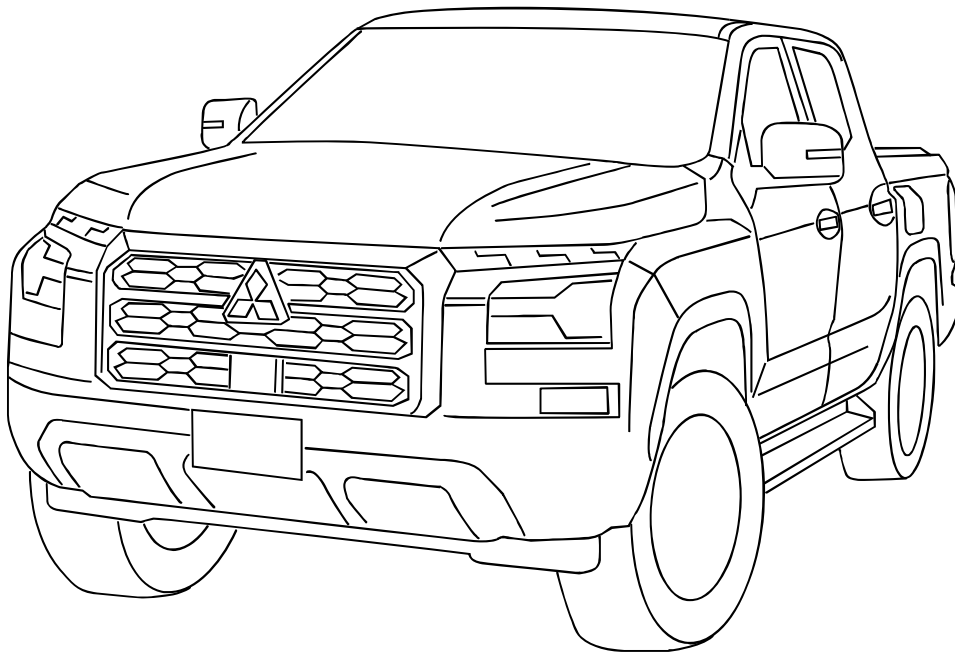









Electric Trailer Brake Harness Installation and Owner's manual

LA0 Parts No. MZ350775

- Thank you for purchasing the Mitsubishi Motors genuine accessory.
- The initial installation quality determines the level of performance, durability and trouble occurrence in the future.
- Make sure to read this manual carefully before installation of the product, and install it correctly after understanding an overall operation flow. Do not attempt installation other than instructed in this manual. We shall not be responsible for any failures occurred by not following the instructions in this manual.
- We recommend you to have the installation performed at an authorized Mitsubishi Motors dealer to ensure the reliability.



							
MZ350775	✓	✗	✓	✓	✓	✓	✓

Symbol meaning

 **Warning**

This symbol indicates a particularly important safety instruction. Read and follow it carefully for safety. Failure to heed the caution may result in death or serious human injuries.

 **Caution**

This symbol indicates a particularly important safety instruction. Read and follow it carefully for safety. Failure to heed the caution may result in human injuries or accidents.

 **Note**

This symbol indicates an advisory instruction to follow during installation and handling.

Precautions for installation

Warning



Perform the installation indoors that is large enough without worrying about the rain and wind. Make sure the work area is well ventilated and take special care for the fullness of exhaust gas.



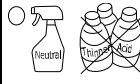
Disconnect the negative terminal cable from the battery before installation. For the vehicle with the airbag, follow the instructions in the vehicle's workshop manual.

- Do not install to the vehicles except for the applicable types.
- Do not install with remodeling. Failure to heed this caution may result in serious accidents.

Caution



Work carefully using a protective cover to prevent the vehicle from scratches and dirt.



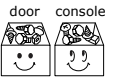
Wipe off the dirt of the product using a sponge with a neutral detergent. Do not use organic solvents such as thinner, acids and alkalis.



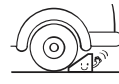
When removing and reinstalling the vehicle body parts, refer to the vehicle's workshop manual.



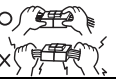
When installing the parts and reinstalling the removed vehicle body parts, be careful not to let vehicle harnesses be caught and pinched between parts.



Be careful not to make a mistake when reinstalling the clips, screws, etc. removed from the vehicle.



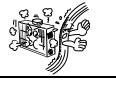
When jacking up the vehicle, make sure to use wheel chocks and work on a flat place.



When removing connectors, hold the connector bodies and unlock without pulling on harnesses. Do not destroy the connector lock by prying with a screw driver. Keep the harnesses away



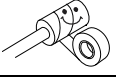
Tighten securely parts which the tightening torque is indicated according to the specified torque.



Keep the harnesses away from hot engines, radiators, etc.



Do not pull on wiring harnesses strongly.



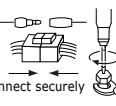
Before the harness routing work, protect the terminals with a vinyl tape to prevent they will not be damaged.



Do not attach the harness to the brake piping or the air conditioner high pressure piping.



- Perform the harness routing with cable tie not to interfere with other parts. Also, cut the excess cable tie. (Especially, it is dangerous if the harnesses interfere the devices related to driving and braking.)
- When attaching the harness with the cable tie, attach the cable tie with a degree of strength that the harness does not easily shift up and down or left and right.



- Connect the wiring bullet terminal securely.
- Refer to the following items for the connector connection.
 - ① Check that it is locked visually.
 - ② Check that it clicks.
 - ③ Check that the connectors do not come off by pulling on the harnesses slightly.
- Install the lead wire terminal securely to prevent the loosening by vibration.



After the harness routing, check the operation of the parts installed before the recovery. It prevents the misrouting.

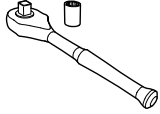
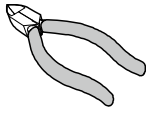
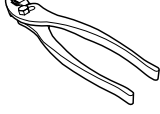
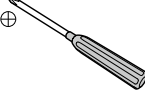
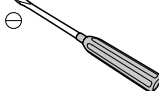
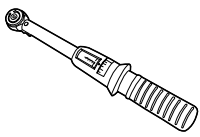
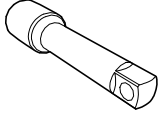
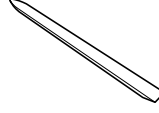
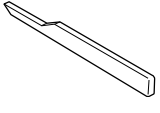
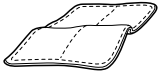
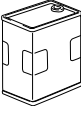
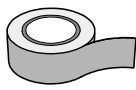


Check that the electric components for the vehicle operate normally. Also, note the memory of the electric components such as a radio.

- When inserting the terminals, make sure that the wire colour of the harness is correct.

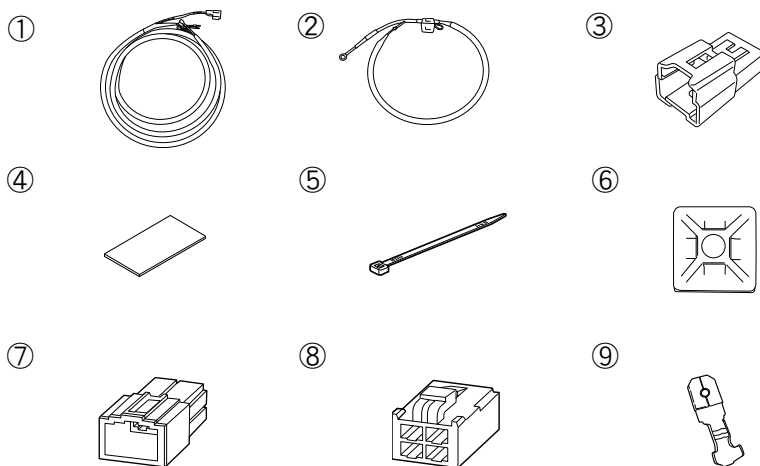
Tools

(Make the following tools ready for use.)

Socket wrench (10, 12 mm) 	Cutting pliers 	Pliers 	Phillips screwdriver 	Flat-blade screwdriver 	Torque wrench 
Extension bar 	Trim remover 	Terminal releasing tool 	Cloth 	Degreaser 	Vinyl tape 

Component parts

(Make sure that all of the following component parts are included in the kit before starting the installation process.)

