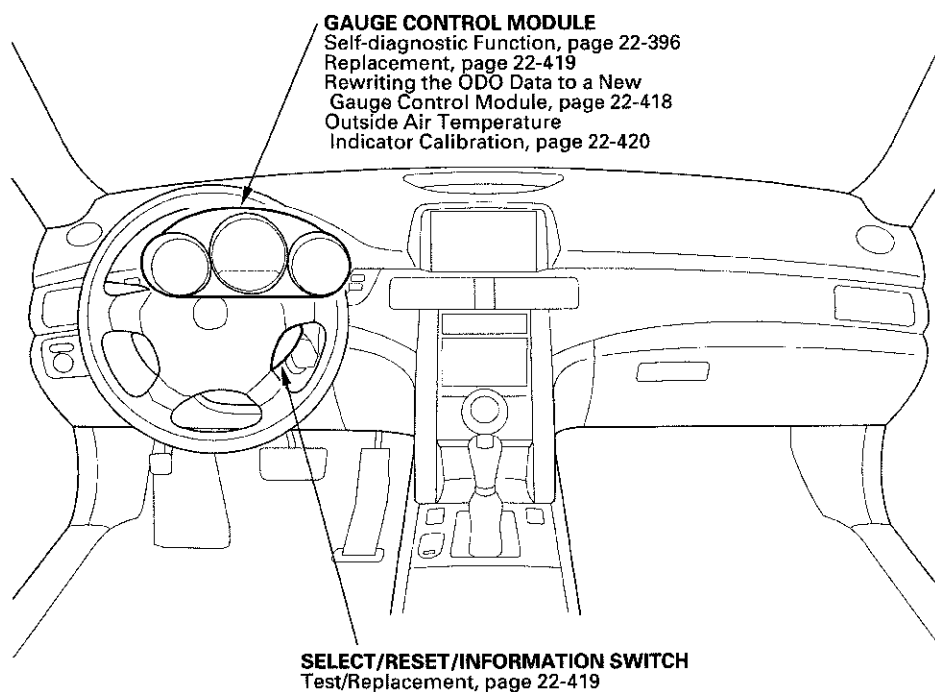
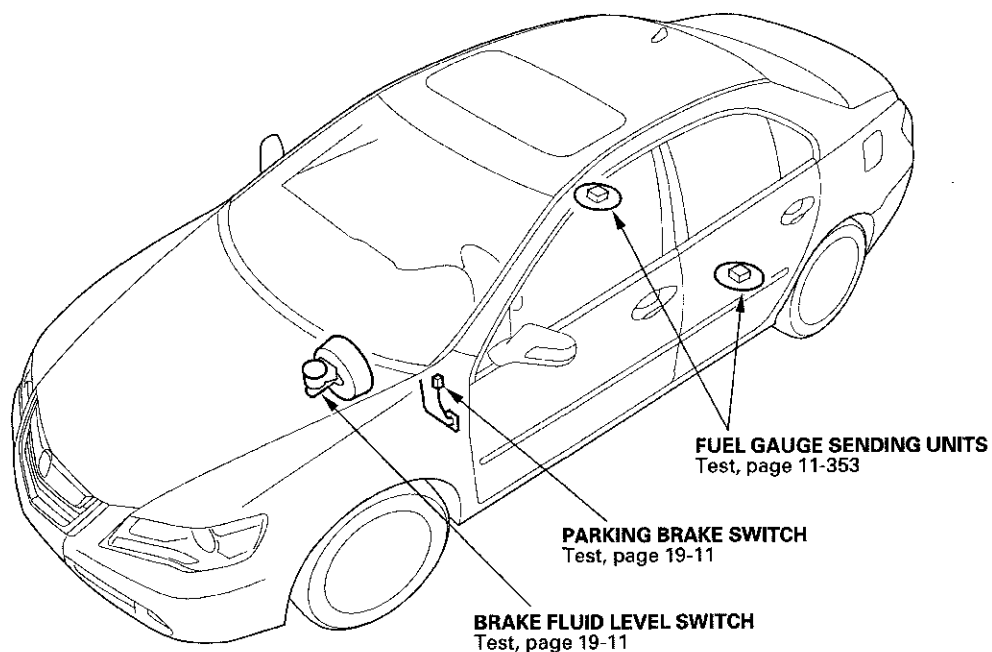
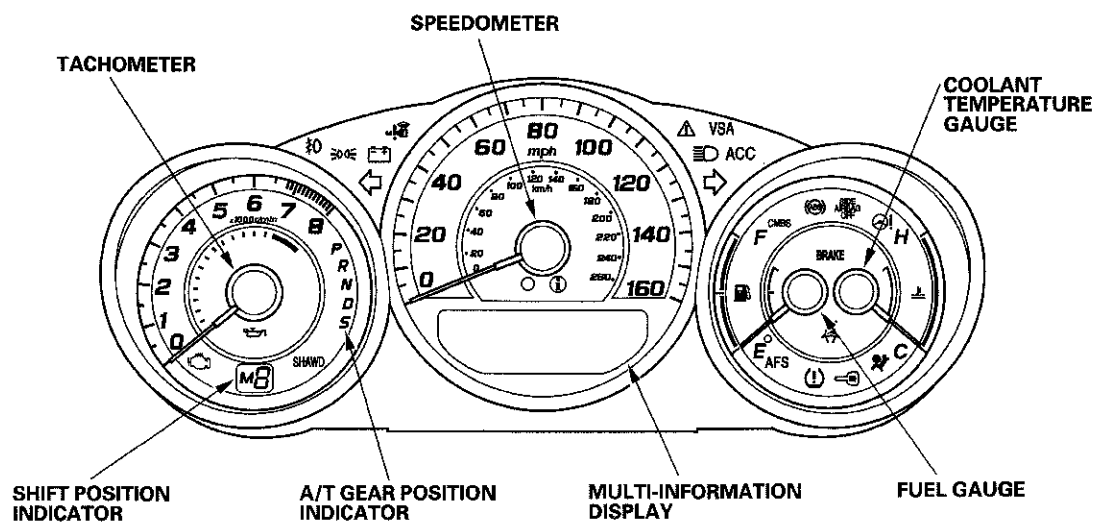
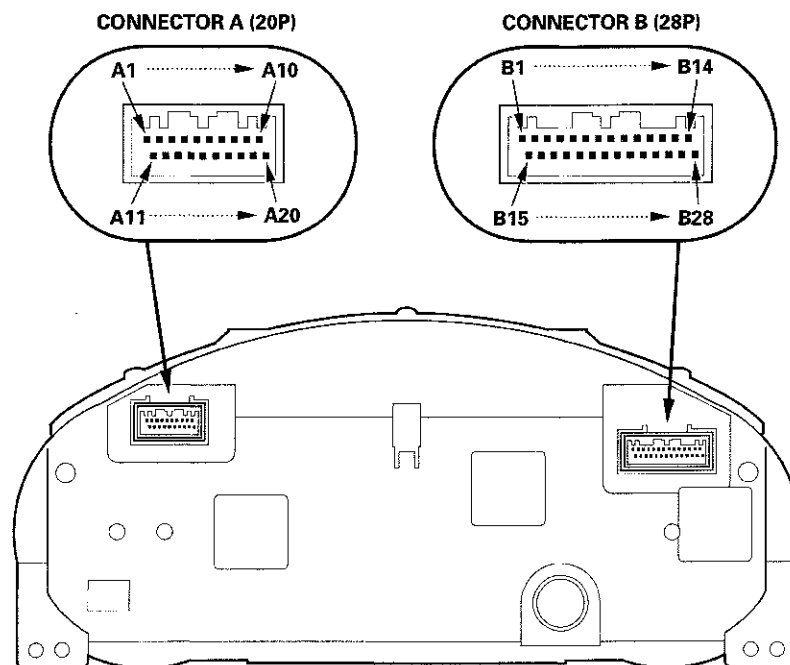


Gauges

Component Location Index





Gauges

Self-diagnostic Function

The gauge control module has a self-diagnostic function.

