

2005-08 BRAKES

Collision Mitigation Brake System (CMBS) - RL

COMPONENT LOCATION INDEX

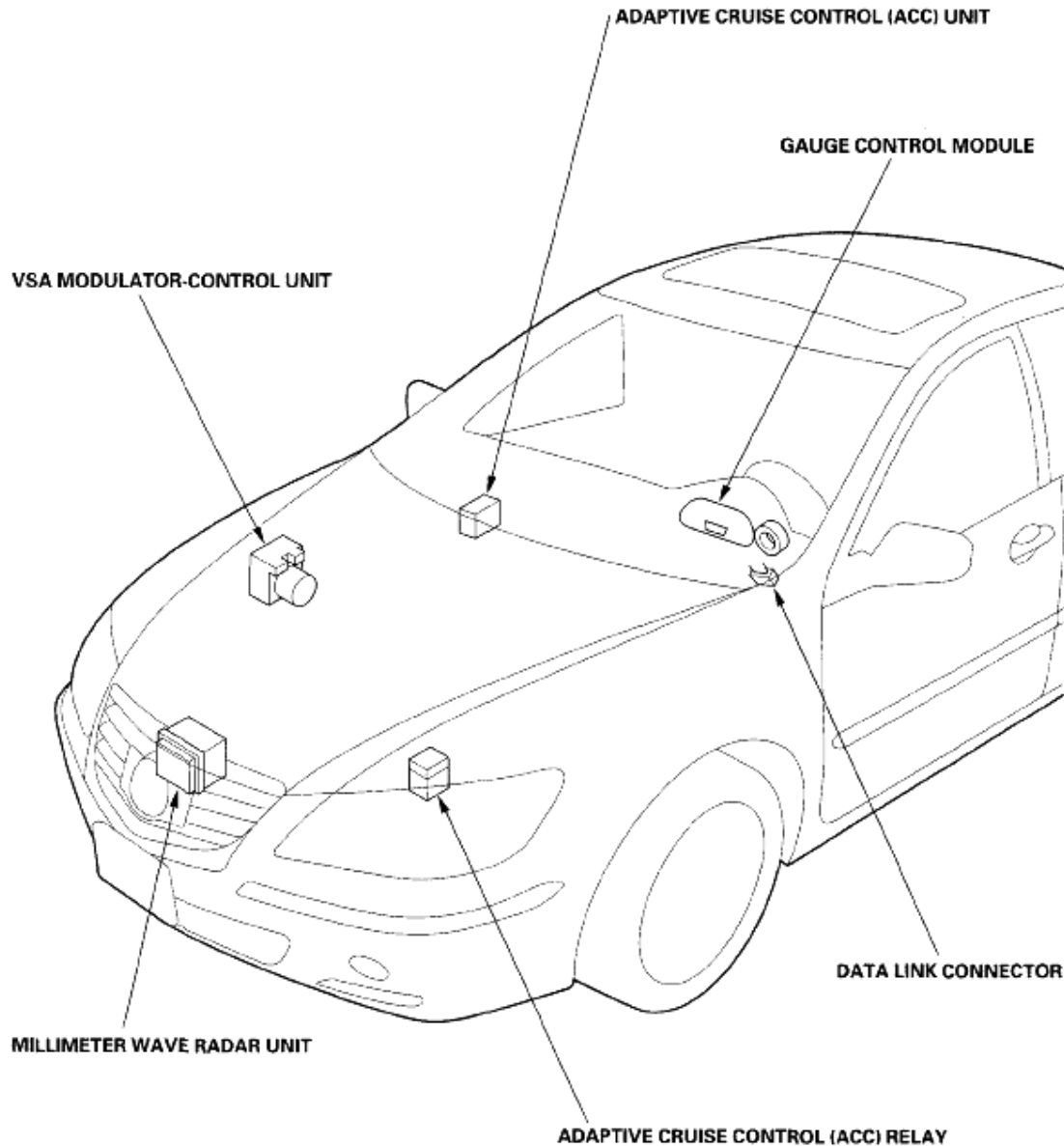


Fig. 1: Identifying Collision Mitigation Brake System Component Location (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

