

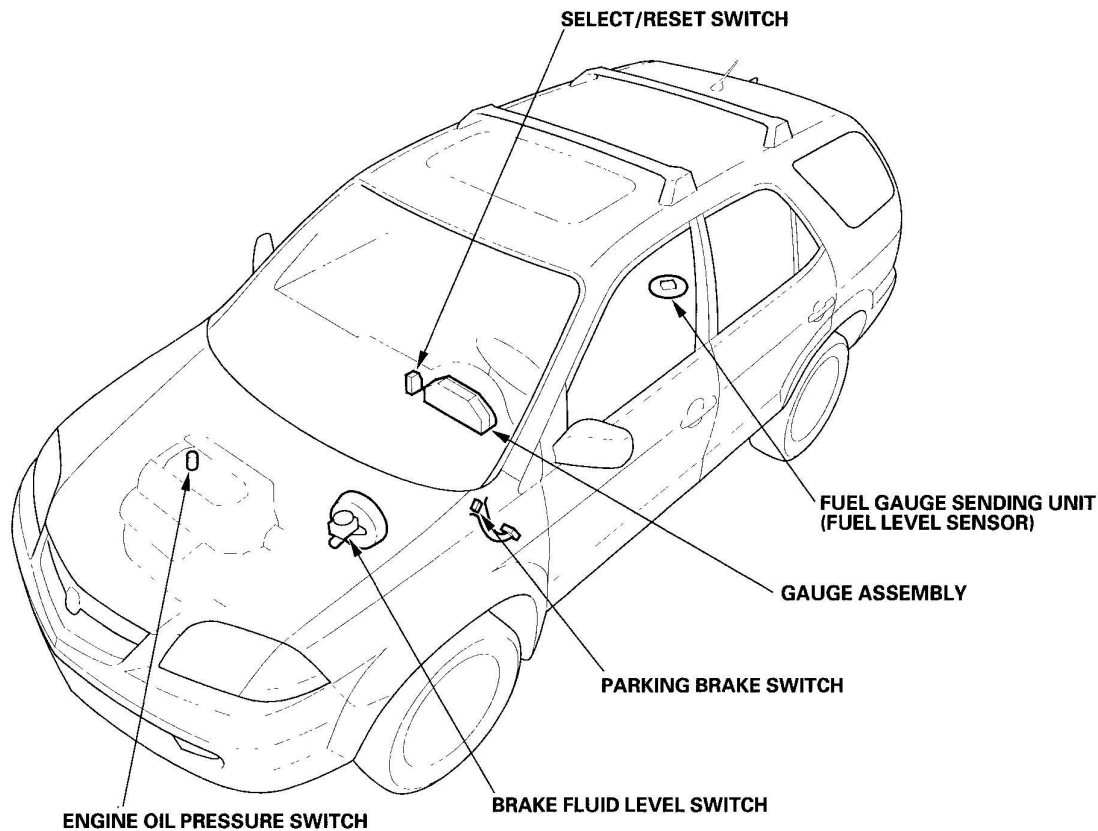
## 2006 Acura MDX

2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

### 2003-06 ACCESSORIES & EQUIPMENT

#### Gauges - MDX

### COMPONENT LOCATION INDEX



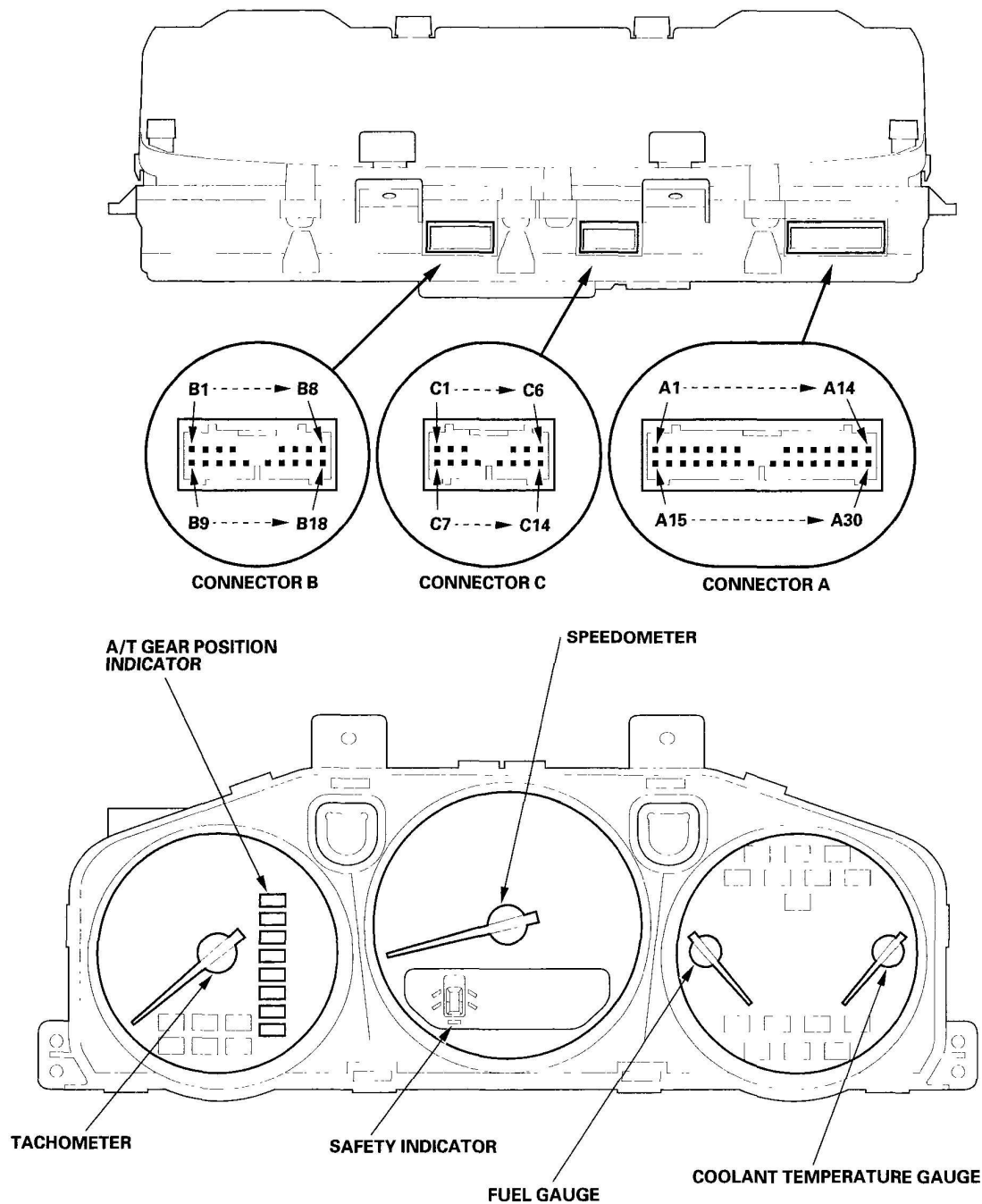
G03642066

**Fig. 1: Identifying Gauges Components Location**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

**'03 MODEL**

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



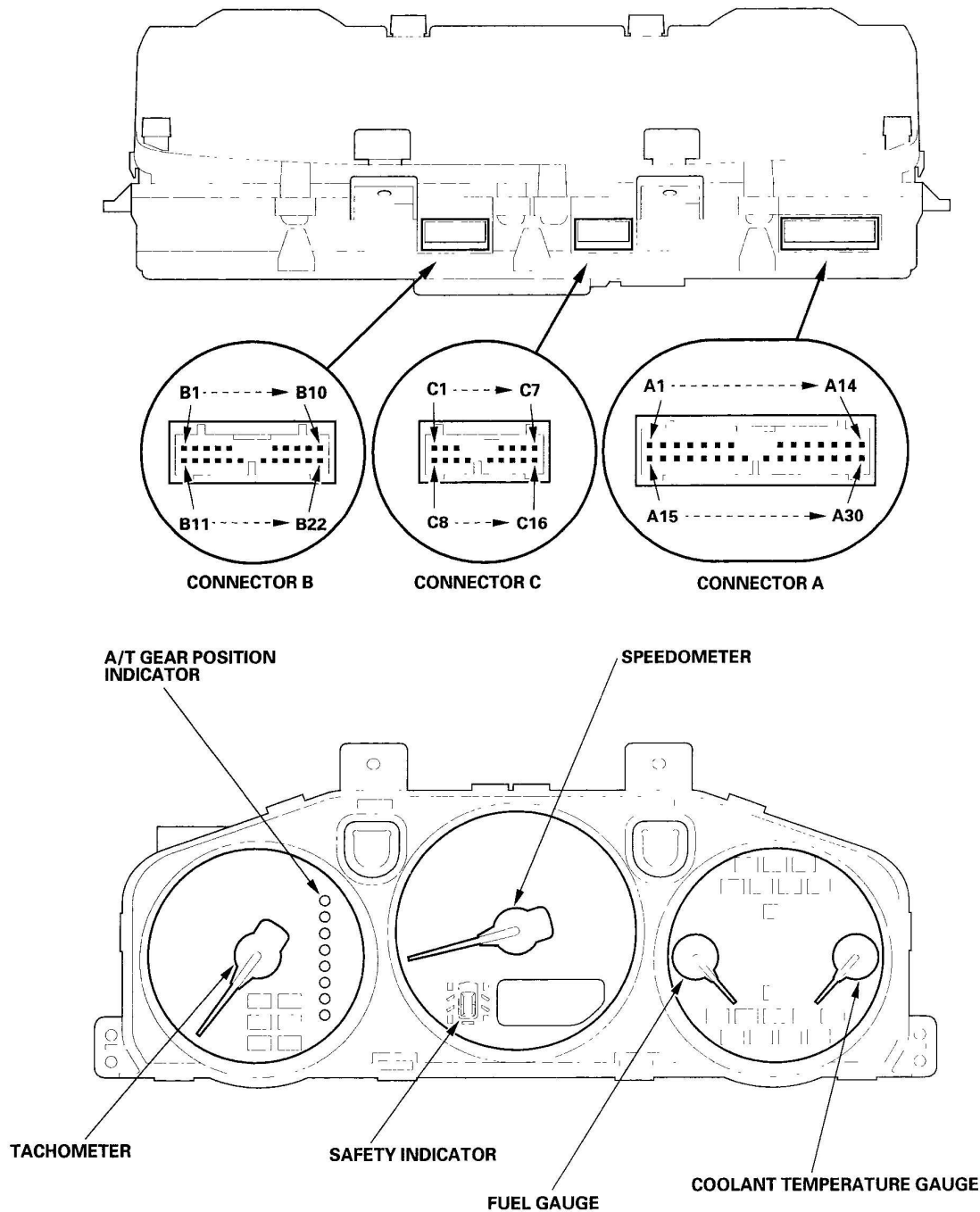
G03642067

**Fig. 2: Identifying Gauge Components Location ('03 Model)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

**'04-06 MODELS**

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



G03642068

**Fig. 3: Identifying Gauge Components Location ('04-06 Models)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

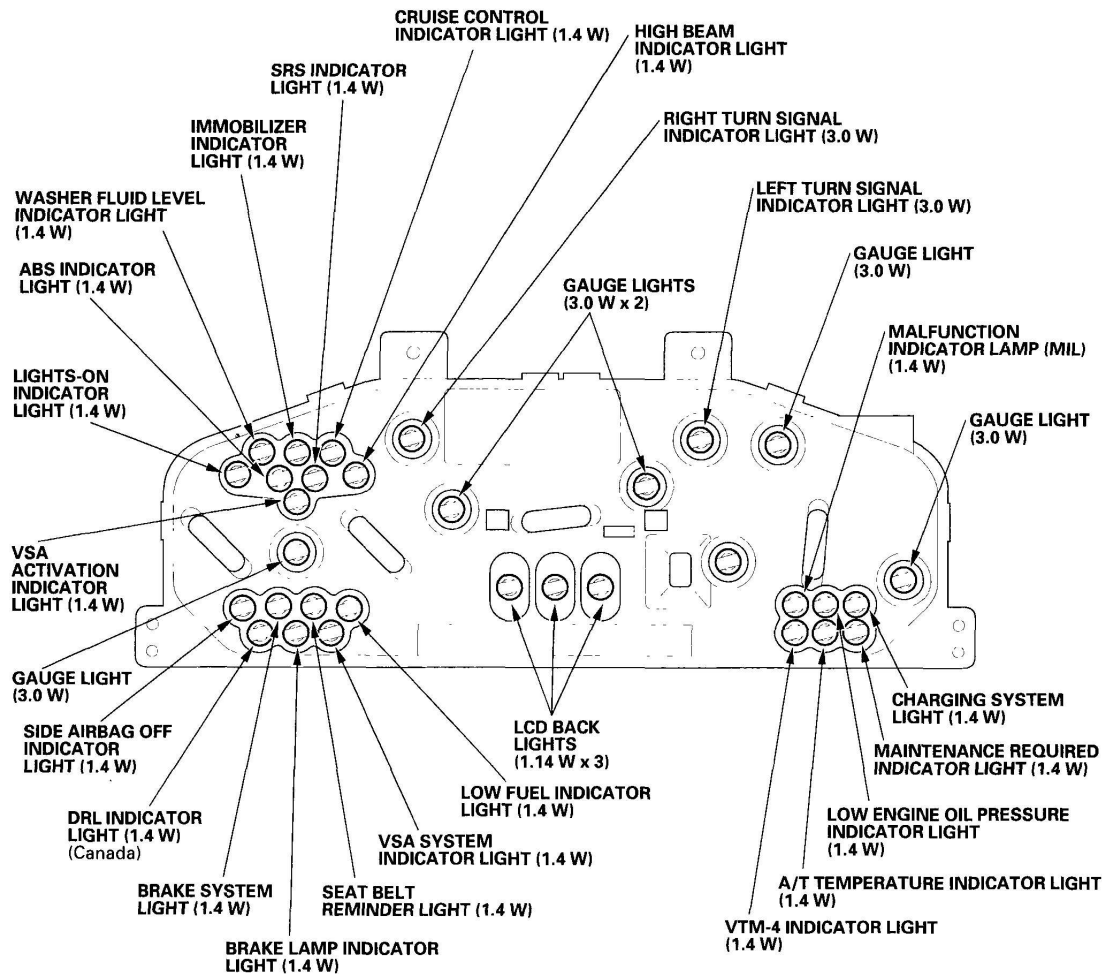
## GAUGE BULB REPLACEMENT

### EXPLODED VIEW ('03 MODEL)

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

**NOTE:** '04-06 models has no bulb replacement. Replace the gauge assembly.



G03642069

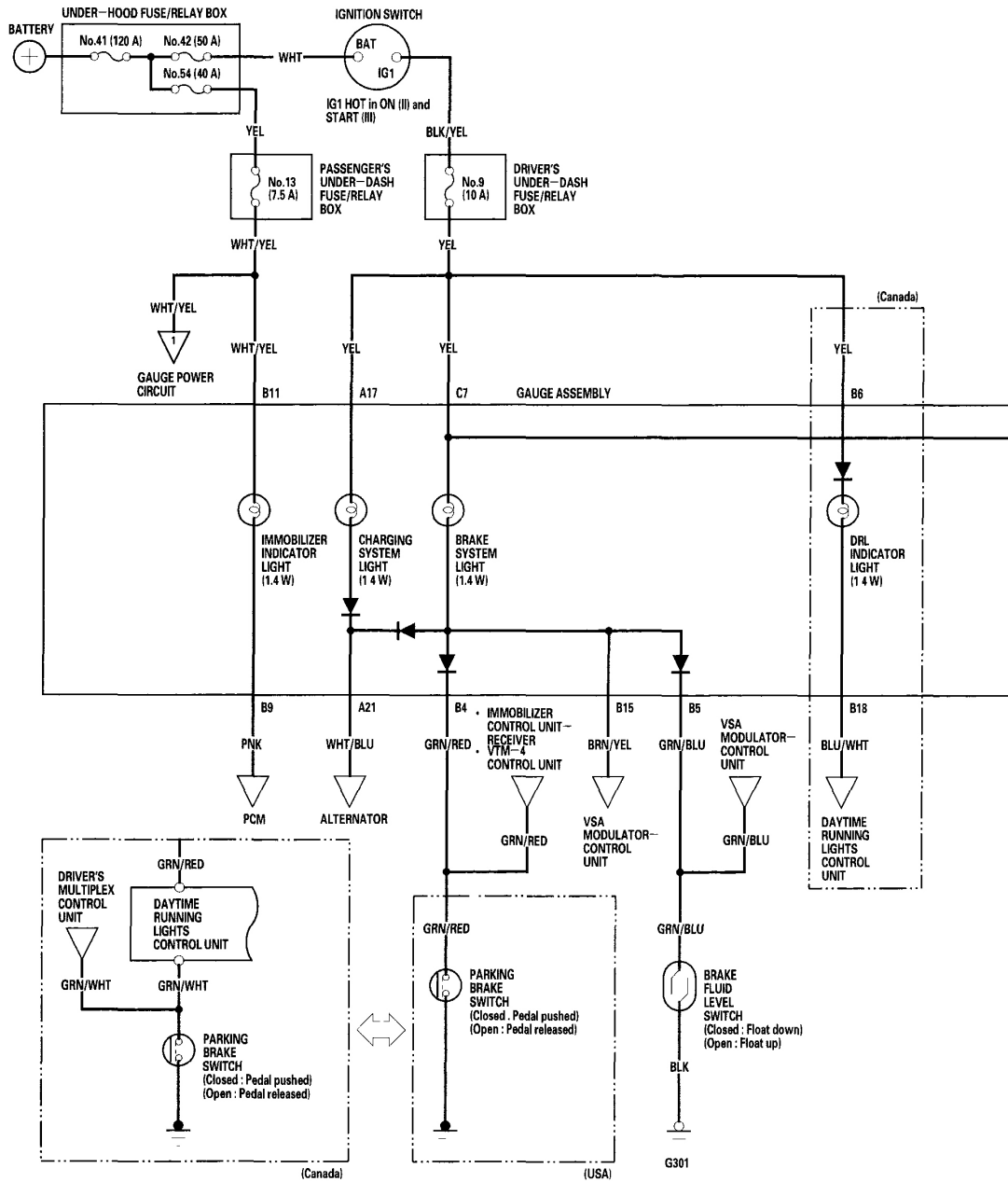
**Fig. 4: Exploded View Of Gauge Bulb Assembly ('03 model)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

