

# ALARM

## TOYOTA VEHICLE SECURITY SYSTEM

# TVSS IV-S/-D

### INSTALLATION INSTRUCTIONS

for



## RAV4 (RHD)

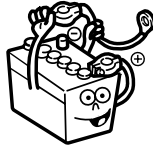
### PART NUMBER

MAIN KIT	
• FOR VEHICLES WITH DOUBLE LOCK	08585-12950
• FOR VEHICLES WITHOUT DOUBLE LOCK	08585-12890
FITTING KIT (FOR 3-DOOR MODELS)	08586-4A810
FITTING KIT (FOR 5-DOOR MODELS)	08586-4A860
SUB KIT (SIREN AND RADAR)	08586-1A890
FOR **A2*R	

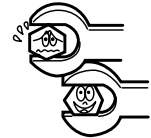
# PRECAUTIONS

**PLEASE READ THOROUGHLY THESE PRECAUTIONS BEFORE THE TVSS INSTALLATION**

- Be sure to disconnect the negative (-) lead from the battery terminals.



- Use the correct tool when tightening bolts or nuts.



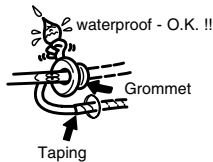
- Do not pinch the rear wiring or harness in the tightened part.



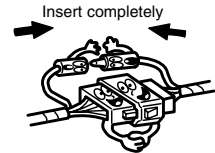
- Before drilling a hole, check that the rear of the mounting wall is clear.



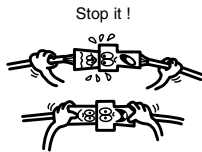
- When passing the wires through the bulkhead or other panels, use a grommet to ensure waterproofing.
- Protect the wiring with tape when it is passed through a hole.



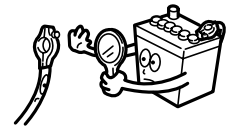
- Be sure to firmly tighten connectors and terminals.



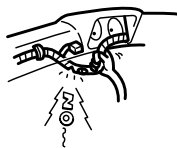
- When disconnecting the connectors, be sure to grip the connector body. Do not tug on the wiring.



- Before connecting the power wiring to the battery, check the wiring connections, harness, etc. to see that they are properly secured.



- Do not forcibly pull any car wiring harness. Rough tugging may result in opened connections, or a broken wire or harness.

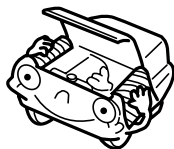



- Check body and trim near area of installation to be certain no dirt or scratches resulted from the installation.

- Confirm that lamps, horn, wiper and other car accessories operate normally.



- Protect your car with wing covers, seat and so on.



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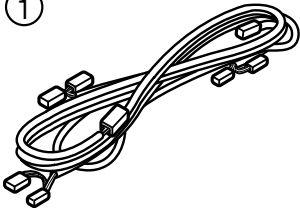
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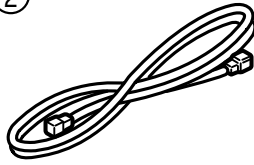
**FITTING KIT****08586-4A810 / 08586-4A860** 

Pos. No.	Description	Qty
①	WIRE HARNESS (MAIN)	2
②	WIRE HARNESS (SUB)	1
③	RADAR SENSOR BRACKET	1
④	SIREN BRACKET	1
⑤	TVSS ECU BRACKET	1
⑥	HOOD SWITCH BRACKET	1
⑦	HOOD SWITCH	1
⑧	GLASS BREAKAGE CONTROL UNIT (FOR 5-DOOR MODELS)	1
⑨	MICROPHONE (FOR 5-DOOR MODELS)	1
⑩	STATUS MONITOR	1
⑪	FOAM (1 DIVISION ON 1 SHEET) (FOR 5-DOOR MODELS) (FOR 3-DOOR MODELS)	5 2
⑫	FOAM (2 DIVISIONS ON 1 SHEET)	1
⑬	BUTYL TAPE	3
⑭	WIRE TIE (150 mm) (FOR 5-DOOR MODELS) (FOR 3-DOOR MODELS)	30 25
⑮	WIRE TIE (200 mm)	5
⑯	WIRE TIE (300 mm)	7
⑰	BOLT (FOR GROUND TERMINAL)	1
⑱	BOLT (BLACK M6 X 18)	1
⑲	BOLT (M6 X 18)	2
⑳	NUT (M6)	3
㉑	CLIP	1
㉒	SIREN PROTECTIVE BRACKET	1
㉓	WINDOW STICKER	2

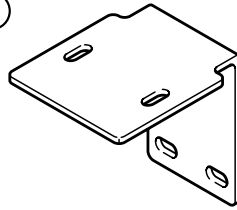
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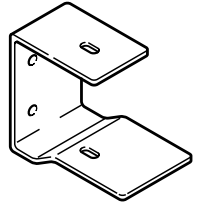
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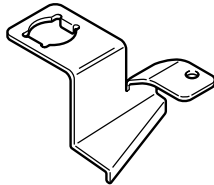
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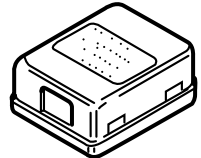
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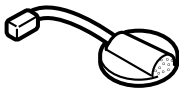
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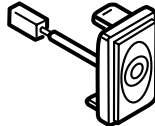
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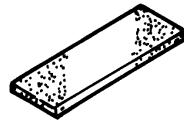
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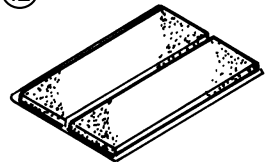
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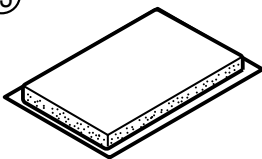
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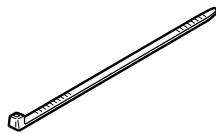
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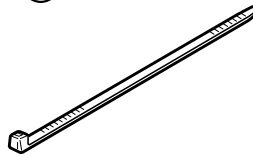
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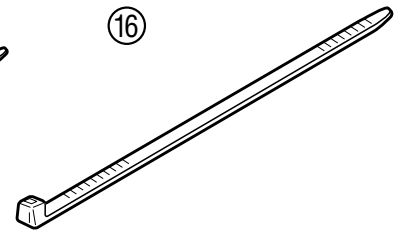
⑭



⑮



⑯



⑰



⑱



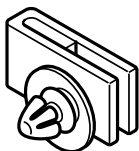
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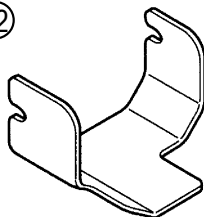
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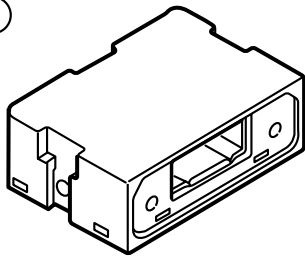
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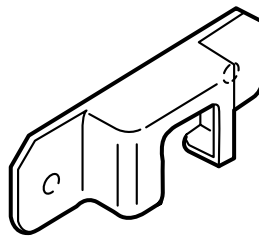
**MAIN KIT****08585-12890 / 08585-12950** 

Pos. No.	Description	Qty
①	TVSS ECU	1
②	ECU PROTECTIVE BRACKET	1
③	BLIND RIVET	2

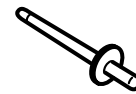
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②

