



SERVICE BULLETIN

Classification:

AT19-003

Reference:

NTB19-054

Date:

July 9, 2019

2019 LEAF; WILL NOT SHIFT OUT OF PARK AND ERROR MESSAGE DISPLAYED

APPLIED VEHICLES: 2019 LEAF (ZE1)

APPLIED VIN AND DATE: Built before 1N4AZ1C(*)KC 309539 / February 9, 2019

IF YOU CONFIRM

The vehicle will not shift out of Park (**P**),

And

There is the message on the instrument panel, "When Parked Apply Parking Brake",

And

DTC P189A (Motor "A" Circuit Low) is stored as current and will not erase,

And

Terminal 1 and/or terminal 2, inside connector E54, are loose. See Figure 2 on the next page and step 3 on page 3.

NOTE: The Parking Actuator Relay "A" plugs into connector E54 in the relay box.

ACTION

1. Replace the Parking Actuator Relay "A" harness connector.

IMPORTANT: The purpose of ACTION (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire SERVICE PROCEDURE as it contains information that is essential to successfully completing this repair.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

1. Locate Parking Actuator Relay "A".

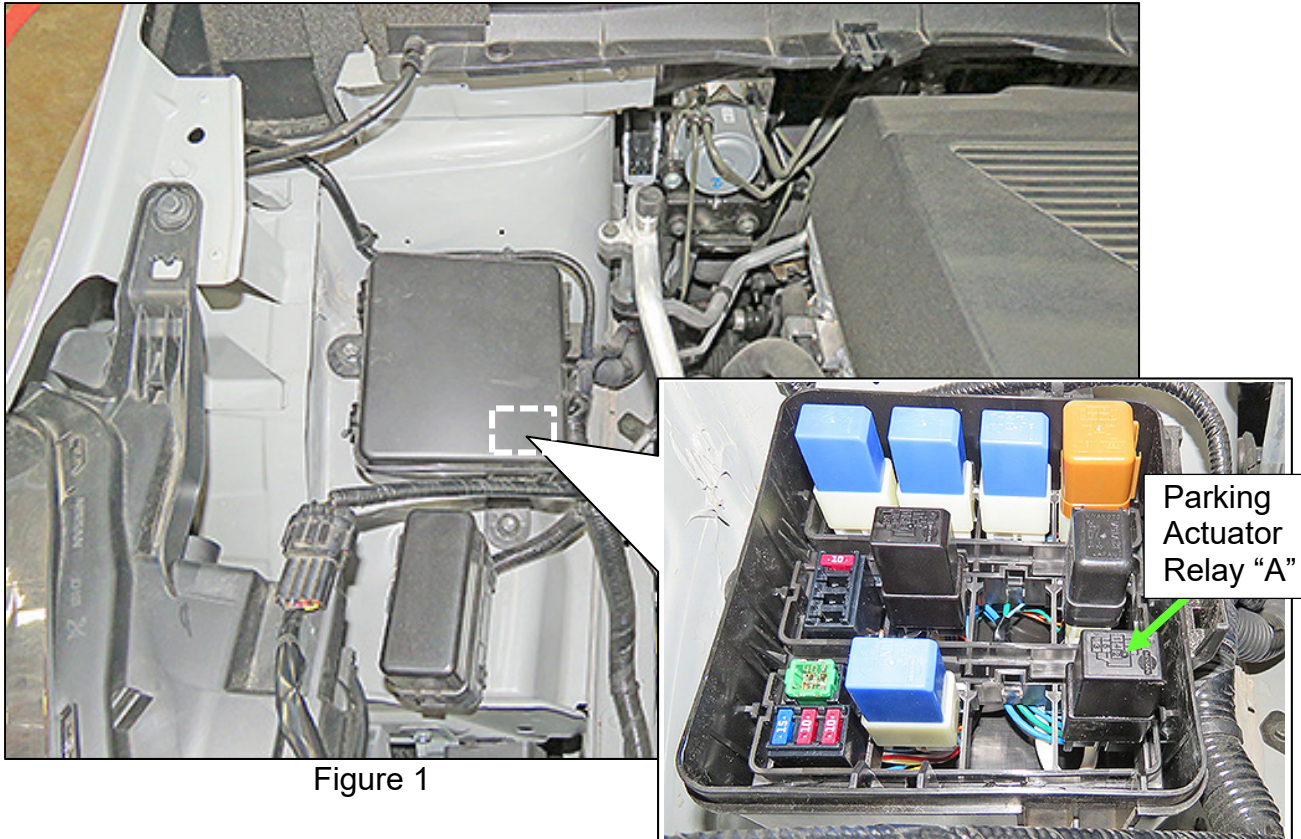


Figure 1

2. Remove the relay and locate terminals number 1 and 2.

NOTE: Terminals are located in harness connector E54.

