

SHOP MANUAL

HONDA

Accord / Accord 5 Door

SUPPLEMENT

2000



SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

This model has an SRS which includes a driver's airbag in the steering wheel hub and a passenger's airbag in the dashboard above the glove box, seat belt tensioners in the front seat belt retractors and some types include side airbags in the front seat-backs.

Information necessary to safely service the SRS is included in the '99 Accord Shop Manual, 62S1A00.

Items marked with an asterisk (*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done by an authorized Honda dealer.

WARNING

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all SRS service work must be performed by an authorized Honda dealer.
- Improper service procedures, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional deployment of the airbags, side airbags and seat belt tensioners.
- SRS electrical wiring harnesses are identified by yellow color coding. Related components are located in the steering column, front console, dashboard, dashboard lower panel, in the dashboard above the glove box, front seats and around the floor. Do not use electrical test equipment on these circuits.

INTRODUCTION

How to Use This Manual

This supplement contains information for the 2000 HONDA Accord/Accord 5 Door. Refer to following shop manual for service procedures and data not included in this supplement.

Description	Code No.
HONDA Accord MAINTENANCE, REPAIR and CONSTRUCTION 99 VOL. 1 and VOL. 2	62S1A00A 62S1A00B
HONDA Accord 5 Door/Accord 5 Door Turbo Diesel SUPPLEMENT 99	62S1A21
HONDA Accord Turbo Diesel/Accord 5 Door Turbo Diesel SUPPLEMENT 99	62S1A22
HONDA Accord/Accord 5 Door Turbo Diesel Fuel and Emissions SUPPLEMENT 99	62S1A23

The first page of each section is marked with a black tab that lines up with one of the thumb index tabs on this page. You can quickly find the first page of each section without looking through a full table of contents. The symbols printed at the top corner of each page can also be used as a quick reference system.

Special Information

⚠ WARNING: Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

⚠ CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTICE: The purpose of these messages it is intended to help prevent damage to the vehicle, other properly, or the environment.

NOTE: Gives helpful information.

⚠ CAUTION

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. Please note that this manual contains warnings and cautions against some specific service methods which could cause PERSONAL INJURY, damage a vehicle or make it unsafe. Please understand that these warnings cannot cover all conceivable ways in which service, whether or not recommended by HONDA, might be done, or of the possible hazardous consequences of every conceivable way, nor could HONDA investigate all such ways. Anyone using service procedures or tools, whether or not recommended by HONDA, must satisfy himself thoroughly that neither personal safety nor vehicle safety will be jeopardized.

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice. No part of this publication may be reproduced, stored in retrieval system, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. This includes text, figures and tables.

 marked sections are not included in this manual.

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Service Publication Office

As sections with * include SRS components;
special precautions are required when servicing.

General Info



Specifications

specs

Maintenance



Engine Electrical



Engine



Cooling



Fuel and Emissions



*Transaxle



*Steering



Suspension



*Brakes Including ABS



*Body



*Heater and Air Conditioning



*Body Electrical



*Restraints



Outline of Model Changes

ITEM	DESCRIPTION	99 MODEL	99 MODEL	99 MODEL	2000 MODEL	REFERENCE SECTION
General	Added • 5 door model	○	○			—
Engine Electrical	Changed • Alternator replacement procedure		○			—
Engine	Changed • VTEC Control System of F18B2 and F18B4 engine				○	6
	Adapted • Secondary heated Oxygen sensor on F18B2 engine (M/T) and F18B4 engine (M/T)				○	9
Cooling	Changed • Cooling system components and operation		○			—
Fuel and Emission	Modified • 20T2N engine (turbocharger with intercooler)			○		—
	Changed • F18B2, F18B4 engine (KE, KG, KS and KR models)				○	11
Clutch	Changed • Refit of the clutch assembly		○			—
Manual Transmission	Added • Special tool of refit of the differential oil seals		○			—
Body	Changed • Component parts of the rear window • Component parts of the interior trim • Headliner and attached clips • Rear seat and related parts • Tailgate and related parts Added • Type V emblems for some model • Rear pillar molding Changed • Fuel lid opener and fuel lid opener cable	○				—
	Changed • Tailgate latch and tailgate lock cylinder replacement procedure for 5 door models				○	20
Body Electrical	Added • Accessory socket • Tailgate light • Tweeter speaker • Rear window wiper and washer Changed • High mount brake light • Stereo amplifier • Keyless entry and security alarm system	○				—
Navigation System	Changed • Locations of the navigation unit and GPS antenna	○				—
Seat Belts	Changed • Rear seat belt Equipped • Rear center shoulder belt	○				—

General Information

Chassis and Engine Numbers 1-2

Abbreviations 1-8

Chassis and Engine Numbers

4-door:

Vehicle Identification Number (VIN)

SHH CG7 5 2 0 Y U 1 00101

Manufacturer, Make and Type of Vehicle

SHH: HONDA OF THE U.K.
MFG., LTD. U.K.
HONDA Passenger car

Line, Body and Engine Type

CG7: ACCORD SEDAN/D16B6,
D16B7
CG8: ACCORD SEDAN/F18B2,
F18B3, F18B4
CG9: ACCORD SEDAN/F20B6
CH1: ACCORD SEDAN/H22A7
CH2: ACCORD SEDAN/20T2N

Body and Transmission Type

5: 4-door Sedan/5-speed Manual
6: 4-door Sedan/4-speed Automatic

Vehicle Grade (Series)

1: 2.0i ES
2: 1.6i S, 1.8i S, 2.0 TDi
3: 1.6i LS, 1.8i LS
4: 1.6i LS, 1.8i LS, 2.0i LS, 2.0 SDi
5: 1.6i LS, 1.8i LS, 2.0i LS, 1.8i S
6: 1.8i ES, 1.8i S
7: 1.8i ES, 2.0i ES, 2.0 TDi
8: 1.8i ES, 2.0i ES, 2.2 R, 2.0 SDi
9: 2.2 R, 2.0i ES

Fixed Code

Supplemental Number

Factory Code

U: Honda of the U.K. Manufacturing in U.K.

Model Year

1, 2: 2000

Serial Number

Engine Number

D16B6 - E100001

Engine Type

D16B6, D16B7: 1.6 l SOHC 16-valves
Sequential Multiport
Fuel-injected Unleaded
gasoline with CATA
F18B2, F18B4: 1.8 l SOHC 16-valves VTEC
Sequential Multiport
Fuel-injected Unleaded
gasoline with CATA
F18B3 : 1.8 l SOHC 16-valves VTEC Sequential
Multiport Fuel-injected Leaded
gasoline without CATA
F20B6 : 2.0 l SOHC 16-valves VTEC Sequential
Multiport Fuel-injected Unleaded
gasoline with CATA
H22A7 : 2.2 l DOHC 16-valves VTEC Sequential
Multiport Fuel-injected Unleaded
gasoline with CATA
20T2N : 2.0 l SOHC 8-valves Fuel-injected
diesel engine with turbo charger,
intercooler and CATA

Serial Number

H22A7: 1000001~
20T2N: 0000001~
Except H22A7, 20T2N: E100001~

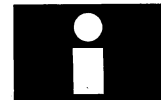
Transmission Number

U2J4 - 1000001

Transmission Type

DH: Manual for D16B6, D16B7 engines
U2J4: Manual for F18B2, F18B3,
F20B6 engines
U2G5: Manual for F18B4 engine
U2Q7: Manual for H22A7 engine
9A: Manual for 20T2N engine
MDJA: Automatic

Serial Number



Applicable Area Code/VIN/Engine Number/Transmission Number

MODEL	APPLICABLE AREA CODE	GRADE NAME	TRANSMISSION TYPE	VEHICLE IDENTIFICATION NUMBER	ENGINE NUMBER	TRANSMISSION NUMBER
Accord SEDAN	KE	1.6i S	5MT	SHHCG7520YU100001~	D16B6-E100001~	DH-1000001~
		1.6i LS	5MT	SHHCG7540YU100001~	D16B6-E100001~	DH-1000001~
		1.8i S	5MT	SHHCG8520YU100001~	F18B2-E100001~	U2J4-1000001~
			4AT	SHHCG8620YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i LS	5MT	SHHCG8540YU100001~	F18B2-E100001~	U2J4-1000001~
			4AT	SHHCG8640YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i ES	5MT	SHHCG8570YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i ES	5MT* ¹	SHHCG8580YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i ES	4AT	SHHCG8670YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i ES	4AT* ¹	SHHCG8680YU100001~	F18B2-E100001~	MDJA-1000001~
		2.0i LS	5MT	SHHCG9540YU100001~	F20B6-E100001~	U2J4-1000001~
			4AT	SHHCG9640YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0i ES	5MT	SHHCG9570YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0i ES	5MT* ¹	SHHCG9580YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0i ES	4AT	SHHCG9670YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0i ES	4AT* ¹	SHHCG9680YU100001~	F20B6-E100001~	MDJA-1000001~
		2.2 R	5MT	SHHCH1590YU100001~	H22A7-1000001~	U2Q7-1000001~
		2.2 R	5MT* ⁵	SHHCH1580YU100001~	H22A7-1000001~	U2Q7-1000001~
		2.0 TDi	5MT	SHHCH2520YU200001~	20T2N-0000001~	9A-1000001~
			5MT	SHHCH2570YU200001~	20T2N-0000001~	9A-1000001~
		2.0 SDi	5MT	SHHCH2580YU200001~	20T2N-0000001~	9A-1000001~
	KG	1.6i S	5MT	SHHCG7520YU100001~	D16B6-E100001~	DH-1000001~
		1.6i LS	5MT	SHHCG7530YU100001~	D16B6-E100001~	DH-1000001~
		1.6i LS	5MT* ²	SHHCG7540YU100001~	D16B6-E100001~	DH-1000001~
		1.6i LS	5MT* ⁴	SHHCG7550YU100001~	D16B7-E100001~	DH-1000001~
		1.8i S	5MT	SHHCG8520YU100001~	F18B2-E100001~	U2J4-1000001~
			4AT	SHHCG8620YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i LS	5MT	SHHCG8530YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i LS	5MT* ³	SHHCG8540YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i LS	5MT* ⁴	SHHCG8550YU100001~	F18B4-E100001~	U2G5-1000001~
		1.8i LS	4AT	SHHCG8640YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i ES	5MT	SHHCG8570YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i ES	5MT* ¹	SHHCG8580YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8i ES	5MT* ⁴	SHHCG8560YU100001~	F18B4-E100001~	U2G5-1000001~
		1.8i ES	4AT	SHHCG8670YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8i ES	4AT* ¹	SHHCG8680YU100001~	F18B2-E100001~	MDJA-1000001~

*1: with NAVI.

*2: with Auto Aircon

*3: with NAVI and Leather seat

*4: 7PA

*5: with Trunk Spoiler

Chassis and Engine Numbers

Applicable Area Code/VIN/Engine Number/Transmission Number

Applicable Area Code/VIN/Engine Number/Transmission Number							
MODEL	APPLICABLE AREA CODE	GRADE NAME	TRANSMISSION TYPE	VEHICLE IDENTIFICATION NUMBER	ENGINE NUMBER	TRANSMISSION NUMBER	
Accord SEDAN	KG	2.0i LS	5MT	SHHCG9540YU100001~	F20B6-E100001~	U2J4-1000001~	
			5MT	SHHCG9550YU100001~	F20B6-E100001~	U2J4-1000001~	
			4AT	SHHCG9640YU100001~	F20B6-E100001~	MDJA-1000001~	
			4AT	SHHCG9650YU100001~	F20B6-E100001~	MDJA-1000001~	
		2.0i ES	5MT	SHHCG9570YU100001~	F20B6-E100001~	U2J4-1000001~	
			5MT	SHHCG9590YU100001~	F20B6-E100001~	U2J4-1000001~	
			5MT	SHHCG9510YU100001~	F20B6-E100001~	U2J4-1000001~	
		2.0i ES	5MT*1	SHHCG9580YU100001~	F20B6-E100001~	U2J4-1000001~	
		2.0i ES	4AT	SHHCG9670YU100001~	F20B6-E100001~	MDJA-1000001~	
			4AT	SHHCG9690YU100001~	F20B6-E100001~	MDJA-1000001~	
			4AT	SHHCG9610YU100001~	F20B6-E100001~	MDJA-1000001~	
		2.0i ES	4AT*1	SHHCG9680YU100001~	F20B6-E100001~	MDJA-1000001~	
		2.2 R	5MT	SHHCH1590YU100001~	H22A7-1000001~	U2Q7-1000001~	
		2.0 TDi	5MT	SHHCH2520YU200001~	20T2N-0000001~	9A-1000001~	
				SHHCH2570YU200001~	20T2N-0000001~	9A-1000001~	
				SHHCH2540YU200001~	20T2N-0000001~	9A-1000001~	
				SHHCH2580YU200001~	20T2N-0000001~	9A-1000001~	
		2.0 SDi	5MT	SHHCH2580YU200001~	20T2N-0000001~	9A-1000001~	
	KS	1.6i S	5MT	SHHCG7520YU100001~	D16B6-E100001~	DH-1000001~	
		1.6i LS	5MT	SHHCG7540YU100001~	D16B6-E100001~	DH-1000001~	
		1.8i S	5MT	SHHCG8520YU100001~	F18B2-E100001~	U2J4-1000001~	
		1.8i LS	5MT	SHHCG8540YU100001~	F18B2-E100001~	U2J4-1000001~	
			4AT	SHHCG8640YU100001~	F18B2-E100001~	MDJA-1000001~	
		2.0i LS	5MT	SHHCG9540YU100001~	F20B6-E100001~	U2J4-1000001~	
		2.0i ES	5MT	SHHCG9570YU100001~	F20B6-E100001~	U2J4-1000001~	
		KR	1.6i S	5MT	SHHCG7520YU100001~	D16B6-E100001~	DH-1000001~
			1.6i LS	5MT	SHHCG7540YU100001~	D16B6-E100001~	DH-1000001~
			1.8i S	5MT	SHHCG8520YU100001~	F18B2-E100001~	U2J4-1000001~
	1.8i LS		5MT	SHHCG8540YU100001~	F18B2-E100001~	U2J4-1000001~	
			4AT	SHHCG8640YU100001~	F18B2-E100001~	MDJA-1000001~	
	1.8i ES		5MT	SHHCG8570YU100001~	F18B2-E100001~	U2J4-1000001~	
	2.0i LS		5MT	SHHCG9540YU100001~	F20B6-E100001~	U2J4-1000001~	
	2.0i ES		5MT	SHHCG9570YU100001~	F20B6-E100001~	U2J4-1000001~	
			5MT*1	SHHCG9580YU100001~	F20B6-E100001~	U2J4-1000001~	
			4AT	SHHCG9670YU100001~	F20B6-E100001~	MDJA-1000001~	
			4AT*1	SHHCG9680YU100001~	F20B6-E100001~	MDJA-1000001~	
	2.2 R		5MT	SHHCH1590YU100001~	H22A7-1000001~	U2Q7-1000001~	
	2.0 TDi		5MT	SHHCH2520YU200001~	20T2N-0000001~	9A-1000001~	
	2.0 SDi	5MT	SHHCH2540YU200001~	20T2N-0000001~	9A-1000001~		
	KY	1.8i S	5MT	SHHCG8527YU100001~	F18B3-E100001~	U2J4-1000001~	
4AT			SHHCG8627YU100001~	F18B3-E100001~	MDJA-1000001~		

*1: with NAVI.



5-door:

Vehicle Identification Number (VIN)

SHH CH5 7 2 0 Y U 0 00001

Manufacturer, Make and Type of Vehicle

SHH: HONDA OF THE U.K.
MFG., LTD. U.K.
HONDA Passenger car

Line, Body and Engine Type

CH5: ACCORD 5-door/D16B6,
D16B7
CH6: ACCORD 5-door/F18B2
CH7: ACCORD 5-door/F20B6
CH8: ACCORD 5-door/20T2N

Body and Transmission Type

7: 5-door Hatchback/5-speed Manual
8: 5-door Hatchback/
4-speed Automatic

Vehicle Grade (Series)

0: 2.0iV
2: 1.6iS, 1.8iS
3: 1.8iLS, 2.0TDi
4: 1.6iLS, 1.8iLS, 2.0iLS
5: 1.6iLS, 2.0SDi
7: 1.8iES, 2.0iES
8: 1.8iES, 2.0iES
9: 2.0iV, 2.0SDi

Fixed Code

Supplemental Number

Factory Code

U: Honda of the U.K. Manufacturing in U.K.

Model Year

1, 2: 2000

Serial Number

Engine Number

D16B6 - E100001

Engine Type

D16B6: 1.6 l SOHC 16-valves Sequential
D16B7 Multiport Fuel-injected Unleaded
gasoline with CATA

F18B2 : 1.8 l SOHC 16-valves VTEC Sequential

F20B6 : 2.0 l SOHC 16-valves VTEC Sequential
Multiport Fuel-injected Unleaded
gasoline with CATA

20T2N : 2.0 l SOHC 8-valves Fuel-injected
diesel engine with turbo charger,
intercooler and CATA

Serial Number

20T2N: 0000001~
Except 20T2N: E100001~

Transmission Number

U2J4 - 1000001

Transmission Type

DH: Manual for D16B6, D16B7 engines
U2J4: Manual for F18B2, F20B6 engines
9A: Manual for 20T2N engine
MDJA: Automatic

Serial Number

Chassis and Engine Numbers

Applicable Area Code/VIN/Engine Number/Transmission Number

MODEL	APPLICABLE AREA CODE	GRADE NAME	TRANSMISSION TYPE	VEHICLE IDENTIFICATION NUMBER	ENGINE NUMBER	TRANSMISSION NUMBER
ACCORD 5-door	KE	1.6iS	5MT	SHHCH5720YU100001~	D16B6-E100001~	DH-1000001~
		1.6iLS	5MT	SHHCH5740YU100001~	D16B6-E100001~	DH-1000001~
		1.8iS	5MT	SHHCH6720YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iS	4AT	SHHCH6820YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iLS	5MT	SHHCH6740YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	4AT	SHHCH6840YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iES	5MT	SHHCH6770YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iES	5MT	SHHCH6780YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iES	4AT	SHHCH6870YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iES	4AT	SHHCH6880YU100001~	F18B2-E100001~	MDJA-1000001~
		2.0iLS	5MT	SHHCH7740YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iLS	4AT	SHHCH7840YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iES	5MT	SHHCH7770YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	5MT	SHHCH7780YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	4AT	SHHCH7870YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iES	4AT	SHHCH7880YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iV	5MT	SHHCH7790YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iV	5MT	SHHCH7700YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iV	4AT	SHHCH7890YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iV	4AT	SHHCH7800YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0TDi	5MT	SHHCH8730YU200001~	20T2N-0000001~	9A-1000001~
		2.0SDi	5MT	SHHCH8790YU20000X~	20T2N-0000001~	9A-1000001~
	KG	1.6iS	5MT	SHHCH5720YU100001~	D16B6-E100001~	DH-1000001~
		1.6iLS	5MT	SHHCH5740YU100001~	D16B6-E100001~	DH-1000001~
		1.6iLS	5MT	SHHCH5750YU100001~	D16B7-E100001~	DH-1000001~
		1.8iS	5MT	SHHCH6720YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iS	4AT	SHHCH6820YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iLS	5MT	SHHCH6730YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	5MT	SHHCH6740YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	5MT	SHHCH6750YU100001~	F18B4-E100001~	U2J4-1000001~
		1.8iLS	5MT	SHHCH6740YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	4AT	SHHCH6840YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iES	5MT	SHHCH6770YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iES	5MT	SHHCH6780YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iES	4AT	SHHCH6870YU100001~	F18B2-E100001~	MDJA-1000001~
		1.8iES	4AT	SHHCH6880YU100001~	F18B2-E100001~	MDJA-1000001~
		2.0iLS	5MT	SHHCH7740YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iLS	4AT	SHHCH7840YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iES	5MT	SHHCH7770YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	5MT	SHHCH7780YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	4AT	SHHCH7870YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iES	4AT	SHHCH7880YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iV	5MT	SHHCH7790YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iV	5MT	SHHCH7700YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iV	4AT	SHHCH7890YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iV	4AT	SHHCH7800YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0TDi	5MT	SHHCH8730YU200001~	20T2N-0000001~	9A-1000001~
		2.0SDi	5MT	SHHCH8750YU200001~	20T2N-0000001~	9A-1000001~
		2.0SDi	5MT	SHHCH8790YU200001~	20T2N-0000001~	9A-1000001~



Applicable Area Code/VIN/Engine Number/Transmission Number

MODEL	APPLICABLE AREA CODE	GRADE NAME	TRANSMISSION TYPE	VEHICLE IDENTIFICATION NUMBER	ENGINE NUMBER	TRANSMISSION NUMBER
ACCORD 5-door	KS	1.6iS	5MT	SHHCH5720YU100001~	D16B6-E100001~	DH-1000001~
		1.6iLS	5MT	SHHCH5740YU100001~	D16B6-E100001~	DH-1000001~
		1.8iS	5MT	SHHCH6720YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	5MT	SHHCH6740YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	4AT	SHHCH6840YU100001~	F18B2-E100001~	MDJA-1000001~
		2.0iLS	5MT	SHHCH7740YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	5MT	SHHCH7770YU100001~	F20B6-E100001~	U2J4-1000001~
	KR	1.6iS	5MT	SHHCH5720YU100001~	D16B6-E100001~	DH-1000001~
		1.6iLS	5MT	SHHCH5740YU100001~	D16B6-E100001~	DH-1000001~
		1.8iS	5MT	SHHCH6720YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	5MT	SHHCH6740YU100001~	F18B2-E100001~	U2J4-1000001~
		1.8iLS	4AT	SHHCH6840YU100001~	F18B2-E100001~	MDJA-1000001~
		2.0iES	5MT	SHHCH7770YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	5MT	SHHCH7780YU100001~	F20B6-E100001~	U2J4-1000001~
		2.0iES	4AT	SHHCH7870YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0iES	4AT	SHHCH7880YU100001~	F20B6-E100001~	MDJA-1000001~
		2.0TDi	5MT	SHHCH8730YU200001~	20T2N-0000001~	9A-1000001~
		2.0SDi	5MT	SHHCH8750YU200001~	20T2N-0000001~	9A-1000001~

Abbreviations

List of automotive abbreviations which may be used in shop manual.

ABS	Anti-lock Brake System	F	Front
A/C	Air Conditioning, Air Conditioner	FIA	Fuel Injection Air
ACL	Air Cleaner	FL	Front Left
A/F	Air Fuel Ratio	FP	Fuel Pump
ALR	Automatic Locking Retractor	FR	Front Right
ALT	Alternator	FSR	Fail Safe Relay
AMP	Ampere (s)	FWD	Front Wheel Drive
ANT	Antenna		
API	American Petroleum Institute	GAL	Gallon
APPROX.	Approximately	GND	Ground
ASSY	Assembly	GPS	Global Positioning System
A/T	Automatic Transmission		
ATDC	After Top Dead Center	H/B	Hatchback
ATF	Automatic Transmission Fluid	HC	Hydrocarbons
ATT	Attachment	HID	High Intensity Discharge
ATTS	Active Torque Transfer System	HO2S	Heated Oxygen Sensor
AUTO	Automatic		
AUX	Auxiliary	IAB	Intake Air Bypass
		IAC	Idle Air Control
BARO	Barometric	IACV	Idle Air Control Valve
BAT	Battery	IAR	Intake Air Resonator
BDC	Bottom Dead Center	IAT	Intake Air Temperature
BTDC	Before Top Dead Center	ICM	Ignition Control Module
		ID	Identification
CARB	Carburetor	ID or I.D.	Inside Diameter
CAT	Catalytic Converter	IG or IGN	Ignition
or CATA		IMA	Idle Mixture Adjustment
CHG	Charge	IMMOBI.	Immobilizer (Immobiliser)
CKF	Crankshaft Speed Fluctuation	IN	Intake
CKP	Crankshaft Position	INJ	Injection
CO	Carbon Monoxide	INT	Intermittent
COMP	Complete		
CPB	Clutch Pressure Back up	KS	Knock Sensor
CPC	Clutch Pressure Control		
CPU	Central Processing Unit	L	Left
CVT	Continuously Variable Transmission	L/C	Lock-up Clutch
CYL	Cylinder	LCD	Liquid Crystal Display
CYP	Cylinder Position	LED	Light Emitting Diode
		LF	Left Front
DI	Distributor Ignition	LH	Left Handle
DIFF	Differential	LHD	Left Hand Drive
DLC	Data Link Connector	LR	Left Rear
DOHC	Double Overhead Camshaft	LSD	Limited Slip Differential
DPI	Dual Point Injection	L-4	In-line Four Cylinder (engine)
DTC	Diagnostic Trouble Code		
EBD	Electronic Brake Distribution		
ECM	Engine Control Module		
ECT	Engine Coolant Temperature		
EGR	Exhaust Gas Recirculation		
ELD	Electrical Load Detector		
EPR	Evaporator Pressure Regulator		
EPS	Electrical Power Steering		
EVAP	Evaporative		
EX	Exhaust		



MAP	Manifold Absolute Pressure	T	Torque
MAX.	Maximum	TB	Throttle Body
MBS	Mainshaft Brake System	T/B	Timing Belt
MCK	Motor Check	TC	Torque Converter
MCU	Moment Control Unit	TCM	Transmission Control Module
MIL	Malfunction Indicator Light	TCS	Traction Control System
MIN.	Minimum	TDC	Top Dead Center
MPI	Multi Point Injection	TFT	Thin Film Transistor
M/S	Manual Steering	T/N	Tool Number
M/T	Manual Transmission	TP	Throttle Position
		TWC	Three Way Catalytic Converter
N	Neutral		
NOx	Oxides of Nitrogen	VC	Viscous Coupling
		VDP	Variable Displacement Pump
OBD	On-board Diagnostic	VFV	Variable Force Control Valve
O2S	Oxygen Sensor	VGR	Variable Gear Ratio
OD or O.D.	Outside Diameter	VIN	Vehicle Identification Number
		VSC	Valuable Space Column
P	Park	VSS	Vehicle Speed Sensor
PAIR	Pulsed Secondary Air Injection	VTEC	Variable Valve Timing & Valve Lift
PCM	Powertrain Control Module		Electronic Control
PCV	Positive Crankcase Ventilation	VVIS	Variable Volume Intake System
	Proportioning Control Valve		
PGM-FI	Programmed-fuel Injection	W	With
PGM-IG	Programmed Ignition	W/O	Without
PH	Pressure High	WOT	Wide Open Throttle
PL	Pilot Light or Pressure Low		
PMR	Pump Motor Relay	2WD	Two Wheel Drive
P/N	Part Number	4WD	Four Wheel Drive
PRI	Primary	2WS	Two Wheel Steering
P/S	Power Steering	4WS	Four Wheel Steering
PSF	Power Steering Fluid	4AT	4-speed Automatic Transmission
PSP	Power Steering Pressure	5MT	5-speed Manual Transmission
PSW	Pressure Switch	P	Park
		R	Reverse
Qty	Quantity	N	Neutral
		D₄	Drive (1st through 4th gear)
R	Right	D₃	Drive (1st through 3rd gear)
REF	Reference	2	Second
RGB	Red, Green, Black	1	First
RHD	Right Hand Drive	D	Drive
RL	Rear Left	S	Second
RON	Research Octane Number	L	Low
RR	Rear Right	O/D	Over Drive
		1ST	Low (gear)
SAE	Society of Automotive Engineers	2ND	Second (gear)
SCS	Service Check Signal	3RD	Third (gear)
SEC	Second	4TH	Fourth (gear)
	Secondary	5TH	Fifth (gear)
SOHC	Single Overhead Camshaft		
SOL	Solenoid		
SPEC	Specification		
S/R	Sun Roof		
SRS	Supplemental Restraint System		
STD	Standard		
SW	Switch		

Specifications

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Standards and Service Limits

Engine Electrical — Section 4

	MEASUREMENT	STANDARD (NEW)	
Ignition coil	Rated voltage V	12	
	Primary winding resistance at 20°C (68°F) Ω Except H22A7 engine H22A7 engine	0.45 – 0.55 0.63 – 0.77	
	Secondary winding resistance at 20°C (68°F) kΩ D16B6, D16B7 engines F18B2, F18B3, F20B4, F20B7 engines H22A7 engine	12.0 – 14.6 22.4 – 33.6 12.8 – 19.2	
Ignition wire	Resistance at 20°C (68°F) kΩ	25 max.	
	Firing order D16B6, D16B7 engines Except D16B6, D16B7 engines	1 – 4 – 2 – 3 1 – 3 – 4 – 2	
Spark plug	Type	STANDARD (NEW)	SERVICE LIMIT
	Gap Except H22A7 engine H22A7 engine	See section 4 1.0 – 1.1 (0.039 – 0.043) 1.0 – 1.1 (0.039 – 0.043)	_____ 1.3 (0.051)
Ignition timing	At idle BTDC (Red) Except H22A7 engine H22A7 engine	M/T A/T	12 ± 2 (Neutral) 12 ± 2 (N or P position) 15 ± 2 (Neutral)
Alternator Belt*1 (D16B6 engine)	Deflection with 98 N (10 kgf, 22 lbf) between pulleys	7.0 – 10.5 (0.28 – 0.41) with used belt 5.0 – 7.0 (0.20 – 0.28) with new belt	
	Belt tension N (kgf, lbf) Measured with belt tension gauge	340 – 490 (35 – 50, 77 – 110) with used belt 640 – 780 (65 – 80, 140 – 180) with new belt	
Alternator Belt*1 (Except D16B6 engine with A/C)	Deflection with 98 N (10 kgf, 22 lbf) between pulleys	10.0 – 12.0 (0.39 – 0.47) with used belt 5.5 – 7.5 (0.22 – 0.30) with new belt	
	Belt tension N (kgf, lbf) Measured with belt tension gauge	390 – 540 (40 – 55, 88 – 120) with used belt 880 – 1,030 (90 – 105, 200 – 230) with new belt	
Alternator Belt*1 (Except D16B6 engine without A/C)	Deflection with 98 N (10 kgf, 22 lbf) between pulleys	10.0 – 13.0 (0.39 – 0.51) with used belt 7.5 – 10.0 (0.30 – 0.39) with new belt	
	Belt tension N (kgf, lbf) Measured with belt tension gauge	290 – 440 (30 – 45, 66 – 99) with used belt 540 – 740 (55 – 75, 120 – 170) with new belt	
Alternator (Except H22A7 engine)	Output 13.5 V at hot D16B6, D16B7 engines Except D16B6, D16B7 engines	STANDARD (NEW)	SERVICE LIMIT
	Coil resistance (rotor) at 20°C (68°F) Ω D16B6, D16B7 engines Except D16B6, D16B7 engines	85 A 90 A 2.6 2.4 15.4 (0.61) 13.2 (0.52) 1.9 (0.19, 0.42)	_____ _____ _____ _____ 14.15 (0.557) 3.2 (0.13) _____
Alternator (H22A7 engine)	Output 13.5 V at hot	95 A	
	Coil resistance (rotor) at 20°C (68°F) Ω Slip ring O.D. Brush length Brush spring tension N (kgf, lbf)	2.2 – 3.0 14.4 (0.57) 10.5 (0.41) 2.9 – 3.5 (0.30 – 0.36, 0.66 – 0.79)	
Starter (Except H22A7 engine)	Manufacturer	VALEO	
	Output Commutator mica depth Commutator runout Brush length Brush spring tension N (kgf, lbf)	1.0 kW 0.5 – 0.9 (0.020 – 0.035) 0.01 (0.0004) max. 18 (0.7) 15.3 – 19.2 (1.56 – 1.96, 3.44 – 4.32)	
Starter (H22A7 engine)	Manufacturer	DENSO	
	Output Commutator mica depth Commutator runout Commutator O.D. Brush length Brush spring tension N (kgf, lbf)	1.0 kW 0.5 – 0.8 (0.020 – 0.031) 0.02 (0.0008) max. 27.9 – 28.0 (1.098, 1.102) 14.0 – 14.5 (0.55 – 0.57) 13.7 – 17.7 (1.4 – 1.8, 3.09 – 3.97)	

*1: When using a new belt, adjust deflection or tension to new belt values. Run the engine for 5 minutes then turn it off.
Readjust deflection or tension to used belt values.

Cylinder Head/Valve Train (D16B6, D16B7 engines) — Section 6

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm (min ⁻¹) and wide open throttle kPa (kgf/cm ² , psi)	Minimum Maximum variation	930 (9.5, 135) 200 (2.0, 28)	
Cylinder head	Warpage Height		92.95 – 93.05 (3.659 – 3.663)	0.05 (0.002)
Camshaft	End play Camshaft-to-holder oil clearance Total runout Cam lobe height		0.05 – 0.15 (0.002 – 0.006) 0.050 – 0.089 (0.0020 – 0.0035) 0.03 (0.001) max. 35.019 (1.3787)* ¹ , 34.734 (1.3675)* ² 37.904 (1.4923)	0.5 (0.02) 0.15 (0.006) 0.04 (0.002)
Valve	Valve clearance (Cold)	IN	0.18 – 0.22 (0.007 – 0.009)	
		EX	0.23 – 0.27 (0.009 – 0.011)	
	Valve stem O.D.	IN	5.48 – 5.49 (0.2157 – 0.2161)	5.45 (0.2146)
		EX	5.45 – 5.46 (0.2146 – 0.2150)	5.42 (0.2134)
	Stem-to-guide clearance	IN	0.02 – 0.05 (0.001 – 0.002)	0.08 (0.003)
		EX	0.05 – 0.08 (0.002 – 0.003)	0.11 (0.004)
Valve seat	Width	IN	0.85 – 1.15 (0.033 – 0.045)	1.6 (0.063)
		EX	1.25 – 1.55 (0.049 – 0.061)	2.0 (0.079)
	Stem installed height	IN	53.17 – 53.64 (2.093 – 2.112)	53.89 (2.122)
		EX	53.17 – 53.64 (2.093 – 2.112)	53.89 (2.122)
Valve spring	Free length	IN and EX	58.7 (2.31)	
Valve guide	I.D.	IN	5.51 – 5.53 (0.217 – 0.218)	5.55 (0.219)
		EX	5.51 – 5.53 (0.217 – 0.218)	5.55 (0.219)
	Installed height	IN	17.85 – 18.35 (0.703 – 0.722)	
		EX	18.65 – 19.15 (0.734 – 0.754)	
Rocker arm	Arm-to-shaft clearance	IN	0.017 – 0.050 (0.0007 – 0.0020)	0.08 (0.003)
		EX	0.018 – 0.054 (0.0007 – 0.0021)	0.08 (0.003)

*1: Timing belt side, *2: Distributor side

Standards and Service Limits

Cylinder Head/Valve Train (F18B2, F18B3, F18B4, F20B6 engines) — Section 6

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm (min ⁻¹) and wide open throttle kPa (kgf/cm ² , psi)	Minimum Maximum variation	930 (9.5, 135) 200 (2.0, 28)	
Cylinder head	Warpage Height		99.95 – 100.05 (3.935 – 3.939)	0.05 (0.002)
Camshaft	End play		0.05 – 0.15 (0.002 – 0.006)	0.5 (0.02)
	Camshaft-to-holder oil clearance		0.050 – 0.089 (0.0020 – 0.0035)	0.15 (0.006)
	Total runout		0.03 (0.001) max.	0.04 (0.002)
	Cam lobe height	F18B2, F18B4 engines		
		IN Primary	38.539 (1.5173)	—
		Mid	39.223 (1.5442)	—
		Secondary	33.913 (1.3352)	—
		EX	38.645 (1.5215)	—
		F20B6 engine		
		IN Primary	38.539 (1.5173)	—
Valve	Valve clearance (Cold)	IN	0.24 – 0.28 (0.009 – 0.011)	—
		EX	0.28 – 0.32 (0.011 – 0.013)	—
	Valve stem O.D.	IN	5.485 – 5.495 (0.2159 – 0.2163)	5.455 (0.2148)
		EX	5.450 – 5.460 (0.2146 – 0.2150)	5.420 (0.2134)
	Stem-to-guide clearance	IN	0.020 – 0.045 (0.0008 – 0.0018)	0.08 (0.003)
		EX	0.055 – 0.080 (0.0022 – 0.0031)	0.12 (0.005)
Valve seat	Width	IN	1.25 – 1.55 (0.049 – 0.061)	2.00 (0.079)
		EX	1.25 – 1.55 (0.049 – 0.061)	2.00 (0.079)
	Stem installed height	IN	46.75 – 47.55 (1.841 – 1.872)	47.80 (1.882)
		EX	46.68 – 47.48 (1.838 – 1.869)	47.73 (1.879)
Valve spring	Free length	IN	51.08 (2.011)	—
		EX	55.58 (2.188)	—
Valve guide	I.D.	IN	5.515 – 5.530 (0.2171 – 0.2177)	5.55 (0.219)
		EX	5.515 – 5.530 (0.2171 – 0.2177)	5.55 (0.219)
	Installed height	IN	21.20 – 22.20 (0.835 – 0.874)	—
		EX	20.63 – 21.63 (0.812 – 0.852)	—
Rocker arm	Arm-to-shaft clearance	IN	0.026 – 0.067 (0.0010 – 0.0026)	0.08 (0.003)
		EX	0.018 – 0.054 (0.0007 – 0.0021)	0.08 (0.003)

Cylinder Head/Valve Train (H22A7 engine) — Section 6

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm (min ⁻¹) and wide open throttle kPa (kgf/cm ² , psi)	Nominal Minimum Maximum variation	1,270 (13.0, 185) 930 (9.5, 135) 200 (2.0, 28)	
Cylinder head	Warpage Height		146.95 – 147.05 (5.785 – 5.789)	0.05 (0.002)
Camshaft	End play Camshaft-to-holder oil clearance Total runout Cam lobe height	IN Primary Mid Secondary EX Primary Mid Secondary	0.05 – 0.15 (0.002 – 0.006) 0.050 – 0.089 (0.0020 – 0.0035) 0.03 (0.001) max. 34.041 (1.3402) 37.229 (1.4657) 34.071 (1.3414) 33.745 (1.3285) 36.704 (1.4450) 34.683 (1.3655)	0.5 (0.02) 0.15 (0.006) 0.04 (0.002) _____ _____ _____ _____ _____ _____
Valve	Valve clearance (Cold) Valve stem O.D. Stem-to-guide clearance	IN EX IN EX IN EX	0.15 – 0.19 (0.006 – 0.007)*1 0.17 – 0.21 (0.007 – 0.008)*1 5.475 – 5.485 (0.2156 – 0.2159) 5.475 – 5.485 (0.2156 – 0.2159) 0.025 – 0.055 (0.0010 – 0.0022) 0.050 – 0.080 (0.0020 – 0.0031)	_____ _____ 5.445 (0.2144) 5.445 (0.2144) 0.08 (0.003) 0.11 (0.004)
Valve seat	Width Stem installed height	IN EX IN EX	1.30 – 1.50 (0.051 – 0.059) 1.25 – 1.55 (0.049 – 0.061) 42.5 – 42.7 (1.673 – 1.681) 43.9 – 44.1 (1.728 – 1.736)	2.00 (0.079) 2.00 (0.079) 42.95 (1.691) 44.35 (1.746)
Valve spring	Free length	IN Outer Inner EX Outer Inner	44.10 (1.736) 41.32 (1.627) 44.92 (1.769) 40.01 (1.575)	_____ _____ _____ _____
Valve guide	I.D. Installed height	IN EX IN EX	5.510 – 5.530 (0.2169 – 0.2177) 5.535 – 5.555 (0.2179 – 0.2187) 14.55 – 15.05 (0.573 – 0.593) 14.95 – 15.45 (0.589 – 0.608)	5.55 (0.219) 5.60 (0.220) _____ _____
Rocker arm	Arm-to-shaft clearance	IN EX	0.025 – 0.052 (0.0010 – 0.0020) 0.025 – 0.052 (0.0010 – 0.0020)	0.08 (0.003) 0.08 (0.003)

*1: Measuring point between camshaft and rocker arm.

Standards and Service Limits

Engine Block (D16B6, D16B7 engines) — Section 7

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface Bore diameter Bore taper Reboring limit	0.07 (0.003) max. 75.00 – 75.02 (2.953 – 2.954) _____ _____	0.10 (0.004) 75.07 (2.956) 0.05 (0.002) 0.5 (0.02)
Piston	Skirt O.D. At 5 mm (0.2 in) from bottom of skirt Clearance in cylinder Groove width (for ring) Top Second Oil	74.980 – 74.990 (2.9520 – 2.9524) 0.010 – 0.040 (0.0004 – 0.0016) 1.020 – 1.030 (0.0402 – 0.0406) 1.220 – 1.230 (0.0480 – 0.0484) 2.805 – 2.820 (0.1104 – 0.1110)	74.970 (2.9516) 0.05 (0.002) 1.05 (0.041) 1.25 (0.049) 2.85 (0.112)
Piston ring	Ring-to-groove clearance Top Second Ring end gap Top Second Oil	0.030 – 0.060 (0.0012 – 0.0024) 0.030 – 0.055 (0.0012 – 0.0022) 0.15 – 0.30 (0.006 – 0.012) 0.20 – 0.70 (0.008 – 0.028) 0.20 – 0.80 (0.008 – 0.031)	0.13 (0.005) 0.13 (0.005) 0.70 (0.028) 0.80 (0.031) 0.90 (0.035)
Piston pin	O.D. Pin-to-piston clearance	18.994 – 19.000 (0.7478 – 0.7480) 0.010 – 0.022 (0.0004 – 0.0009)	_____ _____
Connecting rod	Pin-to-rod interference Small end bore diameter Large end bore diameter Nominal End play installed on crankshaft	0.014 – 0.040 (0.0006 – 0.0016) 18.96 – 18.98 (0.746 – 0.747) 48.0 (1.89) 0.15 – 0.30 (0.006 – 0.012)	_____ _____ _____ 0.40 (0.016)
Crankshaft	Main journal diameter Rod journal diameter Taper Out of round End play Total runout	54.976 – 55.000 (2.1644 – 2.1654) 44.976 – 45.000 (1.7707 – 1.7717) 0.0025 (0.0001) max. 0.0025 (0.0001) max. 0.10 – 0.35 (0.004 – 0.014) 0.03 (0.001) max.	_____ _____ 0.005 (0.0002) 0.005 (0.0002) 0.45 (0.018) 0.04 (0.002)
Bearing	Main bearing-to-journal oil clearance No. 1 and 5 journals No. 2, 3 and 4 journals Rod bearing-to-journal oil clearance	0.018 – 0.036 (0.0007 – 0.0014) 0.024 – 0.042 (0.0009 – 0.0017) 0.020 – 0.038 (0.0008 – 0.0015)	0.05 (0.002) 0.05 (0.002) 0.05 (0.002)

Engine Block (F18B2, F18B3, F18B4, F20B6 engines) — Section 7

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.07 (0.003) max.	0.10 (0.004)
	Bore diameter	A or I B or II	85.010 – 85.020 (3.3468 – 3.3472) 85.000 – 85.010 (3.3465 – 3.3468)	85.070 (3.3492) 85.070 (3.3492)
	Bore taper		—	0.05 (0.002)
	Reboring limit		—	0.25 (0.01)
Piston	Skirt O.D.	[at 16 mm (0.6 in) from bottom of skirt]	84.980 – 84.990 (3.3457 – 3.3461) 84.970 – 84.980 (3.3453 – 3.3457)	84.970 (3.3453) 84.960 (3.3449)
	Clearance in cylinder	No letter Letter B	0.020 – 0.040 (0.0008 – 0.0016)	0.05 (0.002)
	Groove width (For ring)	Top Second Oil	1.220 – 1.230 (0.0480 – 0.0484) 1.220 – 1.230 (0.0480 – 0.0484) 2.805 – 2.825 (0.1104 – 0.1112)	1.25 (0.049) 1.25 (0.049) 2.85 (0.112)
	Ring-to-groove clearance	Top	0.035 – 0.060 (0.0014 – 0.0024)	0.13 (0.005)
		Second	0.030 – 0.055 (0.0012 – 0.0022)	0.13 (0.005)
Piston ring	Ring end gap	Top	0.20 – 0.35 (0.008 – 0.014)	0.60 (0.024)
		Second	0.40 – 0.55 (0.016 – 0.022)	0.70 (0.028)
		Oil	0.20 – 0.70 (0.008 – 0.028)	0.80 (0.031)
Piston Pin	O.D. Pin-to-piston clearance		21.961 – 21.965 (0.8646 – 0.8648) –0.0050 – + 0.0020 (–0.00020 – + 0.00008)	21.953 (0.8643) 0.004 (0.0002)
Connecting rod	Pin-to-rod clearance		0.005 – 0.015 (0.0002 – 0.0006)	0.020 (0.0008)
	Small end bore diameter		21.970 – 21.976 (0.8650 – 0.8652)	—
	Large end bore diameter	Nominal	48.0 (1.89)	—
	End play installed on crankshaft		0.15 – 0.30 (0.006 – 0.012)	0.40 (0.016)
Crankshaft	Main journal diameter	No. 1, 2 and 4 journals No. 3 journal No. 5 journal	54.980 – 55.004 (2.1646 – 2.1655) 54.976 – 55.000 (2.1644 – 2.1654) 54.992 – 55.016 (2.1650 – 2.1660)	— — —
	Rod journal diameter		44.976 – 45.000 (1.7707 – 1.7717)	—
	Taper		0.005 (0.0002) max.	0.010 (0.0004)
	Out-of-round		0.005 (0.0002) max.	0.010 (0.0004)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
	Runout		0.02 (0.001) max.	0.04 (0.002)
Bearings	Main bearing-to-journal oil clearance	No. 1 and No. 4 journals No. 2 journal No. 3 journal No. 5 journal	0.013 – 0.037 (0.0005 – 0.0015) 0.021 – 0.045 (0.0008 – 0.0018) 0.025 – 0.049 (0.0010 – 0.0019) 0.009 – 0.033 (0.0004 – 0.0013)	0.050 (0.0020) 0.050 (0.0020) 0.055 (0.0022) 0.040 (0.0016)
	Rod bearing-to-journal oil clearance		0.015 – 0.043 (0.0006 – 0.0017)	0.050 (0.0020)
Balancer shaft	Journal diameter	No. 1 front journal No. 1 rear journal No. 2 front and rear journals No. 3 front and rear journals	42.722 – 42.734 (1.6820 – 1.6824) 20.938 – 20.950 (0.8243 – 0.8248) 38.712 – 38.724 (1.5241 – 1.5246) 34.722 – 34.734 (1.3670 – 1.3675)	42.71 (1.681) 20.92 (0.824) 38.70 (1.524) 34.71 (1.367)
	Journal taper		0.005 (0.0002) max.	—
	End play	Front Rear	0.10 – 0.40 (0.004 – 0.016) 0.04 – 0.15 (0.002 – 0.006)	— —
	Total runout		0.02 (0.001) max.	0.03 (0.001)
	Shaft-to-bearing oil clearance	No. 1 front, No. 3 front and rear journals No. 1 rear journal No. 2 front and rear journals	0.066 – 0.098 (0.0026 – 0.0039) 0.050 – 0.075 (0.0020 – 0.0030) 0.076 – 0.108 (0.0030 – 0.0043)	0.12 (0.005) 0.09 (0.004) 0.13 (0.005)
Balancer shaft bearing	I.D.	No. 1 front journal No. 1 rear journal No. 2 front and rear journals No. 3 front and rear journals	42.800 – 42.820 (1.6850 – 1.6858) 21.000 – 21.013 (0.8268 – 0.8273) 38.800 – 38.820 (1.5276 – 1.5283) 34.800 – 34.820 (1.3701 – 1.3709)	42.83 (1.686) 21.02 (0.828) 38.83 (1.529) 34.83 (1.371)

Standards and Service Limits

Engine Block (H22A7 engine) — Section 7

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.07 (0.003) max.	0.10 (0.004)
	Bore diameter	A or I B or II	87.010 – 87.020 (3.4256 – 3.4260) 87.000 – 87.010 (3.4252 – 3.4256)	87.070 (3.4279) 87.070 (3.4279)
	Bore taper		—	0.05 (0.002)
	Reboring limit		—	0.25 (0.010)
Piston	Skirt O.D. [at 15 mm (0.6 in) from bottom of skirt]	No letter Letter B	86.993 – 87.006 (3.4249 – 3.4254) 86.983 – 86.996 (3.4245 – 3.4250)	86.980 (3.4244) 86.970 (3.4240)
	Clearance in cylinder		0.004 – 0.027 (0.0002 – 0.0011)	0.04 (0.002)
	Groove width (For ring)	Top Second Oil	1.240 – 1.255 (0.0488 – 0.0494) 1.230 – 1.245 (0.0484 – 0.0490) 2.805 – 2.825 (0.1104 – 0.1112)	1.275 (0.0502) 1.265 (0.0498) 2.85 (0.112)
Piston ring	Ring-to-groove clearance	Top Second	0.055 – 0.085 (0.0022 – 0.0033) 0.040 – 0.070 (0.0016 – 0.0028)	0.13 (0.005) 0.13 (0.005)
	Ring end gap	Top Second Oil	0.25 – 0.35 (0.010 – 0.014) 0.60 – 0.70 (0.024 – 0.028) 0.20 – 0.70 (0.008 – 0.028)*1 0.20 – 0.50 (0.008 – 0.020)*2	0.60 (0.024) 0.90 (0.035) 0.80 (0.031)*1 0.60 (0.024)*2
Piston pin	O.D. Pin-to-piston clearance		21.961 – 21.965 (0.8646 – 0.8648) –0.0030 – + 0.0060 (–0.00012 – + 0.00024)	21.953 (0.8643) 0.009 (0.0004)
Connecting rod	Pin-to-rod clearance		0.005 – 0.015 (0.0002 – 0.0006)	0.002 (0.0001)
	Small end bore diameter		21.970 – 21.976 (0.8650 – 0.8652)	—
	Large end bore diameter	Nominal	51.0 (2.01)	—
	End play installed on crankshaft		0.15 – 0.30 (0.006 – 0.012)	0.40 (0.016)
Crankshaft	Main journal diameter	No. 1, 2 and 4 journals No. 3 journal No. 5 journal	54.980 – 55.004 (2.1646 – 2.1655) 54.976 – 55.000 (2.1644 – 2.1654) 54.992 – 55.016 (2.1650 – 2.1660)	— — —
	Rod journal diameter		47.976 – 48.000 (1.8888 – 1.8898)	—
	Taper		0.005 (0.0002) max.	0.006 (0.0002)
	Out-of-round		0.004 (0.0002) max.	0.006 (0.0002)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
	Runout		0.03 (0.001) max.	0.04 (0.002)
Bearings	Main bearing-to-journal oil clearance	No. 1 and No. 4 journals No. 2 journal No. 3 journal No. 5 journal	0.013 – 0.037 (0.0005 – 0.0015) 0.021 – 0.045 (0.0008 – 0.0018) 0.025 – 0.049 (0.0010 – 0.0019) 0.009 – 0.033 (0.0004 – 0.0013)	0.050 (0.0020) 0.050 (0.0020) 0.055 (0.0022) 0.040 (0.0016)
	Rod bearing-to-journal oil clearance		0.027 – 0.055 (0.0011 – 0.0022)	0.060 (0.0024)
Balancer shaft	Journal diameter	No. 1 front journal No. 1 rear journal No. 2 front and rear journals No. 3 front and rear journals	42.722 – 42.734 (1.6820 – 1.6824) 20.938 – 20.950 (0.8243 – 0.8248) 38.712 – 38.724 (1.5241 – 1.5246) 34.722 – 34.734 (1.3670 – 1.3675)	42.71 (1.681) 20.92 (0.824) 38.70 (1.524) 34.71 (1.367)
	Journal taper		0.005 (0.0002) max.	—
	End play	Front Rear	0.10 – 0.40 (0.004 – 0.016) 0.04 – 0.15 (0.002 – 0.006)	— —
	Total runout		0.02 (0.001) max.	0.03 (0.001)
	Shaft-to-bearing oil clearance			
	No. 1 front, No. 3 front and rear journals		0.066 – 0.098 (0.0026 – 0.0039)	0.12 (0.005)
	No. 1 rear journal		0.050 – 0.075 (0.0020 – 0.0030)	0.09 (0.004)
	No. 2 front and rear journals		0.076 – 0.108 (0.0030 – 0.0043)	0.13 (0.005)
Balancer shaft bearing	I.D.	No. 1 front journal No. 1 rear journal No. 2 front and rear journals No. 3 front and rear journals	42.800 – 42.820 (1.6850 – 1.6858) 21.000 – 21.013 (0.8268 – 0.8273) 38.800 – 38.820 (1.5276 – 1.5283) 34.800 – 34.820 (1.3701 – 1.3709)	42.83 (1.686) 21.02 (0.828) 38.83 (1.529) 34.83 (1.371)

*1: RIKEN manufactured piston ring.

*2: TEIKOKU PISTON RING manufactured piston ring.

Engine Lubrication — Section 8

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity ℓ (US qt, Imp qt)	D16B6, D16B7 engines: 4.0 (4.2, 3.5) for engine overhaul 3.6 (3.8, 3.2) for oil change, including filter 3.3 (3.5, 2.9) for oil change, without filter F18B2, F18B3, F20B4, F20B6 engines: 5.7 (6.0, 5.0) for engine overhaul 4.4 (4.6, 3.9) for oil change, including filter 4.1 (4.3, 3.6) for oil change, without filter H22A7 engine: 5.9 (6.2, 5.2) for engine overhaul 4.8 (5.1, 4.2) for oil change, including filter 4.5 (4.8, 4.0) for oil change, without filter	
Oil pump	Inner-to-outer rotor clearance D16B6, D16B7 engines Except D16B6, D16B7 engines Pump housing-to-outer rotor clearance D16B6, D16B7 engines Except D16B6, D16B7 engines Pump housing-to-rotor axial clearance D16B6, D16B7 engines Except D16B6, D16B7 engines	0.02 – 0.14 (0.001 – 0.006) 0.02 – 0.16 (0.001 – 0.006) 0.10 – 0.18 (0.004 – 0.007) 0.10 – 0.19 (0.004 – 0.007) 0.03 – 0.08 (0.001 – 0.003) 0.02 – 0.07 (0.001 – 0.003)	0.20 (0.008) 0.20 (0.008) 0.20 (0.008) 0.21 (0.008) 0.15 (0.006) 0.12 (0.005)
Relief valve	Pressure setting at engine oil temp. 80°C (176°F) kPa (kgf/cm², psi) at idle at 3,000 rpm (min⁻¹)	70 (0.7, 10) min. 340 (3.5, 50) min.	

