

Service Information

Mazda Motor Corporation

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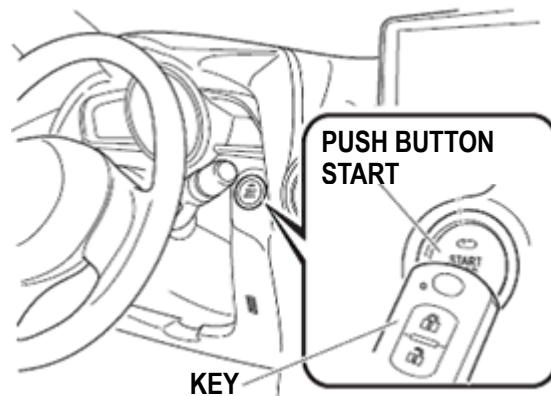
Category T	Repair Guidance	Ref. No. R088/17	Page 1 of 15
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued December 28, 2017	
Please convey this information to your <input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.		Date Revised	
Applicable Model MX-5 (ND)	Applicable Countries and/or Vehicle Specifications Worldwide		

Subject: Engine will not start (Engine can start if touching Push Button Start using Backside of Key)

DESCRIPTION

Some vehicles may experience a condition that the engine does not start by the normal procedure when pushing the push button start. The engine can start if touching the push button start using the backside of key and then pushing the push button start. The doors do not open/close when using the request switch either.

NOTE: Occurrence of other electrical malfunction (horn working by itself for example) may be possible depending on corrosion condition of the affected connector terminals.



CAUSE

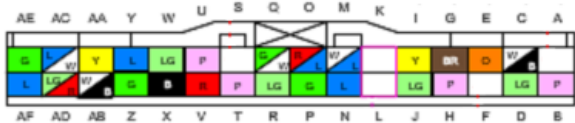
Condense water from windshield inner surface flows down in between the windshield and the dashboard and causes corrosion of the terminals at connectors C-16 and/or C-04.

NOTE: See the next page for the shape and location of C-16 and C-04 connectors.

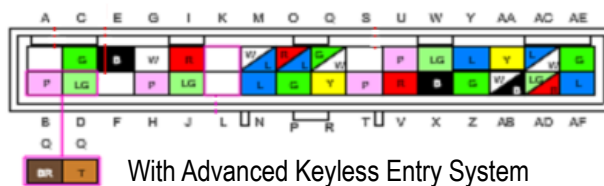
C-16 INSTRUMENT PANEL HARNESS ~ REAR HARNESS

NOTE: The sample is for vehicles with Center Display.