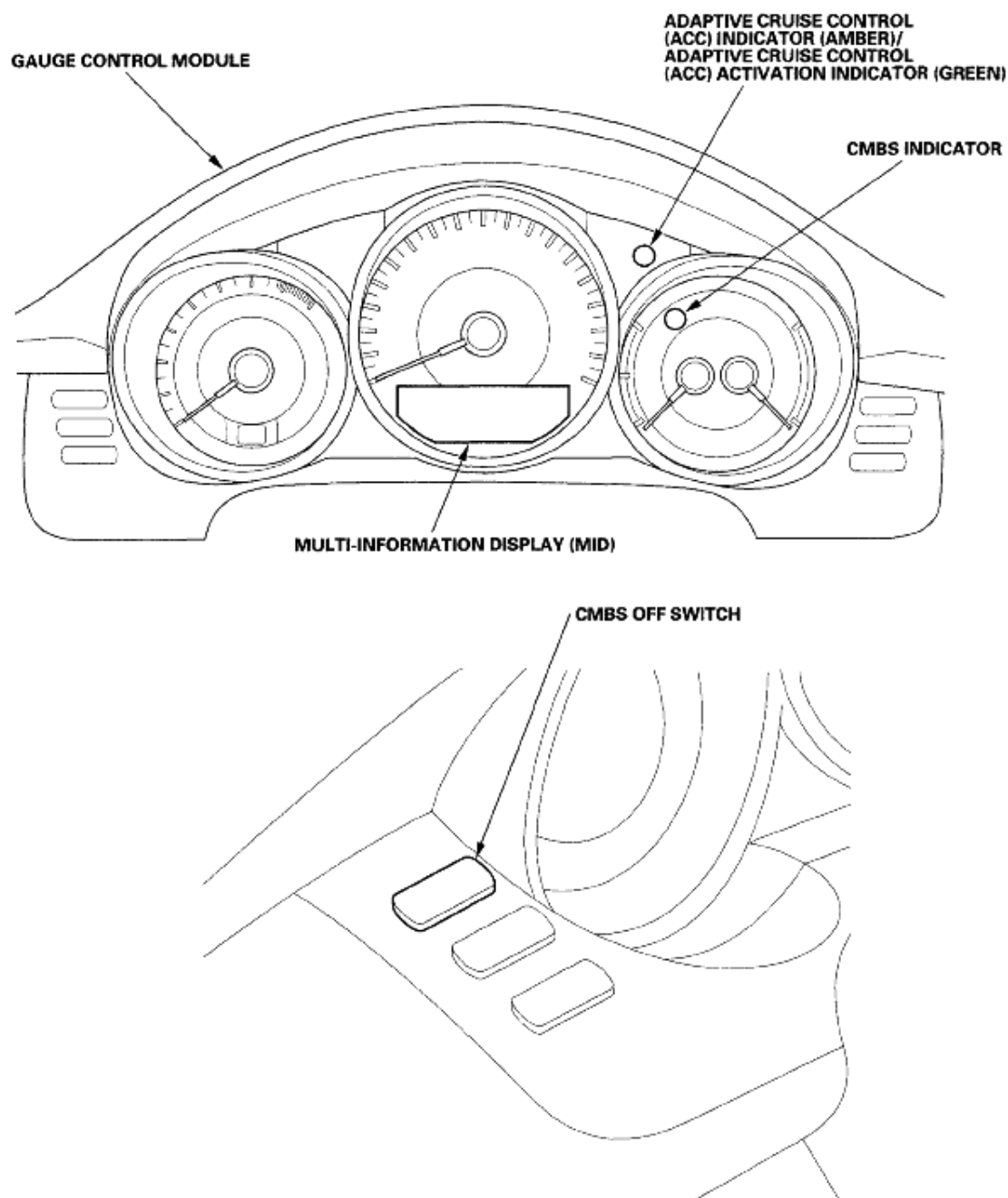


Fig. 2: Identifying Collision Mitigation Brake System Component Location (2 Of 2)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

GENERAL TROUBLESHOOTING INFORMATION

CMBS INDICATOR

If the system is OK, the CMBS indicator goes off 2 seconds after turning the ignition switch ON (II). The CMBS indicator comes on when the adaptive cruise control (ACC) unit detects a problem in the system.

NOTE:

- The ACC indicator indicates problems related with the ACC system and the CMBS.

- The CMBS indicator only indicates its system problems.
- The CMBS works with related systems such as the VSA system. If these related systems have a problem, the CMBS does not operate. In this case, the CMBS indicator and the related system indicator come on.

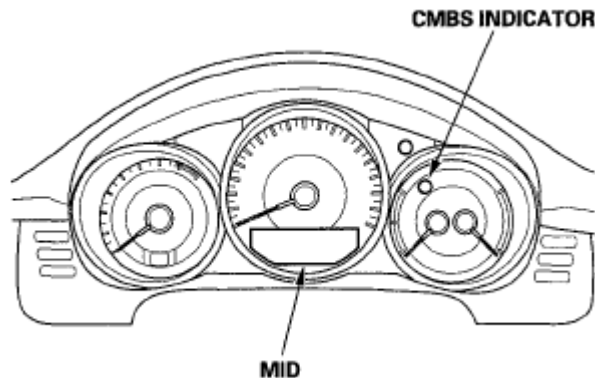


Fig. 3: Identifying CMBS Indicator And MID
Courtesy of AMERICAN HONDA MOTOR CO., INC.

When a problem is detected by the self-diagnostic function, the CMBS stops operating, turns on the CMBS indicator, indicates the problem on the MID, and stores the DTC.

CMBS OFF SWITCH

Press and hold the CMBS OFF switch for at least a second to turn the CMBS off and on.

CMBS INDICATION

- If the system is OK, the CMBS indicator comes on for 5 seconds after turning the ignition switch ON (II) with the CMBS OFF switch on.
- When the system is activated, the word "BRAKE" is indicated on the MID and the warning buzzer sounds.
 - First stage, BRAKE indicator and buzzer
 - Second stage, BRAKE indicator, buzzer, light braking, and light seat belt tension
 - Third stage, BRAKE indicator, buzzer, strong braking, and strong seat belt tension
- If the system stops operating because of a problem, the MID indicates the problem.

ADAPTIVE CRUISE CONTROL (ACC) UNIT

The ACC unit controls the brake and warning when the system recognizes the danger of a collision. The ACC unit has a self-diagnostic function. If the system detects a problem, it stops the CMBS, and turns on the CMBS indicator.

CMBS INITIAL CHECK

The ACC unit turns on the CMBS indicator if the CMBS initial check is not completed.

NOTE: For proper CMBS operation, if the ACC unit or the VSA modulator-control unit is replaced, do the CMBS initial check incomplete troubleshooting (DTC 100) (see **DTC 100: CMBS INITIAL CHECK INCOMPLETE**).

MILLIMETER WAVE RADAR UNIT

The millimeter wave radar unit recognizes the position of the vehicle running ahead and detects the two vehicles speed differential.

The ACC unit receives this information from the millimeter wave radar unit.

The millimeter wave radar unit also has an error detect function, and sends a signal to the ACC unit if an error is detected.

HOW TO TROUBLESHOOT DTCS

Check and clear the DTCs with the HDS.

NOTE: When both the ACC and CMBS indicators come on, do the ACC system troubleshooting first (except DTC 100).

Before troubleshooting, check and note these items:

- Ask the client about the conditions when the problem occurred, and try to reproduce the same conditions for troubleshooting.
- If the symptom does not appear and the CMBS indicator does not come on during the test-drive, but troubleshooting is done based on the DTC, check for poor connections or loose terminals at all connectors related to the circuit that you are troubleshooting.
- After the troubleshooting or repairs are done, clear the DTCs, and test-drive the vehicle under the same conditions as when the DTC was originally.
- The ACC system and the CMBS may sometimes stop working because of the environment (weather, road conditions, driving conditions, etc.). A DTC may be stored in these cases.

DTCs that may be stored even when the system is normal:

DTC 88: ACC indicator does not come on, CMBS indicator comes on

The millimeter wave radar unit overheats, the power supply voltage for the millimeter wave radar unit is low, or there is a communication error between the ACC unit and the millimeter wave radar unit.

DTC 95: ACC indicator does not come on, CMBS indicator comes on

Battery voltage is too high.

DTC 96: ACC indicator does not come on, CMBS indicator comes on

Battery voltage is too low.

DTC 97: ACC indicator does not come on, CMBS indicator comes on

Extensive driving on a rough road or the ignition switch is turned ON (ID/OFF).

DTC 102: ACC indicator does not come on, CMBS indicator comes on

Parking brake not fully released, or driving with the parking brake stuck.

HOW TO RETRIEVE DTCS

1. With the ignition switch OFF, connect the HDS to the data link connector (DLC) (A) under the left side of the dashboard.