- The beeper drive circuit check.
- The indicator drive circuit check.
- The switch input test.
- The LCD segments check.
- The gauges drive circuit check (speedometer, tachometer, fuel gauge, coolant temperature gauge).
- The communication line check (of the body-controller area network (B-CAN) communication line and the fast-controller area network (F-CAN) communication line between the gauges).

NOTE: Indicators are also controlled via the communication line.

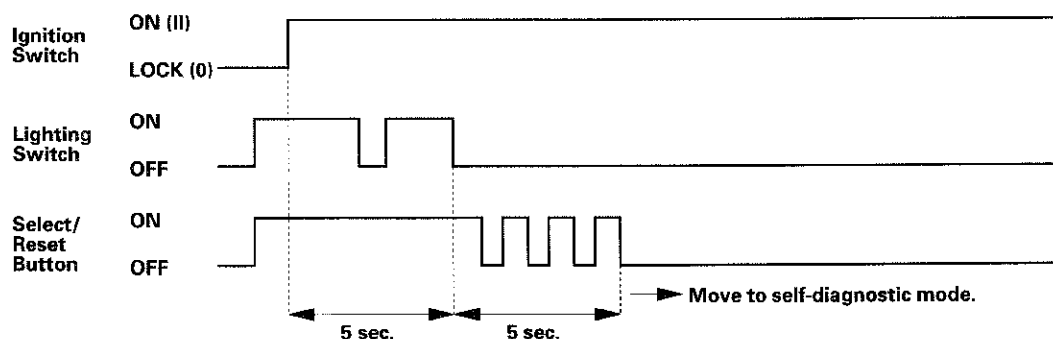
Entering the Self-diagnostic Function

Before doing the self-diagnostic function, check the No. 7 (10 A) fuse and the No. 21 (10 A) fuse in the driver's under-dash fuse/relay box.

1. Push and hold the SELECT/RESET button.
2. Turn the lighting switch (ON) ON.
3. Turn the ignition switch to ON (II).
4. Within 5 sec., turn the lighting switch (ON) OFF, then ON and OFF again.
5. Within 5 sec., release the SELECT/RESET button, and then push and release the button three times repeatedly.

NOTE:

- While in the self-diagnostic mode, the dash lights brightness controller operates normally.
- While in the self-diagnostic mode, the SELECT/RESET button is used to start the Beeper Drive Circuit Test and the Gauge Drive Circuit Check.
- If the vehicle speed exceeds 1.2 mph (2 km/h) or the ignition switch is turned to LOCK (0), the self-diagnostic mode ends.





The Indicator Drive Circuit Check

When entering the self-diagnostic mode, these indicators blink:

Seat belt indicator, charging system indicator, low fuel indicator, oil pressure indicator, high beam indicator, VSA indicator, VSA activation indicator, brake system indicator, fog light indicator, lights on indicator, malfunction indicator lamp (MIL), A/T gear position indicator, ABS indicator, SH-AWD indicator, AFS indicator, security indicator, message indicator, SRS indicator, ECPS indicator, cruise main indicator, ACC indicator, CMBS indicator and SHIFT position indicator.

Switch Input Check

After the intermittent beeper sounds at the initial stage of self-diagnostic mode, a beeper sounds continuously while any of the following switch inputs are switched from OFF to ON:

Parking brake switch, VSA OFF switch, cruise control MAIN, SET, RESUME, CANCEL switches, select, previous, next switches, DISTANCE switch A, DISTANCE switch B, CMBS OFF switch, and dash lights brightness controller (VOL (+), VOL (-)).

The LCD [Sport shift and multi-information display (MID)] Segment Check

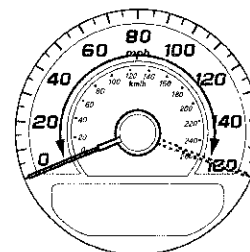
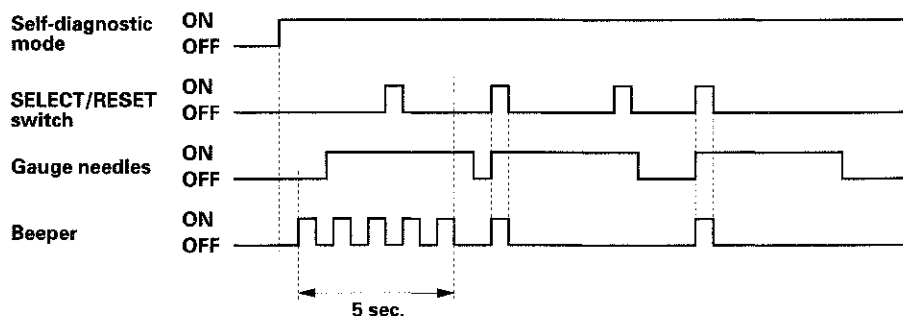
When entering the self-diagnostic mode, the letter "Checking Now" shows on the MID.



The Gauge Drive Circuit Check

When entering the self-diagnostic mode, the speedometer, the tachometer, the fuel gauge, and the coolant temperature gauge needles sweep from the minimum position to maximum position, then return to the minimum position.

NOTE: After the beeper stops sounding and the gauge needles return to the minimum position, pushing the SELECT/RESET button starts the Beeper Drive Circuit Check (one beep) and the Gauge Drive Circuit Check again. The check cannot be started again until the gauge needles return to the minimum position.



The needles sweep from the minimum position to the maximum position, then return to the minimum position.

If a needle fails to sweep or the beeper does not sound, replace the gauge control module.

(cont'd)

Gauges

Self-diagnostic Function (cont'd)

The Beeper Drive Circuit Check

When entering the self-diagnostic mode, the beeper sounds five times.

The Communication Line Check

While in the self-diagnostic mode, the Communication Line Check starts after the Multi-Information Display (MID) Check. If the communication line is functioning correctly, "OK" is indicated on the multi-information display (MID). If there is a communication line error, the "NG" is indicated on the MID.

Indication pattern

There is a malfunction in the communication line between the F-CAN and gauge control module. The B-CAN is OK at this time. Check for DTCs in the PCM and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-131).

COMMUNICATION CHECK
F-CAN-----NG
B-CAN-----OK

There is a malfunction in the communication line between the B-CAN and gauge control module. The F-CAN line is OK at this time. Go to B-CAN System Diagnosis Test Mode A (see page 22-131).

COMMUNICATION CHECK
F-CAN-----OK
B-CAN-----NG

There is a malfunction in the communication line between the gauge control module and the F-CAN and the B-CAN. Check for DTCs in the PCM, and troubleshoot any DTCs found. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see page 22-131).

