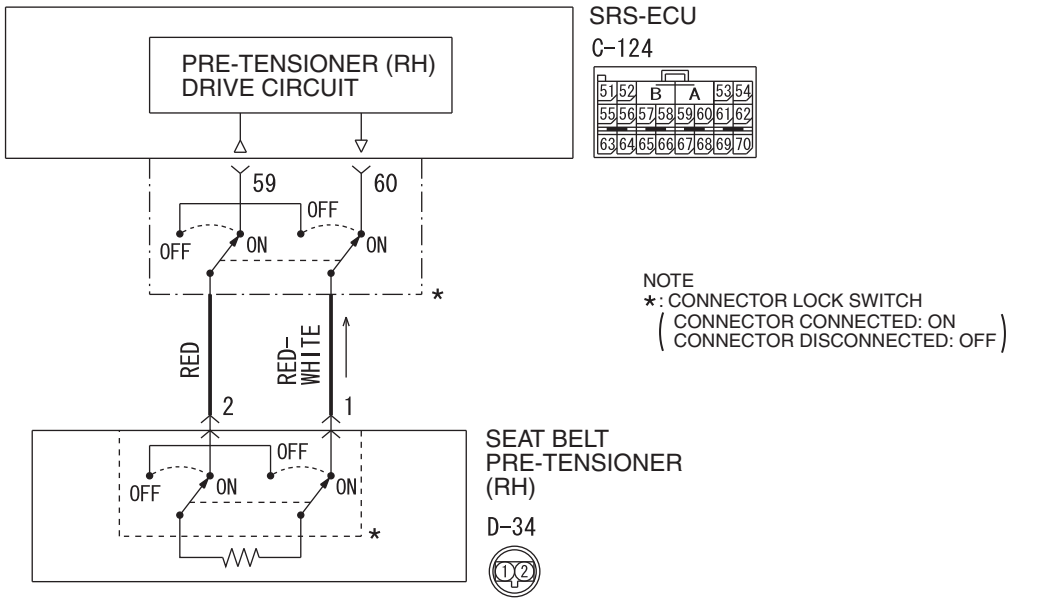
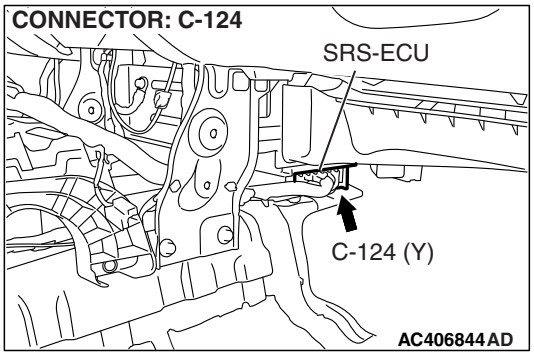
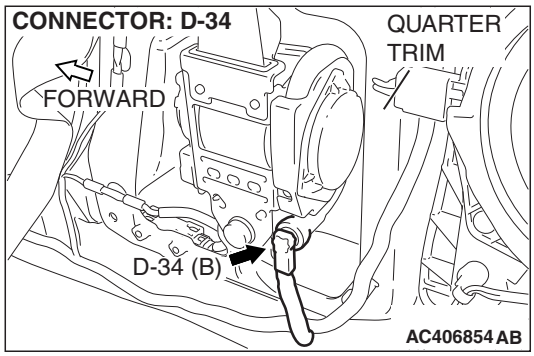
DTC B1460: Seat Belt Pre-Tensioner (RH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit







⚠ CAUTION
If DTC B1460 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-124 or D-34 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

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DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

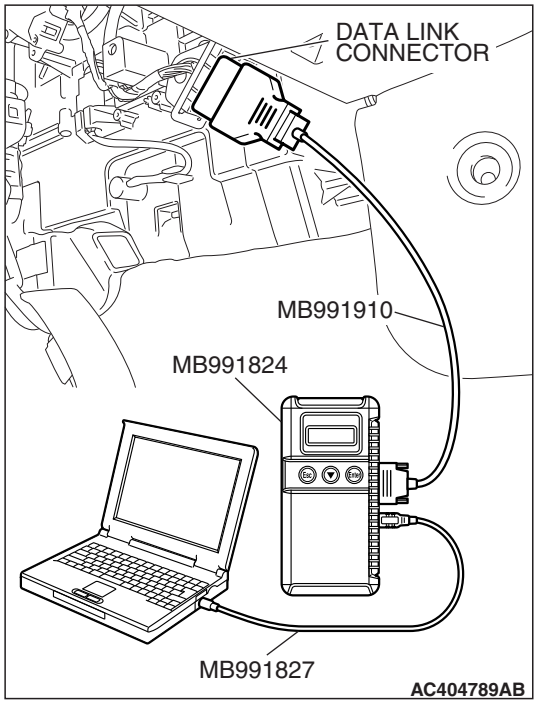
⚠ CAUTION

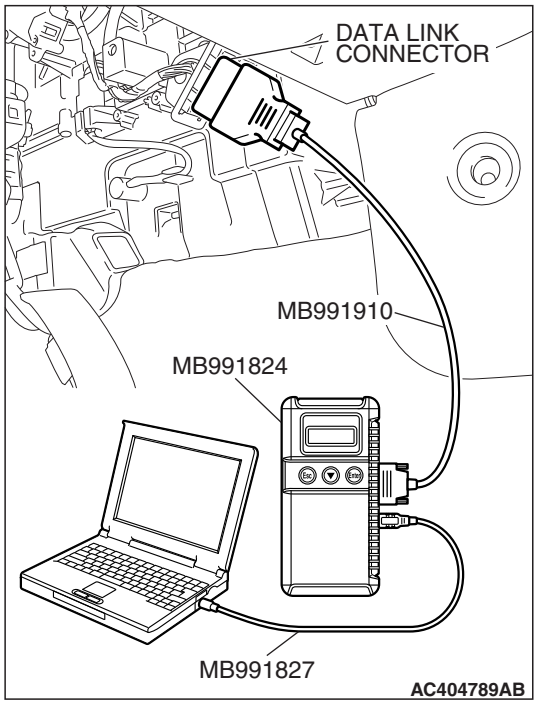
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



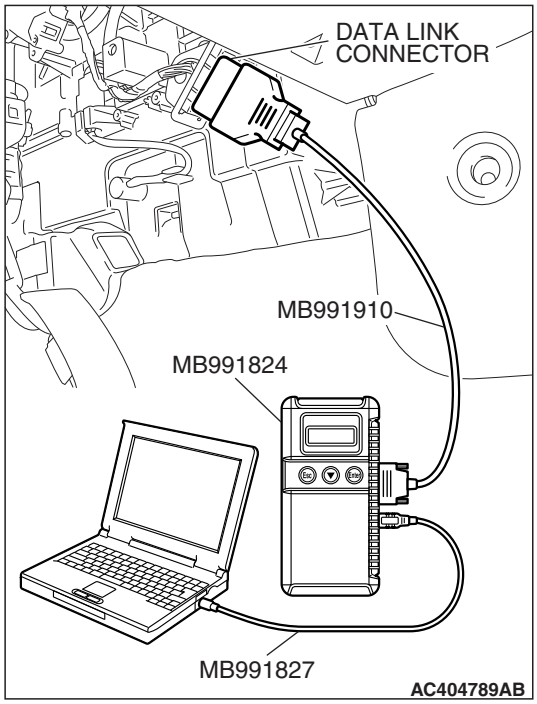


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

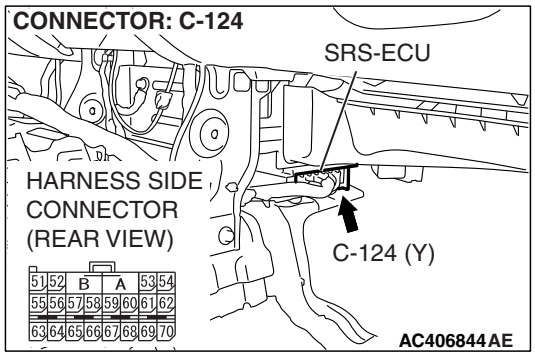


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1519 set?

YES : Go to Step 4.
NO : Go to Step 5.

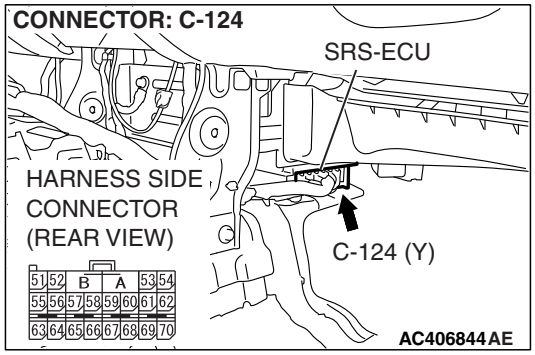


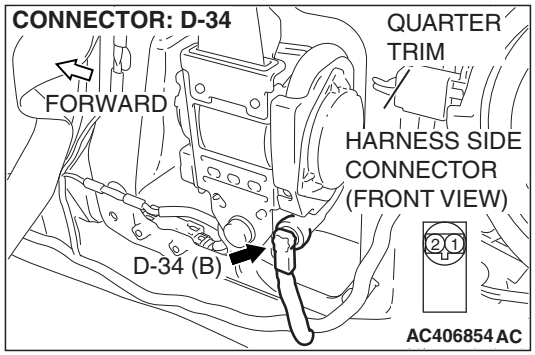
STEP 4. Check the SRS-ECU connector C-124.

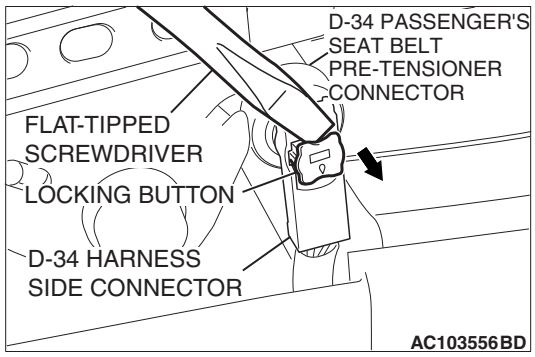
Q: Is connector correctly engaged?

YES : Go to Step 5.

NO : Engage the connector correctly. Then go to Step 9.







STEP 5. Check SRS-ECU connector C-124 and passenger's seat belt pre-tensioner connector D-34. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-124 and D-34, and then reconnect them. For connector D-34, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

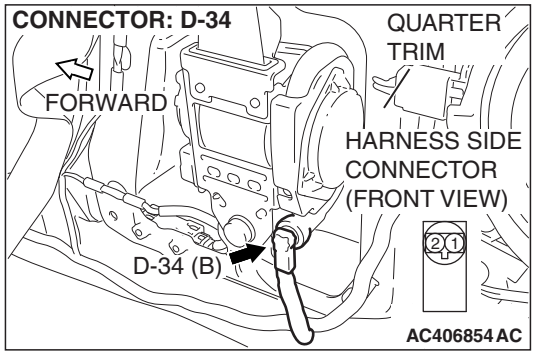
Q: Is DTC B1460 set?

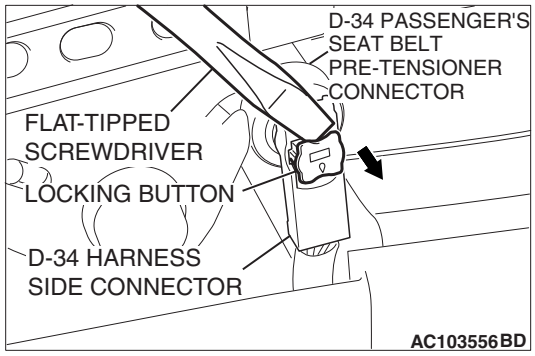
YES : Go to Step 6.

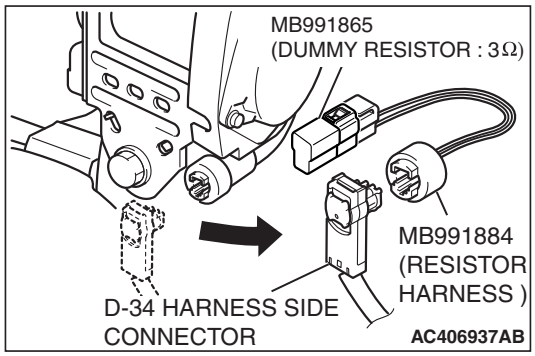
NO : The procedure is complete. It is assumed that DTC B1460 set because connector C-124 or D-34 was engaged improperly.

STEP 6. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







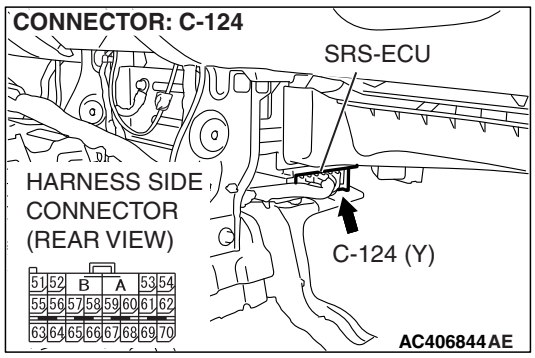
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-34 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

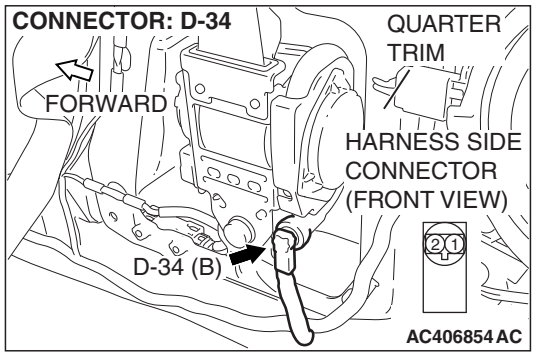
Q: Is DTC B1460 set?

YES : Go to Step 7.
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 9.

STEP 7. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-124.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.

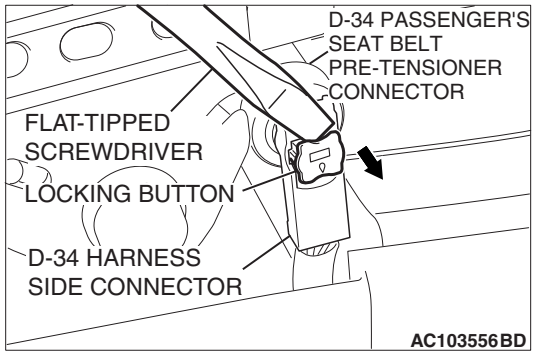




⚠ *DANGER*

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-34 to short the squib circuit.

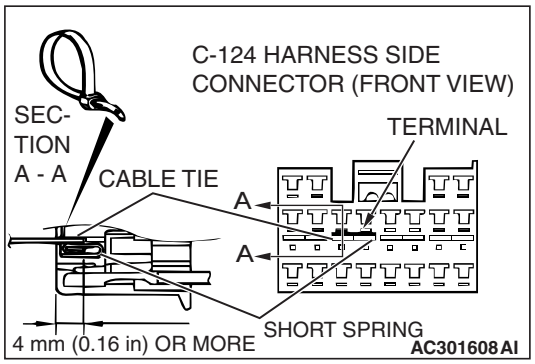
(3) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

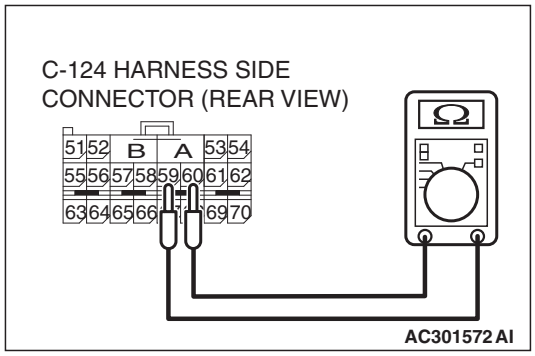


⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 59, 60 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between C-124 harness side connector terminals 59 and 60.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

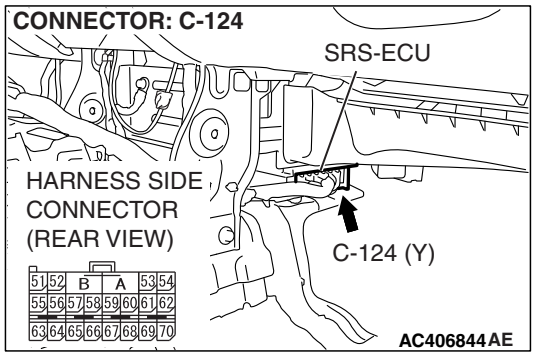
NO : Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1460 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9 .

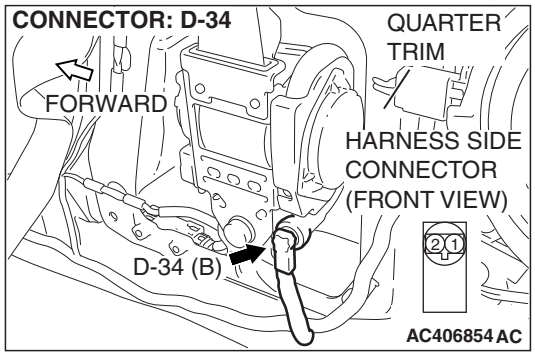
STEP 8. Check the harness for short circuit between SRS-ECU connector C-124 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1).

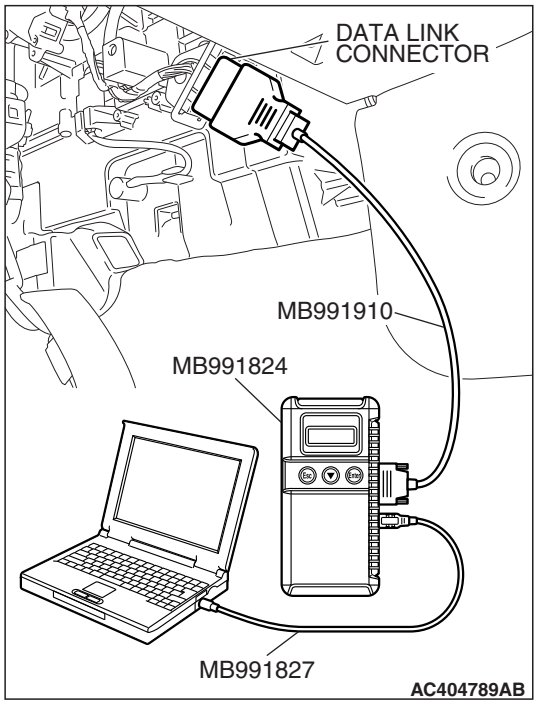
Q: Are harness wires between SRS-ECU connector C-124 (terminal No.59 and 60) connector and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-124 and passenger's seat belt pre-tensioner connector D-34. Then go to Step 9.







STEP 9. Recheck for diagnostic trouble code.

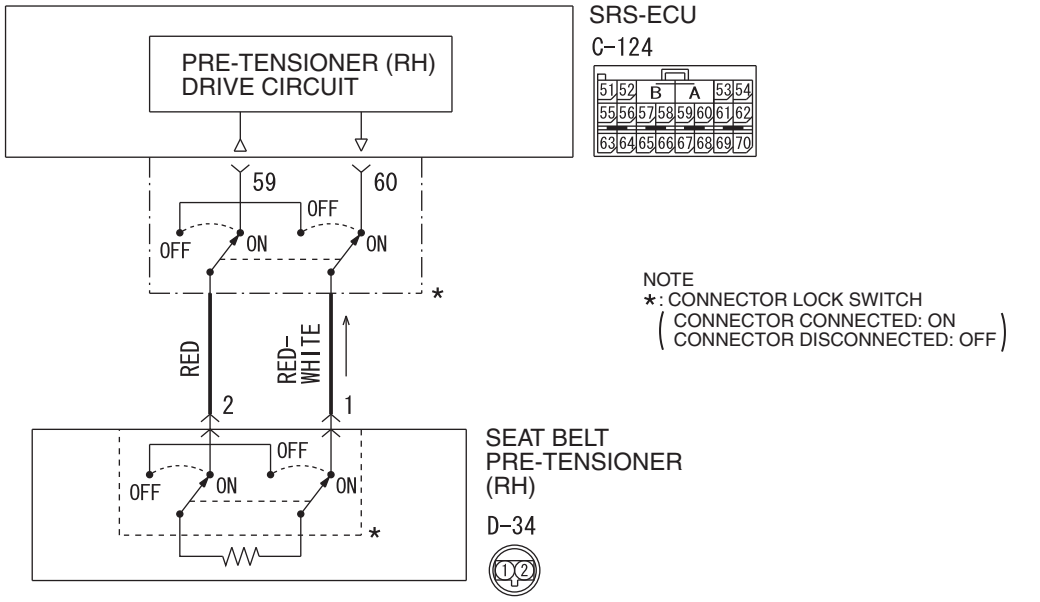
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1460 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1461: Seat Belt Pre-Tensioner (RH) (Squib) System Fault 2 (Open in the Squib Circuit)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit



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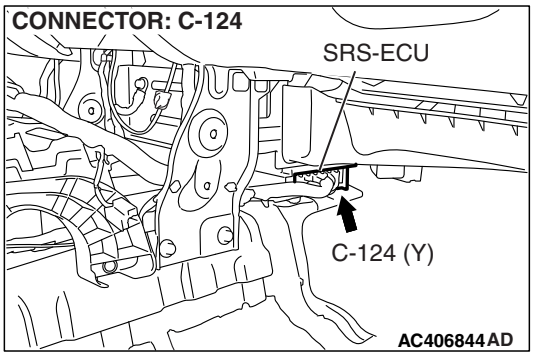
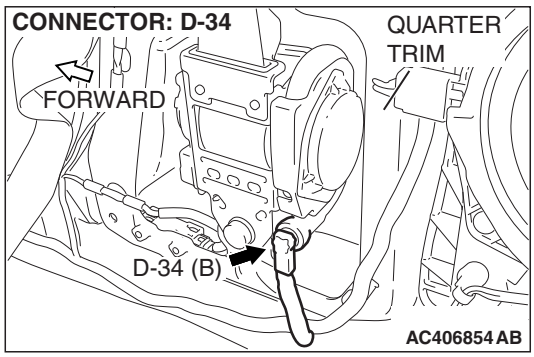




⚠ CAUTION

If DTC B1461 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

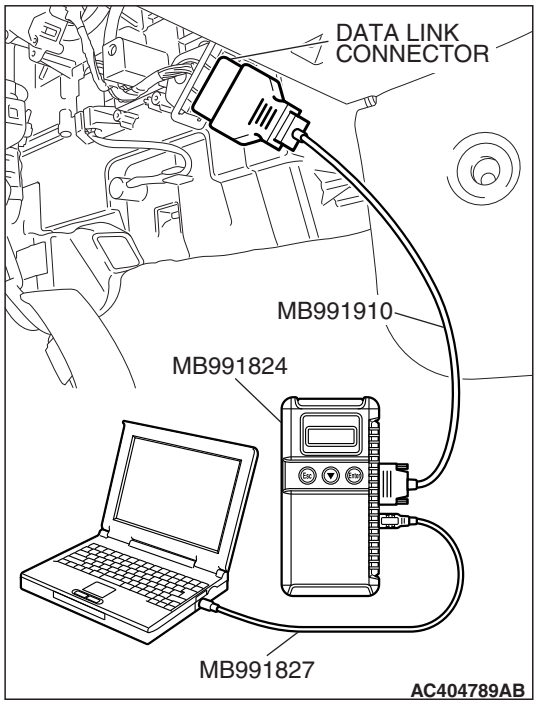
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

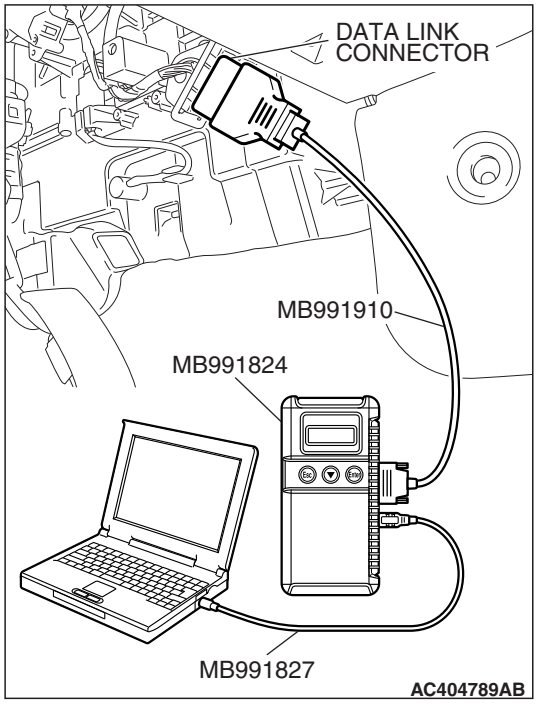


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

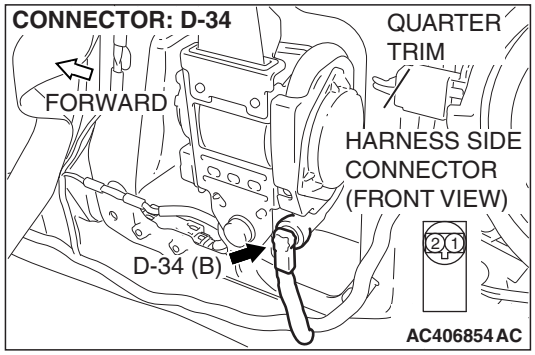
Q: Is the DTC set?

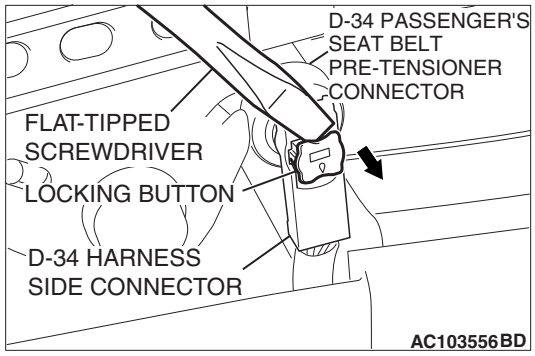
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

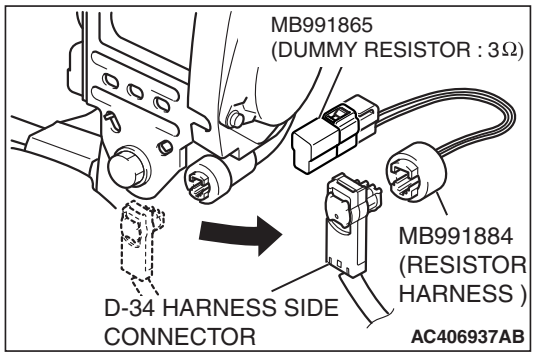


STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-34 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

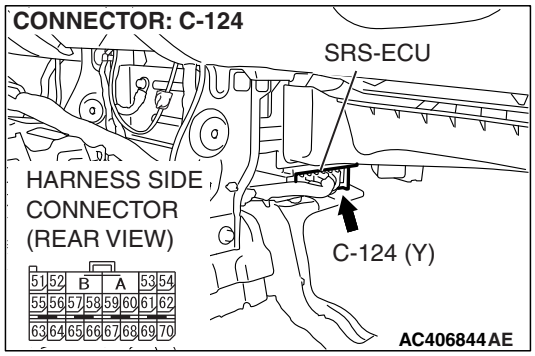
Q: Is DTC B1461 set?

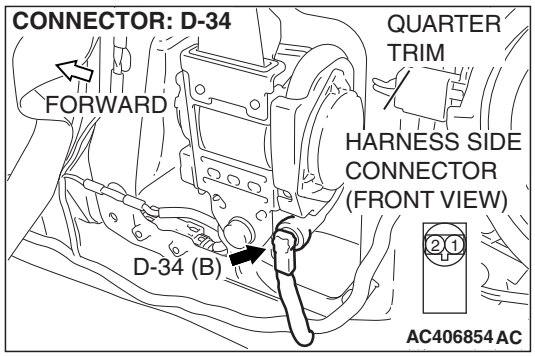
YES : Go to Step 4.
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 5.

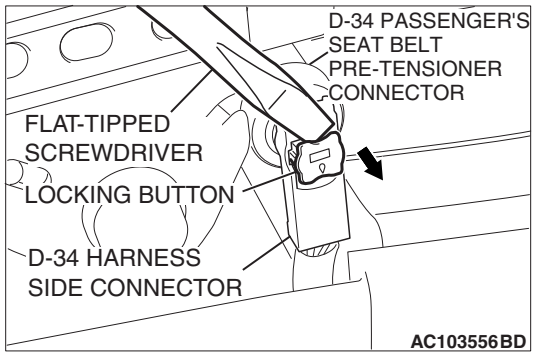
STEP 4. Check the harness for open circuit between SRS-ECU connector C-124 (terminal No.59 and 60) and the passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1).

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.



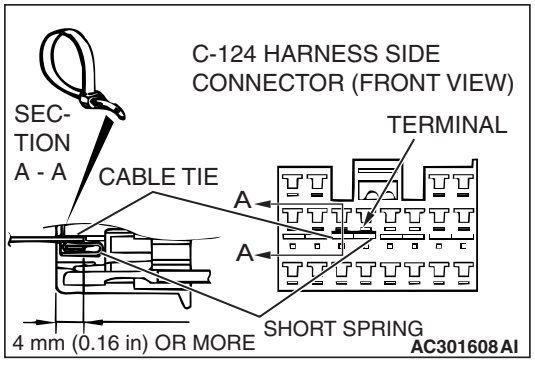




⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-34 to short the squib circuit.

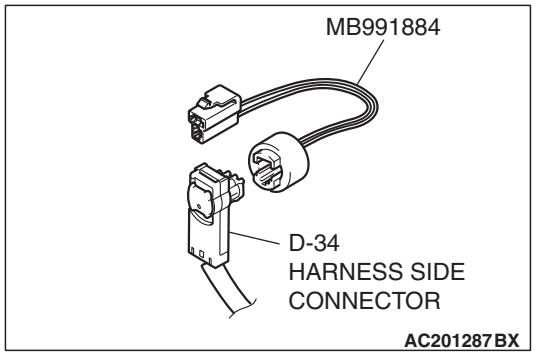
(3) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



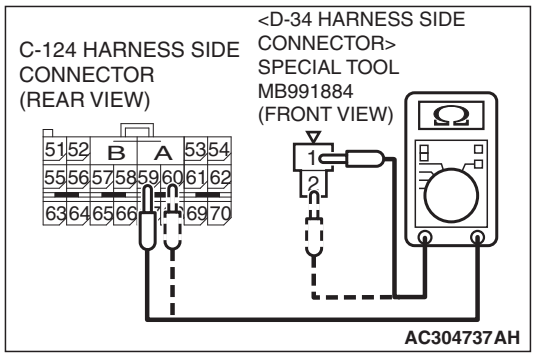
⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 59, 60 and the short spring to release the short spring.



(5) Connect D-34 harness side connector to special tool MB991884.



⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

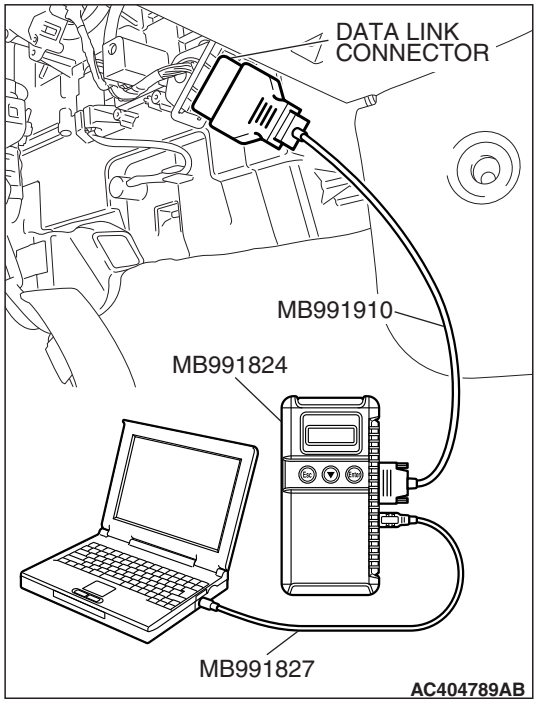
(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-124 (terminal No.59) and the special tool (terminal No.1)
- SRS-ECU connector C-124 (terminal No.60) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1461 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-124 passenger's seat belt pre-tensioner connector D-34. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

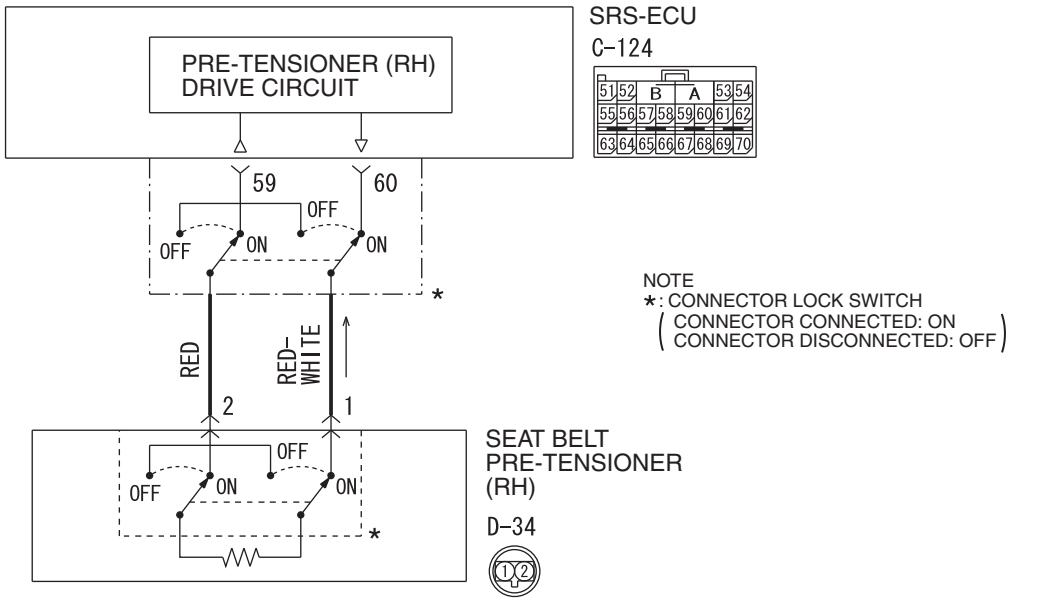
Q: Is DTC B1461 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1462: Seat Belt Pre-Tensioner (RH) (Squib) System Fault for Ground Circuit (Short-Circuit to Ground)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit



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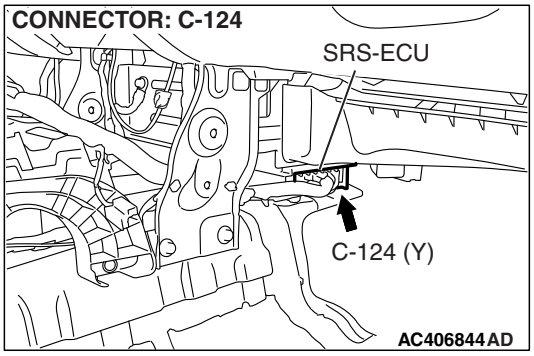
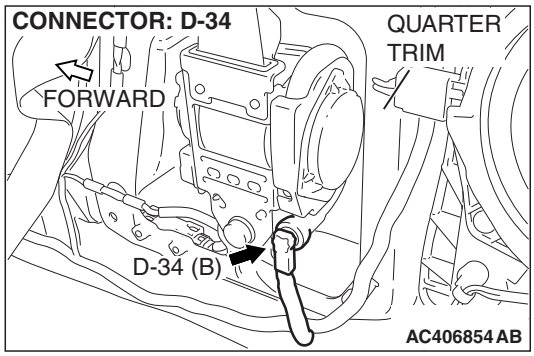




⚠ CAUTION
If DTC B1462 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

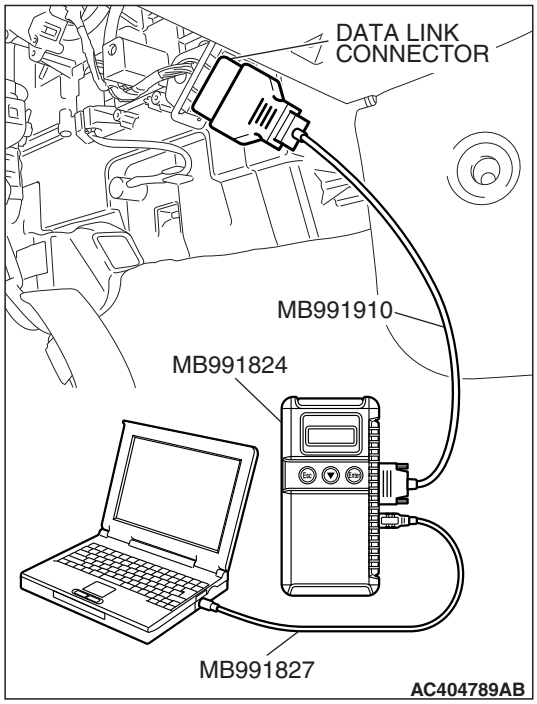
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.

TSB Revision

  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

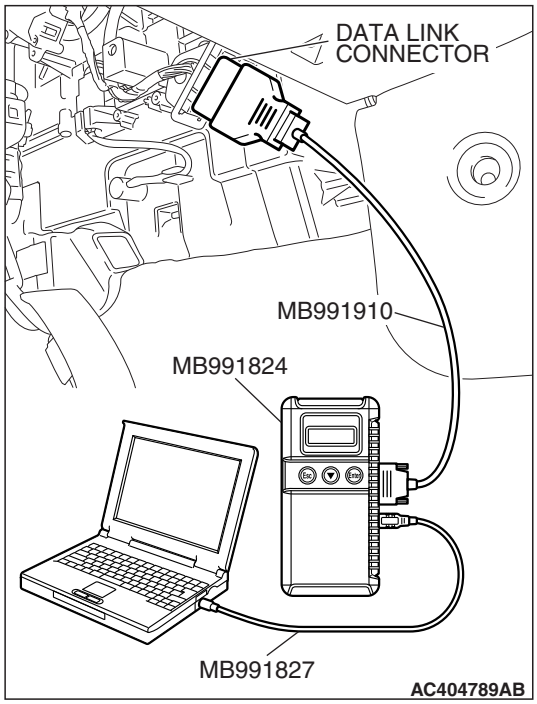
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

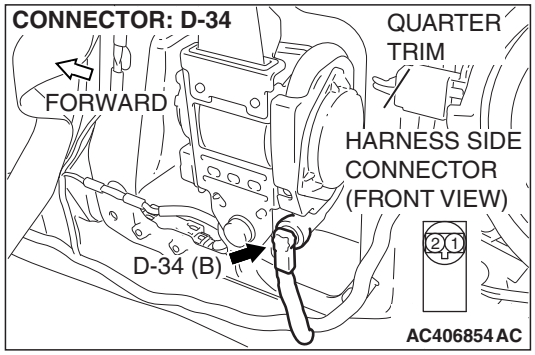
Q: Is the DTC set?

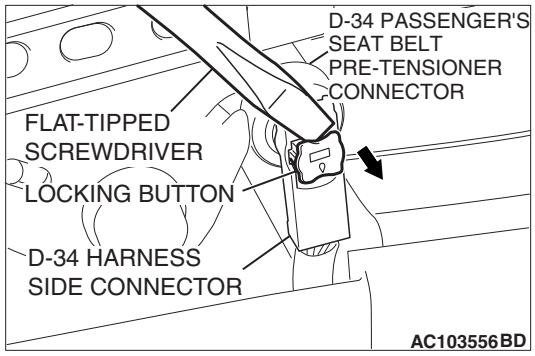
YES : Go to Step 3.

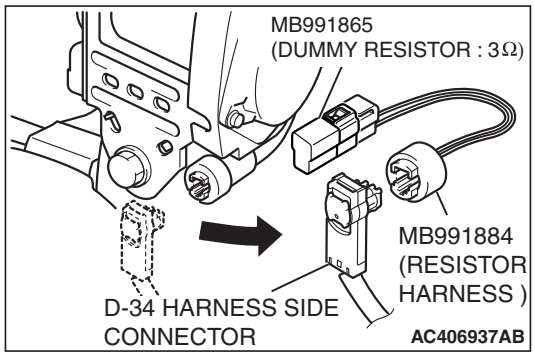
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-34 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

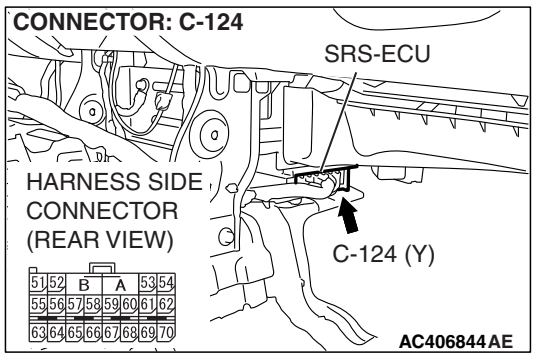
Q: Is DTC B1462 set?

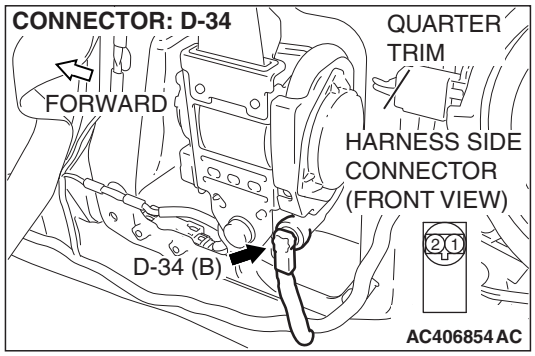
YES : Go to Step 4.
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-124.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.

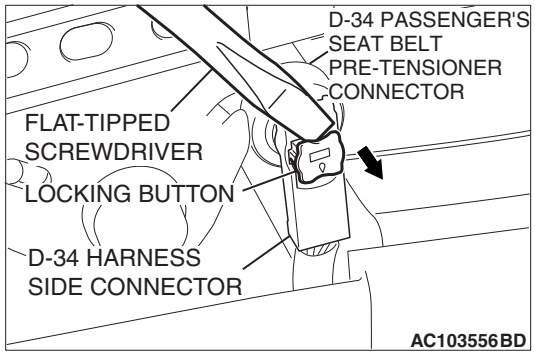




⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-34 to short the squib circuit.

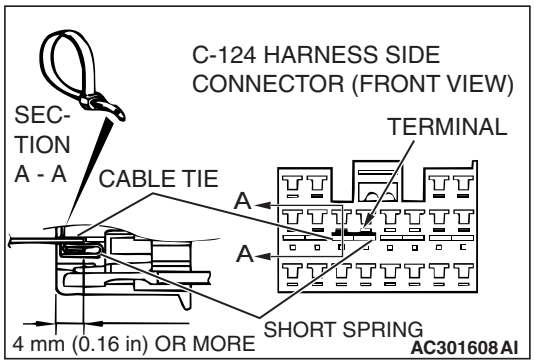
(3) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

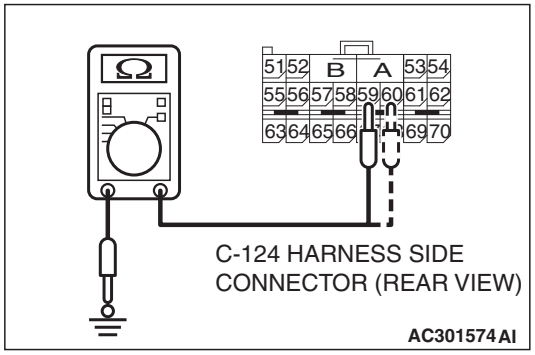


⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 59, 60 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between C-124 harness side connector terminals 59, 60 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

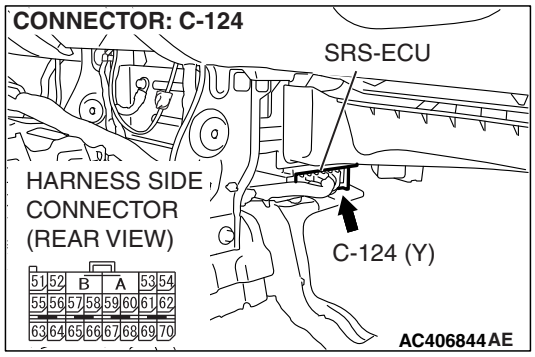
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1462 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

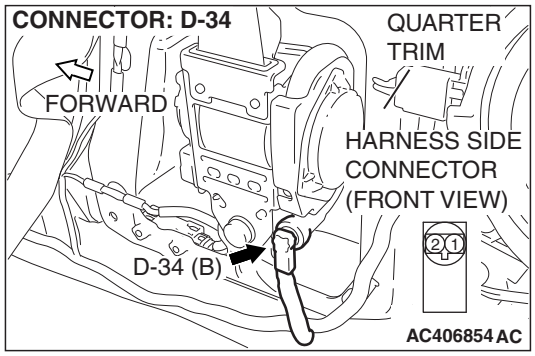
STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-124 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1).

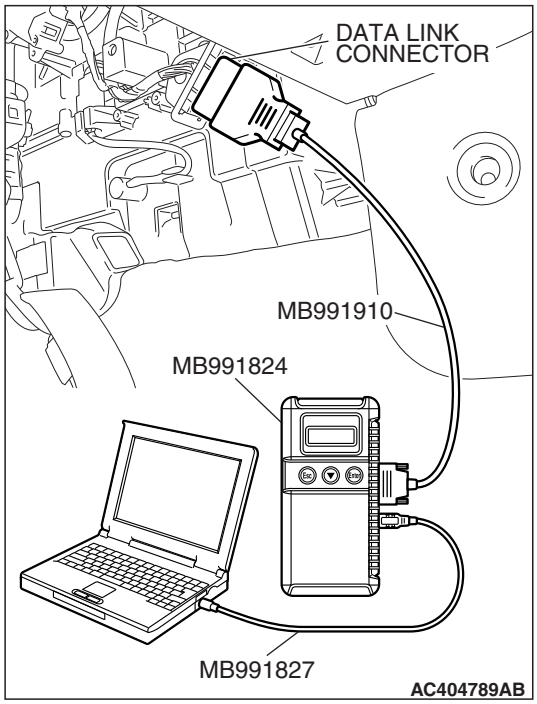
Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and passenger's seat belt pre-tensioner connector D-34. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

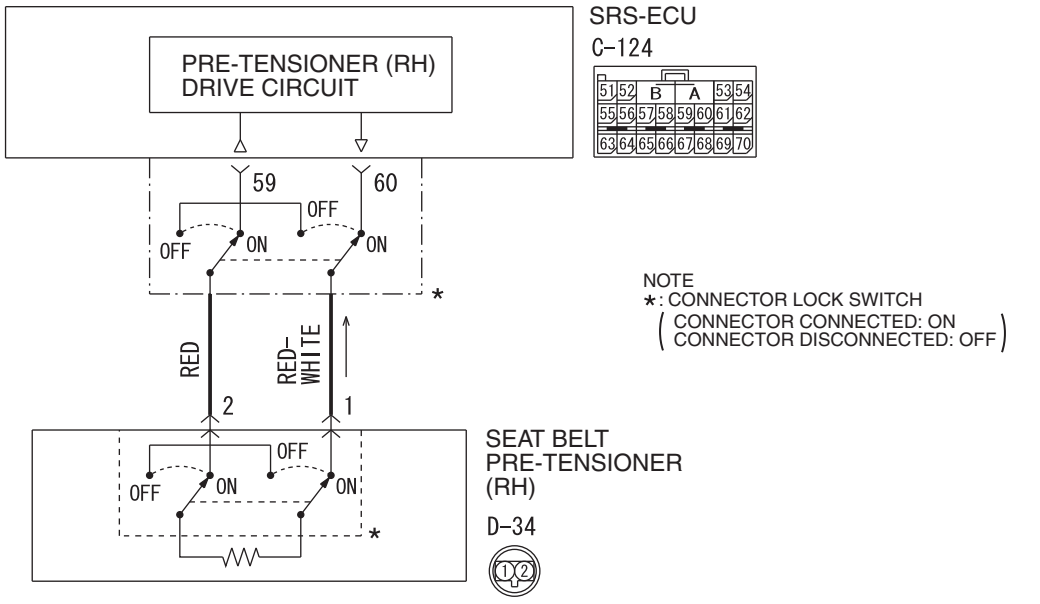
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

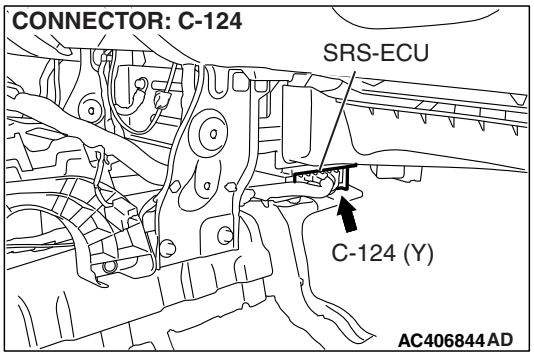
Q: Is DTC B1462 set?

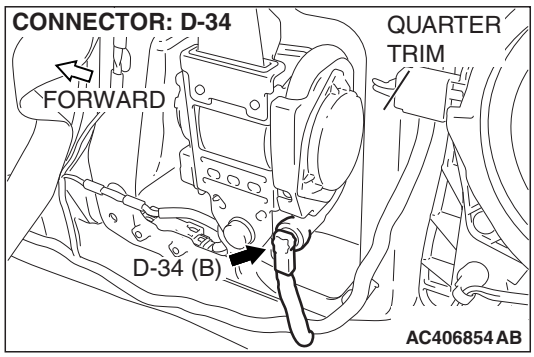
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1463: Seat Belt Pre-Tensioner (RH) (Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit







⚠ CAUTION
If DTC B1463 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

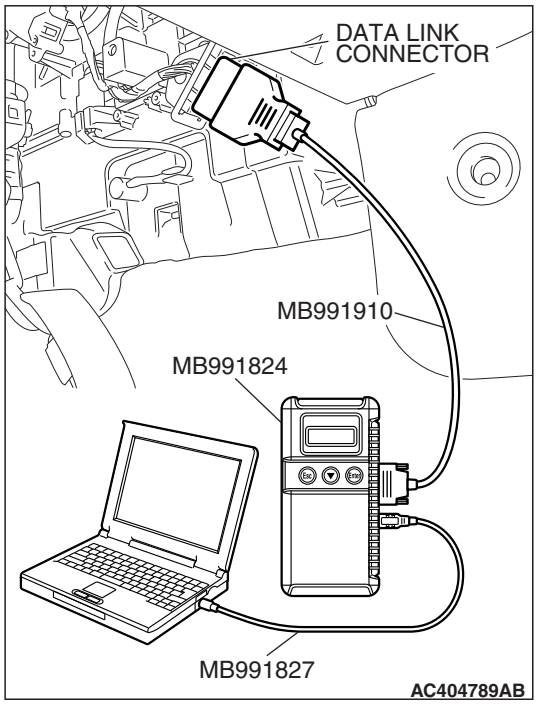
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

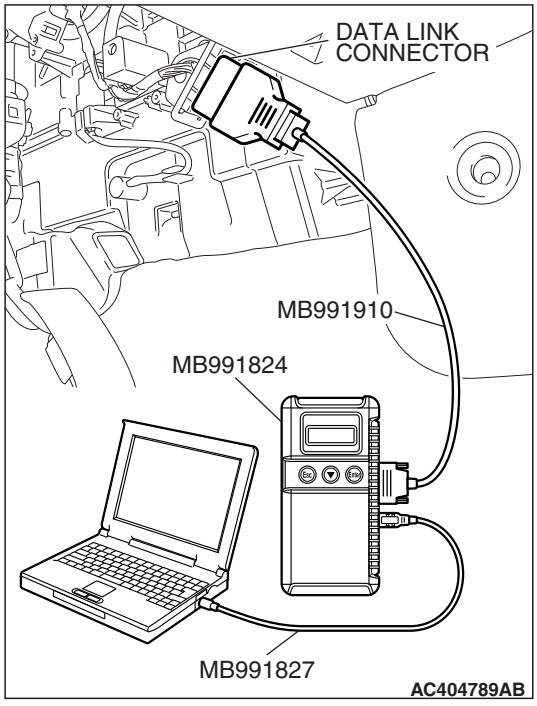
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

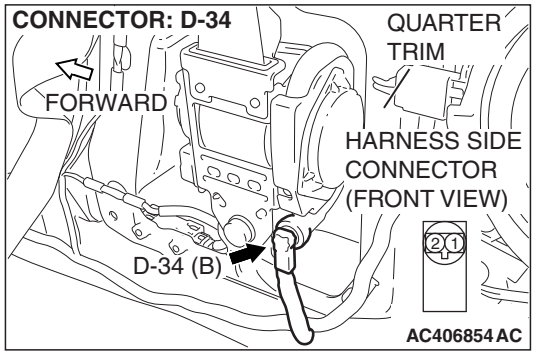
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

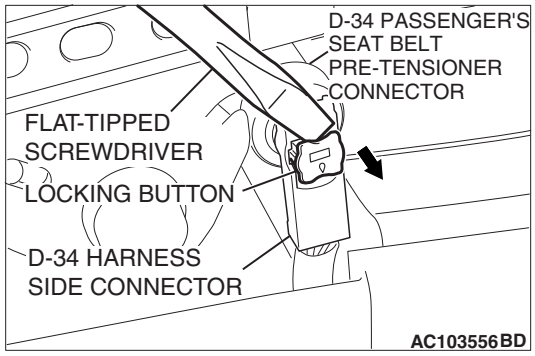
Q: Is the DTC set?

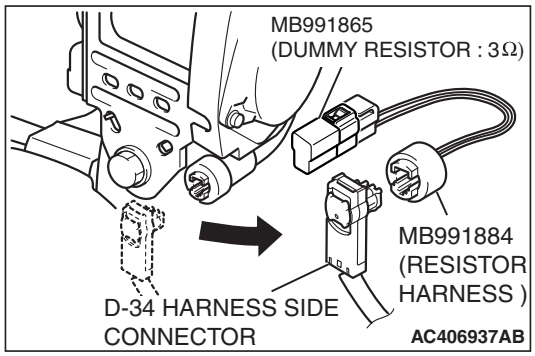
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







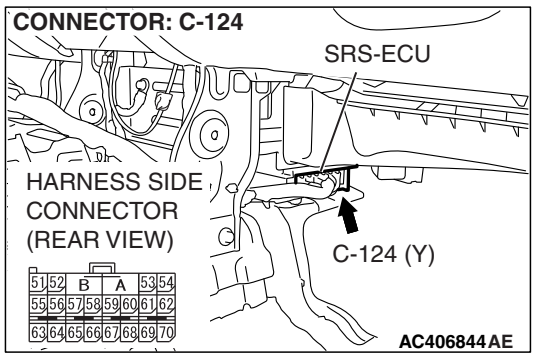
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-34 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

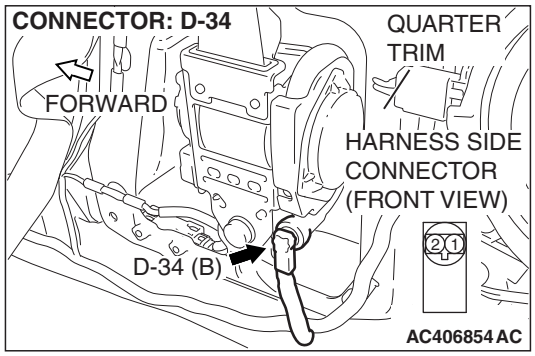
Q: Is DTC B1463 set?

YES : Go to Step 4.
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-124.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.

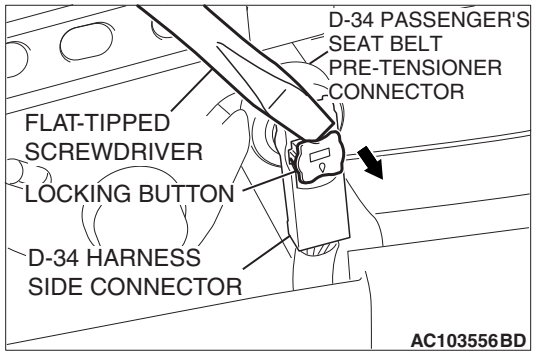




⚠ *DANGER*

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-34 to short the squib circuit.

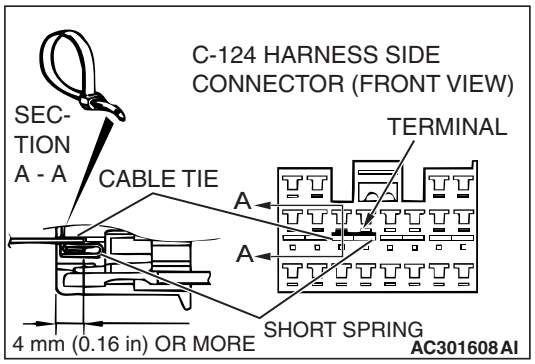
(3) Disconnect passenger's seat belt pre-tensioner connector D-34. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

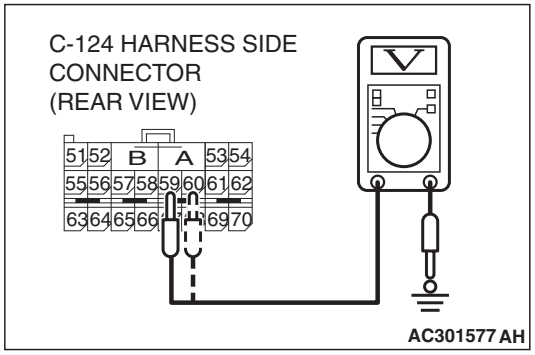


⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 59, 60 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position,





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Measure the voltage between C-124 harness side connector terminals 59, 60 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1463 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

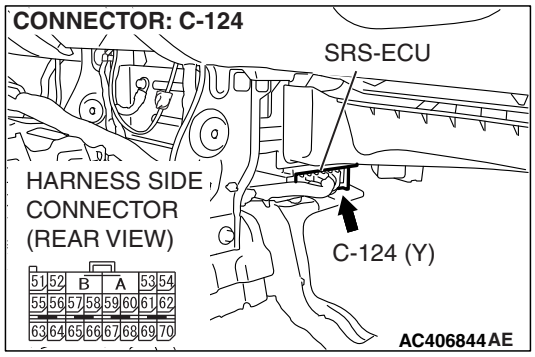
NO : Go to Step 5.

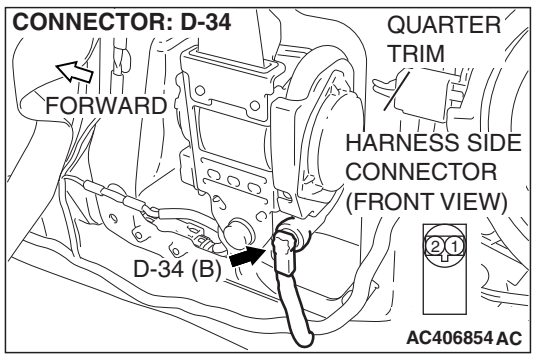
STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-124 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1).

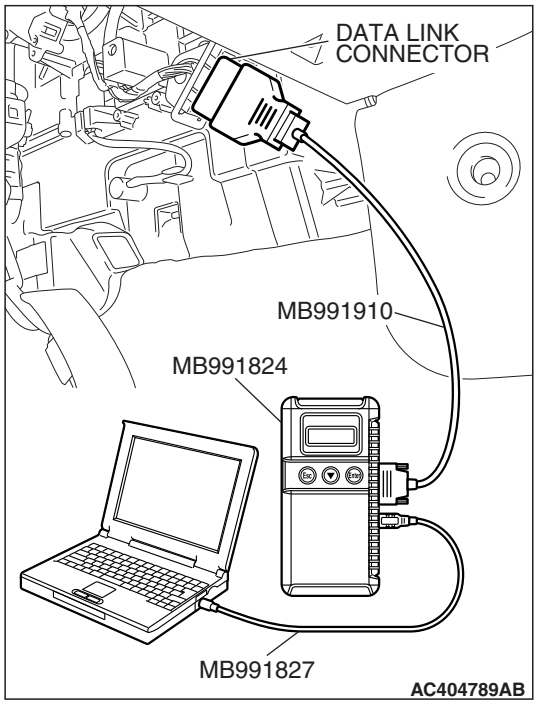
Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-34 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and passenger's seat belt pre-tensioner connector D-34. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

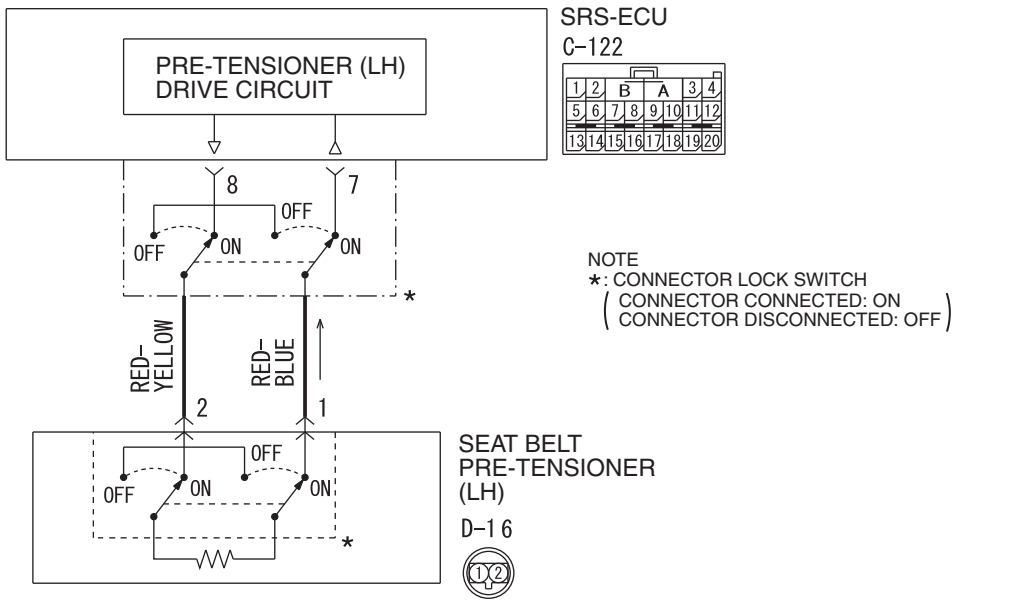
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1463 set?

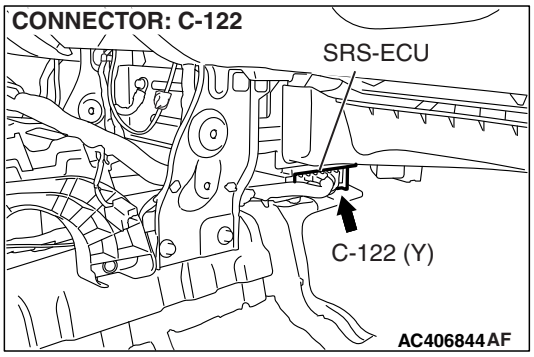
YES : Return to Step 1.
NO : The procedure is complete.

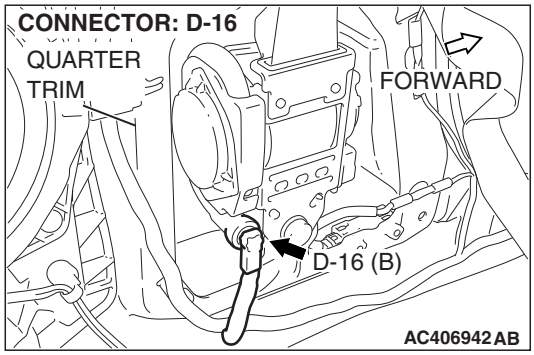
DTC B1470: Seat Belt Pre-Tensioner (LH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



TSB Revision





⚠ CAUTION
If DTC B1470 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-122 or D-16 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

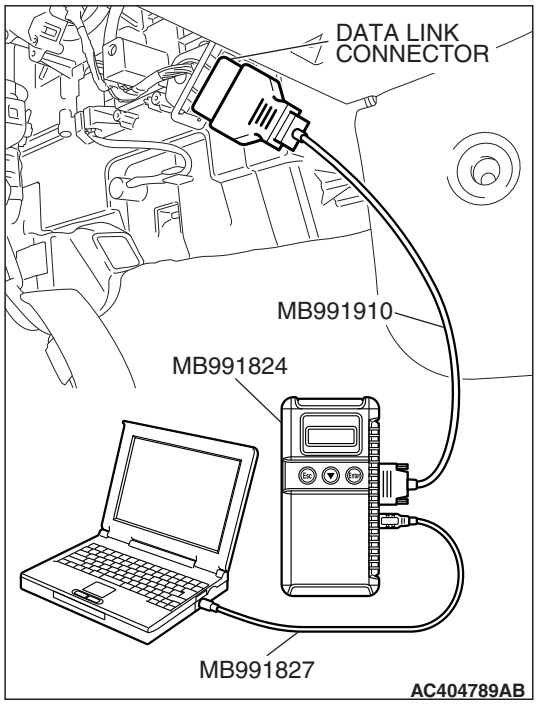
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resister
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

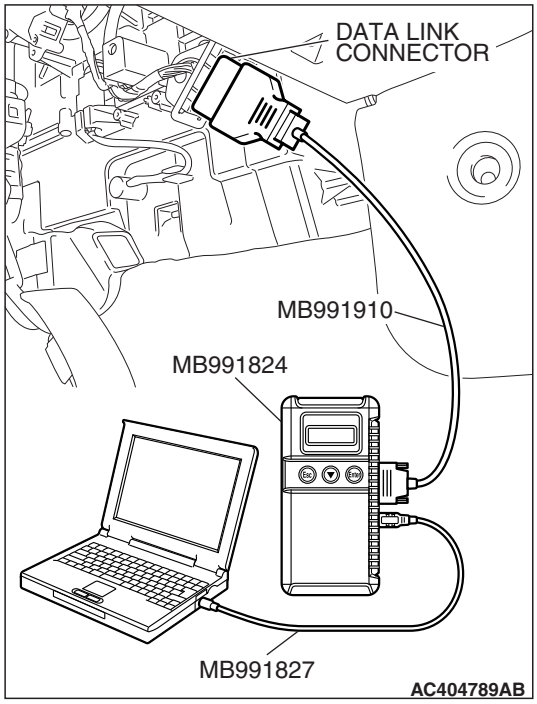


(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

STEP 2. Recheck for diagnostic trouble code.