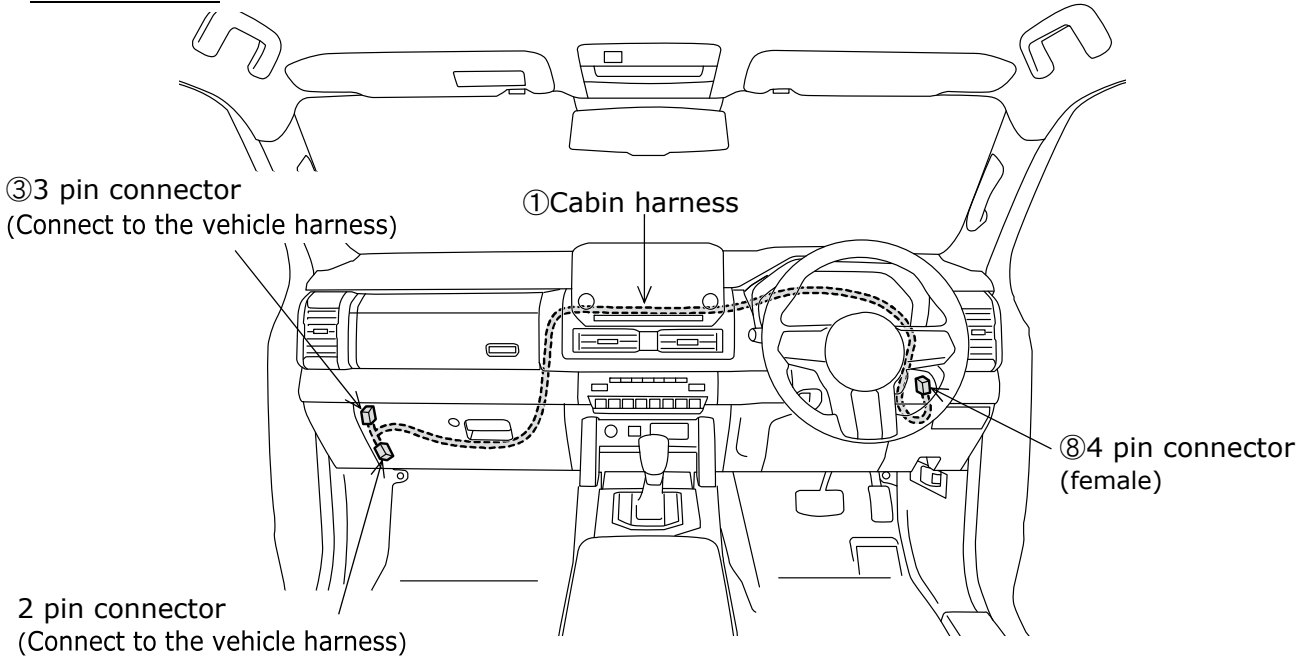


Part name		QTY
①	Cabin harness	1
②	Engine harness	1
③	3 pin connector	1
④	Urethane foam tape	3
⑤	Cable tie	25
⑥	Cable tie base	2
⑦	4 pin connector (male)	1
⑧	4 pin connector (female)	1
⑨	Male terminal	4

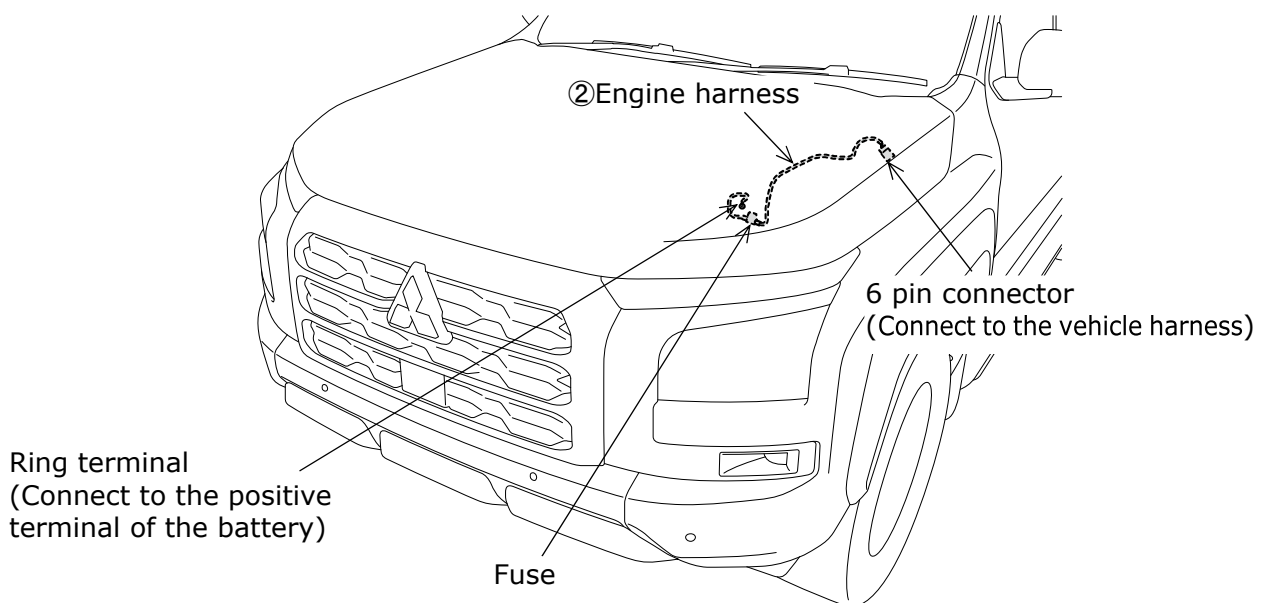
Caution

- Route the harness and while preventing it from getting caught in the edge parts.
- Secure the harness with a cable tie or tape to prevent it from wobbling and interfering with other parts.
- Temporarily attach the harness during wiring, and secure it by fastening tightly after completion of wiring.
- Connect the connectors securely until they click into the place.
- Make sure that line colour of the terminal is correct when inserting it.

Cabin harness

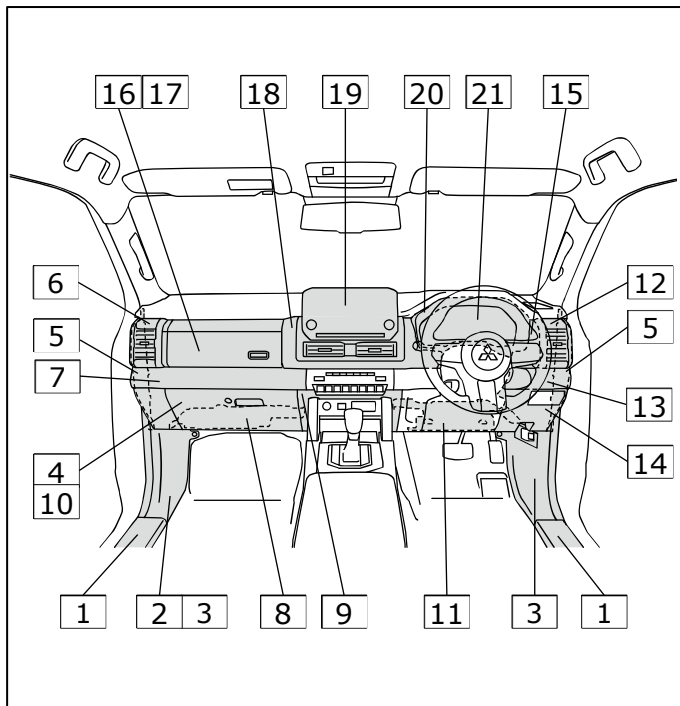


Engine harness



Installation procedure

A. Removal of vehicle parts



1) Remove the following parts

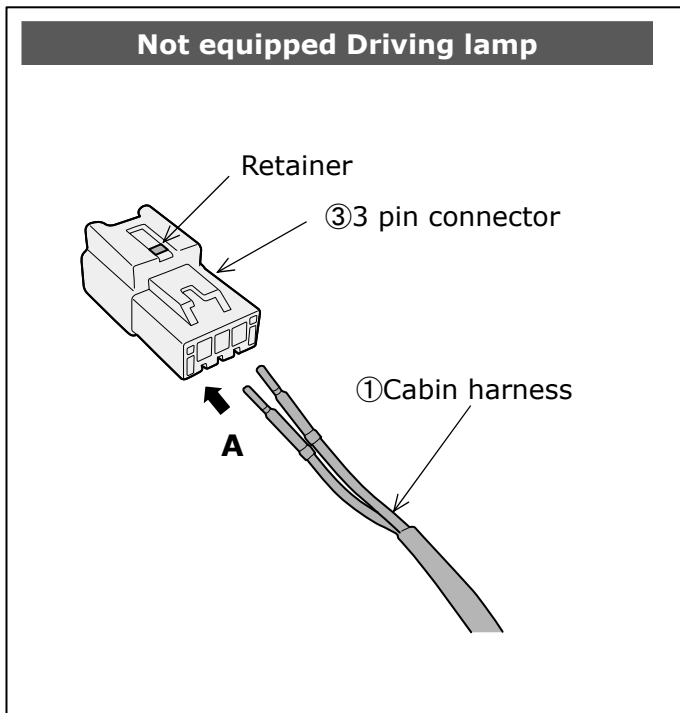
Note

- Refer to vehicle's workshop manual for how to remove vehicle parts.
- Do not lose removed parts because they will be reused.

- | | |
|----|---|
| 1 | Front scuff plate LH/RH |
| 2 | Cowl side trim upper |
| 3 | Cowl side trim lower LH/RH |
| 4 | Glove box lid assembly |
| 5 | Instrument panel side cover LH/RH |
| 6 | Instrument panel air outlet assembly LH |
| 7 | Instrument trim assembly (passenger's side) |
| 8 | Instrument panel under cover (passenger side) |
| 9 | Instrument panel B |
| 10 | Glove box cover assembly |
| 11 | Instrument panel under cover (driver side) |
| 12 | Instrument panel air outlet assembly RH |
| 13 | Instrument trim assembly (driver's side) |
| 14 | Instrument panel lower assembly |
| 15 | Instrument panel A |
| 16 | Glove box cover (upper) |
| 17 | Upper glove box |
| 18 | Instrument air outlet assembly |
| 19 | Multivision display and instrument panel frame assembly |
| 20 | Combination meter bezel |
| 21 | Combination meter assembly |

Check

B. Installation of cabin harness

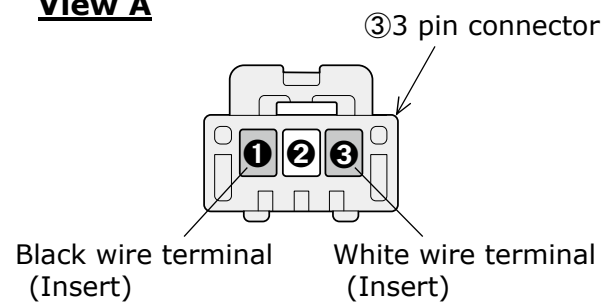


- 1) Insert the terminal (2 pieces) of ①Cabin harness into applicable position. The work differs depending on whether or not the genuine accessory Driving lamp is equipped.

