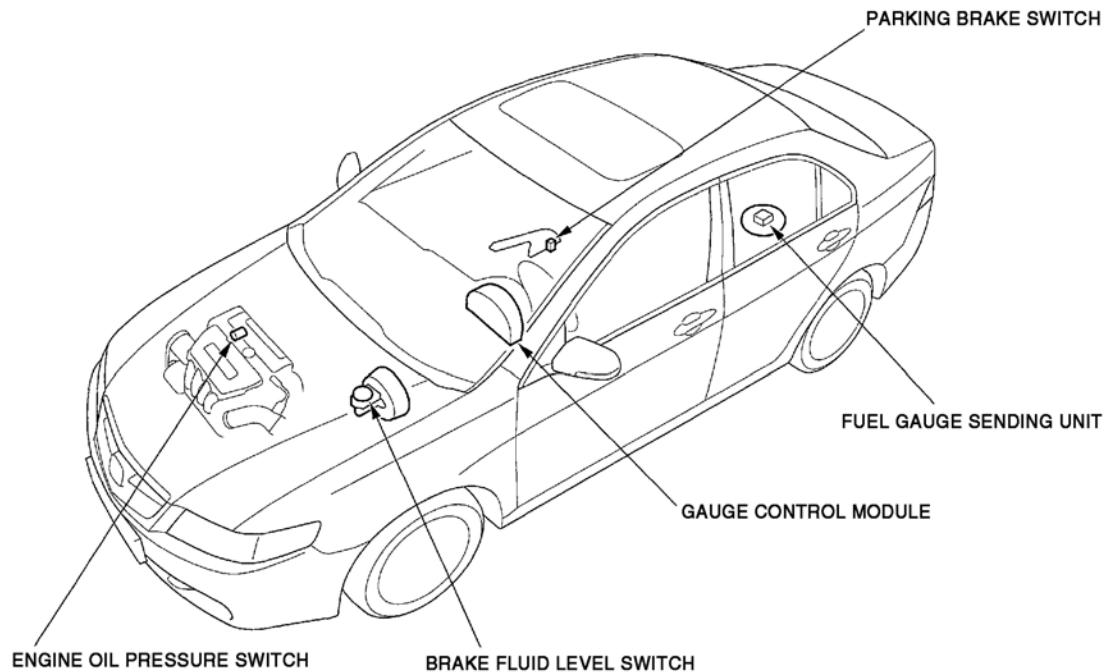


2004 ACCESSORIES & EQUIPMENT

Gauges & Indicators - TSX

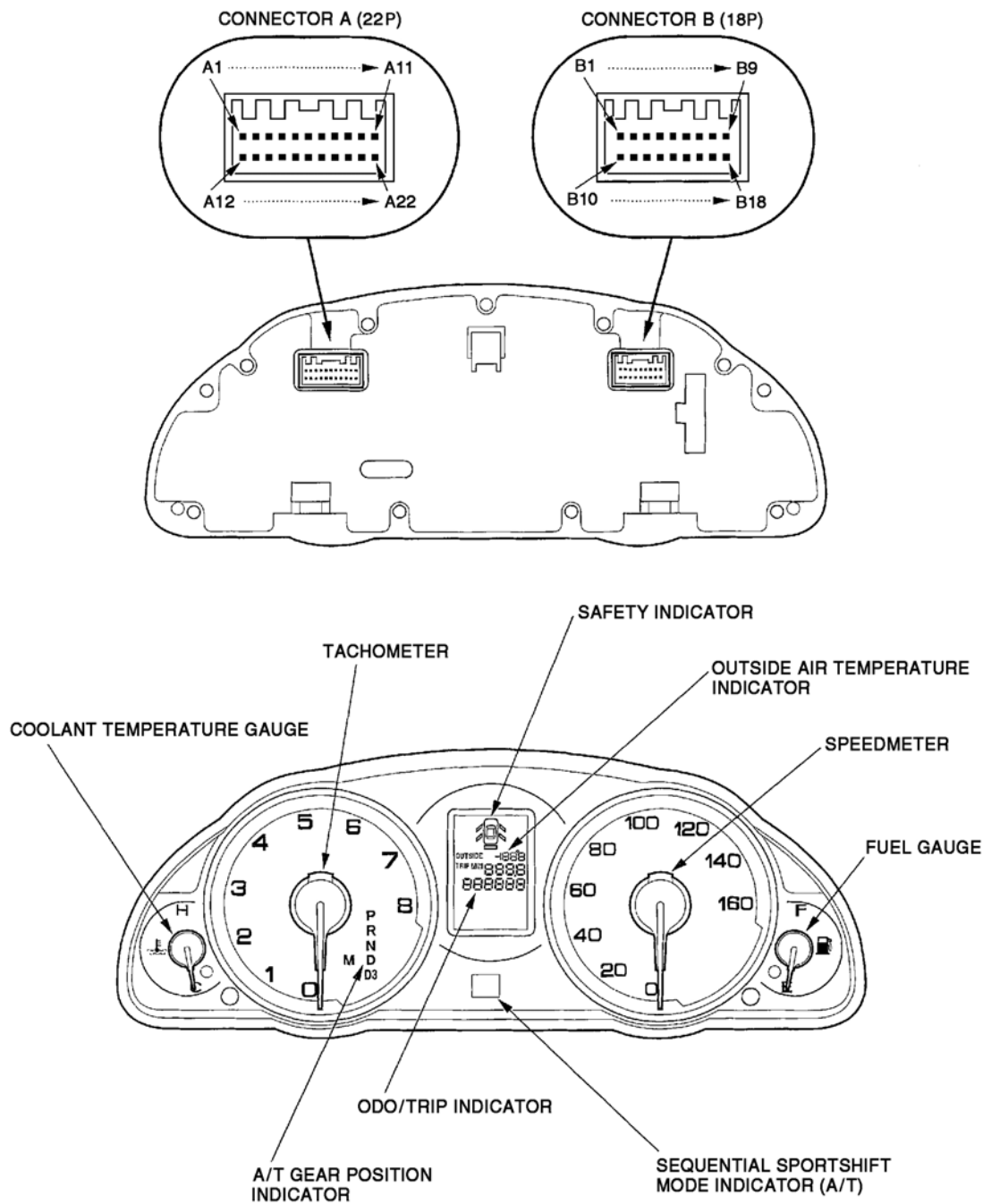
GAUGES

COMPONENT LOCATION INDEX



G01821056

Fig. 1: Locating Gauges Components (1 Of 2)



G01821057

Fig. 2: Locating Gauges Components (2 Of 2)

SELF-DIAGNOSTIC PROCEDURE

Before troubleshooting the gauge system, refer to multiplex integrated control system B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).

The gauge control module has a self-diagnosis 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 frame-controller area network (F-CAN) communication line between the gauges).

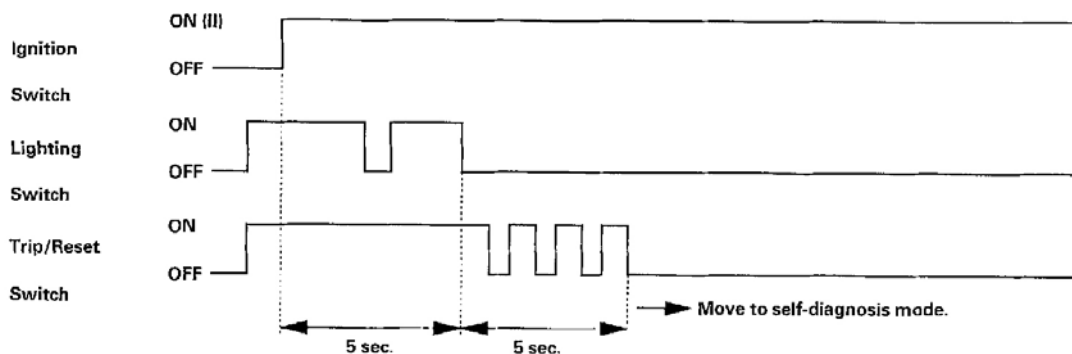
NOTE: Indicators are also controlled via the communication line.

Entering the self-diagnosis function

Before doing the self-diagnosis function, check the No. 7 (10A) fuse and the No. 21 (7.5A) fuse in the under-dash fuse/relay box.

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

- NOTE:**
- While in the self-diagnosis mode, the dash lights brightness controller operates normally.
 - While in the self-diagnosis mode, the trip/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 OFF, the self-diagnosis mode ends.



G01821058

Fig. 3: Self-Diagnosis Mode**The Beeper Drive Circuit Check**

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

The Indicator Drive Circuit Check

When entering the self-diagnosis mode, the following indicator lights blink:

- seat belt indicator
- charging system indicator
- low fuel indicator
- maintenance required indicator
- security indicator
- high beam indicator
- lights on indicator
- malfunction indicator lamp (MIL)
- A/T gear position indicator
- ABS indicator
- cruise main indicator
- safety indicators (doors and trunk)

Switch Input Check

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

- cruise control main cruise set switch
- cruise cancel switch
- cruise resume switch
- VSA OFF switch
- parking brake switch

The LCD Segment Check

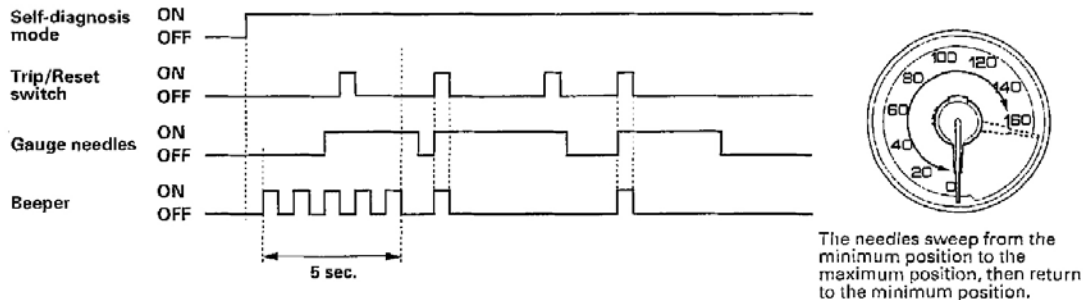
When entering the self-diagnosis mode, the odo/trip segments and outside air temperature segment blink five times.

The Gauge Drive Circuit Check

When entering the self-diagnosis 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 trip/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. If a needle fails to sweep or the beeper does not sound, replace the gauge control module.



G01821059

Fig. 4: The Gauge Drive Circuit Check

The Communication Line Check

While in the self-diagnosis mode, the Communication Line Check starts after the odometer/trip LCD Segments Check. If all segments come on, the communication line is OK.