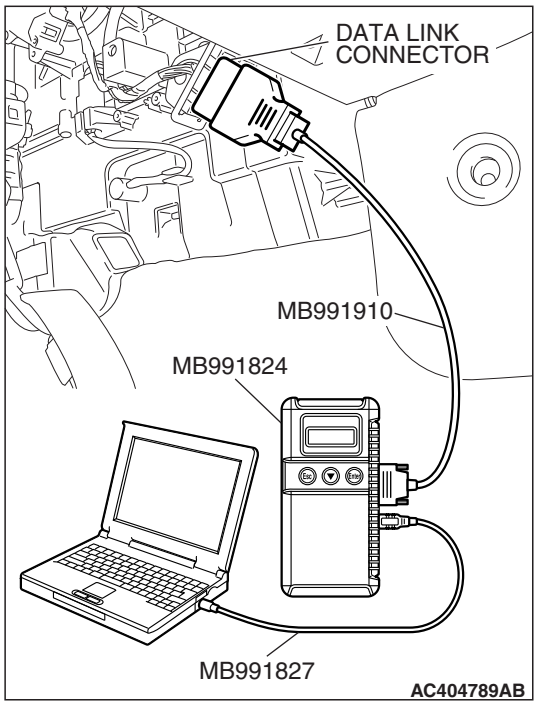


Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

TSB Revision

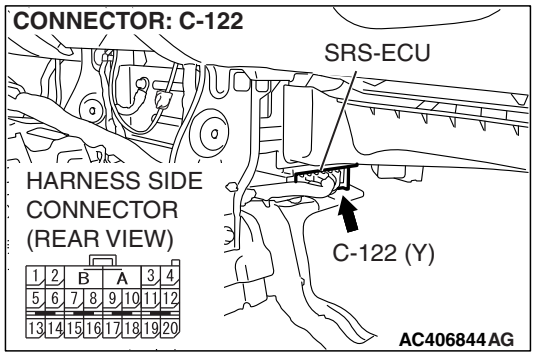


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1519 set?

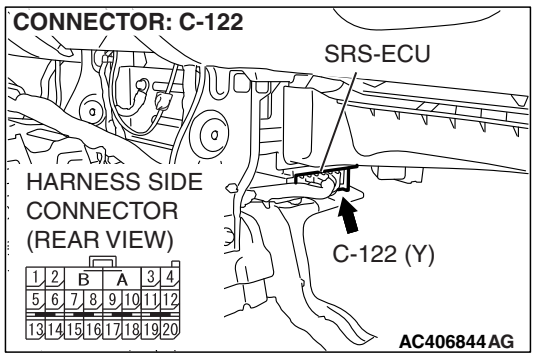
YES : Go to Step 4.
NO : Go to Step 5.

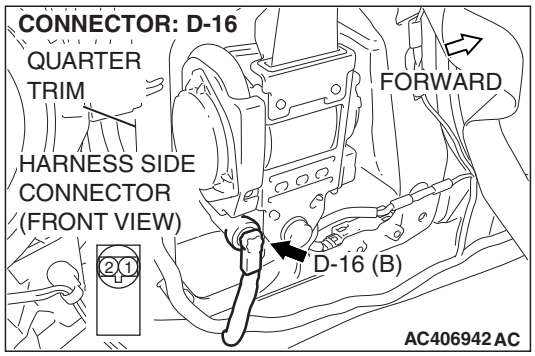


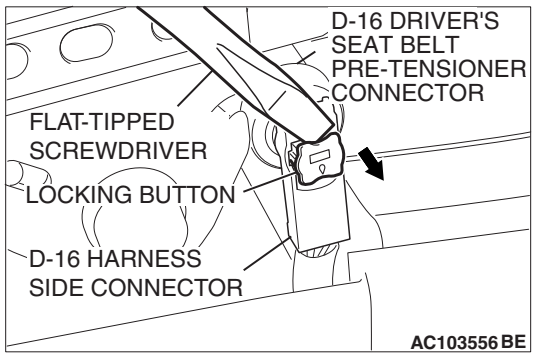
STEP 4. Check the SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 9.







STEP 5. Check SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-16. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-122 and D-16, and then reconnect them. For connector D-16, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

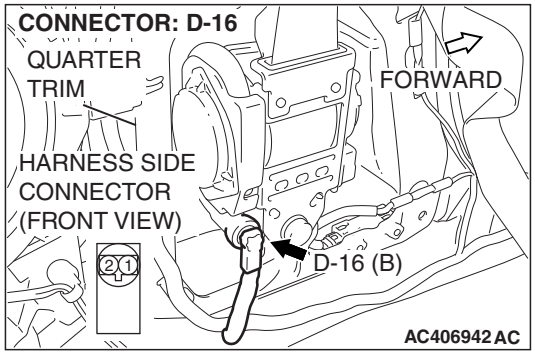
Q: Is DTC B1470 set?

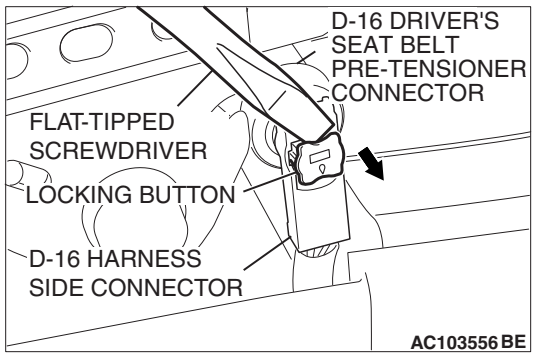
YES : Go to Step 6.
NO : The procedure is complete. It is assumed that DTC B1470 set because connector C-122 or D-16 was engaged improperly.

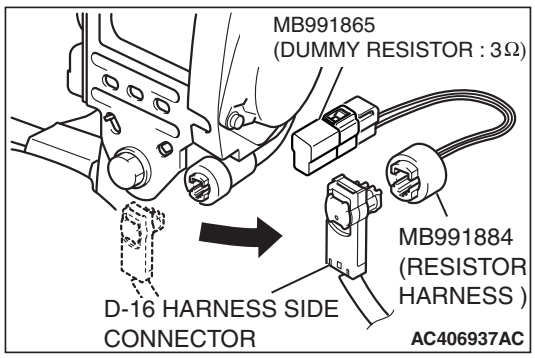
STEP 6. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness side connector.

(5) Connect the negative battery terminal.

(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1470 set?

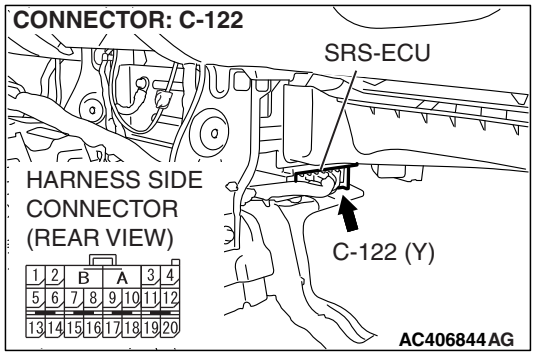
YES : Go to Step 7.

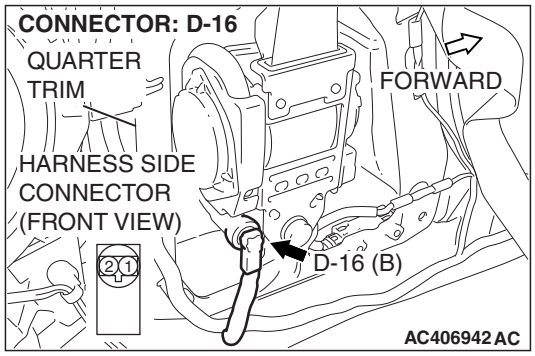
NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 9.

STEP 7. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-122.

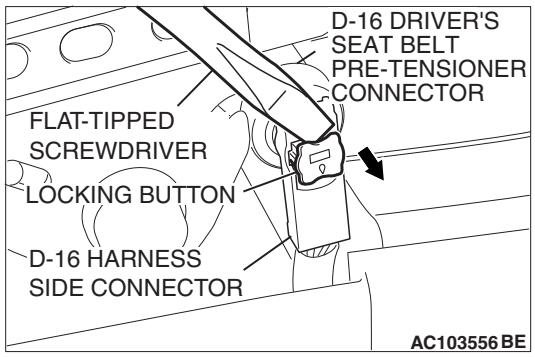




⚠ *DANGER*

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-16 to short the squib circuit.

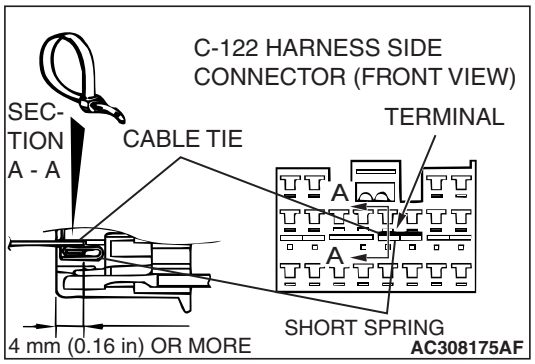
(3) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

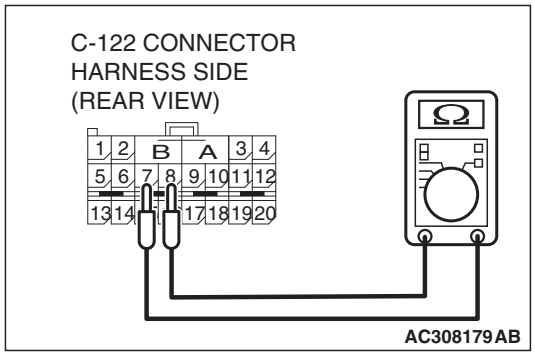


⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7, 8 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between C-122 harness side connector terminals 7 and 8.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

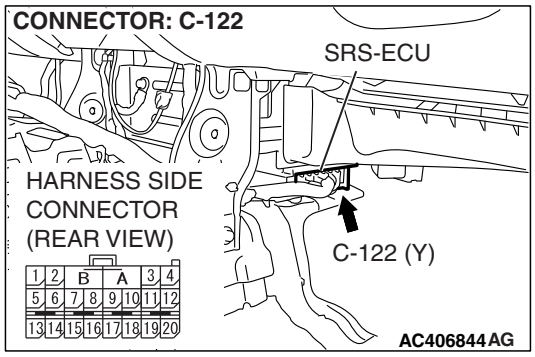
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1470 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.

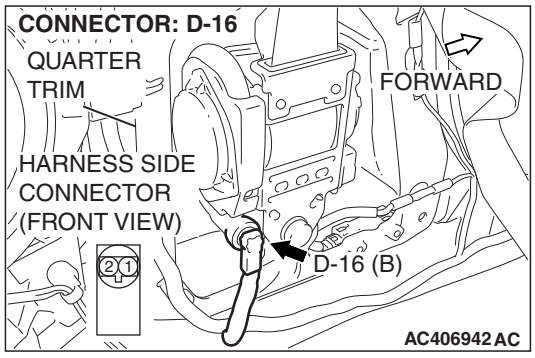
STEP 8. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2).

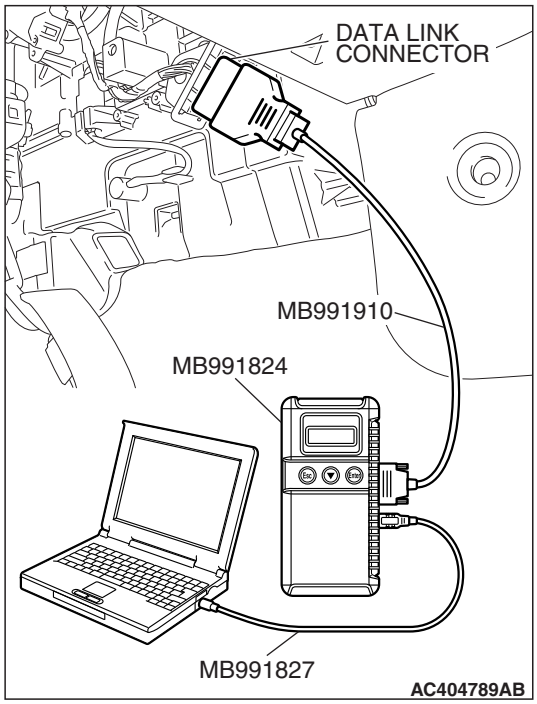
Q: Are harness wires between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-16. Then go to Step 9.







STEP 9. Recheck for diagnostic trouble code.

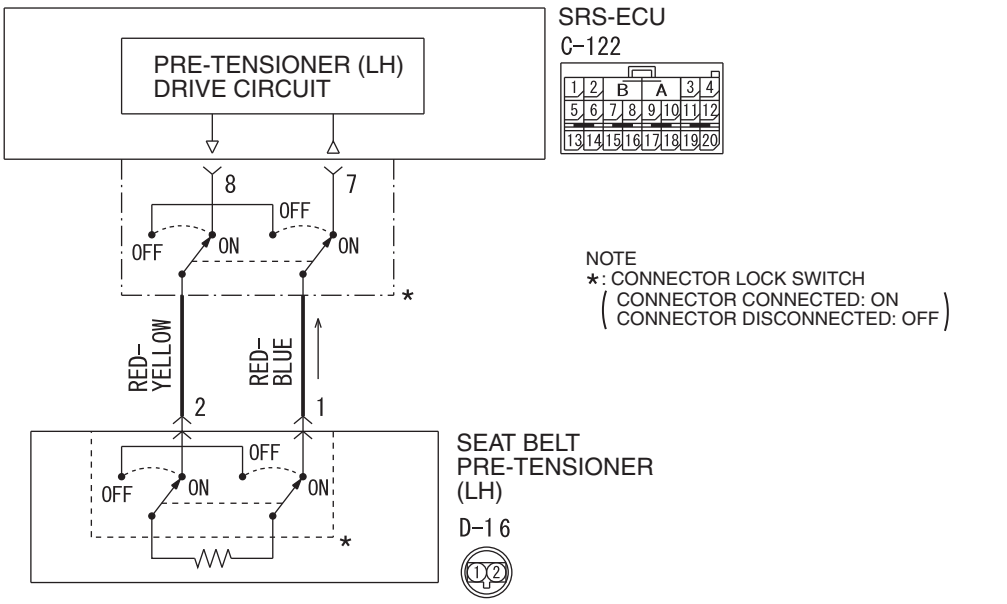
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

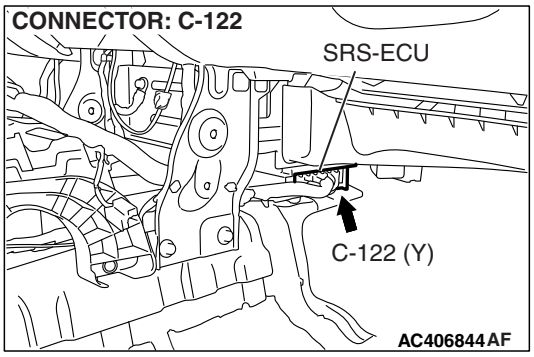
Q: Is DTC B1470 set?

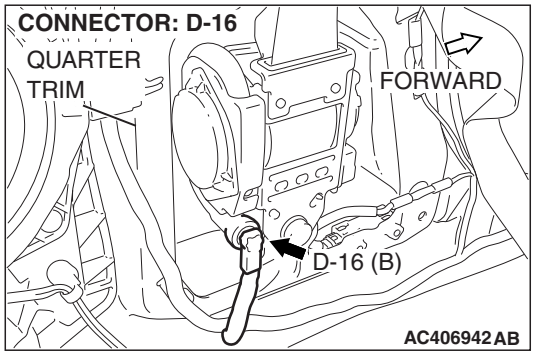
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1471: Seat Belt Pre-Tensioner (LH) (Squib) System Fault 2 (Open in the Squib Circuit)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit







⚠ CAUTION
If DTC B1471 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the driver's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

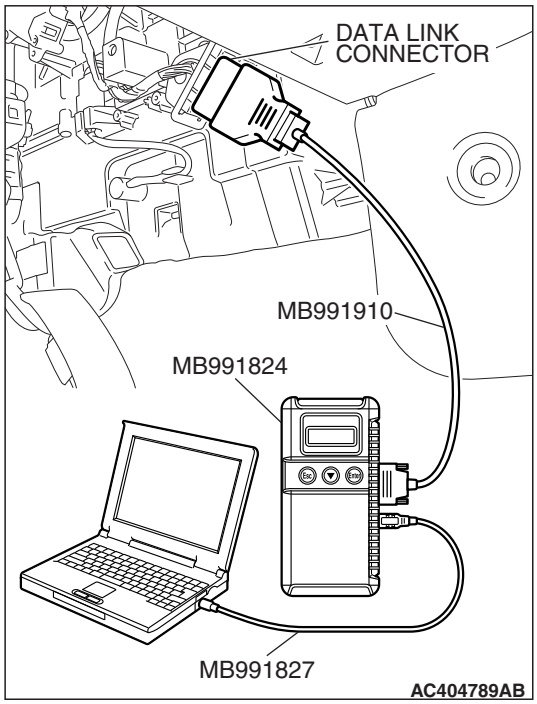
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

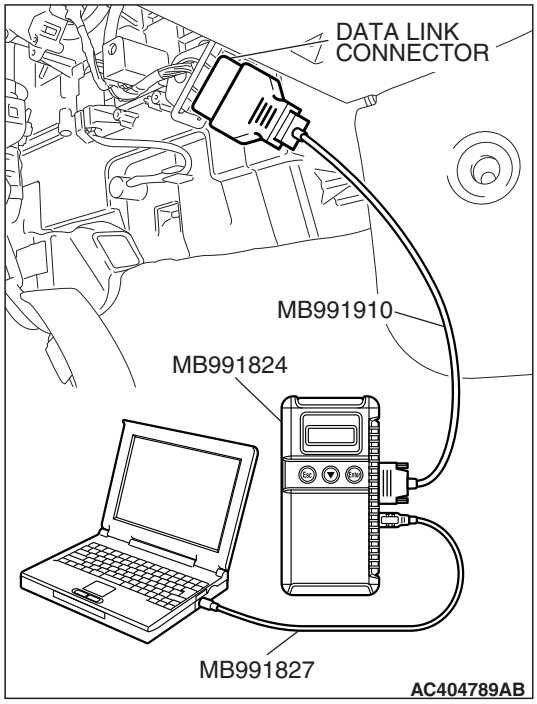


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

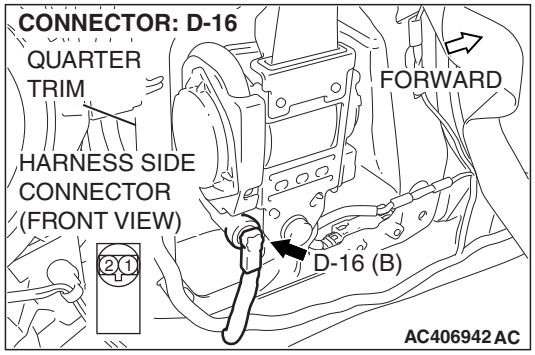
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

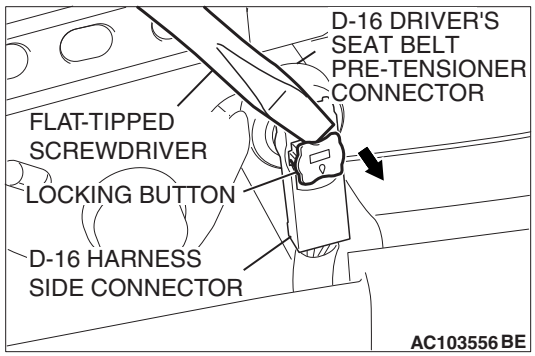


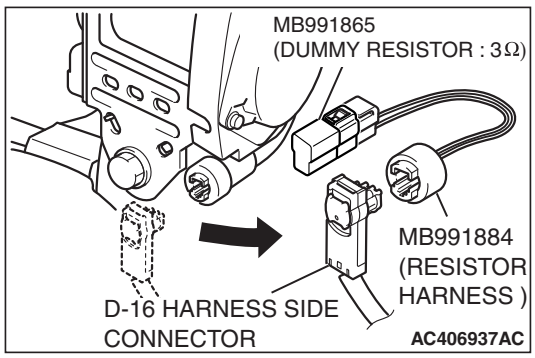
STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness side connector.

(5) Connect the negative battery terminal.

(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1471 set?

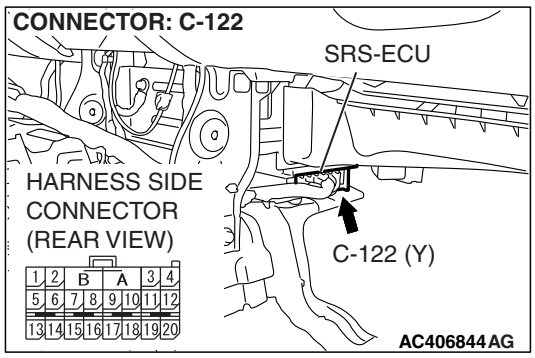
YES : Go to Step 4.

NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.7 and 8) and the driver's seat belt pre-tensioner D-16 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.

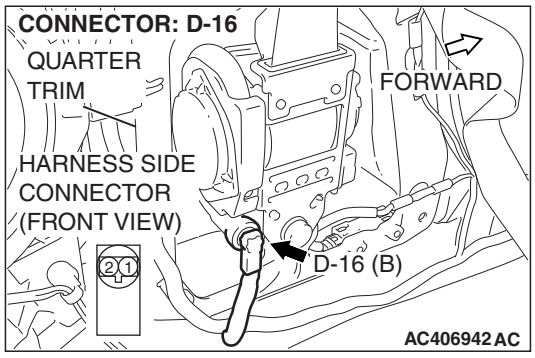
(2) Disconnect SRS-ECU connector C-122.

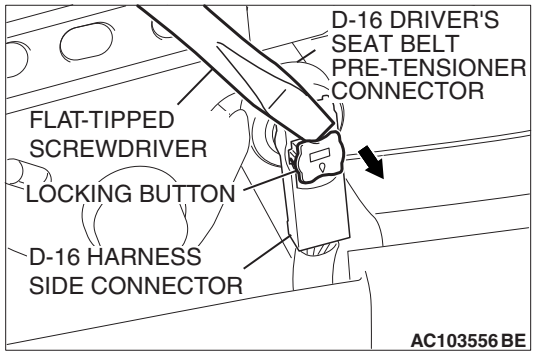


⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-16 to short the squib circuit.

(3) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

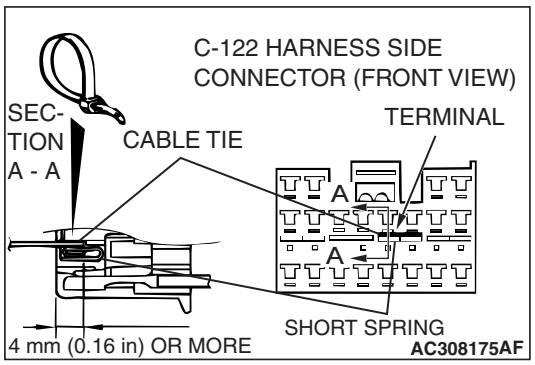


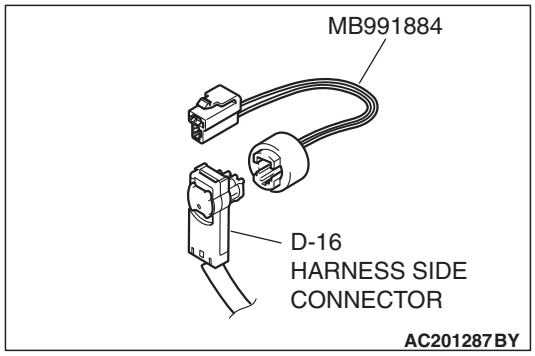


⚠ CAUTION

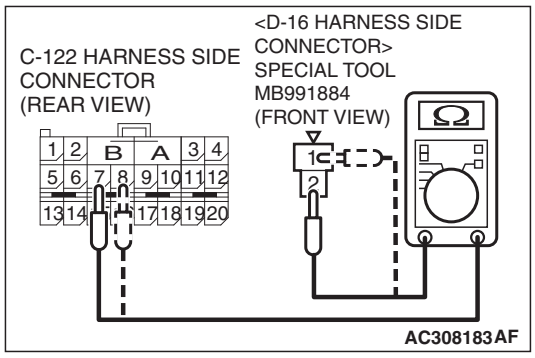
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7, 8 and the short spring to release the short spring.





(5) Connect D-16 harness side connector to special tool MB991884.



⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.7) and the special tool (terminal No.2)
- SRS-ECU connector C-122 (terminal No.8) and the special tool (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1471 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-16. Then go to Step 5.

STEP 5. Check for diagnostic trouble code.

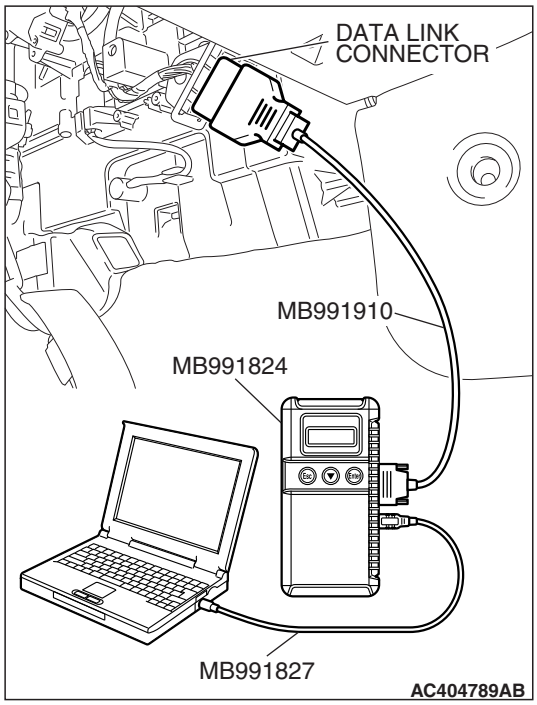
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1471 set?

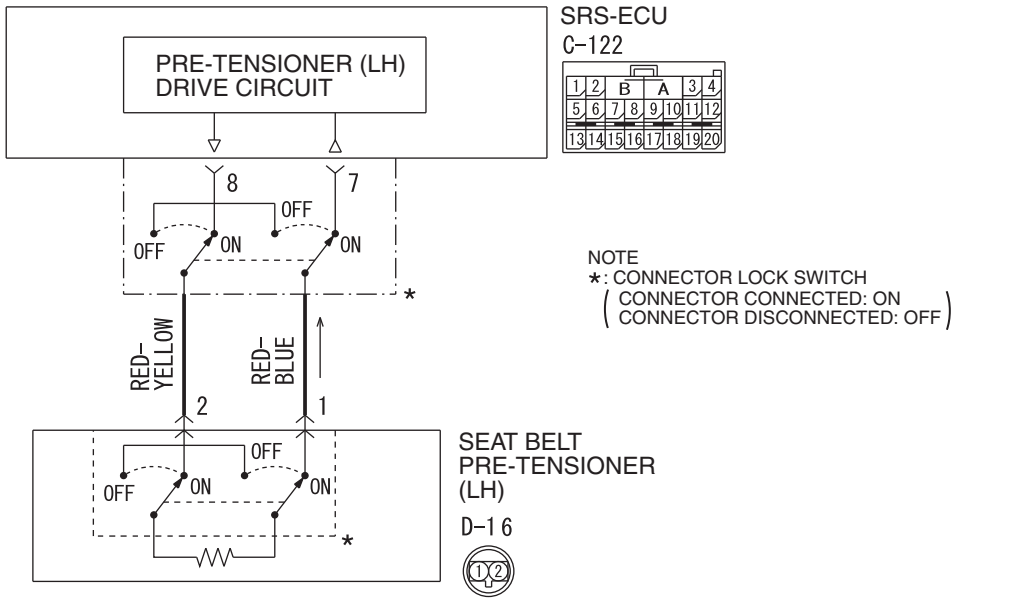
YES : Return to Step 1.

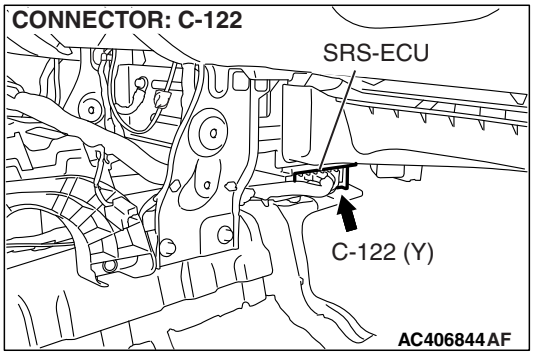
NO : The procedure is complete.

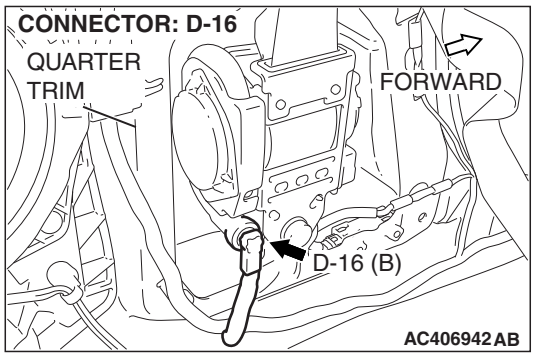


DTC B1472: Seat Belt Pre-Tensioner (LH) (Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit







⚠ CAUTION

If DTC B1472 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

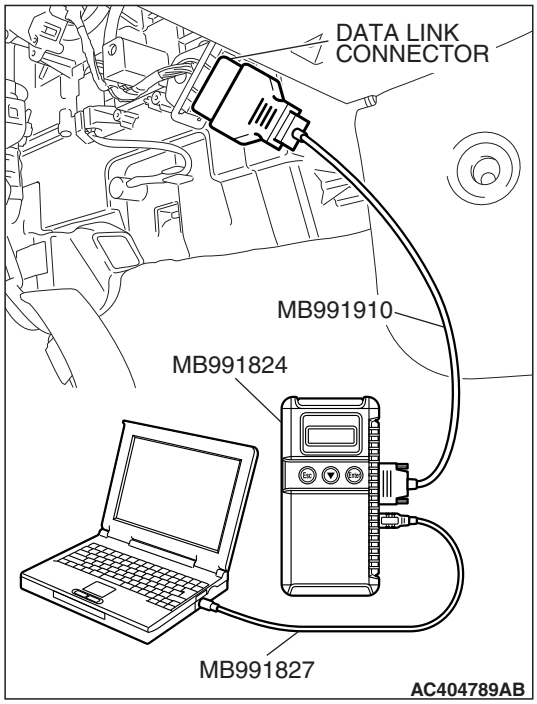
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.

TSB Revision

  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

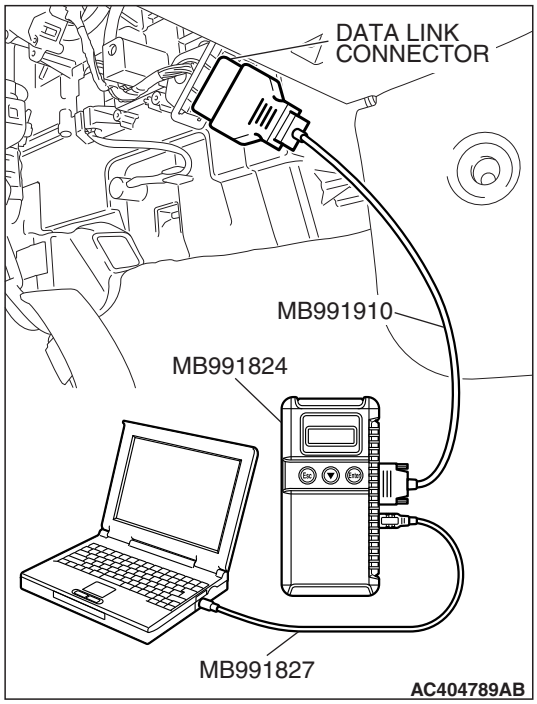
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

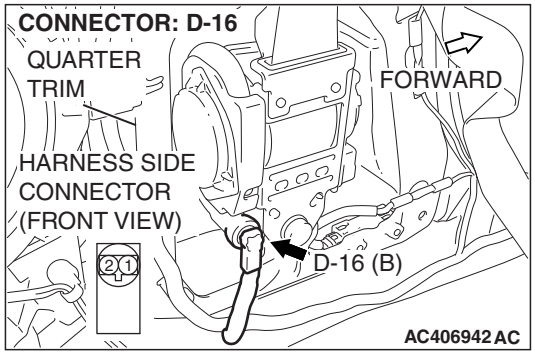
YES : Go to Step 3.

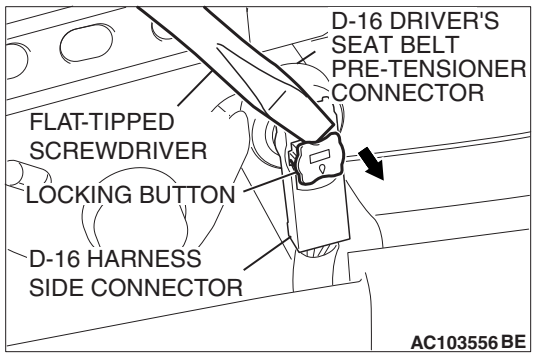
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

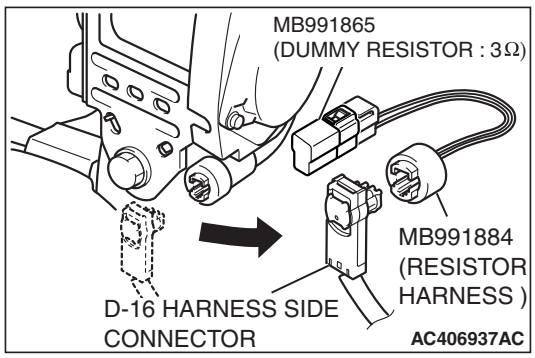
STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness side connector.

(5) Connect the negative battery terminal.

(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1472 set?

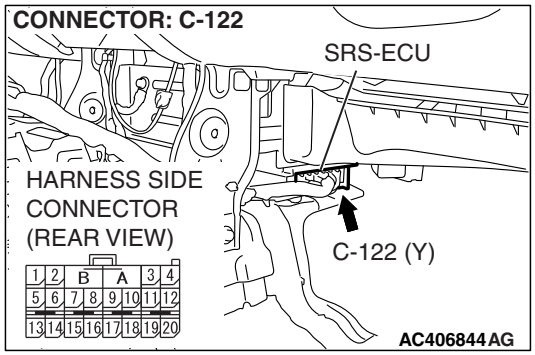
YES : Go to Step 4.

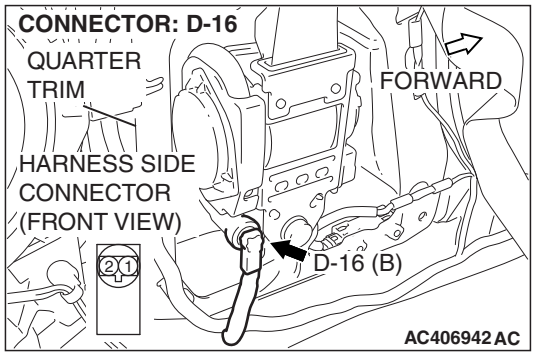
NO : Replace the driver's seat belt pre-tensioner. Refer to P.52B-440. Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-122.

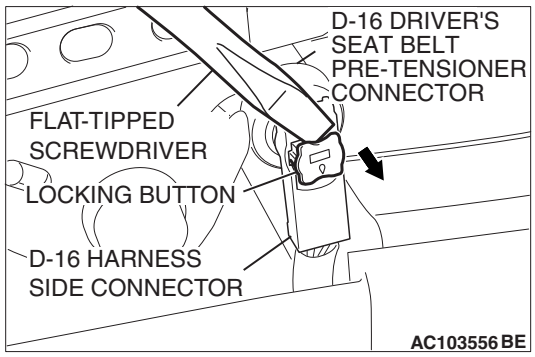




⚠ *DANGER*

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-16 to short the squib circuit.

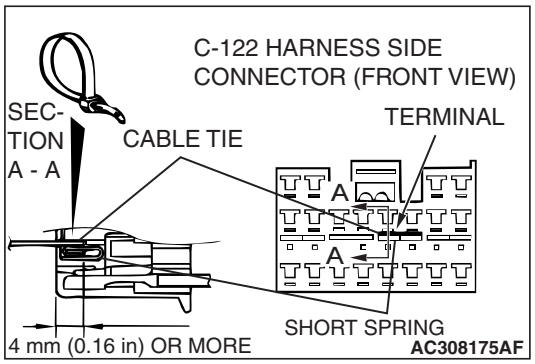
(3) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

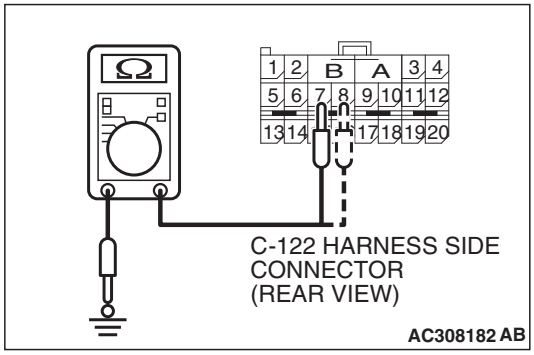


⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7, 8 and the short spring to release the short spring.





⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between C-122 harness side connector terminals 7, 8 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

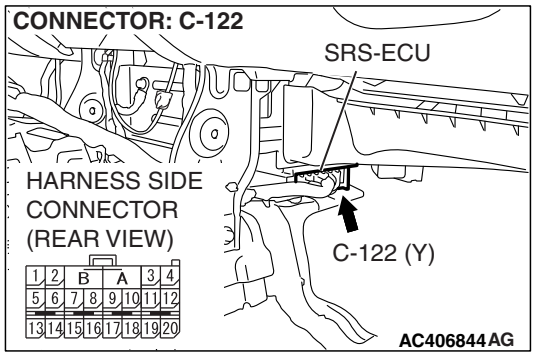
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1472 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

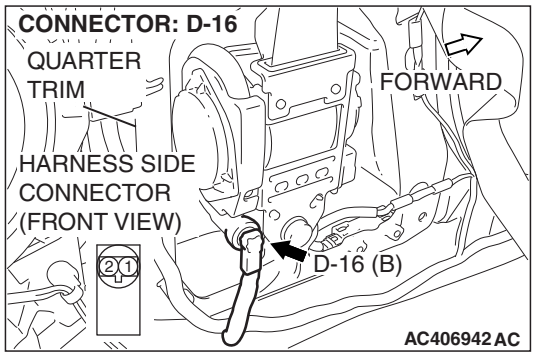
STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2).

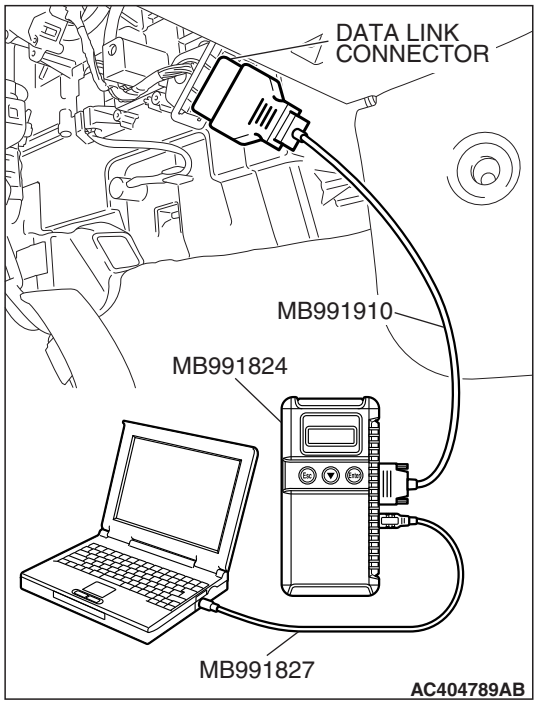
Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-16. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

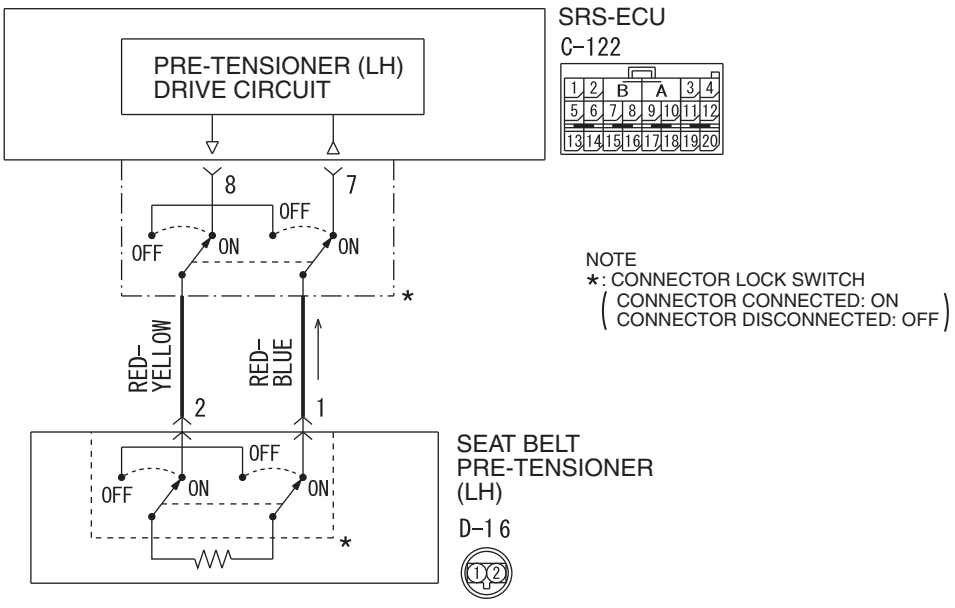
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1472 set?

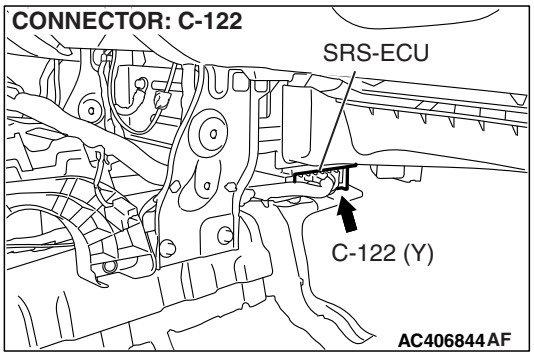
YES : Return to Step 1.
NO : The procedure is complete.

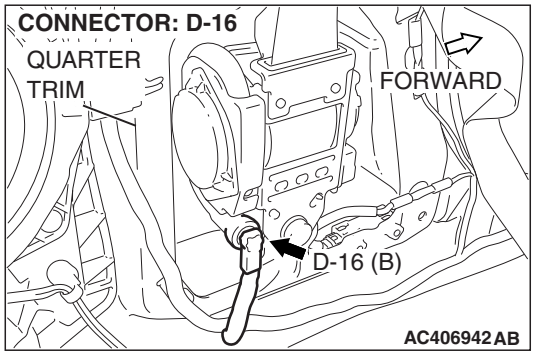
DTC B1473: Seat Belt Pre-Tensioner (LH) (Squib) System Fault for Power Supply Circuit (Short-Circuit to Power Supply)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



TSB Revision





⚠ CAUTION

If DTC B1473 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

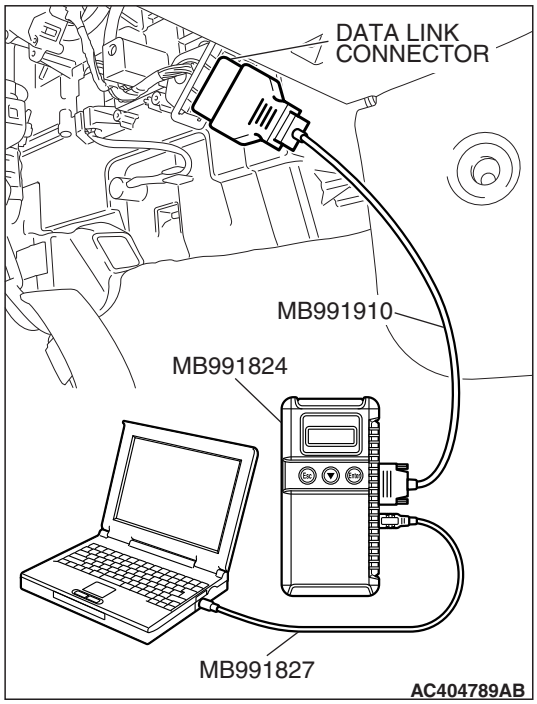
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

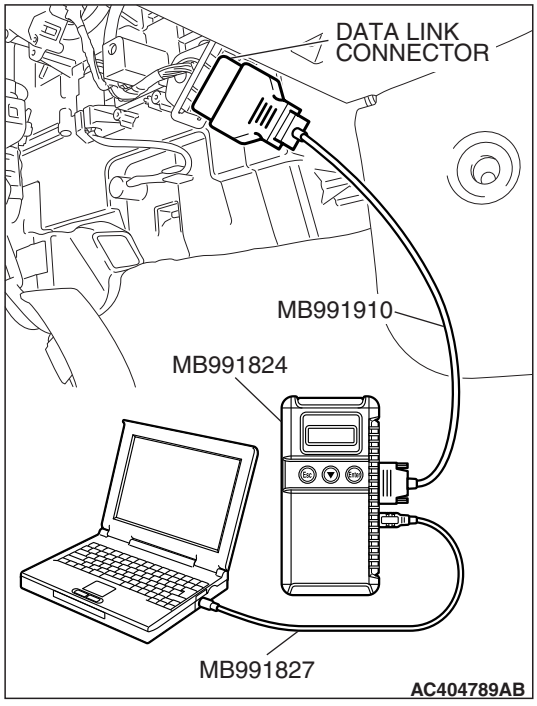


(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

STEP 2. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

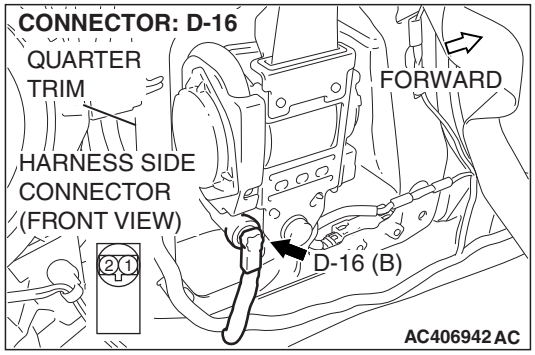
Q: Is DTC set?

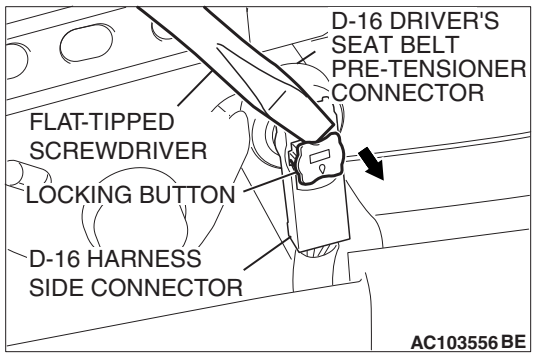
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

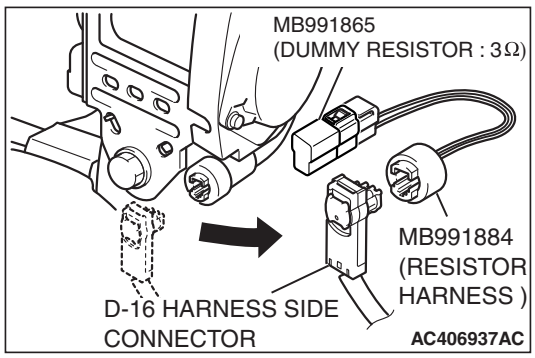
STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness side connector.

(5) Connect the negative battery terminal.

(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

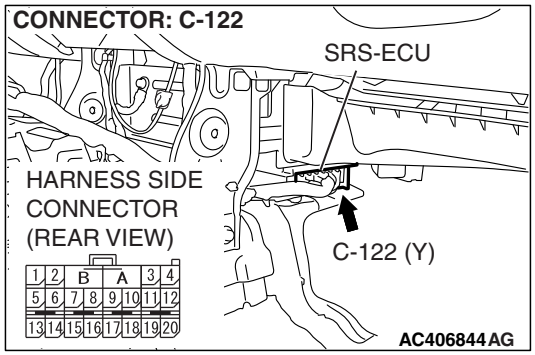
Q: Is DTC B1473 set?

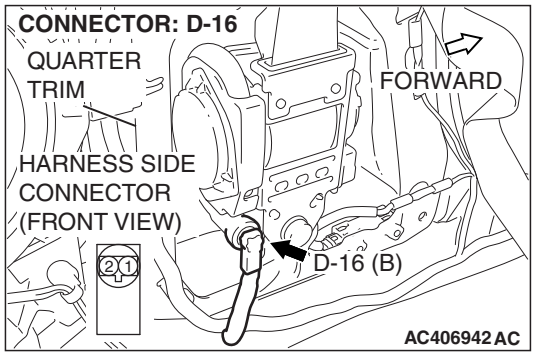
YES : Go to Step 4.

NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-440). Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-122.

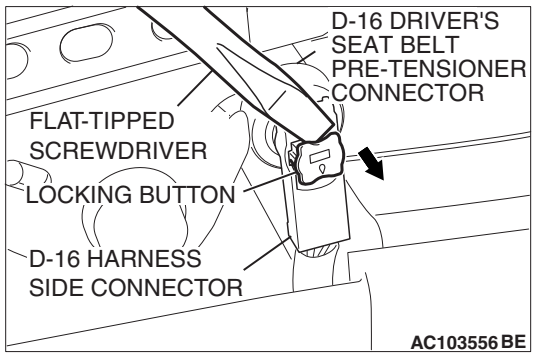




⚠ *DANGER*

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-16 to short the squib circuit.

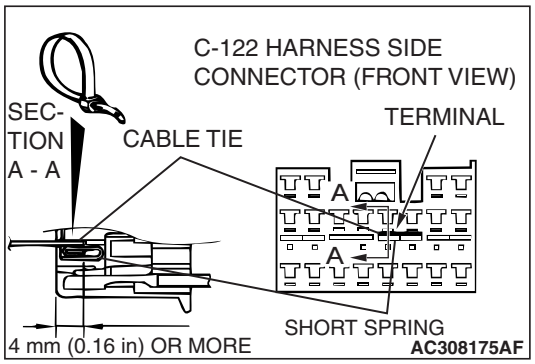
(3) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

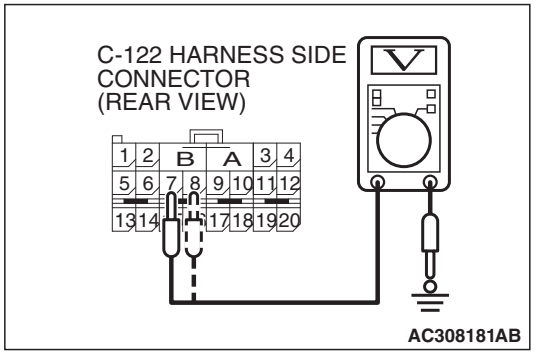


⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7, 8 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position.





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Measure the voltage between C-122 harness side connector terminals 7, 8 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1473 sets, replace the SRS-ECU (Refer to P.52B-109). Then go to Step 6.

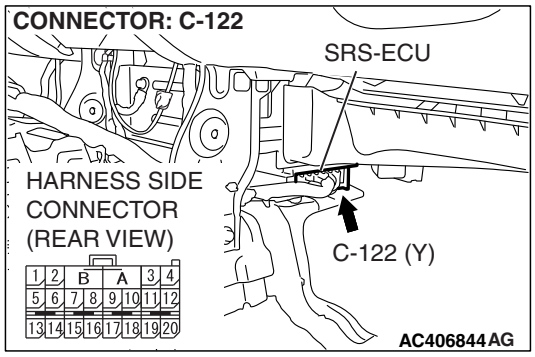
NO : Go to Step 5.

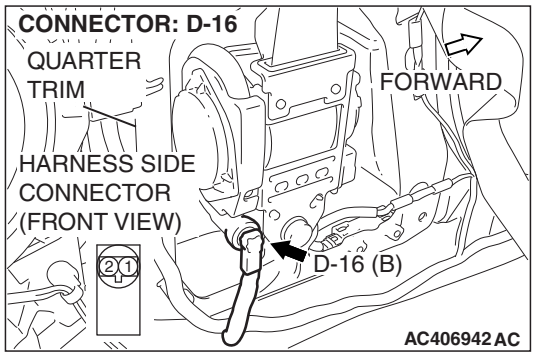
STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2).

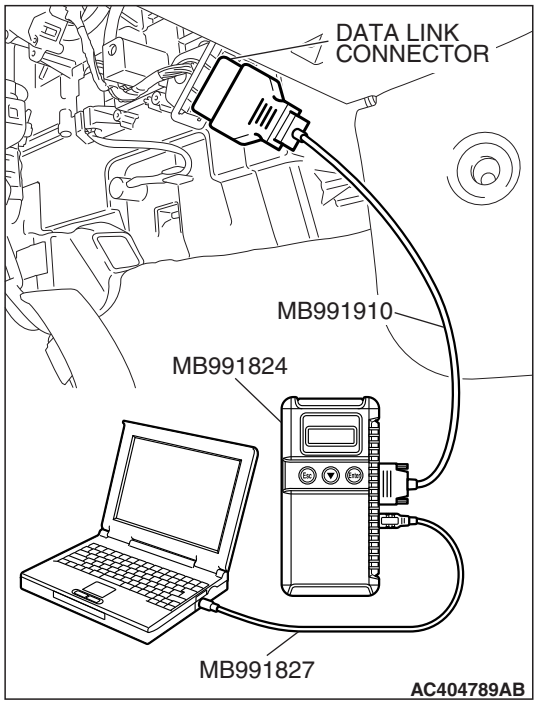
Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8). and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-16. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

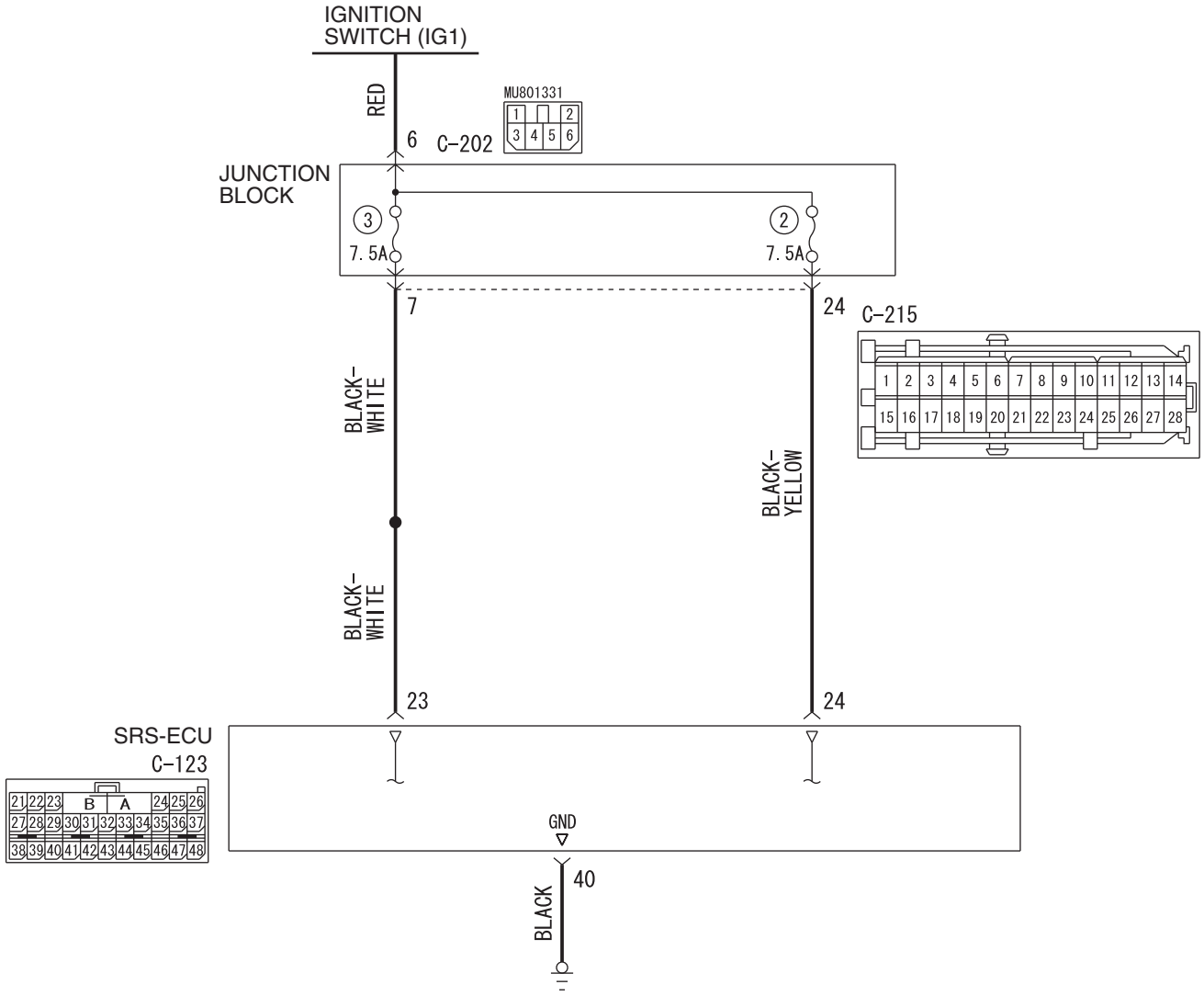
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1473 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1476: IG1 Power Supply Circuit System (Fuse No.3 Circuit)
DTC B1477: IG1 Power Supply Circuit System (Fuse No.2 Circuit)

IG1 Power Supply Circuit



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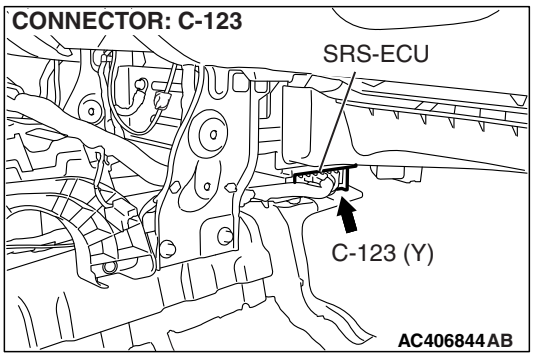

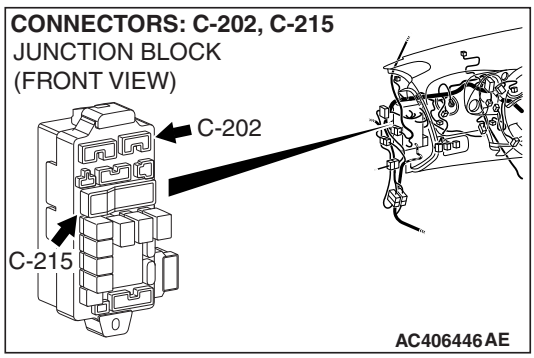

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⚠ CAUTION

If DTC B1476 <Fuse No.3> or B1477 <Fuse No.2> is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.3 circuit or fuse No.2 circuit) and ground is lower than a predetermined value for a continuous period of five second or more. However, if the vehicle condition returns to normal, DTC number B1476 <Fuse No.3> or B1477 <Fuse No.2> will be automatically erased, and the SRS warning light will switch off.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

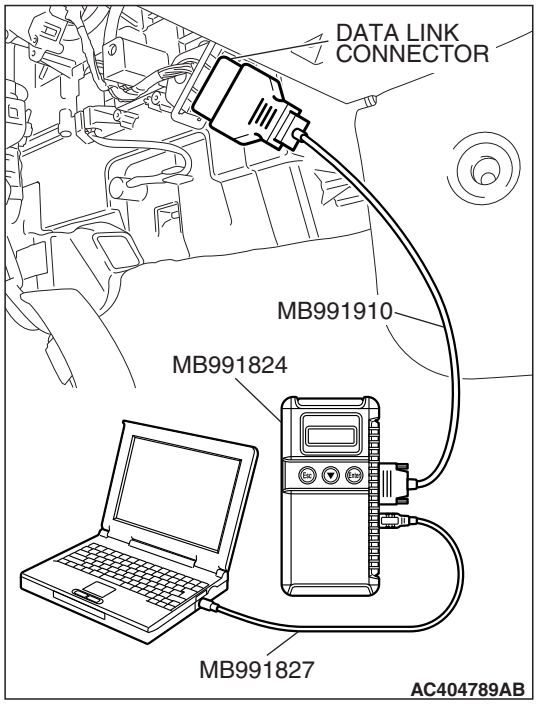
⚠ CAUTION

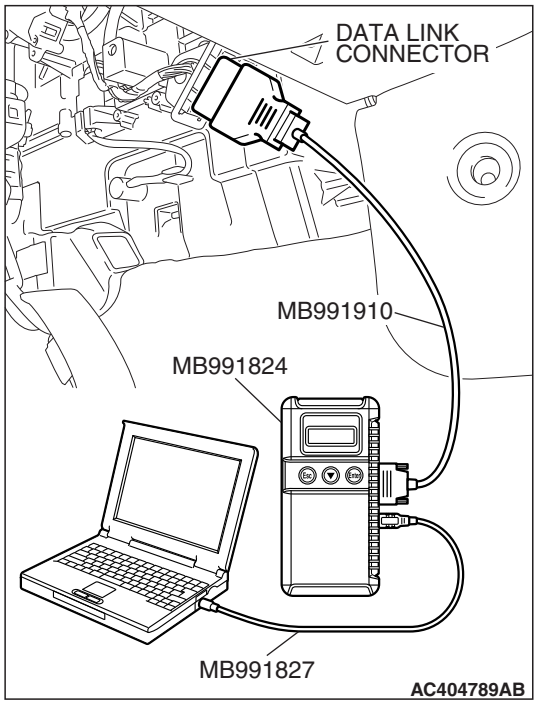
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

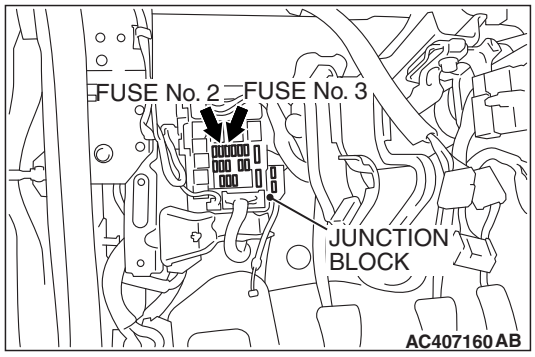
Q: Is the DTC set?

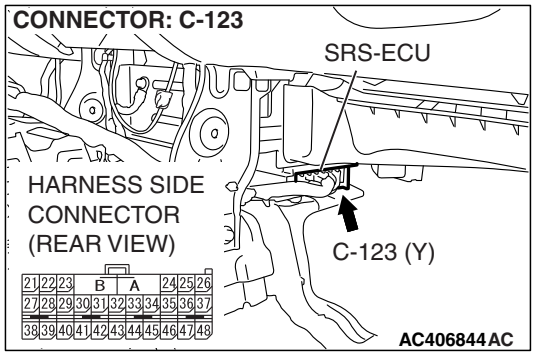
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check junction block fuse number 3 <DTC B1476> or 2 <DTC B1477>.

Q: Is the fuse burned out?