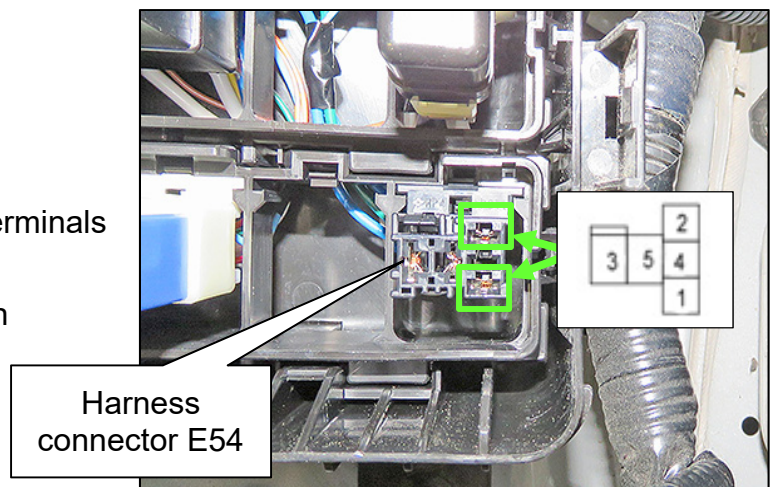


Figure 2

3. Use Spread Terminal Gauge **J-48817-28**, from the Terminal Repair Kit, to inspect terminals 1 and 2 for the correct pin fit as follows:

IMPORTANT: For the following steps (3a-3d)

- **Good Terminal** – The Spread Terminal Gauge should compress completely without sliding into the terminal. If it compresses completely, **DO NOT** insert it.
- **NG Terminal** – The Spread Terminal Gauge will not compress or will only partially compress before sliding into the terminal.

- a. Align the tip of the Spread Terminal Gauge (Figure 3) so that it is offset to one side (see Figure 4 and Figure 5).

NOTE: The Spread Terminal Gauge will be used twice on each terminal.

- b. Gently attempt to insert the Spread Terminal Gauge into the selected terminal while observing if it compresses. **DO NOT insert the gauge into the terminal if it compresses completely.**

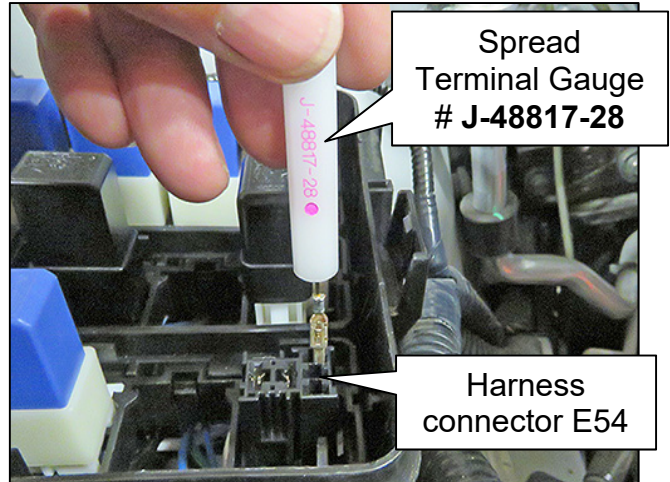


Figure 3

- c. Relocate the Spread Terminal Gauge to the opposite side of the same terminal (see Figure 4 and Figure 5 and repeat step 3b. **DO NOT insert the gauge into the terminal if it compresses completely.**
- d. Repeat steps 3a-3c on the second terminal.

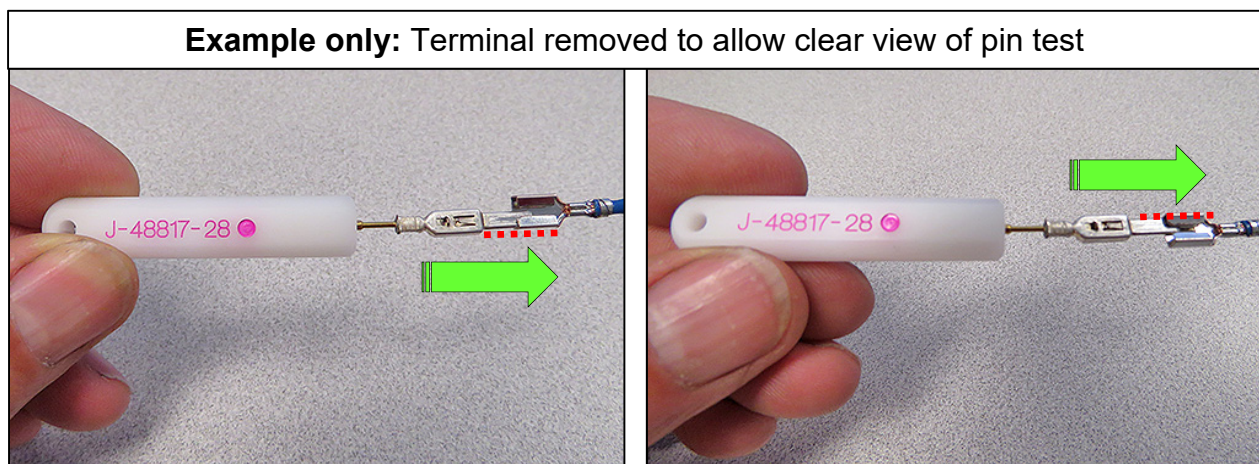


Figure 4

Figure 5

- Does the Spread Terminal Gauge compress completely without sliding into any of the test points (total of 4 test points)?
 - **YES:** The terminals have the correct pin fit. Refer to the Electronic Service Manual (ESM) for further diagnostics not covered under this bulletin.
 - **NO:** Proceed to step 4.

