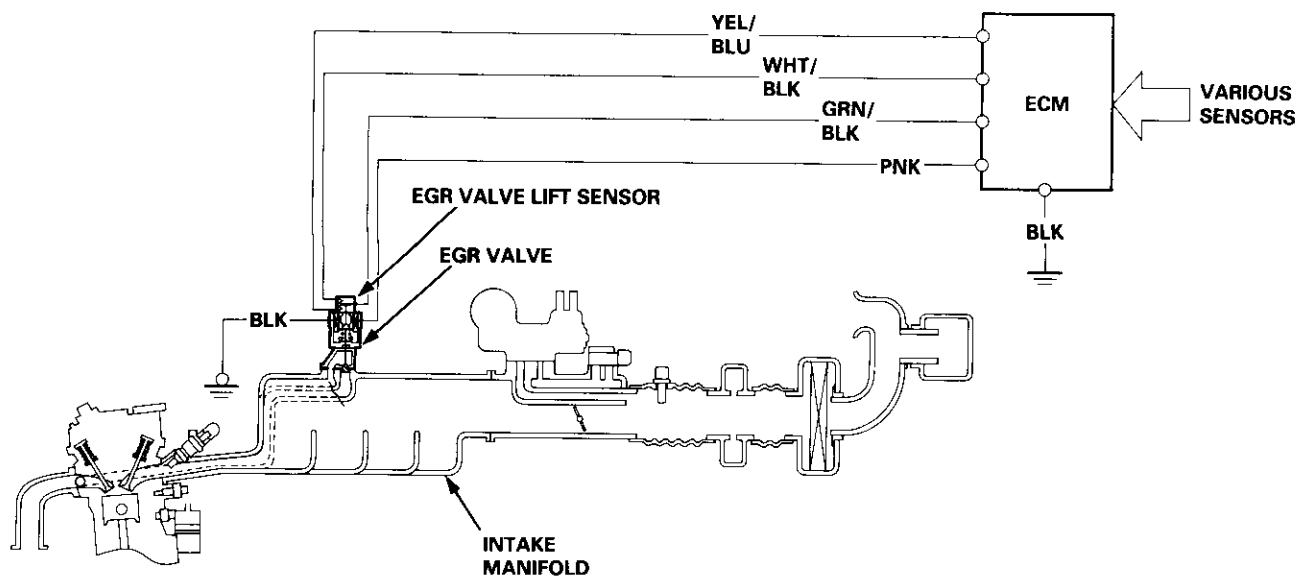
The EGR system is designed to reduce oxides of nitrogen emissions (NO_x) by recirculating exhaust gas through the EGR valve and the intake manifold into the combustion chambers. It is composed of the EGR valve, EGR vacuum control valve, EGR control solenoid valve, ECM and various sensors.

The ECM contains memories for ideal EGR valve lifts for varying operating conditions. The EGR valve lift sensor detects the amount of EGR valve lift and sends the information to the ECM. The ECM then compares it with the ideal EGR valve lift which is determined by signals sent from the other sensors. If there is any difference between the two, the ECM cuts current to the EGR control solenoid valve to reduce vacuum applied to the EGR valve.

CVT:



M/T:





P0401 The scan tool indicates Diagnostic Trouble Code (DTC) P0401: Insufficient flow in the Exhaust Gas Recirculation (EGR) system.

Description

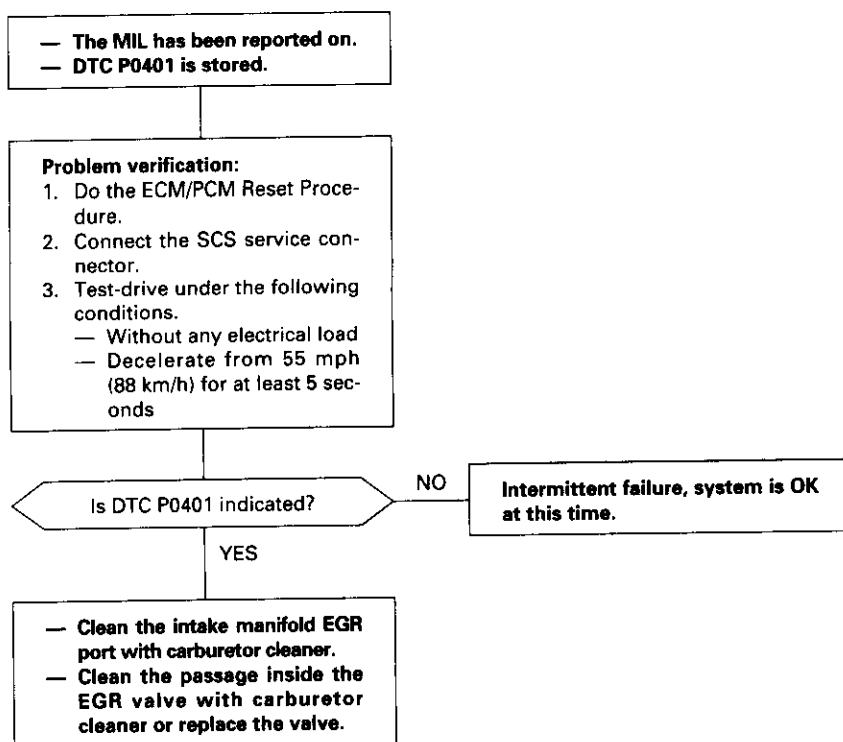
Deterioration (clogging, leakage, etc.) in the EGR line or EGR valve is detected by means of the changes in MAP before and after the operation of the EGR valve.

If deterioration has been detected during two consecutive driving cycles, the MIL will come on and DTC P0401 will be stored.

Possible Causes

- Clogging, leakage in the EGR line
- Faulty EGR valve

Troubleshooting Flowchart



Emission Control System

Exhaust Gas Recirculation (EGR) System (D16Y5 engine with CVT) (cont'd)

P1491 The scan tool indicates Diagnostic Trouble Code (DTC) P1491: A malfunction in the Exhaust Gas Recirculation (EGR) system.

CVT (M/T see page 11-261):

- The MIL has been reported on.
- DTC P1491 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Connect the SCS service connector.
3. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
4. Drive the vehicle on the road for approx. 10 minutes. Try to keep the engine speed in the 1,700 – 2,500 rpm range.

Is DTC P1491 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at, C144 (EGR valve) and ECM/PCM.

YES

Check for vacuum to the EGR valve:

1. Disconnect the No. 16 hose from the EGR valve.
2. Connect a vacuum pump/gauge to the hose.
3. Start the engine and let it idle.

Is there any vacuum?

NO

(To page 11-257)

YES

Check for a malfunction in the EGR control solenoid valve:

1. Disconnect the EGR control solenoid valve 2P connector.
2. Recheck the No. 16 hose for vacuum.

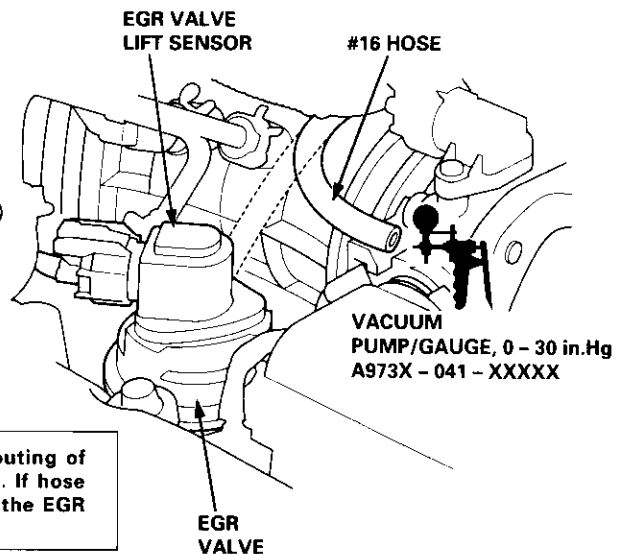
Is there any vacuum?

YES

Check vacuum hose routing of the entire EGR system. If hose routing is OK, replace the EGR control solenoid valve.

NO

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.





(From page 11-256)



Check for a malfunction in the EGR valve:

1. Move the vacuum pump/gauge to the EGR valve.
2. With the engine at idle, apply 26.7 kPa (200 mmHg, 8.0 in.Hg) of vacuum to the EGR valve.

Does the engine stall or run rough and does the EGR valve hold vacuum?

NO

Replace the EGR valve.

YES

Check for an open in the wire (VCC2 line):

1. Turn the ignition switch OFF.
2. Disconnect the EGR valve lift sensor 3P connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EGR valve lift sensor 3P connector terminals No. 3 and No. 2.

Is there approx. 5 V?

NO

YES

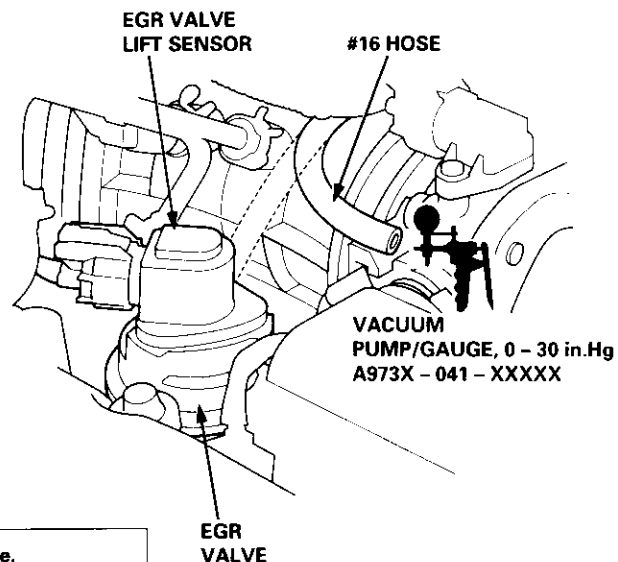
Check for an open in the wire (VCC2 line):
Measure voltage between the ECM/PCM connector terminals D10 and D11 (C18 and C28)*.

Is there approx. 5 V?

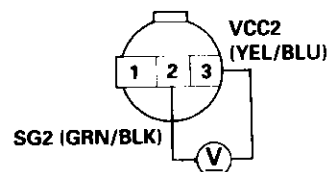
NO

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

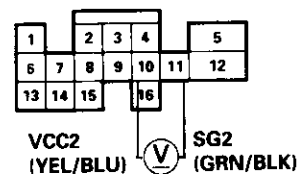
(To page 11-258)



EGR VALVE LIFT SENSOR 3P CONNECTOR (C144)

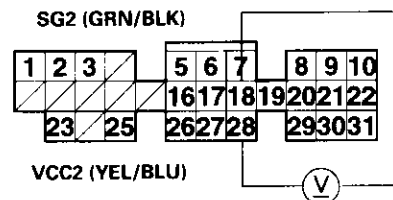


ECM CONNECTOR D (16P)



Wire side of female terminals

PCM CONNECTORS C (31P)*



Wire side of female terminals

Repair open in the wire between the EGR valve and ECM/PCM (D10 (C28)*).

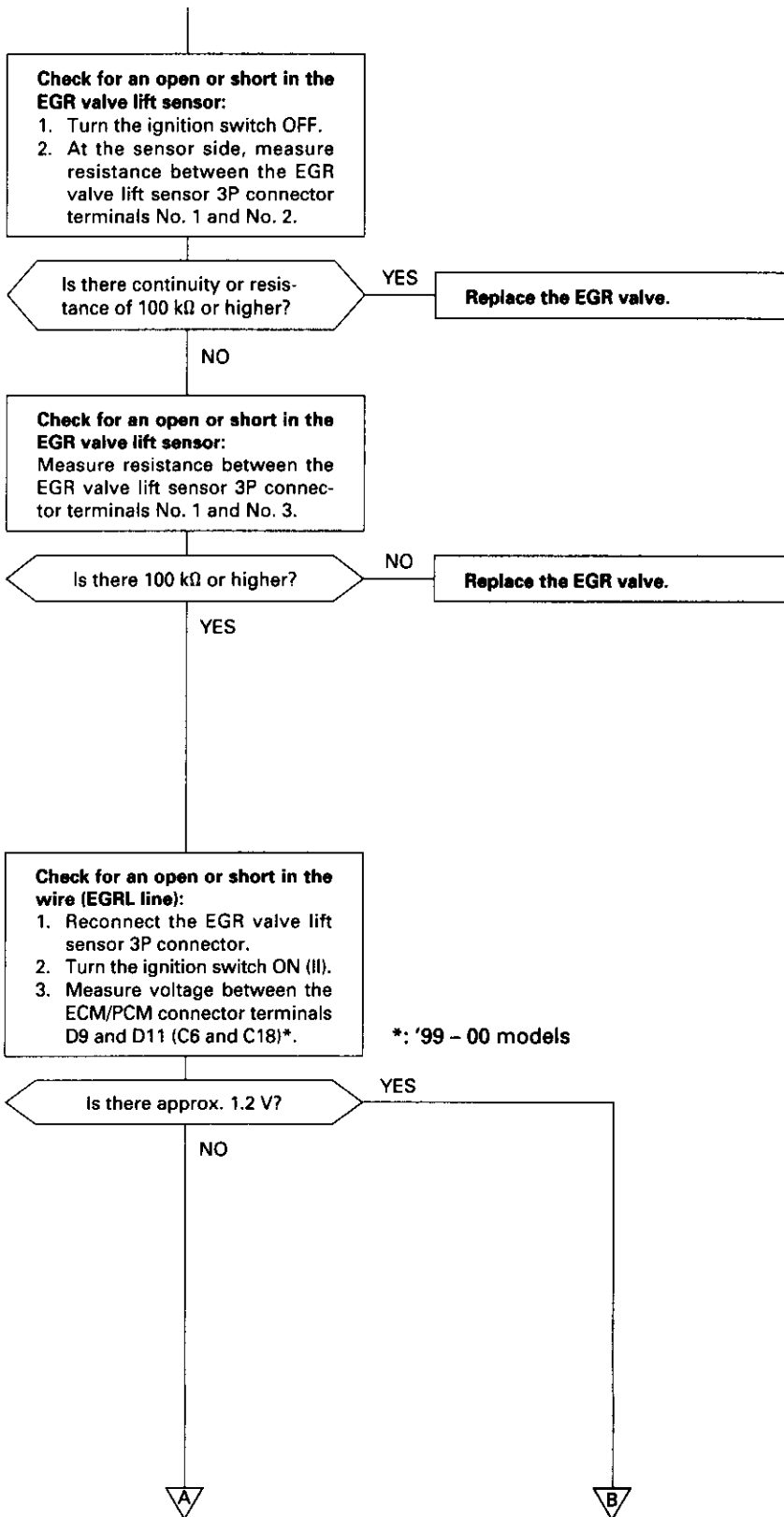
(cont'd)

*: '99 - 00 models

Emission Control System

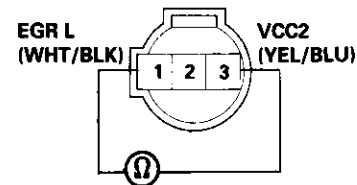
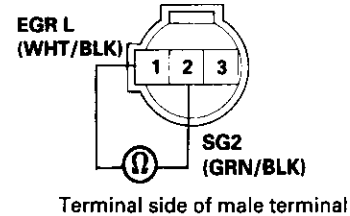
Exhaust Gas Recirculation (EGR) System (D16Y5 engine with CVT) (cont'd)

(From page 11-257)

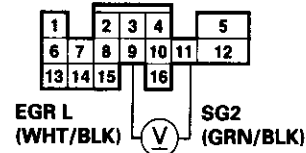


*: '99 - 00 models

**EGR VALVE LIFT SENSOR
3P CONNECTOR (C125)**

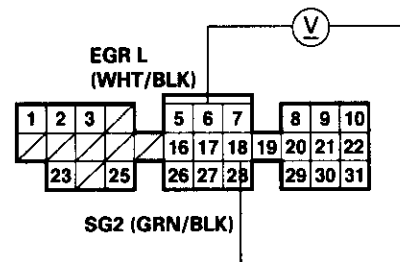


ECM CONNECTOR D (16P)



Wire side of female terminals

PCM CONNECTORS C (31P)*



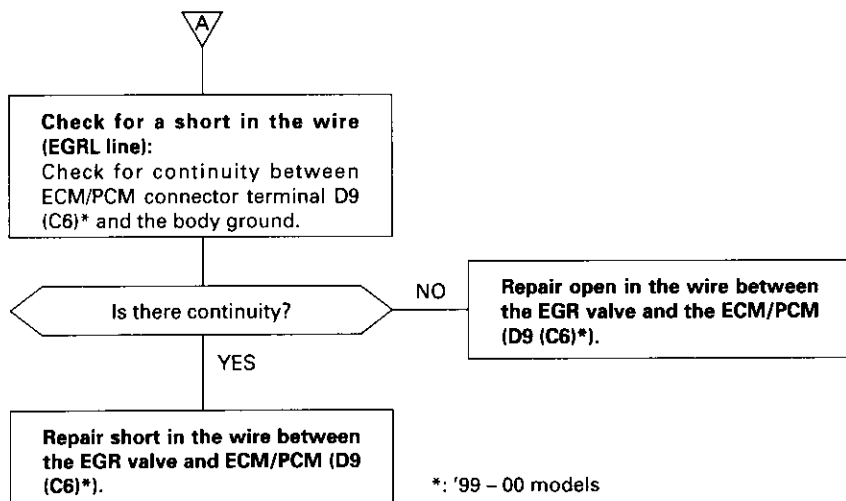
Wire side of female terminals

(To page 11-259)

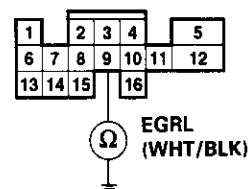
(To page 11-259)



(From page 11-258)

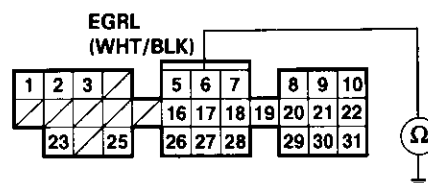


ECM CONNECTOR D (16P)



