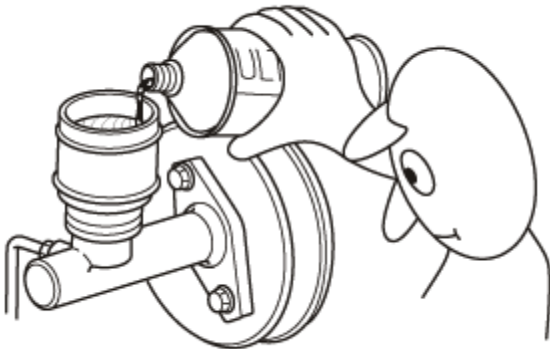




- Brake fluid and hydraulic components
 - When replenishing the system, use extreme care to prevent dust and dirt from entering the system.
 - Do not mix different brands of fluid as they may not be compatible.
 - Do not reuse drained brake fluid.
 - Because brake fluid can cause damage to painted and resin surfaces, care should be taken not to spill it on such materials. If spilled accidentally, quickly wash the brake fluid off the painted or resin surface using water or warm water.
 - After disconnecting brake hoses or pipes, be sure to plug the openings to prevent loss of brake fluid.
 - Clean all disassembled parts only in clean BRAKE FLUID. Blow open all holes and passages with compressed air.
 - Keep disassembled parts from air-borne dust and abrasives.
 - Check that parts are clean before assembly.

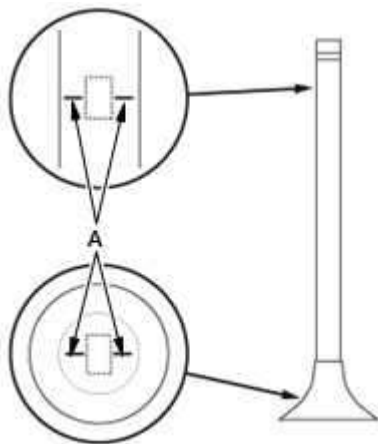


- Avoid oil or grease getting on rubber parts and tubes, unless specified.
- Make sure not to get any silicone grease on the terminal part of the connectors and switches, especially if you have silicone grease on your hands or gloves.
- When spraying any agents that contain silicone, cover all the connectors, terminals, and switches in the area with a protective cloth or plastic sheet.
- Upon assembling, check every part for proper installation and operation.
- When disassembling and/or reassembling parts, do the service below.
 - Check the proper parts are installed.
 - Check the installed parts operate properly.
- If harmful materials to human body come in contact with eyes, skins, or the mouth, take appropriate treatments and seek immediate medical attention.

Auto Idle Stop System (If Equipped)

Some models are equipped with an Auto Idle Stop System. Before servicing the vehicle, especially inside the engine compartment,

Sample



A. Identification marks for sodium-filled exhaust valves are located on the valve head and valve stem.

Waste Disposal of Sodium-Filled Valves

1. When sodium-filled exhaust valves are **NOT** damaged

NOTE: You can dispose sodium-filled exhaust valves as you would with normal valves unless the sodium in the valve stem is exposed. If they are exposed, the valve stem must be neutralized using the Neutralization Procedure.

⚠ WARNING

Do not destroy the valves intentionally to expose sodium.

2. When the sodium-filled exhaust valves are damaged

NOTE: Do the neutralization procedure before disposal.

⚠ WARNING

- Make sure to wear protective goggles and gloves, and do this procedure in a well-ventilated area.
- When you do this procedure, make sure to have a fire extinguisher (dry powder type) on hand.
- Handle the damaged valves with tweezers or tongs, not with bare hands.