4. Write down the radio settings.

Presets	1	2	3	4	5	6
AM						
FM 1						
FM 2						
SAT 1						
SAT 2						
Bass	Treble		Balance	Fade	Speed Sen. Vol.	

5. Turn the ignition OFF.

6. Disconnect the vehicle's 12 volt battery.

- Refer to the ESM for service procedure to disconnect the 12 volt battery: **REPAIR > ELECTRICAL & POWER CONTROL > POWER SUPPLY, GROUND & CIRCUIT ELEMENTS > REMOVAL AND INSTALLATION > 12V BATTERY.**

Release Harness Connector E54 from the Vehicle's Relay Box

7. Gently pry the release tab away from harness connector E54 with an appropriate tool.
8. While holding the release tab, push harness connector E54 down into the relay box.

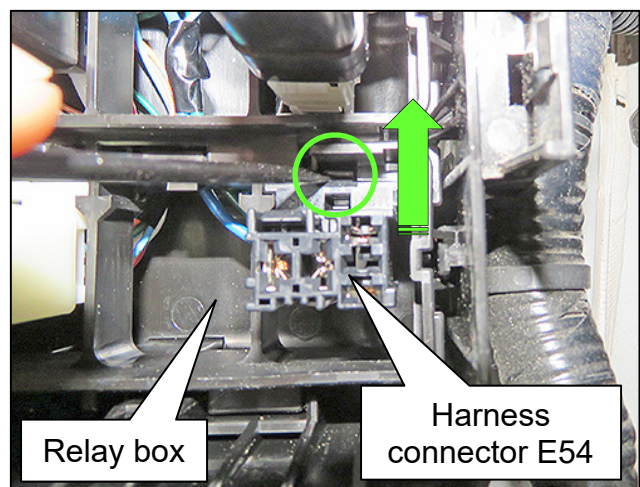


Figure 6

9. Pull harness connector E54 straight up and out of the relay box.

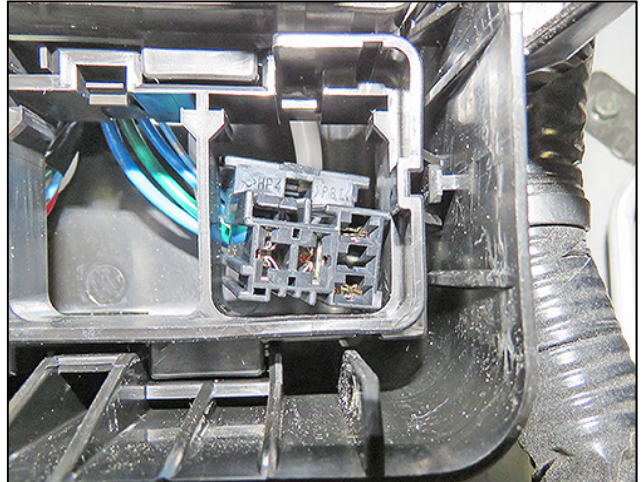
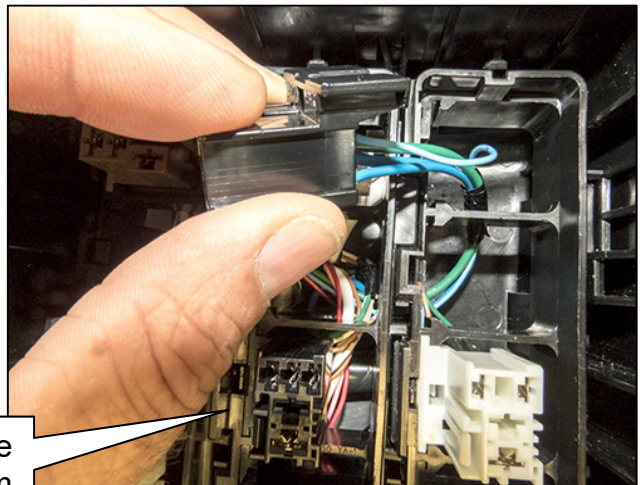


Figure 7

For the following repair the entire motor room harness will not be used. Only the Parking Actuator Relay “A” harness connector (E54) will be removed from it to repair the pre-existing harness.

10. Repeat steps 7-9 on E54 of the new motor room harness.
 - See the **Parts Information** section of this bulletin on page 13.



Relay box of the
new motor room
harness

Figure 8

11. Cut all four (4) wires of the new E54 harness connector, and then remove it from the new motor room harness relay box.
- Cut wires so that they are as long as possible; approximately 4-5 inches.