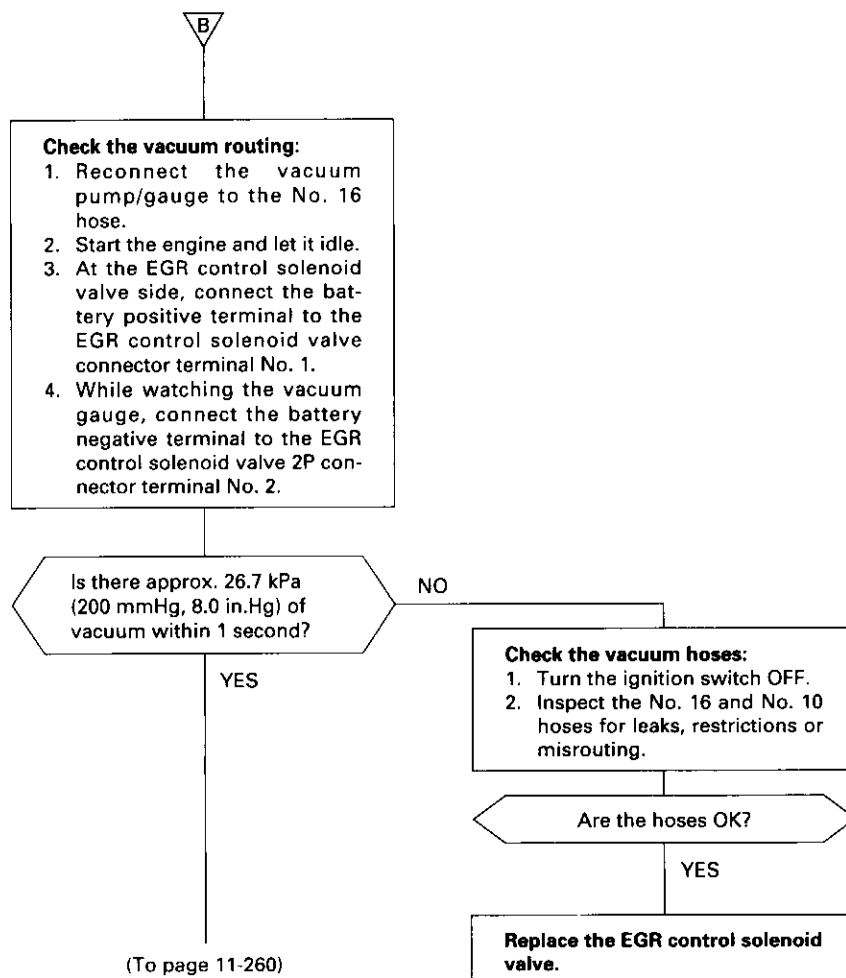
Wire side of female terminals

PCM CONNECTORS C (31P)*

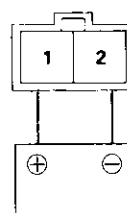


Wire side of female terminals

(From page 11-258)



EGR CONTROL SOLENOID VALVE 2P CONNECTOR



Terminal side of male terminals

(To page 11-260)

(cont'd)

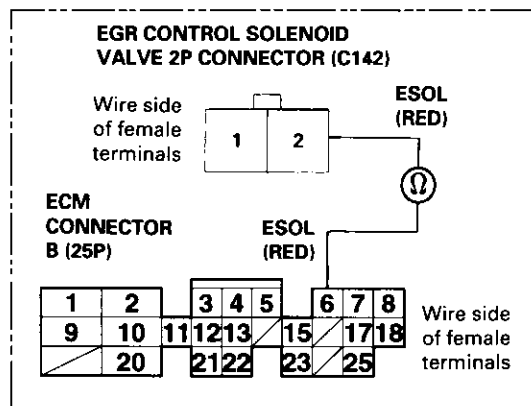
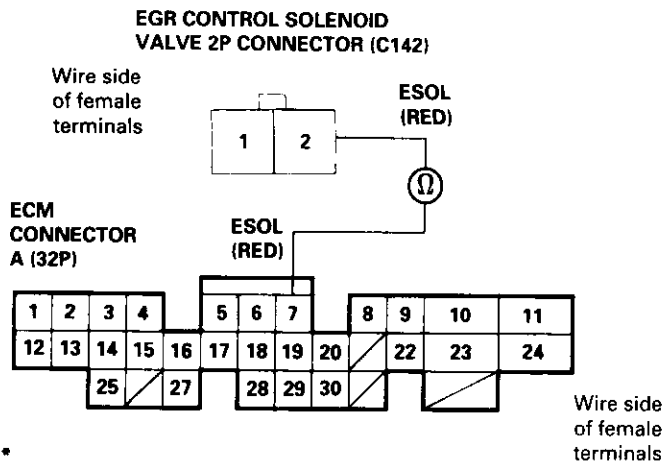
Emission Control System

Exhaust Gas Recirculation (EGR) System (D16Y5 engine with CVT) (cont'd)

(From page 11-259)

Check for an open in the wire (E SOL line):

1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the EGR control solenoid valve.
3. Disconnect the ECM/PCM connector A (32P) (B (25P))* from the ECM/PCM.
4. Check for continuity between ECM/PCM connector terminal A7 (B6)* and the EGR control solenoid valve 2P connector terminal No. 2.



Is there continuity?

NO

Repair open in the wire between the EGR control solenoid valve and the ECM/PCM (A7 (B6)*).

YES

Check for a short in the wire (ESOL line):

Check for continuity between the EGR control solenoid valve 2P connector terminal No. 2 and body ground.

Is there continuity?

YES

Repair short in the wire between the EGR control solenoid valve and the ECM/PCM (A7 (B6)*).

NO

Check for an open in the wire (GND line):

Check for continuity between the EGR control solenoid valve 2P connector terminal No. 1 and body ground.

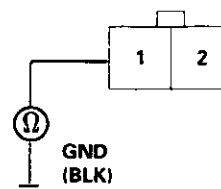
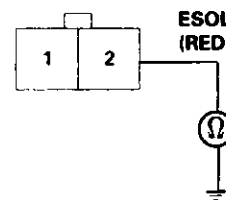
Is there continuity?

NO

Repair open in the wire between the EGR control solenoid valve and G101.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.



*: '99 - 00 models



Exhaust Gas Recirculation System (D16Y5 engine with M/T)

M/T:

- The MIL has been reported on.
- DTC P1491 is stored.

Problem verification:

1. Do the ECM Reset Procedure.
2. Connect the SCS service connector.
3. Start the engine. Hold the engine at 3,000 rpm with no load (transmission in neutral) until the radiator fan comes on.
4. Drive the vehicle on the road for approx. 10 minutes. Try to keep the engine speed in the 1,700 – 2,500 rpm range.

Is DTC P1491 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C144 (EGR valve) and ECM.

YES

Check for a malfunction in the EGR valve:

1. Turn the ignition switch OFF.
2. Disconnect the EGR valve 6P connector.
3. Start the engine and let it idle.
4. Measure voltage between the EGR valve 6P connector terminals No. 4 and No.6.

Is there battery voltage?

NO

Check the EGR valve:

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON (II).
3. Measure voltage between the EGR valve 6P connector terminals No. 2 and No. 3.

YES

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

Is there approx. 5 V?

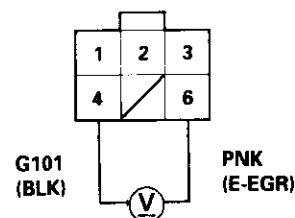
NO

Replace the EGR valve.

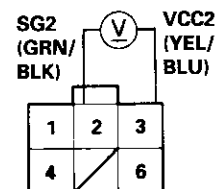
YES

(To page 11-262)

EGR VALVE 6P CONNECTOR (C144)



Wire side of male terminals

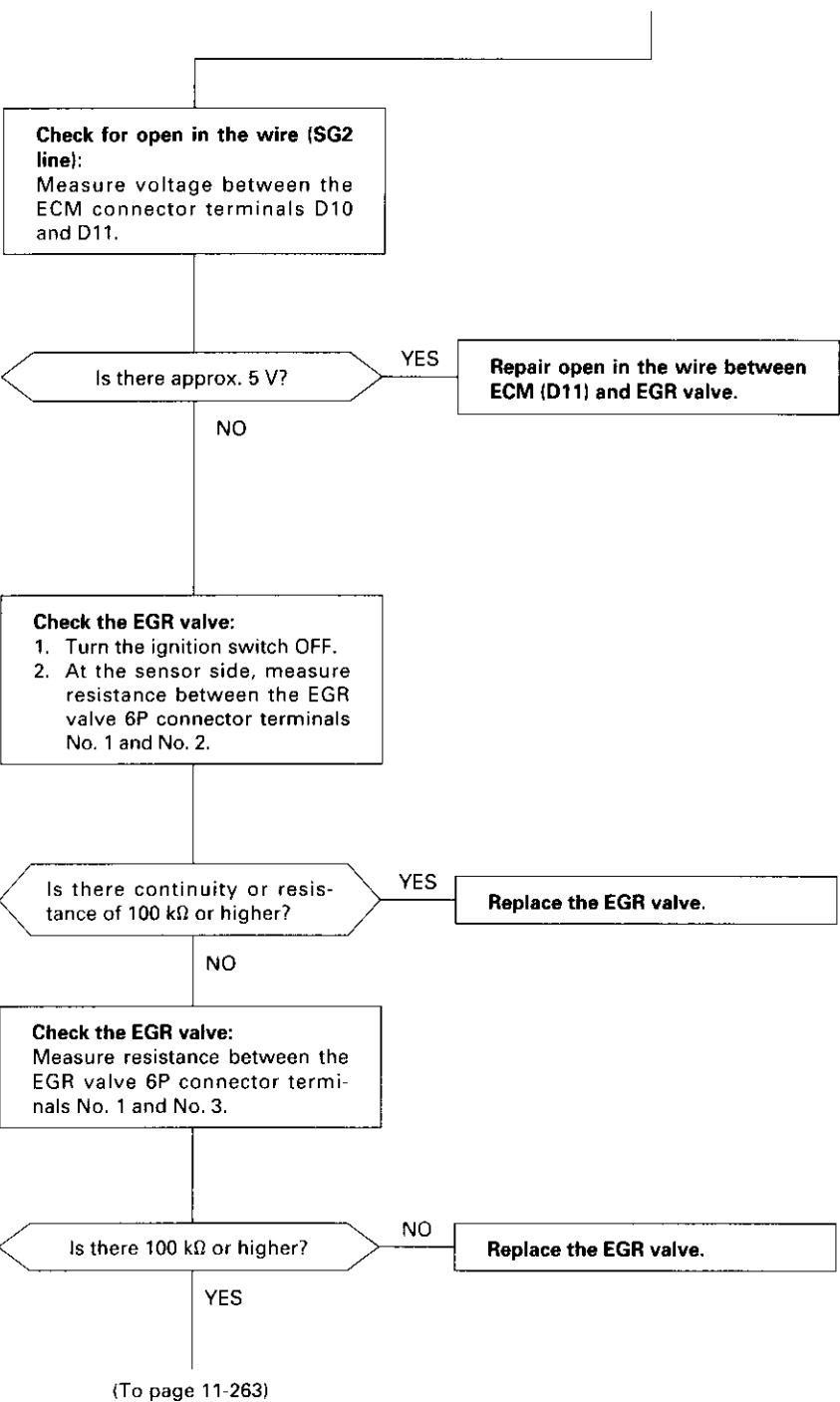


(cont'd)

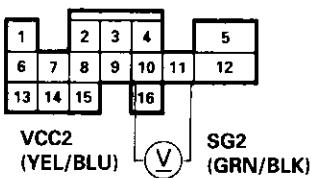
Emission Control System

Exhaust Gas Recirculation System (D16Y5 engine with M/T) (cont'd)

(From page 11-261)

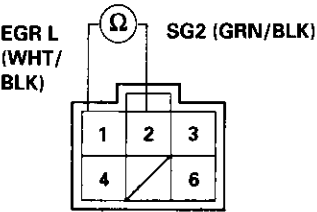


ECM CONNECTOR D (16P)

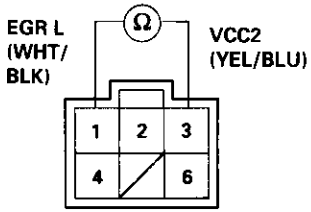


Wire side of female terminals

EGR VALVE 6P CONNECTOR



Terminal side of male terminals





(From page 11-262)

Check for an open in the wire (EGR L line):

1. Reconnect the EGR valve connector.
2. Turn the ignition switch ON (II).
3. Measure voltage between the PCM connector terminals D9 and D11.

Is there approx. 1.2 V?

YES

NO

Check for the wire (EGR L line):
Check for continuity between ECM connector terminal D9 and body ground.

Is there continuity?

YES

NO

Repair open in the wire between the EGR valve and the ECM (D9).

Repair short in the wire between the EGR valve and the ECM (D9).

Check the EGR valve:

1. Turn the ignition switch OFF.
2. Disconnect the EGR valve 6P connector.
3. Connect the battery positive terminal to EGR valve 6P connector terminal No. 6.
4. Start the engine and let it idle, then connect the battery negative terminal to EGR valve 6P connector terminal No. 4.

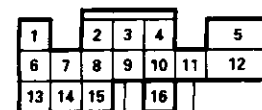
Does the engine stall or run rough?

YES

NO

Replace the EGR valve.

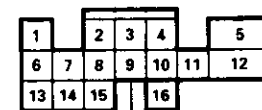
ECM CONNECTOR D (16P)



EGR L
(WHT/BLK)

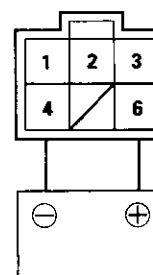
SG2
(GRN/BLK)

Wire side of female terminals



EGR L
(WHT/BLK)

EGR VALVE 6P CONNECTOR



Wire side of female terminals

(To page 11-264)

(cont'd)

Emission Control System

Exhaust Gas Recirculation System (D16Y5 engine with M/T) (cont'd)

(From page 11-263)

Check for an open in the wire (E-EGR line):
1. Turn the ignition switch OFF.
2. Disconnect the ECM connector, A (32P) from the ECM.
3. Check for continuity between ECM connector terminal A7 and the EGR valve 6P connector terminal No. 6.

Is there continuity? **NO**

Repair open in the wire between the EGR valve and the ECM (A7).

YES

Check for a short in the wire (E-EGR line):
Check for continuity between ECM connector terminal A7 and body ground.

Is there continuity? **YES**

Repair short in the wire between the EGR valve and the ECM (A7).

NO

Check for an open in the wire (GND line):
Check for continuity between the EGR valve 6P connector terminal No. 4 and body ground.

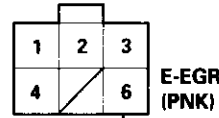
Is there continuity? **NO**

Repair open in the wire between the EGR control solenoid valve and G101.

YES

Substitute a known-good ECM and recheck. If symptom/indication goes away, replace the original ECM.

**EGR VALVE
6P CONNECTOR (C144)**

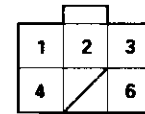
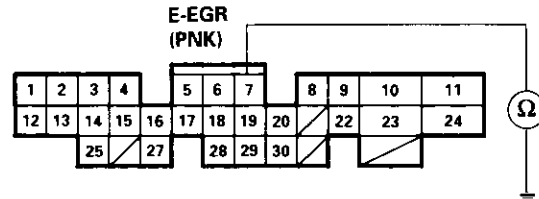


Wire side of female terminals

**ECM
CONNECTOR
A (32P)**



Wire side of female terminals



**G101
(BLK)**

Ω



Exhaust Gas Recirculation System (D16Y5 engine)

P1498 The scan tool indicates Diagnostic Trouble Code (DTC) P1498: A high voltage problem in the Exhaust Gas Recirculation (EGR) valve lift sensor circuit.

- The MIL has been reported on.
- DTC P1498 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine.

Is DTC P1498 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C144 (EGR valve) and ECM/PCM.

YES

Check for an open in the EGR valve lift sensor:

1. Turn the ignition switch OFF.
2. Disconnect the EGR valve lift sensor 3P (M/T: 6P) connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EGR valve lift sensor 3P (M/T: 6P) connector terminals No. 3 and No. 2.

Is there approx. 5 V?

YES

Replace the EGR valve.

NO

Check for open in the wire (SG2 line):

Measure voltage between ECM/PCM connector terminals D10 and D11 (C18 and C28)*.

Is there approx. 5 V?

YES

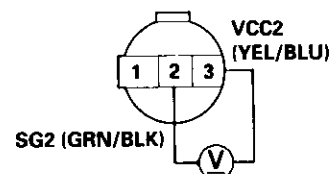
Repair open in the wire between ECM/PCM (D11 (C18)*) and EGR valve lift sensor.

NO

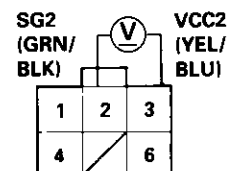
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

*: '99 - 00 D16Y5 engine with CVT

EGR VALVE LIFT SENSOR 3P (M/T: 6P) CONNECTOR (C144) CVT:

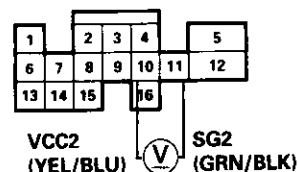


M/T:



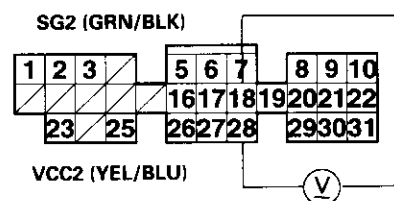
Wire side of female terminals

ECM CONNECTOR D (16P)



Wire side of female terminals

PCM CONNECTORS C (31P)*



Wire side of female terminals

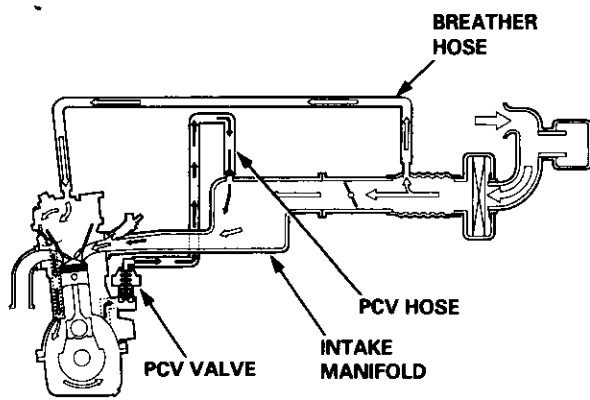
Emission Control System

Positive Crankcase Ventilation (PCV) System

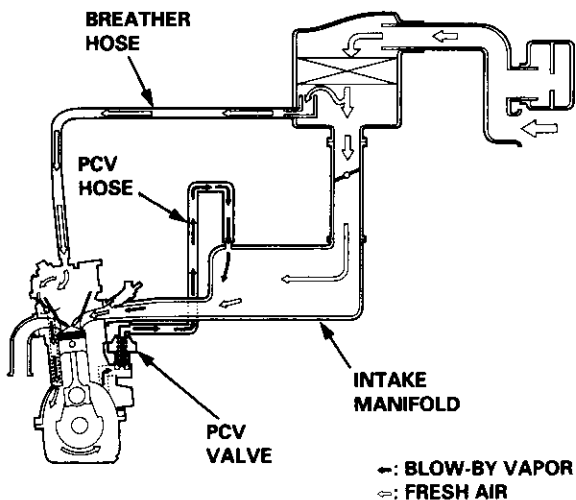
Description

The Positive Crankcase Ventilation (PCV) system is designed to prevent blow-by gas from escaping to the atmosphere. The PCV valve contains a spring-loaded plunger. When the engine starts, the plunger in the PCV valve is lifted in proportion to intake manifold vacuum and the blow-by gas is drawn directly into the intake manifold.