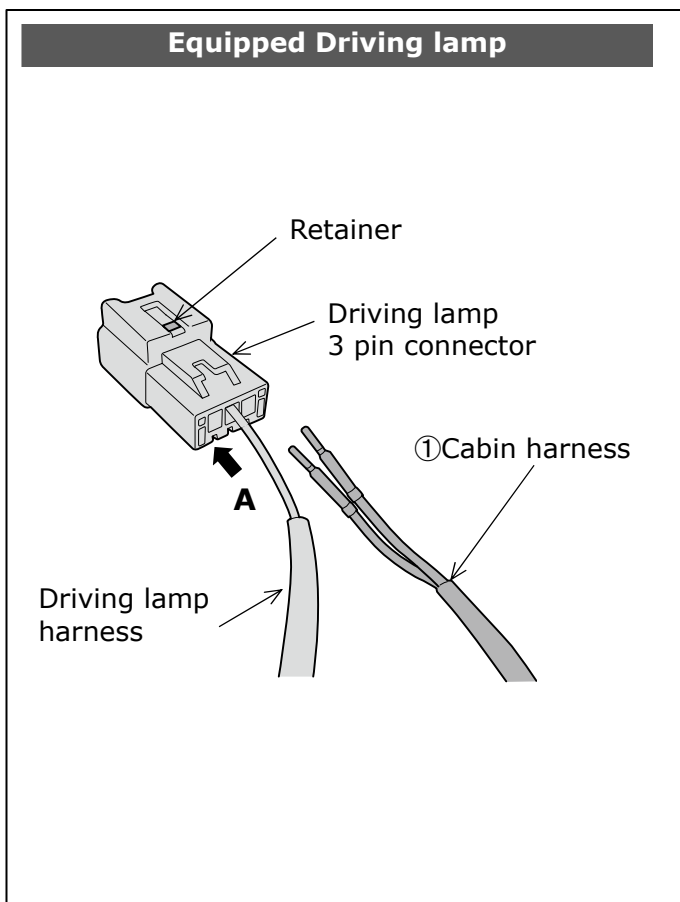
<Vehicles not equipped Driving lamp>

- Pull up the retainer of ③3 pin connector and unlock it.
- Insert the terminal (2 pieces) of ①Cabin harness into the position ① and ③ shown below of ③3 pin connector.

View A



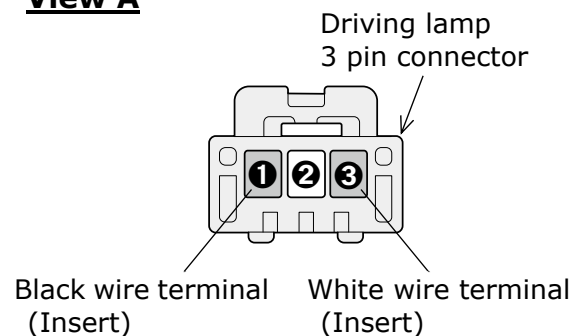
- Push the retainer of ③3 pin connector and lock it.



<Vehicles equipped Driving lamp>

- Pull up the retainer of Driving lamp 3 pin connector and unlock it.
- Insert the terminal (2 pieces) of ①Cabin harness into the position ① and ③ shown below of Driving lamp 3 pin connector.

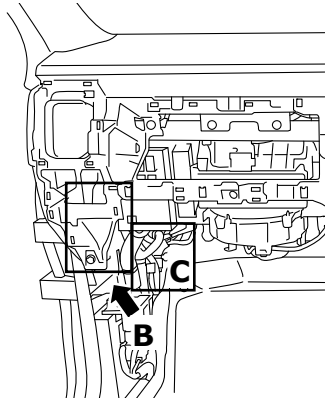
View A



- Push the retainer of Driving lamp connector and lock it.

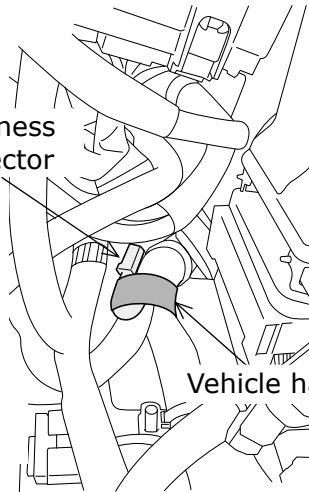
Note

- Do not need ③3 pin connector.



View B

Vehicle harness
3 pin connector

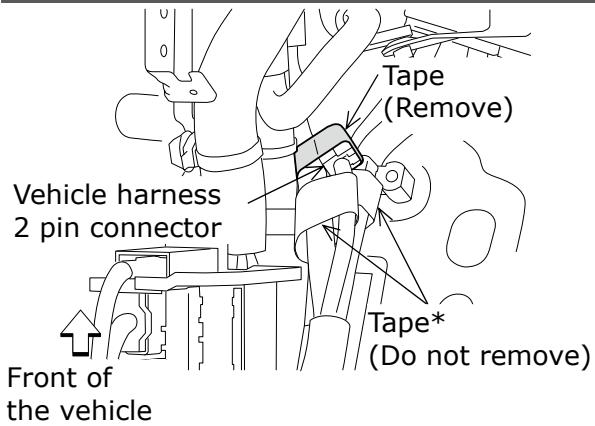


Front of
the vehicle

Vehicle harness tape

Detail C

Vehicles with A/T



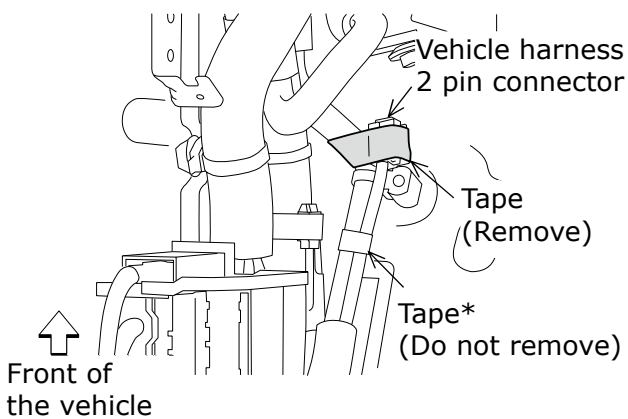
Tape
(Remove)

Vehicle harness
2 pin connector

Tape*
(Do not remove)

Front of
the vehicle

Vehicles with M/T



Vehicle harness
2 pin connector

Tape
(Remove)

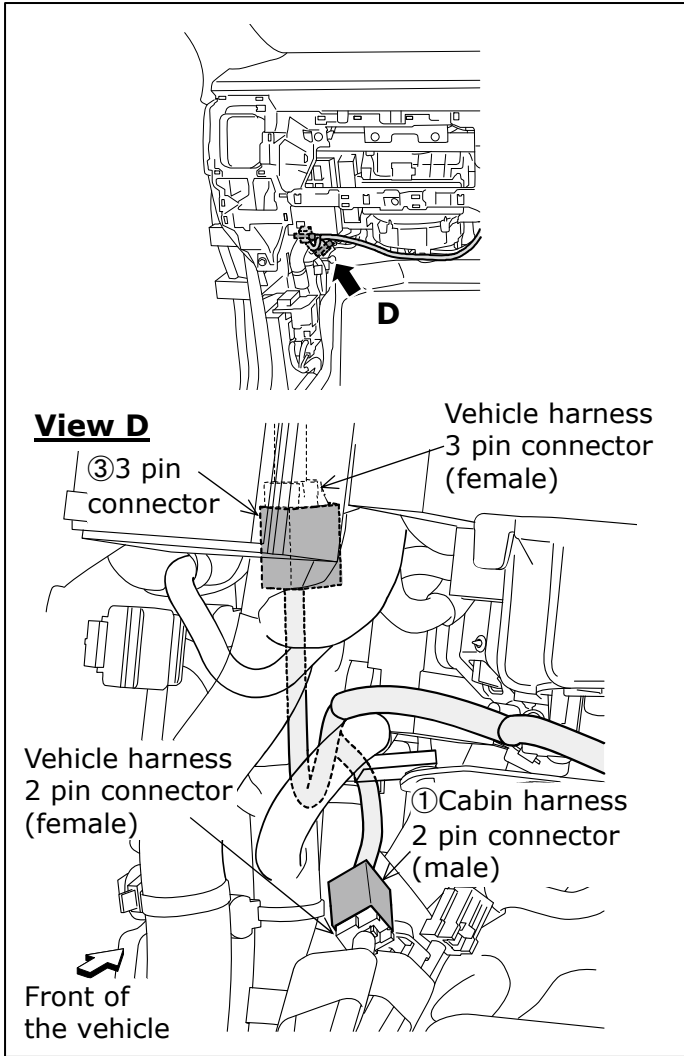
Tape*
(Do not remove)