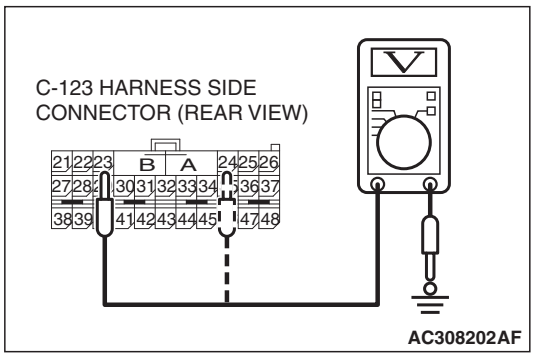
YES : Go to Step 6.
NO : Go to Step 4.





STEP 4. Check the power supply circuit for open circuit. Measure the voltage at SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-123.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.



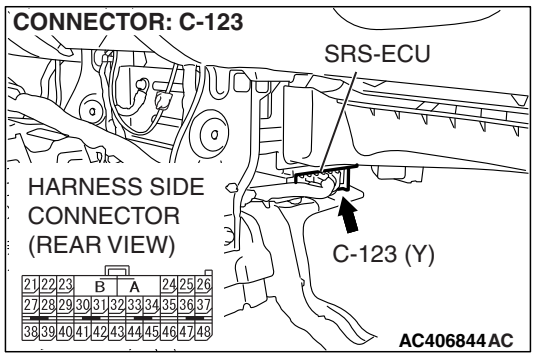
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

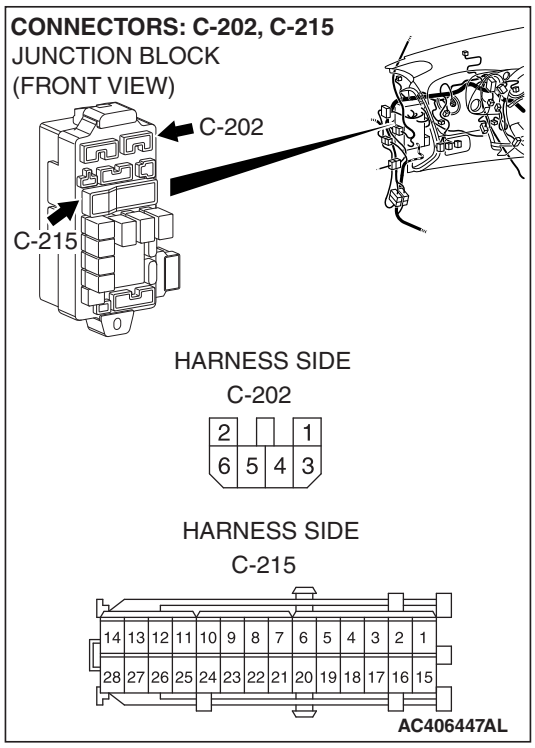
(5) Measure the voltage between C-123 harness side connector terminal 23 <DTC B1476> or 24 <DTC B1477> and body ground.
Voltage should measure 9 volts or more.

Q: Is the measured voltage 9 volts or more?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1476 or B1477 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.
NO : Go to Step 5.

STEP 5. Check the harness for open circuit between SRS-ECU connector C-123 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and the ignition switch (Ig1).





NOTE: After inspecting intermediate connectors C-202 and C-215, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Is the harness wire between SRS-ECU connector C-123 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and the ignition switch (Ig1) in good condition?

YES : Go to Step 9.

NO : Repair the harness wire between SRS-ECU connector C-123 and the ignition switch connector (Ig1). Then go to Step 9.

STEP 6. Check a burned-out fuse.

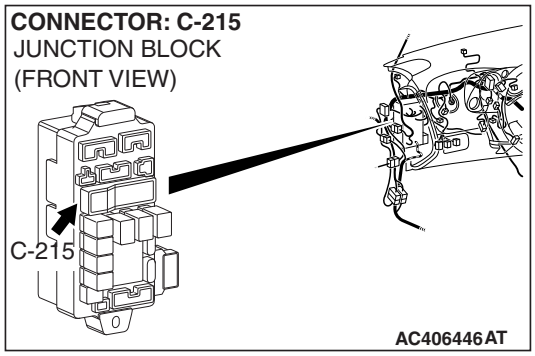
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

Q: Is the fuse in good condition?

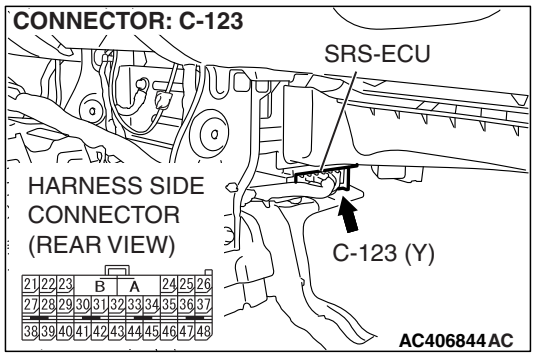
YES : Go to Step 9.

NO : It is possible that the circuit using fuse No.3 <DTC B1476> or No.2 <DTC B1477> is shorted, go to Step 7.

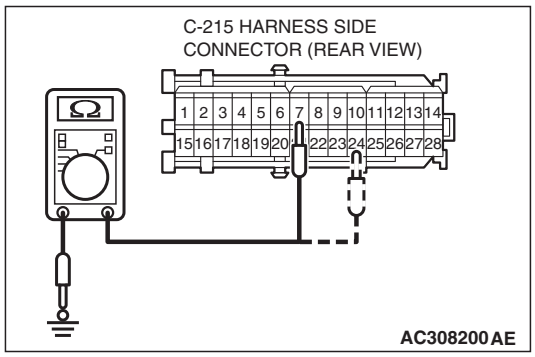
STEP 7. Check the SRS-ECU power supply circuit for short circuit to ground. Measure the resistance at the junction block connector C-215.



(1) Disconnect junction block connector C-215, and measure at the wiring harness side.



(2) Disconnect SRS-ECU connector C-123.



⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between terminal 7 <DTC B1476> or 24 <DTC B1477> and body ground.
It should be open circuit.

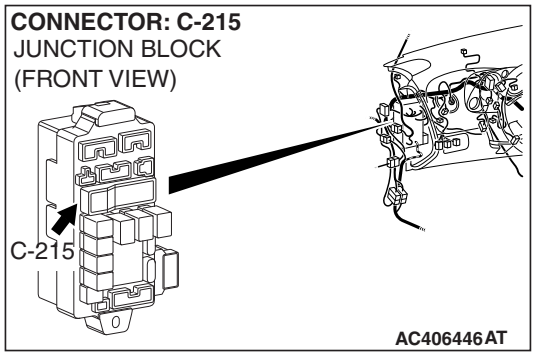
Q: Does continuity exist?

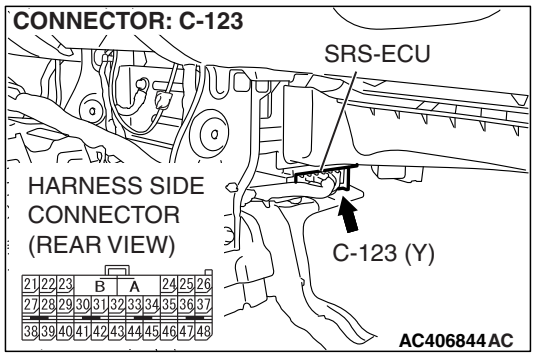
YES : Repair the harness wire between SRS-ECU connector C-123 and junction block connector C-215. Then go to Step 9.

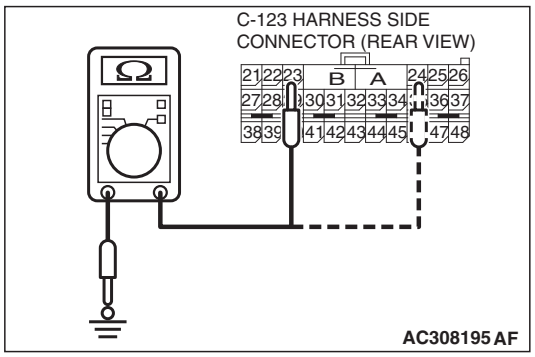
NO : Go to Step 8.

STEP 8. Check the power supply circuit for open circuit to ground. Measure the resistance at the SRS-ECU connector C-123.

(1) Disconnect junction block connector C-215.







⚠ CAUTION

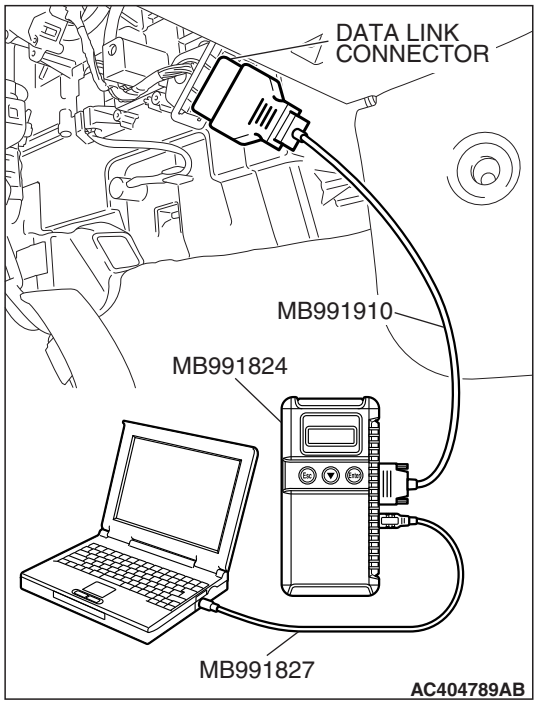
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between the harness side connector terminal No. 23 <DTC B1476> or No. 24 <DTC B1477> and body ground with the SRS-ECU side connector connected. It should be open circuit.

Q: Does continuity exist?

YES : Replace the SRS-ECU.

NO : Go to Step 9.



STEP 9. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1476 or DTC B1477 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1486: Passenger Seat Belt Warning Light Drive Circuit System Fault 2.

⚠ CAUTION
If DTC B1486 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger seat belt warning light is supplied from the ignition switch (IG1).
- The passenger seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.

DTC SET CONDITIONS

- When a malfunction is detected in the output transistor inside the SRS-ECU.

However, if the vehicle condition returns to normal, DTC B1486 will be automatically erased, and the passenger seat belt warning light will go out.

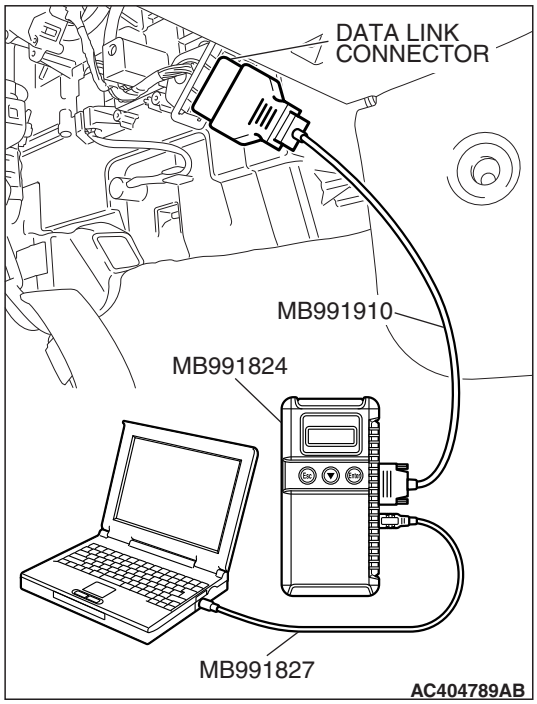
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

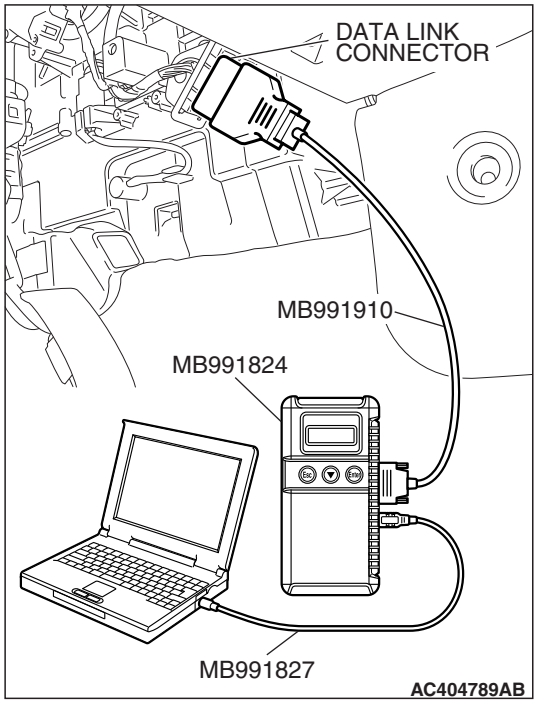
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

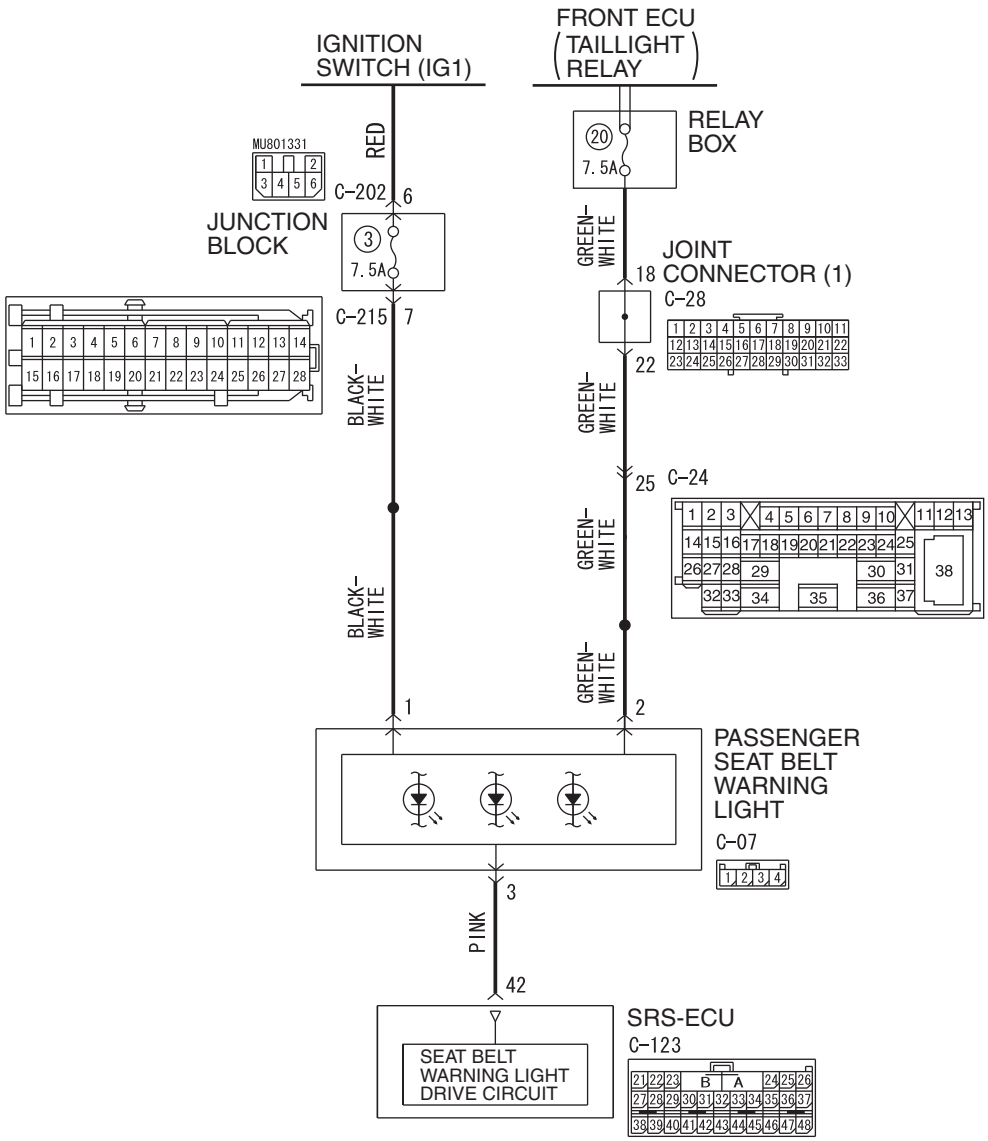
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

DTC B1487: Passenger Seat Belt Warning Light Drive Circuit System Fault 1 (Light does not Illuminate).

Seat Belt Warning Light Drive Circuit <Vehicles with Halogen Type Headlight>



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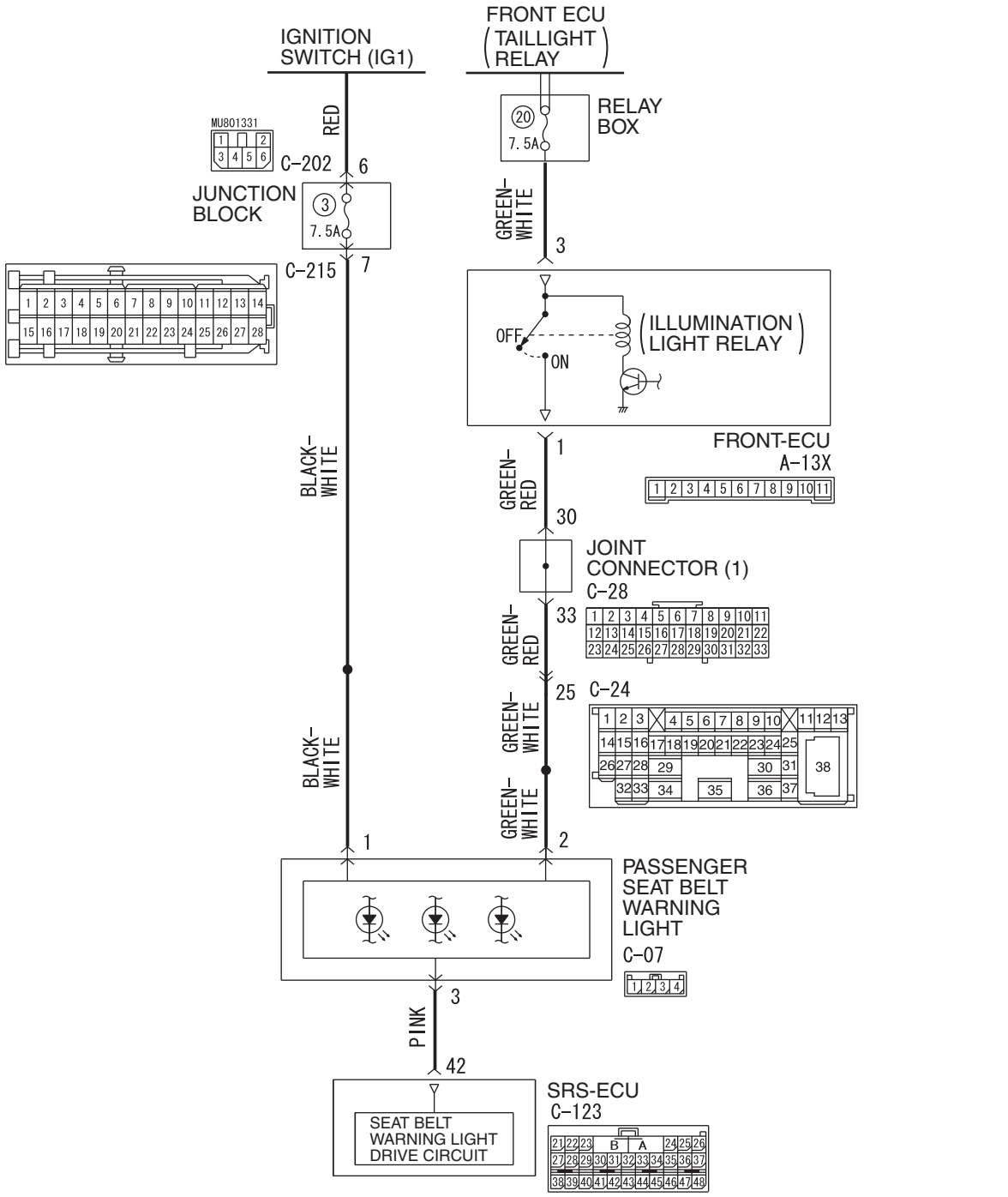
Seat Belt Warning Light Drive Circuit <Vehicles with Discharge Type Headlight>



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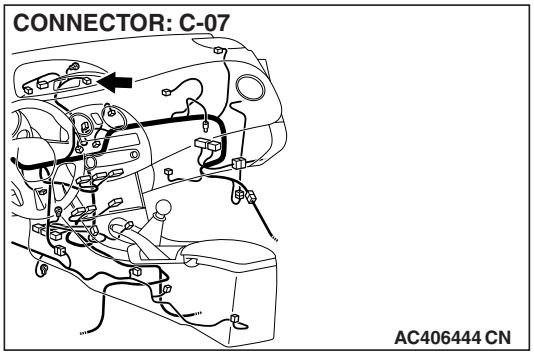
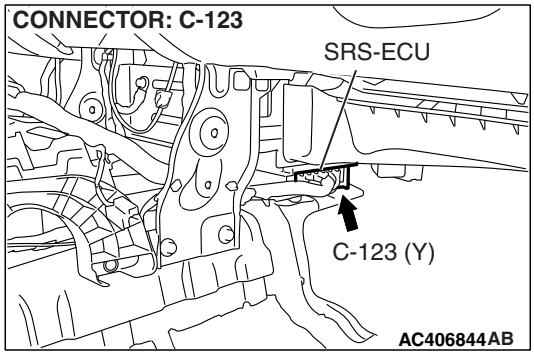
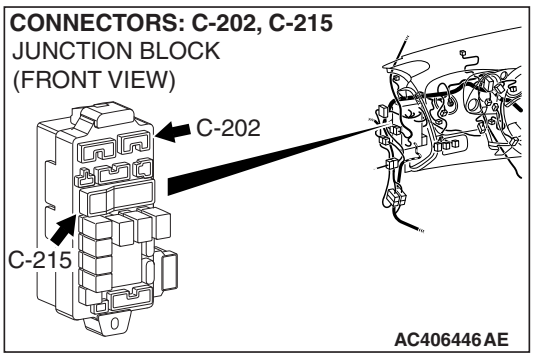






⚠ CAUTION

If DTC B1487 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger seat belt warning light is supplied from the ignition switch (IG1).
- The passenger seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that passenger seat belt warning light "OFF" signal, and illuminates the passenger seat belt warning light.
- The SRS-ECU illuminates the passenger seat belt warning light under the following conditions.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger seat belt warning light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger seat belt warning light driving circuit is open.

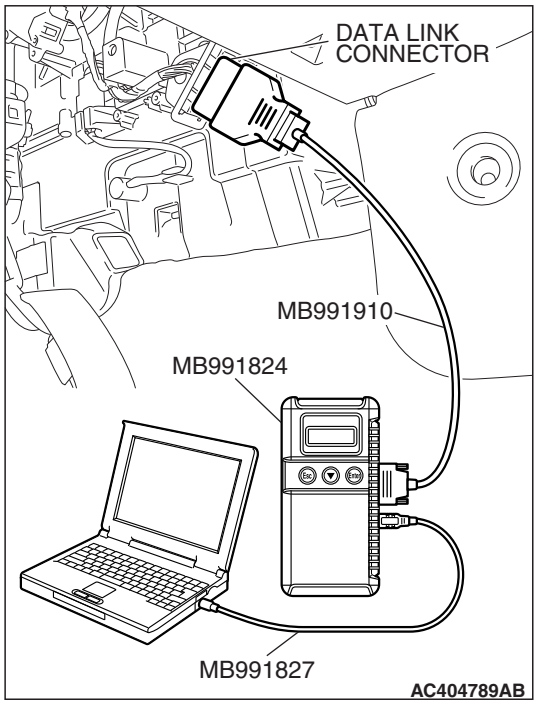
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger seat belt warning light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

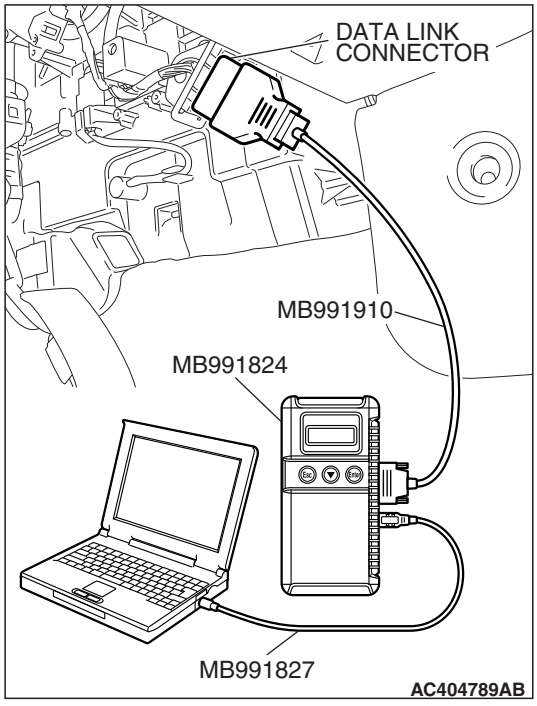
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

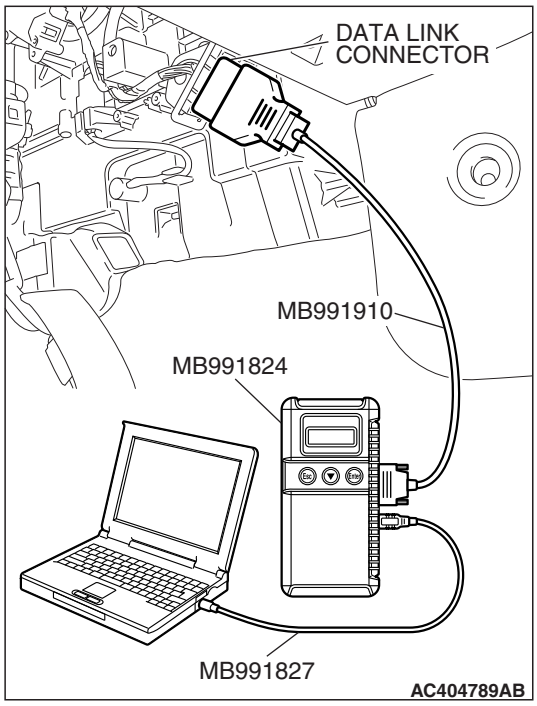


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

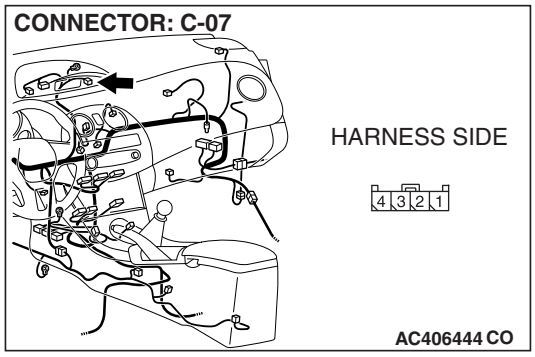


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK (OFF)" position.

Q: Is DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538, B1539, B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Perform troubleshooting for DTC that is set. Then go to Step 10.
NO : Go to Step 4.

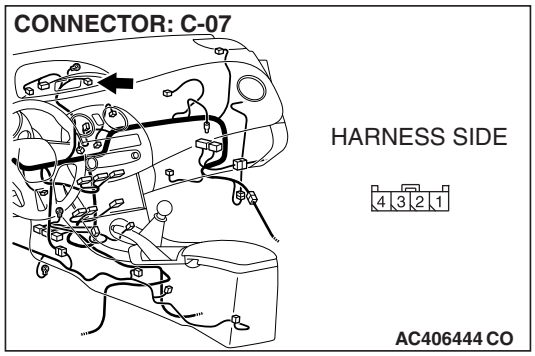


STEP 4. Check the passenger seat belt warning light connector C-07 for loose, corroded or damaged terminals.

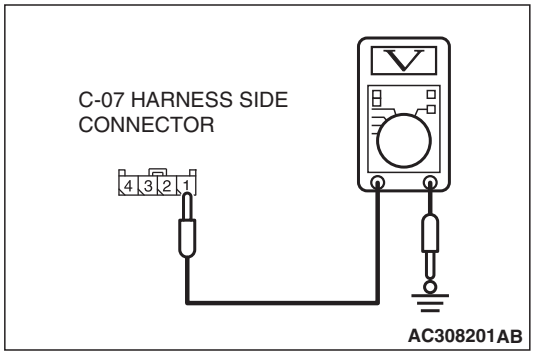
Q: Is the passenger seat belt warning light connector C-07 in good condition?

YES : Go to Step 5.
NO : Repair or replace the connector. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.

STEP 5. Measure the voltage at passenger seat belt warning light connector C-07.



(1) Disconnect passenger seat belt warning light connector C-07.
(2) Turn the ignition switch to the "ON" position.

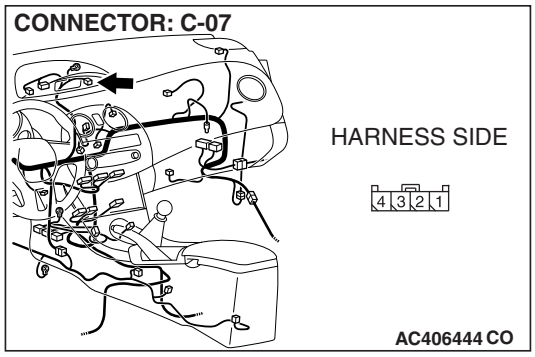


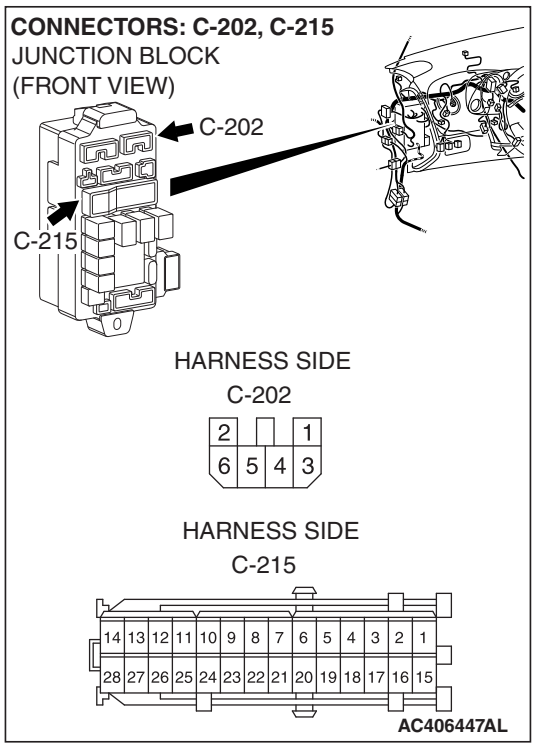
(3) Measure the voltage between C-07 harness side connector terminal 1 and body ground.
Voltage should measure approximately 12 volt.

Q: Is the check result satisfactory?

YES : Go to Step 7.
NO : Go to Step 6.

STEP 6. Check the harness for open and short circuit between ignition switch (IG1) and passenger seat belt warning light C-07 (terminal No.1).



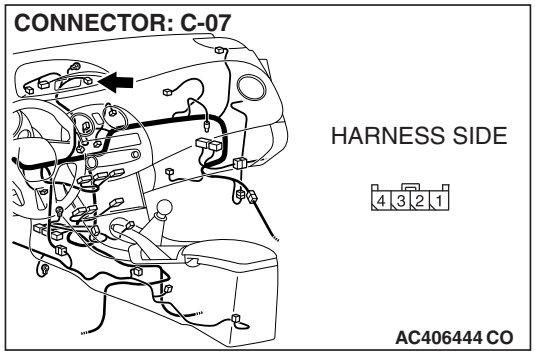


NOTE: After inspecting intermediate connectors C-202 and C-215 inspect the wiring harness. If intermediate connectors C-202 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Are the harness wires between passenger seat belt warning light connector C-07 (terminal No.1) and the ignition switch connector (IG1) in good condition?

YES : Go to Step 10.

NO : Repair the harness wires. Then go to Step 10.



STEP 7. Check SRS-ECU connector C-123.

Q: Is the connector correctly engaged?

YES : Go to Step 8.

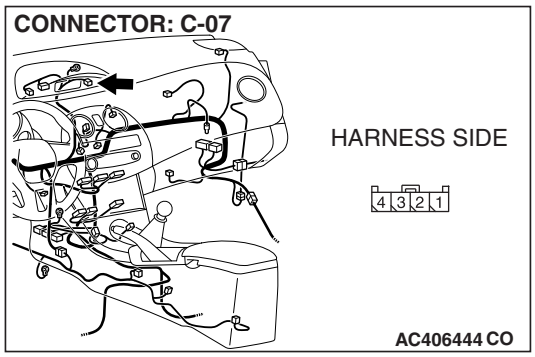
NO : Engage the connector correctly. Then go to Step 10.

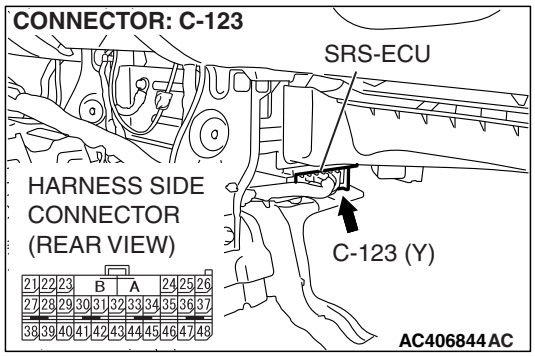
STEP 8. Check the harness for short circuit between passenger seat belt warning light C-07 (terminal No.3) and SRS-ECU connector C-123 (terminal No.42).

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.42) and the passenger seat belt warning light C-07 (terminal No.3) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires. Then go to Step 10.

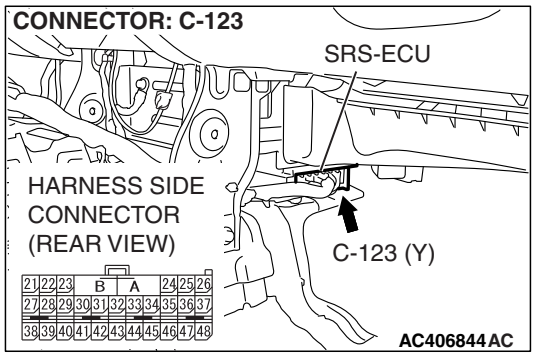


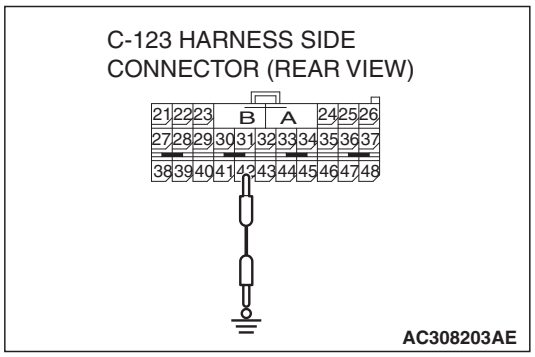


STEP 9. Check the passenger seat belt warning light.

(1) Disconnect the negative battery terminal.

(2) Disconnected the SRS-ECU connector C-123.





(3) Connect the negative battery terminal.

(4) Turn the ignition switch to the "ON" position.

⚠ CAUTION

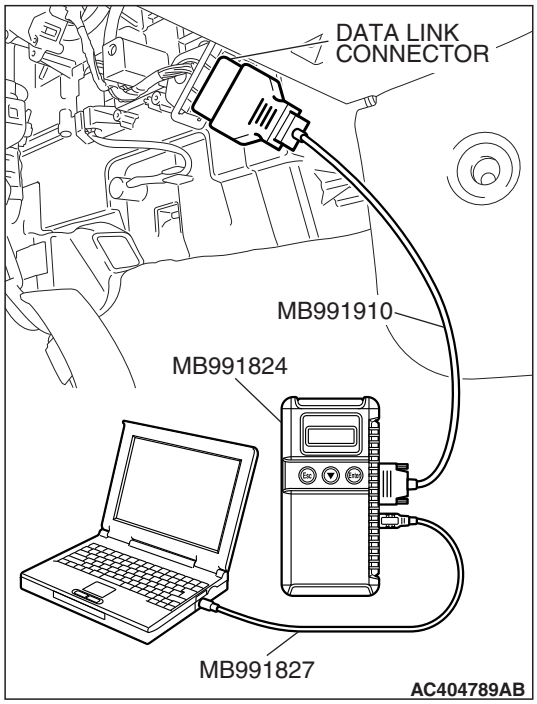
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

Q: Does the warning light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1487 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 10 .

NO : Replace the passenger seat belt warning light (Refer to GROUP 52A, Instrument Panel Assembly P.52A-19). Then go to Step 10.

TSB Revision



STEP 10. Recheck for diagnostic trouble code.

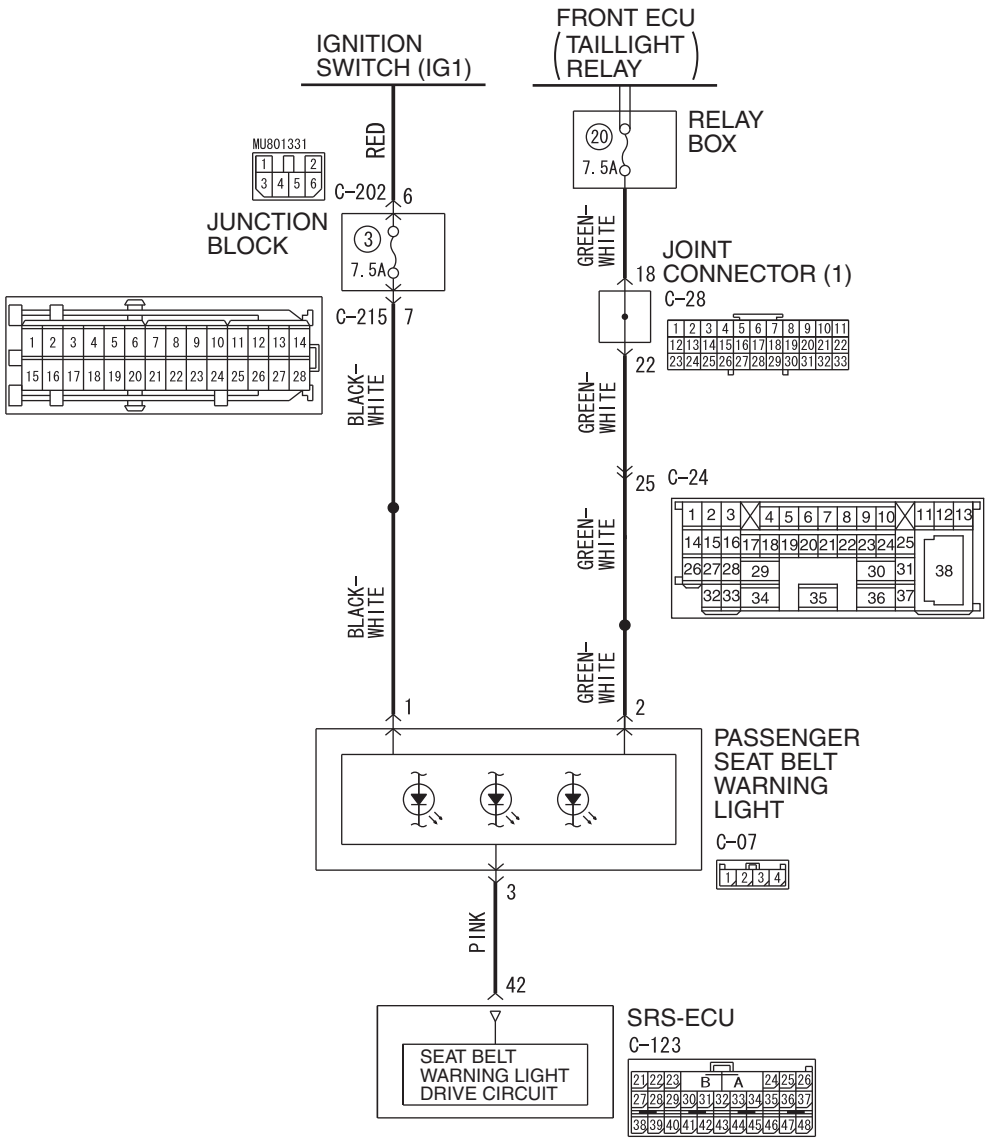
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1487 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1487: Passenger Seat Belt Warning Light Drive Circuit System Fault 1 (Light does not Switch Off).

Seat Belt Warning Light Drive Circuit <Vehicles with Halogen Type Headlight>



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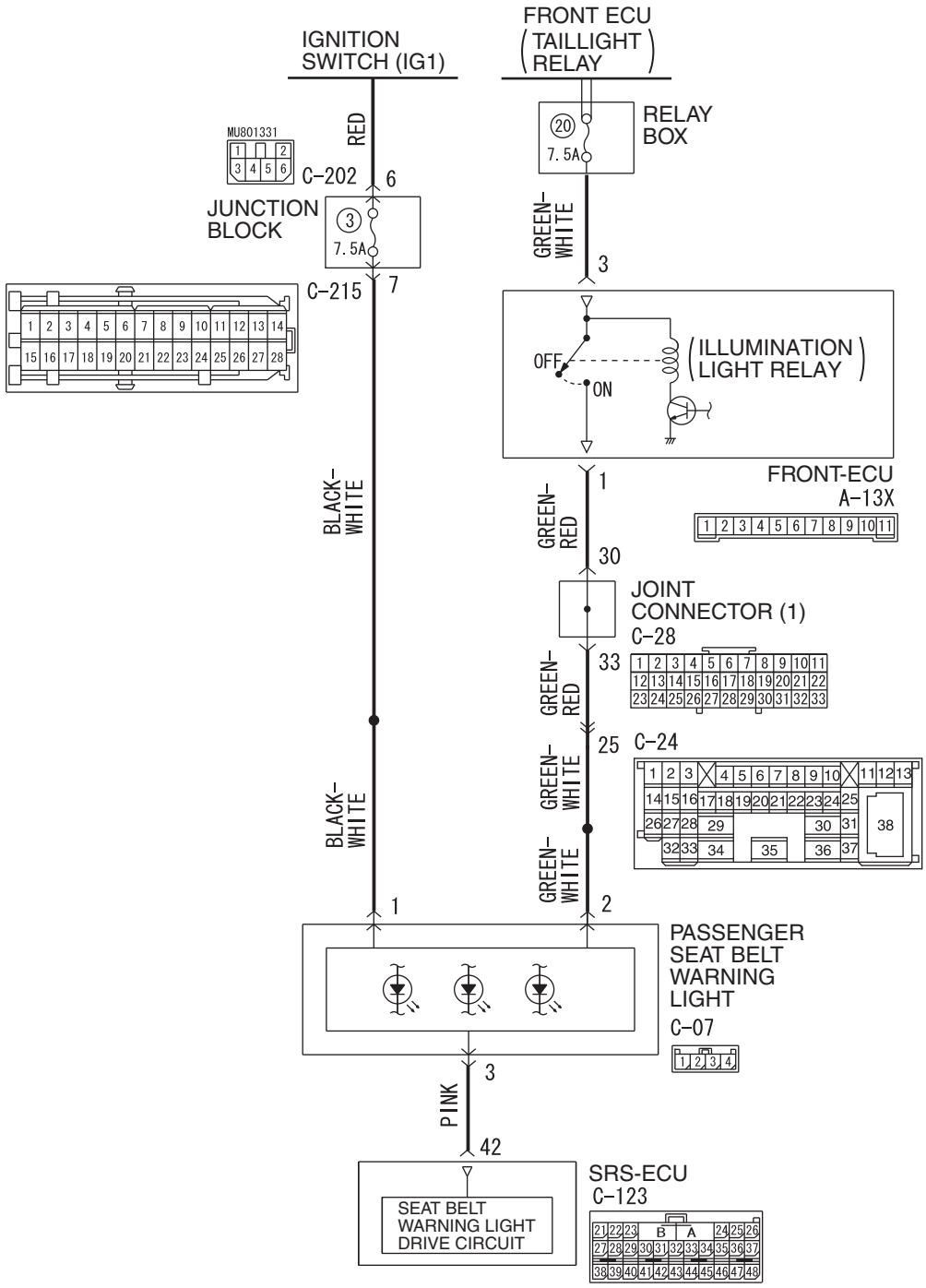
TSB Revision

Seat Belt Warning Light Drive Circuit <Vehicles with Discharge Type Headlight>



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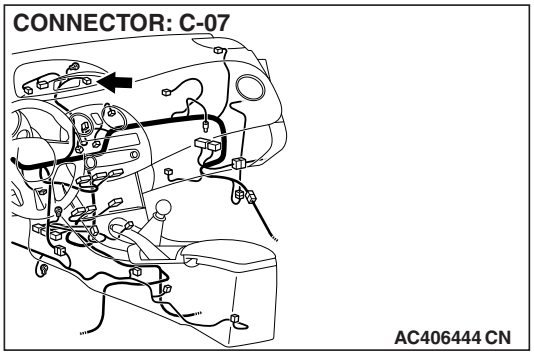
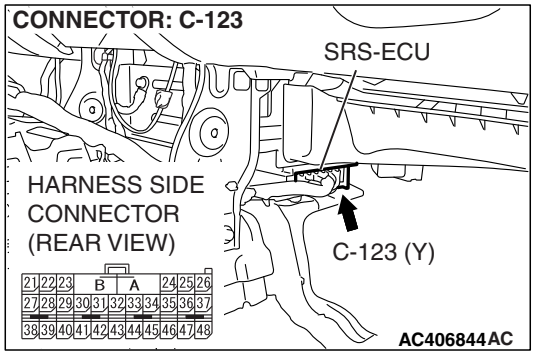
TSB Revision





⚠ CAUTION

If DTC B1487 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger seat belt warning light is supplied from the ignition switch (IG1).
- The passenger seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that passenger seat belt warning light "OFF" signal, and illuminates the passenger seat belt warning light.
- The SRS-ECU illuminates the passenger seat belt warning light under the following conditions.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger seat belt warning light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if a short circuit has occurred in the wiring harness between the passenger seat belt warning light and the SRS-ECU.

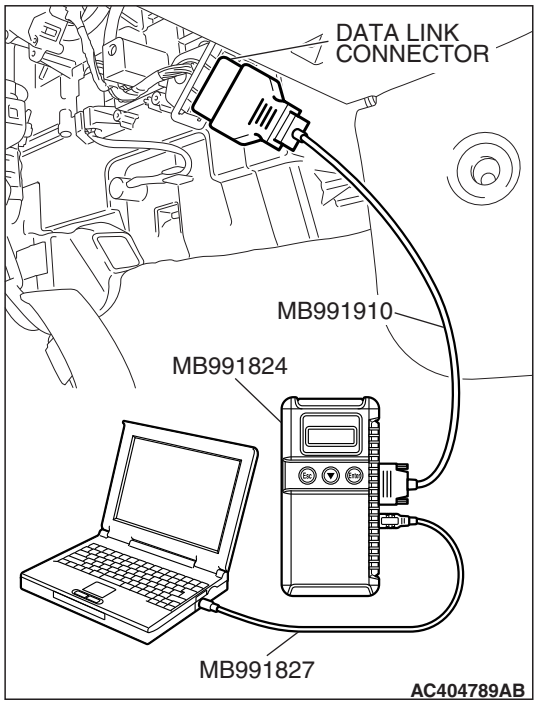
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger seat belt warning light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

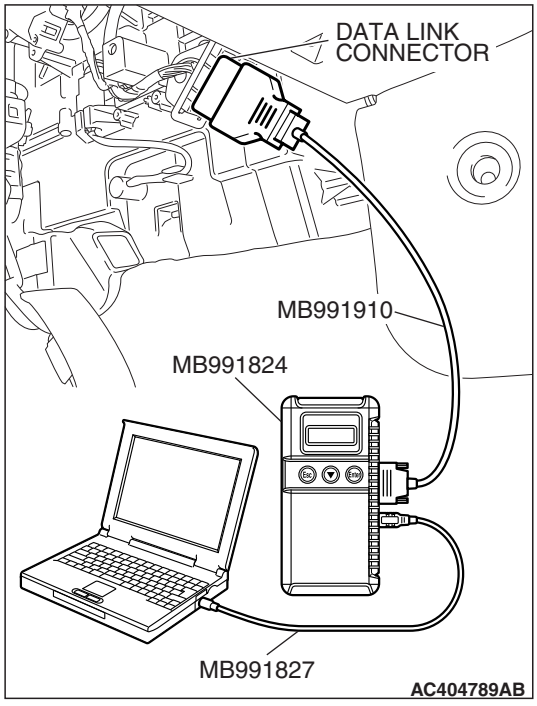
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



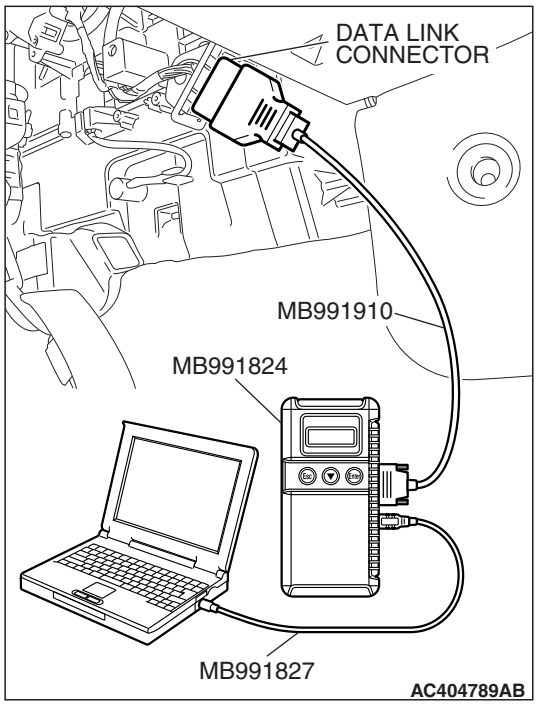
STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

TSB Revision



STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK (OFF)" position.

Q: Is DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538, B1539, B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Perform troubleshooting for DTC that is set. Then go to Step 6.
NO : Go to Step 4.

STEP 4 Using scan tool MB991958, check actuator test.

- Item No.2: Passenger seat belt warning light illumination

Q: Does the passenger seat belt warning light illuminate or go out normally?

YES : Go to Step 6.
NO : Replace the passenger seat belt warning light (Refer to GROUP 52A, Instrument Panel Assembly P.52A-19). Then go to Step 5.

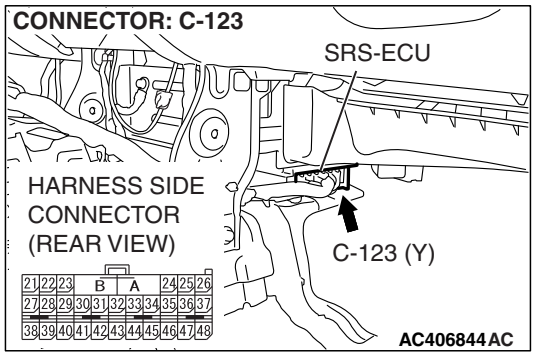
STEP 5. Check the harness between SRS-ECU connector C-123 (terminal No.42) and passenger seat belt warning light C-07 (terminal No.3).

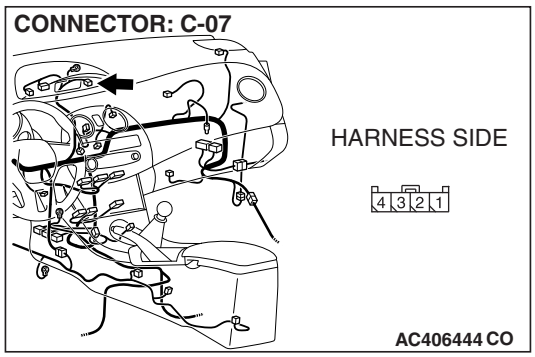
- Check the passenger seat belt warning light output lines for open circuit.

Q: Is the check result satisfactory?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1487 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

NO : Repair the harness wires. Then go to Step 6.





STEP 6. Recheck for diagnostic trouble code.

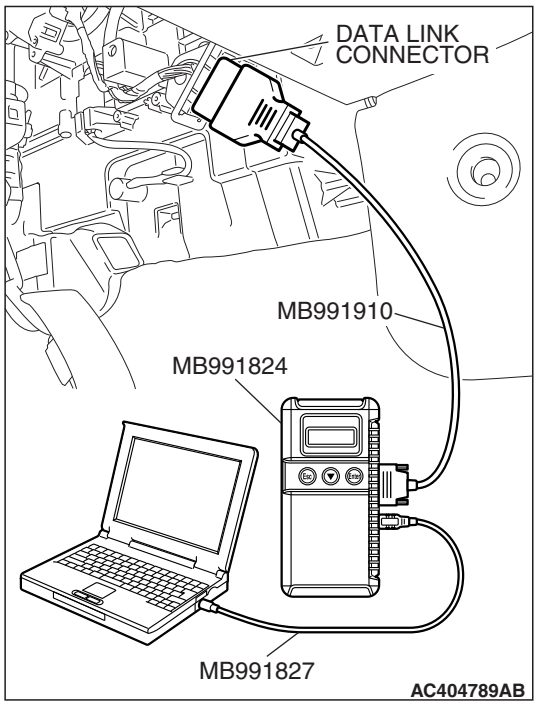
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1487 set?

YES : Return to Step 1.

NO : The procedure is complete.



DTC B1488: Passenger Air Bag OFF Indicator Light Drive Circuit System Fault 2.

⚠ CAUTION
If DTC B1488 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.

DTC SET CONDITIONS

- When a malfunction is detected in the output transistor inside the SRS-ECU.

However, if the vehicle condition returns to normal, DTC B1488 will be automatically erased, and the passenger air bag OFF indicator light will go out.

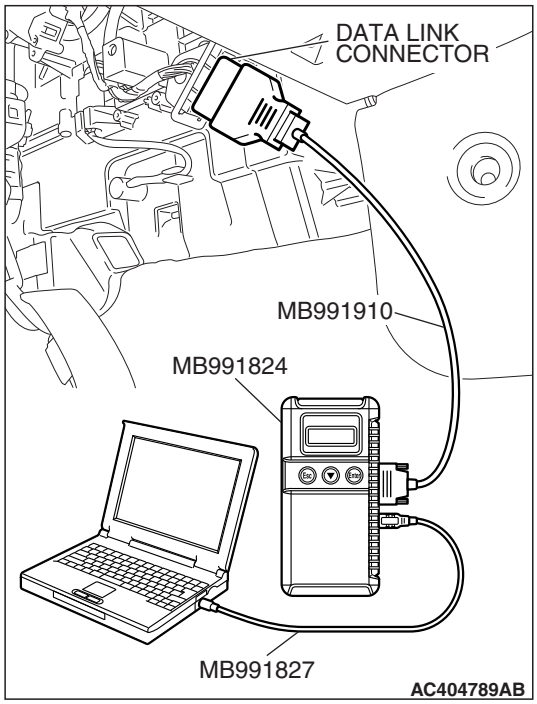
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



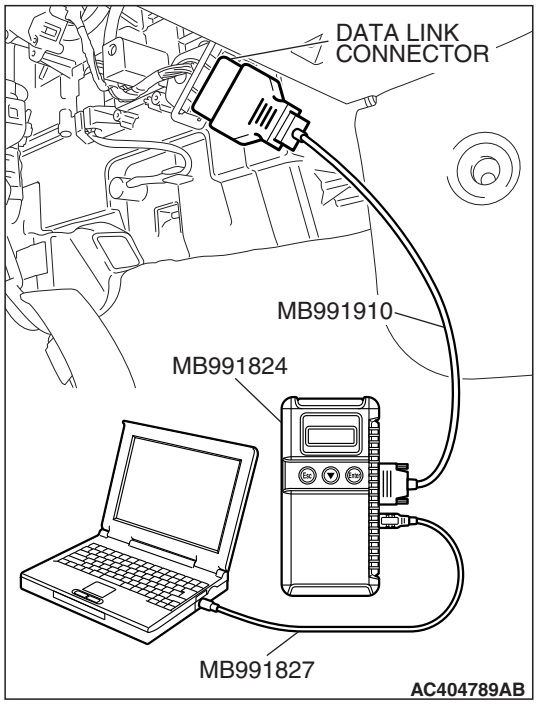
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

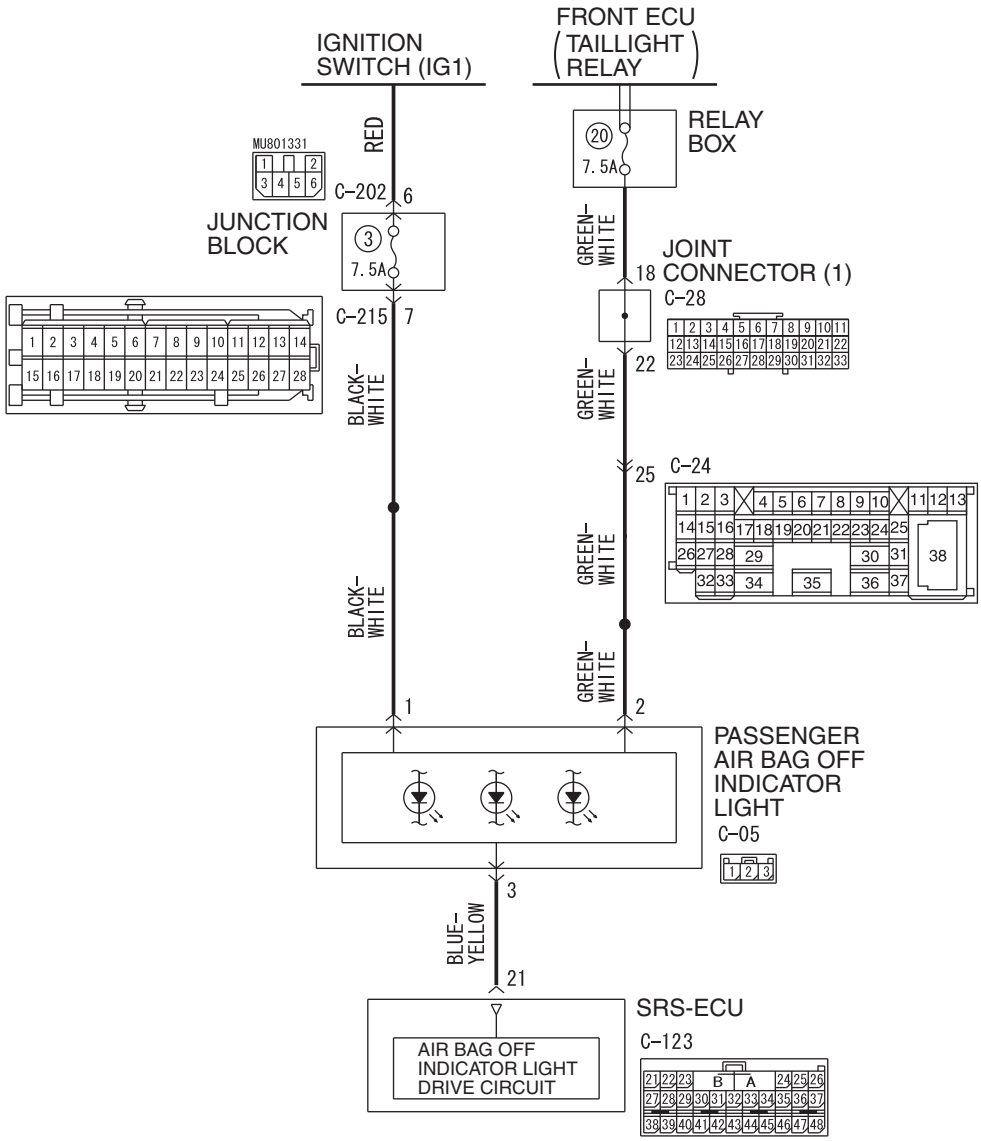
Q: Is the DTC set?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

DTC B1489: Passenger Air Bag OFF Indicator Light Drive Circuit System Fault 1 (Light does not Illuminate).

Air Bag OFF Indicator Light Drive Circuit <Vehicles with Halogen Type Headlight>



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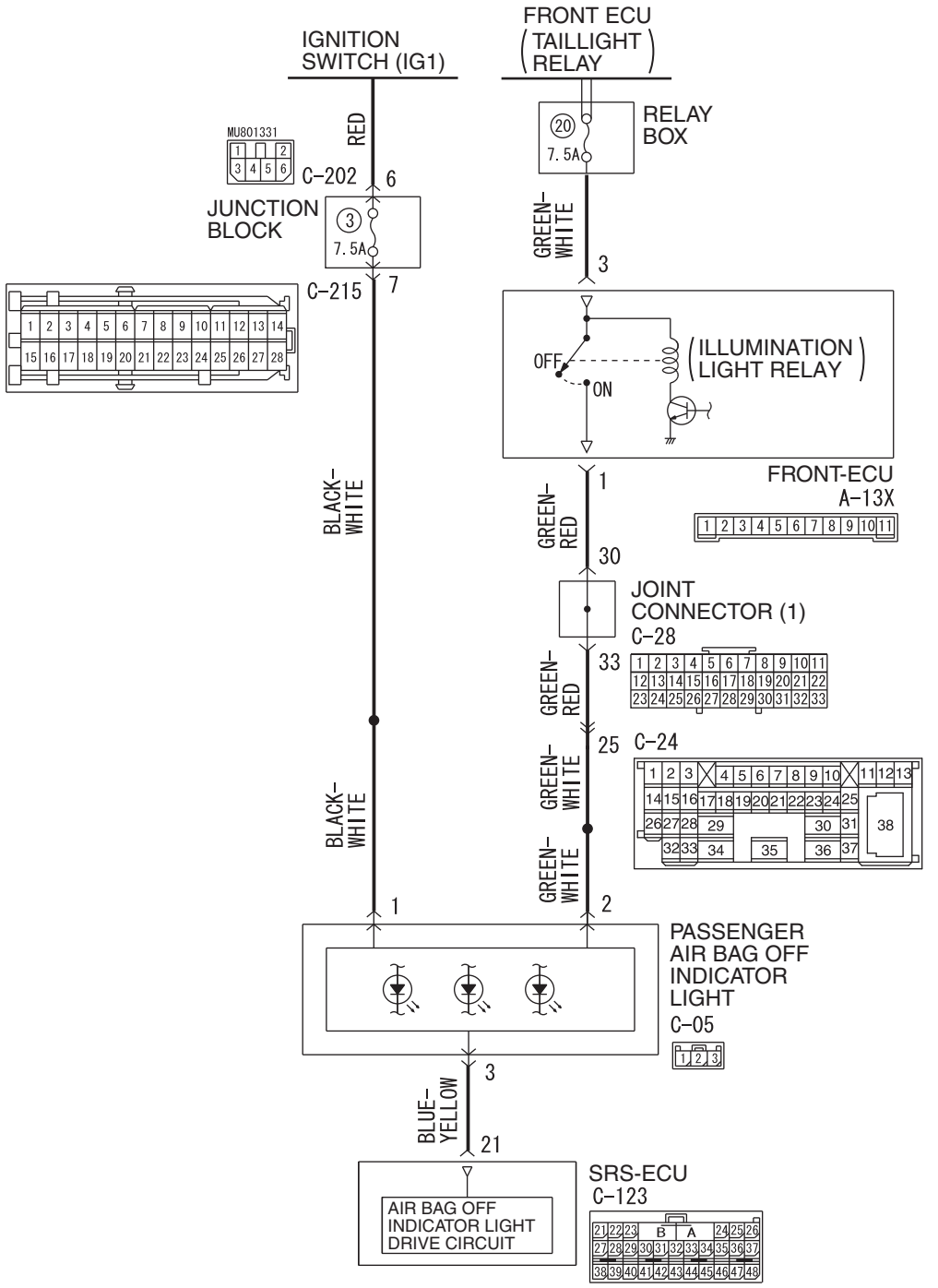
Air Bag OFF Indicator Light Drive Circuit <Vehicles with Discharge Type Headlight>



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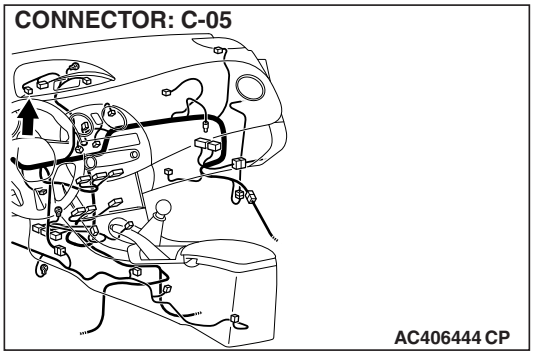
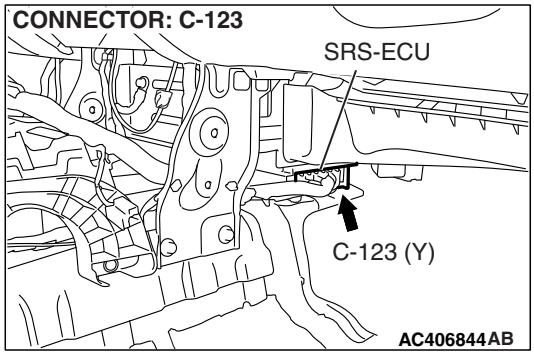
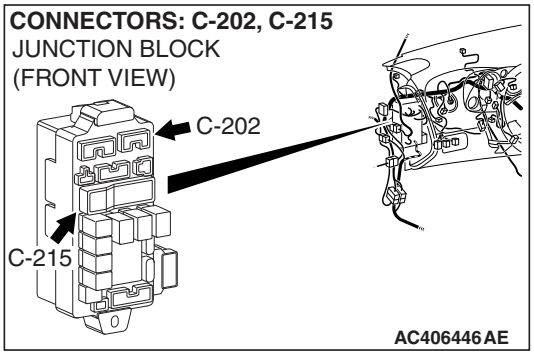






⚠ CAUTION

If DTC B1489 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that passenger air bag OFF indicator light "OFF" signal, and illuminates the passenger air bag OFF indicator light.
- The SRS-ECU illuminates the passenger air bag OFF indicator light under the following conditions.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger air bag OFF indicator light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1489 will be automatically erased, and the warning light will go out.