D16Y5, D16Y8, B16A2 engine:



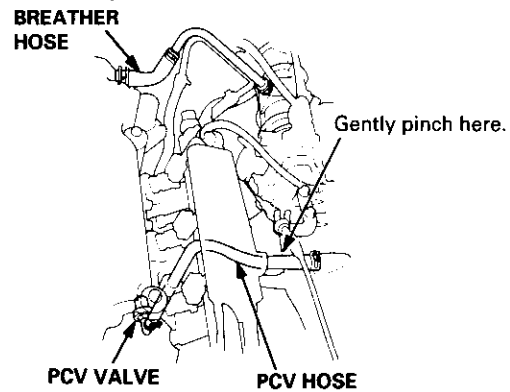
D16Y7 engine:



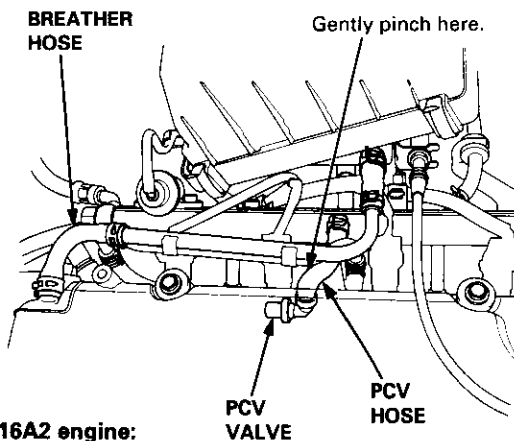
Inspection

1. Check the PCV hoses and connections for leaks and clogging.
2. At idle, make sure there is a clicking sound from the PCV valve when the hose between the PCV valve and the intake manifold is lightly pinched with your fingers or pliers.

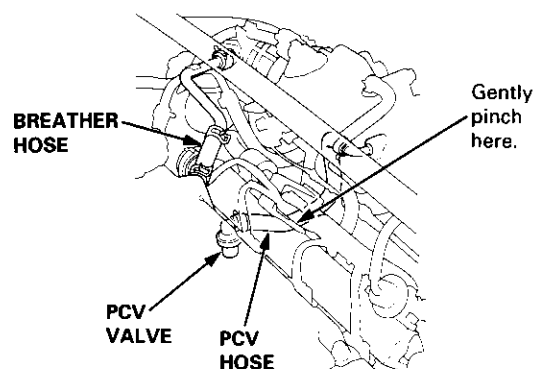
D16Y5, D16Y8 engine:



D16Y7 engine:



B16A2 engine:



If there is no clicking sound, check the PCV valve grommet for cracks and damage. If the grommet is OK, replace the PCV valve and recheck.



Evaporative Emission (EVAP) Controls

Description

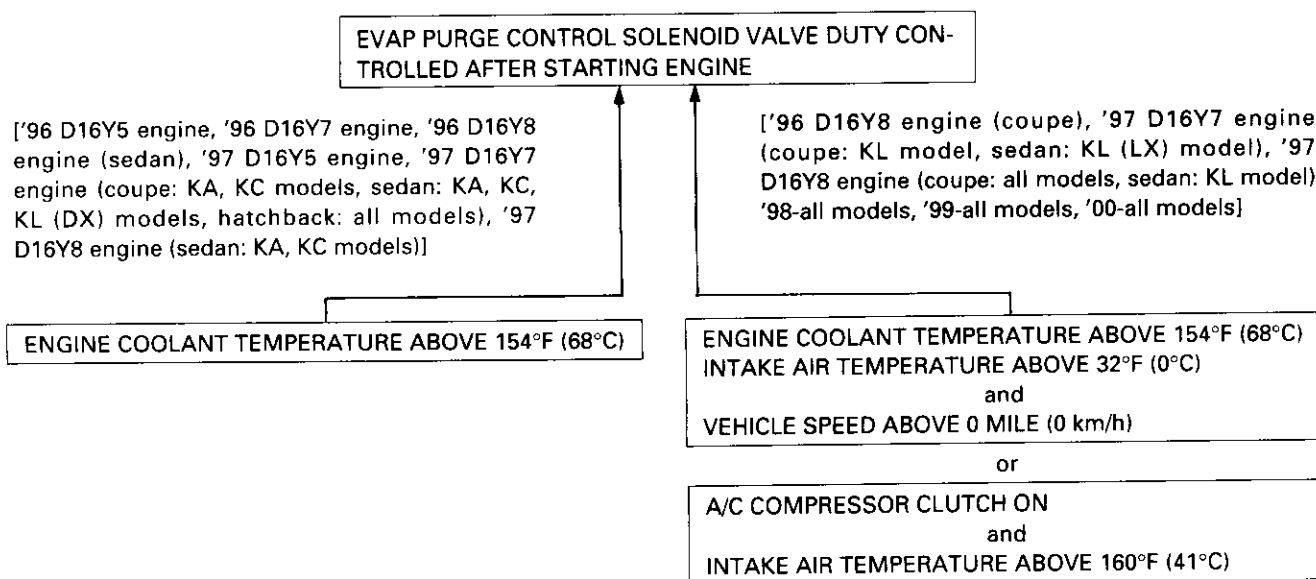
The evaporative emission controls are designed to minimize the amount of fuel vapor escaping to the atmosphere. The system consists of the following components:

A. Evaporative Emission (EVAP) Control Canister

An EVAP control canister is used for the temporary storage of fuel vapor until the fuel vapor can be purged from the EVAP control canister into the engine and burned.

B. Vapor Purge Control System

EVAP control canister purging is accomplished by drawing fresh air through the EVAP control canister and into a port on the intake manifold. The purging vacuum is controlled by the EVAP purge control solenoid valve.



C. Fuel Tank Vapor Control System

When fuel vapor pressure in the fuel tank is higher than the set value of the EVAP two way valve, the valve opens and regulates the flow of fuel vapor to the EVAP control canister.

D. Onboard Refueling Vapor Recovery (ORVR) System ('99 – 00 models)

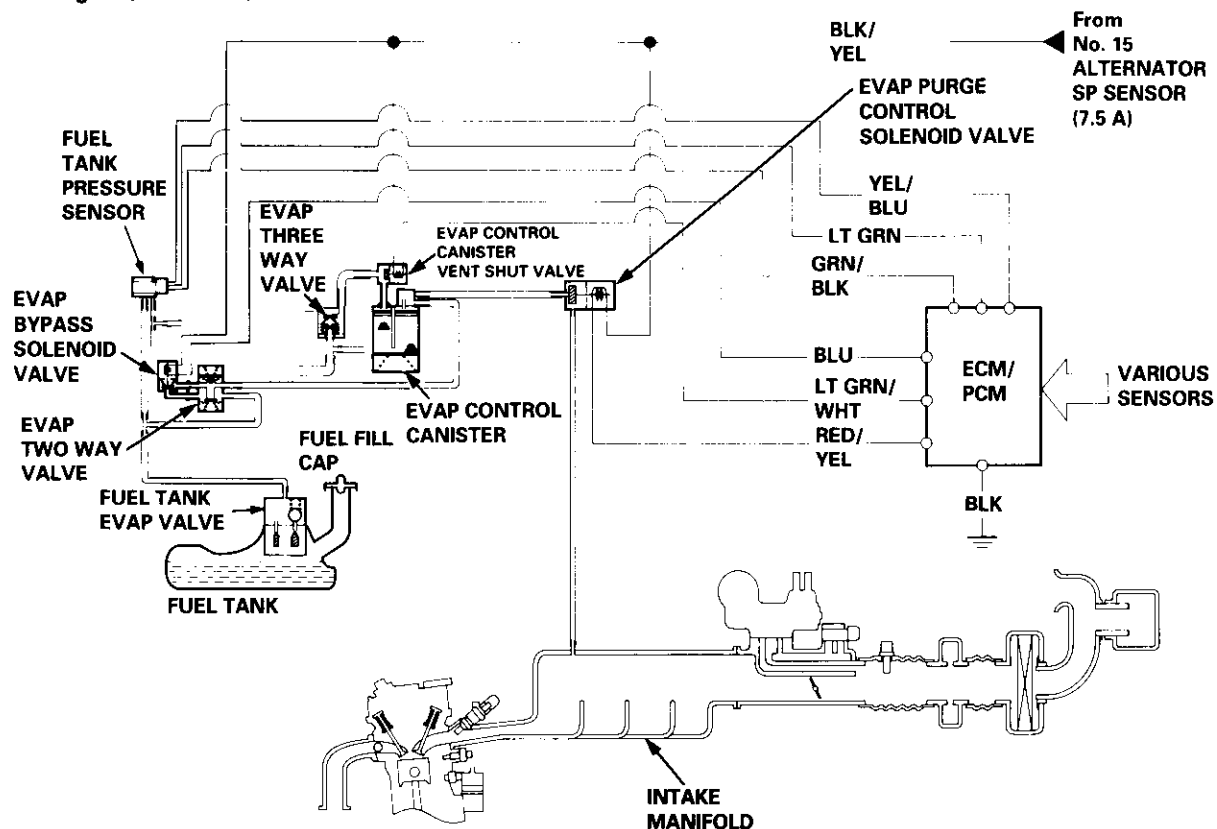
During refueling, the ORVR (Onboard Refueling Vapor Recovery) vent shut valve opens with the pressure in the fuel tank, and feeds the fuel vapor to the EVAP control canister.

(cont'd)

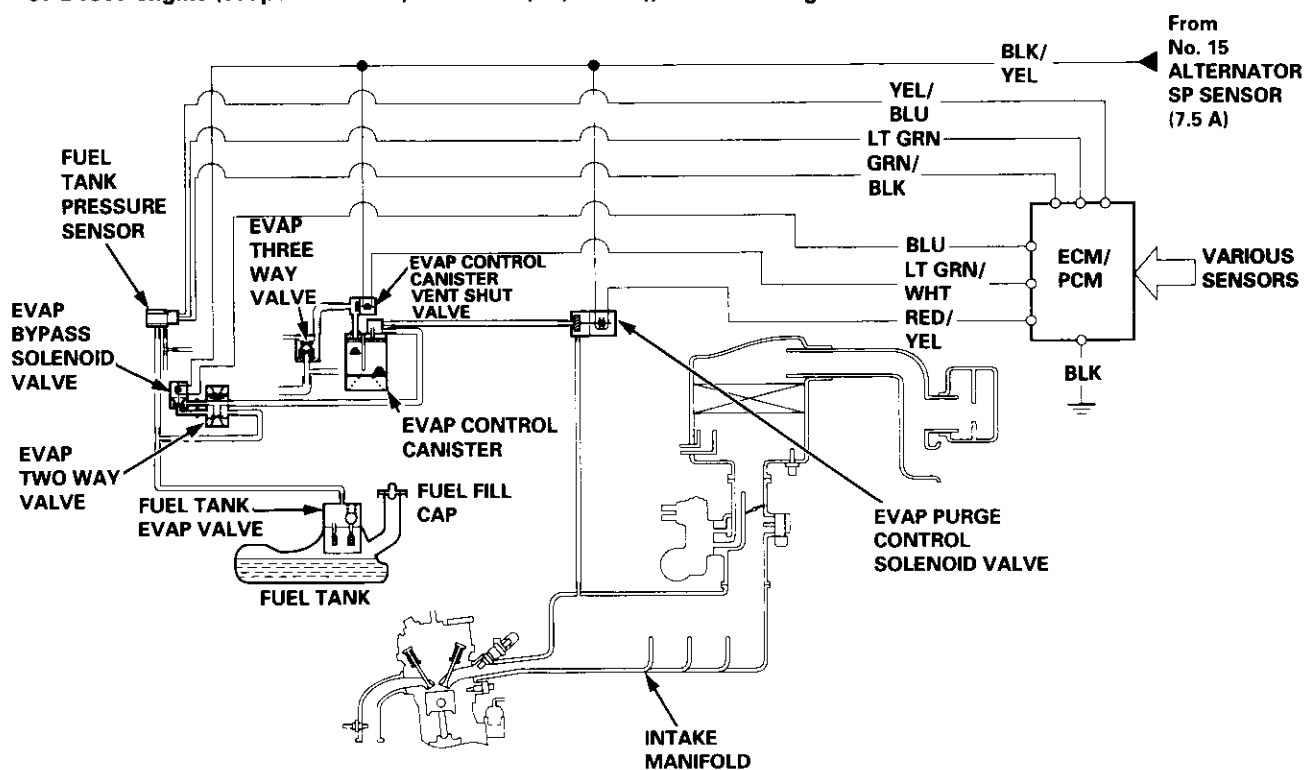
Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

'96 D16Y8 engine (coupe), '97 D16Y8 engine (coupe: all models, sedan: KL model), '98 D16Y5 engine (all models), '98 D16Y8 engine (all models):

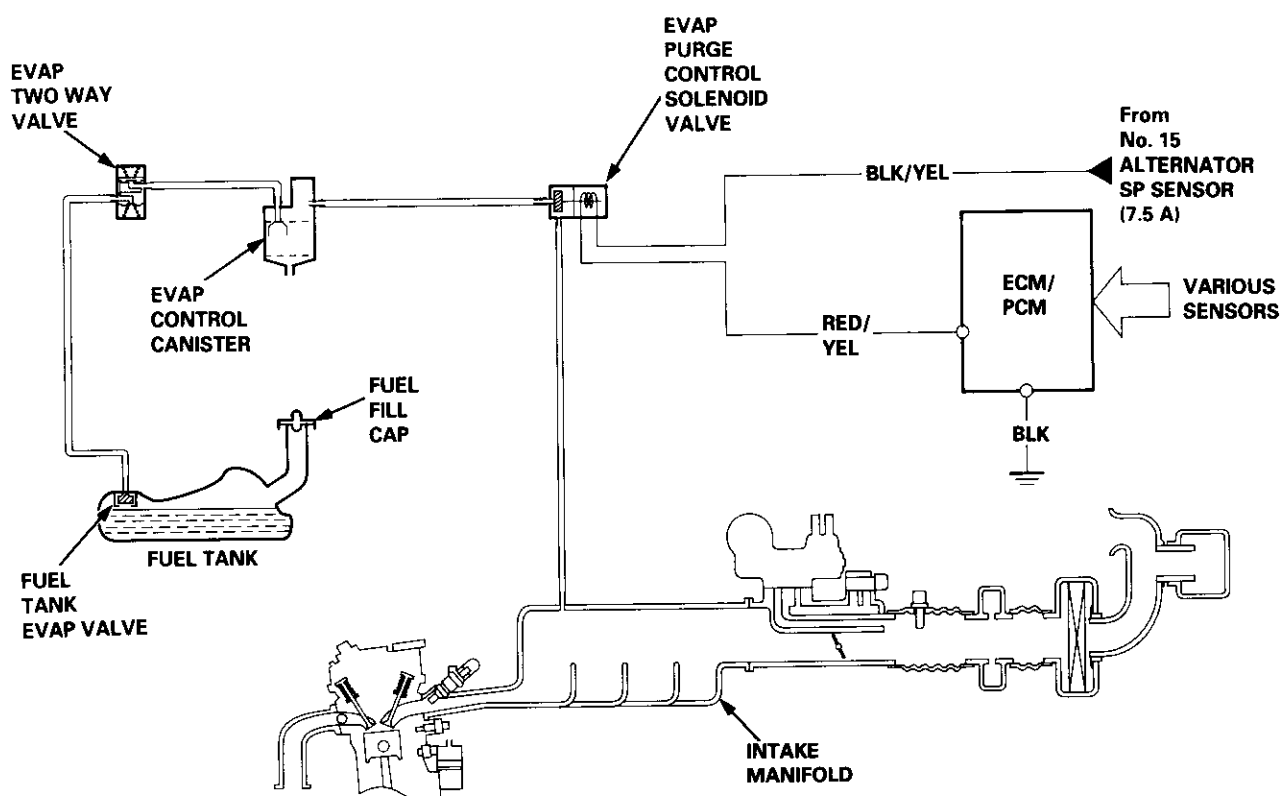


'97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '98 D16Y7 engine:

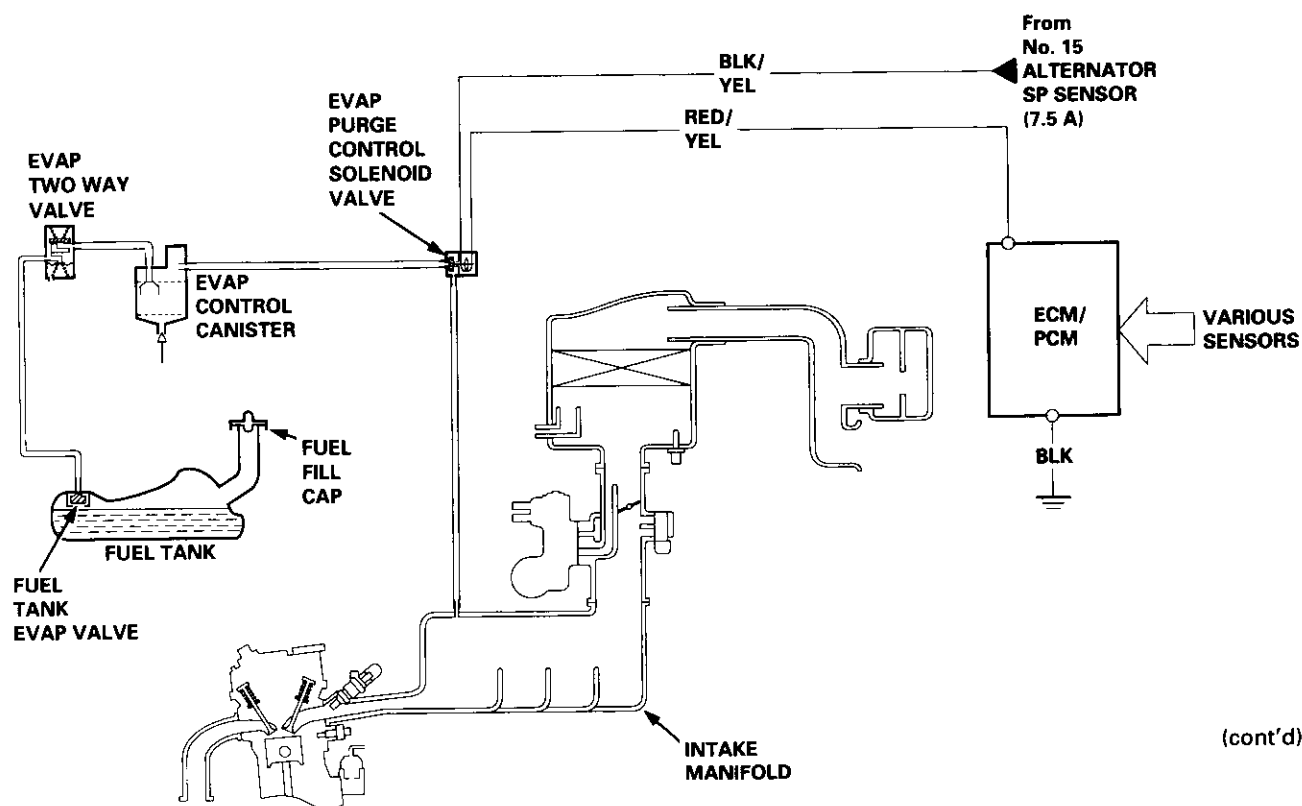




'96 D16Y5 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y8 engine (sedan: KA, KC models):



