

# Technical Service Bulletin

Mazda North American Operations  
Irvine, CA 92618-2922



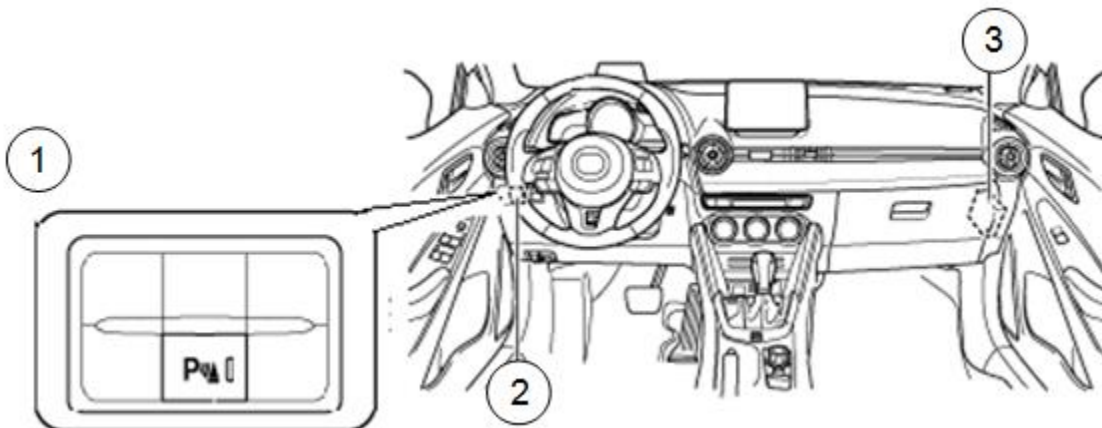
<b>Subject:</b> <b>REAR PARKING SENSOR BEEPS WITHOUT ANY OBSTACLE BEHIND THE VEHICLE</b>	<b>Bulletin No.:</b> 09-032/19
	<b>Last Issued:</b> 08/16/2019

## APPLICABLE MODEL(S)/VINS

2017-2019 CX-5

## DESCRIPTION

Some customers may experience improper operation of the rear parking system with beep sounds coming from the rear parking sensor when there are no obstacles behind the vehicle. This occurs when the blower fan is on (at any fan speed) and the transmission is in "R" position. The concern is caused by electrical noise from the blower fan controller circuit affecting the rear parking sensor circuit. To eliminate this concern, the harness to the rear parking sensor has been twisted to improve its tolerance to electrical noise.



1	Parking sensor switch
2	Front parking sensor
3	Parking sensor control module / Parking assist unit

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**NOTE: The image shown above is a CX-3, CX-5 is similar.**



Customers having this concern should have their vehicle repaired using the following repair procedure.

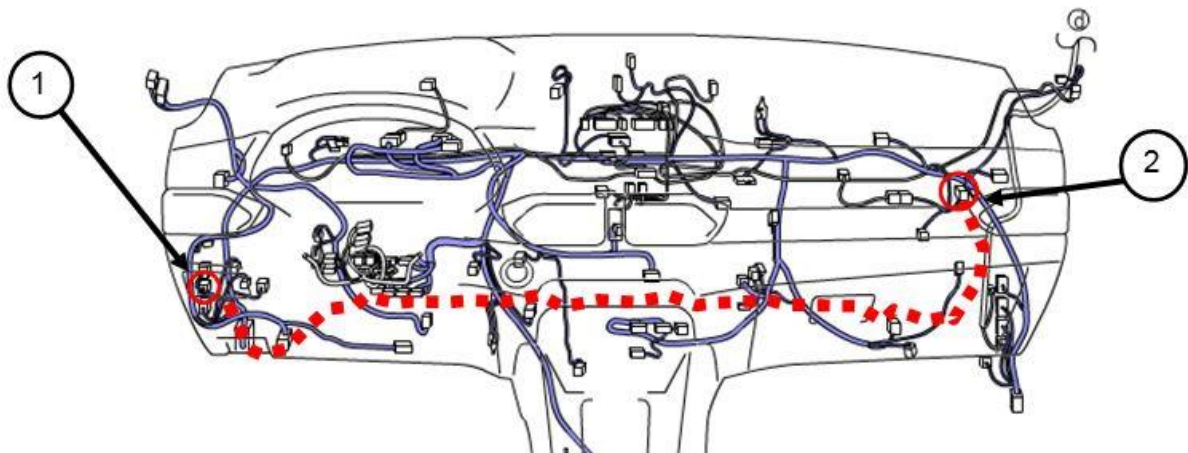
## REPAIR PROCEDURE

1. Verify the customer concern.

In this repair, a bypass harness will be routed along the rear harness and connected between the parking sensor control module and the instrument panel harness according to the following:

### Location of Connectors

	Bypass harness
	Instrument panel harness



1	C-15 Connector	Instrument panel harness
2	0922-601 Connector	Parking sensor control module

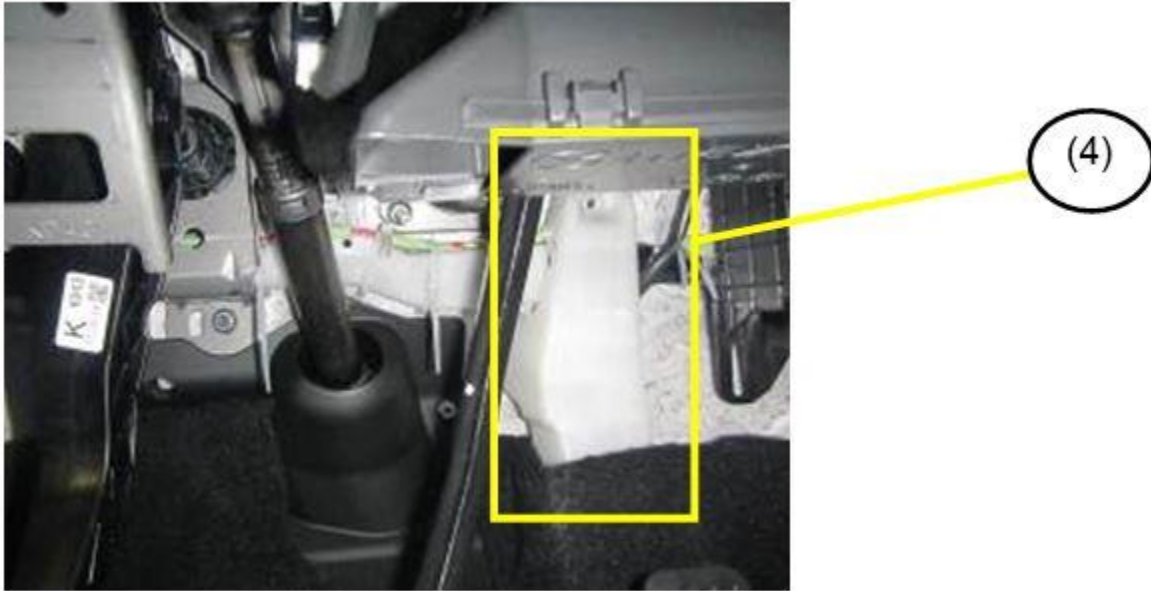
1. Slide both front seats fully backwards.
2. Record the customer's preset radio stations.
3. Disconnect the negative battery cable.
4. Remove the following parts according to the instructions on MGSS online:
  - a) (FRONT SIDE TRIM REMOVAL/INSTALLATION).
  - b) (LOWER PANEL REMOVAL/INSTALLATION).