- If the word "Error 1" is indicated, there is a malfunction in the communication line between the gauge control module and the frame-controller area network (F-CAN). Check for DTCs in the ECM/PCM. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).
- If the word "Error 2" is indicated, there is a malfunction in the communication line between the gauge control module and the body-controller area network (B-CAN). Go to B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).
- If the word "Error 3" is indicated, there is a malfunction in the communication line between the gauge control module and the body-controller area network (B-CAN) and the frame-controller area network (F-CAN). Check for DTCs in the ECM/PCM. If no DTCs are found, go to B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).

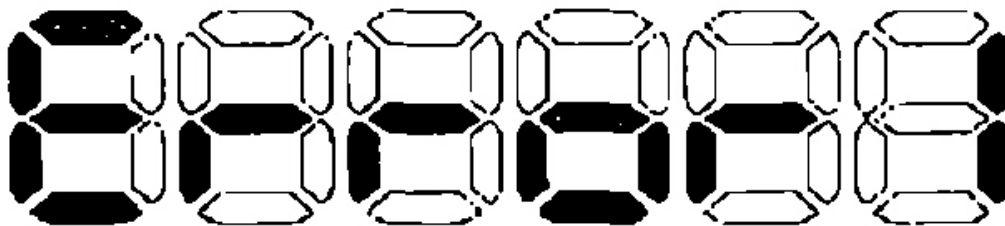
Normal:



G01821060

Fig. 5: Identifying Normal Message

Faulty (example Error 1):



G01821061

Fig. 6: Identifying Faulty Message

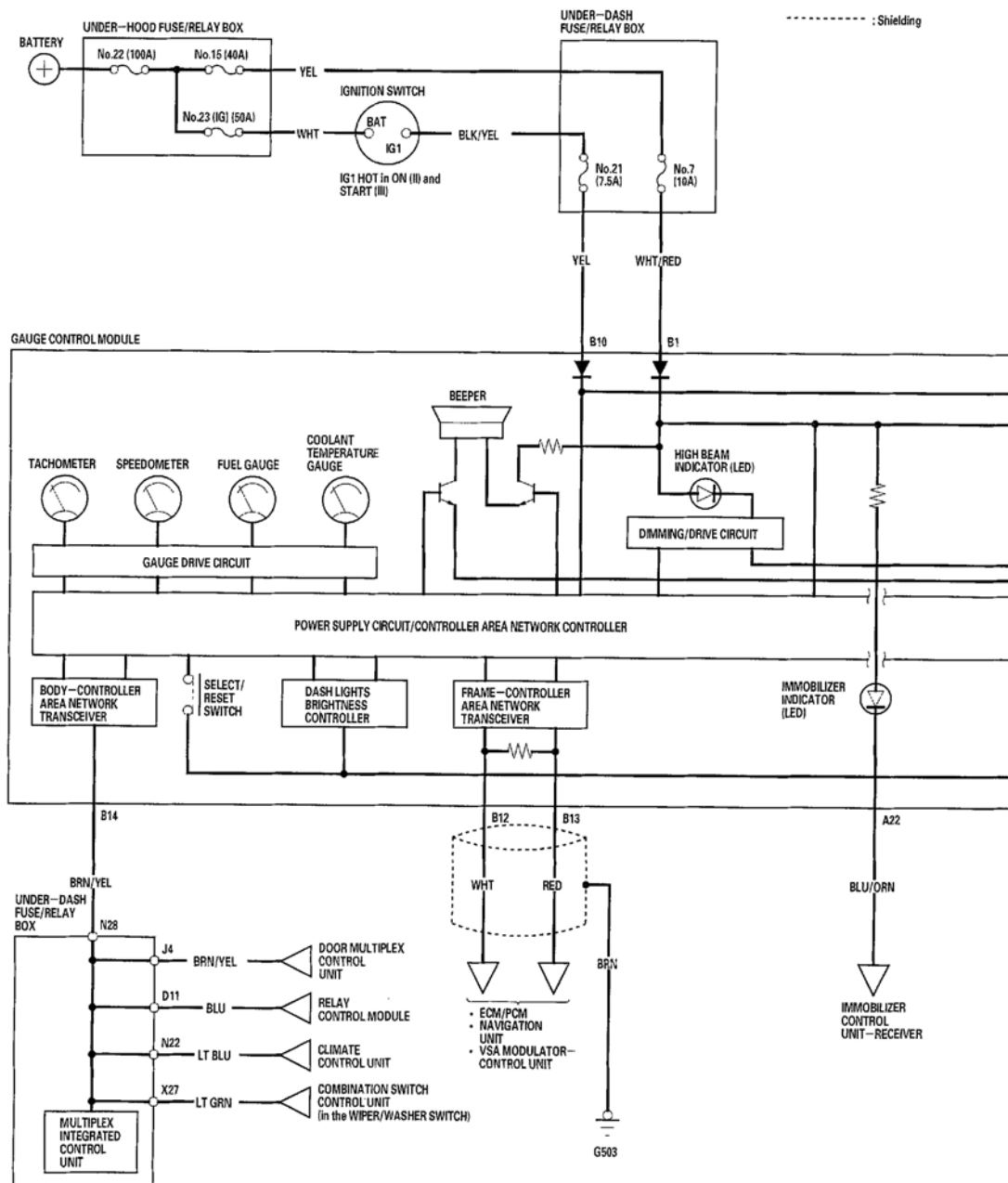
If any communication line errors are found, go to B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).

Ending the self-diagnosis function

Turn the ignition switch OFF.

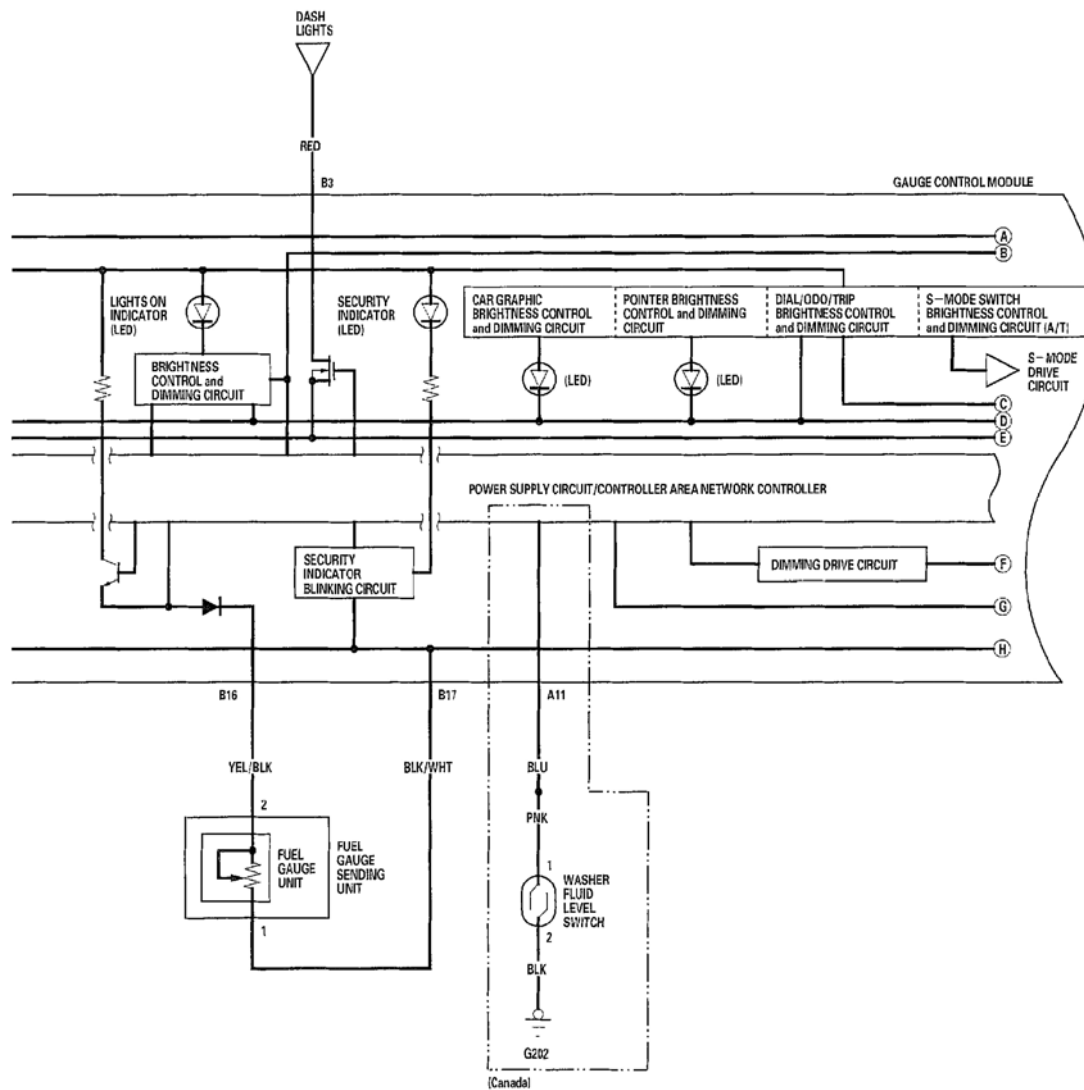
NOTE: If the vehicle speed exceeds 1.2 mph (2 km/h), the self-diagnosis function ends.

CIRCUIT DIAGRAM



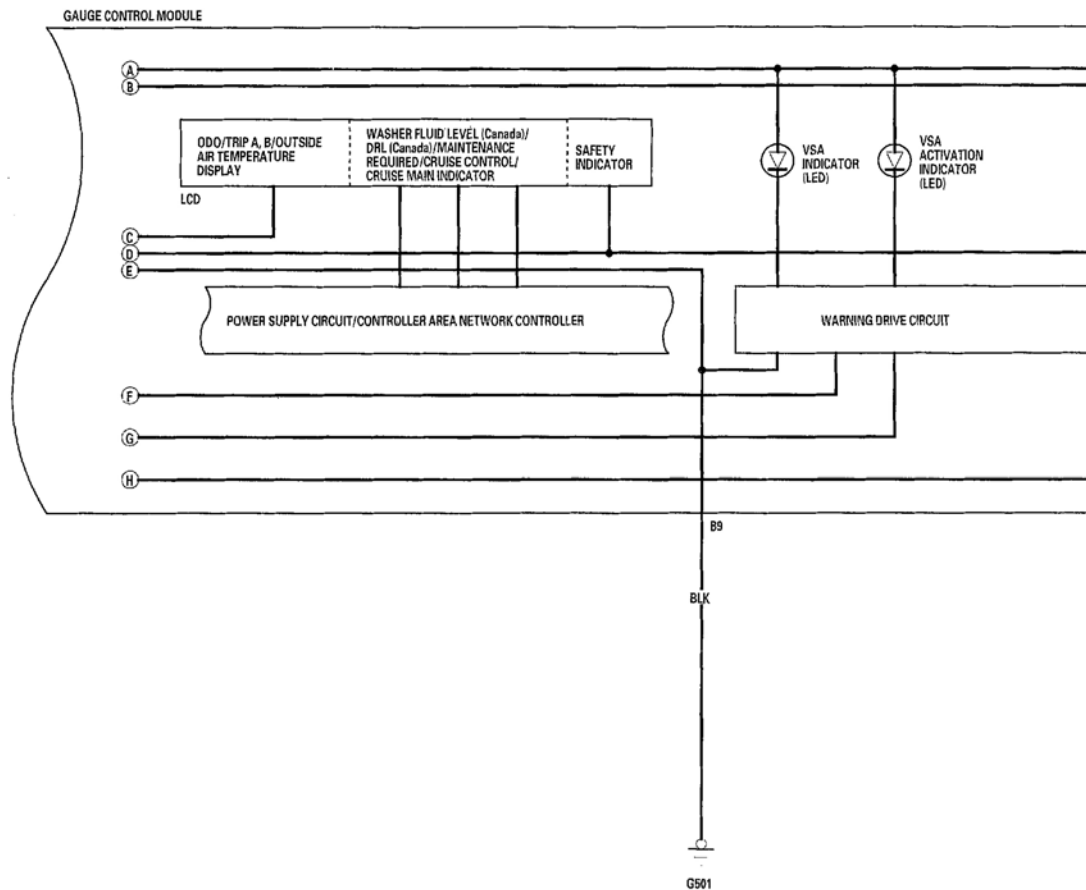
G01821062

Fig. 7: Gauges Wiring Diagram (1 Of 7)



