

AIRBAG SYSTEM

PRECAUTION

CAUTION:

- The vehicle is equipped with a Supplemental Restraint System (SRS), which consists of a driver airbag, front passenger airbag, side airbags, curtain shield airbags and front seat belt pretensioners. Failure to carry out service operations in the correct sequence could cause the SRS to unexpectedly deploy during servicing, possibly leading to a serious accident. Furthermore, if a mistake is made in servicing the SRS, it is possible that the SRS may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedures as indicated in the repair manual.
- Wait at least 90 seconds after the ignition switch is turned off and the negative (-) terminal cable is disconnected from the battery before starting the operation.
(The SRS is equipped with a back-up power source, so if work is started within 90 seconds of disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed).
- Do not directly expose the steering pad, front passenger airbag assembly, center airbag sensor assembly, front airbag sensor, front seat inner belt assembly, seat position sensor, occupant classification ECU, front seat side airbag assembly, side airbag sensor, curtain shield airbag assembly, rear airbag sensor or front seat outer belt assembly to hot air or flames.

NOTICE:

- Malfunction symptoms of the SRS are difficult to confirm, so DTCs are the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect DTCs before disconnecting the battery.
- Even in the case of a minor collision when the SRS does not deploy, the following parts should be inspected.
 - Steering pad
 - Front passenger airbag assembly
 - Center airbag sensor assembly
 - Front airbag sensor
 - Front seat inner belt assembly
 - Seat position sensor
 - Occupant classification ECU
 - Front seat side airbag assembly
 - Side airbag sensor
 - Curtain shield airbag assembly
 - Rear airbag sensor

- Front seat outer belt assembly
- Before commencing repair work, remove the airbag sensor if any kind of shock is likely to occur to the airbag sensor during the operation.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never disassemble or repair any of the following parts in order to reuse them. If any of these parts have been dropped, or a defect is found (e.g. cracks, dents or any other defects) in any of the housings, brackets or connectors, then replace the part with a new one.
 - Steering pad
 - Front passenger airbag assembly
 - Center airbag sensor assembly
 - Front airbag sensor
 - Front seat inner belt assembly
 - Seat position sensor
 - Occupant classification ECU
 - Front seat side airbag assembly
 - Side airbag sensor
 - Curtain shield airbag assembly
 - Rear airbag sensor
 - Front seat outer belt assembly
- Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting the electrical circuits.
- Information labels are attached to the periphery of the SRS components. Follow the instructions in the cautions.
- After work on the SRS is completed, perform the SRS warning light check (See page [RS-29](#)).
- When the negative (-) terminal cable is disconnected from the battery, the memory will be cleared. Therefore make a record of the contents stored in each system before starting work. When the work is finished, reset each system as it was before. Never use a back-up power supply from outside the vehicle to avoid erasing the memory in any system.
- When disconnecting the cable from the negative (-) battery terminal, initialize the following system(s) after the cable is reconnected.

System Name	See procedure
Meter / gauge system	ME-10

- If the vehicle is equipped with a mobile communication system, refer to the precautions in the INTRODUCTION section.

HINT:

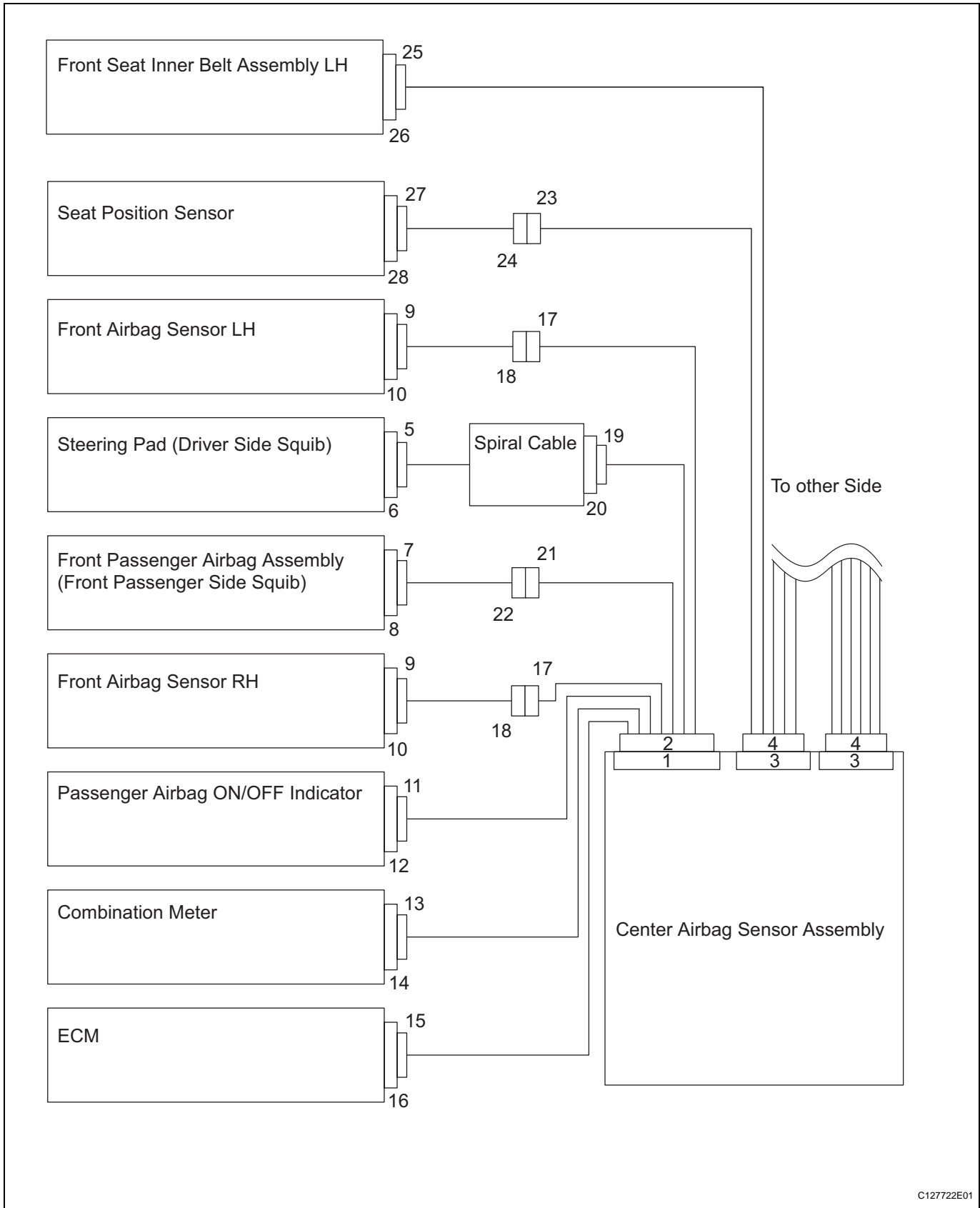
In the airbag system, the center airbag sensor assembly, front airbag sensor LH and RH, side airbag sensor LH and RH, rear airbag sensor LH and RH are collectively referred to as the airbag sensors.