Cooling — Section 10

	MEASUREMENT	STANDARD (NEW)
Radiator	Coolant capacity ℓ (US qt, Imp qt) [Including engine, heater, cooling line and reservoir.] Reservoir capacity: 0.55 ℓ (0.58 US qt, 0.48 Imp qt)	D16B6, D16B7 engines: 4.6 (4.9, 4.1) for overhaul 3.9 (4.1, 3.4) for coolant change F18B2, F18B3, F20B4, F20B6 engines: M/T: 5.8 (6.1, 5.1) for overhaul 4.2 (4.4, 3.7) for coolant change A/T: 5.7 (6.0, 5.0) for overhaul 4.1 (4.3, 3.6) for coolant change H22A7 engine: 6.9 (7.3, 6.1) for overhaul 3.3 (3.5, 2.9) for coolant change
Radiator cap	Opening pressure kPa (kgf/cm², psi)	93 – 123 (0.95 – 1.25, 14 – 18)
Thermostat	Start to open °C (°F) Fully open °C (°F) Valve lift at fully open Except H22A7 engine H22A7 engine	76 – 80 (169 – 176) 90 (194) 8.0 (0.31) min. 10.0 (0.39) min.
Cooling fan	Thermoswitch "ON" temperature °C (°F) Except H22A7 engine H22A7 engine Thermoswitch "OFF" temperature °C (°F) Except H22A7 engine H22A7 engine Fan timer "ON" temperature °C (°F) Fan timer "OFF" temperature °C (°F)	91 – 95 (196 – 203) 92 – 98 (198 – 208) Subtract 3 – 8 (5 – 15) from actual "ON" temperature Subtract 2 – 7 (4 – 12) from actual "ON" temperature 103 – 109 (217 – 228) Subtract 4 – 9 (7 – 16) from actual "ON" temperature

Standards and Service Limits

Fuel and Emissions — Section 11

	MEASUREMENT	STANDARD (NEW)
Pressure regulator	Pressure with regulator vacuum hose disconnected kPa (kgf/cm ² , psi)	D16B6, D16B7 engines 290 – 300 (3.0 – 3.1, 43 – 44) F18B2, F18B3, F18B4, F20B6 engines 270 – 320 (2.8 – 3.3, 40 – 47) H22A7 engine 270 – 370 (2.8 – 3.8, 40 – 54)
Fuel tank	Capacity ℓ (US gal, Imp gal)	65.0 (17.2, 14.3)
Engine	Idle speed with headlight and cooling fan off rpm (min ⁻¹)	D16B6, D16B7, F18B4 engines 750 ± 50 (M/T: neutral) F18B2, F20B3, F20B6 engines 750 ± 50 (M/T: neutral) 730 ± 50 (A/T: N or P position) H22A7 engine 790 ± 50 (M/T: neutral)
	Idle CO %	With TWC model: 0.1 max. Without TWC model: 1.0 ± 1.0

Clutch — Section 12

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Pedal height	to floor LHD RHD	_____
	Stroke	177 – 187 (7.0 – 7.4) 201 – 211 (7.9 – 8.3)	_____
	Free play	141 – 151 (5.55 – 5.94)	_____
	Pedal play	9 – 15 (0.4 – 0.6)	_____
	Disengagement height	1.0 – 7.0 (0.04 – 0.28)	_____
		to floor LHD RHD	_____
Flywheel	Clutch surface runout	81 (3.2) min. 107 (4.21) min.	_____
Clutch disc	Rivet head depth	0.05 (0.002) max.	0.15 (0.006)
		U2J4, U2G5	
		DH	
	Surface runout	1.4 (0.06) min	0.2 (0.008)
		1.3 (0.05) min	0.2 (0.008)
		1.2 – 1.7 (0.05 – 0.07)	0.2 (0.008)
Thickness	U2Q7	0.6 (0.02) max.	1.0 (0.04)
		7.9 – 8.4 (0.31 – 0.33)	6.0 (0.24)
		7.7 – 8.2 (0.30 – 0.32)	6.0 (0.24)
		8.3 – 9.0 (0.33 – 0.35)	6.0 (0.24)
Pressure plate	Warpage	0.03 (0.001) max.	0.15 (0.006)
	Diaphragm spring finger alignment	0.6 (0.02) max.	0.8 (0.03)

Manual Transmission (DH) — Section 13

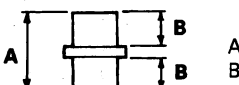
	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity ℓ (US qt, Imp qt)	1.8 (1.9, 1.6) at fluid change 1.9 (2.0, 1.7) at overhaul	
Mainshaft	End play	0.11 – 0.18 (0.004 – 0.007)	Adjust
	Diameter of ball bearing contact area A (Transmission housing side)	21.987 – 22.000 (0.8656 – 0.8661)	21.930 (0.8634)
	Diameter of 4th, 5th gear contact area B	26.980 – 26.993 (1.0622 – 1.0627)	26.930 (1.0602)
	Diameter of 3rd gear contact area C	33.984 – 34.000 (1.3380 – 1.3386)	33.930 (1.3358)
	Diameter of ball bearing contact area D (Clutch housing side)	25.977 – 25.990 (1.0227 – 1.0232)	25.920 (1.0205)
	Runout	0.02 (0.001) max.	0.05 (0.002)
Mainshaft 3rd and 4th gears	I.D.	39.009 – 39.025 (1.5358 – 1.5364)	39.07 (1.5382)
	End play	0.06 – 0.21 (0.002 – 0.008)	0.33 (0.013)
	3rd	0.06 – 0.19 (0.002 – 0.007)	0.31 (0.012)
	4th	0.06 – 0.19 (0.002 – 0.007)	0.31 (0.012)
Mainshaft 5th gear	Thickness	30.22 – 30.27 (1.190 – 1.192)	30.15 (1.187)
	3rd	30.12 – 30.17 (1.186 – 1.188)	30.05 (1.183)
	4th	30.12 – 30.17 (1.186 – 1.188)	30.05 (1.183)
Countershaft	I.D.	37.009 – 37.025 (1.4570 – 1.4577)	37.07 (1.459)
	End play	0.06 – 0.19 (0.002 – 0.007)	0.31 (0.012)
	Thickness	28.42 – 28.47 (1.119 – 1.121)	28.35 (1.116)
Countershaft	Diameter of needle bearing contact area A	30.000 – 30.015 (1.1811 – 1.1817)	29.95 (1.179)
	Diameter of 1st gear contact area B	35.984 – 36.000 (1.4167 – 1.4173)	35.93 (1.415)
	Diameter of ball bearing contact area C	24.980 – 24.993 (0.9835 – 0.9840)	24.93 (0.982)
	Runout	0.02 (0.001) max.	0.05 (0.002)

Manual Transmission (DH) — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Countershaft 1st gear	I.D. End play (When tightened by the specified torque) Thickness	41.009 – 41.025 (1.6145 – 1.6152) 0.03 – 0.10 (0.001 – 0.004) 30.41 – 30.44 (1.197 – 1.198)	41.07 (1.617) 0.22 (0.009) 30.36 (1.195)
Countershaft 2nd gear	I.D. End play (When tightened by the specified torque) Thickness	44.009 – 44.025 (1.7326 – 1.7333) 0.04 – 0.12 (0.002 – 0.005) 31.91 – 31.96 (1.256 – 1.258)	44.07 (1.735) 0.24 (0.009) 31.85 (1.254)
Spacer collar (Countershaft 2nd gear)	I.D. O.D. Length	33.000 – 33.010 (1.2992 – 1.2996) 38.989 – 39.000 (1.5350 – 1.5354) 32.03 – 32.06 (1.261 – 1.262)	33.04 (1.301) 38.93 (1.533) 32.01 (1.260)
Spacer collar (Mainshaft 4th and 5th gears)	I.D. O.D. Length	27.002 – 27.012 (1.0631 – 1.0635) 33.989 – 34.000 (1.3381 – 1.3386) 31.989 – 32.000 (1.2594 – 1.2598) 22.83 – 22.86 (0.899 – 0.900) 23.53 – 23.56 (0.926 – 0.928)	27.06 (1.065) 33.93 (1.336) 31.93 (1.257) 22.81 (0.898) 23.51 (0.926)
Reverse idler gear	I.D. Gear-to-reverse gear shaft clearance	15.016 – 15.043 (0.5912 – 0.5922) 0.032 – 0.077 (0.0013 – 0.0030)	15.08 (0.594) 0.14 (0.006)
Synchro ring	Ring-to-gear clearance (ring pushed against gear)	0.73 – 1.18 (0.029 – 0.046)	0.4 (0.016)
Shift fork	Finger thickness Fork-to-synchro sleeve clearance	6.2 – 6.4 (0.24 – 0.25) 7.4 – 7.6 (0.29 – 0.30) 0.35 – 0.65 (0.014 – 0.026)	— — —
Reverse shift fork	Fork pawl groove width Fork-to-reverse idler gear clearance L-groove width Fork-to-6th/reverse shift shaft piece pin clearance	12.7 – 13.0 (0.50 – 0.51) 0.5 – 1.1 (0.02 – 0.04) 7.05 – 7.25 (0.278 – 0.285) 0.05 – 0.35 (0.002 – 0.014)	— 1.8 (0.07) — 0.5 (0.02)
Shift arm A	Inner diameter of shift arm A contact point Shift arm A-to-shift arm C clearance	13.05 – 13.13 (0.514 – 0.517) 0.05 – 0.23 (0.002 – 0.009)	— 0.35 (0.014)
Shift arm B	Inner diameter of shift arm B shaft contact point Shift arm B-to-shaft clearance Shift arm B-to-shift piece clearance Diameter of shift fork contact point Shift fork 1st – 2nd/shift piece groove width	13.973 – 14.000 (0.5501 – 0.5512) 0.013 – 0.070 (0.0005 – 0.0028) 0.2 – 0.5 (0.01 – 0.02) 12.900 – 13.000 (0.5079 – 0.5118) 13.2 – 13.4 (0.52 – 0.53)	— 0.16 (0.006) 0.6 (0.02) 12.78 (0.503) —
MBS shift piece	Diameter of pin	6.9 – 7.1 (0.27 – 0.28)	6.8 (0.27)
Differential carrier	Pinion shaft bore diameter Carrier-to-pinion shaft clearance Driveshaft bore diameter Carrier-to-driveshaft clearance	18.010 – 18.028 (0.7091 – 0.7098) 0.023 – 0.057 (0.0009 – 0.0022) 26.025 – 26.045 (1.0246 – 1.0254) 0.045 – 0.086 (0.0018 – 0.0034)	— 0.095 (0.004) — 0.14 (0.006)
Differential pinion gear	Backlash Pinion gear bore diameter Pinion gear-to-pinion shaft clearance	0.05 – 0.15 (0.002 – 0.006) 18.042 – 18.066 (0.7103 – 0.7113) 0.055 – 0.095 (0.0022 – 0.0037)	— — 0.15 (0.006)
Set ring-to-bearing outer race		0 – 0.1 (0 – 0.004)	Adjust

Standards and Service Limits

Manual Transmission (U2J4/U2G5/U2Q7) — Section 13

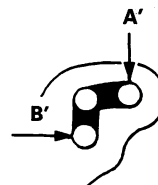
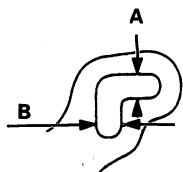
	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity ℓ (US qt, Imp qt)	1.9 (2.0, 1.7) at fluid change 2.0 (2.1, 1.8) at overhaul	
Mainshaft	End play Diameter of ball bearing contact area C Diameter of needle bearing contact area B Diameter of ball bearing contact area A Diameter of 4th/5th contact area Runout	0.10 – 0.16 (0.004 – 0.006) 27.977 – 27.990 (1.1015 – 1.1020) 37.984 – 38.000 (1.4954 – 1.4961) 27.987 – 28.000 (1.1018 – 1.1024) 30.987 – 31.000 (1.2200 – 1.2205) 0.02 (0.001) max.	Adjust 27.93 (1.100) 37.93 (1.493) 27.94 (1.100) 30.93 (1.218) 0.05 (0.002)
Mainshaft 3rd and 4th gears	I.D. End play Thickness 3rd gear Except U2Q7 U2Q7 4th gear Except U2Q7 U2Q7	43.009 – 43.025 (1.6933 – 1.6939) 0.06 – 0.21 (0.002 – 0.008) 32.42 – 32.47 (1.276 – 1.278) 34.92 – 34.97 (1.375 – 1.377) 30.92 – 30.97 (1.217 – 1.219) 31.42 – 31.47 (1.237 – 1.239)	43.080 (1.6961) 0.30 (0.012) 32.3 (1.27) 34.8 (1.37) 30.8 (1.21) 31.3 (1.23)
Mainshaft 5th gear	I.D. End play Thickness	43.009 – 43.025 (1.6933 – 1.6939) 0.06 – 0.21 (0.002 – 0.008) 30.92 – 30.97 (1.217 – 1.219)	43.080 (1.6961) 0.30 (0.012) 30.8 (1.21)
Countershaft	Diameter of needle bearing contact area A Diameter of ball bearing and needle bearing contact area C Diameter of 1st gear contact area B Runout	38.000 – 38.015 (1.4961 – 1.4967) 24.987 – 25.000 (0.9837 – 0.9843) 39.984 – 40.000 (1.5742 – 1.5748) 0.02 (0.001) max.	37.95 (1.494) 24.94 (0.982) 39.93 (1.572) 0.05 (0.002)
Countershaft 1st gear	I.D. End play Thickness Except U2Q7 U2Q7 Except U2Q7 U2Q7	46.009 – 46.025 (1.8114 – 1.8120) 0.06 – 0.23 (0.002 – 0.009) 0.06 – 0.18 (0.002 – 0.007) 32.95 – 33.00 (1.297 – 1.299) 26.95 – 27.000 (1.061 – 1.063)	46.08 (1.814) 0.23 (0.009) 0.23 (0.009) — —
Countershaft 2nd gear	I.D. End play Thickness	47.009 – 47.025 (1.8507 – 1.8514) 0.10 – 0.15 (0.004 – 0.006) 28.94 – 28.97 (1.139 – 1.141)	47.08 (1.854) 0.18 (0.007) —
Thrust washer (Countershaft 1st gear)	Thickness	1.95 – 1.97 (0.077 – 0.078)	—
Spacer collar (Countershaft 2nd gear)	I.D. O.D. Length	36.48 – 36.49 (1.436 – 1.437) 41.989 – 42.000 (1.6531 – 1.6535) 29.07 – 29.09 (1.144 – 1.145)	36.50 (1.437) 41.94 (1.651) —
Spacer collar (Mainshaft 4th and 5th gears)	I.D. O.D. Length 	31.002 – 31.012 (1.2205 – 1.2209) 37.989 – 38.000 (1.4956 – 1.4961) 56.45 – 56.55 (2.222 – 2.226) 26.03 – 26.08 (1.025 – 1.027)	31.06 (1.223) 37.94 (1.494) — 26.01 (1.024)
Reverse idler gear	I.D. Gear-to-reverse gear shaft clearance	20.016 – 20.043 (0.7880 – 0.7891) 0.036 – 0.084 (0.0014 – 0.0033)	20.09 (0.7909) 0.160 (0.0063)
Synchro ring	Ring-to-gear clearance (ring pushed against gear)	0.85 – 1.10 (0.033 – 0.043)	0.40 (0.016)
Double cone synchro	Clearance (ring pushed against gear) Outer synchro ring-to-synchro cone Inner synchro ring-to-gear Outer synchro ring-to-gear	0.5 – 1.0 (0.02 – 0.04) min 0.5 – 1.0 (0.02 – 0.04) min 0.95 – 1.68 (0.037 – 0.066)	0.3 (0.01) 0.3 (0.01) 0.6 (0.02)

Manual Transmission (U2J4/U2G5/U2Q7) — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Shift fork	Finger thickness 1st/2nd/5th 3rd/4th	6.2 – 6.4 (0.24 – 0.25) 7.4 – 7.6 (0.29 – 0.30) 0.35 – 0.65 (0.014 – 0.026)	— — 1.0 (0.04)
	Fork-to-synchro sleeve clearance		
Reverse shift fork	Pawl groove width	13.0 – 13.3 (0.51 – 0.52)	—
	Fork-to-reverse idler gear clearance	0.5 – 1.1 (0.02 – 0.04)	1.8 (0.07)
	Groove width*1 at A	7.05 – 7.25 (0.278 – 0.285)	—
	Fork-to-5th/reverse shift shaft Clearance*2 at A' at B' at B'	7.4 – 7.7 (0.29 – 0.30) 0.05 – 0.35 (0.002 – 0.014) 0.4 – 0.8 (0.02 – 0.03)	0.5 (0.02) 1.0 (0.04)
Shift arm	I.D.	15.973 – 16.000 (0.6289 – 0.6299)	—
	Shift arm-to-shaft clearance	0.005 – 0.059 (0.0002 – 0.0023)	—
	Shift fork diameter contact area	12.9 – 13.0 (0.508 – 0.512)	—
	Shift arm-to-shift fork shaft clearance	0.2 – 0.5 (0.01 – 0.02)	0.6 (0.02)
Select lever	Shaft outer diameter	15.941 – 15.968 (0.6276 – 0.6287)	—
	Shift arm cover clearance	0.032 – 0.102 (0.0013 – 0.0040)	—
Shift lever	O.D.	15.941 – 15.968 (0.6276 – 0.6287)	—
	Transmission housing clearance	0.021 – 0.141 (0.0008 – 0.0056)	—
Interlock	Bore diameter	16.00 – 16.05 (0.630 – 0.632)	—
	Shift arm clearance	0.032 – 0.109 (0.0013 – 0.0043)	—
Differential carrier	Pinion shaft contact area I.D. Except U2Q7	18.000 – 18.018 (0.7087 – 0.7094)	—
	Carrier-to-pinion shaft clearance Except U2Q7	0.017 – 0.047 (0.0007 – 0.0019)	0.10 (0.004)
	Driveshaft contact area I.D.	28.005 – 28.025 (1.1026 – 1.1033)	—
	Carrier-to-driveshaft clearance R L	0.025 – 0.066 (0.0010 – 0.0026) 0.055 – 0.091 (0.0022 – 0.0036)	0.12 (0.005) 0.15 (0.006)
Differential pinion gear Except U2Q7	Backlash	0.05 – 0.15 (0.002 – 0.006)	—
	I.D.	18.042 – 18.066 (0.7103 – 0.7113)	—
	Pinion gear-to-pinion shaft clearance	0.055 – 0.095 (0.0022 – 0.0037)	0.15 (0.006)
Tapered roller bearing preload	Starting torque N·m (kgf·cm, lbf·in)	1.4 – 2.5 (14 – 26, 12 – 23)	Adjust

*1: Measuring points

*2: Measuring points



Standards and Service Limits

Automatic Transmission — Section 14

Automatic Transmission — Section 14			
	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity ℓ (US qt, Imp qt)	6.1 (6.4, 5.4) at overhaul 2.5 (2.6, 2.2) at fluid change	
Hydraulic pressure kPa (kgf/cm², psi)	Line pressure at 2,000 rpm (min⁻¹) in [N] or [P] position	850 – 910 (8.7 – 9.3, 120 – 130)	800 (8.2, 120)
	4th clutch pressure at 2,000 rpm (min⁻¹) in [D4] position 3rd clutch pressure at 2,000 rpm (min⁻¹) in [D4] position 2nd clutch pressure at 2,000 rpm (min⁻¹) in [2] position 1st clutch pressure at 2,000 rpm (min⁻¹) in [1] position	840 – 920 (8.6 – 9.4, 120 – 130)	790 (8.1, 120)
Stall speed rpm (min⁻¹) (Check with vehicle on level ground)	F20B6 engine F18B2, F18B4 engines	2,250 2,450	1,950 – 2,550 2,150 – 2,750
Clutch	Clutch initial clearance 1st 2nd 3rd 4th Clutch return spring free length 1st, 2nd 3rd, 4th Clutch disc thickness Clutch plate thickness 1st 2nd 3rd 4th	1.15 – 1.35 (0.045 – 0.053) 0.7 – 0.9 (0.028 – 0.035) 0.6 – 0.8 (0.024 – 0.031) 0.4 – 0.6 (0.016 – 0.024) 45.7 (1.80) 33.5 (1.32) 1.88 – 2.00 (0.074 – 0.079) 1.95 – 2.05 (0.077 – 0.081) 2.25 – 2.35 (0.089 – 0.093) 2.55 – 2.65 (0.100 – 0.104) 2.25 – 2.35 (0.089 – 0.093)	_____ _____ _____ _____ 43.7 (1.72) 31.5 (1.24) Until grooves worn out Discoloration ↑ Discoloration
	Clutch end plate thickness 1st, 2nd clutches Mark 6 Mark 7 Mark 8 Mark 9 Mark 0 Mark 1 Mark 2 Mark 3 Mark 4	2.55 – 2.60 (0.100 – 0.102) 2.65 – 2.70 (0.104 – 0.106) 2.75 – 2.80 (0.108 – 0.110) 2.85 – 2.90 (0.112 – 0.114) 2.95 – 3.00 (0.116 – 0.118) 3.05 – 3.10 (0.120 – 0.122) 3.15 – 3.20 (0.124 – 0.126) 3.25 – 3.30 (0.128 – 0.130) 3.35 – 3.40 (0.132 – 0.134)	Discoloration ↑
	Clutch end plate thickness 3rd, 4th clutches Mark 1 Mark 2 Mark 3 Mark 4 Mark 5 Mark 6 Mark 7 Mark 8 Mark 9	2.05 – 2.10 (0.081 – 0.083) 2.15 – 2.20 (0.085 – 0.087) 2.25 – 2.30 (0.089 – 0.091) 2.35 – 2.40 (0.093 – 0.094) 2.45 – 2.50 (0.096 – 0.098) 2.55 – 2.60 (0.100 – 0.102) 2.65 – 2.70 (0.104 – 0.106) 2.75 – 2.80 (0.108 – 0.110) 2.85 – 2.90 (0.112 – 0.114)	Discoloration ↑
Valve body	Stator shaft needle bearing contact I.D. Torque converter side ATF pump side ATF pump gear thrust clearance ATF pump gear-to-body clearance ATF pump driven gear I.D. ATF pump driven gear shaft O.D.	27.000 – 27.021 (1.0630 – 1.0638) 29.000 – 29.021 (1.1417 – 1.1426) 0.03 – 0.05 (0.001 – 0.002) 0.210 – 0.265 (0.0083 – 0.0104) 0.070 – 0.125 (0.0028 – 0.0049) 14.016 – 14.034 (0.5518 – 0.5525) 13.980 – 13.990 (0.5504 – 0.5508)	Wear or damage _____ 0.07 (0.003) _____ _____ Wear or damage Wear or damage
Shifting device and parking brake	Reverse shift fork finger thickness Parking brake pawl Parking gear	5.90 – 6.00 (0.232 – 0.236) _____ _____	5.40 (0.213) Wear or other defect
Servo body	Shift fork shaft bore I.D. Shift fork shaft valve bore I.D.	14.000 – 14.010 (0.5512 – 0.5516) 37.000 – 37.039 (1.4567 – 1.4582)	_____ 37.045 (1.4585)
Regulator valve body	Sealing ring contact I.D.	32.000 – 32.025 (1.2598 – 1.2608)	32.050 (1.2618)
Accumulator body	Sealing ring contact I.D.	35.000 – 35.025 (1.3780 – 1.3789)	35.05 (1.3799)
Stator shaft	Sealing ring contact I.D.	29.000 – 29.021 (1.1417 – 1.1426)	29.050 (1.1437)

Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Mainshaft 3rd gear thrust shim, 41 x 72 mm thickness	6.32 – 6.35 (0.2488 – 0.2500) 6.37 – 6.40 (0.2508 – 0.2520) 6.42 – 6.45 (0.2528 – 0.2539) 6.47 – 6.50 (0.2547 – 0.2559) 6.52 – 6.55 (0.2567 – 0.2579) 6.57 – 6.60 (0.2587 – 0.2598)	Wear or damage ↑
	Mainshaft 4th gear thrust washer, 27 x 47 mm thickness	4.95 – 5.00 (0.1949 – 0.1969)	
	Secondary shaft splined washer, 38 x 56.5 mm thickness	6.82 – 6.85 (0.269 – 0.270) 6.87 – 6.90 (0.270 – 0.272) 6.92 – 6.95 (0.272 – 0.274) 6.97 – 7.00 (0.274 – 0.276) 7.02 – 7.05 (0.276 – 0.278) 7.07 – 7.10 (0.278 – 0.280)	
	Secondary shaft thrust shim, 37 x 55 mm thickness	4.87 – 4.90 (0.192 – 0.193) 4.92 – 4.95 (0.194 – 0.195) 4.97 – 5.00 (0.196 – 0.197) 5.02 – 5.05 (0.198 – 0.199) 5.07 – 5.10 (0.200 – 0.201) 5.12 – 5.15 (0.202 – 0.203) 5.17 – 5.20 (0.204 – 0.205)	
	Mainshaft 4th gear collar length	49.40 – 49.50 (1.945 – 1.949)	Wear or damage ↑
	Mainshaft 4th gear collar flange thickness	4.35 – 4.50 (0.171 – 0.177)	
	Countershaft distance collar length	50.42 – 50.46 (1.985 – 1.987)	Wear or damage ↑
	Cotter thickness	1.99 – 2.02 (0.078 – 0.080)	
	Secondary shaft sealing ring, 35 mm thickness	1.890 – 1.950 (0.074 – 0.077)	1.800 (0.071)
	Mainshaft sealling ring, 32 mm thickness	1.850 – 1.950 (0.073 – 0.077)	1.800 (0.071)
	Mainshaft sealling ring, 29 mm thickness	1.850 – 1.950 (0.073 – 0.077)	1.800 (0.071)
	Mainshaft sealling ring groove width	2.025 – 2.060 (0.080 – 0.081)	2.080 (0.082)
	Secondary shaft sealing ring groove width	2.025 – 2.060 (0.080 – 0.081)	2.080 (0.082)
	Mainshaft 4th clutch feed pipe O.D.	11.47 – 11.48 (0.4516 – 0.4520)	11.45 (0.4508)
	Mainshaft 3rd clutch feed pipe O.D.	5.97 – 5.98 (0.2350 – 0.2354)	5.95 (0.2343)
	Secondary shaft feed pipe O.D.	7.97 – 7.98 (0.3138 – 0.3142)	7.95 (0.3130)
	Mainshaft 4th clutch feed pipe bushing I.D.	11.500 – 11.518 (0.4528 – 0.4535)	11.530 (0.4539)
	Mainshaft 3rd clutch feed pipe bushing I.D.	6.018 – 6.030 (0.2369 – 0.2374)	6.045 (0.2380)
	Secondary shaft bushing I.D.	8.000 – 8.015 (0.3150 – 0.3156)	8.030 (0.3161)
	Diameter of needle bearing contact area		Wear or damage ↑
	On mainshaft of stator shaft	22.984 – 23.000 (0.9049 – 0.9055)	
	On mainshaft of 3rd gear	55.975 – 55.991 (2.2037 – 2.2044)	Wear or damage ↑
	On mainshaft of 4th gear collar	33.975 – 33.991 (1.3376 – 1.3382)	
	On countershaft of 4th gear	33.975 – 33.991 (1.3376 – 1.3382)	Wear or damage ↑
	On countershaft 2nd gear	39.979 – 40.000 (1.5740 – 1.5748)	
	On countershaft of L. side	36.005 – 36.015 (1.4175 – 1.4179)	Wear or damage ↑
	On parking gear	41.964 – 41.980 (1.6521 – 1.6528)	
	On secondary shaft of 1st gear	37.978 – 37.993 (1.4952 – 1.4958)	Wear or damage ↑
	On secondary shaft of 2nd gear	33.986 – 33.999 (1.3380 – 1.3385)	
	On secondary shaft of L. side	34.000 – 34.013 (1.3386 – 1.3391)	Wear or damage ↑
	On reverse idler gear shaft	14.985 – 15.000 (0.5900 – 0.5906)	
	Transmission housing of reverse idler gear shaft contact area I.D.	14.800 – 14.818 (0.5827 – 0.5834)	Wear or damage ↑
	Reverse idler gear shaft holder I.D.	14.800 – 14.824 (0.5827 – 0.5836)	
	Reverse selector hub O.D.	55.87 – 55.90 (2.1996 – 2.2008)	Wear or damage ↑
	Inside Diameter		
	Mainshaft 3rd gear	61.000 – 61.019 (2.4016 – 2.4023)	Wear or damage ↑
	Mainshaft 4th gear	40.000 – 40.016 (1.5748 – 1.5754)	
	Countershaft 4th gear	40.000 – 40.016 (1.5748 – 1.5754)	Wear or damage ↑
	Countershaft idler gear	50.000 – 50.016 (1.9685 – 1.9691)	
	Countershaft reverse gear	46.000 – 46.016 (1.8110 – 1.8116)	Wear or damage ↑
	Reverse idler gear	20.007 – 20.020 (0.7877 – 0.7882)	
	Secondary shaft 1st gear	44.000 – 44.016 (1.7323 – 1.7329)	Wear or damage ↑
	Secondary shaft 2nd gear	40.000 – 40.016 (1.5748 – 1.5754)	

(cont'd)

Standards and Service Limits

Automatic Transmission (cont'd) — Section 14

Automatic Transmission (cont'd) — Section 14					
MEASUREMENT		STANDARD (NEW)		SERVICE LIMIT	
Transmission (cont'd)	End play				
	Mainshaft 3rd gear	0.03 – 0.11 (0.001 – 0.004)		—	
	Mainshaft 4th gear	0.10 – 0.22 (0.004 – 0.009)		—	
	Countershaft 1st gear	0.00 – 0.33 (0.000 – 0.013)		—	
	Countershaft 4th gear	0.04 – 0.28 (0.002 – 0.011)		—	
	Countershaft idler gear	0.015 – 0.045 (0.0006 – 0.0018)		—	
	Countershaft reverse gear	0.10 – 0.25 (0.004 – 0.010)		—	
	Reverse idler gear	0.20 – 0.55 (0.008 – 0.022)		—	
	Secondary shaft 1st gear	0.07 – 0.15 (0.003 – 0.006)		—	
Secondary shaft 2nd gear	0.04 – 0.12 (0.002 – 0.005)		—		
Differential carrier	Pinion shaft contact area I.D.	18.010 – 18.028 (0.709 – 0.710)		—	
	Carrier-to-pinion shaft clearance	0.023 – 0.057 (0.001 – 0.002)		0.1 (0.004)	
	Driveshaft contact area I.D.	28.025 – 28.045 (1.103 – 1.104)		—	
	Carrier-to-driveshaft clearance	0.045 – 0.086 (0.002 – 0.003)		0.12 (0.005)	
Differential pinion gear	Backlash	0.050 – 0.150 (0.002 – 0.006)		—	
	I.D.	18.042 – 18.066 (0.710 – 0.711)		—	
	Pinion gear-to-pinion shaft clearance	0.055 – 0.095 (0.002 – 0.004)		0.12 (0.005)	
Differential tapered roller bearing preload		For new bearing		Adjust	
Starting torque N·m (kgf·cm, lbf·in)		For used bearing		Adjust	
		2.7 – 3.9 (28 – 40, 24 – 35)			
		2.5 – 3.6 (25 – 37, 22 – 32)			
	MEASUREMENT	STANDARD (NEW)			
		Wire Dia.	O.D.	Free Length	No. of Coils
Spring	Regulator valve spring A	1.9 (0.075)	14.7 (0.579)	77.4 (3.047)	15.2
	Regulator valve spring B	1.6 (0.063)	9.2 (0.362)	44.0 (1.732)	12.5
	Stator reaction spring	4.5 (0.177)	35.4 (1.394)	30.3 (1.193)	1.92
	Modulator valve spring	1.6 (0.063)	10.4 (0.409)	33.5 (1.319)	9.8
	Torque converter check valve spring	1.1 (0.043)	8.4 (0.331)	38.2 (1.504)	14.0
	Relief valve spring	0.9 (0.035)	6.6 (0.260)	39.8 (1.567)	20.4
	Cooler check valve spring	0.6 (0.024)	5.8 (0.228)	14.5 (0.571)	6.8
	Shift valve A spring	0.8 (0.031)	7.1 (0.280)	40.4 (1.591)	16.9
	Shift valve B spring	0.8 (0.031)	7.1 (0.280)	40.4 (1.591)	16.9
	Shift valve C spring	0.8 (0.031)	6.6 (0.260)	49.1 (1.933)	21.7
	Shift valve E spring	0.7 (0.028)	6.6 (0.260)	32.2 (1.268)	13.4
	Lock-up shift valve spring	0.9 (0.035)	7.6 (0.299)	63.0 (2.480)	22.4
	Lock-up timing valve spring	0.65 (0.026)	6.6 (0.260)	34.8 (1.370)	15.6
	Lock-up control valve spring	0.7 (0.028)	6.6 (0.260)	42.9 (1.689)	14.2
	Shift valve D spring	0.7 (0.028)	6.6 (0.260)	35.7 (1.406)	17.2
	Servo control valve spring	0.7 (0.028)	6.6 (0.260)	35.7 (1.406)	17.2
	Reverse CPC valve spring	0.7 (0.028)	6.1 (0.240)	17.8 (0.701)	7.9
	CPC valve A spring	0.7 (0.028)	6.1 (0.240)	17.8 (0.701)	7.9
	CPC valve B spring	0.7 (0.028)	6.1 (0.240)	17.8 (0.701)	7.9
	1st accumulator spring A	2.6 (0.102)	19.6 (0.772)	69.7 (2.744)	10.8
	1st accumulator spring B	2.5 (0.098)	12.8 (0.504)	49.5 (1.949)	8.5
	3rd accumulator spring	3.8 (0.150)	19.6 (0.772)	59.8 (2.354)	7.8
	4th accumulator spring	3.8 (0.150)	19.6 (0.772)	59.8 (2.354)	7.8
	2nd accumulator spring A	2.6 (0.102)	21.6 (0.850)	73.2 (2.882)	10.0
	2nd accumulator spring B	2.7 (0.106)	14.8 (0.583)	51.0 (2.008)	9.6

Steering — Section 17

	MEASUREMENT	STANDARD (NEW)
Steering wheel	Rotational play at steering wheel circumference Starting load at steering wheel circumference N (kgf, lbf) Engine running	0 – 10 (0 – 0.39) 30 (3.1, 6.8)
Gearbox	Angle of rack-guide-screw loosened from locked position	5° – 10°
Pump	Pump pressure with shut-off valve closed kPa (kgf/cm ² , psi) D16B6 engine model F18B2, F18B3, F20B6 engine models H22A7 engine model	5,700 – 6,400 (58 – 65, 820 – 920) 6,700 – 7,400 (68 – 75, 970 – 1,070) 6,900 – 7,600 (70 – 77, 1,000 – 1,090)
Power steering fluid	Recommended fluid Fluid capacity ℓ (US qt, Imp qt) For overhaul D16B6 engine model RHD (Except D16B6 engine) LHD (Except D16B6 engine) For fluid change	Honda power steering fluid S 1.0 (1.1, 0.9) 1.1 (1.2, 1.0) 1.0 (1.1, 0.9) 0.4 (0.42, 0.35)
Power steering belt*	Deflection with 98 N (10 kgf, 22 lbf) between pulleys D16B6 engine model Except D16B6 engine model	10.5 – 14.0 (0.41 – 0.55) with used belt 7.5 – 10.0 (0.30 – 0.39) with new belt 13.0 – 16.5 (0.51 – 0.65) with used belt 8.5 – 11.0 (0.33 – 0.43) with new belt
	Belt tension N (kgf, lbf) Measured with belt tension gauge D16B6 engine model Except D16B6 engine model	340 – 490 (35 – 50, 77 – 110) with used belt 640 – 780 (65 – 80, 143 – 176) with new belt 390 – 540 (40 – 55, 88 – 121) with used belt 740 – 880 (75 – 90, 165 – 198) with new belt

*: When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off.
Readjust deflection or tension to used belt values.

Suspension — Section 18

	MEASUREMENT	STANDARD (NEW)
Wheel alignment	Camber Front H22A7 engine model	–0°15' ± 1°
	Except H22A7 engine model	0° ± 1°, 0°10' ± 1°*1
	Rear H22A7 engine model	–1°15' ± 30'
	Except H22A7 engine model	–1°00' ± 30', –0°50' ± 30°*1
	Caster Front H22A7 engine model	3°00' ± 1°
	Except H22A7 engine model	2°50' ± 1°, 2°45' ± 1°*1
	Total toe Front	0 ± 2 (0 ± 0.08)
	Rear	IN 2 ±1 (0.08 ±0.08)
Front wheel turning angle	Inward wheel H22A7 engine model	36°06' ± 2°
	Except H22A7 engine model	39°10' ± 2°, 39°27' ± 2°
	Outward wheel H22A7 engine model	29°12' (Reference)
	Except H22A7 engine model	30°58' (Reference), 31°14' (Reference)*1
Wheel bearing	End play Front	0 – 0.05 (0 – 0.002)
	Rear	0 – 0.05 (0 – 0.002)
Wheel	Rim runout Aluminum wheel Axial	STANDARD (NEW)
		0 – 0.7 (0 – 0.03)
		0 – 0.7 (0 – 0.03)
		0 – 1.0 (0 – 0.04)
	Steel wheel Axial	SERVICE LIMIT
		2.0 (0.08)
		1.5 (0.06)
		2.0 (0.08)
	Radial	0 – 1.0 (0 – 0.04)
		1.5 (0.06)

*1: KY model

Standards and Service Limits

Brakes — Section 19

		MEASUREMENT	STANDARD (NEW)			
Parking brake lever	Play in stroke at 196 N (20 kgf, 44 lbf) lever force		To be locked when pulled 6 – 9 notches			
Foot brake pedal	Pedal height (With floor mat removed)	M/T	168.5 (6.63)			
	Free play	A/T	173.5 (6.83) 1 – 5 (0.04 – 0.20)			
Master cylinder	Piston-to-pushrod clearance		0 – 0.4 (0 – 0.02)			
Disc brake	Disc thickness	H22A7 engine model Except D16B6, D16B7, H22A7 engines model D16B6, D16B7 engines model	STANDARD (NEW)		SERVICE LIMIT	
			27.9 – 28.1 (1.10 – 1.11) 24.9 – 25.1 (0.98 – 0.99)		26.0 (1.02) 23.0 (0.91)	
	Disc runout	Front Rear	22.9 – 23.1 (0.90 – 0.91) 9.9 – 10.1 (0.390 – 0.398)		21.0 (0.83) 8.0 (0.31)	
			_____ _____		0.10 (0.004) 0.10 (0.004)	
	Disc parallelism	Front and rear	_____		0.015 (0.0006)	
			_____		1.6 (0.06) 1.6 (0.06)	
	Pad thickness	Front Rear	10.5 – 11.5 (0.41 – 0.45) 8.5 – 9.5 (0.33 – 0.37)		229.6 (9.039) 2.0 (0.08)	
			_____		_____	
Drum brake	Drum I.D. Lining thickness	228.6 – 228.7 (9.000 – 9.004) 5.0 (0.20)		229.6 (9.039) 2.0 (0.08)		
Brake booster	Characteristics at 98 N (10 kgf, 22 lbf) and 294 N (30 kgf, 66 lbf) pedal force					
		Vacuum kPa (mm Hg, in Hg)	Minimum line pressure			
			D16B6 engine model		Except D16B6 engine model	
			N (kgf, lbf)	kPa (kgf/cm ² , psi)	N (kgf, lbf)	kPa (kgf/cm ² , psi)
			0 (0, 0)		0 (0, 0)	
			66.7 (500, 19.7)		66.7 (500, 19.7)	
			66.7 (500, 19.7)		66.7 (500, 19.7)	

Air Conditioning — Section 22

	MEASUREMENT	STANDARD (NEW)
Air conditioning system SAN DEN	Lubricant type: SP – 10 (P/N 38897 – P13 – 003, 38898 – P13 – 003 or 38899 – P13 – A01) (For Refrigerant: HFC-134a (R-134a))	
	Lubricant capacity mℓ (fl oz, Imp oz)	25 (5/6, 0.9)
	Condenser	40 (1 1/3, 1.4)
	Evaporator	10 (1/3, 0.4)
DEN SO	Lubricant type: ND – OIL8 (P/N 38897 – PR7 – 003, 38898 – PR7 – 003 or 38899 – PR7 – A01) (For Refrigerant: HFC-134a (R-134a))	
	Lubricant capacity mℓ (fl oz, Imp oz)	25 (5/6, 0.9)
	Condenser	40 (1 1/3, 1.4)
	Evaporator	10 (1/3, 0.4)
Compressor SAN DEN	Lubricant type: SP – 10	
	Lubricant capacity mℓ (fl oz, Imp oz)	130 (4 1/3, 4.6)
	Field coil resistance at 20°C (68°F) Ω	3.05 – 3.35
	Pulley-to-pressure plate clearance	0.5 ± 0.15 (0.02 ± 0.006)
DEN SO	Lubricant type: ND – OIL8	
	Lubricant capacity mℓ (fl oz, Imp oz)	160 (5 1/3, 5.6)
	Stator coil resistance at 20°C (68°F) Ω	3.9 – 4.3
	Pulley-to-pressure plate clearance	0.5 ± 0.15 (0.02 ± 0.006)
Compressor belt*	Deflection with 98 N (10 kgf, 22 lbf) between pulleys D16B6, D16B7 engines	7.5 – 9.5 (0.30 – 0.37) with used belt 5.0 – 6.5 (0.20 – 0.26) with new belt
	All except D16B6, D16B7 engines	10.0 – 12.0 (0.39 – 0.47) with used belt 5.5 – 7.5 (0.22 – 0.30) with new belt
	Belt tension N (kgf, lbf)	
	Measured with belt tension gauge D16B6, D16B7 engines	340 – 490 (35 – 50, 77 – 110) with used belt 690 – 830 (70 – 85, 150 – 190) with new belt
	All except D16B6, D16B7 engines	390 – 540 (40 – 55, 88 – 120) with used belt 880 – 1,030 (90 – 105, 200 – 231) with new belt

*: When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off.
Readjust deflection or tension to used belt values.

Design Specifications

specs

	ITEM		METRIC	ENGLISH	NOTES
DIMENSIONS	Overall Length		4,595 mm	180.9 in	EU
	Overall Width		1,750 mm	68.9 in	
	Overall Height	Except KY model	1,430 mm	56.3 in	
		KY model	1,445 mm	56.9 in	
	Wheelbase	Except TYPE R	2,668 mm	105.0 in	
		TYPE R	2,670 mm	105.1 in	
	Track Front/Rear	Except TYPE R	1,495/1,504 mm	58.9/59.2 in	
		TYPE R	1,507/1,515 mm	59.3/59.6 in	
	Wheel Arch Front/Rear		666/669 mm	26.2/26.3 in	
	Seating Capacity		Five		
WEIGHT 4-door	Curb Weight				
	KE 1.6iS	M/T	1,270 kg	2,800 lbs	
		M/T with A/C, S/R	1,301 kg	2,868 lbs	
	1.6iLS	M/T with A/C, S/R	1,301 kg	2,868 lbs	
		M/T	1,345 kg	2,965 lbs	
	1.8iS	A/T	1,370 kg	3,020 lbs	
		M/T with A/C	1,360 kg	2,998 lbs	
		A/T with A/C	1,385 kg	3,053 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
		A/T with S/R	1,386 kg	3,056 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
	1.8iLS	A/T with S/R	1,386 kg	3,056 lbs	
		M/T with A/C, S/R	1,376 kg	3,034 lbs	
		A/T with A/C, S/R	1,401 kg	3,089 lbs	
		M/T	1,406 kg	3,100 lbs	
	1.8iES	A/T	1,431 kg	3,155 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
	2.0iLS	A/T with S/R	1,386 kg	3,056 lbs	
		M/T with A/C, S/R	1,376 kg	3,034 lbs	
		A/T with A/C, S/R	1,401 kg	3,089 lbs	
		M/T	1,406 kg	3,100 lbs	
	2.0iES	A/T	1,431 kg	3,155 lbs	
		M/T	1,345 kg	2,965 lbs	
	TYPE R	M/T	1,345 kg	2,965 lbs	
		M/T with A/C	1,285 kg	2,833 lbs	
	KG 1.6iS	M/T with S/R	1,286 kg	2,835 lbs	
		M/T with A/C	1,285 kg	2,833 lbs	
	1.6iLS	M/T with S/R	1,286 kg	2,835 lbs	
		M/T with A/C, S/R	1,301 kg	2,868 lbs	
	1.8iS	M/T with A/C	1,360 kg	2,998 lbs	
		A/T with A/C	1,385 kg	3,053 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
		M/T	1,345 kg	2,965 lbs	
	1.8iLS	A/T	1,370 kg	3,020 lbs	
		M/T with A/C	1,360 kg	2,998 lbs	
		A/T with A/C	1,385 kg	3,053 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
		A/T with S/R	1,386 kg	3,056 lbs	
		M/T with A/C, S/R	1,376 kg	3,034 lbs	
		A/T with A/C, S/R	1,401 kg	3,089 lbs	
		M/T	1,406 kg	3,100 lbs	
	1.8iES	A/T	1,431 kg	3,155 lbs	
		M/T	1,345 kg	2,965 lbs	
	2.0iLS	A/T	1,370 kg	3,020 lbs	
		M/T with A/C	1,360 kg	2,998 lbs	
		A/T with A/C	1,365 kg	3,053 lbs	
		M/T with S/R	1,361 kg	3,000 lbs	
		A/T with S/R	1,386 kg	3,056 lbs	
		M/T with A/C, S/R	1,376 kg	3,034 lbs	
		A/T with A/C, S/R	1,401 kg	3,089 lbs	
		M/T	1,406 kg	3,100 lbs	
	2.0iES	A/T	1,431 kg	3,155 lbs	
		M/T	1,345 kg	2,965 lbs	
	TYPE R	M/T	1,345 kg	2,965 lbs	
		M/T	1,270 kg	2,800 lbs	
	KS 1.6iS	M/T with A/C	1,285 kg	2,833 lbs	
		M/T with A/C	1,285 kg	2,833 lbs	
	1.6iLS	M/T with A/C	1,360 kg	2,998 lbs	
	1.8iS	A/T	1,375 kg	3,031 lbs	
	1.8iLS	M/T with A/C	1,360 kg	2,998 lbs	

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Design Specifications

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	ITEM			METRIC	ENGLISH	NOTES
WEIGHT 4-door	KS	2.0iLS	M/T	1,345 kg	2,965 lbs	
		2.0iES	M/T with A/C	1,390 kg	3,064 lbs	
	KR	1.6iS	M/T	1,265 kg	2,789 lbs	
			M/T with ABS	1,270 kg	2,800 lbs	
			M/T with ABS, A/C	1,285 kg	2,833 lbs	
		1.6iLS	M/T with A/C	1,285 kg	2,833 lbs	
			M/T with A/C, S/R	1,301 kg	2,868 lbs	
		1.8iS	M/T with A/C	1,360 kg	2,998 lbs	
		1.8iLS	M/T	1,345 kg	2,965 lbs	
			A/T	1,370 kg	3,020 lbs	
			M/T with A/C	1,360 kg	2,998 lbs	
			A/T with A/C	1,385 kg	3,053 lbs	
			M/T with A/C, S/R	1,376 kg	3,034 lbs	
		1.8iES	M/T	1,375 kg	3,031 lbs	
		2.0LS	M/T	1,360 kg	2,998 lbs	
		2.0ES	M/T	1,406 kg	3,100 lbs	
			A/T	1,431 kg	3,155 lbs	
		TYPE R	M/T	1,345 kg	2,965 lbs	
	KY	1.8iS	M/T	1,340 kg	2,954 lbs	
			A/T	1,365 kg	3,009 lbs	
	Weight Distributions (Front/Rear)					
	KE	1.6iS	M/T	730/540 kg	1,610/1,190 lbs	
			M/T with A/C, S/R	753/548 kg	1,660/1,208 lbs	
		1.6iLS	M/T with A/C, S/R	753/548 kg	1,660/1,208 lbs	
		1.8iS	M/T	805/540 kg	1,775/1,190 lbs	
			A/T	830/540 kg	1,830/1,190 lbs	
			M/T with A/C	820/540 kg	1,808/1,190 lbs	
			A/T with A/C	845/540 kg	1,863/1,190 lbs	
			M/T with S/R	813/548 kg	1,792/1,208 lbs	
			A/T with S/R	838/548 kg	1,848/1,208 lbs	
		1.8iLS	M/T with S/R	813/548 kg	1,792/1,208 lbs	
			A/T with S/R	838/548 kg	1,848/1,208 lbs	
			M/T with A/C, S/R	828/548 kg	1,826/1,208 lbs	
			A/T with A/C, S/R	853/548 kg	1,881/1,208 lbs	
		1.8iES	M/T	838/568 kg	1,848/1,252 lbs	
			A/T	863/568 kg	1,903/1,252 lbs	
		2.0iLS	M/T with S/R	823/538 kg	1,814/1,186 lbs	
			A/T with S/R	848/538 kg	1,870/1,186 lbs	
			M/T with A/C, S/R	838/538 kg	1,848/1,186 lbs	
			A/T with A/C, S/R	863/538 kg	1,903/1,186 lbs	
		2.0iES	M/T	848/558 kg	1,870/1,230 lbs	
			A/T	873/558 kg	1,925/1,230 lbs	
		TYPE R	M/T	820/525 kg	1,808/1,157 lbs	
	KG	1.6iS	M/T with A/C	745/540 kg	1,643/1,190 lbs	
			M/T with S/R	738/548 kg	1,627/1,208 lbs	
		1.6iLS	M/T with A/C	745/540 kg	1,643/1,190 lbs	
			M/T with S/R	738/548 kg	1,627/1,208 lbs	
			M/T with A/C, S/R	753/548 kg	1,660/1,208 lbs	
		1.8iS	M/T with A/C	820/540 kg	1,808/1,190 lbs	
			A/T with A/C	845/540 kg	1,863/1,190 lbs	
			M/T with S/R	813/548 kg	1,792/1,208 lbs	
		1.8iLS	M/T	805/540 kg	1,775/1,190 lbs	
			A/T	830/540 kg	1,830/1,190 lbs	
			M/T with A/C	820/540 kg	1,808/1,190 lbs	
			A/T with A/C	845/540 kg	1,863/1,190 lbs	
			M/T with S/R	813/548 kg	1,792/1,208 lbs	
			A/T with S/R	838/548 kg	1,848/1,208 lbs	
			M/T with A/C, S/R	828/548 kg	1,826/1,208 lbs	
			A/T with A/C, S/R	853/548 kg	1,881/1,208 lbs	
		1.8iES	M/T	838/568 kg	1,848/1,252 lbs	
			A/T	863/568 kg	1,903/1,252 lbs	
		2.0iLS	M/T	815/530 kg	1,797/1,168 lbs	
			A/T	840/530 kg	1,852/1,168 lbs	
			M/T with A/C	830/530 kg	1,830/1,168 lbs	
			A/T with A/C	855/530 kg	1,885/1,168 lbs	
			M/T with S/R	823/538 kg	1,814/1,186 lbs	
			A/T with S/R	848/538 kg	1,870/1,186 lbs	
			M/T with A/C, S/R	838/538 kg	1,848/1,186 lbs	
			A/T with A/C, S/R	863/538 kg	1,903/1,186 lbs	

	ITEM			METRIC	ENGLISH	NOTES
WEIGHT	KG	2.0iES	M/T	848/558 kg	1,870/1,230 lbs	
			A/T	873/558 kg	1,925/1,230 lbs	
		TYPE R	M/T	820/525 kg	1,808/1,157 lbs	
	KS	1.6iS	M/T	730/540 kg	1,610/1,190 lbs	
			M/T with A/C	745/540 kg	1,643/1,190 lbs	
		1.6iLS	M/T with A/C	745/540 kg	1,643/1,190 lbs	
		1.8iS	M/T with A/C	830/530 kg	1,830/1,168 lbs	
		1.8iLS	A/T	815/560 kg	1,797/1,234 lbs	
			M/T with A/C	820/540 kg	1,808/1,190 lbs	
		2.0iLS	M/T	815/530 kg	1,797/1,168 lbs	
		2.0iES	M/T with A/C	840/550 kg	1,852/1,212 lbs	
	KR	1.6iS	M/T	725/540 kg	1,598/1,191 lbs	
			M/T with ABS	730/540 kg	1,610/1,190 lbs	
			M/T with ABS, A/C	745/540 kg	1,643/1,190 lbs	
		1.6iLS	M/T with A/C	745/540 kg	1,643/1,190 lbs	
			M/T with A/C, S/R	753/548 kg	1,660/1,208 lbs	
		1.8iS	M/T with A/C	820/540 kg	1,808/1,190 lbs	
		1.8iLS	M/T	805/540 kg	1,775/1,190 lbs	
			A/T	830/540 kg	1,830/1,190 lbs	
			M/T with A/C	820/540 kg	1,808/1,190 lbs	
			A/T with A/C	845/540 kg	1,863/1,190 lbs	
			M/T with A/C, S/R	828/548 kg	1,826/1,208 lbs	
		1.8iES	M/T	815/560 kg	1,797/1,234 lbs	
		2.0LS	M/T	830/530 kg	1,830/1,168 lbs	
		2.0ES	M/T	848/558 kg	1,870/1,230 lbs	
			A/T	873/558 kg	1,925/1,230 lbs	
		TYPE R	M/T	820/525 kg	1,808/1,157 lbs	
	KY	1.8iS	M/T	805/535 kg	1,775/1,179 lbs	
			A/T	830/535 kg	1,830/1,179 lbs	
	Max. Permissible Weight (EU)					
		D16B6 engine model		1,740 kg	3,836 lbs	
		F18B2, F18B3, F20B6 engine models		1,890 kg	4,167 lbs	
		H22A7 engine model		1,820 kg	4,012 lbs	
WEIGHT 5-door	Curb Weight					
	KE	1.6iS	M/T with SRS	1,314 kg	2,897 lbs	
		1.6iLS	M/T with SRS	1,314 kg	2,897 lbs	
		1.8iS	M/T with SRS, A/C	1,389 kg	3,062 lbs	
			M/T with SRS, S/R	1,404 kg	3,095 lbs	
			A/T with SRS, A/C	1,414 kg	3,117 lbs	
			A/T with SRS, S/R	1,429 kg	3,150 lbs	
		1.8iLS	M/T with SRS, A/C, S/R	1,409 kg	3,106 lbs	
			A/T with SRS, A/C, S/R	1,434 kg	3,161 lbs	
		1.8iES	M/T with SRS, A/C, S/R	1,420 kg	3,131 lbs	
			M/T with SRS, A/C, S/R, Power seat	1,426 kg	3,144 lbs	
			M/T with SRS, A/C, S/R, NAVI.	1,425 kg	3,142 lbs	
			M/T with SRS, A/C, S/R, Power seat, NAVI.	1,431 kg	3,155 lbs	
			A/T with SRS, A/C, S/R	1,445 kg	3,186 lbs	
			A/T with SRS, A/C, S/R, Power seat	1,451 kg	3,199 lbs	
			A/T with SRS, A/C, S/R, NAVI.	1,450 kg	3,197 lbs	
			A/T with SRS, A/C, S/R, Power seat, NAVI.	1,456 kg	3,210 lbs	
		2.0iLS	M/T with SRS, A/C, S/R	1,411 kg	3,110 lbs	
			A/T with SRS, A/C, S/R	1,436 kg	3,165 lbs	
		2.0iES	M/T with SRS, A/C, S/R, Power seat	1,428 kg	3,148 lbs	
			M/T with SRS, A/C, S/R, NAVI.	1,427 kg	3,146 lbs	
			M/T with SRS, A/C, S/R, Power seat, NAVI.	1,433 kg	3,159 lbs	
			A/T with SRS, A/C, S/R, Power seat	1,451 kg	3,199 lbs	
			A/T with SRS, A/C, S/R, NAVI.	1,450 kg	3,197 lbs	
			A/T with SRS, A/C, S/R, Power seat, NAVI.	1,456 kg	3,210 lbs	
		2.0iV	M/T with SRS, A/C, S/R	1,434 kg	3,161 lbs	
			M/T with SRS, A/C, S/R, Power seat, NAVI.	1,439 kg	3,172 lbs	
			A/T with SRS, A/C, S/R	1,459 kg	3,217 lbs	
			A/T with SRS, A/C, S/R, Power seat, NAVI.	1,464 kg	3,228 lbs	
		2.0TDi	M/T with SRS, A/C	1,464 kg	3,228 lbs	
		2.0SDi	M/T with SRS, A/C, S/R	1,479 kg	3,261 lbs	