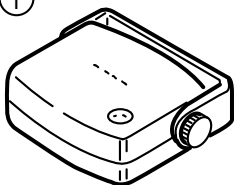


③

**SUB KIT (RADAR AND SIREN)****08586-1A890** 

Pos. No.	Description	Qty
①	RADAR SENSOR	1
②	CAP	2
③	SIREN	1
④	SIREN BRACKET (*) NOT USED FOR RAV4	1
⑤	BOLT	2
⑥	NUT	2
⑦	SIREN WIRE HARNESS	1

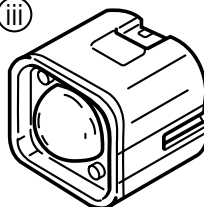
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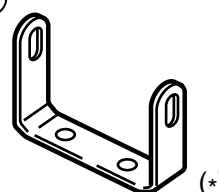
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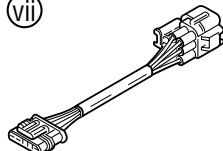
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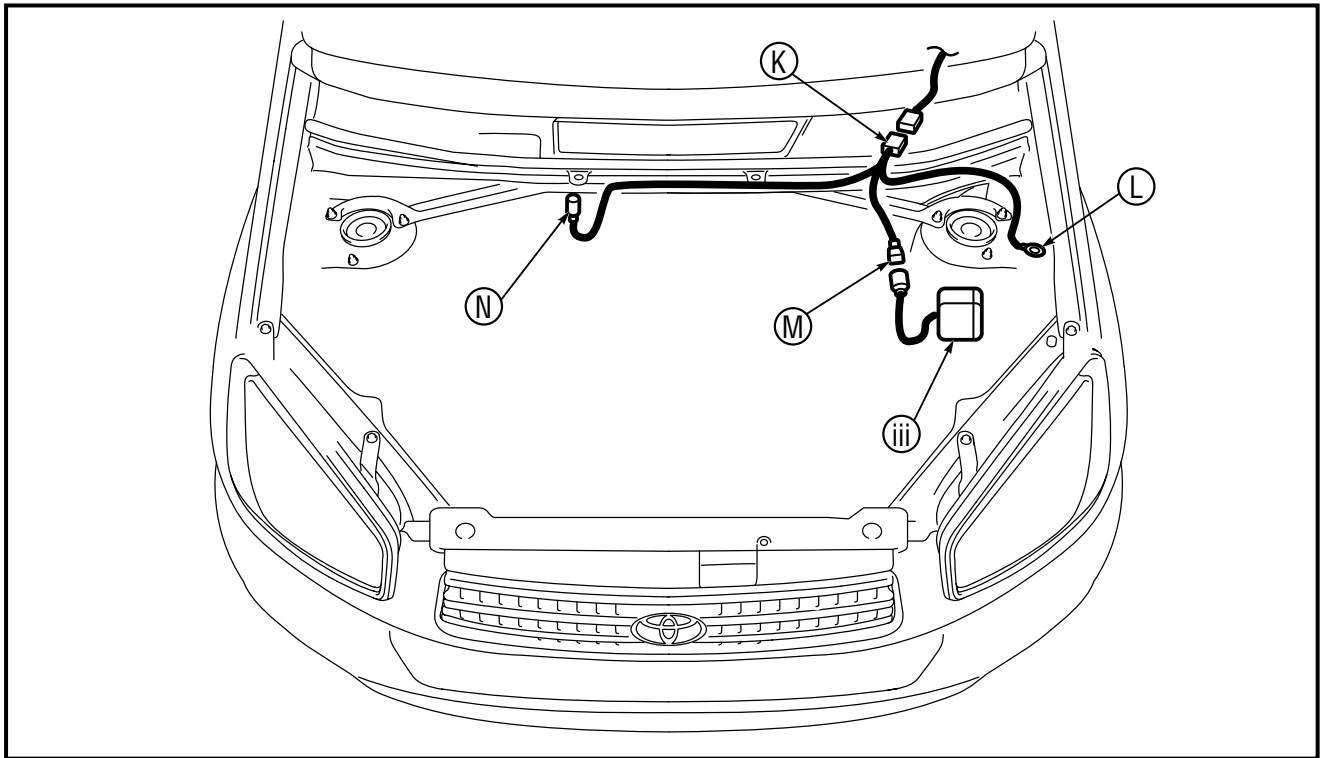
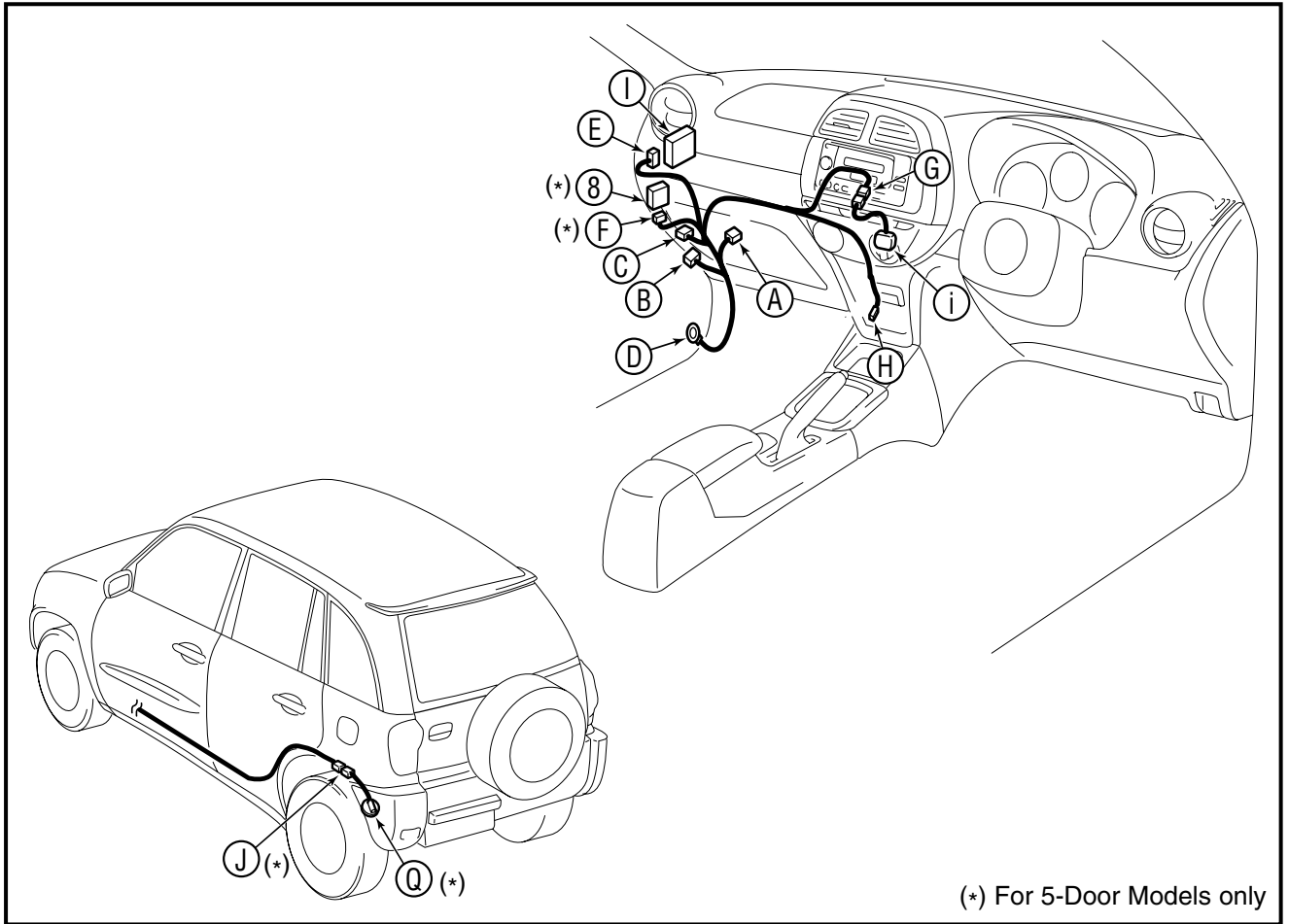
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⑦