COMMUNICATION CHECK
F-CAN-----NG
B-CAN-----NG

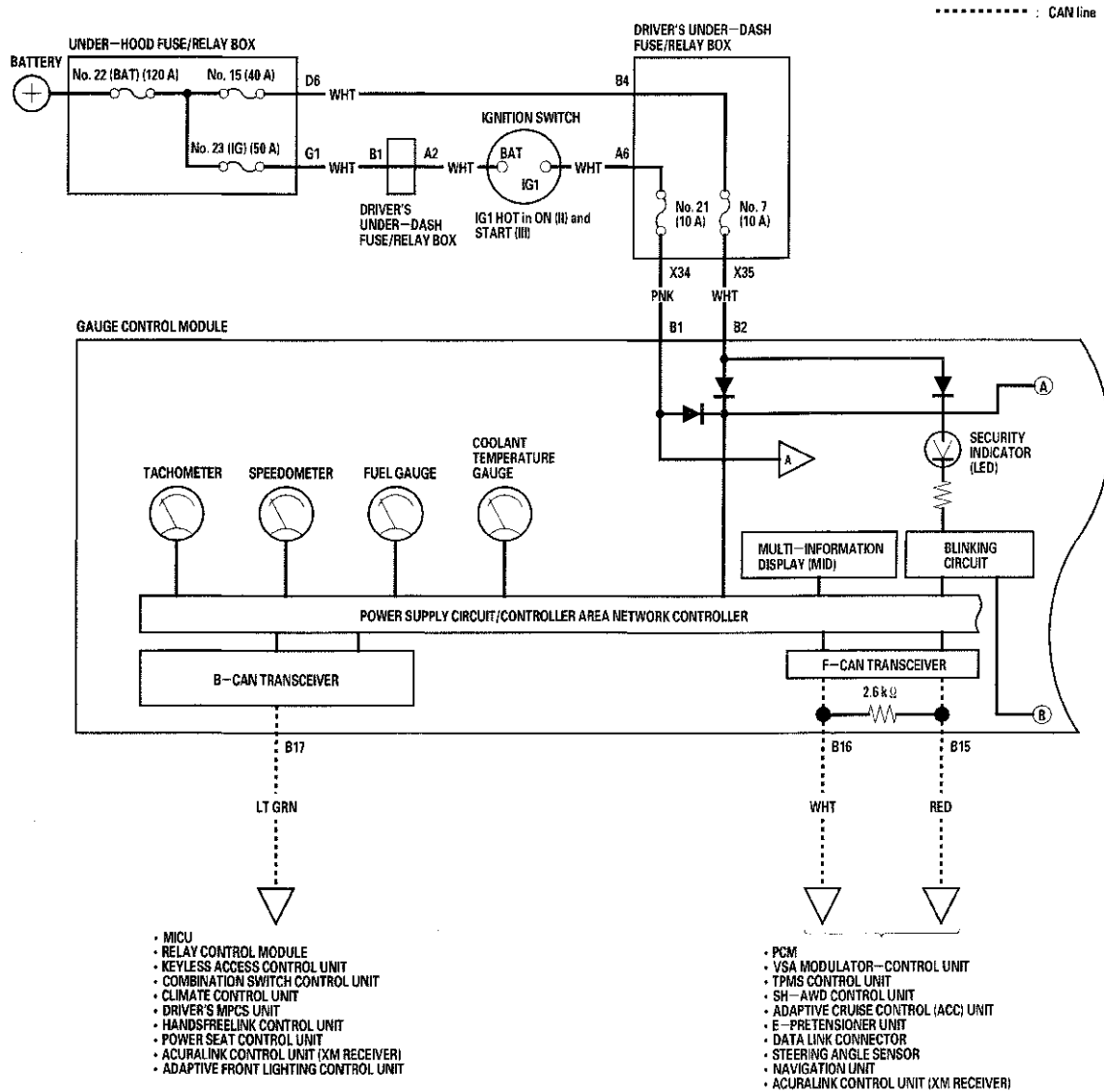
Ending the Self-diagnostic Function

Turn the ignition switch to LOCK (0).

NOTE: If the vehicle speed exceeds 1.2 mph (2 km/h), the self-diagnostic function ends.