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c) (GLOVE COMPARTMENT REMOVAL /INSTALLATION).

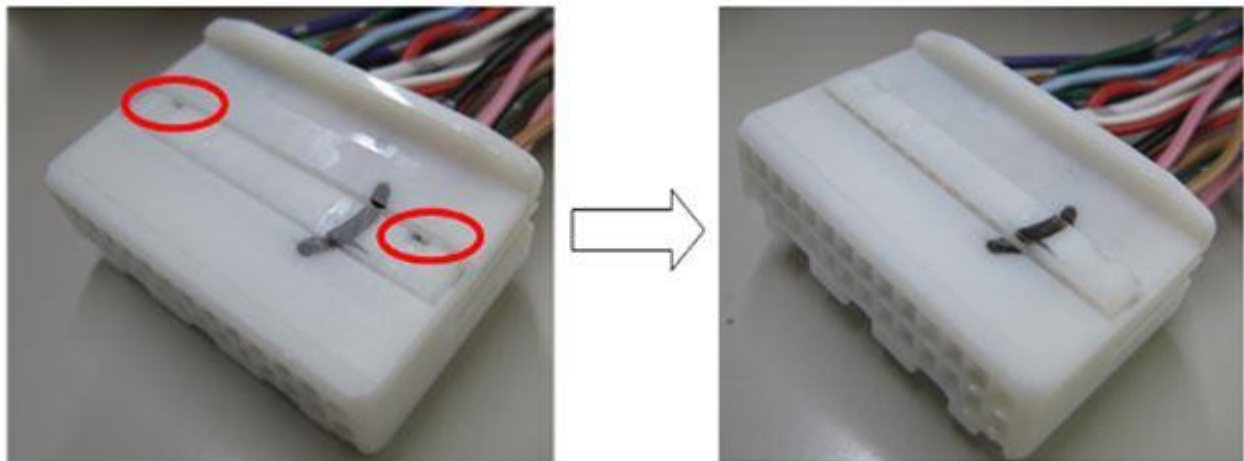
d) Pad (4)



5. Disconnect the 0922-601 connector.

6. Remove the specified 0922-601 connector terminals and insert the bypass harness terminals.

a) Unlock the connector lock by using a flat head screwdriver (or equivalent tool).

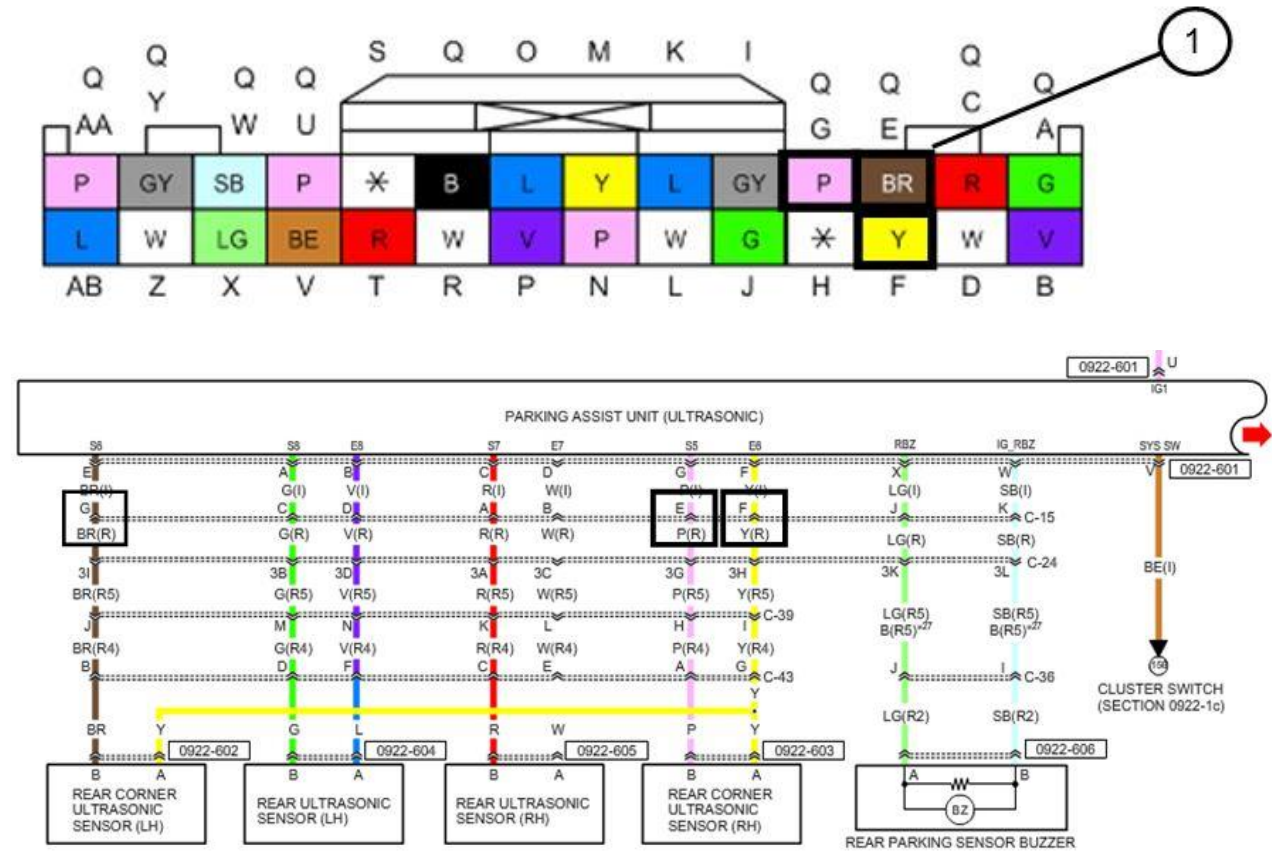


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b) Pull out the three (3) terminals highlighted below (1) with a pin-removal tool.

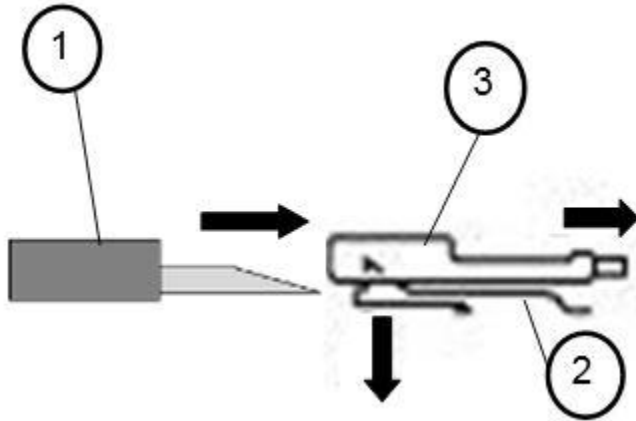
**NOTE:** See recommended pin-removal tool specifications below.