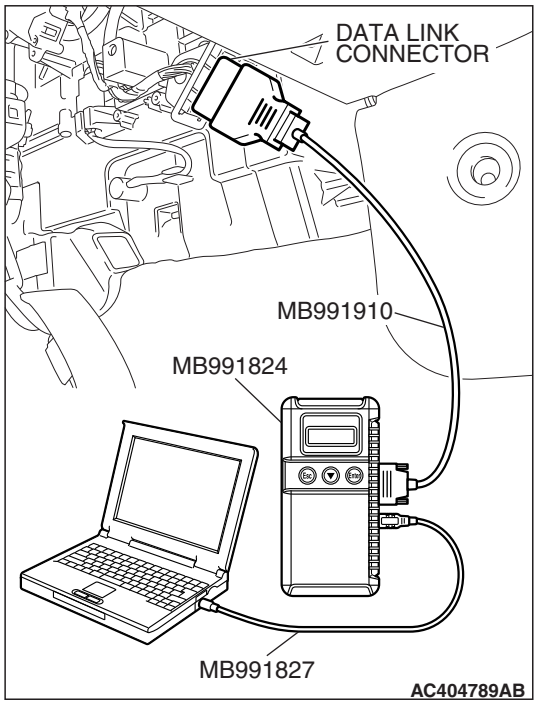
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

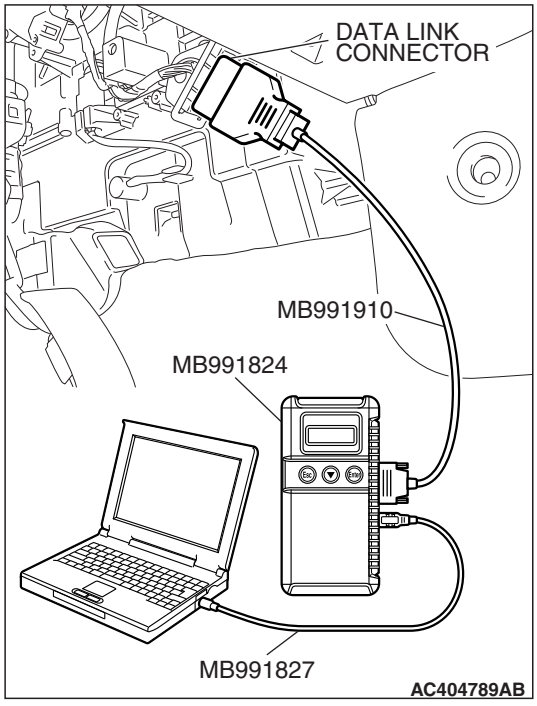
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



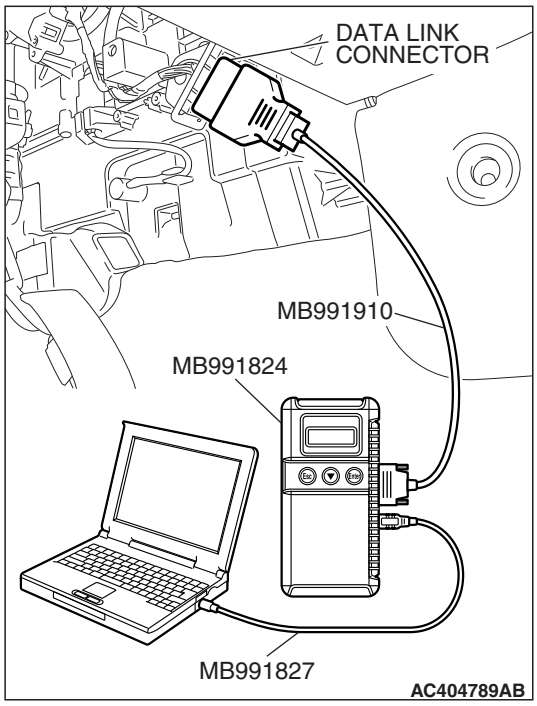
STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

TSB Revision

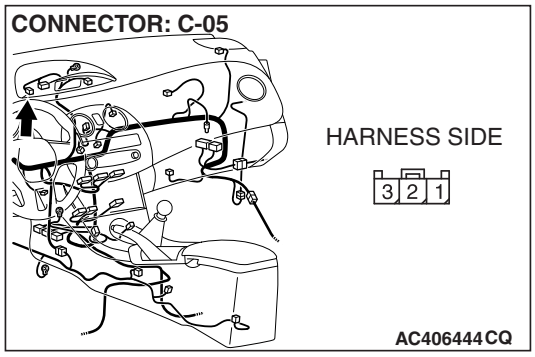


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Perform troubleshooting for DTC that is set. Then go to Step 10.
NO : Go to Step 4.

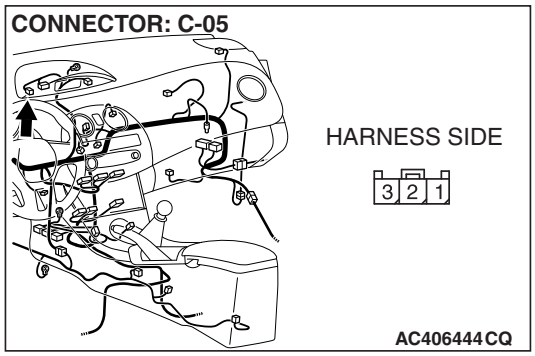


STEP 4. Check the passenger air bag OFF indicator light connector C-05 for loose, corroded or damaged terminals.

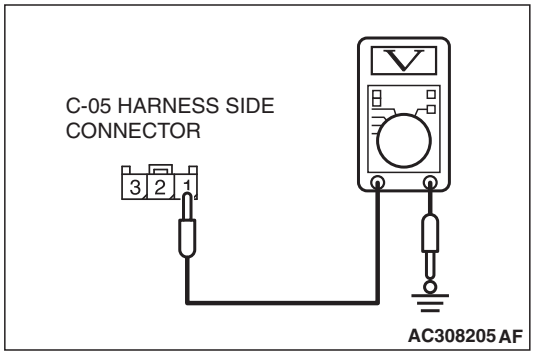
Q: Is the passenger air bag OFF indicator light connector C-05 in good condition?

YES : Go to Step 5.
NO : Repair or replace the connector. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.

STEP 5. Measure the voltage at passenger air bag OFF indicator light connector C-05.



(1) Disconnect passenger air bag OFF indicator light connector C-05.
(2) Turn the ignition switch to the "ON" position.

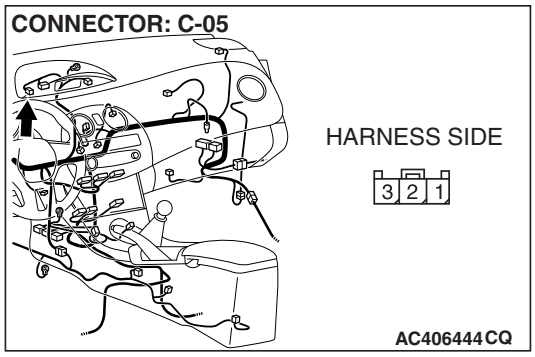


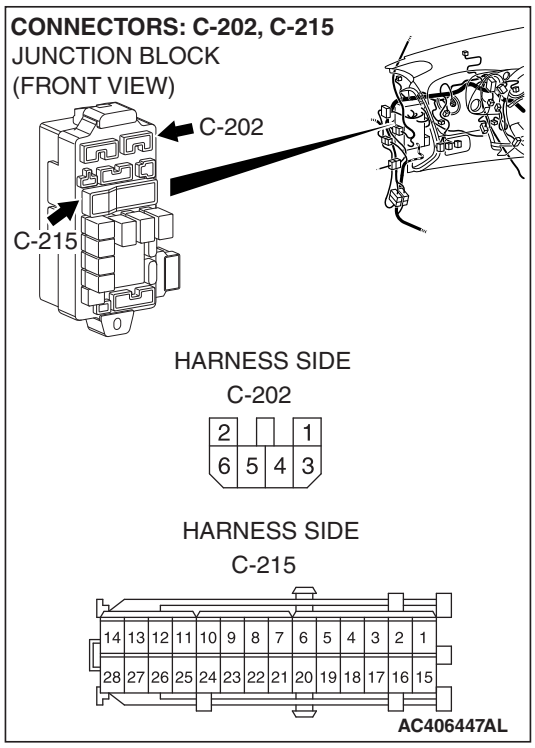
(3) Measure the voltage between C-05 harness side connector terminal 1 and body ground.
Voltage should measure approximately 12 volt.

Q: Is the check result satisfactory?

YES : Go to Step 7.
NO : Go to Step 6.

STEP 6. Check the harness for open and short circuit between ignition switch connector (IG1) and passenger air bag OFF indicator light C-05 (terminal No.1).



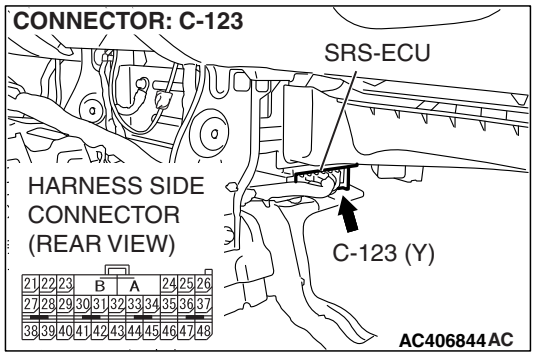


NOTE: After inspecting intermediate connectors C-202 and C-215 inspect the wiring harness. If intermediate connectors C-202 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Are the harness wires between passenger air bag OFF indicator light connector C-05 (terminal No.1) and the ignition switch connector (IG1) in good condition?

YES : Go to Step 10.

NO : Repair the harness wires. Then go to Step 10.



STEP 7. Check SRS-ECU connector C-123.

Q: Is the connector correctly engaged?

YES : Go to Step 8.

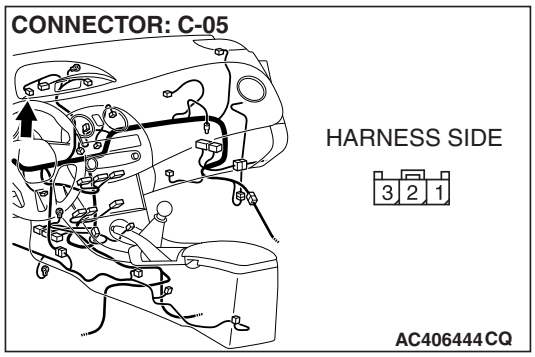
NO : Engage the connector correctly. Then go to Step 10.

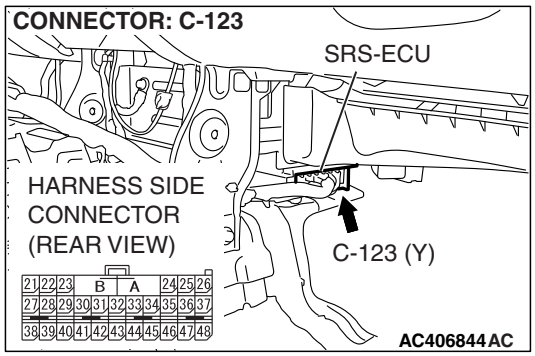
STEP 8. Check the harness for short circuit between passenger air bag OFF indicator light C-05 (terminal No.3) and SRS-ECU connector C-123 (terminal No.21).

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.21) and the passenger air bag OFF indicator light C-05 (terminal No.3) in good condition?

YES : Go to Step 9.

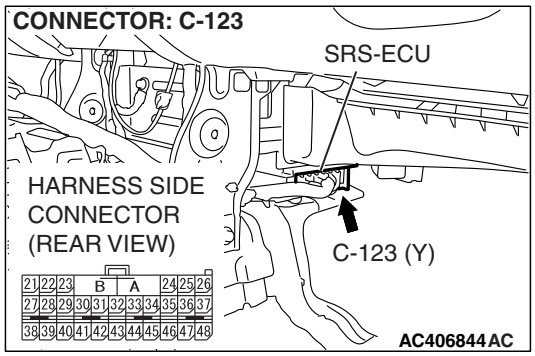
NO : Repair the harness wires. Then go to Step 10.

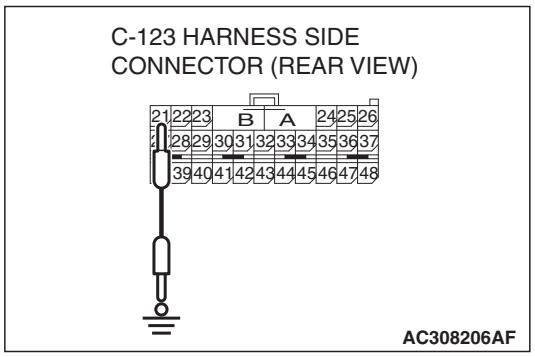




STEP 9. Check the passenger air bag OFF indicator light.

(1) Disconnect the negative battery terminal.
(2) Disconnected the SRS-ECU connector C-123.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.





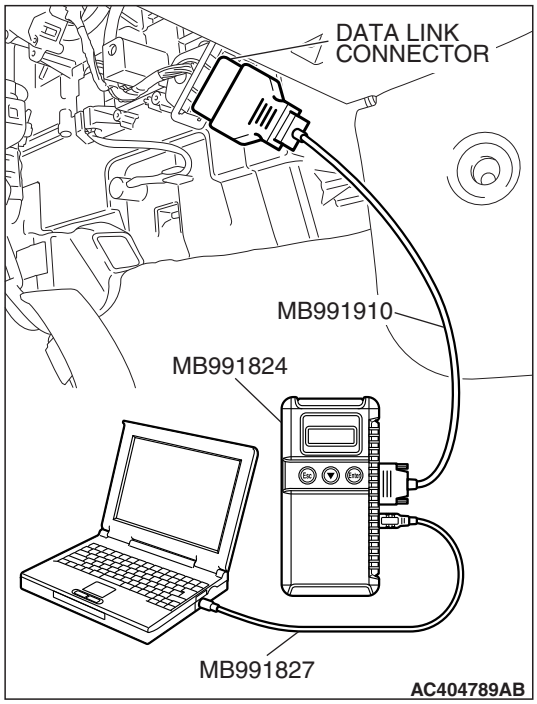
⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

Q: Does the indicator light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1489 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 10 .

NO : Replace the passenger air bag OFF indicator light (Refer to GROUP 52A, Instrument Panel Assembly P.52A-19). Then go to Step 10.



STEP 10. Recheck for diagnostic trouble code.

Check again if the DTC is set.

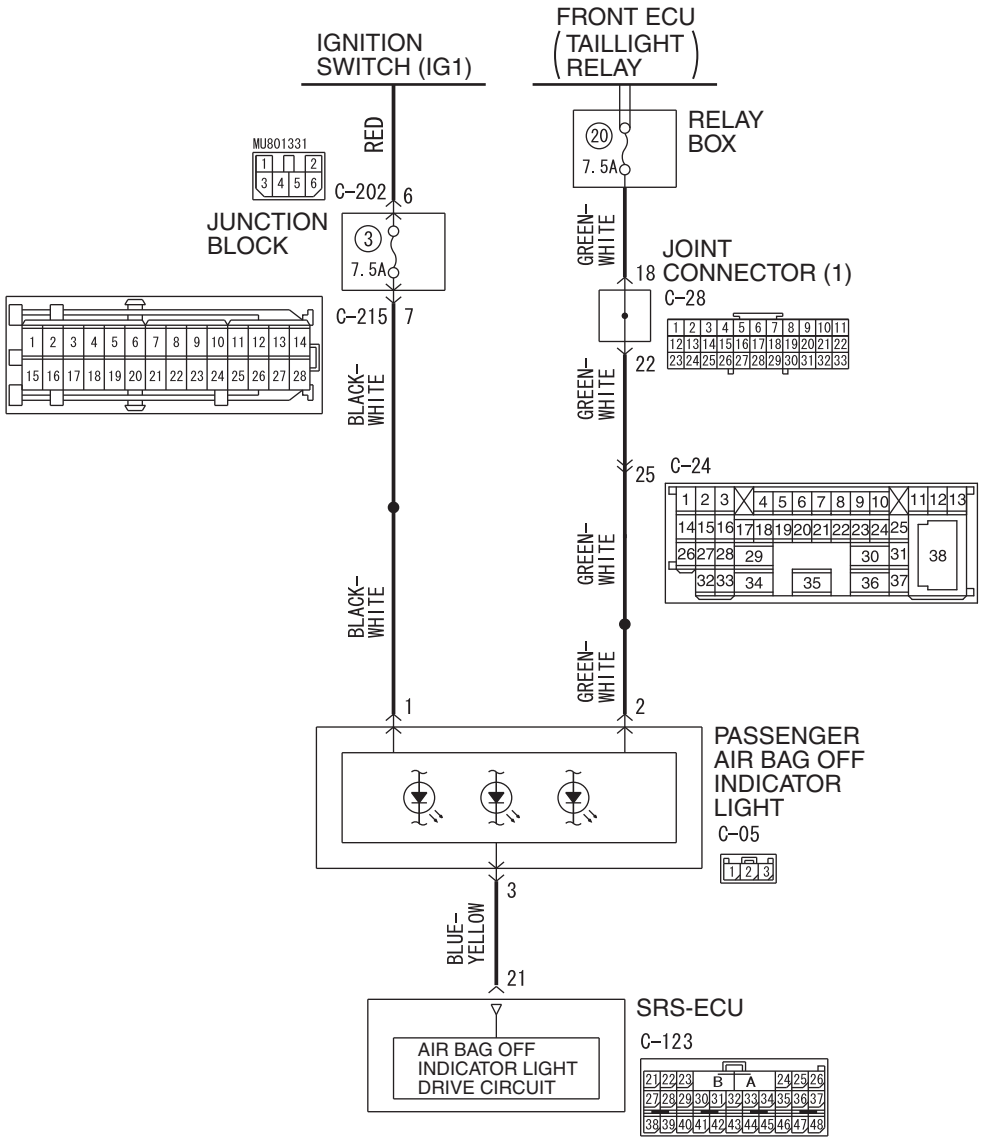
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1489 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1489: Passenger Air Bag OFF Indicator Light Drive Circuit System Fault 1 (Light does not Switch Off).

Air Bag OFF Indicator Light Drive Circuit <Vehicles with Halogen Type Headlight>



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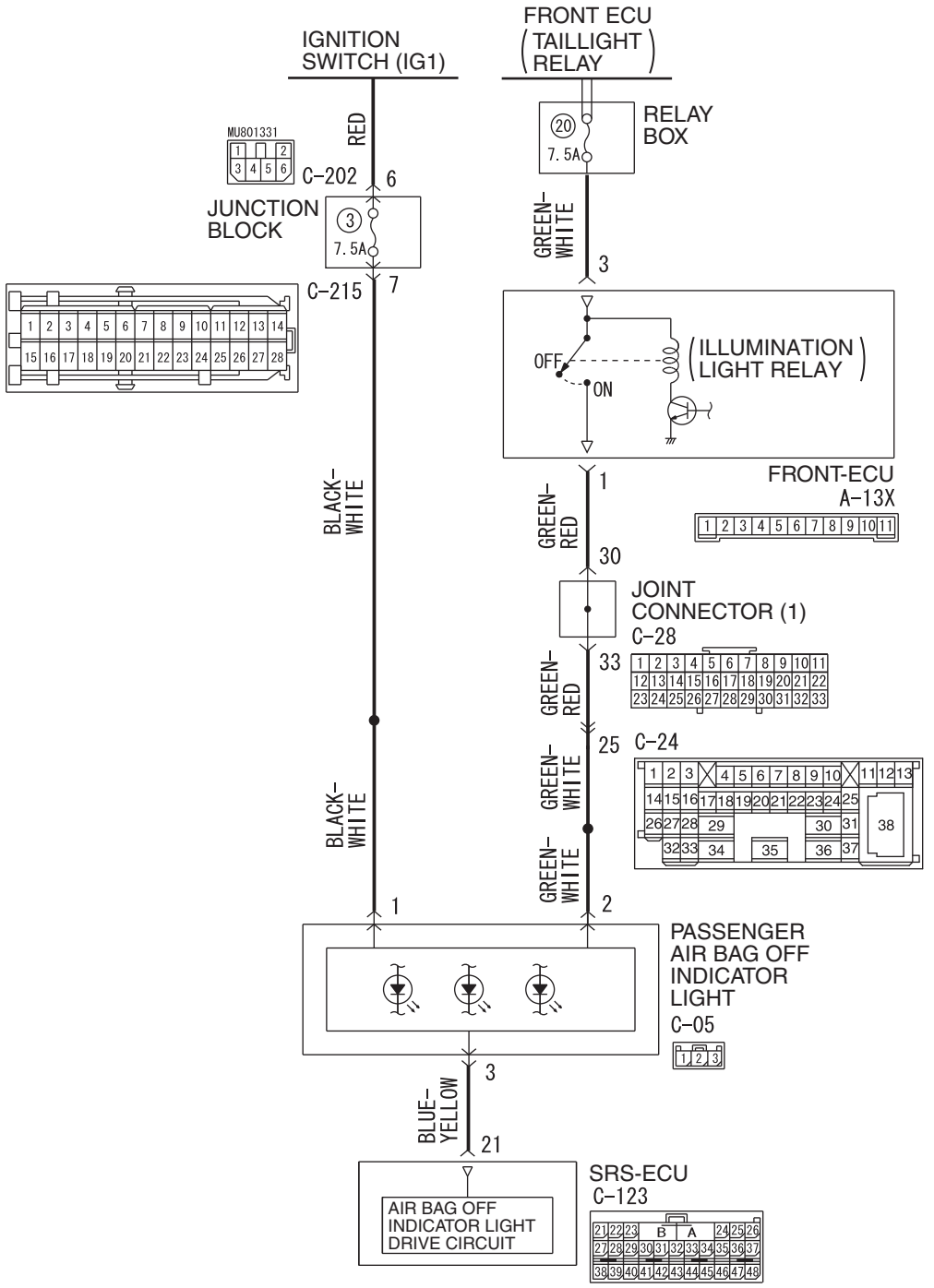
Air Bag OFF Indicator Light Drive Circuit <Vehicles with Discharge Type Headlight>



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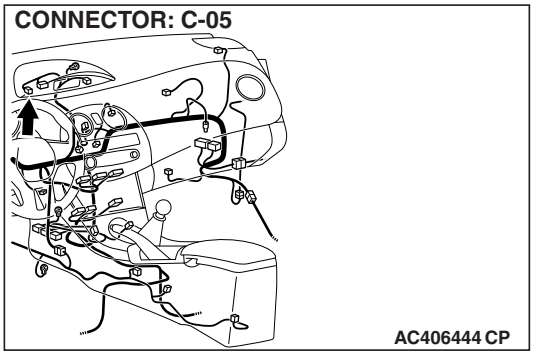
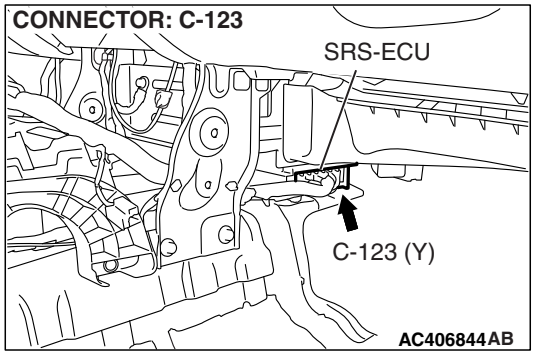
TSB Revision





⚠ CAUTION
If DTC B1489 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that passenger air bag OFF indicator light "OFF" signal, and illuminates the passenger air bag OFF indicator light.
- The SRS-ECU illuminates the passenger air bag OFF indicator light under the following conditions.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger air bag OFF indicator light and the SRS-ECU. If the vehicle condition returns to normal, DTC B1489 will be automatically erased, and the passenger air bag OFF indicator light will go out.

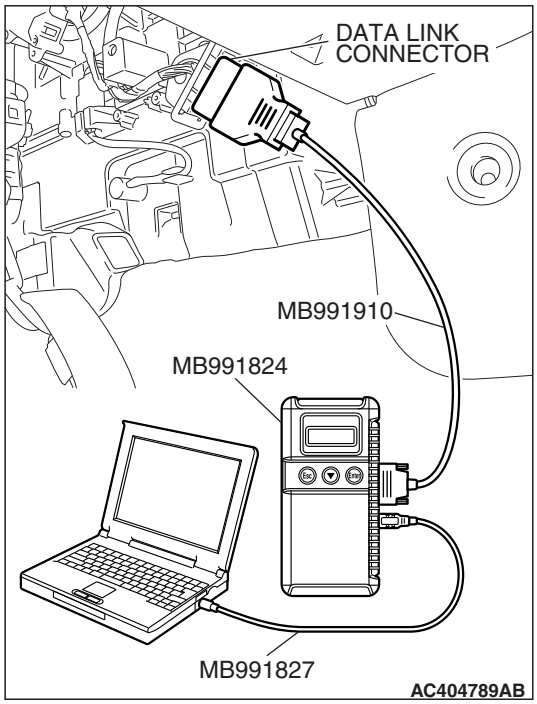
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

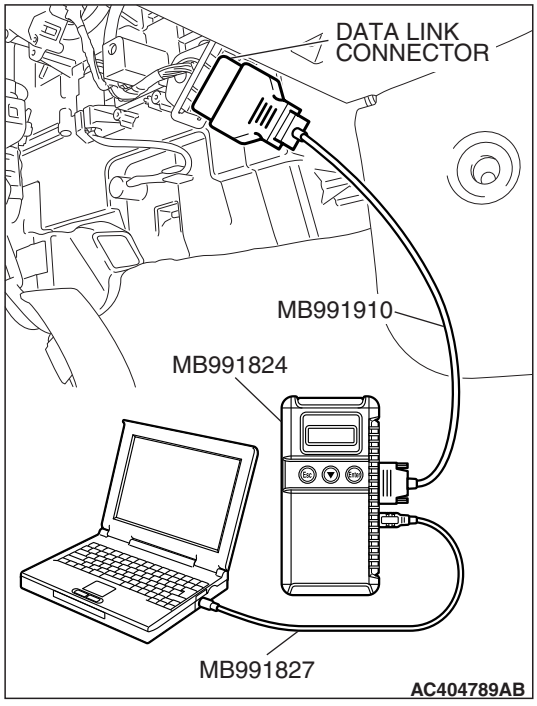
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

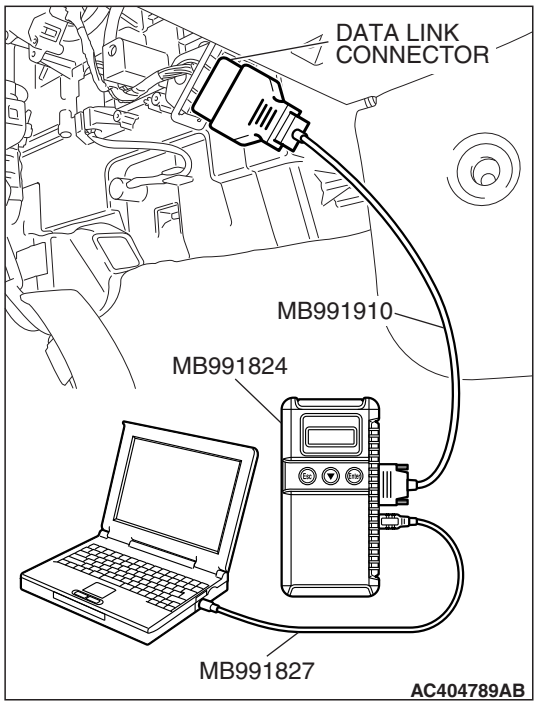


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).



STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Perform troubleshooting for DTC that is set. Then go to Step 6.
NO : Go to Step 4.

STEP 4 Using scan tool MB991958, check actuator test.

- Item No.3: Passenger air bag OFF indicator light illumination

Q: Does the passenger air bag indicator light illuminate or go out normally?

YES : Go to Step 6.
NO : Replace the passenger air bag OFF indicator light (Refer to GROUP 52A, Instrument Panel Assembly P.52A-19). Then go to Step 5.

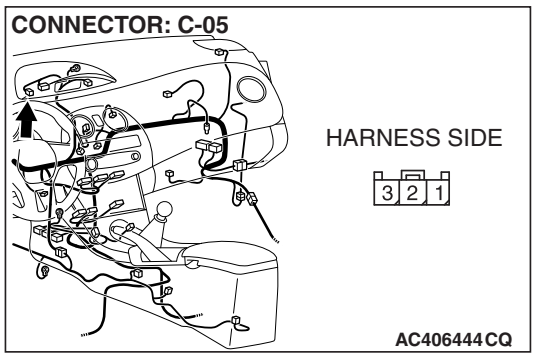
STEP 5. Check the harness between SRS-ECU connector C-123 (terminal No.21) and passenger air bag OFF indicator light C-05 (terminal No.3).

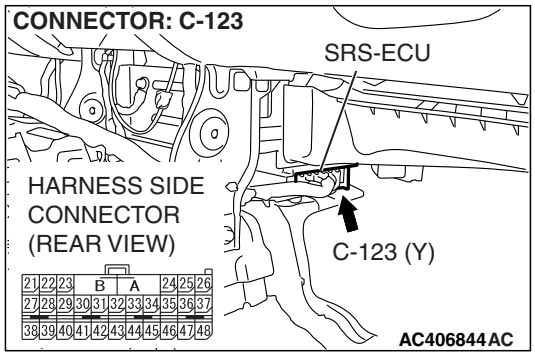
- Check the passenger air bag OFF indicator light output lines for open circuit.

Q: Is the check result satisfactory?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1489 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

NO : Repair the harness wires. Then go to Step 6.





STEP 6. Recheck for diagnostic trouble code.

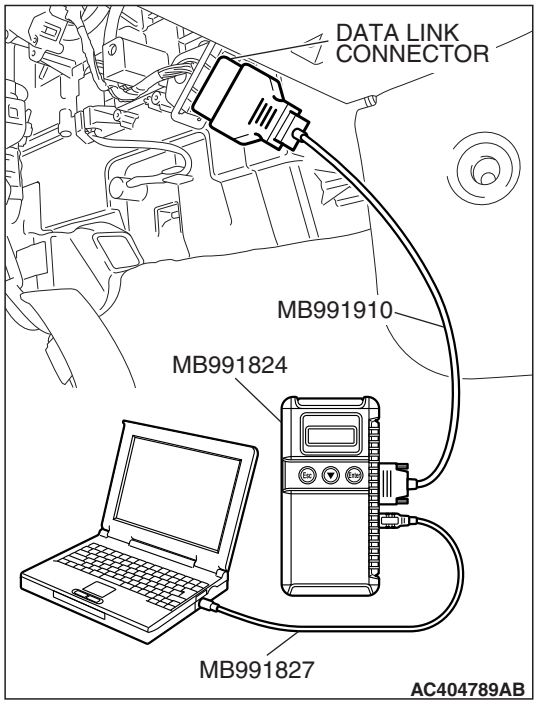
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1489 set?

YES : Return to Step 1.

NO : The procedure is complete.



DTC B1499: SRS-ECU Air Bag Condition Monitor Detects Deployed Air Bag

⚠ CAUTION
If DTC B1499 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set after the air bag has deployed. If this DTC is set before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

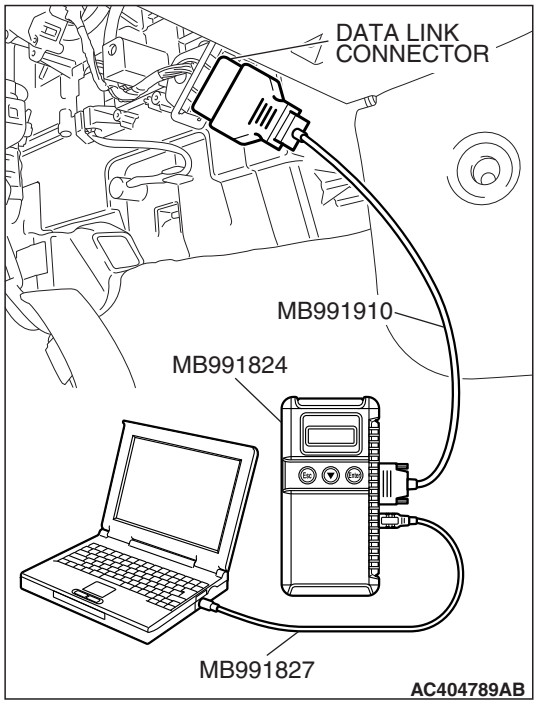
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

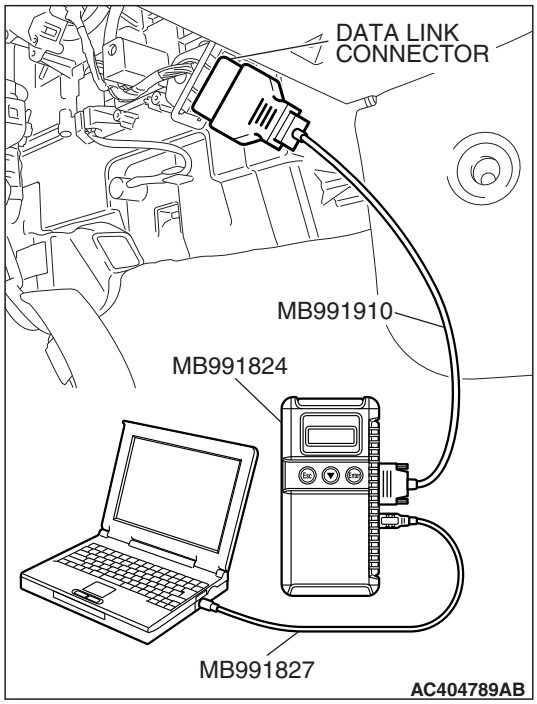
⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

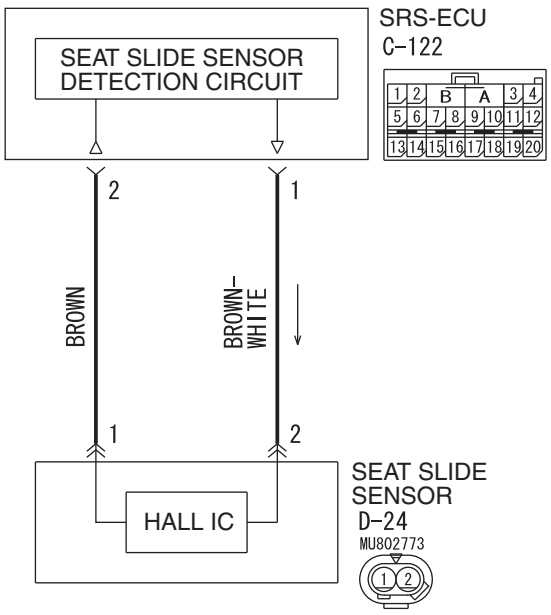
Q: Is the DTC B1499 set?

YES : Replace the SRS-ECU (Refer to P.52B-420).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

DTC B1506: Seat Slide Sensor System Fault 1 (Open in the Seat Slide Sensor Circuit)

Seat Slide Sensor Circuit



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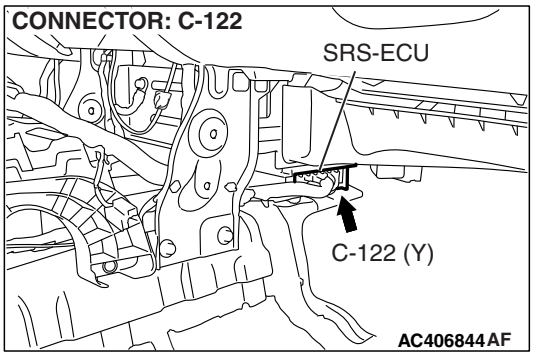
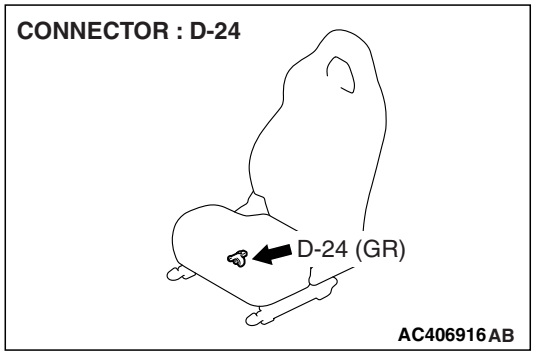




⚠ CAUTION

If DTC B1506 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor. The most likely causes for this code to be set are the followings:
  - Open circuit in the seat slide sensor or harness
  - Malfunction of connector contact

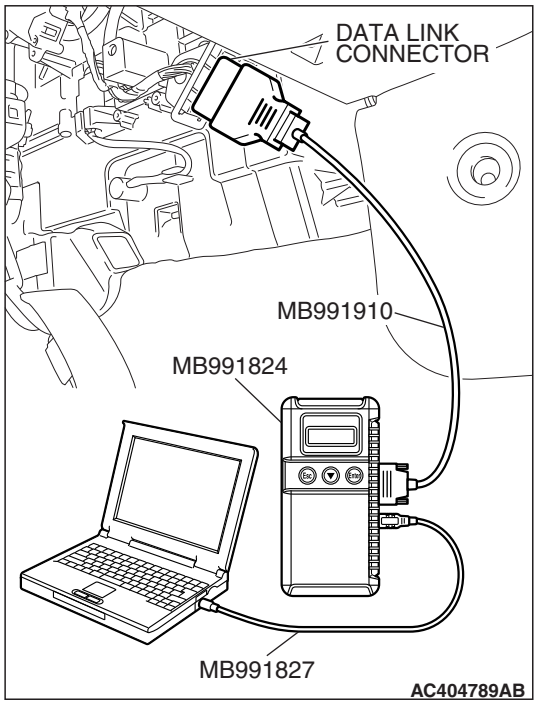
TROUBLESHOOTING HINTS

- Open circuit in the seat slide sensor circuit
- Disengaged seat slide sensor connector
- Improper connector contact
- Malfunction of the SRS-ECU
- Malfunction of the seat slide sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

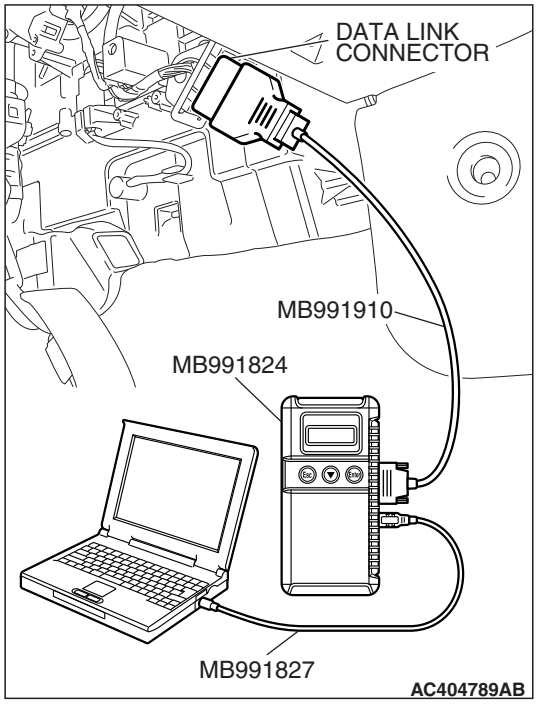
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

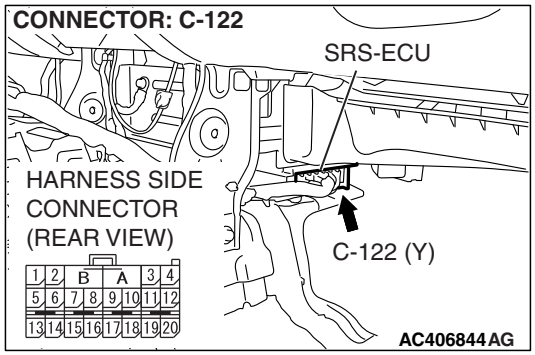


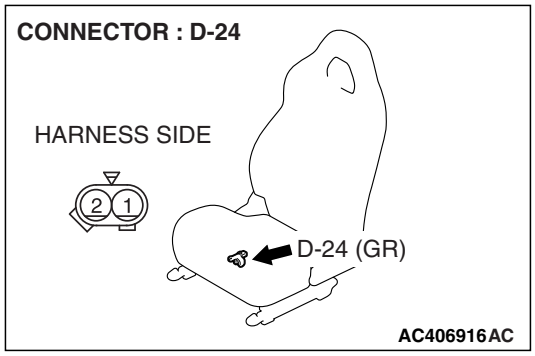
STEP 2. Recheck for diagnostic trouble code.

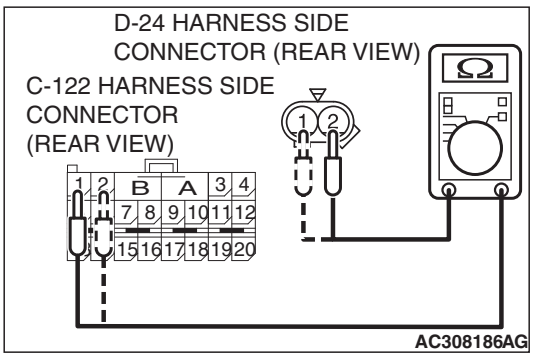
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).







STEP 3. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.1 and 2) and the seat slide sensor connector D-24 (terminal No.2 and 1).

(1) Disconnect SRS-ECU connector C-122 and seat slide sensor connector D-24.

⚠ CAUTION

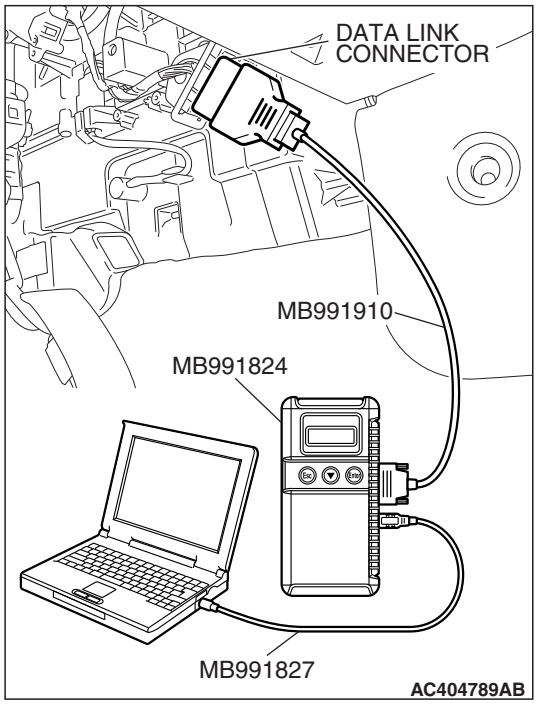
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(2) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.2) and the seat slide sensor connector D-24 (terminal No.1)
- SRS-ECU connector C-122 (terminal No.1) and the seat slide sensor connector D-24 (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1506 sets, check if the seat slide sensor is in good condition. If the sensor is in good condition, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-24. Then go to Step 4.



STEP 4. Recheck for diagnostic trouble code.

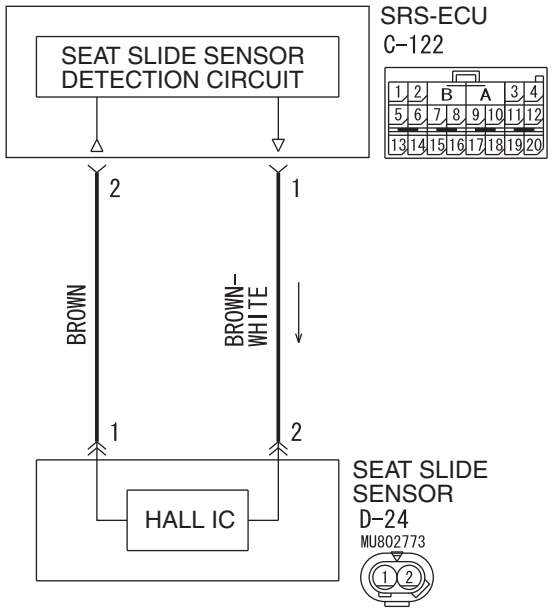
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1506 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1507: Seat Slide Sensor System Fault Ground Circuit (Short-Circuited to Ground)

Seat Slide Sensor Circuit



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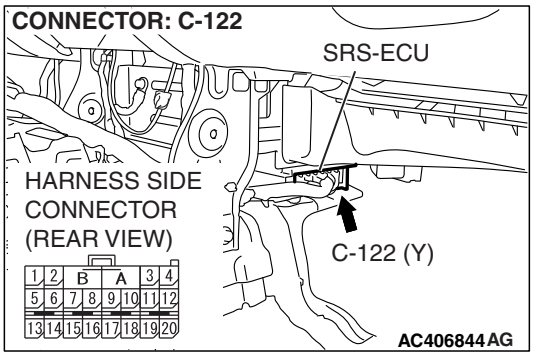
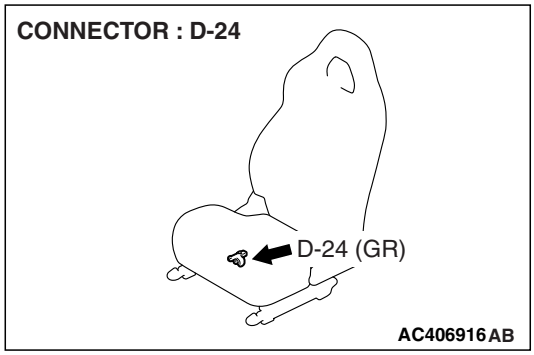
TSB Revision





⚠ CAUTION

If DTC B1507 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor:
- The most likely causes for this code to be set are the followings:
  - Short circuit in the seat slide sensor harness
  - Malfunction of the seat slide sensor

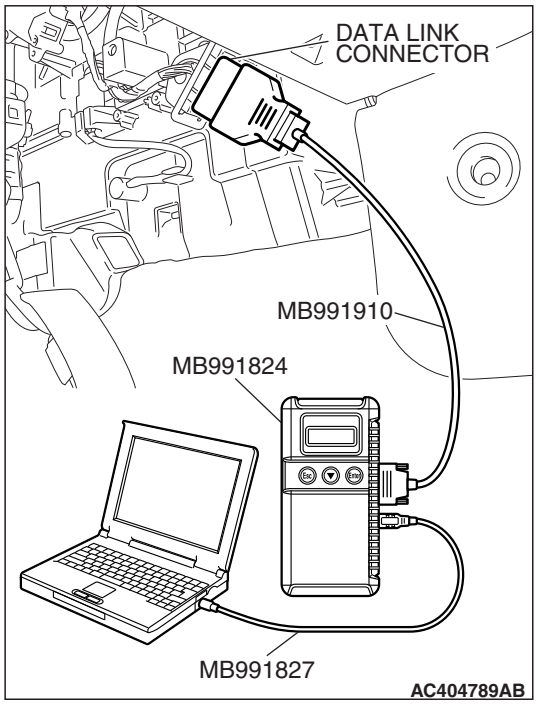
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the seat slide sensor harness
- Malfunction of the SRS-ECU
- Malfunction of the seat slide sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

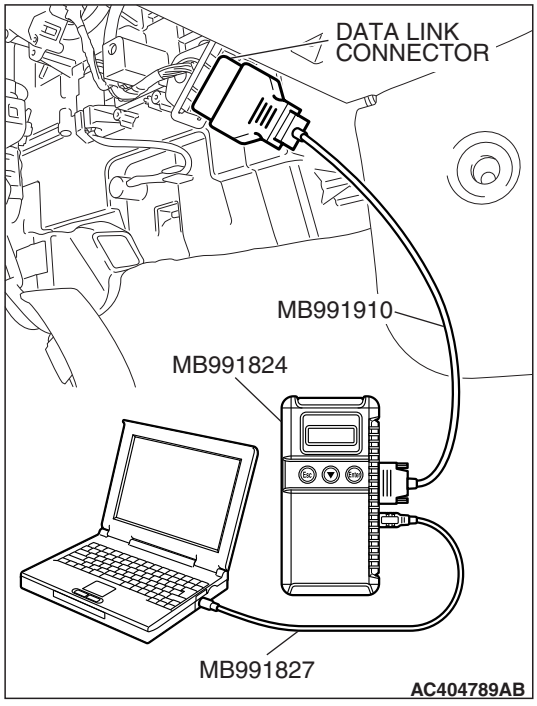
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

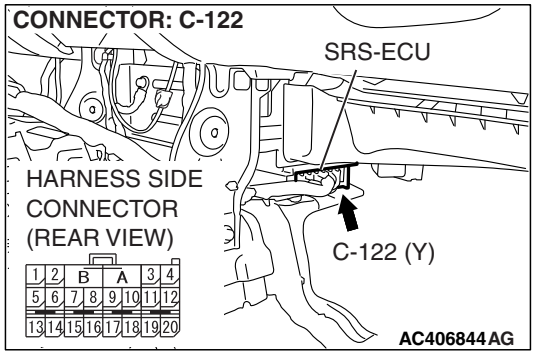
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

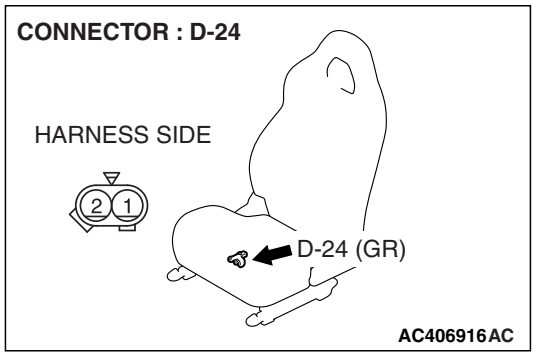
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the seat slide sensor circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect SRS-ECU connector C-122.

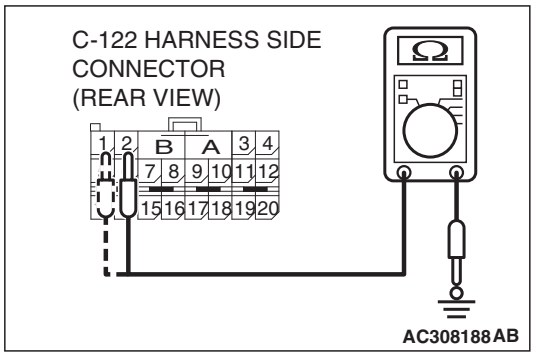


(2) Disconnect seat slide sensor connector D-24.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between C-122 harness side connector terminals 1, 2 and body ground.
It should be open circuit.

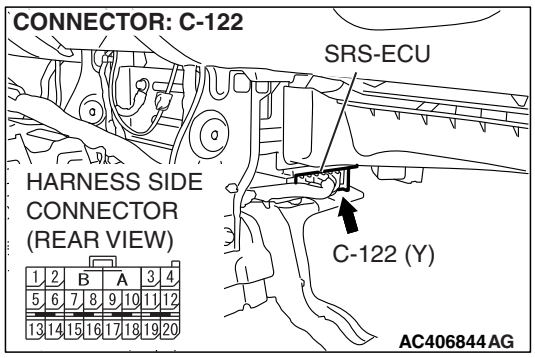


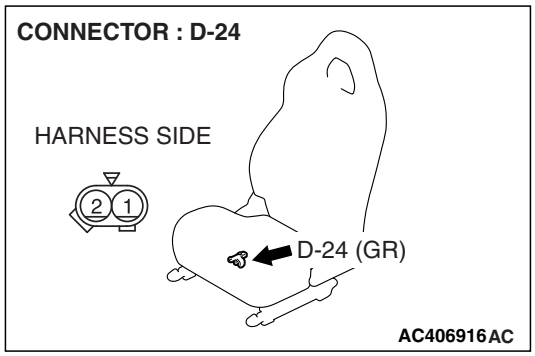
Q: Does continuity exist?

YES : Go to Step 4.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1507 sets, check if the seat slide sensor is in good condition. If the sensor is in good condition, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

STEP 4. Check the harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-24 (terminal No.1 and 2).





Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-24 (terminal No.1 and 2) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-24. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

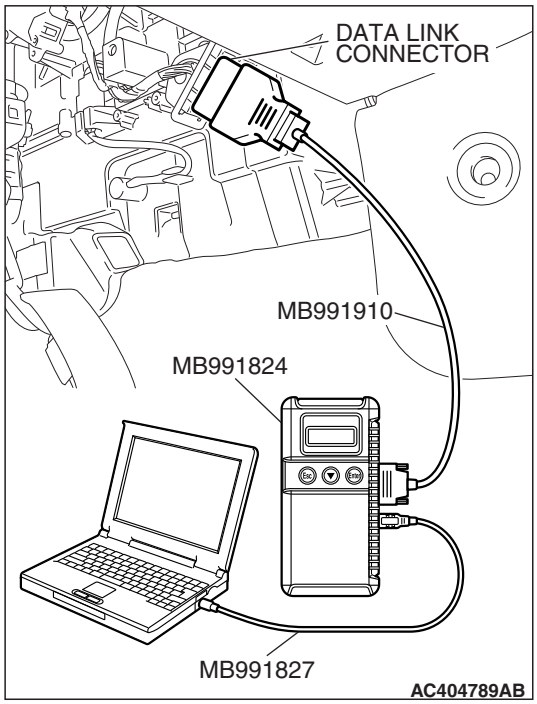
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1507 set?

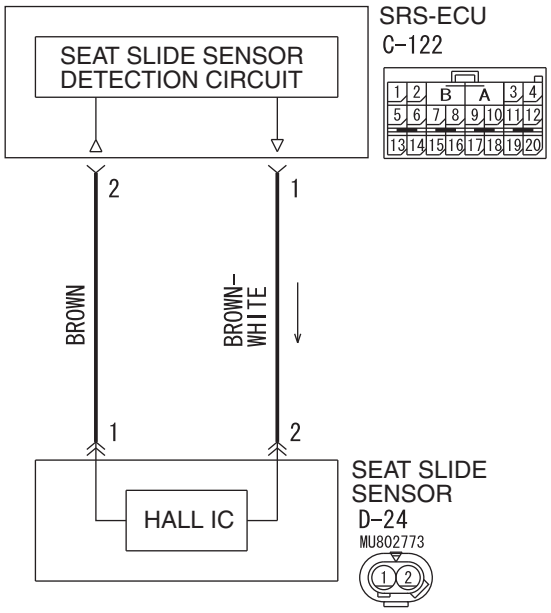
YES : Return to Step 1.

NO : The procedure is complete.



DTC B1508: Seat Slide Sensor System Fault Power Supply Circuit (Short-Circuited to Power Supply)

Seat Slide Sensor Circuit



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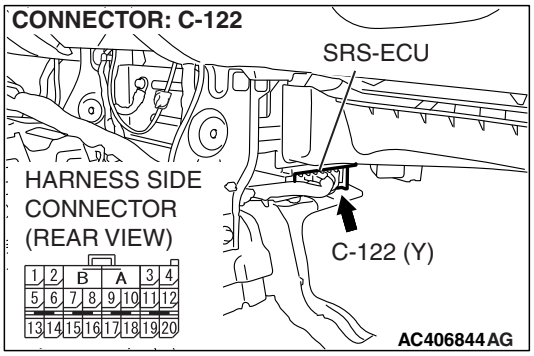
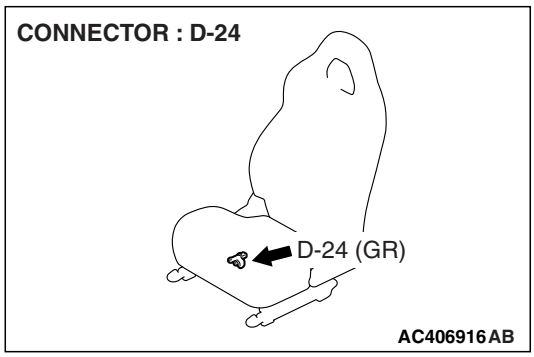




⚠ CAUTION
If DTC B1508 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor:
- The most likely causes for this code to be set are the followings:
  - Short to the power supply in the seat slide sensor harness
  - Malfunction of the seat slide sensor

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the seat slide sensor harness
- Malfunction of the SRS-ECU
- Malfunction of the seat slide sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

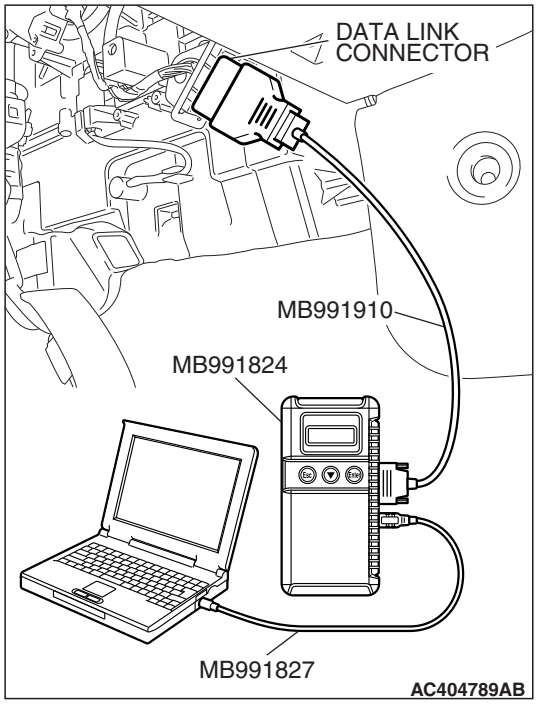
⚠ CAUTION

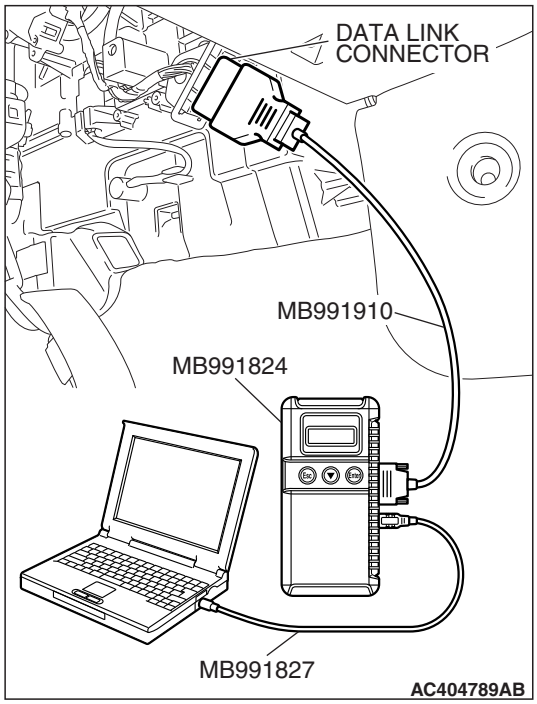
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

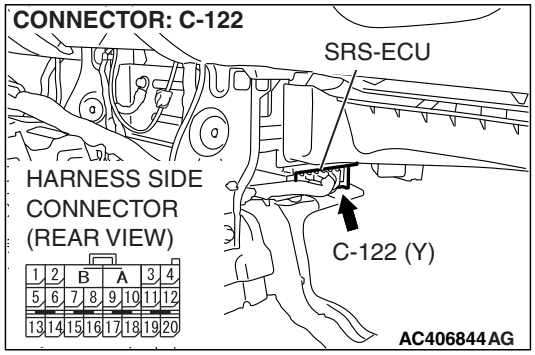
Q: Is the DTC set?

YES : Go to Step 3.

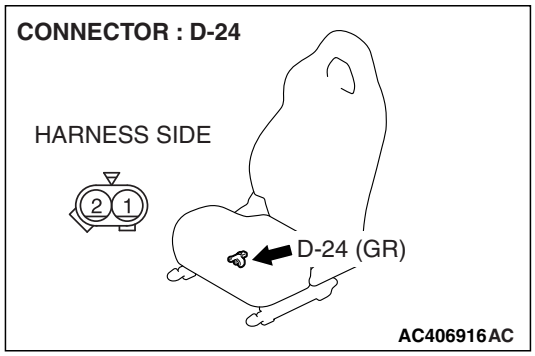
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the seat slide sensor circuit. Measure the voltage at the SRS-ECU connector C-122.

(1) Disconnect SRS-ECU connector C-122.

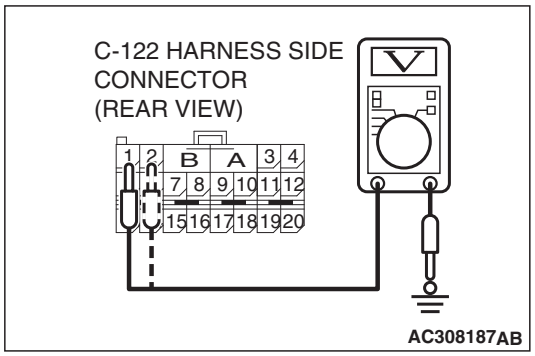


(2) Disconnect seat slide sensor connector D-24.
(3) Turn the ignition switch to the "ON" position.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-122 harness side connector terminals 1, 2 and body ground.
Voltage should measure 0 volt.

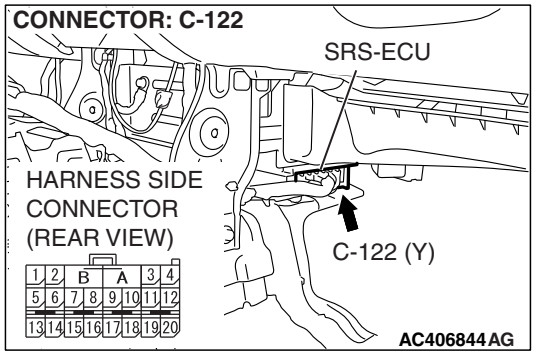


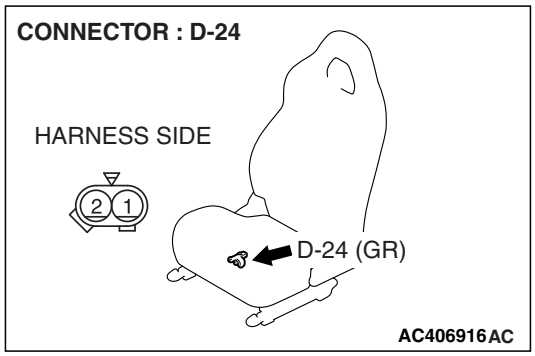
Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1508 sets, check if the seat slide sensor is in good condition. If the sensor is in good condition, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Go to Step 4.

STEP 4. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-24 (terminal No.1 and 2).





Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-24 (terminal No.1 and 2) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-24. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

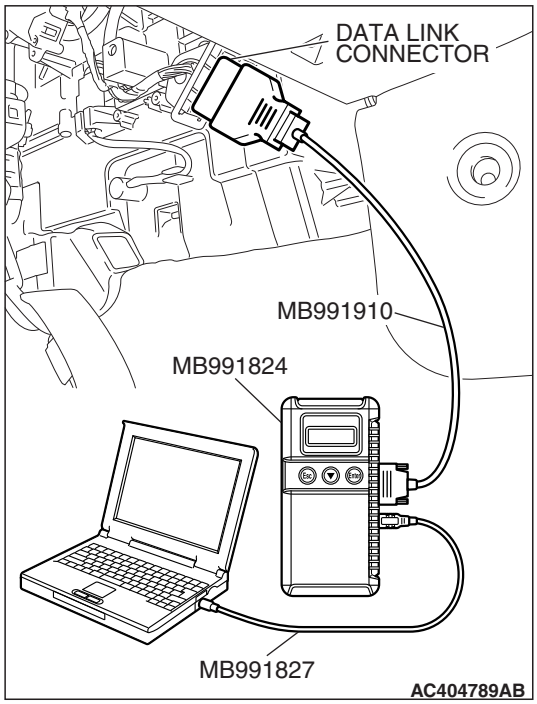
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1508 set?

YES : Return to Step 1.

NO : The procedure is complete.