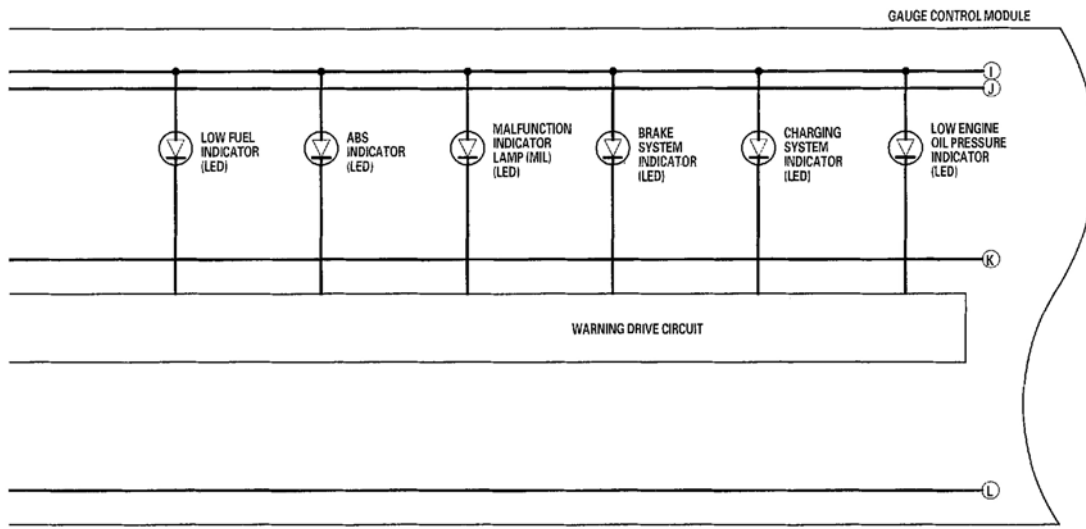
G01821063

Fig. 8: Gauges Wiring Diagram (2 Of 7)



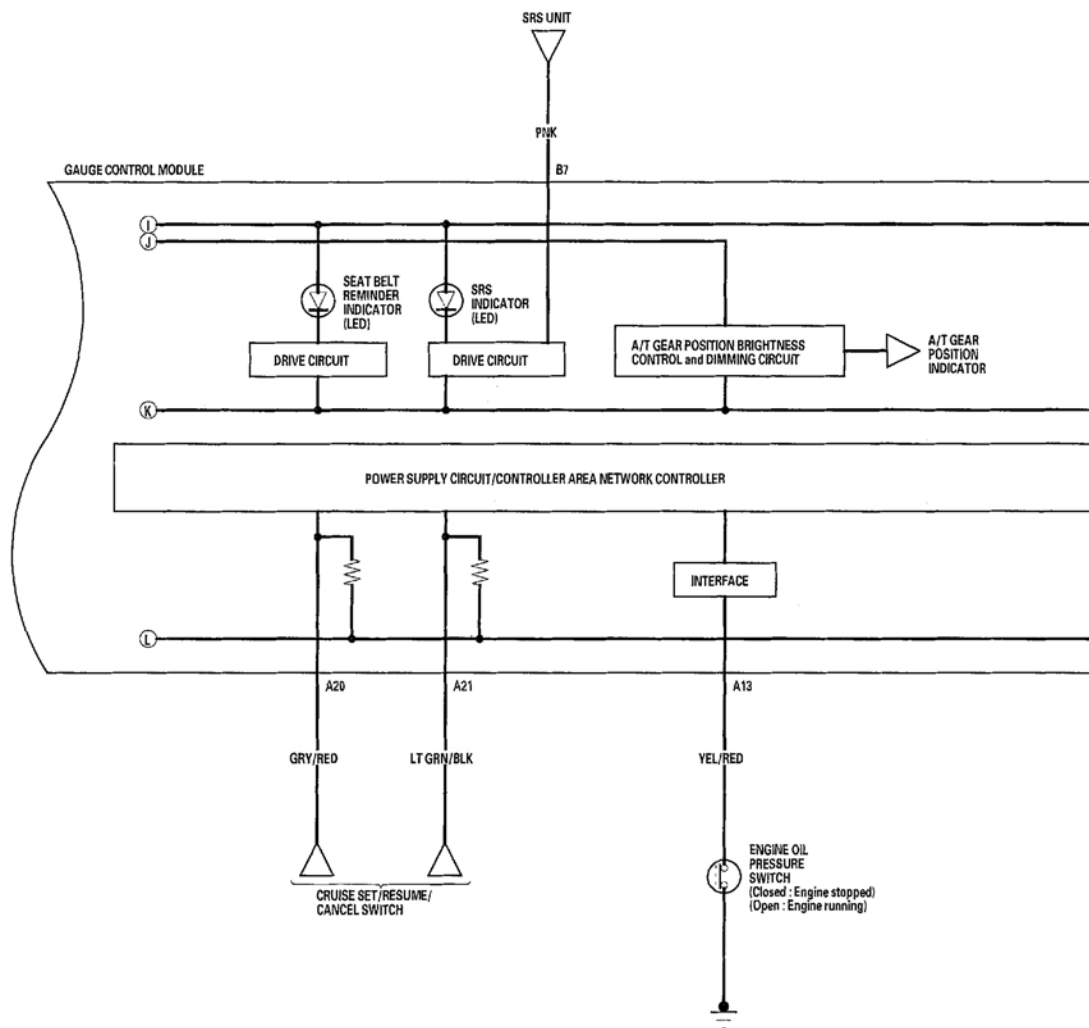
G01821064

Fig. 9: Gauges Wiring Diagram (3 Of 7)



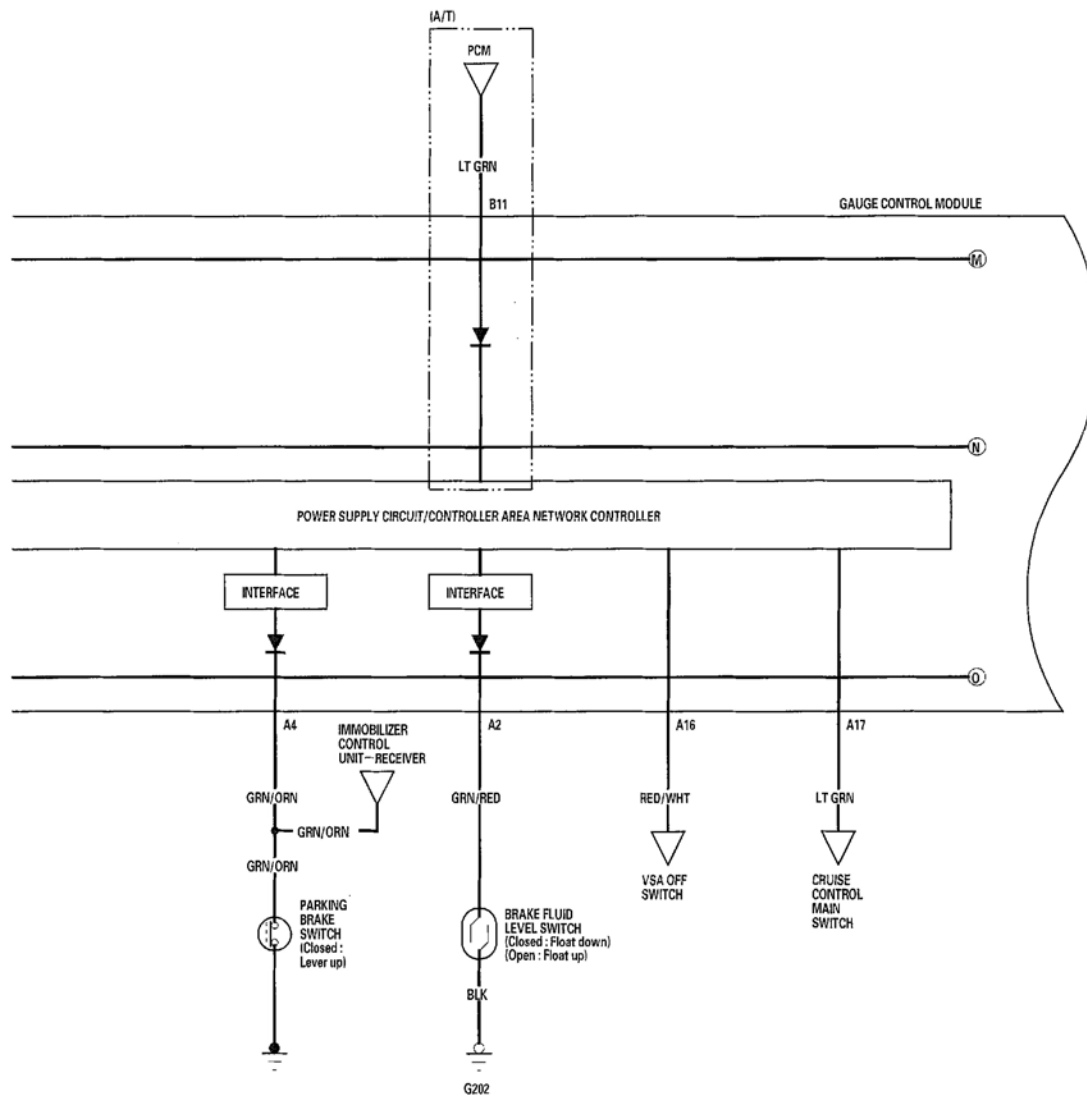
G01821065

Fig. 10: Gauges Wiring Diagram (4 Of 7)