# SYSTEM LAYOUT AND WIRE HARNESS (MAIN) OUTLINE



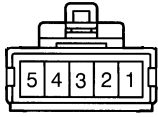
Ⓐ	Pre-wire connector (5P male white)
Ⓑ	Pre-wire connector (6P male white)
Ⓒ	Pre-wire connector (8P male white)
Ⓓ	Ground terminal
Ⓔ	TVSS ECU connector (26P female grey)
Ⓕ	Glass breakage control unit connector (6P female clear)
Ⓖ	Radar sensor connector (4P female white)
Ⓗ	Status monitor connector (2P female clear)
Ⓙ	Microphone connector (2P male white)
Ⓚ	Pre-wire connector (6P male grey)
Ⓛ	Ground terminal
Ⓜ	Siren connector (6P female grey)
Ⓝ	Hood switch connector (2P female white)
⑧	Glass breakage control unit
⓲	Radar sensor
Ⓠ	Microphone
Ⓡ	TVSS ECU
⓲	Siren



**CONNECTOR ARRANGEMENT OF THE TVSS (PIN VIEW)**

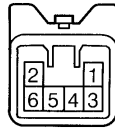


(A)



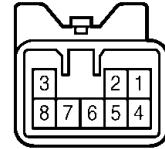
(male)

(B)



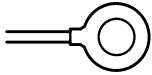
(male)

(C)



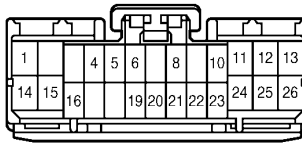
(male)

(D)



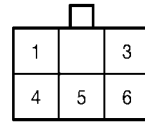
(ground terminal)

(E)



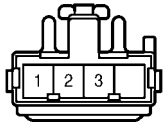
(female)

(F)



(female)

(G)



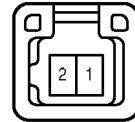
(female)

(H)



(female)

(J)



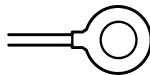
(male)

(K)



(male)

(L)



(ground terminal)

(M)



(female)

(N)



(female)

## VEHICLE DISASSEMBLY

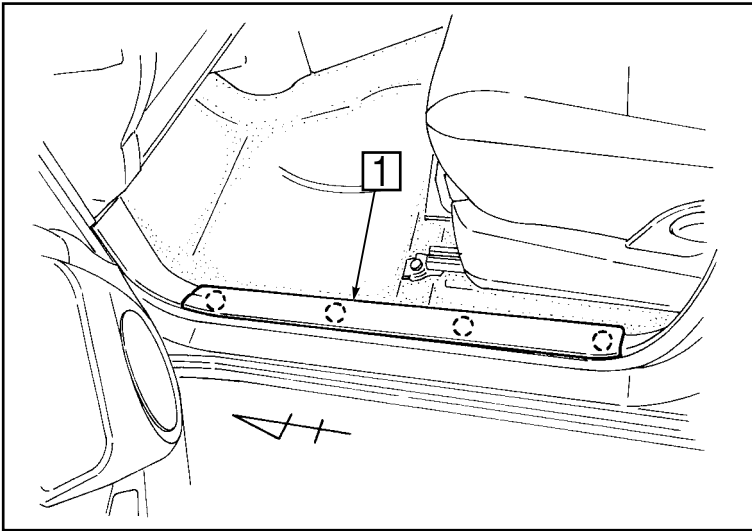


Fig. 1

1.

Remove the passenger's side front door scuff plate **1**.

○ : Clip (4x)

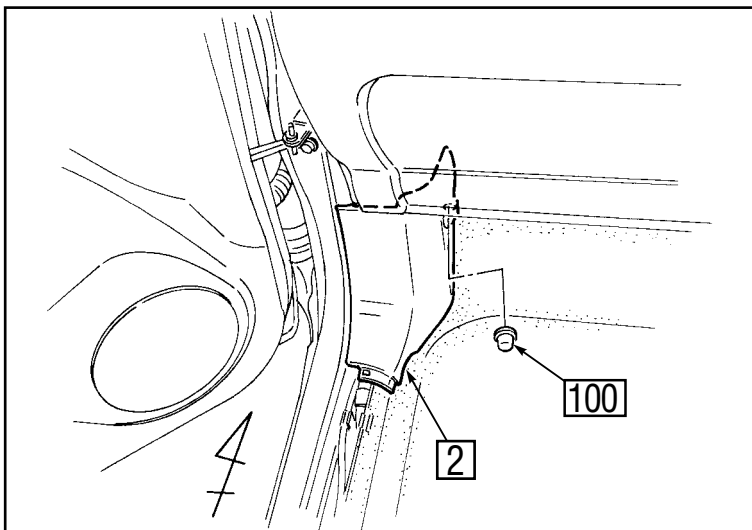


Fig. 2

2.

Remove the passenger's side cowl cover **2**.

**100** : Retainer (1x)

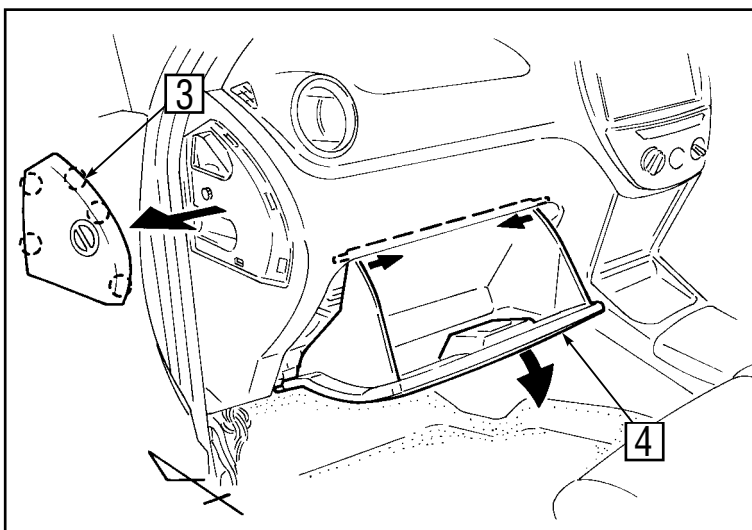


Fig. 3

3.

a) Remove the cover **3**.

○ : Clip (3x)

b) Pull down the glove compartment **4**.

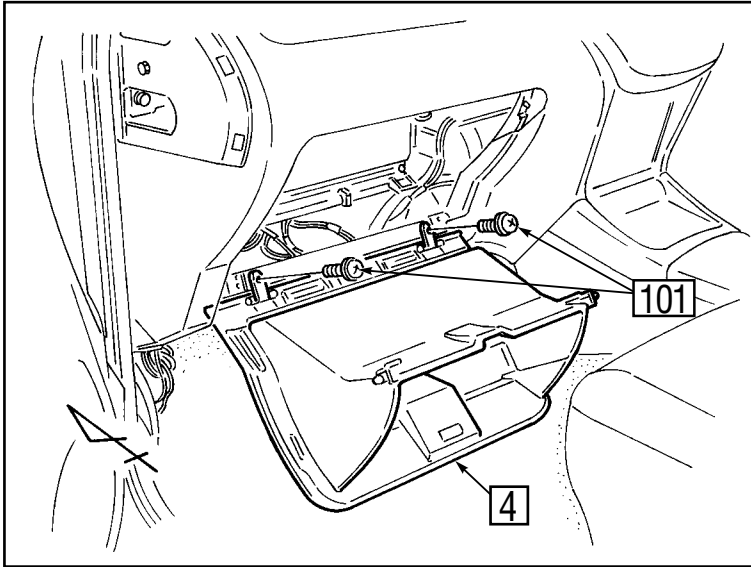


Fig. 4

4.