## CIRCUIT DIAGRAM

### '03 MODEL

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

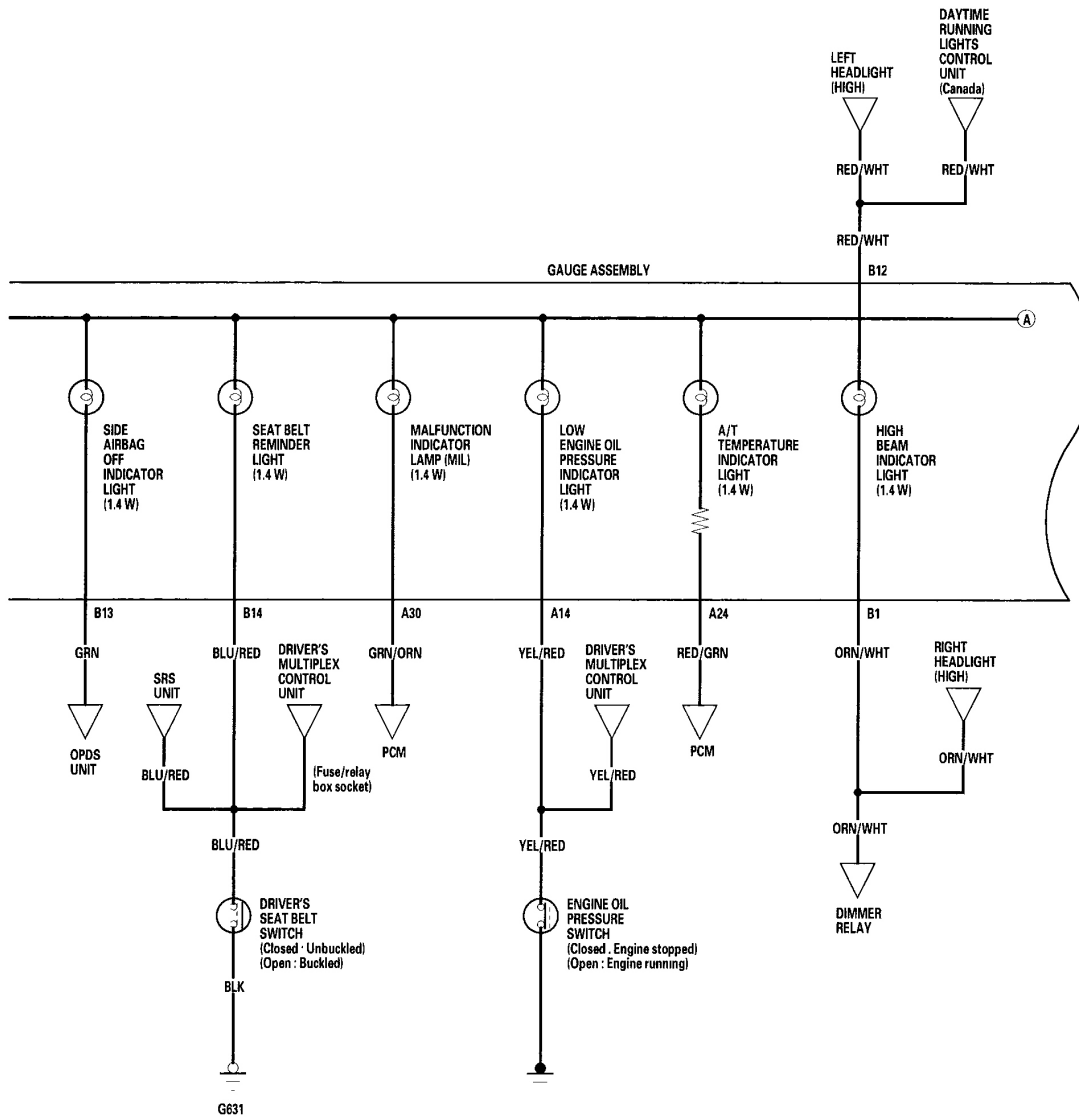


G03642070

**Fig. 5: Gauges Circuit Diagram ('03 Model - 1 Of 6)**  
**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

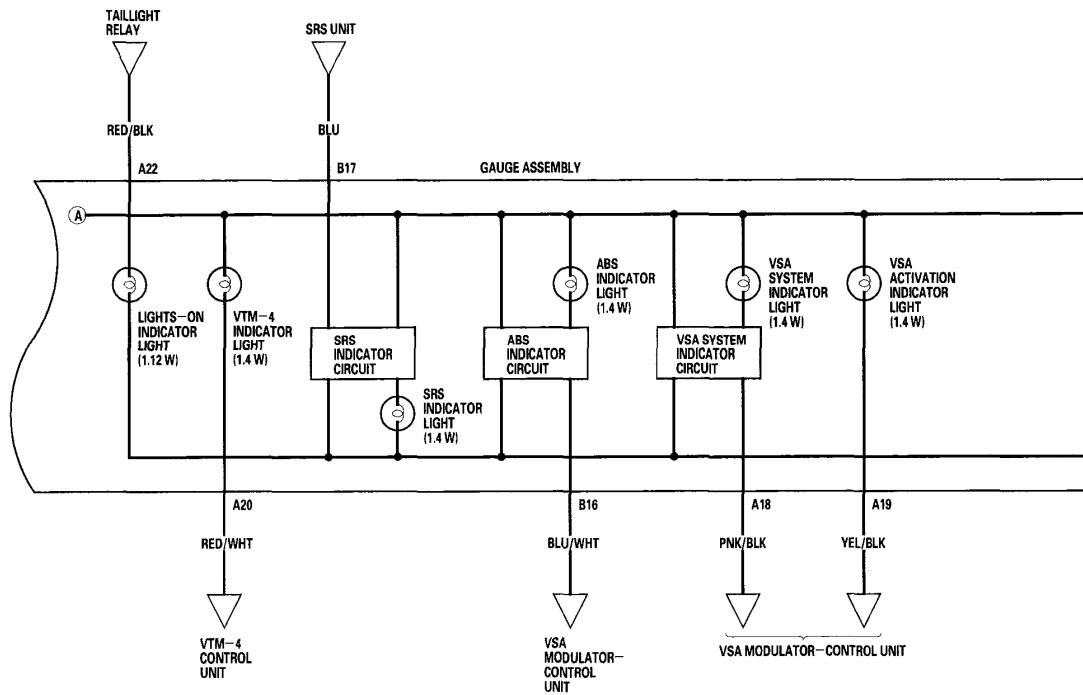


G03642071

**Fig. 6: Gauges Circuit Diagram ('03 Model - 2 Of 6)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

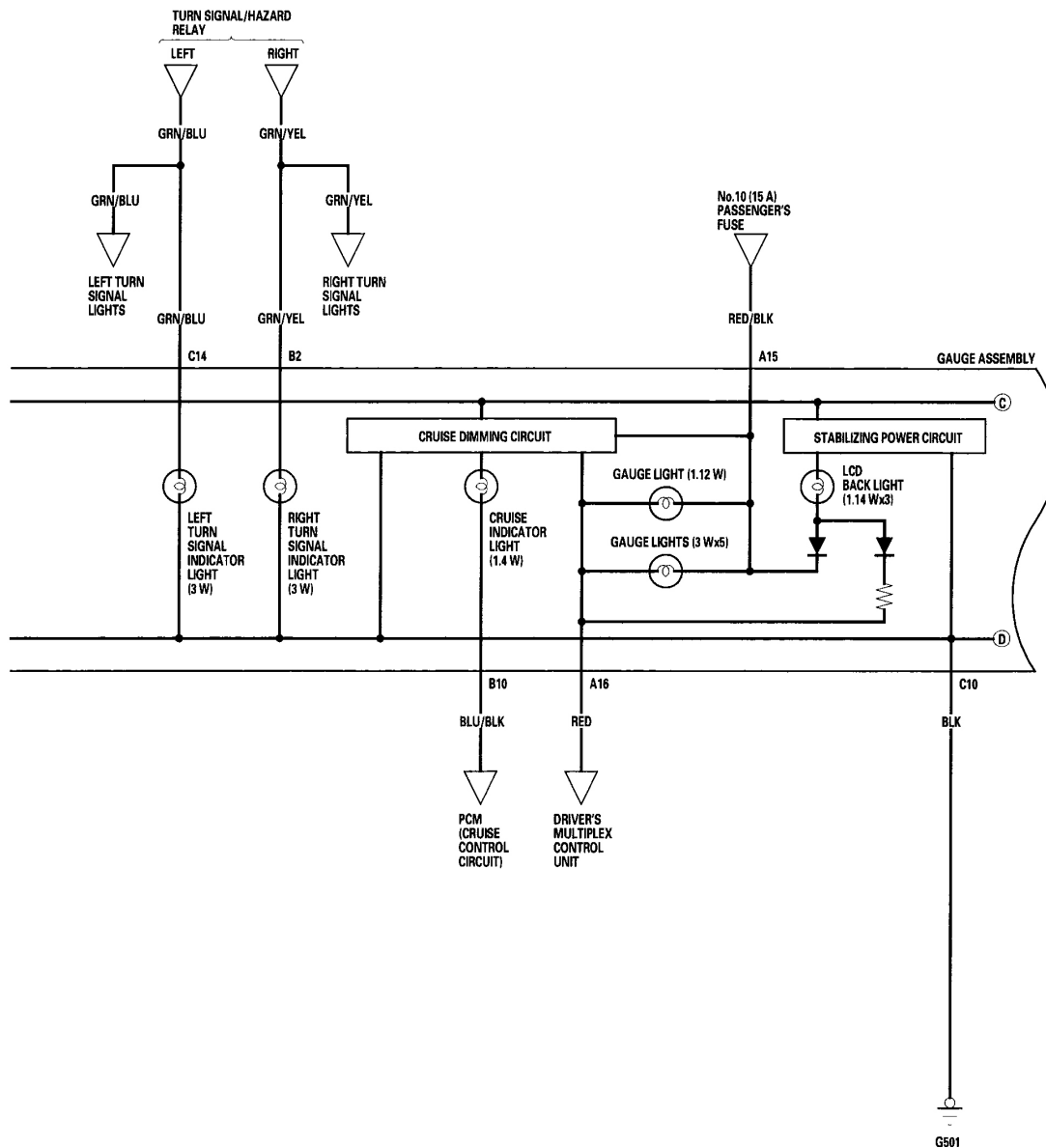


G03642072

**Fig. 7: Gauges Circuit Diagram ('03 Model - 3 Of 6)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



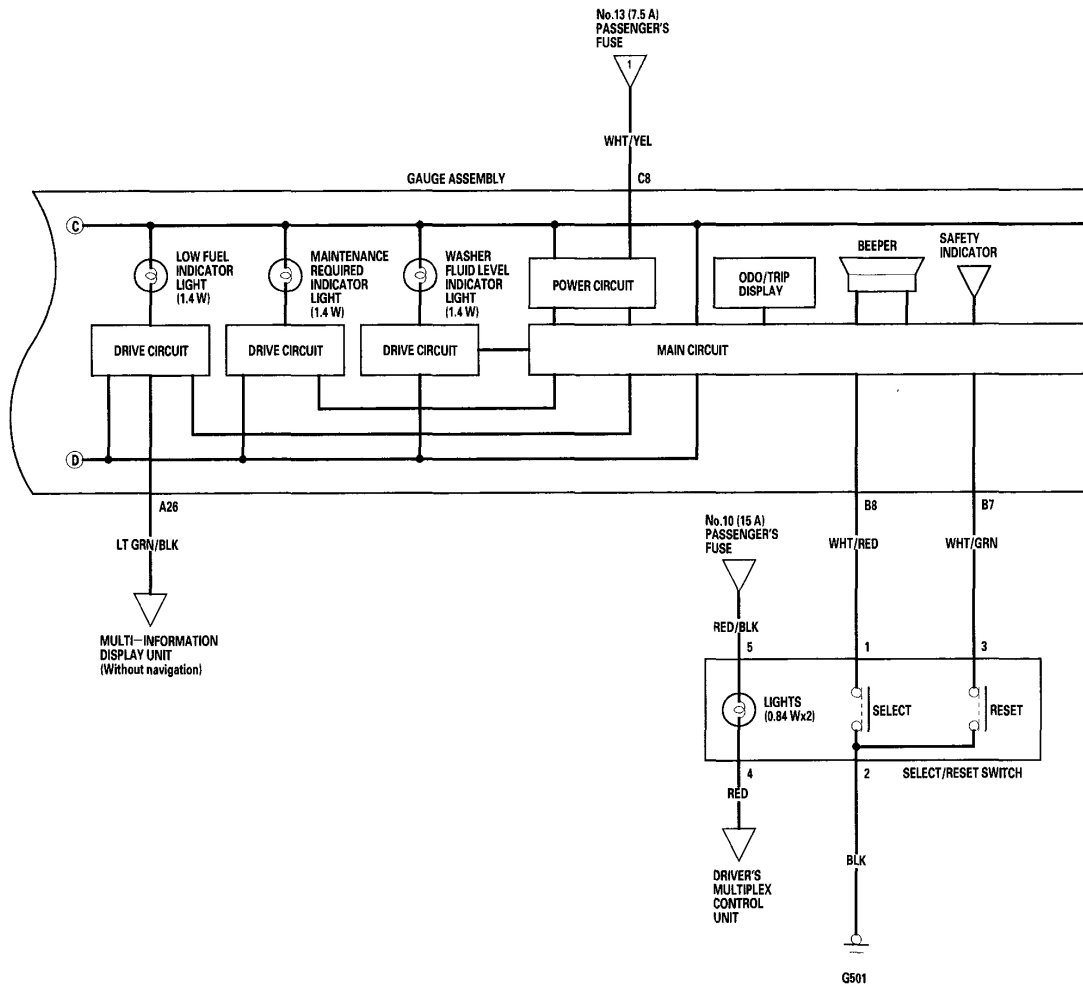
G03642073

**Fig. 8: Gauges Circuit Diagram ('03 Model - 4 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.



# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

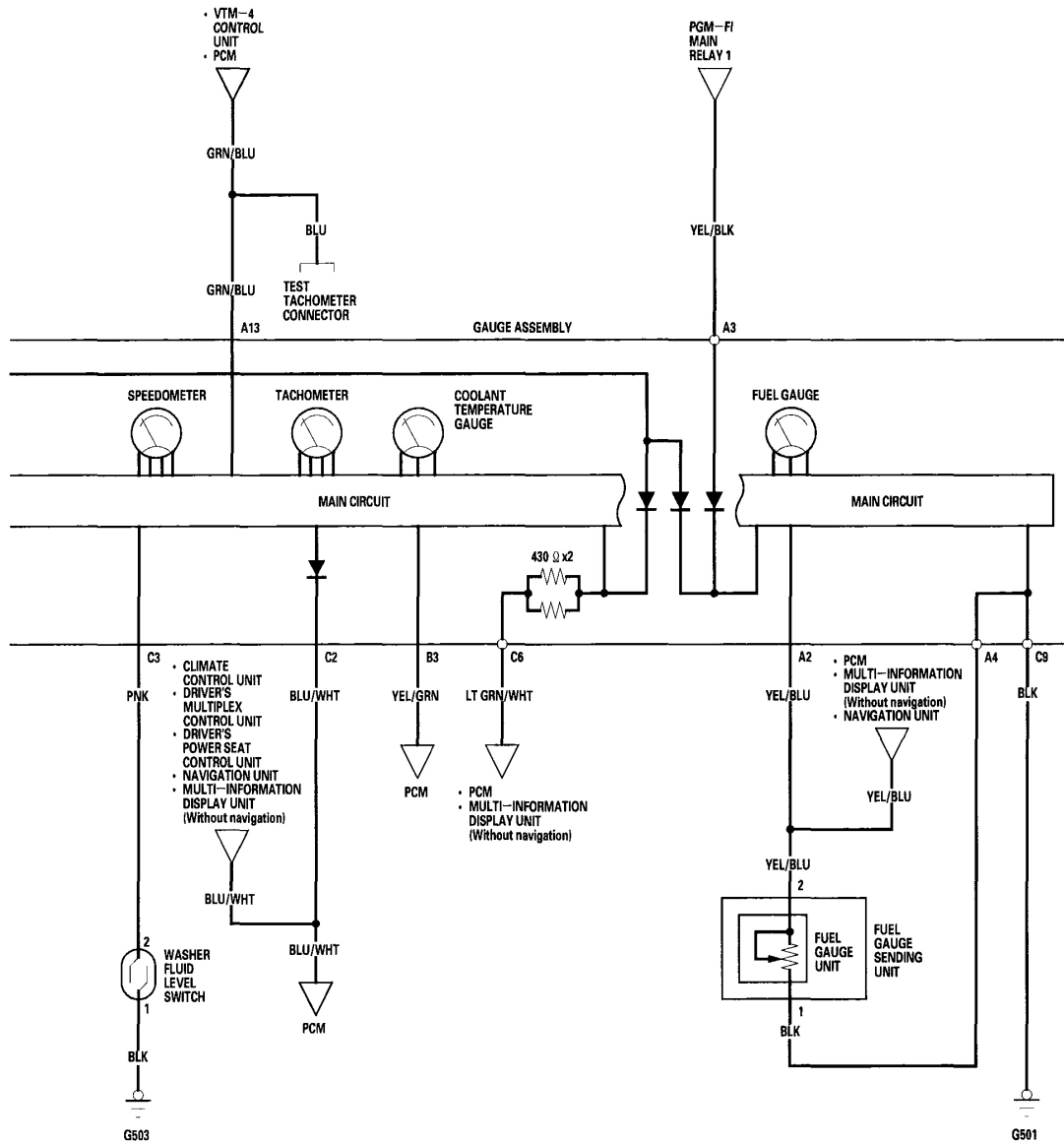


G03642074

**Fig. 9: Gauges Circuit Diagram ('03 Model - 5 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



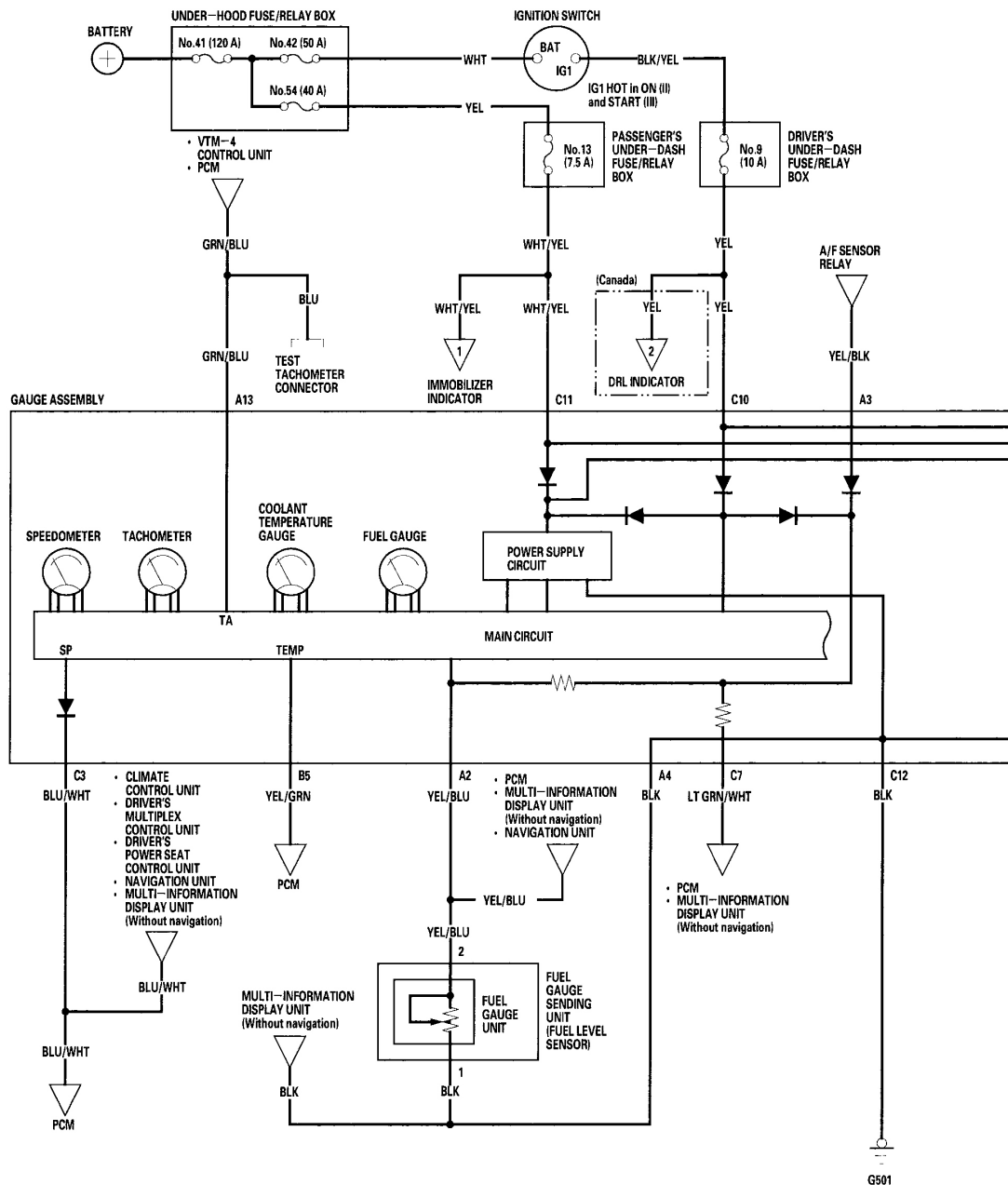
G03642075