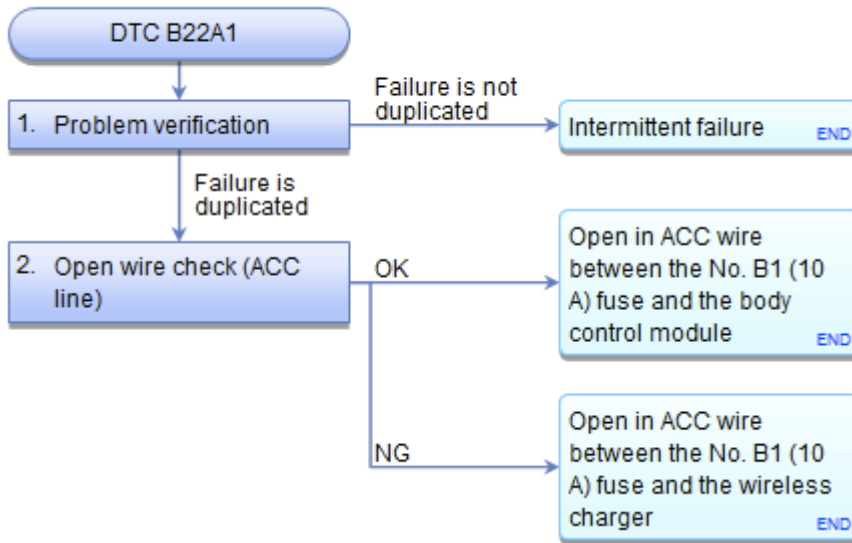
Neutralization Procedure

1. Prepare a large container filled with 10 L (2.64 US gal) of water.
2. Soak the damaged valves into the water.
 - Soak the damaged valves completely.
 - Keep all cigarettes, sparks, and flames away from the container. Chemical reaction of sodium and water generates hydrogen gas.
 - Keep a few meters away from the container as this procedure may cause severe reaction of chemicals.
 - This procedure can neutralize a maximum of six damaged valves at the same time.
3. When the procedure is finished after 4-5 hours, pick up the damaged valves with tweezers or tongs, and dispose of them as normal valves.

⚠ WARNING

The waste liquid after neutralization procedure contains highly-concentrated sodium hydroxide. It is very harmful physically and environmentally. Dispose the waste liquid according to your local regulations.

DTC Troubleshooting: B22A1



DTC B22A1: Wireless Charger Unit ACC Input Circuit Failure

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in [B-CAN System Diagnosis Test Mode A](#).

DTC Description	DTC
B22A1 Wireless Charger Unit ACC Input Circuit Failure	

DTC (Wireless Charger)

1. Problem verification:

- 1. Clear the DTCs with the HDS.

Clear DTCs

- 2. Turn the vehicle to the OFF (LOCK) mode and then the ON mode.
- 3. Wait for at least 6 seconds.
- 4. Check for DTCs with the HDS.

DTC Description	DTC
B22A1 Wireless Charger Unit ACC Input Circuit Failure	

Is DTC B22A1 indicated?

YES Go to step 2.