INSTRUMENT PANEL HARNESS



REAR HARNESS



C-04 FRONT HARNESS ~ INSTRUMENT PANEL HARNESS

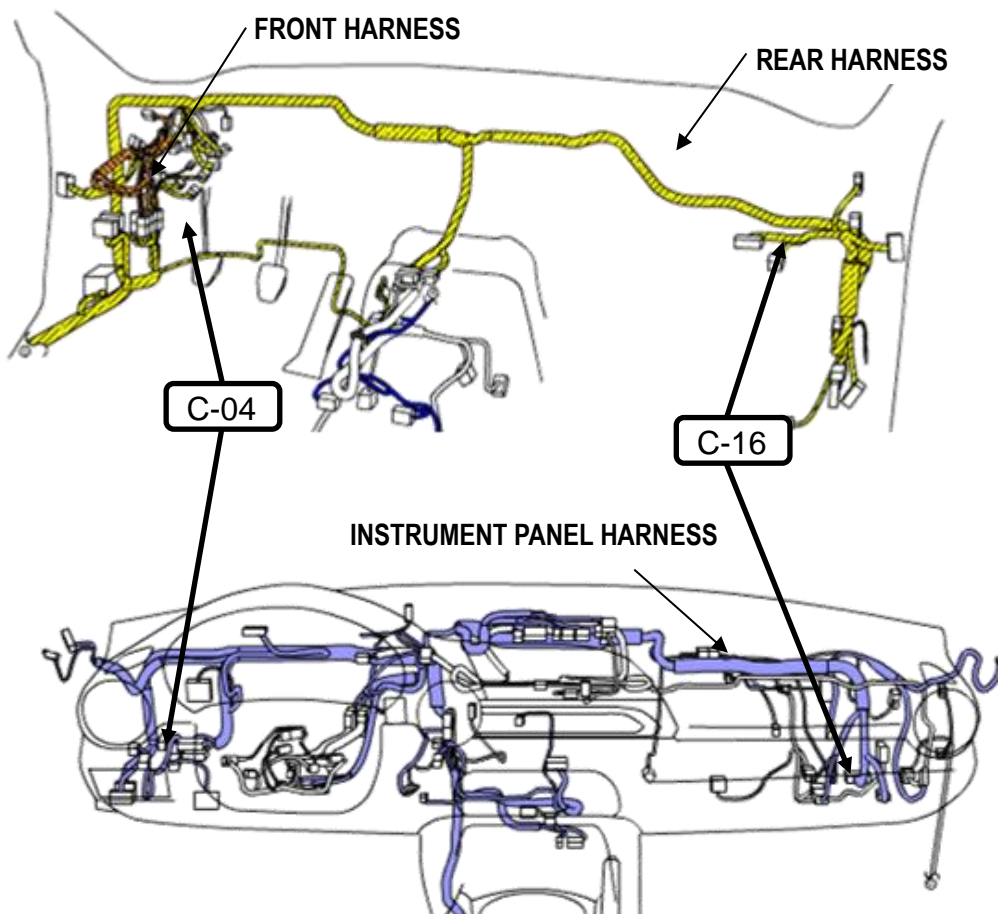
FRONT HARNESS



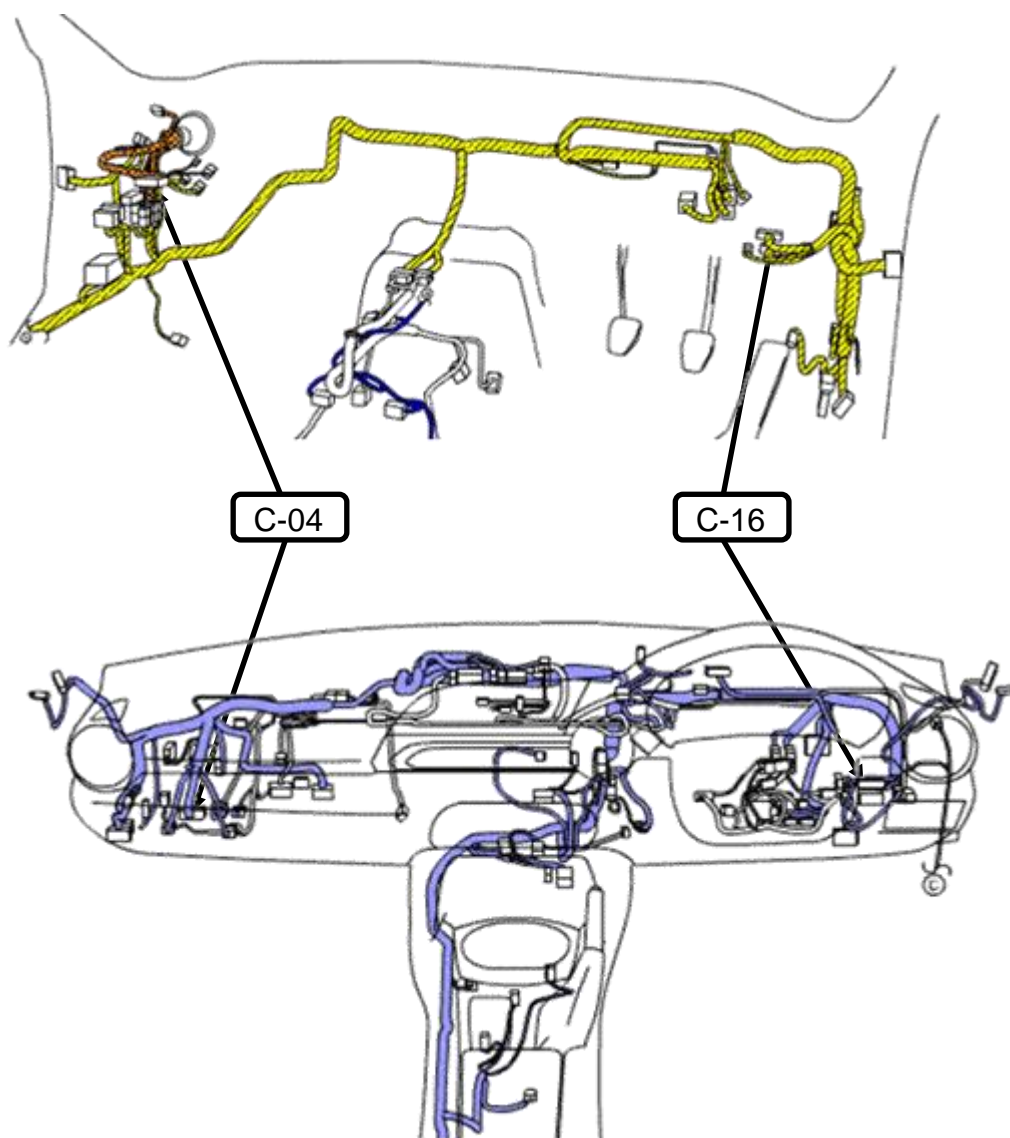
INSTRUMENT PANEL HARNESS



Location of Connectors (for L.H.D.)



Location of Connectors (for R.H.D.)



MASS PRODUCTION CHANGE

Shield plates have been attached to the dashboard upper to prevent water from dropping onto the C-16 and C-04 connectors.

SUBJECT VIN & PRODUCTION DATE RANGE

Spec.	VIN Range		Production Date Range
Australia	JM0 ND**** **	100001 - 104113	May 14, 2015 - Aug. 3, 2017
General (R.H.D.)	JM6 ND**** **	100001 - 100656	May 22, 2015 - Aug. 3, 2017
General (L.H.D.)	JM7 ND**** **	100001 - 101442	May 22, 2015 - Aug. 3, 2017
Europe (L.H.D. & UK Specs.)	JMZ ND**** **	100001 - 137294	May 14, 2015 - Aug. 3, 2017
US (2016 MY)	JM1 NDAB** G*	100001 - 119894	Apr. 20, 2015 - Jul. 4, 2016
	JM1 NDAC** G*		
	JM1 NDAD** G*		
US (2017 MY) with Convertible Top	JM1 NDAB** H*	119895 - 124774	Jul. 4, 2016 - Aug. 3, 2017
	JM1 NDAC** H*		
	JM1 NDAD** H*		
US (2017 MY) with Retractable Fastback	JM1 NDAL ** H*	100001 - 108908	Oct. 4, 2016 - Aug. 3, 2017
	JM1 NDAM** H*		

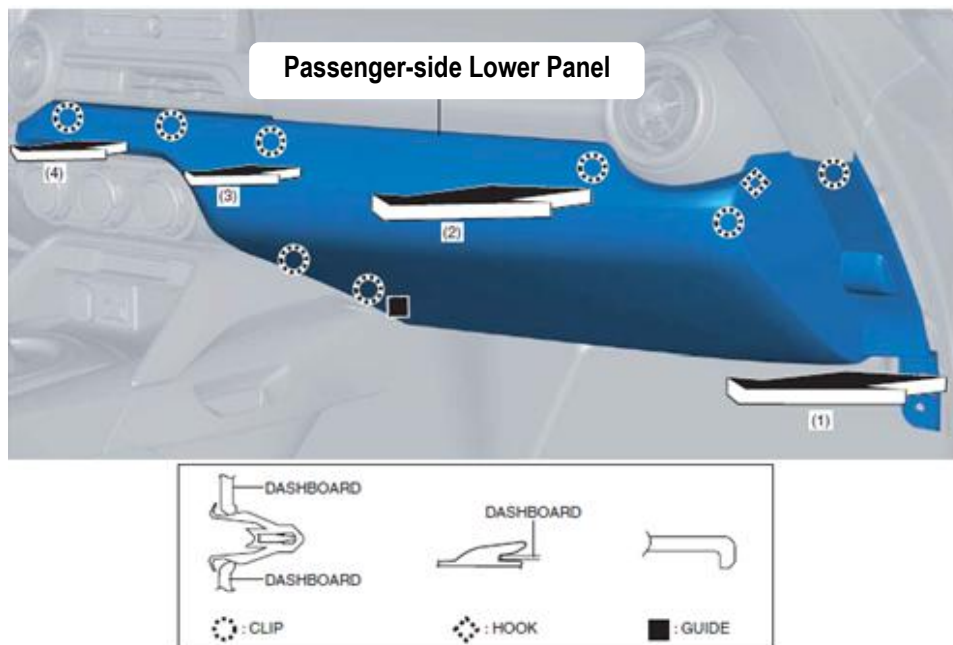
REPAIR PROCEDURE

When you receive a customer complaint on this concern, inspect the C-16 and C-04 connector terminals for corrosion and repair it using the following procedure.

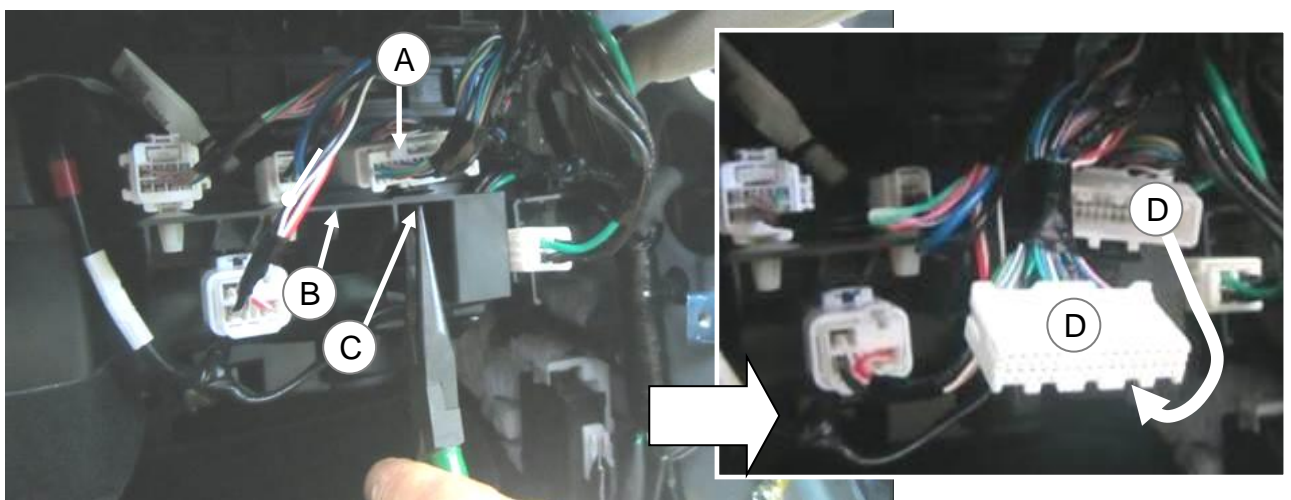
**NOTE: The following procedure is for L.H.D. vehicles.
For R.H.D. vehicles, refer to the attachment "Repair Procedure for R.H.D. vehicles."**

INSPECT and REPAIR C-16 CONNECTOR

1. Remove the passenger-side lower panel according to the workshop manual "PASSENGER-SIDE LOWER PANEL REMOVAL/INSTALLATION".