DTC B1509: Improper Installation of SRS-ECU

⚠ CAUTION
If DTC B1509 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set when an SRS-ECU, designed only for the driver's air bag, is installed on the vehicle, which has both driver's and passenger's air bags. However, if the vehicle condition return to normal, DTC number B1509 will be automatically erased, and the SRS warning light will switch off.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

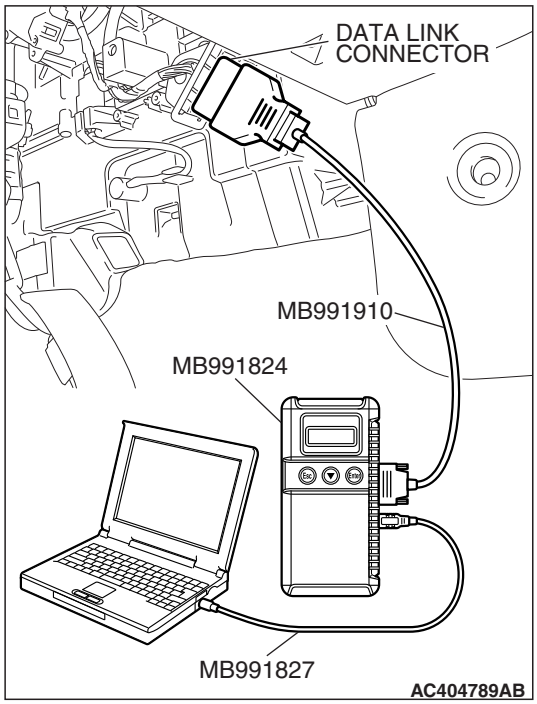
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

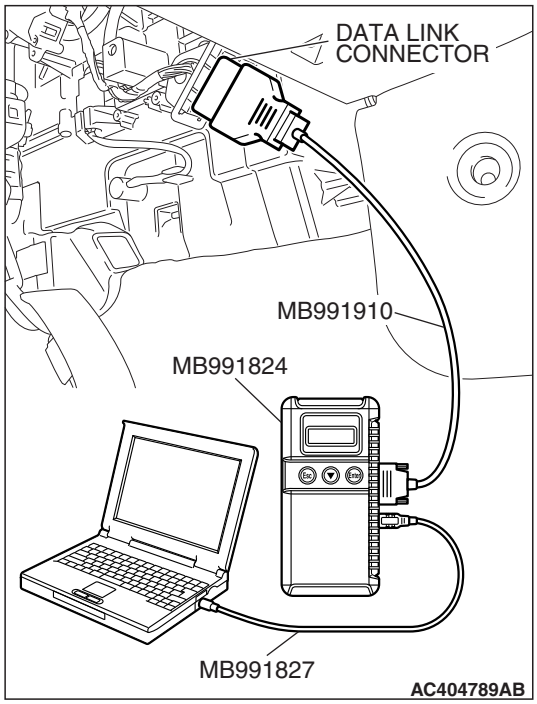
⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1509 set?

YES : Replace the SRS-ECU (Refer to P.52B-420).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

DTC B1519: Connector Lock System Detects Connector Unlocked

⚠ CAUTION
If DTC B1519 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set if a poor connection at the SRS-ECU is detected.

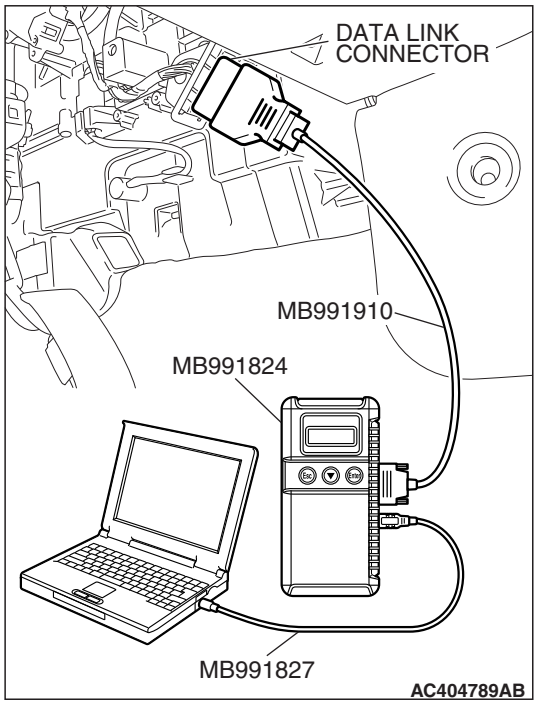
TROUBLESHOOTING HINTS

- Damaged connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

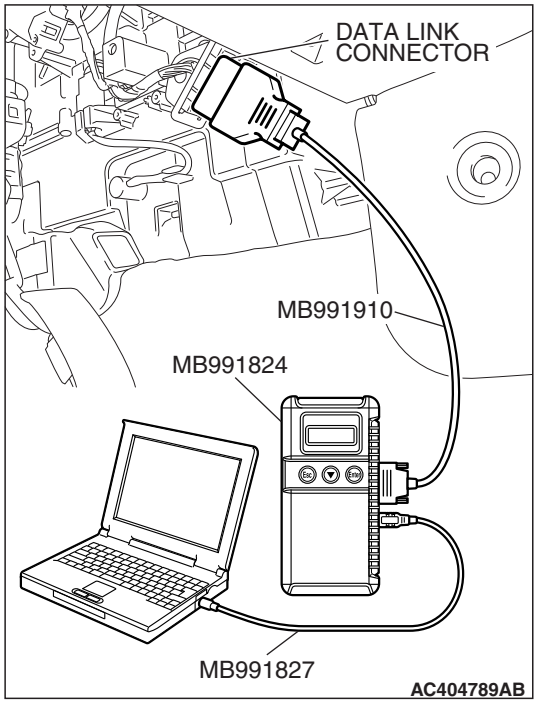
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

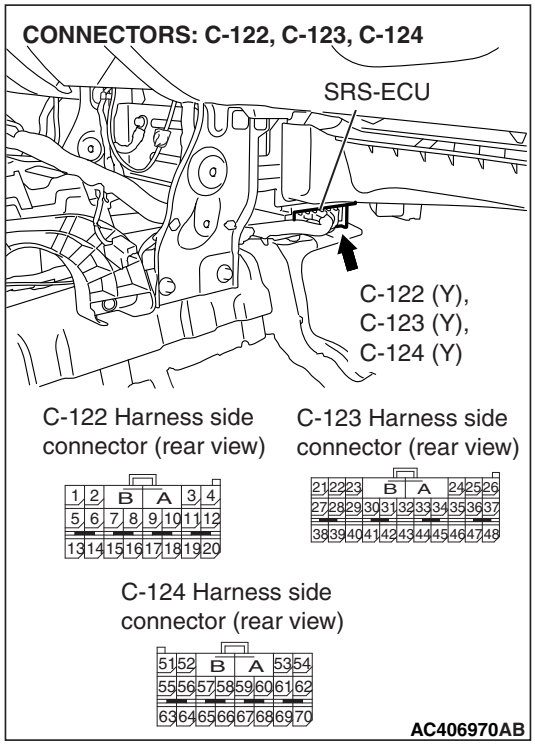


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

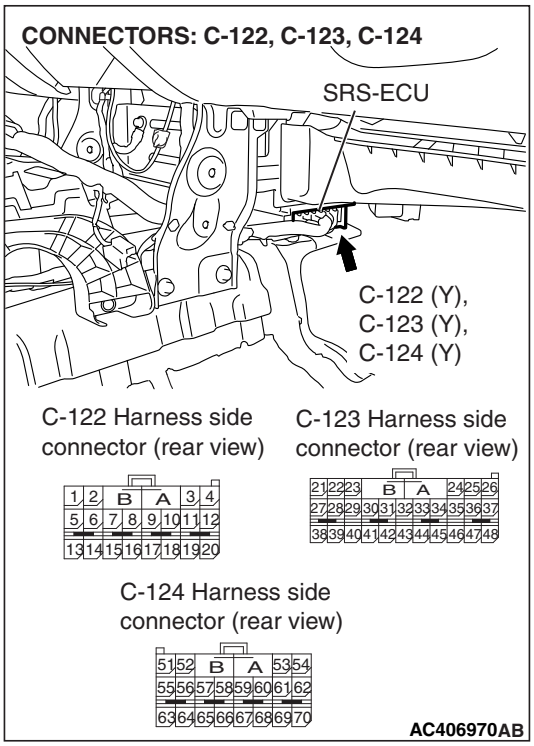


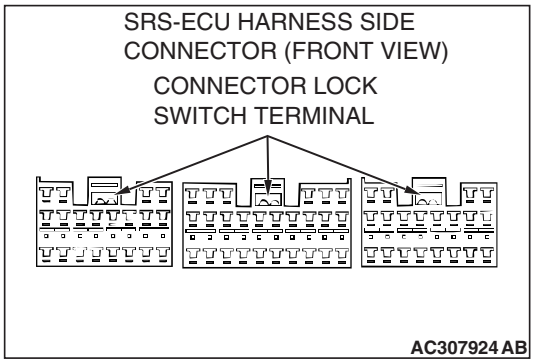
STEP 3. Check the SRS-ECU connector C-122, C-123 and C-124.

Q: Are connectors correctly engaged?

YES : Go to Step 4.

NO : Engage the connectors correctly. Then go to Step 5.





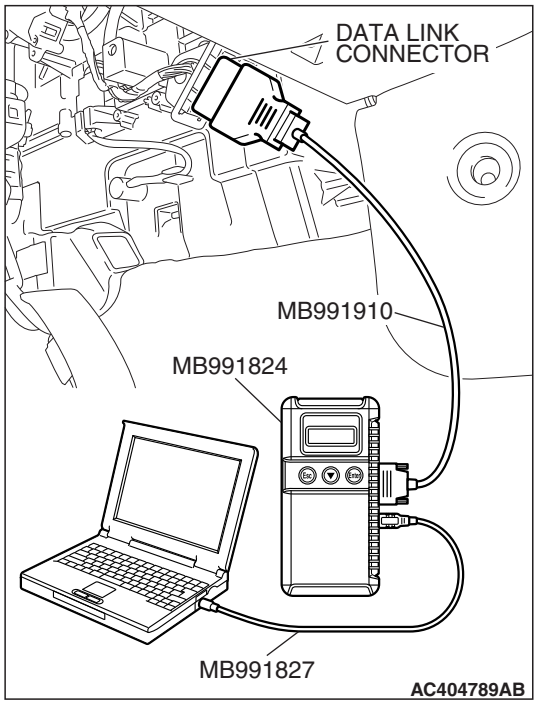
STEP 4. Check SRS-ECU connector C-122, C-123 and C-124 for damage.

(1) Disconnect SRS-ECU connectors C-122, C-123 and C-124.
(2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

Q: Are the SRS-ECU connector C-122, C-123 and C-124 in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1519 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Replace the SRS-ECU connector C-122, C-123 and C-124. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

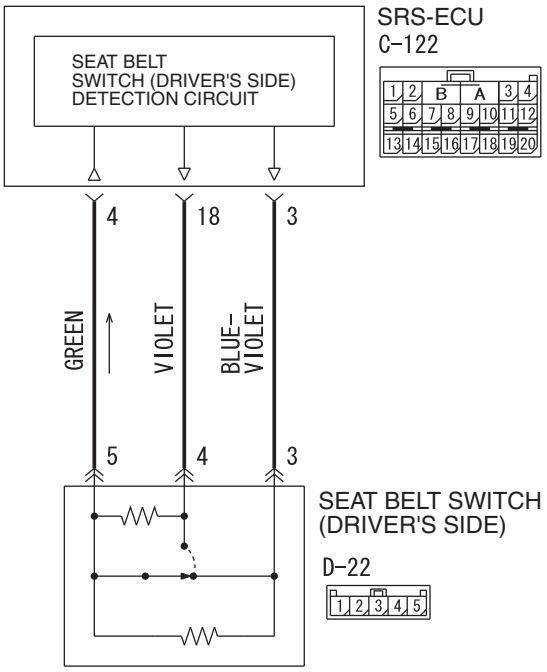
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1519 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1520: Seat belt switch (LH) malfunction
DTC B1521: Seat belt switch (LH) circuit open (for Normal/Close terminal)
DTC B1522: Seat belt switch (LH) circuit (ground side) shorted (for Normal/Close terminal)
DTC B1523: Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Close terminal)
DTC B1524: Seat belt switch (LH) circuit open (for Normal/Open terminal)
DTC B1525: Seat belt switch (LH) circuit (ground side) shorted (for Normal/Open terminal)
DTC B1526: Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Open terminal)
DTC B1527: Seat belt switch (LH) circuit open (for common terminal)
DTC B1528: Seat belt switch (LH) circuit (ground side) shorted (for common terminal)
DTC B1529: Seat belt switch (LH) circuit (power supply side) shorted (for common terminal)

Driver's Seat Belt Switch Circuit



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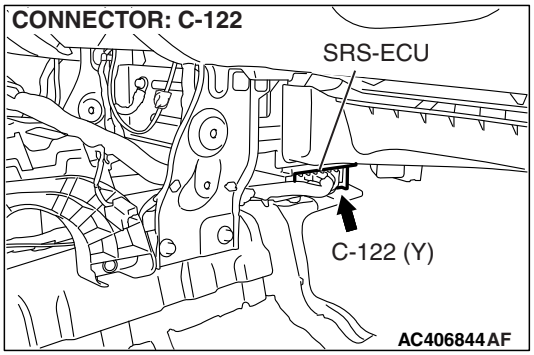

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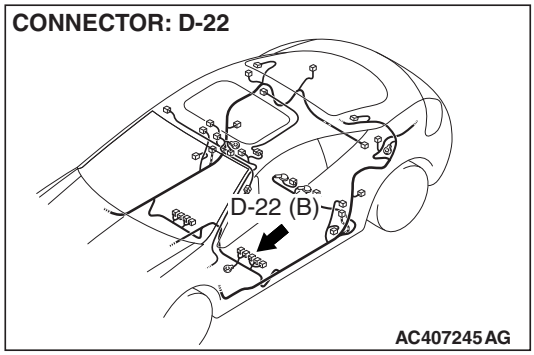

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⚠ CAUTION
If DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 are set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

TSB Revision

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.
Cause of trouble in each DTC is as follows.

DTC	Symptom
B1520	Malfunction of seat belt switch
B1521	Malfunction of the Normal/Close terminal or short circuit in its harness
B1522	Short to body ground in the Normal/Close terminal harness
B1523	Short to the power supply in the Normal/Close terminal harness
B1524	Malfunction of the Normal/Open terminal or short circuit in its harness
B1525	Short to body ground in the Normal/Open terminal harness
B1526	Short to the power supply in the Normal/Open terminal harness
B1527	Malfunction of the common terminal or short circuit in its harness
B1528	Short to body ground in the common terminal harness
B1529	Short to the power supply in the common terminal harness

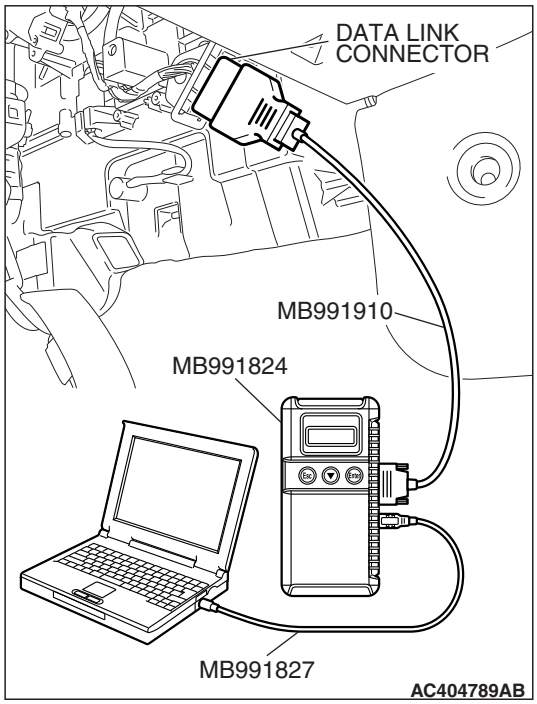
TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

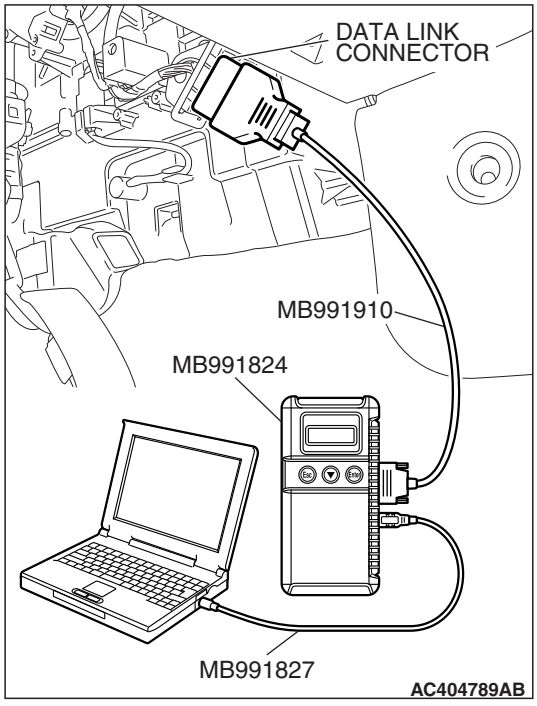
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 3.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17). Then go to Step 2.



STEP 2. Recheck for diagnostic trouble code.

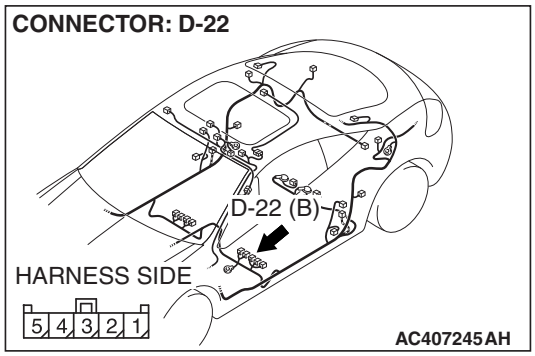
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

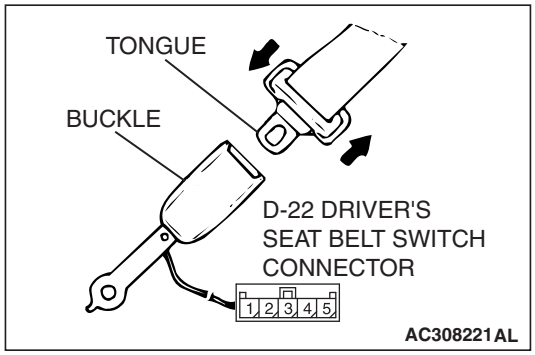
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

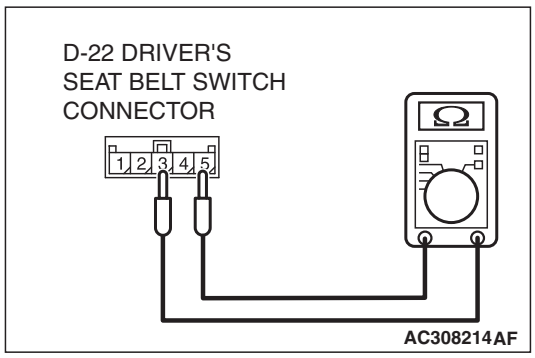
STEP 3. Check the driver's seat belt switch.

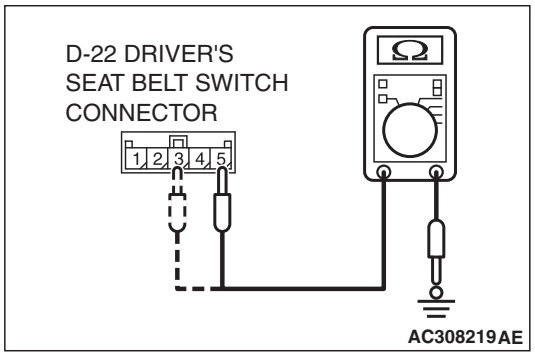
- Disconnect driver's seat belt switch connector D-22.

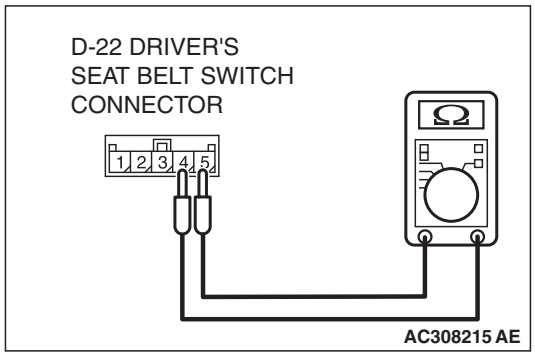


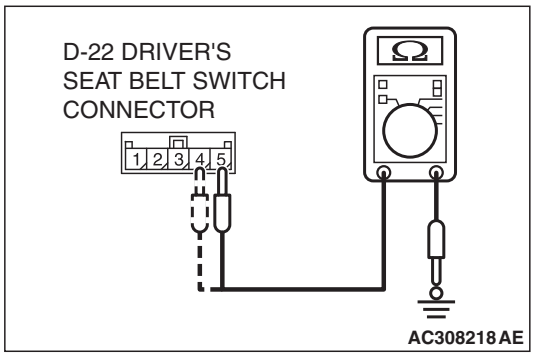
- Check continuity between the driver's seat belt switch connector D-22 terminals.











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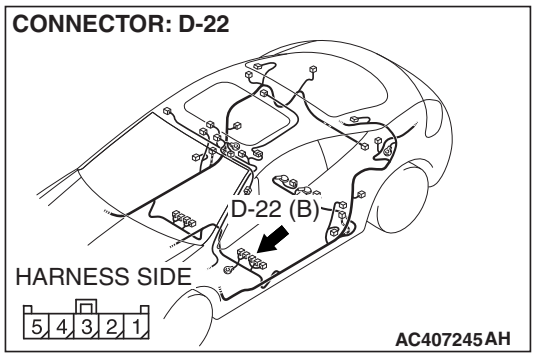
Item	Tester connection	Standard value	Specified condition
Fastened seat belt	3 – 5	820 ± 20 Ω	–
	3 – Ground	–	No continuity
	5 – Ground	–	No continuity
	4 – 5	–	Less than 2 ohms
Unfastened seat belt	4 – 5	820 ± 20 Ω	–
	4 – Ground	–	No continuity
	5 – Ground	–	No continuity
	3 – 5	–	Less than 2 ohms

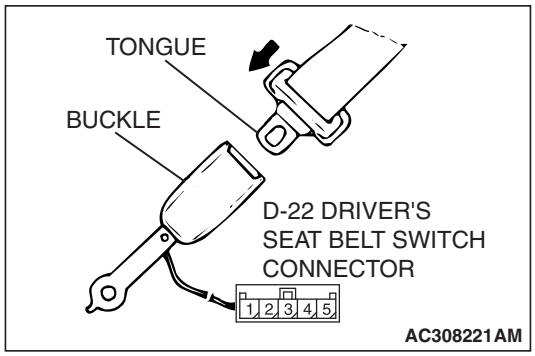
Q: Is driver's seat belt switch in good condition?

YES : Go to Step 4.

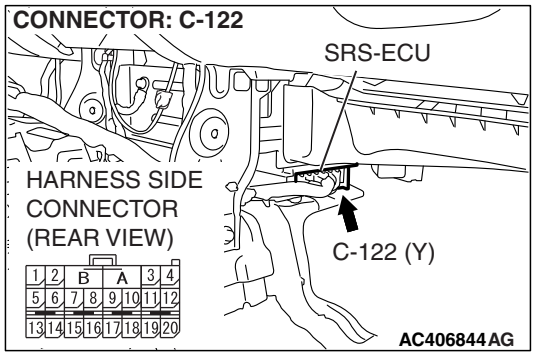
NO : Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt P.52A-54.)

STEP 4. Check the driver's seat belt switch circuit D-22.
Measure the resistance at SRS-ECU connector C-122.

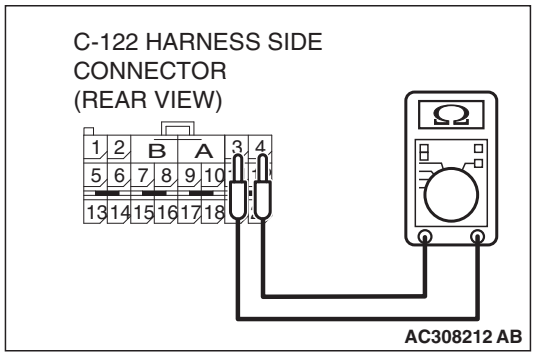




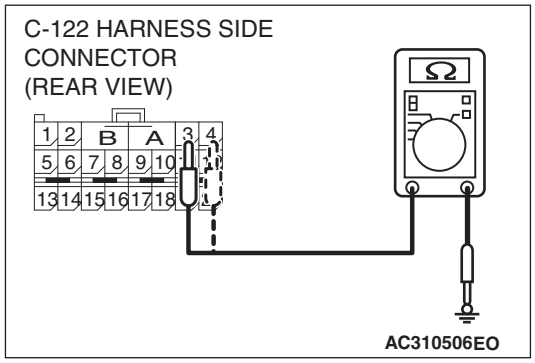
(1) Install the driver's seat belt to the driver's seat belt switch.



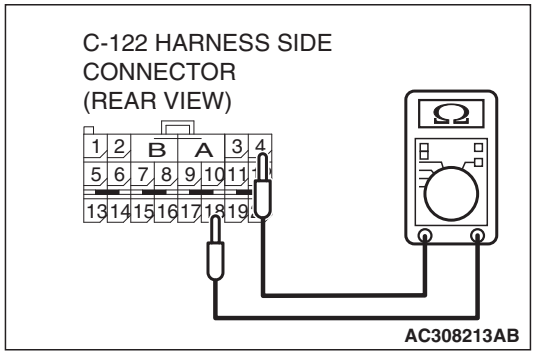
(2) Disconnect SRS-ECU connector C-122 and measure at the harness side (rear side).



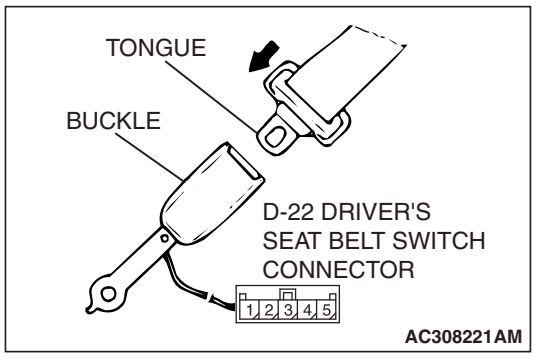
(3) Measure the resistance between terminal 3 and terminal 4.
Resistance should be 820 ± 20 Ω



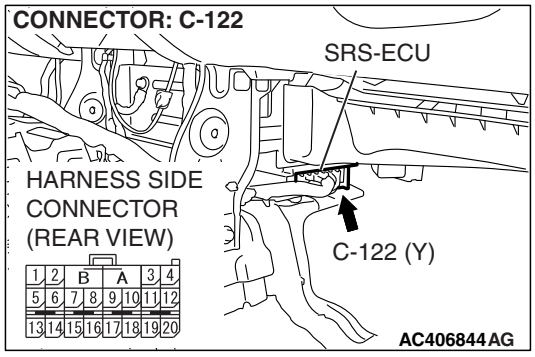
(4) Measure the resistance between terminal 3, 4 and body ground.
It should be open circuit.



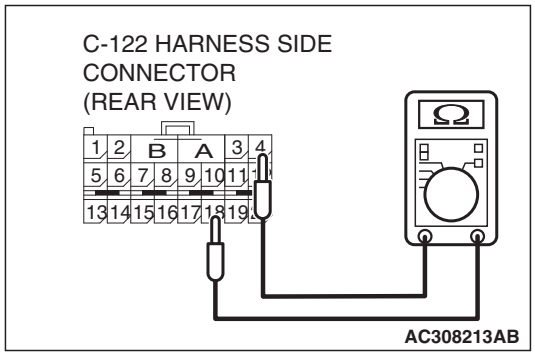
(5) Measure the resistance between terminal 18 and terminal 4.
Resistance should be less than 2 ohms.



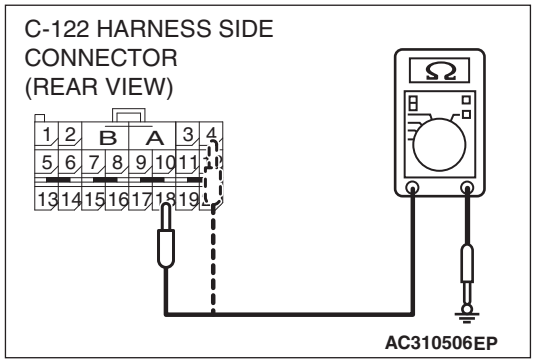
(6) Remove the driver's seat belt from the driver's seat belt switch.



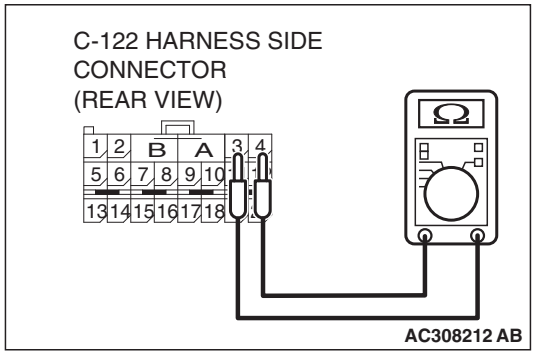
(7) Disconnect SRS-ECU connector C-122 and measure at the harness side (rear side).



(8) Measure the resistance between terminal 18 and 4.
Resistance should be 820 ± 20 Ω



(9) Measure the resistance between terminal 18, 4 and body ground.
It should be open circuit.



(10)Measure the resistance between terminal 3 and terminal 4.
Resistance should be less than 2 ohms.

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 are set, replace the SRS-ECU. (Refer to P.52B-420.) Then go to Step 6.

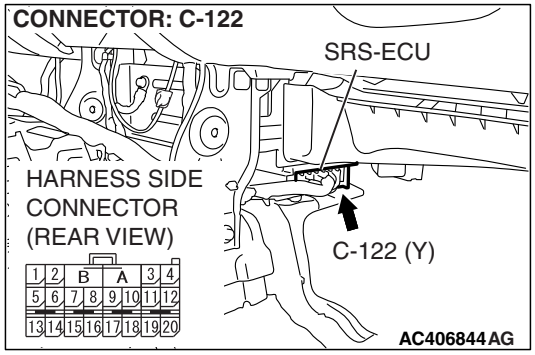
NO : Go to Step 5.

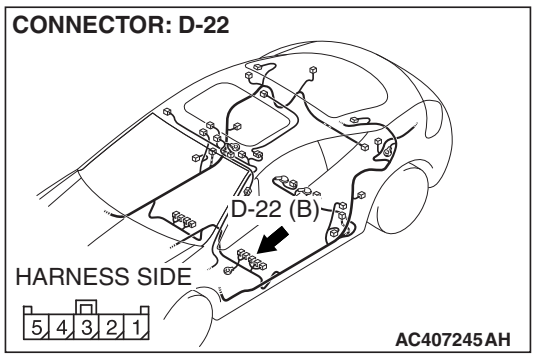
STEP 5. Check the harness wires between SRS-ECU connector C-122 (terminal No.3, 18 and 4) and driver's seat belt switch connector D-22 (terminal No.3, 4 and 5).

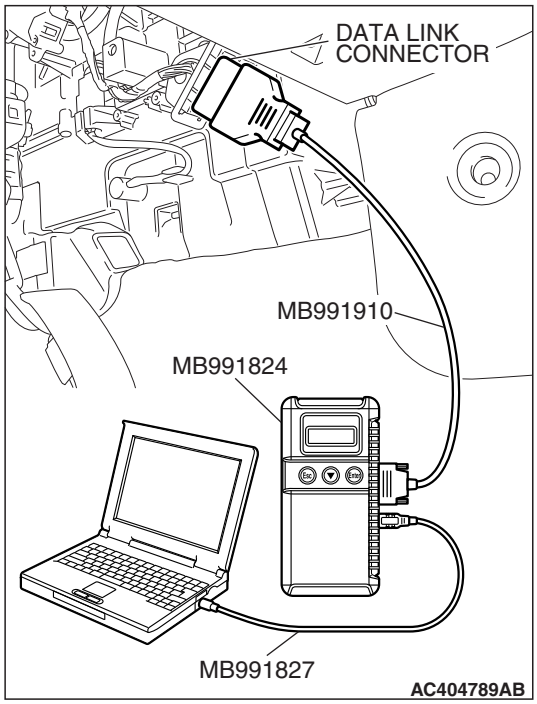
Q: Are harness wires between SRS-ECU connector C-122 (terminal No.3, 18 and 4) and driver's seat belt switch connector D-22 (terminal No.3, 4 and 5) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and driver's seat belt switch connector D-22. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

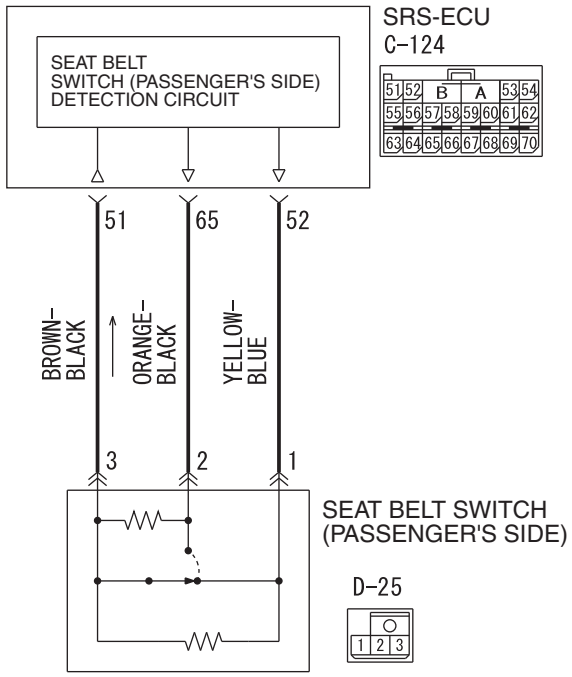
Q: Is DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1530: Seat belt switch (RH) malfunction
DTC B1531: Seat belt switch (RH) circuit open (for Normal/Close terminal)
DTC B1532: Seat belt switch (RH) circuit (ground side) shorted (for Normal/Close terminal)
DTC B1533: Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Close terminal)
DTC B1534: Seat belt switch (RH) circuit open (for Normal/Open terminal)
DTC B1535: Seat belt switch (RH) circuit (ground side) shorted (for Normal/Open terminal)
DTC B1536: Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Open terminal)
DTC B1537: Seat belt switch (RH) circuit open (for common terminal)
DTC B1538: Seat belt switch (RH) circuit (ground side) shorted (for common terminal)
DTC B1539: Seat belt switch (RH) circuit (power supply side) shorted (for common terminal)

Passenger's Seat Belt Switch Circuit



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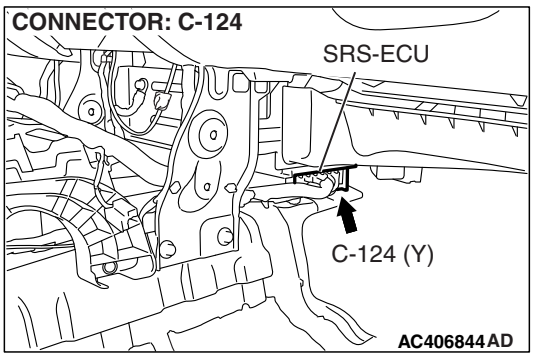

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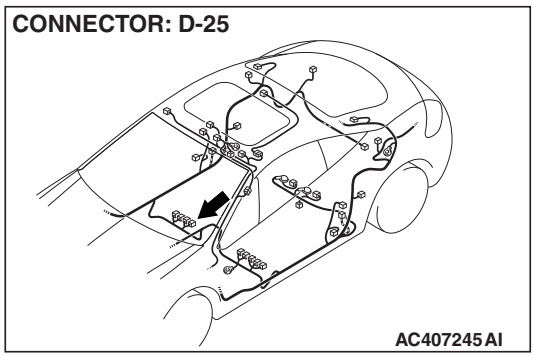

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⚠ CAUTION
If DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 are set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

TSB Revision

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.
Cause of trouble in each DTC is as follows.

DTC	Symptom
B1530	Malfunction of seat belt switch
B1531	Malfunction of the Normal/Close terminal or short circuit in its harness
B1532	Short to body ground in the Normal/Close terminal harness
B1533	Short to the power supply in the Normal/Close terminal harness
B1534	Malfunction of the Normal/Open terminal or short circuit in its harness
B1535	Short to body ground in the Normal/Open terminal harness
B1536	Short to the power supply in the Normal/Open terminal harness
B1537	Malfunction of the common terminal or short circuit in its harness
B1538	Short to body ground in the common terminal harness
B1539	Short to the power supply in the common terminal harness

TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

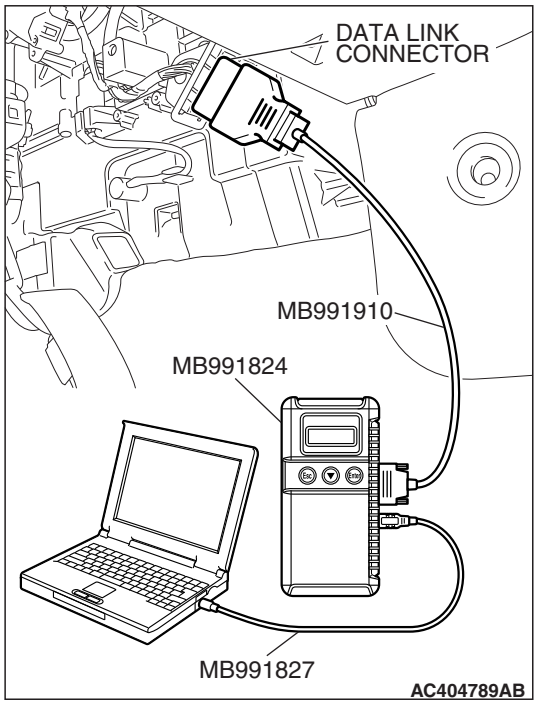
Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



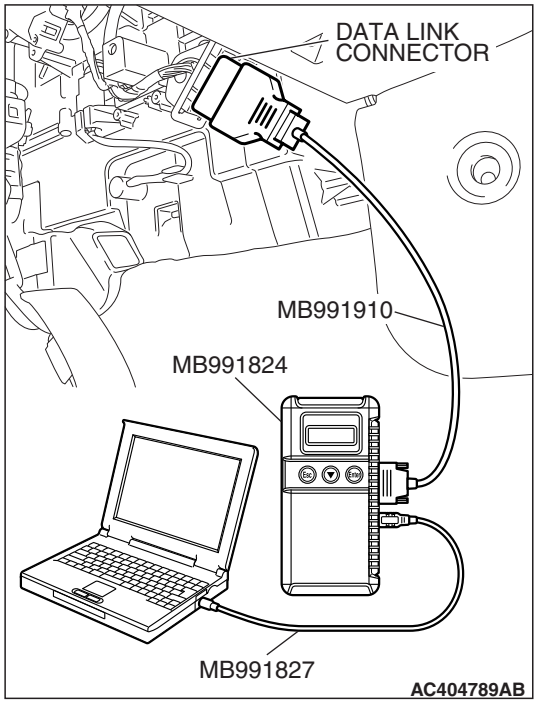
(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 3.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17). Then go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.



Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

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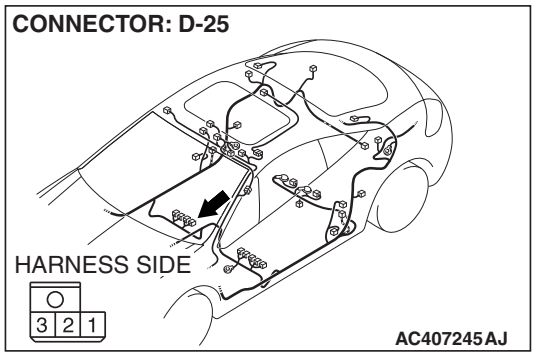
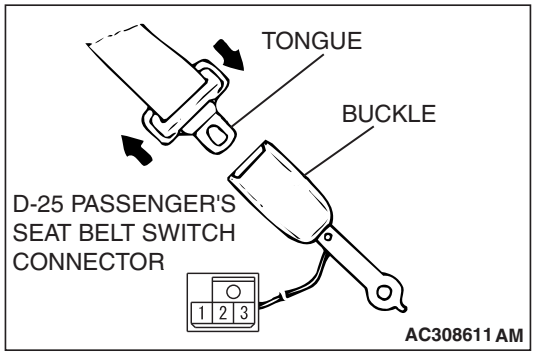
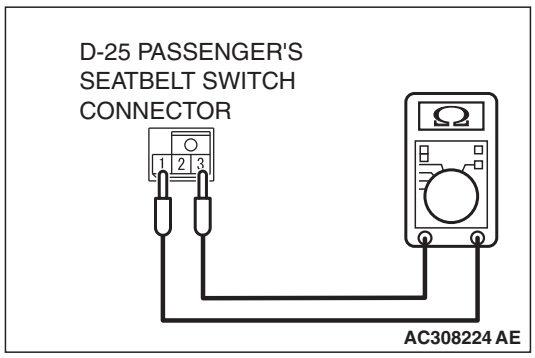
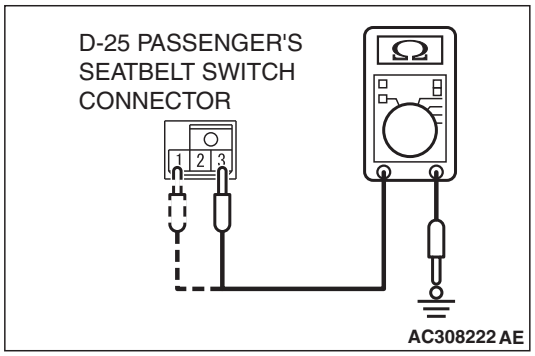








STEP 3. Check the passenger's seat belt switch.

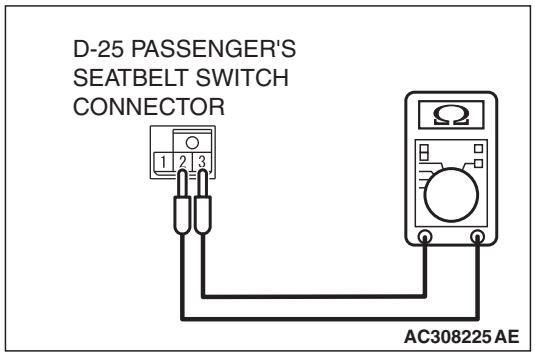
- Disconnect passenger's seat belt switch connector D-25.
- Check continuity between the passenger's seat belt switch connector D-25 terminals.

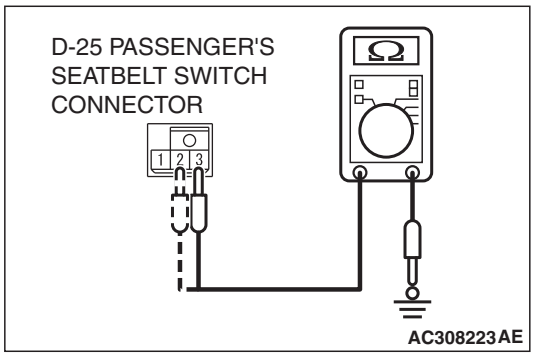
Item	Tester connection	Standard value	Specified condition
Fastened seat belt	1 – 3	820 ± 20 Ω	–
	1 – Ground	–	No continuity
	3 – Ground	–	No continuity
	2 – 3	–	Less than 2 ohms
Unfastened seat belt	2 – 3	820 ± 20 Ω	–
	2 – Ground	–	No continuity
	3 – Ground	–	No continuity
	1 – 3	–	Less than 2 ohms

Q: Is passenger's seat belt switch in good condition?

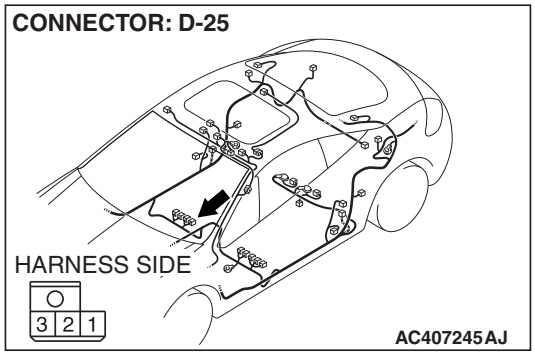
YES : Go to Step 4.

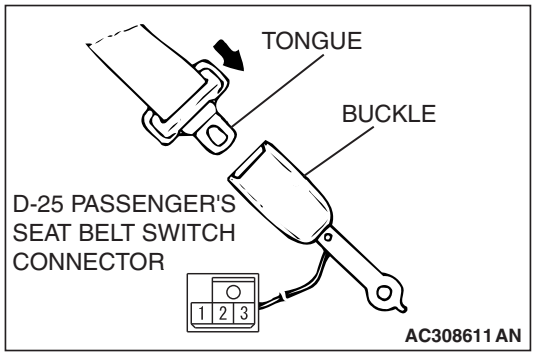
NO : Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt P.52A-54.)


D-25 PASSENGER'S
SEATBELT SWITCH
CONNECTOR
1 2 3
AC308225AE

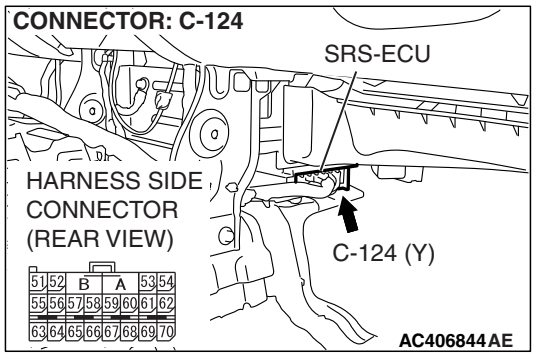

D-25 PASSENGER'S
SEATBELT SWITCH
CONNECTOR
1 2 3
AC308223AE

STEP 4. Check the passenger's seat belt switch circuit D-25. Measure the resistance at SRS-ECU connector C-124.

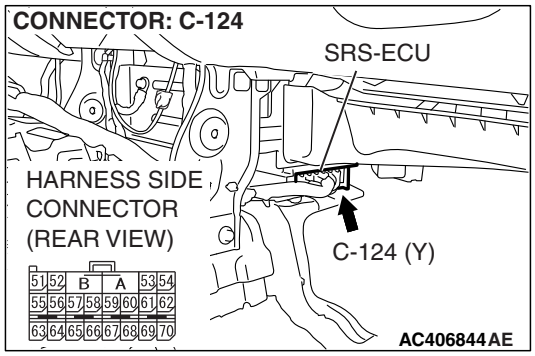




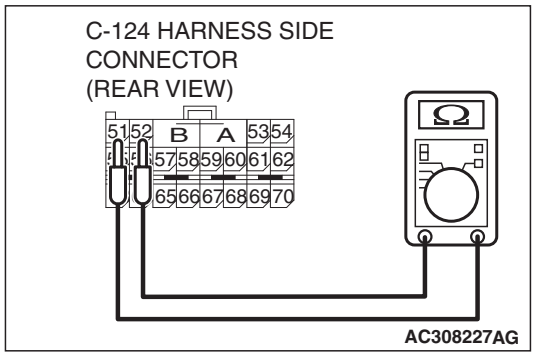
(1) Install the passenger's seat belt to the seat belt switch.

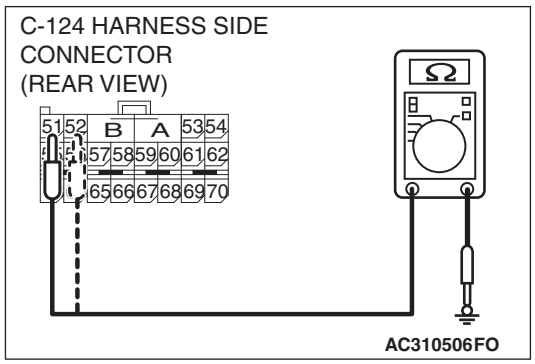


(2) Disconnect SRS-ECU connector C-124 and measure at the harness side (rear side).

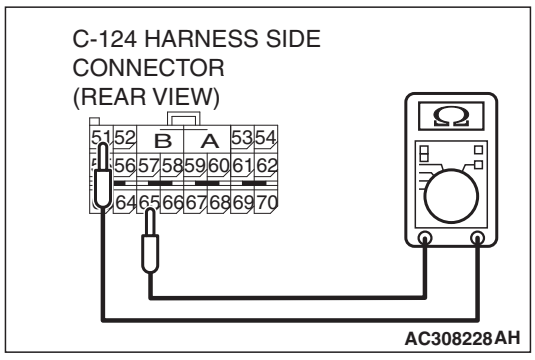


(3) Measure the resistance between terminal 52 and terminal 51.
Resistance should be 820 ± 20 Ω

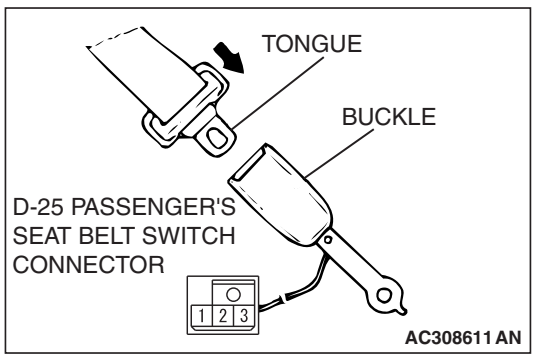




(4) Measure the resistance between terminal 52, 51 and body ground.
It should be open circuit.

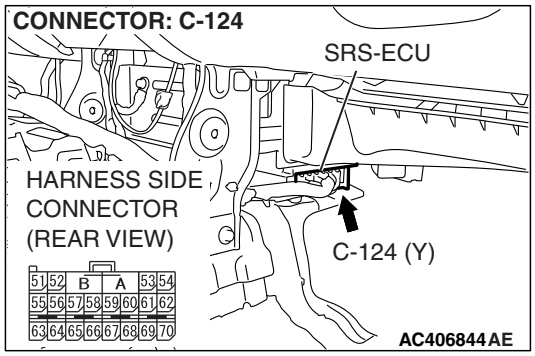


(5) Measure the resistance between terminal 65 and terminal 51.
Resistance should be less than 2 ohms.

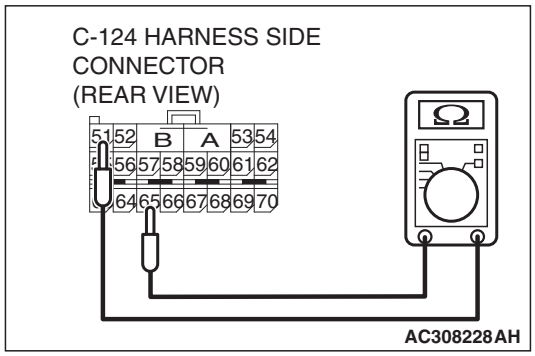


(6) Remove the passenger's seat belt from the seat belt switch.

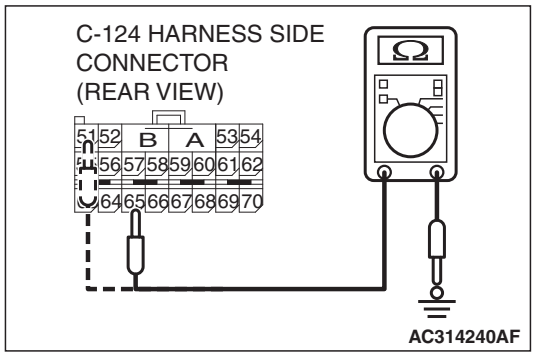
TSB Revision



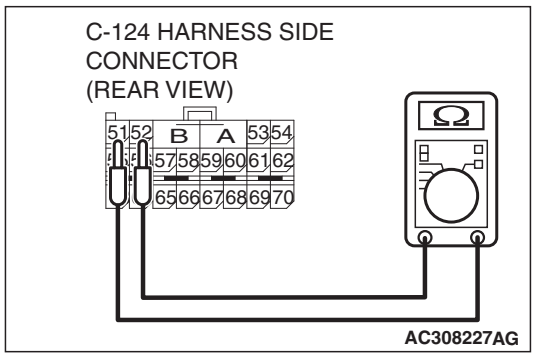
(7) Disconnect SRS-ECU connector C-124 and measure at the harness side (rear side).



(8) Measure the resistance between terminal 65 and terminal 51.
Resistance should be 820 ± 20 Ω



(9) Measure the resistance between terminal 65, 51 and body ground.
It should be open circuit.

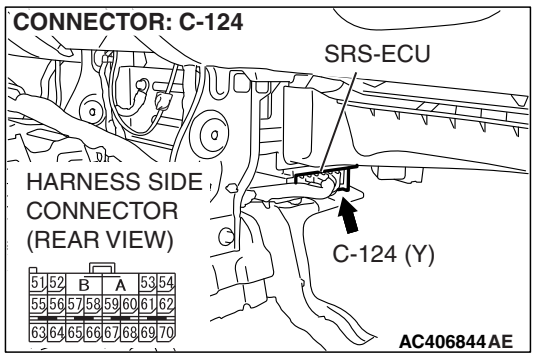


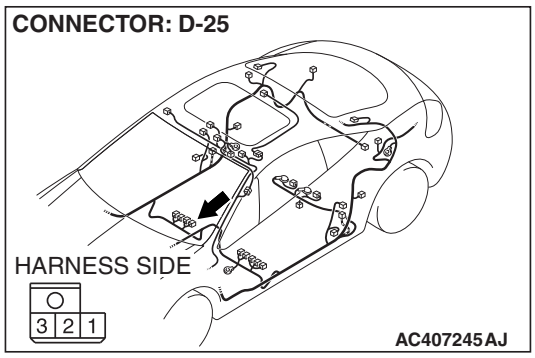
(10)Measure the resistance between terminal 52 and terminal 51.
Resistance should be less than 2 ohms.

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 are set, replace the SRS-ECU. (Refer to P.52B-420.) Then go to Step 6.

NO : Go to Step 5.



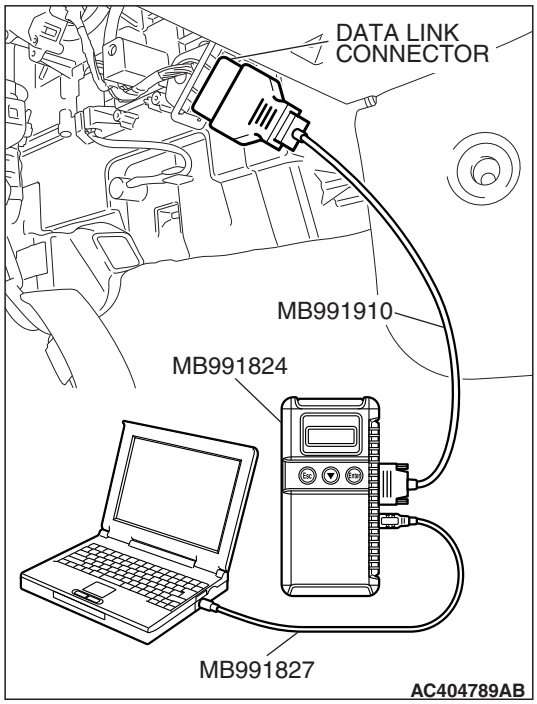


STEP 5. Check the harness wires between SRS-ECU connector C-124 (terminal No.52, 65 and 51) and passenger's seat belt switch connector D-25 (terminal No.1, 2 and 3).

Q: Are harness wires between SRS-ECU connector C-124 (terminal No.52, 65 and 51) and passenger's seat belt switch connector D-25 (terminal No.1, 2 and 3) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and passenger's seat belt switch connector D-25. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 set?

YES : Return to Step 1.

NO : The procedure is complete.

TSB Revision

DTC B1540: Occupant classification-ECU malfunction
DTC B1541: Occupant classification-ECU calibration malfunction
DTC B1542: Occupant classification sensor (S1) malfunction
DTC B1543: Occupant classification sensor (S2) malfunction
DTC B1558: Occupant classification-ECU ID-cord malfunction

⚠ CAUTION
If DTCs are set in the occupant classification-ECU, always diagnose the CAN main bus line.

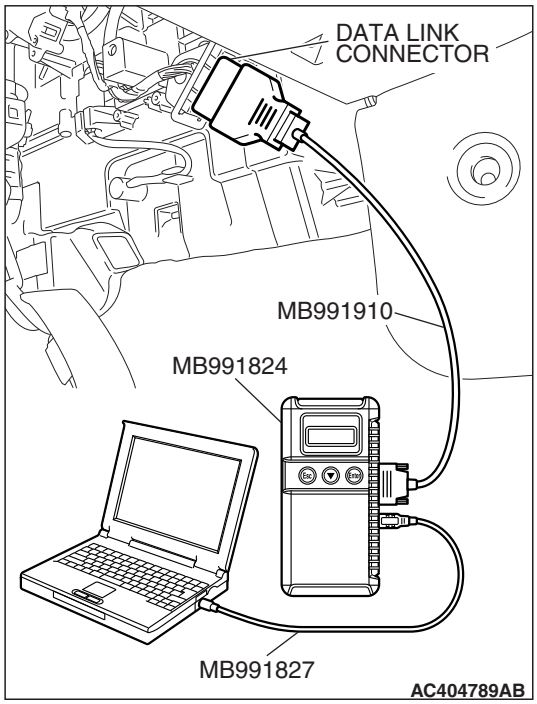
DTC SET CONDITIONS
- These DTC are set when a fault is detected in the occupant classification-ECU. The most likely causes for this code to be set are shown in the table below:

TROUBLESHOOTING HINTS
- Malfunction of the occupant classification-ECU

Code NO.	Part/circuit integral to occupant classification-ECU	Symptom
B1540	Occupant classification-ECU	• Malfunction of occupant classification-ECU
B1541		• Malfunction of calibration function
B1542	Occupant classification-sensor	• Malfunction of occupant classification sensor (S1)
B1543		• Malfunction of occupant classification sensor (S2)
B1558	Occupant classification-ECU	• Malfunction of ID code in occupant classification-ECU

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

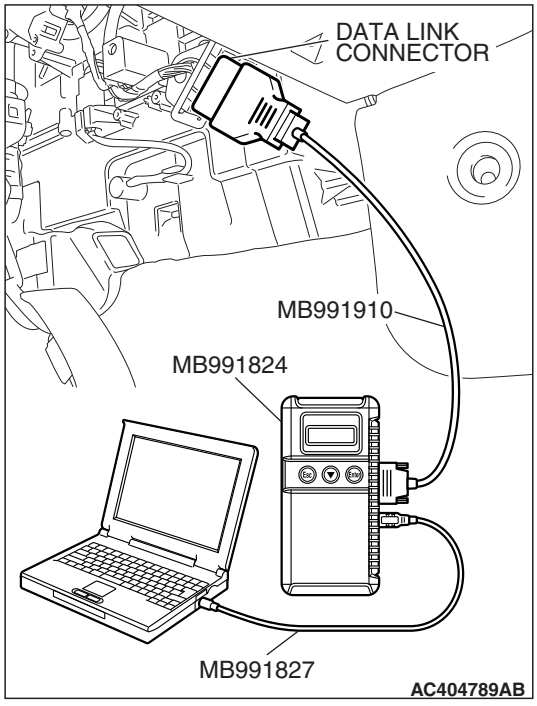
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

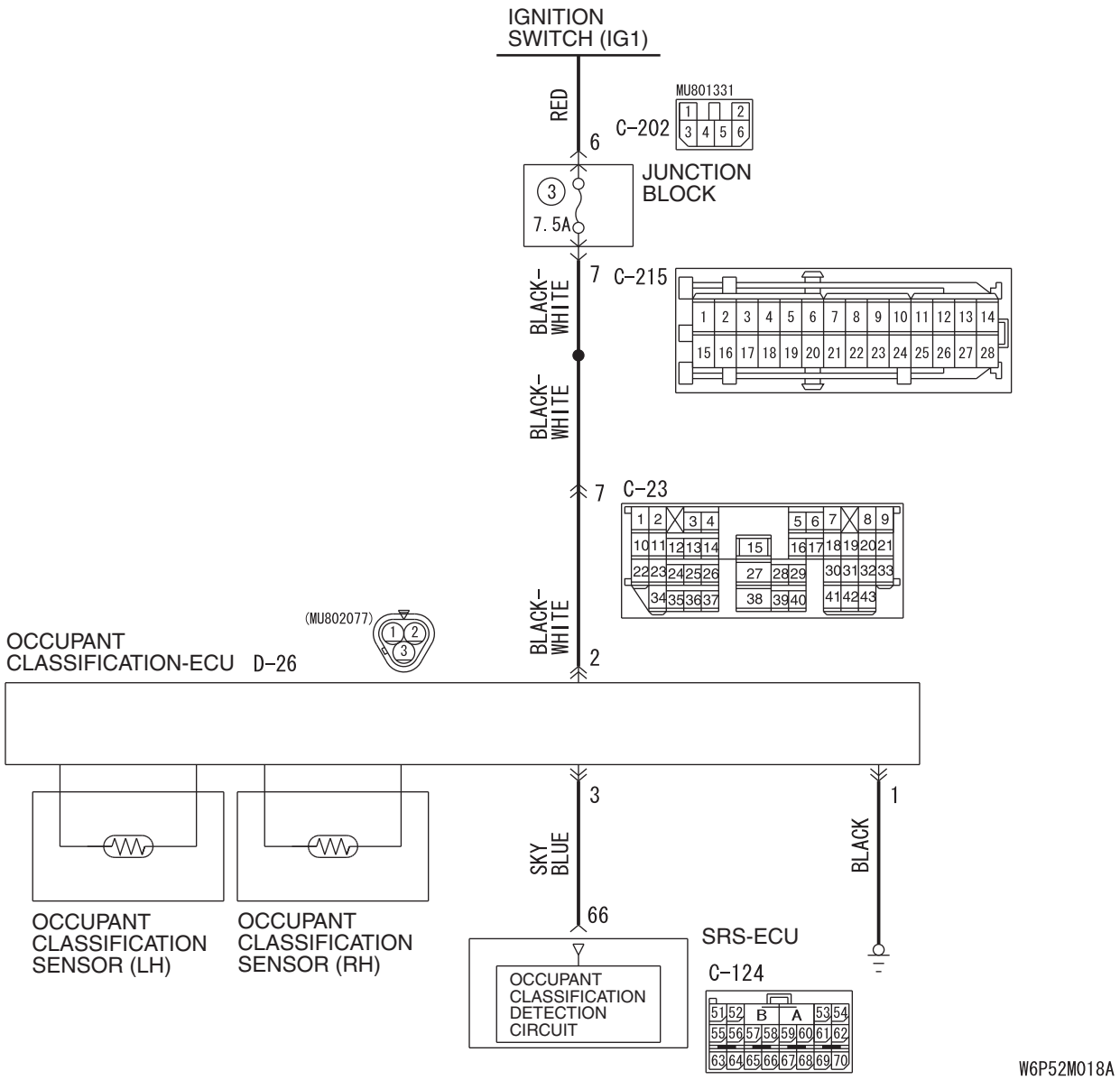
Q: Are DTCs B1540, B1541, B1542, B1543,or B1558 set?

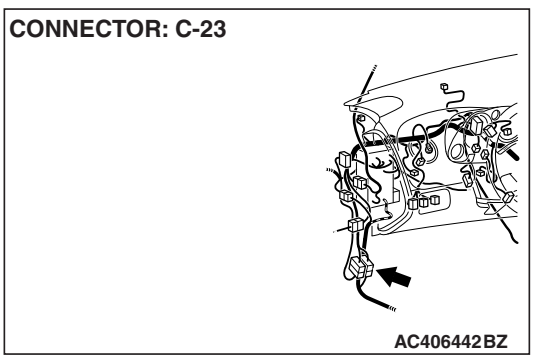
YES : Replace the front seat slide adjuster (Refer to GROUP 52A, front seat assembly P.52A-45).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

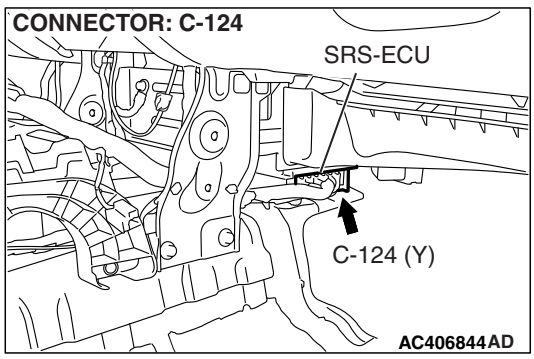
TSB Revision

DTC B1545: Occupant classification-ECU for Power Supply Circuit
DTC B1546: Occupant classification-ECU for Communication System

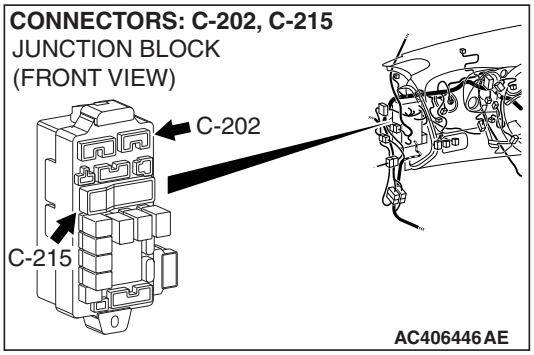
Occupant Classification Sensor Circuit

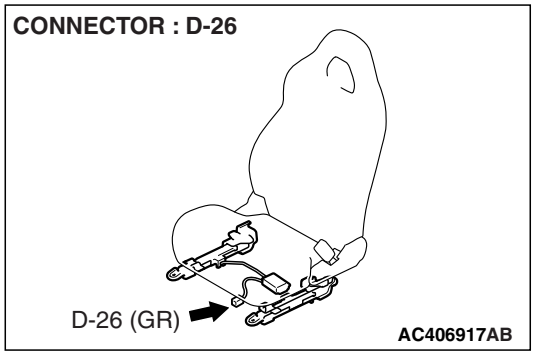






TSB Revision





⚠ CAUTION

If DTC B1545 or B1546 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The load data from the occupant classification sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the occupant classification-ECU and the SRS-ECU is not possible or communication is faulty.