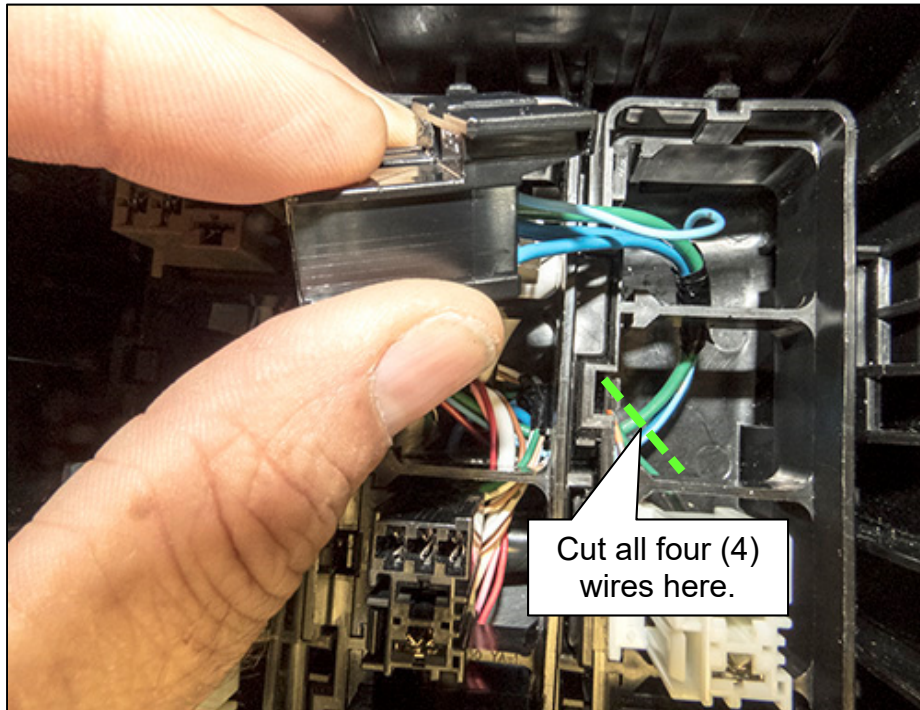


Figure 9

12. Strip approximately 10 mm of insulation from the ends of each wire (see Figure 10).

IMPORTANT: In the following steps the old harness connector wires (still in vehicle) will be cut, striped, and soldered together, one at a time. Two wires are the same color, but of a slightly different gauge wire (see Figure 10).

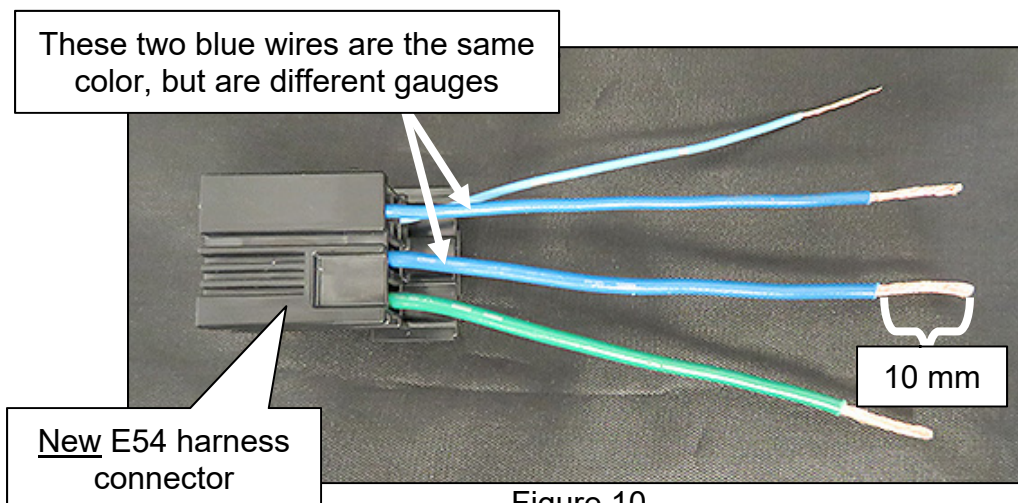
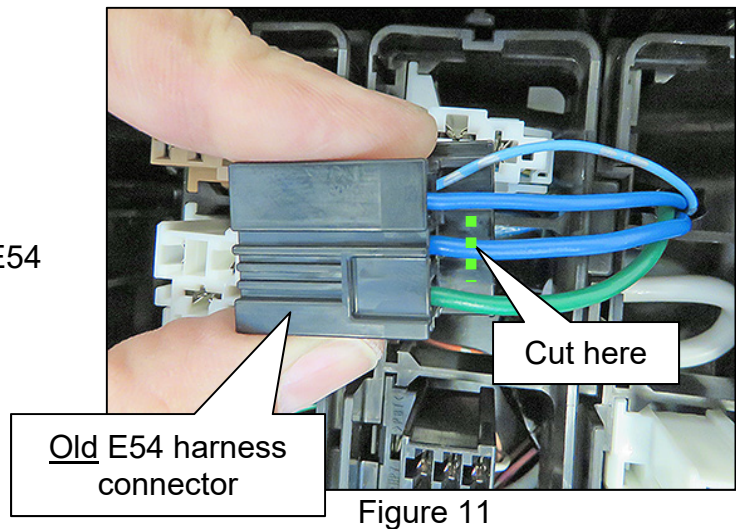
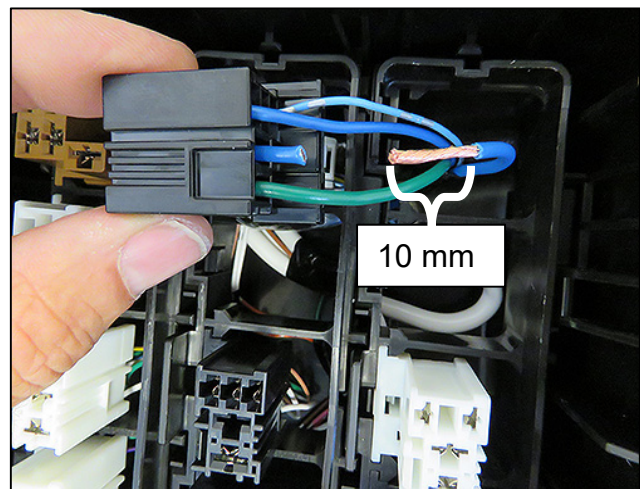


