

# General Information

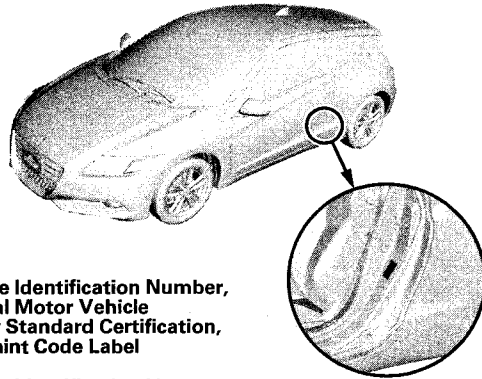
## Chassis and Paint Codes - '11 Model

### Vehicle Identification Number

JHM ZF1 C 4 \* B S 000001

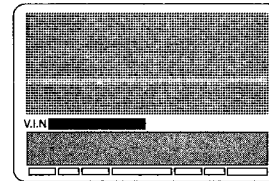
a b c d e f g h

- a. Manufacturer, Make and Type of Vehicle**  
JHM: Honda Motor Co., Ltd.  
Honda passenger vehicle
- b. Line, Body and Engine Type**  
ZF1: CR-Z/LEA1
- c. Body Type and Transmission Type**  
C: 2-door Hatchback/6-speed Manual  
D: 2-door Hatchback/CVT
- d. Vehicle Grade (Series)**  
USA models  
4: CR-Z  
6: CR-Z EX  
Canada models  
6: CR-Z
- e. Check Digit**
- f. Model Year**  
B: '11
- g. Factory Code**  
S: Suzuka Factory in Japan
- h. Serial Number**  
000001 —: USA models  
800001 —: Canada models



Vehicle Identification Number,  
Federal Motor Vehicle  
Safety Standard Certification,  
and Paint Code Label

Vehicle Identification Number,  
Canadian Motor Vehicle  
Safety Standard Certification,  
and Paint Code Label





## Piston Installation

7. After installing a new set of rings, measure the ring-to-groove clearances:

### Top Ring Clearance

#### RIKEN

Standard (New): 0.065—0.090 mm (0.003—0.003 in)

Service Limit: 0.15 mm (0.005 in)

#### NIPPON

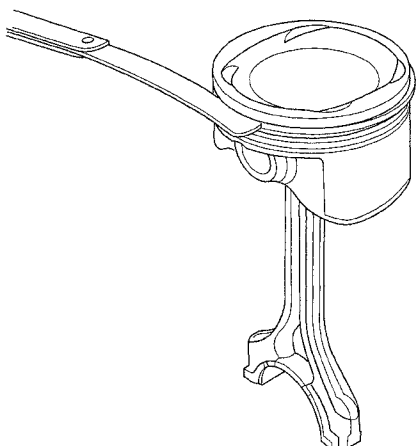
Standard (New): 0.061—0.090 mm (0.003—0.003 in)

Service Limit: 0.15 mm (0.005 in)

### Second Ring Clearance

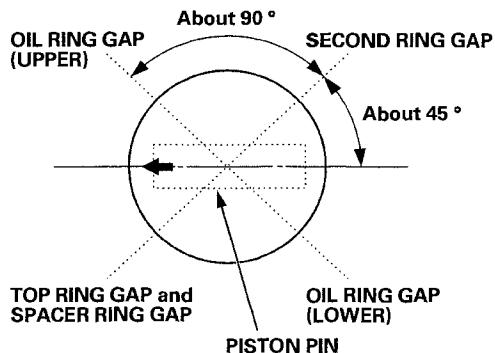
Standard (New): 0.030—0.055 mm (0.002—0.002 in)

Service Limit: 0.12 mm (0.004 in)



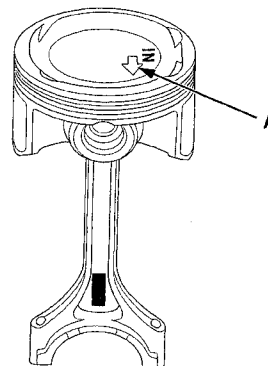
8. Rotate the rings in their grooves to make sure they do not bind.

9. Position the ring end gaps as shown:



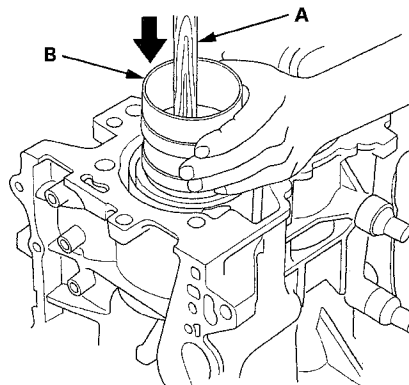
### If the Crankshaft is Already Installed

1. Set the crankshaft to bottom dead center (BDC) for each cylinder as its piston is installed.
2. Remove the connecting rod caps, and check that the connecting rod bearing is securely in place.
3. Apply new engine oil to the piston, inside of the ring compressor, and the cylinder bore, then attach the ring compressor to the piston/connecting rod assembly.
4. Position the piston/connecting rod assembly with the arrow (A) facing the cam chain side of the engine block.



5. Position the piston/connecting rod assembly in the cylinder, and tap it in using the wooden handle of a hammer (A).

Maintain downward force on the ring compressor (B) to prevent the rings from expanding before entering the cylinder bore.

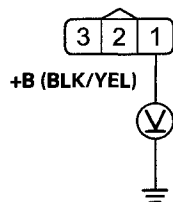


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19. Measure voltage between ignition coil 3P connector terminal No. 1 and body ground.

**IGNITION COIL 3P CONNECTOR**



Wire side of female terminals

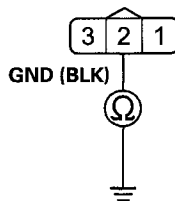
*Is there battery voltage?*

**YES**—Go to step 20.

**NO**—Repair an open in the wire between the ignition coil and the No. B33 IG COIL (IGNITION COIL) (15 A) fuse, then go to step 26.