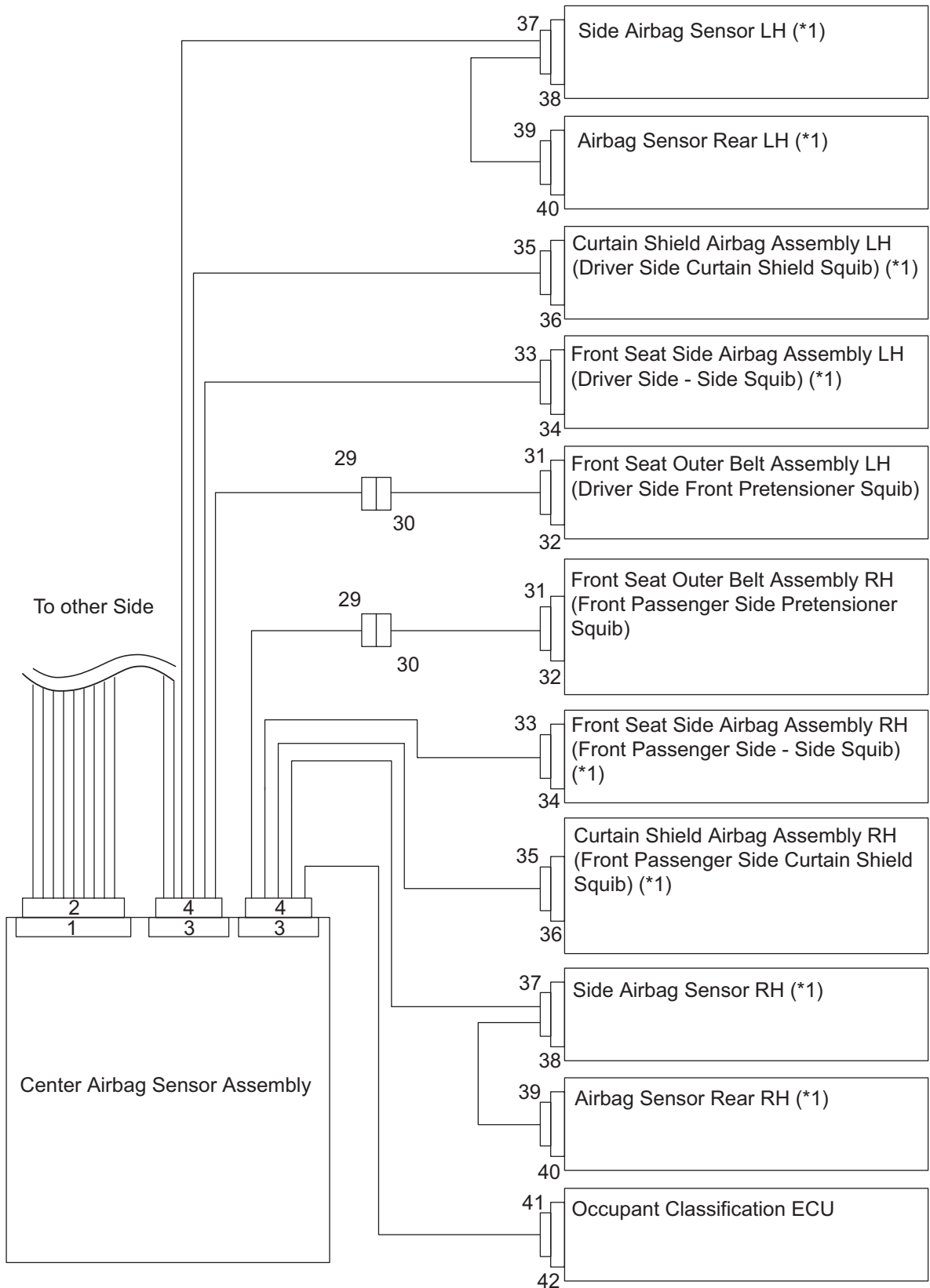
1. **HANDLING PRECAUTIONS FOR AIRBAG SENSORS**
 - (a) Before starting the following operations, wait for at least 90 seconds after disconnecting the negative (-) terminal cable from the battery:
 - (1) Replacement of the airbag sensors
 - (2) Adjustment of the front/rear doors of the vehicle equipped with the side airbags and curtain shield airbags (fitting adjustment)
 - (b) When connecting or disconnecting the airbag sensor connectors, ensure that each sensor is installed in the vehicle.
 - (c) Do not use the airbag sensors which have been dropped during the operation or transportation.
 - (d) Do not disassemble the airbag sensors.
2. **INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT**
 - (a) When the airbag has not deployed, confirm the DTCs by checking the SRS warning light. If there is any malfunction in the SRS airbag system, perform troubleshooting.
 - (b) When any of the airbags have deployed, replace the airbag sensors and check the installation condition.

3. SRS CONNECTORS

(a) SRS connectors are located as shown in the following illustration.

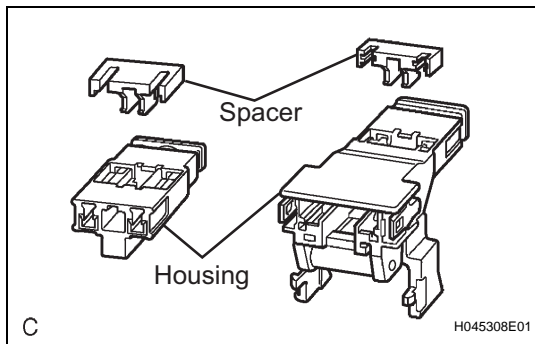
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*1: w/ Side Airbag Assembly and Curtain Shield Airbag Assembly

No.	Item	Application
(1)	Terminal Twin-Lock Mechanism	Connectors 2, 4, 9, 11, 13, 15, 19, 21, 22, 27, 33
(2)	Activation Prevention Mechanism	Connectors 2, 4, 6, 8, 20, 22, 30, 32, 34, 36
(3)	Half Connection Prevention Mechanism	Connectors 17, 19, 21, 23, 35, 37, 39
(4)	Connector Position Assurance Mechanism	Connector 9
(5)	Connector Lock Mechanism (1)	Connectors 5, 7, 31, 35
(6)	Connector Lock Mechanism (2)	Connectors 2, 4
(7)	Improper Connection Prevention Lock Mechanism	Connectors 1, 3

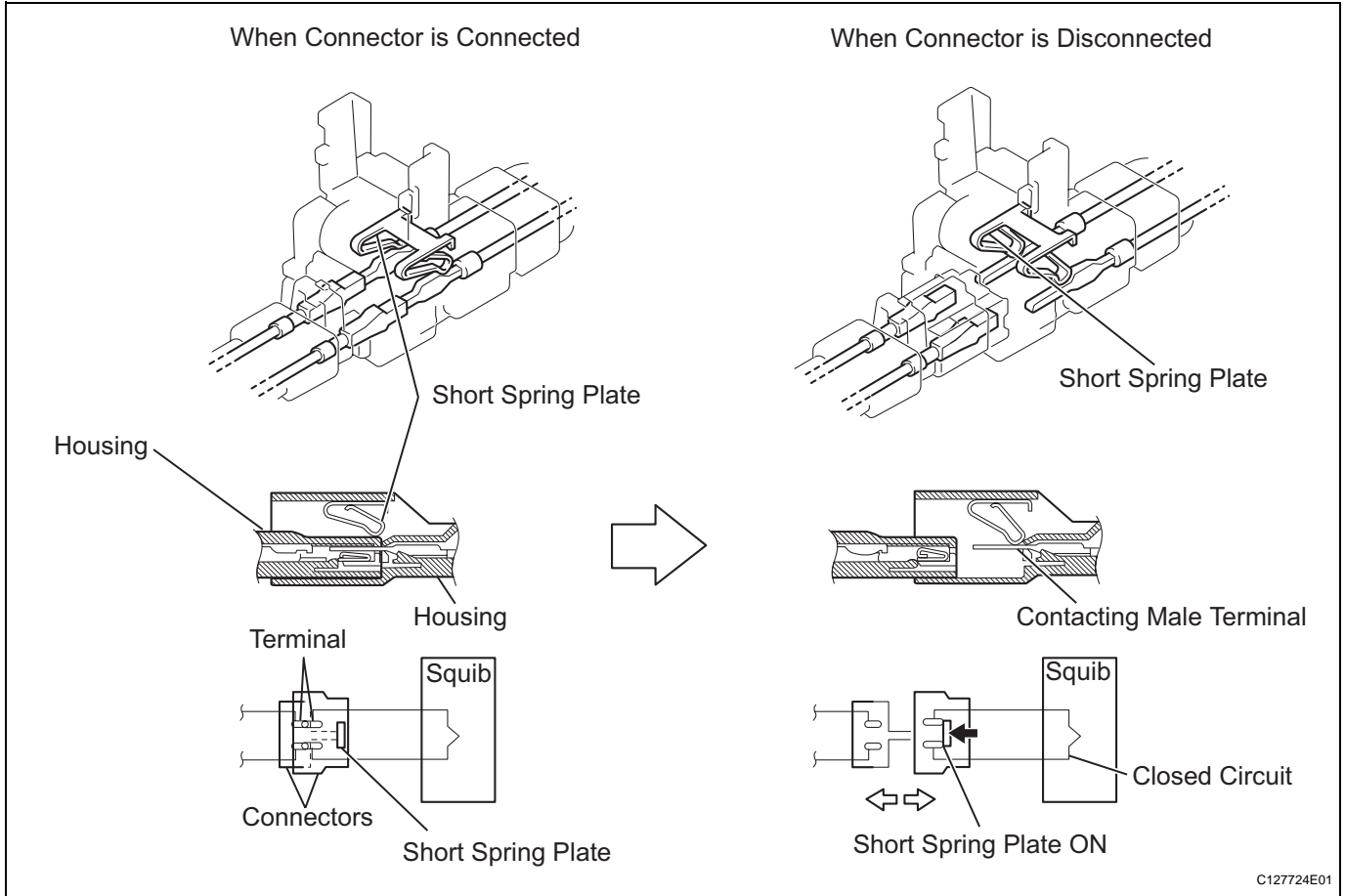


(b) All connectors in the SRS except the seat position sensor connector and the occupant classification ECU connector are colored yellow to distinguish them from other connectors. Some connectors have special functions, and are specially designed for the SRS. These connectors use durable gold-plated terminals, and are placed in the locations shown on the previous page to ensure high reliability.