Figure 10

13. Cut only the blue wire of the old E54 harness connector as shown in Figure 11.

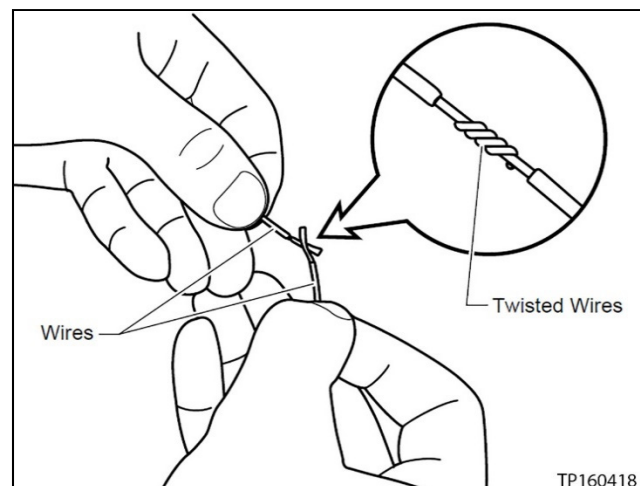


14. Remove approximately 10 mm of insulation.



CAUTION: Do not use an electric type soldering tool. An electric type soldering tool may generate a current that may damage vehicle's control units.

15. Place a blue solder sleeve onto the corresponding wire of the new harness connector.
- The solder sleeve connectors are listed in the **Parts Information** section of this bulletin on page 13.
16. Twist the new harness connector wire (with solder sleeve) together with the wire that was stripped in step 14.
- See Figure 13 for example of twisting wires.



17. Slide the blue solder sleeve over the twisted pair and position it so that the solder ring is over the two twisted wires as shown in Figure 14.

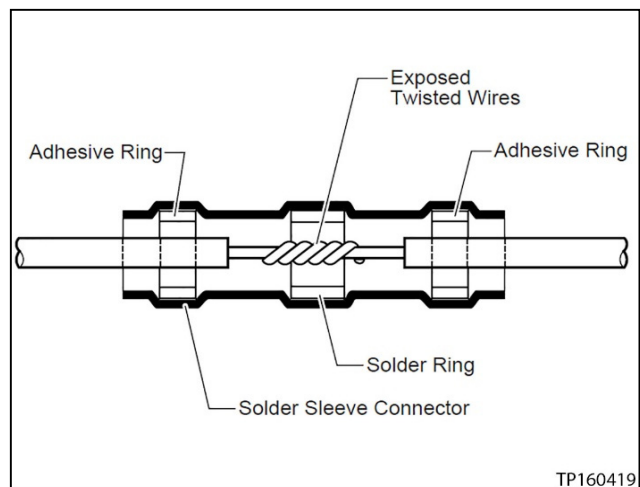


Figure 14

18. Install the solder sleeve connector by shrinking it to the wire with essential tool Flameless Heat Gun J-46538 or equivalent flameless heating tool (see Figure 15 and Figure 16).

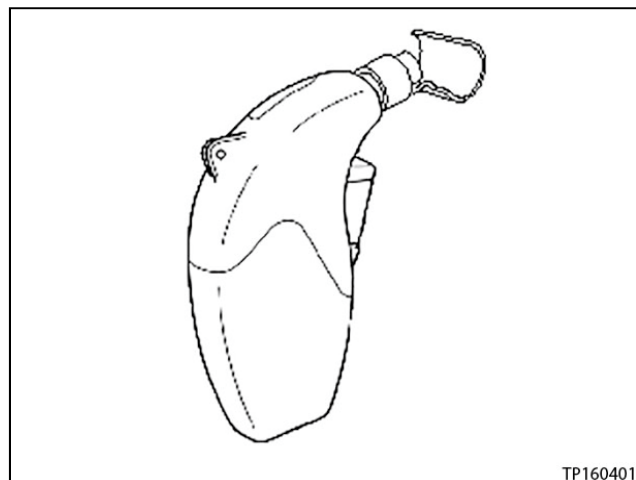


Figure 15

Installing the solder sleeve connector will:

- Melt the solder (silver ring inside the solder sleeve connector) into the exposed twisted wire area,
- Melt the sealant (blue rings inside the solder sleeve connector) onto the wires, and
- Shrink the remainder of the solder sleeve connector to the wire.