Front of
the vehicle

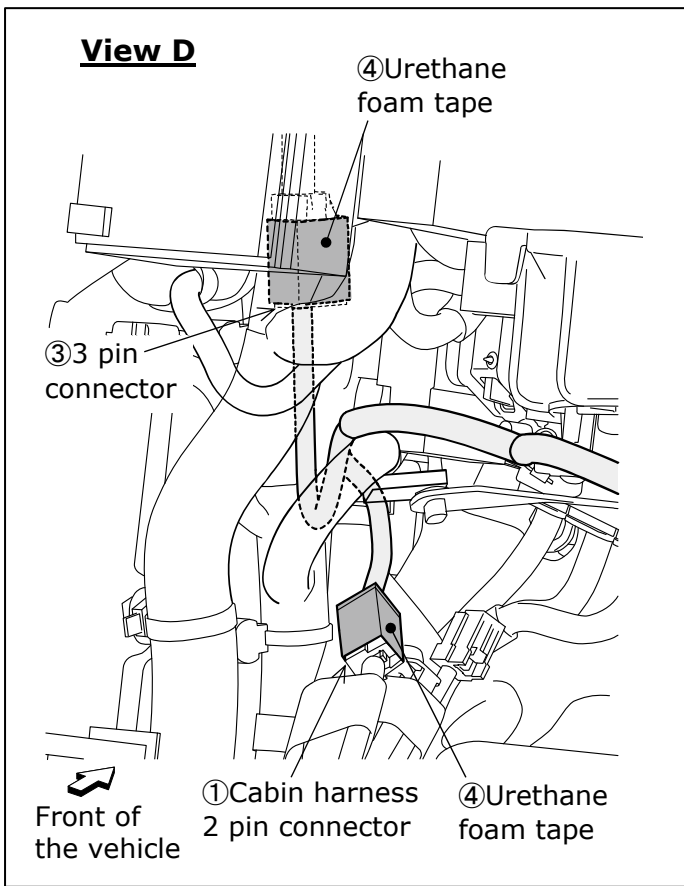
- 2) Remove the tape of vehicle harness and pull the 3 pin connector and 2 pin connector out from the vehicle harness.

Note

- Do not remove the tape shown on the left*.

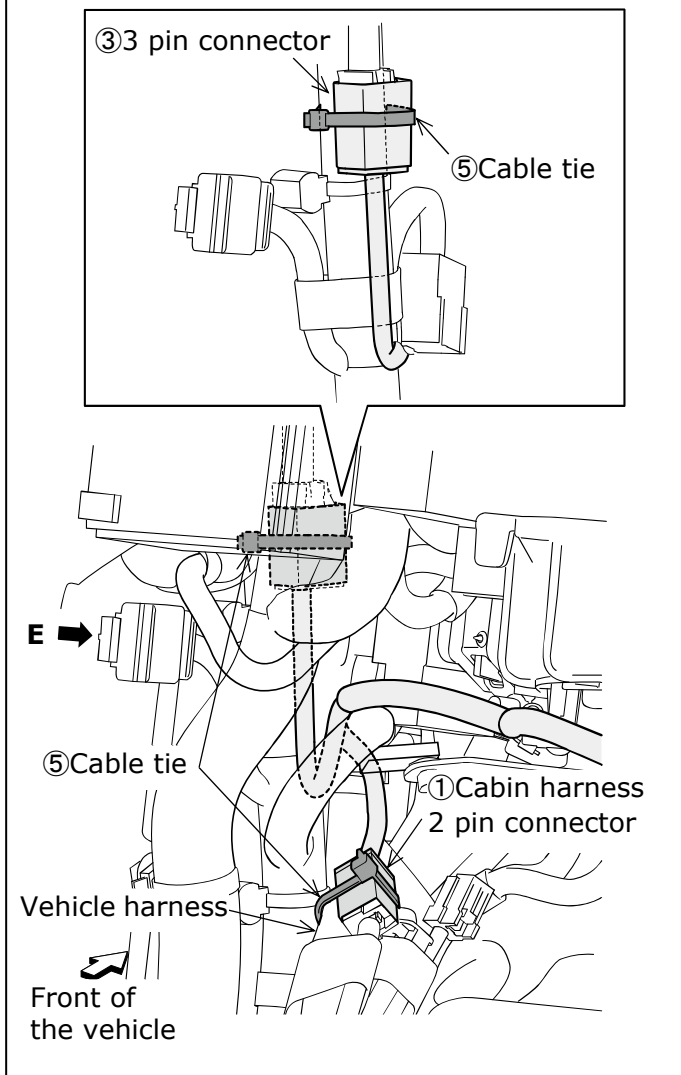


3) Connect ③3 pin connector and ①Cabin harness 2 pin connector (male) to the vehicle harness.



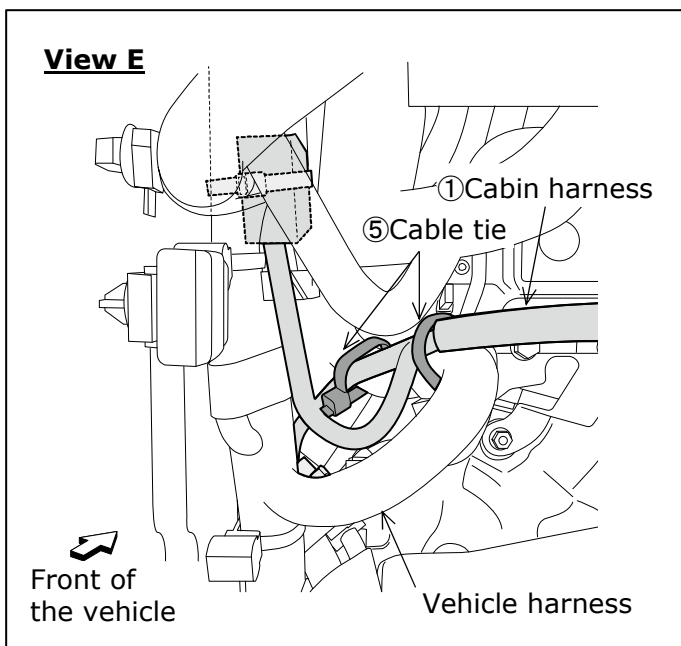
4) Wrap ④Urethane foam tape around the connected ③3 pin connector and ①Cabin harness 2 pin connector (male). (2 places)

View D

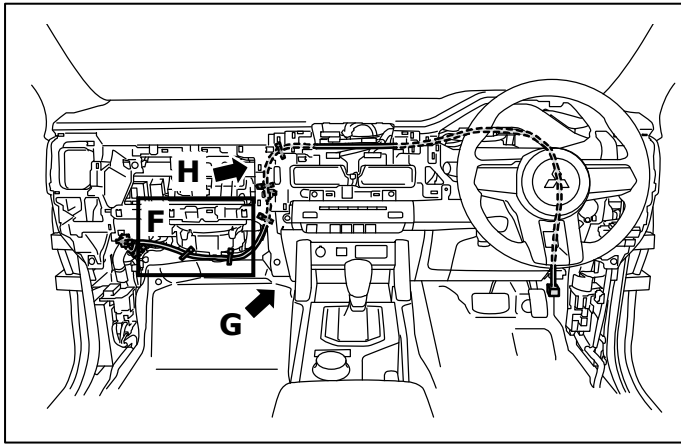


- 5) Attach ③3 pin connector and ①Cabin harness 2 pin connector to the vehicle harness with ⑤Cable tie. (2 places)

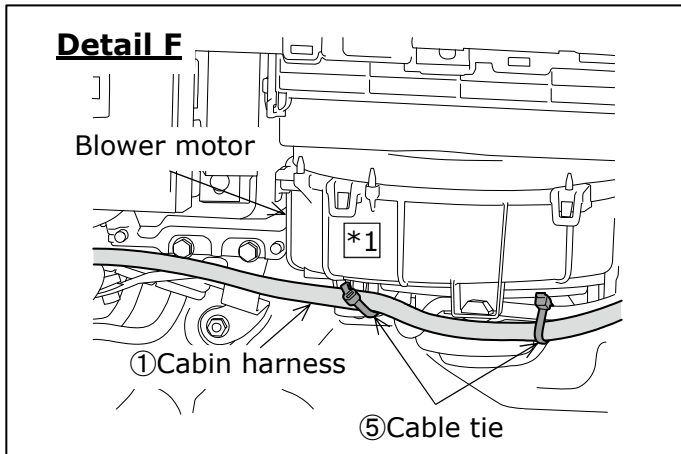
View E



- 6) Attach ①Cabin harness to the vehicle harness with ⑤Cable tie. (2 places)



7) Route ①Cabin harness along the vehicle harness to the driver's seat.