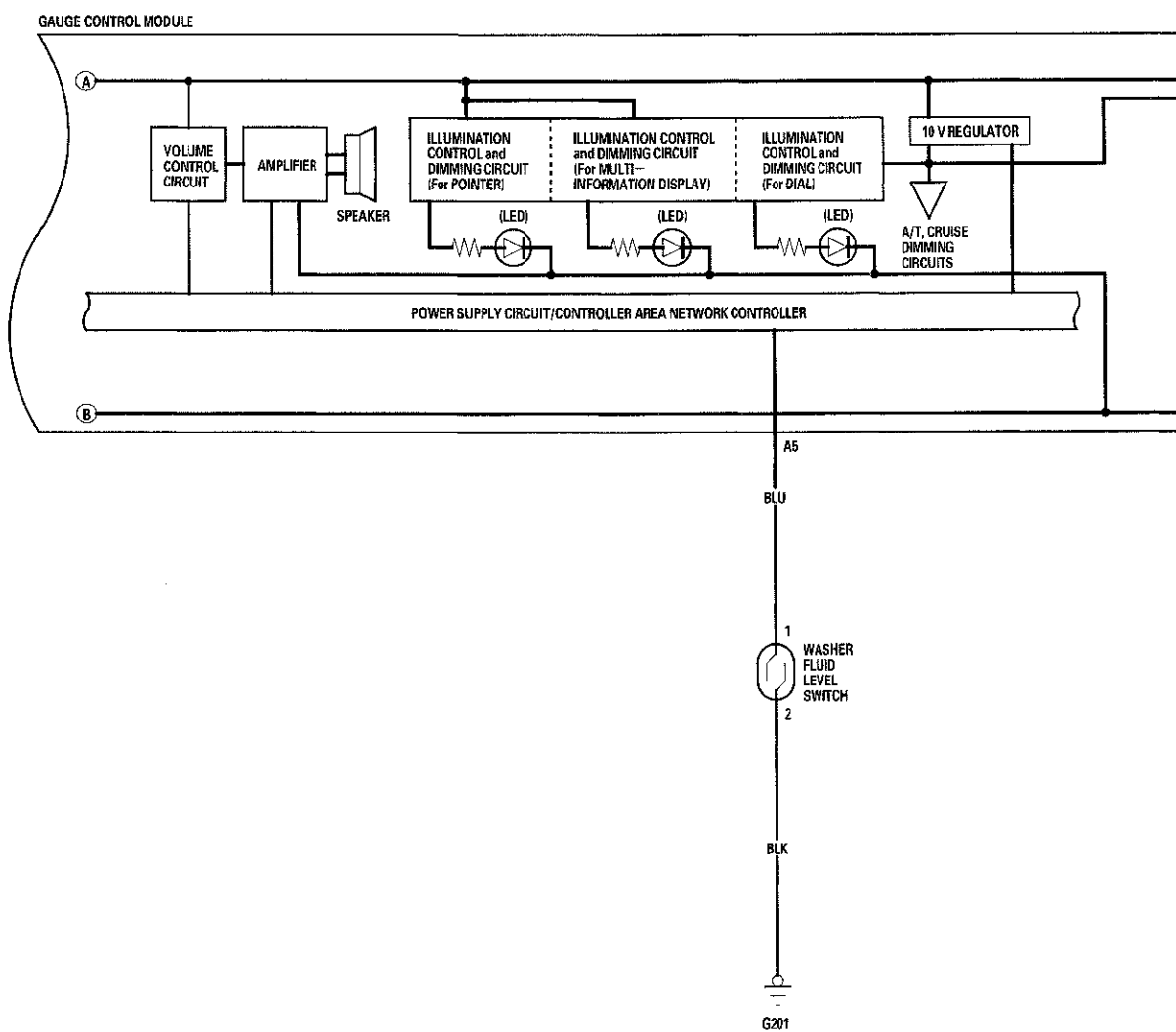
Circuit Diagram

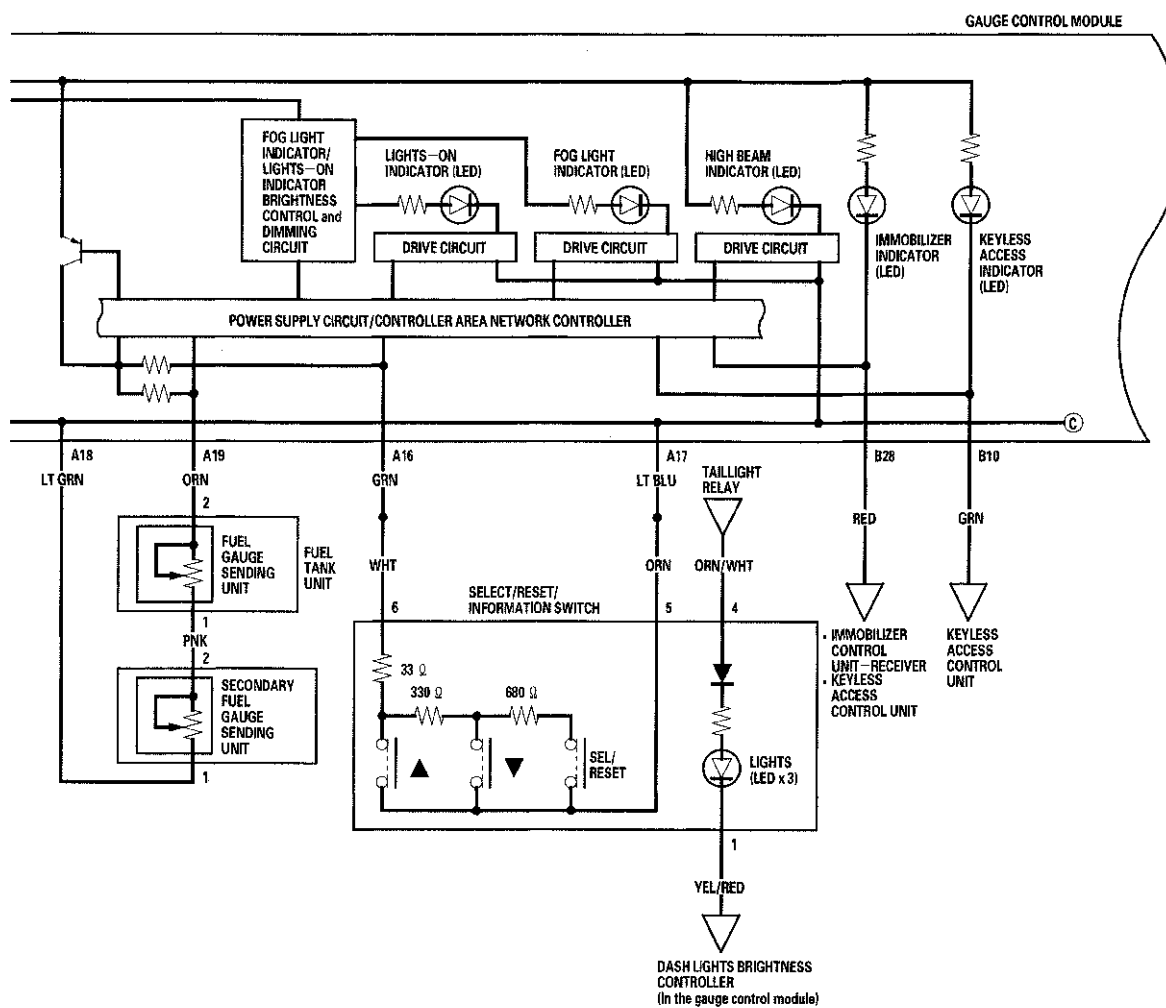


(cont'd)

Gauges

Circuit Diagram (cont'd)