20. Turn the ignition switch to LOCK (0).  
 21. Check for continuity between ignition coil 3P connector terminal No. 2 and body ground.

**IGNITION COIL 3P CONNECTOR**



Wire side of female terminals

*Is there continuity?*

**YES**—Go to step 22.

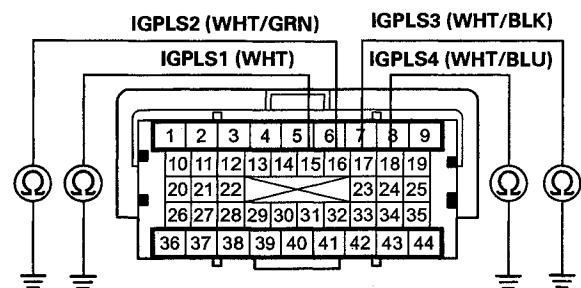
**NO**—Repair an open in the wire between the ignition coil and G101; CVT (see page 22-26), M/T (see page 22-22), then go to step 27.

22. Jump the SCS line with the HDS.  
 23. Disconnect ECM/PCM connector C (44P).

24. Check for continuity between body ground and the ECM/PCM connector terminal of the problem ignition coil (see table).

PROBLEM CYLINDER	DTC	ECM/PCM TERMINAL	WIRE COLOR
No. 1	P0351	C15	WHT
No. 2	P0352	C16	WHT/GRN
No. 3	P0353	C17	WHT/BLK
No. 4	P0354	C18	WHT/BLU

**ECM/PCM CONNECTOR C (44P)**



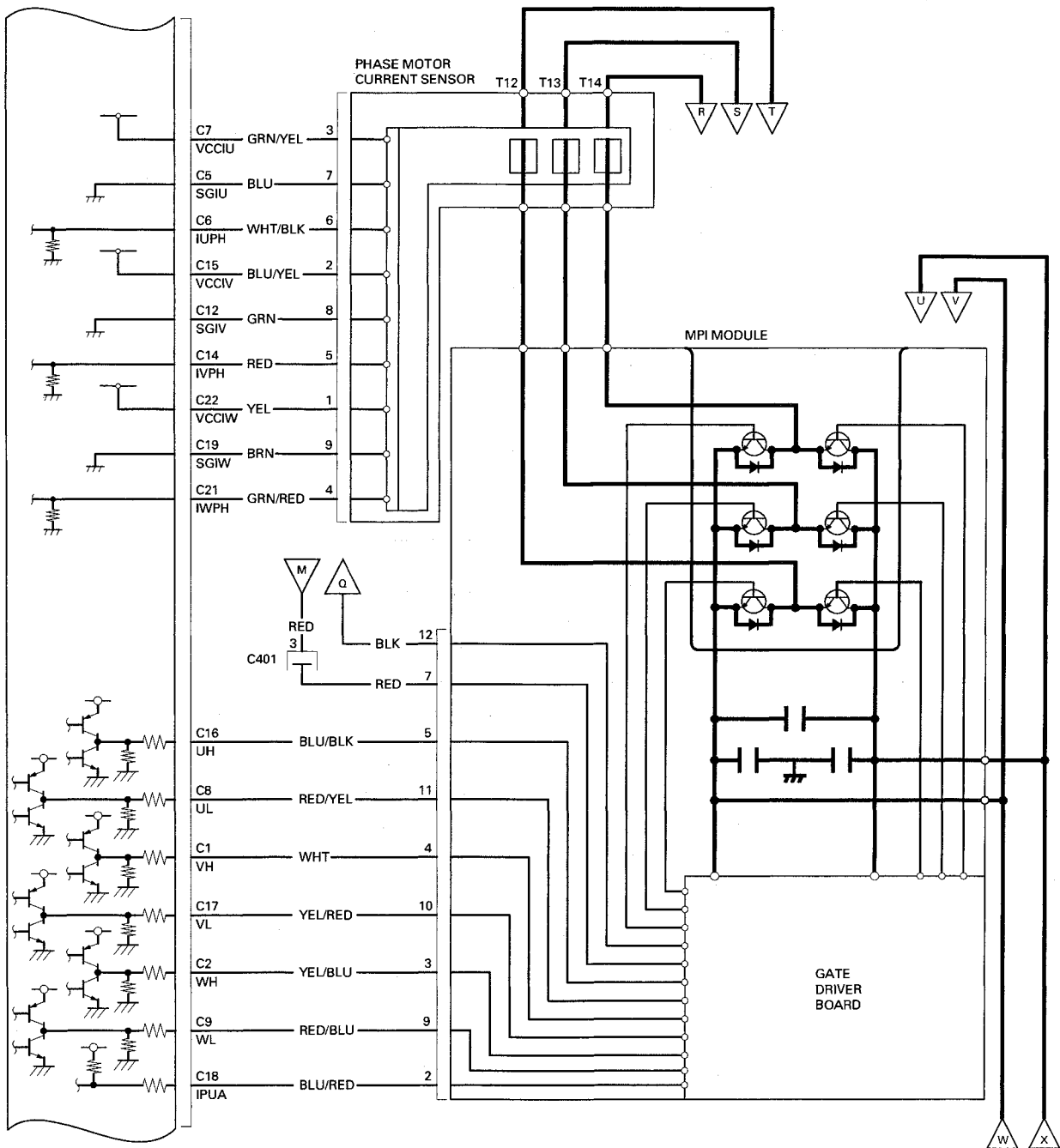
Terminal side of female terminals

*Is there continuity?*

**YES**—Repair a short in the wire between the ECM/PCM and the ignition coil, then go to step 27.

**NO**—Go to step 25.

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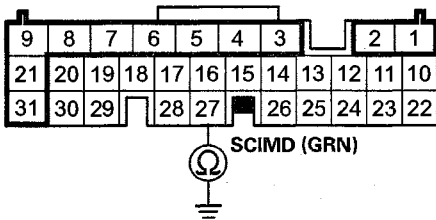
(cont'd)