(1) Terminal twin-lock mechanism:

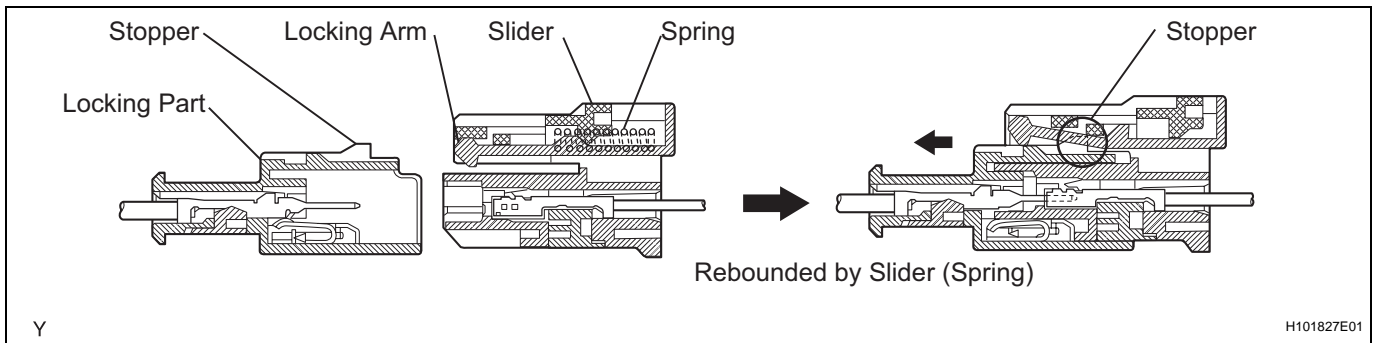
Each connector is a two-piece component consisting of a housing and a spacer. This design enables the terminal to be locked securely by two locking devices (the retainer and the lance) to prevent the terminals from becoming disconnected.

- (2) Activation prevention mechanism:
 Each connector contains a short spring plate.
 When the connector is disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.

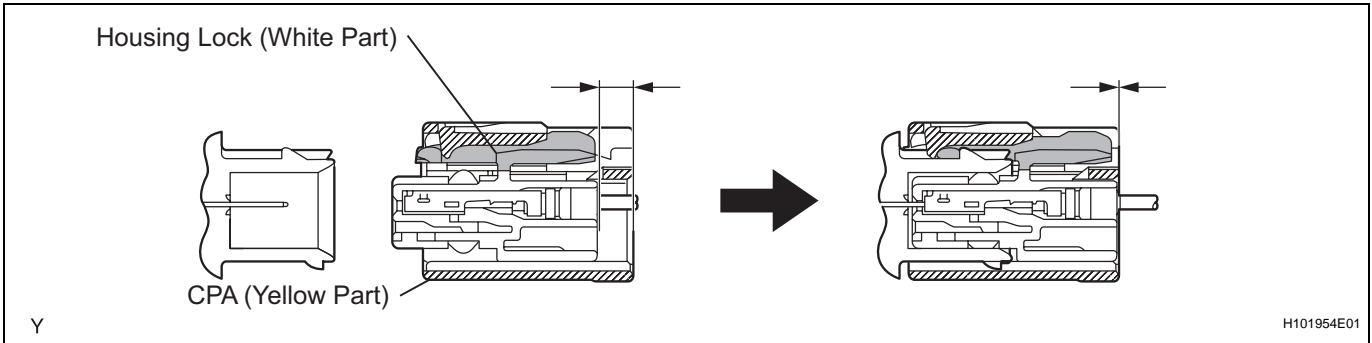


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- (3) Half connection prevention mechanism:
 If the connector is not completely connected, the connector is disconnected by the spring operation so that no continuity exists.

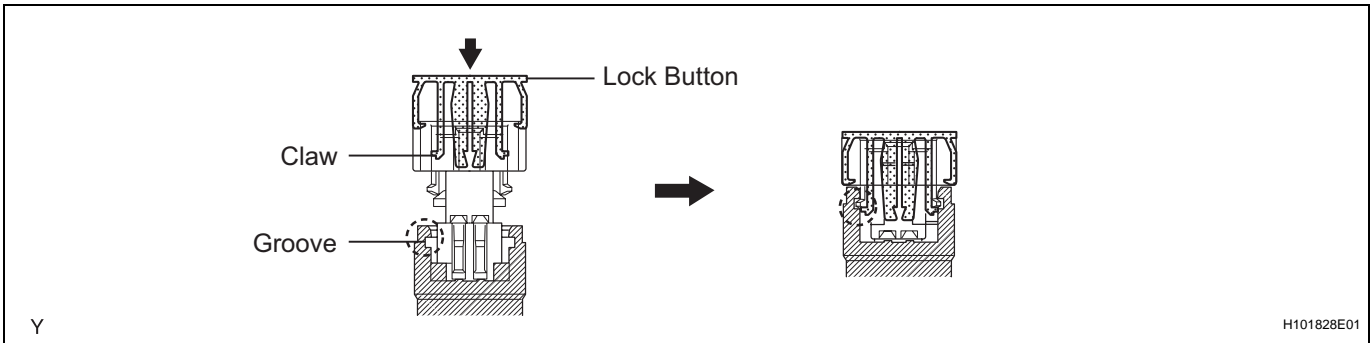


(4) Connector position assurance mechanism:
The CPA (yellow part) slides, which completes the connector engagement, only when the housing lock (white part) is completely engaged.

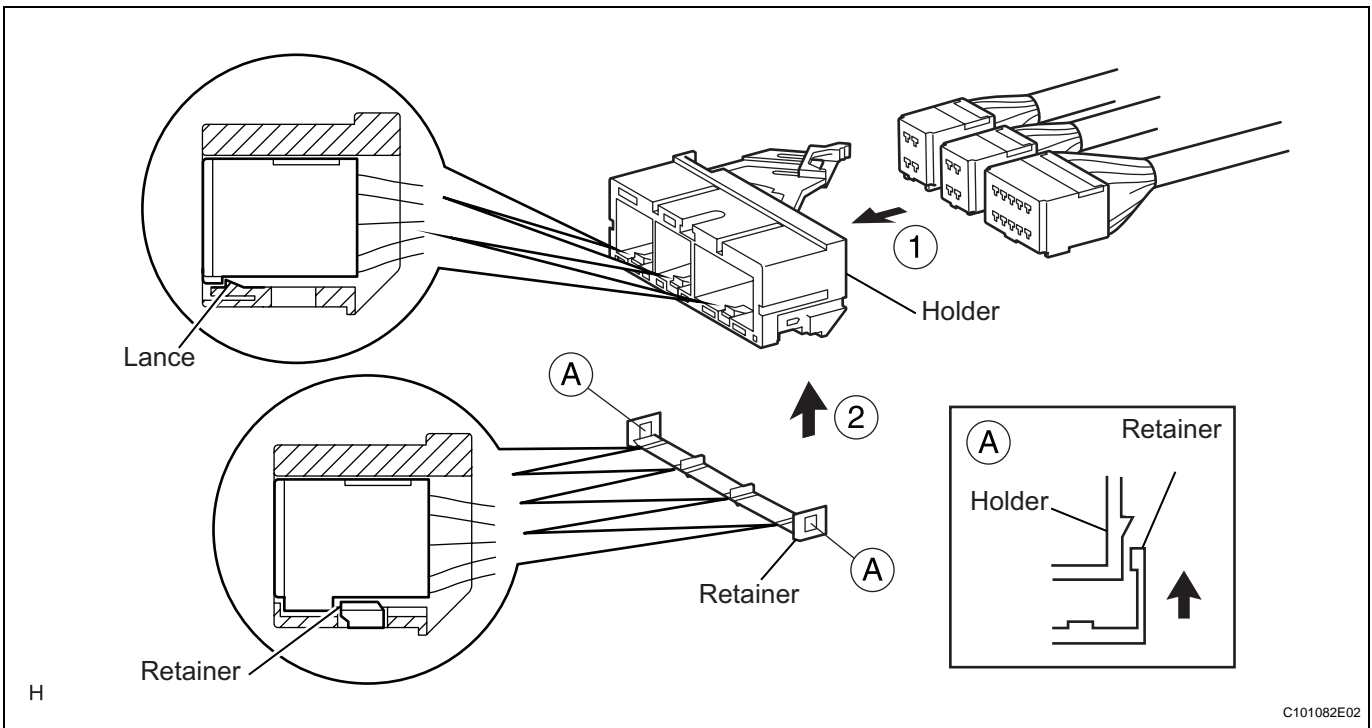


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(5) Connector lock mechanism (1):
Locking the connector lock button connects the connector.