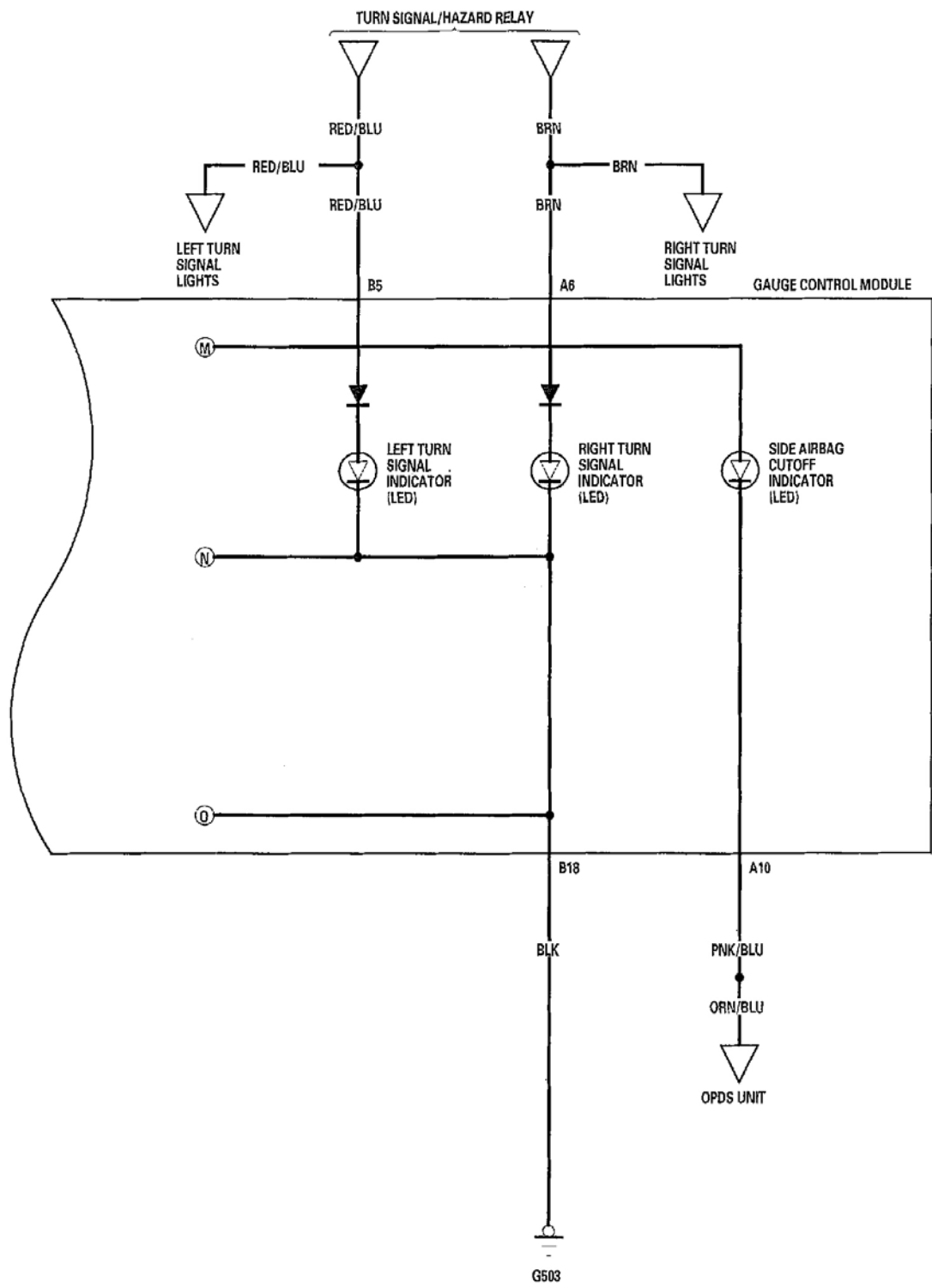
G01821066

Fig. 11: Gauges Wiring Diagram (5 Of 7)



G01821067

Fig. 12: Gauges Wiring Diagram (6 Of 7)

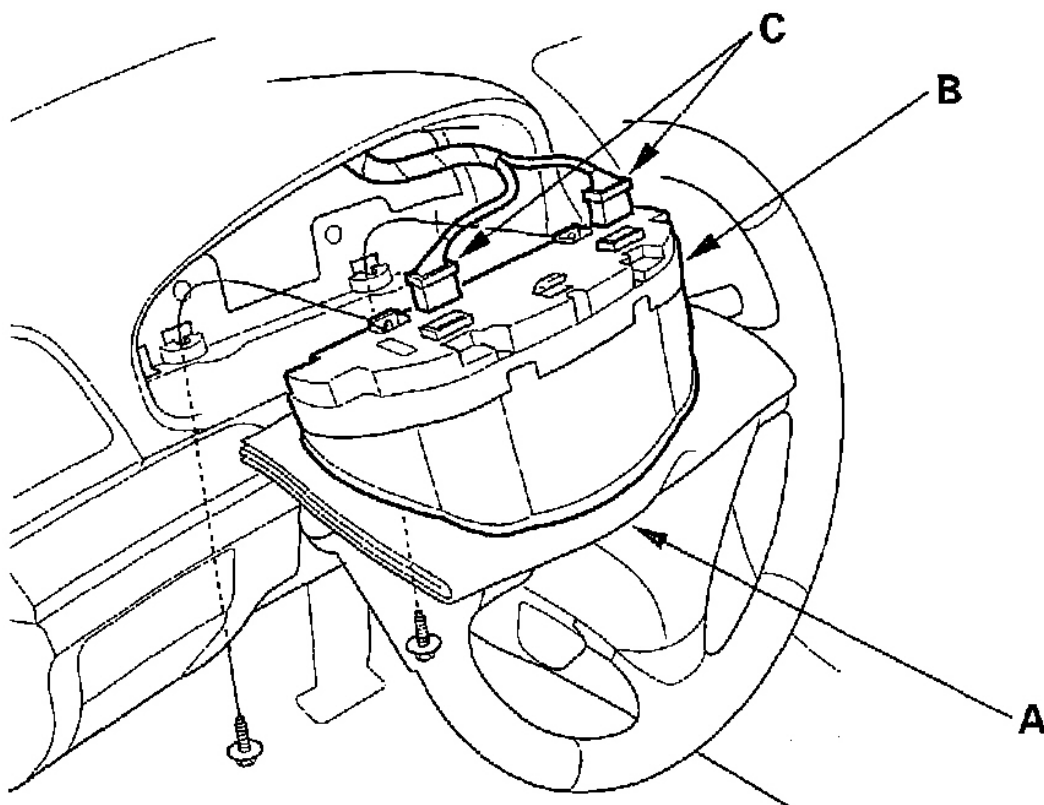


G01821068

Fig. 13: Gauges Wiring Diagram (7 Of 7)

GAUGE CONTROL MODULE REPLACEMENT

1. Remove the driver's dashboard lower cover (see **DRIVER'S DASHBOARD LOWER COVER REMOVAL/INSTALLATION**), then remove the upper column cover (see **STEERING COLUMN REMOVAL AND INSTALLATION**).
2. Place a clean shop towel (A) under the gauge control module to prevent scratching the steering column or dash panel.



G01821069

Fig. 14: Removing The Gauge Control Module

3. Remove the screws from the gauge control module (B).
4. Disconnect the 22P and 18P connectors (C), then remove the gauge control module.
5. Install the gauge control module in the reverse order of removal.

REWRITING THE ODO DATA ON A NEW GAUGE CONTROL MODULE

NOTE:

- If the HDS retrieves the ODO data from the gauge control module, the ODO

value on the ODO/TRIP display will appear as "--", making the ODO function unusable, and the HDS will be unable to retrieve additional ODO values.

- **Rewriting is not possible on a gauge control module that does not communicate.**
- **Obtain a new gauge control module before starting the rewriting process.**

1. Before replacing the gauge control module, connect the HDS to the data link connector.
2. Select GAUGES AND INDICATORS from the HDS menu display.
3. Select "ODO REWRITE" from the ADJUSTMENTS menu display, and follow the instructions on the menu display to retrieve the ODO value.
4. Replace the gauge control module.
5. Follow the instructions on the menu display to write the new ODO value to the new gauge control module.

OUTSIDE AIR TEMPERATURE INDICATOR TEST

NOTE: To test the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR TEST**).

Troubleshooting

If the indicator displays "--" for more than two seconds after selecting the outside air temperature display mode, Check the climate control system for DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**), or an open in the LT BLU wire between the under-dash fuse/relay box and the climate control unit.

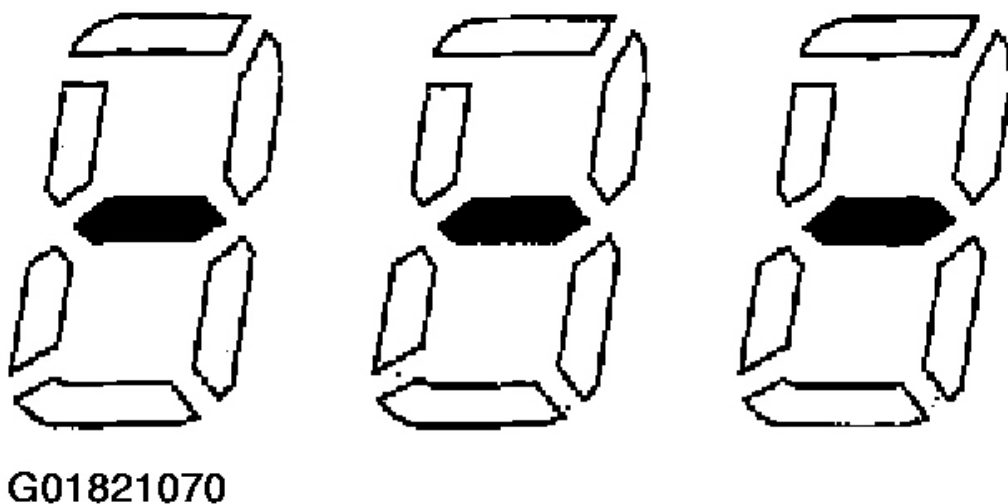


Fig. 15: Indicator Displaying "---"

Calibration

The outside air temperature indicator's displayed temperature can be recalibrated $\pm 3^{\circ}$ to meet the customer's expectations.

1. Turn the ignition switch ON (II).
2. Press and hold the reset select button for 10 seconds. While you continue to hold the button, the display will scroll through temperature settings from $+3^{\circ}$ to -3° as shown.