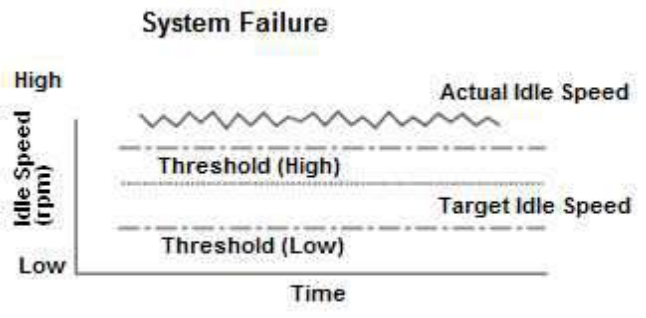
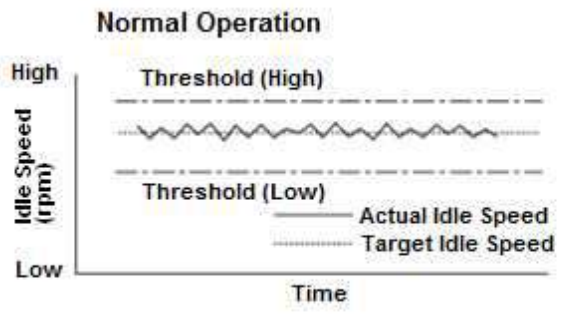
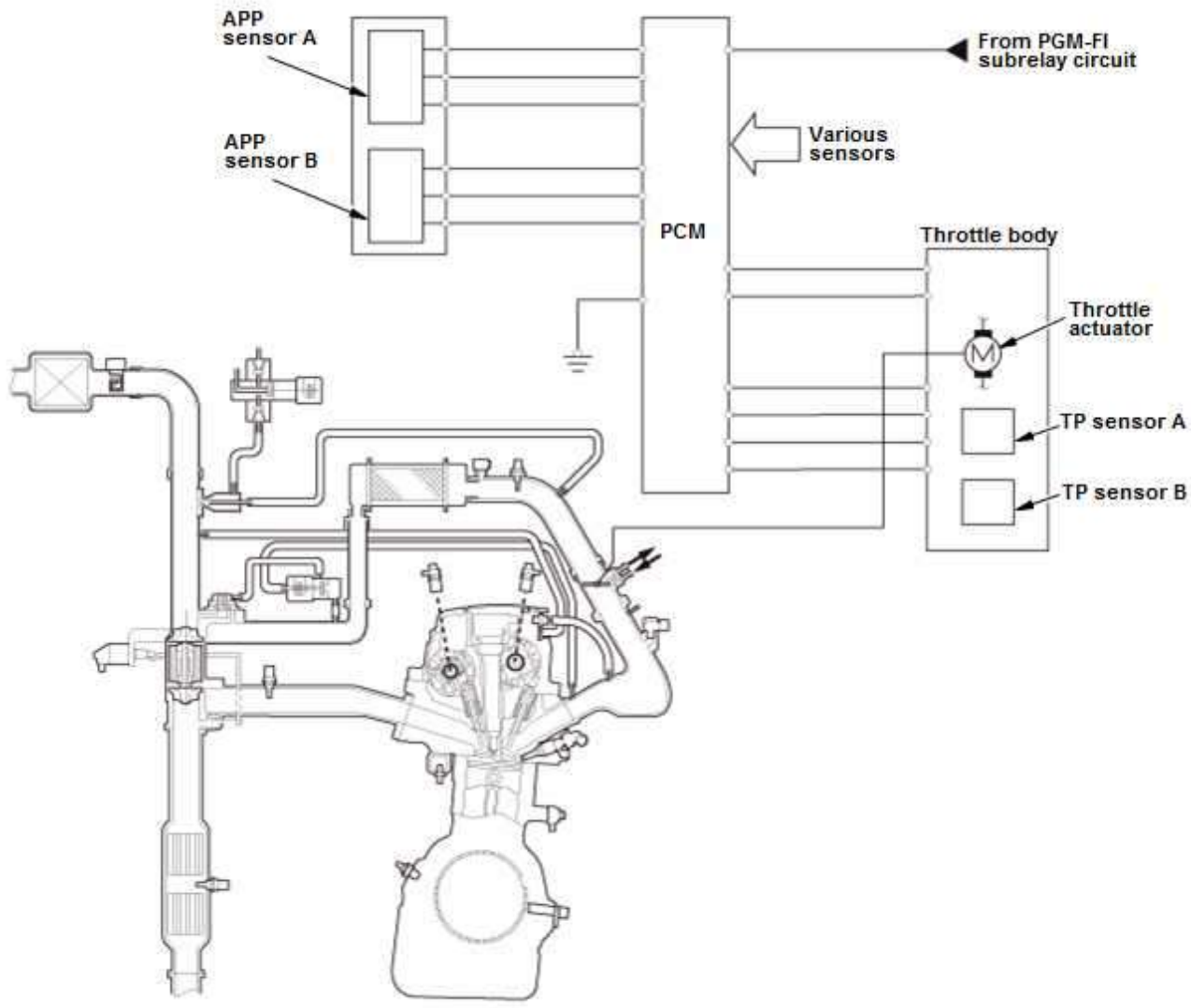
NO Intermittent failure, the system is OK at this time. Check for loose or poor connections. ■

2. Open wire check (ACC line):

- 1. Turn the vehicle to the OFF (LOCK) mode.
- 2. Disconnect the following connector.
Wireless charger 7P connector
- 3. Turn the vehicle to the ACCESSORY mode.