**Fig. 10: Gauges Circuit Diagram ('03 Model - 6 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

**'04-'06 MODELS**

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

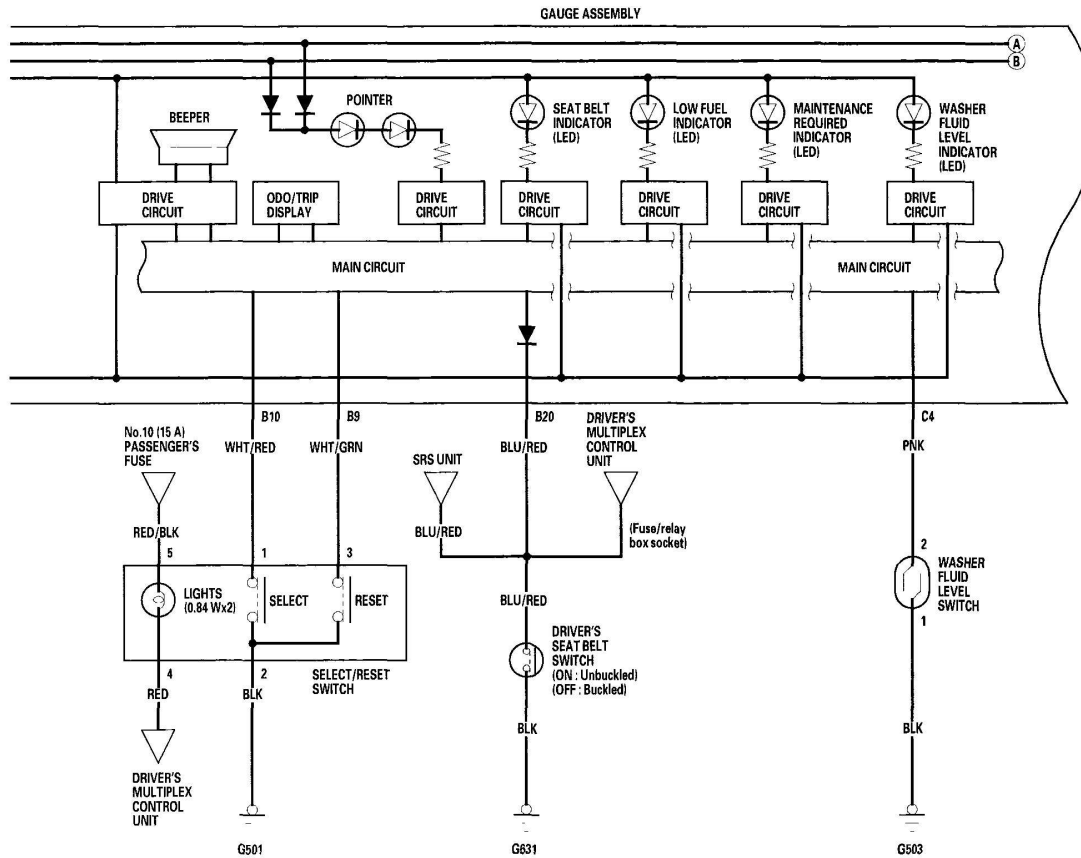


G03642076

**Fig. 11: Gauges Circuit Diagram ('04-06 Models - 1 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

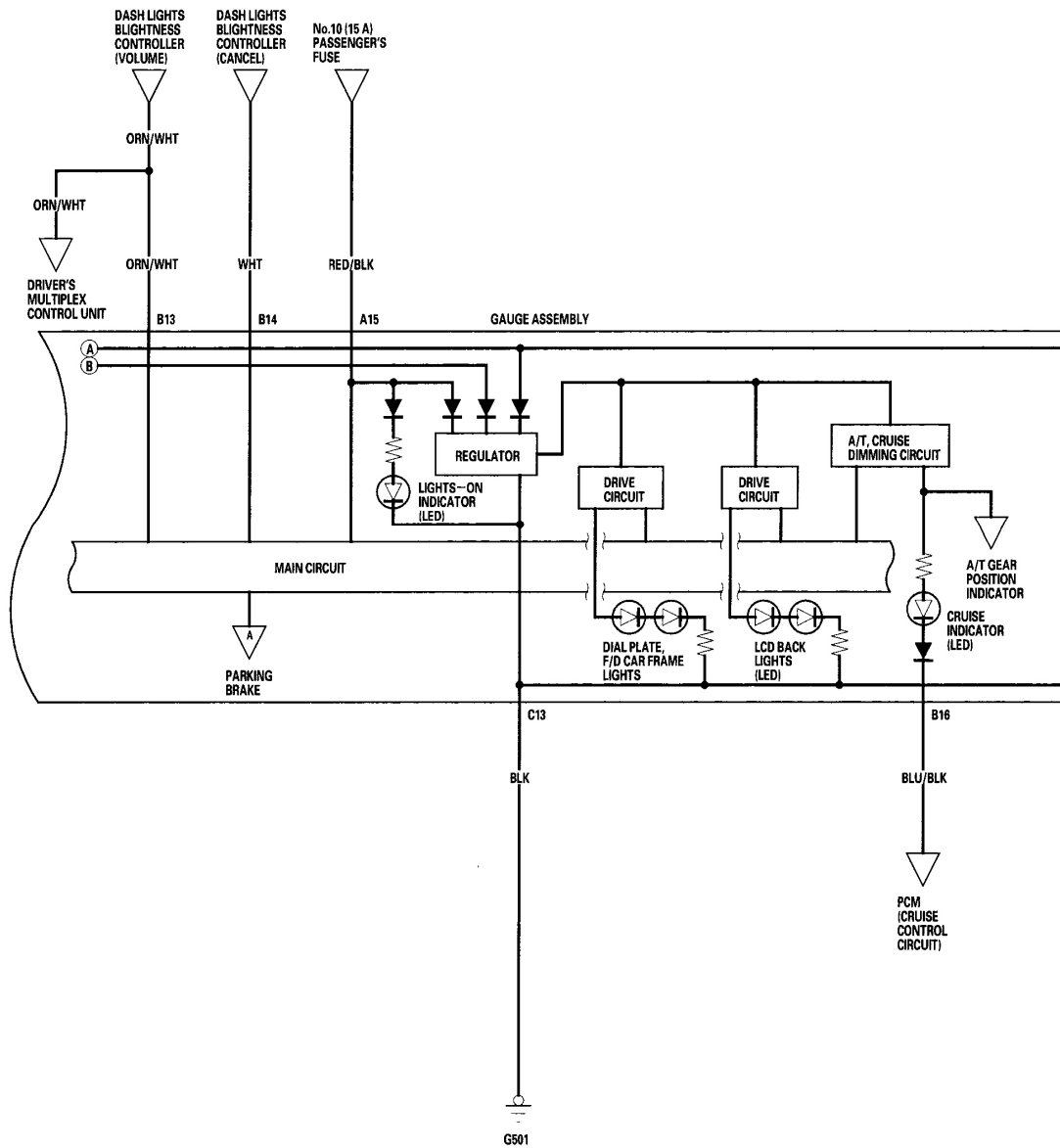


G03642077

**Fig. 12: Gauges Circuit Diagram ('04-06 Models - 2 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

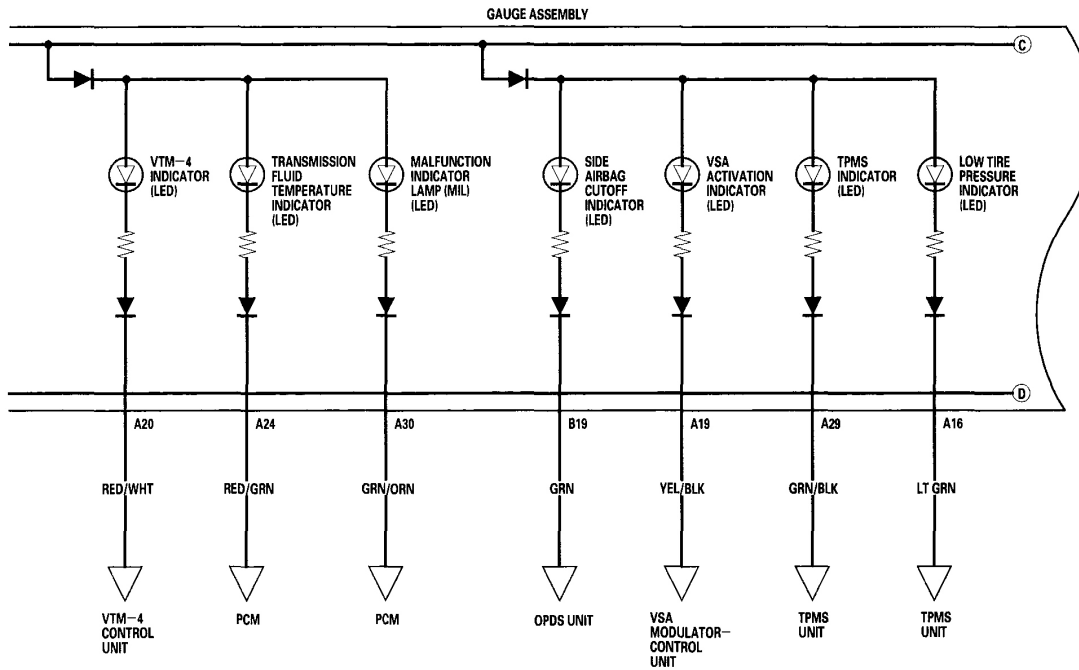


G03642078

**Fig. 13: Gauges Circuit Diagram ('04-06 Models - 3 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

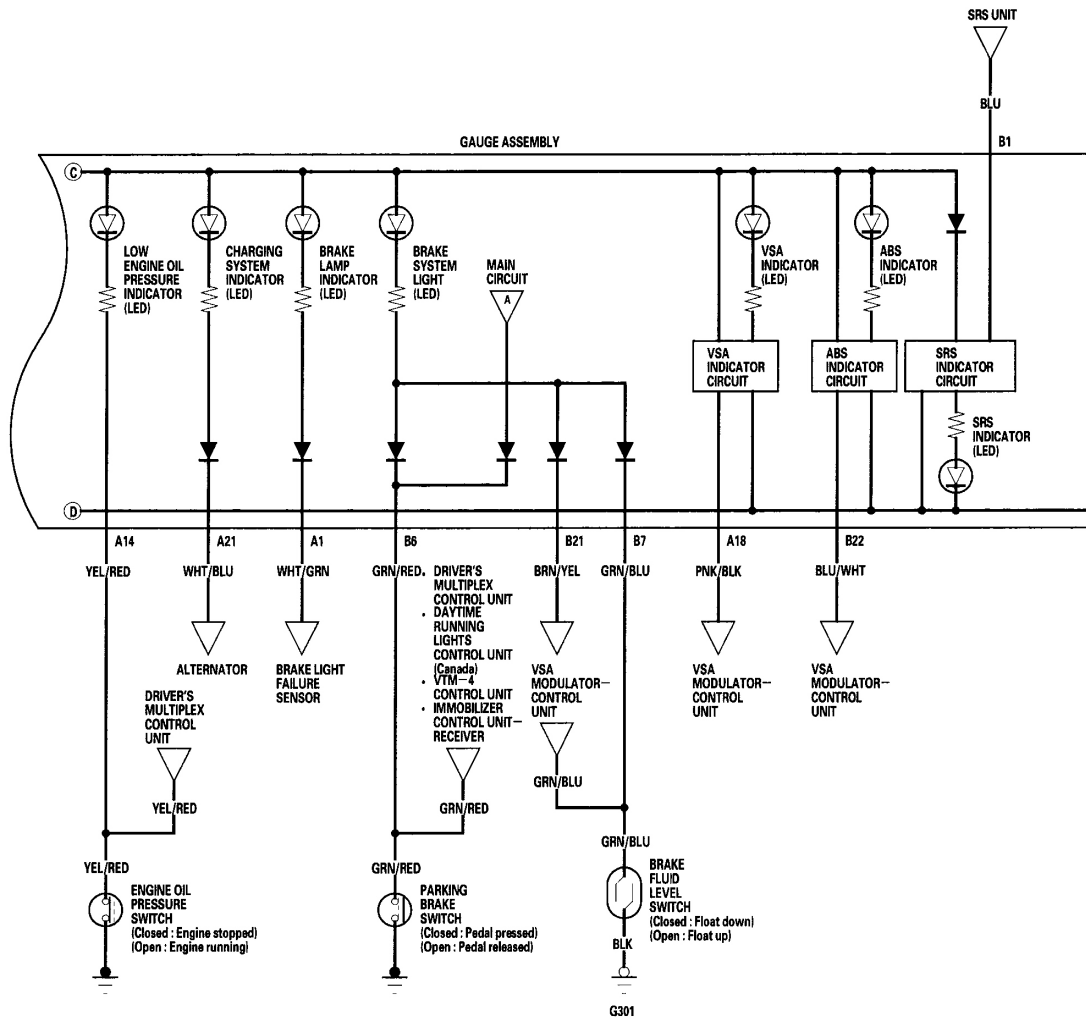


G03642079

**Fig. 14: Gauges Circuit Diagram ('04-06 Models - 4 Of 6)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

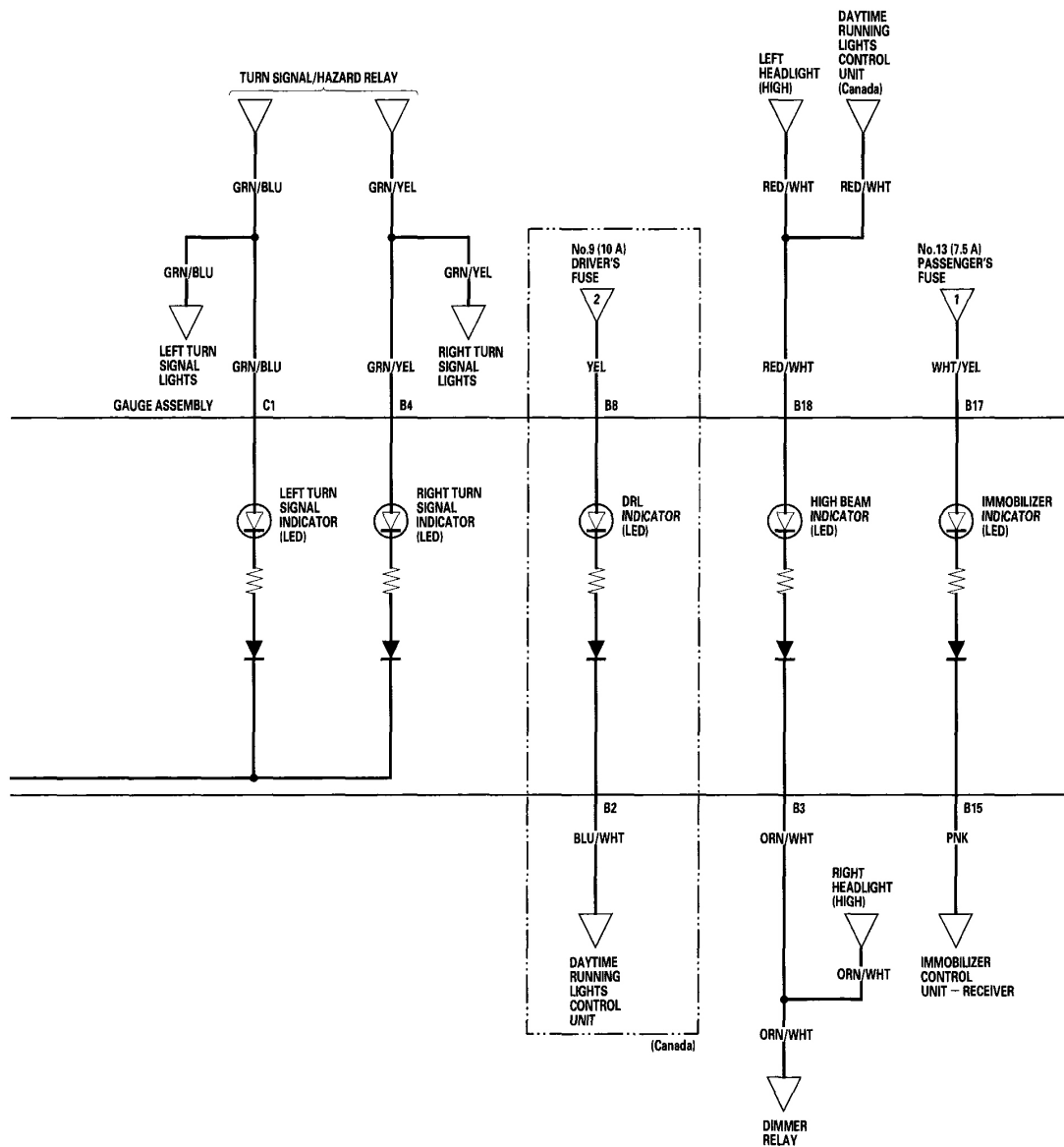
# 2006 Acura MDX

## 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



G03642080