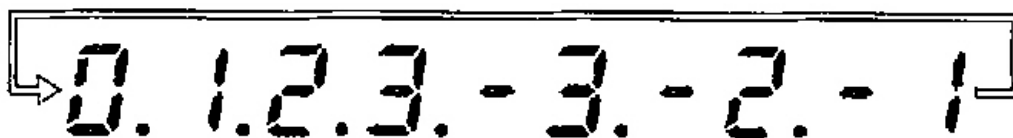


Fig. 16: Calibration Display

3. When the desired correction value appears on the display, release the button, and the recalibrated outside

air temperature will be displayed. Each time a desired correction value is entered, it replaces the previous value.

Example:

Incorrect value = 68°F (20°C)

Desired correction value = +2°F (+1°C)

Correct valve = 70°F (21°C)

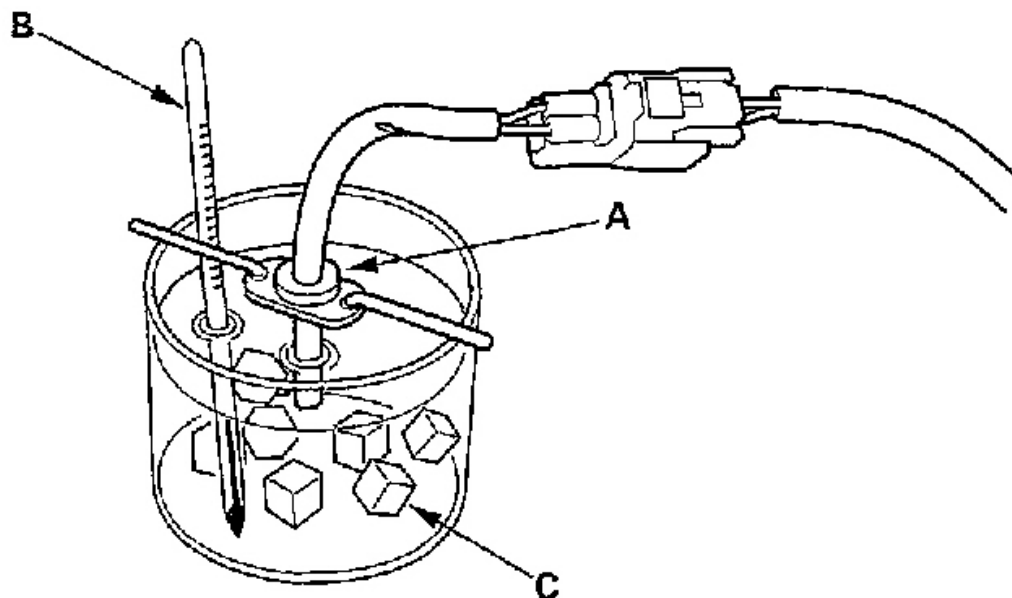
Desired correction valve = -2°F (-1°C)

Correct valve = 66°F (19°C)

G01821072

Fig. 17: Correction Table

NOTE: To recalibrate the display to the true temperature, remove the outside air temperature sensor (A), but leave it connected. Submerge the sensor and a thermometer (B) in a container of ice water (C). Select the calibration mode as described above, then recalibrate the display to the true temperature.



G01821073

Fig. 18: Submerging The Sensor & A Thermometer In A Container Of Ice Water

MAINTENANCE REQUIRED INDICATOR RESET PROCEDURE

Miles (km)	Maintenance Reminder Light
At 7,900 (12,640) to 8,100 (12,960)	Blinks for 10 seconds when the ignition switch is turned ON (II).
At 9,900 (15,840) to 10,100 (16,160)	Comes on and stays on while the ignition switch is ON (II).

G01821074

Fig. 19: Maintenance Required Indicator Blinking Pattern Table

How to Reset

Press and hold the trip/reset button, turn the ignition switch ON (II), and continue to hold the button for more than 10 seconds.

DTC TROUBLESHOOTING

DTC B1152: Gauge Control Module EEPROM Error

1. Clear the DTCs using the HDS.
2. Start the engine.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1152 indicated?

YES: Faulty gauge control module; replace the gauge control module (see **GAUGE CONTROL MODULE REPLACEMENT**).

NO: Intermittent failure, the gauge control module is OK at this time. Check pin fits and connections. If the connections are good, check the battery condition and the charging system. See **GENERATORS & REGULATORS** .

DTC B1155: Gauge Control Module Lost Communication (Headlight Switch Message) with the Combination Switch Control Unit

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1155 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and connections.

4. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1007 or B1062 indicated?

YES: Go to Combination Switch Control Unit Input Test (see **COMBINATION SWITCH CONTROL UNIT INPUT TEST**).

NO: Go to Gauge Control Module Input Test (see **GAUGE CONTROL MODULE INPUT TEST**).

DTC B1156: Gauge Control Module Lost Communication (Wiper Switch Message) with the Combination Switch Control Unit

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1156 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and

connections.

4. Check for DTCs by selecting the DTCs MENU (DTCs) of the HDS.

Is DTC B1009 or B1063 indicated?

YES: Go to Combination Switch Control Unit Input Test (see COMBINATION SWITCH CONTROL UNIT INPUT TEST).

NO: Go to Gauge Control Module Input Test (see GAUGE CONTROL MODULE INPUT TEST).

DTC B1157: Gauge Control Module Lost Communication with Multiplex Integrated Control Unit (MICU)

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1157 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and connections.

4. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1055, B1106 and B1255 indicated?

YES: Go to Multiplex Integrated Control Unit Input Test (see MULTIPLEX INTEGRATED CONTROL UNIT INPUT TEST).

NO: Go to Gauge Control Module Input Test (see GAUGE CONTROL MODULE INPUT TEST).

DTC B1158: Gauge Control Module Lost Communication with Relay Module

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1158 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and connections.

4. Check for DTCs by the DTCs MENU (DTCs) of the HDS.

Is DTC B1005 indicated?

YES: Go to Relay Control Module Input Test (see RELAY CONTROL MODULE INPUT TEST).

NO: Go to Gauge Control Module Input Test (see GAUGE CONTROL MODULE INPUT TEST).

DTC B1159: Gauge Control Module Lost Communication (Door Switch Message) with the Multiplex Integrated Control Unit (MICU)

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1159 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and connections.

4. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1057 indicated?

YES: Go to Multiplex Integrated Control Unit Input Test (see **MULTIPLEX INTEGRATED CONTROL UNIT INPUT TEST**).

NO: Go to Gauge Control Module Input Test (see **GAUGE CONTROL MODULE INPUT TEST**).

DTC B1160: Gauge Control Module Lost Communication (Door Lock Switch Message) with the Door Multiplex Control Unit

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1160 indicated?

YES: Go to step 4.

NO: Intermittent failure. The gauge control system is OK at this time. Check pin fits and connections.

4. Check for DTCs by the DTCs MENU (DTCs) of the HDS.

Is DTC B1006 or B1058 indicated?

YES: Go to Door Multiplex Control Unit Input Test (see **DOOR MULTIPLEX CONTROL UNIT INPUT TEST**).

NO: Go to Gauge Control Module Input Test (see **GAUGE CONTROL MODULE INPUT TEST**).

DTC B1175: Fuel Gauge Sending Unit Signals Input Error

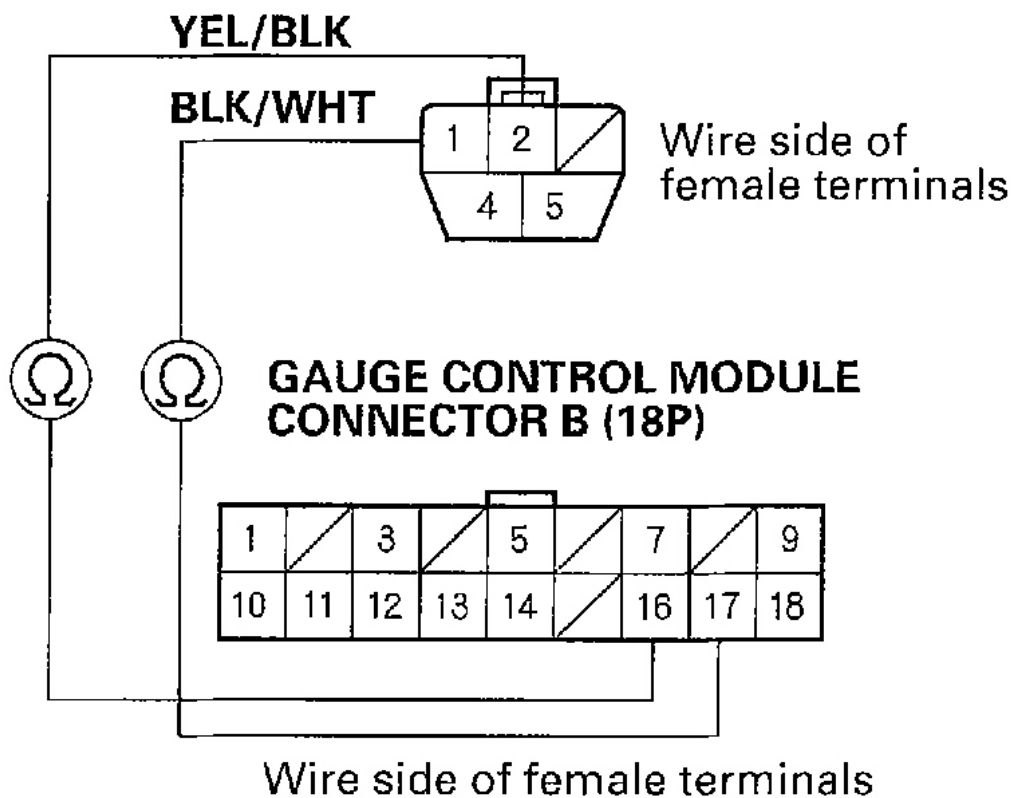
1. Do the fuel gauge sending unit test (see **FUEL GAUGE SENDING UNIT TEST**).

Is the fuel gauge sending unit OK?

YES: Go to step 2.

NO: Replace the fuel gauge sending unit.

2. Disconnect the fuel pump/fuel gauge sending unit 5P connector and the gauge control module connector B (18P).
3. Check for continuity between the No. 16 and No. 17 terminals of gauge control module connector B (18P) and No. 1 and No. 2 terminals of the fuel pump/fuel gauge sending unit 5P connector.