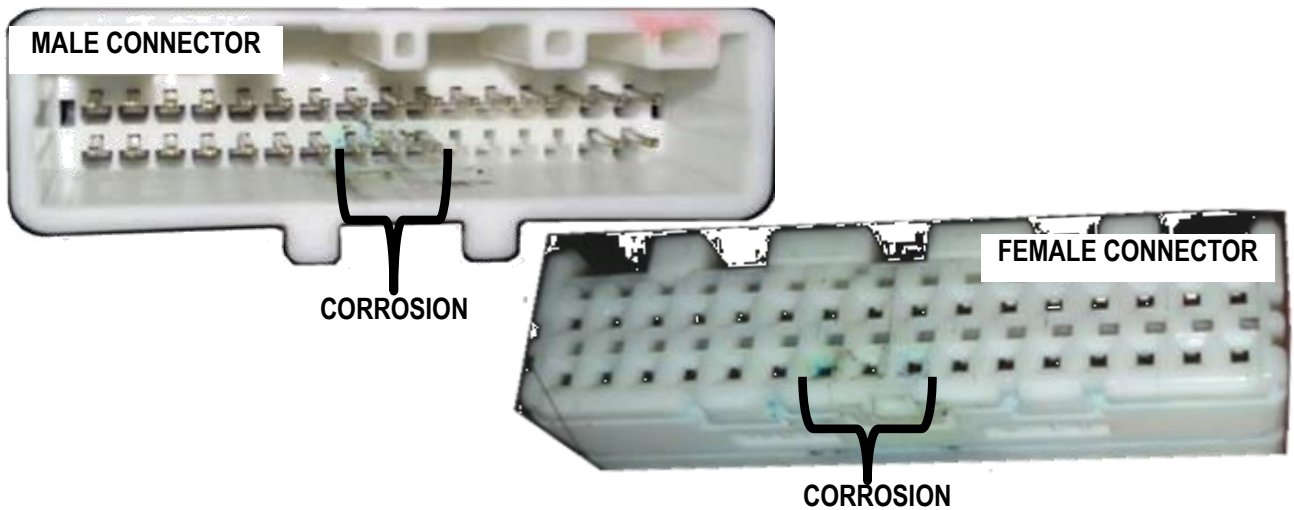


2. Remove the C-16 connector (A) from the bracket (B) by releasing the clip (C) with a pair of pliers. Then, disconnect the C-16 connector (D).



3. Inspect terminals of the C-16 connector for any corrosion.

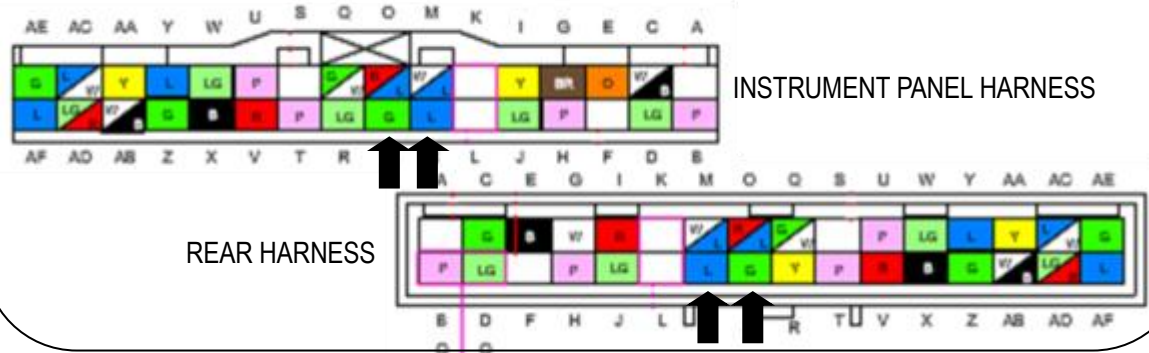
<Corroded Terminals Sample>



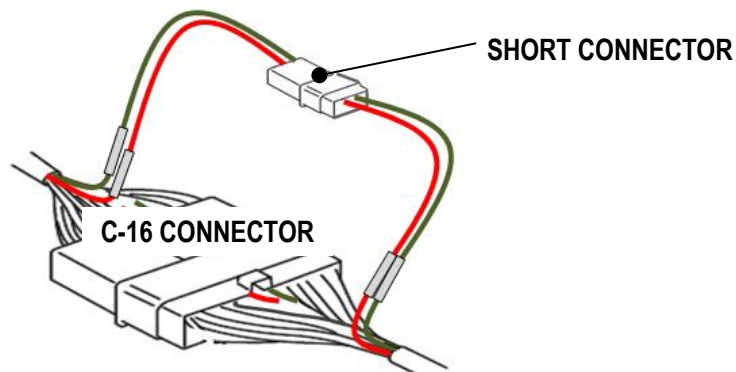
- If any terminal(s) is corroded, cut all the affected wires and connect them using a short connector from the repair kit. Go to step 4.

IMPORTANT:

If the problem symptom is “NO ENGINE START”, the two terminals (G-Green and L-Blue) indicated by arrows in figure must be corroded and thus need repair.



<AFTER REPAIR IMAGE>

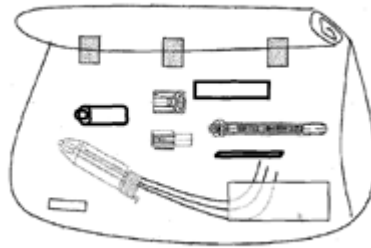


- If no terminal is corroded, apply grease to the C-16 connector for water prevention and then fix it at a place where it will not receive water drop. Go to the step 5.

4. Cut the wires with corroded terminals and connect them using a short connector according to the following steps.

NOTE: This repair uses the repair kit which includes the following parts.