'96 D16Y7 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (DX) models, hatchback: all models):

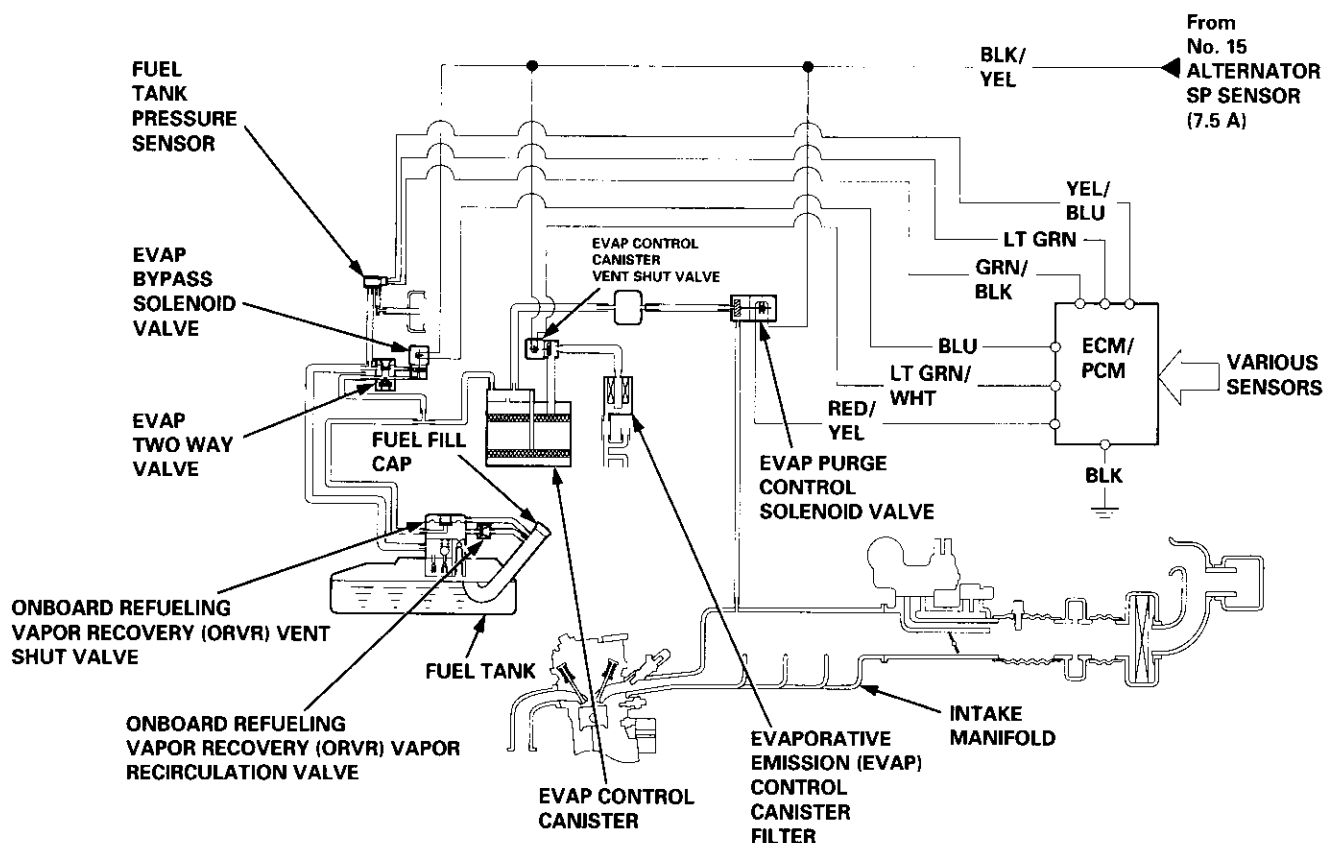


(cont'd)

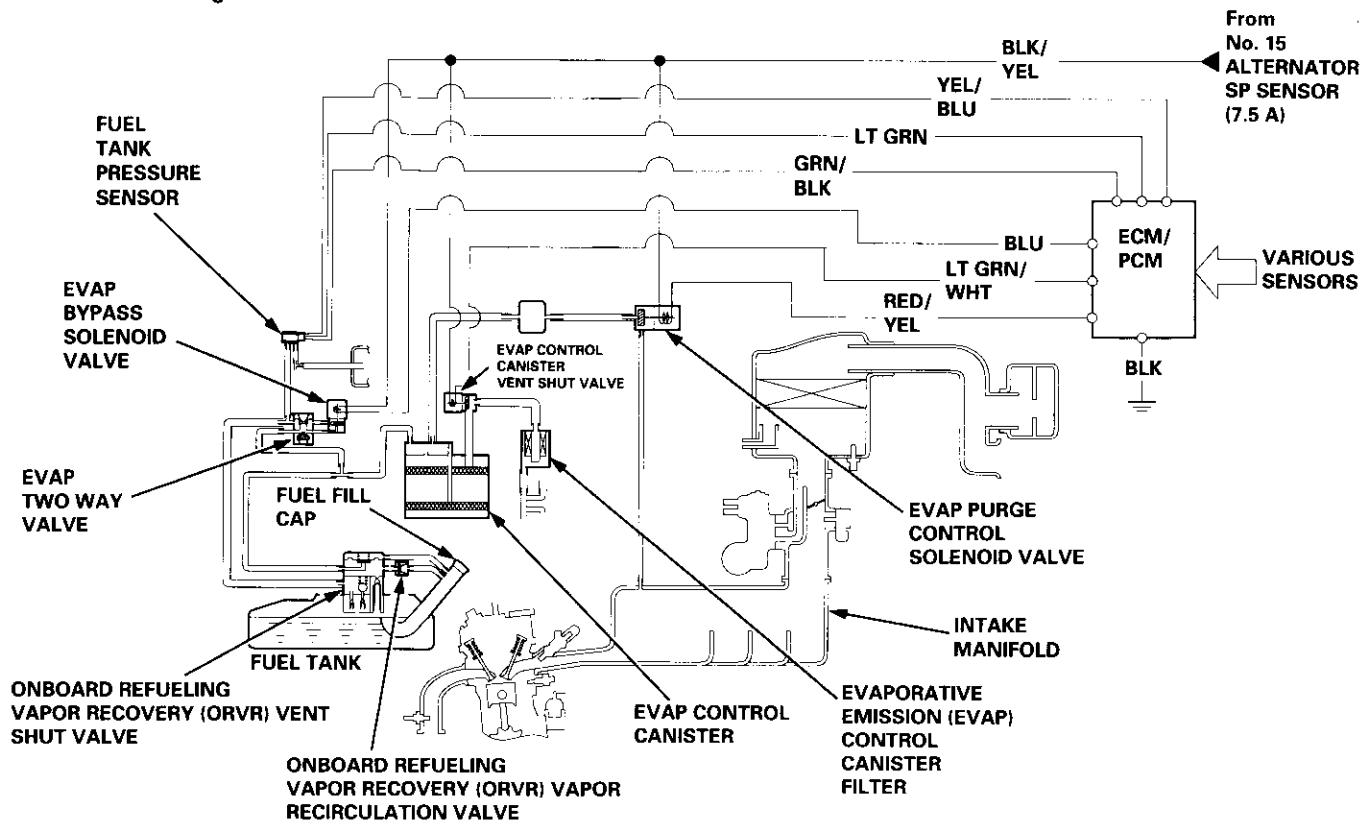
Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

'99 - 00 D16Y8 engine, '99 - 00 D16Y5 engine, '99 - 00 B16A2 engine:



'99 - 00 D16Y7 engine:





'96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (DX) models, hatchback: all models), '97 D16Y8 engine (sedan: KA, KC models):

P0441 The scan tool indicates Diagnostic Trouble Code (DTC) P0441: Evaporative Emission (EVAP) control system insufficient purge flow.

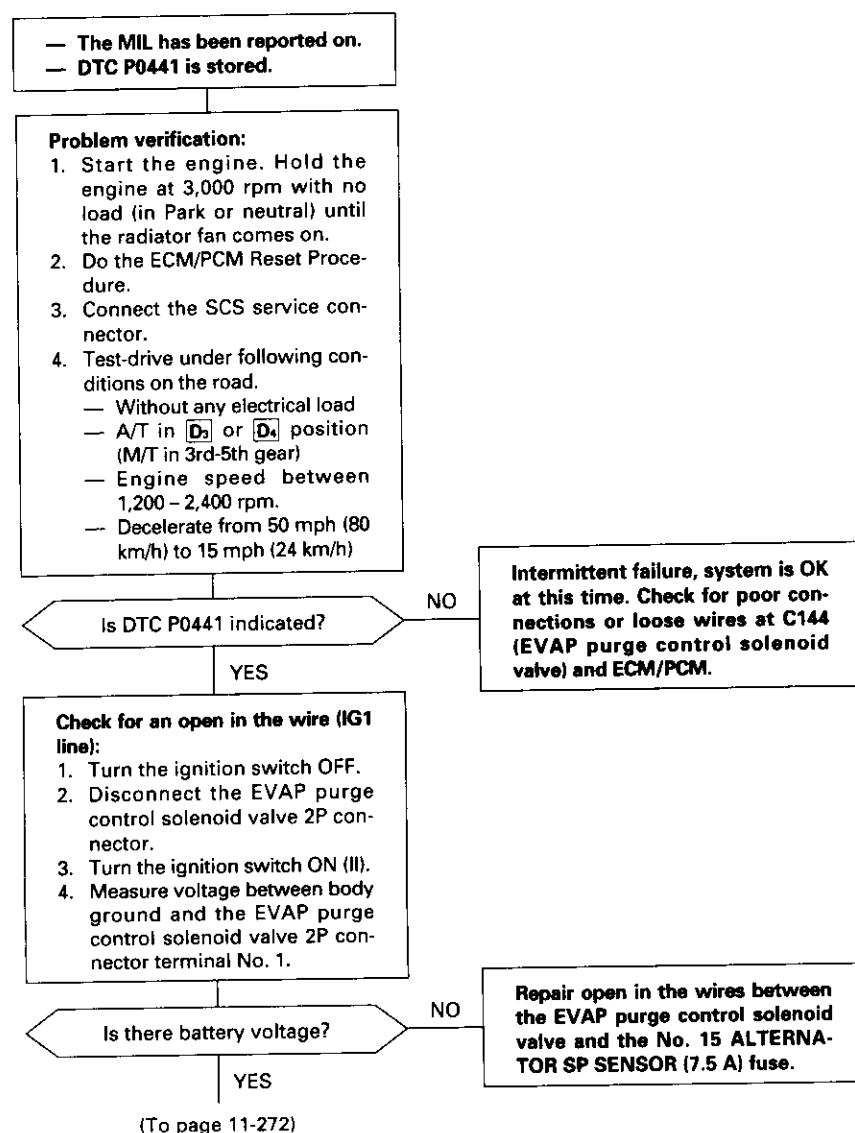
Description

By monitoring the purge line vacuum with the MAP sensor, the ECM/PCM can detect insufficient EVAP control system purge flow.

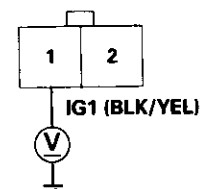
Possible Cause

- EVAP Purge Control Solenoid Valve
- EVAP Purge Control Solenoid Valve Circuit
- EVAP Control Canister
- Vacuum Lines
- ECM/PCM

Troubleshooting Flowchart



EVAP PURGE CONTROL SOLENOID VALVE 2P CONNECTOR (C114)



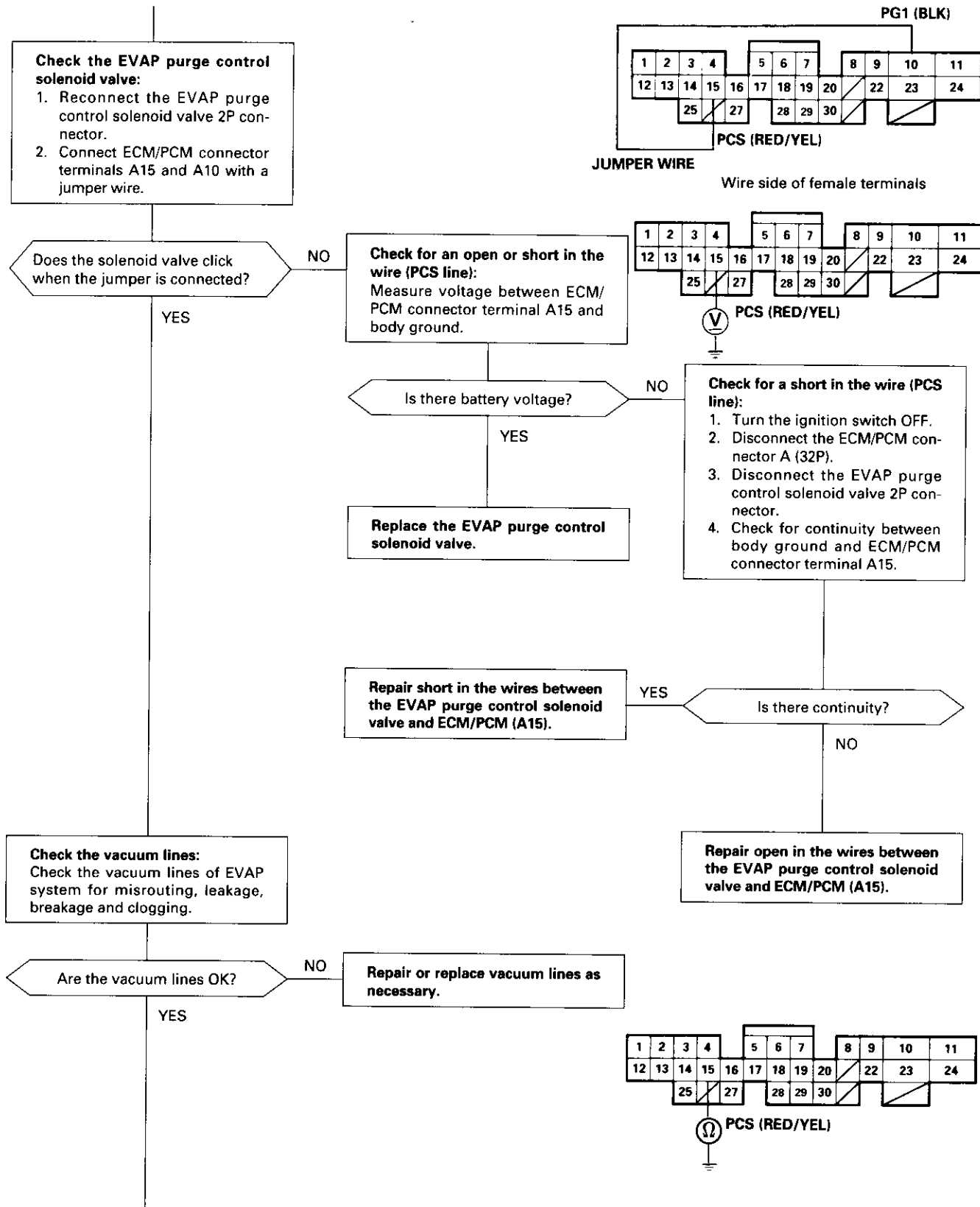
Wire side of female terminals

(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-271)



(To page 11-273)



(From page 11-272)

Check the EVAP purge control solenoid valve:

1. Disconnect the vacuum hose from the EVAP control canister.
2. Connect the vacuum pump to the hose and apply vacuum.

Does it hold vacuum?

NO

Replace the EVAP purge control solenoid valve.

YES

Check the EVAP control canister:

1. Reconnect the vacuum hose to the EVAP control canister.
2. Connect the vacuum/pressure gauge to the purge air hose.
3. Connect ECM/PCM connector terminals A15 and A10 with a jumper wire.
4. Start the engine.
5. Check the vacuum.

Does vacuum appear on the gauge?

NO

Replace the EVAP control canister.

YES

Check the EVAP two way valve
(see page 11-193).

Does the EVAP two way valve work properly?

NO

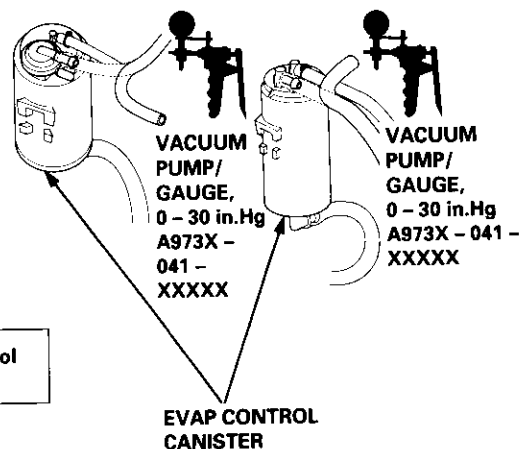
Replace the EVAP two way valve.

YES

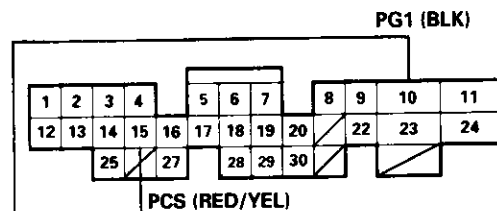
Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

D16Y5 engine:

D16Y7, D16Y8 engine



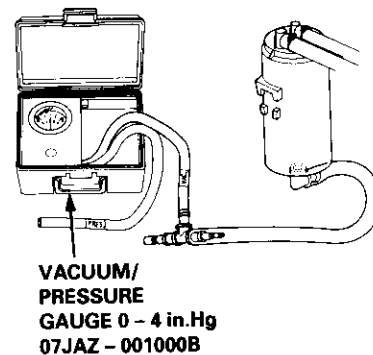
ECM/PCM CONNECTOR D (32P)



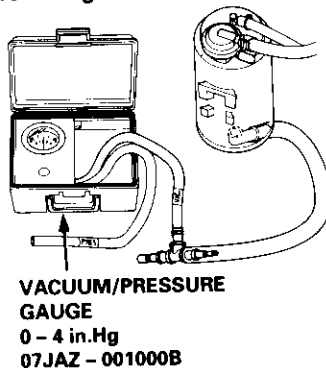
JUMPER WIRE

Wire side of female terminals

D16Y7, D16Y8 engine:



D16Y5 engine:



(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

'99 - 00 models only:

P0451 The scan tool indicates Diagnostic Trouble Code (DTC) P0451: The Fuel Tank Pressure sensor circuit range/performance problem.