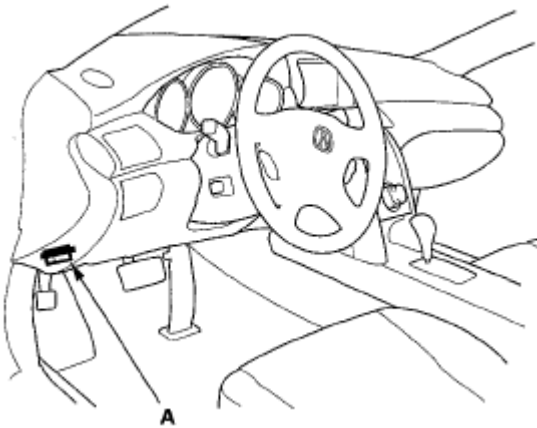


Fig. 4: Identifying HDS To Data Link Connector (DLC)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Turn the ignition switch ON (II).
3. Make sure the HDS communicates with the vehicle and the ACC unit. If it does not communicate, troubleshoot the DLC circuit (see **DLC CIRCUIT TROUBLESHOOTING**).
4. Follow the prompts on the HDS to display the DTC(s) on the screen. After determining the DTC, refer to the **DTC TROUBLESHOOTING**.

NOTE: See the HDS Help menu for specific instructions.

HOW TO CLEAR DTCS

NOTE: You cannot clear the DTCs manually.

1. With the ignition switch OFF, connect the HDS to the data link connector (DLC) (A) under the left side of the dashboard.

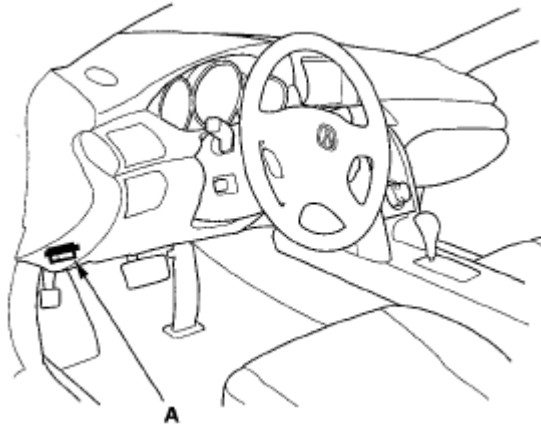


Fig. 5: Identifying HDS To Data Link Connector (DLC)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Turn the ignition switch ON (II).
3. Make sure the HDS communicates with the vehicle and the ACC unit. If it does not communicate, troubleshoot the DLC circuit (see **DLC CIRCUIT TROUBLESHOOTING**).
4. Clear the DTC(s) by following the screen prompts on the HDS.

NOTE:

- See the HDS Help menu for specific instructions.
- Some DTCs cannot be cleared until the radar aiming is complete.

DTC TROUBLESHOOTING INDEX

DTC TROUBLESHOOTING INDEX

DTC	Detection Item	Adaptive Cruise Control (ACC) Indicator	CMBS Indicator
<u>11</u>	Left rear wheel sensor problem	o	o
<u>12</u>	Right rear wheel sensor problem	o	o
<u>13</u>	Left front wheel sensor problem	o	o
<u>14</u>	Right front wheel sensor problem	o	o
<u>20</u>	Steering angle sensor malfunction	-	o
<u>21</u>	Yaw rate-lateral/longitudinal acceleration sensor malfunction	o	o
<u>22</u>	Yaw rate-lateral/longitudinal acceleration sensor center position revision value	o	o

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	error		
<u>23</u>	Yaw rate-lateral/longitudinal acceleration sensor gain error	o	o
<u>25</u>	Yaw rate-lateral/longitudinal acceleration sensor stabilizing malfunction	o	o
<u>30</u>	Adaptive cruise control (ACC) relay circuit malfunction	o	o
<u>34</u>	Master cylinder brake fluid pressure sensor circuit open/short	-	o
<u>35</u>	Master cylinder brake fluid pressure sensor center position error	-	o
<u>36</u>	Master cylinder brake fluid pressure sensor shift error	-	o
<u>60</u>	Communication line error	o	o
<u>61</u>	Millimeter wave radar unit communication error	o	o
<u>62</u>	Millimeter wave radar sensor error	o	o
<u>63</u>	Millimeter wave radar unit aiming error	o	o
<u>64</u>	CMBS operation error (excessive operation)	-	o
<u>88</u>	Millimeter wave radar out of detection area	-	o
<u>90</u>	A/T system and/or PGM-FI system malfunction	-	o
<u>95</u>	Power supply voltage too high	-	o
<u>96</u>	Power supply voltage too low	-	o
<u>97</u>	CMBS offset cancel timeout	-	o
<u>100</u>	CMBS initial check incomplete	o	o
<u>102</u>	CMBS parking brake incomplete releasing	-	o
<u>103</u>	CMBS brake control prohibition	-	o
<u>105</u>	Dust or dirt on the millimeter wave radar unit	-	o

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<u>107</u>	Millimeter wave radar unit aiming incomplete	o	o
<u>110</u>	Lost communication with the PCM (PGM-FI system)	-	o
<u>111</u>	Lost communication with the PCM (A/T system)	-	o
<u>112</u>	Lost communication with the VSA modulator-control unit	-	o
<u>113</u>	Lost communication with the gauge control module	-	o
<u>115</u>	Lost communication with the SH-AWD control unit	-	o

NOTE:

When both the ACC and CMBS indicators come on, do the ACC system troubleshooting first (except DTC 100).

SYMPTOM TROUBLESHOOTING INDEX

TROUBLESHOOTING CHART

Symptom	Diagnostic procedure	Also check for
CMBS OFF switch does not turn on/turn off (CMBS indicator does not change)	<ol style="list-style-type: none"> Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>). Test the CMBS OFF switch (see <u>CMBS OFF SWITCH TEST/REPLACEMENT</u>). Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>). 	<ul style="list-style-type: none"> An open in the wire A short in the wire
The MID does not indicate when the CMBS OFF switch is operated	<ol style="list-style-type: none"> Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>). Test the CMBS OFF switch (see <u>CMBS OFF SWITCH</u>). 	<ul style="list-style-type: none"> An open in the wire A short in the wire

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	<u>TEST/REPLACEMENT</u>). 3. Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>).	
The buzzer does not sound	1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>). 2. Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>).	
The buzzer does not sound when the CMBS OFF switch is operated	1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>). 2. Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>).	
The MID does not indicate with the CMBS operating	1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>). 2. Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>).	
The CMBS system operates frequently	1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING</u>).	Driving condition, weather, environmental influence