# IMA System

## DTC Troubleshooting (cont'd)

10. Check for continuity between MCM connector terminal A27 and body ground.

MCM CONNECTOR A (31P)



Wire side of female terminals

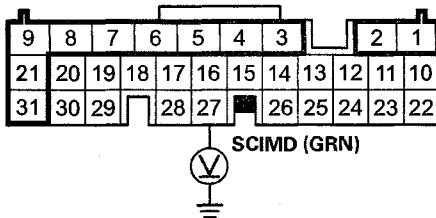
*Is there continuity?*

**YES**—Repair a short in the wire between the MCM (A27) and the DC-DC converter, then go to step 22.

**NO**—Go to step 11.

11. Reconnect the DC-DC converter 4P connector.  
 12. Turn the ignition switch to ON (II).  
 13. Measure the voltage between MCM connector terminal A27 and body ground.

MCM CONNECTOR A (31P)



Wire side of female terminals

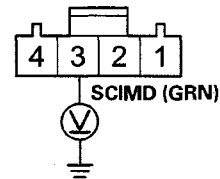
*Is there about 8–12 V?*

**YES**—Go to step 29.

**NO**—Go to step 14.

14. Measure the voltage between DC-DC converter 4P connector terminal No. 3 and body ground.

DC-DC CONVERTER 4P CONNECTOR



Wire side of female terminals

*Is there 8–12 V?*

**YES**—Repair an open in the wire between the MCM (A27) and the DC-DC converter, then go to step 22.

**NO**—Go to step 15.

15. Substitute a known-good DC-DC converter (see page 12-213).  
 16. Reconnect all connectors.  
 17. Reinstall the MCM (see page 12-212).  
 18. Reinstall the IPU cover (see page 12-210), then turn the battery module switch ON (see page 12-4).  
 19. Turn the ignition switch to ON (II).  
 20. Clear the DTC with the HDS (see page 12-6).  
 21. Check for Pending or Confirmed DTCs with the HDS.

*Is DTC U1220 indicated?*

**YES**—Go to step 32.

**NO**—Replace the original DC-DC converter (see page 12-213), then go to step 22.

# CVT

## Symptom Troubleshooting Index (cont'd)

### Hydraulic/Mechanical System Symptom Troubleshooting (cont'd)

Symptom	Probable cause(s)	Notes
No shift to higher ratio or lower ratio	<ul style="list-style-type: none"> <li>• Intermediate housing assembly worn or damaged</li> <li>• Pulley pressure feed pipe damaged or out of round</li> <li>• CVTF pump worn, binding or foreign material in CVTF pump</li> <li>• Low CVTF level</li> <li>• CVTF strainer or CVTF filter clogged</li> <li>• Lower valve body assembly defective</li> <li>• CVT driven pulley pressure control solenoid valve defective</li> <li>• CVT drive pulley pressure control solenoid valve defective</li> <li>• Solenoid wire harness worn or damaged</li> <li>• CVT input shaft (drive pulley) and CVT output shaft (driven pulley) speed sensors defective</li> <li>• Vehicle speed sensor defective</li> <li>• PCM defective</li> </ul>	<ul style="list-style-type: none"> <li>• Check the CVTF level (see page 14-153), and check the CVTF cooler lines for leakage and loose connections.</li> <li>• Check for a stored DTC, and check for loose connectors.</li> <li>• Check the speed sensors installation, for wear and damage, and measure their resistance, and also check the O-rings for wear and damage.</li> <li>• Check the stall speed (see page 14-134)</li> <li>• Check the drive and driven pulley pressure, and the lubrication pressure (see page 14-135). If the pressure is low or there is no pressure, check the CVTF pump assembly, the CVTF pump drive chain, the CVTF pump drive/driven sprocket, and the CVTF feed pipes.</li> <li>• Check the CVTF strainer and the CVTF filter for debris. If the CVTF strainer or the CVTF filter is clogged, find the damaged components that caused debris, and clean the CVTF cooler lines (see page 14-175) if necessary.</li> <li>• Inspect the solenoid wire harness for open and short.</li> <li>• Check the lower valve body assembly for scoring and damage.</li> <li>• Check the intermediate housing assembly for wear and damage. If the drive pulley, the driven pulley, the pulley shafts, the steel belt, or related part are worn or damaged, replace the intermediate housing assembly.</li> </ul>
Poor acceleration	<ul style="list-style-type: none"> <li>• Intermediate housing assembly worn or damaged</li> <li>• Pulley pressure feed pipe damaged or out of round</li> <li>• CVTF pump worn, binding or foreign material in CVTF pump</li> <li>• CVTF strainer or CVTF filter clogged</li> <li>• Lower valve body assembly defective</li> <li>• CVT driven pulley pressure control solenoid valve defective</li> <li>• CVT drive pulley pressure control solenoid valve defective</li> <li>• Manual valve lines worn or damaged</li> <li>• Solenoid valves defective</li> <li>• Solenoid wire harness worn or damaged</li> <li>• CVT input shaft (drive pulley) and CVT output shaft (driven pulley) speed sensors defective</li> <li>• Vehicle speed sensor defective</li> <li>• PCM defective</li> <li>• Engine output low</li> <li>• IMA motor defective</li> </ul>	<ul style="list-style-type: none"> <li>• Check for a stored DTC, and check for loose connectors.</li> <li>• Check the speed sensors installation, for wear and damage, and measure their resistance, and also check the O-rings for wear and damage.</li> <li>• Check the stall speed (see page 14-134).</li> <li>• Check the drive and driven pulley pressure, and lubrication pressure (see page 14-135). If the pressure is low or there is no pressure, check the CVTF pump assembly, the CVTF pump drive chain, the CVTF pump drive/driven sprocket, and the CVTF feed pipes.</li> <li>• Check the CVTF strainer and the CVTF filter for debris. If the CVTF strainer or the CVTF filter is clogged, find the damaged components that caused debris, and clean the CVTF cooler lines (see page 14-175) if necessary.</li> <li>• Inspect the solenoid wire harness for open and short.</li> <li>• Check the lower valve body assembly for scoring and damage.</li> <li>• Check the manual valve body assembly for scoring and damage. If the manual valve body assembly is worn or damaged, replace it as an assembly.</li> <li>• Check the intermediate housing assembly for wear and damage. If the drive pulley, the driven pulley, the pulley shafts, the steel belt, or related part are worn or damaged, replace the intermediate housing assembly.</li> <li>• Check for low fuel pressure (see page 11-290).</li> <li>• Check for a restricted exhaust system</li> </ul>