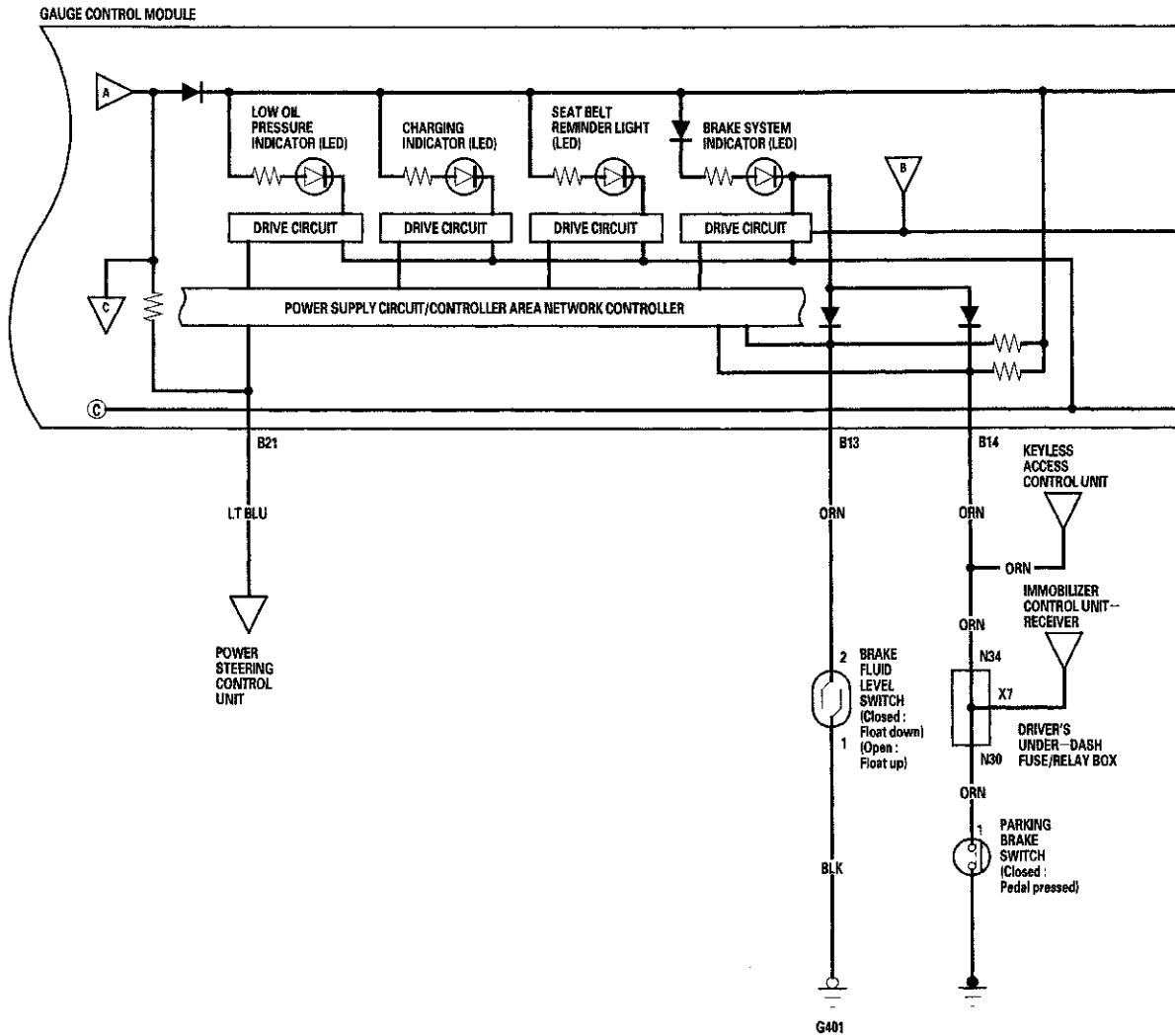




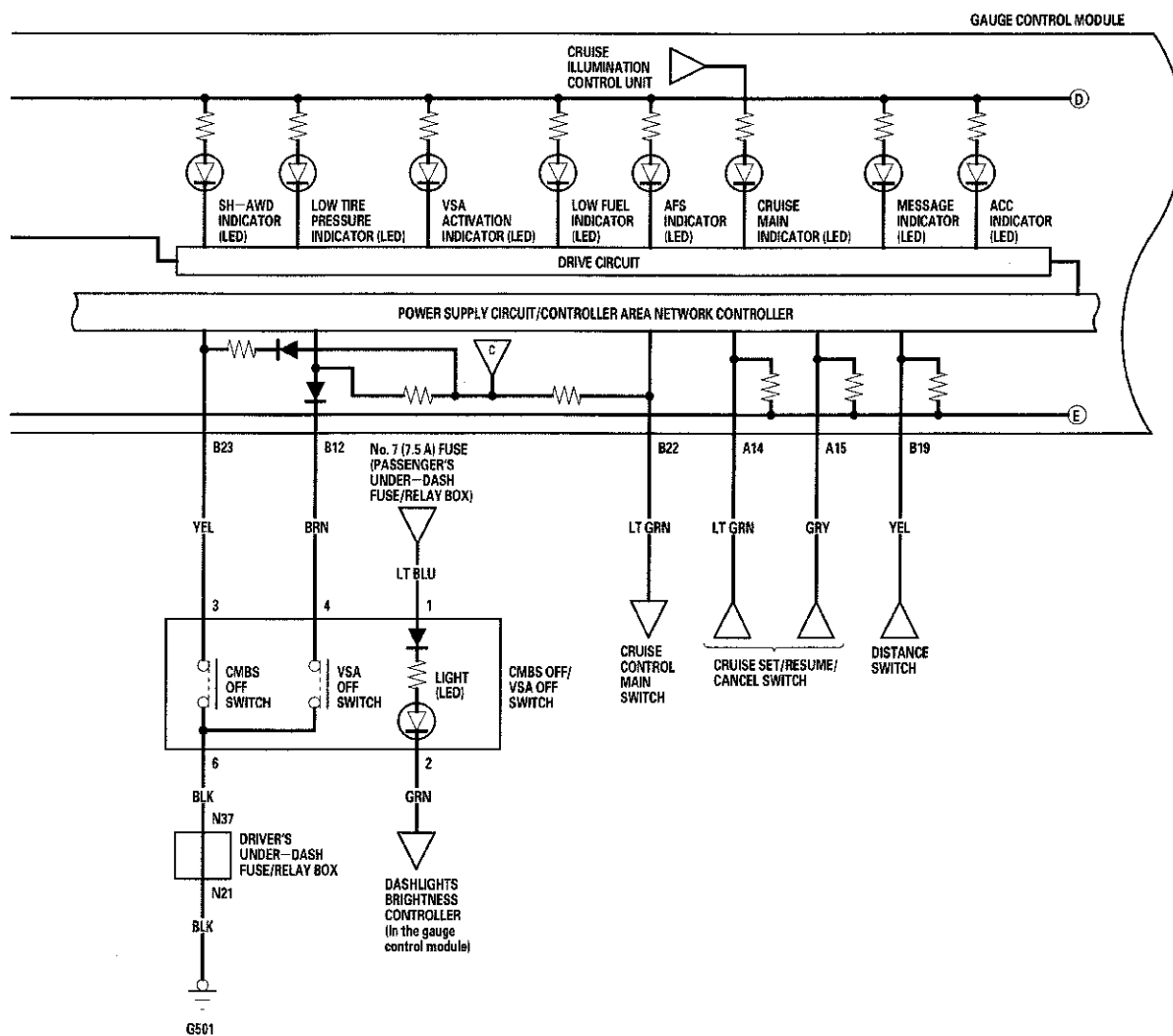
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Gauges

Circuit Diagram (cont'd)