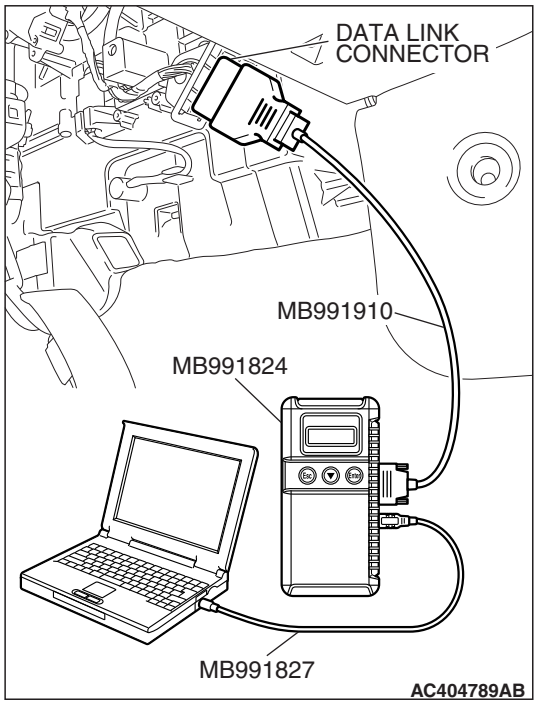
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the occupant classification-ECU
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

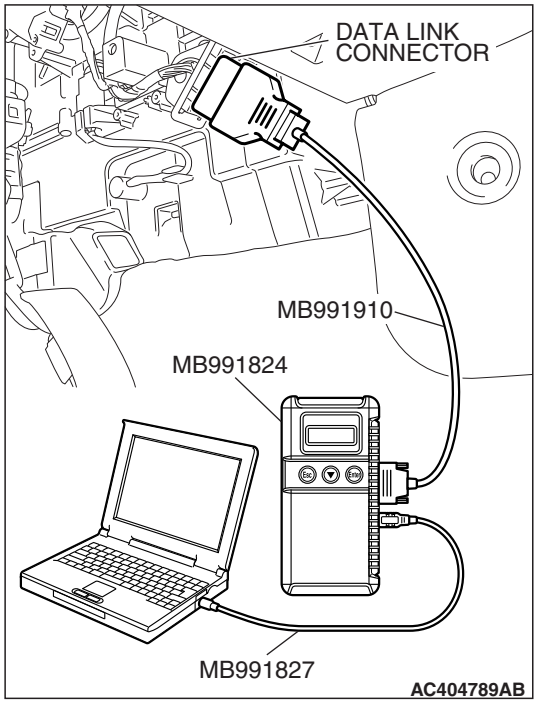
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

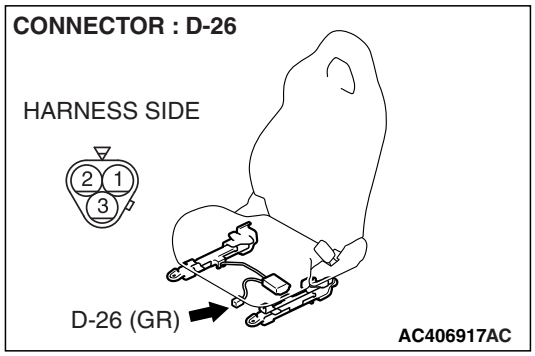
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

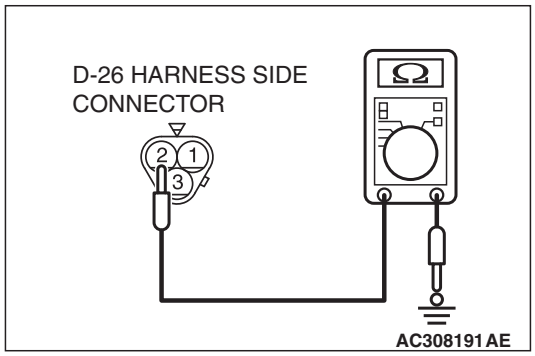
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Measure the resistance at occupant classification-ECU connector D-26.

(1) Disconnect the connector D-26.





(2) Check for continuity between D-26 harness side connector terminals 2 and body ground.
It should be 2 ohms or less.

Q: Is the measured resistance 2 ohms or less?

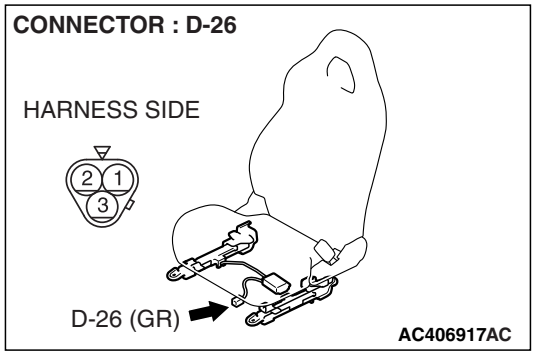
YES : Then go to Step 4.

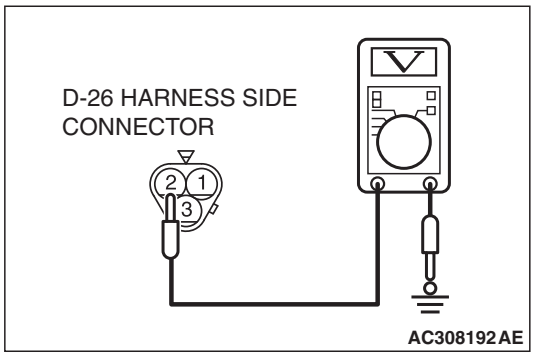
NO : Repair the wiring harness between occupant classification-ECU connector D-26 terminals 2 and the body ground. Then go to Step 8.

STEP 4. Measure the voltage at occupant classification-ECU connector D-26.

(1) Disconnect the connector D-26.

(2) Turn the ignition switch to the "ON" position.





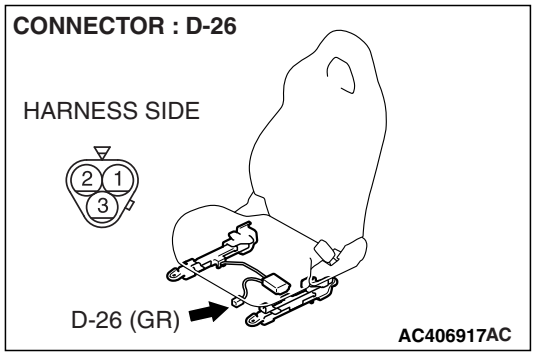
(3) Measure the voltage between terminal 2 and ground. It should measure approximately 12 volts (battery positive voltage).

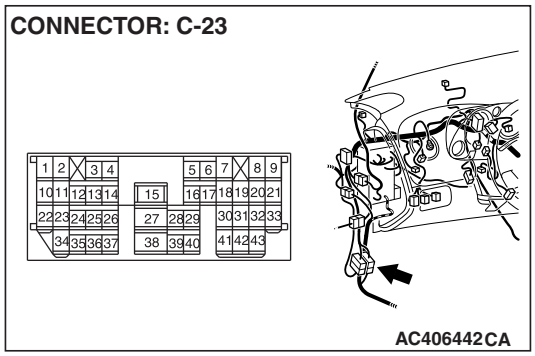
Q: Is battery positive voltage (approximately 12 volts) present?

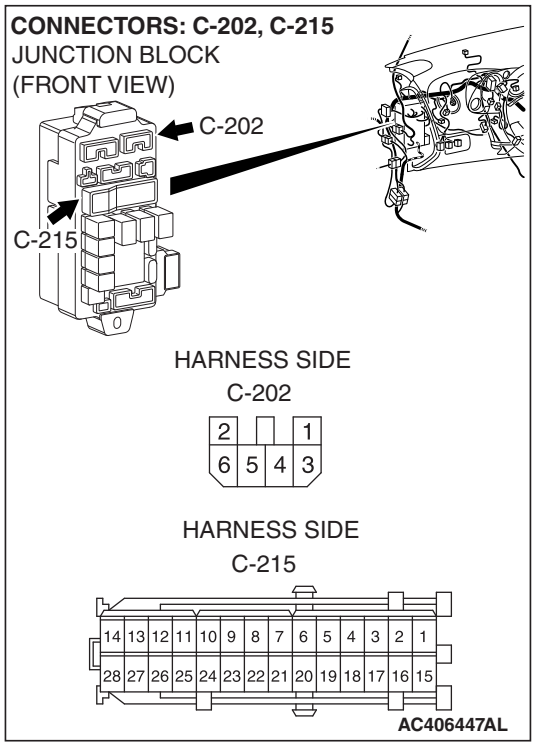
YES : Go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for open circuit or short circuit between occupant classification-ECU connector D-26 (terminal No.2) and ignition switch (IG1).





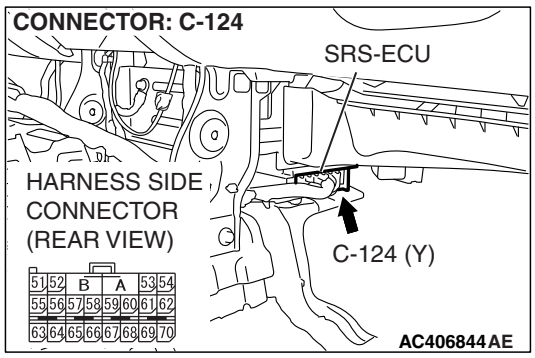


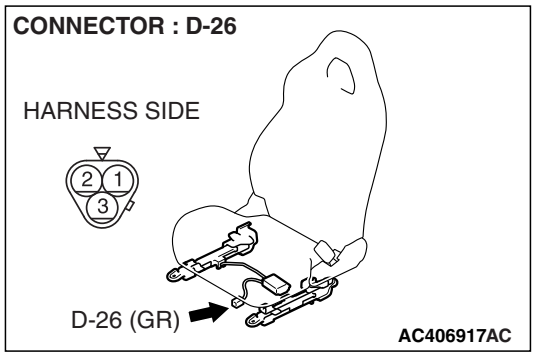
NOTE: After inspecting intermediate connectors C-23, C-202 and C-215 inspect the wiring harness. If intermediate connectors C-23, C-202 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 8.

Q: Are the harness wires between occupant classification-ECU connector D-26 (terminal No.2) and ignition switch (IG1) in good condition?

YES : Then go to Step 6.

NO : Repair the harness wires between occupant classification-ECU connector D-26 and ignition switch connector. Then go to Step 8.



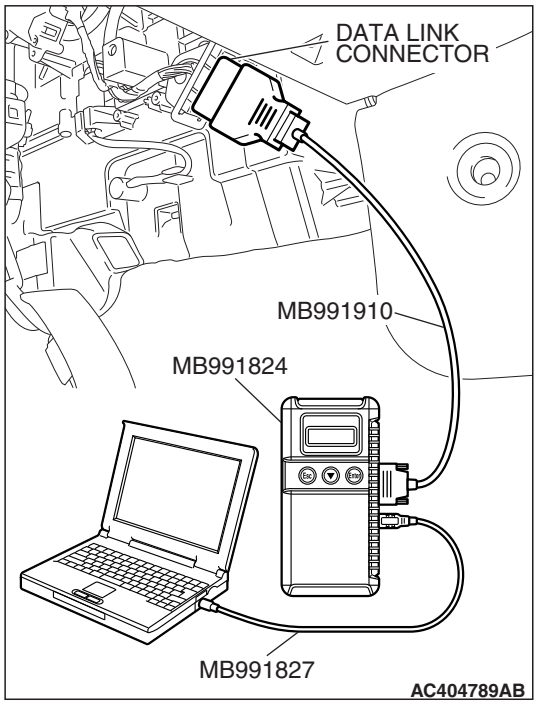


STEP 6. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-124 (terminal No.66) and occupant classification-ECU connector D-26 (terminal No.3).

Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.66) and occupant classification-ECU connector D-26 (terminal No.3) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1545 or B1546 sets, replace the front seat slide adjuster (Refer to GROUP 52A, Front seat assembly P.52A-40). Then go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-124 and occupant classification-ECU connector D-26. Then go to Step 8.



STEP 7. Recheck for diagnostic trouble code.

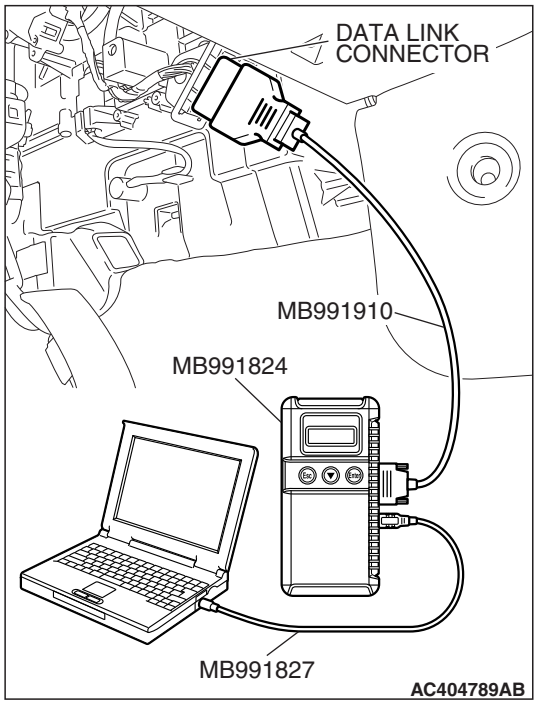
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1545 or B1546 set?

YES : Replace the SRS-ECU (Refer to P.52B-420). Then go to Step 8.

NO : The procedure is complete.



STEP 8. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1545 or B1546 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1548: Can Communication Impossible
DTC B1549: Can Communication Error

⚠ CAUTION
If DTC B1548 or B1549 is set in the SRS-ECU, diagnose the CAN main bus line.

TROUBLE JUDGMENT

DTC B1548 or B1549 will be stored when the SRS-ECU ceases CAN communication (bus off) and then resumes the communication when the ignition switch is turned to the "LOCK" (OFF) position.

TECHNICAL DESCRIPTION (COMMENT)

The wiring harness wire or connectors may have loose, corroded, or damage terminals, or terminals pushed back in the connector, or the SRS-ECU may be defective.

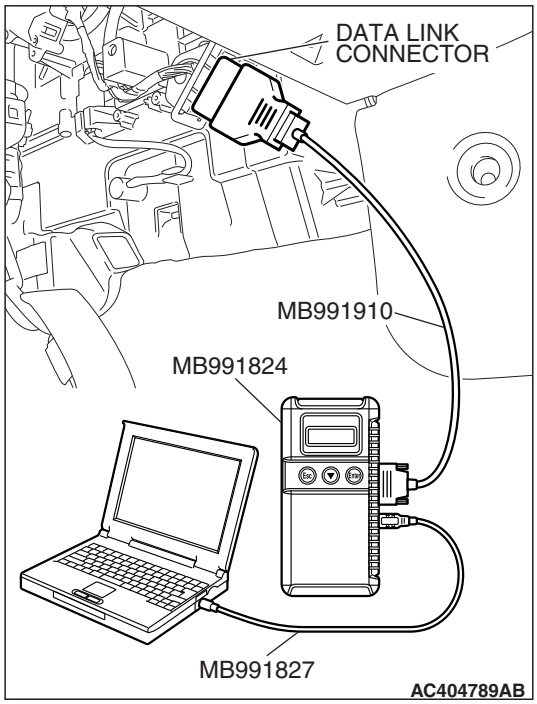
TROUBLESHOOTING HINTS

- Defective connector(s) or wiring harness

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

NO : Repair the CAN bus lines (Refer to GROUP 54C, precautions on how to repair the can bus lines P.54C-9).

DTC B1556: Seat Slide Sensor System for Fault 2 (Malfunction of Seat Slide Sensor)

⚠ CAUTION
If DTC B1556 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the seat slide sensor output:

- Seat slide sensor is not operating.
- Seat slide sensor characteristics are abnormal.
- Seat slide sensor output is abnormal.

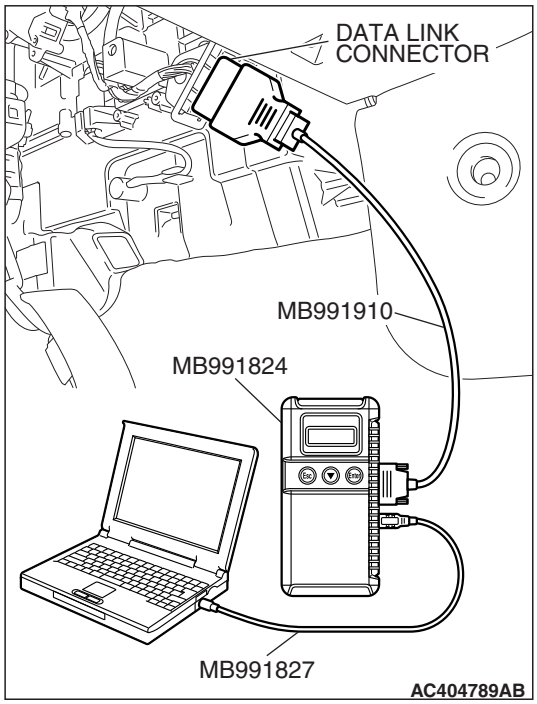
TROUBLESHOOTING HINTS

Malfunction of seat slide sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

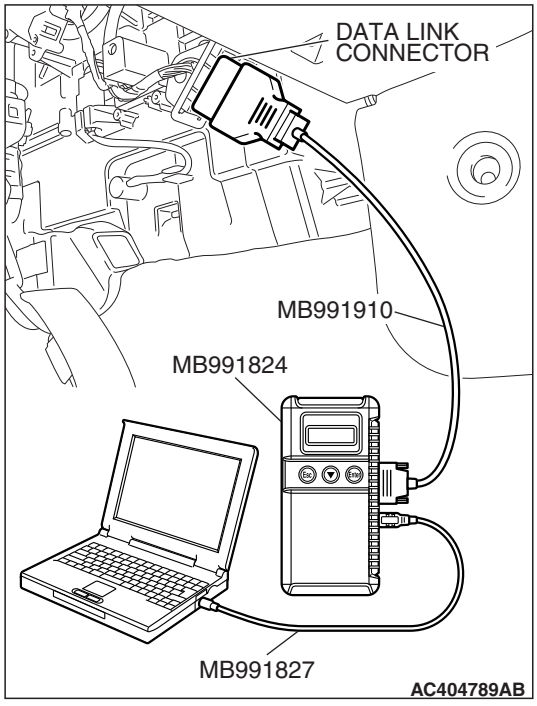
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the seat slide sensor. (Using scan tool MB991958, read the diagnostic trouble code.)
Replace seat slide sensor (Refer to P.52B-445).
Check the diagnostic trouble code.

Q: Is either DTC B1556 set?

YES : Replace the SRS-ECU (Refer to P.52B-420).
NO : The procedure is complete.

DTC U1073: Bus Off

⚠ CAUTION
If DTC U1073 is set in the SRS-ECU, diagnose the CAN main bus line.

⚠ CAUTION
Whenever the ECU is replaced, ensure that the communication circuit is normal.

DTC SET CONDITION

Diagnosis code No.U1073 will be stored when the SRS-ECU ceases CAN communication (bus off) and then resumes the communication by turning the ignition switch to the "LOCK" (OFF) position

TECHNICAL DESCRIPTION (COMMENT)

The wiring harness wire or connectors may have loose, corroded, or damage terminals, or terminals pushed back in the connector, or the SRS-ECU may be defective.

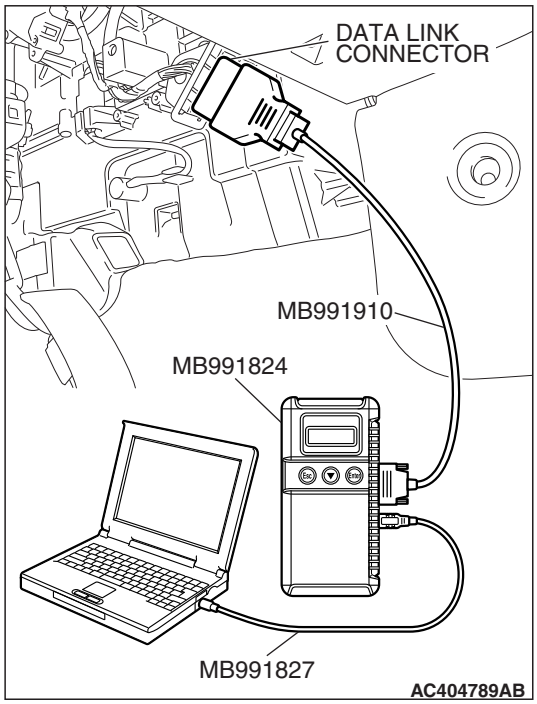
TROUBLESHOOTING HINTS

- Defective connector(s) or wiring harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

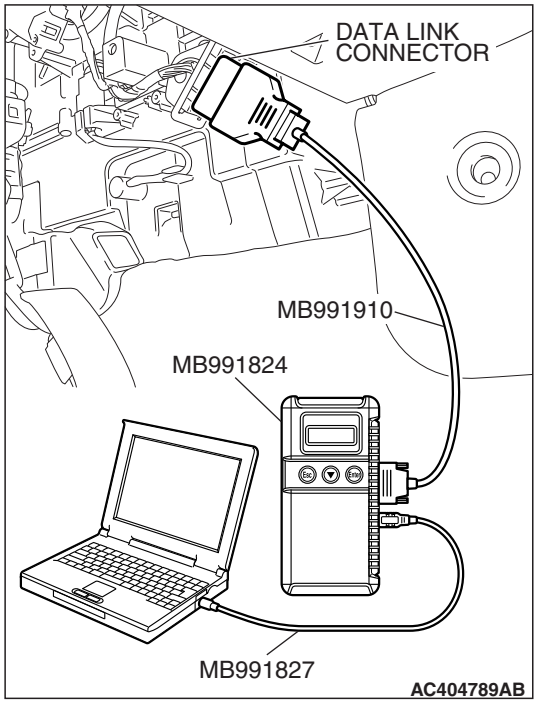
⚠ CAUTION

To prevent damage to scan tool (MB991958), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (MB991958).

(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus lines (Refer to GROUP 54C, precautions on how to repair the can bus lines P.54C-9).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Connect scan tool MB991958 to the data link connector
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).
NO : Replace the SRS-ECU.

SYMPTOM CHART

M1524003400815

⚠ CAUTION

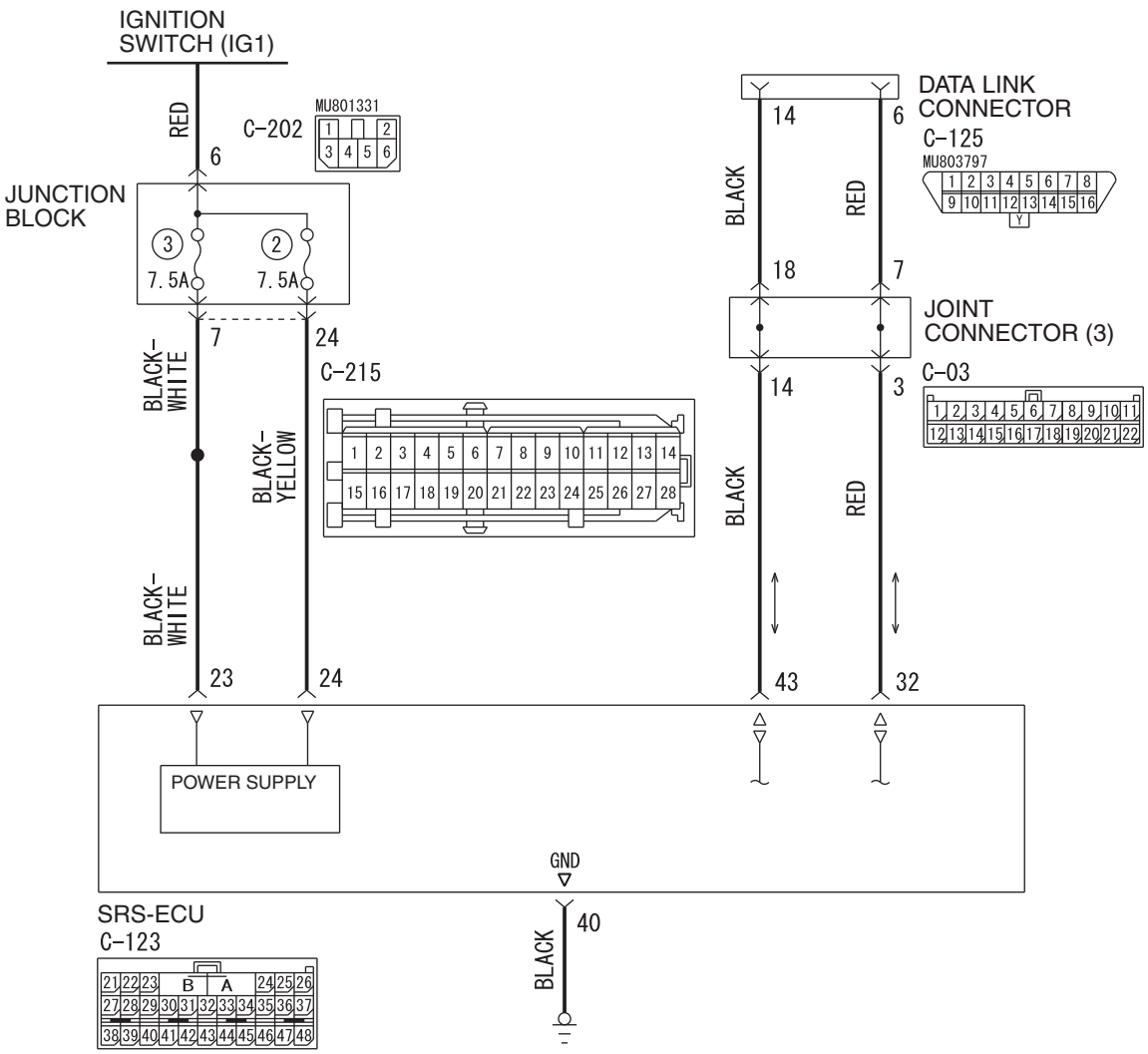
During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.

Symptom	Inspection procedure No.	Reference page
Communication between the scan tool and the SRS-ECU is not possible.	1	P.52B-391
Power supply circuit system	2	P.52B-393
When the ignition switch is turned to the "ON" position (engine stopped), the SRS warning light does not illuminate.	3	P.52B-397
After the ignition switch is turned to the "ON" position, the SRS warning light does not go off after approximately seven seconds.	4	P.52B-397

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Communication between the Scan Tool and the SRS-ECU is not possible.

Data Link Connector Circuit



W6P52M019A

TECHNICAL DESCRIPTION (COMMENT)

If the scan tool (M.U.T.-III Sub Assembly) can not communicate with the SRS system, the CAN bus lines may be defective. If the SRS system does not work, the SRS-ECU or its power supply circuit may be defective.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

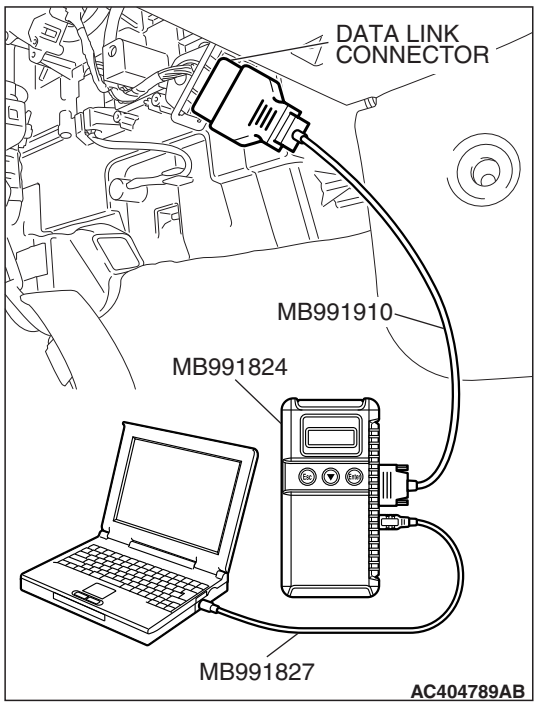
Use scan tool MB991958 to diagnose the CAN bus lines.

(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

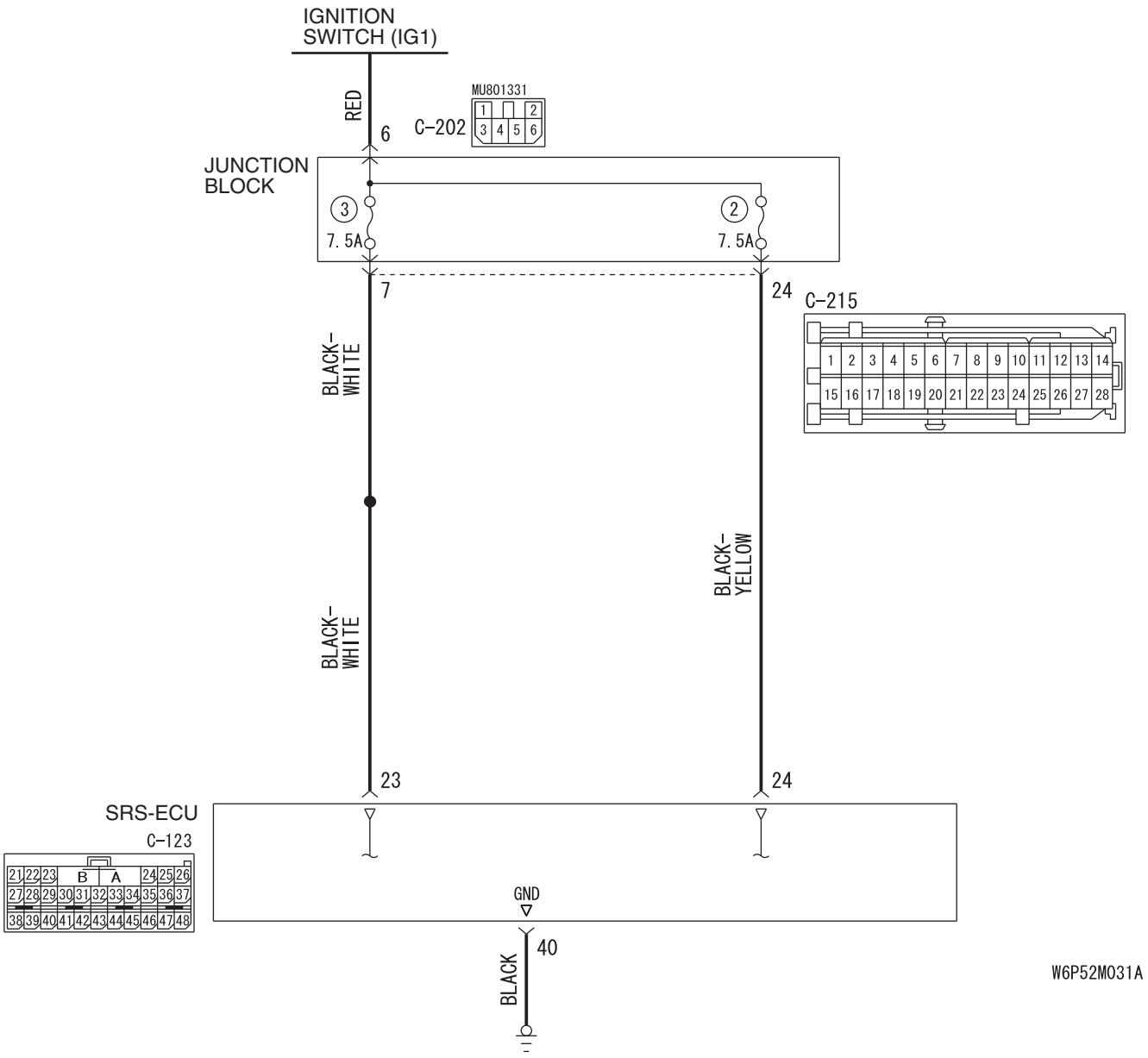
YES : Check and repair the power supply circuit system (Refer to P.52B-393).

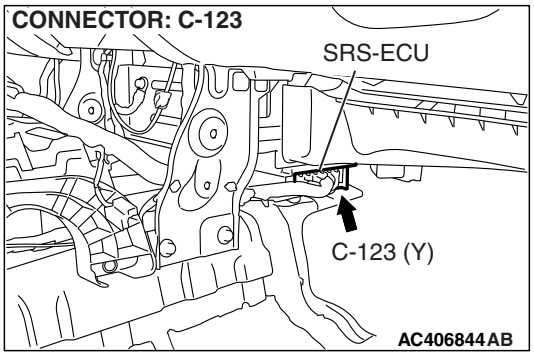
NO : Repair the CAN bus lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17).

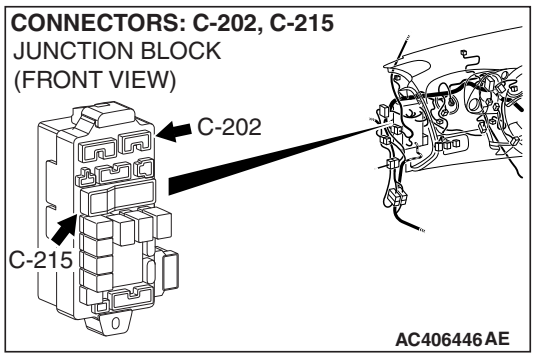


INSPECTION PROCEDURE 2: Power Supply Circuit System

IG1 Power Supply Circuit







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CIRCUIT OPERATION

- The SRS-ECU is energized by the ignition switch (IG1) through multi-purpose fuse 3 and the SRS-ECU terminal 23 and multi-purpose fuse 2 and the SRS-ECU terminal 24.
- If the power supply to the SRS-ECU has failed, scan tool (M.U.T.-III Sub Assembly) will not be able to communicate with it.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Defective battery
- Charging system failed
- Malfunction of the SRS-ECU

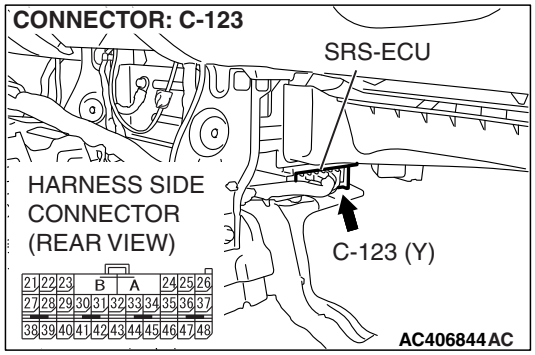
DIAGNOSIS

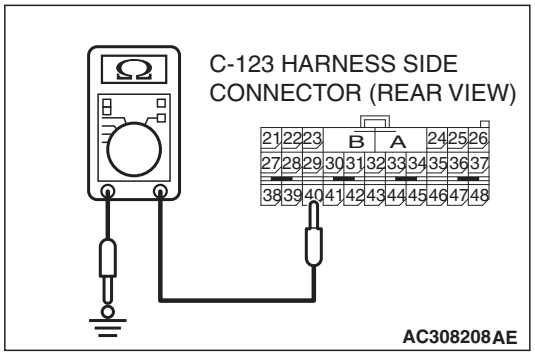
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

STEP 1. Measure the resistance at SRS-ECU connector C-123.

(1) Disconnect the connector C-123.





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

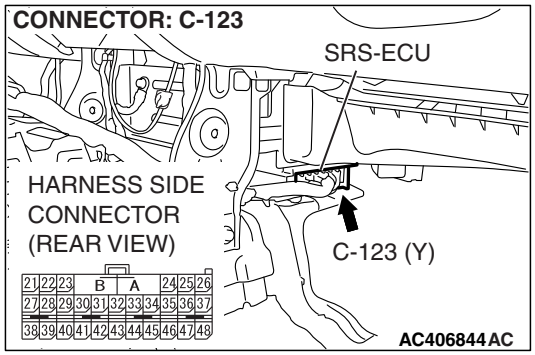
(2) Check for continuity between C-123 harness side connector terminals 40 and body ground.
It should be 2 ohms or less.

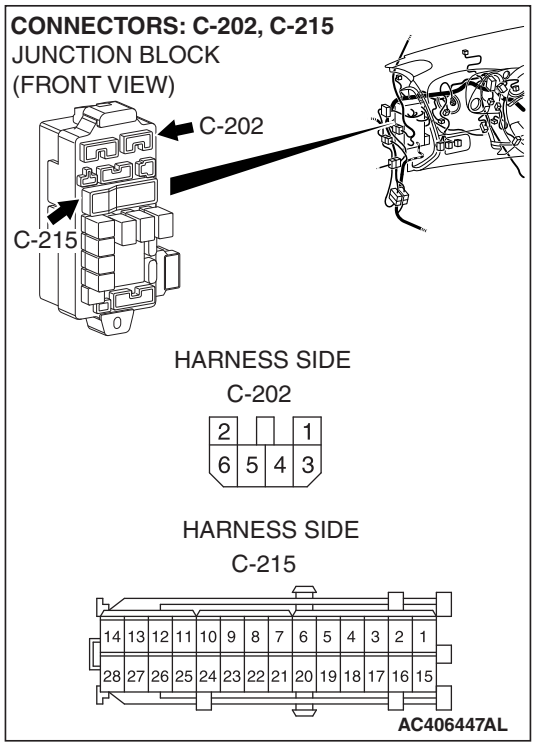
Q: Is the measured resistance 2 ohms or less?

YES : Then go to Step 2.

NO : Repair the wiring harness between SRS-ECU connector C-123 terminals 40 and the body ground. Then go to Step 5.

STEP 2. Check the harness wires for open and short circuit to ground between SRS-ECU connector C-123 (terminal No.23 and 24) and ignition switch (IG1).





NOTE: After inspecting intermediate connectors C-202 and C-215 inspect the wiring harness. If intermediate connectors C-202 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 5.

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.23 and 24) and ignition switch (IG1) in good condition?

YES : Go to Step 3.
NO : Replace the harness wires between SRS-ECU connector C-123 and ignition switch connector. Then go to Step 5.

STEP 3. Check the battery.
Check the battery (Refer to GROUP 54A, Battery test P.54A-7).

Q: Is the battery in good condition?

YES : Go to Step 4.
NO : Charge or replace the battery. Then go to Step 5.

STEP 4. Check the charging system.
Check the charging system (Refer to GROUP 16, Charging system diagnosis P.16-3).

Q: Is the charging system in good condition?

YES : Go to Step 5.
NO : Repair or replace the charging system component(s).Then go to Step 5.

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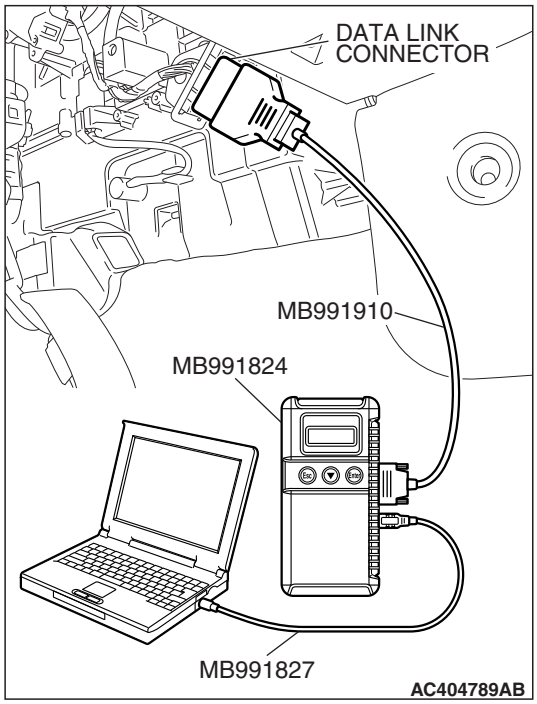
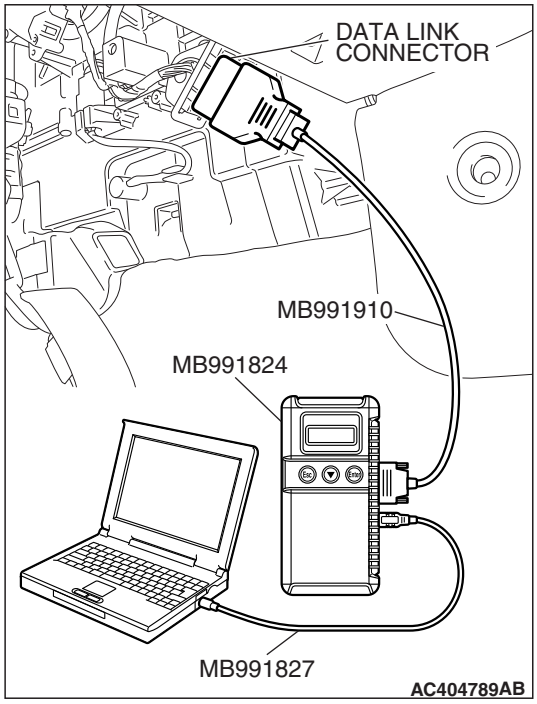


STEP 5. Retest the system.

Q: Can the SRS-ECU communicate with the scan tool (MB991958)?

YES : It can be assumed that this malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14.

NO : Replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.



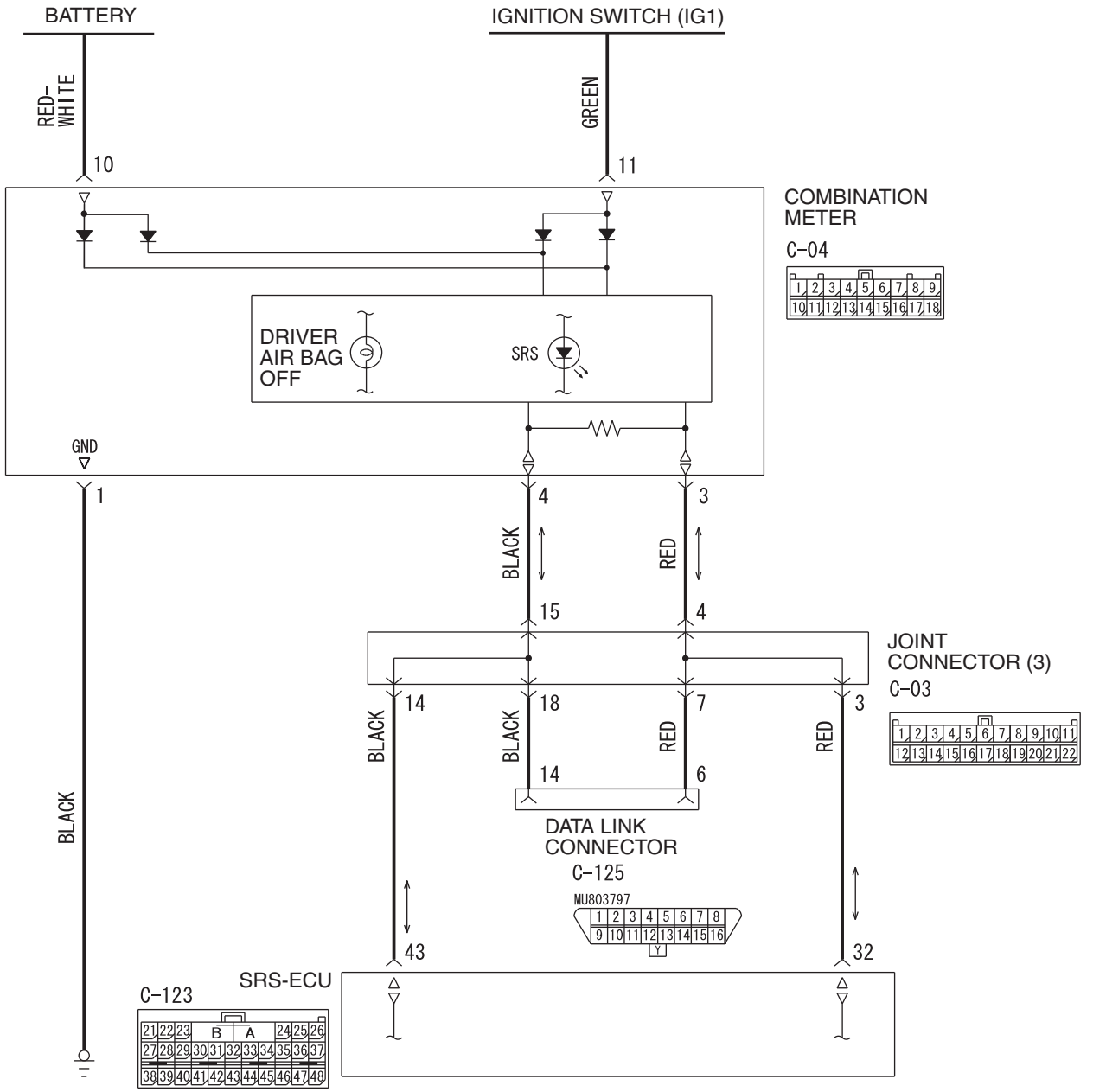
STEP 6. Retest the system.

Q: Can the SRS-ECU communicate with the scan tool (MB991958)?

YES : The procedure is complete.

NO : Go to Step 1.

INSPECTION PROCEDURE 3: When the Ignition Switch is Turned to the "ON" Position (Engine Stopped), the SRS Warning Light does not Illuminate.
INSPECTION PROCEDURE 4: After the Ignition Switch is Turned to the "ON" Position, the SRS Warning Light does not Go off after Approximately Seven Seconds



TECHNICAL DESCRIPTION (COMMENT)

- The SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.
- This may be caused by faults in the CAN bus line, the combination meter or the SRS-ECU.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Combination meter defect
- Malfunction of the SRS-ECU

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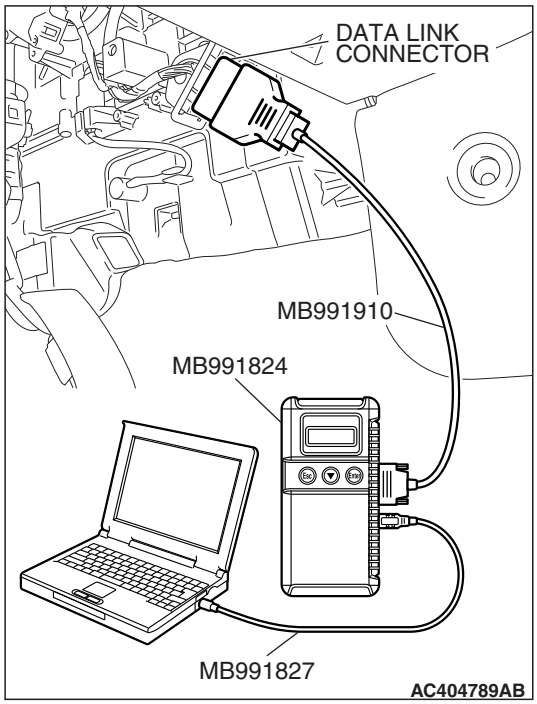
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

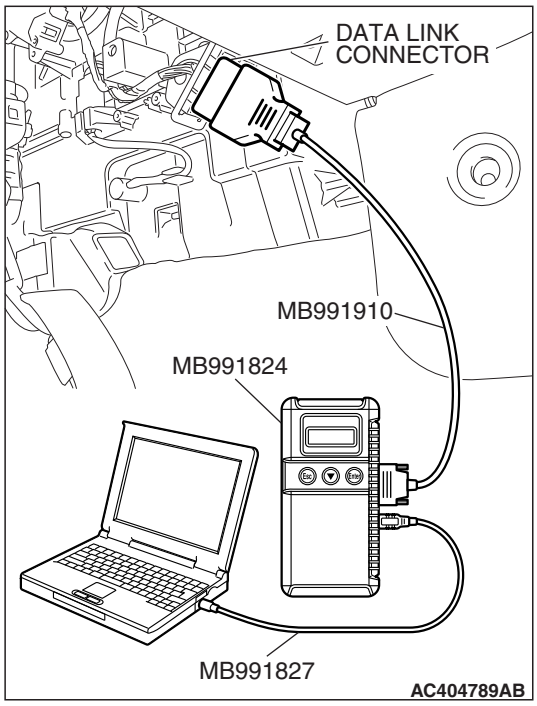
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

Use scan tool MB991958 to diagnose the CAN bus lines.

(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17). Repair the CAN bus lines, and then go to Step 2.



STEP 2. Using scan tool MB991958, read the combination meter diagnostic trouble code.

Use scan tool MB991958 to check whether combination meter DTC U1112 has been set.

(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Check whether combination meter DTC U1112 has been set.

Q: Is combination meter DTC U1112 set?

YES : Replace the SRS-ECU.
NO : Replace the combination meter.

DATA LIST REFERENCE TABLE

M1524003500124

The following items can be read by the scan tool from the SRS-ECU input data.

No.	Data list item	Check condition	Normal condition
1	Failure continuation time 1*1	Always	Maximum time to be stored: 9,999 minutes (approximately seven days)
2	Failure continuation time 2*2	Always	
3	Elimination times	Always	Maximum time to be stored: 255 time
4	Driver's seatbelt (Buckle SW1)	Wear the driver's seat belt.	Unfastened/Fastened
5	Passenger's seatbelt (Buckle SW1)	Wear the passenger's seat belt.	Unfastened/Fastened
6	Driver's seatbelt (Buckle SW2)	Undo the driver's seat belt.	Fastened/Unfastened
7	Passenger's seatbelt (Buckle SW2)	Undo the passenger's seat belt.	Fastened/Unfastened
8	Driver's seat airbag Ignition	Always	Permission/Prohibition
9	Passenger's seat airbag Ignition	Do not apply any load to the passenger's seat.	Permission/Prohibition
10	Driver's seat position switch	Slide the seat from the back-end position to the front-end position.	from Rear to front
11	Occupant classification	Apply a load to the passenger's seat.	Class 0/Class 1/Class 2/Not Clear/–

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No.	Data list item	Check condition	Normal condition
12	OCSS*3 parts number	Always	–
13	Occupant weight	Apply a load to the passenger's seat.	kg/Unknown

NOTE:

- **1: indicates the duration from the occurrence of failure to the first ignition signal output.*
- **2: indicates the duration from the first collision judgment to the present.*
- **3:Occupant Classification Sensing System.*

ACTUATOR TEST REFERENCE TABLE

M1524003600109

The scan tool activates the following actuators for testing.

M.U.T.-III scan tool display	Item No.	Item	Parts to be activated
SRS warning light	1	The SRS warning light illumination	SRS-ECU output
Passenger seat belt warning light	2	Passenger's seat belt warning light illumination	SRS-ECU output
Passenger SRS OFF light	3	Passenger's air bag OFF indicator light illumination	

FAIL-SAFE FUNCTION

M1524003700098

If the SRS-ECU determines that the following parts are defective, the SRS-ECU operates the SRS warning light and controls as follows.

- If the seat belt switch is defective, the SRS-ECU determines that the seat belt is fastened and controls the seat belt with pre-tensioner.
- If the seat slide sensor is defective, the SRS-ECU determines that the seat is in its backward position and controls the air bag.
- If the occupant classification sensor or the occupant classification-ECU is defective, the SRS-ECU determines that the occupant classification is class 2 {The occupant classification sensor detects 30 kg (66 pounds) or more.} and controls the air bag and the passenger's air bag OFF indicator light.

ACCURACY TESTING OF OCCUPANT CLASSIFICATION SENSOR

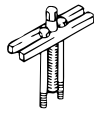
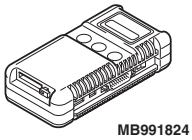
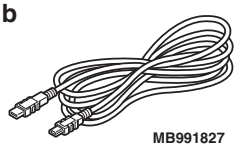
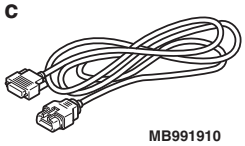
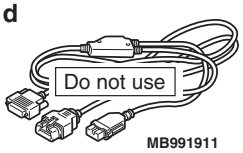
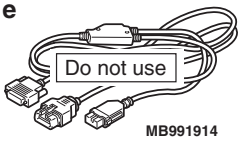
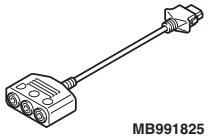
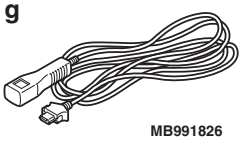
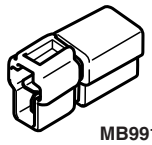
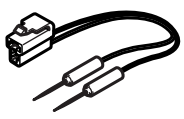
M1524025800048

The scan tool can be used to perform the following functions:

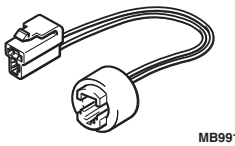
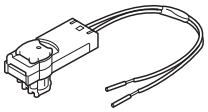
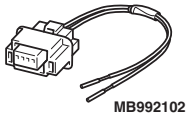
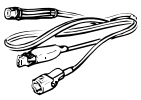
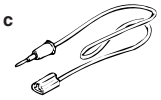
- Seat weight sensor accuracy check
- Zero-calibration

SPECIAL TOOLS

M1524000700732

Tool	Tool number and name	Supersession	Application
 MB990803AE	MB990803 Steering wheel puller	General service tool	Steering wheel removal
a  MB991824 b  MB991827 c  MB991910 d  MB991911 e  MB991914 f  MB991825 g  MB991826 MB991958	MB991958 a: MB991824 b: MB991827 c: MB991910 d: MB991911 e: MB991914 f: MB991825 g: MB991826 Scan tool (M.U.T.-III sub assembly) a: Vehicle communication interface (V. C. I.) b: M.U.T.-III USB cable c: M.U.T.-III main harness A (Vehicles with CAN communication system) d: M.U.T.-III main harness B (Vehicles without CAN communication system) e: M.U.T.-III main harness C (for Daimler Chrysler models only) f: M.U.T.-III measurement adapter g: M.U.T.-III trigger harness	MB991824-KIT *NOTE: g: MB991826 M.U.T.-III Trigger Harness is not necessary when pushing V.C.I. ENTER key.*	Checking diagnostic trouble code **⚠ CAUTION** **For vehicles with CAN communication, use M.U.T.-III main harness A to send simulated vehicle speed. If you connect M.U.T.-III main harness B instead, the CAN communication does not function correctly.**
 MB991865	MB991865 Dummy resistor		SRS air bag, seat belt with pre-tensioner and curtain air bag circuit check
 MB991866	MB991866 Resistor harness		Driver's and front passenger's air bag and side-airbag circuit check

TSB Revision

Tool	Tool number and name	Supersession	Application
 MB991884	MB991884 Resistor harness	Resistor harness (for pre-tensioner)	Seat belt with pre-tensioner and curtain air bag circuit check
 MB991885	MB991885 Adapter harness	Pretensioner adapter harness	Deployment of seat belt with pre-tensioner and curtain air bag inside or the outside vehicle
 MB992102	MB992102 Air bag inflation adapter harness		Deployment of driver's or passenger's (front) air bag module inside or outside the vehicle
a b  c  d DO NOT USE MB991223	MB991223 a: MB991219 b: MB991220 c: MB991221 d: MB991222 Harness set a: Test harness b: LED harness c: LED harness adaptor d: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
MB992006	MB992006 Extra fine probe	General service tool	Continuity check and voltage measurement at harness wire or connector for loose, corroded or damaged terminals, or terminals pushed back in the connector.

TEST EQUIPMENT

M1524000800416

Tool	Name	Use
AC000019AB	Digital multi-meter Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement	Checking the SRS electrical circuitry with SRS check harness

TSB Revision

POST-COLLISION DIAGNOSIS

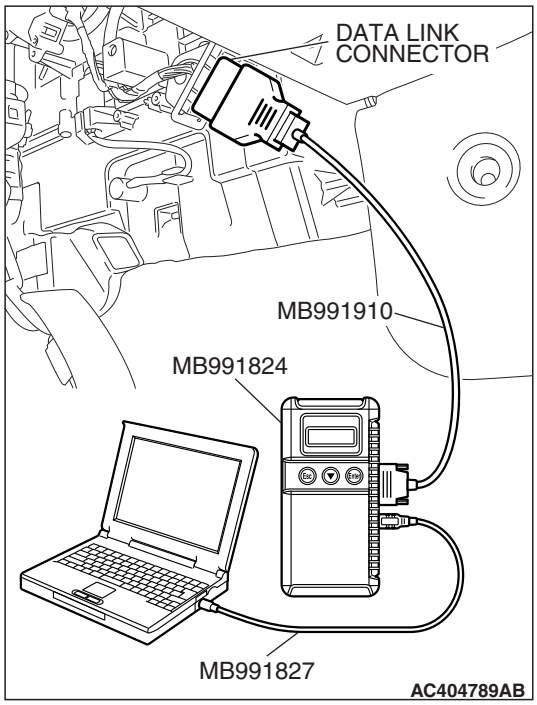
M1524001101521

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.

SRS-ECU MEMORY CHECK

Required Special Tool:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

1. Connect scan tool MB991958 to the data link connector (16-pin).
2. Read (and write down) all displayed diagnostic trouble codes (Refer to P.52B-33).

   NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991958 cannot communicate with the SRS-ECU. Check the battery, then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.
3. Read the data list (fault duration and how many times memories are erased), using scan tool MB991958.

Data list

No.	Data list item	Applicability
1	Failure continuation time 1	Maximum time to be stored: 9,999 minutes (approximately seven days)
2	Failure continuation time 2	
3	Elimination times	Maximum time to be stored: 255 time

4. Erase the diagnostic trouble codes, and then turn the ignition switch to the "LOCK" (OFF) position.
5. Wait for at least one second, and then turn the ignition switch to the "ON" position again.
6. After waiting 15 seconds or more, note all displayed diagnostic trouble codes (Refer to P.52B-31).

TSB Revision

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-420).
   - Air bag modules (Refer to P.52B-423).
   - Seat belt with pre-tensioner (Refer to P.52B-440).
   - Slide adjuster (Occupant classification-ECU, occupant classification sensor) <Passenger's side> (Refer to GROUP 52A, Front Seat Assembly P.52A-40).
   - Front impact sensors (Refer to P.52B-417).
2. Check the following parts and replace if there are any malfunctions:
   - Clock spring (Refer to P.52B-423).
   - Seat slide sensor (Refer to P.52B-445).
   - Seat belt switch (Refer to GROUP 52A, Front Seat Assembly P.52A-40).
   - Steering wheel, steering column shaft assembly
     (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
     (2) Install the air bag module to check fit and alignment with the steering wheel.
     (3) Check the steering wheel for noise, binding or difficult operation and excessive free play.
     (4) Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-25).
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-28).

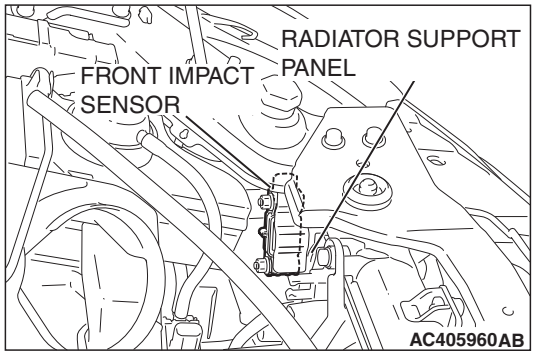
WHEN SIDE-AIRBAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-420).
   - Side impact sensors (Refer to P.52B-432).
   - Seatback assembly (Refer to GROUP 52A, Front Seat Assembly P.52A-45).
   - Curtain air bag modules (Refer to P.52B-436).
   - Slide adjuster (Occupant classification-ECU, occupant classification sensor) <Passenger's side> (Refer to GROUP 52A, Front Seat Assembly P.52A-40).
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-28).

WHEN AIR BAGS DO NOT DEPLOY IN LOW-SPEED COLLISION.

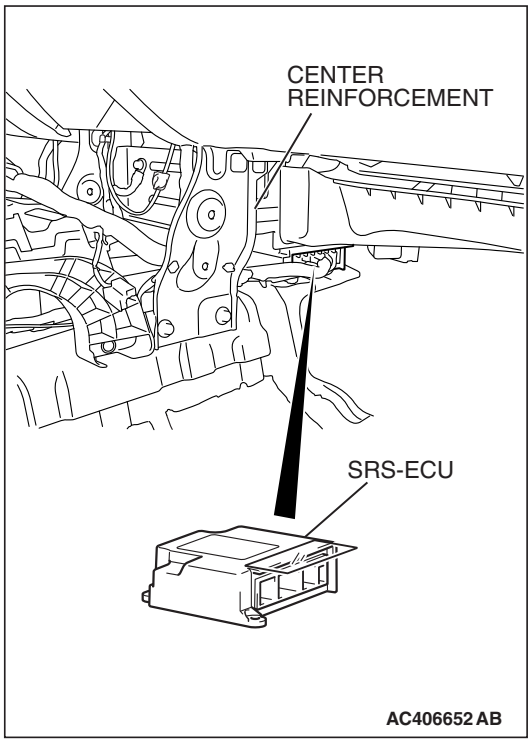
Check the SRS components. If the SRS components are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE P.52B-409.

FRONT IMPACT SENSOR



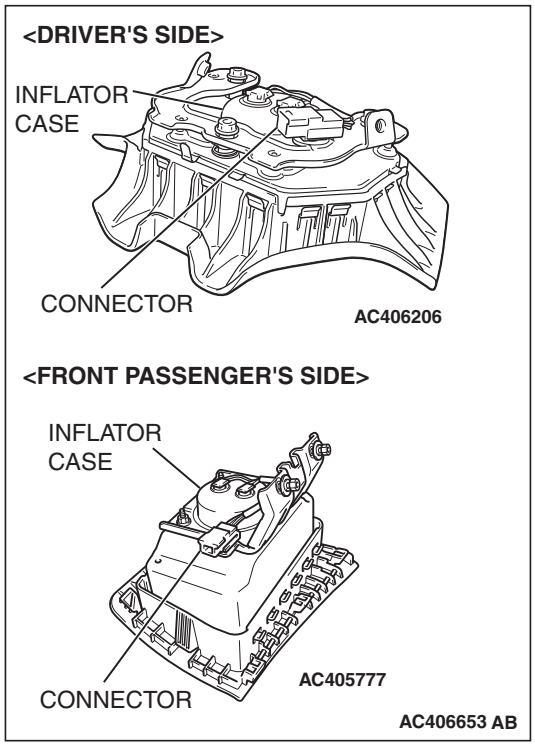
1. Check the radiator support panel for distortion and rust.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the front impact sensor wiring harness for binding, check the connector for damage, and check the terminals for deformation.

SRS-ECU



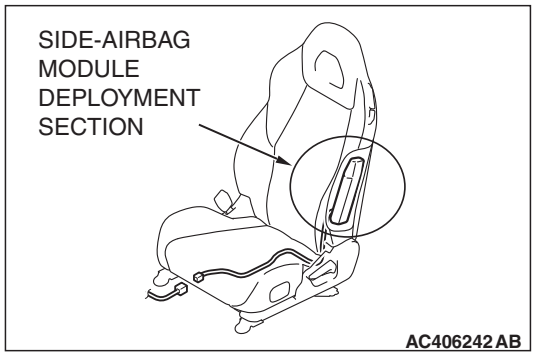
1. Check the SRS-ECU case for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the SRS-ECU.

AIR BAG MODULES



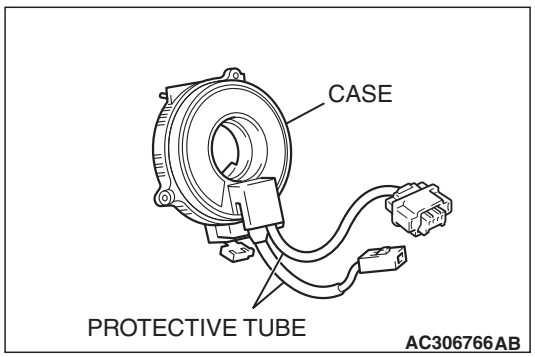
1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminal deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the air bag module (driver's side) to the steering wheel to check installation or alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember to check installation or alignment.

FRONT SEATBACK ASSEMBLY (SIDE-AIRBAG MODULE)



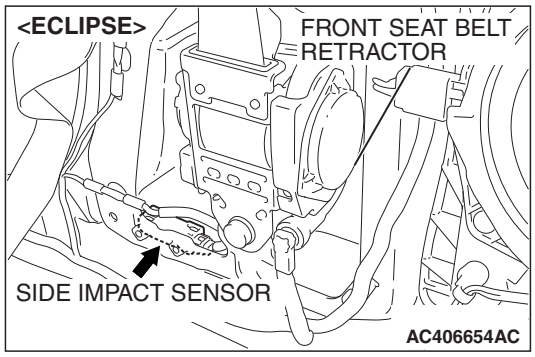
1. Check the side-airbag module deployment section for dents or deformation.
2. Check that there is no connector damage, bent terminals or harness crimping.