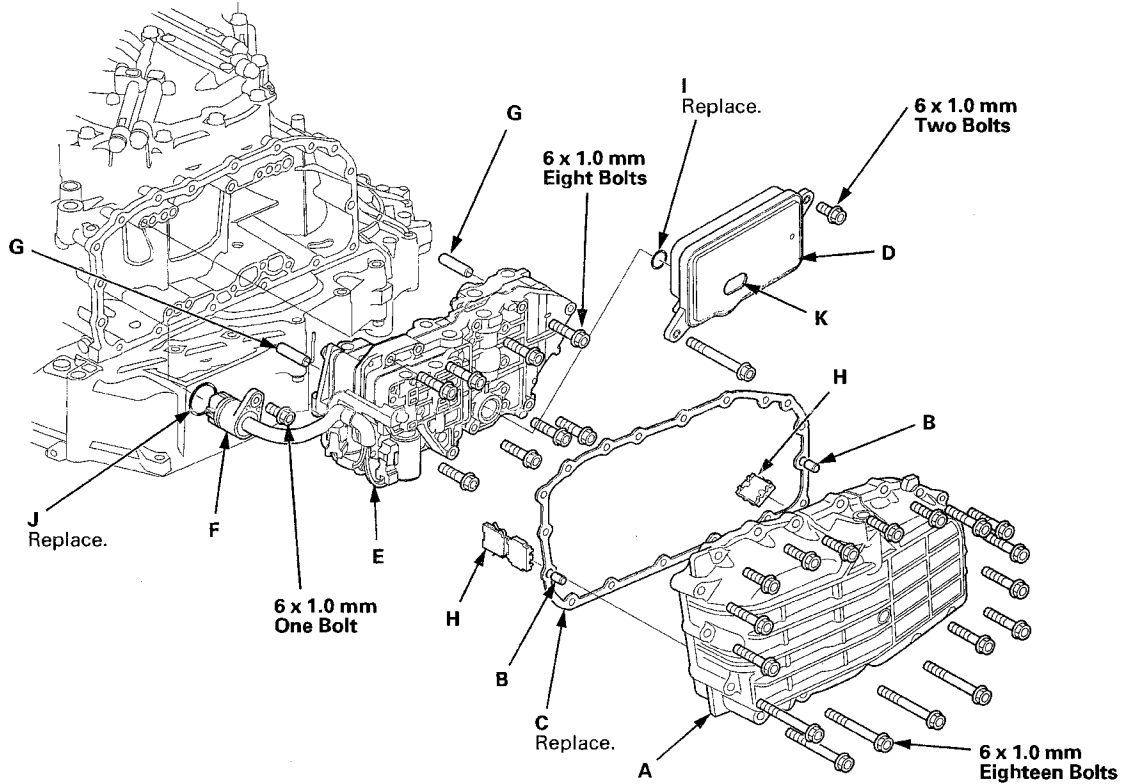
# CVT

## Transmission Disassembly

### Special Tools Required

- Start Clutch Remover 07TAE-P4V0120
- Reverse Brake Spring Compressor 07TAE-P4V0110

1. Remove the CVTF pan (A) (eighteen bolts), the two dowel pins (B), and the gasket (C).



2. Remove the CVTF strainer (D) (two bolts).
3. Remove the eight bolts securing the lower valve body (E), and hold the lower valve body.
4. Remove the bolt securing the solenoid wire harness 7P connector (F), then remove the lower valve body, the two CVTF pipes (G), and the solenoid wire harness 7P connector from the transmission housing.
5. Remove the CVTF magnets (H), and clean and reinstall them in the CVTF pan.
6. Remove the O-ring (I) from the CVTF strainer, and remove the O-ring (J) from the solenoid wire harness 7P connector.
7. Clean the inlet opening (K) of the CVTF strainer thoroughly with compressed air, then check that it is in good condition and that the inlet opening is not clogged.
8. Test the CVTF strainer by pouring clean CVTF through the inlet opening, and replace it if it is clogged or damaged.

# VSA System Components

## DTC Troubleshooting (cont'd)

11. Reconnect all connectors.
12. Update the ECM/PCM if it does not have the latest software (see page 11-207), or substitute a known-good ECM/PCM (see page 11-7).
13. Turn the ignition switch to ON (II).
14. Clear the DTC with the HDS.
15. Turn the ignition switch to LOCK (0).
16. Test-drive the vehicle at 19 mph (30 km/h) or more.  
NOTE: Drive the vehicle on the road, not on a lift.
17. Check for DTCs with the HDS.

*Is DTC 68 indicated?*

**YES**—Check for loose terminals in the ECM/PCM connector A (44P). If the ECM/PCM was updated, substitute a known-good ECM/PCM (see page 11-7), then retest. If the ECM/PCM was substituted, go to step 18.

**NO**—If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see page 11-209).■

18. Update the VSA modulator-control unit if it does not have the latest software (see page 19-124).
19. Turn the ignition switch to LOCK (0).
20. Test-drive the vehicle at 19 mph (30 km/h) or more.  
NOTE: Drive the vehicle on the road, not on a lift.
21. Check for DTCs with the HDS.