Is there continuity?**YES:** Go to step 4.**NO:** Repair an open in the BLK/WHT or YEL/BLK wire between the gauge control module and fuel gauge sending unit.**FUEL PUMP/FUEL GAUGE SENDING UNIT
5P CONNECTOR**

G01821075

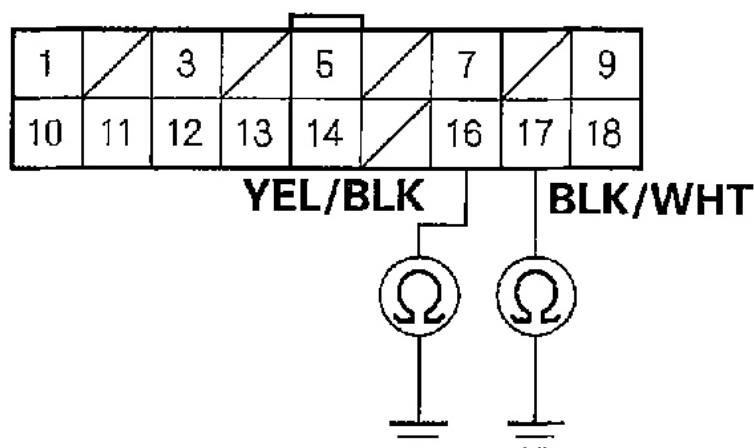
Fig. 20: Checking For Continuity Between The Gauge Control Module Connector B (18P) & The Fuel Pump/Fuel Gauge Sending Unit 5P Connector

4. Check for continuity between the No. 16 and No. 17 terminals of gauge control module connector B (18P) and body ground.

Is there continuity?**YES:** Repair a short to ground in the BLK/WHT or YEL/BLK wire.**NO:** Replace the gauge control module (see **GAUGE CONTROL MODULE**

REPLACEMENT).

GAUGE CONTROL MODULE CONNECTOR B (18P)



Wire side of female terminals

G01821076

Fig. 21: Checking For Continuity Between The No. 16 & No. 17 Terminals Of Gauge Control Module Connector B (18P) & Body Ground

DTC B1177: Abnormal Battery Voltage (7.5 V)

1. Clear the DTCs using the HDS.
2. Cycle the ignition switch to OFF and then back ON.
3. Check for DTCs by selecting the DTCs MENU (DTCs) from the HDS.

Is DTC B1177 indicated?

YES: Go to step 5 .

NO: Go to step 4.

4. Crank the engine.

Is DTC B1177 indicated?

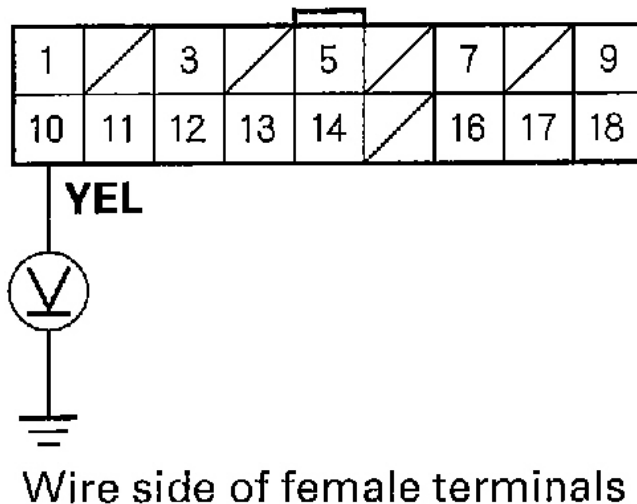
YES: Go to step 5.

NO: Intermittent failure. The gauge control module and power supply voltage (IG 1) that is supplied to the gauge control module are OK at this time.

5. Check the battery condition and the charging system. See **GENERATORS & REGULATORS** .

Is the battery condition normal and the charging system OK?**YES:** Go to step 6.**NO:** Abnormal battery condition which needs a recharge or replacement, or a charging system repair.

6. With gauge control module connector B (18P) still connected, check for voltage between the No. 10 terminal and body ground.

Is there 7.5 V or more?**YES:** Go to step 7.**NO:** Repair an open or high resistance in the YEL wire between the gauge control module and under-dash fuse/relay box.**GAUGE CONTROL MODULE CONNECTOR B (18P)**

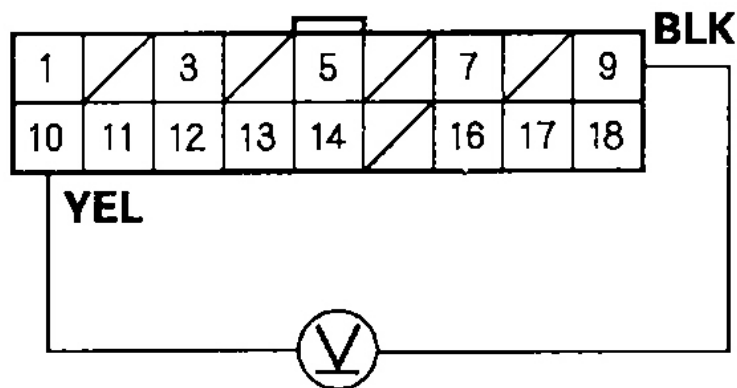
G01821077

Fig. 22: Checking For Voltage Between The No. 10 Terminal & Body Ground

7. Check for voltage between the No. 10 and No. 9 terminals.

Is there 7.5 V or more?**YES:** Faulty gauge control module; replace the gauge control module (see **GAUGE CONTROL MODULE REPLACEMENT**).**NO:** Repair an open or high resistance in the BLK wire between the gauge control module and ground.

GAUGE CONTROL MODULE CONNECTOR B (18P)