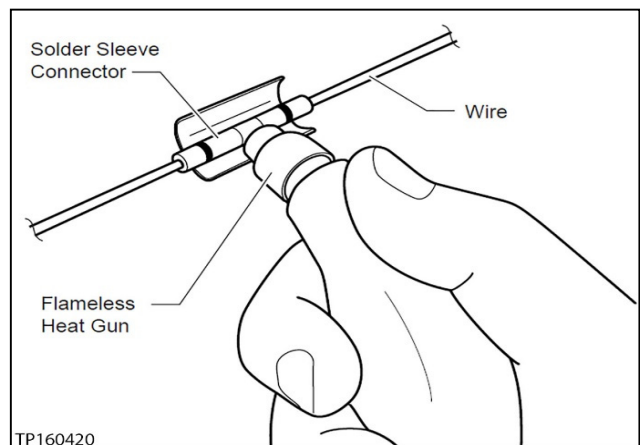


Figure 16

NOTE: Tool J-46538 can be purchased from TECH-MATE at 1-800-662-2001.

Figure 17 shows the first solder connection.

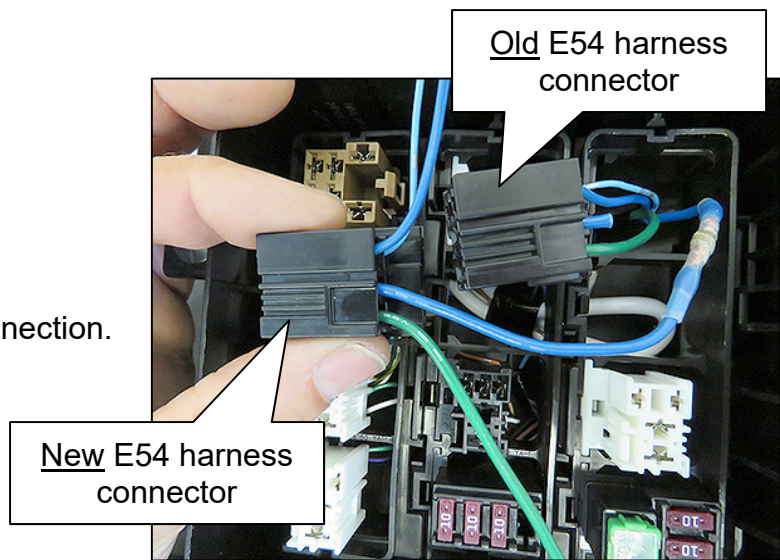


Figure 17

19. Cut the second blue wire of the old E54 harness connector as shown in Figure 18.

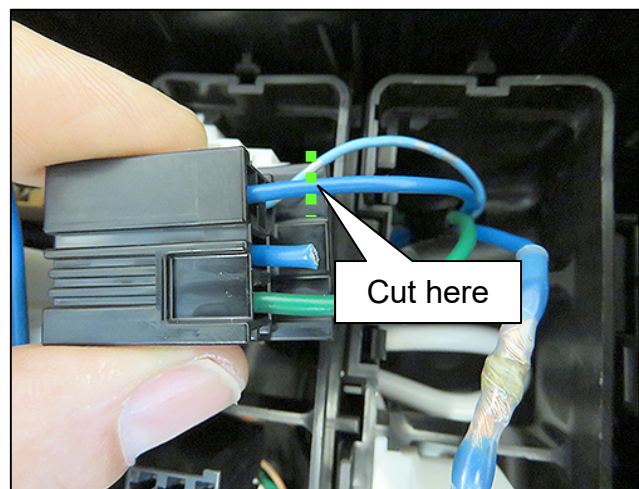


Figure 18

20. Remove approximately 10 mm of insulation.

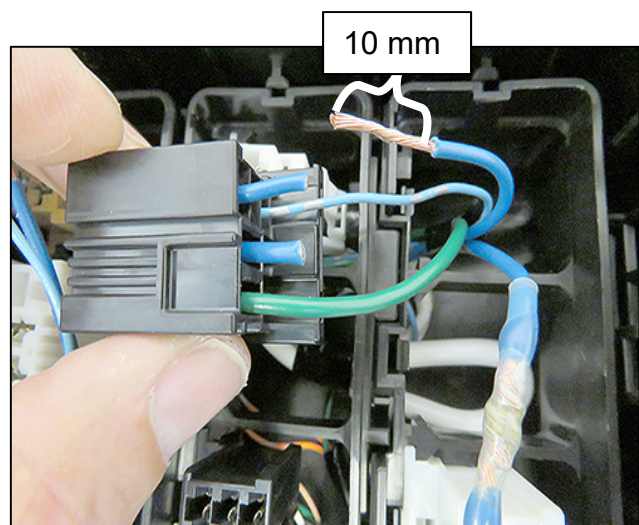


Figure 19

21. Place a blue solder sleeve onto the corresponding wire of the new harness connector.
- The solder sleeve connectors are listed in the **Parts Information** section of this bulletin on page 13.
22. Twist the new harness connector wire (with solder sleeve) together with the wire that was stripped in step 20.
- See Figure 20 for example of twisting wires.