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Design Specifications

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	ITEM	METRIC	ENGLISH	NOTES
WEIGHT 5-door	KG 1.6iS M/T	1,312 kg	2,892 lbs	
	M/T with SRS	1,314 kg	2,897 lbs	
	1.6iLS M/T	1,312 kg	2,892 lbs	
	M/T with SRS	1,314 kg	2,897 lbs	
	M/T with SRS, side SRS	1,309 kg	2,885 lbs	
	1.8iS M/T	1,390 kg	3,064 lbs	
	M/T with SRS	1,419 kg	3,128 lbs	
	M/T with SRS, side SRS	1,386 kg	3,056 lbs	
	A/T with SRS	1,417 kg	3,124 lbs	
	1.8iLS M/T	1,390 kg	3,064 lbs	
	M/T with side SRS	1,390 kg	3,064 lbs	
	M/T with SRS, A/C	1,392 kg	3,068 lbs	
	M/T with SRS, A/C, S/R	1,409 kg	3,106 lbs	
	M/T with SRS	1,376 kg	3,034 lbs	
	A/T with SRS, A/C	1,417 kg	3,123 lbs	
	A/T with SRS, A/C, S/R	1,434 kg	3,161 lbs	
	1.8iES M/T with SRS, A/C, S/R	1,420 kg	3,131 lbs	
	M/T with SRS, A/C, S/R, Power seat	1,426 kg	3,144 lbs	
	M/T with SRS, A/C, S/R, NAVI.	1,425 kg	3,142 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	1,431 kg	3,155 lbs	
	M/T with SRS, S/R	1,389 kg	3,062 lbs	
	A/T with SRS, A/C, S/R	1,445 kg	3,186 lbs	
	A/T with SRS, A/C, S/R, Power seat	1,451 kg	3,199 lbs	
	A/T with SRS, A/C, S/R, NAVI.	1,450 kg	3,197 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	1,456 kg	3,210 lbs	
	KG 2.0iLS M/T with SRS, A/C	1,396 kg	3,077 lbs	
	M/T with SRS, A/C, S/R	1,411 kg	3,110 lbs	
	A/T with SRS, A/C	1,419 kg	3,128 lbs	
	A/T with SRS, A/C, S/R	1,436 kg	3,165 lbs	
	2.0iES M/T with SRS, A/C, S/R	1,422 kg	3,135 lbs	
	M/T with SRS, A/C, S/R, Power seat	1,428 kg	3,148 lbs	
	M/T with SRS, A/C, S/R, NAVI.	1,427 kg	3,146 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	1,433 kg	3,159 lbs	
	A/T with SRS, A/C, S/R	1,442 kg	3,179 lbs	
	A/T with SRS, A/C, S/R, Power seat	1,451 kg	3,199 lbs	
	A/T with SRS, A/C, S/R, NAVI.	1,450 kg	3,197 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	1,456 kg	3,210 lbs	
	2.0iV M/T with SRS, A/C, S/R	1,434 kg	3,161 lbs	
	M/T with SRS, A/C, S/R, NAVI.	1,439 kg	3,172 lbs	
	A/T with SRS, A/C, S/R	1,459 kg	3,217 lbs	
	A/T with SRS, A/C, S/R, NAVI.	1,464 kg	3,228 lbs	
	2.0TDi M/T with SRS, A/C	1,464 kg	3,228 lbs	
	2.0SDi M/T with SRS, A/C	1,464 kg	3,228 lbs	
	M/T with SRS, A/C, S/R	1,479 kg	3,260 lbs	
	KS 1.6iS M/T	1,312 kg	2,892 lbs	
	M/T with SRS	1,314 kg	2,897 lbs	
	1.6iLS M/T with SRS	1,314 kg	2,897 lbs	
	1.8iS M/T with SRS	1,419 kg	3,128 lbs	
	1.8iLS M/T with SRS, A/C	1,392 kg	3,068 lbs	
	A/T with SRS, A/C	1,417 kg	3,123 lbs	
	2.0iLS M/T with SRS, A/C	1,396 kg	3,077 lbs	
	2.0iES M/T with SRS, A/C	1,409 kg	3,106 lbs	
	KR 1.6iS M/T	1,307 kg	2,881 lbs	
	M/T with SRS	1,314 kg	2,897 lbs	
	1.6iLS M/T with SRS	1,314 kg	2,897 lbs	
	1.8iS M/T with SRS	1,419 kg	3,128 lbs	
	1.8iLS M/T with SRS, A/C	1,408 kg	3,104 lbs	
	M/T with SRS, A/C (AUTO)	1,408 kg	3,104 lbs	
	M/T with SRS, A/C, S/R	1,423 kg	3,137 lbs	
	A/T with SRS, A/C	1,433 kg	3,159 lbs	
	A/T with SRS, A/C (AUTO)	1,433 kg	3,159 lbs	
	2.0iES M/T with SRS, A/C, S/R	1,422 kg	3,135 lbs	
	M/T with SRS, A/C, S/R, Power seat	1,428 kg	3,148 lbs	
	M/T with SRS, A/C, S/R, NAVI.	1,427 kg	3,146 lbs	
	A/T with SRS, A/C, S/R	1,442 kg	3,179 lbs	
	A/T with SRS, A/C, S/R, Power seat	1,451 kg	3,199 lbs	
	A/T with SRS, A/C, S/R, NAVI.	1,450 kg	3,197 lbs	
	2.0TDi M/T with SRS, A/C	1,464 kg	3,228 lbs	
	2.0SDi M/T with SRS, A/C	1,464 kg	3,228 lbs	

	ITEM	METRIC	ENGLISH	NOTES
WEIGHT	Weight Distributions (Front/Rear)			
	KE 1.6iS M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.6iLS M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.8iS M/T with SRS, A/C	802/587 kg	1,768/1,294 lbs	
	M/T with SRS, S/R	810/594 kg	1,786/1,309 lbs	
	A/T with SRS, A/C	827/587 kg	1,823/1,294 lbs	
	A/T with SRS, S/R	835/594 kg	1,840/1,310 lbs	
	1.8iLS M/T with SRS, A/C, S/R	817/592 kg	1,801/1,305 lbs	
	A/T with SRS, A/C, S/R	841/593 kg	1,854/1,307 lbs	
	1.8iES M/T with SRS, A/C, S/R	827/593 kg	1,824/1,307 lbs	
	M/T with SRS, A/C, S/R, Power seat	830/596 kg	1,830/1,314 lbs	
	M/T with SRS, A/C, S/R, NAVI.	832/593 kg	1,835/1,307 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	835/596 kg	1,841/1,314 lbs	
	A/T with SRS, A/C, S/R	851/594 kg	1,876/1,310 lbs	
	A/T with SRS, A/C, S/R, Power seat	854/597 kg	1,883/1,316 lbs	
	A/T with SRS, A/C, S/R, NAVI.	856/594 kg	1,887/1,310 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	859/597 kg	1,894/1,316 lbs	
	2.0iLS M/T with SRS, A/C, S/R	809/602 kg	1,783/1,327 lbs	
	M/T with SRS, A/C, S/R	834/602 kg	1,838/1,327 lbs	
	2.0iES M/T with SRS, A/C, S/R, Power seat	825/603 kg	1,819/1,329 lbs	
	M/T with SRS, A/C, S/R, NAVI.	827/600 kg	1,823/1,323 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	830/603 kg	1,830/1,329 lbs	
	A/T with SRS, A/C, S/R, Power seat	856/595 kg	1,887/1,312 lbs	
	A/T with SRS, A/C, S/R, NAVI.	858/592 kg	1,892/1,305 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	861/595 kg	1,898/1,312 lbs	
	2.0iV M/T with SRS, A/C, S/R	831/603 kg	1,832/1,329 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	836/603 kg	1,843/1,329 lbs	
	A/T with SRS, A/C, S/R	856/603 kg	1,888/1,329 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	861/603 kg	1,899/1,329 lbs	
	2.0TDi M/T with SRS, A/C	873/591 kg	1,925/1,303 lbs	
	2.0SDi M/T with SRS, A/C, S/R	881/598 kg	1,942/1,319 lbs	
	KG 1.6iS M/T	738/574 kg	1,627/1,265 lbs	
	M/T with SRS	738/576 kg	1,627/1,270 lbs	
	1.6iLS M/T	738/574 kg	1,627/1,265 lbs	
	M/T with SRS	739/575 kg	1,629/1,268 lbs	
	M/T with SRS, side SRS	730/578 kg	1,610/1,275 lbs	
	1.8iS M/T	806/584 kg	1,777/1,287 lbs	
	M/T with SRS	809/610 kg	1,783/1,345 lbs	
	M/T with SRS, side SRS	813/573 kg	1,793/1,263 lbs	
	A/T with SRS	832/585 kg	1,834/1,290 lbs	
	1.8iLS M/T	806/584 kg	1,777/1,287 lbs	
	M/T with side SRS	806/584 kg	1,777/1,287 lbs	
	M/T with SRS, A/C	807/585 kg	1,779/1,289 lbs	
	M/T with SRS, A/C, S/R	817/592 kg	1,801/1,305 lbs	
	M/T with SRS	805/570 kg	1,775/1,259 lbs	
	A/T with SRS, A/C	831/586 kg	1,832/1,291 lbs	
	A/T with SRS, A/C, S/R	841/593 kg	1,854/1,307 lbs	
	1.8iES M/T with SRS, A/C, S/R	827/593 kg	1,824/1,307 lbs	
	M/T with SRS, A/C, S/R, Power seat	830/596 kg	1,830/1,314 lbs	
	M/T with SRS, A/C, S/R, NAVI.	832/593 kg	1,834/1,308 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	835/596 kg	1,841/1,314 lbs	
	M/T with SRS, S/R	803/586 kg	1,770/1,292 lbs	
	A/T with SRS, A/C, S/R	851/594 kg	1,876/1,310 lbs	
	A/T with SRS, A/C, S/R, Power seat	854/597 kg	1,883/1,316 lbs	
	A/T with SRS, A/C, S/R, NAVI.	856/594 kg	1,887/1,310 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	859/597 kg	1,894/1,316 lbs	
	2.0iLS M/T with SRS, A/C	801/595 kg	1,765/1,312 lbs	
	M/T with SRS, A/C, S/R	809/602 kg	1,783/1,327 lbs	
	A/T with SRS, A/C	824/595 kg	1,816/1,312 lbs	
	A/T with SRS, A/C, S/R	834/602 kg	1,838/1,327 lbs	

(cont'd)

Design Specifications

(cont'd)

	ITEM	METRIC	ENGLISH	NOTES
WEIGHT 5-door	KG 2.0iES M/T with SRS, A/C, S/R	822/600 kg	1,812/1,323 lbs	
	M/T with SRS, A/C, S/R, Power seat	825/603 kg	1,819/1,329 lbs	
	M/T with SRS, A/C, S/R, NAVI.	827/600 kg	1,823/1,323 lbs	
	M/T with SRS, A/C, S/R, Power seat, NAVI.	830/603 kg	1,830/1,329 lbs	
	A/T with SRS, A/C, S/R	848/594 kg	1,870/1,309 lbs	
	A/T with SRS, A/C, S/R, Power seat	856/595 kg	1,887/1,312 lbs	
	A/T with SRS, A/C, S/R, NAVI.	858/592 kg	1,892/1,305 lbs	
	A/T with SRS, A/C, S/R, Power seat, NAVI.	861/595 kg	1,898/1,312 lbs	
	2.0iV M/T with SRS, A/C, S/R	831/603 kg	1,832/1,329 lbs	
	M/T with SRS, A/C, S/R, NAVI.	836/603 kg	1,843/1,329 lbs	
	A/T with SRS, A/C, S/R	856/603 kg	1,888/1,329 lbs	
	A/T with SRS, A/C, S/R, NAVI.	861/603 kg	1,899/1,329 lbs	
	2.0TDi M/T with SRS, A/C	873/591 kg	1,925/1,303 lbs	
	2.0SDi M/T with SRS, A/C	873/591 kg	1,925/1,303 lbs	
	M/T with SRS, A/C, S/R	881/598 kg	1,942/1,318 lbs	
	KS 1.6iS M/T	738/574 kg	1,627/1,265 lbs	
	M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.6iLS M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.8iS M/T with SRS	809/610 kg	1,783/1,345 lbs	
	1.8iLS M/T with SRS, A/C	807/585 kg	1,779/1,289 lbs	
	A/T with SRS, A/C	831/586 kg	1,832/1,291 lbs	
	2.0iLS M/T with SRS, A/C	801/595 kg	1,766/1,311 lbs	
	2.0iES M/T with SRS, A/C	816/592 kg	1,799/1,305 lbs	
	KR 1.6iS M/T	733/574 kg	1,616/1,265 lbs	
	M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.6iLS M/T with SRS	739/575 kg	1,629/1,268 lbs	
	1.8iS M/T with SRS	809/610 kg	1,784/1,344 lbs	
	1.8iLS M/T with SRS, A/C	823/585 kg	1,814/1,290 lbs	
	M/T with SRS, A/C (AUTO)	823/585 kg	1,814/1,290 lbs	
	M/T with SRS, A/C, S/R	830/593 kg	1,830/1,307 lbs	
	A/T with SRS, A/C	847/586 kg	1,867/1,292 lbs	
	A/T with SRS, A/C (AUTO)	847/586 kg	1,867/1,292 lbs	
	2.0iES M/T with SRS, A/C, S/R	822/600 kg	1,812/1,323 lbs	
	M/T with SRS, A/C, S/R, Power seat	825/603 kg	1,819/1,329 lbs	
	M/T with SRS, A/C, S/R, NAVI.	827/600 kg	1,823/1,323 lbs	
	A/T with SRS, A/C, S/R	848/594 kg	1,869/1,310 lbs	
	A/T with SRS, A/C, S/R, Power seat	856/595 kg	1,887/1,312 lbs	
	A/T with SRS, A/C, S/R, NAVI.	858/592 kg	1,892/1,305 lbs	
	2.0TDi M/T with SRS, A/C	873/591 kg	1,925/1,303 lbs	
	2.0SDi M/T with SRS, A/C	873/591 kg	1,925/1,303 lbs	
	Max. Permissible Weight (EU)			
	D16B6, D16B7 engine models	1,740 kg	3,241 lbs	
	F18B2, F18B4, F20B6 engine models	1,930 kg	4,255 lbs	
	20T2N engine model	1,940 kg	4,277 lbs	

	ITEM	METRIC	ENGLISH	NOTES		
ENGINE	Type	D16B6, D16B7 engines F18B2, F18B3, F18B4, F20B6 engines H22A7 engine		at 6,000 engine rpm (min ⁻¹) at 6,000 engine rpm (min ⁻¹)		
	Cylinder Arrangement	Water-cooled, 4-stroke SOHC gasoline engine Water-cooled, 4-stroke SOHC VTEC gasoline engine Water-cooled, 4-stroke DOHC VTEC gasoline engine Inline 4-cylinder, transverse				
	Bore and Stroke	D16B6, D16B7 engine F18B2, F18B3, F18B4 engines F20B6 engine H22A7 engine	75.0 x 90.0 mm 85.0 x 81.5 mm 85.0 x 88.0 mm 87.0 x 90.7 mm		2.95 x 3.54 in 3.35 x 3.21 in 3.35 x 3.46 in 3.43 x 3.57 in	
	Displacement	D16B6, D16B7 engine F18B2, F18B3, F18B4 engines F20B6 engine H22A7 engine	1,590 cm ³ (mℓ) 1,850 cm ³ (mℓ) 1,997 cm ³ (mℓ) 2,157 cm ³ (mℓ)		97.0 cu-in 112.9 cu-in 121.9 cu-in 131.6 cu-in	
	Compression Ratio	D16B6, D16B7 engine F18B2, F18B3, F18B4, F20B6 engines H22A7 engine	9.6 10.0 11.0			
	Valve Train	D16B6, D16B7 engine F18B2, F18B3, F18B4, F20B6 engines H22A7 engine	Belt Driven, SOHC 4 valve per cylinder Belt Driven, SOCH VTEC 4 valve per cylinder Belt Driven, DOHC VTEC 4 valve per cylinder			
	Lubrication System	Forced and wet sump, trochoid pump				
	Oil Pump Displacement	D16B6, D16B7 engines Except D16B6, D16B7 engines	35.4 ℓ (37.4 US qt, 31.1 Imp qt) 73.5 ℓ (77.7 US qt, 64.7 Imp qt)			
	Water Pump Displacement	D16B6, D16B7 engines Except D16B6, D16B7 engines	125 ℓ (132 US qt, 110 Imp qt) 160 ℓ (169 US qt, 141 Imp qt)			
	Fuel Required	D16B6, D16B7, F18B2, F18B4, F20B6 engines F18B3 engine H22A7 engine	Premium UNLEADED gasoline with a Research Octane Number (RON) of 95 or higher LEADED gasoline with a Research Octane Number (RON) of 91 or higher* ¹ Super plus UNLEADED gasoline with a Research Octane Number (RON) of 98 or higher			
	STARTER	Type	Gear reduction			
		Normal Output	1.0 kW			
		Normal Voltage	12 V			
		Hour Rating	30 seconds			
		Direction of Rotation	Clockwise as viewed from gear end			

(cont'd)

Design Specifications

(cont'd)

	ITEM		METRIC		ENGLISH		NOTES	
CLUTCH	Type	M/T	Single plate dry, diaphragm spring Torque converter		176 cm ²		27.3 sq.in	
	Facing Area	A/T						
TRANSMISSION	Type	M/T	Synchronized 5-speed forward, 1 reverse Electronically controlled 4-speed automatic, 1 reverse Direct/1:1					
		A/T						
	Primary Reduction	Type/Ratio						
	Manual Transmission Gear Ratio		DH	U2J4	U2G5	U2Q7	9A	
			D16B6 D16B7 engines	F18B2 F18B3 F20B6 engines	F18B4 engine	H22A7 engine	20T2N engine	
		1st	3.250	3.285	3.285	3.285	3.285	
		2nd	1.782	1.807	1.807	2.090	1.894	
		3rd	1.250	1.266	1.193	1.481	1.222	
		4th	0.937	0.966	0.843	1.071	0.848	
		5th	0.750	0.787	0.685	0.870	0.649	
		Reverse	3.153	3.000	3.000	3.000	3.000	
	Final Reduction Gear	Ratio	4.437	4.266	4.062	4.266	3.938	
		Type	Single helical gear					
	Automatic Transmission Gear Ratio	1st	2.528					
		2nd	1.427					
		3rd	0.976					
		4th	0.653					
		Reverse	1.863					
	Final Reduction Gear	Ratio	4.466					
		Type	Single helical gear					
AIR CONDITIONING	Cooling Capacity		4,780 Kcal/h 3,910 Kcal/h 3,740 Kcal/h		19,000 BTU/h 15,500 BTU/h 14,800 BTU/h		KY model KR model KG, KE, KS models	
	Compressor: SANDEN	Type	Scroll					
		Capacity	85.7 cm ³ /rev		5.23 cu-in/rev			
	DENSO	Max. Speed	10,000 rpm (min ⁻¹)					
		Lubricant Type	SP - 10					
		Lubricant Capacity	130 cm ³		4 1/3 fl oz, 4.6 Imp oz			
		Type	Swash-plate					
		No. of Cylinder	10					
		Capacity	188.0 cm ³ /rev		11.47 cu-in/rev			
		Max. Speed	7,600 rpm (min ⁻¹)					
		Lubricant Type	ND - OIL8					
		Lubricant Capacity	160 cm ³		5 1/3 fl oz, 5.6 Imp oz			
	Condenser	Type	Corrugated fin					
	Evaporator	Type	Corrugated fin					
	Blower	Type	Sirocco fan					
STEERING SYSTEM	Overall Ratio	Except H22A7 engine model	220 W/12 V max.					
		H22A7 engine model	4-speed*1/Infinite variable*2					
	Turns, Lock-to-Lock	Except H22A7 engine model	470 m ³ /h		16,600 cu-ft/h			
		H22A7 engine model						
	Steering Wheel Dia.		Air Mix					
			Dry, single plate, poly-V belt drive					
	Compressor Clutch	Type	40 W max/12 V					
		Power Consumption	40 W max/12 V					
	Refrigerant	SANDEN						
		DENSO						
	Refrigerant	Type	HFC - 134a (R - 134a)					
		Quantity	500 - 550 g		18 - 19 oz			
	Type		Power assisted, rack and pinion					
			15.50					
	Overall Ratio		15.74					
	Turns, Lock-to-Lock		3.02					
			2.88					
	Steering Wheel Dia.		380 mm		15.0 in			

	ITEM		METRIC	ENGLISH	NOTES	
SUSPENSION	Type	Front	Independent double wishbone, coil spring with stabilizer			
		Rear	Independent double wishbone, coil spring with stabilizer			
	Shock Absorber	Front and Rear	Telescopic, hydraulic nitrogen gas-filled			
WHEEL ALIGNMENT	4-door	Camber	-0°15'			
		Front	0°00', 0°10'' ^{*1}			
		Rear	-1°15'			
		Caster	-1°00', -0°50'' ^{*1}			
		Front	3°00'			
	5-door	Front	2°50', 2°45'' ^{*1}			
		Total Toe	Front	0 mm		0 in
			Rear	In 2 mm		In 0.08 in
		Camber	Front	0°00'		
			Rear	-1°00'		
	Caster	Front	2°50'			
	Total Toe	Front	0 mm	0 in		
		Front	In 2 mm	In 0.08 in		
		Rear				
BRAKE SYSTEM	Type	Front	Power-assisted self-adjusting ventilated disc		H22A7 engine model Except H22A7, D16B6 engine model D16B6 engine model Disk brake Drum brake	
		Rear	Power-assisted self-adjusting solid disc* ² Power-assisted self-adjusting drum* ³			
	Pad Surface Area	Front	53.2 cm ² x 2	8.25 sq-in x 2		
			47.6 cm ² x 2	7.38 sq-in x 2		
		Rear	40.0 cm ² x 2	6.20 sq-in x 2		
			25.4 cm ² x 2	3.94 sq-in x 2		
	Lining Surface Area	Rear	86.8 cm ² x 2	13.45 sq-in x 2		
Parking Brake	Type	Mechanical actuating, rear two wheel brakes				
TIRE	Size and Pressure		See tire label			
WASHER RESERVOIR	Capacity ℓ (US qt, Imp qt)		4.5* ⁸ (4.8, 4.0) 6.9* ⁹ (7.3, 6.1)			
ELECTRICAL	Battery		* ⁴ 12 V - 47 AH - 20 HR * ⁵ 12 V - 57 AH - 20 HR			
	Under-hood fuse/relay box		100 A, 50 A, 40 A, 30 A, 20 A, 15 A, 10 A, 7.5 A			
	Driver's under-dash fuse/relay box		30 A, 15 A, 10 A, 7.5 A			
	Passenger's under-dash fuse/relay box		30 A, 20 A, 7.5 A			
	Headlight high beam		12 V - 55 W			
	Headlight low beam		* ⁶ 12 V - 35 W * ⁷ 12 V - 55 W			
	Front turn signal lights		12 V - 21 W			
	Front parking lights		12 V - 5 W			
	Front fog lights		12 V - 55 W			
	Side turn signal lights		12 V - 5 W			
	Rear turn signal lights		12 V - 21 W			
	Brake lights		12 V - 21 W			
	Tail lights		12 V - 5 W			
	High mount brake light		12 V - 5 W			
	Back-up lights		12 V - 21 W			
	Rear fog light		12 V - 21 W			
	License plate lights		12 V - 5 W			
	Front ceiling light		12 V - 5 W			
	Rear ceiling light		12 V - 5 W			
	Trunk light		12 V - 5 W			
	Glove box light		12 V - 3.4 W			
	Spotlights		12 V - 5 W			
	Gauge lights		14 V - 1.12 W, 1.4 W, 3.0 W, 9.5 V - 1.1 W			
	Indicator lights		12 V - LED, 14 V - 0.84 W, 1.4 W			
	Panel and pilot lights		14 V - 0.84 W, 1.2 W			

*1: KY model

*2: Except B16B6 engine model

*3: B16B6 engine model

*4: CG7 (Vehicle type)

*5: Except CG7 (Vehicle type)

*6: With HID lamp

*7: Without HID lamp

*8: Without Headlight Washer

*9: With Headlight Washer



Maintenance

Maintenance Schedule 3-2

Maintenance Schedule

European Model — Normal Conditions

Follow the Normal Maintenance Schedule if the severe driving conditions specified in the Severe Conditions Maintenance Schedule on pages 3-6 and 3-7 do not apply.

Service at the indicated distance or time whichever comes first.													NOTES	SECTION and PAGE
	km x 1,000	15	30	45	60	75	90	105	120	135	150	165		
	miles x 1,000	9	18	27	36	45	54	63	72	81	90	99		
	months	12	24	36	48	60	72	84	96	108	120	132		
Replace engine oil and oil filter		●	●	●	●	●	●	●	●	●	●	●		*18-7 to 8-10
Replace air cleaner element				●			●			●				*11-A-119
Inspect valve clearance				●			●			●			Check the valve clearance.	*16-A-3, *16-B-12, *16-C-9
Replace fuel filter								●						*11-A-105
Replace spark plugs				●			●			●				*14-31
Replace timing belt, timing balancer belt and inspect water pump									●				Check water pump for signs of seal leakage.	*16-A-8, *16-B-18, *16-C-14, *10-17
Inspect and adjust drive belts				●			●			●			• Check for cracks and damage. • Check deflection and tension.	*14-46, 47, 48, *17-14, *22-53, 54
Inspect idle speed								●						*11-A-94 *11-B-65, *11-C-57
Replace engine coolant						●			●			●	Check specific gravity for freezing point.	*10-7 to 10-10
Replace transmission fluid (○: Inspect)	MT				○				●				Manual transmission: Genuine Honda MTF Automatic transmission: Genuine Honda ATF PREMIUM (Automatic Transmission Fluid-PREMIUM) or DEXRON II or III ATF.	*113-3, 57
	AT			○*3		●			○		●			*14-132
Inspect front and rear brakes		●	●	●	●	●	●	●	●	●	●	●	• Check the brake pad and disc thickness. Check for damage or cracks. • Check the calipers for damage, leaks, and tightness.	*219-A-4, 10, 12, 14, 15, 17, 26, 28, 30, 31
Replace brake fluid		Every 3 years											Use only DOT3 or DOT4** fluid. Check that brake fluid level is between the upper and lower marks on the reservoir.	*219-A-7
Check parking brake adjustment		●	●		●		●		●		●		Check the parking brake operation.	*219-A-6
Replace pollen filter		Every 30,000 km (18,000 miles) or 12 months												*22-39
Check lights alignment		●	●	●	●	●	●	●	●	●	●	●	Check the position of the headlights.	*23-D-9
Test drive (noise, stability, dashboard operation)		●	●	●	●	●	●	●	●	●	●	●	Check for road stability, noise, vibrations and dashboard operation.	—

*1: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 1 Code No. 62S1A00A

*2: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 2 Code No. 62S1A00B

*3: Inspect at 45,000 km (27,000 miles)/36 months, and every 45,000 km (27,000 miles)/36 months after replacement.

*4: We recommend Genuine Honda Brake Fluid.

Service at the indicated distance or time whichever comes first.	km x 1,000	15	30	45	60	75	90	105	120	135	150	165	NOTES	SECTION and PAGE
	miles x 1,000	9	18	27	36	45	54	63	72	81	90	99		
	months	12	24	36	48	60	72	84	96	108	120	132		
Visually inspect the following items:													<ul style="list-style-type: none"> • Check for correct installation and position, check for cracks, deterioration, rust, and leaks. • Check tightness of screws, nuts, and joints. If necessary, retighten. 	—
Tie rod ends, steering gearbox, and boots													<ul style="list-style-type: none"> • Check rack grease and steering linkage. • Check the boot for damage and leaking grease. • Check the fluid line for damage and leaks. 	*217-13, 26
Suspension components													<ul style="list-style-type: none"> • Check the bolts for tightness. • Check the all dust cover for deterioration and damage. 	*218-9, 10, 11, 20, 21, 22
Driveshaft boots													<ul style="list-style-type: none"> • Check boots and boot band for cracks. • Check rack grease. 	*216-3
Brake hoses and lines (including ABS)	●	●	●	●	●	●	●	●	●	●	●	●	Check the master cylinder, proportioning control valve and ABS modulator for damage and leakage.	*219-A-3, 36
Exhaust system													Check the catalytic converter heat shield, exhaust pipe and muffler for damage, leaks and tightness.	*9-9 to 9-12
Fuel lines and connections													Check fuel lines for loose connections, cracks and deterioration. Retighten loose connections and replace any damaged parts.	*111-A-95, *111-C-59
Tyre condition													Check for pressure, puncture or cuts and irregular thread wear.	—

*1: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 1 Code No. 62S1A00A

*2: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 2 Code No. 62S1A00B



Maintenance Schedule

European Model — Severe Conditions

Service at the indicated distance or time whichever comes first.	km x 1,000	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	NOTES	SECTION and PAGE
	miles x 1,000	4.5	9	13.5	18	22.5	27	31.5	36	40.5	45	49.5	54	58.5	63	67.5	72		
	months	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96		
Replace engine oil and oil filter		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		*18-7 to 8-10
Clean (○) or replace (●) air cleaner element — Use normal schedule except in dusty conditions	Except 1.6 l			○			●			○			●			○			*111-A-119
	1.6 l			●			●			●			●			●			
Inspect valve clearance							●						●					Check the valve clearance.	*16-A-3, *16-B-12, *16-C-9
Replace fuel filter															●				*111-A-105
Replace spark plugs							●						●						*14-31
Replace timing belt, timing balancer belt and inspect water pump																	● ^{*3}	Check water pump for signs of seal leakage.	*16-A-8, 6-B-18, 6-C-14, 10-17
Inspect and adjust drive belts							●						●					• Check for cracks and damage. • Check deflection and tension.	*14-46, 47, 48 *217-14, *22-53, 54
Inspect idle speed															●				*111-A-94 *111-B-65, *111-C-57
Replace engine coolant											●						●	Check specific gravity for freezing point.	*10-7 to 10-10
Replace transmission fluid	MT								●								●	Manual transmission: Genuine Honda MTF Automatic transmission: Genuine Honda ATF PREMIUM (Automatic Transmission Fluid-PREMIUM) or DEXRON II or III ATF.	*113-3, 57
	AT						●						●						*114-132
Inspect front and rear brakes		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	• Check the brake pad and disc thickness. • Check for damage or cracks. • Check the calipers for damage, leaks, and tightness.	*219-A-4, 10, 12, 14, 15, 17, 26, 28, 30, 31
Replace brake fluid		Every 3 years																Use only DOT3 or DOT4** fluid. Check that brake fluid level is between the upper and lower marks on the reservoir.	*219-A-7
Check parking brake adjustment		●		●				●				●					●	Check the parking brake operation.	*219-A-6
Replace pollen filter		Every 30,000 km (18,000 miles) or 12 months																	*22-39
Check lights alignment		●		●		●		●		●		●		●		●		Check the position of the headlights.	*223-D-9
Test drive (noise, stability, dashboard operations)		●		●		●		●		●		●		●		●		Check for road stability, noise, vibrations and dashboard operation.	—

*1: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 1 Code No. 62S1A00A

*2: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 2 Code No. 62S1A00B

*3: These belts should normally be replaced at the intervals shown in the maintenance schedule. (Normal Conditions)

Replace these belts at 75,000 km or 45,000 miles if you regularly drive your vehicle in one or more of these conditions.

• In very high temperatures [43°C (110°F) above]

• In very low temperatures [–29°C (–20°F) under]

*4: We recommend Genuine Honda Brake Fluid.

Service at the indicated distance or time whichever comes first.	km x 1,000	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120	NOTES	SECTION and PAGE
	miles x 1,000	4.5	9	13.5	18	22.5	27	31.5	36	40.5	45	49.5	54	58.5	63	67.5	72		
	months	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96		
Visually inspect the following items:																		<ul style="list-style-type: none"> • Check for correct installation and position, check for cracks, deterioration, rust, and leaks. • Check tightness of screws, nuts, and joints. If necessary, retighten. 	_____
Tie rod ends, steering gearbox, and boots																		<ul style="list-style-type: none"> • Check rack grease and steering linkage. • Check the boot for damage and leaking grease. • Check the fluid line for damage and leaks. 	*217-13, 26
Suspension components	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	<ul style="list-style-type: none"> • Check the bolts for tightness. • Check the all dust cover for deterioration and damage. 	*218-9, 10, 11, 20, 21, 22
Driveshaft boots																		<ul style="list-style-type: none"> • Check boots and boot band for cracks. • Check rack grease. 	*216-3
Brake hoses and lines (including ABS)																		Check the master cylinder, proportioning control valve and ABS modulator for damage and leakage.	*219-A-3, 36
Exhaust system																		Check the catalytic converter heat shield, exhaust pipe and muffler for damage, leaks and tightness.	*19-9 to 9-12
Fuel lines and connections	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Check fuel lines for loose connections, cracks and deterioration. Retighten loose connections and replace any damaged parts.	*111-A-95 *111-C-59
Tyre condition																		Check for pressure, puncture or cuts and irregular thread wear.	_____

*1: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 1 Code No. 62S1A00A

*2: Refer to shop manual: 99 Accord MAINTENANCE, REPAIR and CONSTRUCTION VOL. 2 Code No. 62S1A00B

Follow the Severe Maintenance Schedule if the customer's vehicle is driven MAINLY under one or more of the following conditions:

- Driving less than 8 km (5 miles) per trip or, in freezing temperatures, driving less than 16 km (10 miles) per trip.
- Driving in extremely hot [over 32°C, (90°F)] conditions.
- Extensive idling or long periods of stop-and-go driving.
- Trailer towing, driving with a car-top carrier, or driving in mountainous conditions.
- Driving on muddy, dusty, or de-iced roads.

NOTE: If the customer's vehicle is driven OCCASIONALLY under severe condition, you should follow the Normal Conditions Maintenance Schedule on pages 3-4 and 3-5.



Engine

Cylinder Head/Valve Train

F18B2, F18B4 engine 6-B-1

Intake Manifold/Exhaust System 9-1



Cylinder Head/Valve Train

F18B2, F18B4 engine



Outline of Model Change

- VTEC Control System of F18B2 and F18B4 engine has been changed. For related information, refer to the F20B6 engine information in the 1999 Accord Shop Manual (P/N: 62S1A00A).

Intake Manifold/Exhaust System

Exhaust Pipe and Muffler

Replacement 9-2



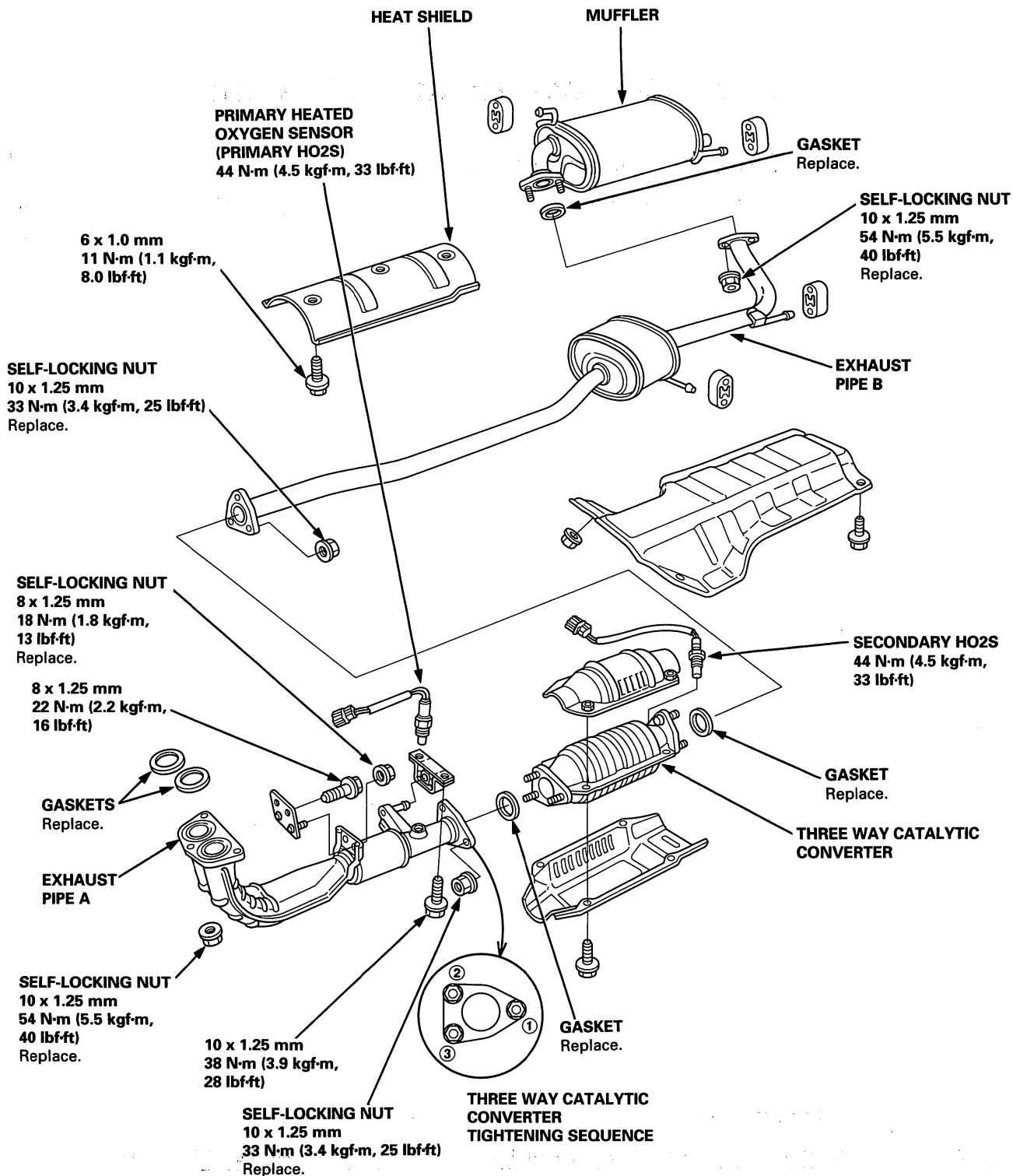
Outline of Model Change

Secondary heated oxygen sensor has been adopted on F18B2 engine (M/T) and F18B4 engine (M/T) models.

Exhaust Pipe and Muffler

Replacement

NOTE: Use new gaskets and self-locking nuts when reassembling.



F18B2, F18B3, F18B4 engine

Fuel and Emission Systems

Component Location Index	11-B-2
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ECM/PCM Circuit Diagram	11-B-8

General Troubleshooting Information

General Troubleshooting Information	11-B-31
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How to End a Troubleshooting Session	11-B-33
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ECM/PCM Terminal Arrangement	11-B-42

PGM-FI System

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DTC Troubleshooting	11-B-52
MIL Circuit Troubleshooting	11-B-84

Idle Control System

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Emission Control System

System Description	11-B-93
DTC Troubleshooting	11-B-96
Evaporative Emission (EVAP) Control System Inspection	11-B-104



Outline of Model Change

- F18B2, F18B4 engine (KE, KG, KS and KR models) have been changed. For related information, refer to the F18B2, F18B3, F18B4 engine information in the 1999 Accord Shop Manual (P/N: 62S1A00A).

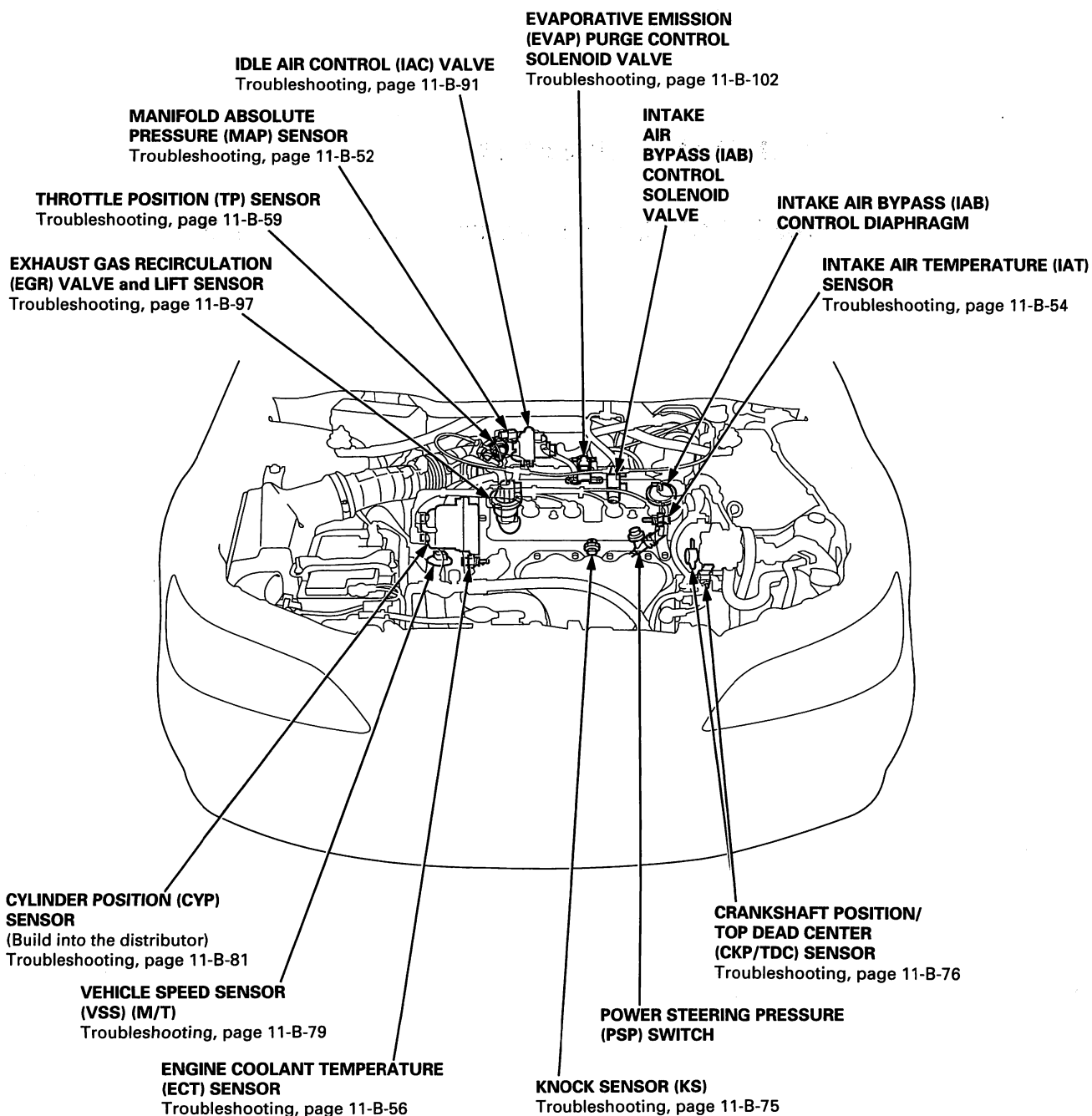
Fuel and Emissions

F18B2, F18B3, F18B4 engine 11-B-1



Fuel and Emissions Systems

Component Location Index (F18B2, F18B4 engine)



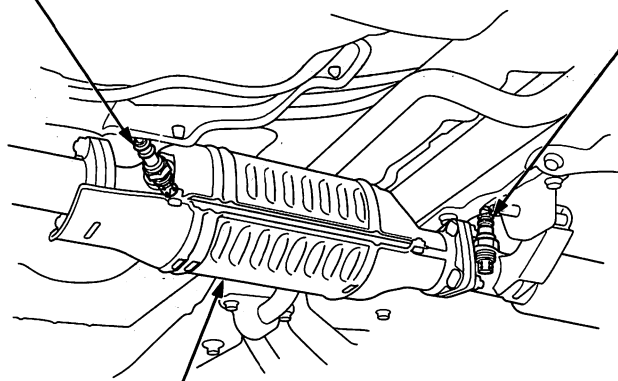


SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S)

Troubleshooting, page 11-B-65

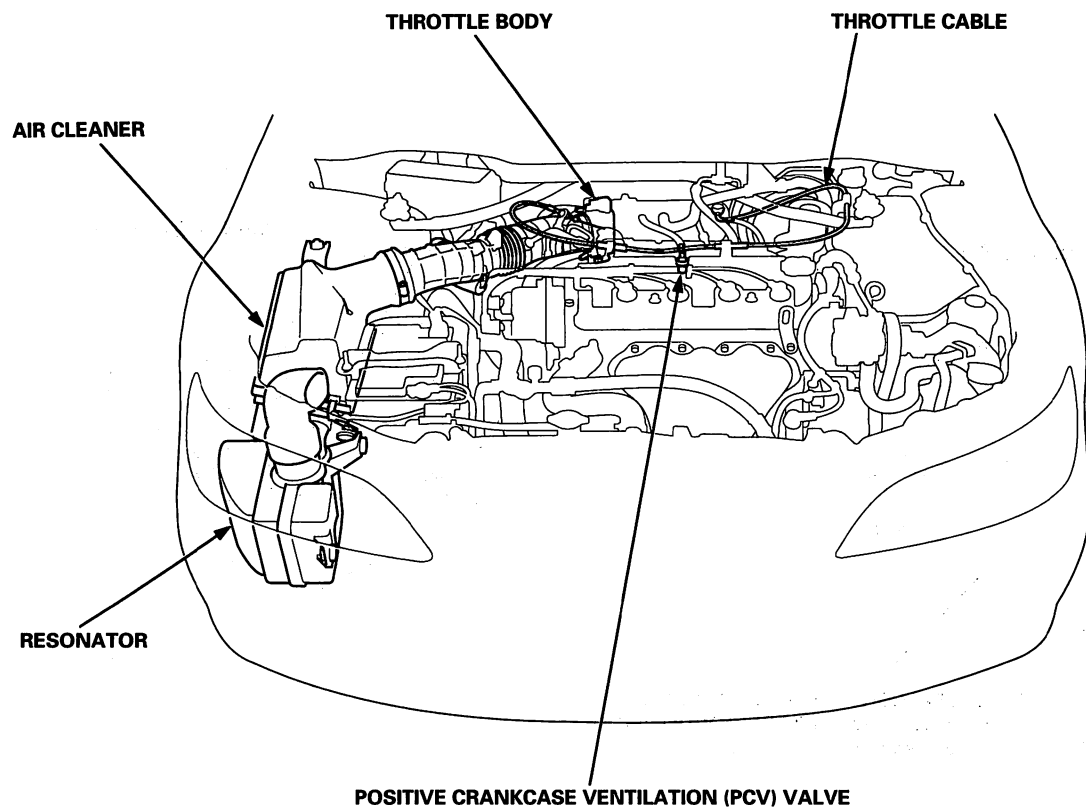
**PRIMARY
HEATED OXYGEN SENSOR (PRIMARY HO2S)**

Troubleshooting, page 11-B-62



**THREE WAY CATALYTIC
CONVERTER (TWC)**

Troubleshooting, page 11-B-96

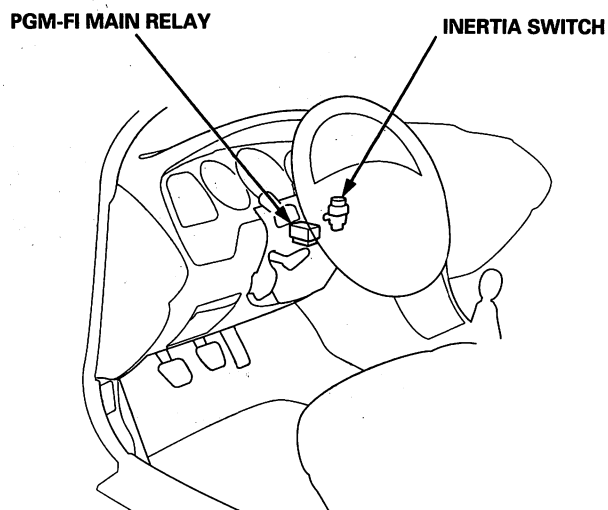
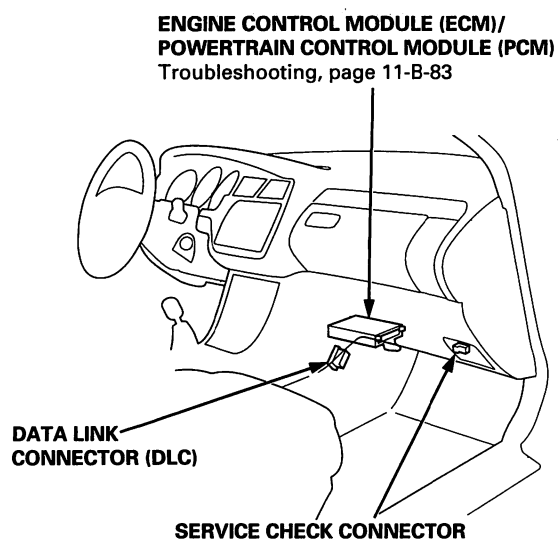


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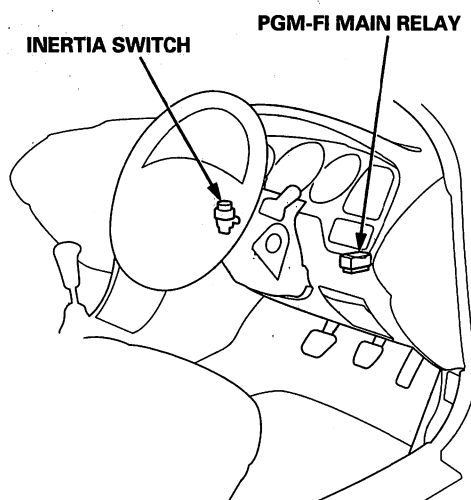
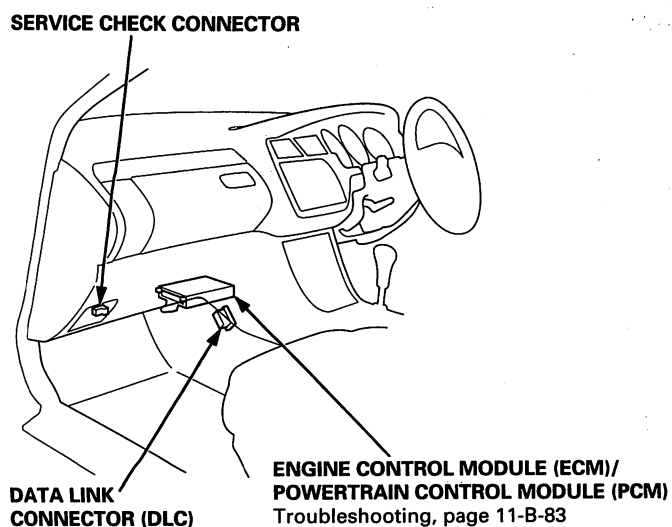
Fuel and Emissions Systems

Component Location Index (F18B2, F18B4 engine) (cont'd)

LHD:

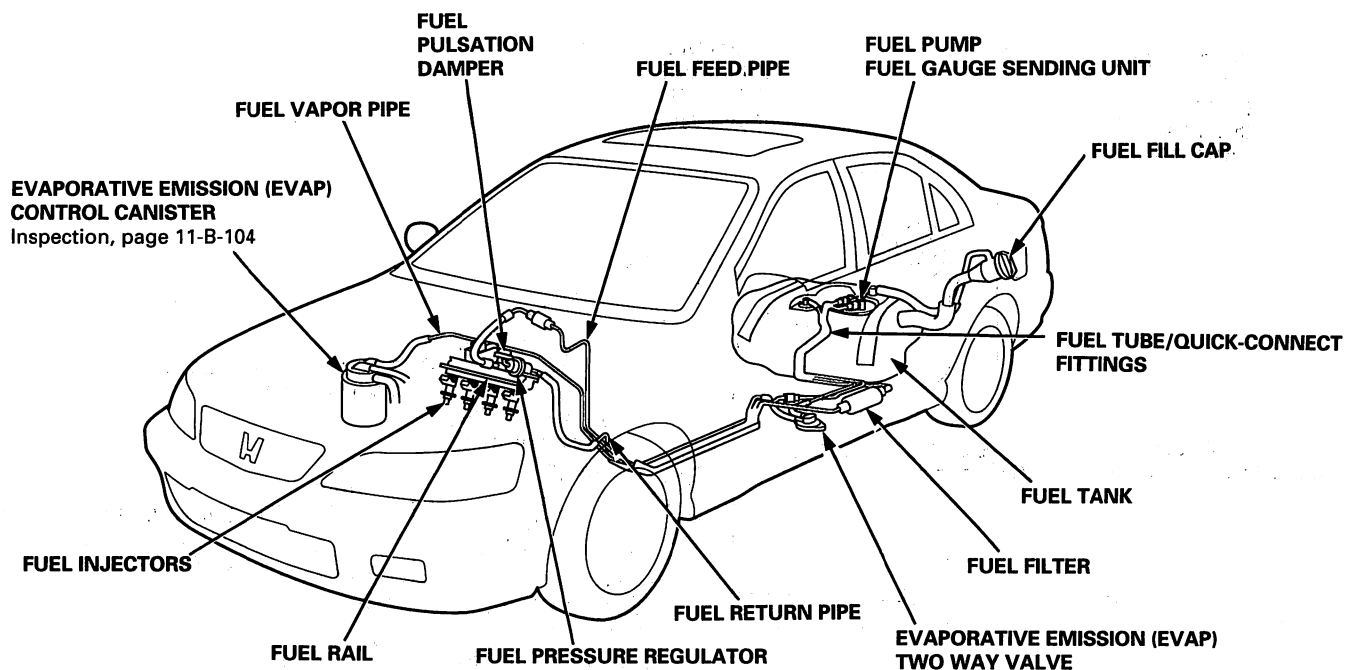


RHD:

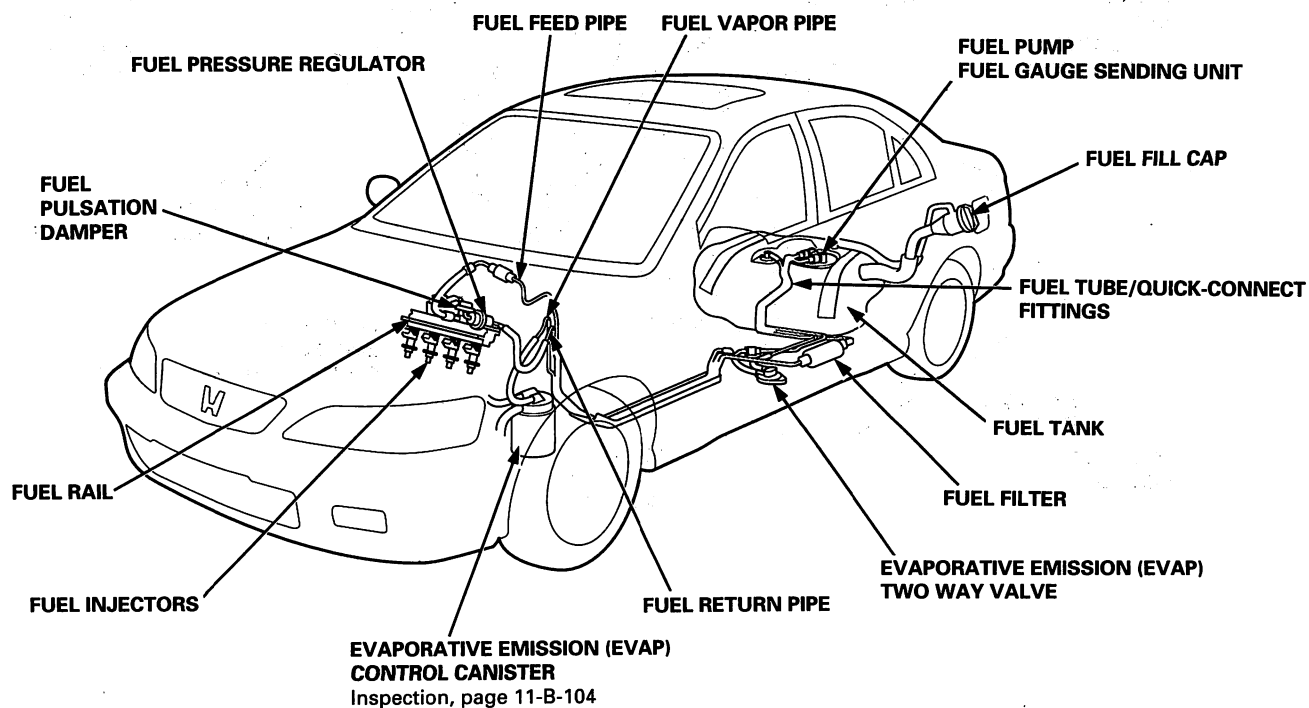




LHD:

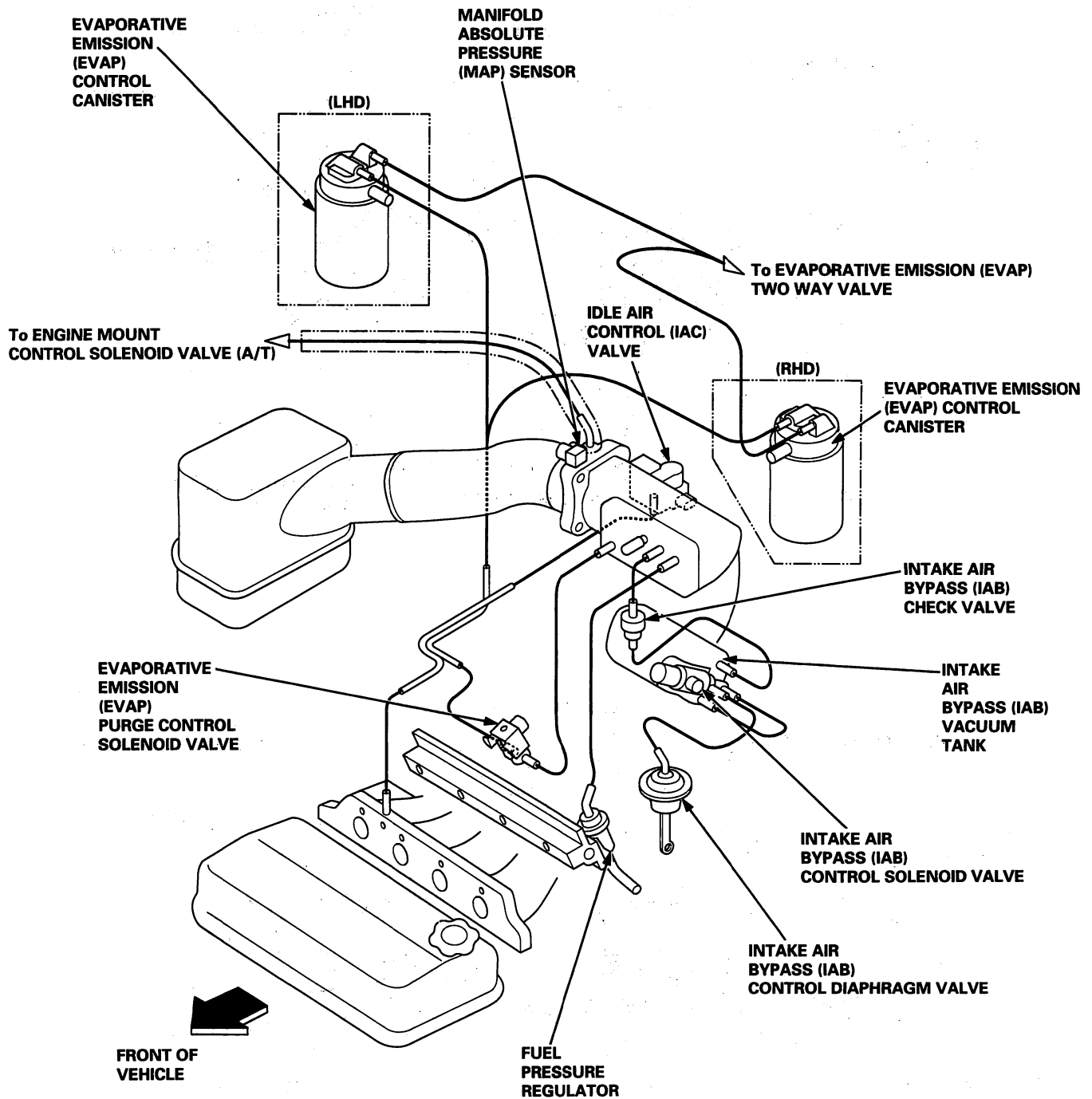


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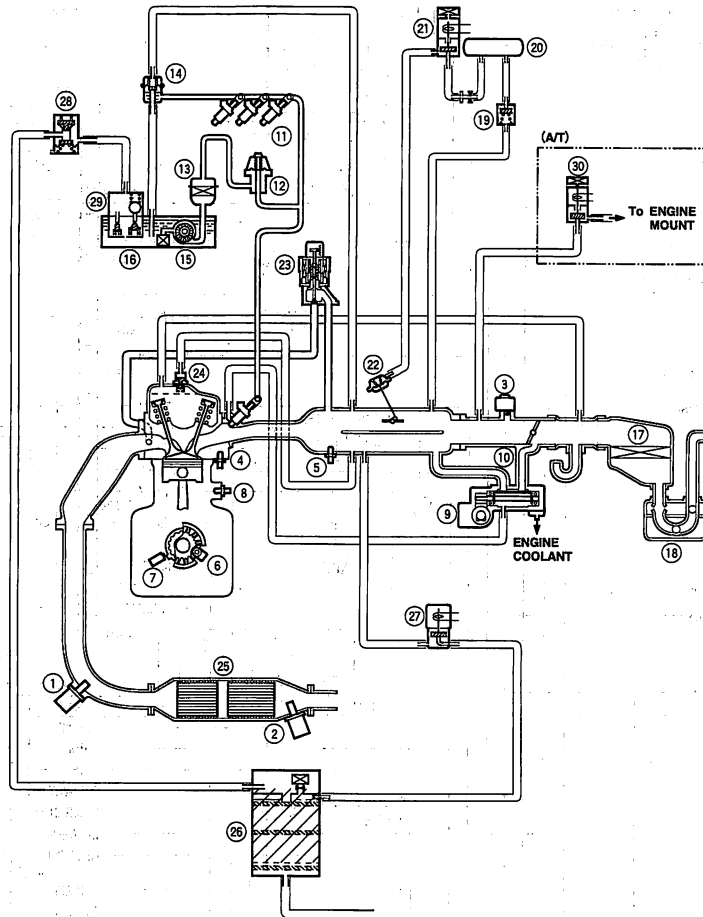
Fuel and Emissions Systems

Vacuum Hose Routing (F18B2, F18B4 engine)





Vacuum Distribution (F18B2, F18B4 engine)

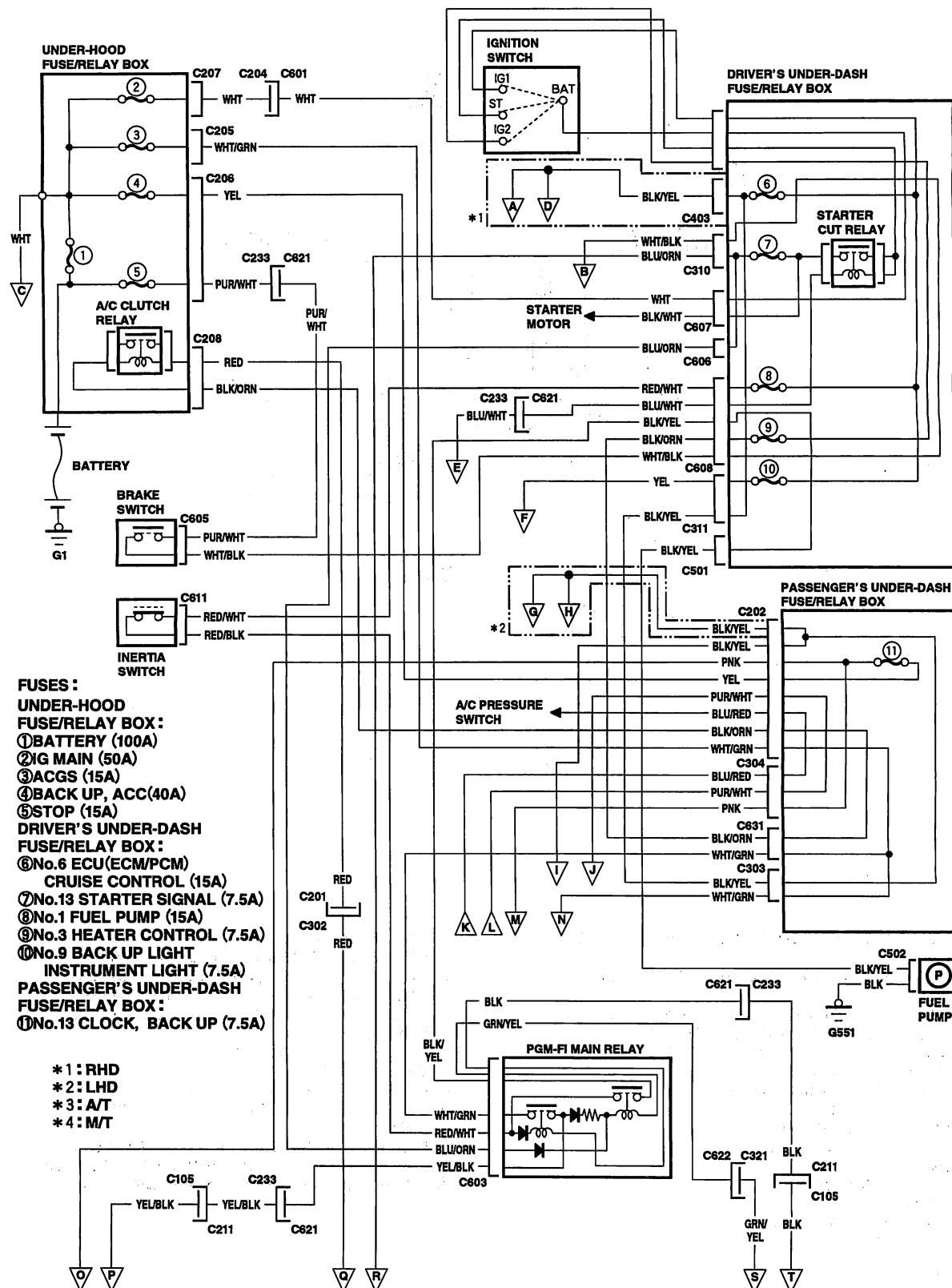


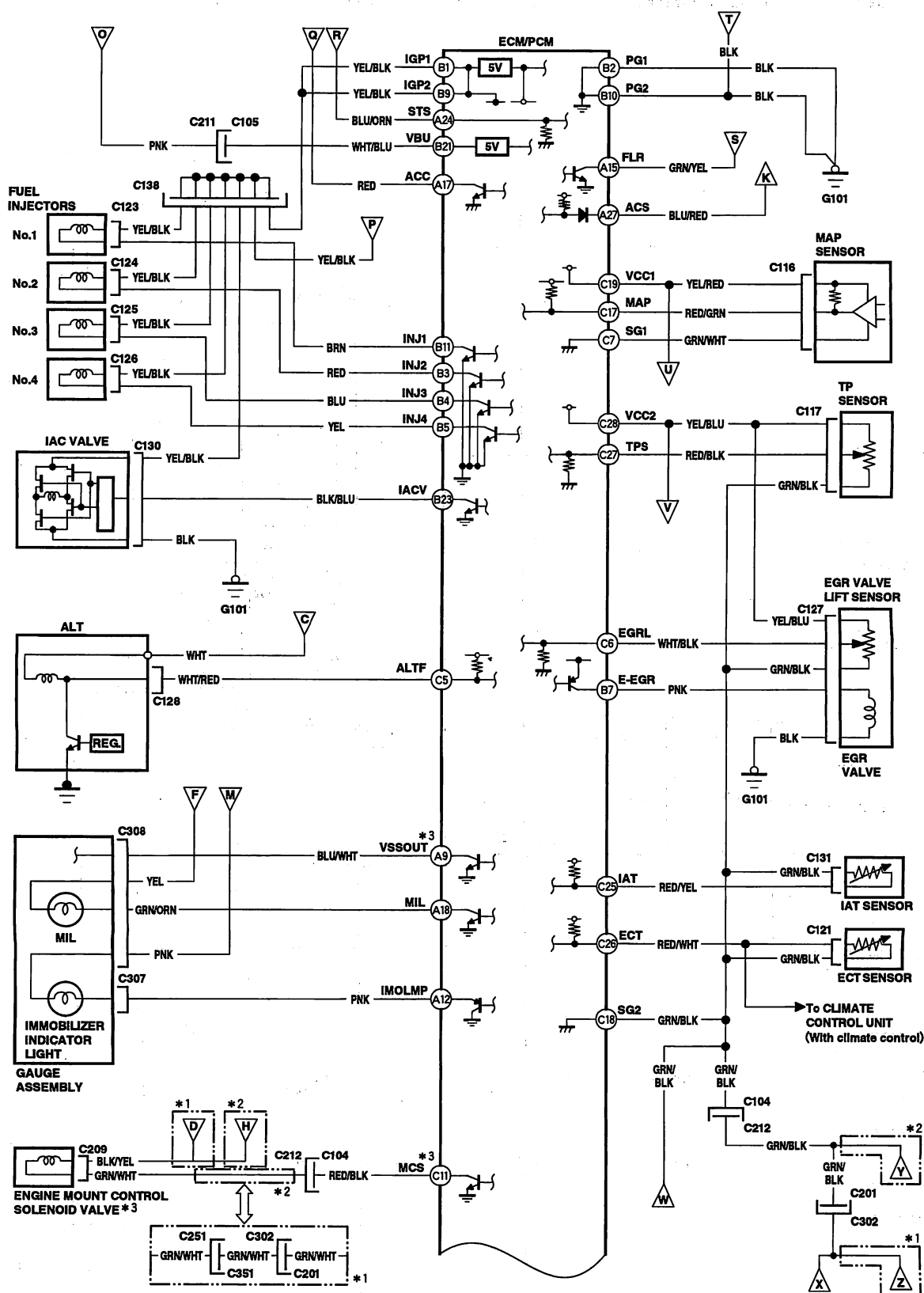
- ① PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO₂S) (SENSOR 1)
- ② SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO₂S) (SENSOR 2)
- ③ MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR
- ④ ENGINE COOLANT TEMPERATURE (ECT) SENSOR
- ⑤ INTAKE AIR TEMPERATURE (IAT) SENSOR
- ⑥ CRANKSHAFT POSITION (CKP) SENSOR
- ⑦ TOP DEAD CENTER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

- ⑲ INTAKE AIR BYPASS (IAB) CHECK VALVE
- ⑳ INTAKE AIR BYPASS (IAB) VACUUM TANK
- ㉑ INTAKE AIR BYPASS (IAB) CONTROL SOLENOID VALVE
- ㉒ INTAKE AIR BYPASS (IAB) CONTROL DIAPHRAGM VALVE
- ㉓ EXHAUST GAS RECIRCULATION (EGR) VALVE and LIFT SENSOR
- ㉔ POSITIVE CRANKCASE VENTILATION (PCV) VALVE
- ㉕ THREE WAY CATALYTIC CONVERTER
- ㉖ EVAPORATIVE EMISSION (EVAP) CONTROL CANISTER
- ㉗ EVAPORATIVE EMISSION (EVAP) PURGE CONTROL SOLENOID VALVE
- ㉘ EVAPORATIVE EMISSION (EVAP) TWO WAY VALVE
- ㉙ FUEL TANK EVAPORATIVE EMISSION (EVAP) VALVE
- ㉚ ENGINE MOUNT CONTROL SOLENOID VALVE

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine)

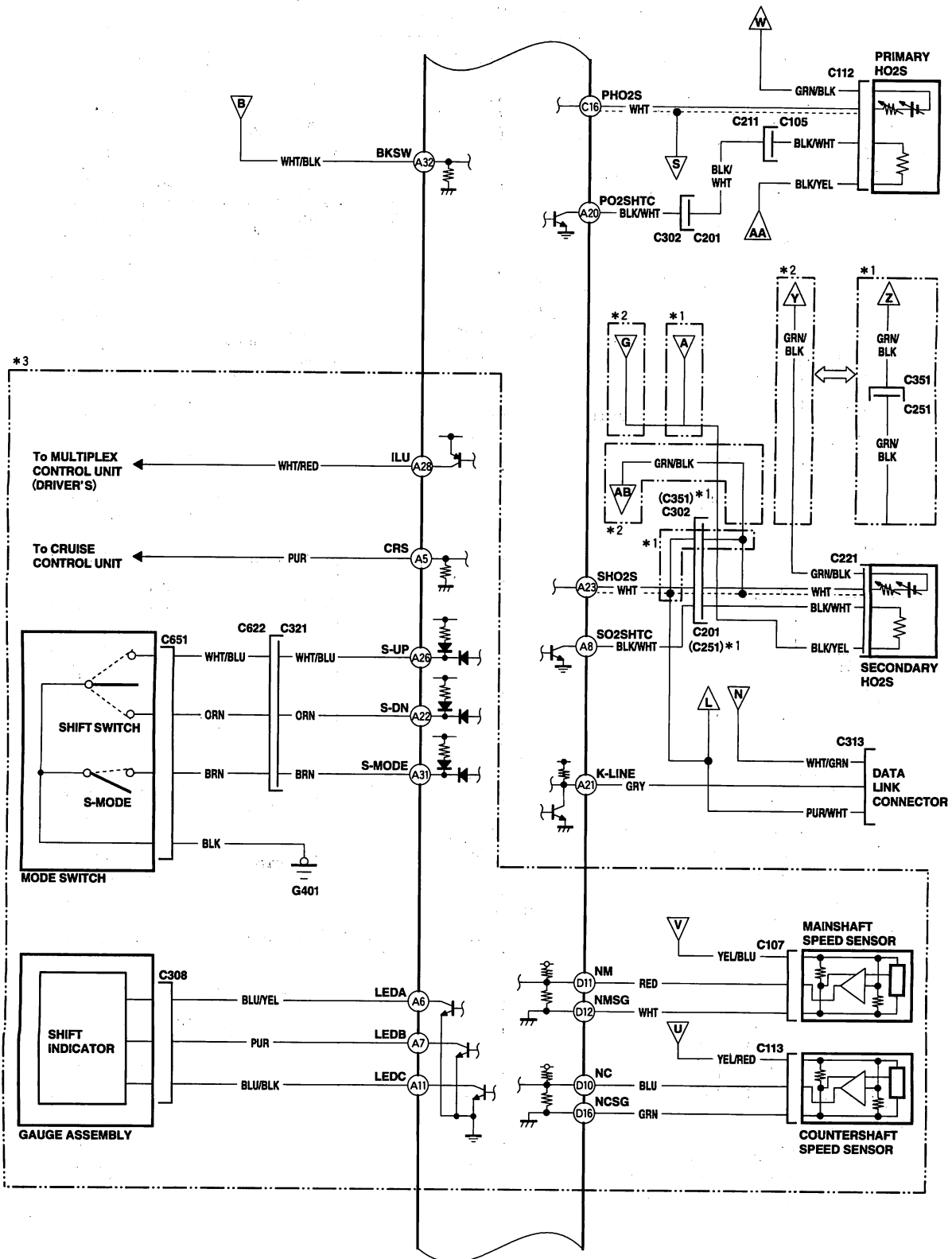


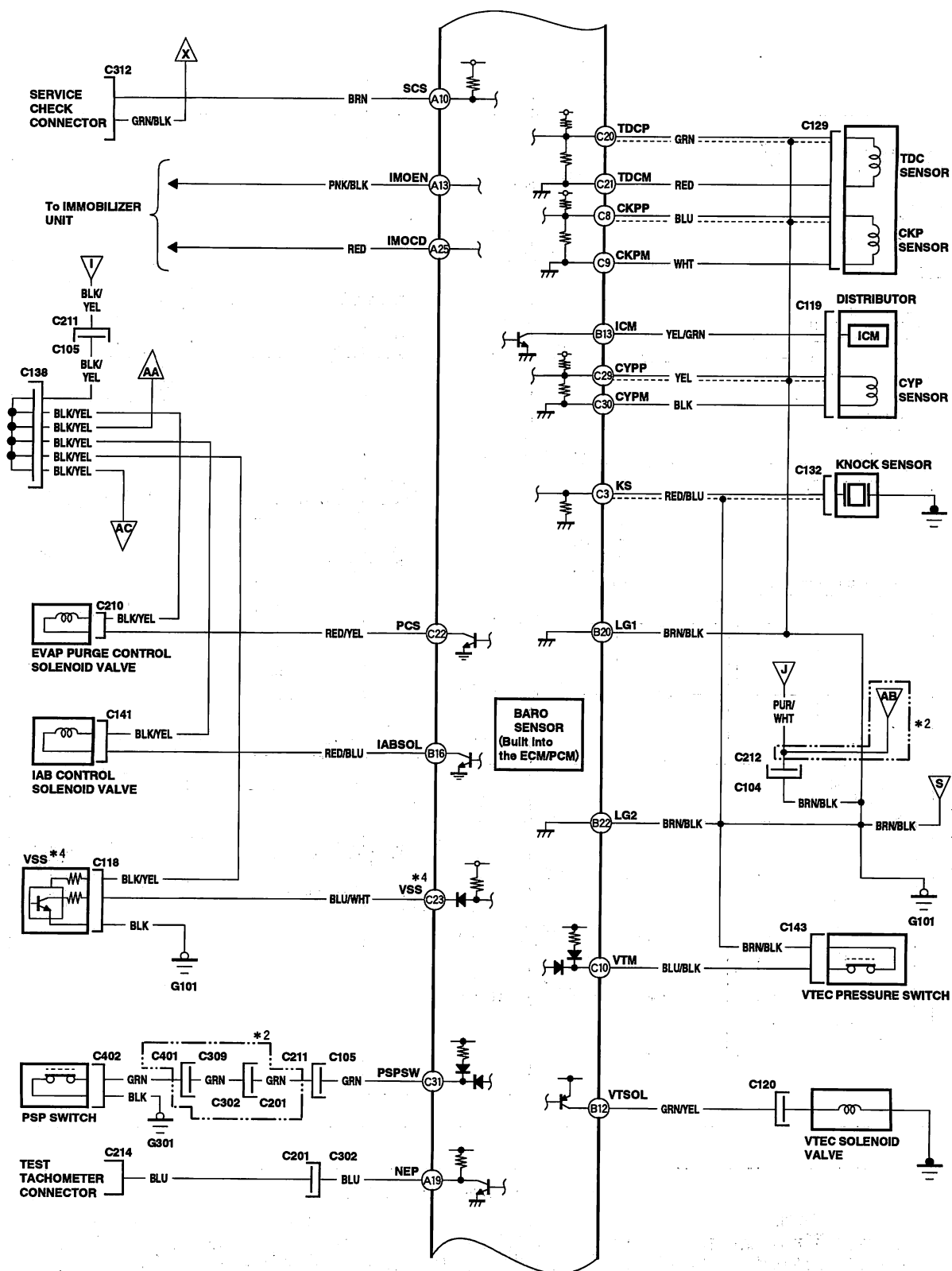


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Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

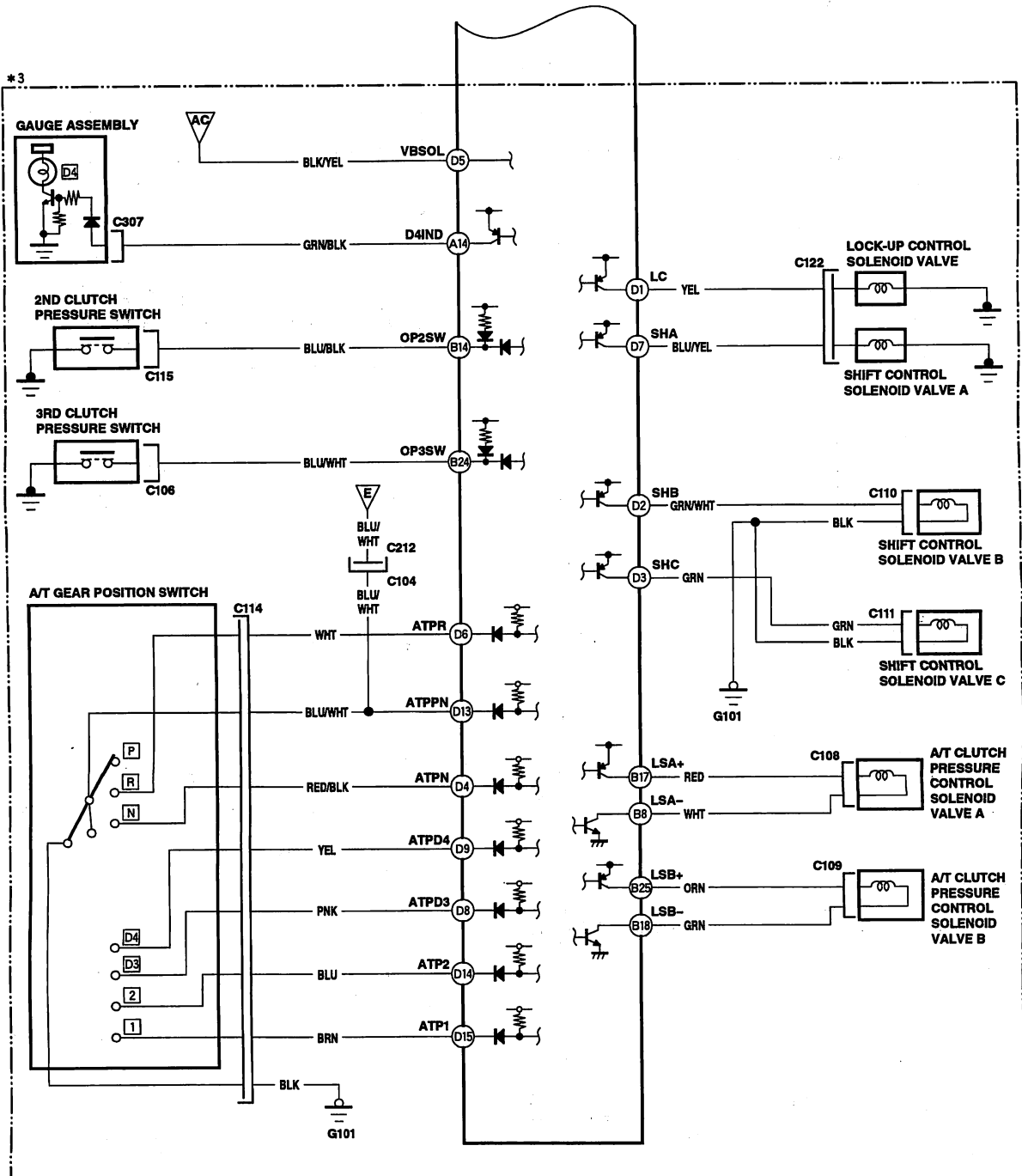




(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)



ECM/PCM TERMINAL LOCATIONS

A (32P)

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

B (25P)

1	2	3	4	5	7	8
9	10	11	12	13	14	16
17	18	20	21	22	23	24
25						

C (31P)

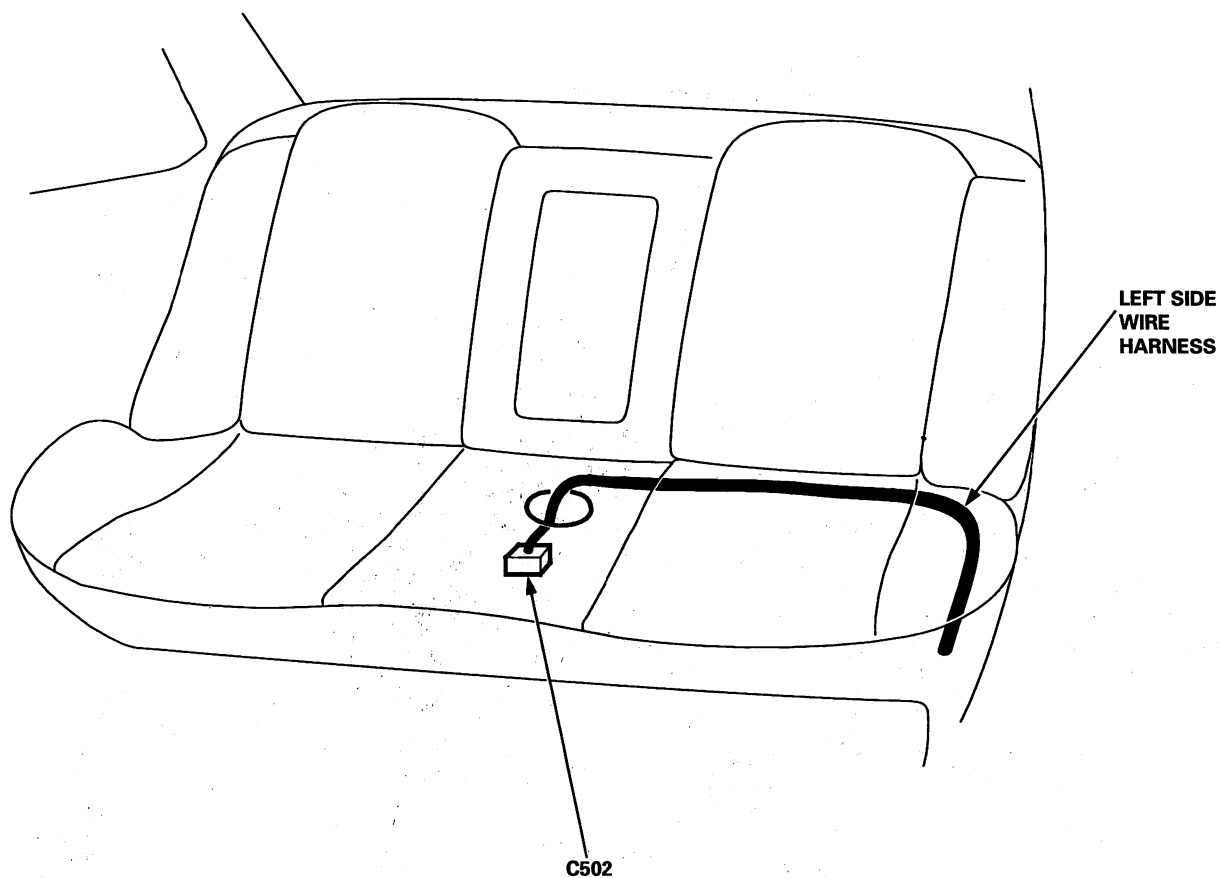
3	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

D (16P)

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



Fuel Pump (LHD)



C502



①	BLK/YEL
②	BLK
③	BLK
④	YEL/BLU

- NOTE:
- ○: 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)



(From page 11-B-68)



Check for an open in the wires (IG1 line):
Measure voltage between the primary HO2S 4P connector terminal No. 3 (secondary HO2S: No. 4) and body ground.

Is there battery voltage?

NO

Repair open in the wire between Primary HO2S (Sensor 1), Secondary HO2S (Sensor 2)* and (No. 6 ECU (ECM/PCM) CRUISE CONTROL (15 A) fuse.

YES

Check for an open in the wires (PO2SHTC, SO2SHTC* line):

1. Turn the ignition switch OFF.
2. Reconnect the HO2S 4P connector.
3. Disconnect the ECM/PCM connector A (32P).
4. Turn the ignition switch ON (II).
5. Measure voltage between the ECM/PCM connector terminals B2 and A20 (B2 and A8)*.

Is there 0.1 V or less?

YES

Repair open in the wire between ECM/PCM (A20, A8*) and HO2S (Primary, Secondary*).

NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

(From page 11-B-68)



Check for a short in the wires (PO2SHTC, SO2SHTC* line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector A (32P).
3. Check for continuity between the ECM/PCM connector terminal A20 (A8)* and body ground.

Is there continuity?

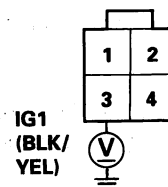
YES

Repair short in the wire between ECM/PCM (A20, A8*) and HO2S (Primary, Secondary*).

NO

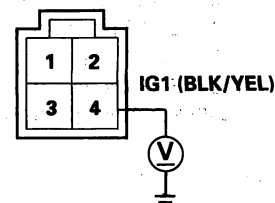
Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

PRIMARY HO2S (Sensor 1) 4P CONNECTOR



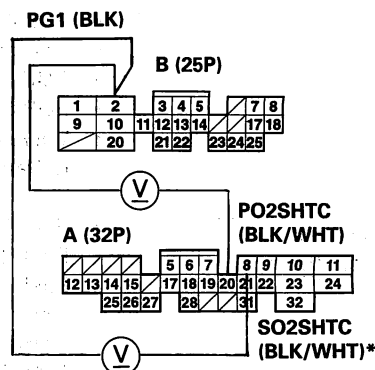
Wire side of female terminals

SECONDARY HO2S (Sensor 2) 4P CONNECTOR*



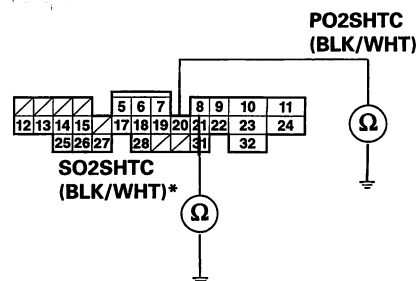
Terminal side of male terminals

ECM/PCM CONNECTORS



Wire side of female terminals

ECM/PCM CONNECTOR A (32P)



Wire side of female terminals

*: P0141

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0171: Fuel System Too Lean

DTC P0172: Fuel System 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 troubleshoot DTC P0171 and/or P0172.

- P0107-8: MAP Sensor
- P0135: Primary HO2S (Sensor 1) Heater
- P0137-8: Secondary HO2S (Sensor 2)
- P0141: Secondary HO2S (Sensor 2) Heater
- P0401: EGR Flow Insufficient
- P0443: EVAP purge control solenoid valve circuit
- P1259: VTEC System
- P1491: EGR Valve Lift Insufficient
- P1498: EGR Valve Lift Sensor High Voltage

Possible Cause

DTC P0171
System too lean

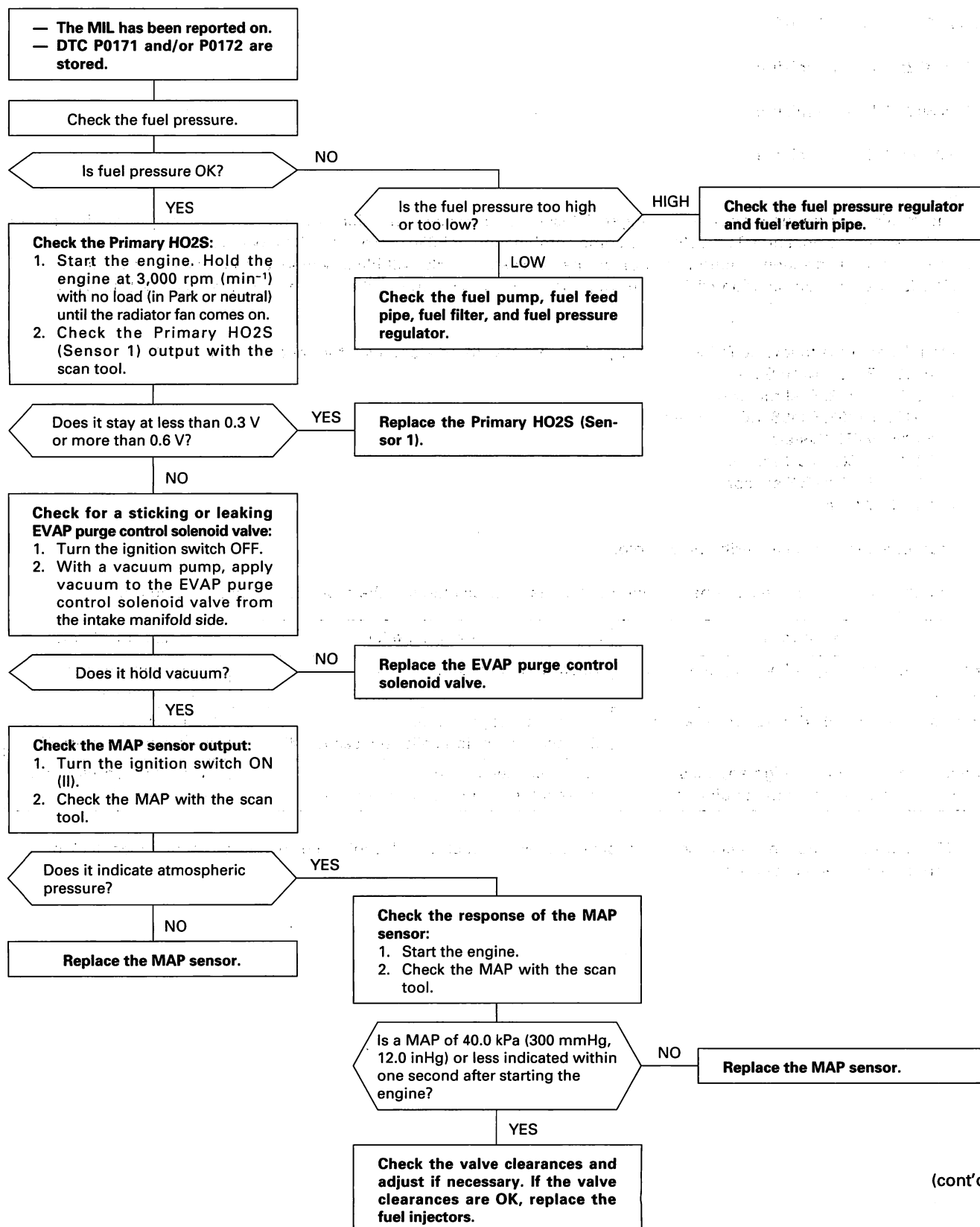
- Fuel Pump insufficient flow/pressure
- Fuel Feed Line clogged, leaking
- Fuel Pressure Regulator stuck open
- Fuel Filter clogged
- Fuel Injector clogged, air inclusion
- Gasoline doesn't meet Owner's Manual spec.
- Primary HO2S (Sensor 1) deteriorated
- MAP Sensor range/performance
- EGR System malfunction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



Troubleshooting Flowchart



(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0300: Random misfire and any combination of the following:

DTC P0301: Cylinder 1 misfire

DTC P0302: Cylinder 2 misfire

DTC P0303: Cylinder 3 misfire

DTC P0304: Cylinder 4 misfire

NOTE:

- If the misfiring is frequent enough to trigger detection of increased emissions during two consecutive driving cycles, the MIL will come on, and DTC P0300 (and some combination of P0301 through P0304) will be stored.
- If the misfiring is frequent enough to damage the catalyst, the MIL will blink whenever the misfiring occurs, and DTC P0300 (and some combination of P0301 through P0304) will be stored. When the misfiring stops, the MIL will remain on.

1. Troubleshoot the following DTCs first if any of them were stored along with the random misfire DTC (s):
 - P0107, P0108: MAP Sensor
 - P0171, P0172: Fuel metering
 - P0401, P1491, P1498: EGR system
 - P1259: VTEC System
 - P1361, P1362: TDC sensor
 - P1381, P1382: CYP sensor
 - P1519: IAC valve
2. Test-drive the vehicle to verify the symptom.
3. Find the symptom in the chart below, and do the related procedures in the order listed until you find the cause.

Symptom	Procedure (s)	Also check for:
Random misfire only at low engine speed and load	Check fuel pressure.	• Low compression • Low quality fuel
Random misfire only during acceleration	1. Check fuel pressure. 2. Test the ignition coils (see section 4).	Malfunction in the VTEC system (see section 6)
Random misfire only at high engine speed and load, or under random conditions	1. Check fuel pressure. 2. Test the ignition coils (see section 4).	Correct valve clearance (see section 6)

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.



DTC P0301: Cylinder 1 misfire detected

DTC P0302: Cylinder 2 misfire detected

DTC P0303: Cylinder 3 misfire detected

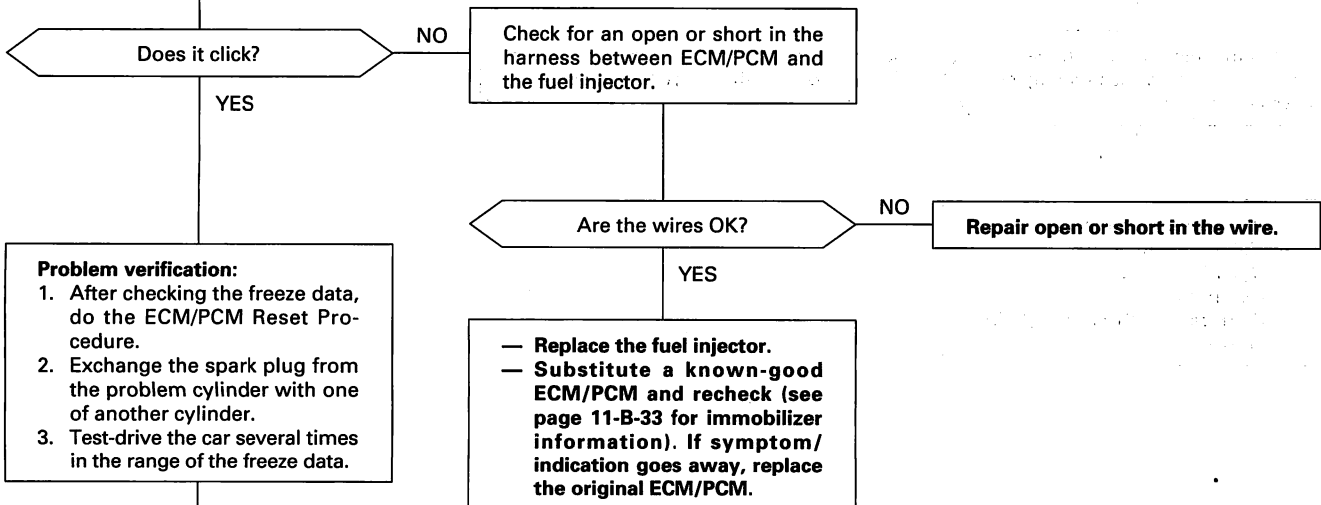
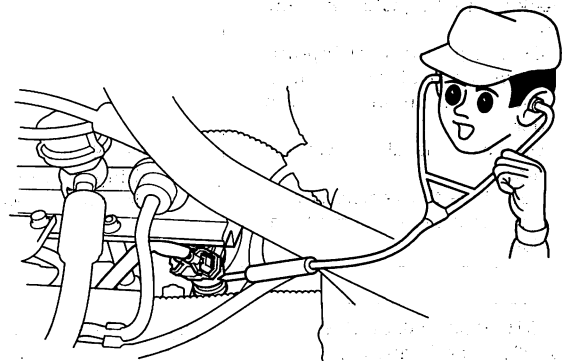
DTC P0304: Cylinder 4 misfire detected

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.

- P0107, P0108: MAP Sensor
- P0171, P0172: Fuel metering
- P0401, P1491, P1498: EGR system
- P1259: VTEC System
- P1361, P1362: TDC sensor
- P1381, P1382: CYP sensor
- P1519: IAC valve

— 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.



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.

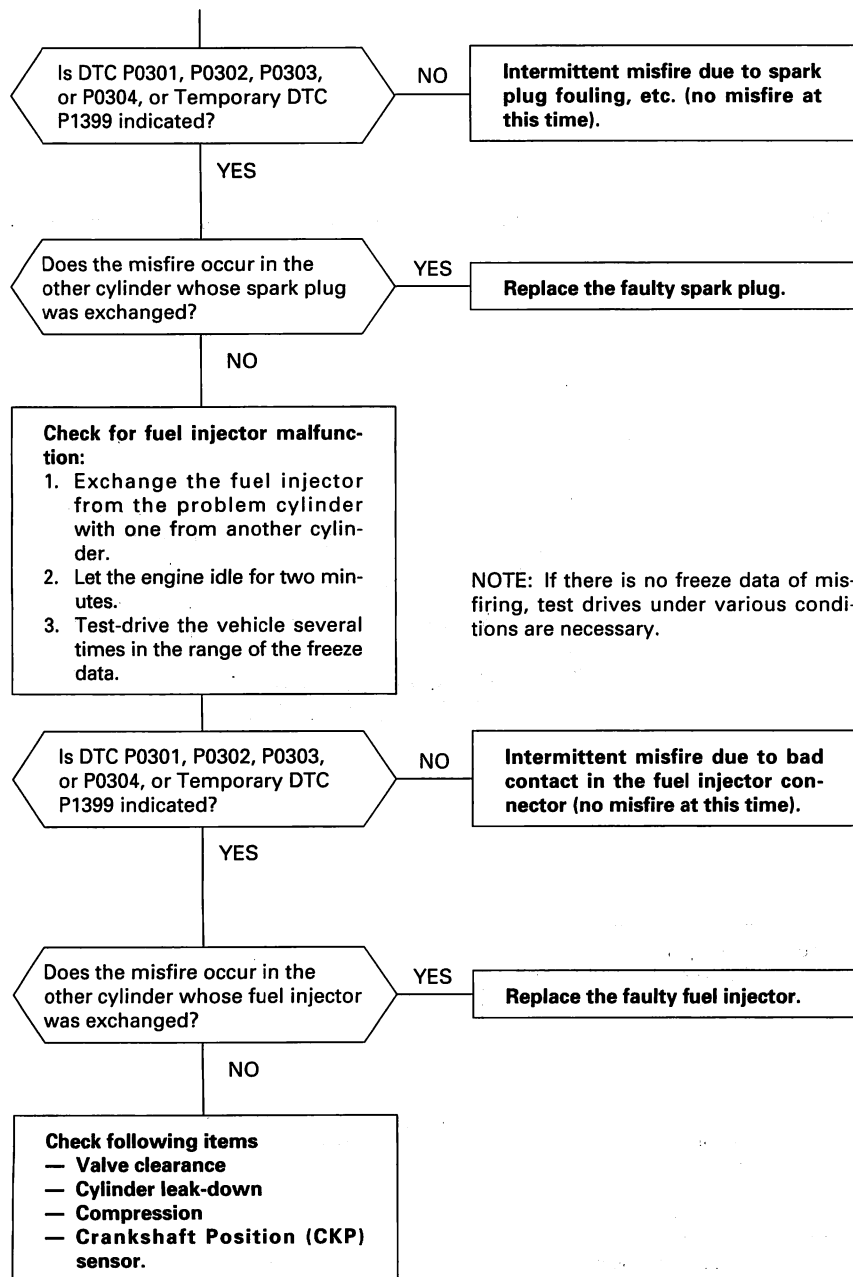
(To page 11-B-74)

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-73)





DTC P0325: Malfunction in Knock Sensor Circuit

- 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 (min^{-1}) 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 (min^{-1}) 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 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 terminals 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):

1. Connect the knock sensor connector terminal No. 1 and body ground with a jumper wire.
2. Check for continuity between ECM/PCM connector terminal C3 and body ground.

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.

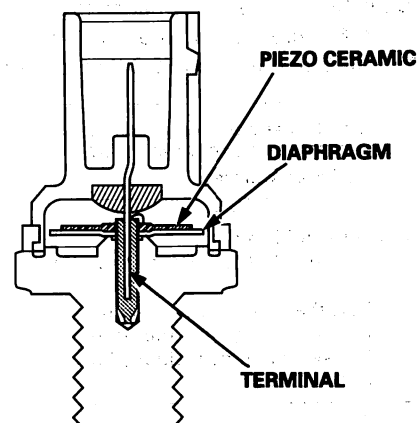
Is DTC P0325 indicated?

NO

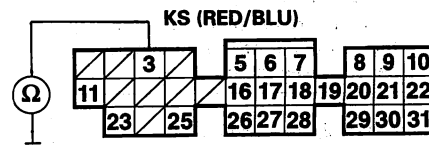
- Replace the original knock sensor.
- Replace the knock sensor connector.

YES

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

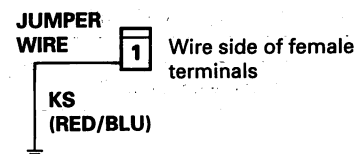


ECM/PCM CONNECTOR C (31P)



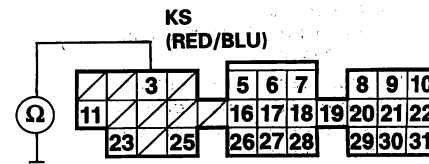
Wire side of female terminals

KNOCK SENSOR 1P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0335: Malfunction in CKP Sensor Circuit

DTC P0336: Range/Performance Problem in CKP Sensor Circuit

DTC P1361: Intermittent interruption in TDC Sensor Circuit

DTC P1362: No signal in TDC Sensor Circuit

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

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. If the engine does not start, turn the ignition switch start position (III) for 10 seconds.

Is DTC P0335, P0336, P1361 or P1362 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at CKP/TDC Sensor and ECM/PCM.

YES

Check for an open in the CKP/TDC sensor:

1. Turn the ignition switch OFF.
2. Disconnect the CKP/TDC sensor 4P connector.
3. Measure resistance between the terminals of the indicated sensor (*see table).

Is there 2,010 – 2,510 Ω at 20°C (68°F)?

NO

Replace the CKP/TDC sensor (see section 6).

YES

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 2,010 – 2,510 Ω at 20°C (68°F)?

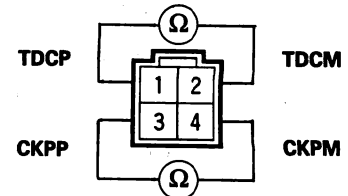
NO

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

YES

(To page 11-B-77)

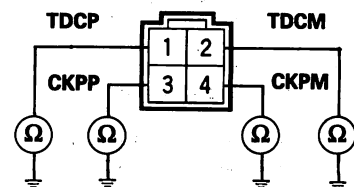
CKP/TDC SENSOR 4P CONNECTOR



Terminal side of male terminals

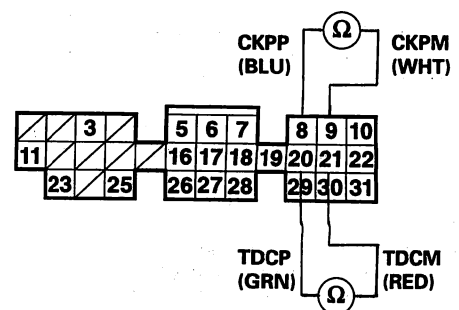
SENSOR	DTC	SENSOR TERMINAL	ECM/PCM TERMINAL	WIRE COLOR
TDC	P1361 P1362	1	C20	GRN
		2	C21	RED
CKP	P0335 P0336	3	C8	BLU
		4	C9	WHT

CKP/TDC SENSOR 4P CONNECTOR



Terminal side of male terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals



(From page 11-B-76)

Check for a short in the wires (CKP/TDC lines):
Check for continuity between body ground and ECM/PCM connector terminals C8 and/or C20 individually.