**Fig. 15: Gauges Circuit Diagram ('04-06 Models - 5 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.



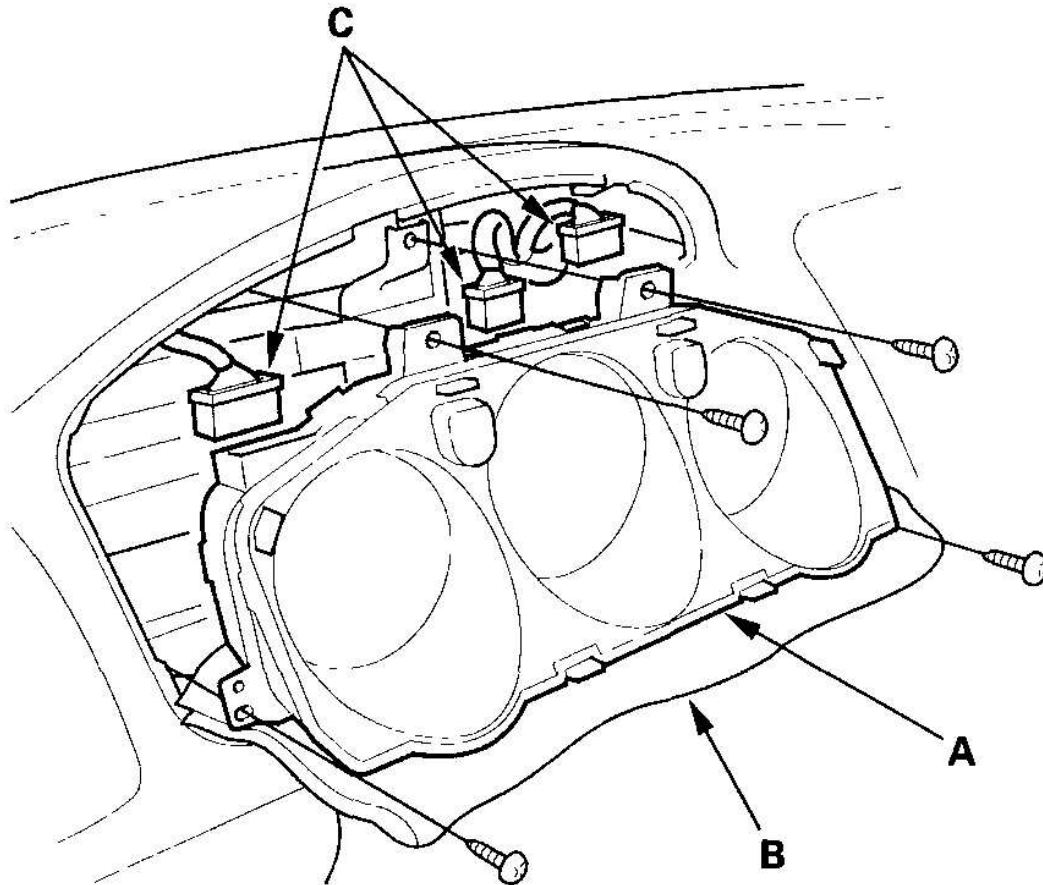
G03642081

**Fig. 16: Gauges Circuit Diagram ('04-06 Models - 6 Of 6)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

## GAUGE ASSEMBLY REPLACEMENT

1. Remove the instrument panel (see **INSTRUMENT PANEL REMOVAL/INSTALLATION** ).
2. Remove the screws from the gauge assembly (A), and spread a protective cloth (B) on the upper column cover.





G03642082

**Fig. 17: Removing Screws From Gauge Assembly**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

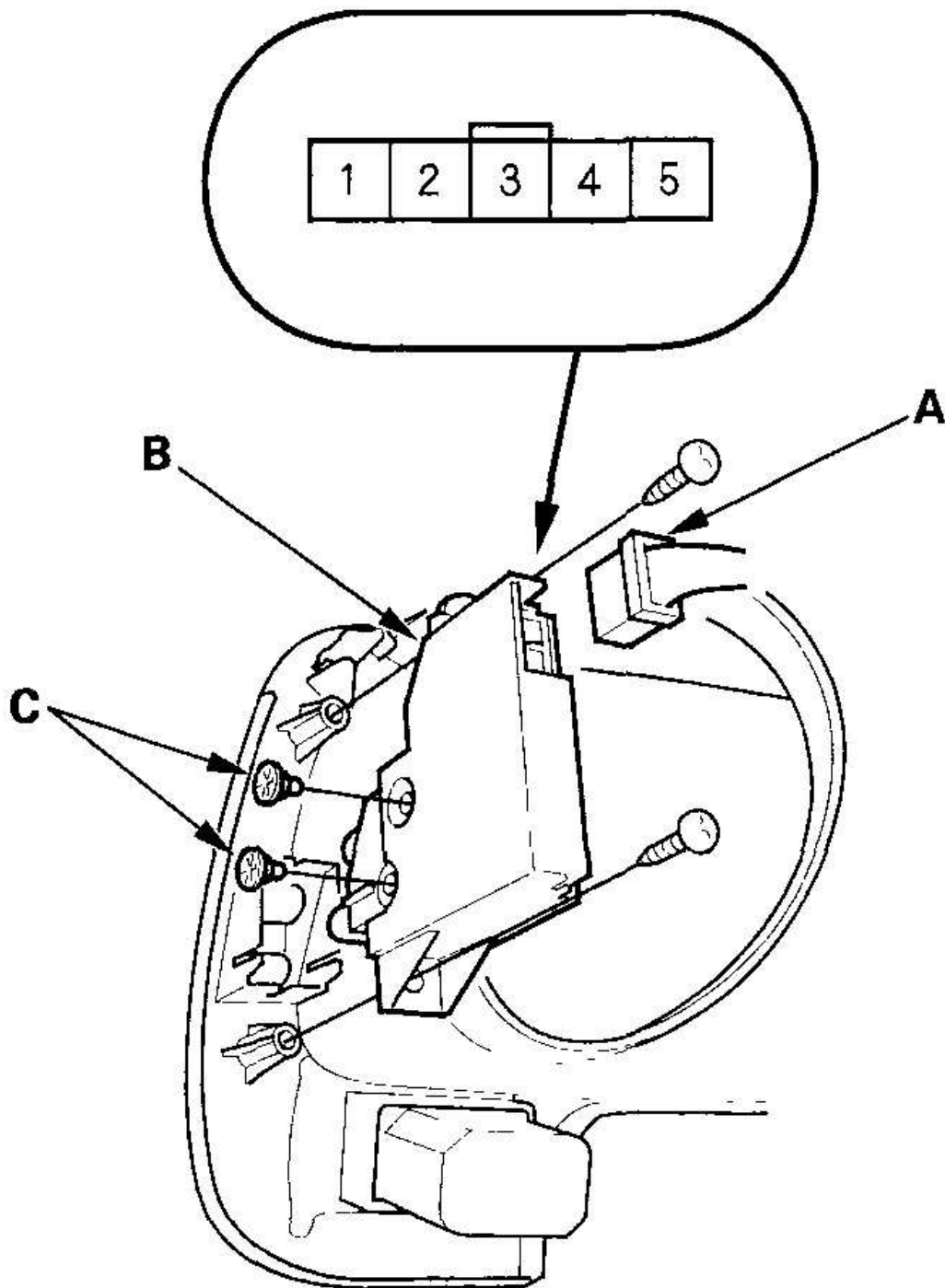
3. Disconnect the connectors (C), and remove the gauge assembly.
4. Install in the reverse order of removal.

## SELECT/RESET SWITCH TEST

1. Remove the instrument panel (see INSTRUMENT PANEL REMOVAL/INSTALLATION ).
2. Disconnect the 5P connector (A) from the select/reset switch (B).

**2006 Acura MDX**

2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX



G03642083