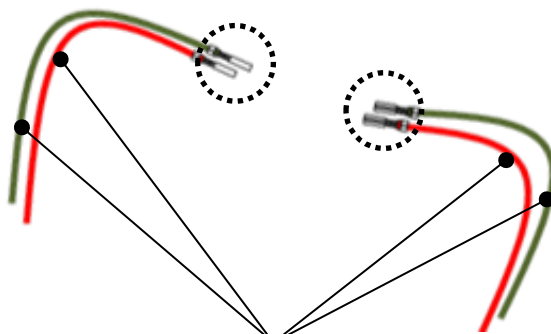
**Repair Kit
(NAY1-67-SH0)**



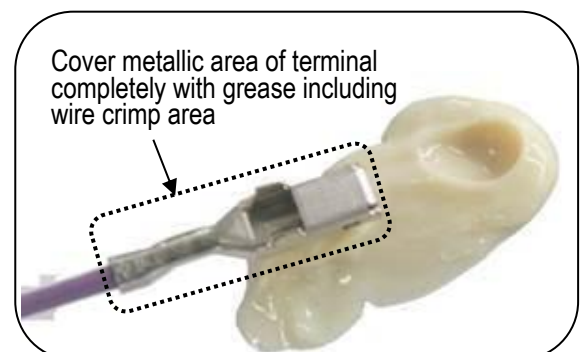
No.	DESCRIPTION	Pcs.	FIGURE
1	Short Connector (8-pin)	3	
2	Short Wire with Female Terminal (8 colors X 3)	24	
3	Short Wire with Male Terminal (8 colors X 3)	24	
4	Heat Shrink Tube	48	
5	Grease (30 ml)	1	
6	Plastic Tie Strap	5	
7	Urethane Pad (3 mm X 100 mm X 150 mm)	2	

NOTE: This procedure explains when two terminals are corroded as a sample.

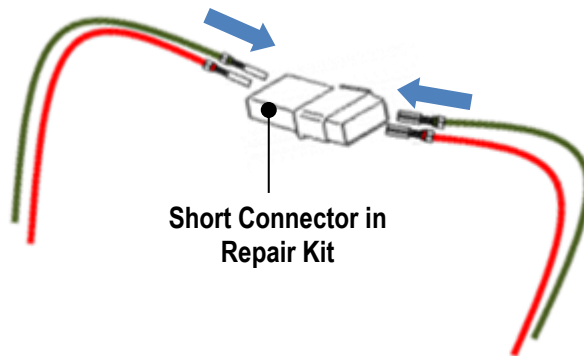
- 4.1. Apply the grease (in Repair Kit) to terminals of short wires (in Repair Kit) as shown.



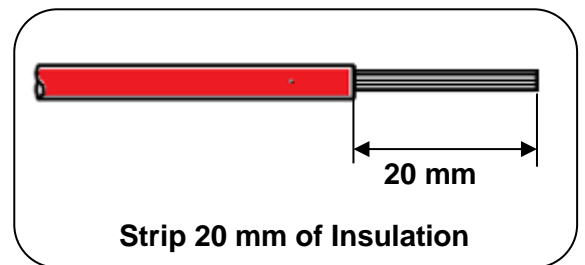
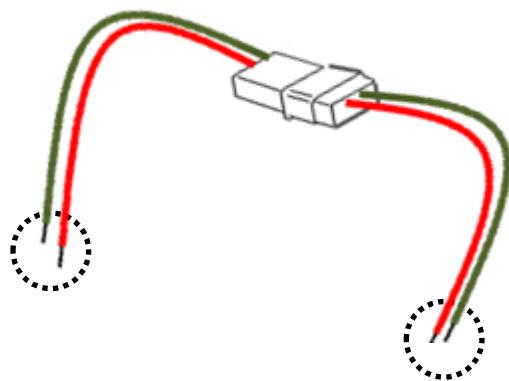
Short Wires in Repair Kit



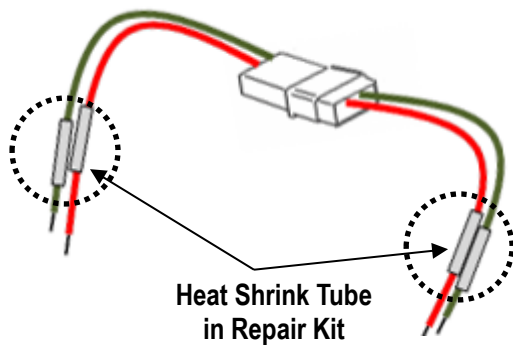
- 4.2. Install the terminals into the short connector (in Repair Kit).
NOTE: Be sure to insert the terminal until it locks securely.



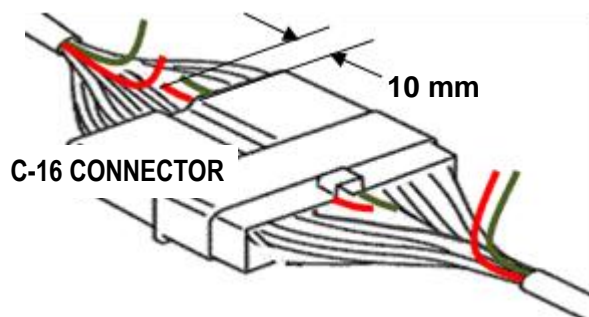
- 4.3. Strip 20mm of insulation from the ends of short wires.



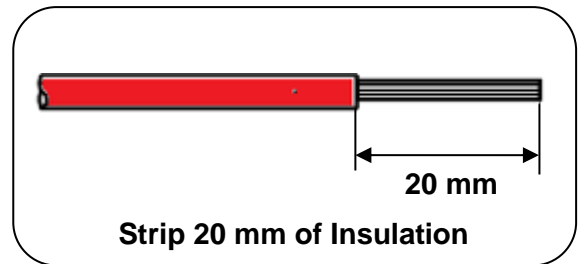
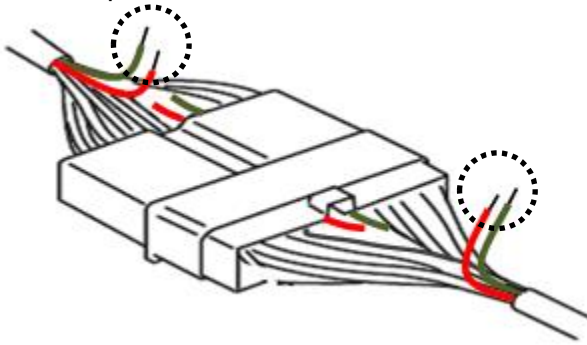
- 4.4. Pass the short wires through the heat shrink tubes (in Repair Kit).



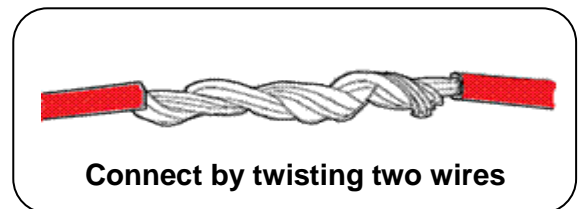
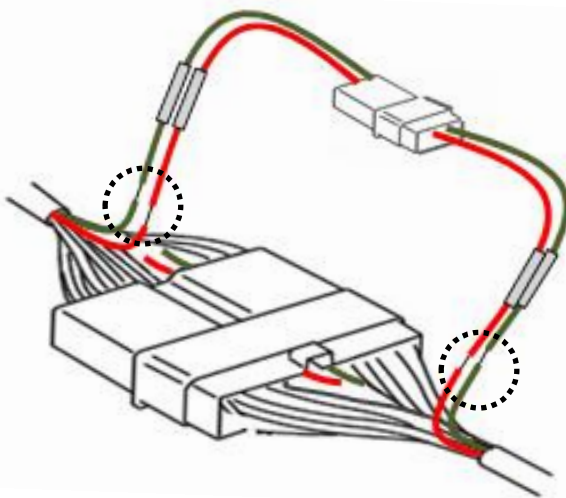
- 4.5. Cut wires of corroded terminal(s) of C-16 connector 10 mm from the terminal.