8) Attach ①Cabin harness to the blower motor and vehicle harness with ⑤Cable tie. (2 places)

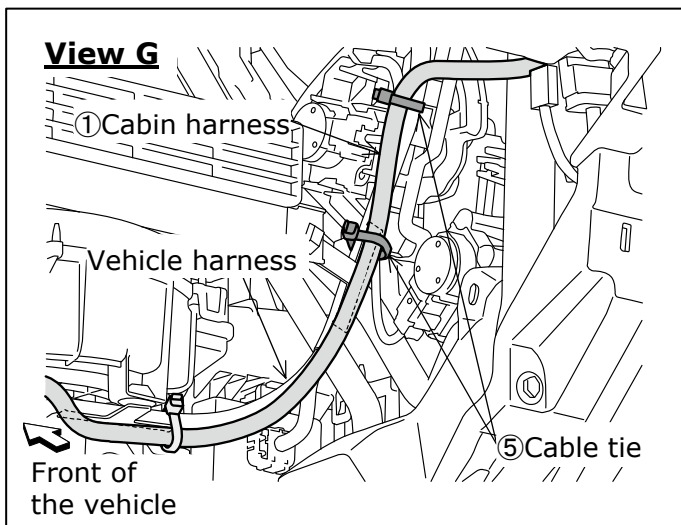
Note

- Attach ⑤Cable tie to the blower motor as shown below. (part *1 shown on the left figure)

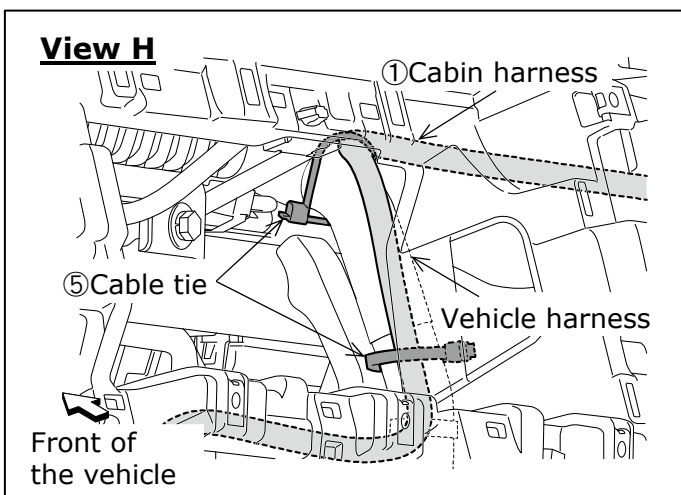
⑤Cable tie

①Cabin harness

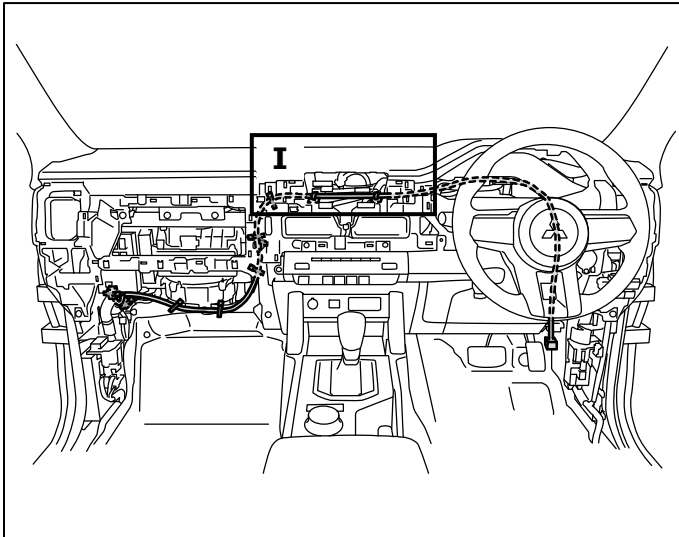
Blower motor



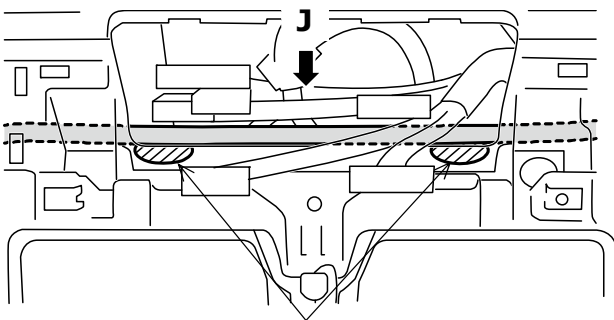
9) Attach ①Cabin harness to the vehicle harness with ⑤Cable tie. (2 places)



10) Attach ①Cabin harness to the vehicle harness with ⑤Cable tie. (2 places)



Detail I

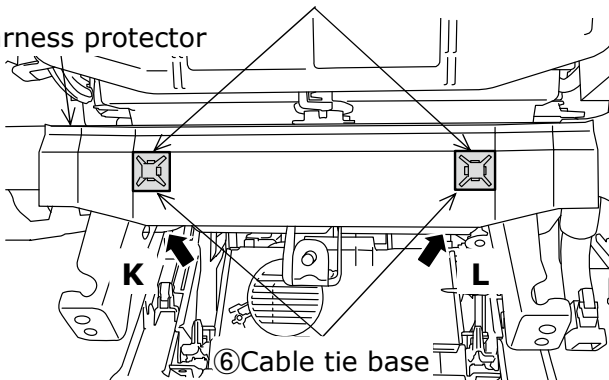


Attach surface of ⑥Cable tie base

View J

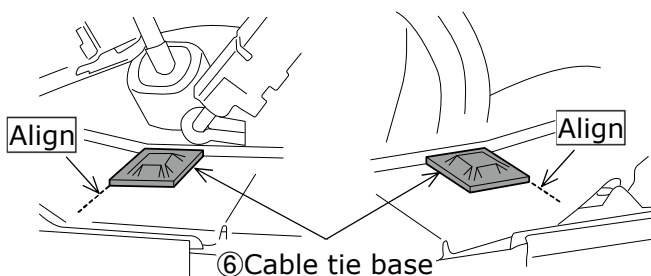
Align with the corner of the attaching surface.

Harness protector



View K

View L



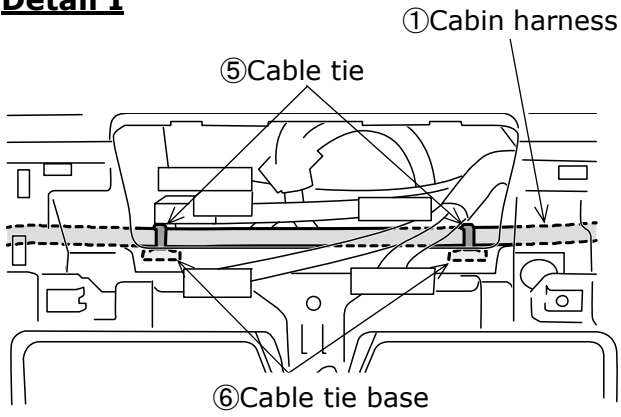
- 11) Remove dirt and oil from the attachment surface of the harness protector to ⑥Cable tie base. (2 places)

⚠ Caution

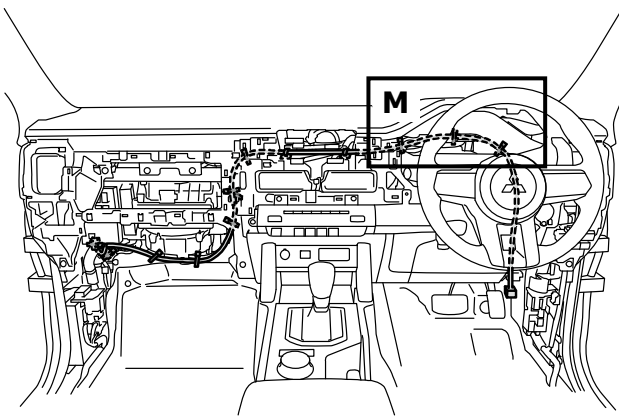
- Wipe dirt and oil off. Do NOT use such organic solvents as thinner, benzine and gasoline.
- Perform the task in a well-ventilated area that is free of fire.

- 12) Attach ⑥Cable tie base to the harness protector shown on the left figure. (2 places)

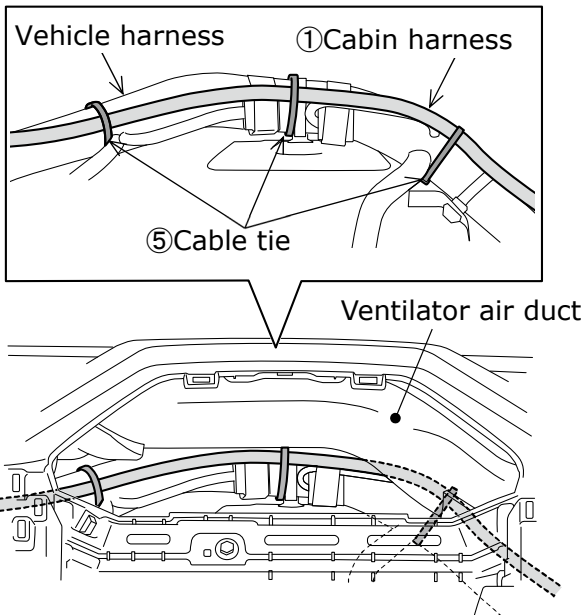
Detail I



13) Attach ①Cabin harness to ⑥Cable tie base with ⑤Cable tie. (2 places)