- The MIL has been reported on.
- DTC P0451 is stored.

Check the fuel tank pressure sensor:

1. Do the ECM/PCM Reset Procedure.
2. Remove the fuel fill cap.
3. Turn the ignition switch ON (II).
4. Monitor the FTP Sensor voltage with the Honda PGM Tester, or measure voltage between body ground and ECM/PCM connector terminals A29 and C18.

Is there approx. 2.5 V?

YES

Replace the fuel tank pressure sensor.

NO

Check the fuel tank pressure sensor:

1. Remove the fuel tank (see page 11-242).
2. Remove the fuel tank pressure sensor assembly from the fuel tank.
3. Connect the fuel tank Pressure Sensor sub-harness 6P connector to the access panel side connector.
4. Disconnect the hose between the EVAP two way valve and the fuel tank pressure sensor at the EVAP two way valve end.
5. Connect a vacuum pump to the open end of that hose.
6. Turn the ignition switch ON (II).
7. Monitor the FTP Sensor voltage with the Honda PGM Tester, or measure voltage between ECM/PCM connector terminals A29 and C18, and carefully pump vacuum on the hose one stroke at a time.
8. The voltage should smoothly drop from the starting approx. 2.5 V down to approx. 1.5 V. STOP applying vacuum when the voltage drops to approx. 1.5 V or damage to the fuel tank pressure sensor may occur.

Does the voltage drop to approx. 1.5 V and hold?

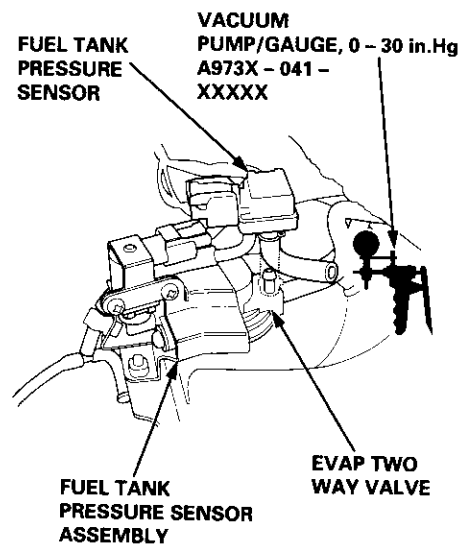
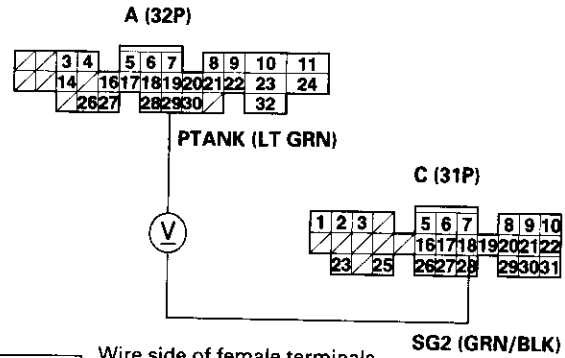
NO

Replace the fuel tank pressure sensor.

YES

Substitute a known-good ECM/PCM and recheck. If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTORS

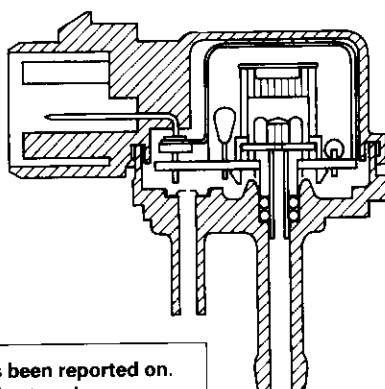




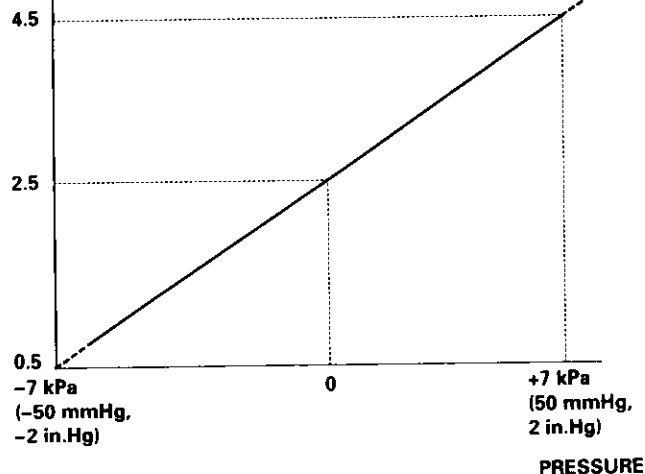
Fuel Tank Pressure Sensor ['96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model, '98-all models) '99 - 00 D16Y5 engine with M/T]:

P0452 The scan tool indicates Diagnostic Trouble Code (DTC) P0452: A low voltage problem in the Fuel Tank Pressure sensor.

The fuel tank pressure sensor converts fuel tank absolute pressure into electrical signals and inputs the ECM/PCM.



**OUTPUT
VOLTAGE
(V)**



- The MIL has been reported on.
- DTC P0452 is stored.

Check the vacuum lines:

Check the vacuum lines of the fuel tank pressure sensor for mis-routing, leakage, breakage and clogging.

Are the vacuum lines OK?

NO

Repair or replace vacuum lines as necessary.

YES

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Remove the fuel fill cap.
3. Turn the ignition switch ON (II).
4. Monitor the FTP Sensor voltage with the Honda PGM Tester, or measure voltage between body ground and ECM/PCM terminal D15.

Is there approx. 2.5 V?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131 (located under right side of dash), C401 (located above under-dash fuse/relay box), C574 (C568)* (located under access panel), C792 (fuel tank pressure sensor) and ECM/PCM.

*: coupe

NO

Check for an open in wire (VCC2 line):

1. Turn the ignition switch OFF.
2. Reinstall the fuel fill cap.
3. Disconnect the fuel tank pressure sensor 3P connector.
4. Turn the ignition switch ON (II).
5. Measure voltage between the fuel tank pressure sensor 3P connector No. 1 terminal and No. 2 terminal.

Is there approx. 5 V?

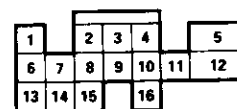
NO

Repair open in the wire between the fuel tank pressure sensor and the ECM/PCM (D10).

YES

(To page 11-276)

ECM/PCM CONNECTOR D (16P)

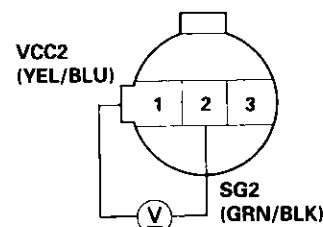


PTANK
(LT GRN)



Wire side of female terminals

**FUEL TANK
PRESSURE SENSOR
3P CONNECTOR (C792)**



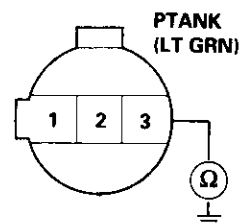
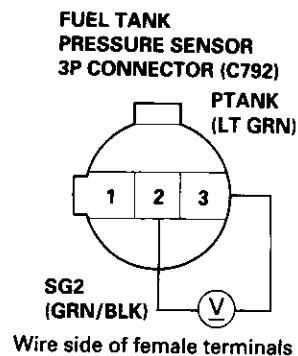
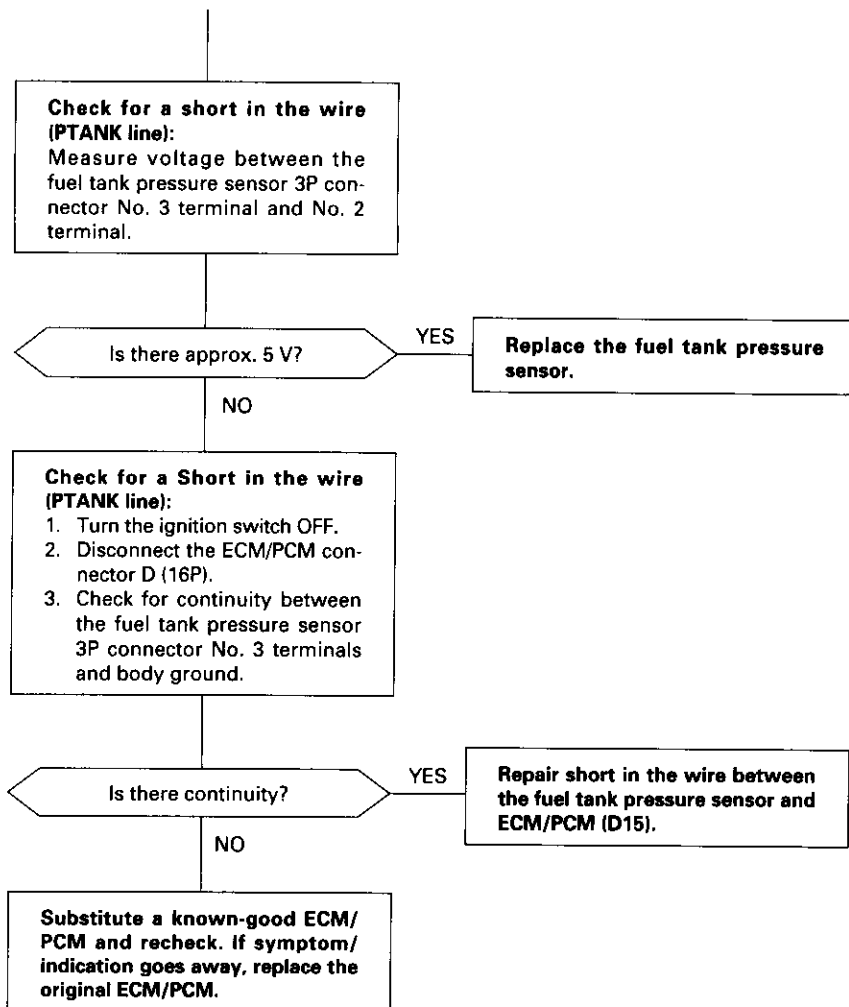
Wire side of female terminals

(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-275)

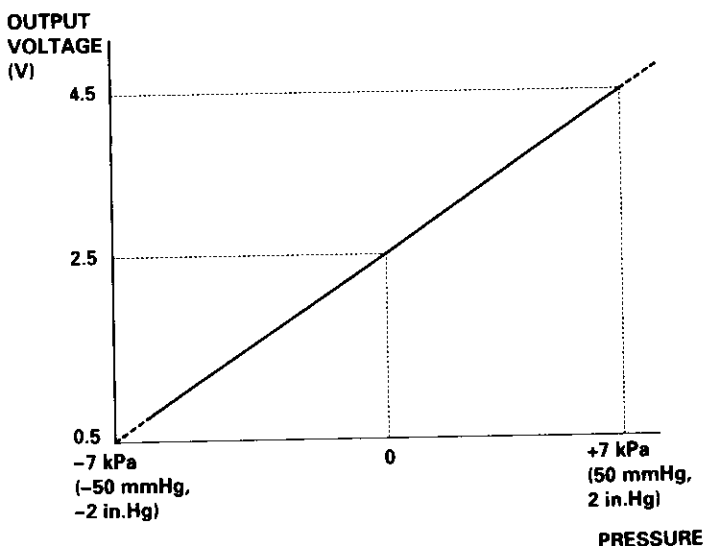
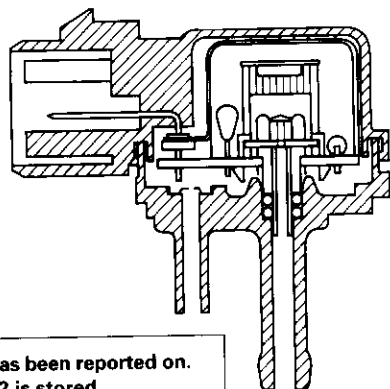




'99 - 00 models except D16Y5 engine with M/T:

P0452 The scan tool indicates Diagnostic Trouble Code (DTC) P0452: A low voltage problem in the Fuel Tank Pressure sensor.

The fuel tank pressure sensor converts fuel tank absolute pressure into electrical signals and inputs the ECM/PCM.



- The MIL has been reported on.
- DTC P0452 is stored.

Check the vacuum lines:

Check the vacuum lines of the fuel tank pressure sensor for misrouting, leakage, breakage and clogging.

Are the vacuum lines OK?

NO

Repair or replace vacuum lines as necessary.

YES

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Remove the fuel fill cap.
3. Turn the ignition switch ON (II).
4. Monitor the FTP Sensor voltage with the Honda PGM Tester, or measure voltage between body ground and ECM/PCM connector terminal A29.

Is there approx. 2.5 V?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131 (located under right side of dash), C401 (located above under-dash fuse/relay box), C574 (C568)* (located under access panel), C792 (fuel tank pressure sensor) and ECM/PCM.

NO

Check for an open in wire (VCC2 line):

1. Turn the ignition switch OFF.
2. Reinstall the fuel fill cap.
3. Remove the access panel from the floor.
4. Disconnect the fuel tank pressure sensor sub-harness 6P connector.
5. Turn the ignition switch ON (II).
6. At the access panel side, measure voltage between the fuel tank pressure sensor sub-harness 6P connector No. 5 terminal and No. 6 terminal.

Is there approx. 5 V?

NO

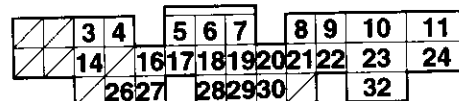
Repair open in the wire between the fuel tank pressure sensor and the ECM/PCM (C28).

YES

(To page 11-278)

*: coupe

ECM/PCM CONNECTOR A (32P)

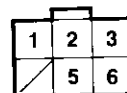


PTANK (LT BLU)



Wire side of female terminals

FUEL TANK PRESSURE SENSOR SUB-HARNESS 6P CONNECTOR (C574 (C568)*)



VCC2 (YEL/BLU)

SG2 (GRN/BLK)



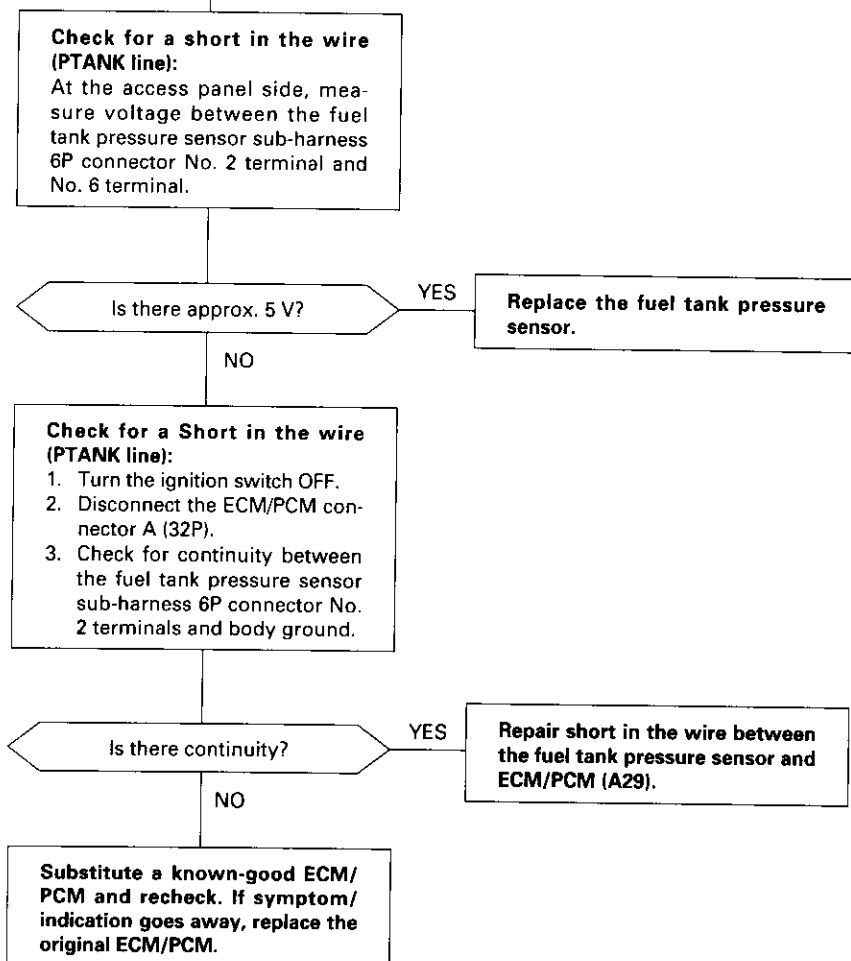
Wire side of female terminals

(cont'd)

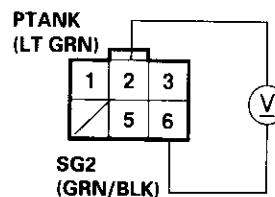
Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

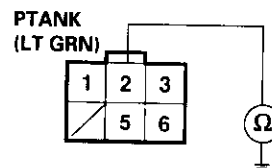
(From page 11-277)



FUEL TANK
PRESSURE SENSOR
SUB-HARNESS
6P CONNECTOR (C574 (C568)*)