**0922-601 connector (Parking sensor control module connector)**



**NOTE:** Insert pin-removal tool to push down terminal plastic holder and pull out terminal.

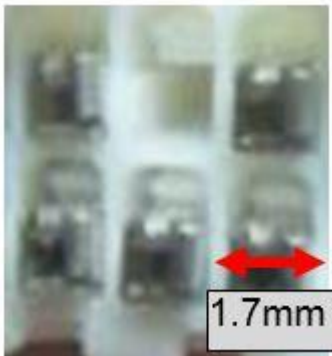
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1	Pin-removal tool
2	Terminal plastic holder
3	Terminal

#### Recommended Pin-Removal Tool Specification:

- **Width: Less than 1.7mm**
- **Tip thickness: Less than 0.4mm**

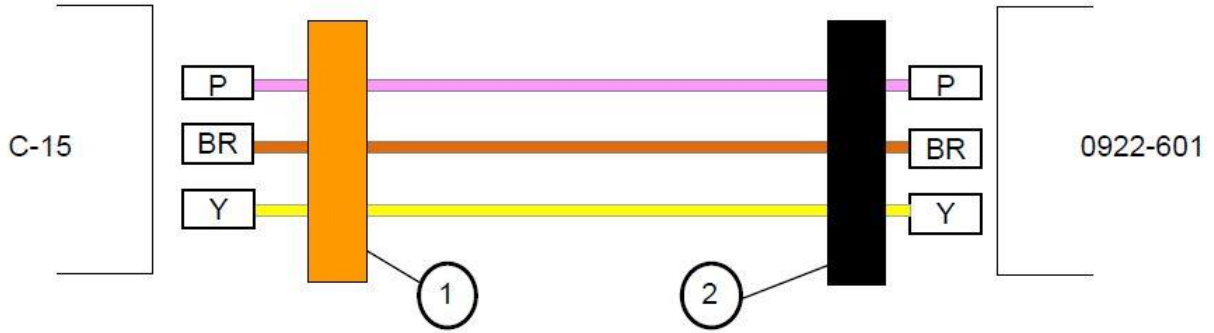


e) Insert the bypass harness terminals with the black tape to the 0922-601 connector.

#### NOTE:

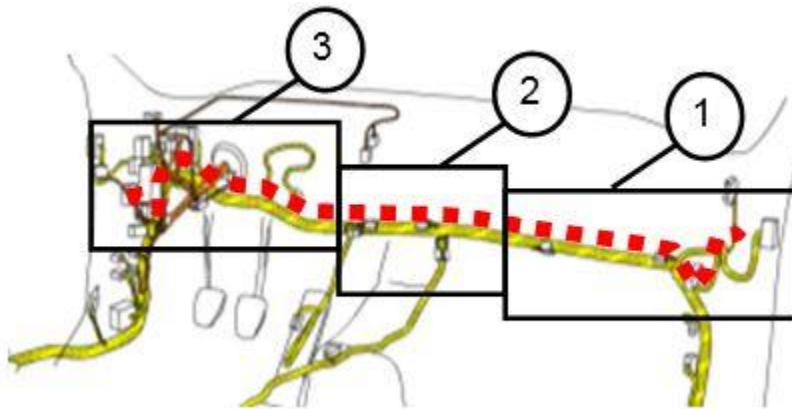
- Make sure to insert the same color terminal as the original into each connector hole.
- The left and right ends of the bypass harness have different shaped terminals.
- Use the tape color (black and orange) to determine which terminal to connect to the applicable connector.

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1	Orange tape	C-15 connector side
2	Black tape	0922-601 connector side

- f) Verify the terminals are firmly inserted.
- g) Lock the connector 0922-601 in the reverse order of unlocking the connector.
  - NOTE:** A click sound can be heard when the connector is locked.
- h) Attach the terminal cover to the connector.
- 7. Connect the 0922-601 connector to the parking sensor control module.
- 8. Route the bypass harness over the rear harness in the order shown below.

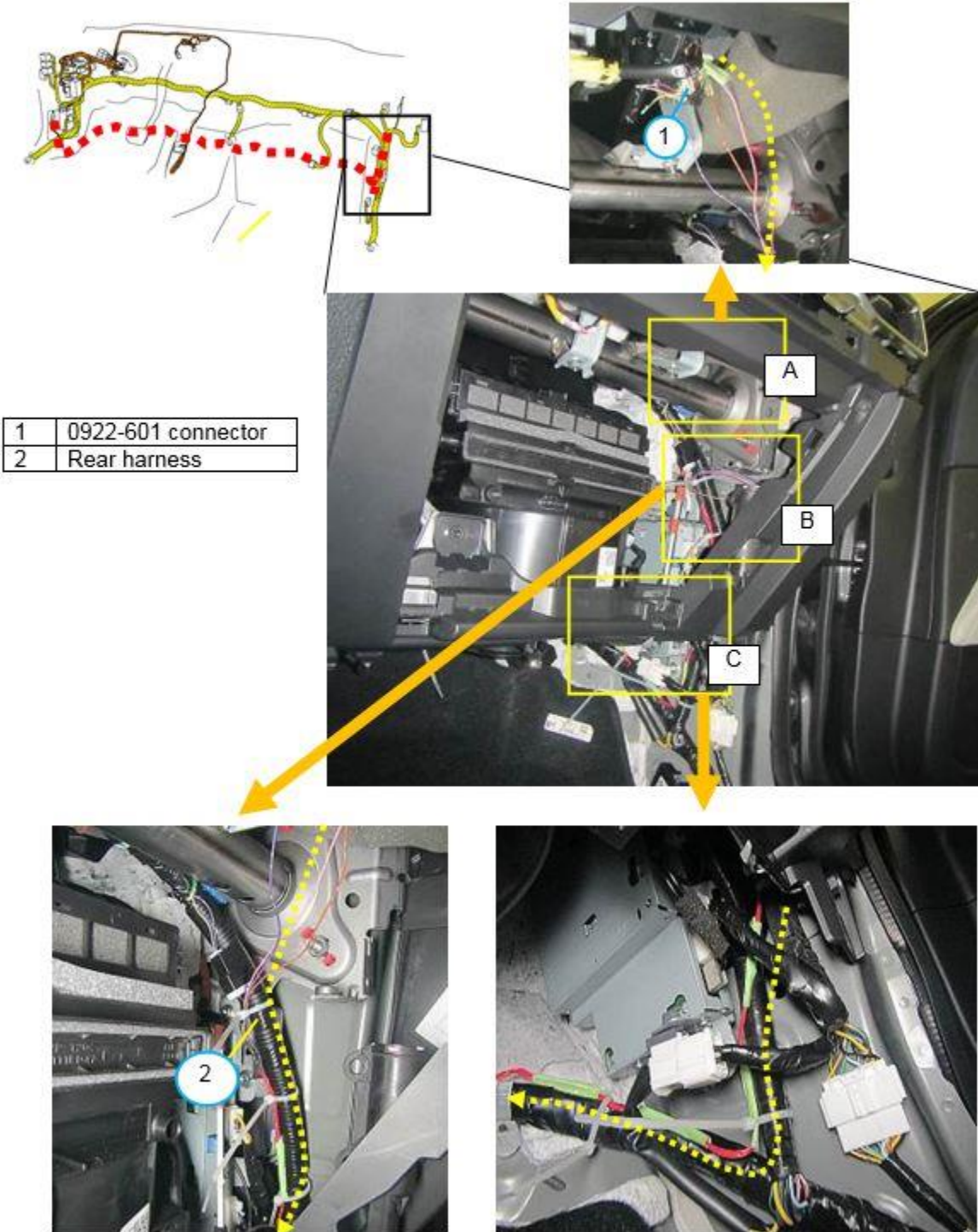


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1	Passenger side
2	Center
3	Driver side

a)Route the bypass harness over the instrument panel harness with the removed terminals from 0922-601 connector to the rear harness.