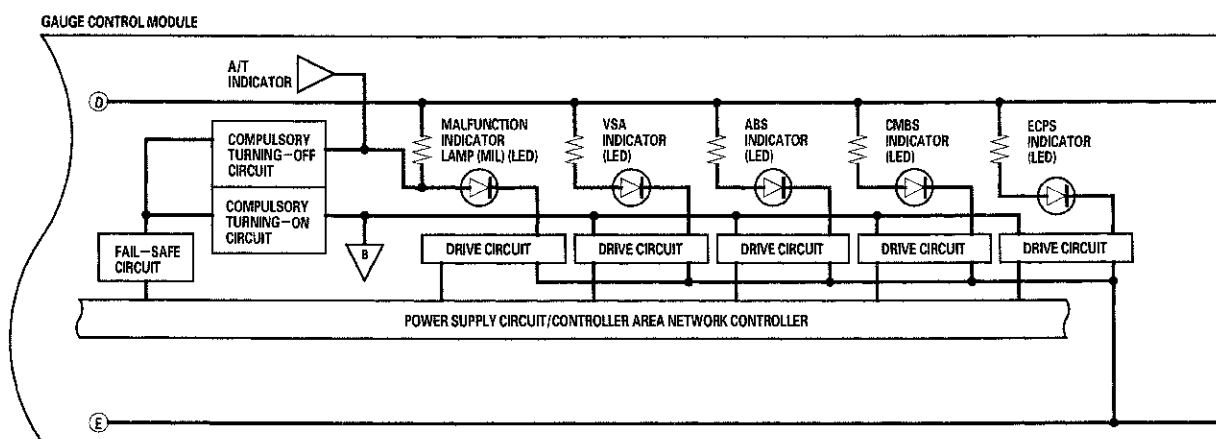
cardiagn.com

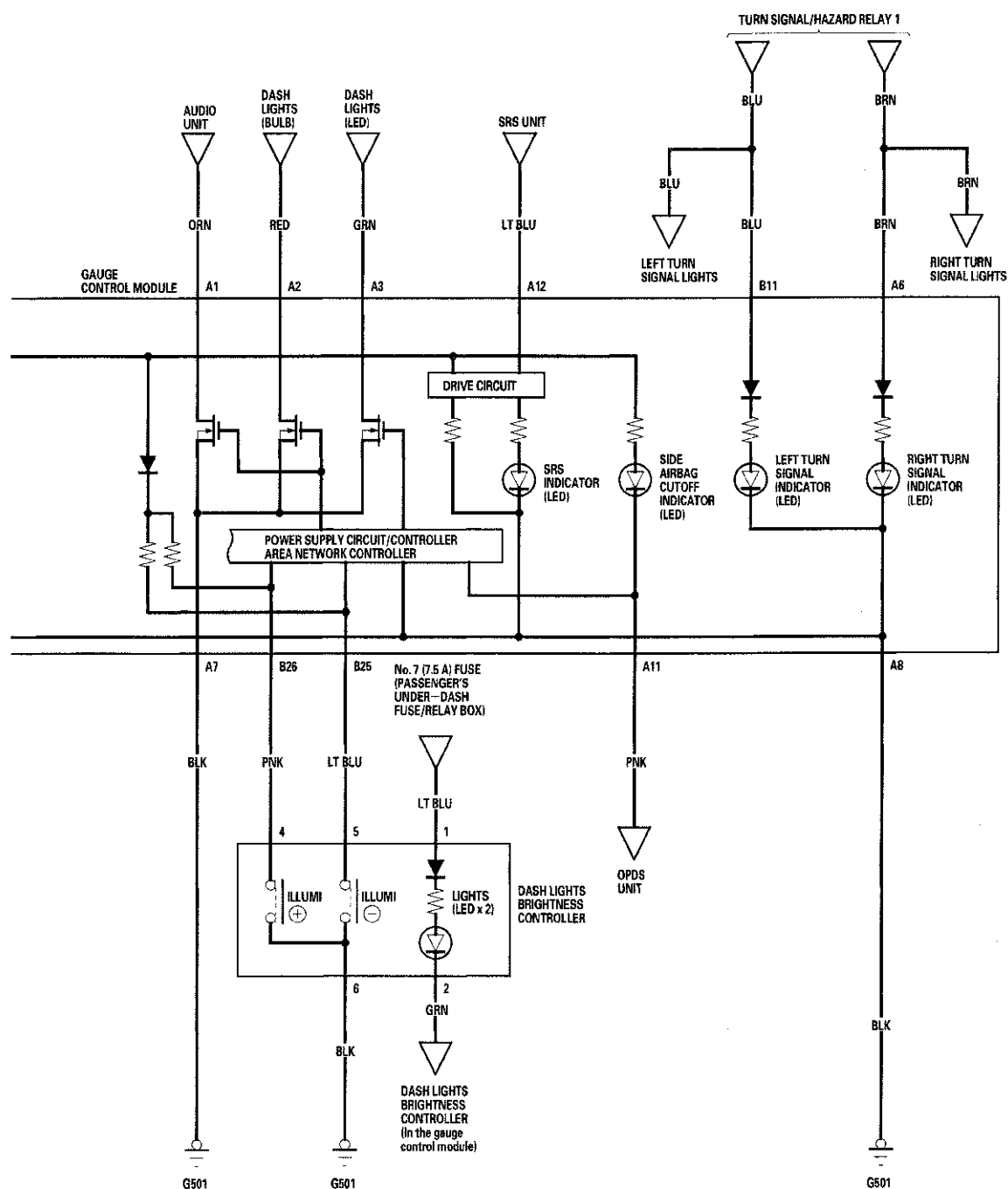


(cont'd)

Gauges

Circuit Diagram (cont'd)





Gauges

DTC Troubleshooting

DTC B1152: Gauge Control Module Internal (EEPROM) Error

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1152 indicated?

YES—Replace the gauge control module (see page 22-419). ■

NO—Intermittent failure, the system is OK at this time. ■

DTC B1155: Gauge Control Module Lost Communication With Combination Switch Control Unit (HLSW Message)

DTC B1156: Gauge Control Module Lost Communication With Combination Switch Control Unit (WIPSW Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1155 and/or B1156 indicated?

YES—Go to step 5.

NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections between the gauge control module and combination switch control unit. ■

5. Check for DTCs with the HDS.

Are DTCs B1007, B1062, B1063, and/or B2108 also indicated?

YES—Do the combination switch control unit input test (see page 22-382). ■

NO—Do the gauge control module input test (see page 22-155). ■



DTC B1157: Gauge Control Module Lost Communication With MICU (MICU Message)

DTC B1180: Gauge Control Module Lost Communication With MICU (AUTOLT Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1157 and/or B1180 indicated?

YES—Go to step 5.

NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections between the gauge control module and MICU. ■

5. Check for DTCs with the HDS.

Are DTCs B1055, B1056, B1255, B1806, B2107, and/or B2155 also indicated?

YES—Do the MICU input test (see page 22-152). ■

NO—Do the gauge control module input test (see page 22-155). ■

DTC B1158: Gauge Control Module Lost Communication With Relay Control Module (RM Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1158 indicated?

YES—Go to step 5.

NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections between the gauge control module and relay control module. ■

5. Check for DTCs with the HDS.

Is DTC B1005 also indicated?

YES—Do the relay control module input test (see page 22-158). ■

NO—Do the gauge control module input test (see page 22-155). ■

Gauges

DTC Troubleshooting (cont'd)

DTC B1161: Gauge Control Module Lost Communication With Keyless Access Control Unit (REMOTE ID Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1161 indicated?

YES—Go to step 5.

NO—Intermittent failure, the gauge control system is OK at this time. ■

5. Check for DTCs with the HDS.

Is DTC B2159 also indicated?

YES—Do the keyless access control unit input test (see page 22-623). ■

NO—Do the gauge control module input test (see page 22-155). ■

DTC B1166: Gauge Control Module Lost Communication With Adaptive Front Lighting Control Unit (AFS Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1166 indicated?

YES—Do the adaptive front lighting control unit input test (see page 22-268). ■

NO—Do the gauge control module input test (see page 22-155). ■



DTC B1168: Gauge Control Module Lost Communication With PCM (ENG Message)

DTC B1169: Gauge Control Module Lost Communication With the PCM (A/T Message)

DTC B1178: F-CAN Communication Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (III).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Are DTCs B1168, B1169, and/or B1178 indicated?

YES—Go to step 5.

NO—Intermittent failure, the system is OK at this time. Check for loose or poor connection between the gauge control module and PCM. ■

5. Check for Fuel and Emissions Systems DTCs with the HDS.

Are there any DTCs indicated?

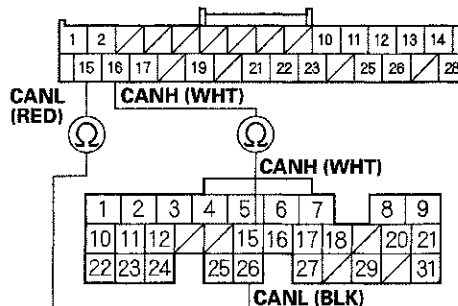
YES—Go to the indicated DTCs troubleshooting, then recheck. ■

NO—Go to step 6.

6. Turn the ignition switch to LOCK (0).
7. Disconnect gauge control module connector B (28P).
8. Short the SCS line with the HDS.
9. Disconnect PCM connector E (31P).

10. Check for continuity between gauge control module connector B (28P) terminals No. 15 and No. 16 and PCM connector terminals E15 and E26 individually.

GAUGE CONTROL MODULE CONNECTOR B (28P)
Wire side of female terminals



PCM CONNECTOR E (31P)
Wire side of female terminals

Is there continuity?

YES—Update the PCM if it does not have the latest software (see page 11-230), or substitute a known-good PCM (see page 11-7), and recheck. If the indication goes away, replace the original PCM (see page 11-232). If the DTC is still present, replace the gauge control module (see page 22-419). ■

NO—Repair an open in the wire. ■

Gauges

DTC Troubleshooting (cont'd)

DTC B1170: Gauge Control Module Lost Communication With VSA/ABS Modulator-Control Unit (VSA/ABS Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for DTCs with the HDS.

Is DTC B1170 indicated?

YES—Go to step 4.

NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-90) and the charging system (see page 4-30). ■

4. Check for VSA System DTCs with the HDS.

Are any DTCs indicated?

YES—Go to the indicated DTCs troubleshooting. ■

NO—Go to step 5.

5. Do the gauge control module input test (see page 22-155).

Are all inputs OK?

YES—Go to step 6.

NO—Repair the faulty input, then recheck for DTCs. ■

6. Substitute a known-good gauge control module.
7. Clear the DTCs with the HDS.
8. Turn the ignition switch to LOCK (0), and then back to ON (II).
9. Check for the DTCs with the HDS.

Is DTC B1170 indicated?

YES—Substitute a known-good VSA modulator-control unit, and recheck. ■

NO—The original gauge control module is faulty; replace it (see page 22-419). ■



DTC B1171: Gauge Control Module Lost Communication With Adaptive Cruise Control Unit (ACC Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the DTCs with the HDS.

Is DTC B1171 indicated?

YES—Go to step 4.

NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-90) and the charging system (see page 4-30). ■

4. Check for Adaptive Cruise Control System DTCs with the HDS.

Are any DTCs indicated?

YES—Go to the indicated DTCs troubleshooting. ■

NO—Go to step 5.

5. Do the gauge control module input test (see page 22-155).

Are all inputs OK?

YES—Go to step 6.

NO—Repair the faulty input, then recheck for DTCs. ■

6. Substitute a known-good gauge control module.

7. Clear the DTCs with the HDS.

8. Turn the ignition switch to LOCK (0), and then back to ON (II).

9. Check for DTCs with the HDS.

Is DTC B1171 indicated?

YES—Substitute a known-good adaptive cruise control unit, and recheck. ■

NO—The original gauge control module is faulty; replace it (see page 22-419). ■

Gauges

DTC Troubleshooting (cont'd)

DTC B1173: Gauge Control Module Lost Communication With TPMS Control Unit (TPMS Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for DTCs with the HDS.