Remove the glove compartment [4].

[101] : Screw (2x)

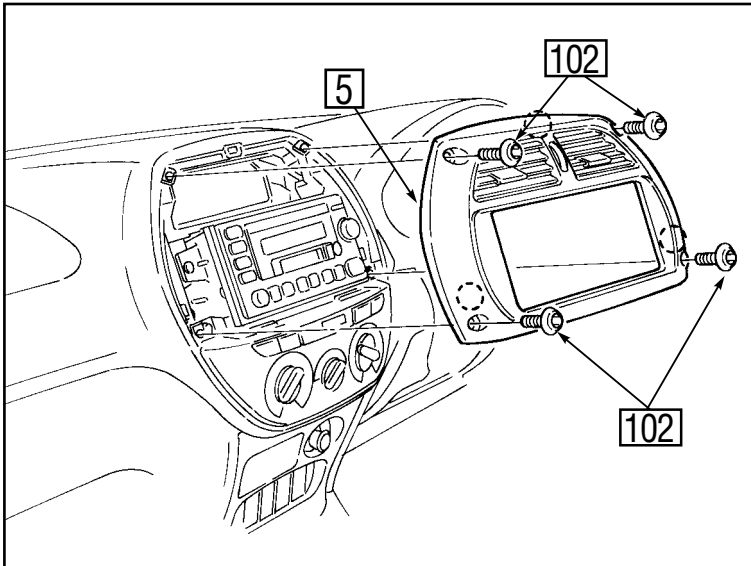


Fig. 5

5.

Remove the centre cluster panel [5].

○ : Clip (3x)

[102] : Bolt (4x)

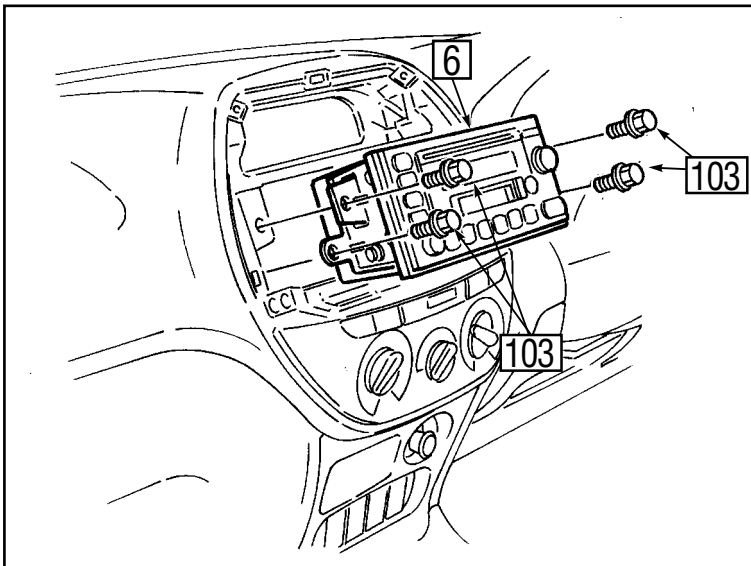


Fig. 6

6.

Remove the audio assembly [6].

[103] : Bolt (4x)

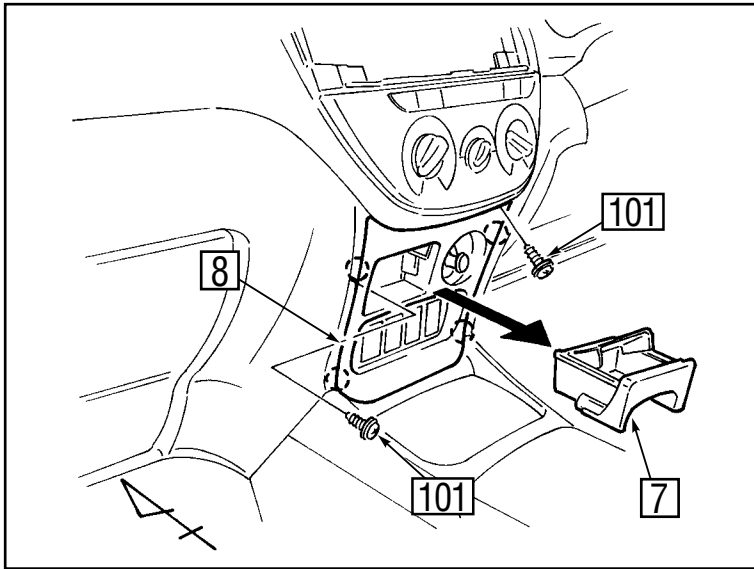


Fig. 7

- 7.
- a) Remove the ashtray **7**.
- b) Remove the centre cluster under panel **8**.

○ : Clip (4x)  
**101** : Screw (2x)

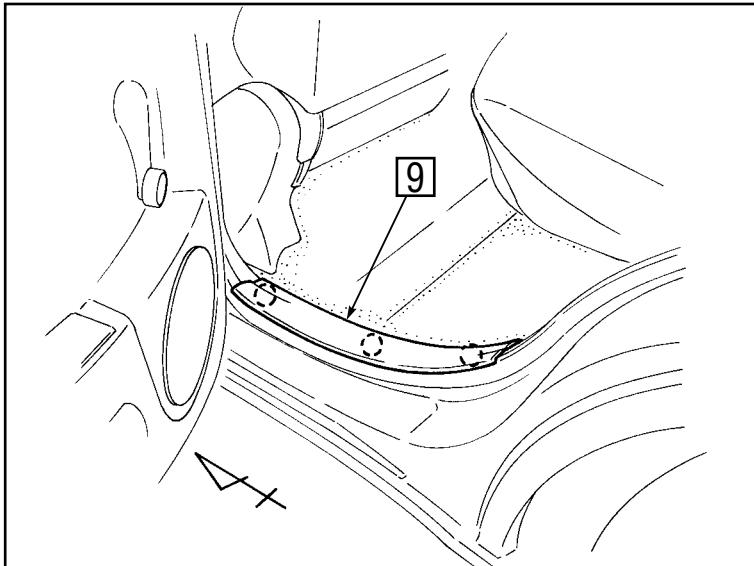


Fig. 8

**FOR 5-DOOR MODELS**

- 8.
- Remove the passenger's side rear door scuff plate **9**.

○ : Clip (3x)

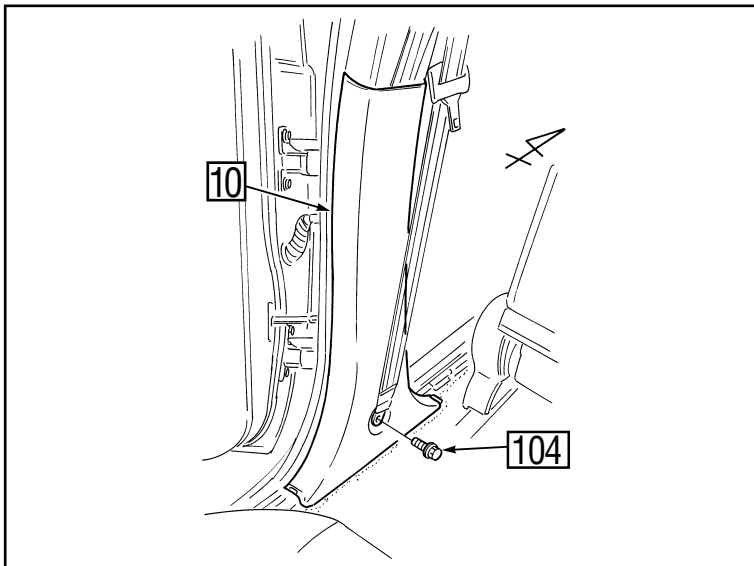


Fig. 9

**FOR 5-DOOR MODELS**

- 9.
- a) Remove the seat belt floor anchor **10**.
- 104** : Bolt (1x)
- b) Remove the centre pillar cover **10**.