DTC P0507: Idle Control System RPM Higher than Expected

General Description



Possible Cause	<ul style="list-style-type: none"> ● SRS unit internal failure ● VSA modulator-control unit internal failure
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*1: M/T

DTC C0062-F0: Longitudinal Acceleration Sensor Malfunction

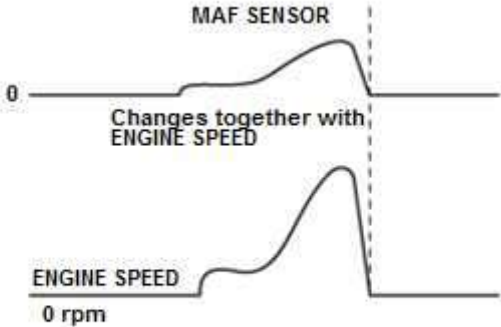
Confirmation Procedure	<p>Operating Condition:</p> <ol style="list-style-type: none"> 1. Start the engine. 2. Test-drive the vehicle at 32 mph (50 km/h) or more for 6 minutes and press the brake pedal and stop the vehicle. 3. Repeat step 2 for four times. (Drive the vehicle on the road, not on a lift. Be careful of the surrounding traffic conditions.)
Execution	Initial Diagnosis/Regular Diagnosis
Duration	About 1 second
DTC Type	<ul style="list-style-type: none"> ● 1 drive cycle ● Brake system indicator (amber) on ● VSA indicator on
Fail Safe Action	<ul style="list-style-type: none"> ● Stop hill start assist function ● Stop automatic brake hold function ● Stop drive away assist function ● Stop ignition OFF apply function*1
Possible Cause	<ul style="list-style-type: none"> ● SRS unit internal failure ● VSA modulator-control unit internal failure

*1: M/T

DTC C0063-62: Yaw Rate Sensor Failure (Signal Compare Failure)

Confirmation Procedure	<p>Operating Condition:</p> <ol style="list-style-type: none"> 1. Start the engine. 2. Test-drive the vehicle at 32 mph (50 km/h) or more for 6 minutes and press the brake pedal and stop the vehicle. 3. Repeat step 2 for four times. (Drive the vehicle on the road, not on a lift. Be careful of the surrounding traffic conditions.)
Execution	Regular Diagnosis
Duration	About 3 seconds
DTC Type	<ul style="list-style-type: none"> ● 1 drive cycle ● VSA indicator on
Fail Safe Action	<ul style="list-style-type: none"> ● Stop TCS function ● Stop VSA function ● Stop engine drag torque control function ● Stop hill start assist function ● Stop agile handling assist function ● Stop automatic brake hold function ● Stop driving support system's brake function
Possible Cause	<ul style="list-style-type: none"> ● SRS unit internal failure ● VSA modulator-control unit internal failure

DTC C0063-97: SRS Sensor Unit Supply Voltage Abnormally

Pattern	Symptom (Diagnosis by parameter)	Additional remarks
Pattern 3	MAF SENSOR Normal 	When MAF SENSOR output compares with ENGINE SPEED when cranking or after starting, the MAF sensor is normal.

Which pattern is indicated?

Pattern 1 and 2 Check for poor connections or loose terminals at the MAF sensor/IAT sensor. ■

Pattern 3 The MAF sensor/IAT sensor is OK. Go to step 12 (diagnosis by parameter (CMP B NO PULSE)).

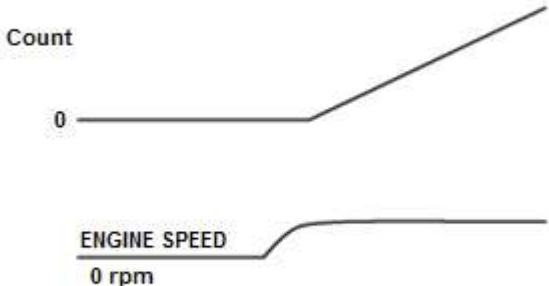
12. On-board snapshot or snapshot check (CMP B NO PULSE):

NOTE: Use the on-board snapshot in the case of an intermittent failure, or use the snapshot in the case of a reproducible failure.

- 1. Select the Hard to Start Engine in the on-board snapshot or snapshot with the HDS.