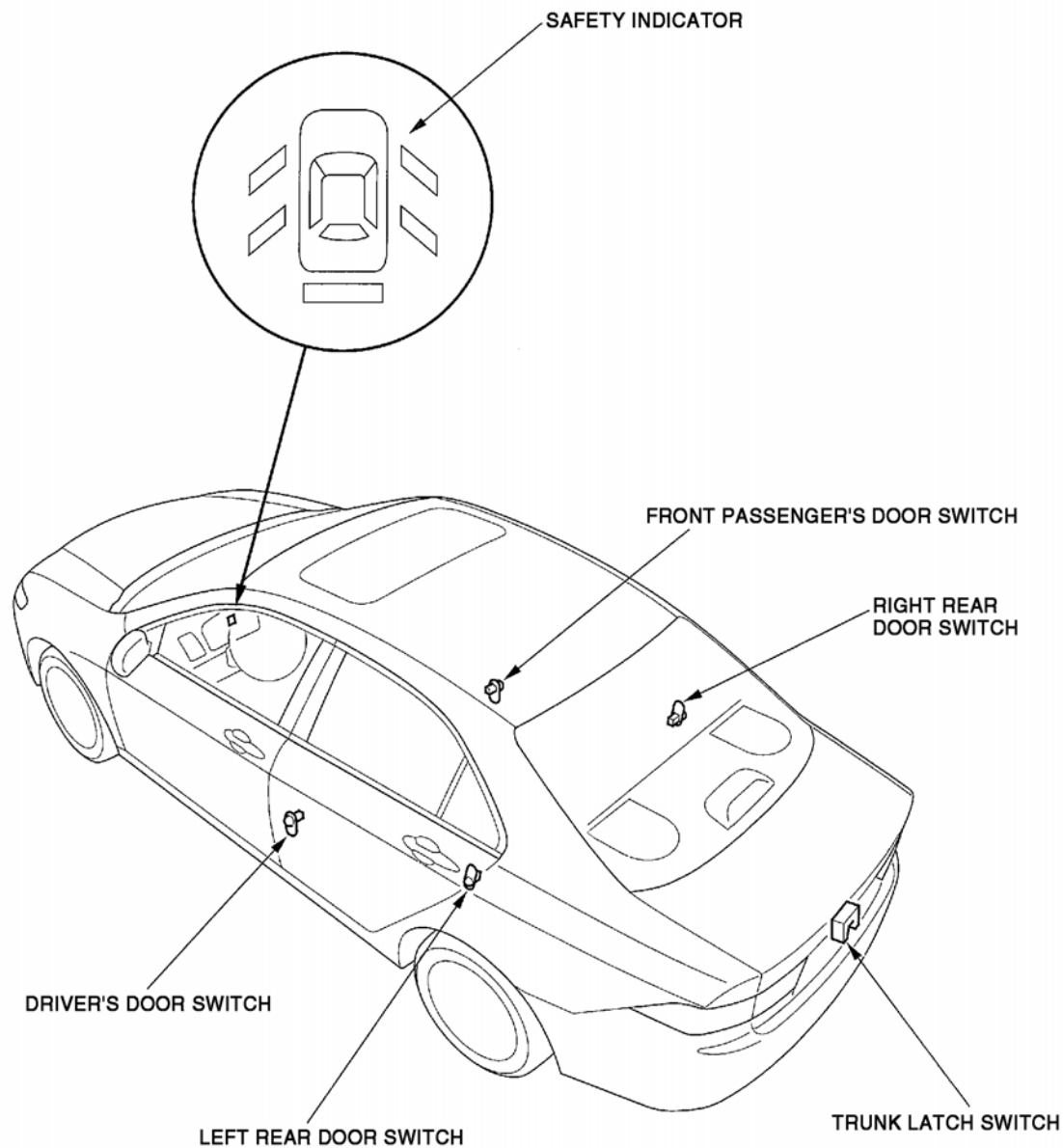
Wire side of female terminals

G01821078

Fig. 23: Checking For Voltage Between The No. 10 & No. 9 Terminals

SAFETY INDICATOR SYSTEM

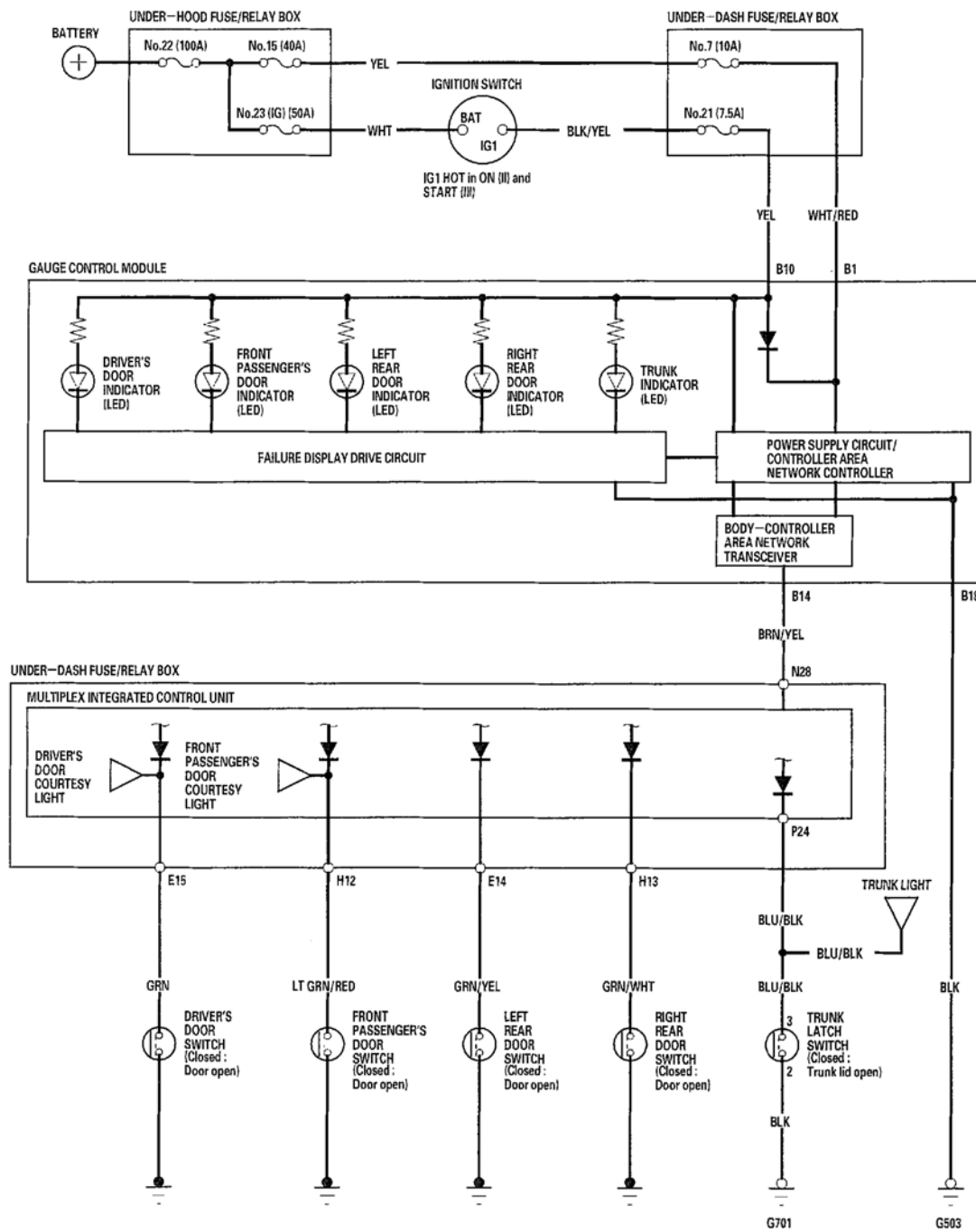
COMPONENT LOCATION INDEX



G01821079

Fig. 24: Locating Safety Indicator System Components

CIRCUIT DIAGRAM



G01821080

Fig. 25: Safety Indicator System Wiring Diagram

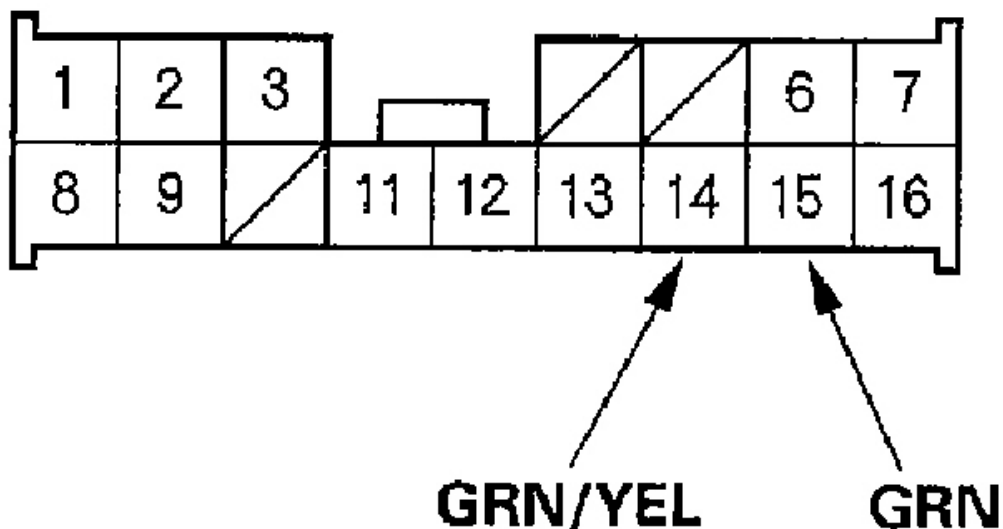
SAFETY INDICATOR INPUT TEST

1. Before testing the safety indicator functions, troubleshoot the multiplex integrated control system using the B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).

Multiplex Integrated Control Unit

2. Remove the left kick panel (see **TRIM REMOVAL/INSTALLATION - DOOR AREA**).
3. Disconnect the under-dash fuse/relay box connectors E, H and P.

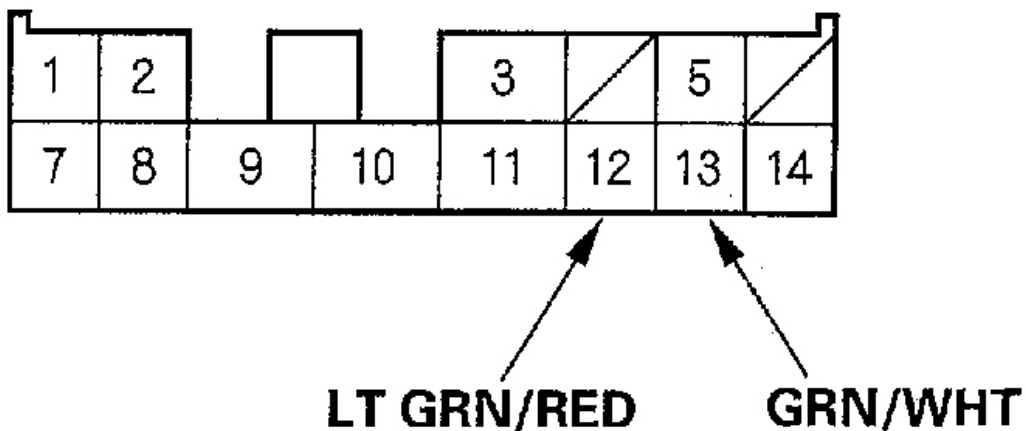
NOTE: All connectors are wire side of female terminals.

**UNDER-DASH FUSE/RELAY BOX
CONNECTOR E (16P)**

G01821081

Fig. 26: Identifying Under-Dash Fuse/Relay Box Connector E (16P) Terminals

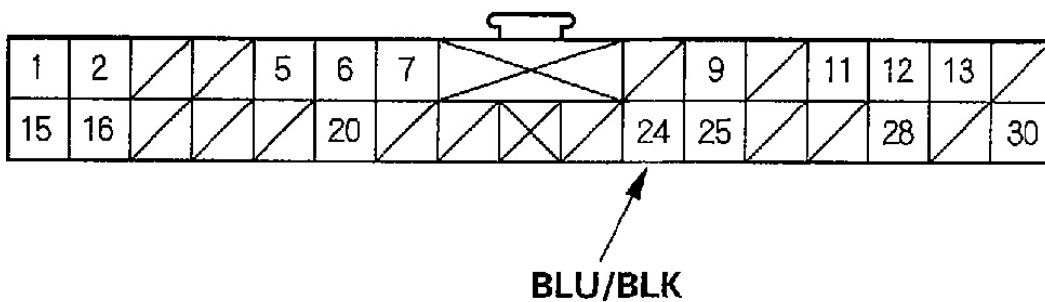
UNDER-DASH FUSE/RELAY BOX CONNECTOR H (14P)



G01821082

Fig. 27: Identifying Under-Dash Fuse/Relay Box Connector H (14P) Terminals

UNDER-DASH FUSE/RELAY BOX CONNECTOR P (30P)



G01821083

Fig. 28: Identifying Under-Dash Fuse/Relay Box Connector P (30P) Terminals

4. Inspect the connector and socket terminals to be sure they are all making good contact.
 - If the terminals are bent, loose or corroded, repair them as necessary, are recheck the system.

- If the terminals look OK, go to step 5.
5. Reconnect the connectors to the under-dash fuse/relay box, and make sure these input tests at the appropriate connectors on the under-dash fuse/relay box. See **Fig. 29**.
- If any test indicates a problem, find and correct the cause, then recheck the system.
 - If all the input tests prove OK, go to step 6.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
E15	GRN	Driver's door open	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty driver's door switch • An open in the wire
		Driver's door closed	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty driver's door switch • Short to ground
H12	LT GRN/RED	Front passenger's door open	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty front passenger's door switch • An open in the wire
		Front passenger's door closed	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty front passenger's door switch • Short to ground
E14	GRN/YEL	Left rear door open	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty left rear door switch • An open in the wire
		Left rear door closed	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty left rear door switch • Short to ground
H13	GRN/WHT	Right rear door open	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty right rear door switch • An open in the wire
		Right rear door closed	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty right rear door switch • Short to ground
P24	BLU/BLK	Trunk lid open	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Poor ground (G701) • Faulty trunk latch switch • An open in the wire
		Trunk lid closed	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty trunk latch switch • Short to ground