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	<p><u>(NO DTC INDICATION)</u>).</p> <ol style="list-style-type: none">2. Check the millimeter wave radar unit.3. Check the front emblem for warpage.4. Check the wheel alignment.	
The CMBS system operated without danger of collision	<ol style="list-style-type: none">1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>).2. Check the millimeter wave radar unit.3. Check the front emblem for warpage.4. Check the wheel alignment.	Driving condition, weather, environmental influence
The CMBS system didn't operate	<ol style="list-style-type: none">1. Adaptive cruise control (ACC) system troubleshooting (No DTC Indication) (see <u>ADAPTIVE CRUISE CONTROL (ACC) SYSTEM TROUBLESHOOTING (NO DTC INDICATION)</u>).2. Check the millimeter wave radar unit.3. Check the front emblem for warpage.4. Check the wheel alignment.	<ul style="list-style-type: none">• Driving conditions, weather, environmental influences• Undetectable environment
CMBS indicator does not come on	Do the gauge control module self-diagnostic function (see <u>SELF-DIAGNOSTIC FUNCTION</u>)	
CMBS indicator does not go off	Symptom troubleshooting (see <u>CMBS INDICATOR DOES NOT GO OFF</u>)	
HDS does not communicate with the adaptive cruise control (ACC) unit or the vehicle	Troubleshoot the DLC circuit (see <u>DLC CIRCUIT TROUBLESHOOTING</u>)	

SYSTEM DESCRIPTION

The collision mitigation brake system (CMBS), anticipates rear-end collisions and assists brake operation to reduce the impact on occupants and vehicle damage. The system works in combination with the e-

pretensioners, which retract the seat belts in anticipation of impact.

CMBS OPERATION

- Warnings are both audible (warning buzzer) and visual (MID)
- Evasive action support and collision-speed reduction by brake control

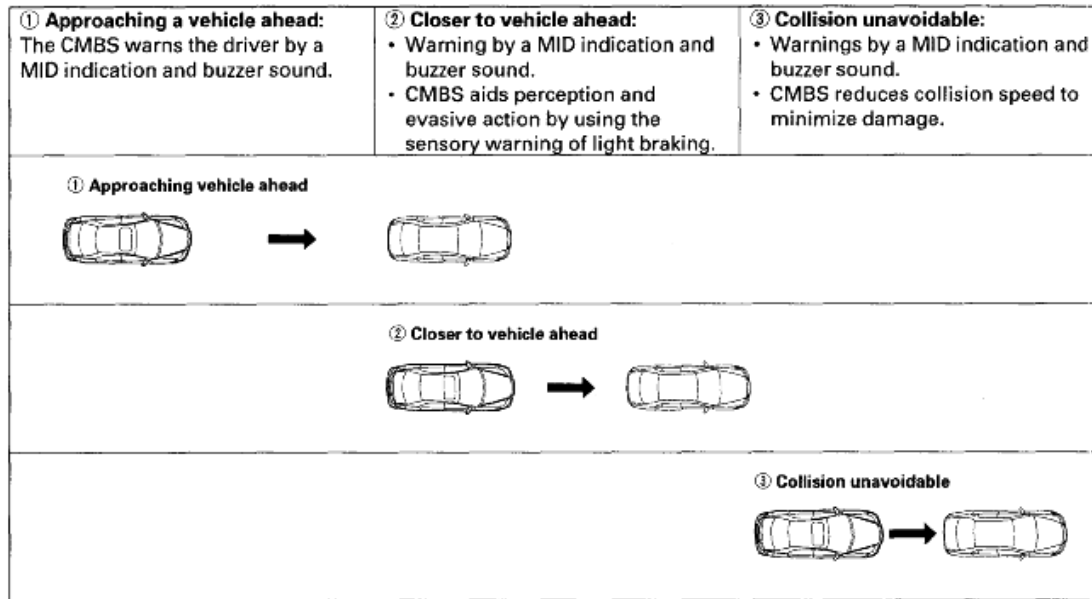


Fig. 6: CMBS Operation Diagram
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

MAIN FUNCTIONS OF CMBS

- When a collision with a vehicle ahead is about to happen at a vehicle speed greater than 9 mph (15 km/h) and the relative speed (the speed difference from the vehicle ahead) is greater than 9 mph (15 km/h), the system provides warnings (audible and visual) and brake control.
- When approaching a vehicle ahead and the distance to the vehicle ahead is very close, the system provides the collision warning (1st stage) by the MID indication and buzzer sound.
- When the closing distance continues to decrease and there is a high risk of collision, the system applies light braking (2nd stage) with the 1st stage warning.
- When the system judges that a collision is imminent, the system activates emergency brake control.

CMBS CONTROL

The CMBS is operated by the ACC unit. The CMBS has these functions:

Obstacle determination function

The system determines the potential for collision by the distance from the vehicle ahead and the relative speed based on the millimeter wave radar unit and the predictable course calculated by the driving conditions (wheel speed and yaw rate).

Warning function

When there is a high risk of collision, the system sends warning directions to the gauge control module and warns by both audible and visual means.

Brake control function

When there is a high risk of collision, the system sends brake directions to the VSA modulator-control unit and controls braking action.

CMBS ACTIVATION CONDITIONS

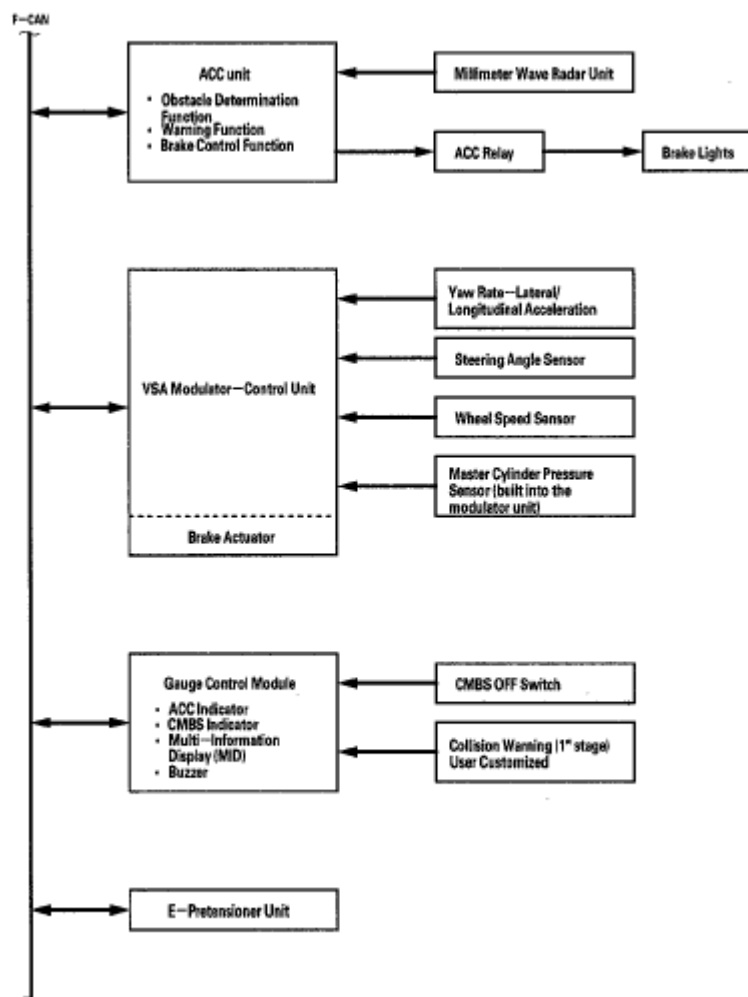
The system can activate (warn the driver, apply the brakes) when it detects or encounters these situations:

- Metallic projections on the road
- Metallic manhole and drain covers
- Signs and guardrails ahead
- Low overpasses and narrow gates
- Approaching vehicles that are turning left or right
- Passing slower vehicles ahead

The system does not activate (no warning or intervention) when it detects or encounters these situations:

- Low-speed, heavy traffic (such as in a traffic jam)
- Being cut-off by a slower vehicle
- Approaching a vehicle stopped at an angle
- Driving on curves
- Approaching a bicycle or moped
- Dirt or snow stuck on the emblem
- Heavy rain or snow

When the CMBS activates, it sounds and feels just like ABS activation.

**Fig. 7: CMBS Activation Diagram**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

GAUGE CONTROL MODULE

When a problem or malfunction is detected, the CMBS indicator comes on. With some problems or malfunctions, the condition is displayed on the MID.

When the CMBS is turned off by the CMBS OFF switch, the CMBS indicator comes on, and the MID indicates that the CMBS is off.

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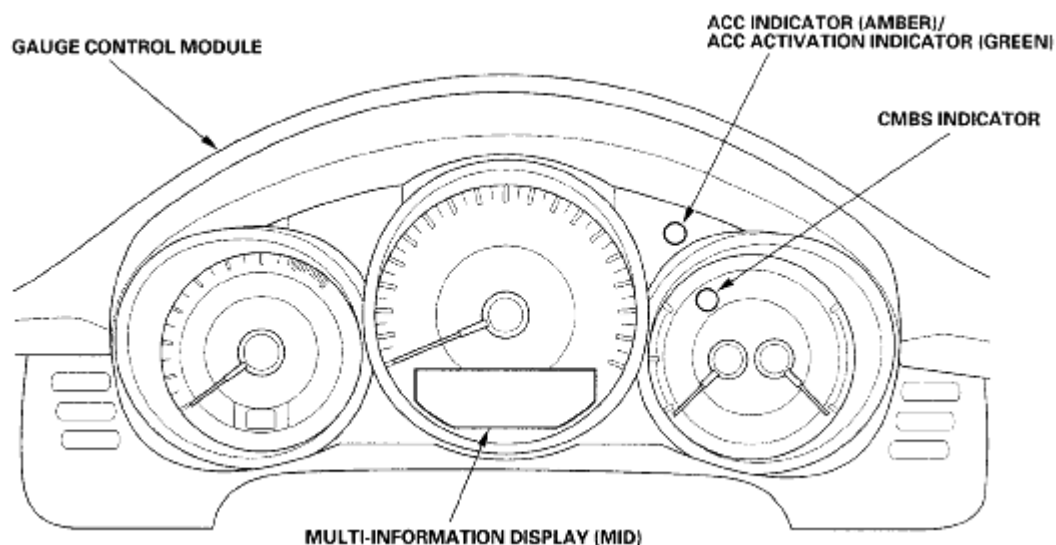


Fig. 8: Identifying Gauge Control Module

Courtesy of AMERICAN HONDA MOTOR CO., INC.

CMBS OFF SWITCH

The CMBS can be turned off by the CMBS OFF switch on the left side of the dashboard next to the gauge control module. (Press and hold the switch for more than a second.)

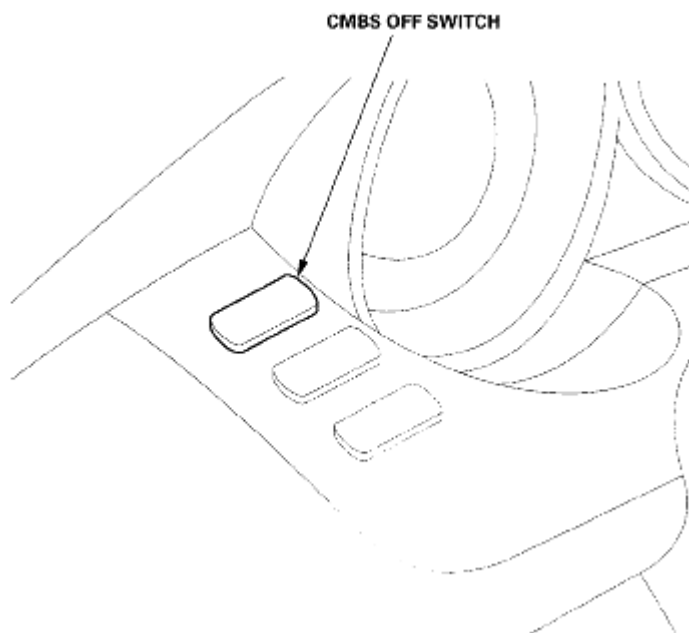


Fig. 9: Identifying CMBS OFF Switch

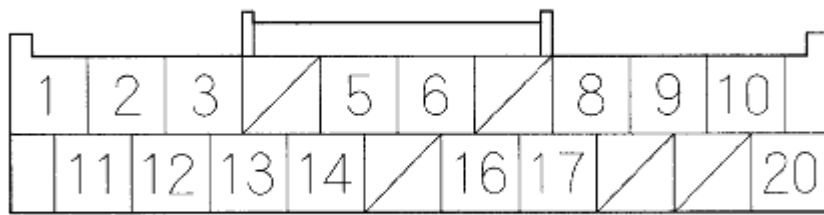
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ADAPTIVE CRUISE CONTROL (ACC) SYSTEM INPUTS AND OUTPUTS