*Is DTC 68 indicated?*

**YES**—Check for loose terminals in the VSA modulator-control unit 32P connector. If the VSA modulator-control unit was updated and the symptom/indication is still present, replace the VSA modulator-control unit (see page 19-125).■

**NO**—If the VSA modulator-control unit was updated, troubleshooting is complete. If any other DTCs are indicated, go to the indicated DTCs troubleshooting.■

## DTC 81: VSA Modulator-Control Unit Internal Circuit Malfunction

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see page 19-68).

1. Turn the ignition switch to ON (II).
2. Check for other system DTCs.  
*Is another DTC indicated?*  
**YES**—Do the appropriate troubleshooting for the DTC.■  
**NO**—Go to step 3.
3. Clear the DTC with the HDS.
4. Turn the ignition switch to LOCK (0).
5. Test-drive the vehicle at 19 mph (30 km/h) or more.  
NOTE: Drive the vehicle on the road, not on a lift.
6. Check for DTCs with the HDS.  
*Is DTC 81 indicated?*  
**YES**—Go to step 7.  
**NO**—Intermittent failure, the system is OK at this time. Refer to intermittent failures troubleshooting (see page 19-69).■
7. Update the VSA modulator-control unit if it does not have the latest software (see page 19-124).
8. Turn the ignition switch to LOCK (0).
9. Test-drive the vehicle at 19 mph (30 km/h) or more.  
NOTE: Drive the vehicle on the road, not on a lift.
10. Check for DTCs with the HDS.

*Is DTC 81 indicated?*

**YES**—Check for loose terminals in the VSA modulator-control unit 32P connector. If the VSA modulator-control unit was updated and the symptom/indication is still present, replace the VSA modulator-control unit (see page 19-125).■

**NO**—If the VSA modulator-control unit was updated, troubleshooting is complete. If any other DTCs are indicated, go to the indicated DTCs troubleshooting.■



# Dashboard

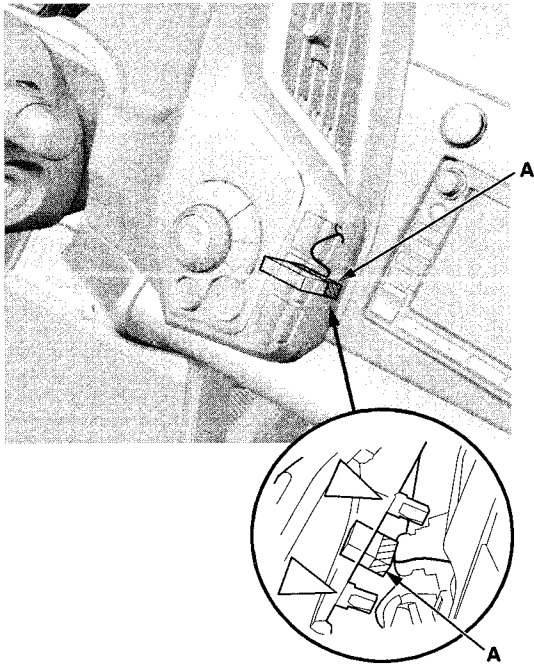
## Instrument Panel Removal/Installation (cont'd)

3. Disconnect the climate control unit connector (A).

- 1. Gently pull out the right side edge of the panel to detach the clips.
- 2. Disconnect the connector at the gap of the instrument panel and the dashboard.