**Fig. 18: Disconnecting 5P Connector From Select/Reset Switch**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Check for continuity between the terminals in each switch position according to **Fig. 19** .

Terminal Position	1	2	3	4		5
OFF						
SELECT switch ON	○	○		○	⊗	○
RESET switch ON		○	○			

G03642084

**Fig. 19: Checking Continuity Between Terminals In Switch Position Chart**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

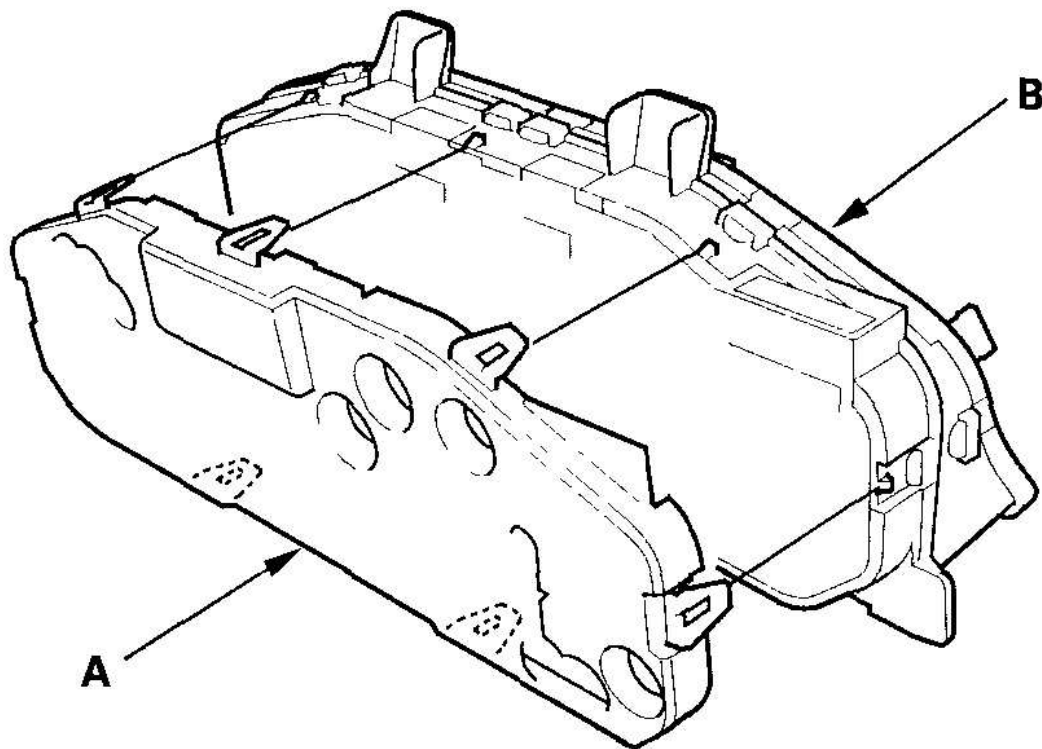
4. If the continuity is not as specified, replace the bulb(s) (C) or remove the two screws, and replace the switch.

## INDIVIDUAL GAUGE REPLACEMENT

### '03 MODEL

**NOTE:** For '04-06 models, always replace the gauge as an assembly.

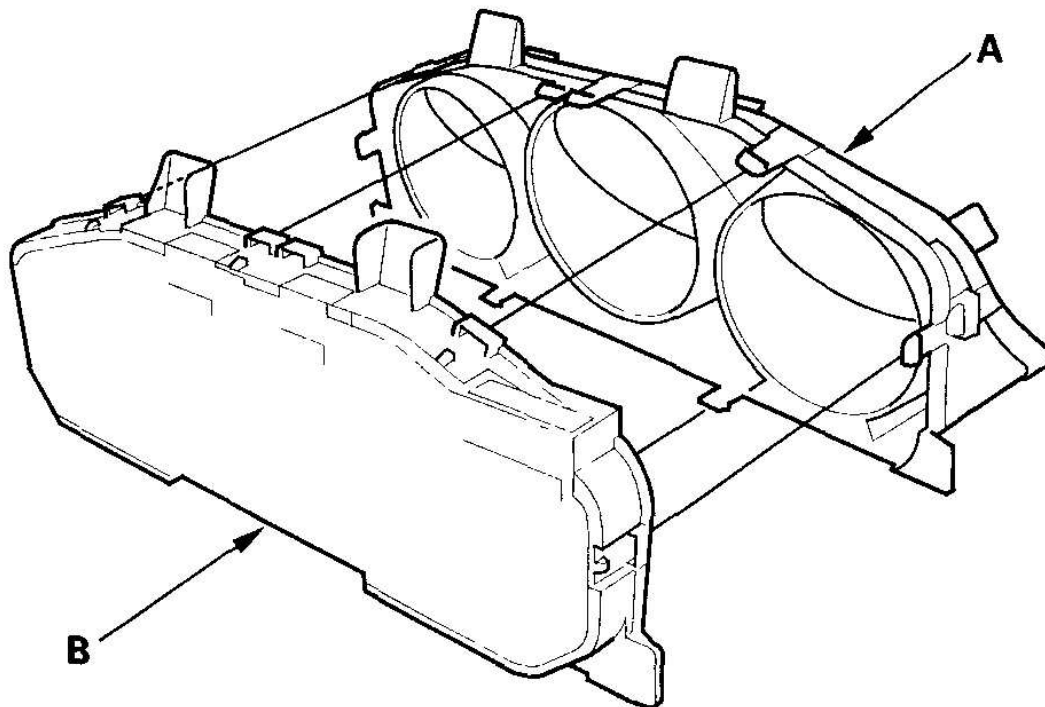
1. Remove the gauge assembly (see **GAUGE ASSEMBLY REPLACEMENT** ).
2. Remove the cover (A) from the back side of the gauge assembly (B).



G03642085

**Fig. 20: Removing Cover From Back Side Of Gauge Assembly**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the meter lens and visor (A) from the gauge assembly (B).