○ : Clip (5x)

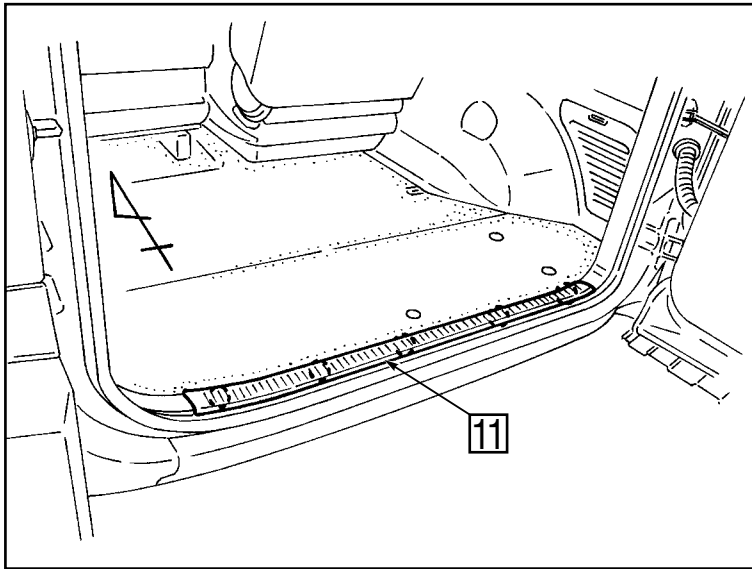


Fig. 10

**FOR 5-DOOR MODELS**

10.  
 Remove the luggage finish plate **11**.  
 ○: Clip (5x)

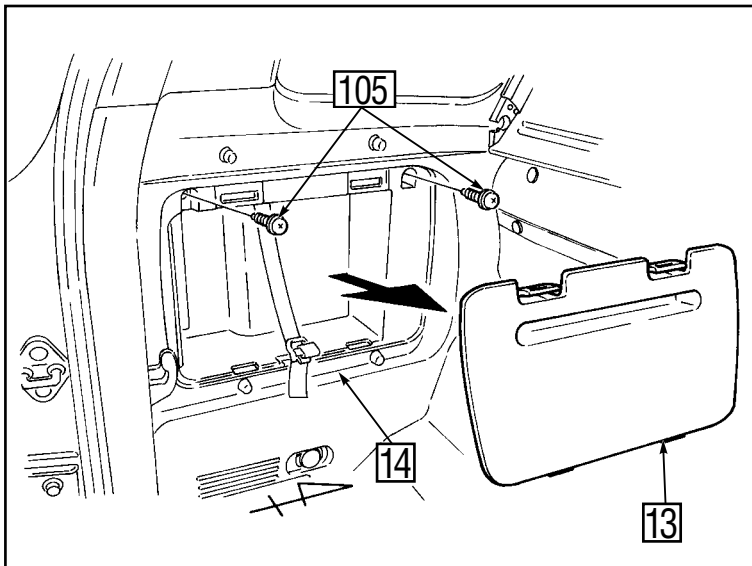


Fig. 11

**FOR 5-DOOR MODELS**

11.  
 a) Remove the cover **13** from the rear LH side compartment **14**.  
 b) Remove the screws **105** (2x).

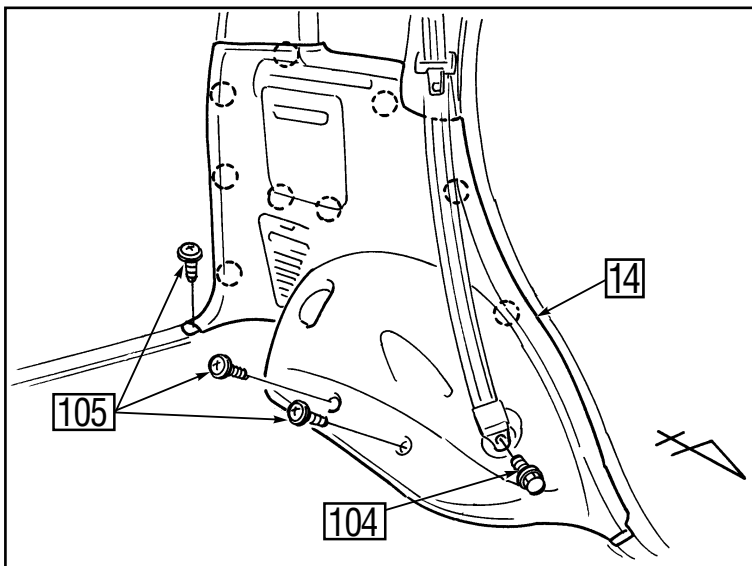


Fig. 12

**FOR 5-DOOR MODELS**

12.  
 Remove the rear side compartment **14**.  
 ○: Clip (9x)  
**104**: Bolt (1x)  
**105**: Screw (3x)

# VEHICLE DISASSEMBLY (ENGINE COMPARTMENT)

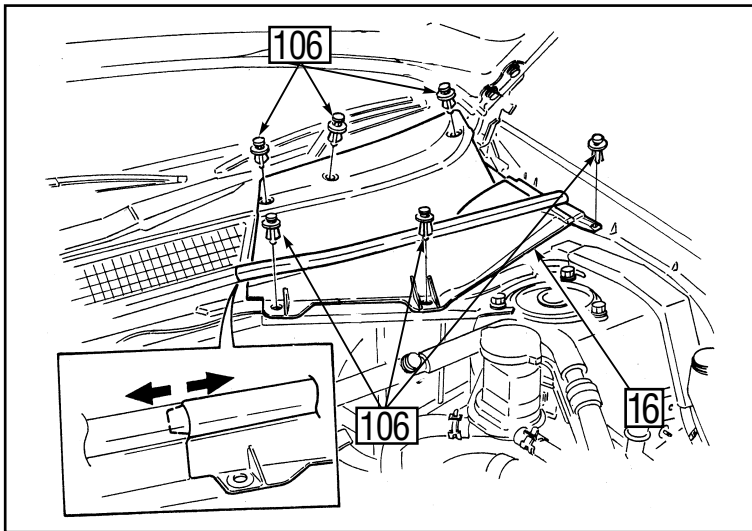


Fig. 13

1.

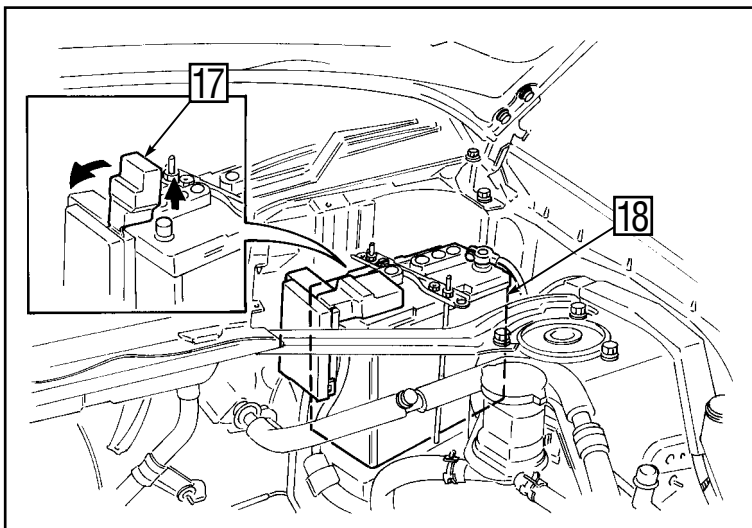
Remove the battery cover **16**.**106** : Clip (6x)

Fig. 14

2.