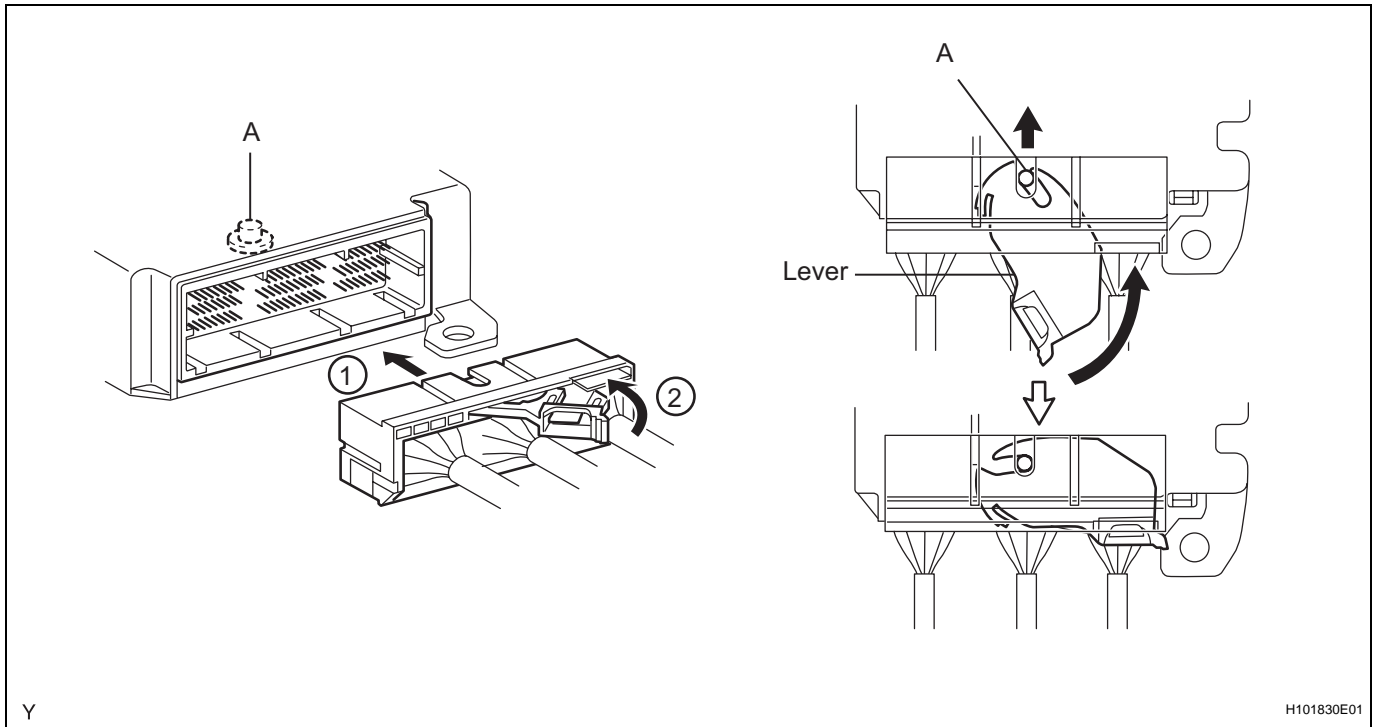


(6) Connector lock mechanism (2):
Both the primary lock with holder lances and the secondary lock with a retainer prevent the connectors from becoming disconnected.



(7) Improper connection prevention lock mechanism:

When connecting the holder, the lever is pushed into the end by rotating around the A axis to lock the holder securely.



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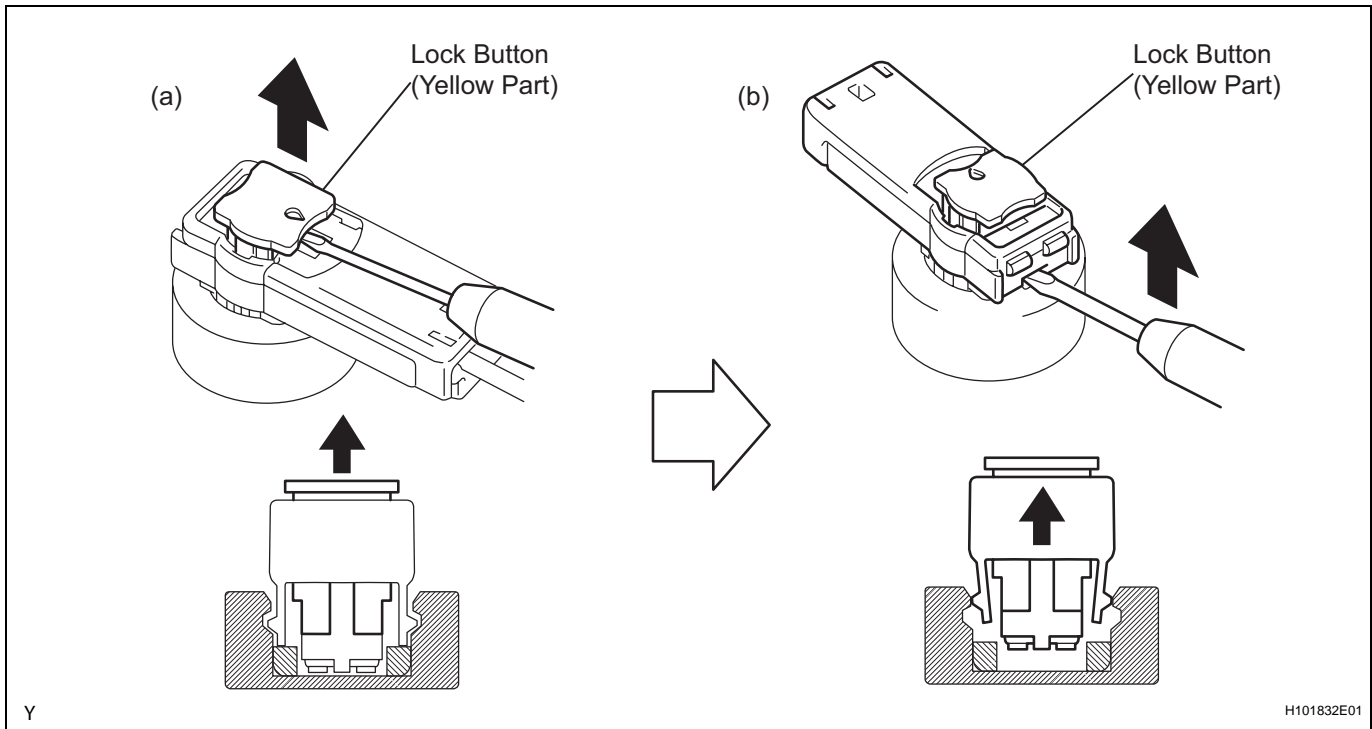
4. DISCONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY AND FRONT SEAT OUTER BELT ASSEMBLY

HINT:

Tape up the screwdriver tip before use.

- (a) Release the lock button (yellow part) of the connector using a screwdriver.

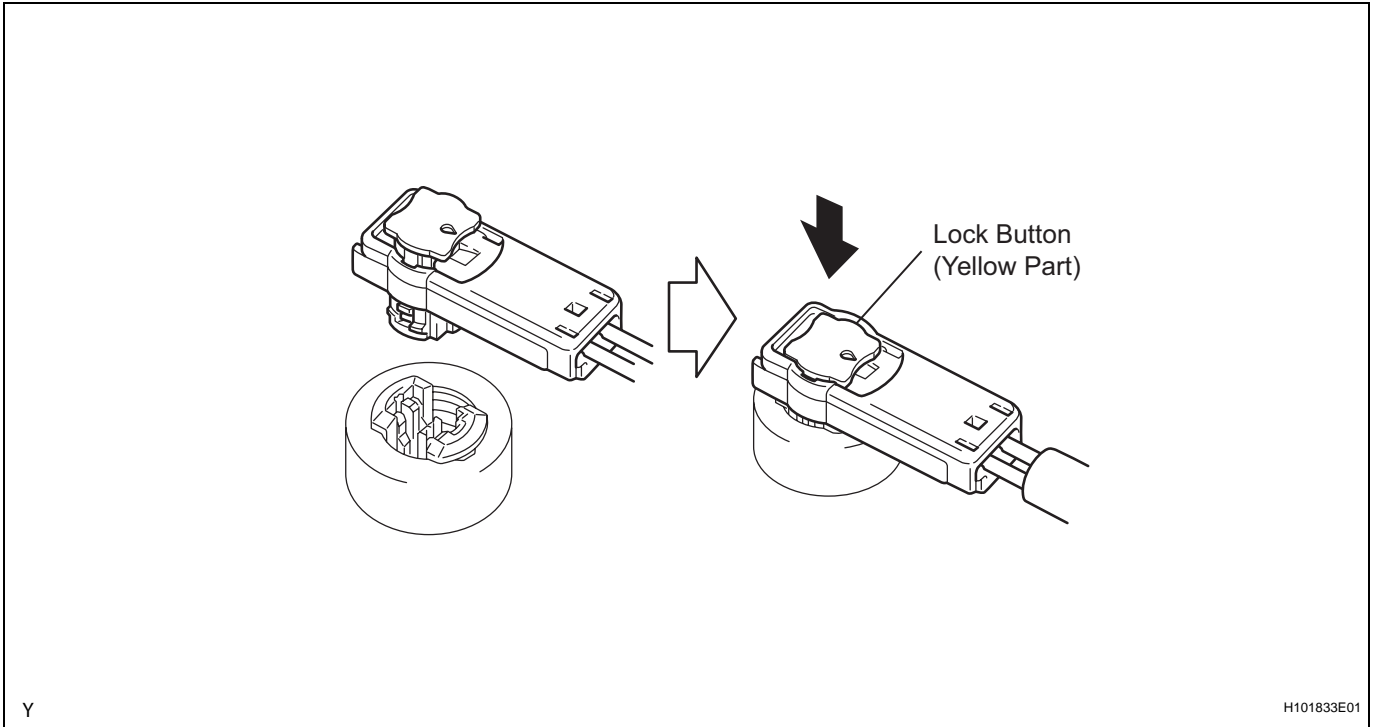
- (b) Insert the screwdriver tip between the connector and the base, and then raise the connector.



5. CONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY AND FRONT SEAT OUTER BELT ASSEMBLY

- (a) Connect the connector.

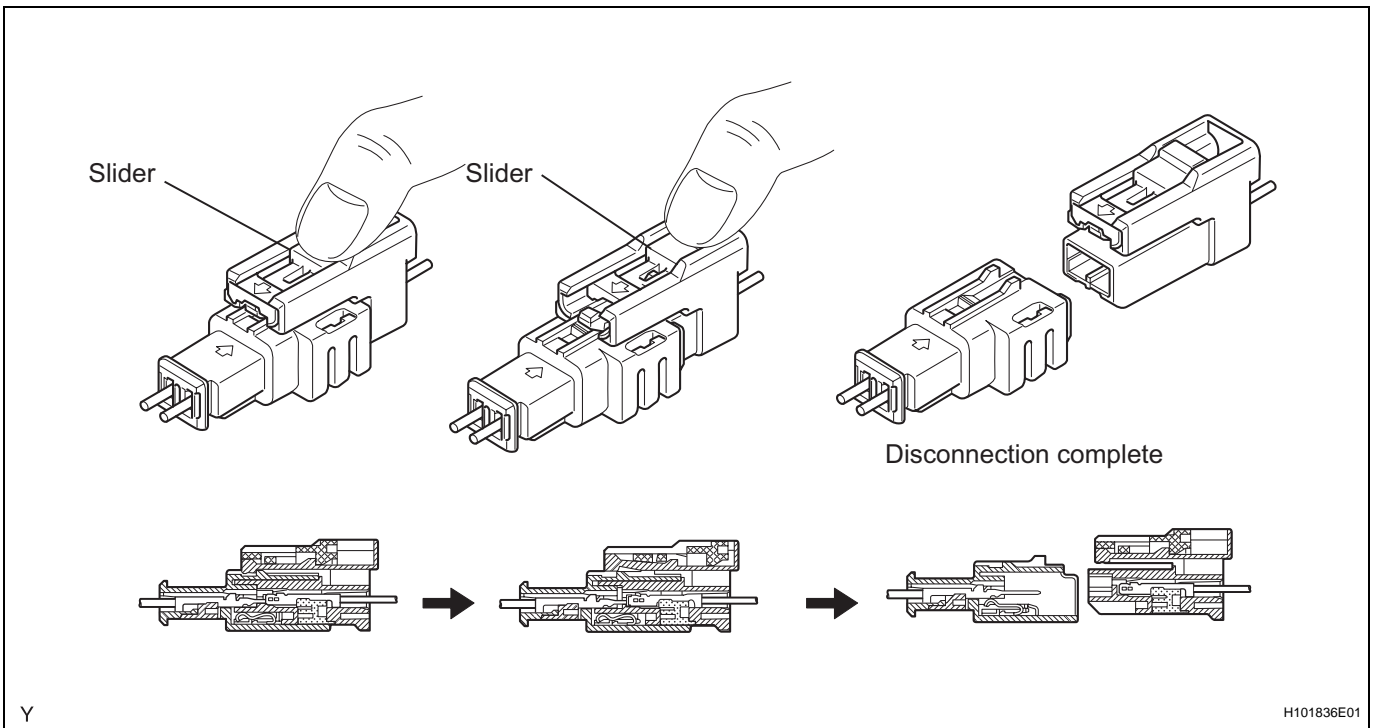
- (b) Push the lock button (yellow part) of the connector down securely. (When locking, a click sound can be heard.)



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6. DISCONNECTION OF CONNECTORS FOR FRONT PASSENGER AIRBAG ASSEMBLY (INSTRUMENT PANEL WIRE SIDE) AND CURTAIN SHIELD AIRBAG ASSEMBLY (FLOOR WIRE SIDE)

- (a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.

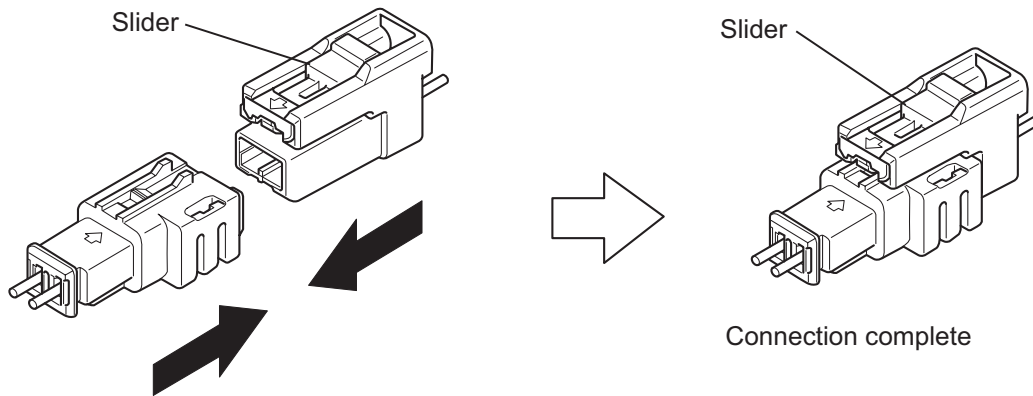


7. CONNECTION OF CONNECTORS FOR FRONT PASSENGER AIRBAG ASSEMBLY (INSTRUMENT PANEL WIRE SIDE) AND CURTAIN SHIELD AIRBAG ASSEMBLY (FLOOR WIRE SIDE)

- (a) Connect the connector as shown in the illustration.
(When locking, make sure that the slider returns to its original position and a click sound can be heard.)

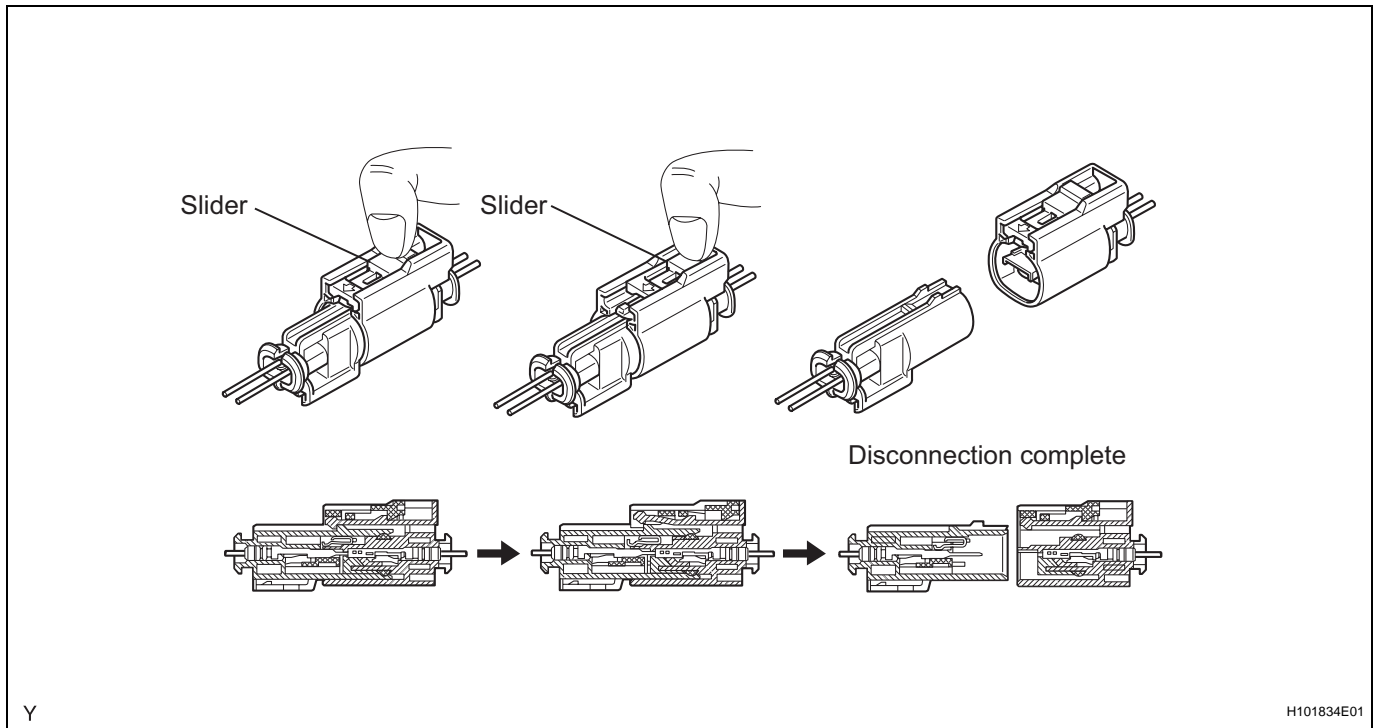
HINT:

When connecting, the slider slides. Do not touch the slider while connecting, as this may result in an insecure fit.