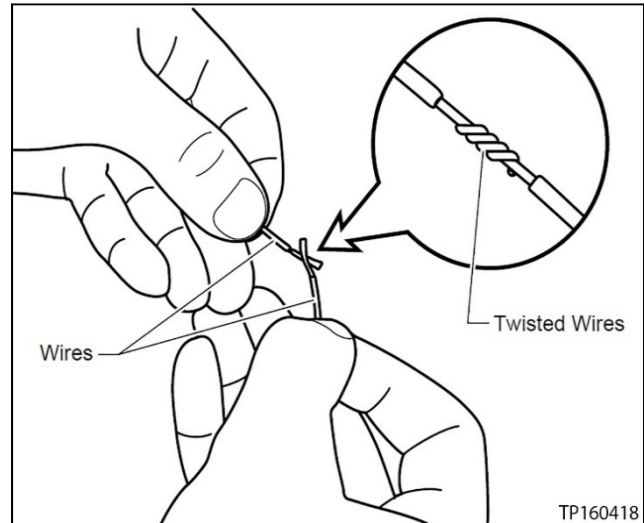


Figure 20

23. Slide the blue solder sleeve over the twisted pair and position it so that the solder ring is over the two twisted wires as shown in Figure 21.

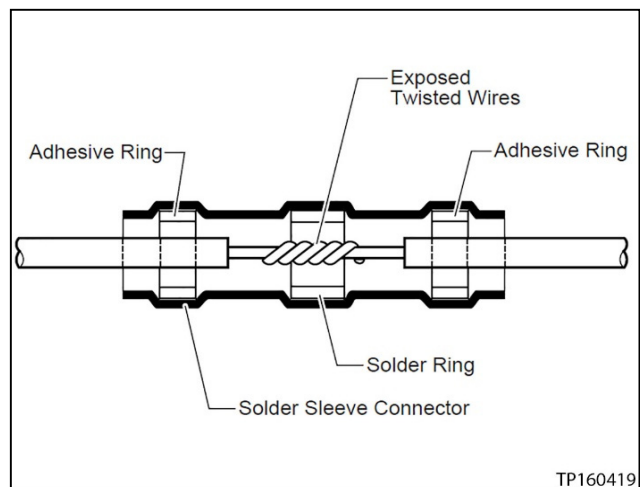


Figure 21

24. Install the solder sleeve connector by shrinking it to the wire with essential tool Flameless Heat Gun J-46538 or equivalent flameless heating tool (see Figure 22 and Figure 23).

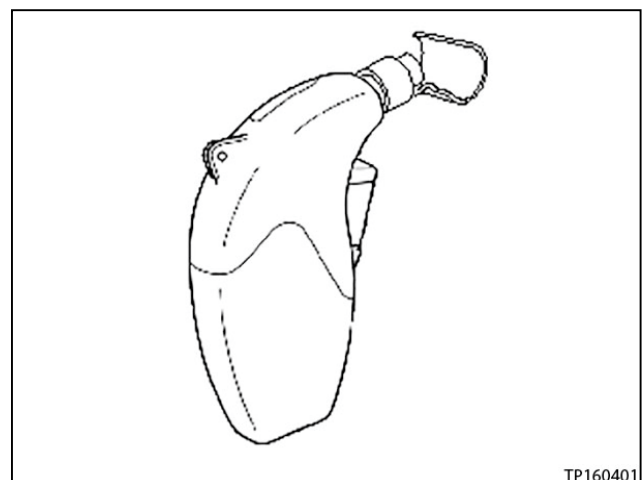


Figure 22

Installing the solder sleeve connector will:

- Melt the solder (silver ring inside the solder sleeve connector) into the exposed twisted wire area,
- Melt the sealant (blue rings inside the solder sleeve connector) onto the wires, and
- Shrink the remainder of the solder sleeve connector to the wire.

NOTE: Tool J-46538 can be purchased from TECH-MATE at 1-800-662-2001.