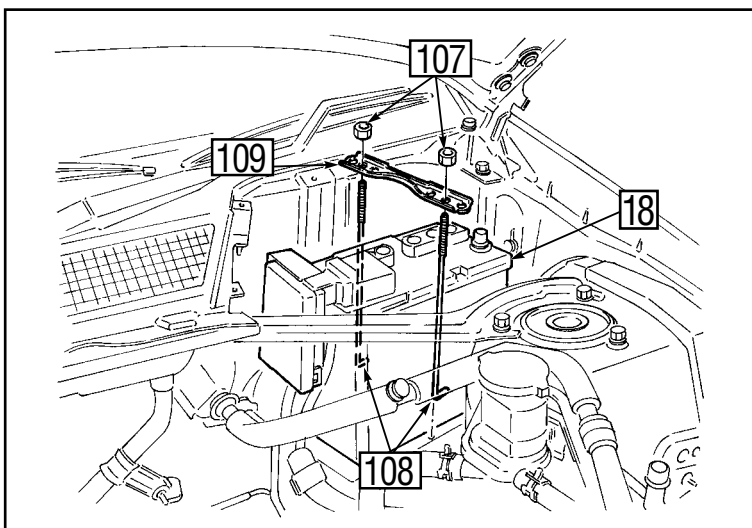
Lift the cap **17** and remove the positive terminal of the battery **18**.

Fig. 15

3.

Remove the battery **18**.**107** : Nut (2x)**108** : Hook bracket (2x)**109** : Bracket (1x)

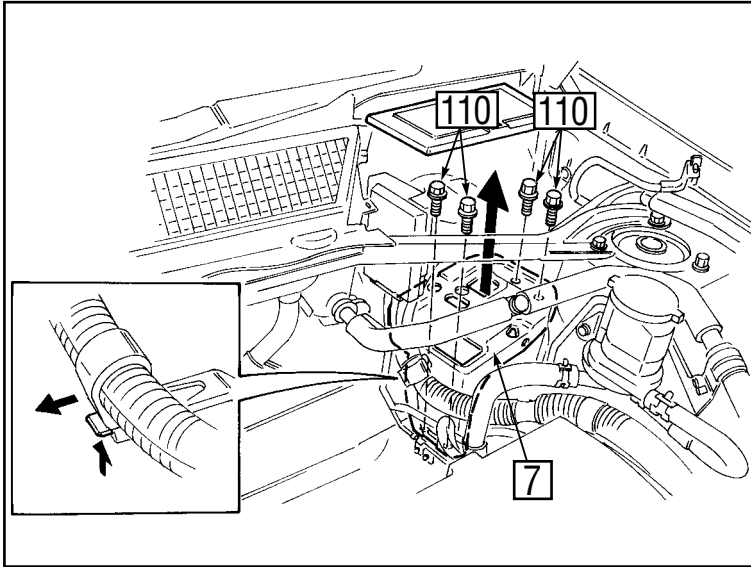


Fig. 16

4.

Remove the battery carrier 19.

110 : Bolt (4x)

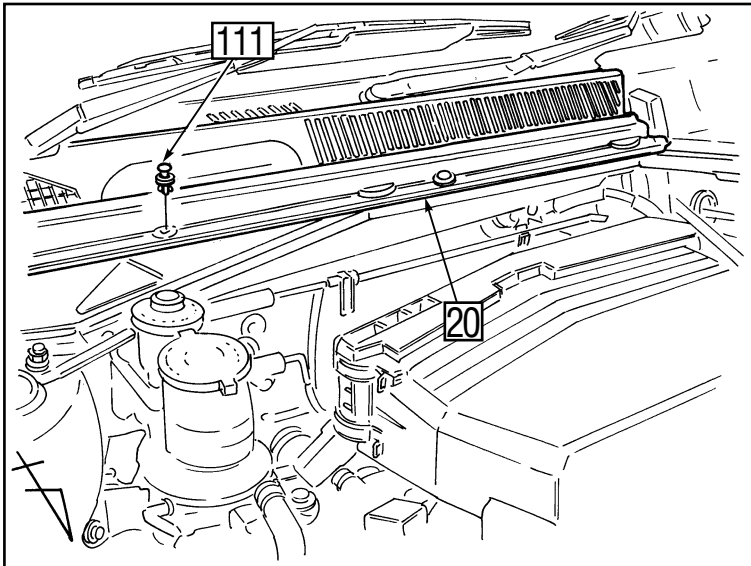


Fig. 17

5.

Loosen the cover 20.

111 : Clip (1x)

## WIRE HARNESS INSTALLATION (MAIN)

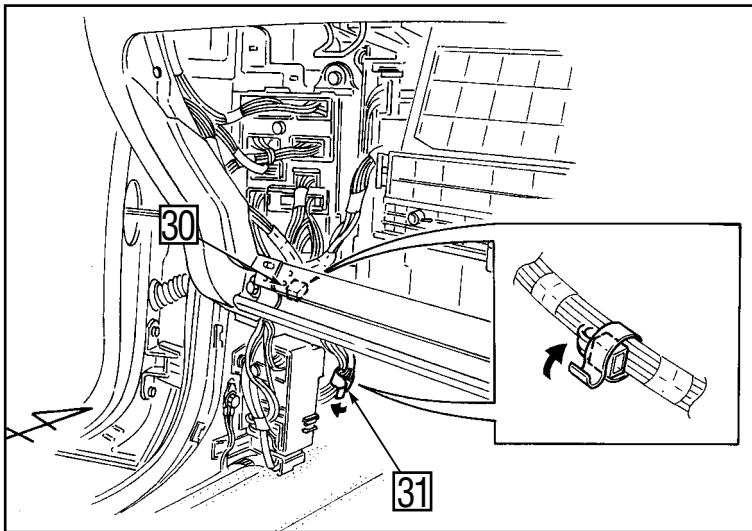


Fig. 18

1.
  - a) Locate the pre-wired 5P female connector **30** (white) and remove the tape.
  - b) Locate the pre-wired 6P female connector **31** (white) and remove the tape.

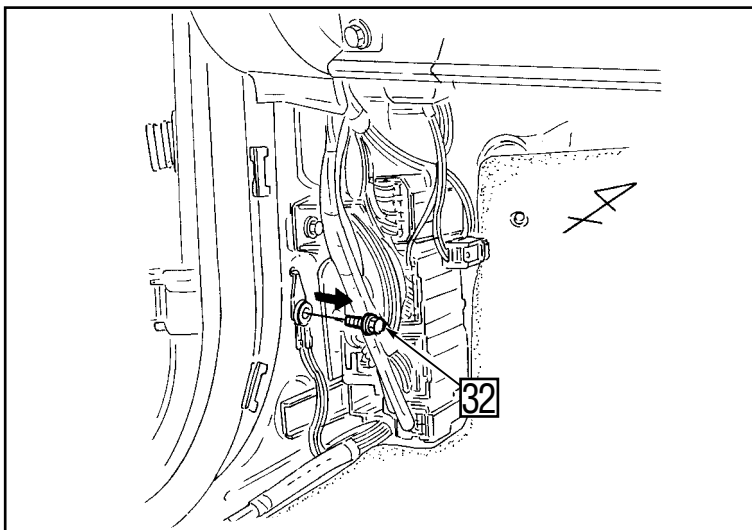


Fig. 19

2.
  - Remove the bolt **32**.