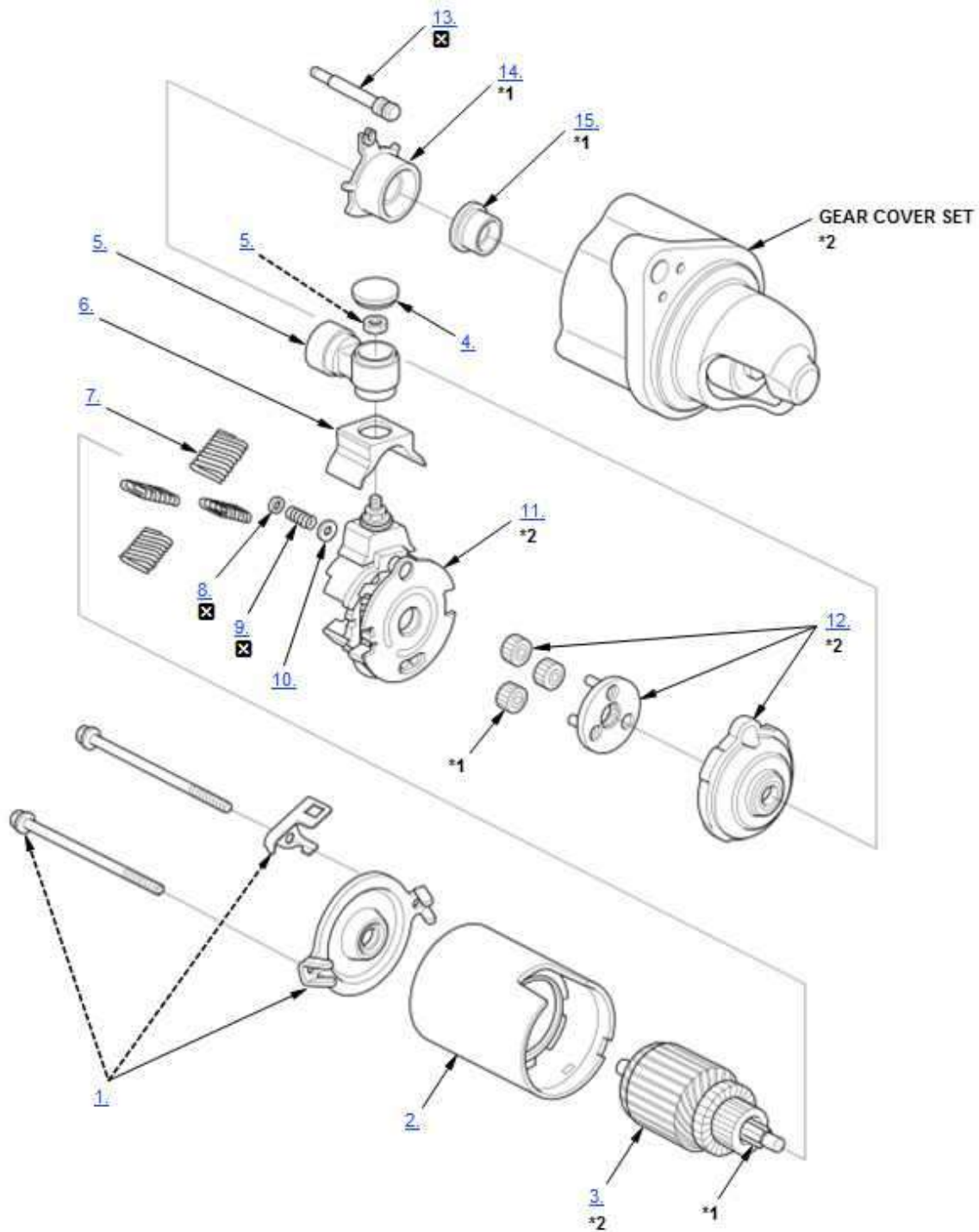
On-board Snapshot

- 2. Select the CMP B NO PULSE and ENGINE SPEED in the configuration list. Check the recorded snapshot parameters while the engine is cranking, then compare the CMP B NO PULSE pattern from the chart, and determine the problem.