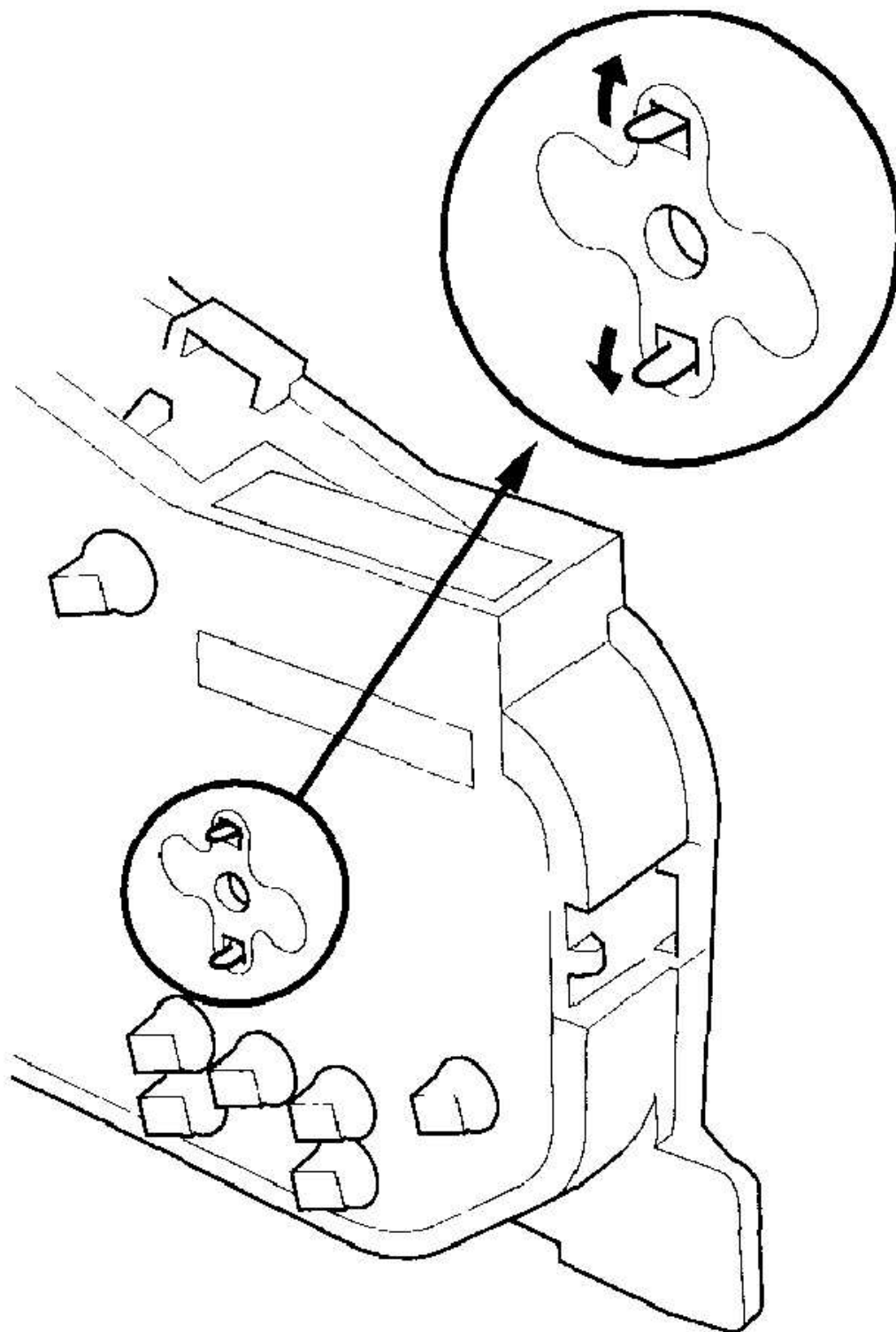
G03642086

**Fig. 21: Removing Meter Lens And Visor From Gauge Assembly**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Pry up the tabs with a screwdriver.

**2006 Acura MDX**

2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

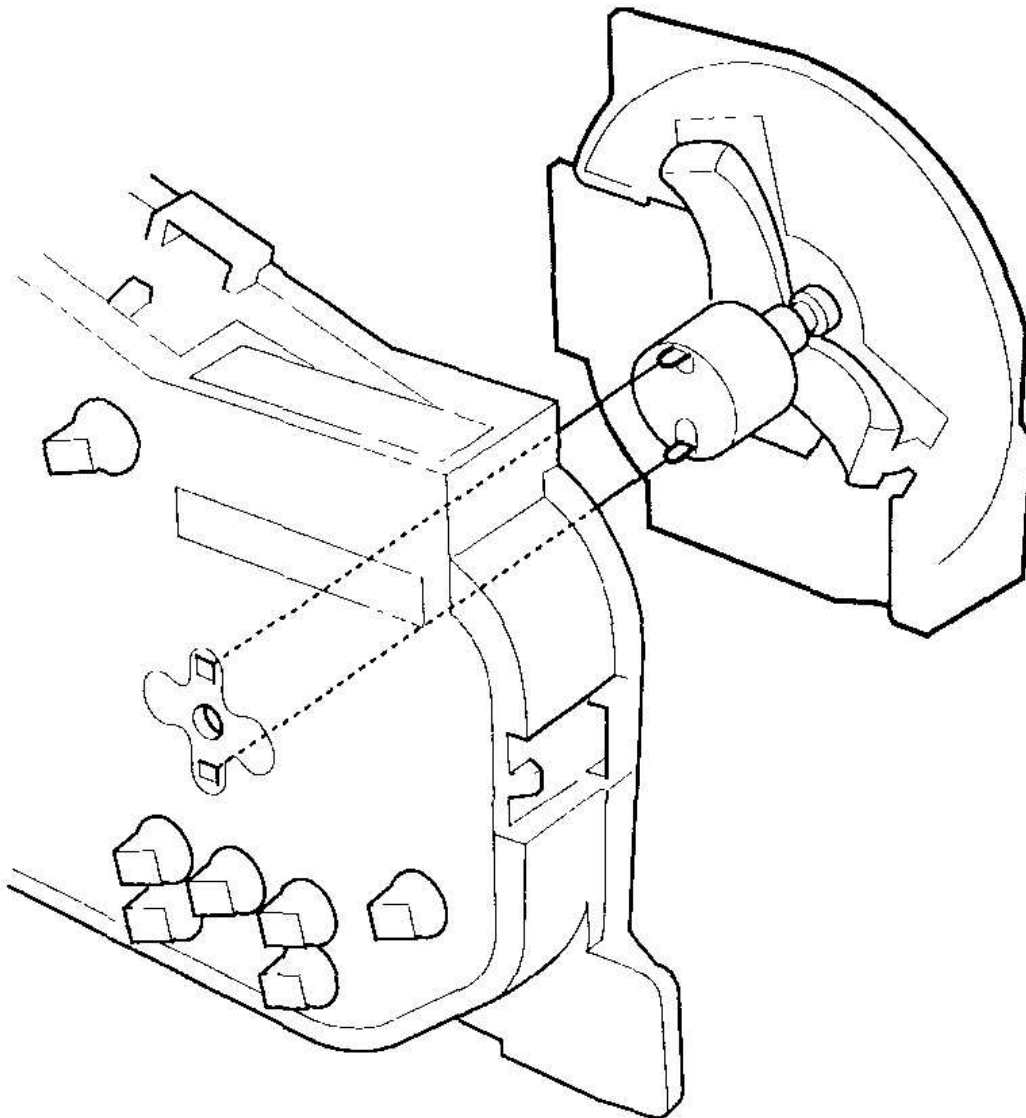


G03642087

**Fig. 22: Prying Tabs With Screwdriver**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Remove the meter assembly.



G03642088

**Fig. 23: Removing Meter Assembly**

Courtesy of AMERICAN HONDA MOTOR CO., INC.



6. Install the parts in the reverse order of removal.

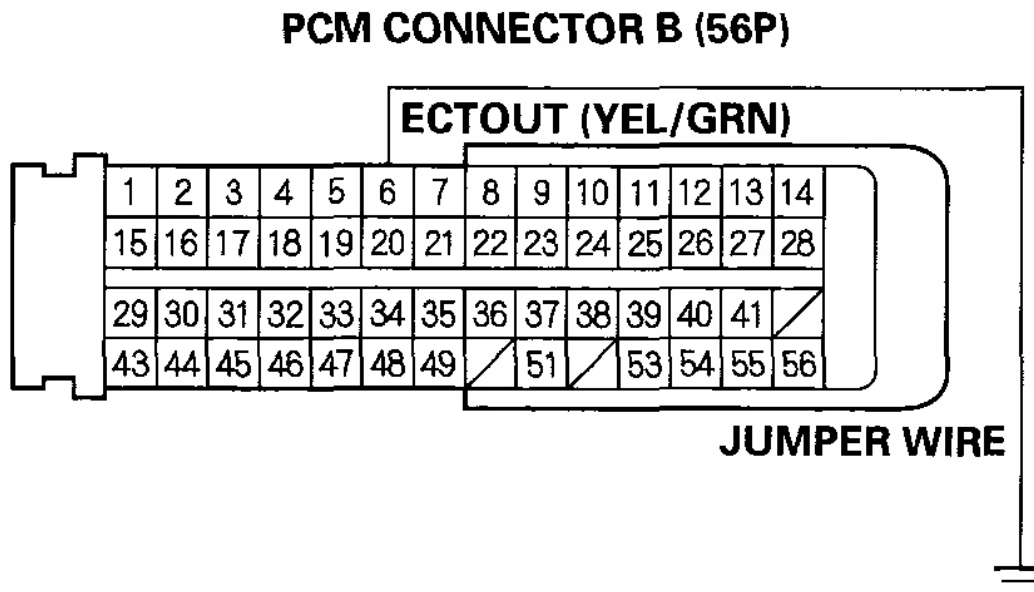
## COOLANT TEMPERATURE GAUGE SYMPTOM TROUBLESHOOTING

### COOLANT TEMPERATURE GAUGE NEEDLE DOES NOT MOVE AT ALL

1. Check for fuel and emissions-related DTCs.

If you find any, repair the problem, and clear the DTC before continuing.

2. Jump the SCS line with the Honda Diagnostic System (HDS).
3. Turn the ignition switch OFF.
4. Disconnect PCM connector B (56P).
5. Connect the PCM connector terminal B6 to body ground with a jumper wire.



Terminal side of female terminals

G03642089

**Fig. 24: Connecting PCM Connector Terminal B6 To Body Ground With Jumper Wire**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Turn the ignition switch ON (II).



## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

**After 30 seconds or more, does the temperature gauge needle move to the hot mark?**

**YES** - Check connections. If OK, substitute a known-good PCM and recheck (see **PCM UPDATING AND SUBSTITUTION FOR TESTING** ). If the symptom/indication goes away, replace the original PCM.

**NO** - Go to step 7.

7. Turn the ignition switch OFF, and disconnect gauge assembly connector B (18P or 22P\*).

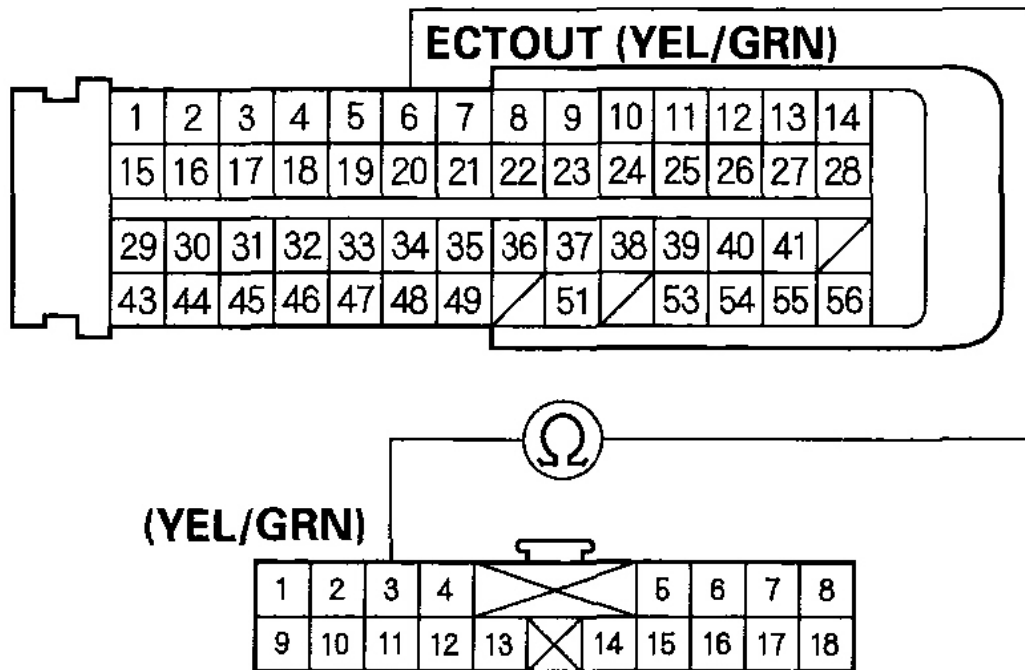
\*: '04-06 models

8. Check for continuity between PCM connector terminal B6 and gauge assembly connector terminal B3 (or B5\*).

\*: '04-06 models

**PCM CONNECTOR B (56P)**

Terminal side of male terminals

**GAUGE ASSEMBLY CONNECTOR B (18P)**

Wire side of female terminals

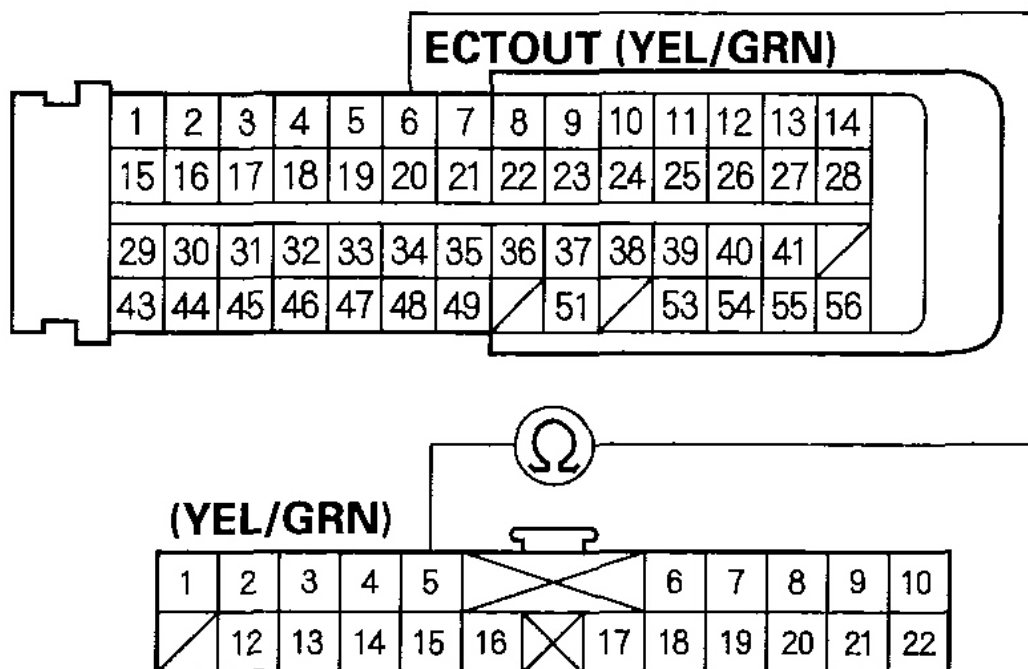
G03642090

**Fig. 25: Checking Continuity Between PCM Connector Terminal B6 And Gauge Assembly Connector B3 ('03 Model)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

**PCM CONNECTOR B (56P)**

Terminal side of male terminals

**GAUGE ASSEMBLY CONNECTOR B (22P)**

Wire side of female terminals

G03642091

**Fig. 26: Checking Continuity Between PCM Connector Terminal B6 And Gauge Assembly Connector B5 ('04-'06 Models)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

**Is there continuity?**

**YES** - Replace the fuel and temperature gauge assembly or the printed circuit board (PCB) ('03 model) or replace the gauge assembly ('04-'06 models).