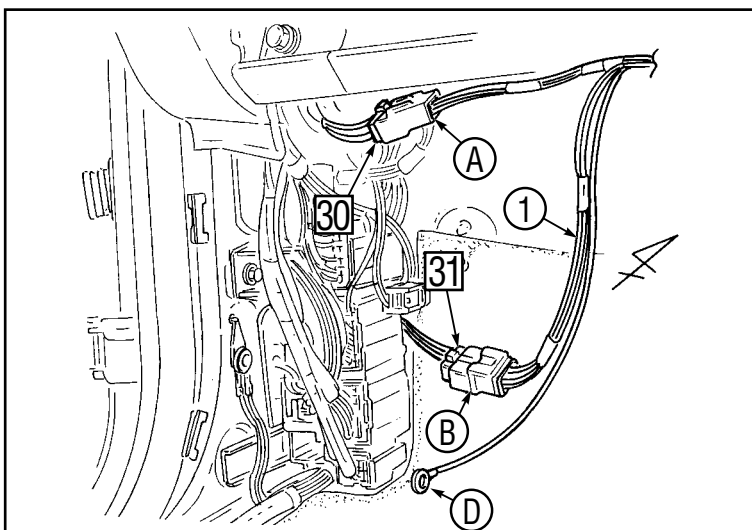


Fig. 20

3.
  - a) Connect the 5P male connector **A** of the TVSS wire harness **1** to the vehicle harness 5P female connector **30**.
  - b) Connect the 6P male connector **B** of the TVSS wire harness **1** to the vehicle harness 6P female connector **31**.



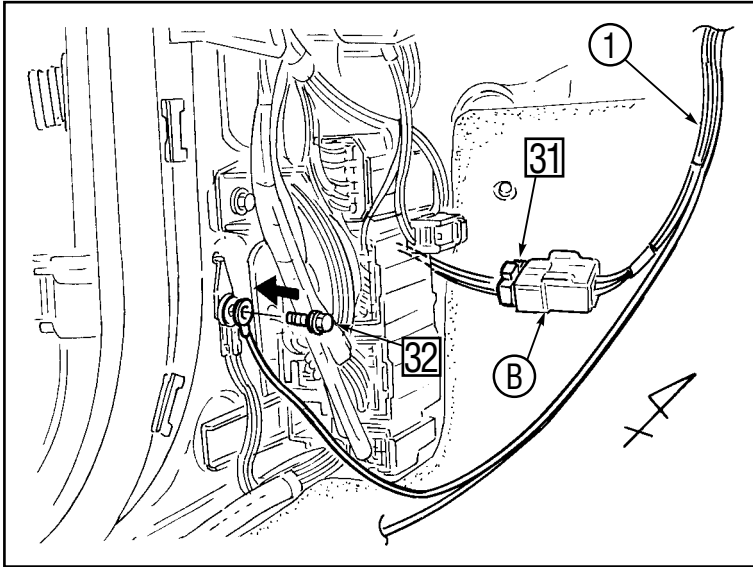


Fig. 21

4.

Fit the ground terminal (D) of the TVSS wire harness (1) using the bolt (32).

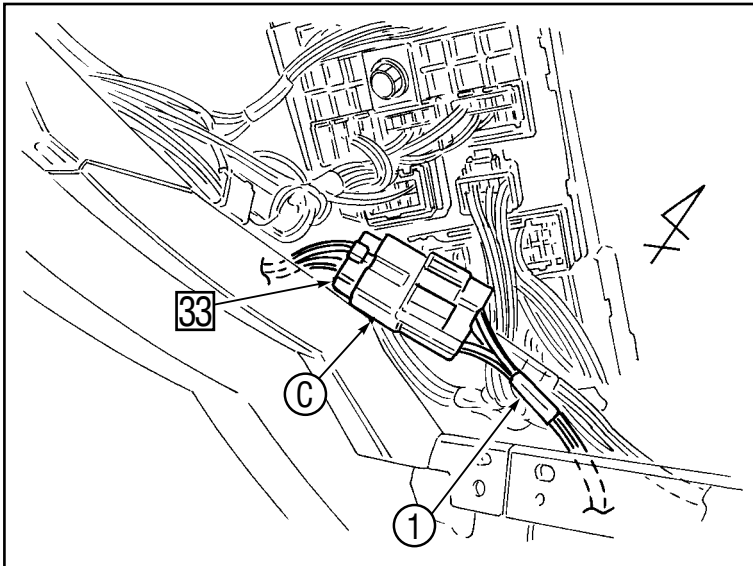


Fig. 22

5.

Locate the pre-wired 8P male connector (33) (white) and connect it to the 8P male connector (C) of the TVSS wire harness (1).

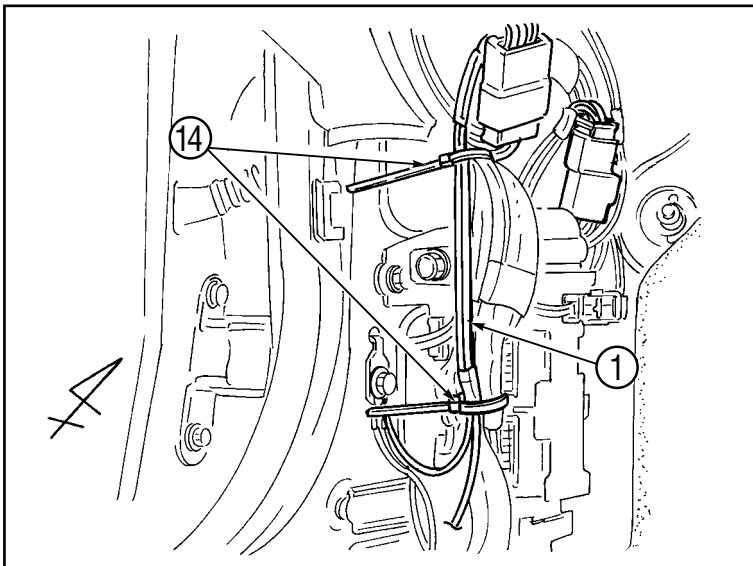


Fig. 23

6.

Attach the TVSS wire harness (1) to the vehicle harness using the wire ties (14) (2x).

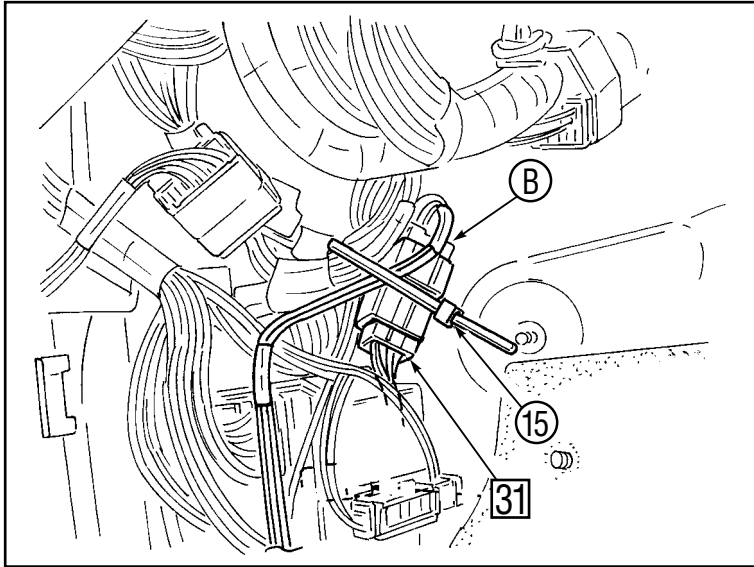


Fig. 24

7.