**Fastener Locations**

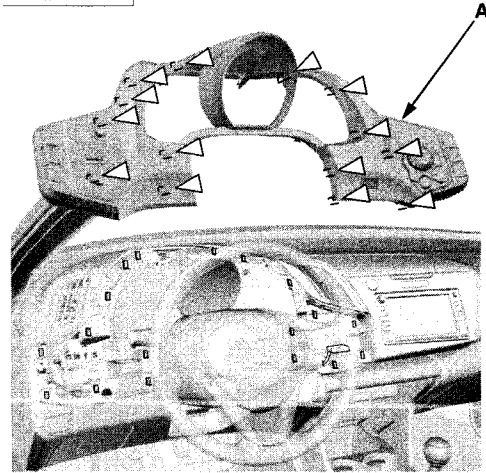
▷ : Clip, 2



4. Gently pull out along the edge of the instrument panel (A) to detach the clips, then remove it.

**Fastener Locations**

▷ : Clip, 14



5. Install the panel in the reverse order of removal, and note these items:

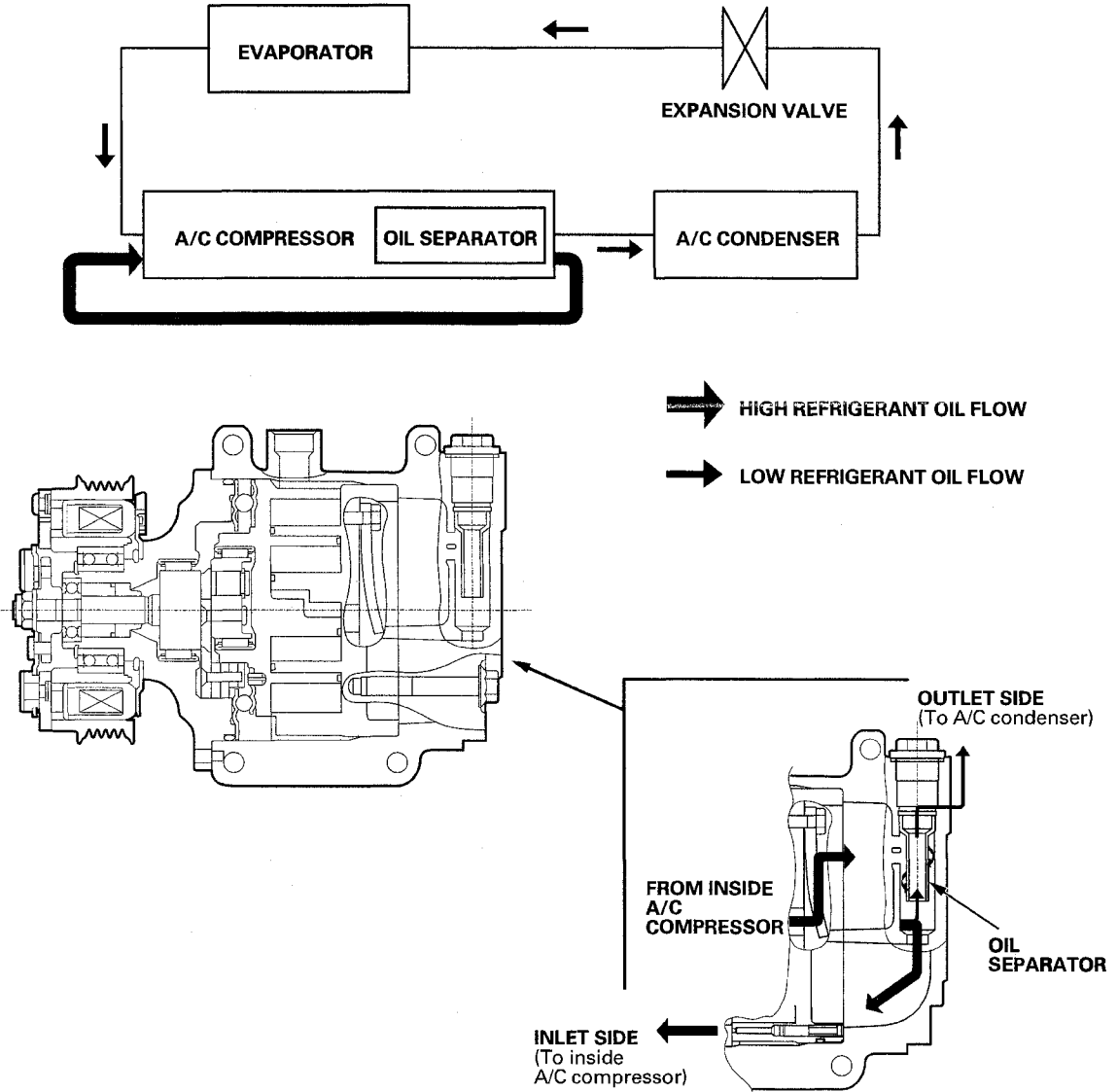
- If the clips are damaged or stress-whitened, replace them with new ones.
- Push the clips into place securely.
- Make sure each connector is plugged in properly.

# Climate Control

## System Description (cont'd)

### Oil Separator

Oil emission from the A/C compressor to the A/C line is reduced by placing the oil separator in the A/C compressor. This results in a thinner oil film inside of the heat exchangers (A/C condenser and evaporator). Air conditioning efficiency is increased without sacrificing engine performance.