Is there continuity?

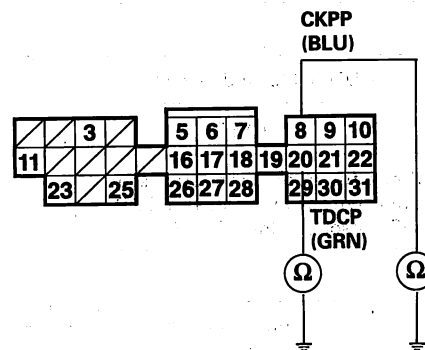
YES

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

NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTOR C (31P)



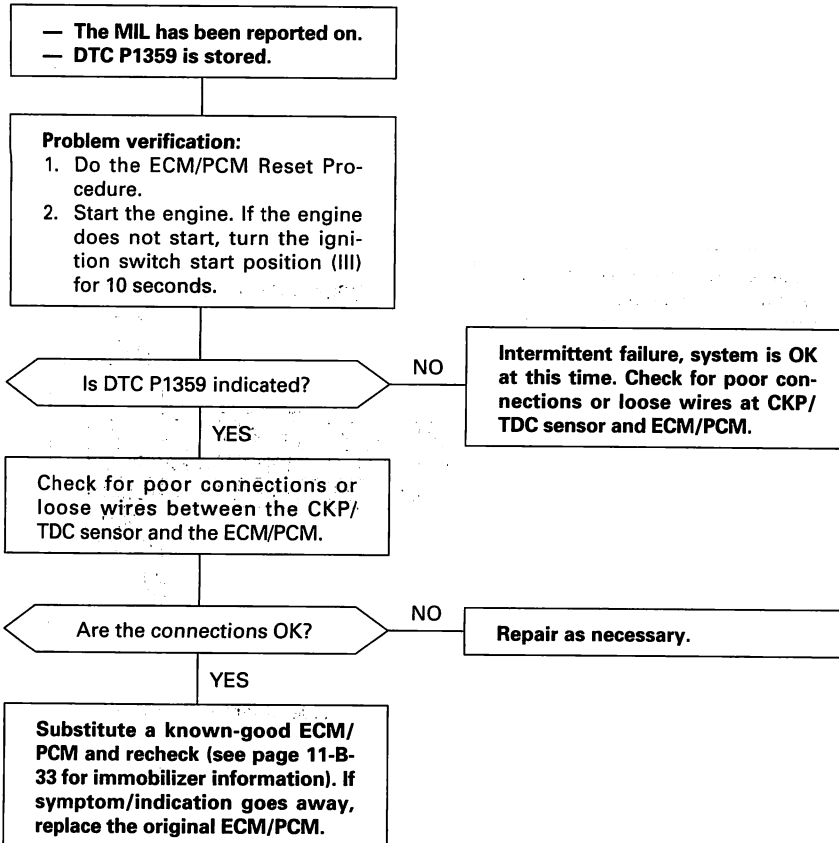
Wire side of female terminals

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P1359: Problem in CKP/TDC Sensor Circuit





DTC P0500: Malfunction in VSS Circuit

- The MIL has been reported on.
- DTC P0500 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 VSS and ECM.

NO

Check for an open in the ECM:

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 connector terminals B20 and C23.

Does the voltage pulse between 0 V and approx. 5 V or battery voltage?

YES

Substitute a known-good ECM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM.

NO

Check for a short in the ECM:

1. Turn the ignition switch OFF.
2. Disconnect the ECM 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 connector terminals B20 and C23.

Does the voltage pulse between 0 V and approx. 5 V or battery voltage?

YES

Substitute a known-good ECM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM.

NO

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

ECM CONNECTORS

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							

LG1 (BRN/BLK)

C (31P)

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									

VSS (BLU/WHT)

Wire side of female terminals

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							

LG1 (BRN/BLK)

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									

VSS (BLU/WHT)

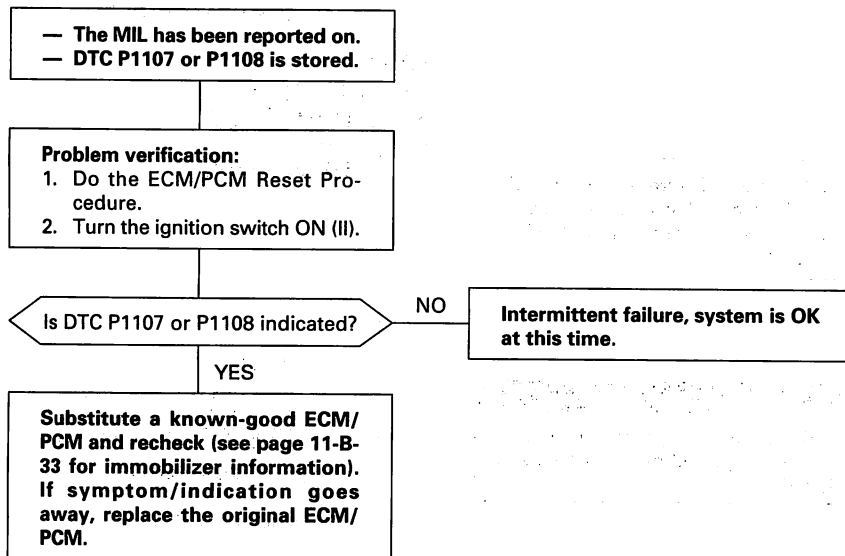
(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P1107: Low Voltage in Barometric Pressure (BARO) Sensor Circuit

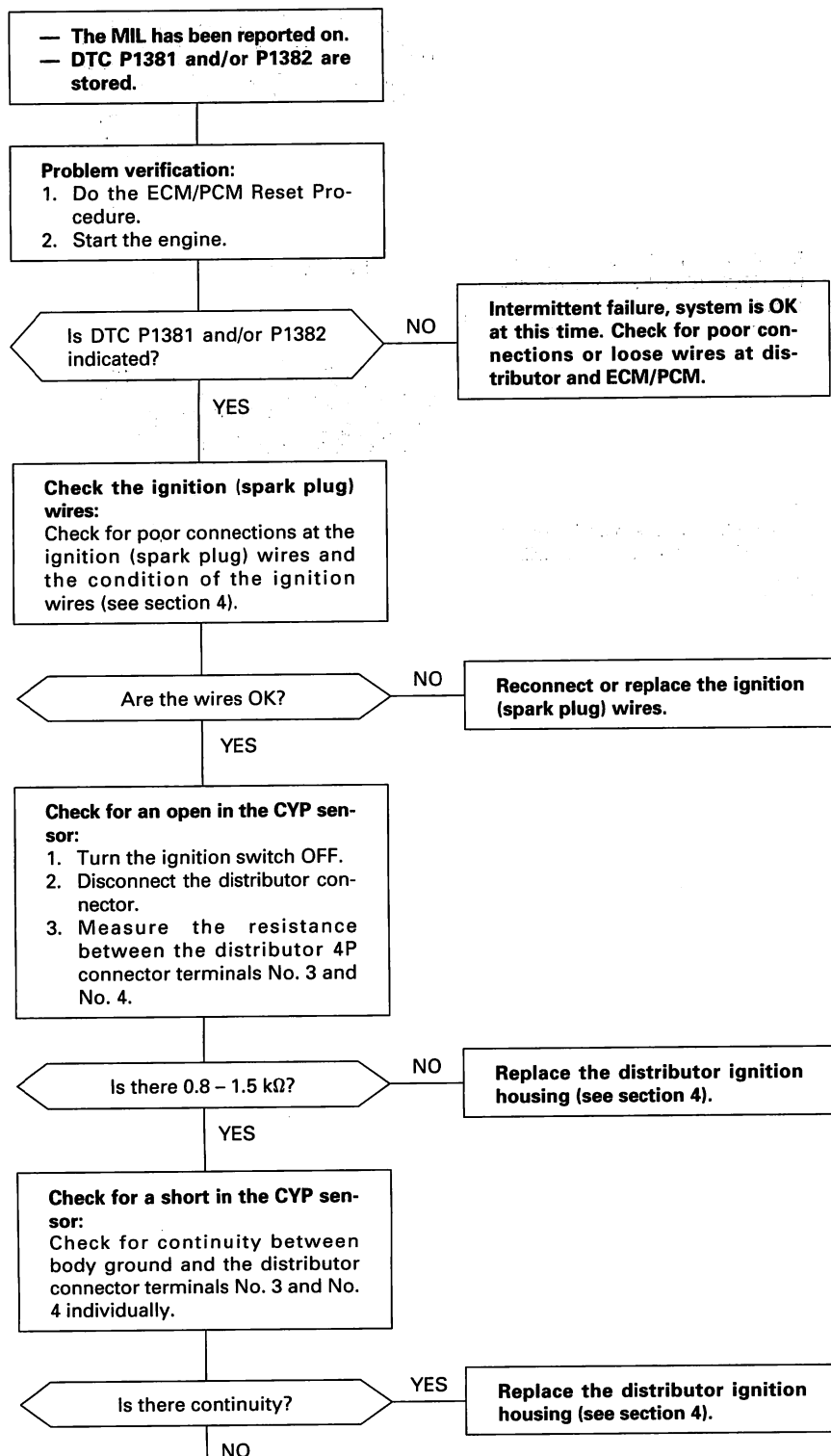
DTC P1108: High Voltage in Barometric Pressure (BARO) Sensor Circuit



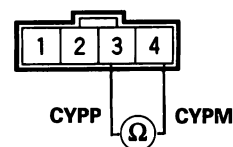


DTC P1381: Intermittent interruption in CYP Sensor Circuit

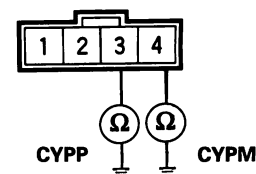
DTC P1382: No signal in CYP Sensor Circuit



DISTRIBUTOR 4P CONNECTOR



Terminal side of male terminals



(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-81)

Check for an open in the wires (CYP lines):
1. Reconnect the distributor connector.
2. Disconnect the ECM/PCM connector C (31P).
3. Measure resistance between ECM/PCM connector terminals C29 and C30.

Is there 0.8 – 1.5 Ω ?

NO

Repair open in the wire between ECM/PCM (C29, C30) and the distributor.

YES

Check for a short in the wire (CYP line):
Check for continuity between body ground and ECM/PCM connector terminal C29.

Is there continuity?

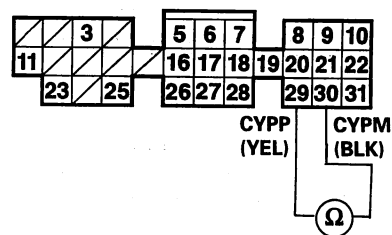
YES

Repair short in the wire between ECM/PCM (C29) and the distributor.

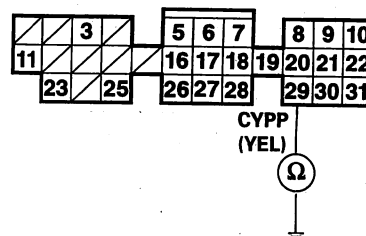
NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals





DTC P1607: Malfunction in ECM/PCM Internal Circuit.

- 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 three seconds.

Is DTC P1607 indicated?

NO

Intermittent failure, system is OK this time.

YES

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

PGM-FI System

MIL Circuit Troubleshooting (F18B2, F18B4 engine)

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

NOTE:

If this symptom is intermittent, check for the following problems.

- The MIL never comes on after the ignition switch is turned ON (II).
 - A loose ACGS (15 A) fuse in the under-hood fuse/relay box.
 - A loose No. 1 FUEL PUMP (15 A) fuse in the driver's under-dash fuse/relay box.
 - A loose No. 9 BACK UP LIGHT INSTRUMENT LIGHT (7.5 A) fuse in the driver's 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), the MAP sensor and the countershaft speed sensor (A/T).
 - An intermittent short in the wire between the ECM/PCM (C28), the TP sensor, EGR valve lift sensor and the mainshaft speed sensor (A/T).
 - PGM-FI main relay.
- The MIL stays on or comes on after two second with the ignition switch turned ON (II).
 - 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 scan tool or Honda PGM Tester user's manuals for specific operating instructions.

Does the MIL come on and stay on?

YES

(To page 11-B-87)

Check the inertia switch:
1. Turn the ignition switch OFF.
2. Press the inertia switch button.
3. Turn the ignition switch ON (II).

Does the MIL come on for two seconds after ignition switch turned ON (II)?

YES

Intermittent failure, system is OK at this time.

NO

Check the fuse:
1. Turn the ignition switch OFF.
2. Turn the ignition switch ON (II).

Does the low oil pressure indicator light come on?

NO

- Repair short or open in the wire between No. 9 BACK UP LIGHT INSTRUMENT LIGHT (7.5 A) fuse and gauge assembly.
- Replace the No. 9 BACK UP LIGHT INSTRUMENT LIGHT (7.5 A) fuse.

YES

Check the engine starting:
Try to start the engine.

Does the engine start?

YES

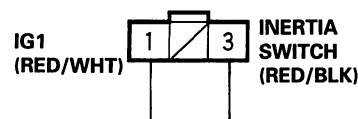
- Check for an open in the wire or bulb (MIL line):
1. Turn the ignition switch OFF.
 2. Connect the ECM/PCM connector terminal A18 and body ground with a jumper wire.
 3. Turn the ignition switch ON (II).

NO

(To page 11-B-85)

(To page 11-B-85)

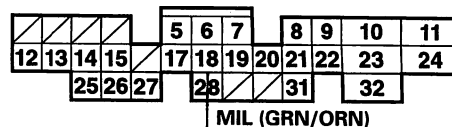
INERTIA SWITCH CONNECTOR



JUMPER WIRE

Wire side of female terminals

ECM/PCM CONNECTOR A (32P)



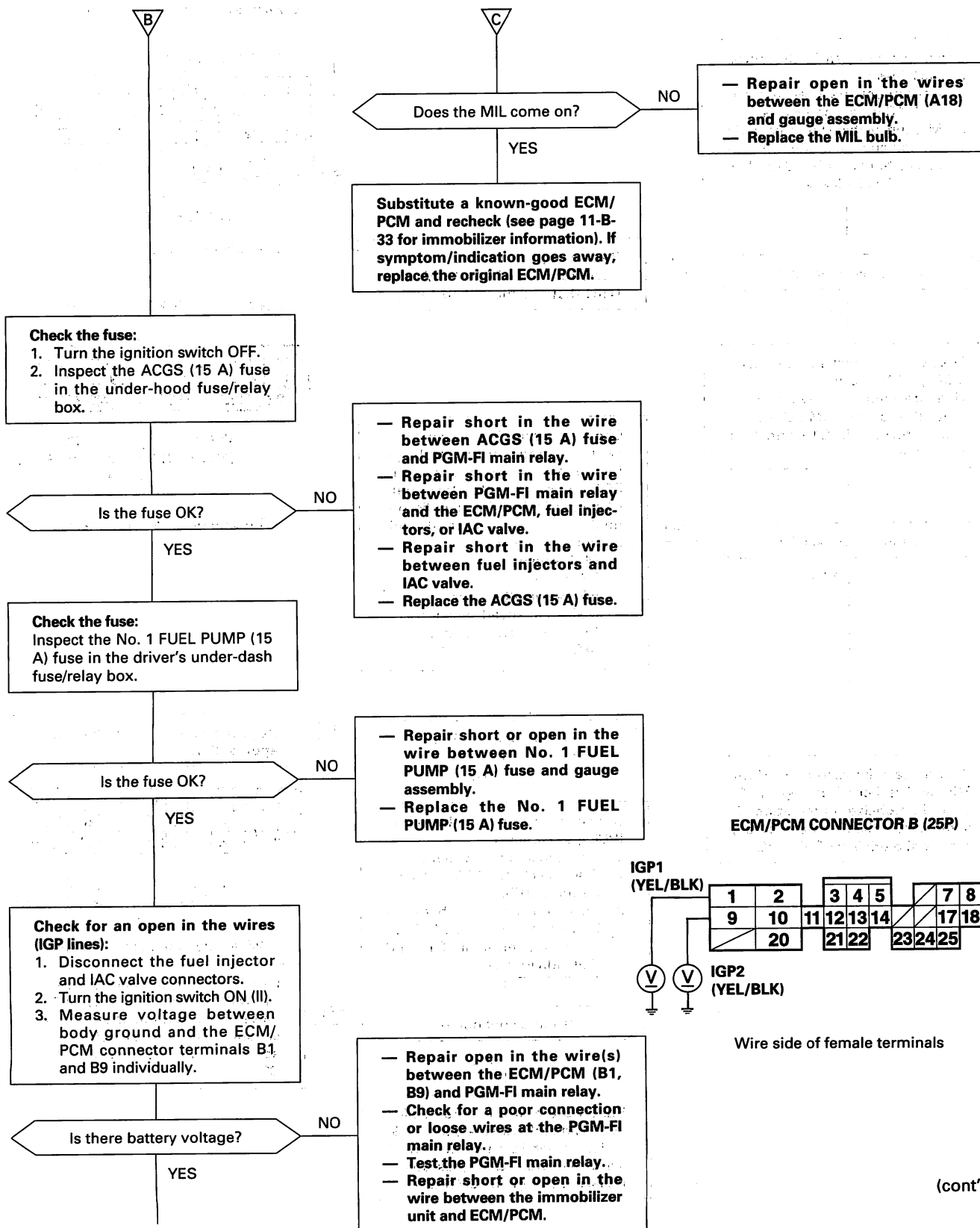
JUMPER WIRE

Wire side of female terminal



(From page 11-B-84)

(From page 11-B-84)



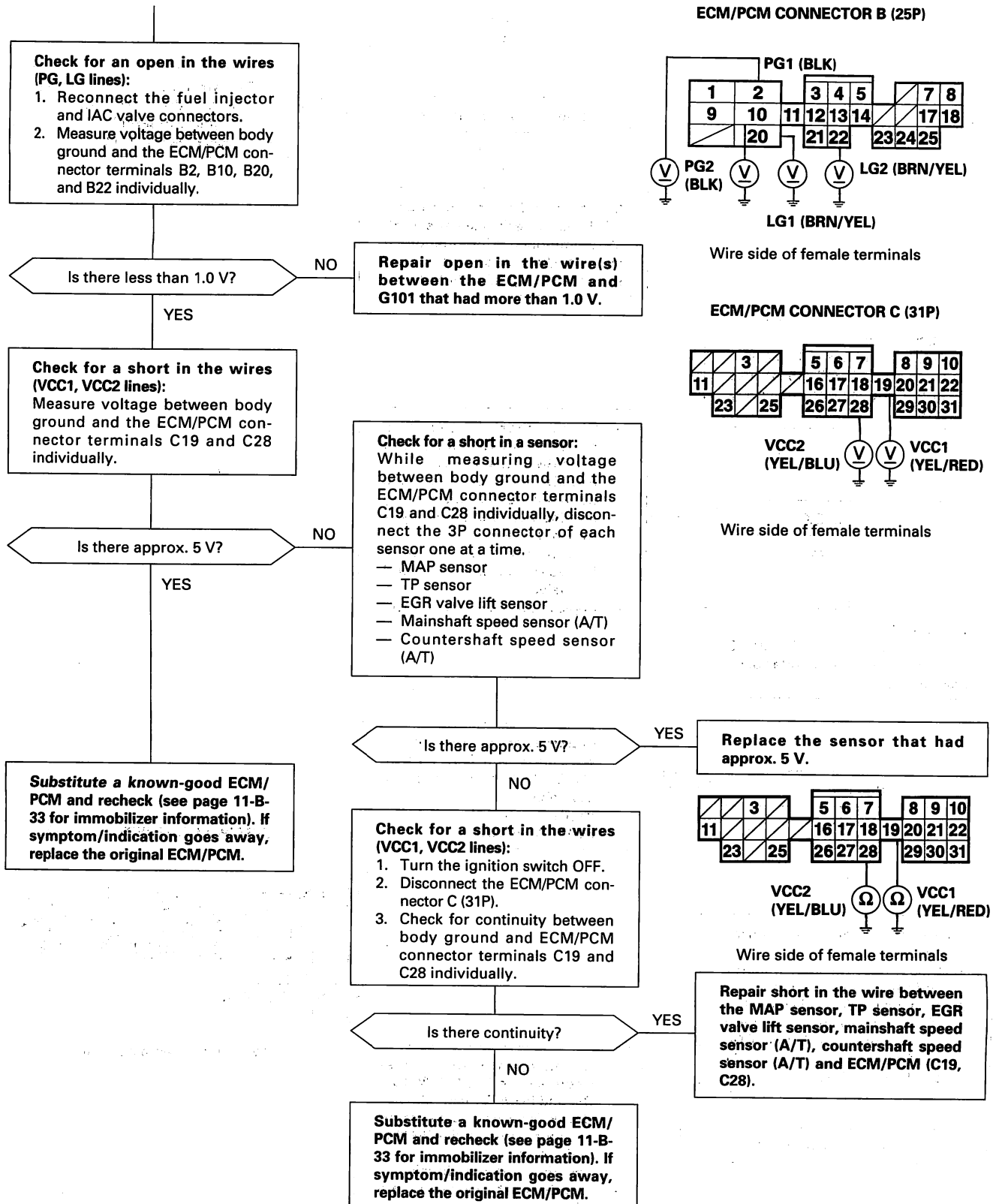
(To page 11-B-86)

(cont'd)

PGM-FI System

MIL Circuit Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-85)





(From page 11-B-84)



Check the Diagnostic Trouble Code (DTC):

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

Are any DTC(s) indicated?

YES

Go to the DTC Troubleshooting Index (see page 11-B-34).

NO

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

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON (II).
3. Measure voltage between the ECM/PCM connector terminal A10 and body ground.

Is there approx. 5 V (or battery voltage)?

NO

Repair short in the wire between the service check connector and ECM/PCM (A10).

YES

Check for a short in the wire (K-line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector A (32P).
3. Check for continuity between the Data link connector (DLC) 16P connector terminal No. 15 and body ground.

Is there continuity?

YES

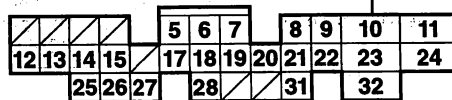
Repair short in the wire between the DLC and ECM/PCM (A21).

NO

(To page 11-B-88)

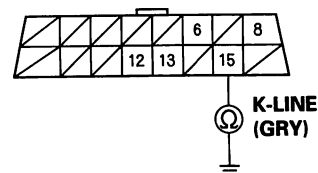
ECM/PCM CONNECTOR A (32P)

SCS (BRN)



Wire side of female terminals

DATA LINK CONNECTOR (DLC) (16P)



Wire side of female terminals

(cont'd)

PGM-FI System

MIL Circuit Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-87)

Check for an open in the wire (K-line):
Check for continuity between the DLC 16P connector terminal No. 15 and ECM/PCM connector terminal A21.

Is there continuity?

NO

Repair open in the wire between the DLC and ECM/PCM (A21).

YES

Check for a short in the wire (MIL line):
Turn the ignition switch ON (II).

Does the MIL come on?

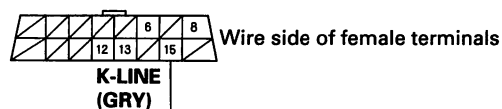
YES

Repair short in the wire between the gauge assembly and ECM/PCM (A18).

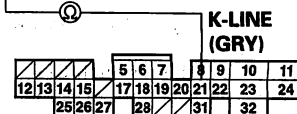
NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

DATA LINK CONNECTOR (DLC) (16P)



ECM/PCM CONNECTOR A (32P)



Wire side of female terminals



General Troubleshooting Information

Intermittent Failures

The term "intermittent failure" means a system may have had a failure, but it checks OK now. 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.

Opens and Shorts

"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.

How to Read the 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)

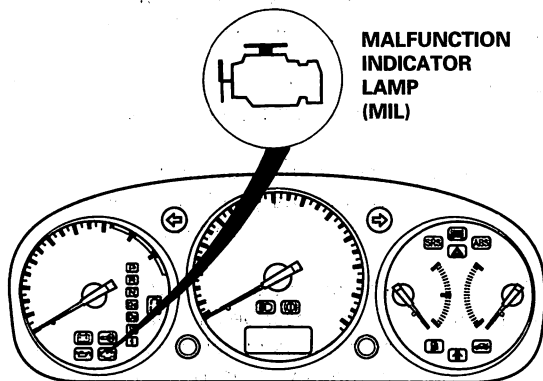
The end of a series of actions and decisions, describes a final repair action and sometimes directs you to an earlier part of the flowchart to confirm your repair.

General Troubleshooting Information

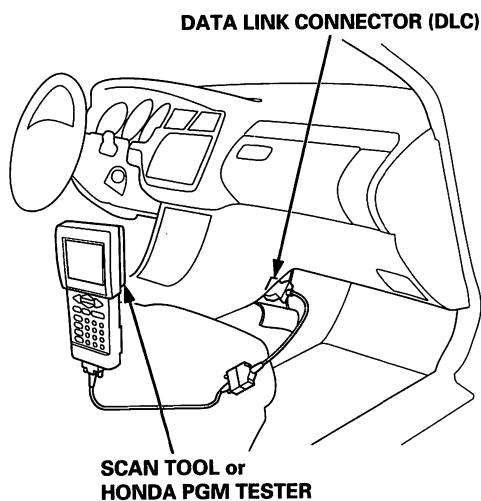
How to Use the PGM Tester or a Scan Tool (F18B2, F18B4 engine)

If the MIL (Malfunction Indicator Lamp) has come on

1. Start the engine and check the MIL.



2. If the MIL stays on, turn the ignition switch OFF and connect the Honda PGM Tester or a scan tool to the Data Link Connector (DLC) located on the passenger's side of the center console.



The illustration shows LHD type.
RHD type is symmetrical.

3. Turn the ignition switch ON (II).
4. Check the Diagnostic Trouble Codes (DTC) and note it. Also check the freeze frame data. Refer to the DTC Troubleshooting Index and begin the appropriate troubleshooting procedure.

NOTE:

- Freeze frame data indicates the engine conditions when the first malfunction, misfire or fuel trim malfunction was detected.
- The scan tool and the Honda PGM Tester can read the DTC, freeze frame data, current data, and other ECM/PCM data.
- For specific operations, refer to the user's manual that came with the scan tool or Honda PGM Tester.

If the MIL did not come on

If the MIL did not come on but there is a driveability problem, refer to the Symptom Troubleshooting Index (see page 11-B-38).

If you cannot duplicate the DTC

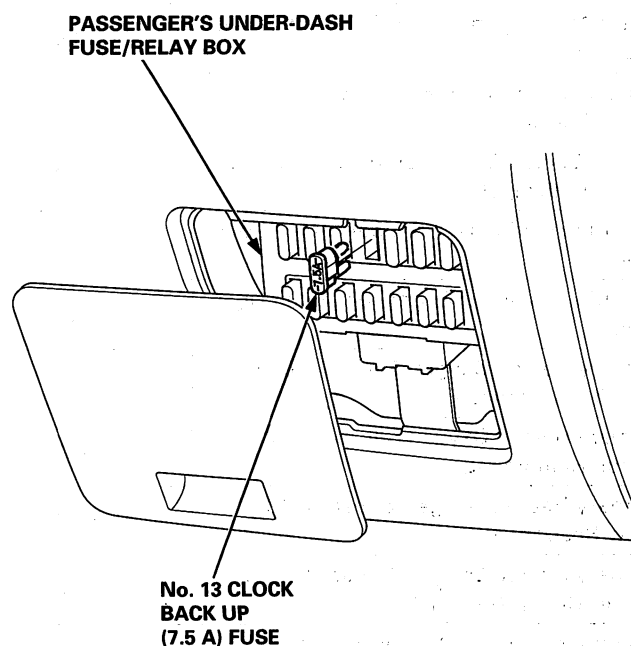
Some of the troubleshooting in this section requires you to reset the Engine Control Module (ECM)/Powertrain Control Module (PCM) and try to duplicate the DTC. If the problem is intermittent and you cannot duplicate the code, do not continue through the procedure. To do so will only result in confusion and, possibly, a needlessly replaced ECM/PCM.



How to Reset the ECM/PCM (F18B2, F18B4 engine)

You can reset the ECM/PCM in either of two ways:

- Use the scan tool or Honda PGM Tester to clear the ECM's/PCM's memory. See the scan tool or Honda PGM Tester user's manuals for specific operating instructions.
- Turn the ignition switch OFF, and remove the No. 13 CLOCK BACK UP (7.5 A) fuse from the passenger's under-dash fuse/relay box for 10 seconds.



The illustration shows LHD type.
RHD type is symmetrical.

How to End a Troubleshooting Session (F18B2, F18B4 engine)

This procedure must be done after any troubleshooting.

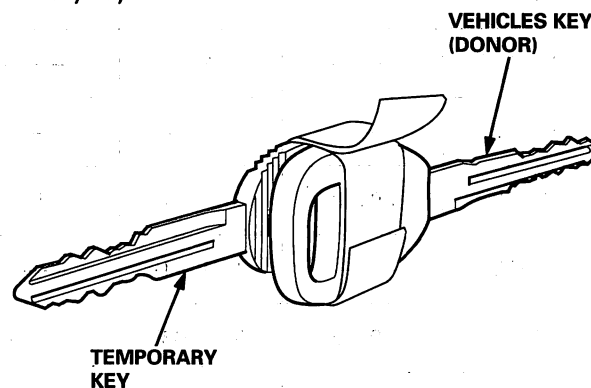
1. Do the ECM/PCM Reset Procedure.
2. Turn the ignition switch OFF.
3. Disconnect the scan tool or Honda PGM Tester from the Data Link Connector (DLC).

NOTE: The ECM/PCM is part of the immobilizer system. If you replace ECM/PCM, the ECM/PCM will have a different immobilizer code. In order for the engine to start, you must rewrite the immobilizer code with the Honda PGM Tester.

How to Substitute the ECM/PCM for Testing Purpose

Use this procedure if you need a known-good ECM/PCM to test a vehicle. It allows you to swap a ECM/PCM from a "donor" vehicle without having to program it to the test vehicle's ignition key.

1. Cut a temporary ignition key for the test vehicle with a non-immobilizer key blank.
2. Remove the ECM/PCM from the test vehicle.
3. Write the test vehicle's VIN on the ECM/PCM you just removed to avoid confusing it with the donor vehicle's ECM/PCM.
4. Remove the known-good ECM/PCM from the donor vehicle, and install it in the test vehicle.
5. Tape the donor vehicle's ignition key head-to-head to the test vehicle's temporary key. The ECM/PCM will recognize the code from the donor vehicle's key and allow you to start the engine with the temporary key.



6. After completing your tests, reinstall both ECM's/PCM's, and destroy the temporary key.

General Troubleshooting Information

DTC Troubleshooting Index (F18B2, F18B4 engine)

Scan tool DTC		Honda DTC		Detection Item	Page
DTC	Temporary DTC	DTC (MIL indication*)	Temporary DTC		
P0107	—	3-1 (3)	—	Manifold Absolute Pressure (MAP) Sensor Circuit Low Input	11-B-52
P0108	—	3-2 (3)	—	Manifold Absolute Pressure (MAP) Sensor Circuit High Input	11-B-53
P0112	—	10-1 (10)	—	Intake Air Temperature (IAT) Sensor Circuit Low Input	11-B-54
P0113	—	10-2 (10)	—	Intake Air Temperature (IAT) Sensor Circuit High Input	11-B-55
P0117	—	6-1 (6)	—	Engine Coolant Temperature (ECT) Sensor Circuit Low Input	11-B-56
P0118	—	6-2 (6)	—	Engine Coolant Temperature (ECT) Sensor Circuit High Input	11-B-58
P0122	—	7-1 (7)	—	Throttle Position (TP) Sensor Circuit Low Input	11-B-59
P0123	—	7-2 (7)	—	Throttle Position (TP) Sensor Circuit High Input	11-B-61
P0131	—	1-1 (1)	—	Primary Heated Oxygen Sensor (HO2S) Circuit Low Voltage	11-B-62
P0132	—	1-2 (1)	—	Primary Heated Oxygen Sensor (HO2S) Circuit High Voltage	11-B-63
P0133	P0133	61-1 (61)	61-1	Primary Heated Oxygen Sensor (HO2S) Slow Response	11-B-64
P0135	—	41-1 (41)	—	Primary Heated Oxygen Sensor (HO2S) Heater Circuit Malfunction	11-B-68
P0137	P0136	63-1 (63)	—	Secondary Heated Oxygen Sensor (HO2S) Circuit Low Voltage	11-B-65
P0138	P0136	63-2 (63)	—	Secondary Heated Oxygen Sensor (HO2S) Circuit High Voltage	11-B-66
P0139	P0136	63-3 (63)	—	Secondary Heated Oxygen Sensor (HO2S) Slow Response	11-B-67
P0141	—	65-2 (65)	—	Secondary Heated Oxygen Sensor (HO2S) Heater Circuit Malfunction	11-B-68
P0171	P0170	45-1 (45)	—	Fuel System Too Lean	11-B-70
P0172	P0170	45-2 (45)	—	Fuel System Too Rich	11-B-70

*: These DTCs will be indicated by the blinking of the Malfunction Indicator Lamp (MIL) when the SCS short connector is connected.



Scan tool DTC		Honda DTC		Detection Item	Page
DTC	Temporary DTC	DTC (MIL indication*)	Temporary DTC		
P0300 and some of P0301 P0302 P0303 P0304	P1399	(71) (72) (73) (74)	—	Random Misfire	11-B-72
P0301 P0302 P0303 P0304	P1399	(71) (72) (73) (74)	—	Cylinder 1 Cylinder 2 Cylinder 3 Cylinder 4 Misfire Detected	11-B-73
P0325	—	23-1 (23)	—	Knock Sensor (KS) Circuit Malfunction	11-B-75
P0335	—	4-1 (4)	—	Crankshaft Position (CKP) Sensor Circuit Malfunction	11-B-76
P0336	—	4-2 (4)	—	Crankshaft Position (CKP) Sensor Range/Performance	11-B-76
P0401	P0401	80-1 (80)	80-1 (80)	Exhaust Gas Recirculation Insufficient Flow Detected	11-B-97
P0420	—	67-1 (67)	—	Catalyst System Efficiency Below Threshold	11-B-96
P0443	—	92-4 (92)	—	Evaporative Emission (EVAP) Purge Control Solenoid Valve Circuit Malfunction	11-B-102
P0500	—	17-1 (17)	—	Vehicle Speed Sensor (VSS) Malfunction (M/T)	11-B-79
P0715 P0720 P0730 P0753 P0758 P0763	—	70-3 (70)*	—	Automatic Transaxle	Section 14
P1107	—	13-1 (13)	—	Barometric Pressure Circuit Low Input	11-B-80
P1108	—	13-2 (13)	—	Barometric Pressure Circuit High Input	11-B-80
P1259	—	22-4 (22)	—	VTEC System Malfunction	Section 6
P1359	—	8-3 (8)	—	Crankshaft Position/Top Dead Center/Cylinder Position Sensor Connector Disconnection	11-B-78

*: These DTCs will be indicated by the blinking of the Malfunction Indicator Lamp (MIL) with the SCS short connector connected.

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

(cont'd)

General Troubleshooting Information

DTC Troubleshooting Index (F18B2, F18B4 engine) (cont'd)

Scan tool DTC		Honda DTC		Detection Item	Page
DTC	Temporary DTC	DTC (MIL indication*)	Temporary DTC		
P1361	—	8-2 (8)	—	Top Dead Center (TDC) Sensor Intermittent Interruption	11-B-76
P1362	—	8-1 (8)	—	Top Dead Center (TDC) Sensor No Signal	11-B-76
P1381	—	9-2 (9)	—	Cylinder Position (CYP) Sensor Intermittent Interruption	11-B-81
P1382	—	9-1 (9)	—	Cylinder Position (CYP) Sensor No Signal	11-B-81
P1491	P1491	12-3 (12)	12-3 (12)	EGR Valve Lift Insufficient Detected	11-B-98
P1498	—	12-2 (12)	—	EGR Valve Lift Sensor High Voltage	11-B-101
P1519	—	14-1 (14)	—	Idle Air Control Valve Circuit Failure	11-B-91
P1607	—	0-2	—	Engine Control Module (ECM)/Powertrain Control Module (PCM) Internal Circuit Failure	11-B-83
P1705 P1706 P1738 P1739 P1753 P1768 P1773 P1791	—	70-2 (70)*1	—	Automatic Transaxle	Section 14

*: These DTCs will be indicated by the blinking of the Malfunction Indicator Lamp (MIL) with the SCS short connector is connected.

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



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These authors also found that the two methods used to measure confidence in their judgments were not significantly different. However, the use of the confidence scale was significantly more predictive of the accuracy of the judgments than the use of the confidence scale. This finding is consistent with the findings of the present study, which showed that the use of the confidence scale was significantly more predictive of the accuracy of the judgments than the use of the confidence scale.

11-B-37

General Troubleshooting Information

Symptom Troubleshooting Index (F18B2, F18B4 engine)

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 DTC Troubleshooting Index (see page 11-B-34).

NOTE: Across each row in the chart, the systems that could be sources of a symptom are ranked in the order they should be inspected starting with ①. Find the symptom in the left column, read across to the most likely source, then refer to the page listed at the top of that column. If inspection shows the system is OK, try the next most likely system ②, etc.

PAGE		SYSTEM	PGM-FI		IDLE CONTROL					
			MIL CIRCUIT	IMMOBI- LIZER SYSTEM	IAC VALVE	ALTERNA- TOR FR SIGNAL	STARTER SWITCH	BRAKE SWITCH SIGNAL	P/S PRES- SURE SWITCH SIGNAL	HOSES AND CONNEC- TIONS
SYMPTOM			11-B-84	——	11-B-91	——	——	——	——	——
ENGINE WON'T START	MIL COMES ON									②
	MIL DOESN'T COME ON OR STAYS ON AND NEVER GO OFF	①								②
DIFFICULT TO START ENGINE					③		①			①
WHEN COLD FAST IDLE OUT OF SPEC					③					①
ENGINE SPEED TOO HIGH AFTER WARN- ING UP					③					①
RPM TOO LOW AFTER WARNING UP	IDLE SPEED IS BELOW SPECIFIED ENGINE SPEED (NO LOAD)			①						③
	IDLE SPEED FLUCTUATES WITH ELECTRICAL LOAD			②	①		②			③
	IDLE SPEED DROPS WHIN STEERING WHEEL IS TURNING			②	①			①		
ROUGH IDLE					①	③				
FREQUENT STALLING AFTER WARMING UP					①					②
POOR PER- FORMANCE	MISFIRE OR ROUGH RUN- NING									③
	FAILS EMISSION TEST									③
	LOSS OF POWER									



FUEL SUPPLY						INTAKE AIR				EMISSION CONTROL			
FUEL LINES, FUEL PRESSURE	FUEL INJECTOR	FUEL FILTER	FUEL PUMP	PGM-FI MAIN RELAY	FUEL	AIR CLEANER	THROTTLE WIRE	THROTTLE BODY	IAB CONTROL SYSTEM	TWC	EGR SYSTEM	PCV SYSTEM	EVAP EMISSION CONTROL SYSTEM
—	—	—	—	—	—	—	—	—	—	11-B-96	11-B-97	—	11-B-102
①	③		②	②	①			③					
①	③	②	②		①			③			③		
							②	②					
							②	②					
								②					
								②					
								②					
②	②				③						③	③	
①	②		②		②								
②	②				③					①			③
①	③	②	②		③	②	②	②	③	②	③		

Troubleshooting

ECM/PCM Data (F18B2, F18B4 engine)

You can retrieve data from the ECM/PCM by connecting the scan tool or the Honda PGM Tester to the 16P data link connector (DLC). The items listed in the table below can be indicated by both scan tool and Honda PGM tester. The Honda PGM Tester also reads data beyond these items. Understanding this data may help you find the causes of intermittent problems.

NOTE:

- The "operating values" listed are approximate and may vary 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 Park or neutral, 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.	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 At idle speed: M/T: 750 ± 50 rpm (min ⁻¹) A/T: 730 ± 50 rpm (min ⁻¹)	YES
Vehicle Speed	The ECM/PCM converts pulse signals from the Vehicle Speed Sensor (VSS) (M/T) or countershaft speed sensor (A/T) 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: 21 – 41 kPa (160 – 310 mmHg, 6.3 – 12.2 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: approx. 70 – 100°C (158 – 212°F)	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	YES (Primary Sensor 1 only)
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



Data	Description	Operating Value	Freeze Data
Short Term Fuel Trim	The air/fuel ratio correction coefficient for correcting the amount of injected fuel when HO ₂ S feedback is in the closed loop status. When the signal from the HO ₂ S 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 HO ₂ S 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.	± 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.	± 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° ± 2° BTDC with the SCS service signal line is jumped with the Honda PGM tester	NO
Calculated Load Value (CLV)	CLV is the engine load calculated from the MAP data.	At idle speed: 12 – 34%	YES

Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement (F18B2, F18B4 engine)

ECM/PCM CONNECTOR A (32 P)

				5 CR 6 LED A 7 LED B			8 SO2S HTC		9 VBS OUT		10 SCS		11 LED C								
				17 ACC			18 MIL		19 NEP		20 POS HTC		21 K-LINE		22 S-DN		23 SHO2S		24 STS		
				25 IMO CD			26 S-UP			27 ACS			28 ILU			31 S-MODE			32 BKSW		

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
5*1	PUR	CRS (CRUISE CONTROL SIGNAL)	Down shift signal input from cruise control unit.	When cruise control is used: pulses
6*1	BLU/YEL	LED A	Shift indicator light control	In manual mode: • In 4th gear position: battery voltage • In 1st, 2nd and 3rd gear positions: 0 V
7*1	PUR	LED B	Shift indicator light control	In manual mode: • In 2nd and 3rd gear position: battery voltage • In 1st and 4th gear positions: 0 V
8	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater.	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
9*1	BLU/WHT	VSSOUT (VEHICLE SPEED SENSOR OUTPUT SIGNAL)	Vehicle speed signal detected from countershaft speed sensor.	Depending on vehicle speed: pulses
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
11*1	BLU/BLK	LED C	Shift indicator light control	In manual mode: • In 1st and 3rd gear positions: battery voltage • In 2nd and 4th gear positions: 0 V
12	PNK	IMOLMP (IMMOBILIZER INDICATOR LIGHT)	Drives immobilizer indicator light.	With immobilizer indicator light turned ON: 0 V With immobilizer indicator light turned OFF: battery voltage
13	PNK/BLK	IMOEN (IMMOBILIZER ENABLE SIGNAL)	Sends immobilizer enable signal.	
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
15	GRN/YEL	IMO FLR (IMMOBILIZER FUEL PUMP RELAY)	Drives fuel pump relay.	0 V for two seconds after turning ignition switch ON (II), then battery voltage
17	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay.	With compressor ON: 0 V With compressor OFF: battery voltage
18	GRN/ORN	MIL (MALFUNCTION INDICATOR LIGHT)	Drives MIL.	With MIL turned ON: 0 V With MIL turned OFF: battery voltage
19	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse.	With engine running: pulses
20	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
21	GRY	K-LINE	Sends and receives scan tool signal.	With ignition switch ON (II): pulses

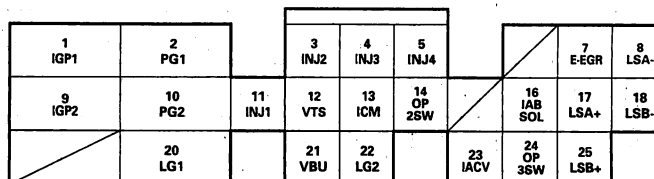
*1: A/T

*2: M/T

Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement (F18B2, F18B4 engine) (cont'd)

ECM/PCM CONNECTOR B (25P)



PCM CONNECTOR B (25P)

Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

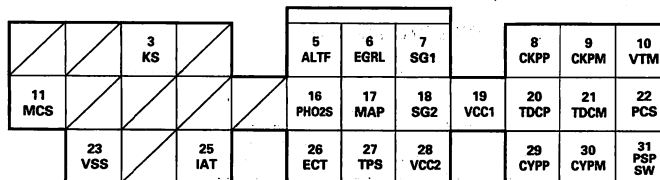
Terminal number	Wire color	Terminal name	Description	Signal
1	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
2	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
3	RED	INJ2 (No. 2 FUEL INJECTOR)	Drives No. 2 fuel injector.	With engine running: pulses
4	BLU	INJ3 (No. 3 FUEL INJECTOR)	Drives No. 3 fuel injector.	
5	YEL	INJ4 (No. 4 FUEL INJECTOR)	Drives No. 4 fuel injector.	
7	PNK	E-EGR	Drives EGR valve.	With EGR operation during driving with fully warmed up engine: duty controlled With EGR not operating: 0 V
8*1	WHT	LSA- (A/T CLUTCH PRES-SURE CONTROL SOLENOID VALVE A - SIDE)	A/T clutch pressure control solenoid valve A power supply negative electrode.	With ignition switch ON (II): pulses
9	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM/PCM control circuit.	With ignition switch ON (II): battery voltage With ignition switch OFF: 0 V
10	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
11	BRN	INJ1 (No. 1 FUEL INJECTOR)	Drives No. 1 fuel injector.	With engine running: pulses
12	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve.	With engine at low rpm: 0 V With engine at high rpm: battery voltage
13	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)
14*1	BLU/BLK	OP2SW (2ND OIL PRES-SURE SWITCH)	Detects 2nd oil pressure switch.	With ignition switch ON (II): battery voltage
16	RED/BLU	IAB SOL (INTAKE AIR BYPASS CONTROL SOLENOID VALVE)	Drives IAB control solenoid valve.	With engine running, engine speed below: 3,900 rpm (min ⁻¹) battery voltage With engine running, engine speed above: 3,900 rpm (min ⁻¹) 0 V
17*1	RED	LSA+ (A/T CLUTCH PRES-SURE CONTROL SOLENOID VALVE A + SIDE)	A/T clutch pressure control solenoid valve A power supply positive electrode	With ignition switch ON (II): pulses
18*1	GRN	LSB- (A/T CLUTCH PRES-SURE CONTROL SOLENOID VALVE B - SIDE)	A/T clutch pressure control solenoid valve B power supply negative electrode	With ignition switch ON (II): pulses
20	BRN/BLK	LG1 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
21	WHT/BLU	VBU (VOLTAGE BACK UP)	Power source for the ECM/PCM control circuit. Power source for the DTC memory.	Battery voltage at all times
22	BRN/BLK	LG2 (LOGIC GROUND)	Ground for the ECM/PCM control circuit.	Less than 1.0 V at all times
23	BLK/BLU	IACV (IDLE AIR CONTROL VALVE)	Drives IAC valve.	With engine running: pulses
24*1	BLU/WHT	OP3SW (3RD OIL PRES-SURE SWITCH)	Detects 3rd oil pressure switch.	With ignition switch ON (II): battery voltage
25*1	ORN	LSB+ (A/T CLUTCH PRES-SURE CONTROL SOLENOID VALVE B + SIDE)	A/T clutch pressure control solenoid valve B power supply positive electrode	With ignition switch ON (II): pulses

*1: A/T

*2: M/T



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
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	WHT/BLK	EGR (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
11*1	RED/BLK	MCS (ENGINE MOUNT CONTROL SOLENOID VALVE)	Drives engine mount control solenoid valve.	At idle: 0 V Above idle: 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	RED/YEL	PCS (EVAP PURGE CONTROL SOLENOID VALVE)	Drives EVAP purge control solenoid valve.	With engine running, engine coolant below 55°C (131°F): battery voltage With engine running, engine coolant above 55°C (131°F): duty controlled
23*2	BLU/WHT	VSS (VEHICLE SPEED SENSOR)	Detects VSS signal.	With ignition switch ON (II) and front wheel rotating: cycles 0 V – about 5 V or battery voltage
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal.	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal.	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage.	With ignition switch ON (II): about 5 V With ignition switch OFF: 0 V
29	YEL	CYPP (CYP SENSOR P SIDE)	Detects CYP sensor.	With engine running: pluses
30	BLK	CYPM (CYP SENSOR M SIDE)	Ground for CYP sensor.	
31	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

*1: A/T

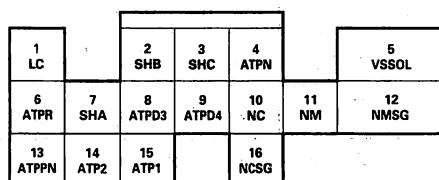
*2: M/T

(cont'd)

Troubleshooting

Engine/Powertrain Control Module Terminal Arrangement (F18B2, F18B4 engine) (cont'd)

PCM CONNECTOR D (16P)



PCM CONNECTOR D (16P) (A/T only)

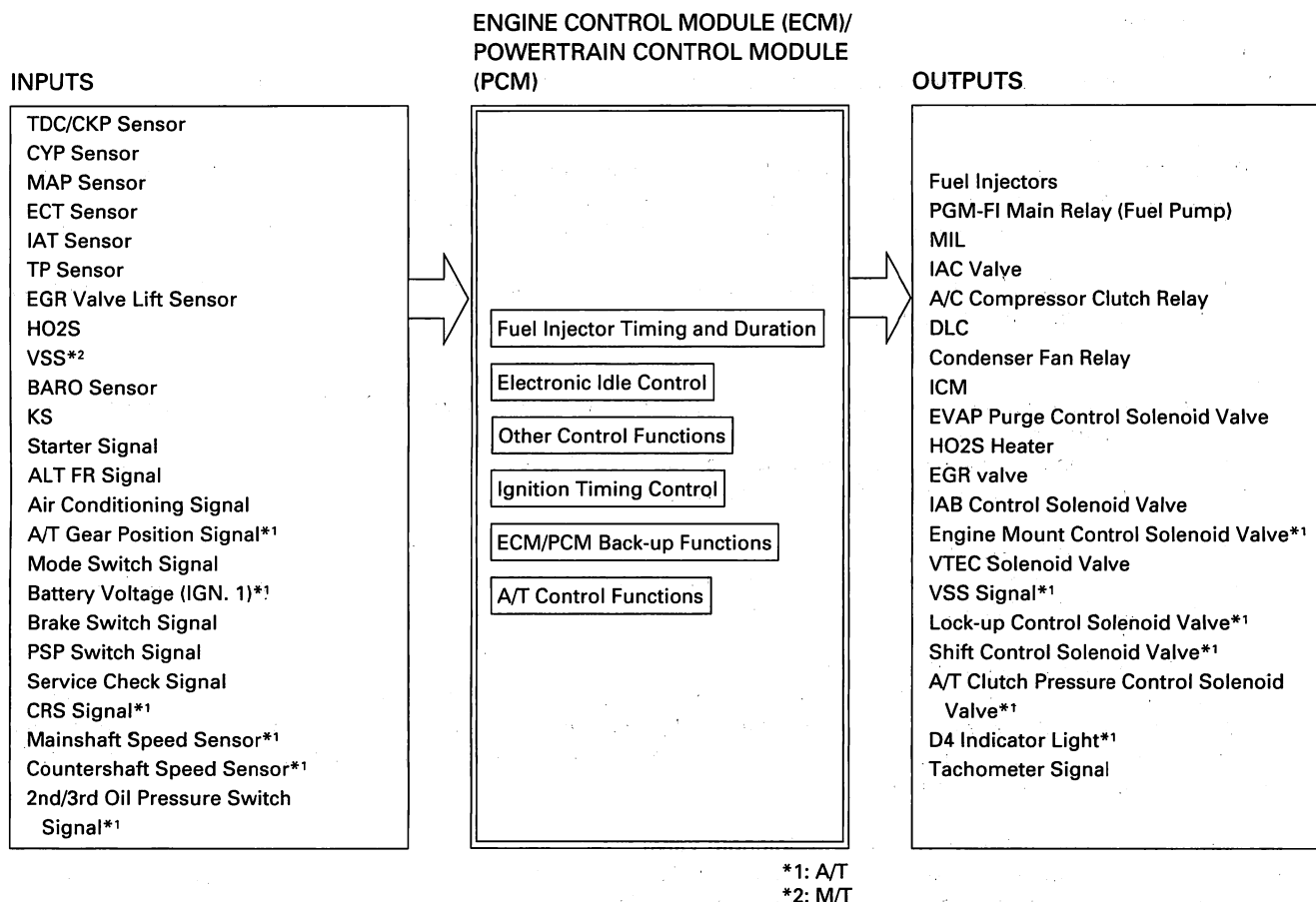
Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	YEL	LC (LOCK-UP CONTROL SOLENOID VALVE)	Drives lock-up control solenoid valve.	During half and full lock-up conditions, and during deceleration condition: battery voltage during no lock-up condition: 0 V
2	GRN/WHT	SHB (SHIFT CONTROL SOLENOID VALVE B)	Drives shift control solenoid valve B.	Battery voltage in following positions: • 1, 2, and positions • D ₄ , and D ₃ positions in 1st and 2nd gear. • P, R and N positions 0 V in following positions: • D ₄ , and D ₃ positions in 3rd gear • D ₄ position in 4th gear
3	GRN	SHC (SHIFT CONTROL SOLENOID VALVE C)	Drives shift control solenoid valve C.	Battery voltage in following positions: • 1 position • D ₄ , and D ₃ positions in 1st and 3rd gear 0 V in following positions: • 2 position • D ₄ , and D ₃ positions in 2nd gear • D ₄ position in 4th gear • P, R and N positions
4	RED/BLK	ATPN (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In N position: 0 V In any other position: about 5 V
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: about 5 V
7	BLU/YEL	SHA (SHIFT CONTROL SOLENOID VALVE A)	Drives shift control solenoid valve A.	Battery voltage in following positions: • 2 position • D ₄ , and D ₃ positions in 2nd and 3rd gear 0 V in following positions: • 1 position • D ₄ , and D ₃ positions in 1st gear • D ₄ position in 4th gear • P, R and N positions
8	PNK	ATPD3 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D ₃ position: 0 V In any other position: about 5 V
9	YEL	ATPD4 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In D ₄ position: 0 V In any other position: about 5 V
10	BLU	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals.	Depending on vehicle speed: pulsing signal When engine is stopped: approx. 0 V
11	RED	NM (MAINSHAFT SPEED SENSOR)	Detects mainshaft speed sensor signals.	Depending on vehicle speed: pulsing signal When vehicle is stopped: approx. 0 V
12	WHT	NMSG (MAINSHAFT SPEED SENSOR GROUND)	Ground for mainshaft speed sensor.	
13	BLU/WHT	ATPPN (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In P or N position: 0 V In any other position: about 5 V
14	BLU	ATP2 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 2 position: 0 V In any other position: about 5 V
15	BRN	ATP1 (AT GEAR POSITION SWITCH)	Detects A/T gear position switch signal.	In 1 position: 0 V In any other position: about 5 V
16	GRN	NCSG (COUNTERSHAFT SPEED SENSOR GROUND)	Ground for countershaft speed sensor.	