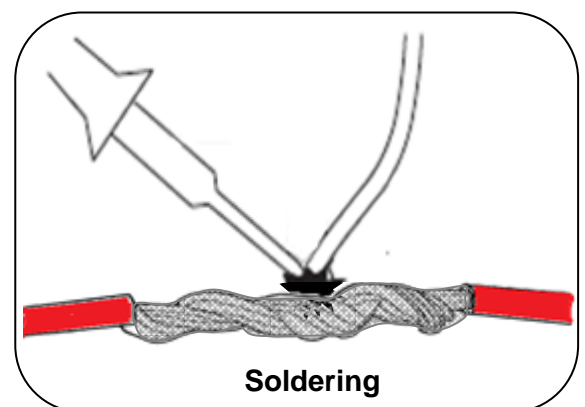
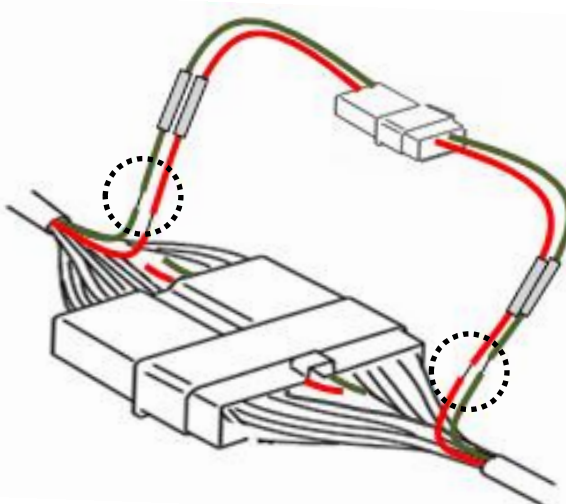
- 4.6. Strip 20 mm of insulation from the ends of wires of the vehicle harness.



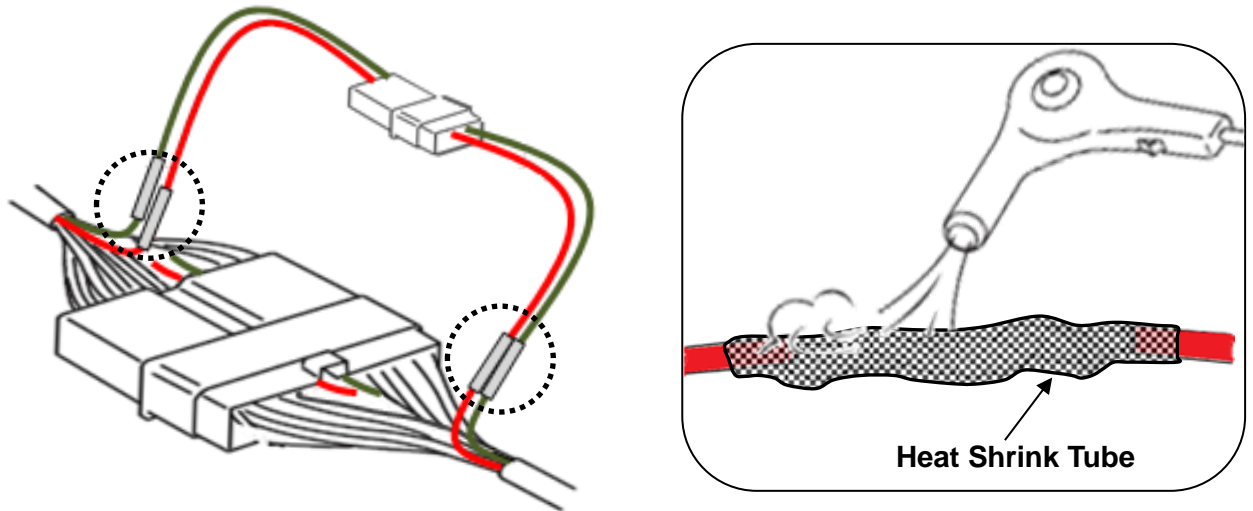
- 4.7. Connect the wires from the vehicle harness and the short wires by twisting them together.



- 4.8. Solder the twisted wires together, spreading the solder out across the entire twisted wires.



- 4.9. Place the heat shrink tube over the center of the soldered area. Using a heat gun, apply heated air until the tube shrinks securely over the soldered wires.



- 4.10. Wrap a piece of tape around the short wires and note the Ref. No. of this SI on it in order to inform about this modification in case of future repairs.



5. Apply the grease (in Repair Kit) to the C-16 connector as shown.
NOTE: The connector shown in figures is not exactly the C-16 connector and is for explanation purpose only.

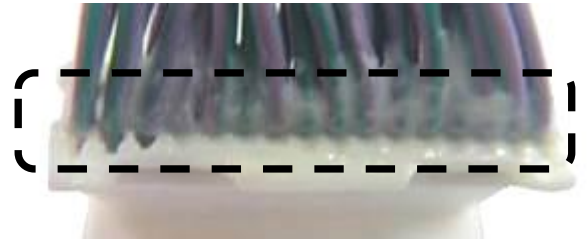
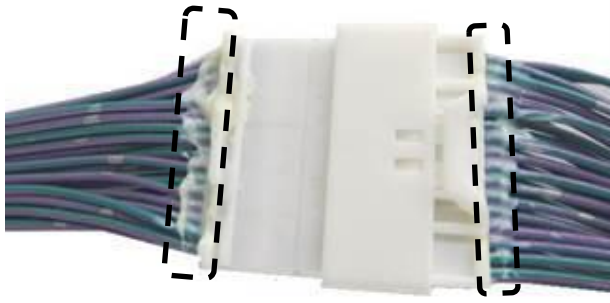
- 5.1. Apply the grease to all terminals of the C-16 male connector.



- 5.2. Connect and disconnect the C-16 connector for several times so the grease can spread and adhere well to all the terminals.

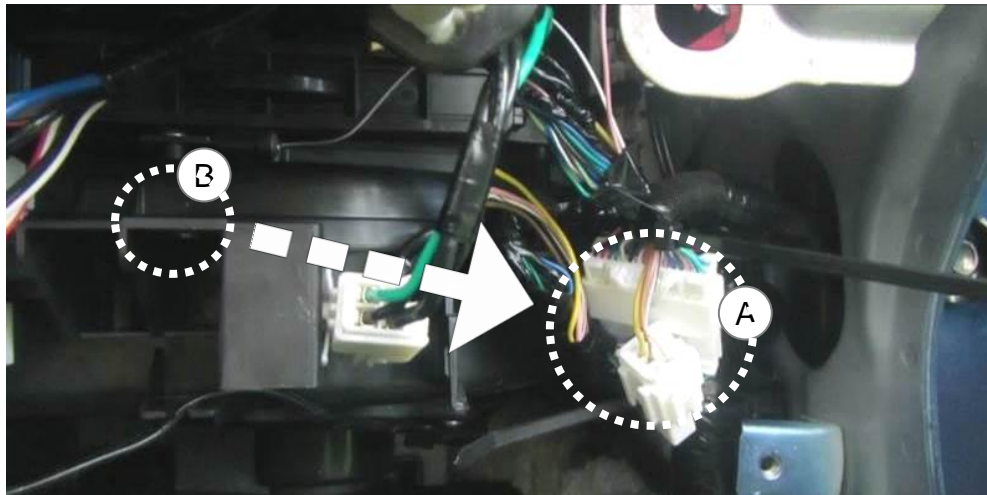


- 5.3. Apply the grease to the back side of the C-16 connector as shown.
NOTE: Wipe off any excess grease.