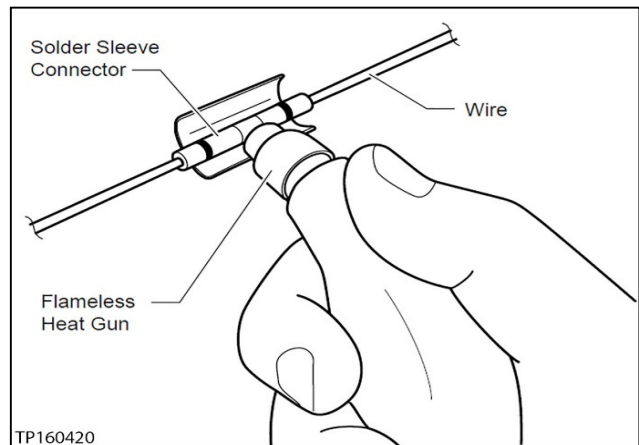


Figure 23

25. Cut and then remove insulation from the two remaining wires of the old E54 harness connector as shown in Figure 24.

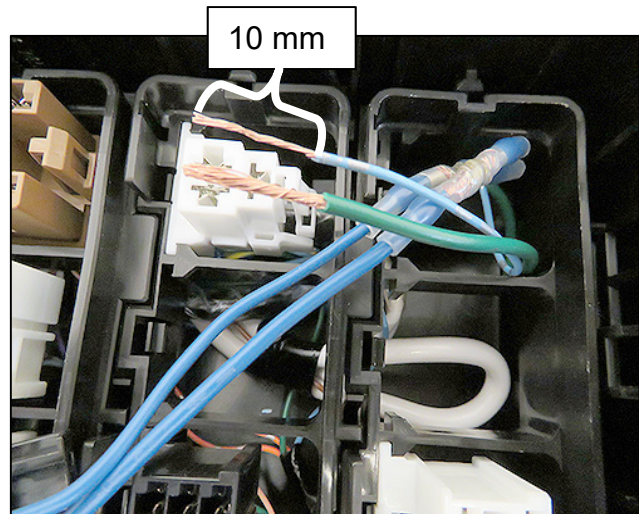


Figure 24

26. Solder the two remaining wires of the new E54 harness connector to the corresponding wires that were just stripped in step 25.
- Follow steps 21-24 to solder connections.

IMPORTANT: Smaller wire will require a red solder sleeve.

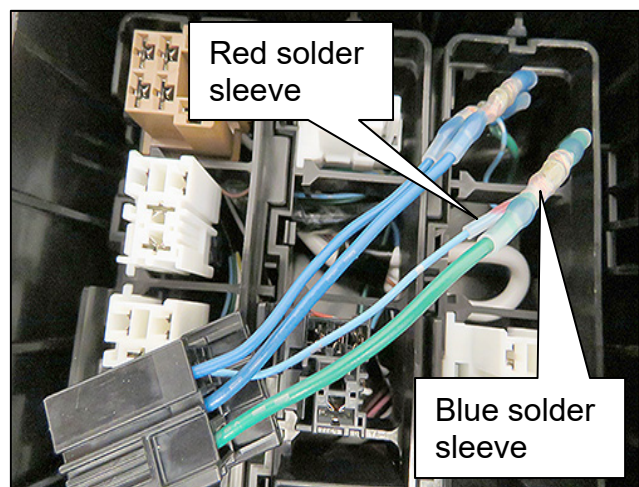


Figure 25

27. Install the new E54 harness connector into the relay box.

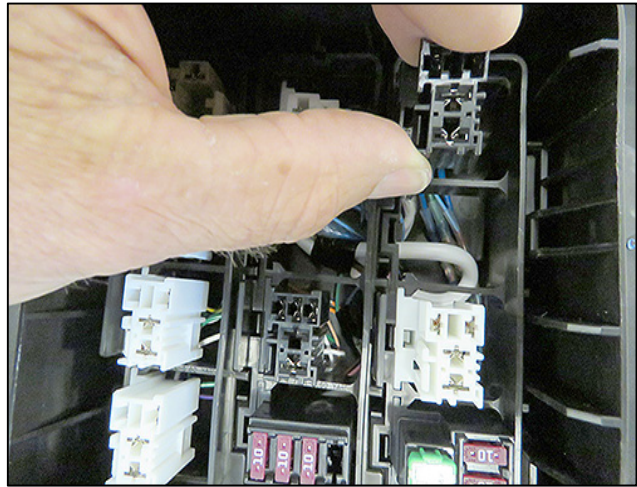


Figure 26

28. Re-install the relay removed in step 2 and the fuse box lid.
29. Connect the vehicle's 12 volt battery.
- Refer to the ESM for service procedure to re-connect the 12 volt battery: **REPAIR > ELECTRICAL & POWER CONTROL > POWER SUPPLY, GROUND & CIRCUIT ELEMENTS > REMOVAL AND INSTALLATION > 12V BATTERY.**
30. With the parking brake set, confirm that the vehicle will shift into Drive (**D**) and then place it back into Park (**P**).
31. Clear any DTCs that may have been set.
32. Reset any customer settings that were lost when the battery was disconnected.
- Refer to the ESM, section **DIAGNOSIS > ELECTRICAL & POWER CONTROL > POWER SUPPLY, GROUND & CIRCUIT ELEMENTS > BASIC INSPECTION > ADDITIONAL SERVICE WHEN REMOVING 12V BATTERY NEGATIVE TERMINAL**, for a listing of systems that may lose settings or memory when disconnecting the 12V battery.
 - This list often includes items such as audio, HVAC, power windows, clock, etc.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
Motor Room Harness Assembly	(1)	1
Blue solder sleeve	J-47003-3 (2) (3)	3
Red solder sleeve	J-47003-2 (2) (3)	1

- (1) Refer to the Electronic Parts Catalog and use the vehicle VIN to look up the part number.
- (2) Shop supplies.
- (3) This item is part of the terminal repair kit.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Inspect E54 Harness Connector	(1)	RX8GAA	ZE	32	0.2
Inspect & Replace E54 Harness Connector		RX8HAA	ZE	32	0.6

- (1) Refer to the Electronic Parts Catalog and use the Engine Room Harness (24012-*****) as the Primary Failed Part (PFP).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
July 9, 2019	NTB19-054	Original bulletin published