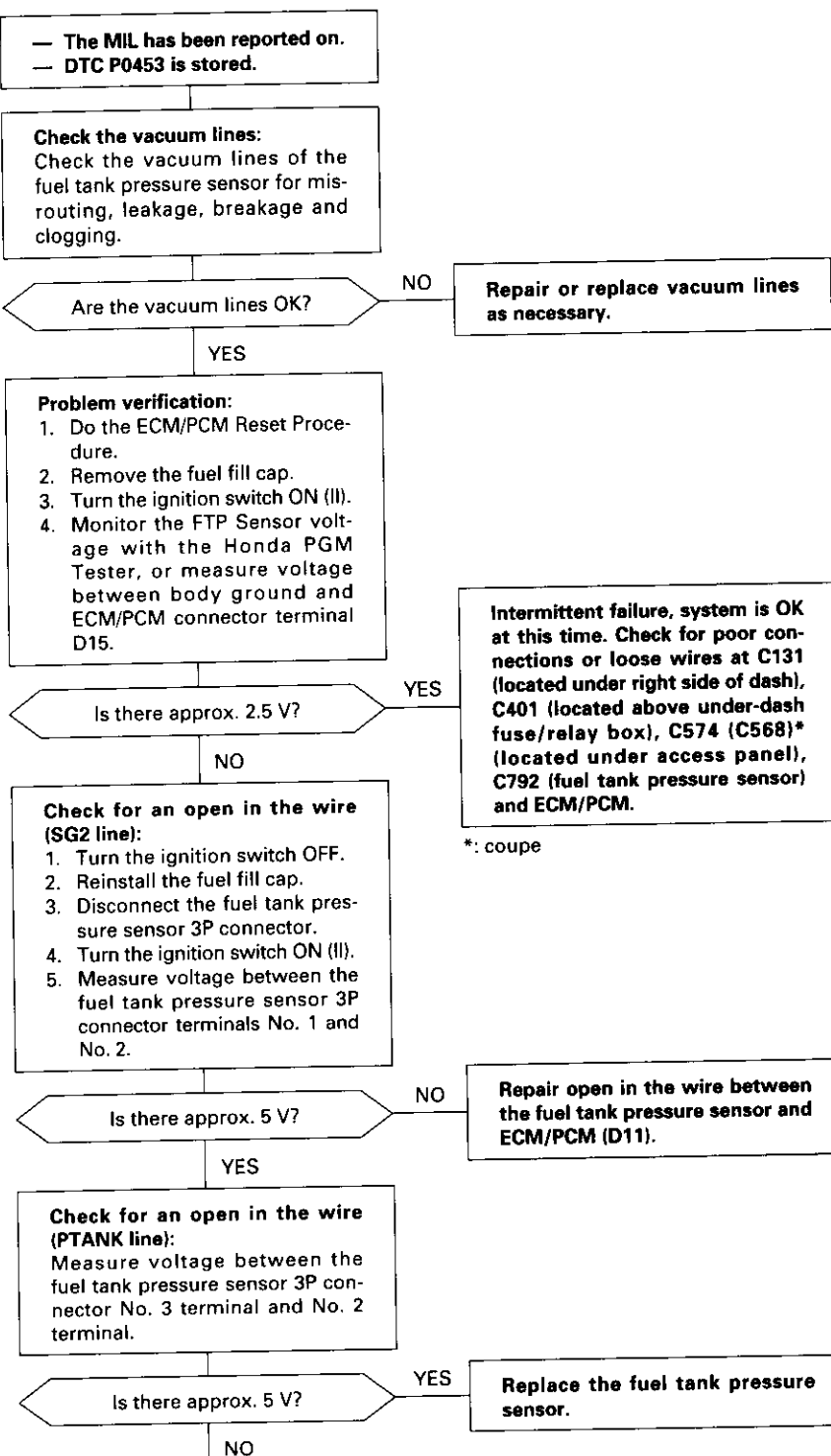
Wire side of female terminals





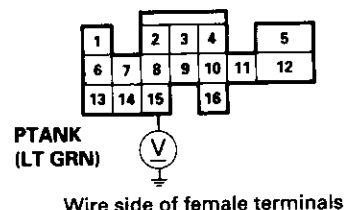
Fuel Tank Pressure Sensor ['96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model, '98-all models) '99 – 00 D16Y5 engine with M/T]:

P0453 The scan tool indicates Diagnostic Trouble Code (DTC) P0453: A high voltage problem in the Fuel Tank Pressure sensor.

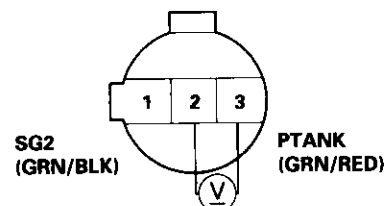
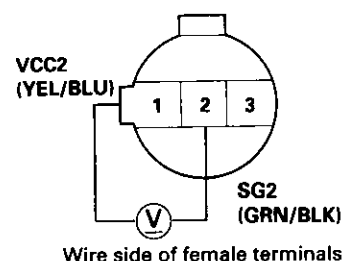


(To page 11-280)

ECM/PCM CONNECTOR D (16P)



FUEL TANK PRESSURE SENSOR 3P CONNECTOR (C792)

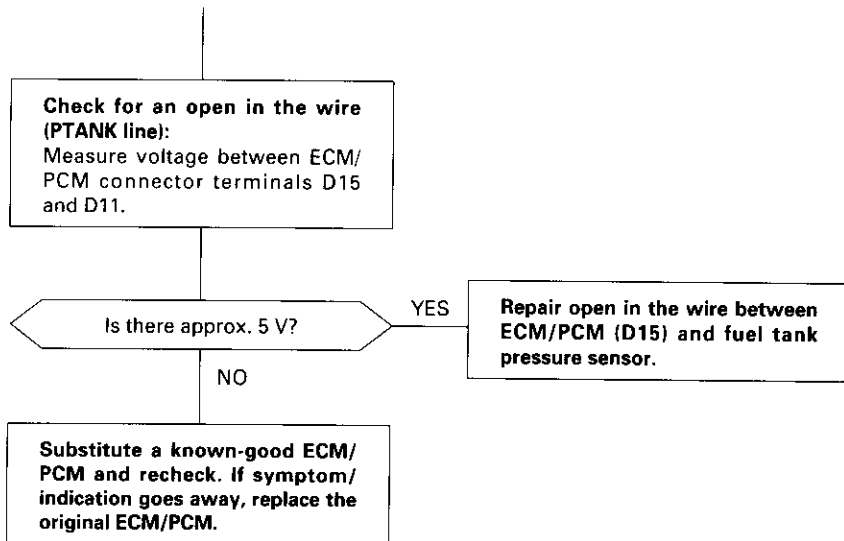


(cont'd)

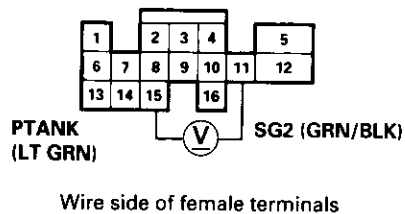
Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-279)



ECM/PCM CONNECTOR D (16P)





'99 - 00 models except D16Y5 engine with M/T:

P0453 The scan tool indicates Diagnostic Trouble Code (DTC) P0453: A high voltage problem in the Fuel Tank Pressure sensor.

- The MIL has been reported on.
- DTC P0453 is stored.

Check the vacuum lines:
Check the vacuum lines of the fuel tank pressure sensor for misrouting, leakage, breakage and clogging.

Are the vacuum lines OK?

NO

Repair or replace vacuum lines as necessary.

YES

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Remove the fuel fill cap.
3. Turn the ignition switch ON (II).
4. Monitor the FTP Sensor voltage with the Honda PGM Tester, or measure voltage between body ground and ECM/PCM connector terminal A29.

Is there approx. 2.5 V?

YES

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C131 (located under right side of dash), C401 (located above under-dash fuse/relay box), C574 (C568)* (located under access panel), C792 (fuel tank pressure sensor) and ECM/PCM.

NO

Check for an open in the wire (SG2 line):

1. Turn the ignition switch OFF.
2. Reinstall the fuel fill cap.
3. Remove the access panel from the floor.
4. Disconnect the fuel tank pressure sensor sub-harness 6P connector.
5. Turn the ignition switch ON (II).
6. At the access panel side, measure voltage between the fuel tank pressure sensor sub-harness 6P connector terminals No. 5 and No. 6.

Is there approx. 5 V?

NO

Repair open in the wire between the fuel tank pressure sensor and ECM/PCM (C18).

YES

Check for an open in the wire (PTANK line):

At the access panel side, measure voltage between the fuel tank pressure sensor sub-harness 6P connector No. 2 terminal and No. 6 terminal.

Is there approx. 5 V?

YES

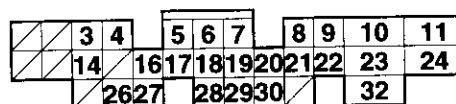
Replace the fuel tank pressure sensor.

NO

*: coupe

(To page 11-282)

ECM/PCM CONNECTOR A (32P)

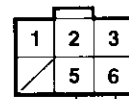


PTANK (LT GRN)



Wire side of female terminals

FUEL TANK PRESSURE SENSOR SUB-HARNESS 6P CONNECTOR (C574 (C568)*)



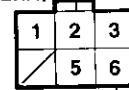
VCC2 (YEL/BLU)

SG2 (GRN/BLK)



Wire side of female terminals

PTANK (LT GRN)



SG2 (GRN/BLK)

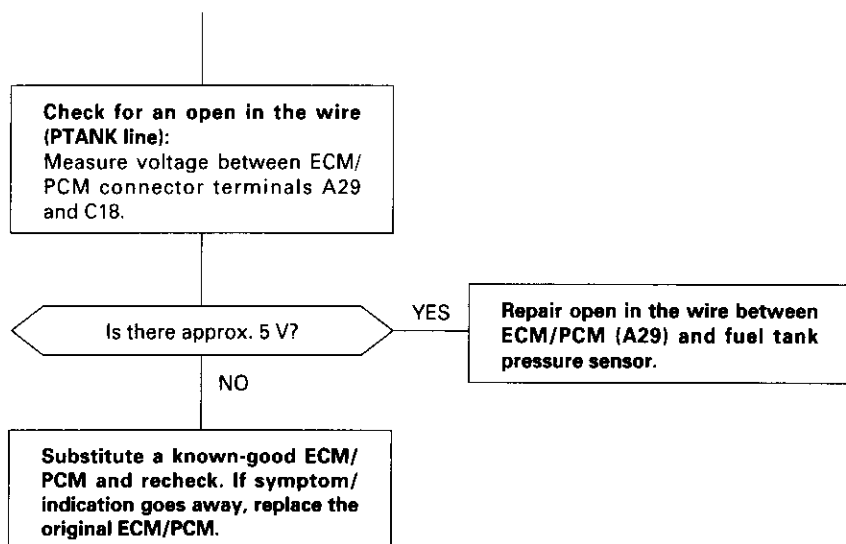


(cont'd)

Emission Control System

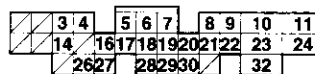
Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-281)



ECM/PCM CONNECTORS

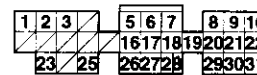
A (32P)



PTANK (LT GRN)



C (31P)



SG2 (GRN/BLK)

Wire side of female terminals

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-283)

A

(From page 11-283)

B

Check for an open in the wire (IG1 line):

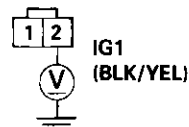
1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the EVAP control canister vent shut valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EVAP control canister vent shut valve 2P connector terminal No. 2 and body ground.

Is there battery voltage?

YES

NO

EVAP CONTROL CANISTER VENT SHUT VALVE 2P CONNECTOR (C141)



Wire side of female terminals

Repair open in the wire between the EVAP control canister vent shut valve and the No. 15 ALTERNATOR SP SENSOR (7.5 A) fuse.

Check for an open in the wire (VSV line):

1. Turn the ignition switch OFF.
2. Reconnect the 2P connector to the EVAP control canister vent shut valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A29 and A10.

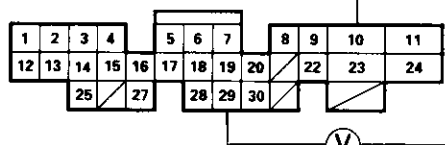
Is there battery voltage?

YES

NO

ECM/PCM CONNECTOR A (32P)

PG1 (BLK)



VSV (LT GRN/WHT)

Wire side of female terminals

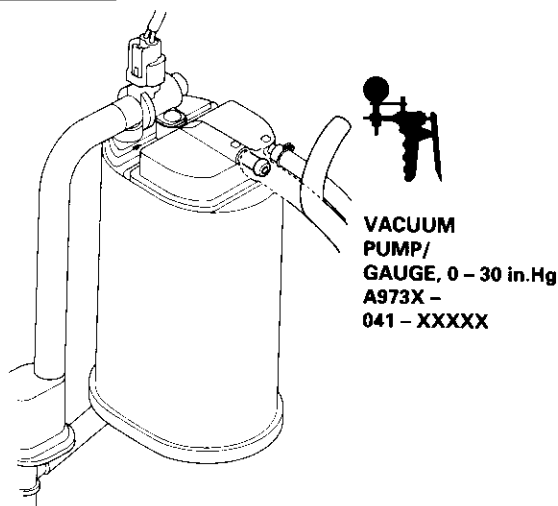
Repair open in the wire between the EVAP control canister vent shut valve and the ECM/PCM (A29).

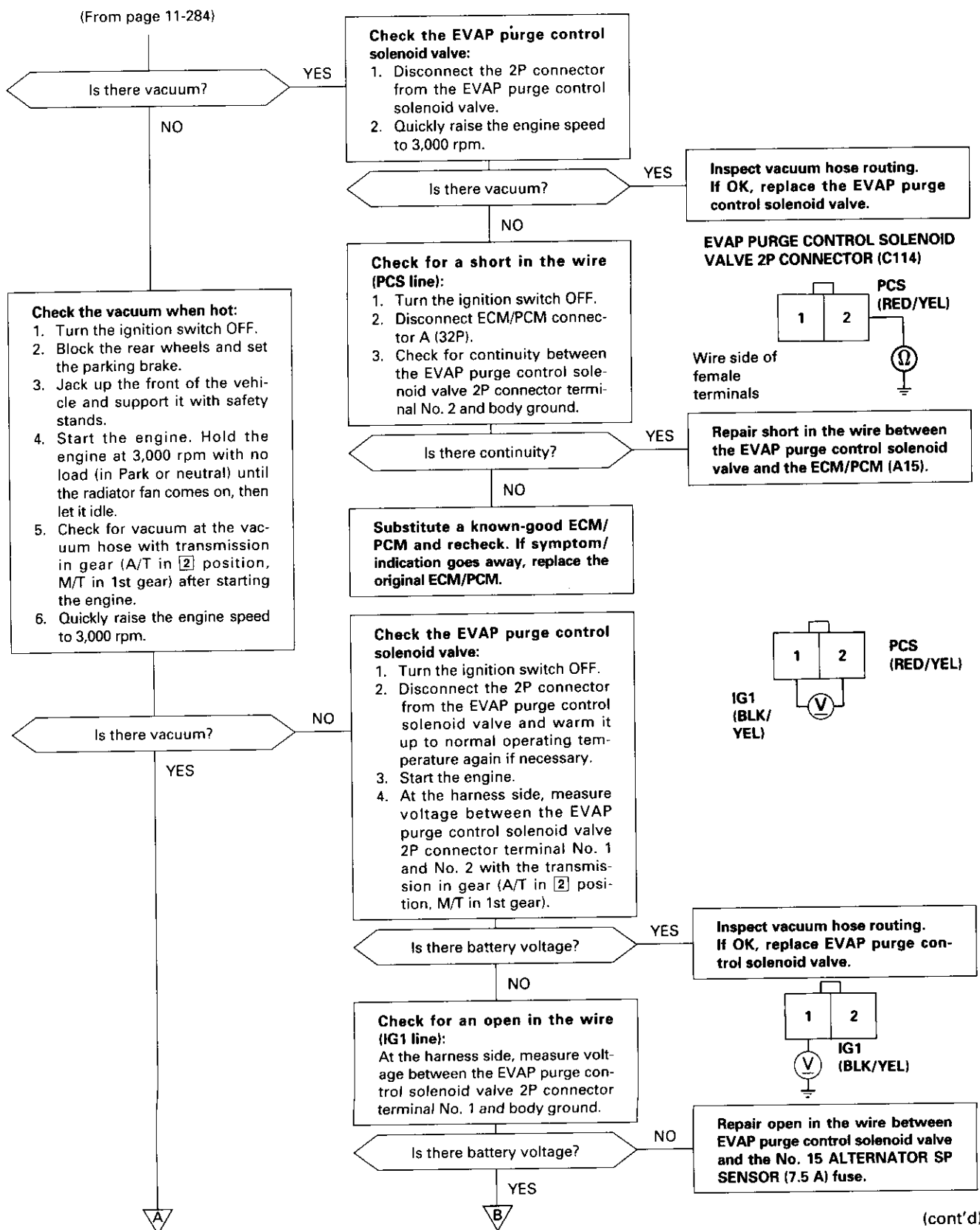
Replace the EVAP control canister vent shut valve.

Check the vacuum when cold:

1. Disconnect the vacuum hose shown from the EVAP control canister and connect a vacuum gauge to the hose.
2. Start the engine and allow it to idle.
NOTE: Engine coolant temperature must be below 154°F (68°C) or A/C switch OFF.
3. Quickly raise the engine speed to 3,000 rpm.

(To page 11-285)





(To page 11-286)

(To page 11-286)

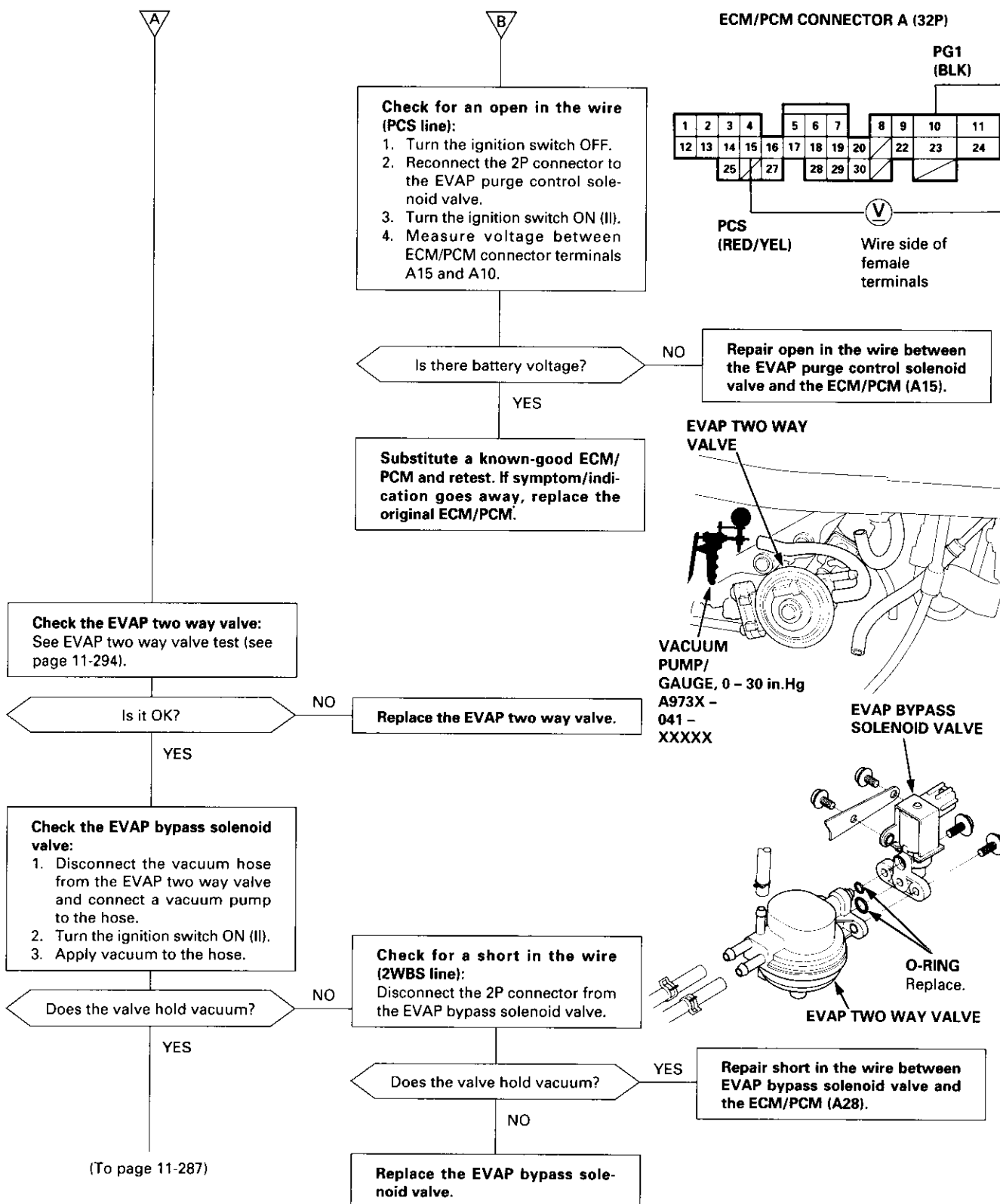
(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-285)

(From page 11-285)





(From page 11-286)

Check the EVAP bypass solenoid valve:

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminal A28 and body ground with a jumper wire.
3. Turn the ignition switch ON (II).