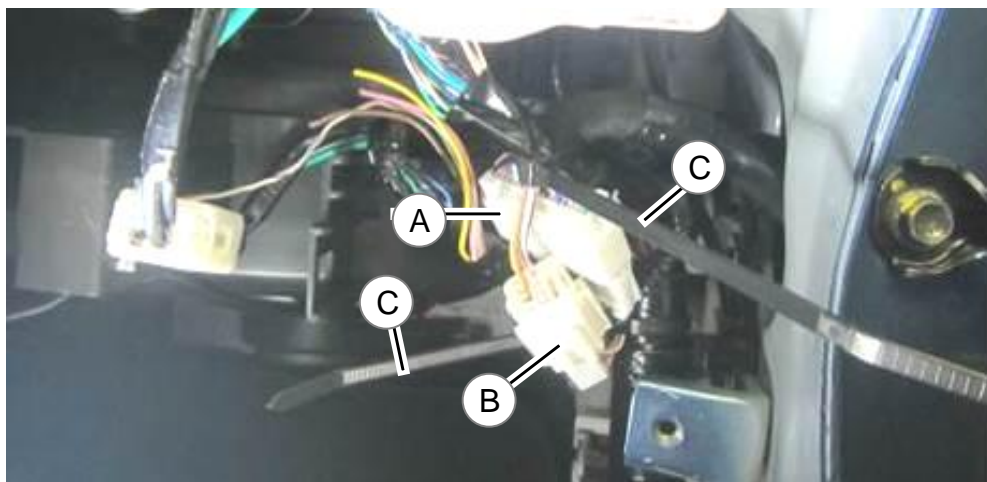


Apply grease to other side as well.

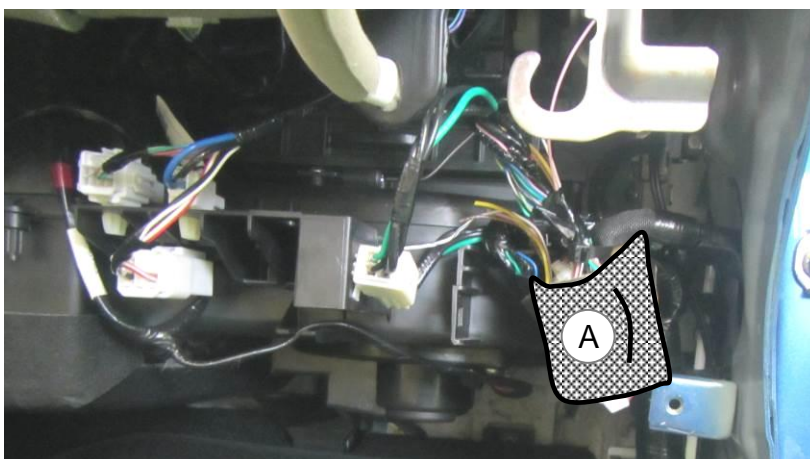
6. Move the C-16 connector to the vehicle outer side (A) from the original position (B) as shown and fix it with plastic tie straps (in Repair Kit).



- 6.1. Secure the C-16 connector (A) and the short connector (B) to the existing vehicle harnesses with plastic tie straps (in Repair Kit) (C) as shown. Cut off the excess portion of the straps.



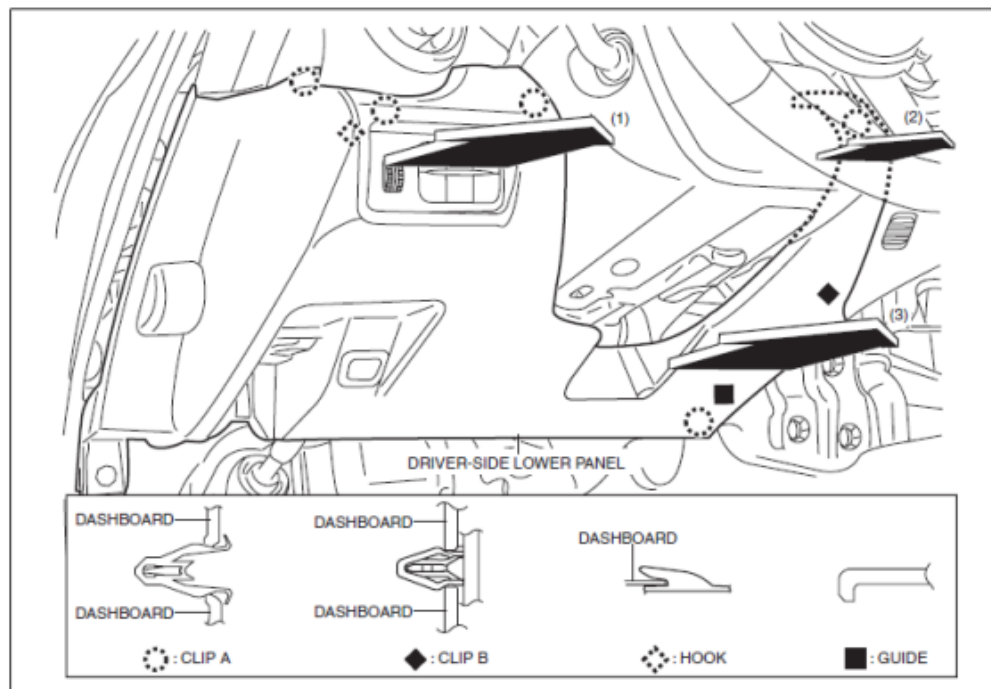
- 6.2. Attach the urethane pad (in Repair Kit) (A) over the C-16 and the short connectors as shown for noise prevention.



7. Install the passenger-side lower panel according to the workshop manual "**PASSENGER-SIDE LOWER PANEL REMOVAL/INSTALLATION**".