Is DTC B1173 indicated?

YES—Go to step 4.

NO—Intermittent failure, the F-CAN communication line is OK at this time. Check for loose or poor connections. If the connections are good, check the battery condition (see page 22-90) and the charging system (see page 4-30). ■

4. Check for TPMS DTCs with the HDS.

Are any DTCs indicated?

YES—Go to the indicated DTCs troubleshooting. ■

NO—Go to step 5.

5. Do the gauge control module input test (see page 22-155).

Are all inputs OK?

YES—Go to step 6.

NO—Repair the faulty input, then recheck for DTCs. ■

6. Substitute a known-good gauge control module.
7. Clear the DTCs with the HDS.
8. Turn the ignition switch to LOCK (0), and then back to ON (II).
9. Check for DTCs with the HDS.

Is DTC B1173 indicated?

YES—Substitute a known-good TPMS control unit, and recheck. ■

NO—The original gauge control module is faulty; replace it (see page 22-419). ■



DTC B1175: Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Open

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 30 seconds.
4. Check for DTCs with the HDS.

Is DTC B1175 indicated?

YES—Go to step 5.

NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections. ■

5. Do the fuel gauge sending unit test (see page 11-353).

Is the fuel gauge sending unit OK?

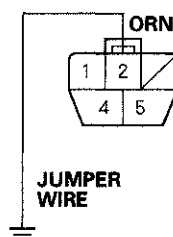
YES—Go to step 6.

NO—Replace the fuel gauge sending unit. ■

6. Turn the ignition switch to LOCK (0).
7. Disconnect the fuel pump 5P connector (see page 11-353).
8. Disconnect gauge control module connector A (20P).

9. Connect fuel pump 5P connector terminal No. 2 to body ground with a jumper wire.

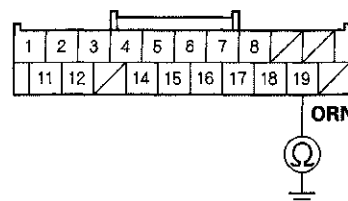
FUEL PUMP 5P CONNECTOR



Wire side of female terminals

10. Check for continuity between gauge control module connector A (20P) terminal No. 19 and body ground.

GAUGE CONTROL MODULE CONNECTOR A (20P)



Wire side of female terminals

Is there continuity?

YES—Go to step 11.

NO—Repair an open in the wire. ■

11. Disconnect the secondary fuel gauge sending unit 5P connector (see page 11-353).

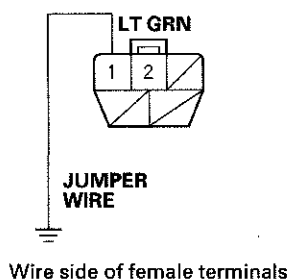
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Gauges

DTC Troubleshooting (cont'd)

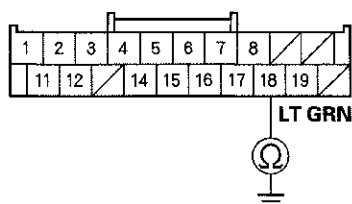
12. Connect secondary fuel gauge sending unit 5P connector terminal No. 1 to body ground with a jumper wire.

SECONDARY FUEL GAUGE SENDING UNIT 5P CONNECTOR



13. Check for continuity between gauge control module connector A (20P) terminal No. 18 and body ground.

GAUGE CONTROL MODULE CONNECTOR A (20P)



Is there continuity?

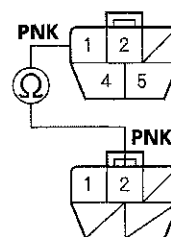
YES—Go to step 14.

NO—Repair an open in the wire. ■

14. Check for continuity between fuel tank unit 5P connector terminal No. 1 and secondary fuel gauge sending unit 5P connector terminal No. 2.

FUEL TANK UNIT 5P CONNECTOR

Wire side of female terminals



SECONDARY FUEL GAUGE SENDING UNIT 5P CONNECTOR

Wire side of female terminals

Is there continuity?

YES—Replace the gauge control module (see page 22-419). ■

NO—Repair an open in the wire. ■



DTC B1176: Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0) and then back to ON (II).
3. Wait for at least 30 seconds.
4. Check for DTCs with the HDS.

Is DTC B1176 indicated?

YES—Go to step 5.

NO—Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■

5. Test the fuel gauge sending unit (see page 11-353).

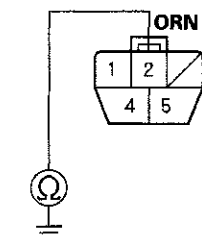
Is the fuel gauge sending unit OK?

YES—Go to step 6.

NO—Replace the fuel gauge sending unit. ■

6. Turn the ignition switch to LOCK (0).
7. Disconnect the fuel tank unit 5P connector (see page 11-353).
8. Disconnect gauge control module connector A (20P).
9. Check for continuity between fuel tank unit 5P connector terminal No. 2 and body ground.

FUEL TANK UNIT 5P CONNECTOR



Wire side of female terminals

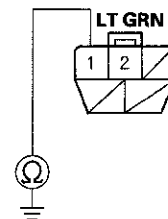
Is there continuity?

YES—Repair a short to ground in the wire. ■

NO—Go to step 10.

10. Disconnect the secondary fuel gauge sending unit 5P connector (see page 11-353).
11. Check for continuity between secondary fuel gauge sending unit 5P connector terminal No. 1 and body ground.

SECONDARY FUEL GAUGE SENDING UNIT 5P CONNECTOR



Wire side of female terminals

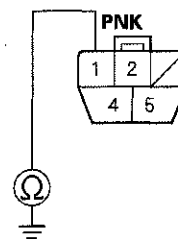
Is there continuity?

YES—Repair a short to ground in the wire. ■

NO—Go to step 12.

12. Check for continuity between fuel tank unit 5P connector terminal No. 1 and body ground.

FUEL TANK UNIT 5P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Repair a short to ground in the wire. ■

NO—Replace the gauge control module (see page 22-419). ■

Gauges

DTC Troubleshooting (cont'd)

DTC B1177: Battery Voltage Abnormal

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for DTCs with the HDS.

Is DTCs B1177 indicated?

YES—Go to step 8.

NO—Go to step 4.

4. Clear the DTCs with the HDS.
5. Turn the ignition switch to LOCK (0), and then back to ON (II).
6. Crank the engine.
7. Check for DTCs with the HDS.

Is DTCs B1177 indicated?

YES—Go to step 8.

NO—Intermittent failure, the gauge control module and power supply voltage (IG1) that is supplied to the gauge control module are OK at this time. The battery may have been discharged, and recovered. ■

8. Check the battery (see page 22-90) and the charging system.

Are the battery condition normal and the charging system OK?

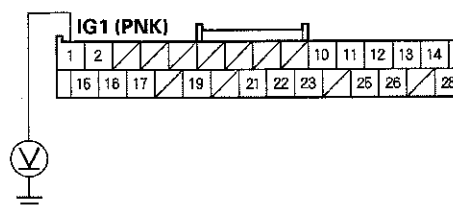
YES—Go to step 9.

NO—The battery needs a recharge or replacement, or the charging system needs repair. ■

9. Turn the ignition switch to ON (II).

10. With gauge control module connector B (28P) still connected, measure the voltage between terminal No. 1 and body ground.

GAUGE CONTROL MODULE CONNECTOR B (28P)



Wire side of female terminals

Is the voltage above 7.5 V?

YES—Replace the gauge control module. ■

NO—Repair an open or high resistance in the IG1 line between the ignition switch and the gauge control module. ■



DTC B1181: Gauge Control Module Lost Communication With Driver's MPCS Unit (DOORSW Message)

DTC B1182: Gauge Control Module Lost Communication With Driver's MPCS Unit (DRLOKSW Message)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-131).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Wait for at least 6 seconds.
4. Check for DTCs with the HDS.