8. DISCONNECTION OF CONNECTORS FOR FRONT SEAT SIDE AIRBAG ASSEMBLY

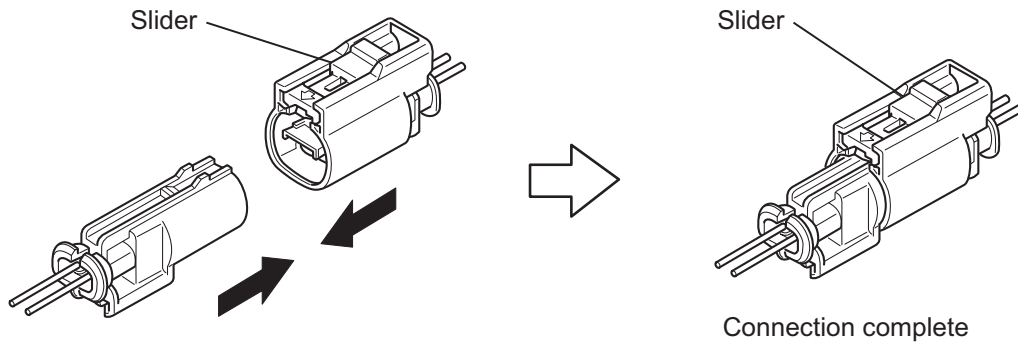
- (a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



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9. CONNECTION OF CONNECTORS FOR FRONT SEAT SIDE AIRBAG ASSEMBLY

- (a) Connect the connector as shown in the illustration. (When locking, make sure that the slider returns to its original position and a click sound can be heard.)
HINT:
When connecting, the slider slides. Do not touch the slider while connecting, as this may result in an insecure fit.

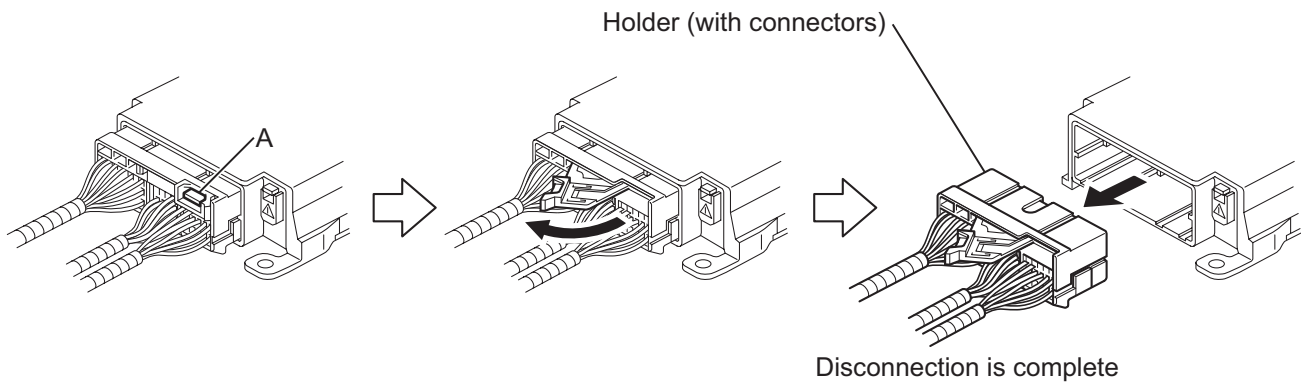


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10. DISCONNECTION OF CONNECTORS FOR CENTER AIRBAG SENSOR ASSEMBLY

- (a) Pull the lever by pushing part A as shown in the illustration and disconnect the holder (with connectors).

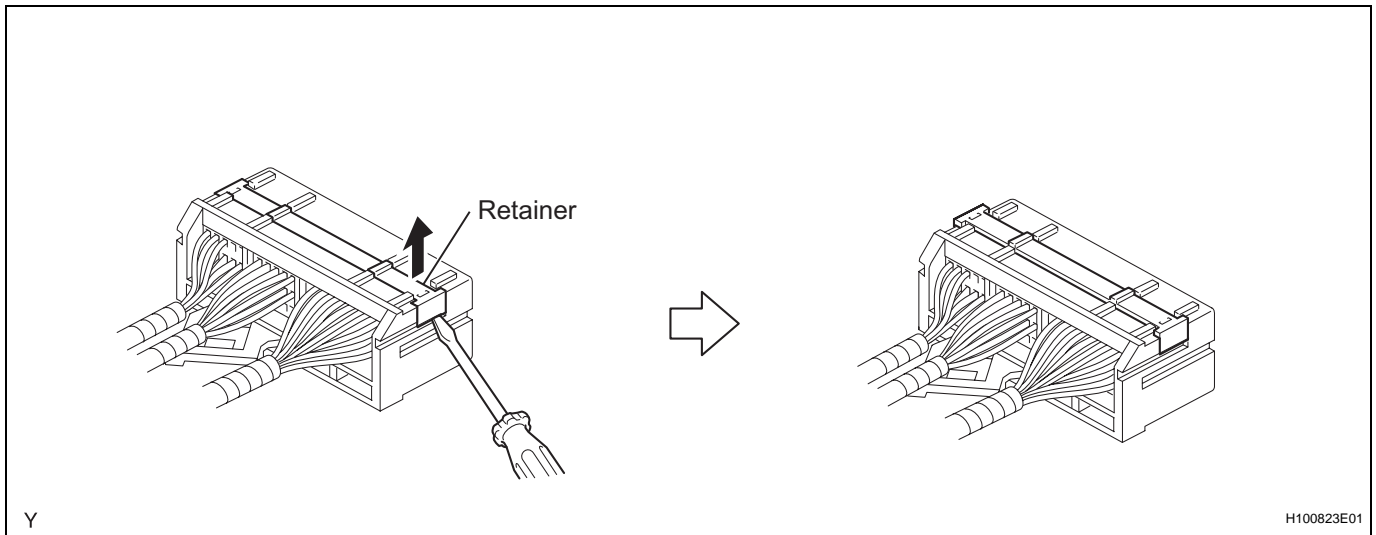


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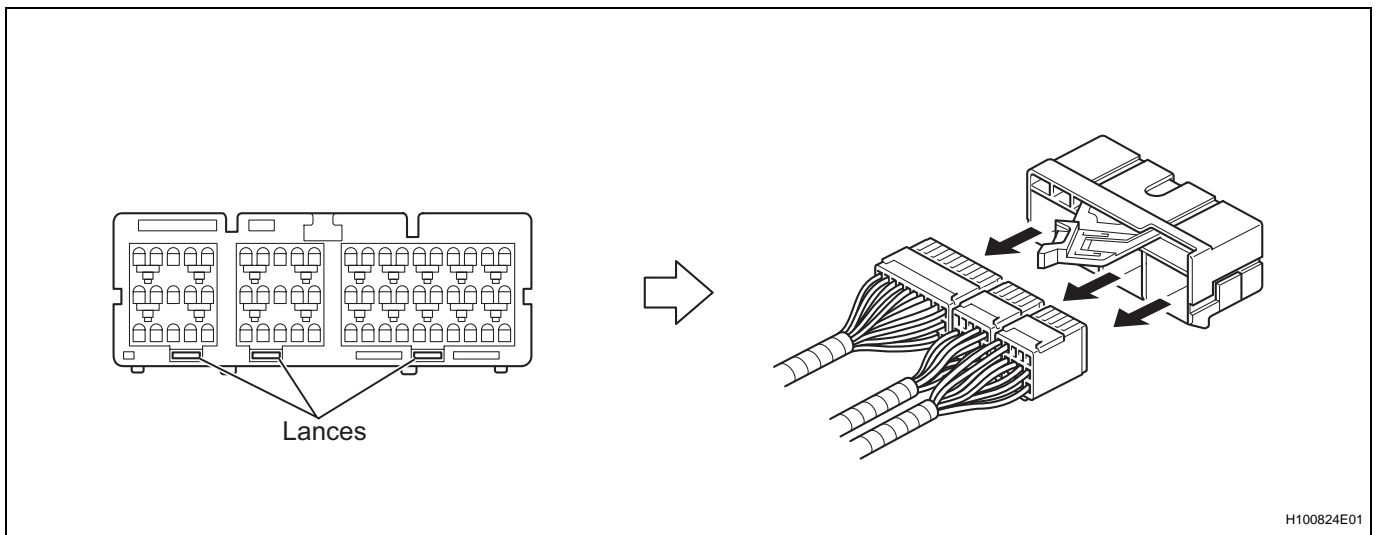
HINT:
Perform the following procedures when replacing the holder.

- (b) Remove the holder.
 (1) Using a screwdriver, unlock the retainer.



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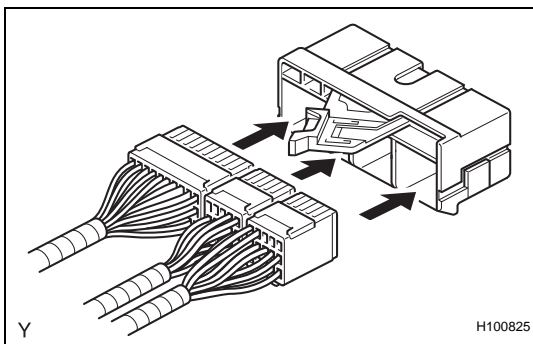
- (2) Release the fitting lances and remove the holder.