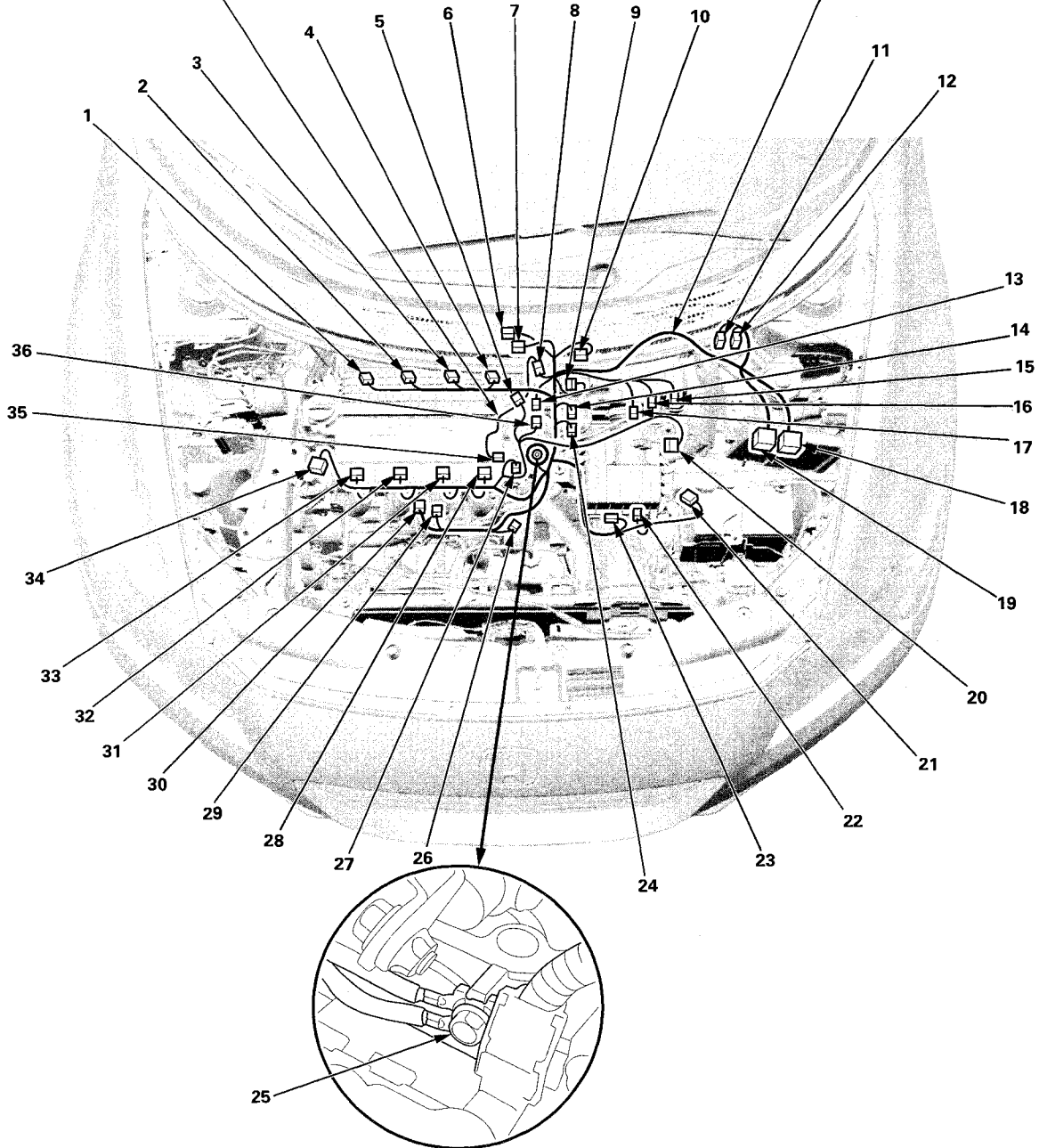




**M/T model**

**CKP SENSOR SUBHARNESS (JA)**

**ENGINE WIRE HARNESS (EB)**



(cont'd)

# Multiplex Integrated Control System

## System Description (cont'd)

### Key Interlock (CVT)

The MICU controls the key interlock solenoid based on inputs from each switch.

	Input	Output
MICU	Ignition switch (ACCESSORY) Transmission range switch (P) position Park-pin switch	Key interlock solenoid

### Security Alarm System

The MICU controls the exterior lights and the horn based on inputs from each switch.

	Input	Output
MICU	IG1 power supply Ignition key switch Audio switch Hatch latch switch Driver's door switch Passenger's door switch Driver's door key cylinder switch (LOCK/UNLOCK) Driver's door lock knob switch (UNLOCK) Passenger's door lock knob switch (UNLOCK) Security hood switch	Headlights (LO) Side marker lights Taillights License plate lights Horn
B-CAN	Keyless door lock signal Door lock signal	MICU (SET1) message MICU (SET2) message ALARM (ACTION) message

### Security Answer Back

The MICU controls the exterior lights and the horn based on keyless signals sent by B-CAN.

	Input	Output
MICU		Side marker lights Taillights License plate lights Horn

### Answer Back Response Operation\*

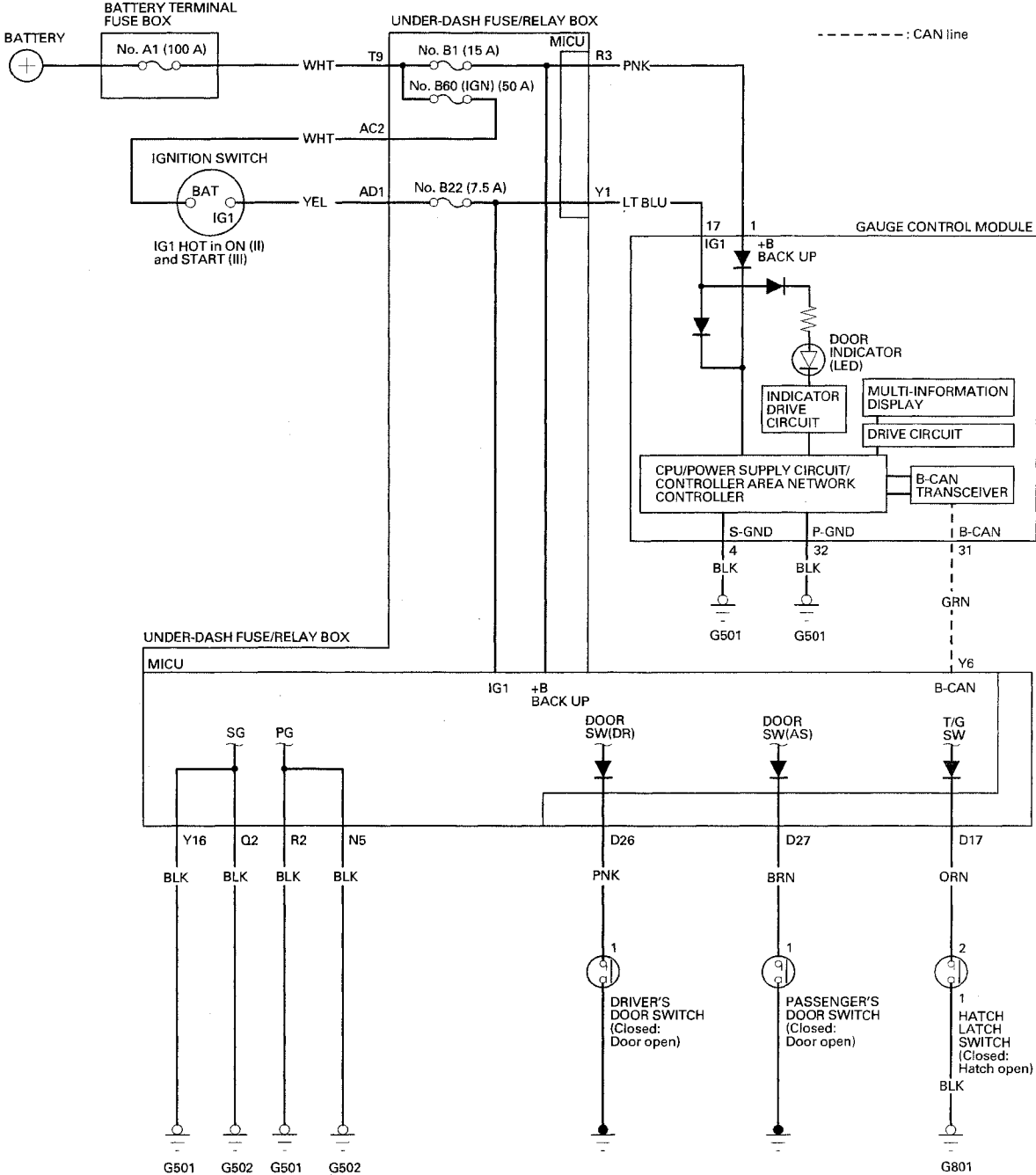
The MICU controls the lighting system and the horn based on keyless signals sent by B-CAN.