Is DTC B1181 and/or B1182 indicated?

YES—Go to step 5.

NO—Intermittent failure, the gauge control module is OK at this time. Check for loose or poor connections. ■

5. Check for DTCs with the HDS.

Are DTCs B1014, B1015, B1064, B1065, B1613, B1614, and B1811 also indicated?

YES—Do the driver's MPCS input test (see page 22-159). ■

NO—Do the gauge control module input test (see page 22-155). ■

Gauges

Rewriting the ODO Data and Transferring the Maintenance Minder Data to a New Gauge Control Module

NOTE:

- Obtain a new gauge control module before starting the rewriting process. Only new gauges can be rewritten.
- Rewriting is not possible on a gauge control module that will not communicate with the HDS.
- Make sure that the HDS shows the correct VIN for the vehicle you are working on.
- Once you have started this procedure, you must complete it before removing the HDS from the DLC.
- Connect a battery jumper box (not a battery charger) to ensure that correct battery voltage will be maintained.
- Check any official Honda service website for more service information about the odometer.

1. Before replacing the gauge control module, connect the HDS.
2. Select GAUGES from the BODY ELECTRICAL menu with the HDS.
3. Select Gauge Control Module Replacement (ODO Rewrite) from the ADJUSTMENT menu, and follow the instructions on the display to retrieve the ODO value and the Maintenance Minder Information.
4. Replace the gauge control module (see page 22-419).
5. Follow the instructions on the display to write the new ODO value and Maintenance Minder Data to the new gauge control module. If the data transfer fails, refer to the instructions below to release the locked ODO value.

How to release locked odometer mileage to the original gauge control module.

If, after you attempt to transfer mileage to a new gauge assembly, the odometer display has dashes (— — —), is garbled, or shows an incorrect value, the original gauge control module can be unlocked and restored to its original state so that it can be used again for additional attempts to transfer the mileage:

1. Confirm that you have the latest HDS version of software.
2. Make sure that the HDS shows the correct VIN for the vehicle you are working on.

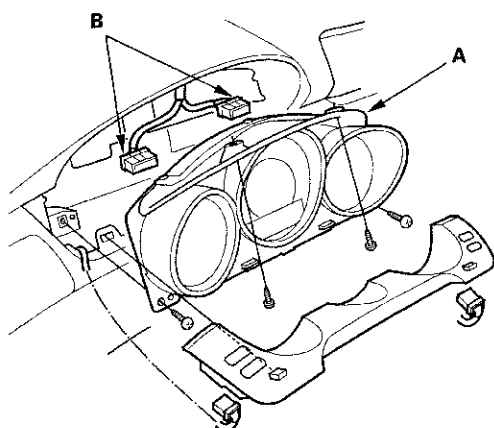
3. With the ignition switch in LOCK (0), reconnect the original gauge control module.
4. Completely re-boot the HDS.
5. Clear any stored DTCs.
6. Navigate to BODY ELECTRIC/GAUGES/ADJUSTMENT/INSTRUMENT PANEL REPLACEMENT.
7. Select 3. RELEASING LOCKED ODO VALUE.
8. Follow the prompts and the odometer mileage will be restored.
9. Start over and make sure the screen prompts are followed.



Gauge Control Module Replacement

NOTE: Before replacing the gauge control module, do the "Rewriting the ODO Data and Transferring the Maintenance Minder Data to a New Gauge Control Module" (see page 22-418).

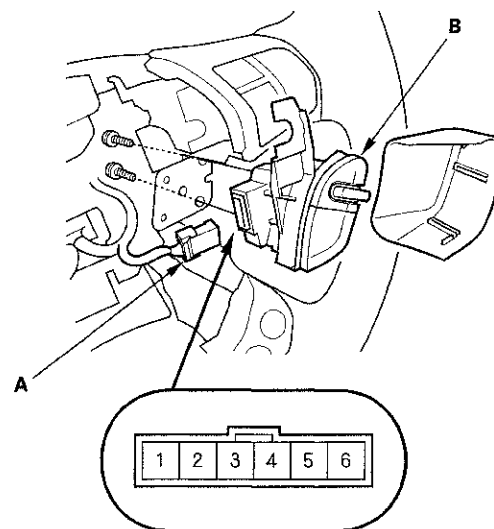
1. Remove the instrument fascia (see page 20-99).
2. Remove the screws from the gauge control module (A).



3. Disconnect the connectors (B), and remove the gauge control module.
4. Install the gauge control module in the reverse order of removal.

Select/Reset/Information Switch Test/Replacement

1. Remove the driver's airbag assembly (see page 24-197).
2. Disconnect the 6P connector (A) from the select/reset/information switch (B).



3. Measure the resistance between select/reset/information switch 6P connector terminals No. 6 and No. 5 in each switch position according to the table.

Position	Resistance
▲	About 33 Ω
SEL/RESET	About 1,043 Ω
▼	About 363 Ω

4. If the resistance is not as specified, remove the two screws, and replace the switch.
5. If the switch is OK, but there is a problem with the switch function, check the steering switches harness and cable reel.

Gauges

Outside Air Temperature Indicator Calibration

NOTE: To test the outside air temperature sensor (see page 21-73).

Description

The outside temperature sensor is located behind the right side of the front bumper. The gauge control module uses measurements from this sensor to display the outside air temperature.

Because of the location of the sensor, it may be affected by heat reflection from the road, engine and radiator heat, or hot exhaust from surrounding traffic. These conditions can heat soak the outside air temperature sensor, and cause inaccurate readings. Logic has been written into the gauge control module to help prevent abnormal or fluctuating outside air temperature indicator readings.

Outside Air Temperature Indicator Logic

Initial outside air temperature indication after the ignition switch is turned to ON (II).

If the engine coolant temperature is 140 °F (60 °C) or higher when the ignition switch is turned to ON (II), the outside air temperature indicated the last time the key was turned off is displayed regardless of the current temperature measured by the outside air temperature sensor.

If the engine coolant temperature is less than 140 °F (60 °C) or lower when the ignition switch is turned to ON (II), the current temperature measured by the outside air temperature sensor will be indicated.

Update to the outside air temperature indicator while driving

If the temperature measured by the outside air temperature sensor is greater than the temperature on the outside air temperature indicator, the outside temperature indicator will increase by 1 °F (1 °C) per minute after the vehicle speed is greater than 19 mph (30 km/h) for more than 30 seconds. It will increase until the current outside air temperature is indicated. So, the first change to the outside air temperature indicator is 1 minute and 30 seconds after the vehicle speed is greater than 19 mph (30 km/h). If the vehicle speed drops below 19 mph (30 km/h), the indicator does not update again until the vehicle speed is increased to 19 mph (30 km/h) or more for more than 1 minute and 30 seconds again.

If the outside air temperature is greater than that displayed, the temperature increases 1 °F (1 °C) every 2 seconds until the current outside air temperature displayed.

If the outside air temperature is less than that indicated, the temperature decreases 1 °F (1 °C) every 2 seconds until the current outside air temperature is indicated regardless of vehicle speed.

Troubleshooting

If the indicator displays “— — —” for more than 2 seconds after selecting the outside air temperature display mode, the gauge control module is not receiving the outside temperature data from the climate control unit over the B-CAN. Check the climate control system or multiplex integrated control system for DTCs (see B-CAN System Diagnosis Test Mode A) (see page 22-131).

Calibration

The outside air temperature indicator's displayed temperature can be recalibrated ± 5 °F or ± 3 °C to meet the clients expectations.

Calibrate the outside air temperature with the HDS or by custom memory setting.