**NO** - Repair open in the wire between PCM connector terminal B6 and gauge connector terminal B3 (or B5\*).

\*: '04-'06 models

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

#### COOLANT TEMPERATURE GAUGE NEEDLE GOES PAST THE HOT MARK

1. Check for fuel and emissions related DTCs.

If you find any, repair the problem, and clear the DTC before continuing.

2. Jump the SCS line with the HDS.
3. Turn the ignition switch OFF.
4. Disconnect PCM connector B (56P).
5. Turn the ignition switch ON (II), and watch the coolant temperature gauge.

**Does the temperature gauge needle stay on the cold mark? (you may have to watch it for about 30 seconds.)**

**YES** - Substitute a known-good PCM and recheck, (see **PCM UPDATING AND SUBSTITUTION FOR TESTING** ). If the symptom/indication goes away, replace the original PCM.

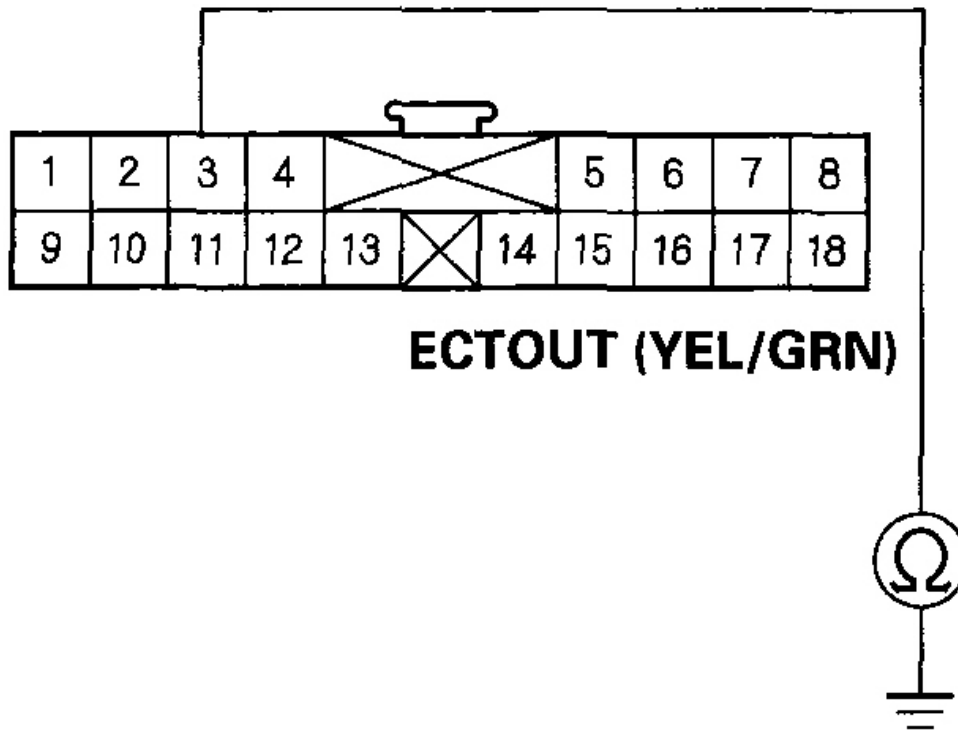
**NO** - Go to step 6.

6. Turn the ignition switch OFF, and disconnect gauge assembly connector B (18P or 22P\*).

\*: '04-06 models

7. Check for continuity between gauge assembly connector terminal B3 (or B5\*) and body ground.

\*: '04-'06 models

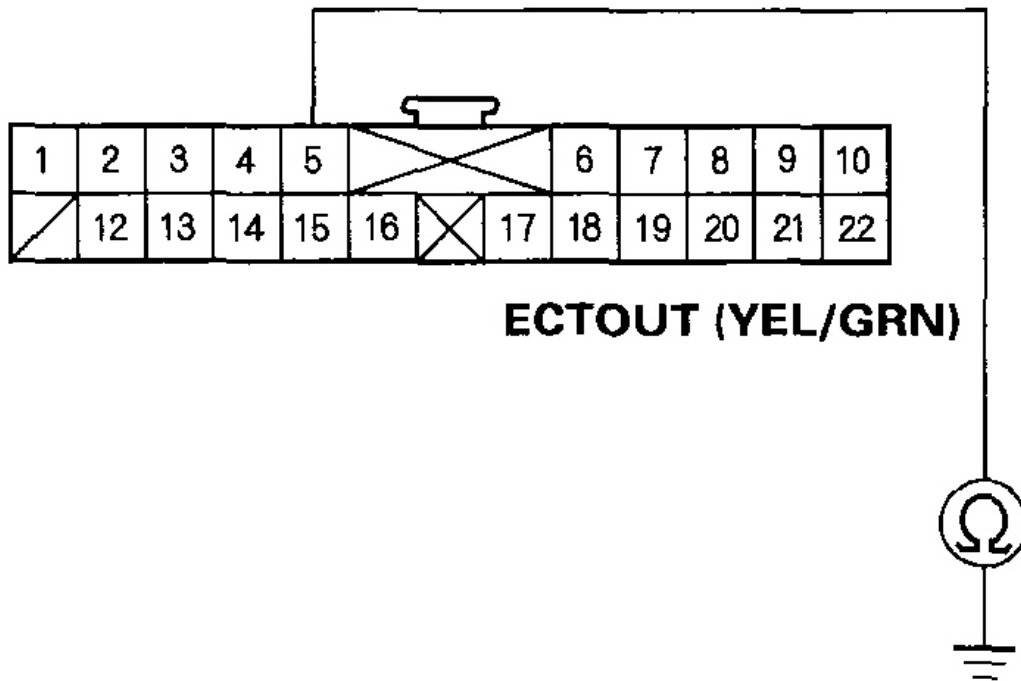
**GAUGE ASSEMBLY CONNECTOR B (18P)**

Wire side of female terminals

G03642092

**Fig. 27: Checking For Continuity Between Gauge Assembly Connector Terminal B3 And Body Ground ('03 Model)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

**GAUGE ASSEMBLY CONNECTOR B (22P)**

Wire side of female terminals

G03642093

**Fig. 28: Checking For Continuity Between Gauge Assembly Connector Terminal B5 And Body Ground ('04-06 Models)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

**Is there continuity?****YES** - Repair short to ground PCM connector B6 and gauge connector terminal B3 (or B5\*).**NO** - Replace the fuel and temperature gauge assembly or the printed circuit board (PCB) ('03 model) or replace the gauge assembly ('04-06 models).

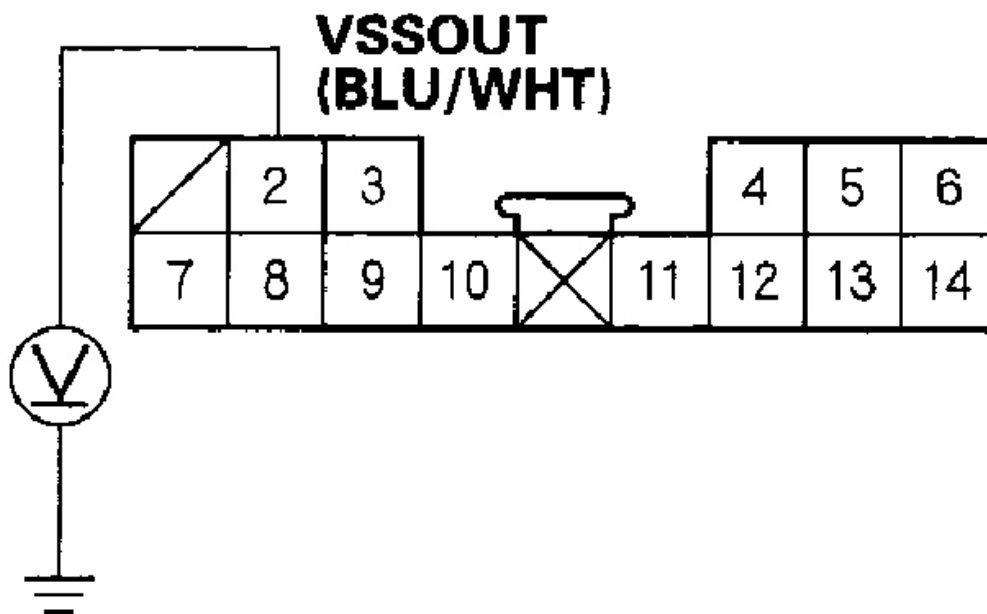
\*: '04-06 models

**VEHICLE SPEED SIGNAL CIRCUIT TROUBLESHOOTING****Before testing:**

- Check to see if Diagnostic Trouble Code (DTC) P0721 (9) is indicated. If it is, troubleshoot the DTC (see **DTC P0721: PROBLEM IN OUTPUT SHAFT (COUNTERSHAFT) SPEED SENSOR CIRCUIT** ).
  - Inspect the No. 9 (10 A) fuse in the driver's under-dash fuse/relay box.
  - Check for continuity between the gauge assembly 14P (or 16P\*) connector C9 and C10 (or C12 and C13) \* terminals and body ground (G501).
1. Raise the vehicle, and make sure it is securely supported.
  2. Disconnect gauge assembly connector C (14P or 16P\*).
  3. Connect the C2 (or C3\*) terminal to the positive probe of a voltmeter, and connect the negative probe to body ground. To prevent damage to the gauge assembly, lay the gauge assembly on a shop towel.

\*: '04-'06 models

## GAUGE ASSEMBLY CONNECTOR C (14P)



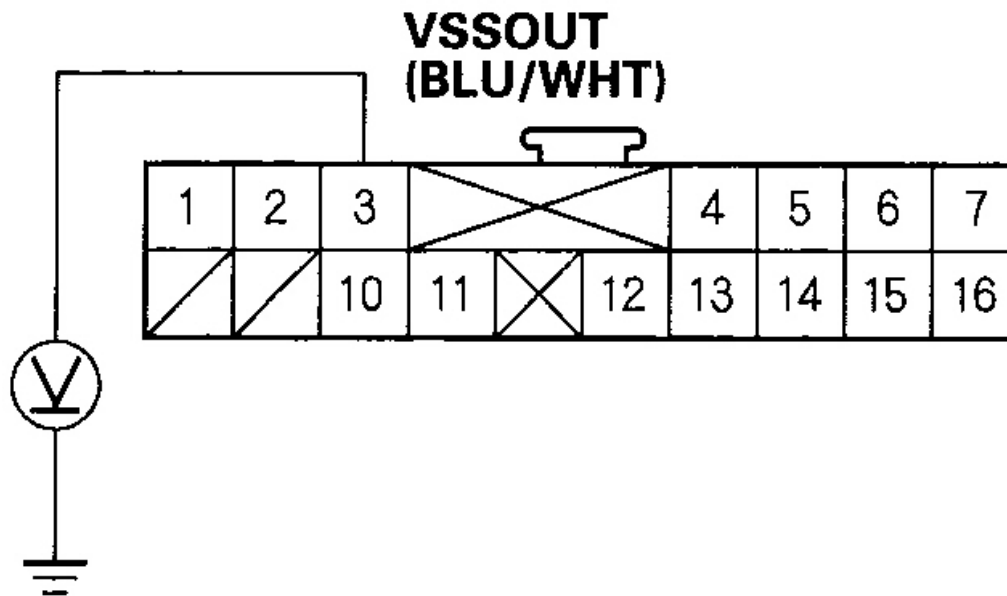
Wire side of female terminals

G03642094

**Fig. 29: Connecting C2 Terminal To Positive Probe Of Voltmeter And Connecting Negative Probe To Body Ground ('03 Model)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

## GAUGE ASSEMBLY CONNECTOR C (16P)



Wire side of female terminals

G03642095

**Fig. 30: Connecting C3 Terminal To Positive Probe Of Voltmeter And Connecting Negative Probe To Body Ground ('04-06 Models)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Put the vehicle in neutral with the ignition switch ON (II).
5. Slowly rotate (over 3 mph (2 km/h)) one wheel with the other wheel blocked.