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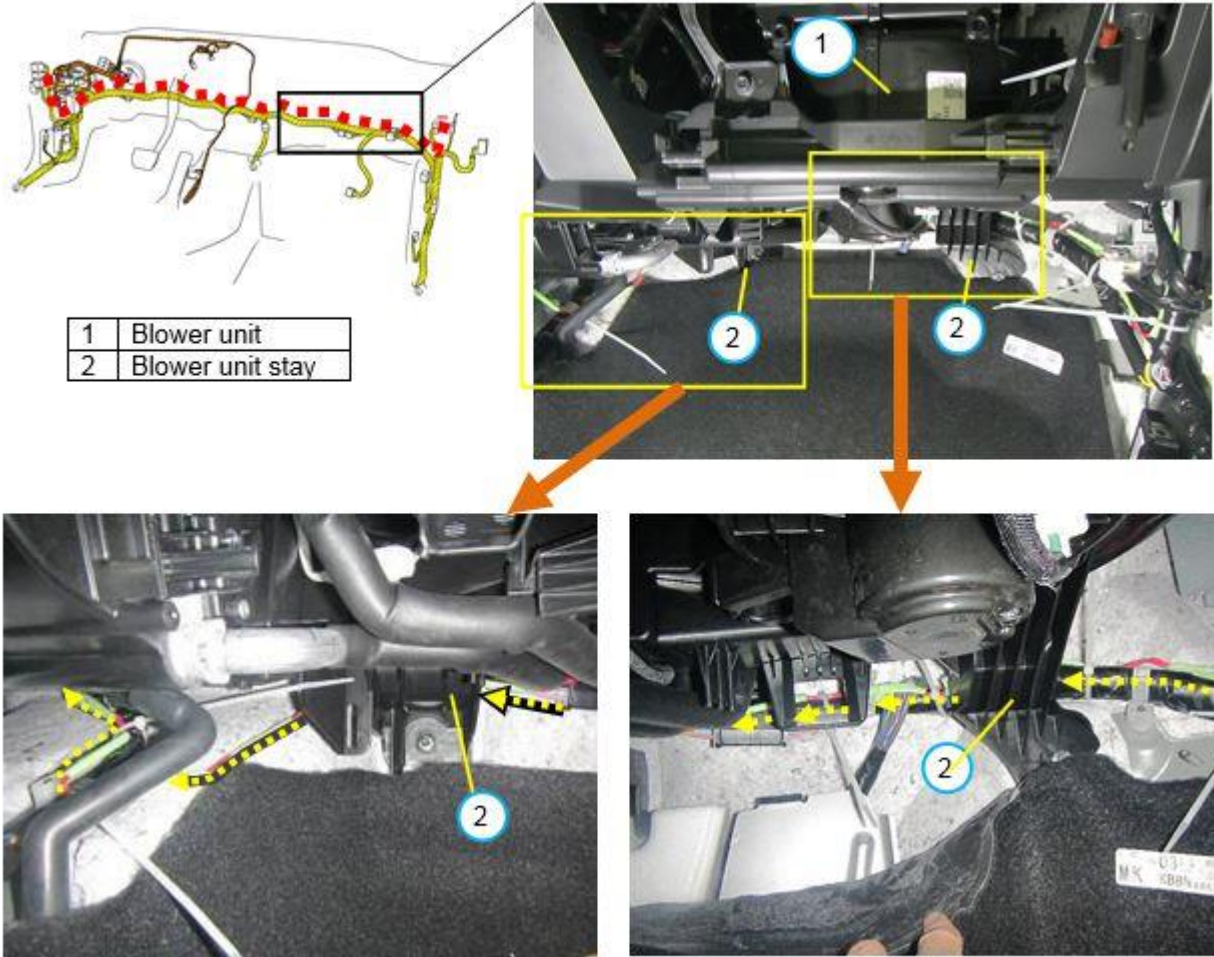


b)Route the bypass harness behind the blower unit stay.

**NOTE :** The blower unit (1) does not need to be removed.

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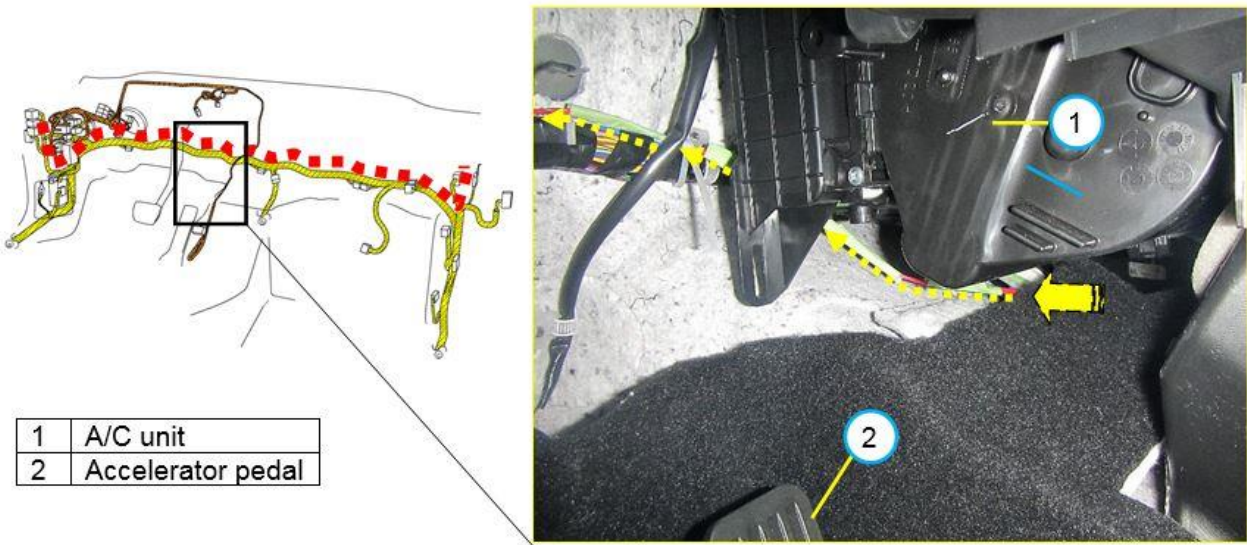




c) Continue routing the bypass harness behind the A/C unit.