Pattern	Symptom (Diagnosis by parameter)	Additional remarks
Pattern 1	CMP B NO PULSE count increases continuously when cranking 	When CMP B NO PULSE count increases continuously when cranking, no CMP pulse is received. If the CMP pulse is not received, the PCM cannot detect the cylinder to be ignited and the engine is unable to start.

Disassembly

1



X	Replace
*1	Do not wipe off the special grease applied.

Brake Hose Removal and Installation

Removal

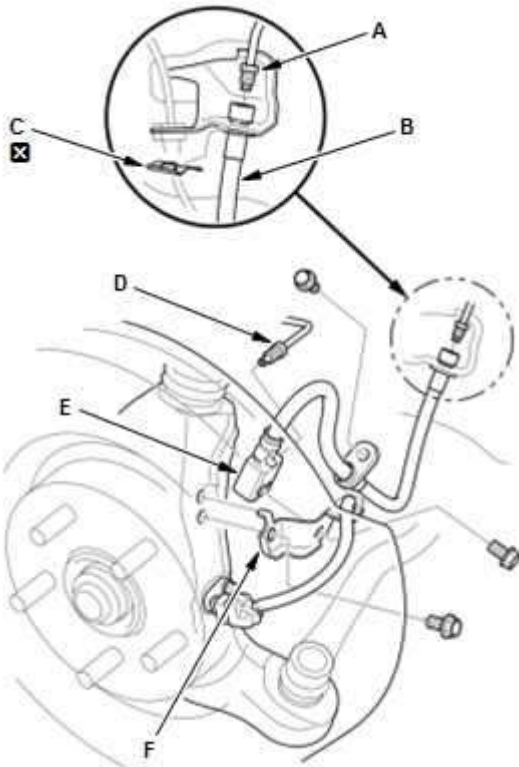
NOTE: [Review the Service Precautions before doing repairs or service.](#)

Front

1. Vehicle - Lift

2. Front Wheel - Remove

3. Front Brake Hose - Remove



1. Disconnect the brake line (A) from the brake hose (B).
2. Remove the brake hose clip (C).
3. Disconnect the brake line (D) from the brake hose joint (E).
4. Remove the brake hose bracket (F) and remove the brake hose joint.
5. Remove the brake hose.

Rear

1. Vehicle - Lift

2. Rear Wheel - Remove

YES Intermittent failure, the system is OK at this time.■

NO The failure is duplicated, go to step 2.

2. Shorted wire check (CAMERA BIT0 line, CAMERA BIT1 line):

- 1. Shift the transmission to Neutral or P position/mode.
- 2. Turn the vehicle to the OFF (LOCK) mode.
- 3. Disconnect the following connectors.
Audio unit connector C (32P)
Rearview camera 8P connector
- 4. Check for continuity between test points 1 and 2.
Test condition Vehicle OFF (LOCK) mode
Audio unit connector C (32P): disconnected
Rearview camera 8P connector: disconnected
Test point 1 [Audio unit connector C \(32P\) No. 31](#)
Test point 2 Body ground

Test point 1 [Audio unit connector C \(32P\) No. 32](#)
Test point 2 Body ground

Is there continuity?

YES Repair a short to body ground in the wire(s) between the rearview camera and the audio unit.■

NO The CAMERA BIT0 and the CAMERA BIT1 wires are not shorted to ground. Go to step 3.

3. Shorted wire check (CAMERA BIT0 line to CAMERA BIT1 line):

- 1. Check for continuity between test points 1 and 2.
Test condition Vehicle OFF (LOCK) mode
Audio unit connector C (32P): disconnected
Rearview camera 8P connector: disconnected
Test point 1 [Audio unit connector C \(32P\) No. 31](#)
Test point 2 [Audio unit connector C \(32P\) No. 32](#)

Is there continuity?

YES Repair a short in the wires between the rearview camera and the audio unit.■

NO The CAMERA BIT0 and the CAMERA BIT1 wires are not shorted. Go to step 4.