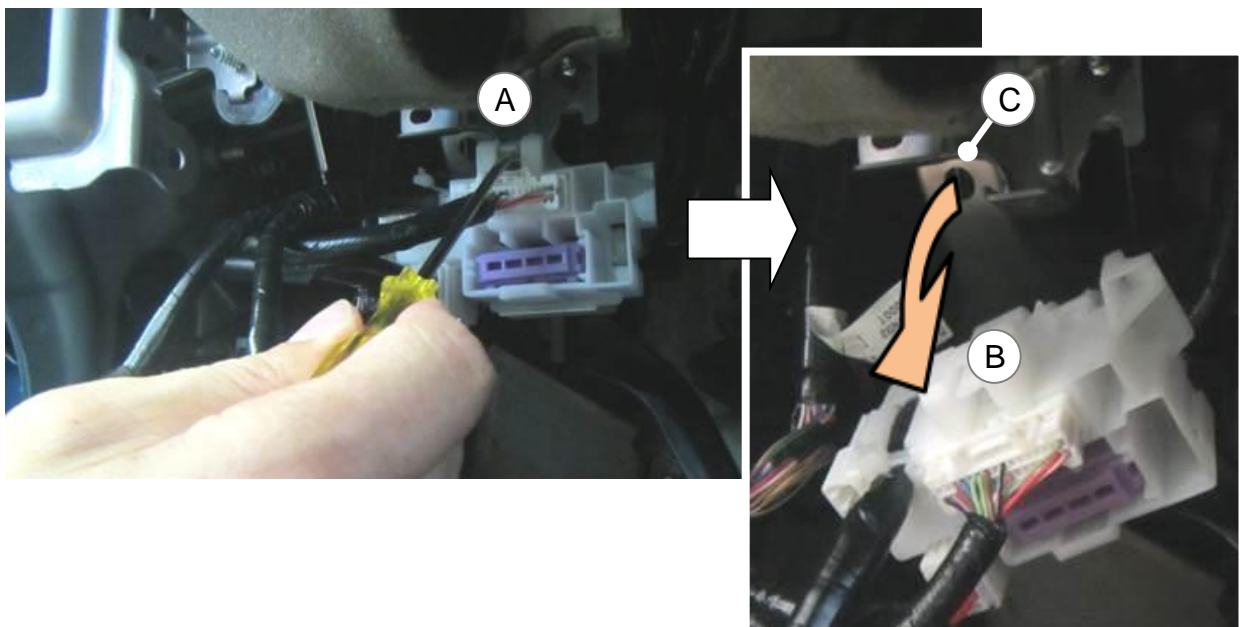
INSPECT and REPAIR C-04 CONNECTOR

8. Remove the driver-side lower panel according to the workshop manual “**DRIVER-SIDE LOWER PANEL REMOVAL/INSTALLATION**”.

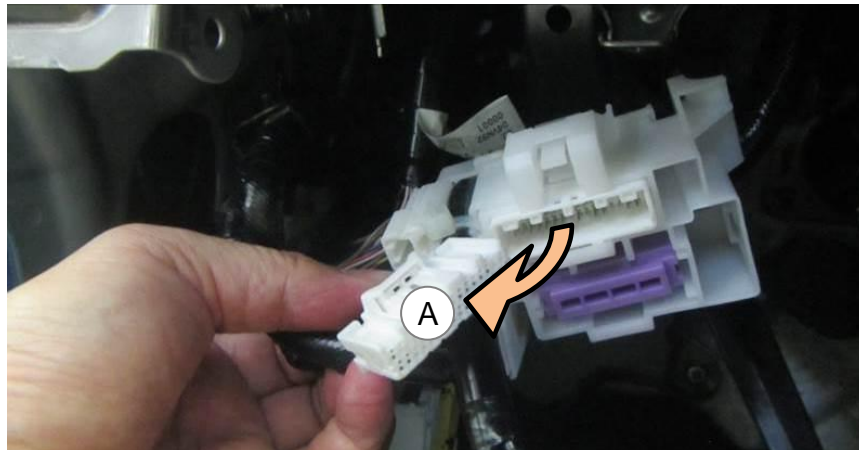


9. Remove the C-04 connector as shown.

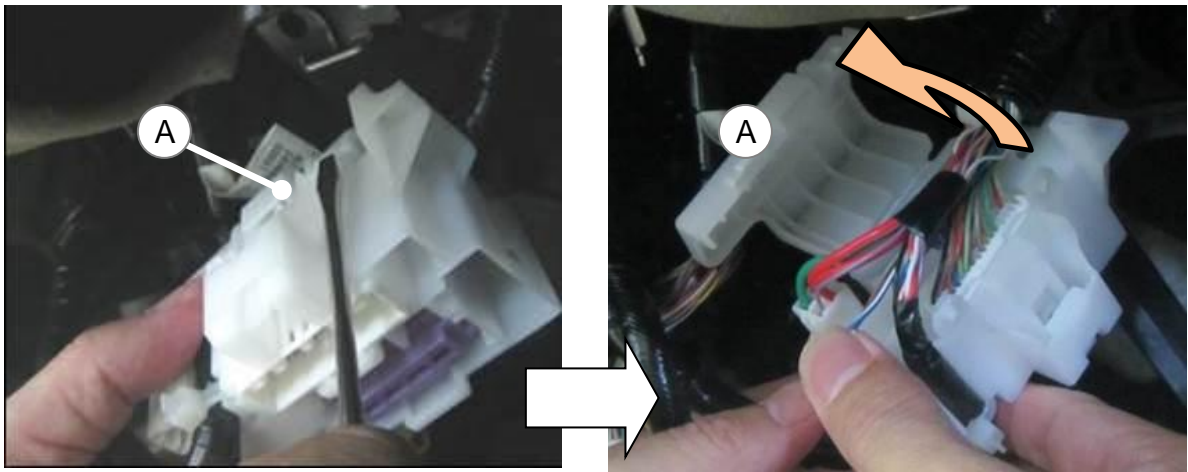
- 9.1. Prying up the lock (A) with a flat-head screw driver, slide out the united connectors (B) from the bracket (C).



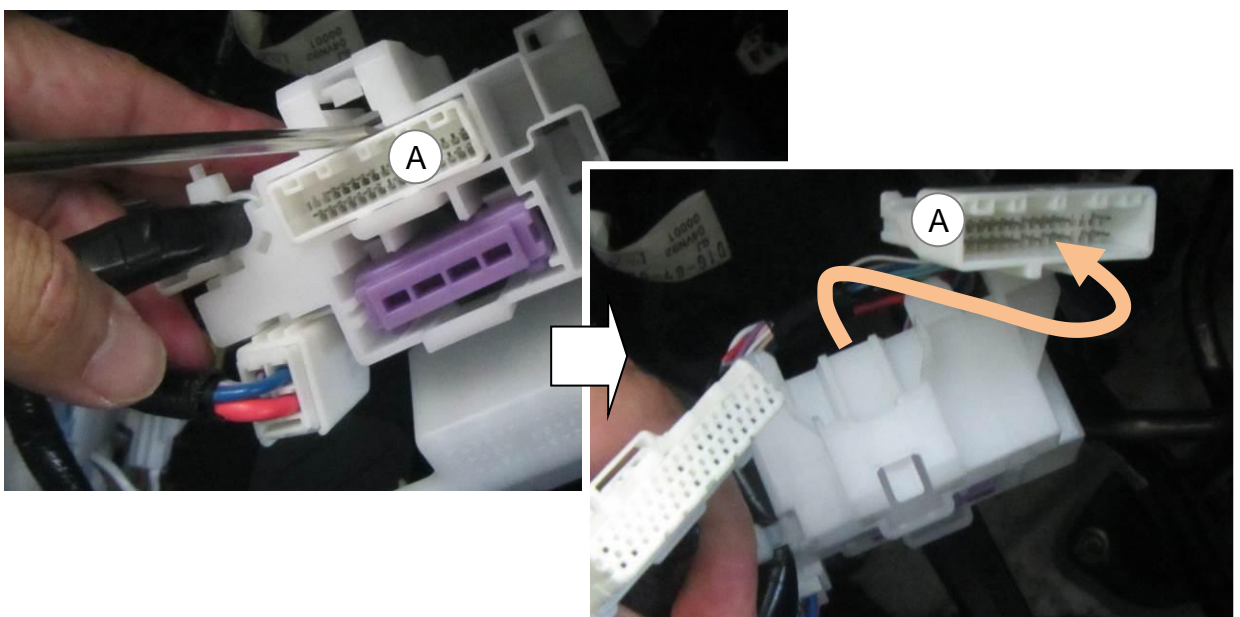
9.2. Remove the C-04 female connector (A).