**NOTE:** Insert/route the bypass harness from the passenger side and pull it out from the driver side.

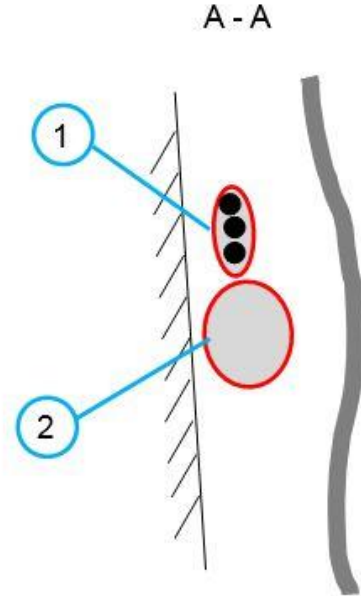
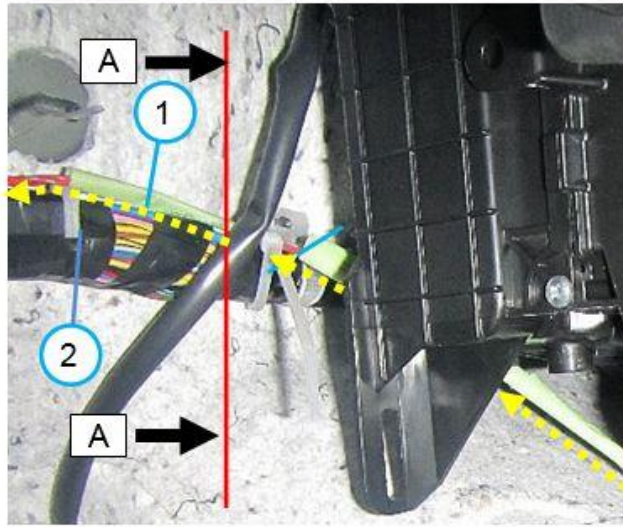
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1	A/C unit
2	Accelerator pedal

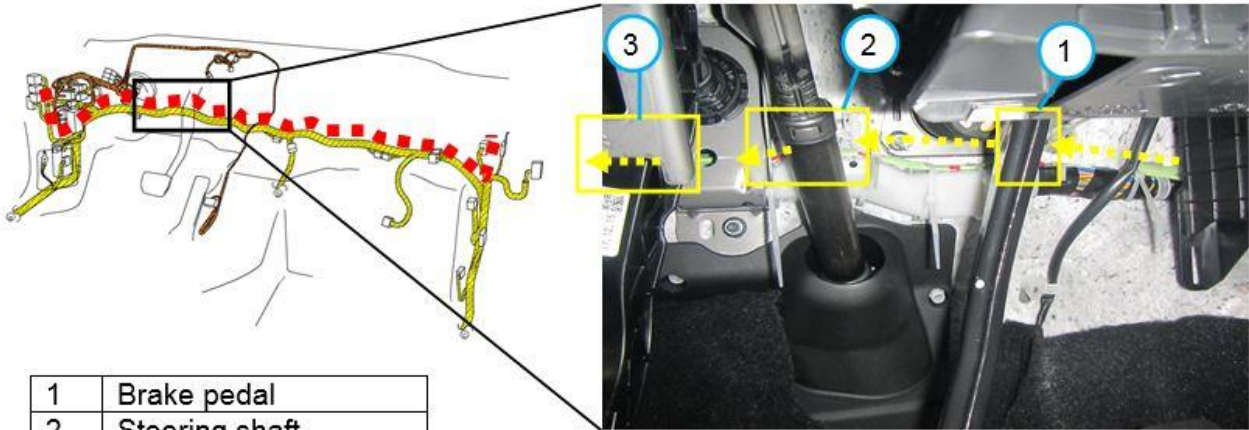
**NOTE:** Continue routing the bypass harness as shown below.

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1	Bypass harness
2	Rear harness

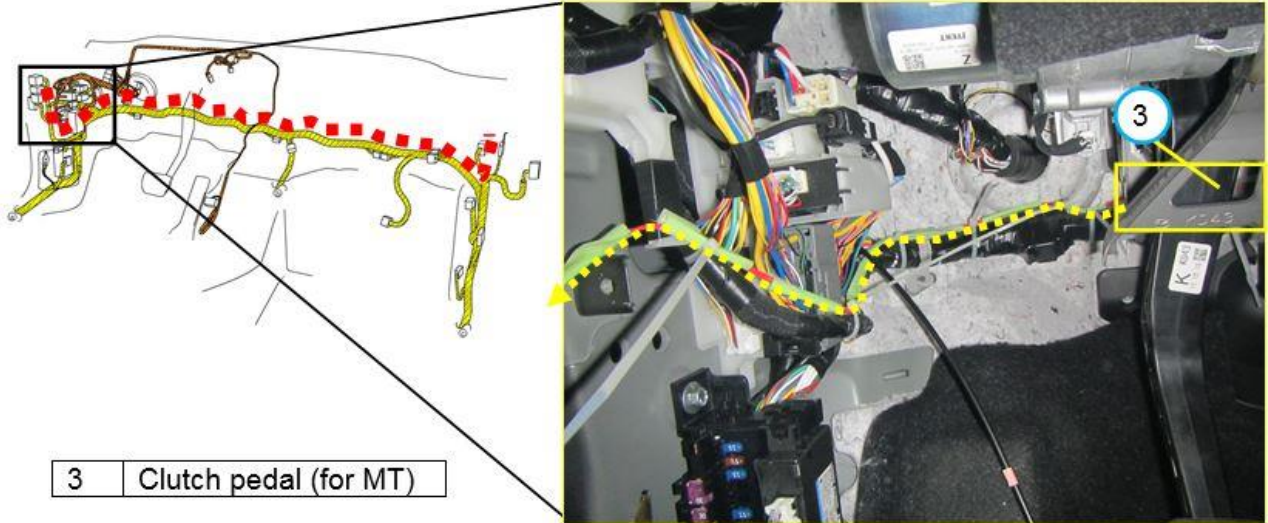
d) Route the bypass harness behind the brake pedal, steering shaft and clutch pedal (M/T) as shown below.



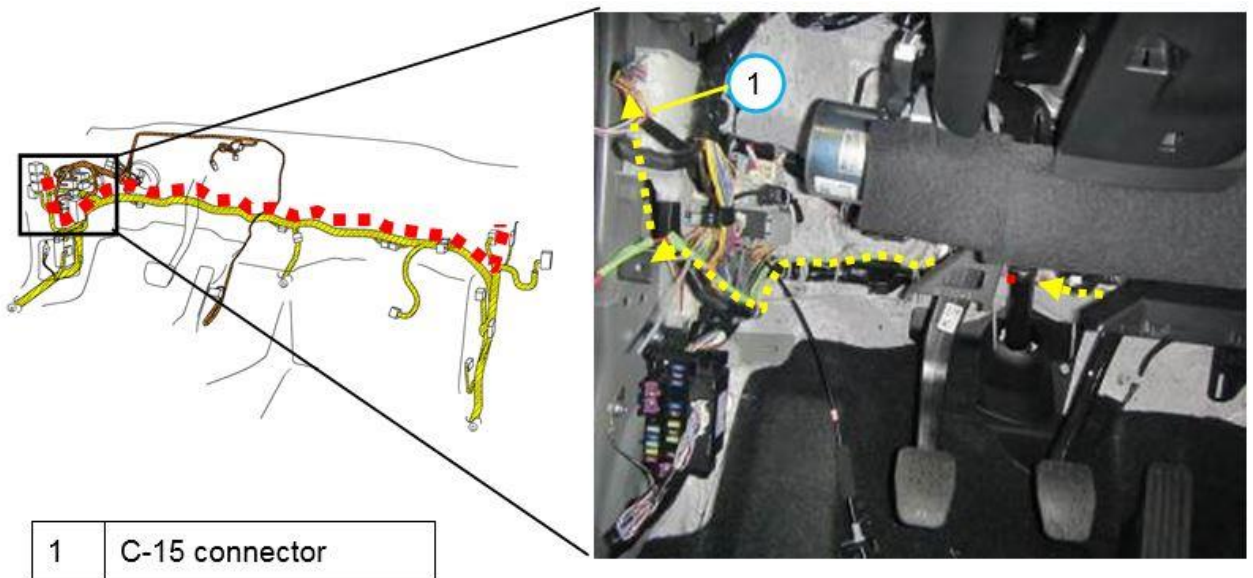
1	Brake pedal
2	Steering shaft
3	Clutch pedal (for MT)

e) Continue routing the bypass harness over the rear harness to the C-15 connector.