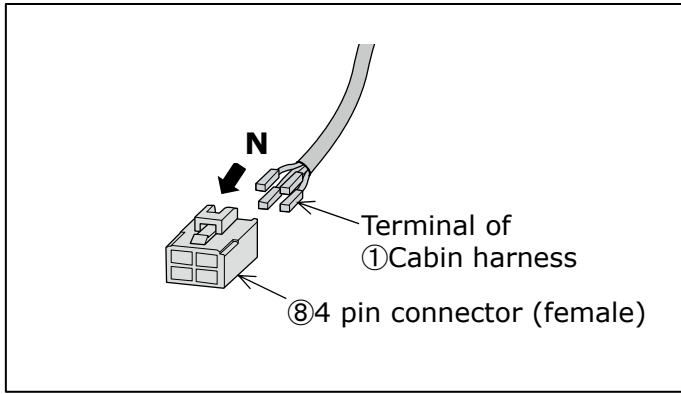
Detail M



14) Attach ①Cabin harness to the vehicle harness with ⑤Cable tie. (3 places)

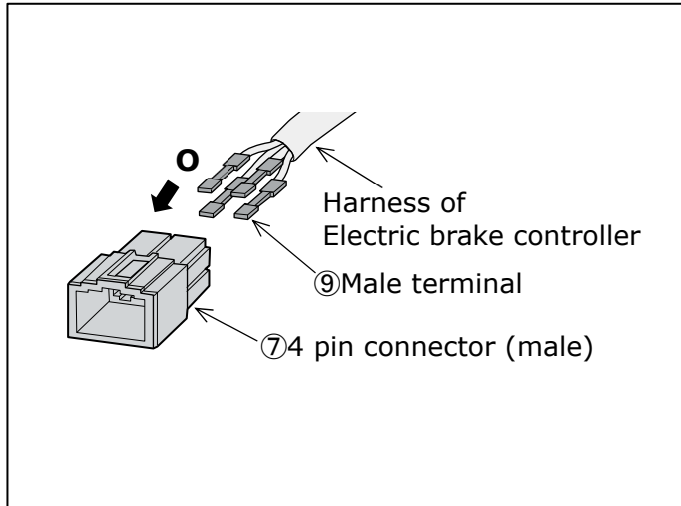
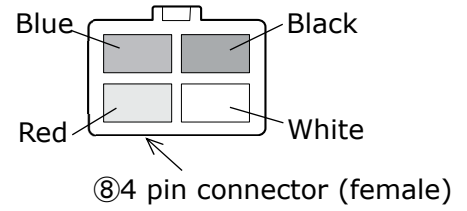
Note

- Route ①Cabin harness along the vehicle harness and behind the ventilator air duct.



15) Insert the terminal of ①Cabin harness to ⑧4 pin connector (female).

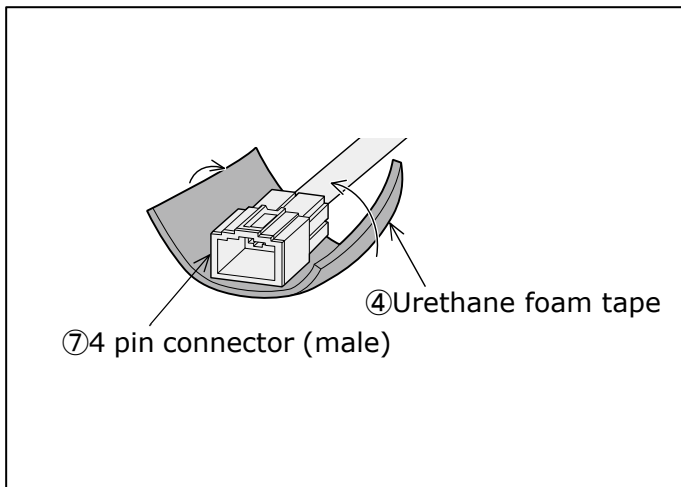
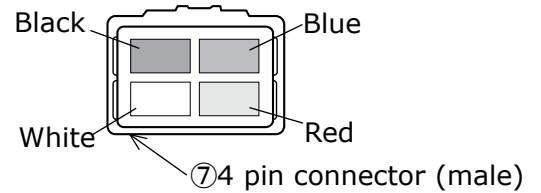
View N



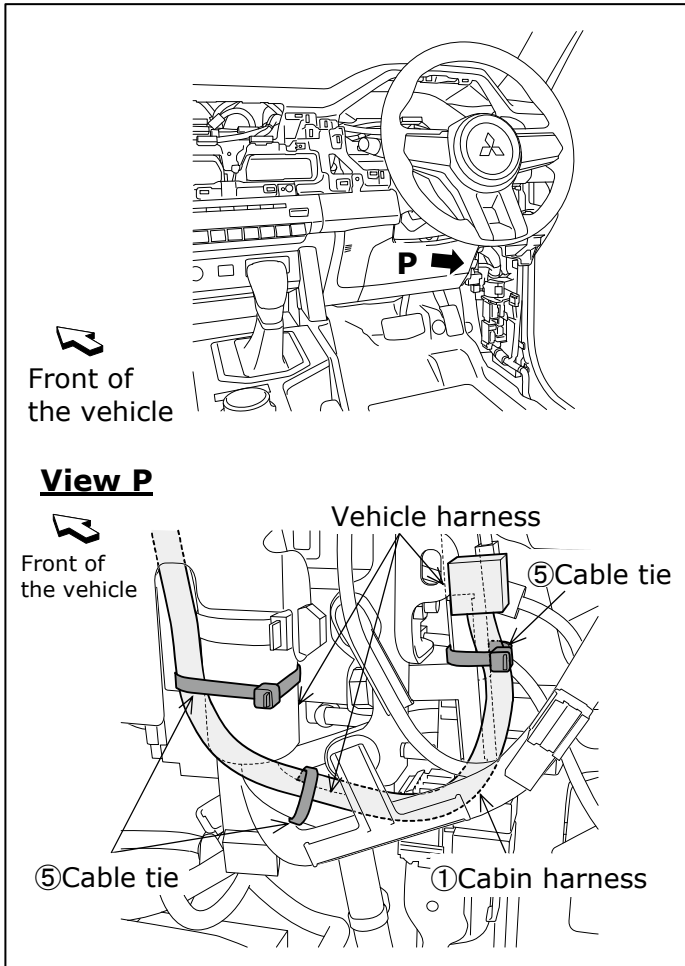
16) Crimp ⑨Male terminal to the electric brake controller harness. (4 pieces)

17) Insert the electric brake controller harness which attached ⑨Male terminal to ⑦4 pin connector (male).

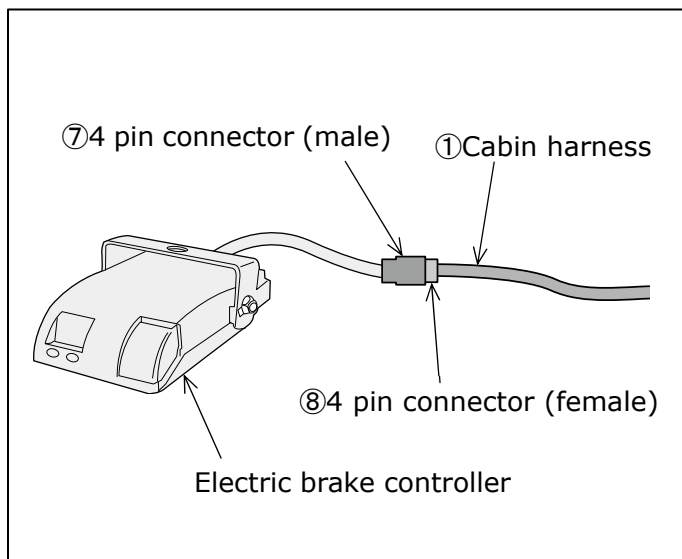
View O



18) Wrap ④Urethane foam tape around ⑦4 pin connector (male).



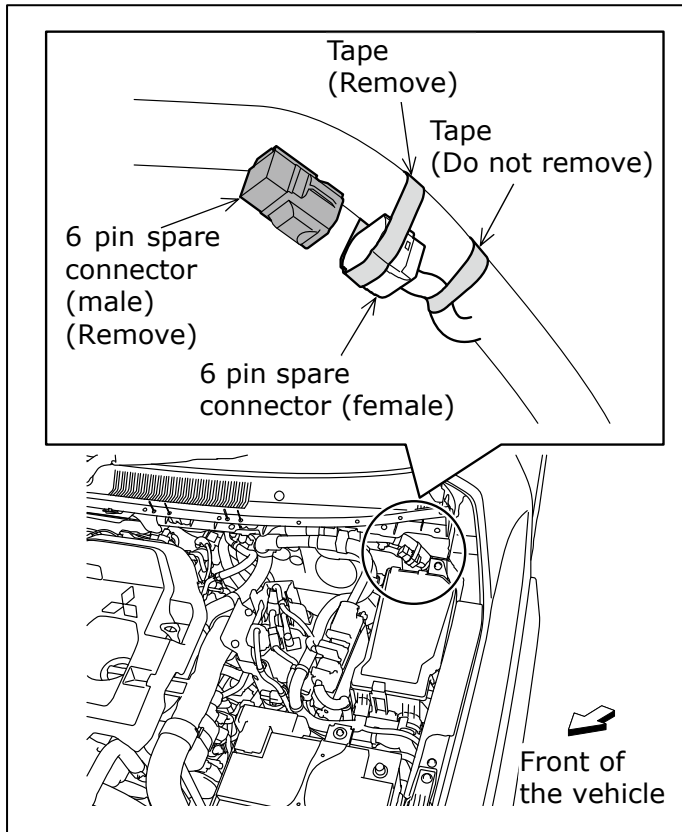
19) Attach ①Cabin harness to the vehicle harness with ⑤Cable tie as shown on the left figure. (3 places)



20) Connect ①Cabin harness and the electric brake controller.