- (c) Install the holder.
 (1) Install the connectors into the holder. (When locking, a click sound can be heard.)
 HINT:
 The retainer is locked when the holder is connected.

11. CONNECTION OF CONNECTORS FOR CENTER AIRBAG SENSOR ASSEMBLY

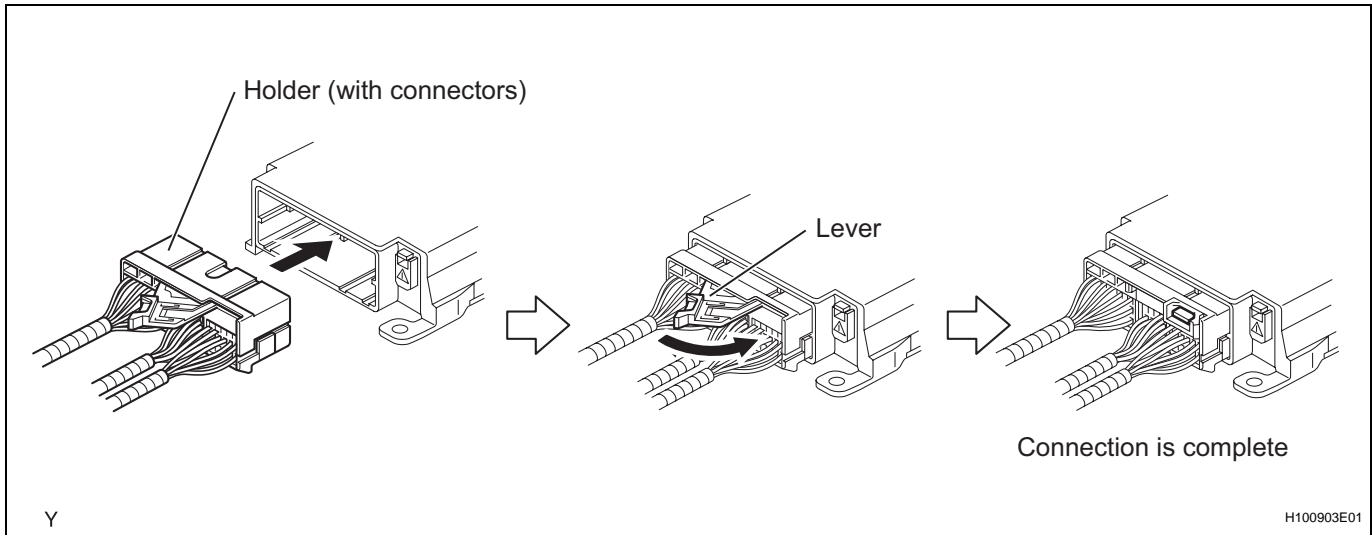
- (a) Firmly insert the holder (with connectors) into the center airbag sensor assembly until it cannot be pushed any further.



- (b) Push the lever to connect the holder (with connectors). (When locking, a click sound can be heard.)

HINT:

The holder slides into the center airbag sensor assembly when it is being connected. Do not hold the holder while connecting, as it may result in an insecure fit.

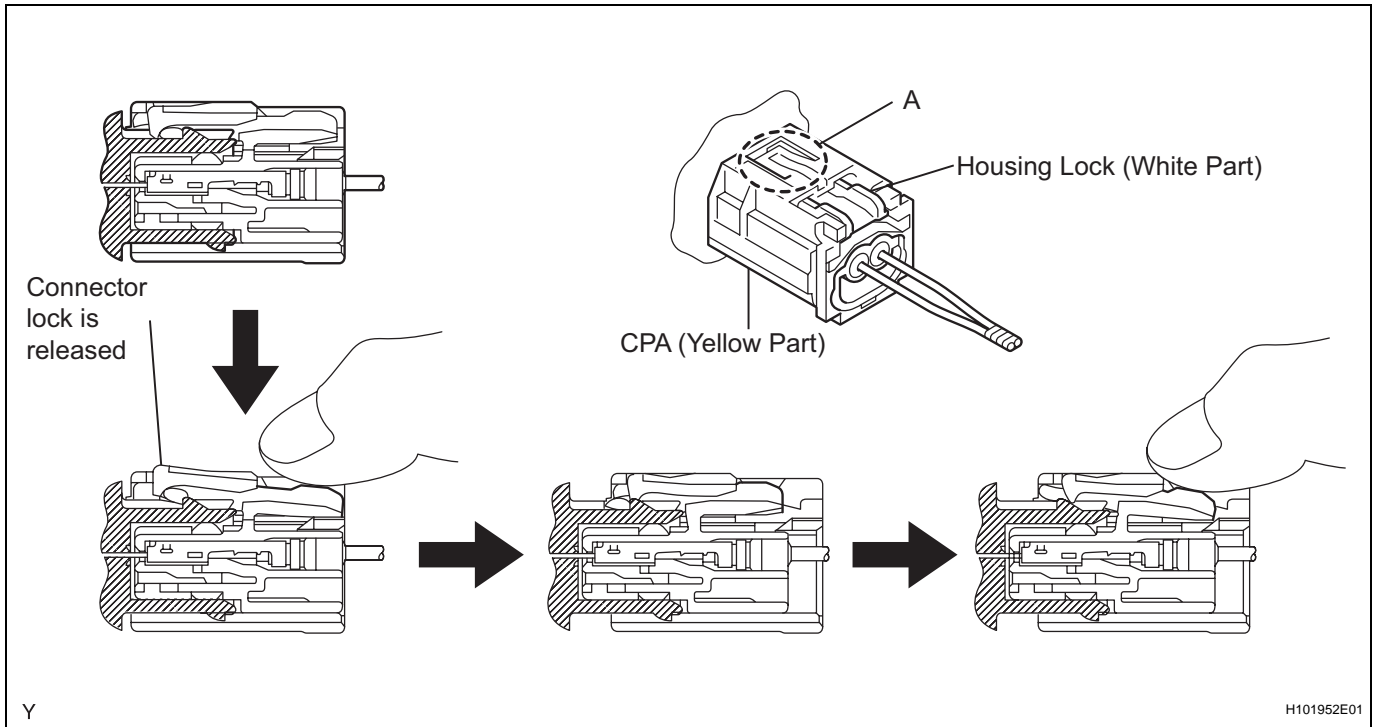


12. DISCONNECTION OF CONNECTORS FOR FRONT AIRBAG SENSORS

- (a) Push down the housing lock (white part) and slide the CPA (yellow part). (At this time, the connector cannot be disconnected yet.)
- (b) Push down the housing lock (white part) again and disconnect the connector.

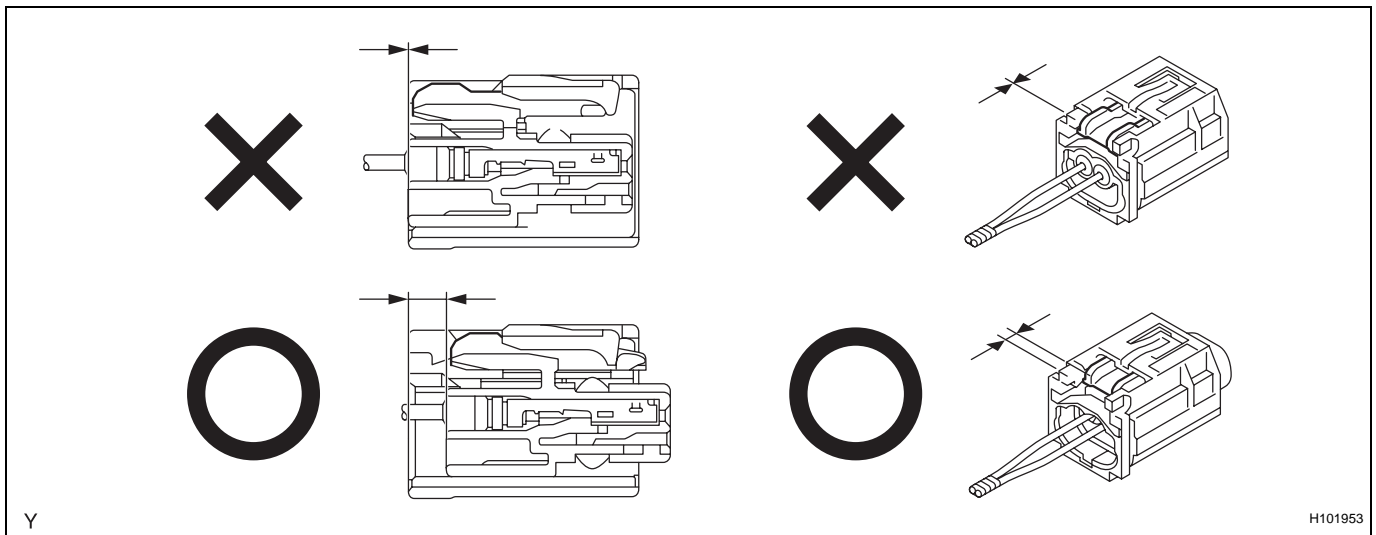
HINT:

Do not push down part A shown in the illustration when disconnecting.