9.3. Open the back cover (A) of united connectors.

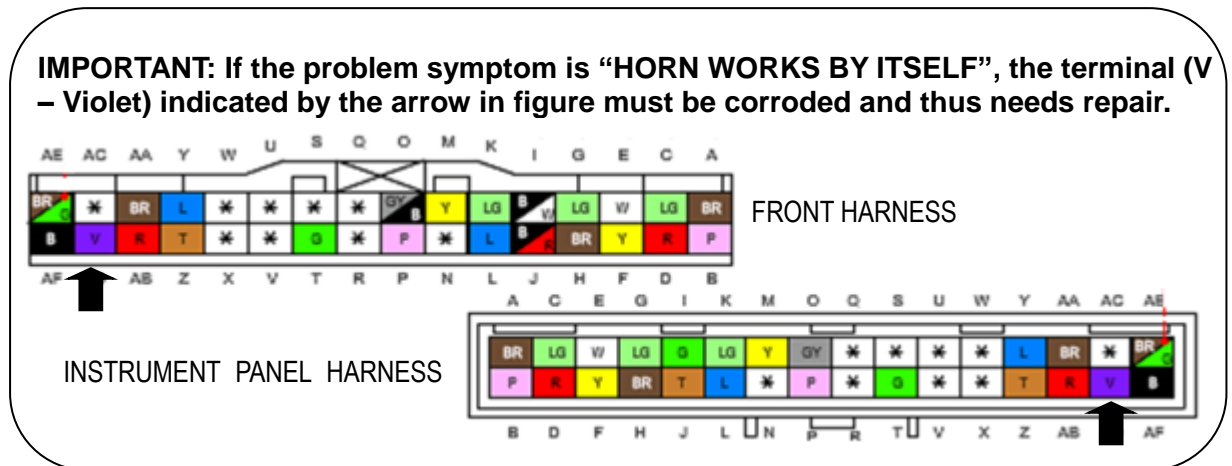


9.4. Prying up the lock with a flat-head screw driver, slide out the C-04 male connector (A).



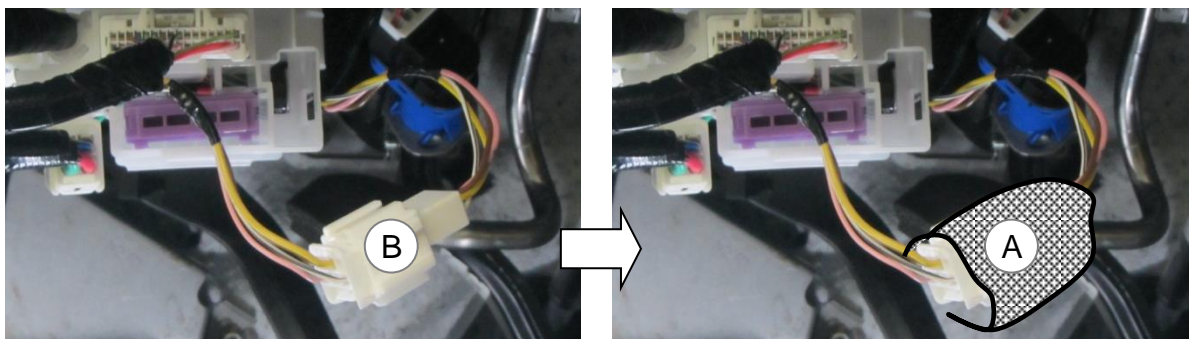
10. Inspect terminals of the C-04 connector for any sign of corrosion.

- **If any terminal(s) is corroded, cut all the affected wires and connect them using a short connector. Go to the step 11.**

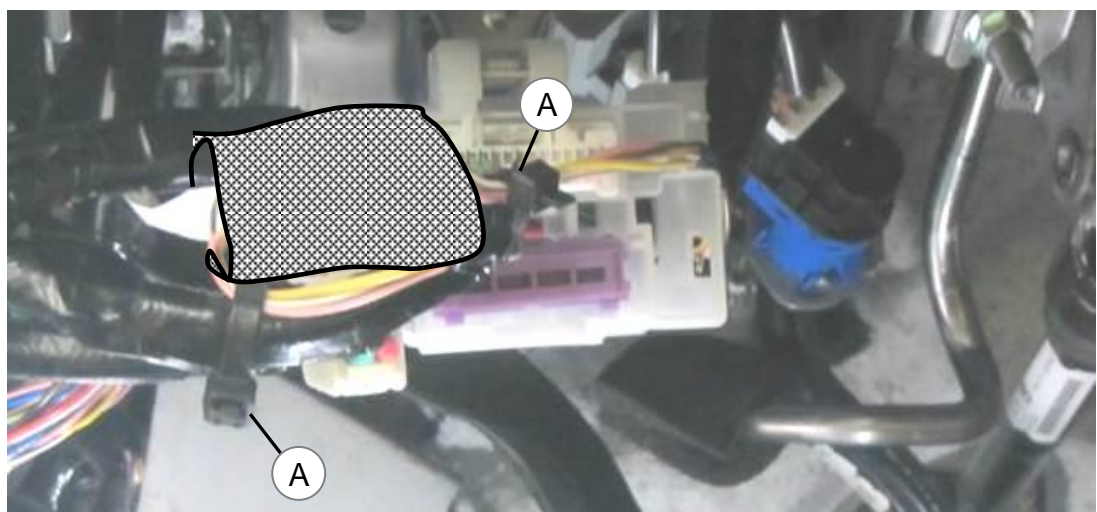


- **If no terminal is corroded, apply grease to the C-04 connector. Go to the step 12.**

11. Cut and connect wires with the corroded terminal using the same procedure of step 4 for the C-16 connector.
12. Apply grease to the C-04 connector using the same procedure of step 5 for the C-16 connector.
13. Install the C-04 connector in the reverse order of removal.
14. Attach the urethane pad (in Repair Kit) (A) over the short connector (B).



15. Fix it with plastic tie straps (A) as shown. Cut off excess portion of straps.



16. Install the driver-side lower panel according to the workshop manual “**DRIVER-SIDE LOWER PANEL REMOVAL/INSTALLATION**”.

PARTS INFORMATION

Part Number	Description	Qty.	Remark
NAY1-67-SH0	Repair Kit	1	

WARRANTY INFORMATION

Assembly group	T - Body Electrical System
Subassembly group	01 - POWER CIRCUIT
Symptom Code	01 (Engine does not start)
Damage Code	99 (Special Code)
Causal Part No.	NAY1-67-SH0
Quantity	1 (For Case 1 and 2), 0 (For Case 3)
Operation No. and Labor Hours	<p>Use one of the following operation numbers and hours according to the actual repair.</p> <p>CASE 1: Terminal repair was performed for one side (C16 or C04 connector). XXN96ARX / 1.3 hrs.</p> <p>CASE 2: Terminal repair was performed for both C16 and C04 connectors. XXN96BRX / 1.8 hrs.</p> <p>CASE 3: Grease application on C16 and C04 and location change of C16 were performed. (Terminal repair was not performed for both connectors.) XXN96GRX / 0.7 hrs. (Without iSTOP) XXN96HRX / 0.8 hrs. (With iSTOP)</p>
Period Covered	Normal Warranty Period
Prior approval necessary	NO

Kimiaki Inooka
Manager, Technical Information Group
Technical Service Department
Mazda Motor Corporation
2H22132821, 152-099Q(MC Internal Use)