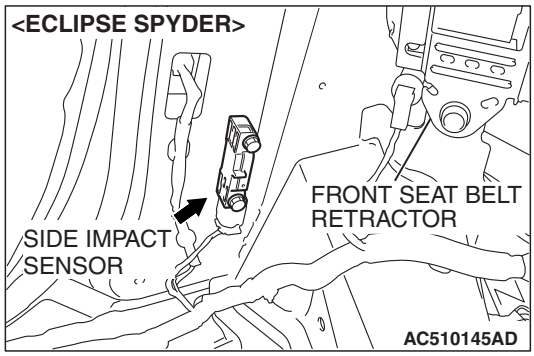
CLOCK SPRING



1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.

SIDE IMPACT SENSOR

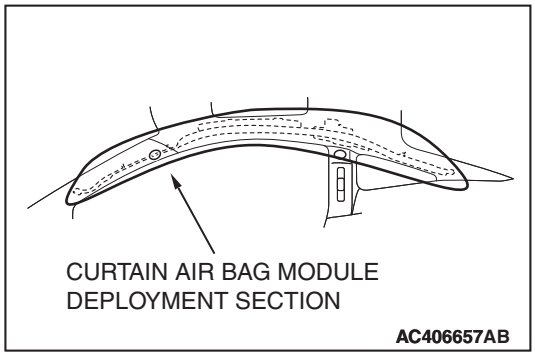




1. Check that there is no bending or corrosion in the center pillar.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no harness crimping, connector damage or bent terminals.

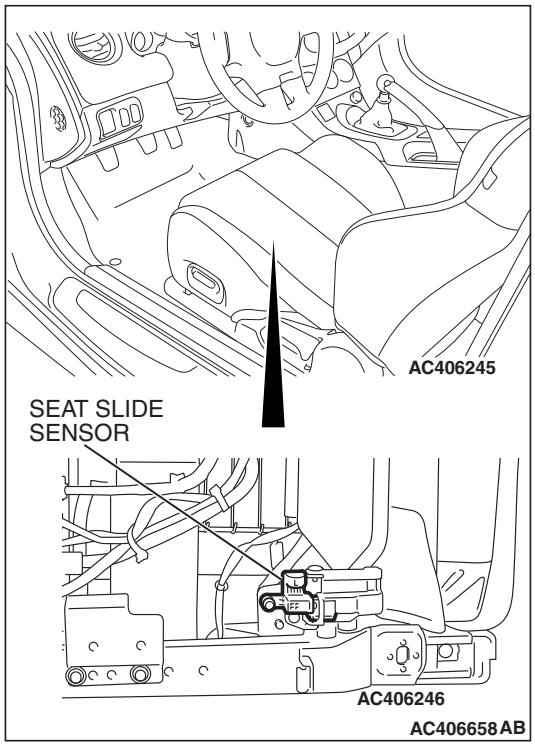
   NOTE: The illustration shows the side impact sensor (RH). The position of the side impact sensor (LH) is symmetrical to this.

CURTAIN AIR BAG MODULE



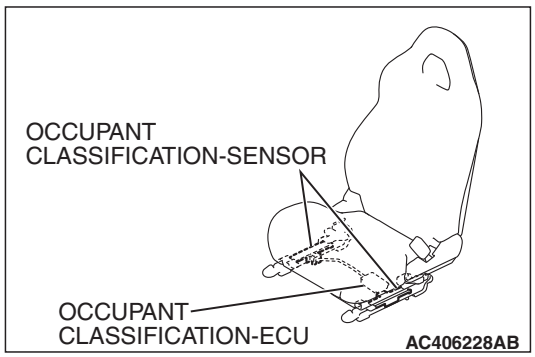
1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

SEAT SLIDE SENSOR



1. Check that there is no connector damage, bent terminals or harness crimping.
2. Check the installation of the seat slide sensor.

OCCUPANT CLASSIFICATION SENSOR



1. Check the occupant classification-ECU case and occupant classification sensor for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the occupant classification-ECU and occupant classification sensor.

STEERING WHEEL, STEERING COLUMN AND SHAFT ASSEMBLY

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.
4. Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-25).

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SEAT BELT WITH PRE-TENSIONER

1. Check the seat belt for damage or deformation.
2. Check the seat belt with pre-tensioner for cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

HARNESS CONNECTOR (FRONT WIRING HARNESS, INSTRUMENT PANEL WIRING HARNESS, AND FLOOR WIRING HARNESS)

Check the harnesses for binding, the connectors for damage, poor connection, and the terminals for deformation (Refer to P.52B-28).

INDIVIDUAL COMPONENT SERVICE

M1524002900583

⚠ ***WARNING***

- ***If heat damage occurs during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them.***
  - ***SRS-ECU, air bag module, clock spring: 93°C (200°F) or more***
  - ***Seat belt with pre-tensioner: 90°C (194°F) or more***
- ***If the SRS components are removed for the purpose of inspection, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section. (Front impact sensor: refer to P.52B-417, SRS-ECU: refer to P.52B-420, Air bag modules and clock spring: refer to P.52B-423, Side impact sensor: refer to P.52B-432, Seat belt with pre-tensioner: refer to P.52B-440).

ON-VEHICLE SERVICE

ACCURACY CHECK OF OCCUPANT CLASSIFICATION SENSOR

M1524025100061

⚠ CAUTION

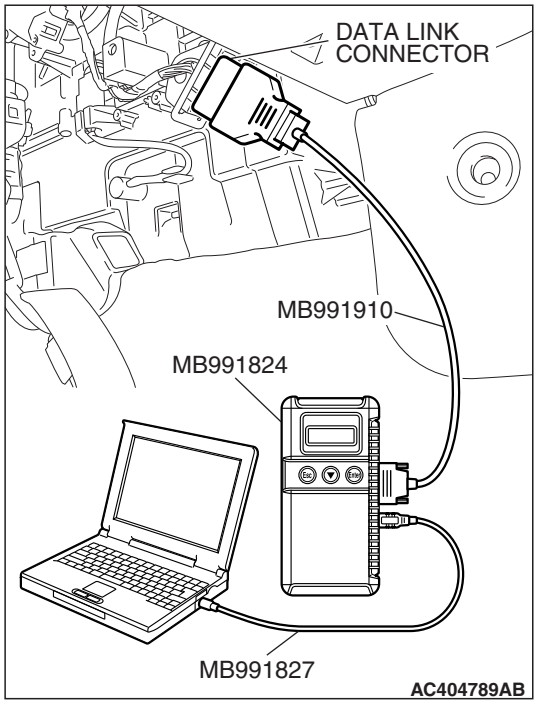
The following precaution must be observed when executing accuracy testing and calibration.

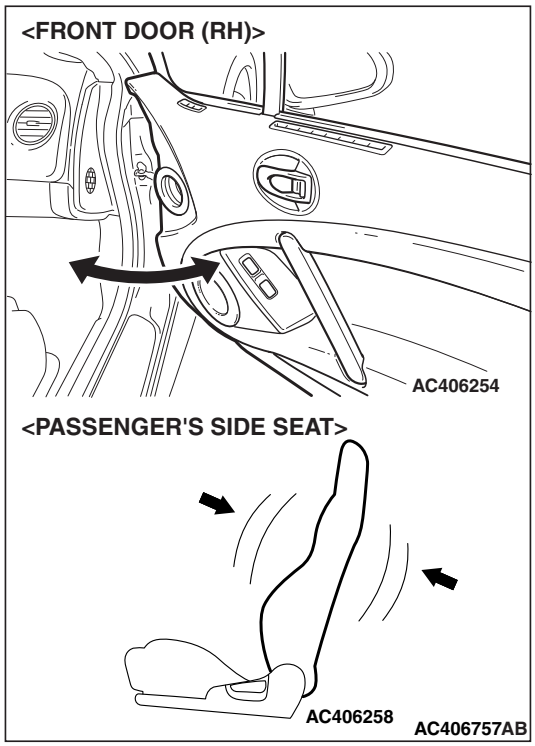
- **Eliminate the occupant classification sensor friction.**
- **Perform the occupant classification sensor calibration at room temperature. (Proposal: 20 ± 15°C (68 ± 27° F)) (Before the calibration, place the occupant classification sensor more than 30 minutes at room temperature.)**
- **Do not apply any load or vibration while the weight check and the calibration is performed.**
- **Perform the weight check and the calibration after seat components are all assembled.**

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

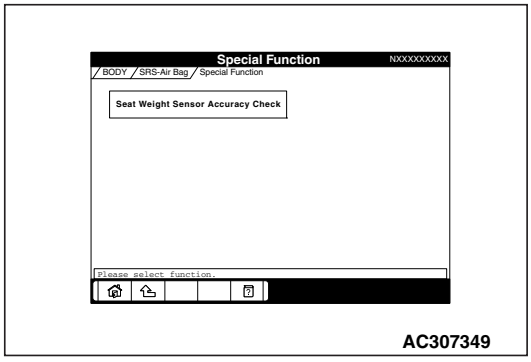
1. Connect scan tool MB991958 to the data link connector.

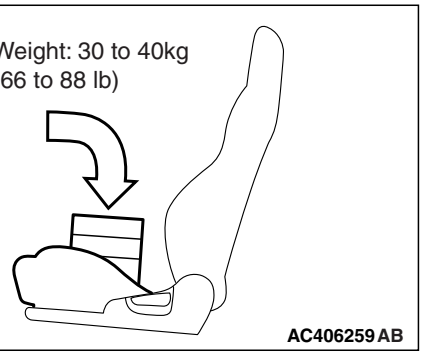




2. Open and close the front door (RH) 5 times firmly to remove the friction. And if the door does not open and close smoothly after the impact, hit the front and rear sides of the seatback about 8 times each to remove the friction.

3. To execute accuracy check and calibration, operate scan tool MB991958 as follows.
   (1) Select "SRS Air Bag".
   (2) Select "Special Function".
   (3) Select "Seat Weight Sensor Accuracy Check".





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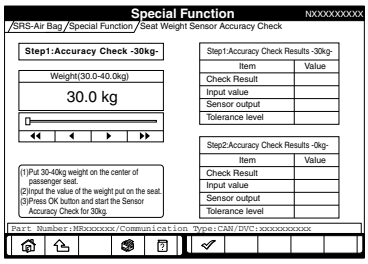

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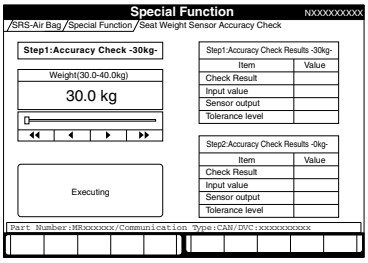

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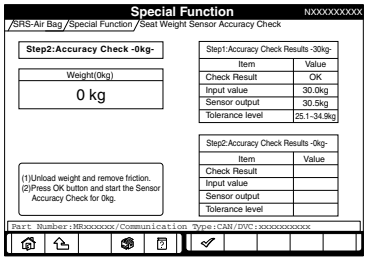
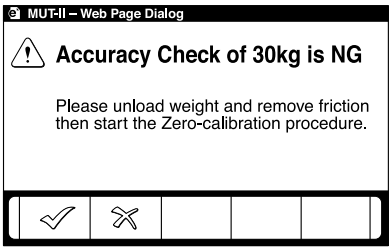
(4) For accuracy check 30 kg (66 pounds), slide the seat to the front end, and put a 30 kg (66 pounds) weight on the center of the seat cushion. Then, carry out the friction removal in step (2) and press the OK button to execute accuracy check.

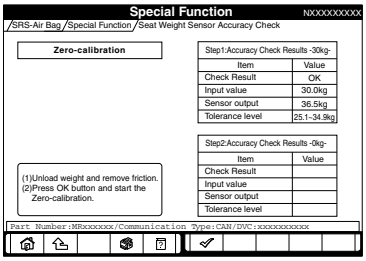
NOTE: If there is not a 30 kg (66 pounds) weight, load a square object of 30 to 40 kg (66 to 88 pounds). At this time, operate the arrow button of the weight input part on M.U.T.-III to input the loaded weight value.



AC307352



AC406387AB

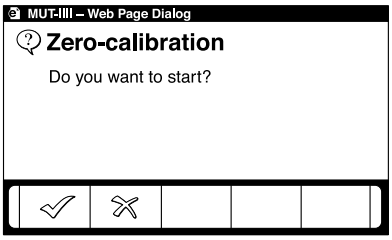


AC307358

(5) If the tolerance level between the sensor output and the input value is within 4.9 kg (11 pounds), the screen for the accuracy check completion is displayed, and if more than 4.9 kg (11 pounds), the screen for abnormal condition is displayed.

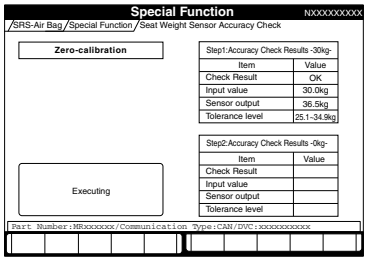
NOTE: When the screen for the accuracy check of 0 kg (0 pound) is displayed, go to step (9). If the abnormal condition is displayed, check the seat installation condition. If the seat is improperly installed, install it properly and carry out the operation in step (4) again.

(6) When the abnormal condition is displayed, press the OK button and go to the calibration screen. If the cancel button is pressed the screen returns to step (4).

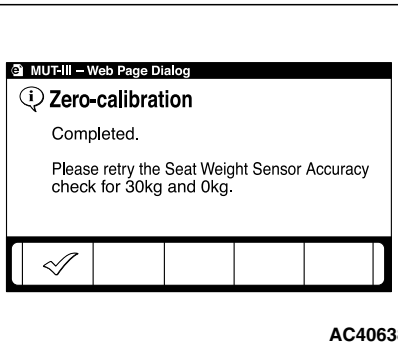


AC406388 AB

(7) Unload the weight, check the seat installation condition and carry out the friction removal in step (2) again, and press the OK button. When the execution dialog is displayed, press the OK button again to execute the calibration.

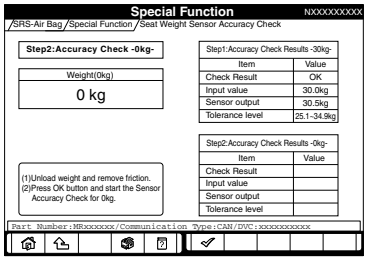


AC307360



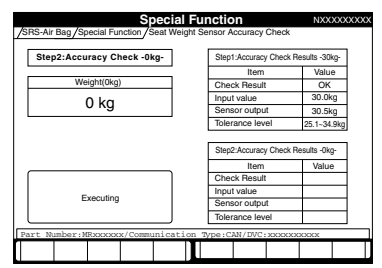
AC406389 AB

(8) The calibration has been completed when the screen as shown in the illustration is displayed. Press the OK button to return to the screen of step (4), and carry out the same procedure.

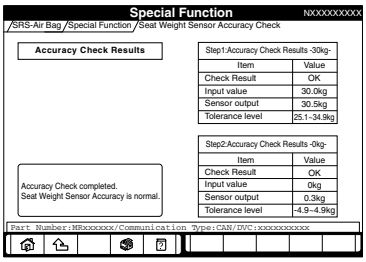


AC307352

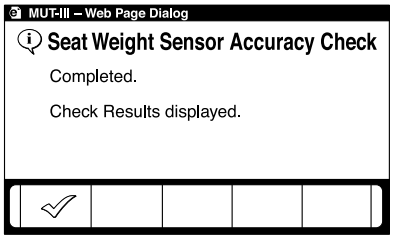
(9) When the screen for the accuracy check of 0 kg (0 pound) is displayed, unload the weight and slide the seat to the rear end. Then, carry out the friction removal in step (2) and press the OK button to execute the accuracy check.



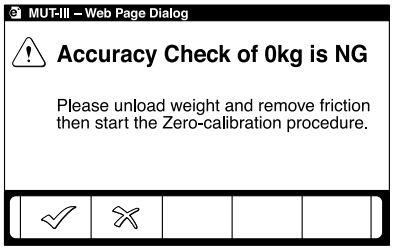
AC307354



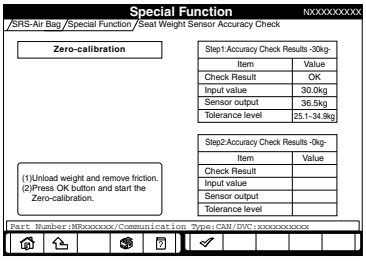
AC307356



AC406386AB



AC406390AB

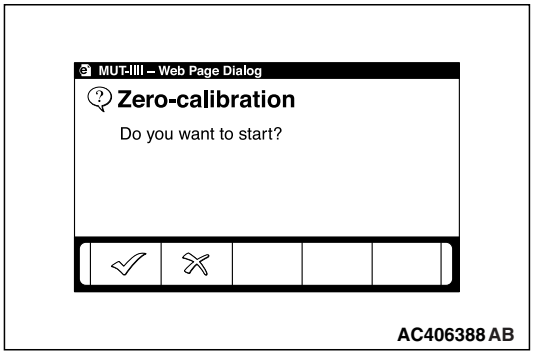


AC307358

(10)If the tolerance level between the sensor output and the input value is within 4.9 kg (11 pounds), the screen for the accuracy check completion is displayed, and if more than 4.9 kg (11 pounds), the screen for abnormal condition is displayed.

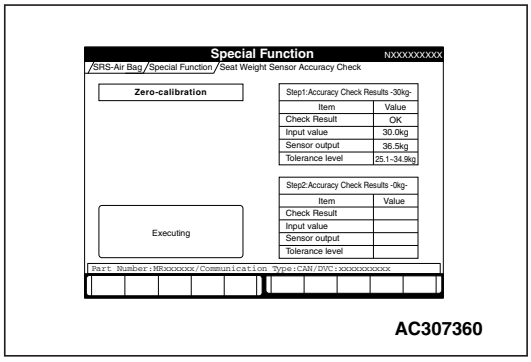
NOTE: If the abnormal condition is displayed, check the seat installation condition. If the seat is improperly installed, install it properly and repeat from step (4).

(11)When the abnormal condition is displayed, press the OK button and go to the calibration screen. Return to step (9) when the cancel button is pressed.)



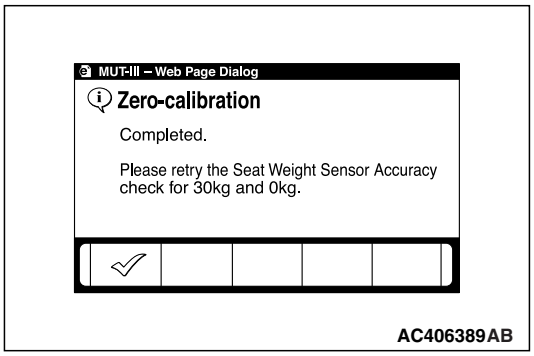
AC406388 AB

(12)Check the seat installation condition and carry out the friction removal in step (2) again, and press the OK button. When the execution dialog is displayed, press the OK button again to execute the calibration.



AC307360

(13)The calibration has been completed when the screen as shown in the illustration is displayed. Press the OK button to return to the screen of step (4), and carry out the same procedure.



AC406389 AB

4. If the accuracy testing does not complete, an intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

FRONT IMPACT SENSORS

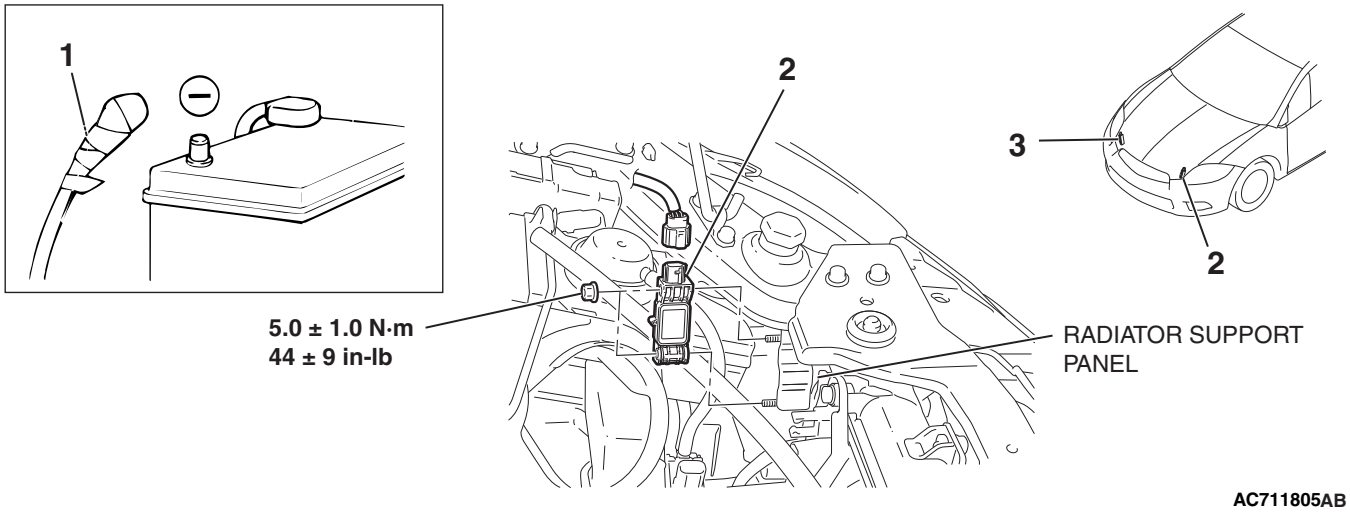
REMOVAL AND INSTALLATION

M1524001501273

⚠ WARNING

- ***Never repair or disassemble the front impact sensor. If faulty, replace it.***
- ***Handle the front impact sensors very carefully, taking care not to drop them. They must be replaced if they are dropped.***
- ***Replace the sensors with new ones after the air bag has deployed.***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



AC711805AB

REMOVAL STEPS

<<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION

<<B>> 2. FRONT IMPACT SENSOR <LH>

> • RADIATOR OR CONDENSER TANK ASSEMBLY (REFER TO GROUP 14, RADIATOR P.14-26)

3. FRONT IMPACT SENSOR <RH>

INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

>>B<< 3. FRONT IMPACT SENSOR <RH>

> • RADIATOR OR CONDENSER TANK ASSEMBLY (REFER TO GROUP 14, RADIATOR P.14-26)

>>B<< 2. FRONT IMPACT SENSOR <LH>

1. NEGATIVE (-) BATTERY CABLE CONNECTION

>>C<< • POST-INSTALLATION INSPECTION

NOTE: The figure indicates the front impact sensor <LH>. The impact sensor <RH> is symmetrical to this.

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REMOVAL SERVICE POINTS

<<A>>NEGATIVE (-) BATTERY CABLE DISCONNECTION

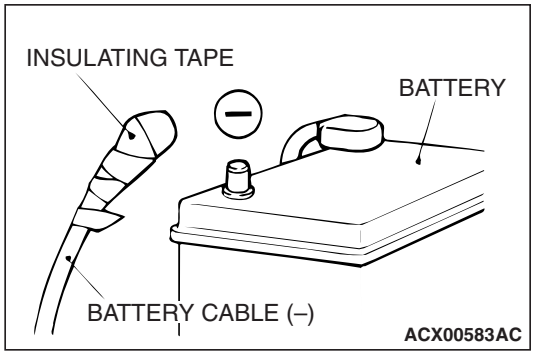
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<<B>>FRONT IMPACT SENSOR <LH> REMOVAL

Remove the cooler tube assembly upper mounting bolt and remove the cooler tube assembly by sliding.

INSTALLATION SERVICE POINTS

>>A<<PRE-INSTALLATION INSPECTION

When installing a new front impact sensor, refer to "INSPECTION."

>>B<<FRONT IMPACT SENSOR INSTALLATION

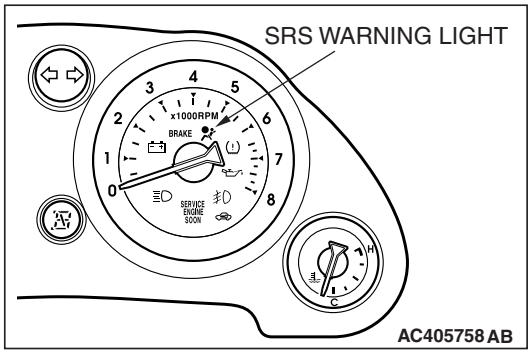
⚠ ***WARNING***

The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.

1. Securely connect the connector.
2. Position the front impact sensor facing toward the front of the vehicle as indicated by the arrow on the label, and install it securely.
3. Install the cooler tube assembly upper mounting bolt.<RH>

>>C<<POST-INSTALLATION INSPECTION

1. Connect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.



3. Does the SRS warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly.
   If not, consult page P.52B-32.

INSPECTION

M1524001600493

⚠ ***WARNING***

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the front impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-33).

1. Check the front impact sensor for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the radiator support panel.

SRS CONTROL UNIT (SRS-ECU)

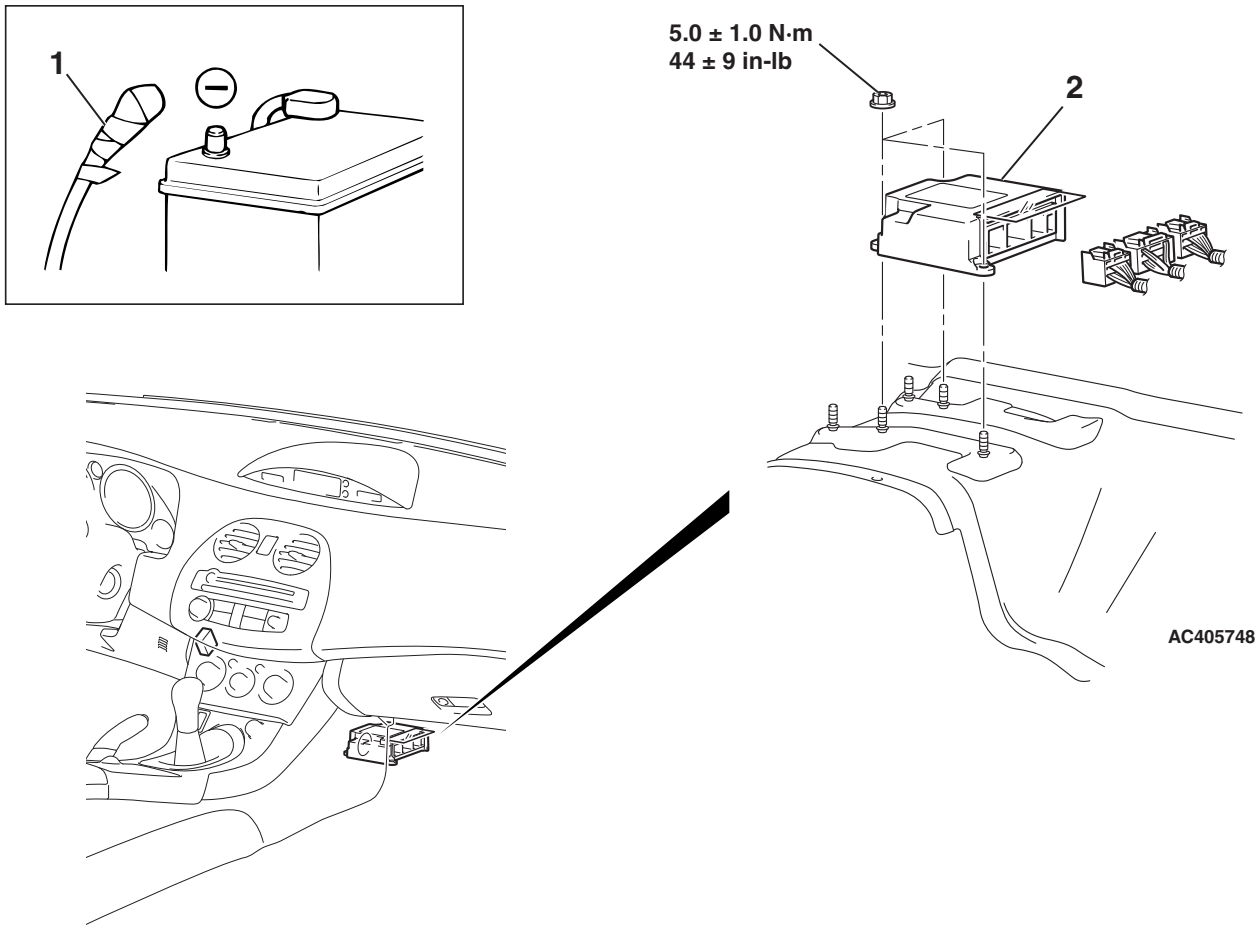
REMOVAL AND INSTALLATION

M1524002100725

⚠ WARNING

- ***Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.***
- ***Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU.***
- ***After deployment of an air bag, replace the SRS-ECU with a new one.***
- ***Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described here P.52B-402.***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-vehicle Service P.52B-410.)***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



AC406662AB

REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
- FLOOR CONSOLE ASSEMBLY (REFER TO GROUP 52A, FLOOR CONSOLE ASSEMBLY P.52A-28)

<<B>> 2. SRS-ECU

INSTALLATION STEPS

>>A<< 2. SRS-ECU
- FLOOR CARPET

REMOVAL STEPS (Continued)
- FLOOR CARPET

2. SRS-ECU

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INSTALLATION STEPS

1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>**B**<< • POST-INSTALLATION INSPECTION

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

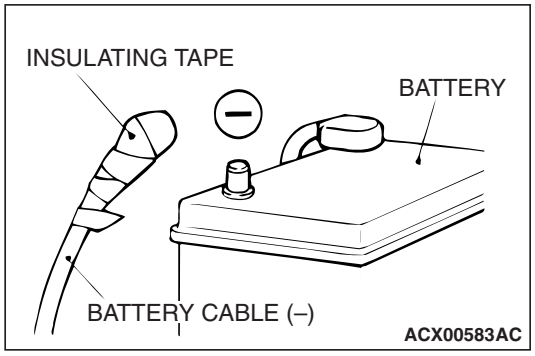
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-28).

⚠ WARNING

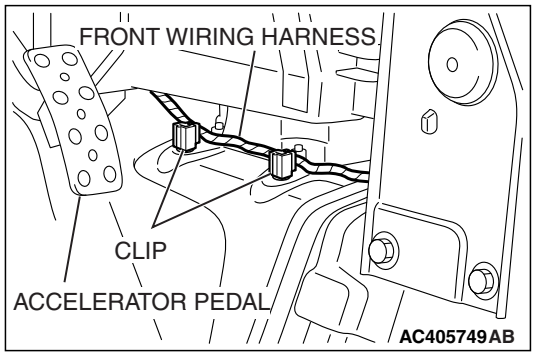
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative battery cable from the battery and tape the terminal to prevent accidental connection and deployment.



<<B>> SRS-ECU REMOVAL

Remove the clip shown and remove the SRS-ECU by sliding to the left side.

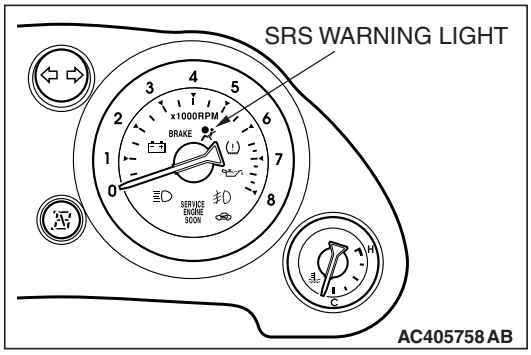


INSTALLATION SERVICE POINTS

>>A<< SRS-ECU INSTALLATION

⚠ WARNING

The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.



>>B<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately seven seconds, and then go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.

INSPECTION

M1524002200539

⚠ WARNING

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to P.52B-390 for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULE(S) AND CLOCK SPRING

REMOVAL AND INSTALLATION

M1524002401194

⚠ WARNING

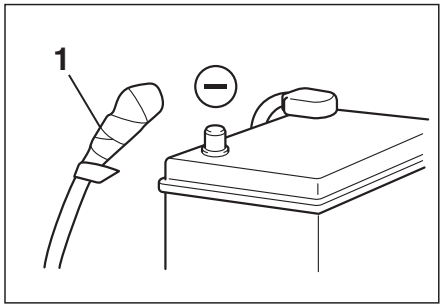
- ***Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.***
- ***Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93°C (200°F).***
- ***After deployment of an air bag, replace the clock spring with a new one.***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-448).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-vehicle Service P.52B-410.)***

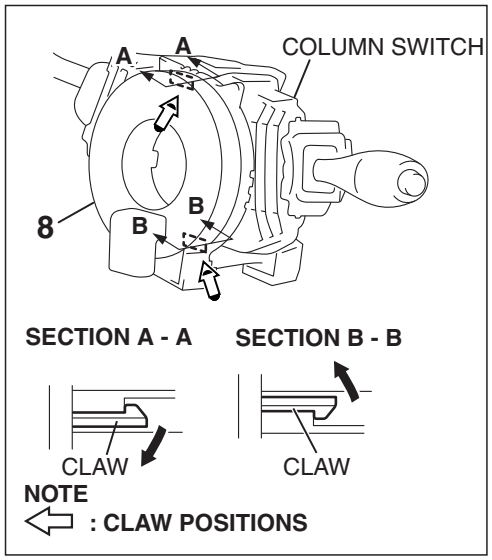
<SIDE-AIRBAG MODULE>

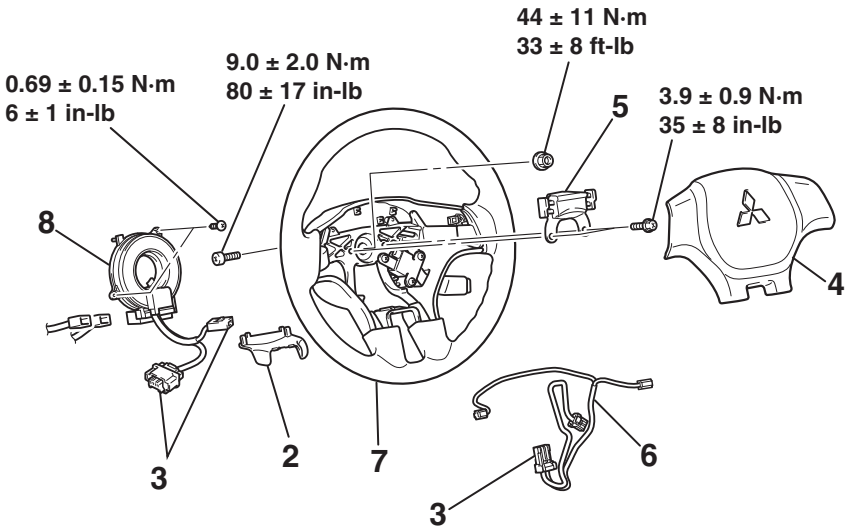
For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front Seat P.52A-45.

<DRIVER'S AIR BAG MODULE AND CLOCK SPRING>

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Check that the front wheels are at the straight-ahead position <Vehicle with ASC>







AC405775AD

AIR BAG MODULE REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. COVER
<<B>> 3. CONNECTORS (FOR HORN AND AIR BAG MODULE)
<<C>> 4. DRIVER'S AIR BAG MODULE

CLOCK SPRING REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. COVER
<<B>> 3. CONNECTORS (FOR HORN, AIR BAG MODULE AND STEERING WHEEL REMOTE CONTROL HARNESS)
<<C>> 4. DRIVER'S AIR BAG MODULE
5. STEERING WHEEL DYNAMIC DAMPER
6. STEERING WHEEL REMOTE CONTROL HARNESS
<<D>> 7. STEERING WHEEL ASSEMBLY

CLOCK SPRING REMOVAL STEPS

- COLUMN COVER LOWER (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-19).

<<E>> 8. CLOCK SPRING

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
>>C<< 4. DRIVER'S AIR BAG MODULE
3. CONNECTORS (FOR HORN AND AIR BAG MODULE)
2. COVER
1. NEGATIVE (–) BATTERY CABLE CONNECTION
>>D<< • POST-INSTALLATION INSPECTION

CLOCK SPRING INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
>>B<< 8. CLOCK SPRING
- COLUMN COVER LOWER (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-19).

>>C<< 7. STEERING WHEEL ASSEMBLY

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CLOCK SPRING INSTALLATION STEPS (Continued)

6. STEERING WHEEL REMOTE CONTROL HARNESS
5. STEERING WHEEL DYNAMIC DAMPER

>>C<< 4. DRIVER'S AIR BAG MODULE

3. CONNECTORS (FOR HORN, AIR BAG MODULE, AND STEERING WHEEL REMOTE CONTROL HARNESS)
2. COVER

CLOCK SPRING INSTALLATION STEPS (Continued)

1. NEGATIVE (–) BATTERY CABLE CONNECTION

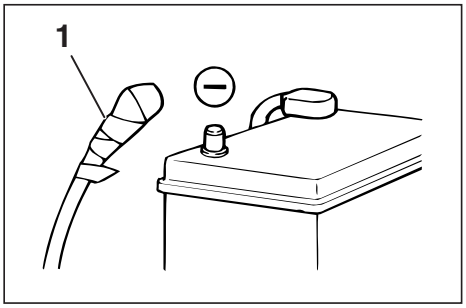
>>D<< • POST-INSTALLATION INSPECTION

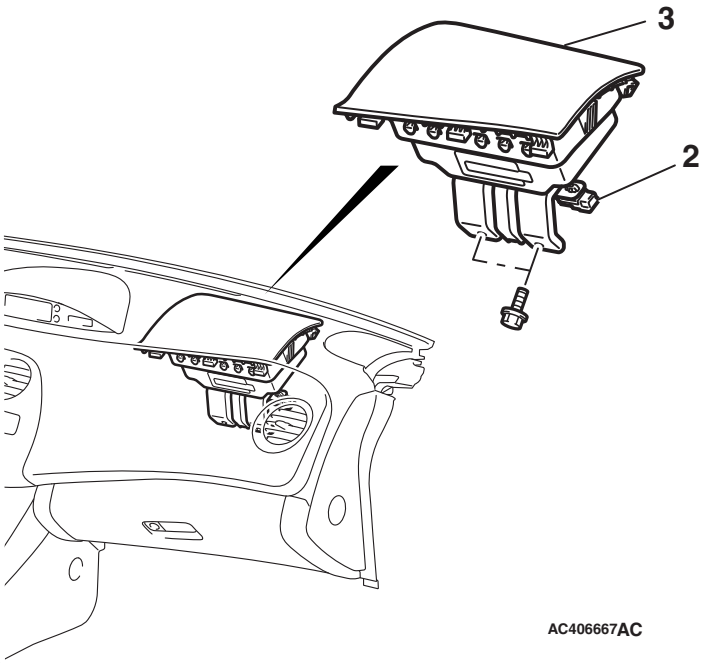
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB992006: Extra Fine Probe
- MB990803: Steering Wheel Puller

<PASSENGER'S (FRONT) AIR BAG MODULE>

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.





AIR BAG MODULE REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION

<<B>> 2. CONNECTORS

<<F>> 3. PASSENGER'S (FRONT) AIR BAG MODULE

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

3. PASSENGER'S (FRONT) AIR BAG MODULE
2. CONNECTOR
1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

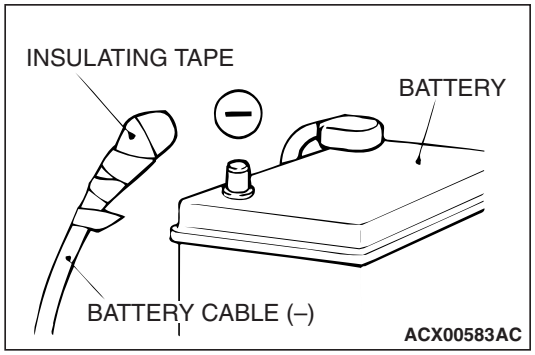
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ ***WARNING***

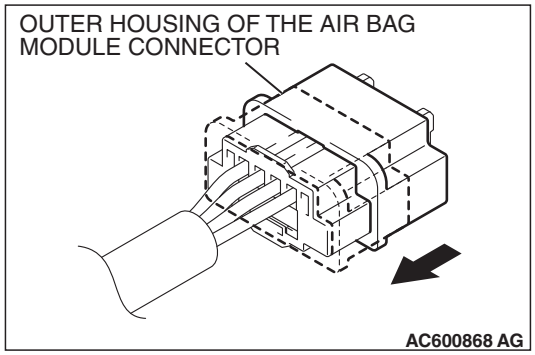
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<<B>> CONNECTOR (FOR AIR BAG MODULE) REMOVAL

Slide the outer housing of the air bag module connector in the arrow direction shown, and disconnect the connector.



<<C>> DRIVER'S AIR BAG MODULE REMOVAL

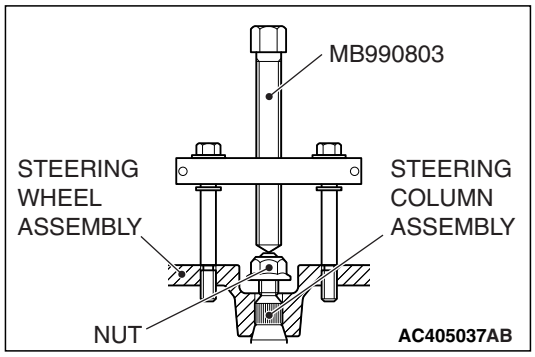
⚠ ***WARNING***

- ***The driver's air bag module must not be measured with an ohmmeter.***
- ***The driver's air bag module must not be disassembled.***
- ***The removed driver's air bag module should be stored in a clean, dry place with the deployment surface facing up.***

Loosen the torx screw and remove the air bag module assembly.

<<D>>STEERING WHEEL ASSEMBLY REMOVAL

⚠ CAUTION
Use the special tool to remove the steering wheel since the steering column collision absorbing mechanism may be damaged.
Use special tool MB990803 to remove the steering wheel.



<<E>> CLOCK SPRING REMOVAL

⚠ WARNING
The removed clock spring should be stored in a clean, dry place.

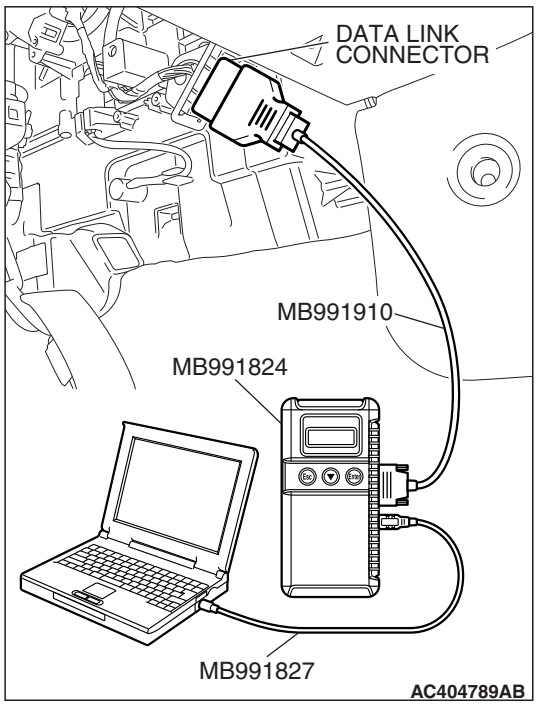
<<F>> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

⚠ WARNING
- ***When the passenger's (front) air bag module is removed, do not damage the engagement of the pawls.***
- ***The removed passenger's (front) air bag module should be stored in a clean, dry place with the deployment surface facing up.***

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING
Dispose of air bag modules only according to the specified procedure. (Refer to P.52B-448).
1. When installing the new air bag modules and clock spring, refer to "INSPECTION" (P.52B-429).
2. Connect the negative (–) battery cable.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.

   At this time, check that no DTC except B1400, B1410, B1480 and B1490 are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ WARNING

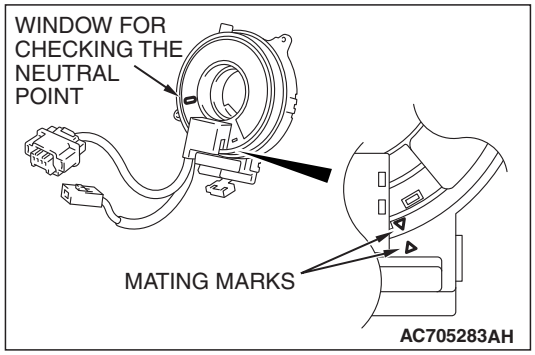
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< CLOCK SPRING INSTALLATION

⚠ WARNING

Ensure that the clock spring’s mating marks are properly aligned. If not, the steering wheel may not rotate completely during a turn, or the flat cable in the clock spring could be damaged, This would prevent normal SRS operation and possibly cause serious injury to the driver.



1. Turn the clock spring clockwise fully.
2. Turn the clock spring anti-clockwise approximately three and 1/2 turns to align the mating marks.
3. Check that the white or yellow roller can be seen from the window for checking the neutral point when the mating marks are aligned.

   NOTE: If the white or yellow roller cannot be seen or black roller can be seen, the neutral point is not aligned correctly.
4. Install the clock spring to the column switch.

>>C<< STEERING WHEEL ASSEMBLY/AIR BAG MODULE ASSEMBLY INSTALLATION

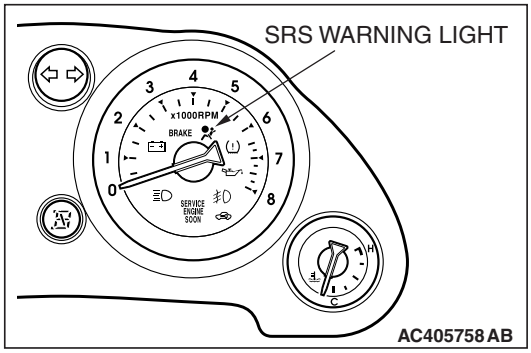
⚠ CAUTION

When installing the steering wheel and air bag module, ensure that the harness of the clock spring does not become caught or tangled.

1. Before installing the steering wheel and air bag module, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

>>D<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.



INSPECTION

M1524002500789

AIR BAG MODULE CHECK

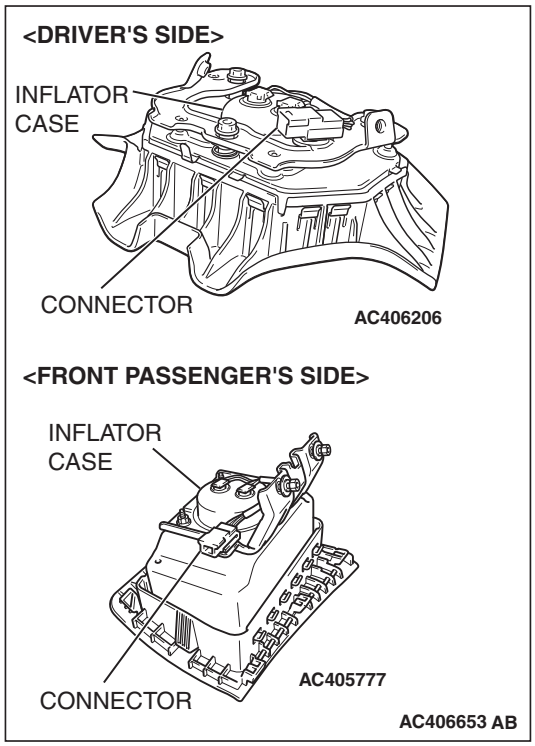
⚠ DANGER

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-448).

1. Check the pad cover for dents, cracks or deformation.



2. Check the connectors for damage, the terminals for deformation, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformation.
4. Install the air bag module (driver's side) to the steering wheel and check fit and alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.

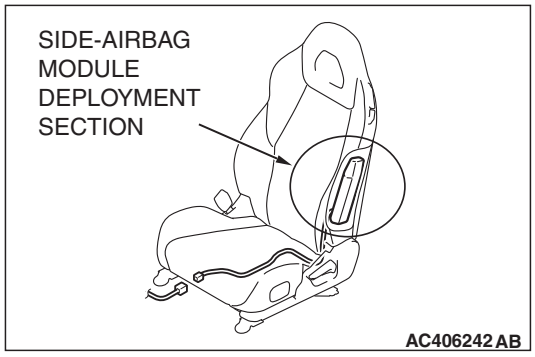
FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

⚠ ***DANGER***

Never attempt to measure the circuit resistance of the air bag module (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ ***WARNING***

If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-448).

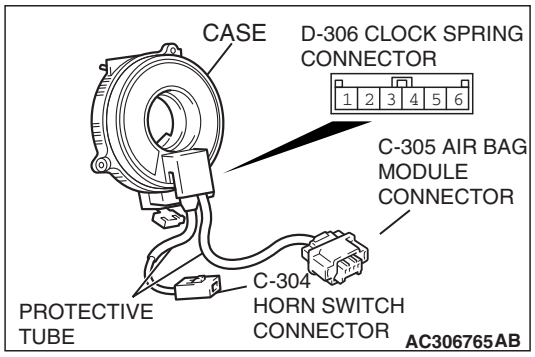


1. Check the air bag module deployment section for dents or deformation.
2. Check the connector for damage, the terminals for deformation, and the harness for binding.

CLOCK SPRING CHECK

If any malfunction is found in the following inspections, replace the clock spring with a new one.

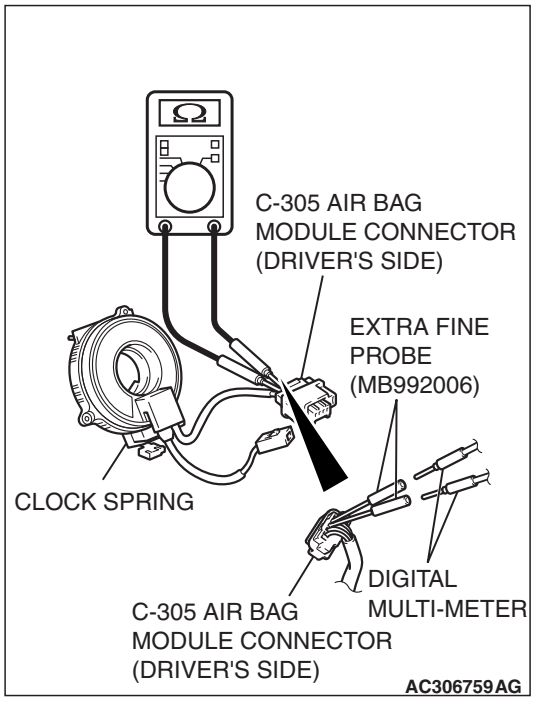
1. Check the connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.
3. Check to see that there is a charge (continuity) between the C-306 clock spring connector terminal 1 and C-304 horn switch.



⚠ CAUTION

Do not directly insert a probe, etc. into the terminal from the front of the connector.

4. Check the continuity between the air bag module connector (driver's side) according to the following procedures.
   (1) Insert special tool extra fine probe (MB992006) from the backside of air bag module connector (driver's side).
   (2) Connect the circuit tester to the special tool as shown in the figure, and check the continuity among terminal No. 1 – 2 or No. 3 – 4.



SIDE IMPACT SENSOR

REMOVAL AND INSTALLATION

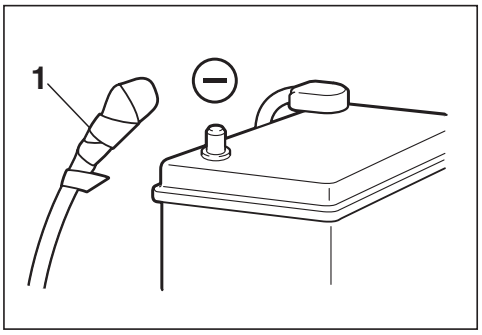
M1524004600715

A side impact sensor is installed behind the center pillar trim on both driver and passenger sides of the vehicle.

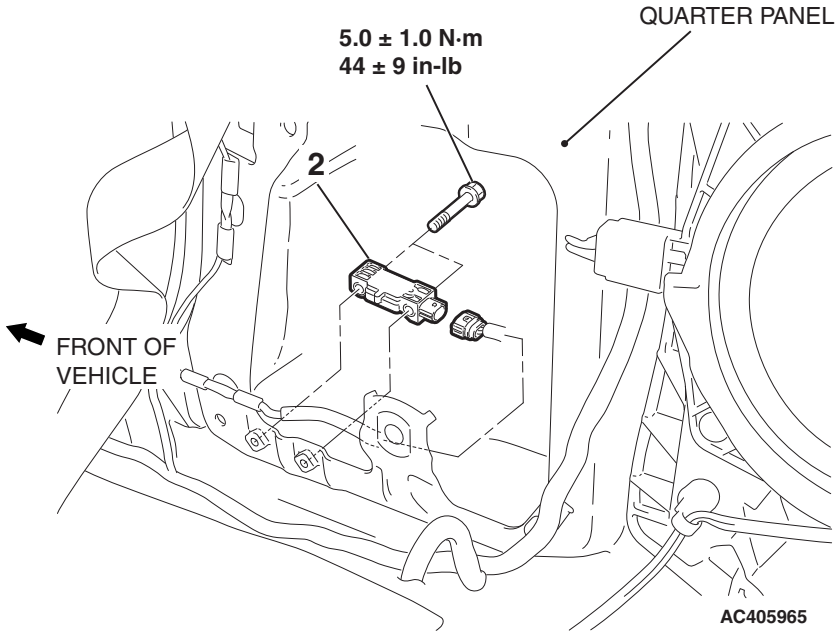
⚠ WARNING

- ***Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.***
- ***Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.***
- ***Replace the side impact sensor after the air bag has deployed.***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



<ECLIPSE>



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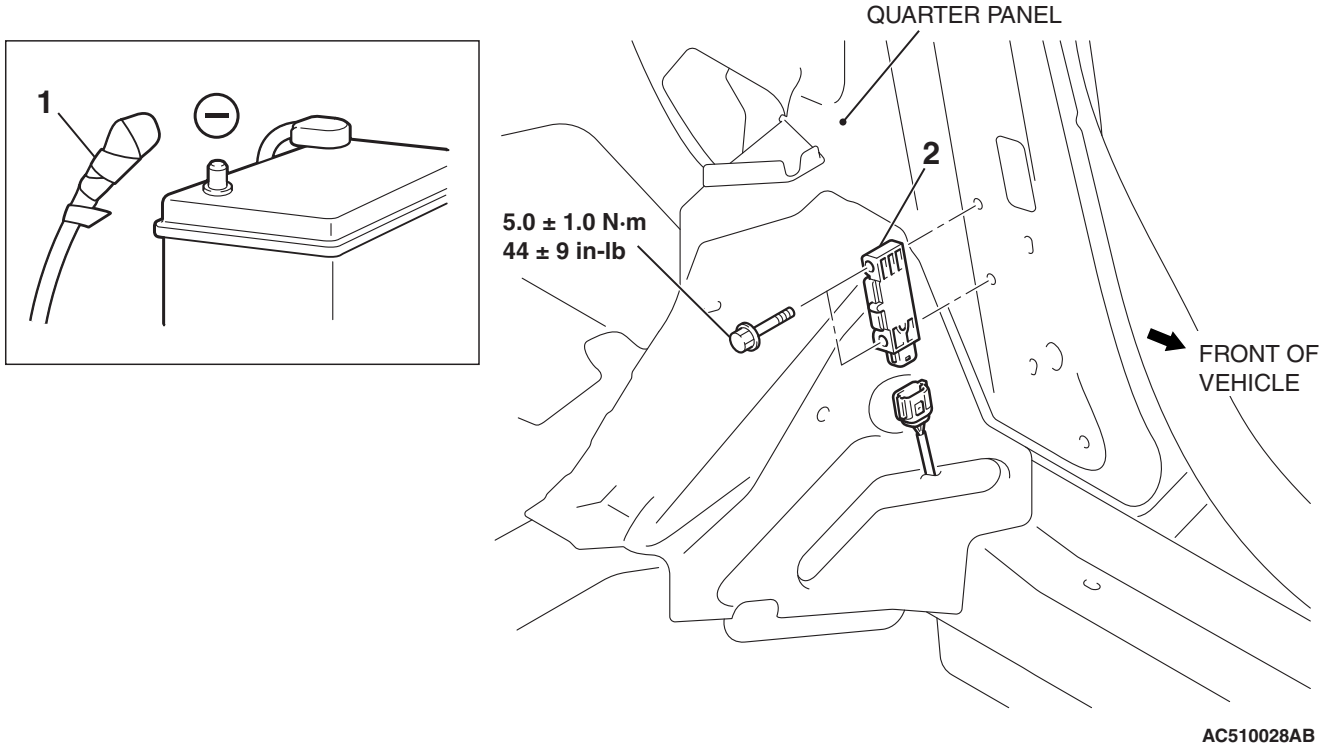
<ECLIPSE SPYDER>



REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
   - CENTER PILLAR TRIM LOWER (REFER TO GROUP 52A, TRIMS P.52A-30). <ECLIPSE>
   - QUARTER TRIM LOWER (REFER TO GROUP 52A, TRIMS P.52A-30). <ECLIPSE SPYDER>
   - SEAT BELT WITH PRE-TENSIONER (REFER TO GROUP 52B P.52B-440).
2. SIDE IMPACT SENSOR

INSTALLATION STEPS

>>A<<
- PRE-INSTALLATION INSPECTION

>>B<<
2. SIDE IMPACT SENSOR
   - SEAT BELT WITH PRE-TENSIONER (REFER TO GROUP 52B P.52B-440).
   - QUARTER TRIM LOWER (REFER TO GROUP 52A, TRIMS P.52A-30). <ECLIPSE SPYDER>
   - CENTER PILLAR TRIM LOWER (REFER TO GROUP 52A, TRIMS P.52A-30). <ECLIPSE>
1. NEGATIVE (–) BATTERY CABLE CONNECTOR

>>C<<
- POST-INSTALLATION INSPECTION

NOTE: The illustration above shows the side impact sensor (RH). The position of the side impact sensor (LH) is symmetrical to this.

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

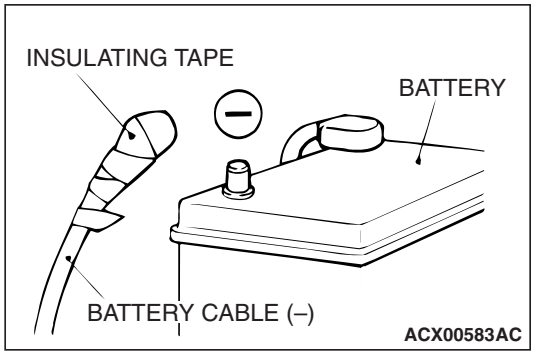
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.

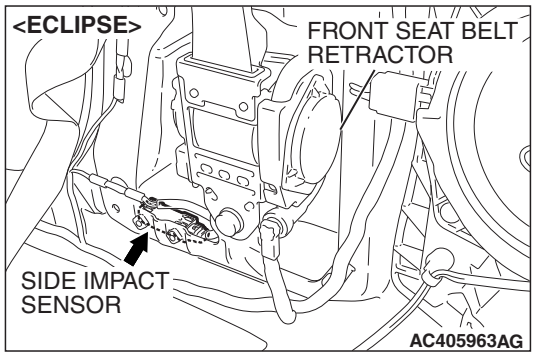


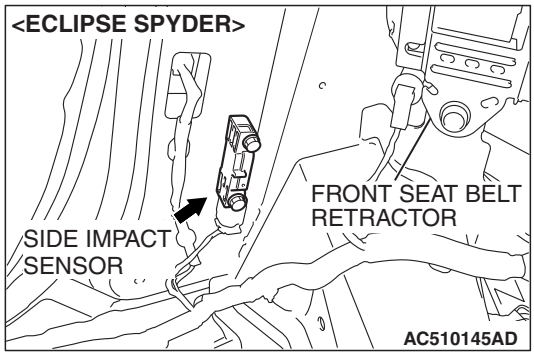
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new side impact sensor.

>>B<< SIDE IMPACT SENSOR INSTALLATION



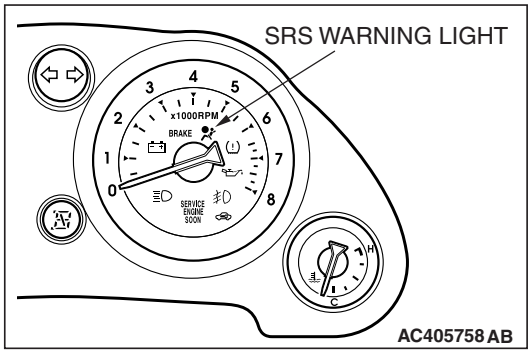


⚠ WARNING

If the side impact sensor is not installed securely and correctly, the side-airbag may not operate normally.

1. Securely connect the connector.
2. Securely install the side impact sensor so that the arrow on the label should face toward the outside of the vehicle.

>>C<< POST-INSTALLATION INSPECTION



1. Connect the negative (−) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.

INSPECTION

M1524004700499

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-33).

1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the quarter panel.

CURTAIN AIR BAG MODULE(S) <ECLIPSE>

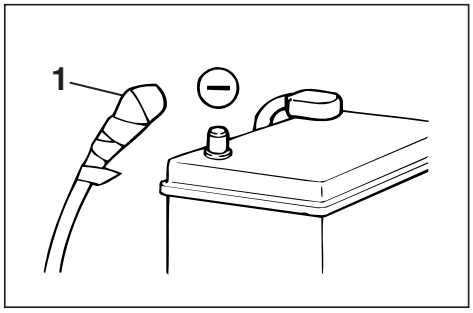
REMOVAL AND INSTALLATION

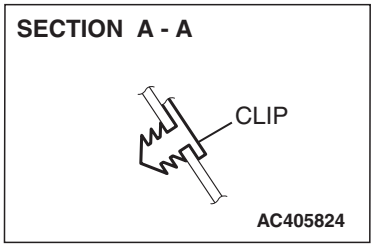
M1524013500460

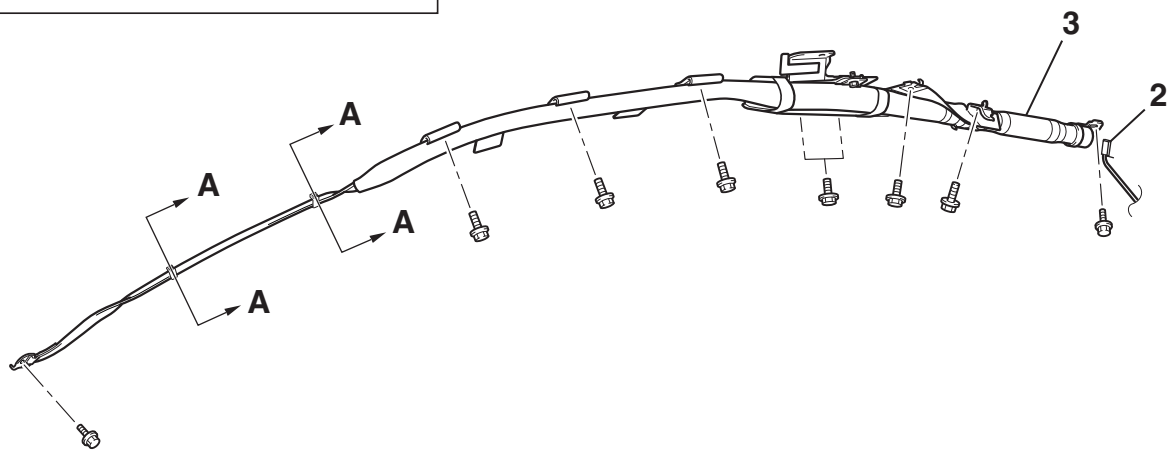
⚠ WARNING

- ***Never attempt to disassemble or repair the curtain air bag modules. If faulty, replace it.***
- ***Do not drop the curtain air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***Do not expose the curtain air bag modules to temperatures over 93 ℃ (200 ℉).***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed curtain air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-448).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-vehicle Service P.52B-410.)***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.







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REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
- HEADLINING (Refer to GROUP 52A, HEADLINING P.52A-37).

<<B>> 2. CURTAIN AIR BAG MODULE CONNECTOR CONNECTION

3. CURTAIN AIR BAG MODULE

INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

>>B<< 3. CURTAIN AIR BAG MODULE

>>C<< 2. CURTAIN AIR BAG MODULE CONNECTOR CONNECTION
- HEADLINING (Refer to GROUP 52A, HEADLINING P.52A-37).

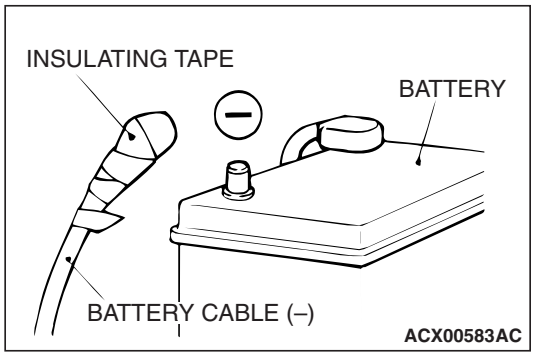
1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION



⚠ ***DANGER***

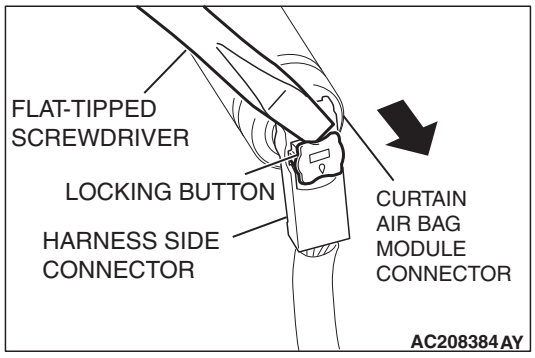
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

<<B>>CURTAIN AIR BAG MODULE CONNECTOR DISCONNECTION



1. Use a flat-tipped screwdriver to unlock the locking button of the harness-side connector by withdrawing it toward you in two stages.
2. Disconnect the curtain air bag module connector.