4. Open wire check (CAMERA BIT0 line, CAMERA BIT1 line):

- 1. Check for continuity between test points 1 and 2.
Test condition Vehicle OFF (LOCK) mode
Audio unit connector C (32P): disconnected
Rearview camera 8P connector: disconnected
Test point 1 [Audio unit connector C \(32P\) No. 31](#)
Test point 2 [Rearview camera 8P connector No. 3](#)

Test point 1 [Audio unit connector C \(32P\) No. 32](#)
Test point 2 [Rearview camera 8P connector No. 4](#)

- 1. Disconnect the following connectors.
Body control module connector D (40P)
Each door switch 1P connector
Tailgate latch 4P connector
- 2. Check for continuity between test points 1 and 2 respectively.

Driver's door switch

Test condition Vehicle OFF (LOCK) mode
 Body control module connector D (40P): disconnected
 Each door switch 1P connector: disconnected
 Tailgate latch 4P connector: disconnected

Test point 1 [Body control module connector D \(40P\) No. 22](#)

Test point 2 Driver's door switch 1P connector No. 1

DRIVER'S DOOR SWITCH 1P CONNECTOR



Wire side of female terminals

Front passenger's door switch

Test condition Vehicle OFF (LOCK) mode
 Body control module connector D (40P): disconnected
 Each door switch 1P connector: disconnected
 Tailgate latch 4P connector: disconnected

Test point 1 [Body control module connector D \(40P\) No. 23](#)

Test point 2 Front passenger's door switch 1P connector No. 1

FRONT PASSENGER'S DOOR SWITCH 1P CONNECTOR



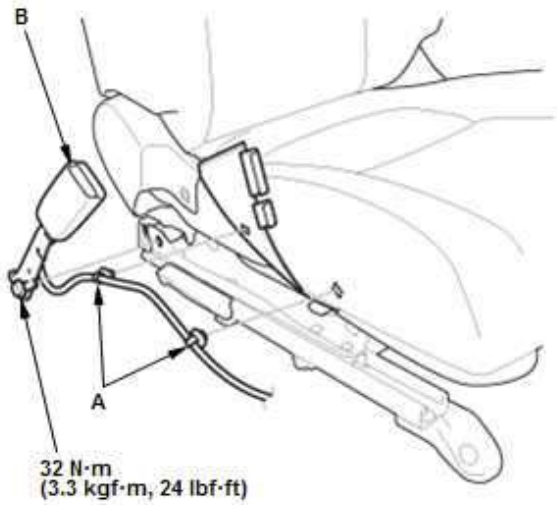
Wire side of female terminals

Left rear door switch

Test condition Vehicle OFF (LOCK) mode
 Body control module connector D (40P): disconnected
 Each door switch 1P connector: disconnected
 Tailgate latch 4P connector: disconnected

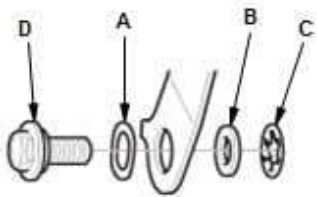
Test point 1 [Body control module connector D \(40P\) No. 24](#)

Test point 2 Left rear door switch 1P connector No. 1



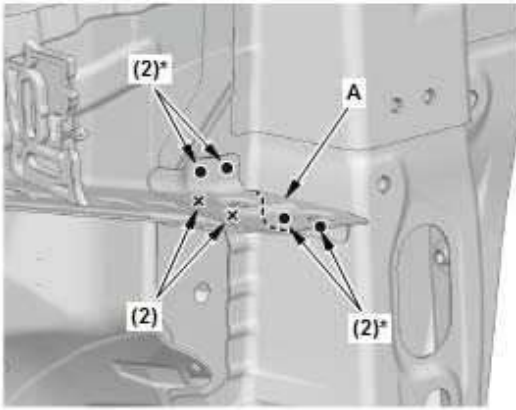
2. Remove the harness clips (A).
3. Remove the seat belt buckle (B).