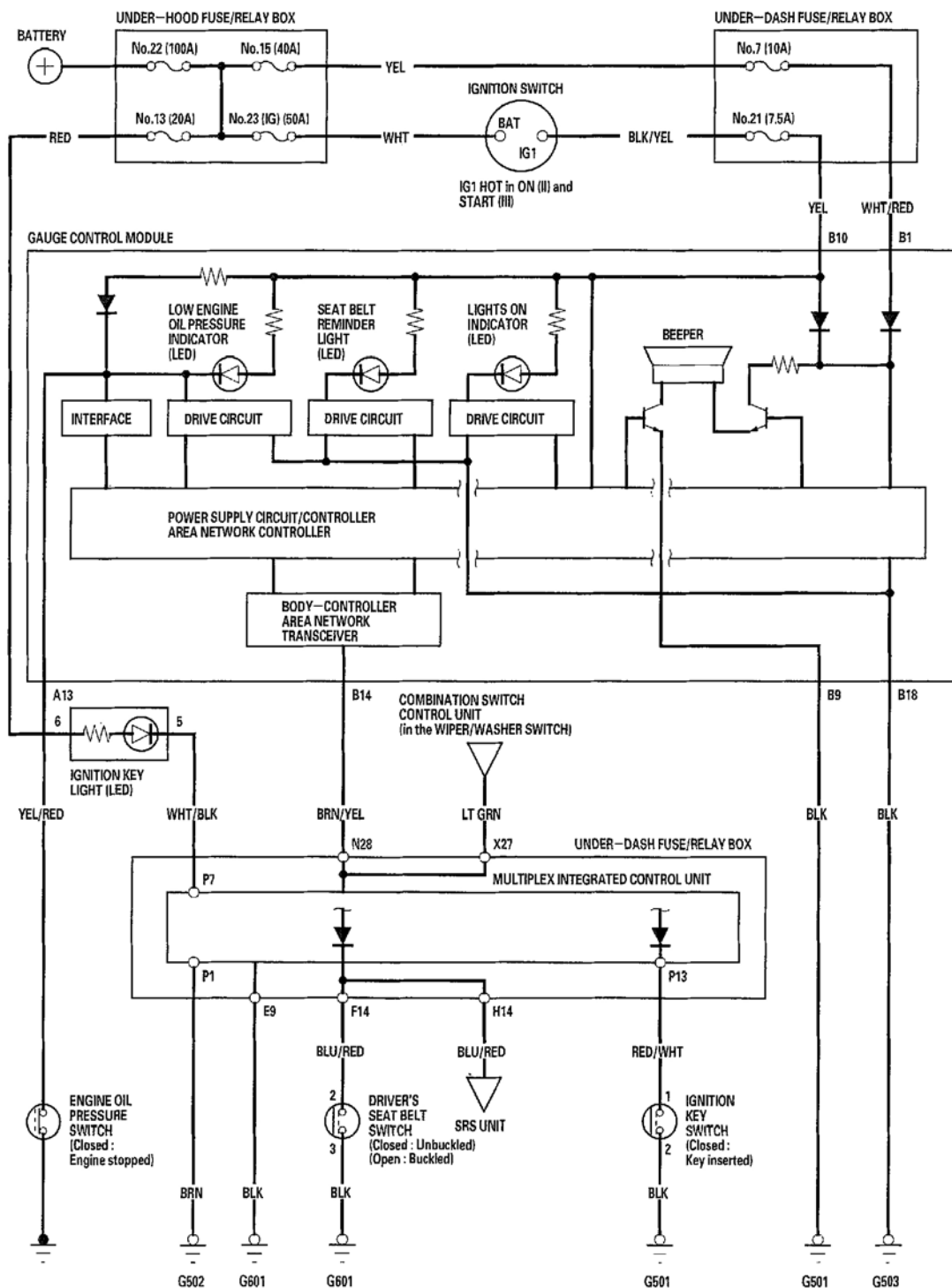
G01821084

Fig. 29: Safety Indicator Input Test

6. Perform the Gauge Self-diagnostic Procedure (see **SELF-DIAGNOSTIC PROCEDURE**).
- If the indicators flash, go to step 7.
 - If the indicators do not flash, replace the gauge control module.
7. Substitute a known-good under-dash fuse/relay box and recheck the system.
- If the symptom is gone, the multiplex integrated control unit (MICU) is faulty; replace the under-dash fuse/relay box.
 - If the symptom is still present, the gauge control module must be faulty; replace the gauge control module.

LIGHTS-ON, KEY-IN, SEAT BELT REMINDER, KEY LIGHT TIMER & ENGINE OIL PRESSURE INDICATOR SYSTEMS

CIRCUIT DIAGRAM



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Fig. 30: Indicator Systems Wiring Diagram

CONTROL UNIT INPUT TEST

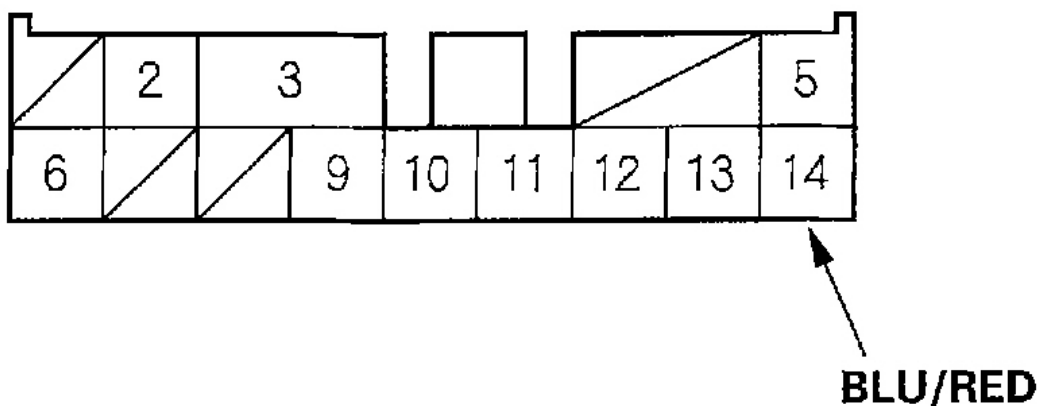
1. Before testing, troubleshoot the multiplex integrated control system using B-CAN System Diagnosis Test Mode A (see **B-CAN SYSTEM DIAGNOSIS TEST MODE A**).

Multiplex Integrated Control Unit

2. Remove the left kick panel (see **TRIM REMOVAL/INSTALLATION - DOOR AREA**).
3. Disconnect the under-dash fuse/relay box connectors F, H and P.

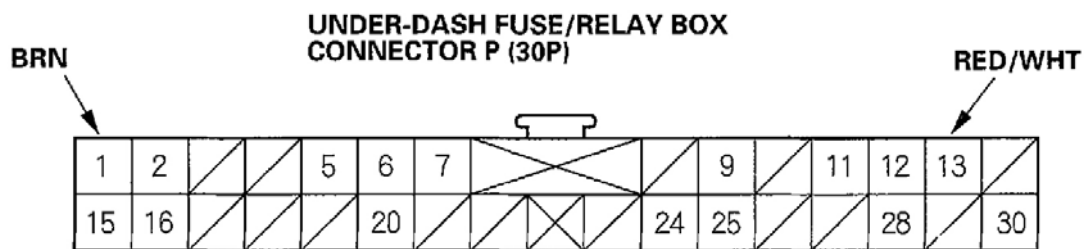
NOTE: All connectors are wire side of female terminals.

UNDER-DASH FUSE/RELAY BOX CONNECTOR F (14P)



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Fig. 31: Identifying Under-Dash Fuse/Relay Box Connector F (14P) Terminals



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Fig. 32: Identifying Under-Dash Fuse/Relay Box Connector P (30P) Terminals

4. Inspect the connector and socket terminals to be sure they are all making good contact.
 - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
 - If the terminals are OK, go to step 5.
5. Reconnect the connectors, and make these input tests at the connector. See **Fig. 33** .
 - If any test indicates a problem, find and correct the cause, then recheck the system.
 - If all the input tests prove OK, go to step 6.

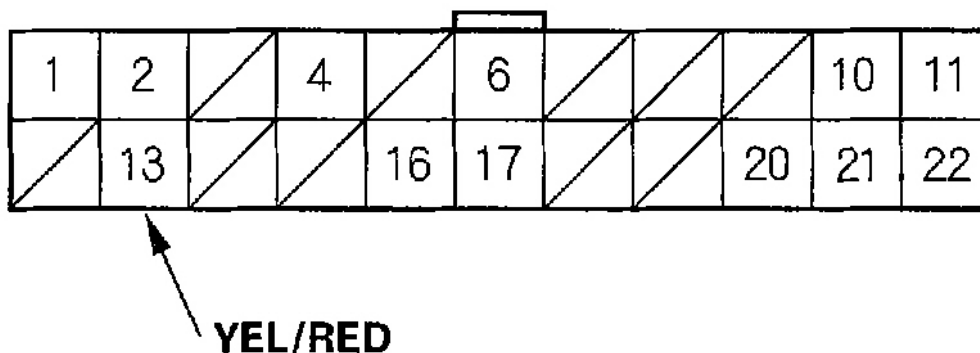
Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
F14 H14	BLU/RED	Ignition switch ON (II), driver's seat belt is unbuckled.	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty driver's seat belt switch • Poor ground (G601) • An open in the wire
		Ignition switch ON (II), driver's seat belt is buckled.	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty driver's seat belt switch • Short to ground
P13	RED/WHT	Ignition key in the ignition switch.	Check for voltage to ground: There should be 1V or less.	<ul style="list-style-type: none"> • Faulty ignition switch • Poor ground (G501) • An open in the wire
		Ignition key out of the ignition switch.	Check for voltage to ground: There should be 5V or more.	<ul style="list-style-type: none"> • Faulty ignition switch • Short to ground

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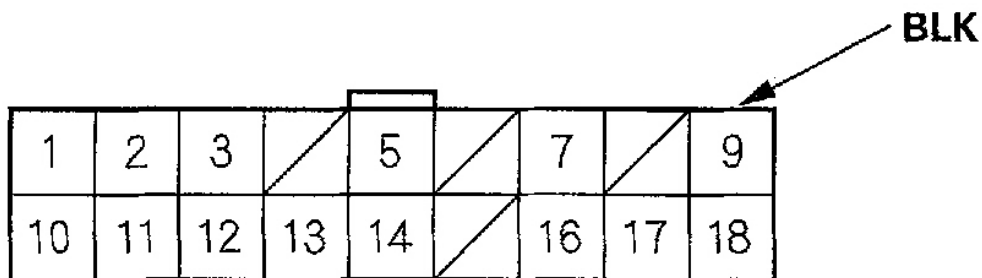
Fig. 33: Control Unit Input Test (Connected)

6. Remove the gauge control module (see **GAUGE CONTROL MODULE REPLACEMENT**).
7. Disconnect the gauge control module connectors A and B.

NOTE: All connectors are wire side of female terminals.

GAUGE CONTROL MODULE CONNECTOR A (22P)

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Fig. 34: Identifying Gauge Control Module Connector A (22P) Terminals**GAUGE CONTROL MODULE CONNECTOR B (18P)**

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Fig. 35: Identifying Gauge Control Module Connector B (18P) Terminals

8. Inspect the connector and socket terminals to be sure they are all making good contact.
 - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
 - If the terminals are OK, go to step 9.
9. With the connectors still disconnected, make these input tests at the connector. See **Fig. 36** .
 - If any test indicates a problem, find and correct the cause, then recheck the system.
 - If the input tests prove OK, go to step 10.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
A13	YEL/RED	Engine OFF	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> Faulty engine oil pressure switch An open in the wire
		Engine running	Check for continuity to ground: There should be no continuity.	<ul style="list-style-type: none"> Mechanical problem in the engine Faulty engine oil pressure switch An open in the wire
B9	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> Poor ground (G501) An open in the wire

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Fig. 36: Control Unit Input Test (Disconnected)

10. Perform the Gauge Self-diagnosis Procedure (see **SELF-DIAGNOSTIC PROCEDURE**).
 - If the beeper sounds and the seat belt reminder light flashes, go to step 11.
 - If the beeper does not sound or the seat belt reminder light does not flash, replace the gauge control module.
11. Substitute a known-good under-dash fuse/relay box and recheck the system.
 - If the symptom is gone, the multiplex integrated control unit (MICU) is faulty; replace the under-dash fuse/relay box.
 - If the symptom is still present, the gauge control module is faulty; replace the gauge control module.