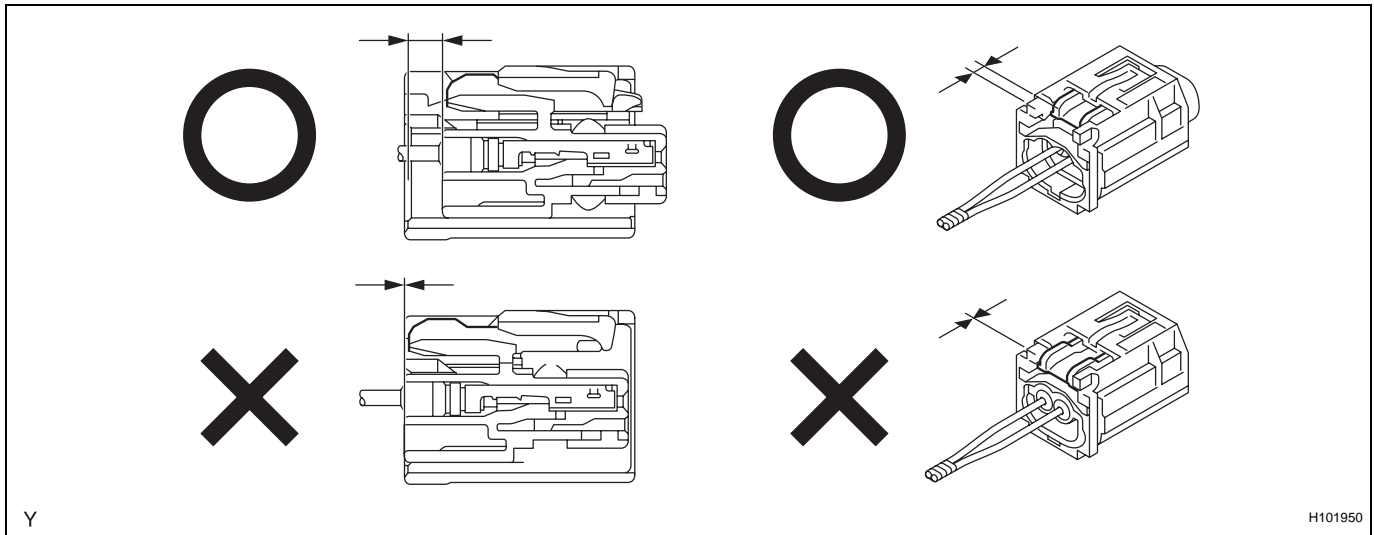
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(c) After disconnecting the connector, check that the position of the housing lock (white part) is as shown in the illustration.



13. CONNECTION OF CONNECTORS FOR FRONT AIRBAG SENSOR

- (a) Before connecting the connectors, check that the position of the housing lock (white part) is as shown in the illustration.

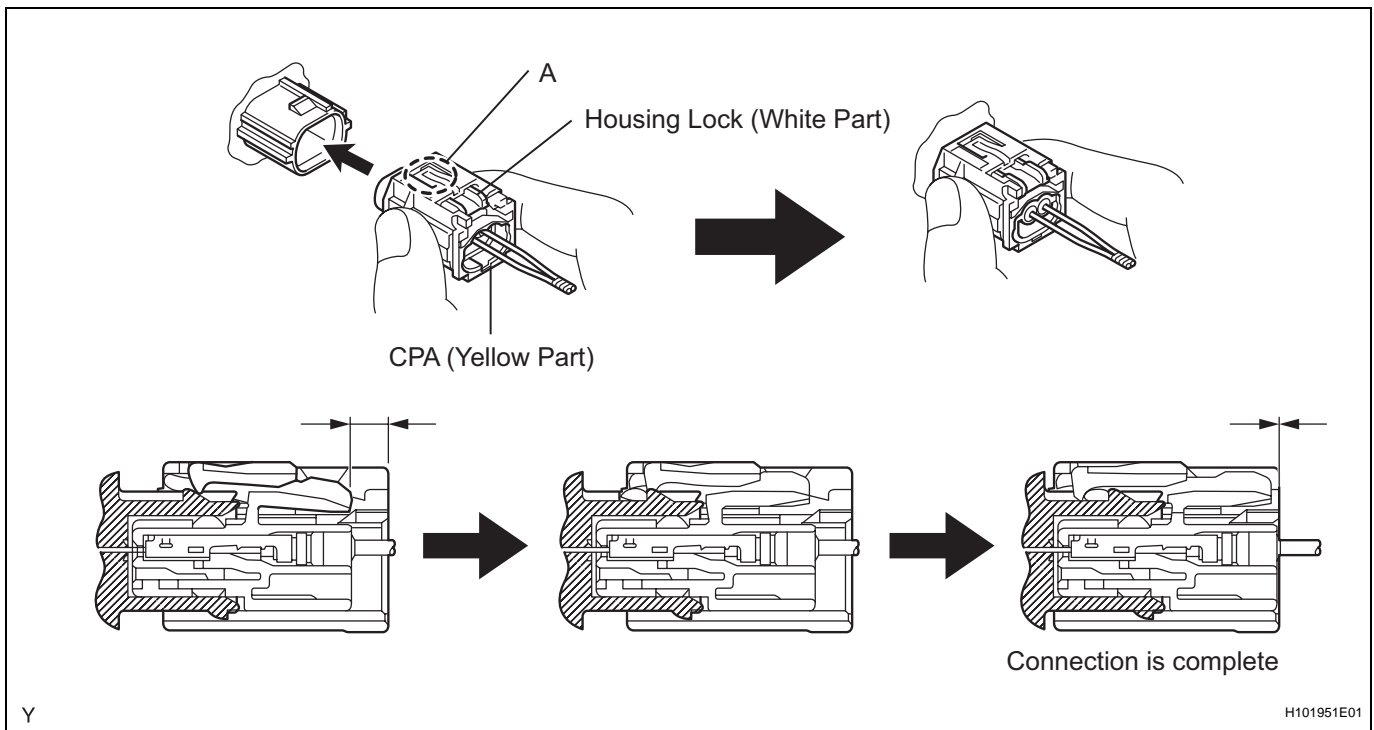


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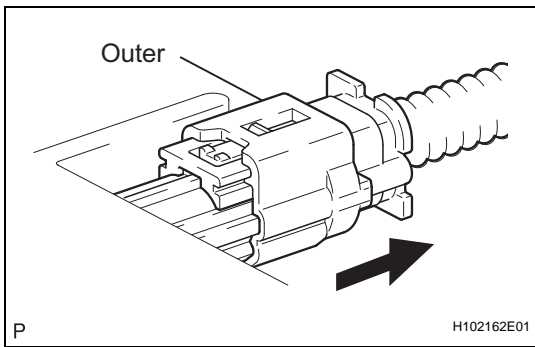
- (b) Be sure to engage the connectors until they are locked. (When locking, make sure that a click sound can be heard.)

HINT:

When connecting them, the housing lock (white part) slides. Do not hold the housing lock (white part) and part A, as it may result in an insecure fit.



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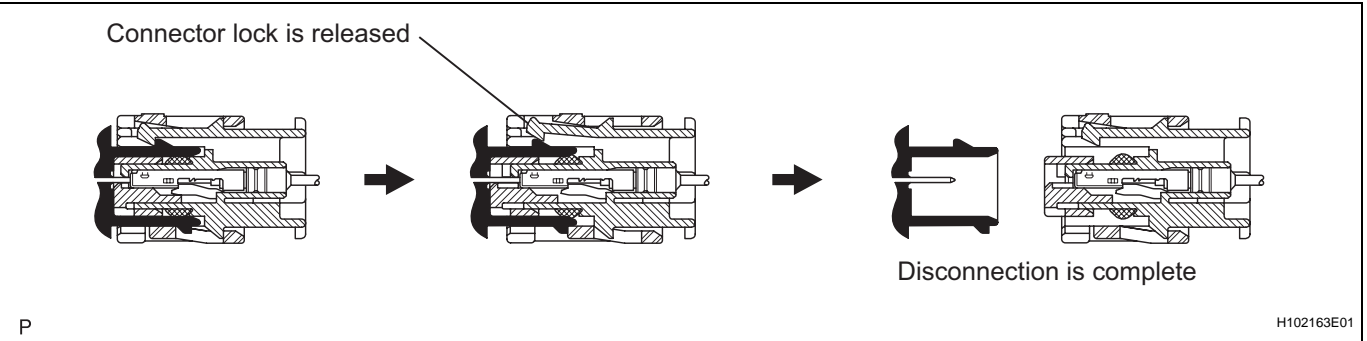


14. DISCONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

- (a) While holding both sides of the outer connector locking sleeve, slide the outer in the direction shown by the arrow.
- (b) When the connector lock is released, the connectors are disconnected.

HINT:

Be sure to hold both outer flanks. Holding the top and bottom sides will make disconnection difficult.



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15. CONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

- (a) Connect the connector as shown in the illustration (When locking, make sure that the outer returns to its original position and a click sound can be heard).

HINT:

When connecting, the outer slides. Do not hold the outer while connecting, as it may result in an insecure fit.