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ACC UNIT 20P CONNECTOR



Wire side of female terminals

Fig. 10: Identifying ACC Unit 20P Connector
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TERMINAL DESCRIPTION CHART

Terminal number	Wire color	Terminal sign	Terminal name	Description	Signal
1	RED	BRK DIAG	Brake diagnosis	Detects ACC relay	ACC system brake operated or brake pedal pressed: battery voltage
2	BLU	IG1	Ignition signal	Detects ignition signal	Ignition switch ON (II): battery voltage Ignition switch OFF: about 0 V
3	GRN	SG	Sensor ground	Sensor ground	-
5	RED	VCC	Voltage constant current	Provides sensor voltage	Ignition switch ON (II): about 5 V Ignition switch OFF: about 0 V
6	BLU	PRESS FR	Pressure front right	Detects the brake fluid pressure signal of the right front brake caliper	Ignition switch ON (II): about 0.5 - 4.5 V Ignition switch OFF: about 0 V
8	BLU	K-LINE	Data link	Sends and receives scan tool signal	-
9	BLK	PG	Power ground	Ground circuit for the ACC system	-
10	WHT	CANH	CAN High line	F-CAN communication (high) circuit	-
11	BLK	LG1	Logic ground 1	Ground circuit for the ACC	-

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				system	
12	BLK	LG2	Logic ground 2	Ground circuit for the ACC system	-
13	WHT	VBU	Back-up voltage	Provides DTC memory voltage	Battery voltage
14	PNK	PRESS FL	Pressure front left	Detects the brake fluid pressure signal of the left front brake caliper	Ignition switch ON (II): about 0.5 - 4.5 V Ignition switch OFF: about 0 V
16	BLU	BRK LAMP	Brake light	Drives the ACC relay	Ignition switch ON (II): battery voltage Ignition switch OFF: about 0 V
17	WHT	IWR TRX	Millimeter wave radar data link	Communicates with the millimeter wave radar unit	Ignition switch ON (II): battery voltage Ignition switch OFF: about 0 V
20	BLK	CANL	CAN Low line	F-CAN communication (low) circuit	-

CIRCUIT DIAGRAM

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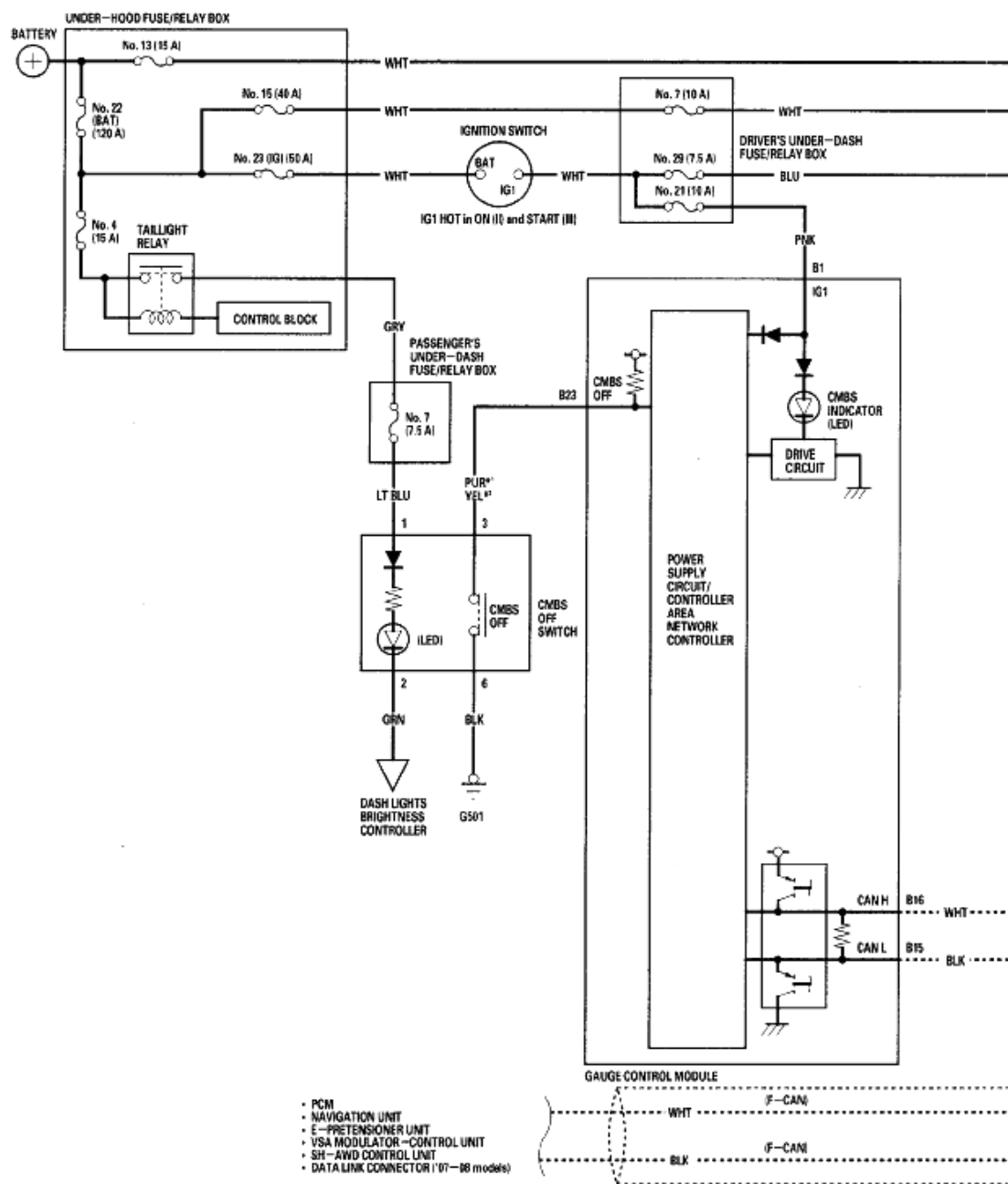


Fig. 11: Collision Mitigation Brake System Circuit Diagram (1 Of 2)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