System Description (F18B2, F18B4 engine)



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 pressures. 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

When the engine is cold, the A/C compressor is on, the transmission is in gear*1, 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 is also used. When detonation is detected by a knock sensor (KS), the ignition timing is retarded.

(cont'd)

PGM-FI System

System Description (F18B2, F18B4 engine) (cont'd)

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 (II), 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 (II), 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 1,100 rpm (min^{-1}).
 - Fuel cut-off action also takes place when engine speed exceeds 6,500 rpm (min^{-1}), regardless of the position of the throttle valve, to protect the engine from over-revving.
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. Intake Air Bypass (IAB) Control Solenoid Valve
When the engine rpm is below 4,200 rpm (min^{-1}), the IAB control solenoid valve is activated by a signal from the ECM/PCM, intake air flows through the long intake path, then high torque is delivered. At speeds higher than 4,200 rpm (min^{-1}), the solenoid valve is deactivated by the ECM/PCM, and intake air flows through the short intake path in order to reduce the resistance in airflow.
6. Evaporative Emission (EVAP) Purge Control Solenoid Valve
When the engine coolant temperature is above 55°C (131°F), the ECM/PCM controls the EVAP purge control solenoid valve which controls vacuum to the EVAP purge control canister.
7. Exhaust Gas Recirculation (EGR) Control Solenoid Valve
When the EGR is required for control of oxides of nitrogen (NOx) emissions, the ECM/PCM controls the EGR valve.



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 code in erasable memory. When the ignition is initially turned ON (II), the ECM/PCM supplies ground for the MIL for two seconds to check the MIL bulb condition.
4. **Two Driving Cycle Detection Method**
To prevent false indications, the "two driving cycle detection method" is used for the EGR system and other self-diagnostic functions. When an abnormality occurs, the ECM/PCM stores it in its memory. When the same abnormality recurs after switch is turned OFF and ON (II) again, the ECM/PCM informs the driver by turning on the MIL.

(cont'd)

PGM-FI System

System Description (F18B2, F18B4 engine) (cont'd)

The Programmed Fuel Injection (PGM-FI) system is a sequential multiport fuel injection system.

Fuel Injector Timing and Duration

The ECM/PCM contains the memory for basic discharge duration at various engine speeds and manifold pressures. 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.

By monitoring Long Term Fuel Trim, the ECM/PCM detects long term malfunctions in the fuel system, and will set a DTC if the malfunction occurs during two consecutive trips.

Ignition Timing Control

The ECM/PCM contains the memory for basic ignition timing at various engine speeds and manifold air flow rates. It also adjusts the timing according to engine coolant temperature. The ECM/PCM detects misfiring by using the CKP sensor to monitor fluctuations in crankshaft speed.

It will then set DTCs depending on how much misfiring occurs.

Starting Control

When the engine is started, the ECM/PCM provides a rich mixture by increasing fuel injector duration.

Alternator Control

The alternator signals the ECM/PCM during charging. The ECM then controls the voltage generated at the alternator according to the electrical load determined by the ELD (Electrical Load Detector) and driving mode. This reduces engine load to improve fuel economy.

A/C Switch

The A/C (air conditioning) switch signals the ECM/PCM whenever there is a demand for cooling.

A/C Compressor Clutch Relay

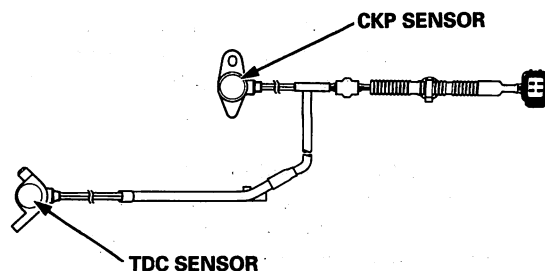
When the ECM/PCM receives a demand for cooling from the A/C system, it delays the compressor from being energized, and enriches the mixture to assure smooth transition to the A/C mode.

Vehicle Speed Sensor (VSS) (M/T)

The speed sensor generates a pulsed signal from an input of 5 volts. The number of pulses per minutes increases/decreases with the speed of the vehicle.

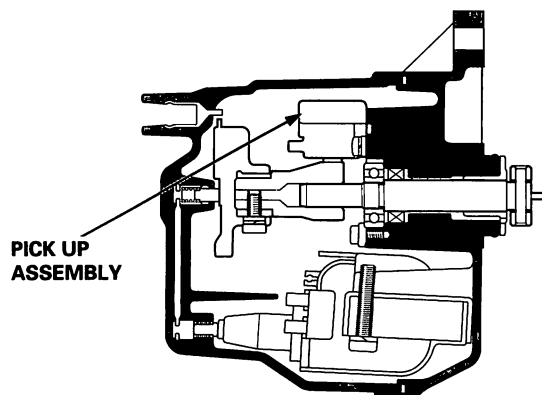
CKP (Crankshaft Position) and TDC (Top Dead Center) Sensors

The CKP sensor determines fuel injection timing and ignition timing for each cylinder, and also detects engine speed. The TDC sensor determines ignition timing at start-up and when crankshaft position signal is abnormal.



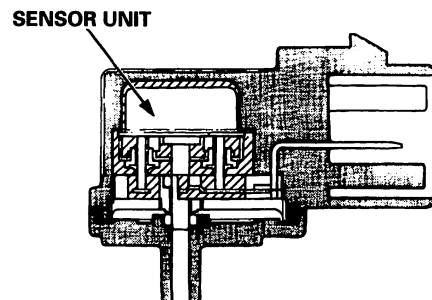
CYP (Cylinder Position) Sensor

The CYP sensor inside the distributor detects the position of the No. 1 cylinder as a reference for sequential fuel injection to each cylinder.



MAP (Manifold Absolute Pressure) Sensor

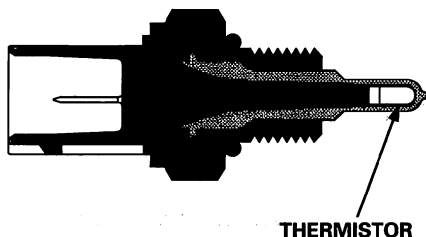
The MAP sensor converts manifold absolute pressure into electrical signals to the ECM/PCM.





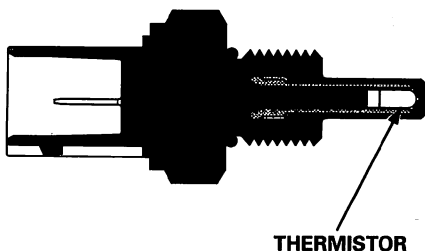
Intake Air Temperature (IAT) Sensor

The IAT sensor is a temperature dependent resistor (thermistor). The resistance of the thermistor decreases as the intake air temperature increases.



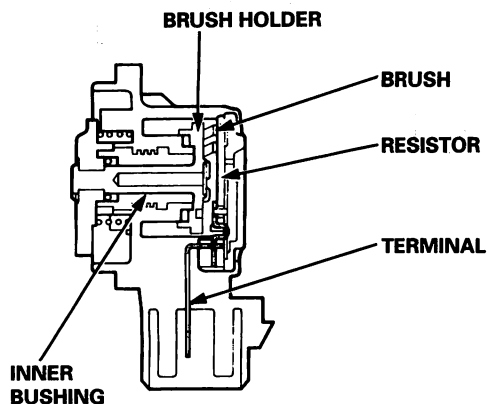
Engine Coolant Temperature (ECT) Sensor

The ECT sensor is a temperature dependent resistor (thermistor). The resistor of the thermistor decreases as the engine coolant temperature increases.



Throttle Position (TP) Sensor

The TP sensor is a potentiometer connected to the throttle valve shaft. As the throttle position changes, the sensor varies the signal voltage to the ECM/PCM. The TP sensor is not replaceable apart from the throttle body.



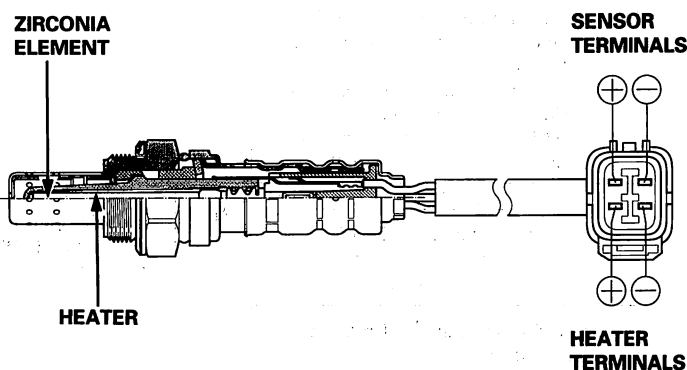
Barometric Pressure (BARO) Sensor

The barometric pressure sensor is inside the ECM/PCM. It converts atmospheric pressure into a voltage signal that modifies the basic duration of the fuel injection discharge.

Primary Heated Oxygen Sensor (PHO2S) and Secondary Heated Oxygen Sensor (SHO2S)

The heated oxygen sensors detect the oxygen content in the exhaust gas, then send signals to the ECM/PCM which varies the duration of fuel injection accordingly. To stabilize its output, the sensors have an internal heater.

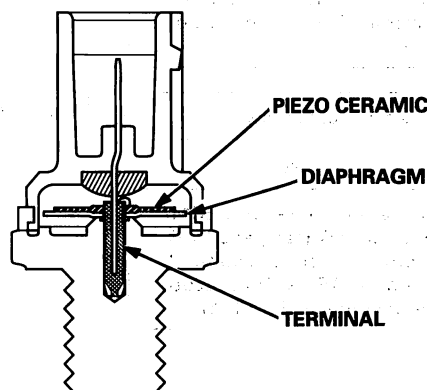
The primary sensor is installed in the exhaust pipe. The secondary sensor is installed in the TWC.



By controlling the air/fuel ratio with sensors, the deterioration of the primary sensor can be evaluated by its feedback period. When the feedback period exceeds a certain value during stable driving conditions, the sensor is considered deteriorated and the ECM/PCM sets a DTC.

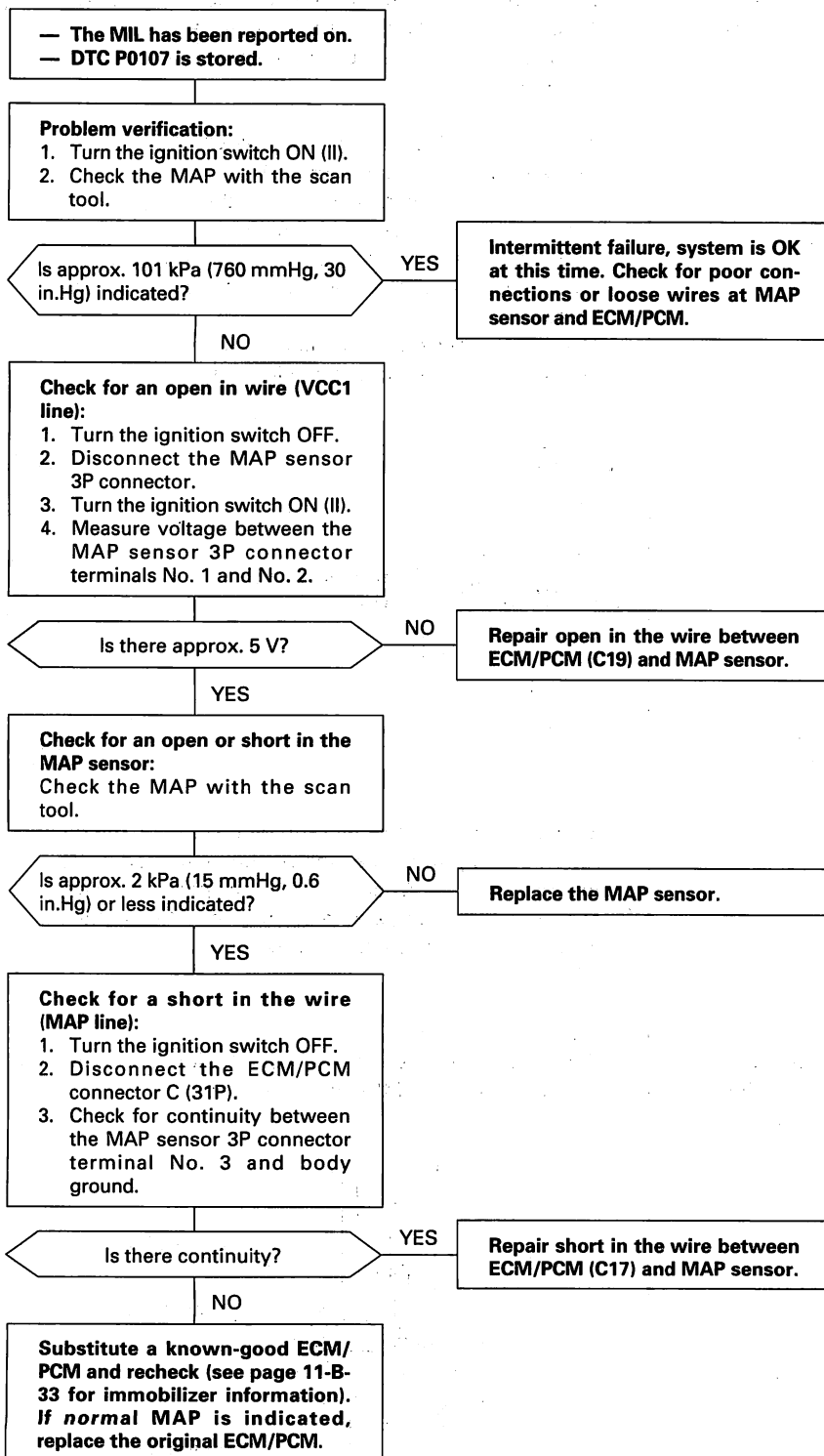
Knock Sensor (KS)

The knock control system adjusts the ignition timing for the octane rating of the gasoline used.

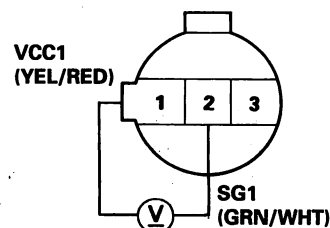


DTC Troubleshooting (F18B2, F18B4 engine)

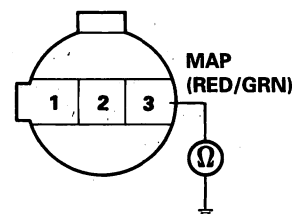
DTC P0107: Low Voltage in MAP Sensor Circuit



MAP SENSOR 3P CONNECTOR

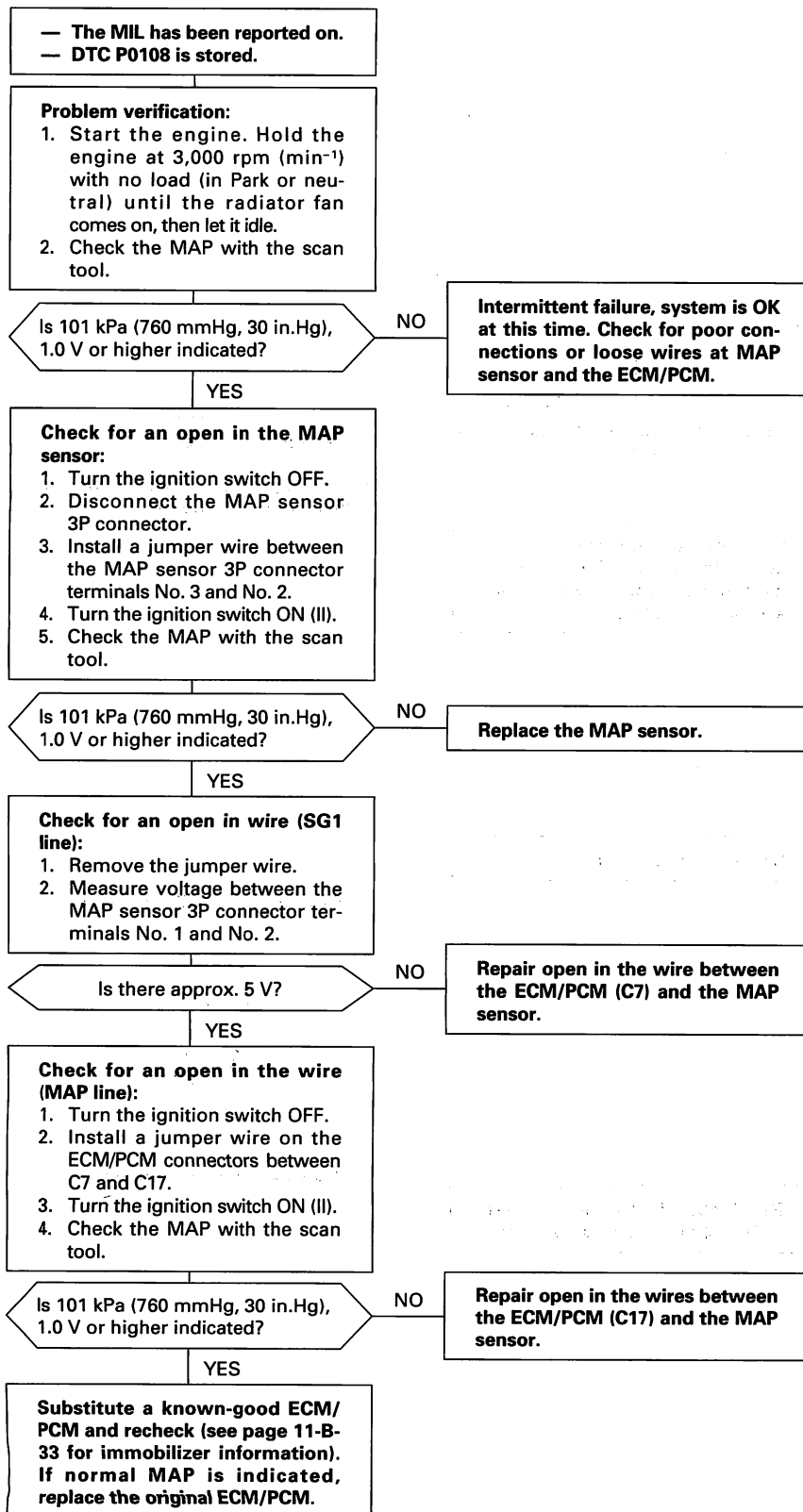


Wire side of female terminals

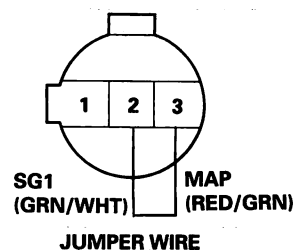




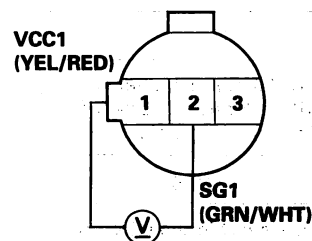
DTC P0108: High voltage in MAP Sensor Circuit



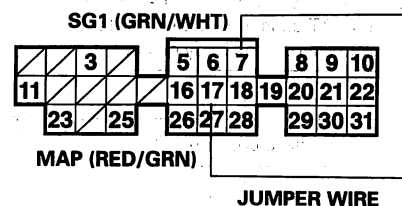
MAP SENSOR 3P CONNECTOR



Wire side of female terminals



ECM/PCM CONNECTOR C (31P)



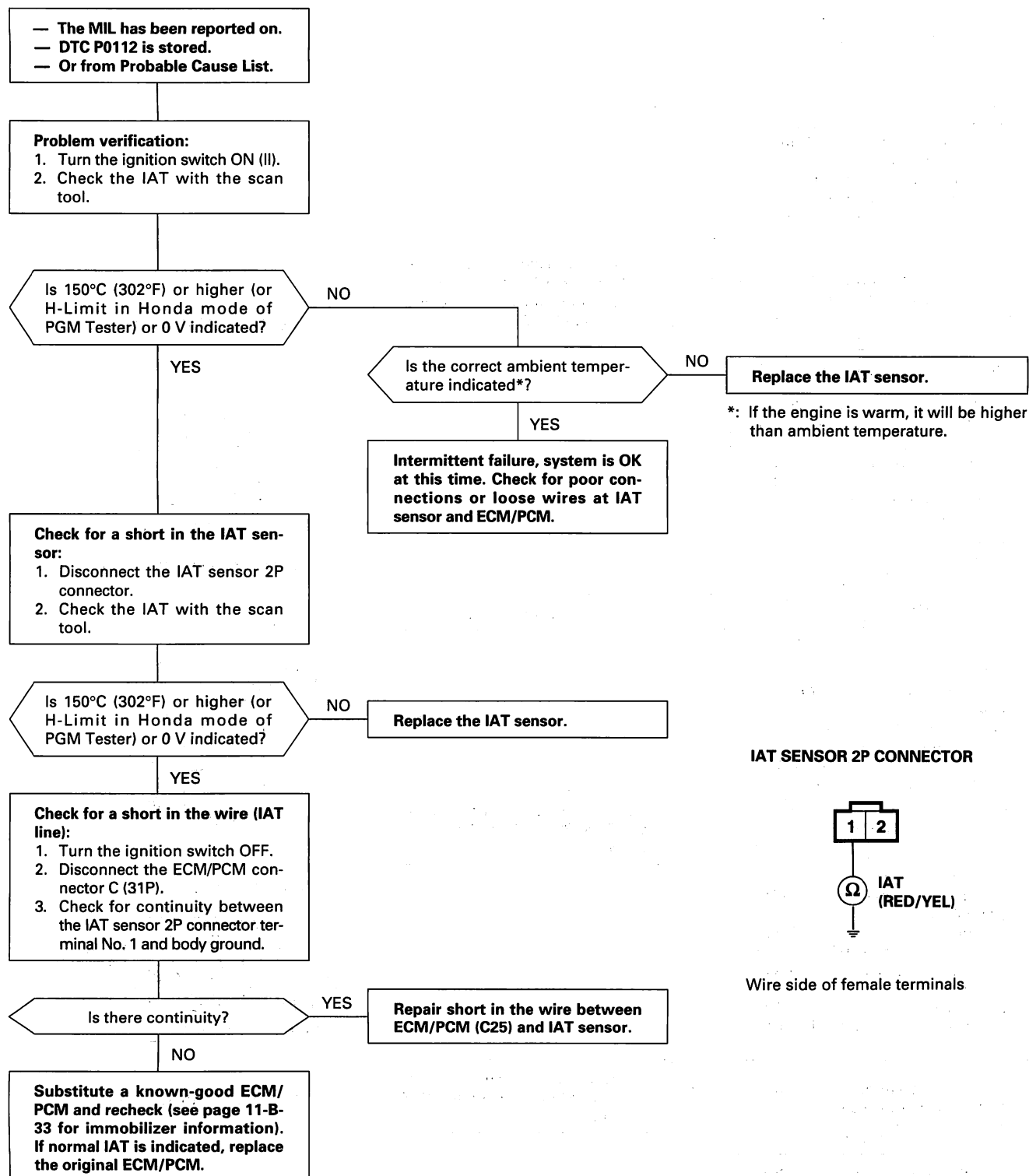
Wire side of female terminals

(cont'd)

PGM-FI System

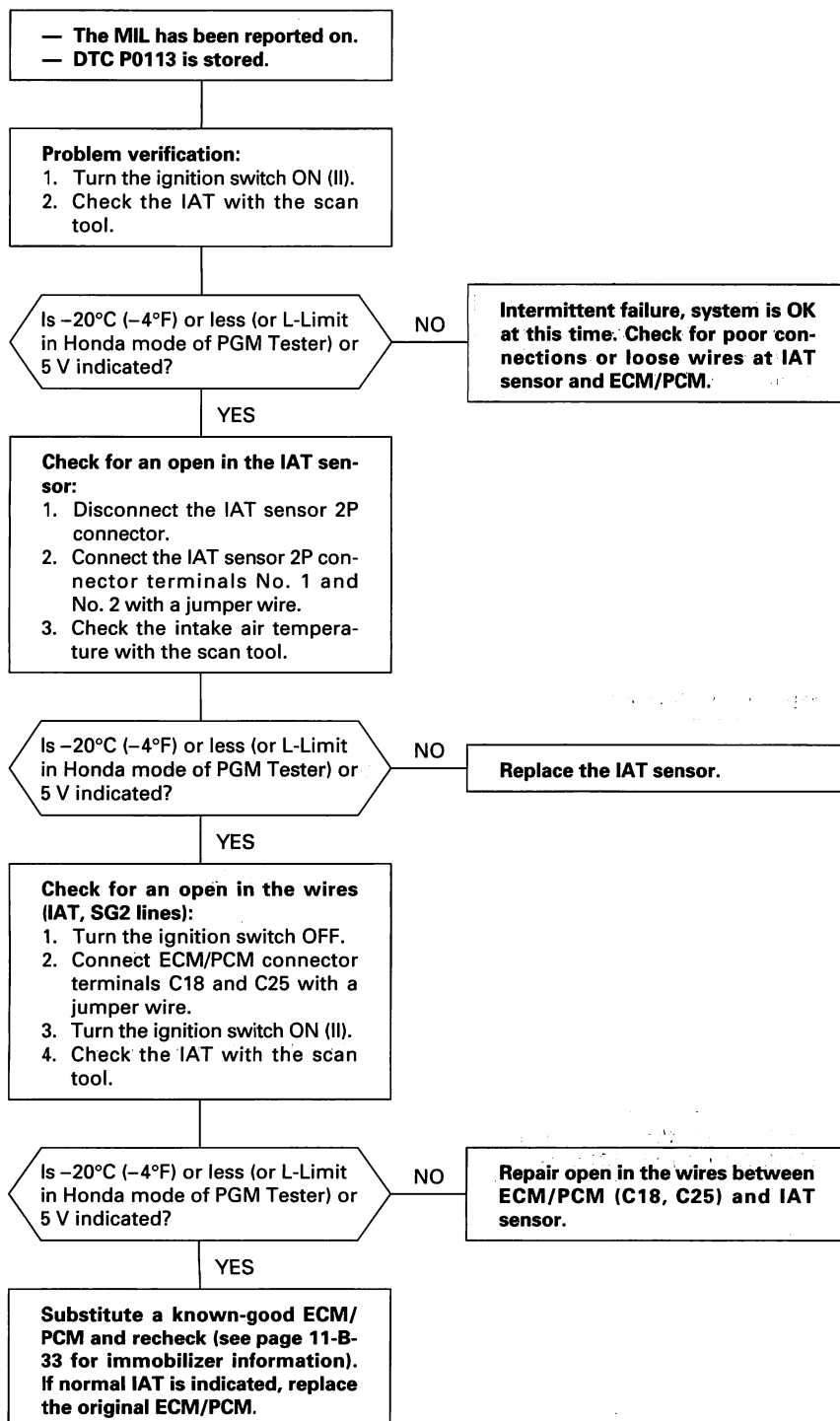
DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0112: Low Voltage in IAT Sensor Circuit

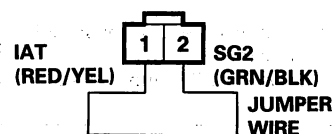




DTC P0113: High Voltage in IAT Sensor Circuit

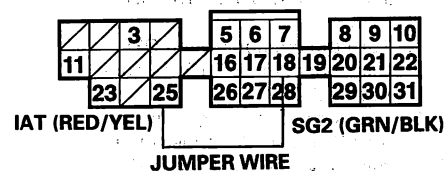


IAT SENSOR 2P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



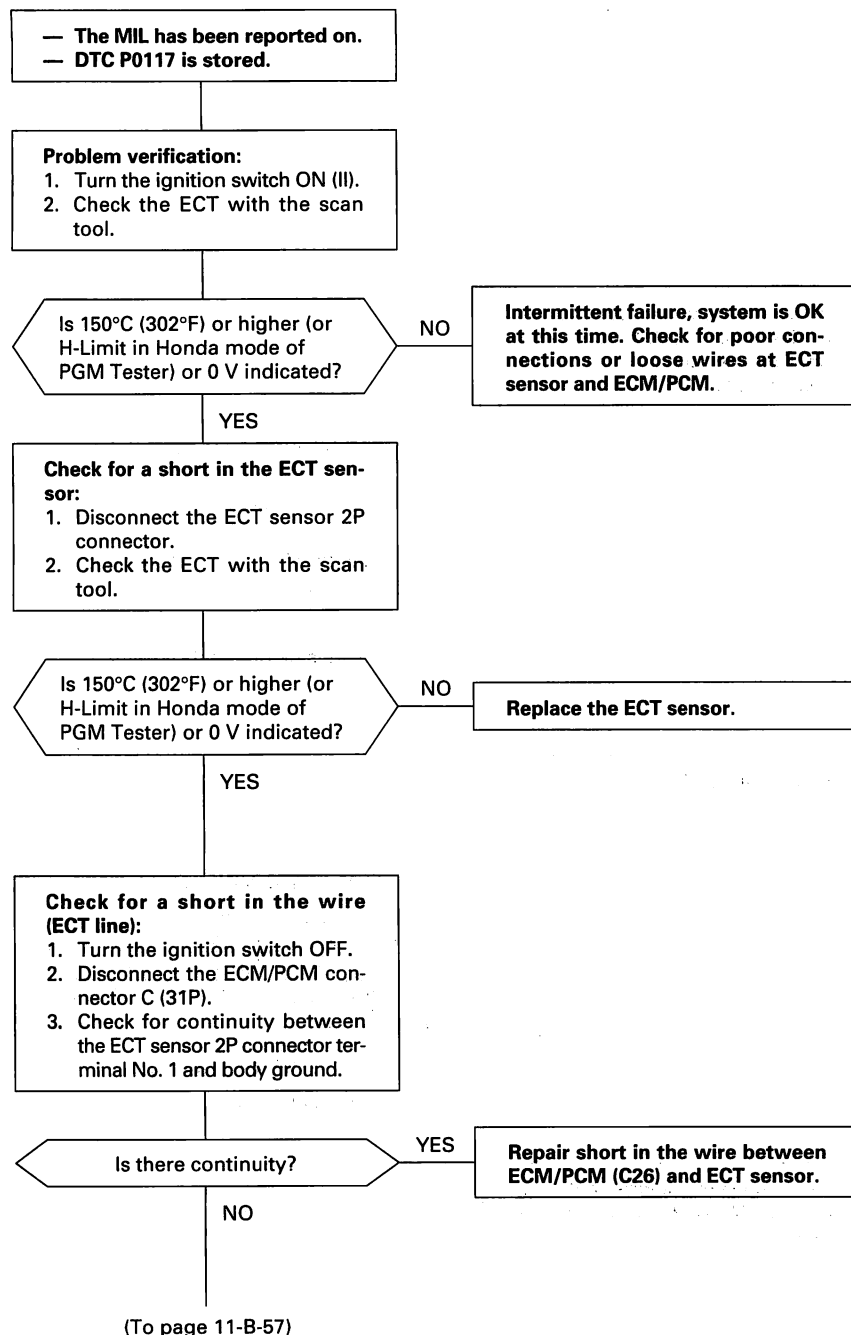
Wire side of female terminals

(cont'd)

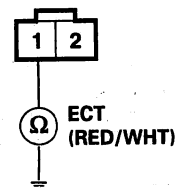
PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0117: Low Voltage in ECT Sensor Circuit



ECT SENSOR 2P CONNECTOR



Wire side of female terminals



(From page 11-B-56)

(with climate control unit)

Check for Climate Control Unit circuits:

1. Disconnect 20P connector from the Climate Control Unit.
2. Check for continuity between the ECT sensor 2P connector terminal No. 1 and body ground.

Is there continuity?

YES

Replace the Climate Control Unit.

NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If normal ECT is indicated, replace the original ECM/PCM.

ECT SENSOR 2P CONNECTOR



ECT
(RED/WHT)

Wire side of female terminals

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0118: High Voltage in 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 -20°C (-4°F) 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 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 -20°C (-4°F) 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 -20°C (-4°F) or less (or L-Limit in Honda mode of PGM Tester) or 5 V indicated?

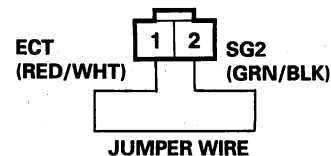
NO

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

YES

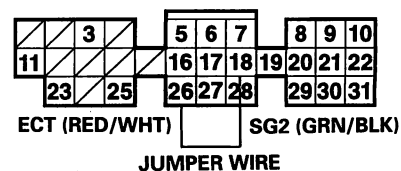
Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If normal ECT is indicated, replace the original ECM/PCM.

ECT SENSOR 2P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals



DTC P0122: Low Voltage in TP Sensor Circuit

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

Problem verification:

1. Start the engine. Hold the engine at 3,000 rpm (min^{-1}) 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 TP sensor and ECM/PCM.

NO

Check for an open or short 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?

NO

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 3P connector terminals No. 1 and No. 2 with the throttle fully closed.

(To page 11-B-60)

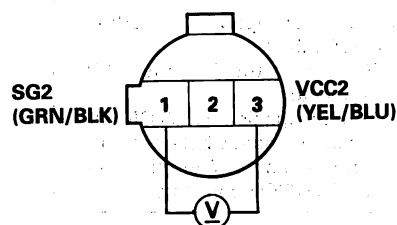
Check for an open in wire (VCC2 line):
Measure voltage between ECM/PCM connector terminals C18 and C28.

Is there approx. 5 V?

NO

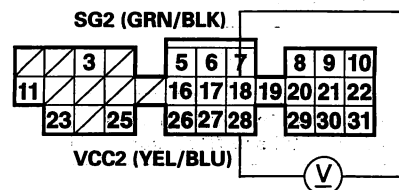
Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If prescribed voltage is now available, replace the original ECM/PCM.

TP SENSOR 3P CONNECTOR



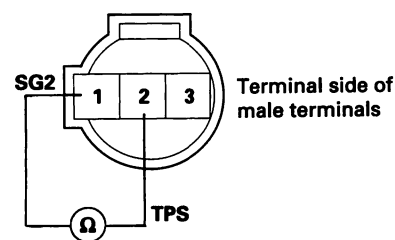
Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

Repair open in the wire between ECM/PCM (C28) and TP sensor.

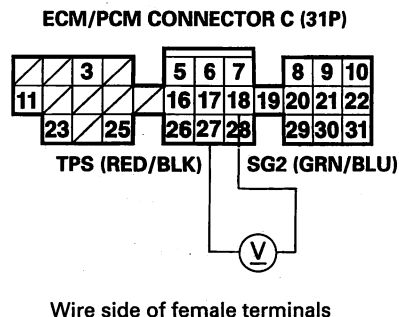
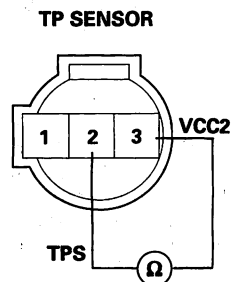
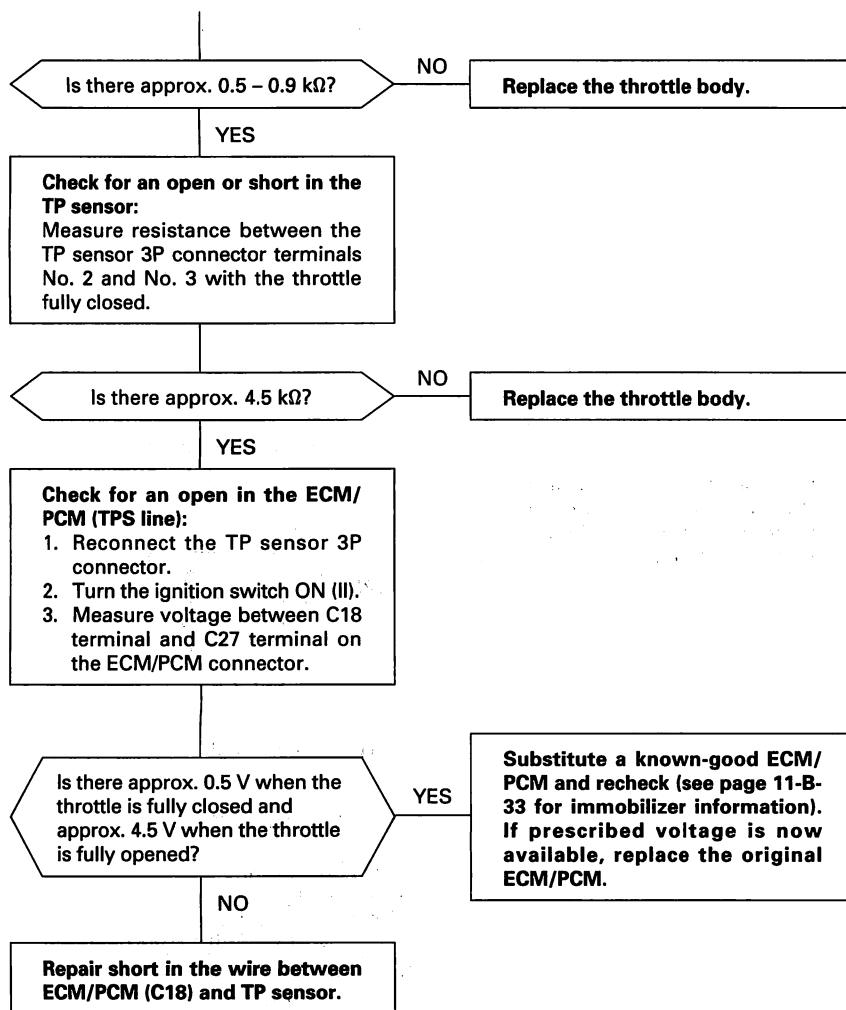


(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-59)





DTC P0123: High Voltage in 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 (min^{-1}) 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 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?

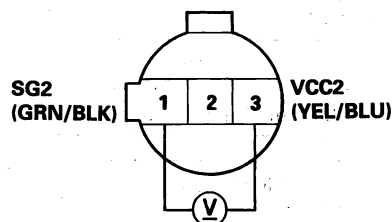
YES

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

NO

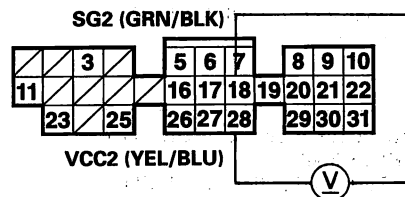
Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If prescribed voltage is now available, replace the original ECM/PCM.

TP SENSOR 3P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0131: Low Voltage in Primary HO2S (Sensor 1)

- 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 (min^{-1}) 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 connections or loose wires at Primary HO2S (Sensor 1) and ECM/PCM.

YES

Check the fuel pressure.

Is it normal?

NO

Repair fuel supply system.

YES

Check for a short in the HO2S:

1. Turn the ignition switch OFF.
2. Disconnect the Primary HO2S (Sensor 1) 4P connector.
3. Start the engine and let it idle.
4. Check the Primary HO2S (Sensor 1) output voltage with the scan tool.

Does it stay at 0.5 V or less?

NO

Replace the Primary HO2S (Sensor 1).

YES

Check for a short in the wire (PHO2S line):

1. Turn the ignition switch OFF.
2. Disconnect the ECM/PCM connector C (31P).
3. Check for continuity between the Primary HO2S (Sensor 1) 4P connector terminal No. 1 and body ground.

Is there continuity?

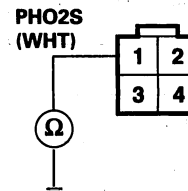
YES

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

NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

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



Wire side of female terminals



DTC P0132: High Voltage in 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 (min^{-1}) 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.

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 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 (Sensor 1).

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?

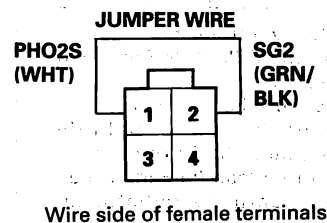
YES

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

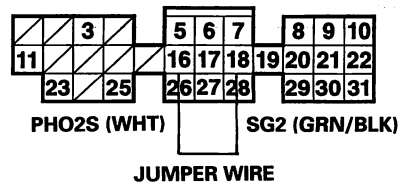
NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

PRIMARY HO2S (Sensor 1) 4P CONNECTOR



ECM/PCM CONNECTOR C (31P)



(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0133: Slow Response in Primary HO2S (Sensor 1) Circuit

Description

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

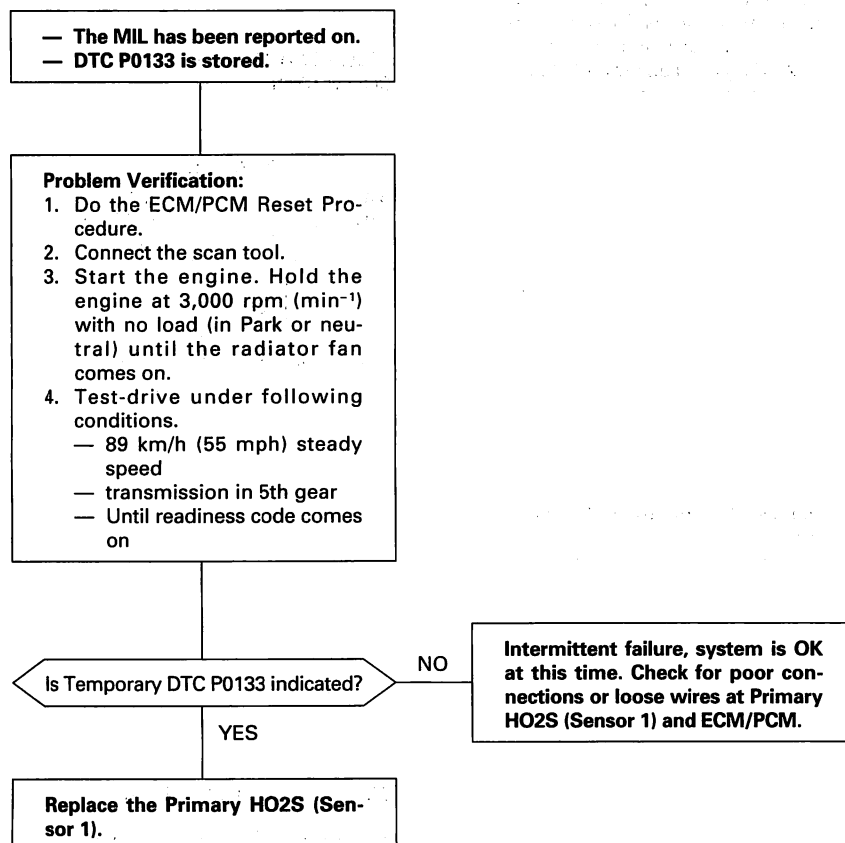
When deterioration has been detected during two consecutive trips, the MIL comes on and DTC P0133 will be stored.

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

Possible Cause

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

Troubleshooting Flowchart





DTC P0137: Low Voltage in 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 (min^{-1}) 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 (min^{-1}) with the scan tool.

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 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 (Sensor 2).

YES

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

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

Is there continuity?

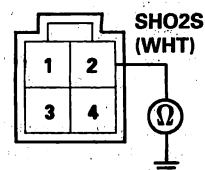
YES

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

NO

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

SECONDARY HO2S (Sensor 2) 4P CONNECTOR



Terminal side of male terminals

(cont'd)

PGM-FI System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0138: High Voltage in 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 (min⁻¹) 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 (min⁻¹) 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 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 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.

Is there 0.6 V or more?

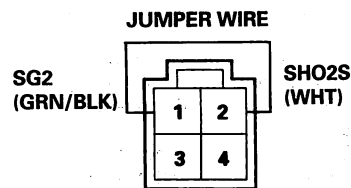
NO

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

YES

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

SECONDARY HO2S (Sensor 2) 4P CONNECTOR



Terminal side of male terminals

ECM/PCM CONNECTORS

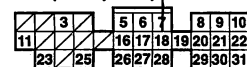
A (32P)



SHO2S (WHT)

JUMPER WIRE

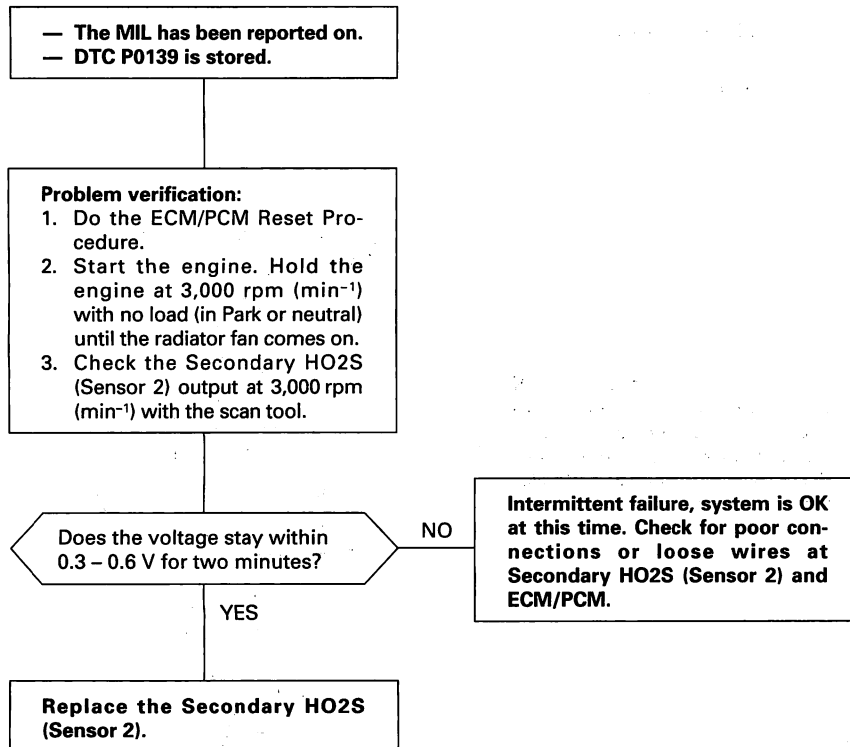
SG2 (GRN/BLK) C (31P)



Wire side of female terminals



DTC P0139: Slow Response in Secondary HO2S (Sensor 2) Circuit



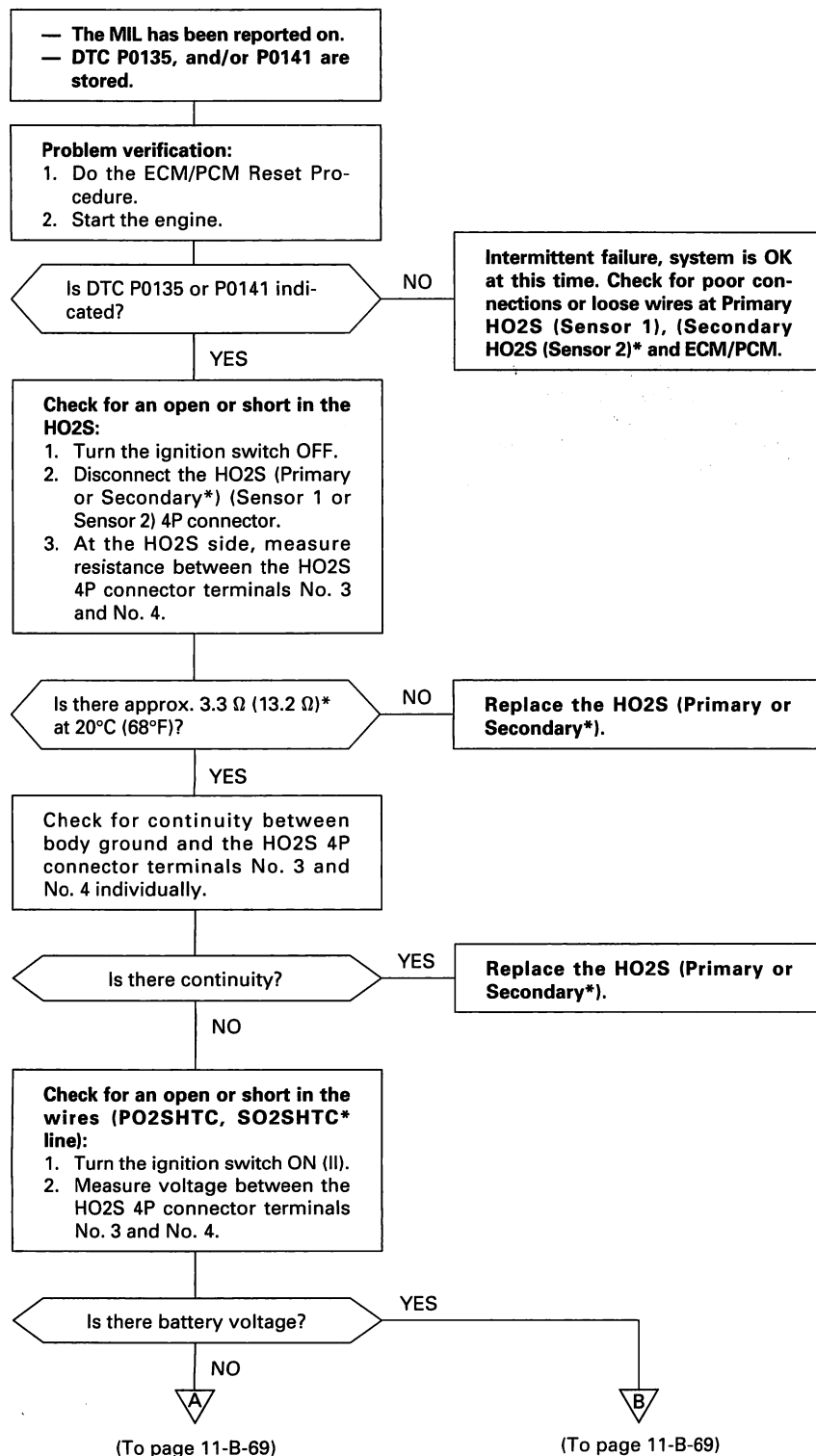
(cont'd)

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

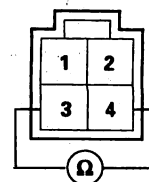
DTC P0135: Malfunction in Primary HO2S (Sensor 1) Heater Circuit

DTC P0141: Malfunction in Secondary HO2S (Sensor 2) Heater Circuit

NOTE: Information marked with an asterisk (*) applies to DTC P0141

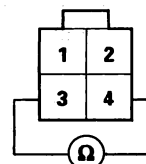


PRIMARY HO2S (Sensor 1) 4P CONNECTOR

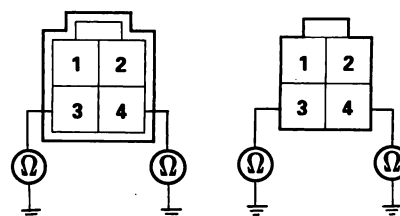


Terminal side of male terminals

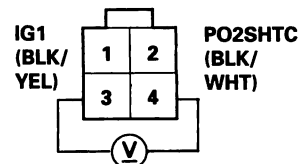
SECONDARY HO2S (Sensor 2) 4P CONNECTOR*



Wire side of female terminals

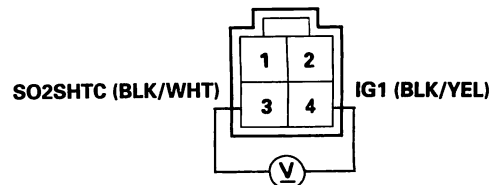


PRIMARY HO2S (Sensor 1) 4P CONNECTOR



Wire side of female terminals

SECONDARY HO2S (Sensor 2) 4P CONNECTOR*

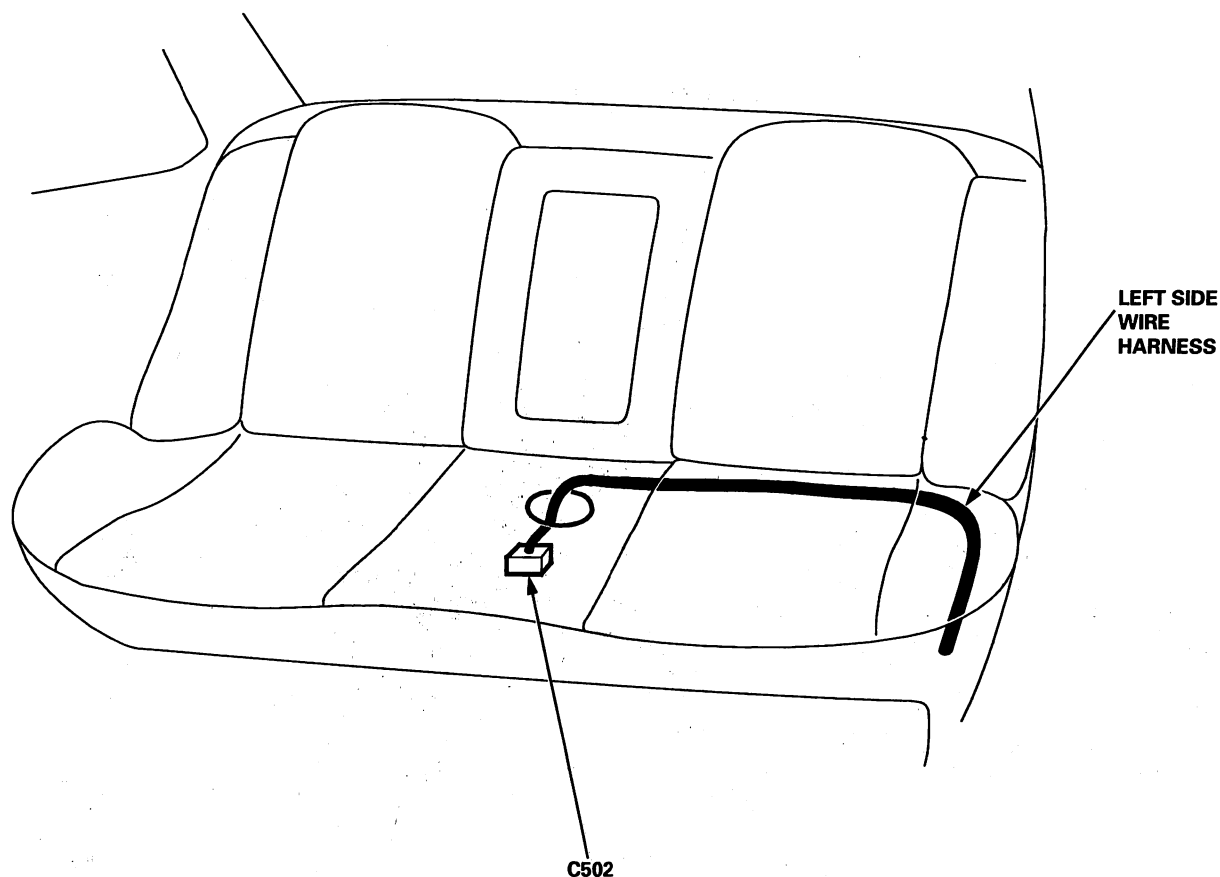


Terminal side of male terminals

*: P0141



Fuel Pump (LHD)