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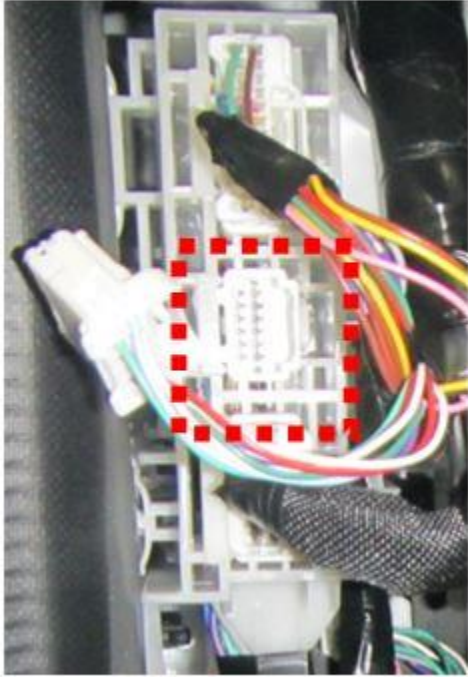


e) Continue routing the bypass harness over the rear harness to the C-15 connector.

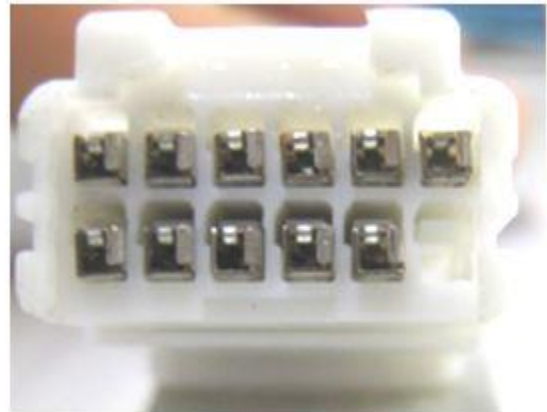
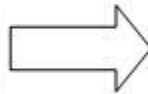


9. Disconnect the C-15 connector.

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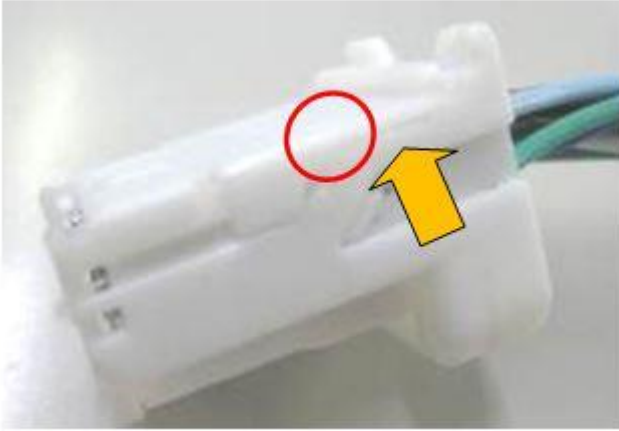


10. Remove the specified C-15 connector terminals and insert the bypass harness terminals:  
a) Detach the terminal cover with a pin-removal tool.

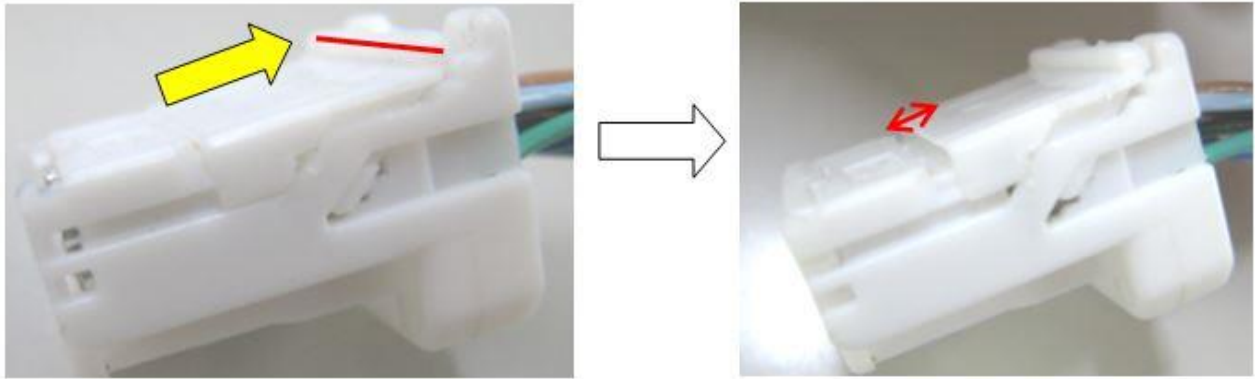


b) Insert a pin-removal tool to the lock tab and lift it up.

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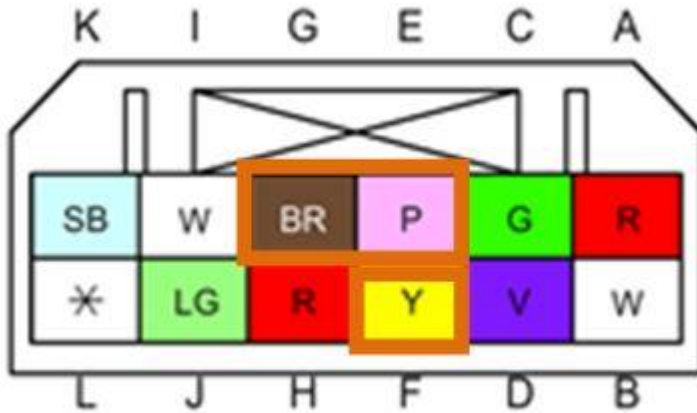
c) Push the lock tab end in the direction of the arrow; unlock the connector terminal lock.



d) Pull out the three (3) terminals highlighted below (1) with a pin-removal tool.

**C-15 (Instrument Panel Harness-Rear Harness)**

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e) Insert the bypass harness terminals with orange tape to C-15 connector.

**NOTE:** Make sure to insert the same color terminal as the original into each connector hole.

f) Verify if the terminals are firmly inserted.

g) Lock the connector in the reverse order of unlocking the connector.