**Does voltage pulse from 0 to about 5 V or more?**

**YES** - Replace the speedometer or the printed circuit board (PCB).

**NO** - Go to step 6.

6. Jump the SCS line with the HDS.
7. Turn the ignition switch OFF.

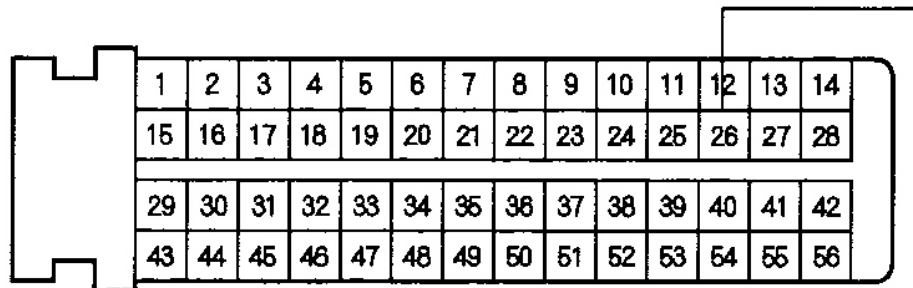


## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

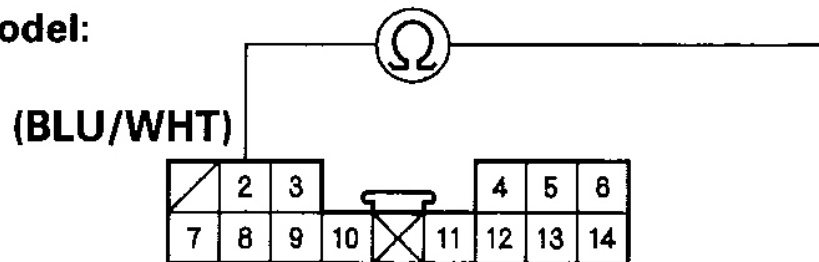
8. Disconnect PCM connector B (56P).
9. Check for continuity between PCM connector terminal B26 and gauge assembly connector terminal C2 (or C3\*).

\*: '04-'06 models

**PCM CONNECTOR B (56P)****VSSOUT (BLU/WHT)**

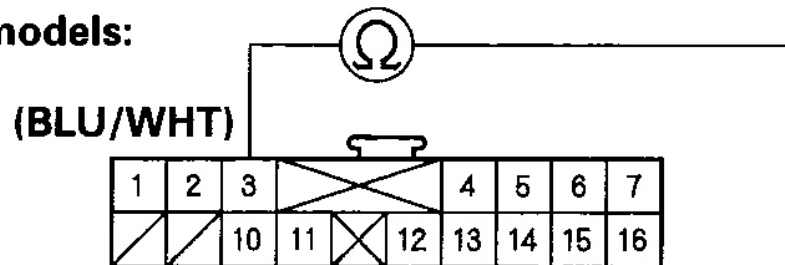
Terminal side of female terminals

'03 model:

**GAUGE ASSEMBLY CONNECTOR C (14P)**

Wire side of female terminals

'04-06 models:

**GAUGE ASSEMBLY CONNECTOR C (16P)**

Wire side of female terminals

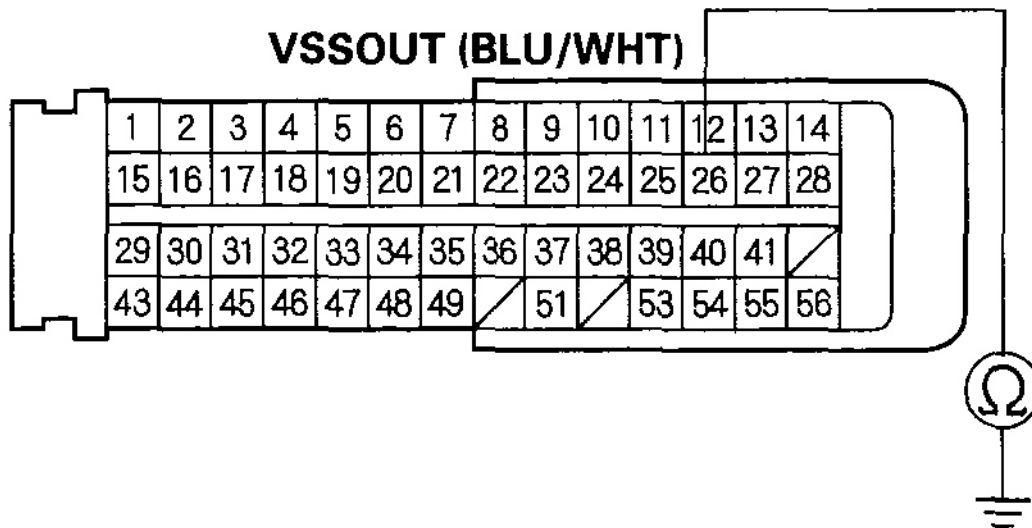
G03642096

**Fig. 31: Checking Continuity Between PCM Connector Terminal B26 And Gauge Assembly Connector Terminal C2 (Or C3\*)**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

**Is there continuity?****YES** - Go to step 10.**NO** - Repair open in the wire between the PCM (B26) and the gauge assembly.

10. Disconnect driver's multiplex control unit connector B, multi-information display unit connector B (without navigation) or navigation connector C (with navigation), climate control unit connector B, and the driver's power seat control unit connector A.
11. Check for continuity between PCM connector terminal B26 and body ground.

**PCM CONNECTOR B (56P)****Terminal side of female terminals**

G03642097

**Fig. 32: Checking Continuity Between PCM Connector Terminal B26 And Body Ground**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

**Is there continuity?**

**YES** - Repair short to ground in the BLU/WHT wire between the PCM and driver's multiplex control unit connector B, multi-information display unit connector B (without navigation), or navigation connector C (with navigation) climate control unit connector B, driver's power seat control unit connector A, or the gauge assembly connector C.

**NO** - Check for these problems:

## 2006 Acura MDX

### 2003-06 ACCESSORIES & EQUIPMENT Gauges - MDX

- Bent, loose or corroded terminals.
- A faulty PCM.

## RESETTING THE MAINTENANCE REQUIRED INDICATOR

### HOW TO RESET

Push the select button and reset button at the same time, turn the ignition switch ON (II), and continue to hold the buttons for more than 10 seconds.

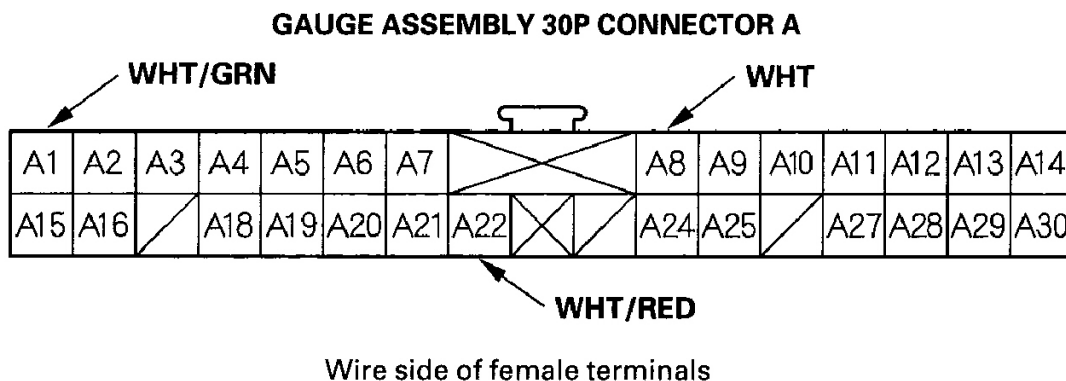
### RESETTING MAINTENANCE BLINKING PATTERN

Miles (km)	Maintenance Reminder Light
At 5,900 (9,440) to 6,100 (9,760)	Blinks for 10 seconds when the ignition switch is turned ON (II).
At 7,400 (11,840) to 7,600 (12,160)	Comes on and stays on while the ignition switch is ON (II).

## GAUGE INPUT TEST

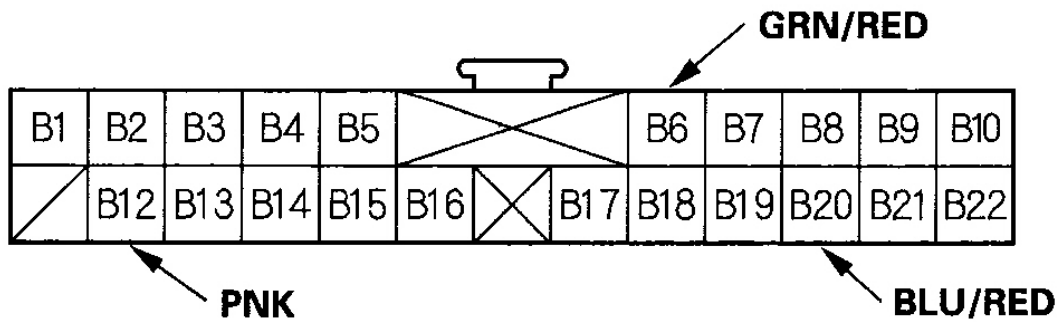
### '04-'06 MODELS

1. Remove the gauge assembly and disconnect its connectors (see **GAUGE ASSEMBLY REPLACEMENT** ).
2. 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 look OK, go to step 3.



G03642098

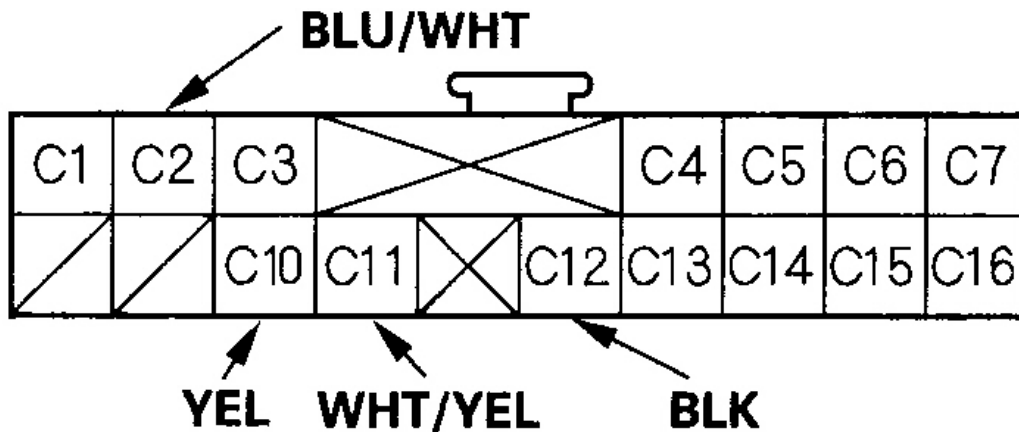
**Fig. 33: Inspecting Connector And Socket Terminals (Gauge Assembly 30P Connector A)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

**GAUGE ASSEMBLY 22P CONNECTOR B**

Wire side of female terminals

G03642099

**Fig. 34: Inspecting Connector And Socket Terminals (Gauge Assembly 22P Connector B)**  
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

**GAUGE ASSEMBLY 16P CONNECTOR C**

Wire side of female terminals

G03642100

**2006 Acura MDX**

2003-06 ACCESSORIES &amp; EQUIPMENT Gauges - MDX

**Fig. 35: Inspecting Connector And Socket Terminals (Gauge Assembly 16P Connector C)**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. With the connectors still disconnected, make these input tests at the connectors.
- 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 4.

**GAUGE INPUT TEST (CONNECTORS DISCONNECTED)**

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
A22	WHT/RED	Ignition switch ON (II)	Attach to ground: The back-up lights should come on.	<ul style="list-style-type: none"><li>• Faulty reverse relay</li><li>• An open in the wire</li></ul>

4. Reconnect the connectors to the gauge assembly, and make sure these input tests at the connectors.
- If any test indicates a problem, find and correct the cause, then recheck the system.
  - If all the input tests prove OK, the gauge assembly must be faulty, replace it.

**GAUGES INPUT TEST (CONNECTORS RECONNECTED)**

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
C10	YEL	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"><li>• Blown No. 9 (10 A) fuse in the driver's under-dash fuse/relay box</li><li>• Faulty driver's fuse/relay box</li></ul>
C11	WHT/YEL	Under all conditions	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"><li>• Blown No. 13 (7.5 A) fuse in the passenger's under-dash fuse/relay box</li><li>• An open in the wire</li></ul>
C12 C13	BLK	Under all conditions	Check for voltage to ground: There should be less than 1 V.	<ul style="list-style-type: none"><li>• Poor ground (G501)</li><li>• An open in the wire</li></ul>
				<ul style="list-style-type: none"><li>• Poor ground</li></ul>

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C2	BLU/WHT	Ignition key is in the ignition switch	Check for voltage to ground: There should be less than 1 V.	(G401) <ul style="list-style-type: none"> <li>Faulty ignition key switch</li> <li>An open in the wire</li> </ul>
		Ignition key is out of the ignition switch	Check for voltage to ground: There should be 5 V or more.	<ul style="list-style-type: none"> <li>Faulty ignition key switch</li> <li>Short to ground</li> </ul>
A8	WHT	Transmission range switch in R position	Check for voltage to ground: There should be less than 1 V.	<ul style="list-style-type: none"> <li>Poor ground (G101, G102)</li> <li>Faulty transmission range switch</li> <li>An open in the wire</li> </ul>
		Transmission range switch in other any position than R position	Check for voltage to ground: There should be 5 V or more.	<ul style="list-style-type: none"> <li>Faulty transmission range switch</li> <li>Short to ground</li> </ul>
B6	GRN/RED	Ignition switch ON (II), parking brake pedal pressed	Check for voltage to ground: There should be less than 1 V.	<ul style="list-style-type: none"> <li>Poor ground</li> <li>Faulty parking brake switch</li> <li>An open in the wire</li> </ul>
		Ignition switch ON (II), parking brake pedal released	Check for voltage to ground: There should be 5 V or more.	<ul style="list-style-type: none"> <li>Faulty parking brake switch</li> <li>Short to ground</li> </ul>
B12	PNK	Driver's door lock knob switch in locked	Check for voltage to ground: There should be less than 1 V.	<ul style="list-style-type: none"> <li>Faulty driver's door lock knob switch</li> <li>An open in the wire</li> </ul>
		Driver's door lock knob switch in unlocked	Check for voltage to ground: There should be 5 V or more.	<ul style="list-style-type: none"> <li>Faulty driver's door lock knob switch</li> <li>Short to ground</li> </ul>
			Check for	<ul style="list-style-type: none"> <li>Faulty driver's</li> </ul>

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B20	BLU/RED	Ignition switch ON (II), driver's seat belt unbuckled	voltage to ground: There should be less than 1 V.	seat belt switch <ul style="list-style-type: none"><li>• An open in the wire</li></ul>
		Ignition switch ON (II), driver's seat belt buckled	Check for voltage to ground: There should be 5 V or more.	<ul style="list-style-type: none"><li>• Faulty driver's seat belt switch</li><li>• Short to ground</li></ul>