C502



①	BLK/YEL
②	BLK
③	BLK
④	YEL/BLU

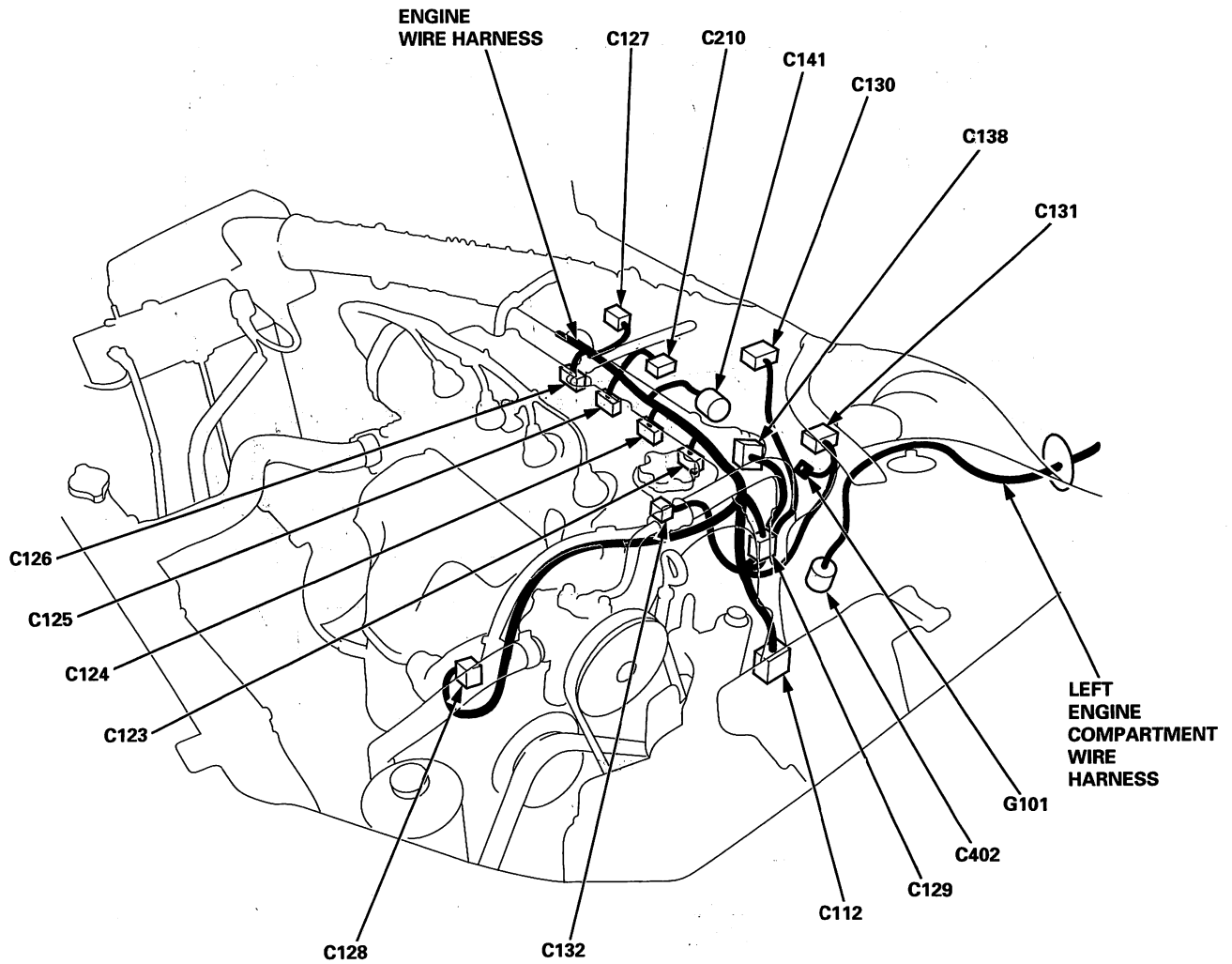
- NOTE:
- ○: Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Engine Compartment (LHD)





C112



①	WHT
②	GRN/BLK
③	BLK/YEL
④	BLK/WHT

C123



①	BRN
②	YEL/BLK

C124



①	RED
②	YEL/BLK

C125



①	BLU
②	YEL/BLK

C126



①	YEL
②	YEL/BLK

C127



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

C128



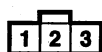
1	WHT/BLU
2	WHT/RED

C129



①	GRN
②	RED
③	BLU
④	WHT

C130



①	BLK
②	YEL/BLK
③	BLK/BLU

C131



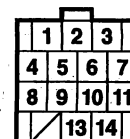
①	RED/YEL
②	GRN/BLK

C132



①	RED/BLU
---	---------

C138



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

C141



①	BLK/YEL
②	RED/BLU

C210



①	BLK/YEL
②	RED/YEL

C402



①	GRN
②	BLK

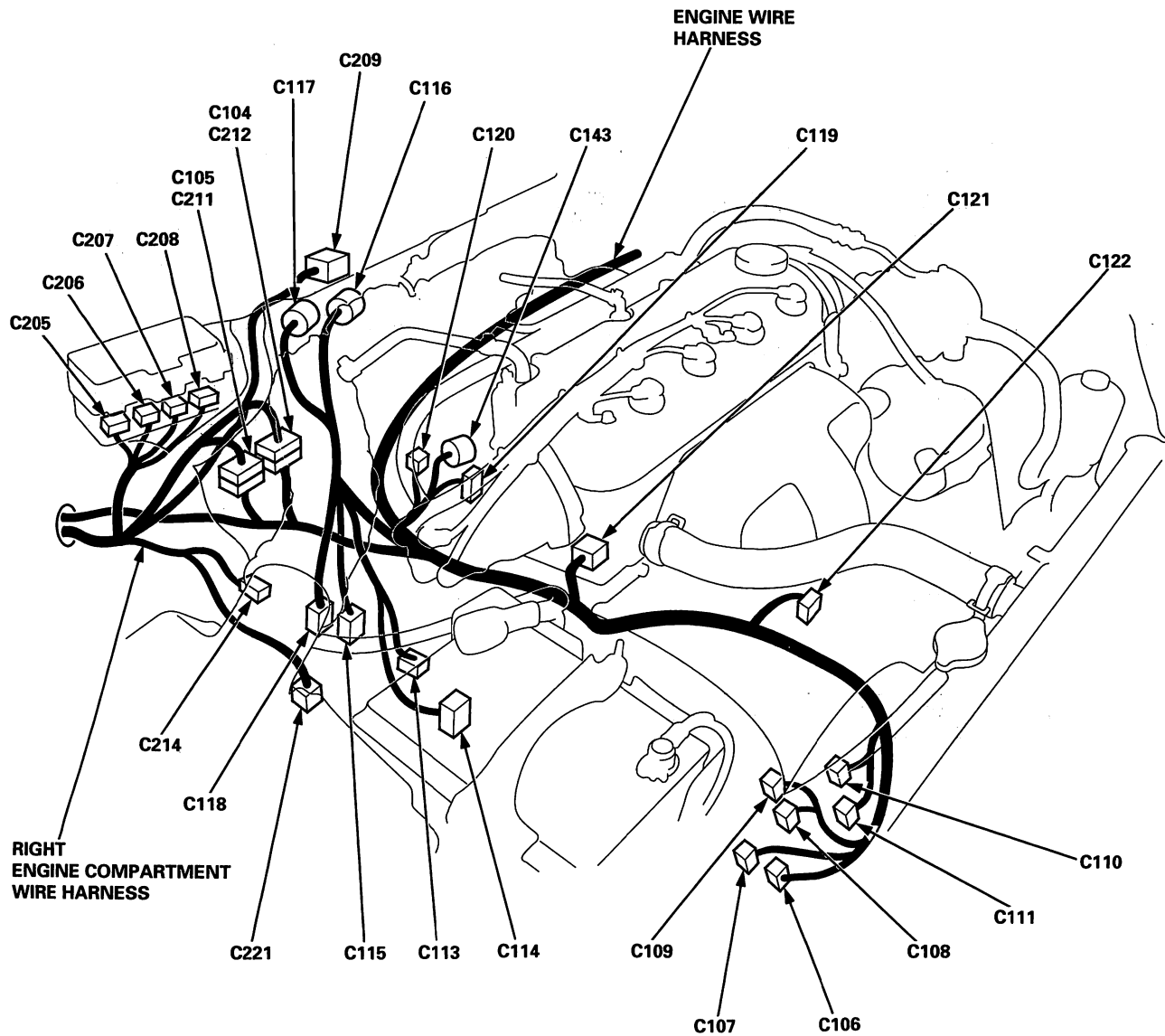
- NOTE:
- ○: Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

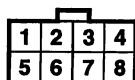
ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Engine Compartment (LHD)



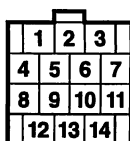


C104 (M/T)



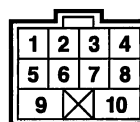
1 YEL	5 BLU/WHT
2 BRN/BLK	6 GRN/BLK
3 YEL/GRN	7 GRN
4 GRN/BLK	8 YEL/RED

C104 (A/T)



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

C105



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

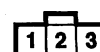
*: with climate control

C106 (A/T)



① BLU/WHT

C107 (A/T)



① YEL/BLU
② RED
③ WHT

C108 (A/T)



① RED
② WHT

C109 (A/T)



① ORN
② GRN

C110 (A/T)



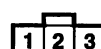
① BLK
② GRN/WHT

C111 (A/T)



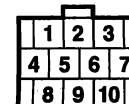
① BLK
② GRN

C113 (A/T)



① YEL/RED
② BLU
③ GRN

C114 (A/T)



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

C115 (A/T)



① BLU/BLK

C116



① YEL/RED
② GRN/WHT
③ RED/GRN

C117



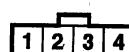
① GRN/BLK
② RED/BLK
③ YEL/BLU

C118 (M/T)



① BLK/YEL
② BLK
③ BLU/WHT

C119



1 BLK/YEL
② YEL/GRN
③ YEL
④ BLK

C120



① GRN/YEL

C121



① RED/WHT
② GRN/BLK

C122 (A/T)



① YEL
② BLU/YEL

C143



① BRN/BLK
② BLU/BLK

C205



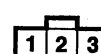
1 RED/WHT	10 —
2 —	11 LT GRN/BLU
3 RED/YEL	12 —
4 RED/WHT	13 BLU/RED
5 —	14 —
6 PUR/WHT	15 —
7 —	16 —
8 BLU/RED	⑰ WHT/GRN
9 BLU/RED	18 —

C206



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

C207



1 YEL/BLK
② WHT
3 WHT/GRN

C208



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

C209 (A/T)



① GRN/WHT
② BLK/YEL

C214



1 —
② BLU

NOTE: ● ○: 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

C221



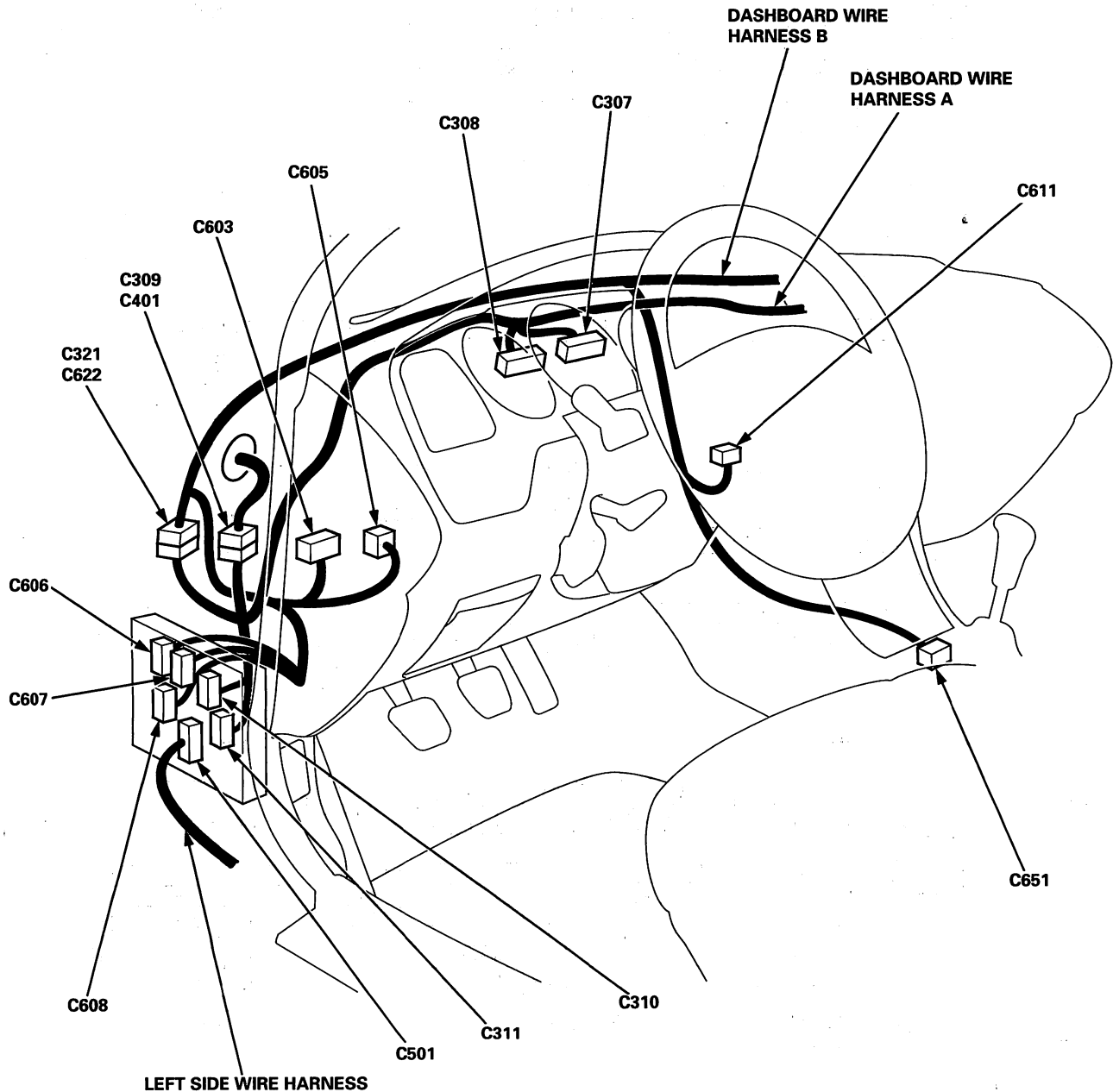
① GRN/BLK
② WHT
③ BLK/WHT
④ BLK/YEL

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Dash and Floor (LHD)




C307


1	YEL/BLU	9	RED/BLK
2	GRN/YEL	10	YEL/RED
③	GRN/BLK*	11	WHT/BLU
4	RED/BLK*	12	BLK/ORN*
5	PNK*	13	WHT*
6	BRN*	⑬	PNK
7	BLU*	⑭	GRN/ORN
8	PUR	16	BLK/YEL

*: A/T

C308


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

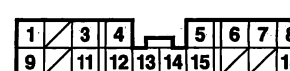
*: A/T

C310


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

*1: M/T

*2: A/T

C311


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

C401

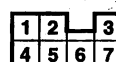

1	GRN/BLK	9	BRN/WHT*
2	PUR/WHT*	10	ORN
3	BRN*	⑪	GRN
4	BLU/WHT	12	BLU/RED
5	YEL/BLK* ¹	13	PUR/WHT
6	PUR	14	LT GRN
7	GRN	15	RED/YEL
8	YEL/GRN	16	BLU* ¹

*1: with HID headlight

*2: A/T

C501


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

C603


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

C605

(with cruise control)



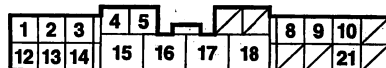
1	GRY
2	LT GRN
③	WHT/BLK
④	PUR/WHT

C605

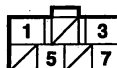
(without cruise control)



①	PUR/WHT
2	—
③	WHT/BLK
4	—

C606


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

C607


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

C608


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

*1: A/T

*2: M/T

*3: with mirror detogger

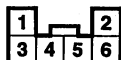
C611


①	BLK/WHT
2	—
③	RED/BLK

C622


1	GRY*	9	GRN/WHT
2	RED/YEL	⑩	GRN/YEL
③	BRN*	11	RED
4	GRN*	12	PNK/BLK
5	GRN/BLK	⑬	ORN*
6	YEL/RED	⑭	WHT/BLU*
7	WHT/RED*	15	LT GRN/RED*
8	WHT/RED	16	LT GRN/BLK*

*: A/T

C651 (A/T)


①	BLK
2	BLK
③	WHT/BLU
④	ORN
⑤	BRN
6	RED/BLK

NOTE: ● ○: Related to Fuel and Emissions System.

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

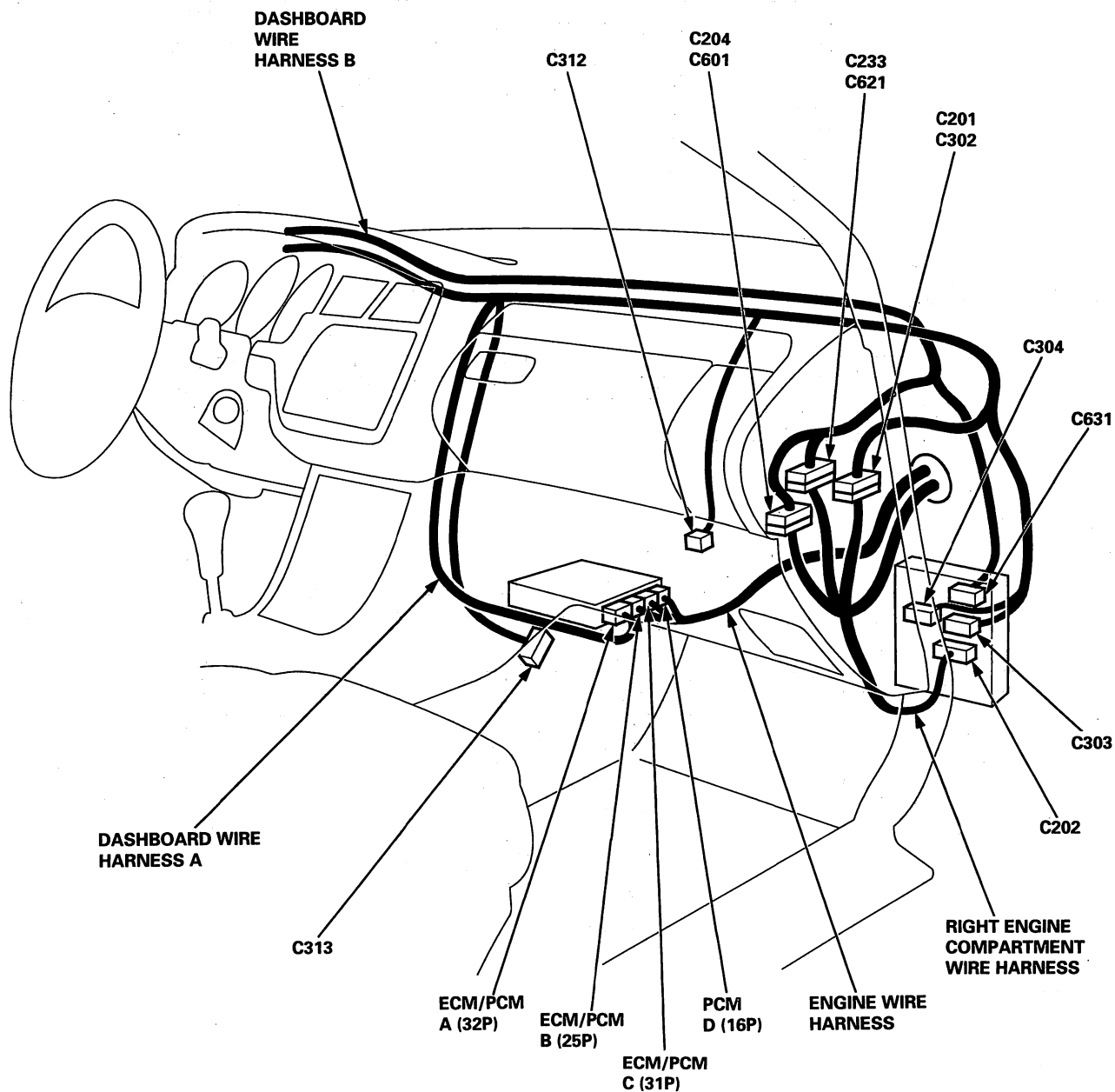
○ Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Dash and Floor (LHD)





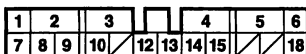
C201



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

*1: A/T
*2: M/T

C202



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

C233



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

*: with climate control

C204



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

C303



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

*: with HID headlights

C304



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

*1: with power seat
*2: with headlight washer
*3: with mirror defogger

C312



1	GRN/BLK
2	BRN

C313



1		9	
2		10	
3		11	
4		12	BLK
5		13	PUR/WHT
6	LT BLU	14	
7		15	GRY
8	WHT/GRN	16	

C631



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

ECM/PCM A (32P)



1		17	PNK	33	WHT
2		18	PNK/BLK	34	BLU/ORN
3		19	GRN/BLK	35	RED
4		20	GRN/YEL	36	WHT/BLU
5	PUR	21		37	BLU/RED
6	BLU/YEL*	22	RED	38	WHT/RED
7	PUR*	23	GRN/ORN	39	
8	BLK/WHT	24	BLU	40	
9	BLU/WHT*	25	BLK/WHT	41	BRN
10	BRN	26	GRY	42	WHT/BLK
11	BLU/BLK*	27	ORN		

*: A/T

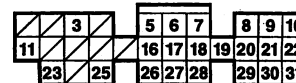
ECM/PCM B (25P)



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

*: A/T

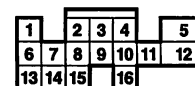
ECM/PCM C (31P)



1		17		33	BLU/WHT**
2		18		34	
3	RED/BLU	19		35	RED/YEL
4		20		36	RED/WHT
5	WHT/RED	21	WHT	37	RED/BLK
6	WHT/BLK	22	RED/GRN	38	YEL/BLU
7	GRN/WHT	23	GRN/BLK	39	YEL
8	BLU	24	YEL/RED	40	BLK
9	WHT	25	GRN	41	GRN
10	BLU/BLK	26	RED		
11	RED/BLK*	27	RED/YEL		

*1: A/T
*2: M/T

PCM D (16P) (A/T)



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

NOTE: ● ○: Related to Fuel and Emissions System.

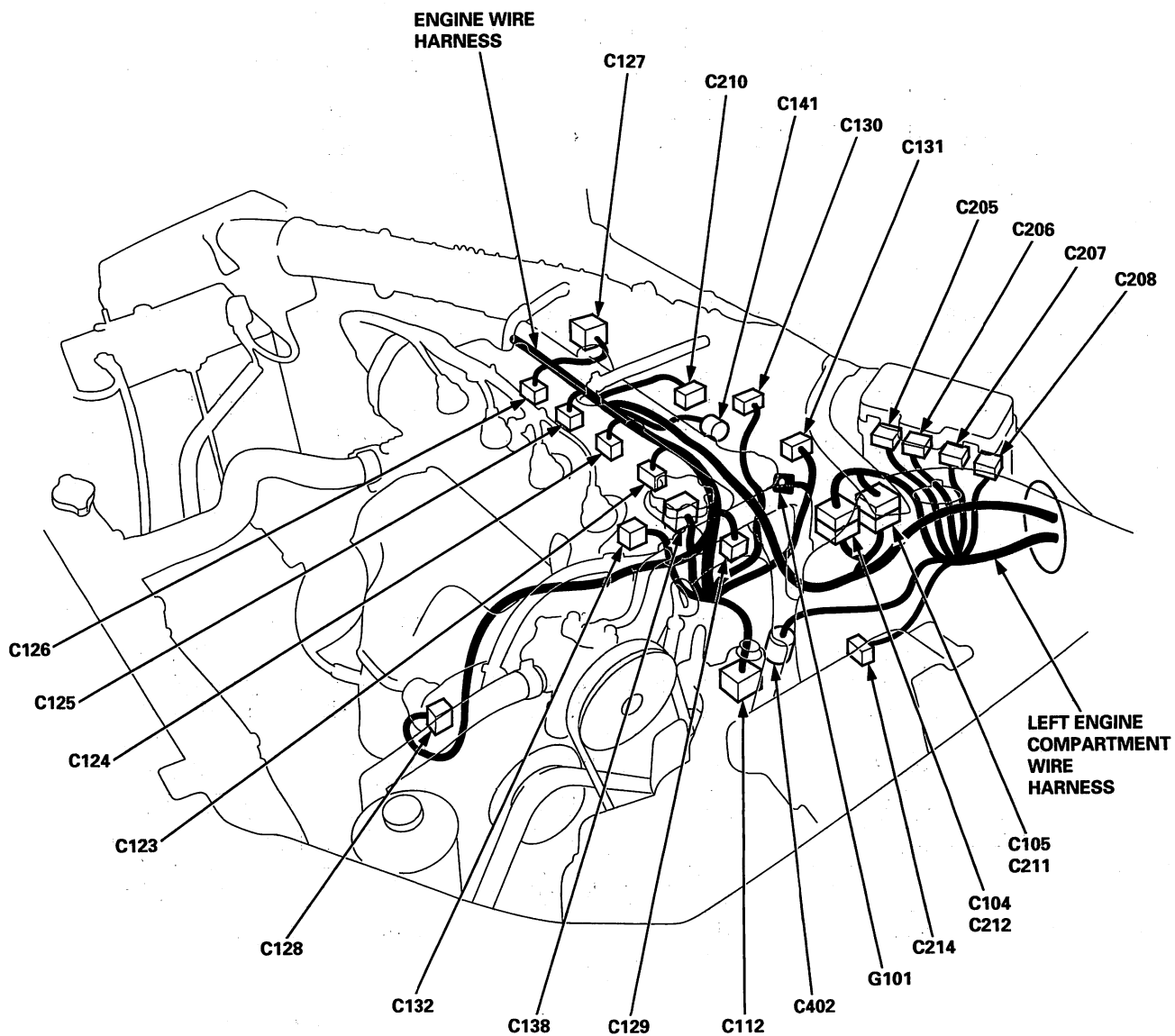
- Connector with male terminals (double outline): View from terminal side
- Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

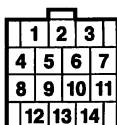
ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Engine Compartment (RHD)

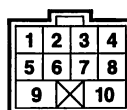



C104 (M/T)


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

C104 (A/T)


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

C105


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

*: with climate control

C112


① WHT
② GRN/BLK
③ BLK/YEL
④ BLK/WHT

C123


① BRN
② YEL/BLK

C124


① RED
② YEL/BLK

C125


① BLU
② YEL/BLK

C126


① YEL
② YEL/BLK

C127


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

C128


1 WHT/BLU
② WHT/RED

C129


① GRN
② RED
③ BLU
④ WHT

C130

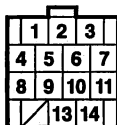

① BLK
② YEL/BLK
③ BLK/BLU

C131


① RED/YEL
② GRN/BLK

C132

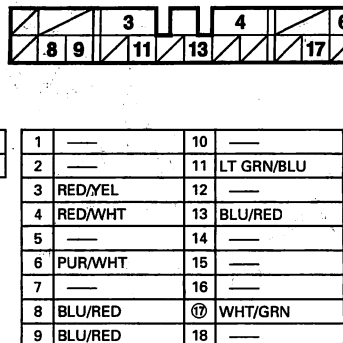

① RED/BLU

C138


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

C141


① BLK/YEL
② RED/BLU

C205


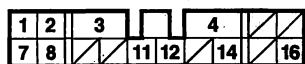
1 —	10 —
2 —	11 LT GRN/BLU
3 RED/YEL	12 —
4 RED/WHT	13 BLU/RED
5 —	14 —
6 PUR/WHT	15 —
7 —	16 —
8 BLU/RED	⑰ WHT/GRN
9 BLU/RED	18 —

C206


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

C207


1 YEL/BLK
② WHT
3 WHT/GRN

C208


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

C210


① BLK/YEL
② RED/YEL

C214


1 —
② BLU

C402


① GRN
② BLK

NOTE: ● ○: Related to Fuel and Emissions System.

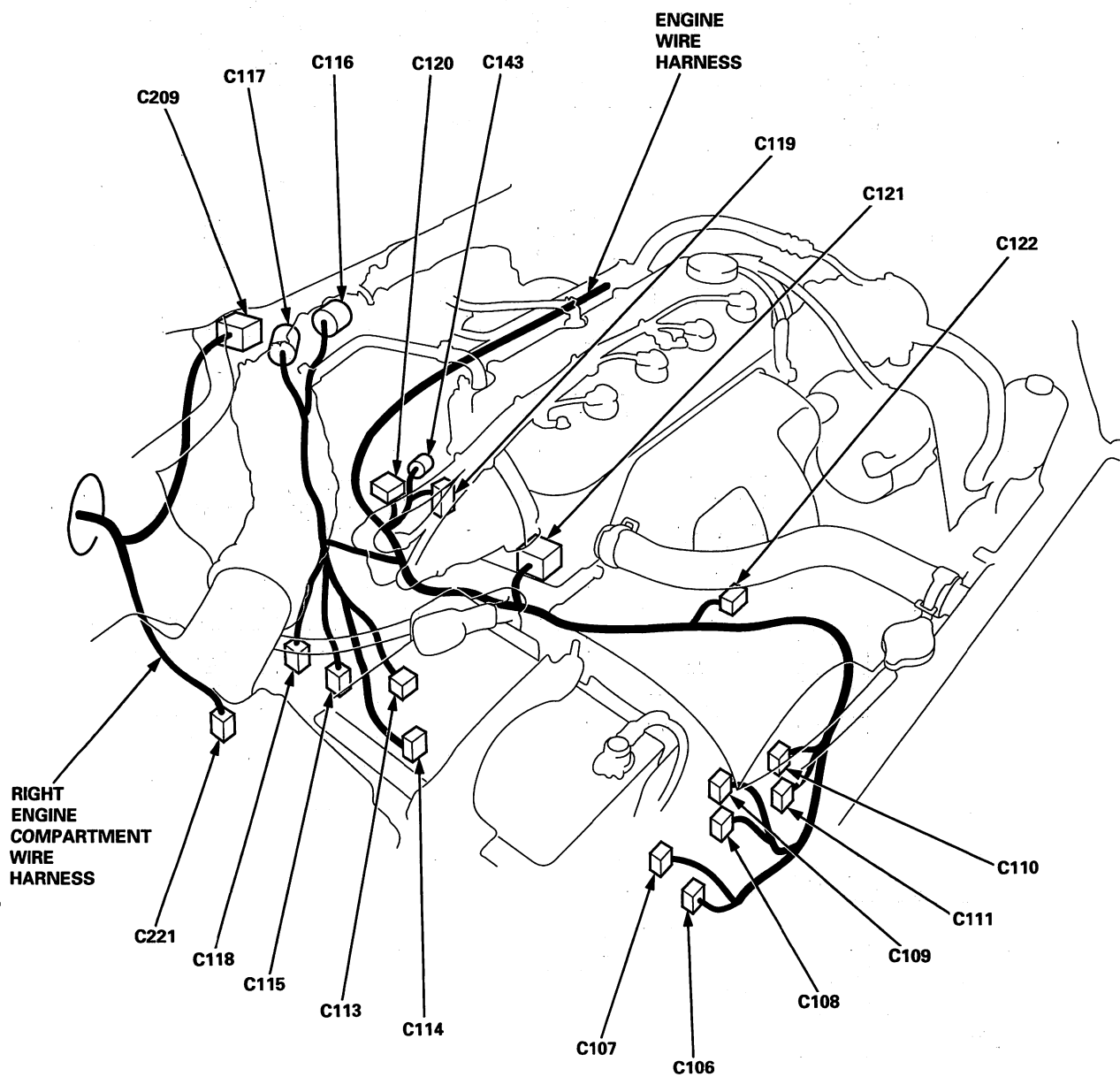
- Connector with male terminals (double outline): View from terminal side
- Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Engine Compartment (RHD)



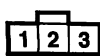


C106 (A/T)



①	BLU/WHT
---	---------

C107 (A/T)



①	YEL/BLU
②	RED
③	WHT

C108 (A/T)



①	RED
②	WHT

C109 (A/T)



①	ORN
②	GRN

C110 (A/T)



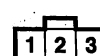
①	BLK
②	GRN/WHT

C111 (A/T)



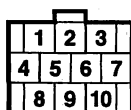
①	BLK
②	GRN

C113 (A/T)



①	YEL/RED
②	BLU
③	GRN

C114 (A/T)



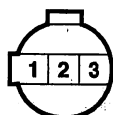
①	BLU/WHT	⑥	PNK
2	LT BLU	⑦	YEL
③	BLK	⑧	RED/BLK
④	BRN	⑨	WHT
⑤	BLU	10	BLK/BLU

C115 (A/T)



①	BLU/BLK
---	---------

C116



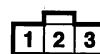
①	YEL/RED
②	GRN/WHT
③	RED/GRN

C117



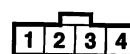
①	GRN/BLK
②	RED/BLK
③	YEL/BLU

C118 (M/T)



①	BLK/YEL
②	BLK
③	BLU/WHT

C119



1	BLK/YEL
②	YEL/GRN
③	YEL
④	BLK

C120



①	GRN/YEL
---	---------

C121



①	RED/WHT
②	GRN/BLK

C122 (A/T)



①	YEL
②	BLU/YEL

C143



①	BRN/BLK
②	BLU/BLK

C209 (A/T)



①	GRN/WHT
②	BLK/YEL

C221



①	GRN/BLK
②	WHT
③	BLK/WHT
④	BLK/YEL

NOTE: ● ○: Related to Fuel and Emissions System.

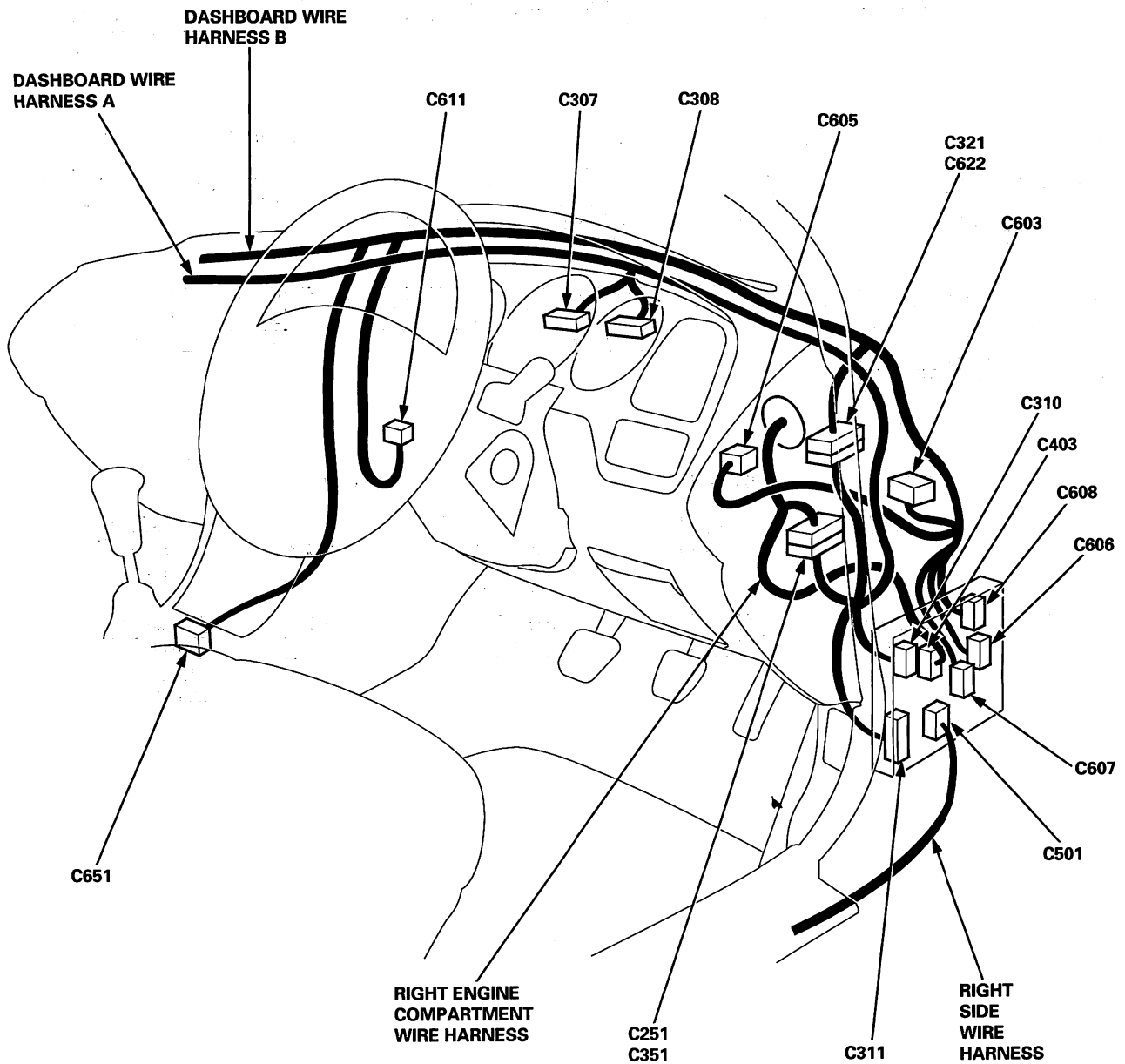
- Connector with male terminals (double outline): View from terminal side
- Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Dash and Floor (RHD)





C307



1	YEL/BLU	9	RED/BLK
2	GRN/YEL	10	YEL/RED
③	GRN/BLK*	11	WHT/BLU
4	RED/BLK*	12	BLK/ORN*
5	PNK*	13	WHT*
6	BRN*	⑭	PNK
7	BLU*	⑮	GRN/ORN
8	PUR	16	BLK/YEL

*1: A/T

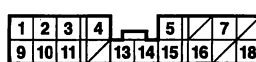
C308



1	---	12	GRN/ORN
2	YEL/GRN	13	GRN/YEL
3	GRN/RED	14	GRN/WHT
4	RED/WHT	⑮	YEL
5	ORN	⑮	PNK
6	---	17	BLK
7	BLU/YEL*	⑮	BLU/WHT
8	PUR*	19	---
9	BLU/BLK*	20	---
10	BLU	21	---
11	GRN/BLK	22	BLK

*1: A/T

C310

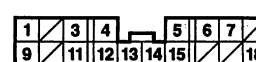


1	ORN	10	BLK/ORN**
2	GRN/BLK*1	11	WHT**
3	LT BLU	12	---
4	RED/BLU	13	YEL/GRN
5	PUR	14	BLK
6	---	15	BLK
⑦	WHT/BLK	16	RED/BLK
8	---	17	---
9	BLK	⑮	BLU/ORN

*1: M/T

*2: A/T

C311



1	GRN/WHT	10	---
2	---	11	PUR
3	GRAY	⑮	BLK/YEL
④	YEL	13	RED/BLK
5	YEL/GRN	14	GRN/ORN
6	BLK	15	GRN/YEL
7	YEL/RED	16	---
8	---	17	---
9	GRN/RED	18	PNK/BLU

C251

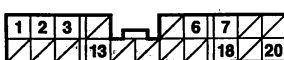


1	GRN/YEL	8	---
2	---	⑨	WHT
③	PUR/WHT	⑮	BLK/WHT
4	ORN**	⑮	GRN/BLK
5	---	12	---
6	BLU/BLK	13	RED/WHT
7	---	⑮	GRN/WHT**

*1: with fog light

*2: A/T

C403



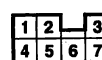
1	ORN	11	---
2	BLK	12	---
3	GRN/RED	⑮	BLK/YEL
4	---	14	---
5	---	15	---
6	YEL/GRN	16	---
7	LT BLU	17	---
8	---	18	RED/BLK
9	---	19	---
10	---	20	GRN/RED

C501



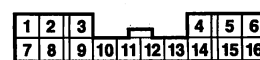
1	RED/BLK	6	GRN/BLK
2	GRN	7	---
3	GRN/ORN	8	LT BLU
④	BLK/YEL	9	PUR
5	GRN/ORN	10	GRN/YEL

C603



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

C622



1	GRY*	9	GRN/WHT
2	WHT/RED*	⑮	GRN/YEL
③	BRN*	11	RED
4	GRN*	12	PNK/BLK
5	GRN/RED	⑮	ORN*
⑥	YEL/RED	⑮	WHT/BLU*
7	WHT/BLU*	15	LT GRN/RED*
8	YEL/BLK	16	LT GRN/BLK*

*: A/T

C605 (With cruise control)



1	GRY
2	LT GRN
③	WHT/BLK
④	PUR/WHT

C605 (Without cruise control)



①	PUR/WHT
2	---
③	WHT/BLK
4	---

C606



1	LT BLU	12	ORN
2	WHT/BLU	13	GRN/WHT
3	GRN/RED	14	YEL/RED
4	BLK	15	BLK
5	BLK/ORN	16	WHT
6	---	17	PUR
7	---	18	GRN
8	RED/BLK	19	---
9	BLK	20	WHT/BLU
⑮	BLU/ORN	21	GRN/ORN
11	---	22	---

C607



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

C608



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

*1: A/T

*2: M/T

*3: with mirror defogger

C611



①	RED/WHT
2	---
③	RED/BLK

C651 (A/T)



①	BLK
2	BLK
③	WHT/BLU
④	ORN
⑤	BRN
6	RED/BLK

NOTE: ● ○: Related to Fuel and Emissions System.

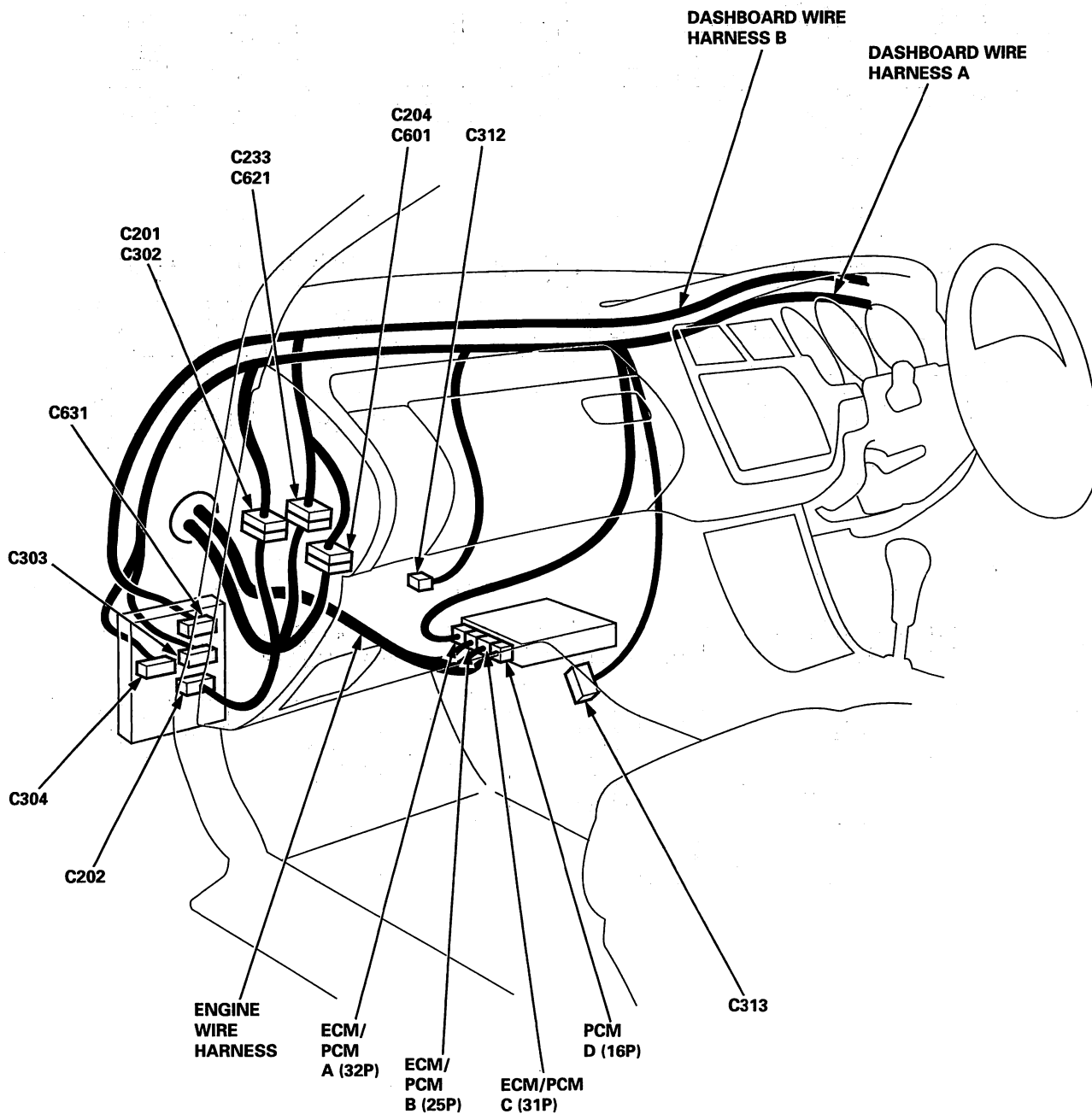
- Connector with male terminals (double outline): View from terminal side
- Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Dash and Floor (RHD)





C201

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

*1: A/T
*2: M/T

C202

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

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

C233

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

*1: with climate control
*2: A/T

C204

1	2	3
4	5	6
7	8	9

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

*: without climate control

C312

1	2
3	4

①	GRN/BLK
②	ORN

C313

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	—	9	—
2	—	10	—
3	—	11	—
4	—	12	BLK
5	—	13	PUR/WHT
6	LT BLU	14	—
7	—	15	GRY
8	WHT/GRN	16	—

C303

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

*1: M/T
*2: with headlight washer
*3: with fog light

C304

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

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

*1: with power seat
*2: with headlight washer
*3: with mirror defogger

C631

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

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

ECM/PCM A (32P)

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	—

1	—	12	PNK	23	WHT
2	—	13	PNK/BLK	24	BLU/ORN
3	—	14	GRN/BLK	25	RED
4	—	15	GRN/YEL	26	WHT/BLU
5	PUR	16	—	27	BLU/RED
6	BLU/YEL*	17	RED	28	WHT/RED
7	PUR*	18	GRN/ORN	29	—
8	BLK/WHT	19	BLU	30	—
9	BLU/WHT*	20	BLK/WHT	31	BRN
10	BRN	21	GRY	32	WHT/BLK
11	BLU/BLK*	22	ORN	—	—

*: A/T

ECM/PCM 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

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

*: A/T

ECM/PCM C (31P)

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	—	13	—	25	RED/YEL
2	—	14	—	26	RED/WHT
3	RED/BLU	15	—	27	RED/BLK
4	—	16	WHT	28	YEL/BLU
5	WHT/RED	17	RED/GRN	29	YEL
6	WHT/BLK	18	GRN/BLK	30	BLK
7	GRN/WHT	19	YEL/RED	31	GRN
8	BLU	20	GRN	—	—
9	WHT	21	RED	—	—
10	BLU/BLK	22	RED/YEL	—	—
11	RED/BLK*1	23	BLU/WHT*2	—	—
12	—	24	—	—	—

*1: A/T
*2: M/T

PCM D (16P) (A/T)

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

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

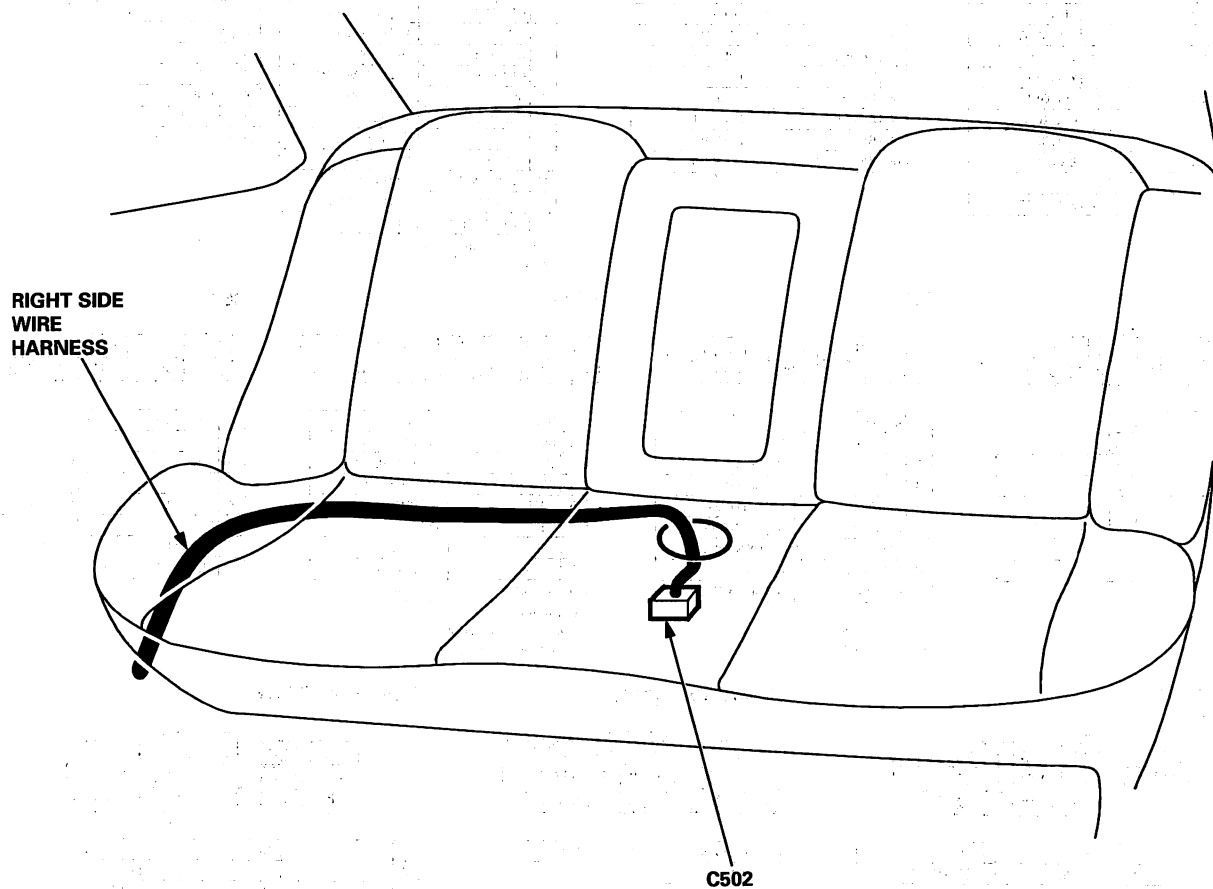
- NOTE: ● ○: Related to Fuel and Emissions System.
● Connector with male terminals (double outline): View from terminal side
● Connector with female terminals (single outline): View from wire side

(cont'd)

Fuel and Emissions Systems

ECM/PCM Circuit Diagram (F18B2, F18B4 engine) (cont'd)

Fuel Pump (RHD)



C502



①	BLK/YEL
②	BLK
3	BLK
4	YEL/BLU

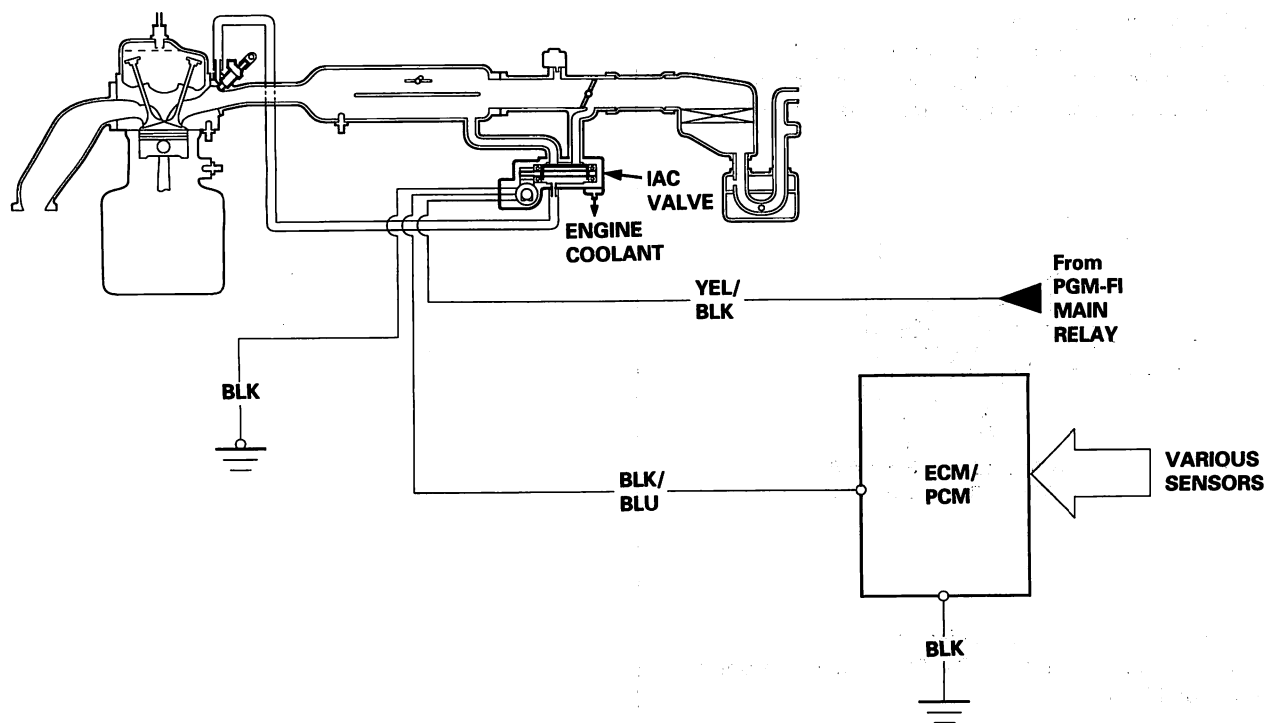
- NOTE:
- ○: Related to Fuel and Emissions System.
 - Connector with male terminals (double outline): View from terminal side
 - Connector with female terminals (single outline): View from wire side

Idle Control System



System Description (F18B2, F18B4 engine)

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.