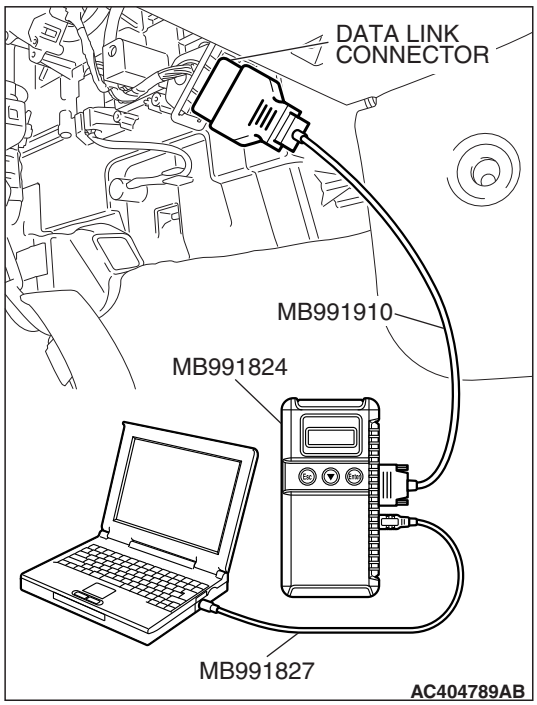
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of curtain air bag module only according to the specified procedure. (Refer to P.52B-448).

1. When installing the new curtain air bag module, refer to “INSPECTION” (P.52B-439).
2. Connect the negative (–) battery cable.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except 1440 and 1450 are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< CURTAIN AIR BAG MODULE INSTALLATION

⚠ CAUTION

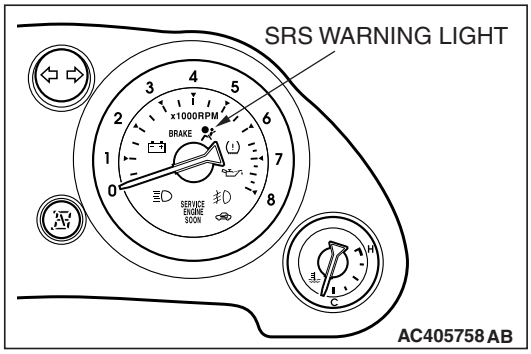
- **Take care not to bend or distort the curtain air bag when installing it.**
- **Take care that the surrounding components do not trap the air bag.**
- **Take care that the front pillar trim clips or other parts do not interfere with the strap.**

>>C<< CURTAIN AIR BAG MODULE CONNECTOR CONNECTION

Connect the curtain air bag module connector, then securely lock the locking button of the harness-side connector.

>>D<< POST-INSTALLATION INSPECTION

1. Connect the negative (−) battery cable.
2. Turn the ignition switch to the “ON” position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.

INSPECTION

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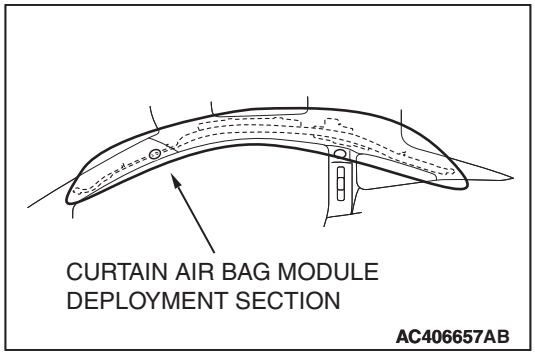
CURTAIN AIR BAG MODULE CHECK



⚠ WARNING

- ***If any improper part is found during the following inspection, replace the curtain air bag module (squib) assembly with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-448).***
- ***Never attempt to measure the circuit resistance of the air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.***

1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

SEAT BELTS WITH PRE-TENSIONER

REMOVAL AND INSTALLATION

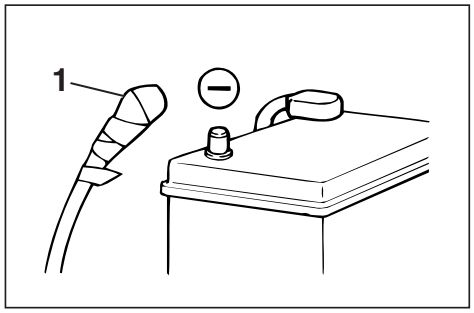
M1524004100743

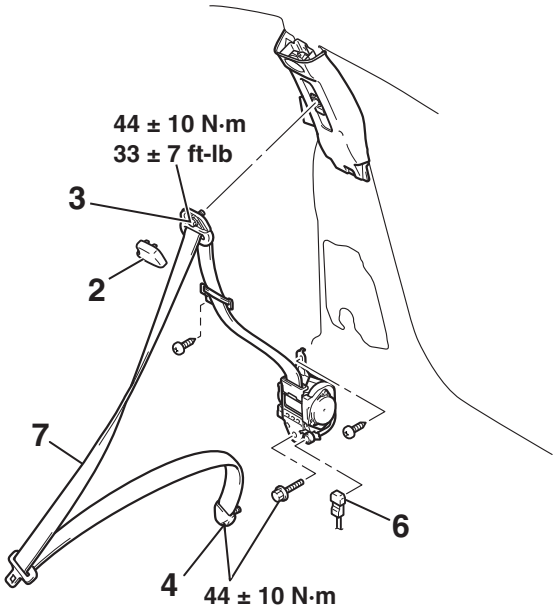
⚠ WARNING

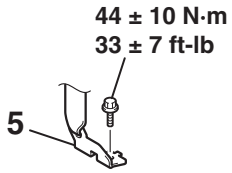
- ***Never attempt to disassemble or repair the seat belt pre-tensioner. If faulty, replace it.***
- ***Be extremely careful when handling the seat belt with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.***
- ***Do not place anything on the seat belt pre-tensioner.***
- ***Do not expose the seat belt pre-tensioner to temperatures over 90℃ (194℉).***
- ***After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.***
- ***Gloves and protective goggles must be worn when handling a seat belt pre-tensioner once it has been used.***
- ***If disposing of a seat belt with pre-tensioner which has not yet been operated, its seat belt pre-tensioner must be operated first before disposal. (Refer to P.52B-448).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-vehicle Service P.52B-410.)***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.

<ECLIPSE>







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REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. SASH GUIDE COVER

REMOVAL STEPS (Continued)

3. SEAT BELT SHOULDER ANCHOR BOLT
4. SEAT BELT LOWER ANCHOR BOLT <DRIVER'S SEAT BELT>

TSB Revision

REMOVAL STEPS (Continued)

5. OUTER SEAT BELT<PASSENGER'S SIDE>
   - CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-30).

<<B>> 6. PRE-TENSIONER CONNECTOR CONNECTION

7. OUTER SEAT BELT<DRIVER'S SIDE>

INSTALLATION STEPS

>>A<< - PRE-INSTALLATION INSPECTION

7. OUTER SEAT BELT<DRIVER'S SIDE>

>>B<< 6. PRE-TENSIONER CONNECTOR CONNECTION

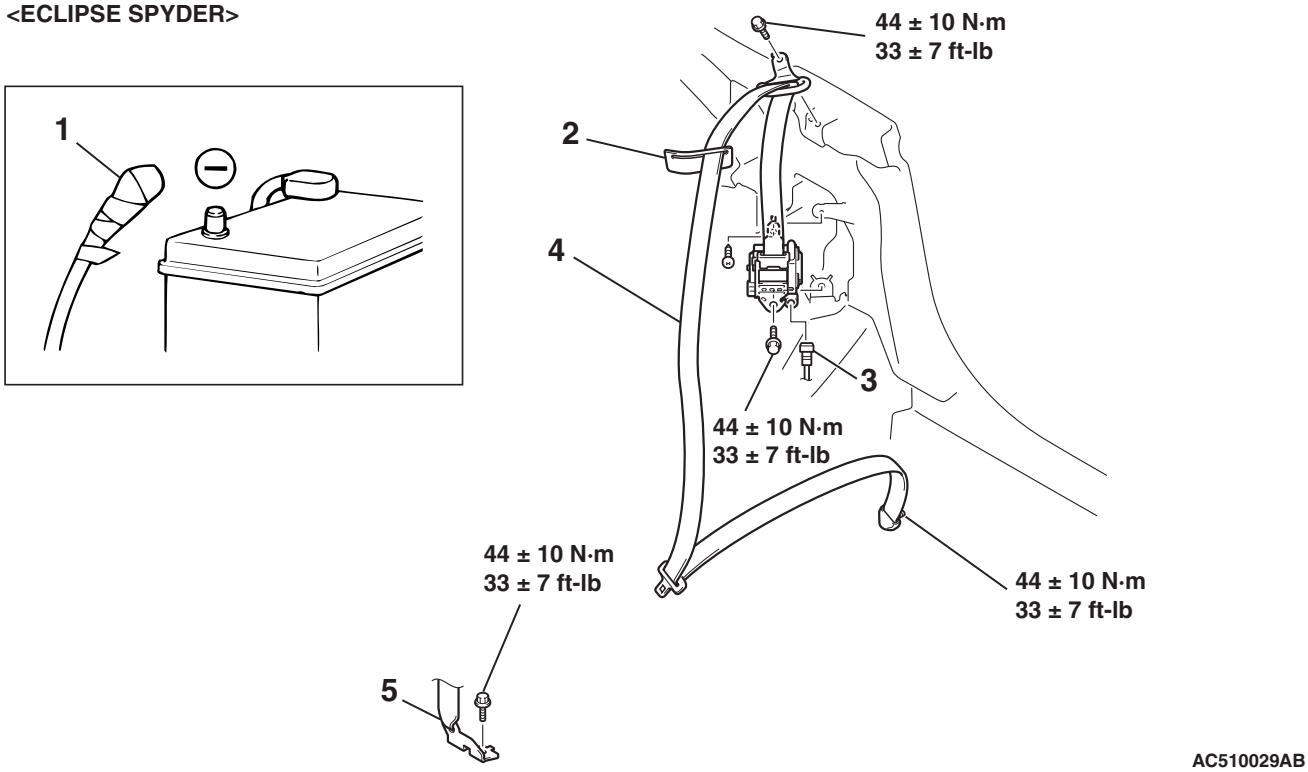
INSTALLATION STEPS (Continued)

- CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-30).

5. OUTER SEAT BELT<PASSENGER'S SIDE>
4. SEAT BELT LOWER ANCHOR BOLT <DRIVER'S SEAT BELT>
3. SEAT BELT SHOULDER ANCHOR BOLT
2. SASH GUIDE COVER
1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>C<< - POST-INSTALLATION INSPECTION

<ECLIPSE SPYDER>



REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
   - QUARTER TRIM LID (REFER TO GROUP 52A, TRIMS P.52A-30).

2. SEAT BELT GUIDE

<<B>> 3. PRE-TENSIONER CONNECTOR CONNECTION

4. OUTER SEAT BELT<DRIVER'S SIDE>
5. OUTER SEAT BELT<PASSENGER'S SIDE>

INSTALLATION STEPS

>>A<< - PRE-INSTALLATION INSPECTION

5. OUTER SEAT BELT<PASSENGER'S SIDE>
4. OUTER SEAT BELT<DRIVER'S SIDE>

>>B<< 3. PRE-TENSIONER CONNECTOR CONNECTION

2. SEAT BELT GUIDE
   - QUARTER TRIM LID (REFER TO GROUP 52A, TRIMS P.52A-30).

TSB Revision

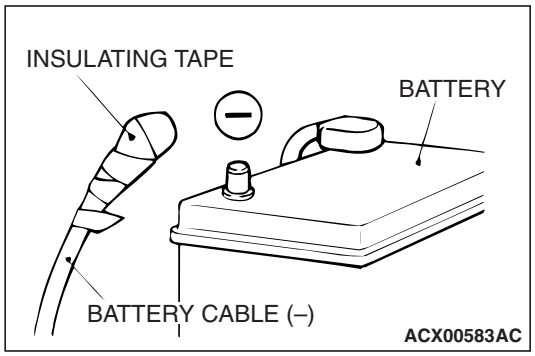
INSTALLATION STEPS (Continued)

1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>C<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991910: Main Harness A



REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

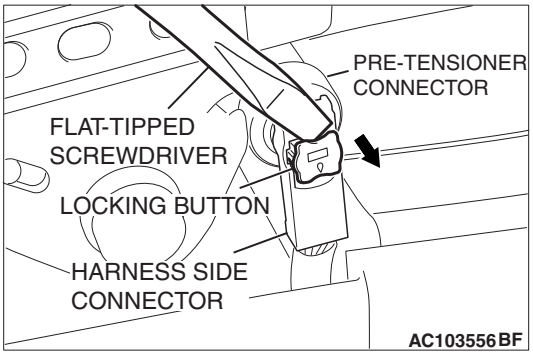
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.



<<B>>PRE-TENSIONER CONNECTOR DISCONNECTION

1. Use a flat-tipped screwdriver to unlock the locking button of the harness-side connector by withdrawing it toward you in two stages.
2. Disconnect the pretensioner connector.

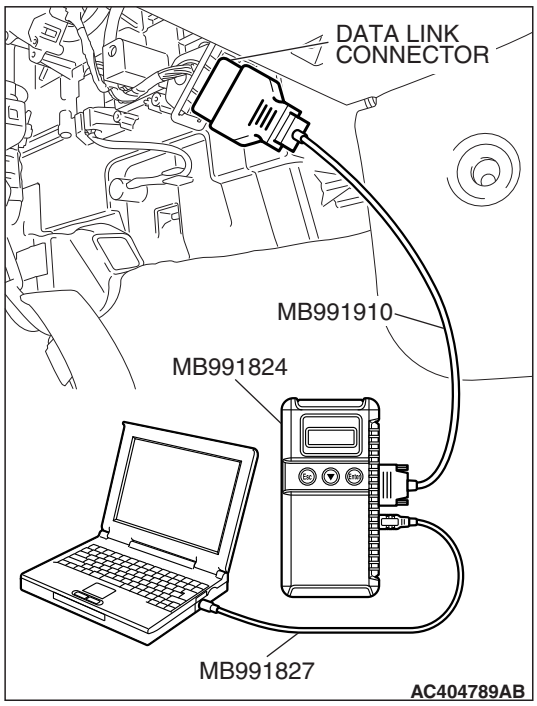
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of seat belt pre-tensioner only according to the specified procedure. (Refer to P.52B-448).

1. When installing the new seat belt pre-tensioner, refer to “INSPECTION” (P.52B-444).
2. Connect the negative (–) battery cable.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except 1460 and 1470 are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

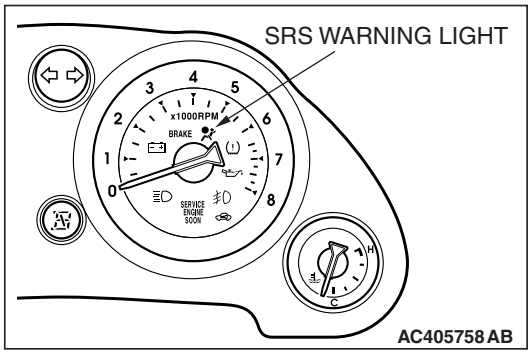
6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< PRE-TENSIONER CONNECTOR CONNECTION

Connect the pretensioner connector then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative (−) battery cable.
2. Turn the ignition switch to the “ON” position.
3. Does the SRS warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.



INSPECTION

M1524004200416

SEAT BELT WITH PRE-TENSIONER CHECK

⚠ WARNING

- ***If any component damage is found during the following inspection, replace the seat belt with pre-tensioner with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-448).***
- ***Never attempt to measure the circuit resistance of the seat belt pre-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental seat belt pre-tensioner operation will result in serious personal injury.***

1. Check seat belt pre-tensioner for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binding.

SEAT SLIDE SENSOR

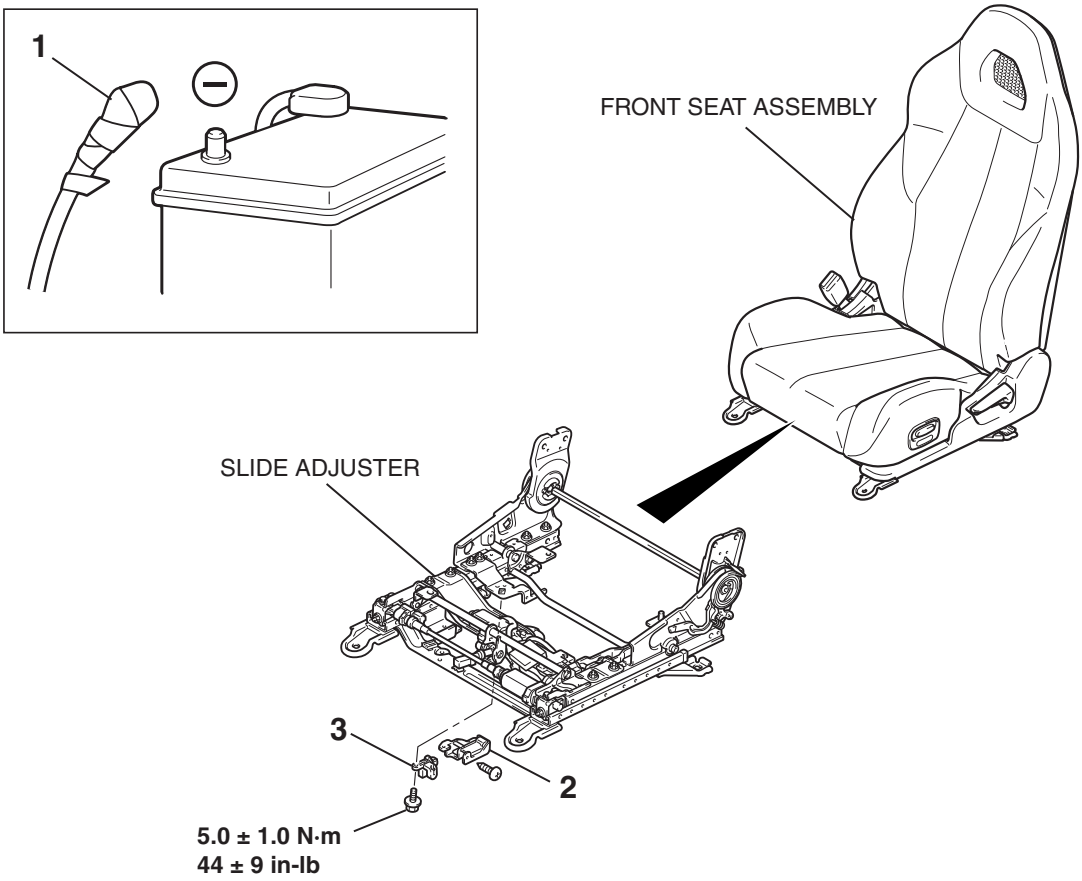
REMOVAL AND INSTALLATION

M1524025300076

⚠ WARNING

- ***Never attempt to disassemble or repair the seat slide sensor. If faulty, replace it.***
- ***Do not drop or subject the seat slide sensor to impact or vibration. Replace the seat slide sensor, if dents, cracking, deformation, or rust are present.***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



AC407084 AB

REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
   - FRONT SEAT <DRIVER'S SIDE> (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY P.52A-40).
2. SEAT SLIDE SENSOR COVER
3. SEAT SLIDE SENSOR

INSTALLATION STEPS

>>A<<
- PRE-INSTALLATION INSPECTION

>>B<<
3. SEAT SLIDE SENSOR
2. SEAT SLIDE SENSOR COVER
   - FRONT SEAT <DRIVER'S SIDE> (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY P.52A-40).
1. NEGATIVE (–) BATTERY CABLE CONNECTOR

>>C<<
- POST-INSTALLATION INSPECTION

TSB Revision

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

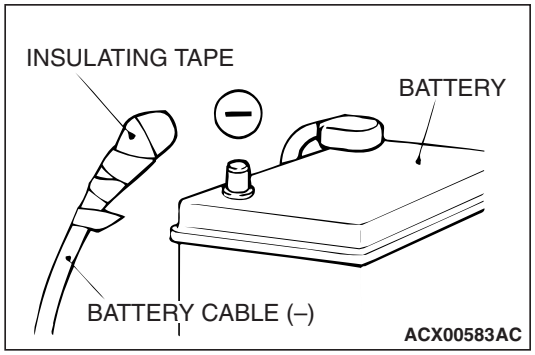
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.

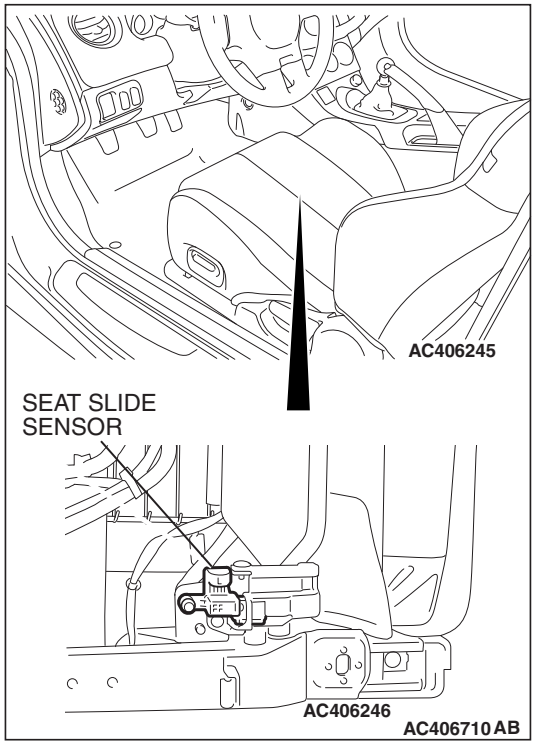


INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the seat slide sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new seat slide sensor.

>>B<< SEAT SLIDE SENSOR INSTALLATION

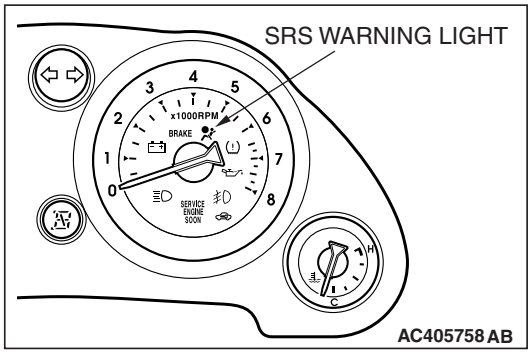


⚠ WARNING

If the seat slide sensor is not installed securely and correctly, the driver's air bag may not operate normally.

Securely connect the connector.

>>C<< POST-INSTALLATION INSPECTION



1. Connect the negative (−) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-32.

INSPECTION

M1524025400062

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the seat slide sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-33).

1. Check the seat slide sensor for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the slide adjuster.

OCCUPANT CLASSIFICATION SENSOR

REMOVAL AND INSTALLATION

M1524025600055

For disassembly and assembly of the front seat assembly with a built in occupant classification sensor, refer to GROUP 52A, Front Seat assembly P.52A-45.

INSPECTION

M1524025700041

⚠ ***WARNING***

If a dent, crack, deformation or rust is detected, replace with a new seat slide adjuster.

NOTE: For checking of the occupant classification sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-33).

1. Check the occupant classification sensor for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the seat slide adjuster.
4. Carry out the accuracy check of occupant classification sensor (Refer to P.52B-410).

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524001200826

Before disposing of an air bag or a vehicle equipped with an air bag, follow the procedures below to deploy the air bag.

UNDEPLOYED AIR BAG MODULE DISPOSAL

Required Special Tool:

- MB991885: Adapter Harness

⚠ ***WARNING***

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioners inside the vehicle. If the vehicle will continue to be used and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioners outside the vehicle.***
- ***Since a large amount of smoke is produced when the air bag is deployed and the seat belt pre-tensioner is operated, avoid residential areas whenever possible.***
- ***Since there is a loud noise when the air bags are deployed and when the seat belt pre-tensioners are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.***

- ***Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.***

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <DRIVER'S AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ DANGER

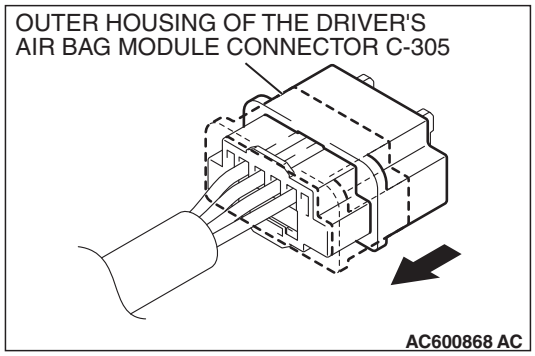
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

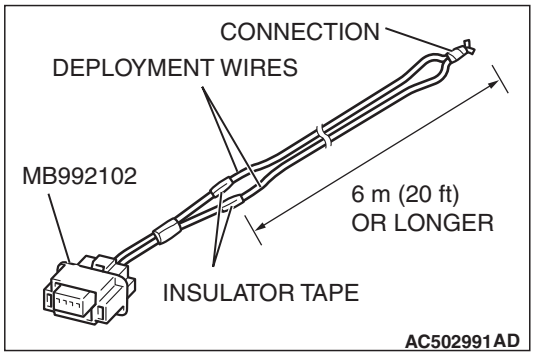
⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the column cover lower (Refer to GROUP 52A, Instrument Panel P.52A-19).
4. Slide the outer housing of the driver's air bag module connector C-305 in the arrow direction shown, and disconnect the connector.

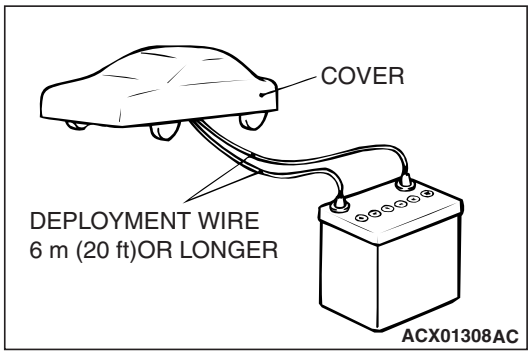
   NOTE: If the driver's air bag module connector is disconnected from the inflator connector, both electrodes of the inflator connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.





5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
6. Connect the special tool MB992102 to the driver's air bag module, and then pull out the deployment wire to outside the vehicle.



⚠ ***WARNING***

If the windshield glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <PASSENGER'S (FRONT) AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

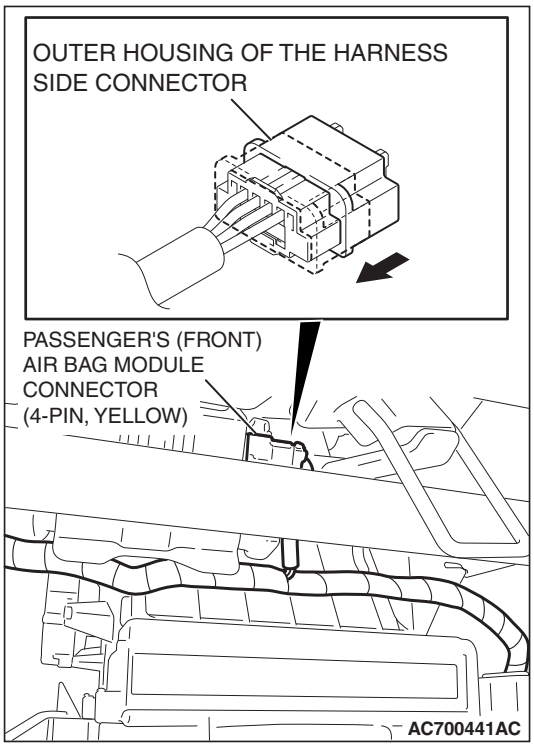
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

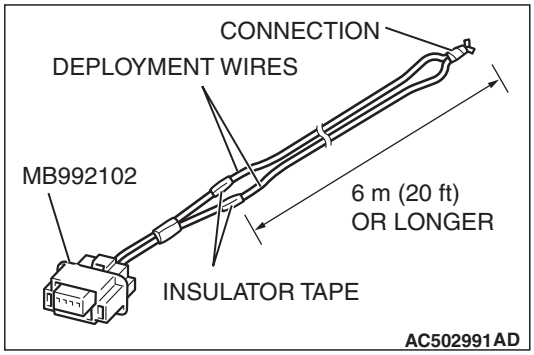
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the instrument panel parcel box (Refer to GROUP 52A, Instrument Panel P.52A-19).



4. Slide the outer housing of passenger's (front) air bag module connector in the arrow direction shown, and disconnect the connector.

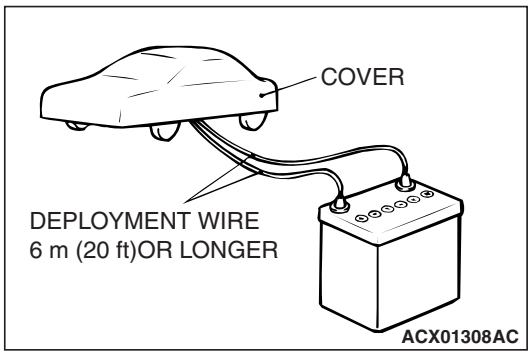
   NOTE: If the passenger's (front) air bag module connector is disconnected from the inflator connector, both electrodes of the from the inflator connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB9921020, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the unintentional deployment of passenger's (front) air bags caused by the static or others.

6. Connect the special tool MB992102 to the passenger's (front) air bag module, and then pull out the deployment wire to outside the vehicle.



⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SIDE-AIRBAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

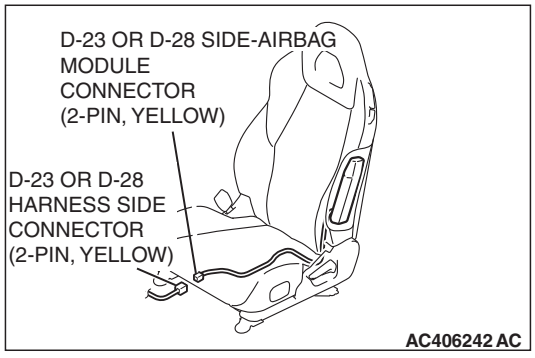
2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

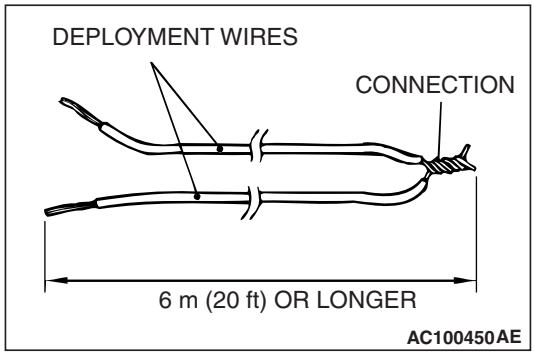
⚠ ***WARNING***

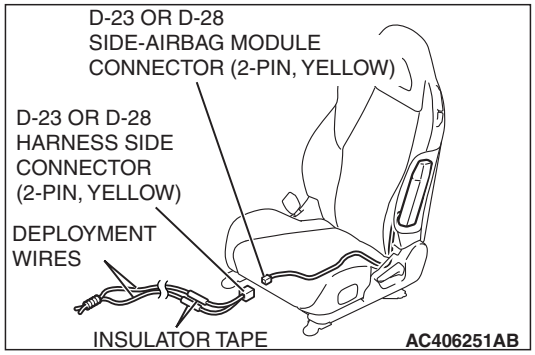
The side-airbag modules for both the driver's side and passenger's side should be deployed.

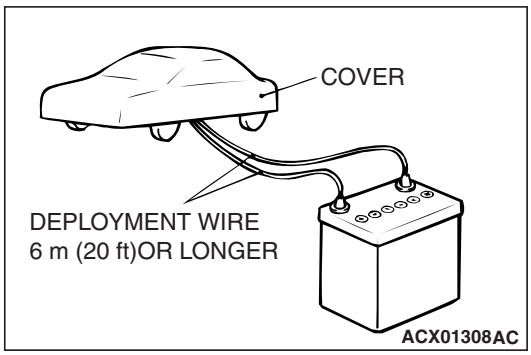
3. Remove the connection between the D-23 or D-28 side-airbag module connector (two-pin, yellow) and the harness side connector (two-pin, yellow).

   NOTE: If the air bag module connector is disconnected from the harness side connector, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.









4. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

   NOTE: This prevents the air bag from unintentional deployment caused by static electricity, etc.

⚠ CAUTION

Never fail to do Step 5 in order to prevent accidental deployment caused by static.

5. Touch the vehicle's body with your bare hands to discharge static electricity.
6. Cut the floor wiring harness (two-pin, yellow) shown in the figure, while the D-23 or D-28 side-airbag module connector (two-pin) is disconnected.

   NOTE: The disconnection location should be sufficiently away from the D-23 or D-28 harness side connector with consideration to the expansion harness connection location upon disconnection.
7. Individually connect a harness to the two disconnected harnesses, cover the connection areas with insulator tape, and then pull out the expansion harness outside the vehicle.
8. Connect the D-23 or D-28 harness side connector connected with the expansion harness to the D-23 or D-28 air bag module connector.

⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

9. To suppress the operation sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

10. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.

11. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <CURTAIN AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ WARNING
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

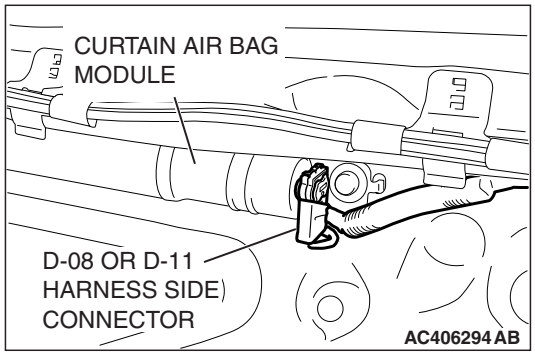
⚠ WARNING
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

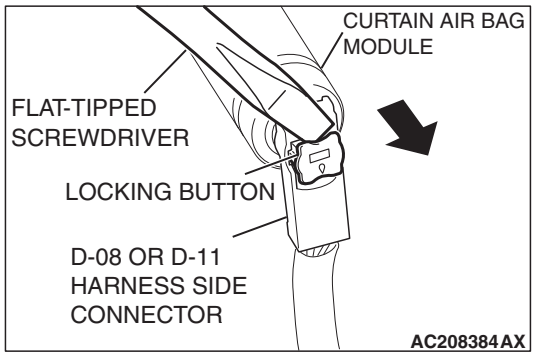
2. Disconnect the negative (–) and positive battery (+) cables from the battery terminals, and then remove the battery from the vehicle.

⚠ WARNING
The curtain air bag modules for both the right side and left side should be deployed.

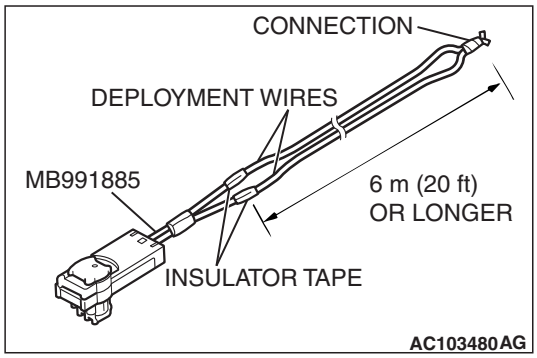
3. Remove the headlining (Refer to GROUP 52A, headlining P.52A-37).
4. Disconnect harness side connector D-08 or D-11 (two-pin, black) from the curtain air bag module.

   NOTE: If the curtain air bag module connector is disconnected from the harness side connector, both electrodes of the curtain air bag module connector will be automatically shorted to prevent unintended operation of the curtain air bag module due to static electricity, etc.

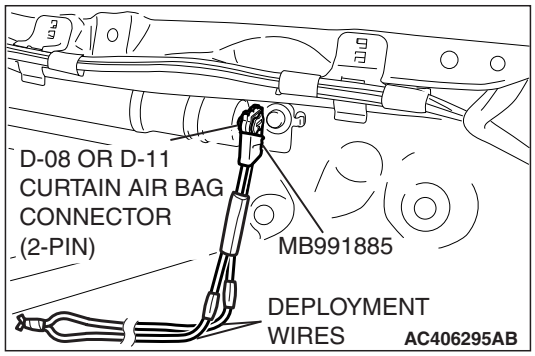




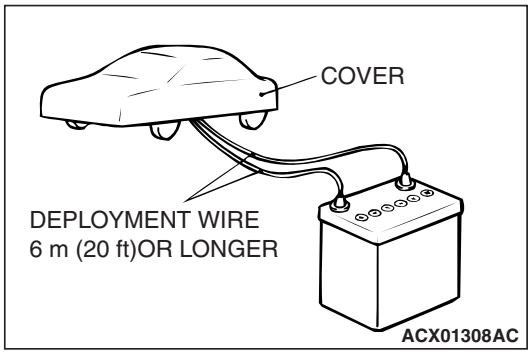
(1) Use a flat-tipped screwdriver to unlock the harness side connector (two-pin, black) locking button by withdrawing it toward you in two stages.
(2) Disconnect the D-08 or D-11 harness side connector.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool adapter harness (MB991885), and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



6. Connect the D-08 or D-11 curtain air bag module two-pin connector (black) to special tool adapter harness (MB991885), and move the deployment wires out of the vehicle.



⚠ ***WARNING***

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact your distributor.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the curtain air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

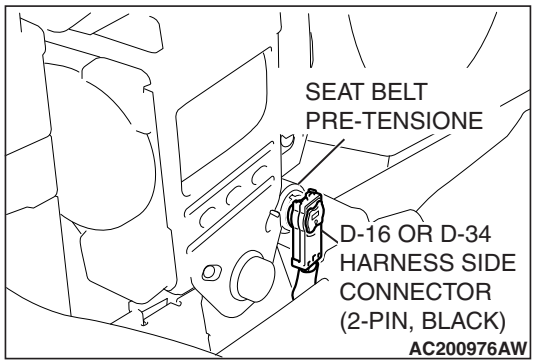
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

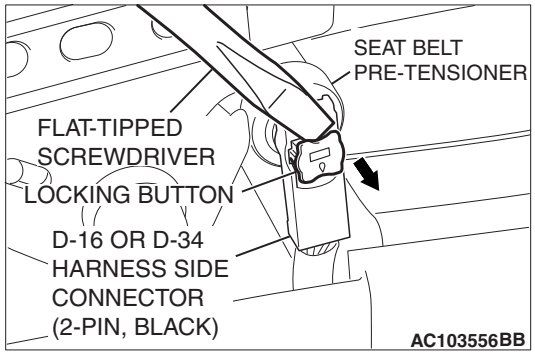
2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the center pillar lower trim (Refer to GROUP 52A, TRIMS P.52A-30).
4. Disconnect harness side connector D-16 or D-34 (two-pin, black) from the seat belt pre-tensioner.

   NOTE: If the seat belt pre-tensioner connector is disconnected from the harness side connector, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.

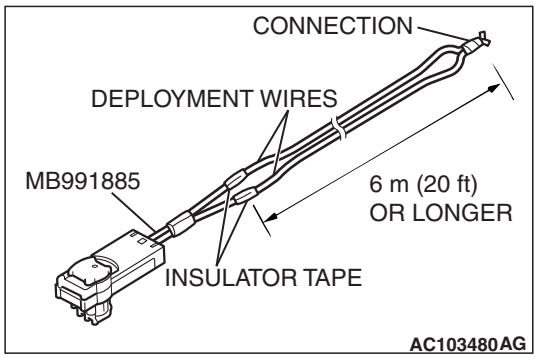
   (1) Use a flat-tipped screwdriver to unlock the harness side connector (two-pin, black) locking button by withdrawing it toward you in two stages.

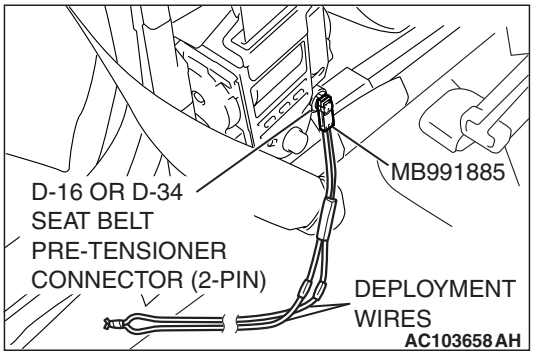
   (2) Disconnect the D-16 or D-34 harness side connector.

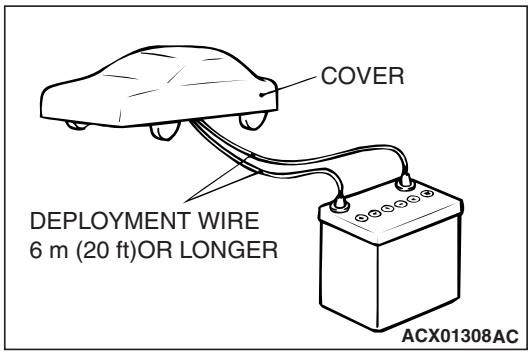




5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool adapter harness (MB991885), and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.







6. Connect the D-16 or D-34 seat belt pre-tensioner two-pin connector (black) to special tool adapter harness (MB991885), and move the deployment wires out of the vehicle.

⚠ ***WARNING***

If the glass is scratched, seat belt pre-tensioner operation could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-467) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
9. After operation, dispose of the seat belt pre-tensioner according to the Deployed Air Bag Module operated seat belt pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT OUTSIDE THE VEHICLE <DRIVER'S AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

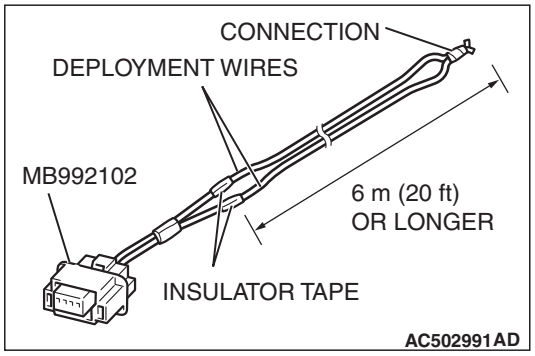
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

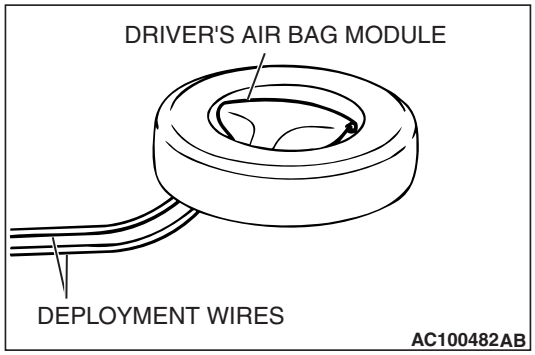
⚠ **CAUTION**

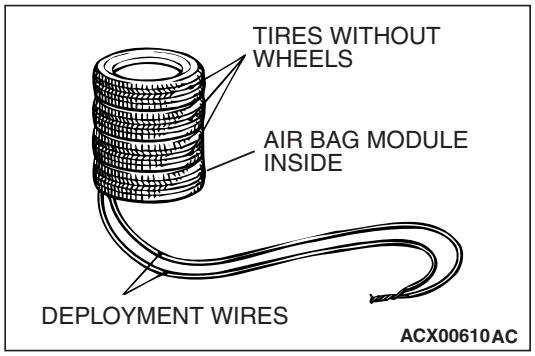
Once disconnected, both electrodes of the driver's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on a flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P.52B-423).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB992102 to the driver's air bag module.
5. To the torx screw installation hole located at the backside of air bag module, tie a thick wire for fixing the wheel.
6. Route the deployment wires connected to the driver's air bag module beneath an old tire and wheel assembly. Then, using the wire tied to the bolt, secure the driver's air bag module to the tire and wheel assembly with the deployment surface facing up.



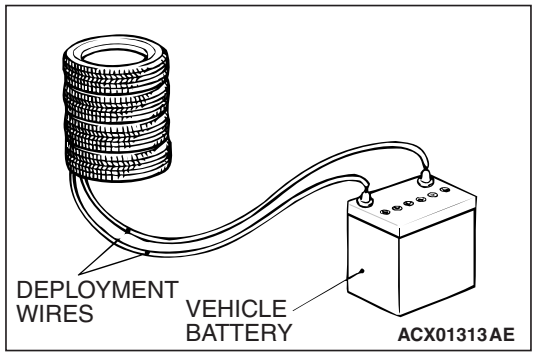




7. Place three old tires without wheels on the tire secured with the driver's air bag module.

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



8. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them, to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT OUTSIDE THE VEHICLE <PASSENGER'S (FRONT) AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

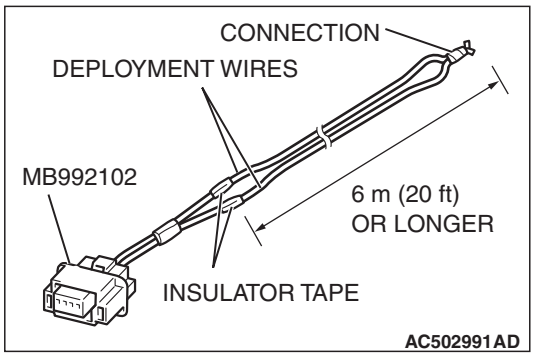
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

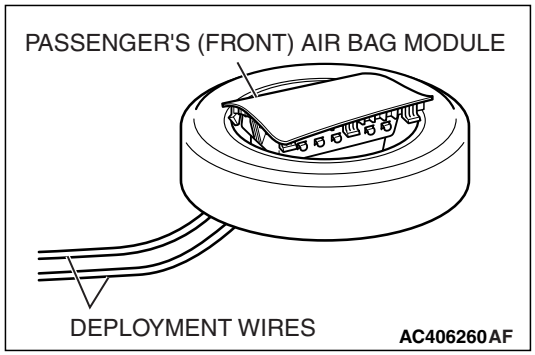
⚠ CAUTION

Once disconnected, both electrodes of the passenger's (front) air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of possible accidental deployment, store the air bag module on flat place with deployment surface facing up. Do not put anything on it.

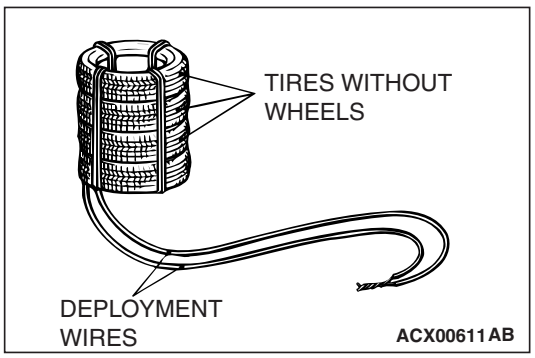
2. Remove the air bag module from the vehicle (Refer to P.52B-423).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB992102 to the passenger's (front) air bag module.
5. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tire with a wheel in it so that the pad on the module is facing upwards.



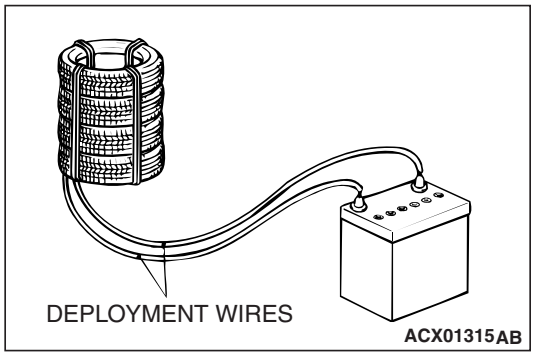


6. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).



⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



7. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT OUTSIDE VEHICLE <SIDE-AIRBAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

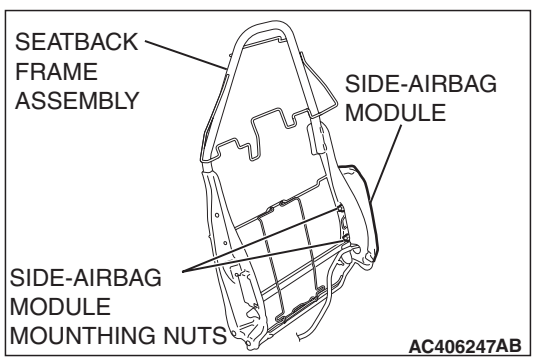
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

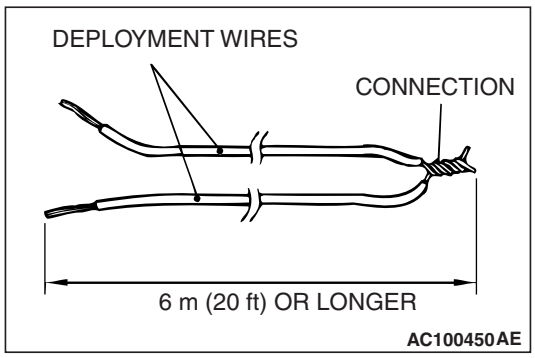
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ **CAUTION**

Once disconnected, both electrodes of the side-airbag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Remove the front seatback assembly with side-airbag module from the vehicle (Refer to P.52B-423).
3. After disassembling the front seatback assembly, remove the side air bag module mounting nuts from the seatback frame assembly.



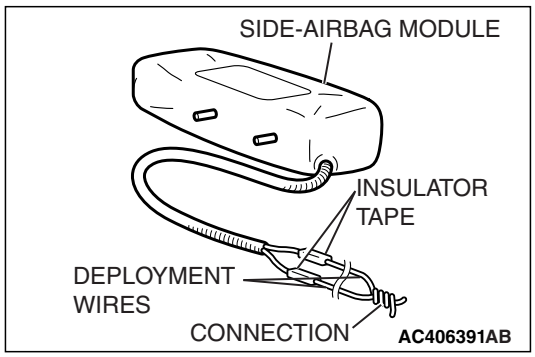


4. Prepare two wires longer than 6 meters (20 feet) for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.

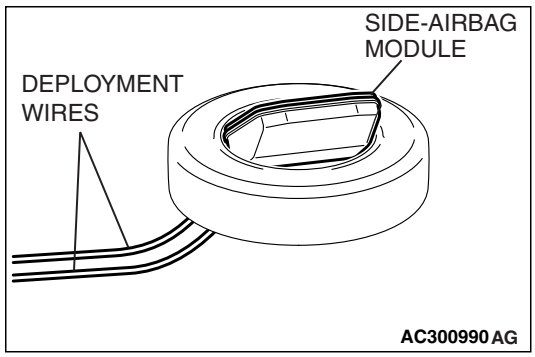
⚠ CAUTION

Never fail to do Step 5 in order to prevent accidental deployment caused by static.

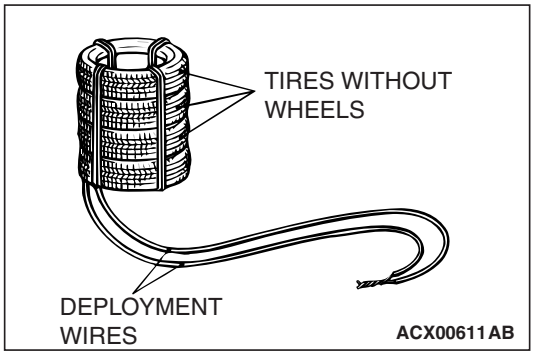
5. Touch the vehicle's body with your bare hands to discharge static electricity.



6. Using pliers, cut the side-airbag module connector from the harnesses. Connect the deployment wires to each harness that has been cut and insulate the connections with insulator tape.



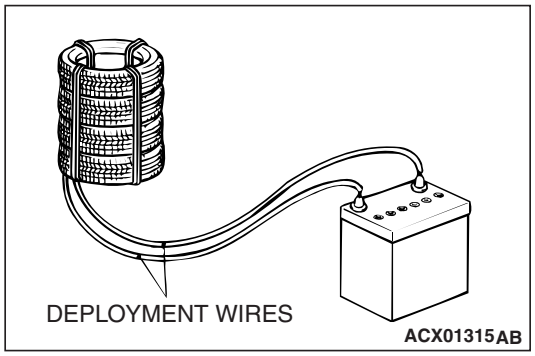
7. Route connected to the deployment wires beneath an old tire and wheel assembly and connect it to the side-airbag module connector.
8. Install a nut to the side-airbag module mounting bolt, tie thick wire there for securing and secure the side-airbag module to an old tire and wheel assembly with the deployment surface facing up.



9. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).

⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



10. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
11. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT OUTSIDE THE VEHICLE <CURTAIN AIR BAG MODULE>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

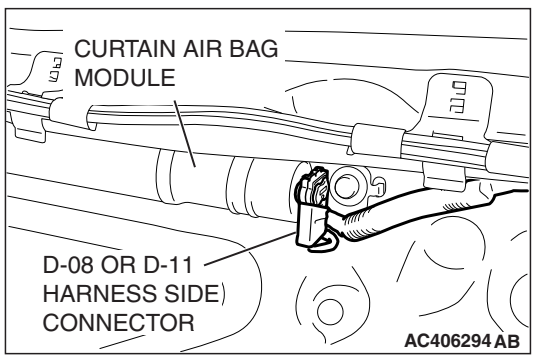
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

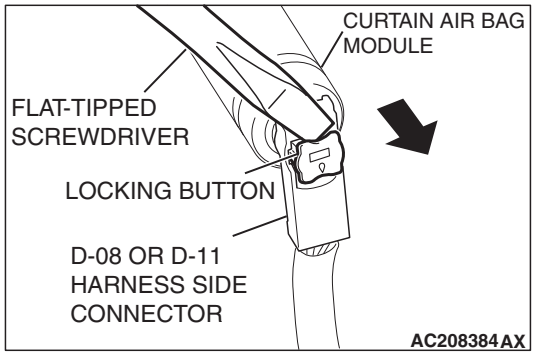
⚠ WARNING

Once disconnected, both electrodes of the curtain air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

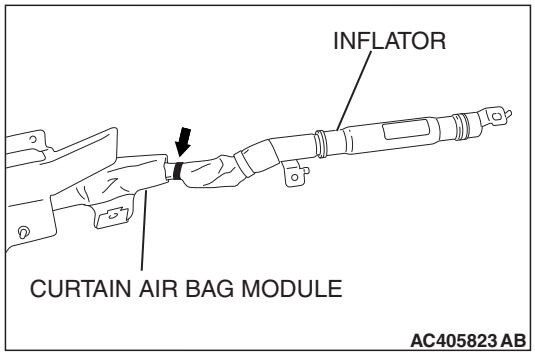
2. Remove the headlining (Refer to GROUP 52A, Headlining P.52A-37).
3. Disconnect harness side connector D-08 or D-11 (two-pin, black) from the curtain air bag module.

   NOTE: If the curtain air bag module connector is disconnected from the floor wiring harness, both electrodes of the curtain air bag module connector will be automatically shorted to prevent unintended operation of the curtain air bag module due to static electricity, etc.

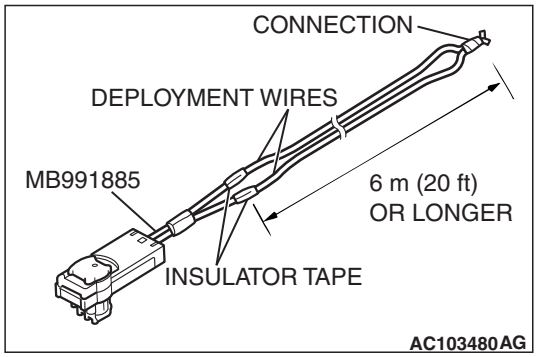




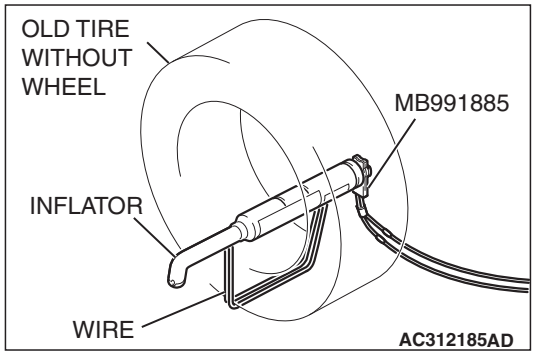
(1) Use a flat-tip screwdriver to unlock the harness side connector (two-pin, black) locking button by withdrawing it toward you in two stages.
(2) Disconnect the D-08 or D-11 harness side connector.



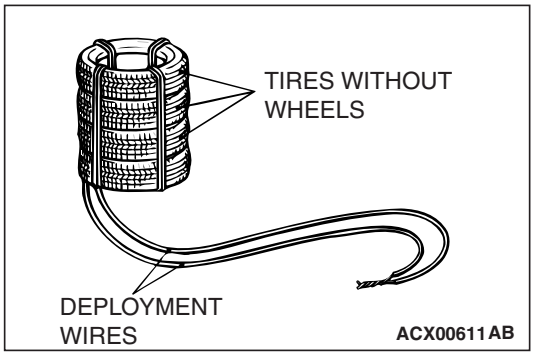
4. Cut the inflator and the air bag with a knife.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool adapter harness (MB991885), and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



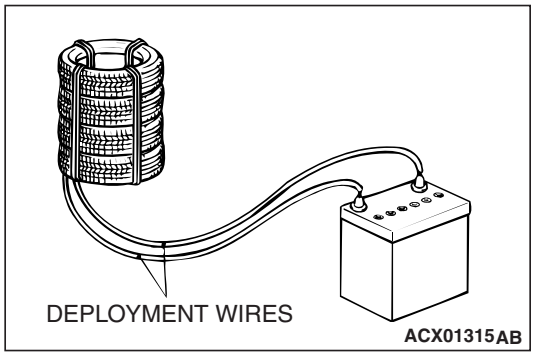
6. Feed a thick wire through the bracket of the inflator, and connect it to an old tire without a wheel.
7. Connect the special tool adapter harness (MB991885) to the inflator connector.



8. Place three old tires without wheels on top of the tire secured to the inflator, and secure all tires together with ropes (four locations).

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact your distributor.***



9. At a location as far away from the inflator as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the inflator.
10. Discard the deployed inflator as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYMENT OUTSIDE THE VEHICLE <SEAT BELT PRE-TENSIONER>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ ***WARNING***

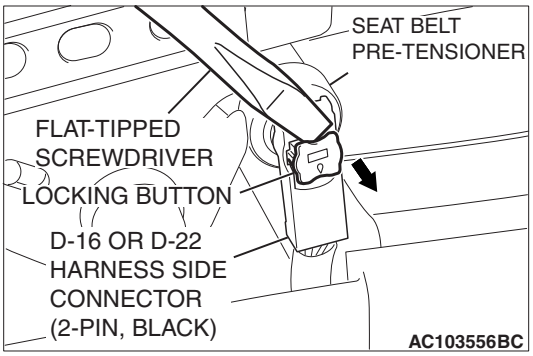
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Operate the seat belt pre-tensioner in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform operation outside if a strong wind is blowing. If there is a slight breeze, place the seat belt pre-tensioner downwind from the battery.***

1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

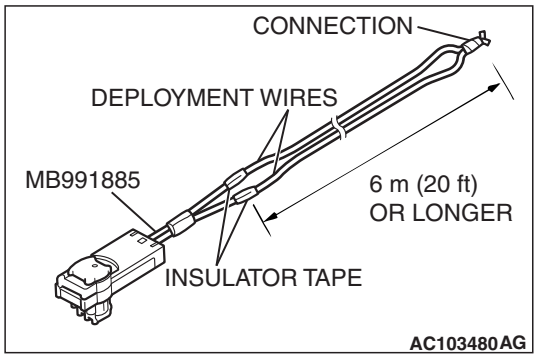
⚠ ***WARNING***

Store the seat belt pre-tensioner on a flat surface with its operation surface facing up. Do not place anything on top of them.

2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-440).



3. Use a flat-tipped screwdriver to unlock the harness side connector locking button by withdrawing it toward you in two stages.
4. Disconnect the D-16 or D-22 harness side connector.

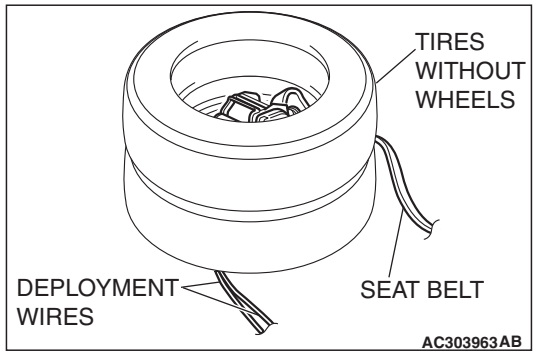


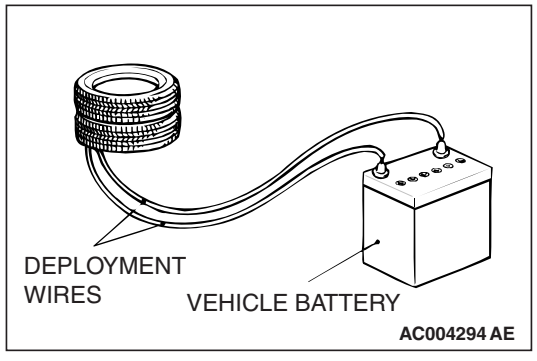
5. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool adapter harness (MB991885), and cover the connections with insulator tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.
6. Connect the special tool adapter harness (MB991885), which the deployment wires is attached to, to the seat belt pre-tensioner connector.

⚠ CAUTION

The adapter harness below the wheel should be loose. If it is too tight, the reaction when the seat belt pre-tensioner operates could damage the adapter harness.

7. Pass the thick wires through the hole on the seat belt pre-tensioner bracket and secure them to the front (raised part) of the wheel in two places.
8. Pull the seat belt out to the outside of the tire, and then place one tire without a wheel on top.





⚠ WARNING

- ***Before operation, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-467) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

9. At a location as far away from the seat belt pre-tensioner as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
10. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Seat Belt pre-tensioner Disposal (Refer to P.52B-467).

DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

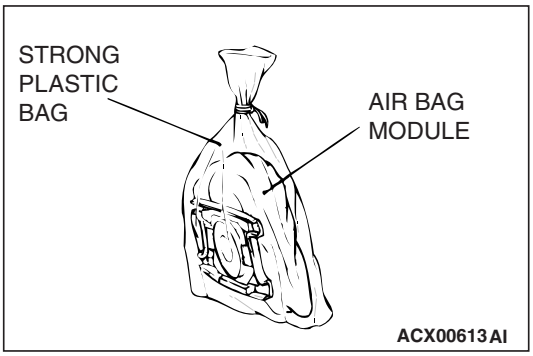
After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment or on the seat belt pre-tensioner after operation.

⚠ ***WARNING***

If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.

3. There may be material on the deployed air bag module or the operated seat belt pre-tensioner, that could irritate the eye and/or skin. Wear gloves and safety glasses when handling a deployed air bag module or the operated seat belt pre-tensioner.
4. Tightly seal the air bag module or seat belt pre-tensioner in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.



SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1524004900471

Item	Specification
Air bag module(s) and clock spring	
Steering wheel dynamic damper mounting bolt	3.9 ± 0.9 N·m (35 ± 8 in-lb)
Steering wheel nut	44 ± 11 N·m (33 ± 8 ft-lb)
Clock spring screw	0.69 ± 0.15 N·m (6 ± 1 in-lb)
Torx screw	9.0 ± 2.0 N·m (80 ± 17 in-lb)
Front impact sensor	
Front impact sensor nut	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Seat belts with pre-tensioner	
Seat belt lower anchor bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Final anchor bracket	44 ± 10 N·m (33 ± 7 ft-lb)
Seat belt shoulder anchor bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat belt with pre-tensioner mounting bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat slide sensor	
Seat slide sensor mounting bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Side impact sensor	
Side impact sensor nut	5.0 ± 1.0 N·m (44± 9 in-lb)
SRS control unit (SRS-ECU)	
SRS-ECU mounting bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)

SERVICE SPECIFICATION(S)

M1524000400184

<DRIVER'S SEAT BELT SWITCH>

Item	Tester connection	Standard value	Specified condition
Fastened seat belt	3 – 5	820 ± 20 Ω	–
	3 – Ground	–	No continuity
	5 – Ground	–	No continuity
	4 – 5	–	Less than 2 ohms
Unfastened seat belt	4 – 5	820 ± 20 Ω	–
	4 – Ground	–	No continuity
	5 – Ground	–	No continuity
	3 – 5	–	Less than 2 ohms

<PASSENGER'S SEAT BELT SWITCH>

Item	Tester connection	Standard value	Specified condition
Fastened seat belt	1 – 3	820 ± 20 Ω	–
	1 – Ground	–	No continuity
	3 – Ground	–	No continuity
	2 – 3	–	Less than 2 ohms
Unfastened seat belt	2 – 3	820 ± 20 Ω	–
	2 – Ground	–	No continuity
	3 – Ground	–	No continuity
	1 – 3	–	Less than 2 ohms

NOTES