3. All Removed Parts - Install



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

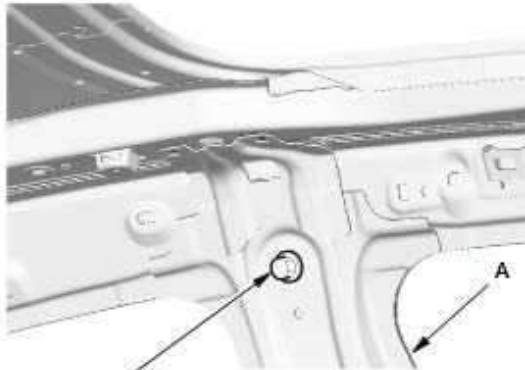
NOTE: Assemble the wave washer (A), the plane washer (B), and the toothed lock washer (C) on the center anchor bolt (D) as shown.



7. Weld the wheelhouse upper member extension (A).

()*: Welding positions with high-strength steel (except 1500 MPa) parts. [Confirm the plug welding conditions.](#)

4. Center Pillar Stiffener - Install



8 x 1.25 mm
22 N·m
(2.2 kgf·m, 16 lbf·ft)

1. Clamp the center pillar stiffener (A), and tighten the mounting bolt.

2. Weld the center pillar stiffener (A) to the roof side stiffener (B) and the center pillar stiffener lower (C) to the side sill reinforcement (D).

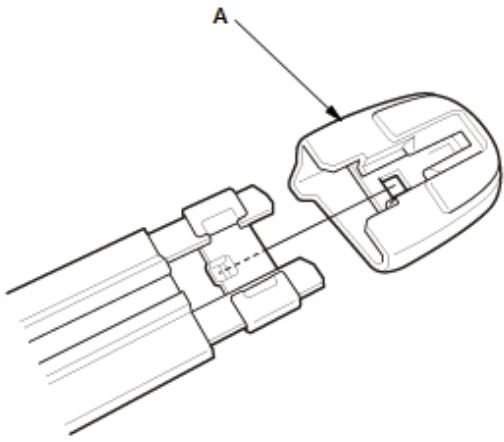
(■)*: Welding positions with the center pillar stiffener, the roof side stiffener and the side sill reinforcement, the ultra high-strength steel (1500 MPa) part. Perform the spot welding on the conditions of No. 14 in the table shown below. [Confirm the spot welding specifications.](#)

(■)*: Welding positions with the center pillar stiffener, the roof side stiffener and the side sill reinforcement, the ultra high-strength steel (1500 MPa) part. [Confirm the MIG brazing specifications.](#)

Spot Welding Conditions

Condition No.	Welding current (A)	Welding time (ms)	Applied force (N (kgf))
No. 14	8500	600	3432 (350)

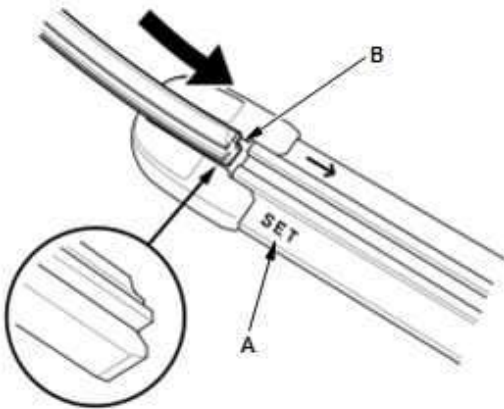
1. If necessary, install the end cap (A).



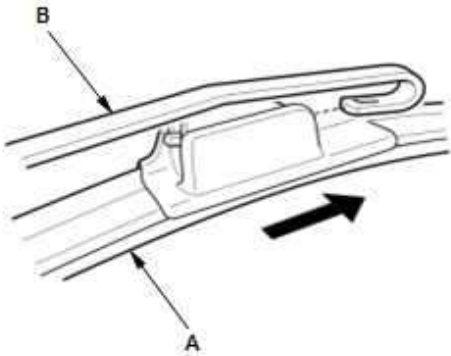
2. Find the end of the blade holder labeled "SET" (A), and install the wiper starting with the tip that has no projection.

NOTE: The wiper end with the projection should not be installed first.

3. Install the new rear window wiper blade (B).



4. Install the rear window wiper blade assembly (A) on the rear window wiper arm (B).



Body Repair

1. Insulator - Remove

Cut new insulators, and apply as indicated.

NOTE: Before installing, clean and degrease the floor.

Unit: mm (in)