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 (min^{-1}).
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.
3. When the idle speed is out of specification and the scan tool does not indicate Diagnostic Trouble Code (DTC) P1519, check the following items:
 - Air conditioning signal
 - ALT FR signal
 - Brake switch signal
 - Starter switch signal
 - A/T gear position signal (A/T)
 - PSP switch signal
 - Hoses and connections
 - IAC valve and its mounting O-rings
4. If the above items are normal (and the scan tool does not indicate DTC P1519), after IAC valve replacement, substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom goes away, replace the original ECM/PCM. (cont'd)

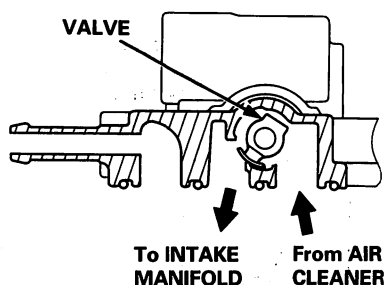
Idle Control System

System Description (F18B2, F18B4 engine) (cont'd)

When the engine is cold, the A/C compressor is on, the transmission is in gear, the brake pedal is depressed, the power steering load is high, or the alternator is charging, the ECM/PCM controls current to the IAC valve to maintain the correct idle speed. Refer to the System Diagram to see the functional layout of the system.

IAC (Idle Air Control) Valve

To maintain the proper idle speed, the IAC valve changes the amount of air bypassing the throttle body in response to an electrical signal from the ECM/PCM.



PSP (Power Steering Pressure) Switch

The PSP switch signals the ECM/PCM when the power steering load is high.

Starter (Ignition) Switch

The ignition switch signals the ECM/PCM when the engine is cranking.

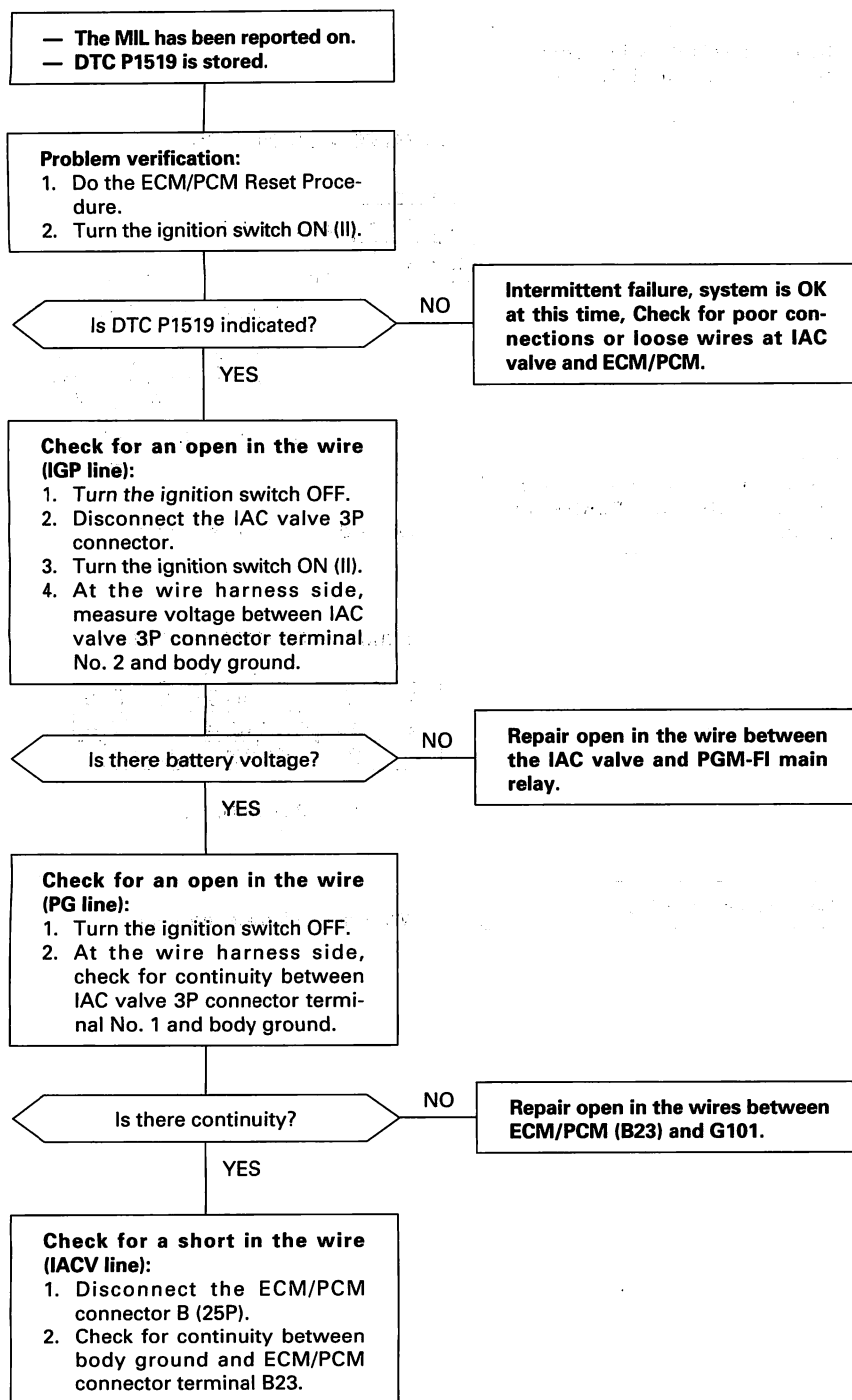
Brake Switch

The brake switch signals the ECM/PCM when the brake pedal is pressed.



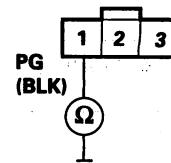
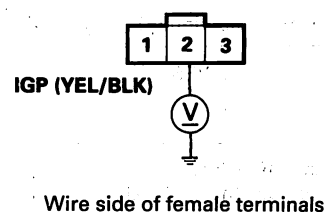
DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P1519: Malfunction in IAC Valve Circuit

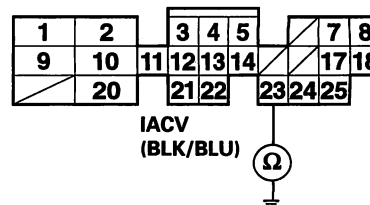


(To page 11-B-92)

IAC VALVE 3P CONNECTOR



ECM/PCM CONNECTOR B (25P)

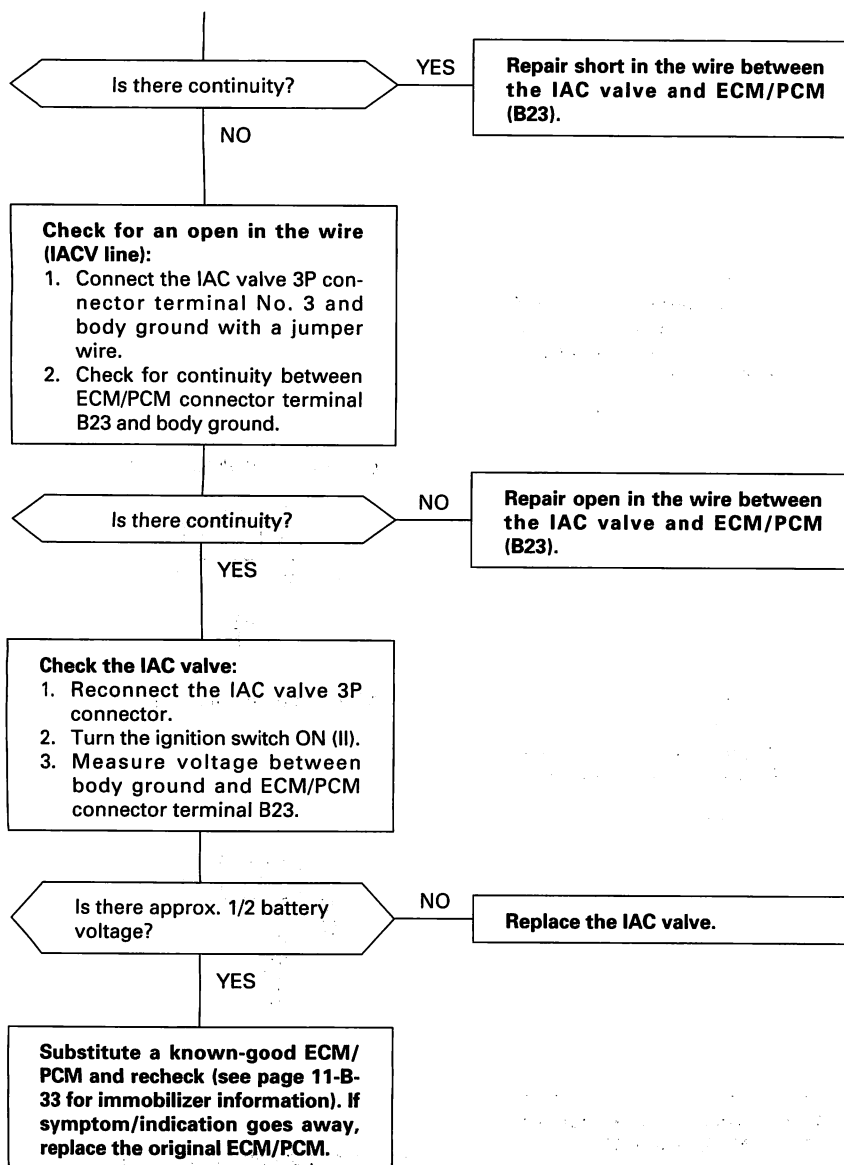


(cont'd)

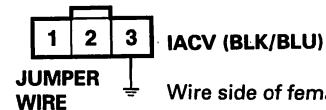
Idle Control System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-91)



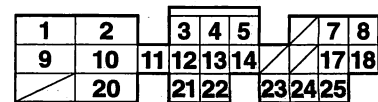
IAC VALVE 3P CONNECTOR



ECM/PCM CONNECTOR B (25P)



ECM/PCM CONNECTOR B (25P)



Emission Control System



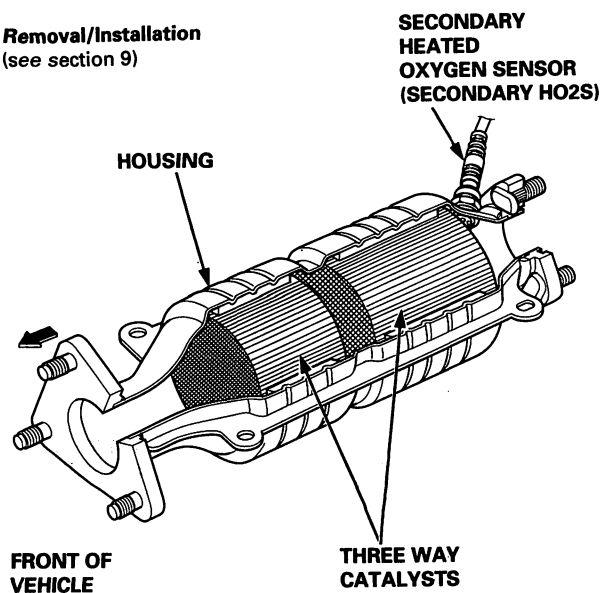
System Description (F18B2, F18B4 engine)

Catalytic Converter System

Three-Way Catalytic Converter (TWC)

The TWC converts hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) in the exhaust gas to carbon dioxide (CO₂), dinitrogen (N₂), and water vapor.

Removal/Installation
(see section 9)



(cont'd)

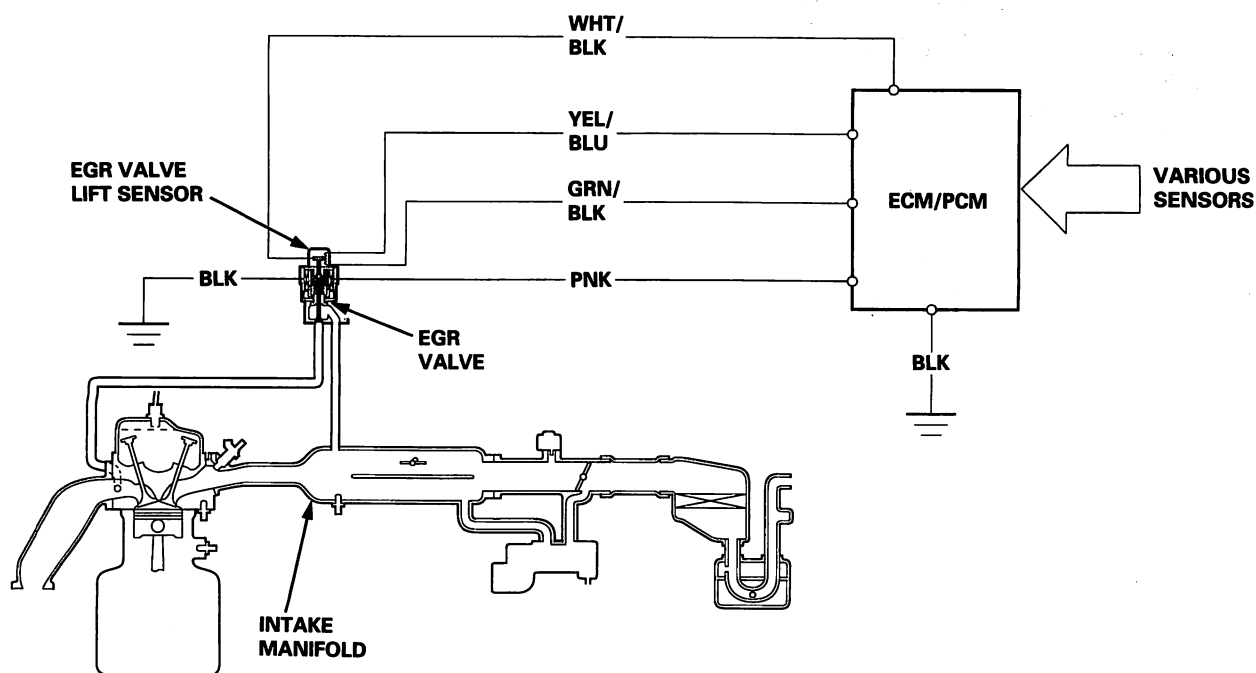
Emission Control System

System Description (F18B2, F18B4 engine) (cont'd)

Exhaust Gas Recirculation (EGR) System

The EGR system reduces oxides of nitrogen (NOx) emissions by recirculating exhaust gas through the EGR valve and the intake manifold into the combustion chambers. The ECM/PCM memory includes the ideal EGR valve lift for varying operating conditions.

The EGR valve lift sensor detects the amount of EGR valve lift and sends it to the ECM/PCM. The ECM/PCM then compares it with the ideal lift in its memory (based on signals sent from other sensors). If there is any difference between the two, the ECM/PCM cuts current to the EGR valve.





Evaporative Emission (EVAP) Controls

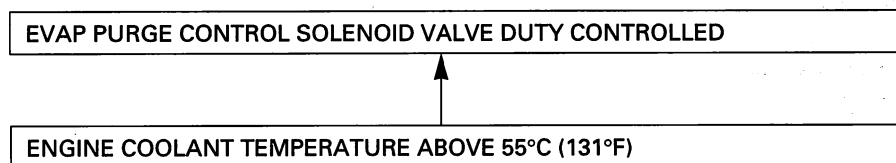
The evaporative emission controls are designed to minimize the amount of fuel vapor escaping to the atmosphere. The system consists of the following components:

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.

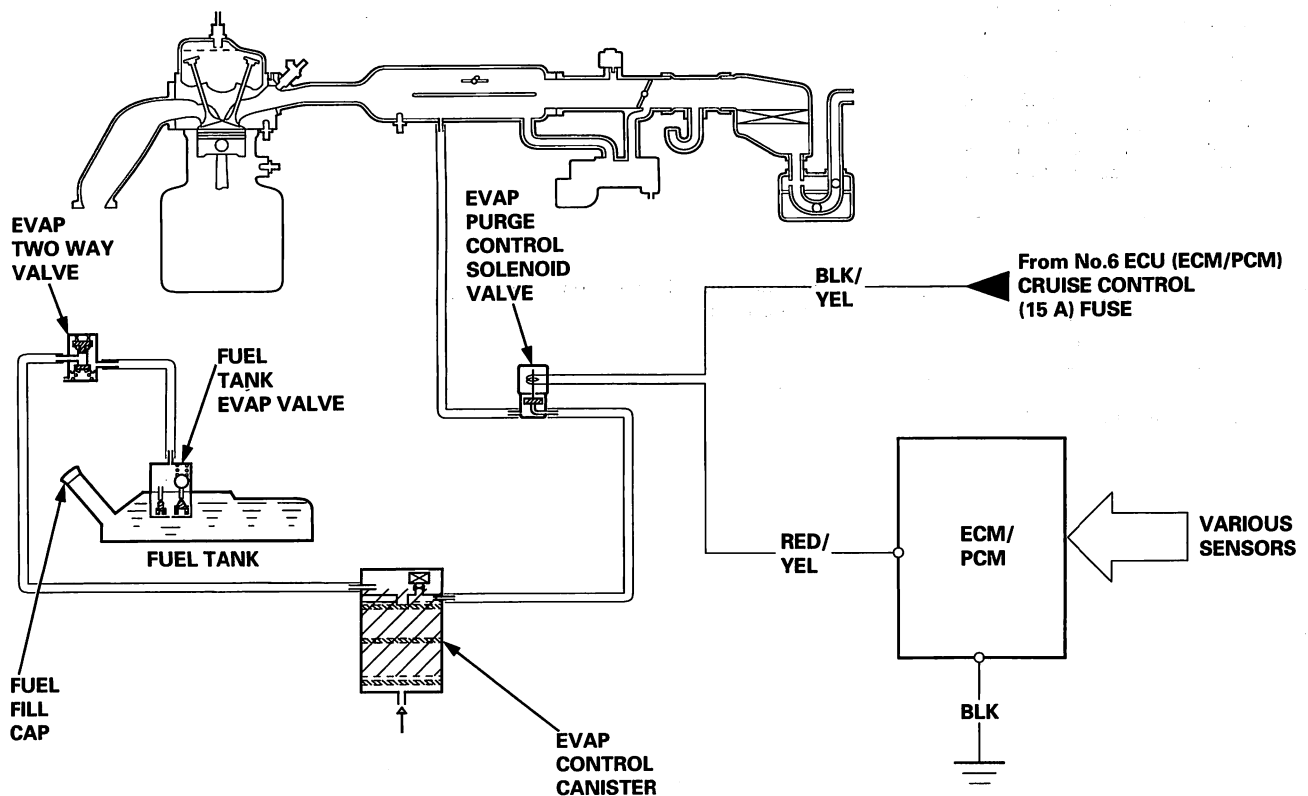
B. Vapor Purge Control System

EVAP control canister purging is accomplished by drawing fresh air through the EVAP control canister and into a port on the throttle body. The purging vacuum is controlled by the EVAP purge control canister and 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.



Emission Control System

DTC Troubleshooting (F18B2, F18B4 engine)

DTC P0420: Catalyst system efficiency below threshold

NOTE: If some of the DTCs listed below are stored at the same time as DTC P0420, troubleshoot those DTCs first, then troubleshoot DTC P0420.

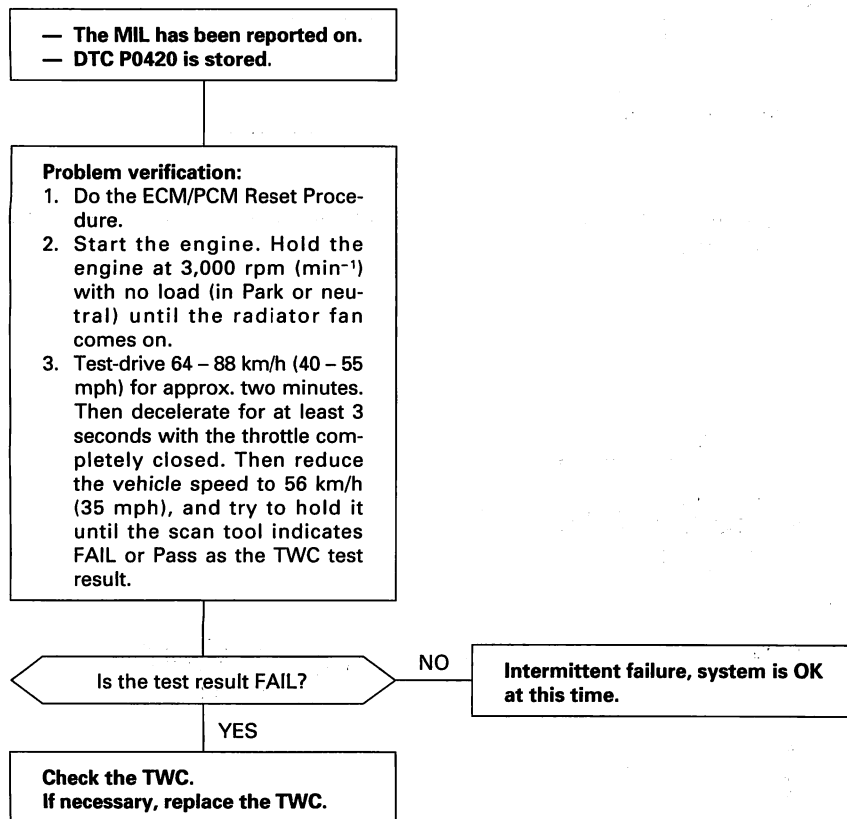
P0137, P0138: Secondary HO₂S (Sensor 2)

P0141: Secondary HO₂S (Sensor 2) Heater

Possible Cause

- Three Way Catalytic Converter (TWC) Deterioration
- Exhaust system leakage

Troubleshooting Flowchart



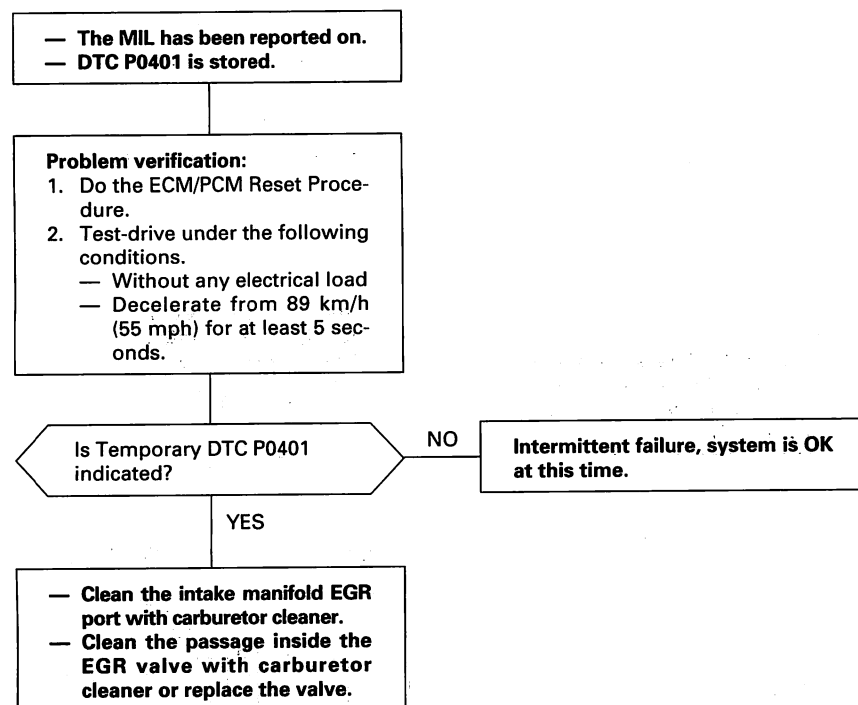


DTC P0401: Insufficient flow in EGR system.

Possible Causes

- Clogging, leakage in the EGR line
- Faulty EGR valve

Troubleshooting Flowchart



(cont'd)

Emission Control System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P1491: Malfunction in EGR system

- The MIL has been reported on.
- DTC P1491 is stored.

Problem verification:

1. Do the ECM/PCM Reset Procedure.
2. Start the engine. Hold the engine at 3,000 rpm (min^{-1}) with no load (in Park or neutral) until the radiator fan comes on.
3. Drive the vehicle on the road for approx. 10 minutes. Try to keep the engine speed in the 1,700 – 2,500 rpm (min^{-1}) range.

Is Temporary DTC P1491 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at EGR valve and ECM/PCM.

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 terminal No. 4 and No. 6.

Is there battery voltage?

NO

YES

Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

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

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON (II).
3. Measure voltage between the EGR valve 6P connector terminal No. 2 and No. 3.

Is there approx. 5 V?

NO

Check for an open in the wire (VCC2 line): Measure voltage between the ECM/PCM connector terminals C18 and C28.

YES

Is there approx. 5 V?

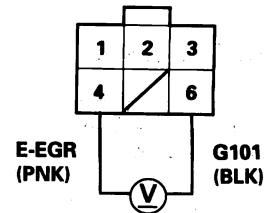
NO

Repair open in the wire between the EGR valve and ECM/PCM (C28).

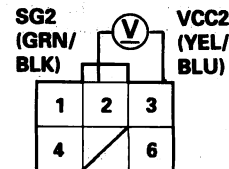
Substitute a known-good ECM/PCM and recheck (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

(To page 11-B-99)

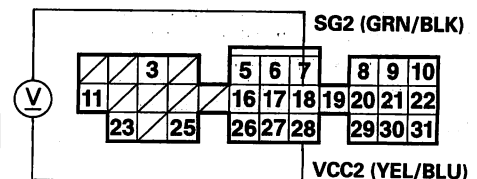
EGR VALVE 6P CONNECTOR



Wire side of female terminals



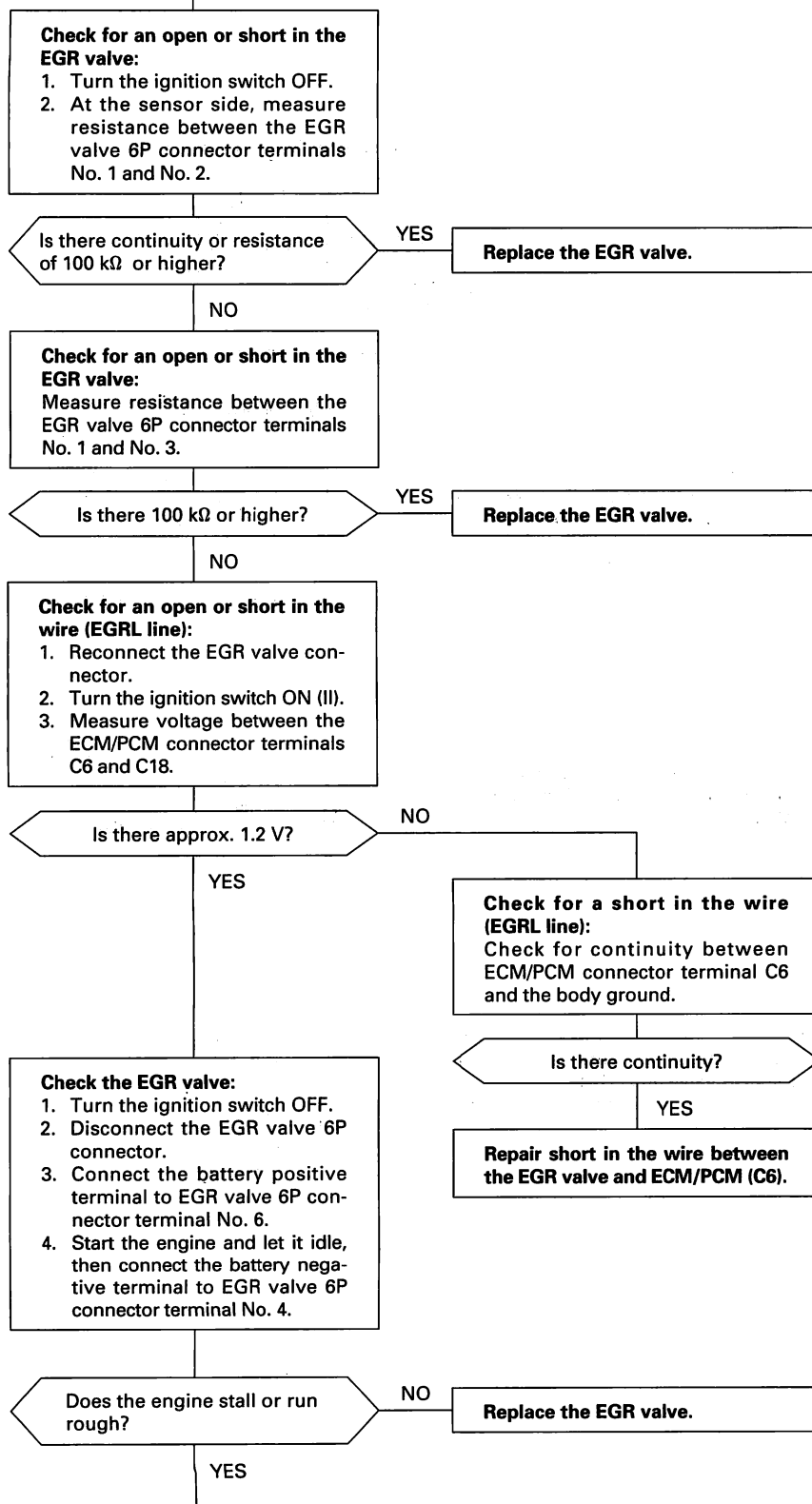
ECM/PCM CONNECTOR C (31P)



Wire side of female terminals

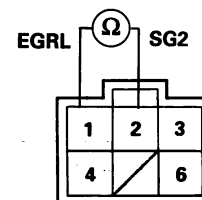


(From page 11-B-98)

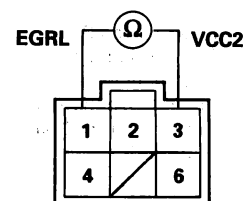


(To page 11-B-100)

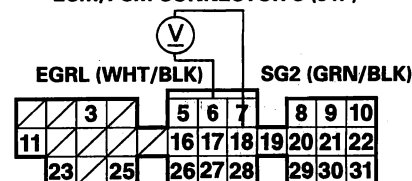
EGR VALVE 6P CONNECTOR



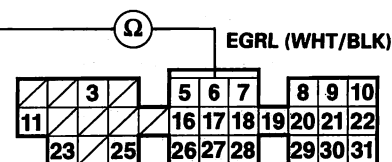
Terminal side of male terminals



ECM/PCM CONNECTOR C (31P)

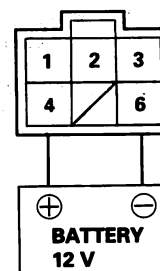


Wire side of female terminals



Repair open in the wire between the EGR valve and the ECM/PCM (C6).

EGR VALVE 6P CONNECTOR



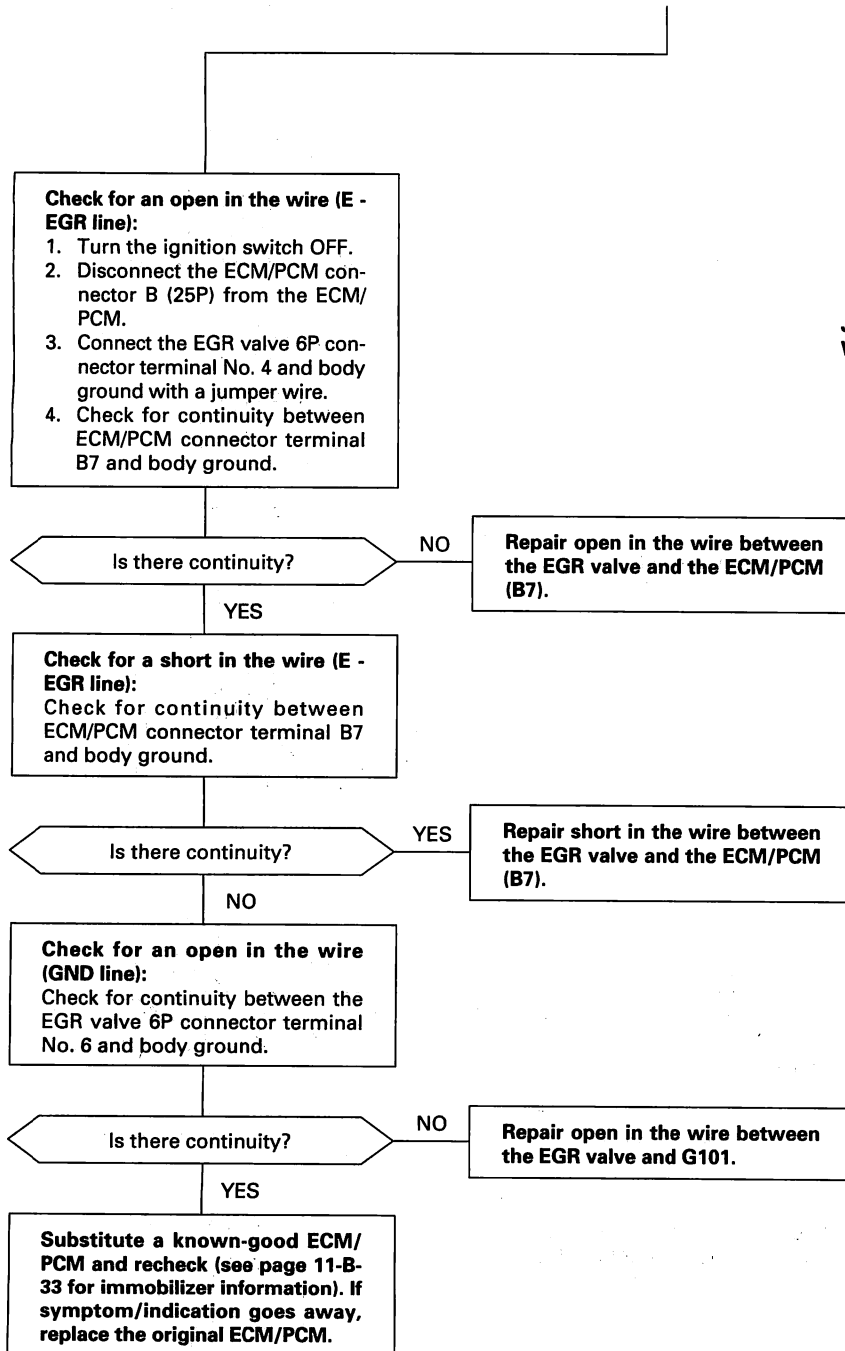
Terminal side of male terminals

(cont'd)

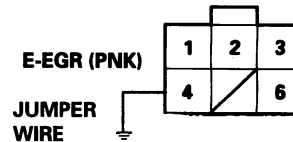
Emission Control System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

(From page 11-B-99)

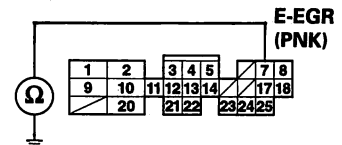


EGR VALVE 6P CONNECTOR

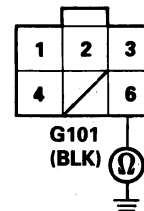
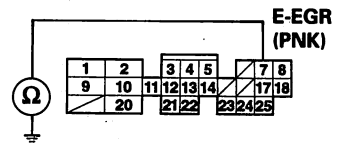


Wire side of female terminals

ECM/PCM CONNECTOR B (25P)

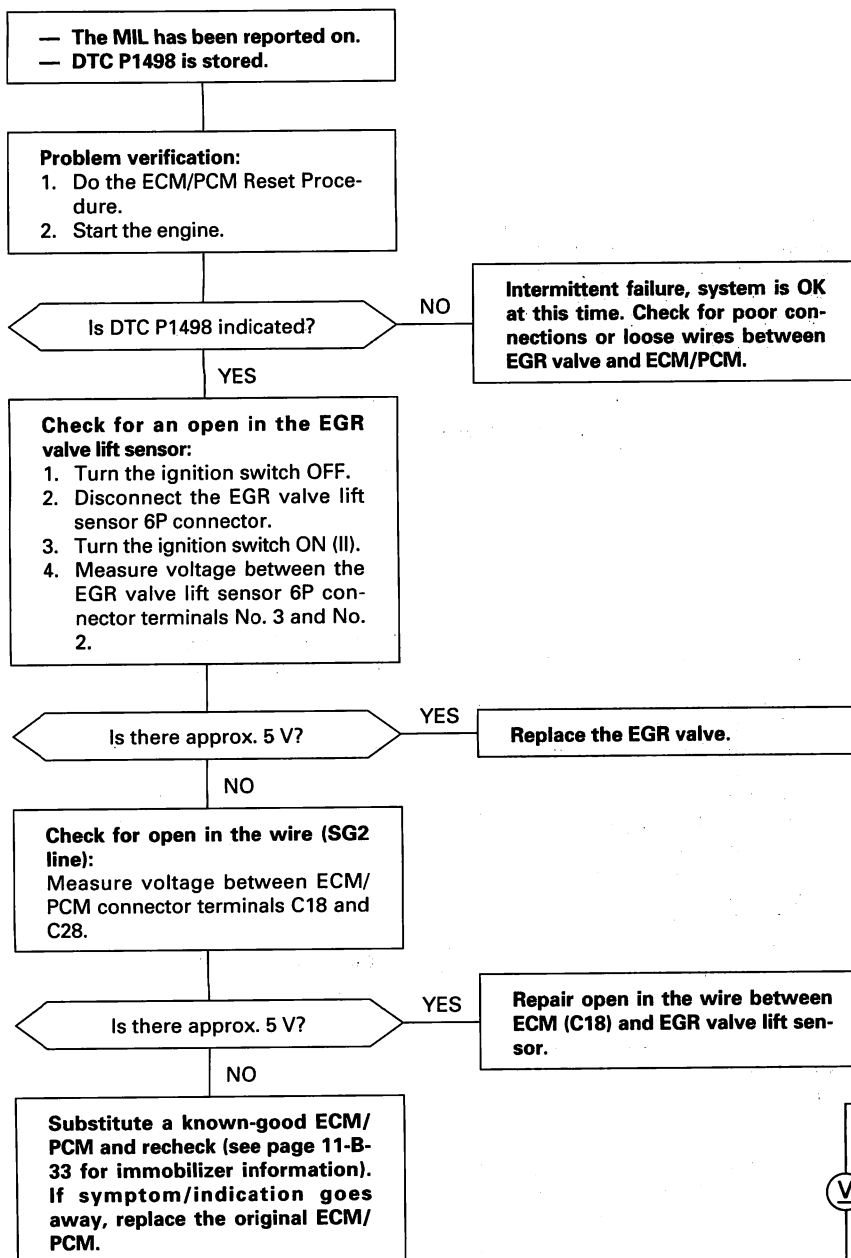


Wire side of female terminals

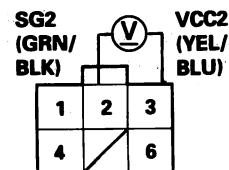




DTC P1498: High voltage in EGR valve lift sensor circuit

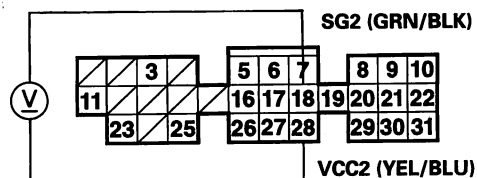


EGR VALVE LIFT SENSOR 6P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTOR C (31P)



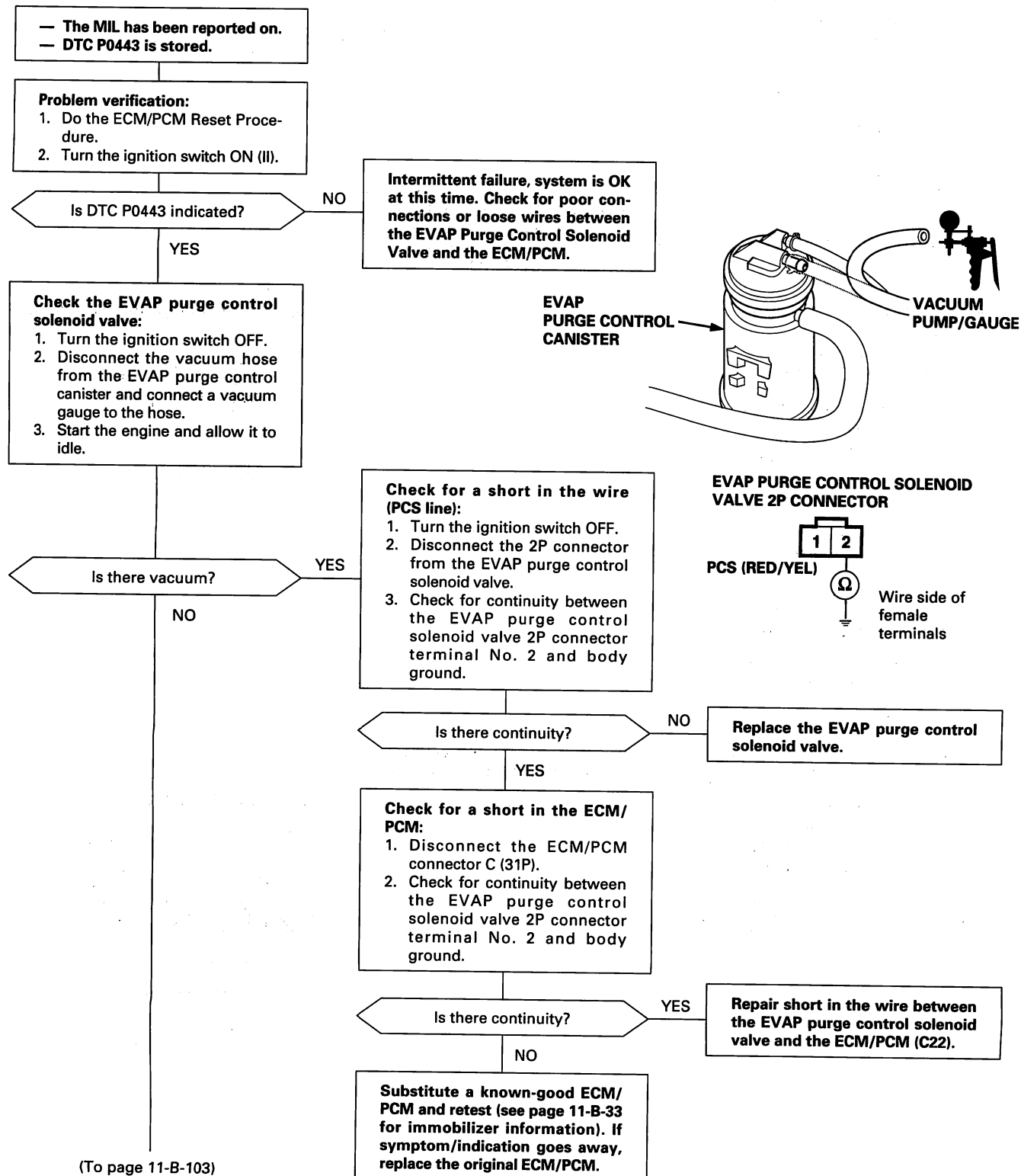
Wire side of female terminals

(cont'd)

Emission Control System

DTC Troubleshooting (F18B2, F18B4 engine) (cont'd)

DTC P0443: Electrical problem in EVAP Purge Control Solenoid Valve circuit





(From page 11-B-102)

Check the EVAP purge control valve:

1. Turn the ignition switch OFF.
2. Disconnect the 2P connector from the EVAP purge control solenoid valve.
3. Turn the ignition switch ON (II).
4. At the harness side, measure voltage between the EVAP purge control solenoid valve 2P connector terminal No. 1 and body ground.

Is there battery voltage?

NO

Repair open in the wire between EVAP purge control solenoid valve and the No. 6 ECU (ECM/PCM) CRUISE CONTROL (15 A fuse).

YES

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 C22 and B2.

Is there battery voltage?

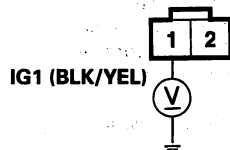
NO

Repair open in the wire between the EVAP purge control solenoid valve and the ECM/PCM (C22). If wire is OK, replace EVAP purge control solenoid valve.

YES

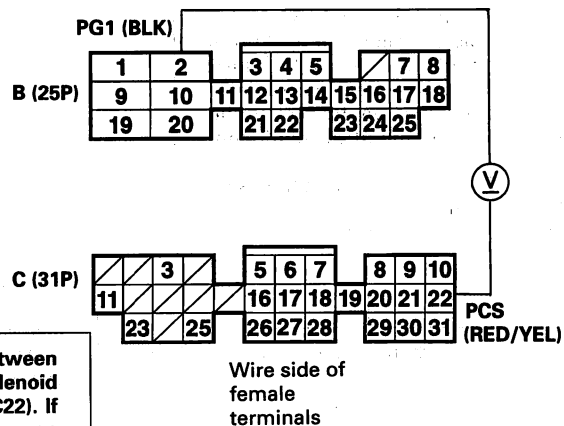
Substitute a known-good ECM/PCM and retest (see page 11-B-33 for immobilizer information). If symptom/indication goes away, replace the original ECM/PCM.

EVAP PURGE CONTROL SOLENOID VALVE 2P CONNECTOR



Wire side of female terminals

ECM/PCM CONNECTORS



Emission Control System

Evaporative Emission (EVAP) Controls

Inspection

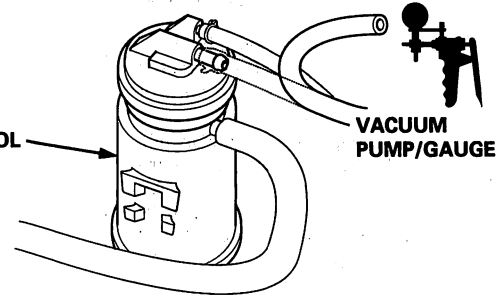
Inspection of Evaporative Emission Controls

Check the vacuum when cold:

1. Disconnect the vacuum hose from the EVAP purge 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 55°C (131°F).

EVAP PURGE CONTROL CANISTER

VACUUM PUMP/GAUGE



Is there vacuum?

YES

Inspect vacuum hose routing.
If OK, replace the EVAP purge control solenoid valve.

NO

Check the vacuum when hot:

1. Hold the engine at 3,000 rpm (min^{-1}) with no load (in Park or neutral) until the radiator fan comes on, then raise the engine speed to 3,000 rpm (min^{-1}).
2. Check for vacuum at the vacuum hose.

Is there vacuum?

NO

Inspect vacuum hose routing.
If OK, replace EVAP purge control solenoid valve.

YES

Check the EVAP control canister:

1. Turn the ignition switch OFF.
2. Reconnect the vacuum hose to the EVAP purge control canister.
3. Remove the fuel fill cap.
4. Connect a vacuum gauge to canister purge air hose.
5. Start the engine and raise speed to 3,500 rpm (min^{-1}).

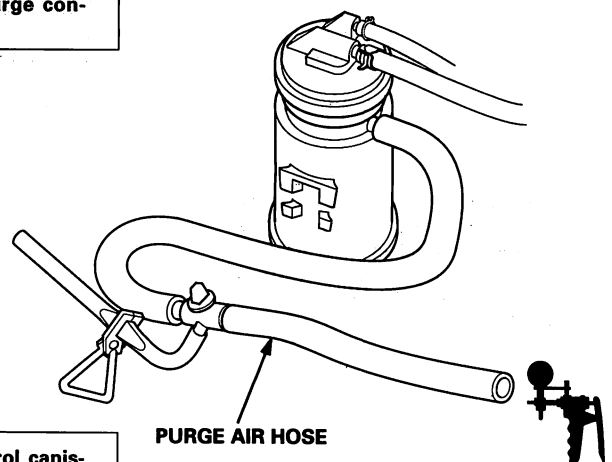
Does vacuum appear on gauge within 1 minute?

NO

Replace the EVAP control canister.

YES

See EVAP two way valve test to complete.
Evaporative emission controls are OK.



PURGE AIR HOSE

Body

Openers

Tailgate Latch Replacement 20-2

**Tailgate Lock Cylinder
Replacement 20-3**

NOTE: Refer to the 1999 Accord Shop Manual, P/N 62S1A00B and the 1999 Accord 5 Door/Accord 5 Door Turbo Diesel Shop Manual Supplement, P/N 62S1A21 for the items not shown in this section.



Outline of model change

- On 5-door Hatchback models, the tailgate latch and tailgate lock cylinder replacement procedures have been changed.

Openers

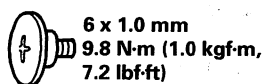
Tailgate Latch Replacement

NOTE:

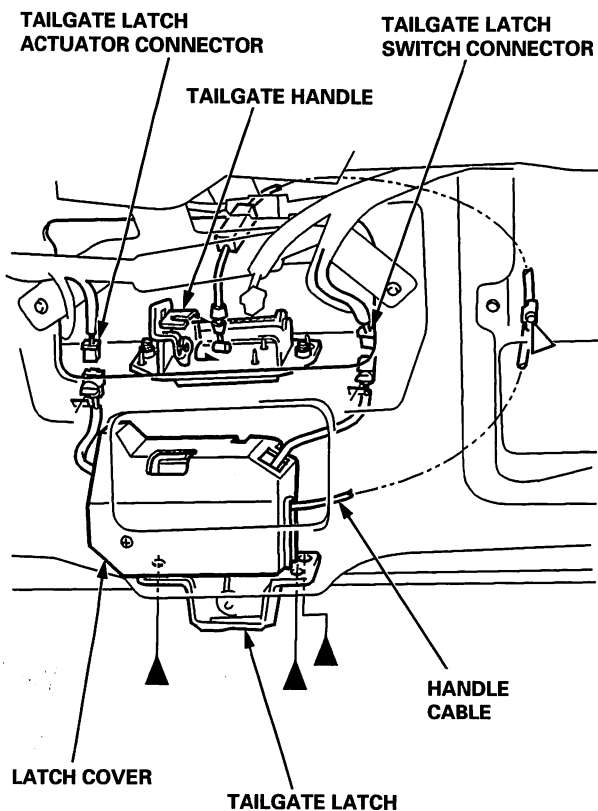
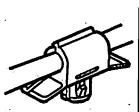
- Take care not to bend the handle cable.
- Put on gloves to protect your hands.

1. Remove the tailgate lining (see page 20-13).
2. Disconnect the handle cable from the tailgate handle, and detach the cable clip. Disconnect the tailgate latch switch connector and tailgate latch actuator connector, and detach the connectors.
3. Remove the bolts, then remove the tailgate latch/latch cover.

►: Bolt locations, 3

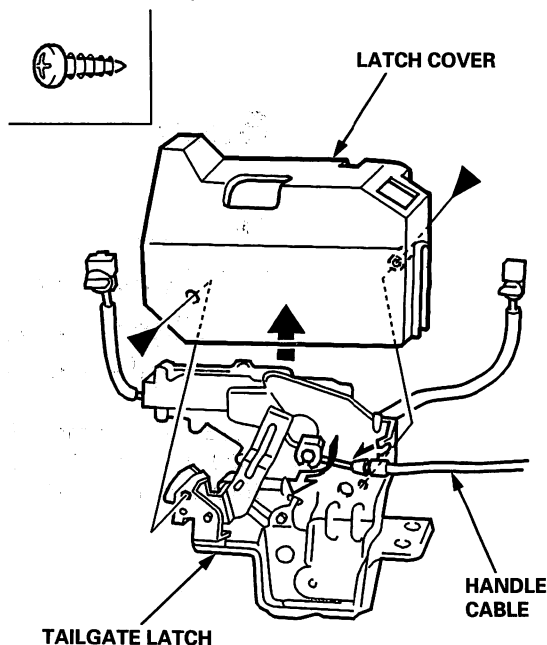


►: Clip location, 1



4. Remove the screws, then remove the latch cover.

►: Screw locations, 2



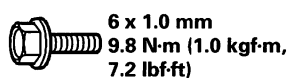
5. Disconnect the handle cable.
6. Install in the reverse order of removal, and note these items:
 - Make sure the connectors are plugged in properly and the handle cable is connected properly.
 - Make sure the tailgate opens properly and locks securely.



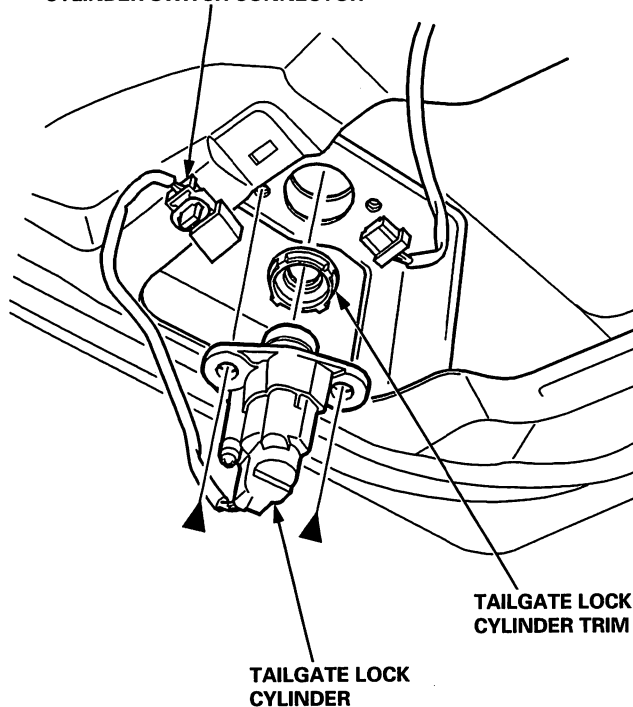
Tailgate Lock Cylinder Replacement

1. Disconnect the cylinder switch connector, then detach the cylinder switch connector from the tailgate.
2. Remove the bolt securing the lock cylinder, and remove the lock cylinder. If necessary, remove the tailgate lock cylinder trim.

►: Bolt locations, 2



CYLINDER SWITCH CONNECTOR



3. Install in the reverse order of removal, and note these items:
 - Make sure the connector is plugged in properly.
 - Make sure the tailgate opens properly and locks securely.

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