Check	
-------	--

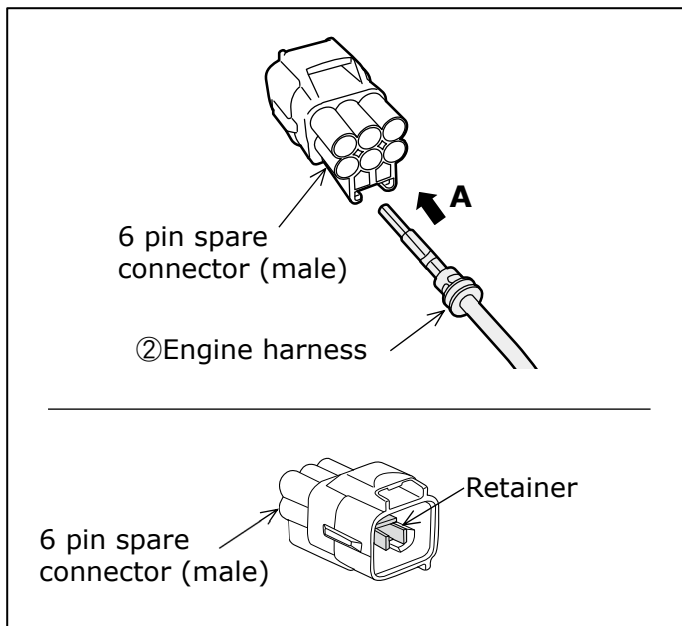
C. Installation of engine harness



- 1) Peel off the tape which attached the vehicle harness 6 pin spare connector and remove the 6 pin spare connector (male).

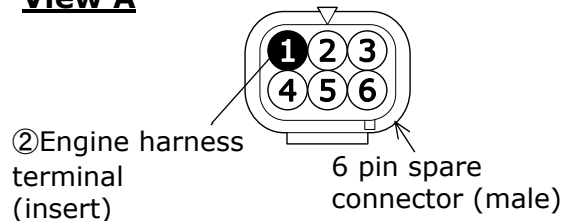
Note

- The removed 6 pin spare connector (male) will be reused.



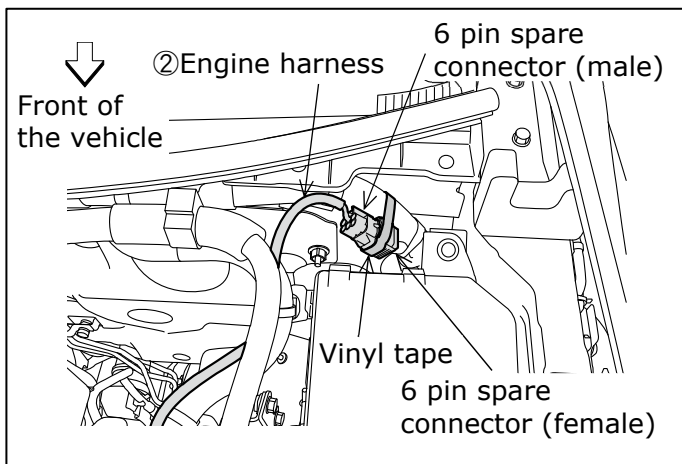
- 2) Pull the retainer of the 6 pin spare connector (male) and unlock it.
- 3) Remove the waterproof plug attached to the position of ❶ in the figure below of the 6 pin spare connector (male) and insert ❷ Engine harness terminal.

View A

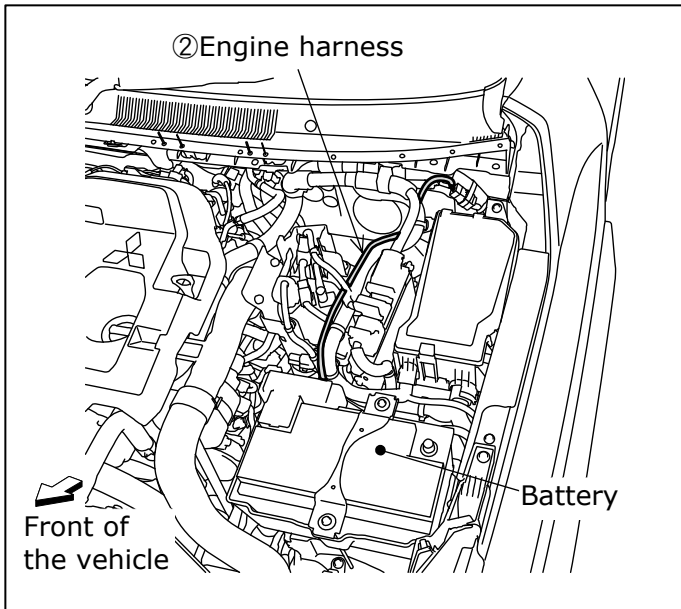


Note

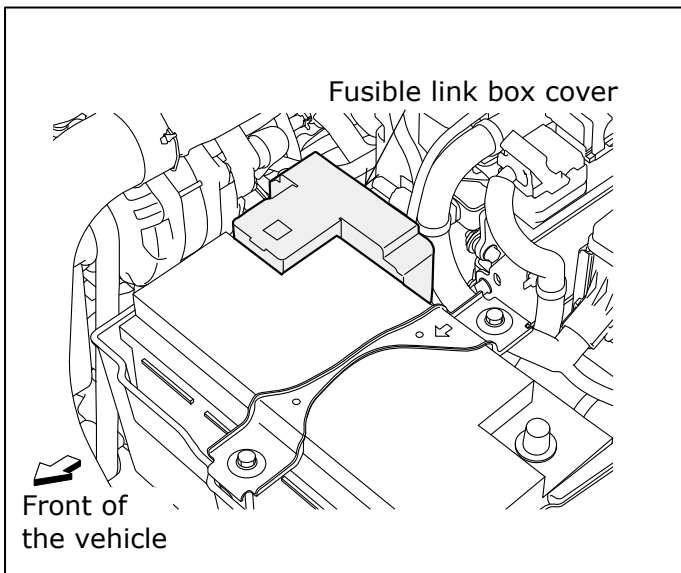
- The removed waterproof plug will be unnecessary.



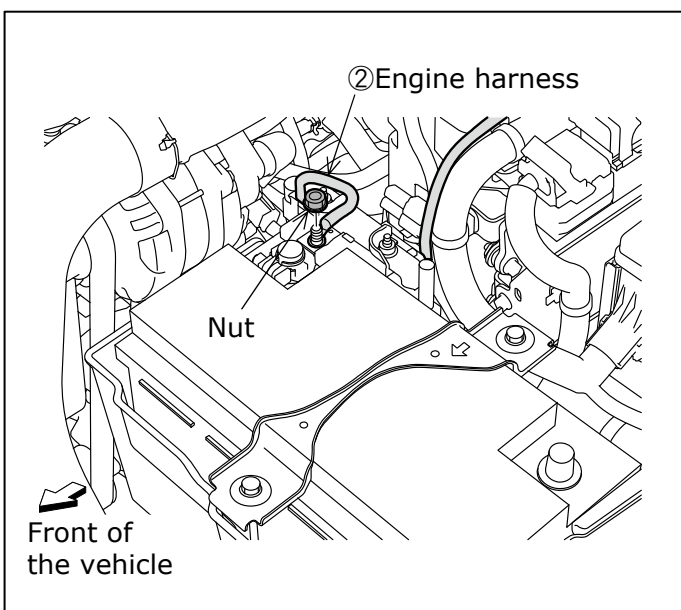
- 4) Push the retainer of the 6 pin spare connector (male) and lock it.
- 5) Connect the 6 pin spare connector (male) which insert the terminal of ❷ Engine harness to the vehicle harness again.
- 6) Attach the connected 6 pin spare connector to the vehicle harness with vinyl tape.



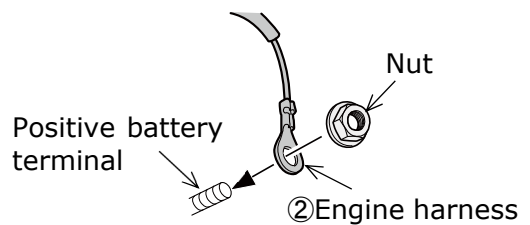
7) Route ②Engine harness along the vehicle harness to the battery.