Does valve hold vacuum?

YES

NO

Check for an open in the wire (IG1 line):

1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the EVAP bypass solenoid valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EVAP bypass solenoid valve 2P connector terminal No. 1 and body ground.

Is there battery voltage?

NO

YES

Check for an open in the wire (2WBS line):

1. Turn the ignition switch OFF.
2. Reconnect the 2P connector to the EVAP bypass solenoid valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A28 and A10.

Is there battery voltage?

NO

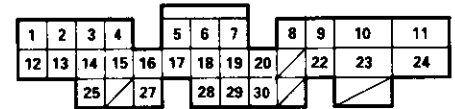
YES

Replace the EVAP bypass solenoid valve.

Check the following parts for leakage to atmosphere, and repair or replace if necessary:

- fuel fill cap
- fuel tank
- fuel vapor pipe
- EVAP two way valve
- EVAP bypass solenoid valve
- fuel tank pressure sensor
- EVAP control canister
- EVAP control canister vent shut valve
- EVAP purge control solenoid valve
- vacuum hoses and connections

ECM/PCM CONNECTOR A (32P)



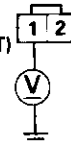
2WBS (BLU)

JUMPER WIRE

Wire side of female terminals

EVAP BYPASS SOLENOID VALVE 2P CONNECTOR (C793)

IG1 (BLK/WHT)

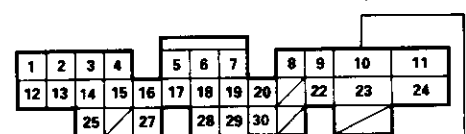


Wire side of female terminals

Repair open in the wire between EVAP purge control solenoid valve and the No. 15 ALTERNATOR SP SENSOR (7.5 A) fuse.

ECM/PCM CONNECTOR A (32P)

PG1 (BLK)



2WBS (BLU)



Wire side of female terminals

Repair open in the wire between the EVAP bypass solenoid valve and the ECM/PCM (A28).

(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

'99 - 00 models except D16Y5 engine with M/T:

P1456 The scan tool indicates Diagnostic Trouble Code (DTC) P1456: Evaporative Emission (EVAP) control system leak detected (fuel tank system).

P1457 The scan tool indicates Diagnostic Trouble Code (DTC) P1457: Evaporative Emission (EVAP) control system leak detected (EVAP control canister system).

Possible Cause

- Fuel fill cap
- Vacuum Connections
- Fuel Tank
- EVAP Control Canister Vent Shut Valve
- EVAP Control Canister Vent Shut Valve Circuit
- EVAP Purge Control Solenoid Valve
- EVAP Purge Control Solenoid Valve Circuit
- EVAP Bypass Solenoid Valve
- EVAP Bypass Solenoid Valve Circuit
- Fuel Tank Pressure Sensor
- Fuel Tank Pressure Sensor Circuit
- EVAP Control Canister
- ORVR vent shut valve
- ORVR vapor recirculation valve
- Throttle Body

Troubleshooting Flowchart

- The MIL has been reported on.
- DTC P1456 or P1457 is stored.

Check the EVAP control canister vent shut valve:

1. Disconnect the vacuum hose from the EVAP three way valve and connect a vacuum pump to the hose.
2. Remove the EVAP control canister vent shut valve from the canister.
3. Turn the ignition switch ON (II).
4. Apply vacuum to the hose.

Does the valve hold vacuum?

YES

Check for a short in the wire (VSV line):

Disconnect the 2P connector from the EVAP control canister vent shut valve.

Does the valve hold vacuum?

YES

Replace the EVAP control canister vent shut valve.

Check the EVAP control canister vent shut valve:

1. Turn the ignition switch OFF.
2. Connect ECM/PCM connector terminal A4 to body ground with a jumper wire.
3. Turn the ignition switch ON (II).
4. Apply vacuum to the hose.

Does the valve hold vacuum?

NO

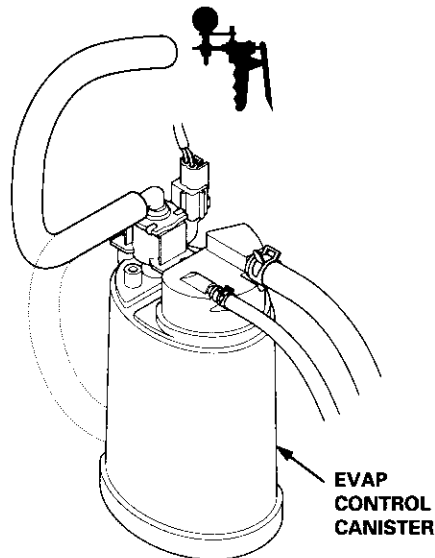


(To page 11-289)



(To page 11-289)

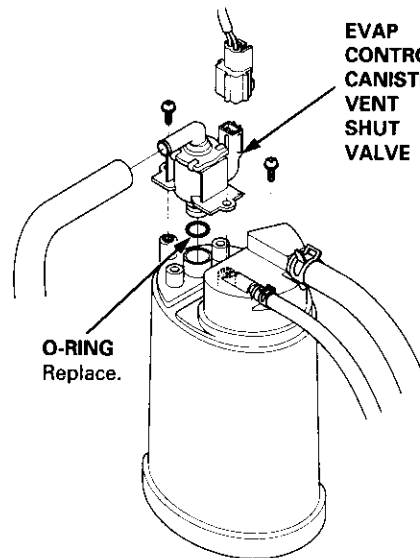
VACUUM
PUMP/GAUGE, 0 - 30 in.Hg
A973X - 041 -
XXXXX



EVAP
CONTROL
CANISTER

EVAP
CONTROL
CANISTER
VENT
SHUT
VALVE

O-RING
Replace.



Repair short in the wire between the EVAP control canister vent shut valve and the ECM/PCM (A4).

ECM/PCM CONNECTOR A (32P)

VSV (LT GRN/WHT)

		3	4		5	6	7		8	9	10	11
	14			16	17	18	19	20	21	22	23	24
		26	27		28	29	30				32	

JUMPER WIRE

Wire side of female terminals



(From page 11-288)

A

(From page 11-288)

B

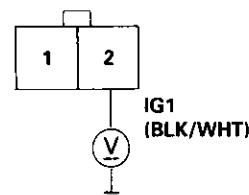
Check for an open in the wire (IG1 line):

1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the EVAP control canister vent shut valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EVAP control canister vent shut valve 2P connector terminal No. 2 and body ground.

Is there battery voltage?

NO

**EVAP CONTROL
CANISTER VENT SHUT
VALVE 2P CONNECTOR (C141)**



Wire side of female terminals

**Repair open in the wire between
the EVAP control canister vent
shut valve and the No. 15 ALTER-
NATOR SP SENSOR (7.5 A) fuse.**

YES

**Check for an open in the wire (VSV
line):**

1. Turn the ignition switch OFF.
2. Reconnect the 2P connector to the EVAP control canister vent shut valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A4 and B2.

Is there battery voltage?

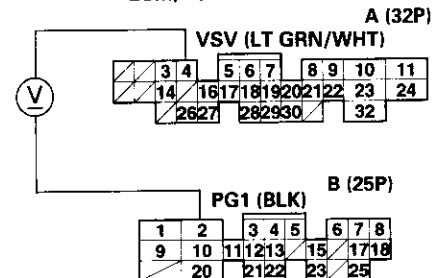
NO

**Repair open in the wire between
the EVAP control canister vent
shut valve and the ECM/PCM
(A4).**

YES

**Replace the EVAP control canis-
ter vent shut valve.**

ECM/PCM CONNECTORS

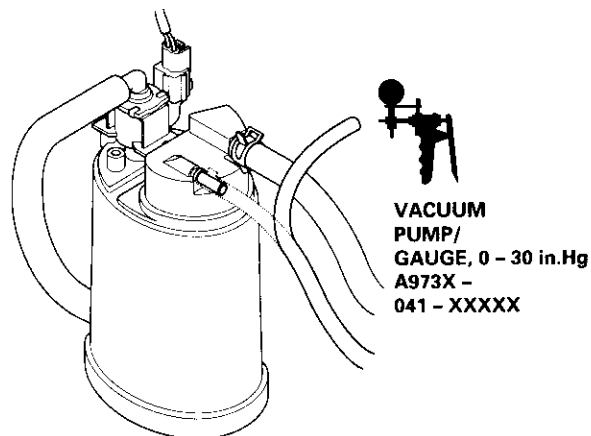


Wire side of female
terminals

Check the vacuum when cold:

1. Disconnect the vacuum hose shown from the EVAP control canister and connect a vacuum gauge to the hose.
2. Start the engine and allow it to idle.
NOTE: Engine coolant temperature must be below 154°F (68°C) or A/C switch OFF.
3. Quickly raise the engine speed to 3,000 rpm.

(To page 11-290)

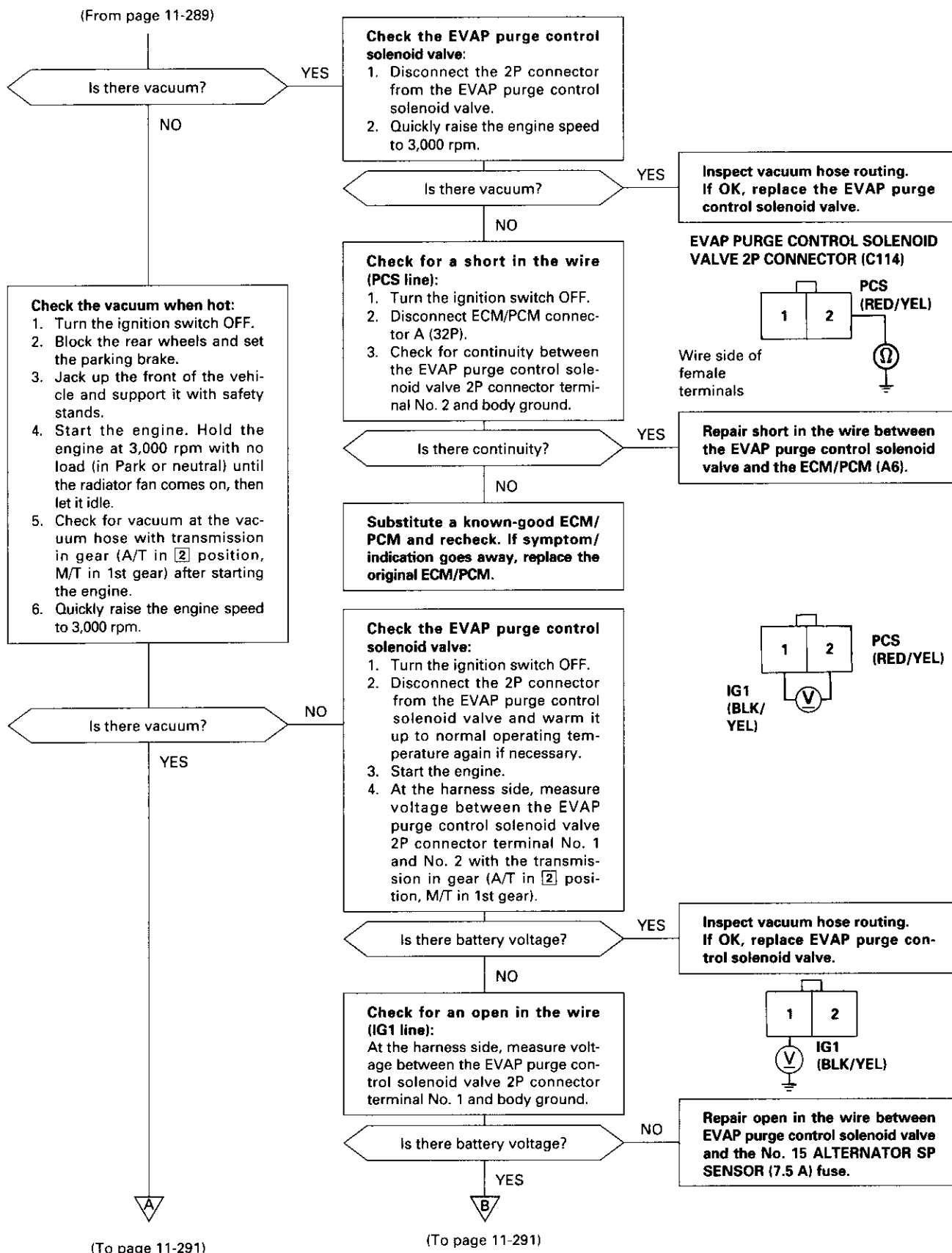


**VACUUM
PUMP/
GAUGE, 0 - 30 in.Hg
A973X -
041 - XXXXX**

(cont'd)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)





(From page 11-290)

(From page 11-290)

ECM/PCM CONNECTOR

PCS (RED/YEL) A (32P)

3	4	5	6	7	8	9	10	11
14	16	17	18	19	20	21	22	23
26	27	28	29	30	31	32		

PG1 (BLK) B (25P)

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25							

Wire side of female terminals

Check for an open in the wire (PCS line):

1. Turn the ignition switch OFF.
2. Reconnect the 2P connector to the EVAP purge control solenoid valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A6 and B2.

Is there battery voltage?

NO

Repair open in the wire between the EVAP purge control solenoid valve and the ECM/PCM (A6).

YES

Substitute a known-good ECM/PCM and retest. If symptom/indication goes away, replace the original ECM/PCM.

Check the EVAP two way valve:
See EVAP two way valve test (see page 11-295).

Is it OK?

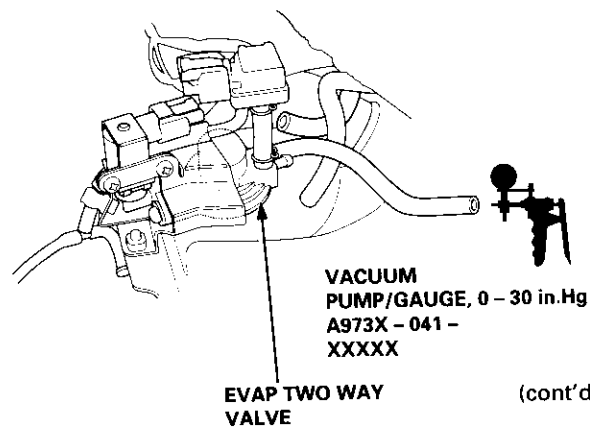
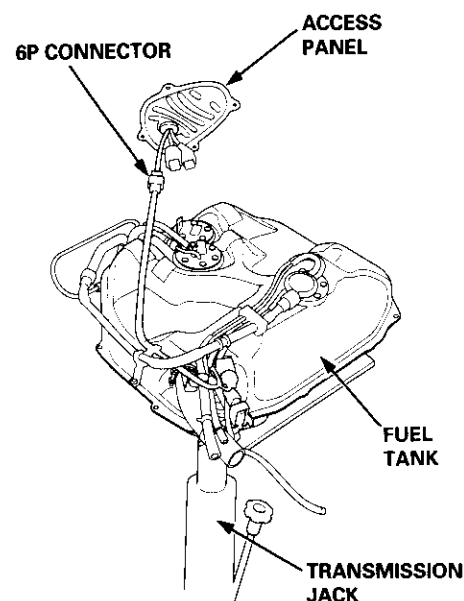
NO

Replace the EVAP two way valve.

YES

Check the EVAP bypass solenoid valve:

1. Remove the fuel tank (see page 11-242).
2. Lift up the fuel tank with a transmission jack, and connect the fuel tank pressure sensor sub-harness 6P connector to the access panel side connector.
3. Disconnect the vacuum hose from the EVAP two way valve and connect a vacuum pump to the hose.
4. Turn the ignition switch ON (II).
5. Apply vacuum to the hose.