	Input	Output
MICU		Side marker lights Taillights License plate lights Horn
B-CAN	Answer back (PARKING) signal Answer back (HLLO) signal Answer back (HORN) signal	

\*: This system can be customized in the multi-information display (MID) to suit the customer's needs. For more information about the system options, refer to the Owner's Manual.



# Circuit Diagram

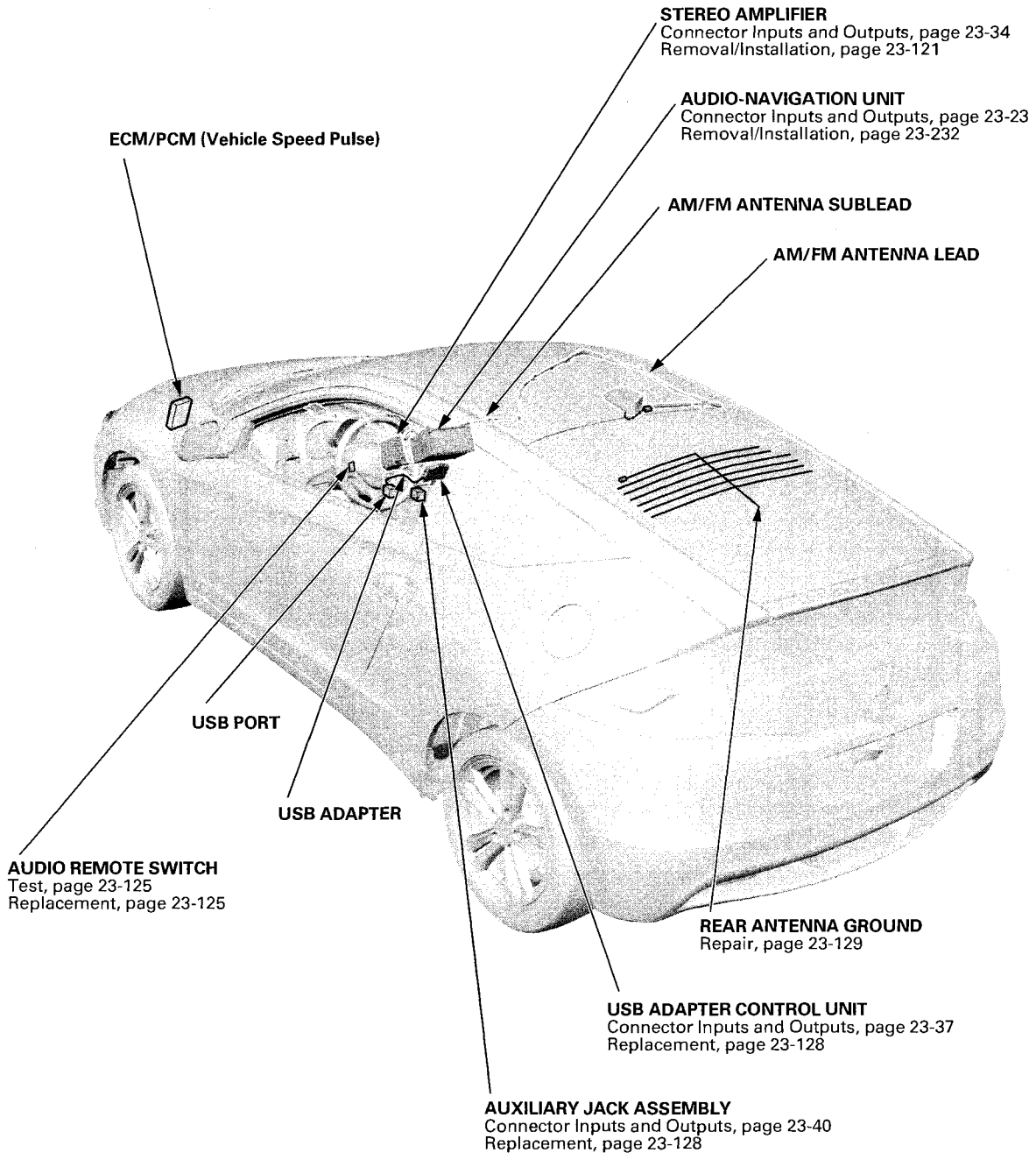


# Audio System



## Component Location Index

### With Navigation



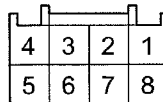
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# Navigation System

## System Description (cont'd)

### Audio-Navigation Unit Inputs and Outputs

AUDIO-NAVIGATION UNIT CONNECTOR C (8P)



Wire side of female terminals

Audio-Navigation Unit Connector C (8P)

Cavity	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
C1	BLK	GND	Ground for audio-navigation unit (G503)	0 V	If open: No effect on system. If short to ground: No effect on system.
C2	—	—	Not used	—	—
C3	—	—	Not used	—	—
C4	PNK	+B BACK UP	Continuous power source	Battery voltage	If open: Display picture goes out (display back light still on). NOTE: System will reboot to enter code screen. If short to ground: Blows fuse No. B1 (15 A) in the under-dash fuse/relay box.
C5	—	—	Not used	—	—
C6	—	—	Not used	—	—
C7	—	—	Not used	—	—
C8	LT GRN	BACK LT	Reverse signal of select lever (CVT model) or shift lever (M/T model) from Multiplex integrated Control unit (MICU)	In reverse: battery voltage, Otherwise: 0 V	If open: Navigation never sees the reverse signal. Diagnostic screen Car Status, Back = 0. If short to ground: Blows fuse No. B5 (10 A) in the under-dash fuse/relay box.