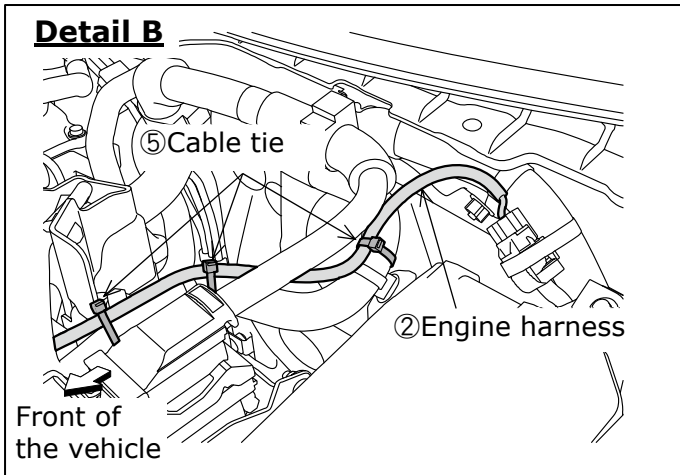
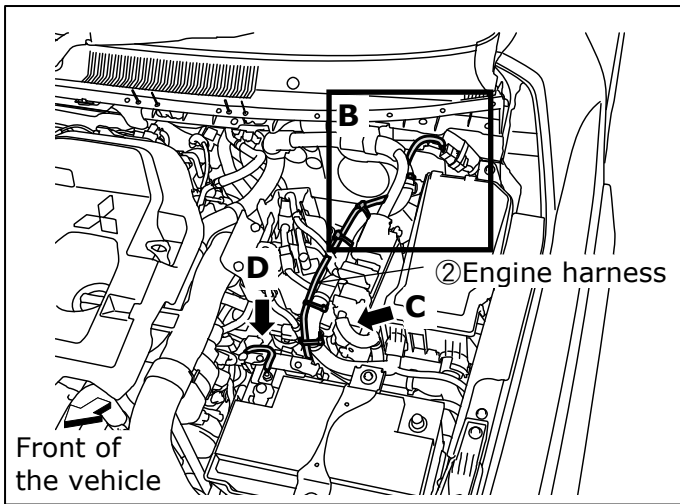
8) Remove the fusible link box cover.



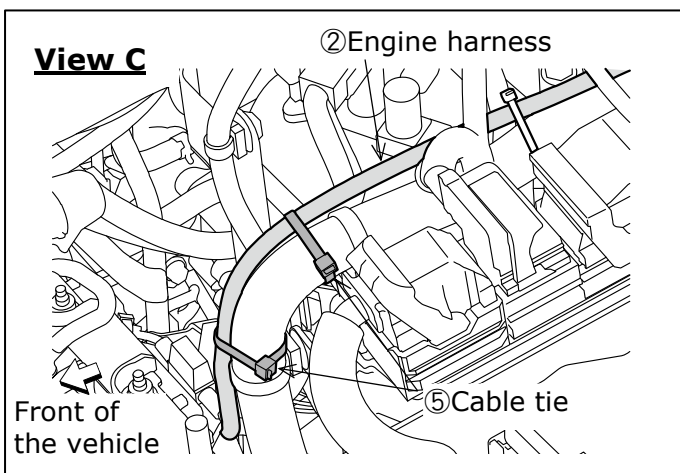
9) Temporarily remove the positive terminal nut of battery and connect the round terminal of ②Engine harness and tighten together with existing nut.



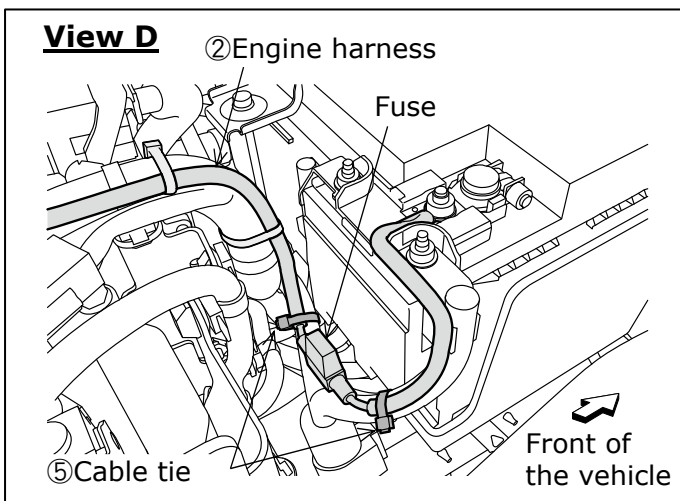
Note
 - Refer to the vehicle's workshop manual for the existing nut tightening torque.



10) Attach ②Engine harness to the vehicle harness with ⑤Cable tie. (3 places)

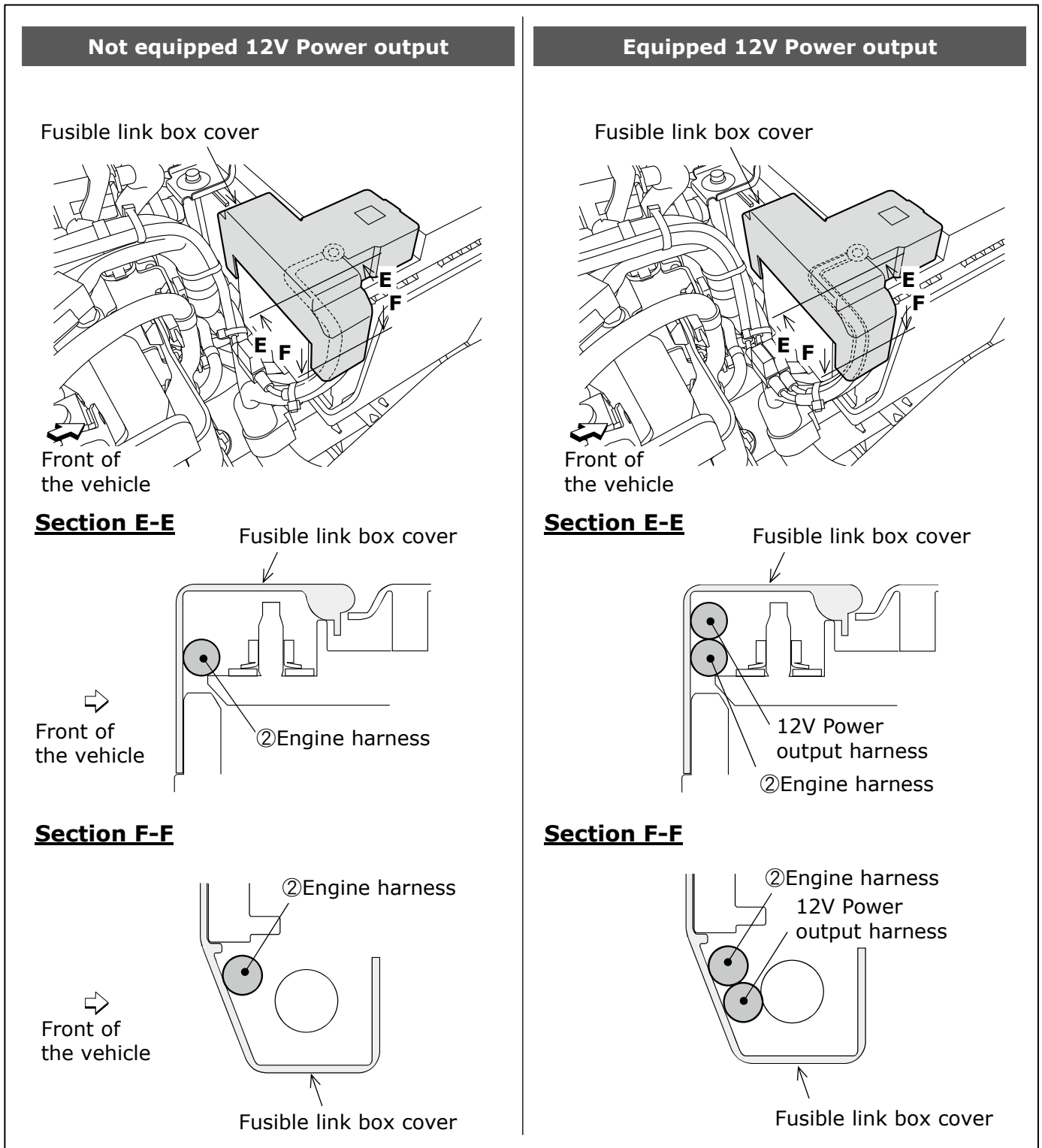


11) Attach ②Engine harness to the vehicle harness with ⑤Cable tie. (2 places)



12) Attach the both end of ②Engine harness fuse to the vehicle harness with ⑤Cable tie. (2 places)

- 13) Reinstall the fusible link box cover.
 At this time, install ②Engine harness as shown below figure.



Check	
-------	--

D. Reinstallation of vehicle body parts

- 1) Make sure that each harness is securely connected.
- 2) Reinstall the removed vehicle body parts.
- 3) Connect the negative battery terminal.

Caution

- During restoration, exercise enough care to prevent the vehicle harness and the accessory harness from getting caught and the vehicle parts from being damaged.
- Refer to vehicle's workshop manual for details of reinstallation of the vehicle parts.
- Please place the installation manual in the glove box after installation has been completed.

Check	
-------	--

Confirmation after installation

- 1) Restore the memory of the radio, audio, clock, etc.
- 2) Test the operation of the service brakes.
- 3) Confirm both the Vehicle and Trailer brake lights operate when vehicle brake pedal operated.
- 4) Confirm the Trailer brake lights operate without vehicle brake lights when the Electric Brake manual override is operated

Check	
-------	--

Circuit diagram

*Also refer to the vehicle workshop manual (Wiring diagram).