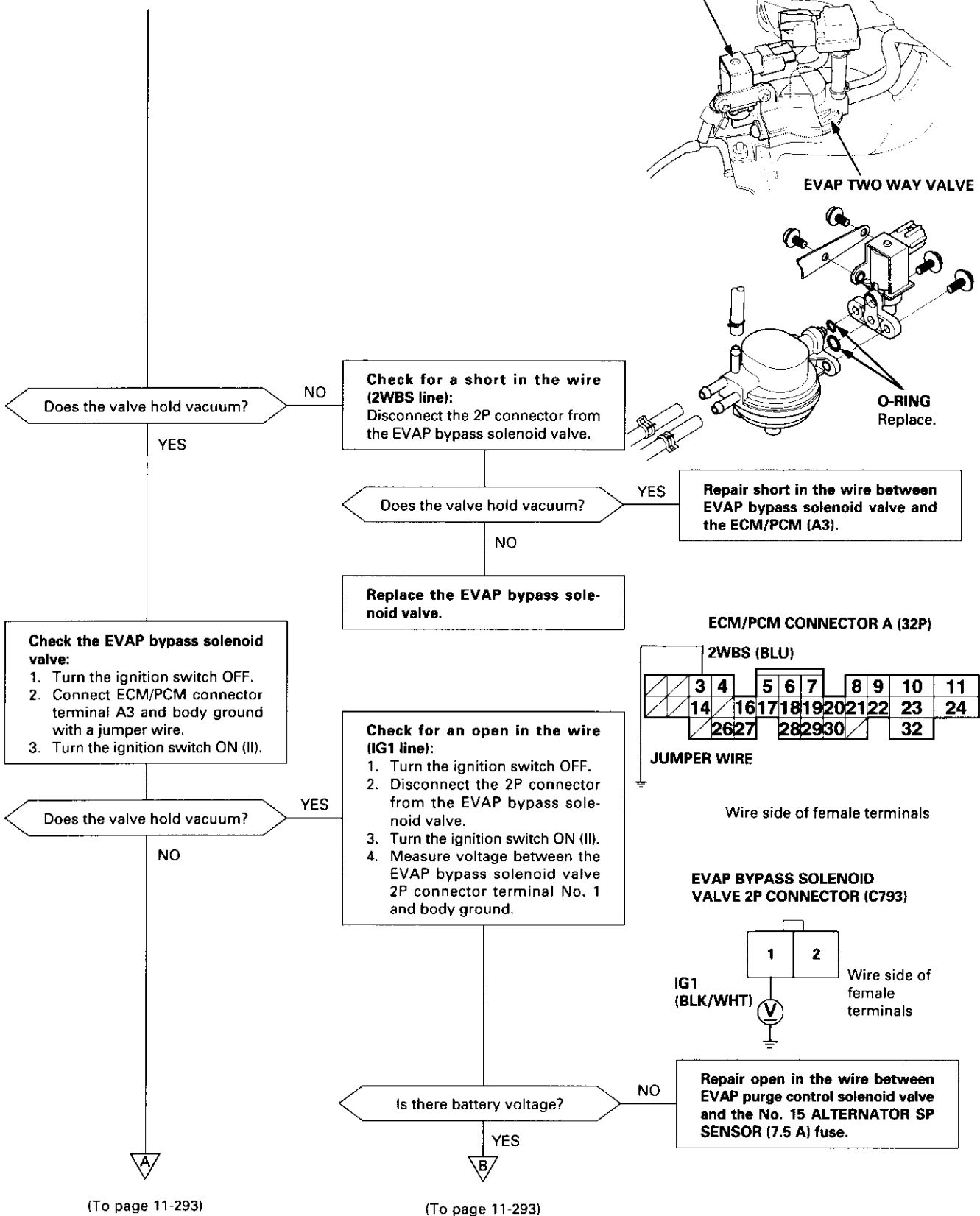
(cont'd)

(To page 11-292)

Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

(From page 11-291)





(From page 11-292)

A

Check the following parts for leakage to atmosphere, and repair or replace if necessary:

- fuel fill cap
- fuel tank
- fuel vapor pipe
- EVAP two way valve
- EVAP bypass solenoid valve
- fuel tank pressure sensor
- EVAP control canister
- EVAP control canister vent shut valve
- EVAP purge control solenoid valve
- ORVR vent shut valve
- ORVR vapor recirculation valve
- vacuum hoses and connections

(From page 11-292)

B

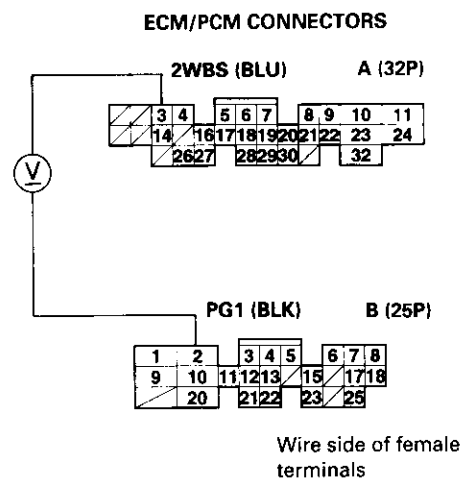
Check for an open in the wire (2WBS line):

1. Turn the ignition switch OFF.
2. Reconnect the 2P connector to the EVAP bypass solenoid valve.
3. Turn the ignition switch ON (II).
4. Measure voltage between ECM/PCM connector terminals A3 and B2.

Is there battery voltage?

YES

Replace the EVAP bypass solenoid valve.



NO

Repair open in the wire between the EVAP bypass solenoid valve and the ECM/PCM (A3).

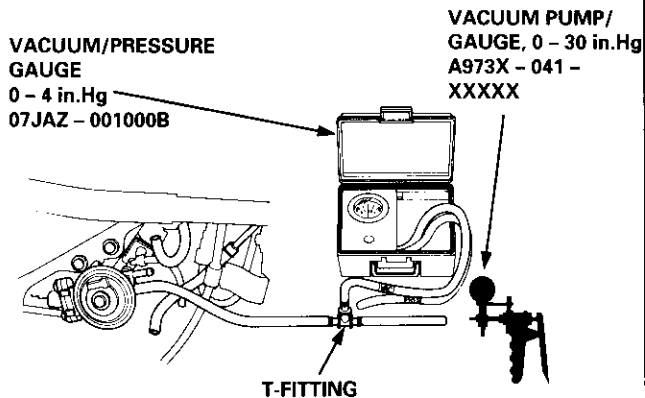
(cont'd)

Emission Control System

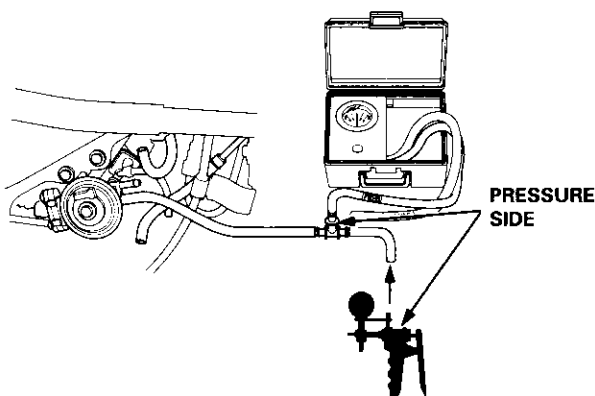
Evaporative Emission (EVAP) Controls (cont'd)

Evaporative Emission (EVAP) Two Way Valve Testing
['96 D16Y8 engine (coupe), '97 D16Y7 engine (coupe: KL model, sedan: KL (LX) model), '97 D16Y8 engine (coupe: all models, sedan: KL model, '98-all models)]:

1. Remove the fuel fill cap.
2. Remove the vapor line from the EVAP two way valve, and connect it to a T-fitting from a vacuum gauge and a vacuum pump as shown.



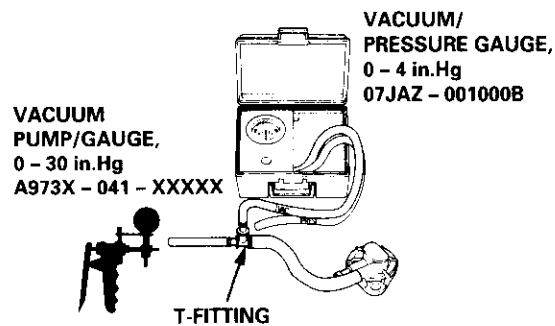
3. Apply vacuum slowly and continuously while watching the gauge. The vacuum should stabilize momentarily at 0.8 - 2.1 kPa (6 - 16 mmHg, 0.2 - 0.6 in.Hg). If the vacuum stabilizes (valve opens) below 0.8 kPa (6 mmHg, 0.2 in.Hg) or above 2.1 kPa (16 mmHg, 0.6 in.Hg), install a new valve and retest.
4. Move the vacuum pump hose from the vacuum fitting to the pressure fitting, and move the vacuum gauge hose from the vacuum side to the pressure side as shown.



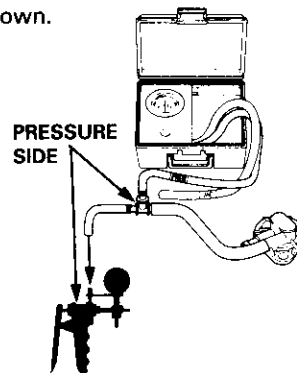
5. Slowly pressurize the vapor line while watching the gauge. The pressure should stabilize momentarily above 1.0 kPa (8 mmHg, 0.3 in.Hg).
 - If the pressure momentarily stabilizes (valve opens) above 1.0 kPa (8 mmHg, 0.3 in.Hg), the valve is OK.
 - If the pressure stabilizes below 1.0 kPa (8 mmHg, 0.3 in.Hg), install a new valve and retest.

['96 D16Y5 engine, '96 D16Y7 engine, '96 D16Y8 engine (sedan), '97 D16Y5 engine, '97 D16Y7 engine (coupe: KA, KC models, sedan: KA, KC, KL (DX) models, hatchback: all models), '97 D16Y8 engine (sedan: KA, KC models)]:

1. Remove the fuel fill cap.
2. Remove the vapor line from the EVAP two way valve on the fuel tank, and connect it to a T-fitting from a vacuum gauge and a vacuum pump as shown.



3. Apply vacuum slowly and continuously while watching the gauge. The vacuum should stabilize momentarily at 0.7 - 2.0 kPa (5 - 15 mmHg, 0.2 - 0.6 in.Hg). If the vacuum stabilizes (valve opens) below 0.7 kPa (5 mmHg, 0.2 in.Hg) or above 2.0 kPa (15 mmHg, 0.6 in.Hg), install a new valve and retest.
4. Move the vacuum pump hose from the vacuum fitting to the pressure fitting, and move the vacuum gauge hose from the vacuum side to the pressure side as shown.



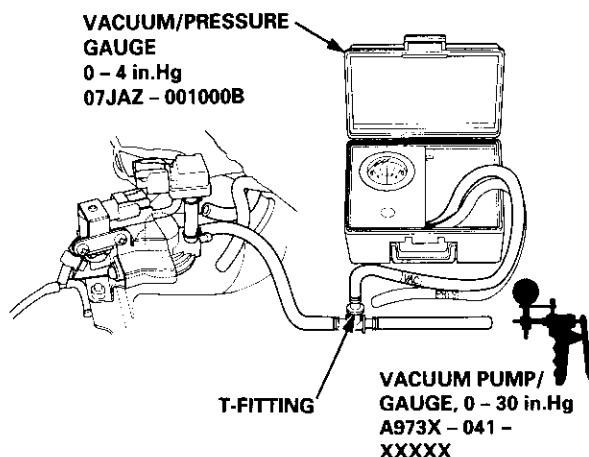
5. Slowly pressurize the vapor line while watching the gauge. The pressure should stabilize at 1.3 - 4.7 kPa (10 - 35 mmHg, 0.4 - 1.4 in.Hg).
 - If the pressure momentarily stabilizes (valve opens) at 1.3 - 4.7 kPa (10 - 35 mmHg, 0.4 - 1.4 in. Hg), the valve is OK.
 - If the pressure stabilizes below 1.3 kPa (10 mmHg, 0.4 in.Hg) or above 4.7 kPa (35 mmHg, 1.4 in.Hg), install a new valve and retest.



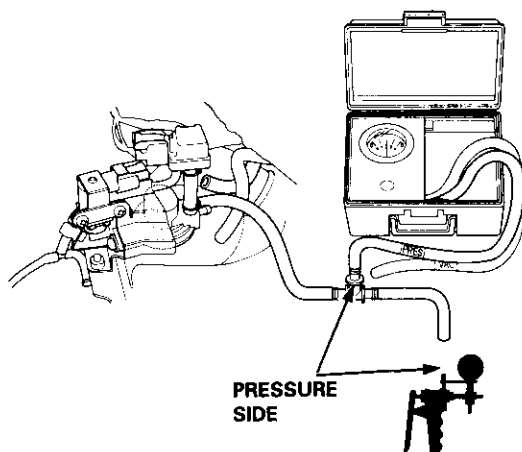
Evaporative Emission (EVAP) Two Way Valve Testing

'99 – 00 models:

1. Remove the fuel tank (see page 11-242).
2. Remove the vapor line from the EVAP two way valve (located above the EVAP control canister), and connect it to a T-fitting from vacuum gauge and vacuum pump as shown.



3. Apply vacuum slowly and continuously while watching the gauge.
The vacuum should stabilize momentarily at 0.8 – 2.1 kPa (6 – 16 mmHg, 0.2 – 0.6 in.Hg).
If the vacuum stabilizes (valve opens) below 0.8 kPa (6 mmHg, 0.2 in.Hg) or above 2.1 kPa (16 mmHg, 0.6 in.Hg), install a new valve and retest.
4. Move the vacuum pump hose from the vacuum fitting to the pressure fitting, and move the vacuum gauge hose from the vacuum side to the pressure side as shown.



5. Slowly pressurize the vapor line while watching the gauge.
The pressure should be stabilize momentarily above 1.0 kPa (8 mmHg, 0.3 in.Hg).
 - If the pressure momentarily stabilizes (valve opens) above 1.0 kPa (8 mmHg, 0.3 in.Hg), the valve is OK.
 - If the pressure stabilizes below 1.0 kPa (8 mmHg, 0.3 in.Hg), install a new valve and retest.

(cont'd)

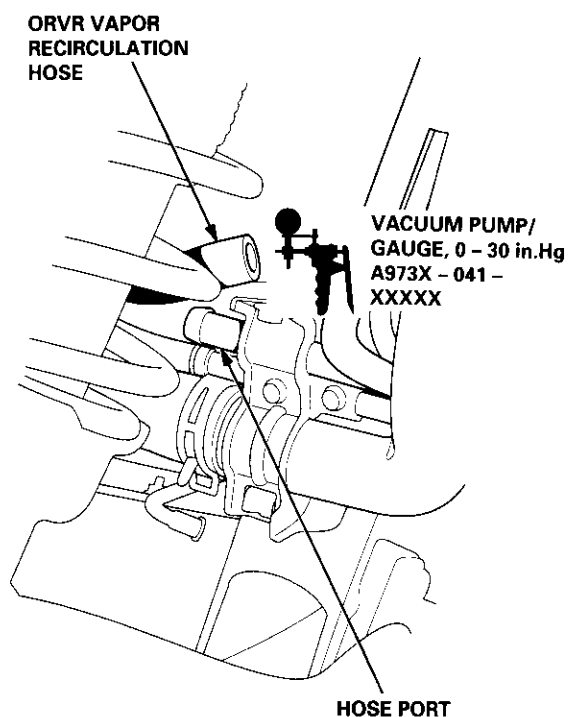
Emission Control System

Evaporative Emission (EVAP) Controls (cont'd)

ORVR Vent Shut Valve Test

Float Test

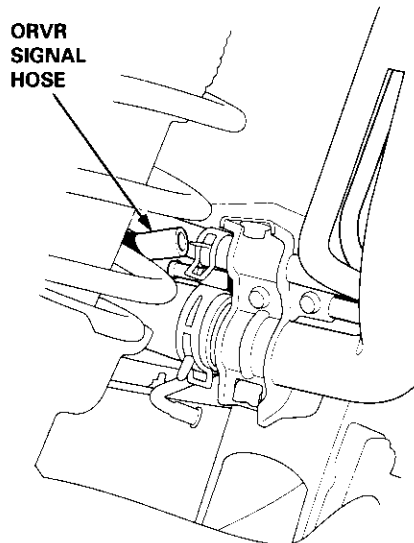
1. Make sure the fuel tank is less than half full.
2. Remove the fuel fill cap to relieve the fuel tank pressure, then reinstall the cap.
3. Remove the fuel hose joint protector. Disconnect the ORVR vapor recirculation hose, and connect a vacuum pump to the vapor recirculation hose.



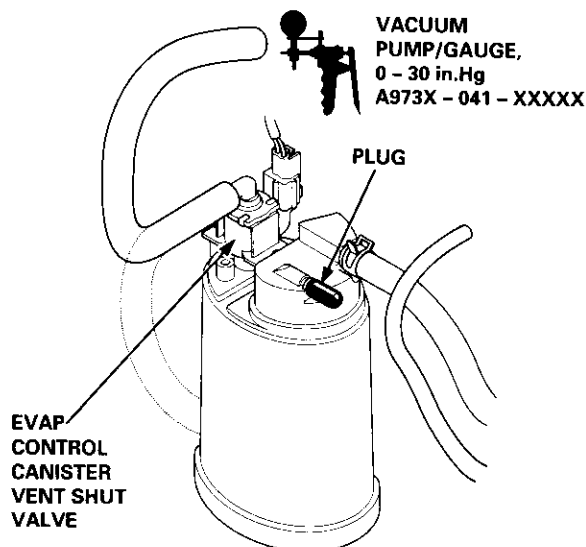
4. Plug the hose port.
5. Apply vacuum to the ORVR vapor recirculation hose.
 - If the vacuum holds, replace the ORVR vent shut valve (see page 11-297).
 - If the vacuum does not hold, the float is OK.

Valve Test

1. Make sure the fuel tank is less than half full.
2. Remove the fuel fill cap.
3. Remove the fuel hose joint protector. Disconnect the ORVR signal hose.



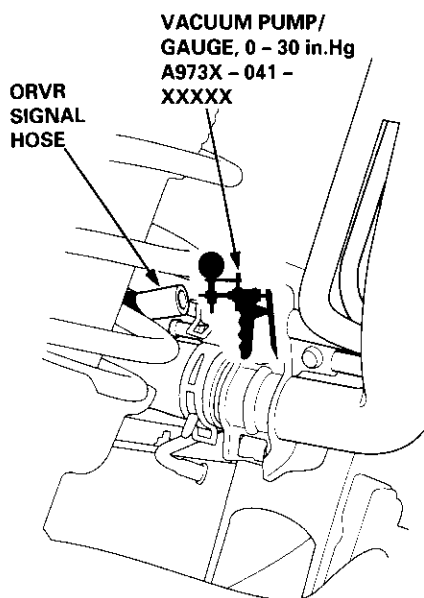
4. Disconnect the vacuum hose from the EVAP control canister, and then plug the port with a plug.



5. Disconnect the vacuum hose from the EVAP control canister vent shut valve, and connect a vacuum pump to the vacuum hose.
6. Pump the vacuum pump 80 times.
 - If the vacuum holds, go to step 7.
 - If the vacuum does not hold, go to step 9.



7. Connect a second vacuum pump to the ORVR signal hose.



8. Apply vacuum (1 pump) to the ORVR signal hose, then check the vacuum on the pump in step 6.
 - If the vacuum holds, replace the ORVR vent shut valve.
 - If the vacuum is released, the ORVR vent shut valve is OK.
9. Disconnect the ORVR quick disconnect from the EVAP canister, then plug the port on the canister. Reapply vacuum (80 pumps).
 - If the vacuum holds, replace the ORVR vent shut valve.
 - If the vacuum does not hold, inspect the EVAP canister vent shut valve O-ring. If the O-ring is OK, replace the EVAP canister and repeat step 4.

ORVR Vent Shut Valve Replacement

1. Remove the fuel tank (see page 11-242).
2. Remove the ORVR vent shut valve from the fuel tank.
3. Install parts in the reverse order of removal.