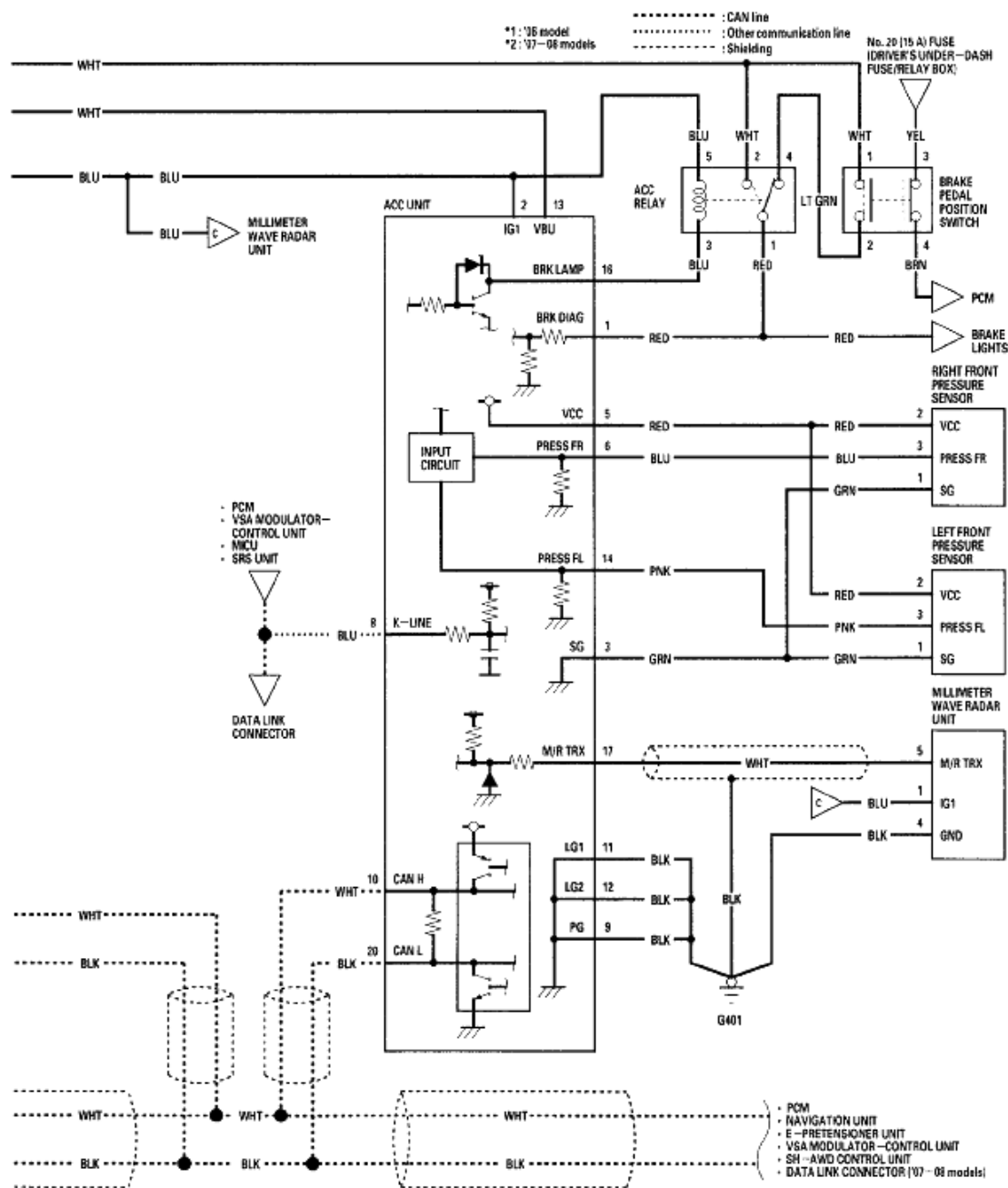


Fig. 12: Collision Mitigation Brake System Circuit Diagram (2 Of 2)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC 20: STEERING ANGLE SENSOR MALFUNCTION

1. Turn the ignition switch ON (II).
2. Check for VSA system DTCs with the HDS.

Are any DTCs indicated?

YES - Troubleshoot the indicated VSA system DTC(s).

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NO - Go to step 3.

3. Clear the DTCs with the HDS.
4. Turn the adaptive cruise control (ACC) switch ON.
5. Turn the steering wheel left and right several times.
6. Watch the CMBS indicator.

Does the CMBS indicator come on?

YES - Go to step 7.

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

7. Check for DTCs with the HDS.

Is DTC 20 indicated?

YES - Check for loose or poor connections. If OK, replace the ACC unit (see **ADAPTIVE CRUISE CONTROL (ACC) UNIT REMOVAL/INSTALLATION**).

NO - Troubleshoot the indicated DTC.

DTC 34: MASTER CYLINDER BRAKE FLUID PRESSURE SENSOR CIRCUIT OPEN/SHORT; DTC 35: MASTER CYLINDER BRAKE FLUID PRESSURE SENSOR CENTER POSITION ERROR; DTC 36: MASTER CYLINDER BRAKE FLUID PRESSURE SENSOR SHIFT ERROR

1. Turn the ignition switch ON (II).
2. Clear the DTCs with the HDS.
3. Watch the adaptive cruise control (ACC) indicator.

Does the ACC indicator stay off?

YES - Intermittent failure, the system is OK at this time. Check for loose or poor connections.

NO - Go to step 4.

4. Press the brake pedal.
5. Watch the ACC indicator.

Does the ACC indicator stay off?

YES - Intermittent failure, the system is OK at this time. Check for loose or poor connections.

NO - Go to step 6.

6. Check for DTCs with the HDS.

Is DTC 34, 35, or 36 indicated?

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YES - Go to step 7.

NO - Troubleshoot the indicated DTC.

7. With the brake pedal released, check the master cylinder brake fluid pressure voltage (BRAKE P) with the HDS.

Is there about 0.5 V?

YES - Go to step 8.

NO - Check the VSA system.

8. Test the brake booster (see **BRAKE BOOSTER TEST**).
9. Press the brake pedal with about 314 N (32 kgf, 70.6 lbf) pressure.
10. Check the master cylinder brake fluid pressure voltage (BRAKE P) with the HDS.

Is there about 2.5 V?

YES - Go to step 11.

NO - Check the VSA system.

11. Check the brake switch signal (BRAKE SW (N.O.)) with the HDS.

Does the indication show ON when the brake pedal is pressed, and show OFF when the brake pedal is released?

YES - Check for loose or poor connections. If OK, replace the ACC unit (see **ADAPTIVE CRUISE CONTROL (ACC) UNIT REMOVAL/INSTALLATION**).

NO - Go to step 12.

12. Check for DTCs with the HDS.

Is DTC 60, 110 or 111 indicated?

YES - Troubleshoot the indicated DTC(s).

NO - Troubleshoot the brake pedal position switch circuit (see **BRAKE PEDAL POSITION SWITCH SIGNAL CIRCUIT TROUBLESHOOTING**).