**NOTE:** A click sound can be heard when the connector is locked.



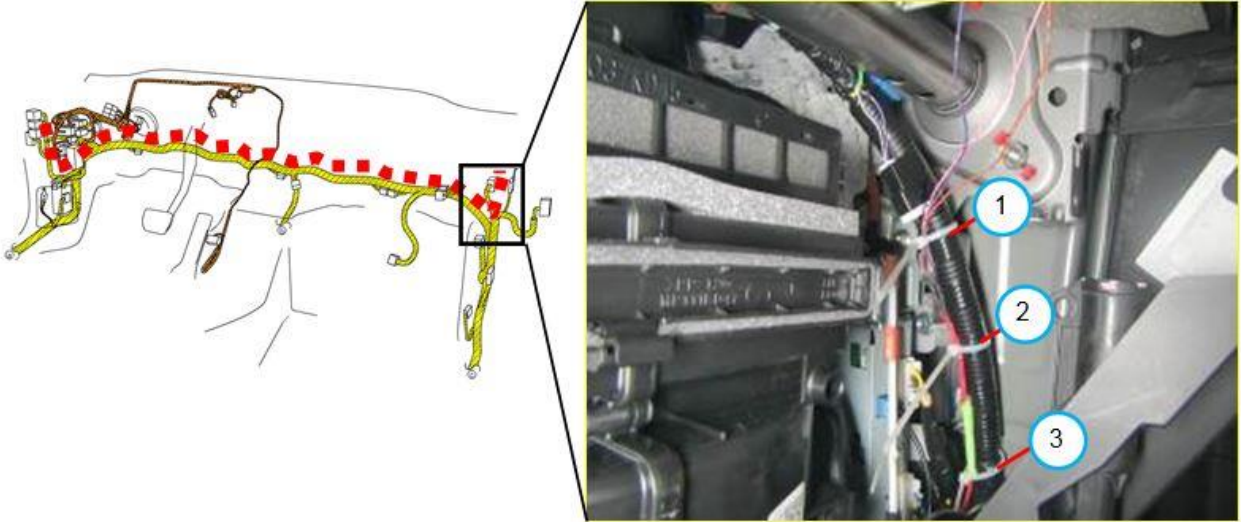
h) Attach the terminal cover to the connector.

11. Connect the C-15 connector.

12. Securely tie the bypass harness to the rear harness with the bands (No. 1-21) shown below. Cut off any excess from each band.

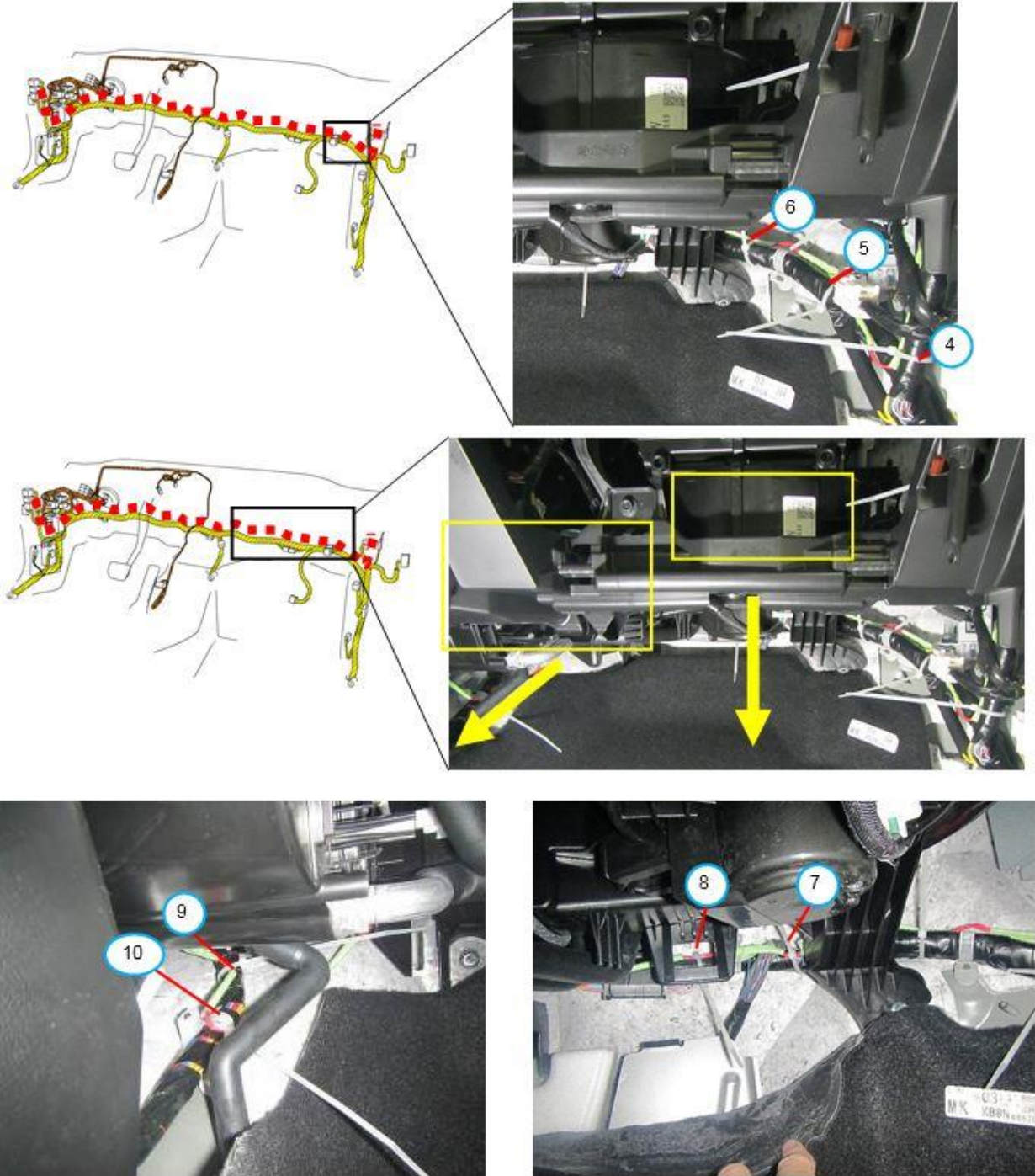
**NOTE:** Use at least 21 bands to firmly align the bypass harness and prevent it from contacting other parts.

**IMPORTANT:** Make sure to secure the bypass harness around pedals (No.12-17 below) by using at least 6 bands. **NOTE:** If the bypass harness is too long, fold it and secure it to the rear harness.