DTC 64: CMBS OPERATION ERROR (EXCESSIVE OPERATION)

NOTE: If the CMBS operates frequently, DTC 64 is stored.

1. Remove the upper grille (see **UPPER GRILLE REPLACEMENT**).
2. Inspect the frame for warpage, and check the installation of the millimeter wave radar unit and the main bracket.

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Is the installation and the frame OK?

YES - Go to step 3.

NO - Reinstall the components correctly, or replace if damaged, then go to step 3.

3. Turn the ignition switch ON (II).
4. Aim the millimeter wave radar unit (see **MILLIMETER WAVE RADAR UNIT AIMING**).
5. Clear the DTCs with the HDS.
6. Turn the adaptive cruise control (ACC) switch ON.
7. Watch the ACC and CMBS indicators.

Do both indicators come on?

YES - Go to step 8.

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

8. Clear the DTCs with the HDS.
9. Watch the CMBS indicator.

Does the CMBS indicator come on?

YES - Go to step 10.

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

10. Check for DTCs with the HDS.

Is DTC 64 indicated?

YES - Check for loose or poor connections. If OK, replace the ACC unit (see **ADAPTIVE CRUISE CONTROL (ACC) UNIT REMOVAL/INSTALLATION**).

NO - Troubleshoot the indicated DTC.

DTC 100: CMBS INITIAL CHECK INCOMPLETE

NOTE: **The CMBS initial check function checks the communication between the adaptive cruise control (ACC) unit and VSA modulator-control unit. If the CMBS initial check is incomplete, the ACC and CMBS indicators come on. For the CMBS to operate properly, always do the CMBS initial check after replacing the ACC unit or the VSA modulator-control unit.**

1. Turn the ignition switch ON (II).
2. Watch the VSA indicator.

Does the VSA indicator come on?

YES - Troubleshoot the indicated VSA system DTC(s).

NO - Go to step 3.

3. Check for VSA system DTCs with the HDS.

Are any DTCs indicated?

YES - Troubleshoot the indicated VSA system DTC(s).

NO - Go to step 4.

4. Start the engine.
5. Select CMBS from the DRIVING SUPPORT menu, then enter the MISCELLANEOUS TEST.
6. Do the CMBS brake forced operation.
7. Watch the ACC and CMBS indicators.

Do both indicators come on?

YES - Go to step 8.

NO - The system is OK at this time. The CMBS initial check is complete.

8. Check for ACC system DTCs with the HDS.

Are any DTCs except DTC 100 indicated?

YES - Troubleshoot the indicated DTC(s).

NO - Check for loose or poor connections. If OK, replace the ACC unit (see **ADAPTIVE CRUISE CONTROL (ACC) UNIT REMOVAL/INSTALLATION**).

DTC 103: CMBS BRAKE CONTROL PROHIBITION

1. Turn the ignition switch ON (II).
2. Check for VSA system DTCs with the HDS.

Are any DTCs indicated?

YES - Troubleshoot the indicated VSA system DTC(s).

NO - Go to step 3.

3. Clear the DTCs with the HDS.
4. Watch the CMBS indicator.

Does the CMBS indicator come on?

YES - Go to step 5.

NO - The system is OK at this time.

5. Check for adaptive cruise control (ACC) system DTCs with the HDS.

Is DTC 103 indicated?

YES - Check for loose or poor connections. If OK, replace the ACC unit (see **ADAPTIVE CRUISE CONTROL (ACC) UNIT REMOVAL/INSTALLATION**).

NO - Troubleshoot the indicated DTC.

SYMPTOM TROUBLESHOOTING

CMBS INDICATOR DOES NOT GO OFF

1. Turn the ignition switch ON (II).
2. Press and hold the CMBS OFF switch for a second or more to turn off the system.
3. Watch the CMBS indicator.

Does the CMBS indicator go off?

YES - The system is OK at this time.

NO - Go to step 4.

4. Turn the ignition switch OFF.
5. Connect the HDS to the data link connector.
6. Clear the DTCs with the HDS.
7. Turn the ignition switch ON (II).
8. Check for the adaptive cruise control (ACC) system, VSA, and PCM DTCs with the HDS.

Are any DTCs indicated?

YES - Troubleshoot the indicated DTC(s).

NO - Go to step 9.

9. Start the engine, and wait for 2 seconds.
10. Watch the CMBS indicator.

Does the CMBS indicator stay off?

YES - The system is OK at this time.

NO - Go to step 11.

11. Stop the engine.
12. Check for ACC system DTCs with the HDS.

Are any DTCs indicated?

YES - Troubleshoot the indicated DTC(s).

NO - Test the CMBS OFF switch (see **CMBS OFF SWITCH TEST/REPLACEMENT**). If the switch is OK, do the gauge control module self-diagnostic function (see **SELF-DIAGNOSTIC FUNCTION**).

CMBS OFF SWITCH TEST/REPLACEMENT

1. Remove the instrument fascia (see **DRIVER'S SWITCH PANEL REMOVAL/INSTALLATION**).
2. Remove the screws and the multi-switch (A).

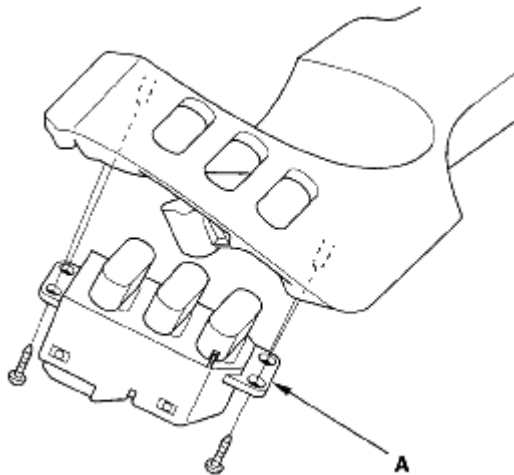


Fig. 13: Identifying Multi-Switch And Screws
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Check for continuity between the terminals in each CMBS OFF switch position according to the table.

Terminal Position	1	2	3	6
ON	○	⊕	○	
OFF	○	⊕	○	○

Fig. 14: CMBS OFF Switch Terminals Reference
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CMBS OFF SWITCH 6P CONNETTOR

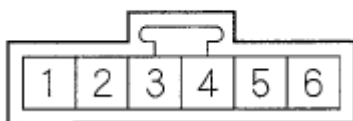


Fig. 15: Identifying CMBS Off Switch 6P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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4. If the continuity is not as specified, replace the switch.