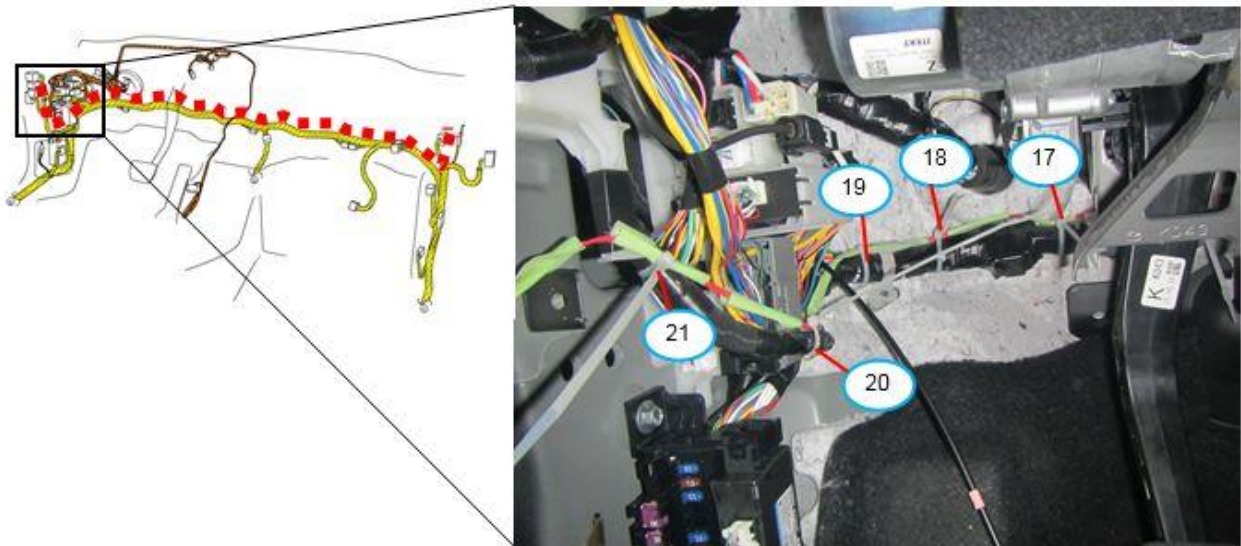
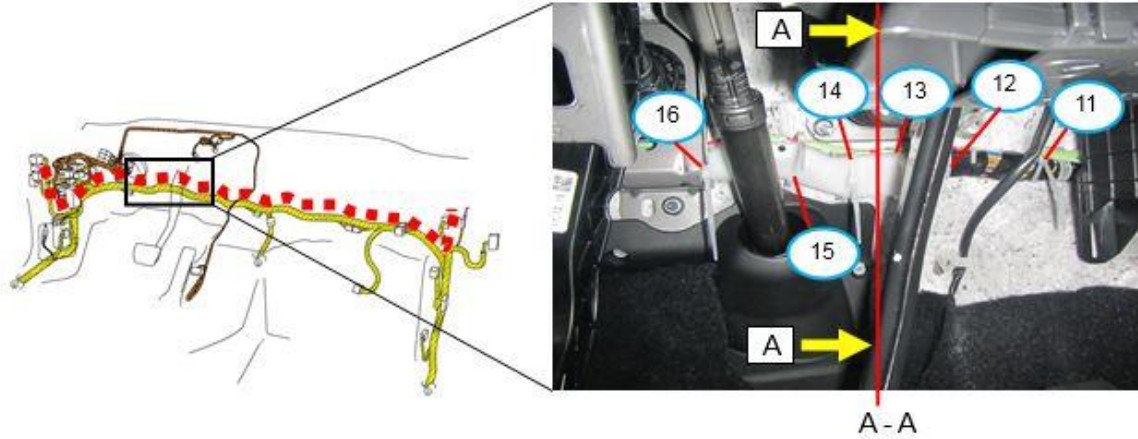


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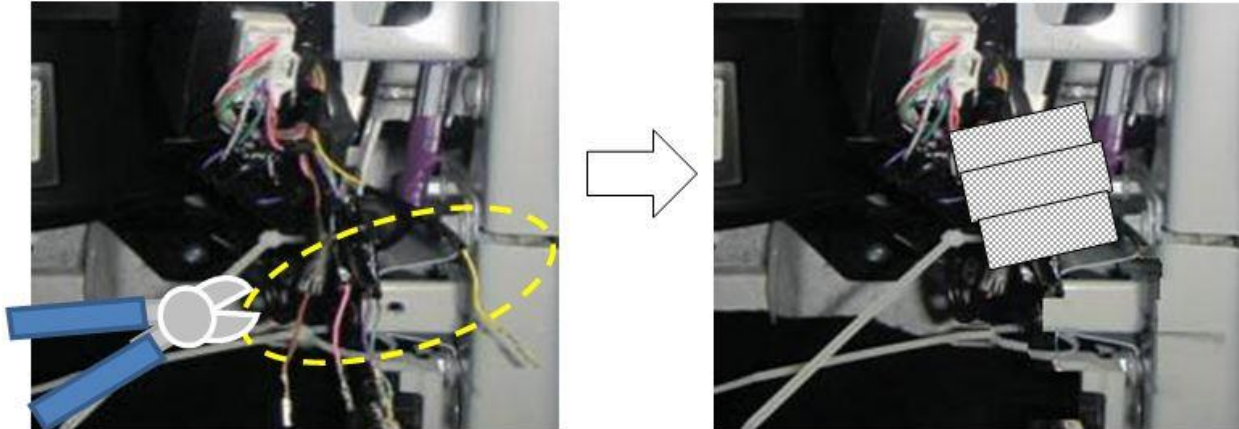


13. Cut the removed terminals from the C-15 and 0922-601 connectors.

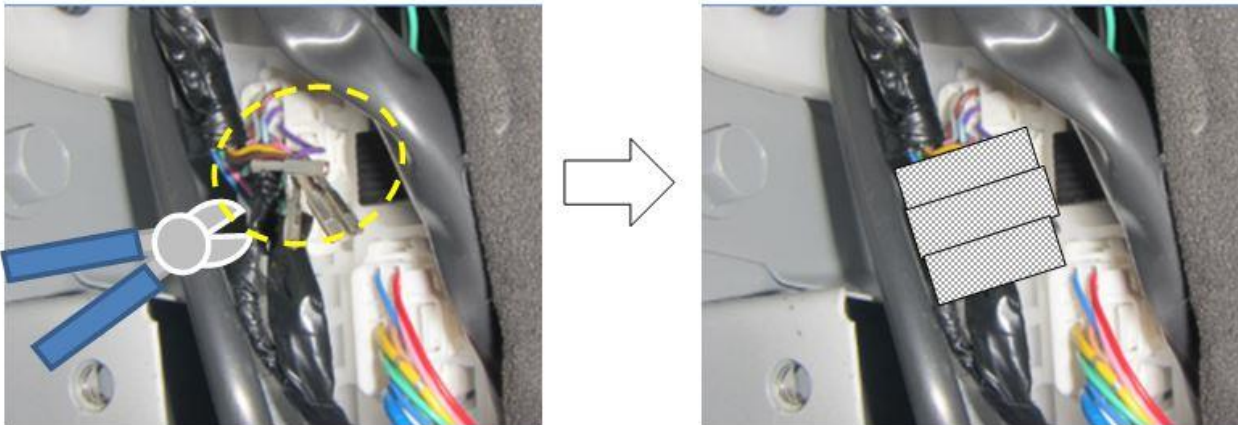
14. Wrap the terminals with harnesses using insulation tape.

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0922-601 connector



C-15 connector



15. Attach the removed parts in reverse order.
16. Slide both front seats back to their original positions.
17. Re-connect the negative battery cable.
18. Re-enter the customer's preset radio stations.
19. Verify the repair.

## PARTS INFORMATION

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Part Number	Description	Qty.	Notes
KBY2-67-SH0	Repair Kit	1	Kit contains (1) bypass harness and (25) plastic bands

## WARRANTY INFORMATION

### NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

Symptom Code	64
Damage Code	9R
Causal Part No.	KBY2-67-SH0
Quantity	1

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