Secure the 6P connector (B) to the vehicle harness using the wire tie (15) (1x).

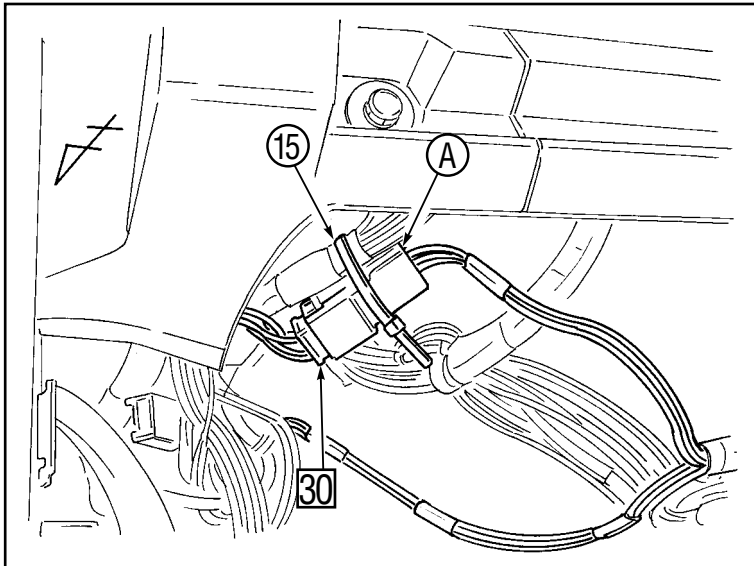


Fig. 25

8.

Secure the 5P connector (A) to the vehicle harness using the wire tie (15) (1x).

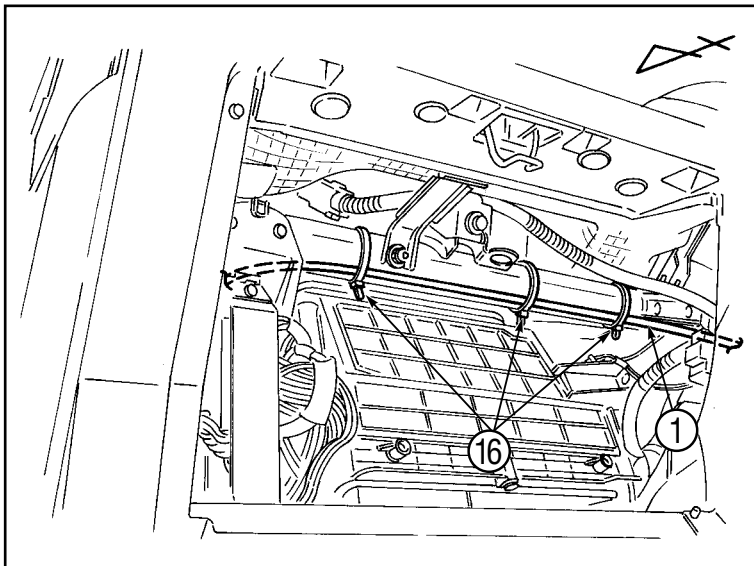


Fig. 26

9.

Attach the TVSS wire harness (1) to the reinforcement using the wire ties (16) (3x).

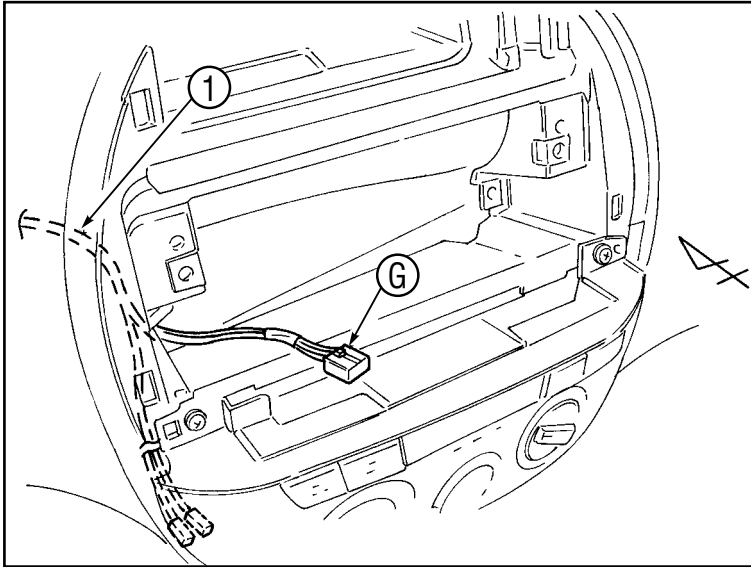


Fig. 27

10.

Route the TVSS wire harness ① to the centre cluster area as shown.

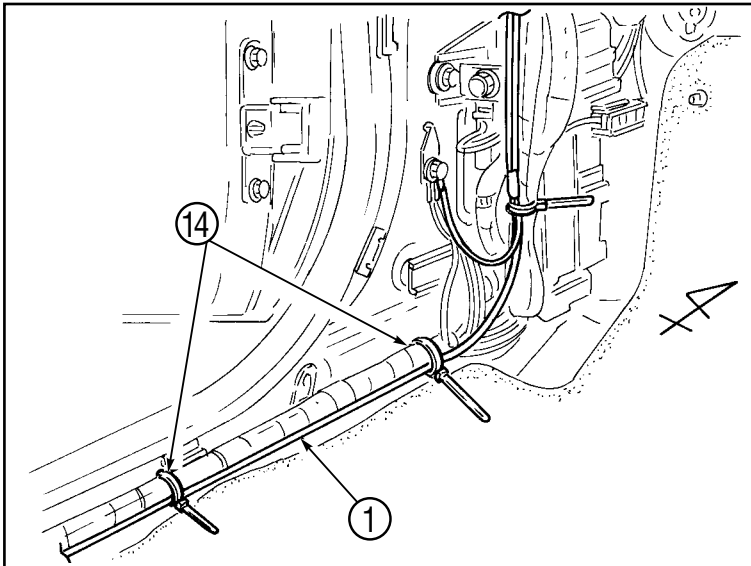


Fig. 28

**FOR 5-DOOR MODELS**

11.

Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (2x).

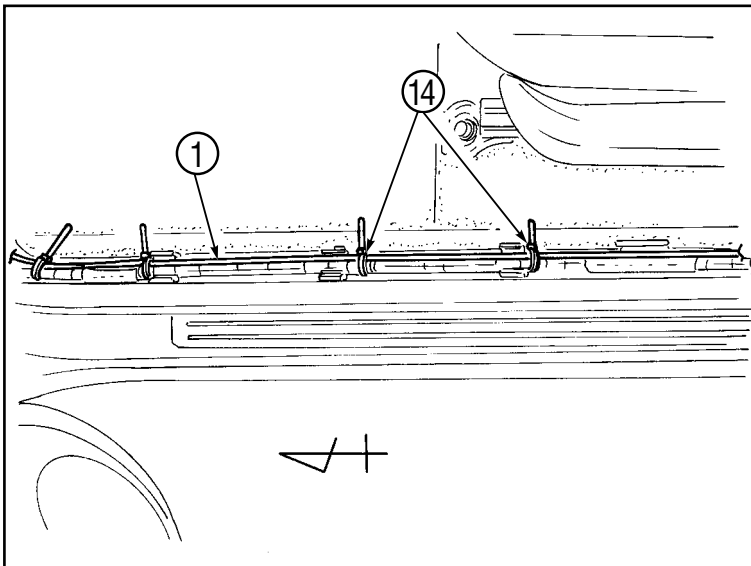


Fig. 29

**FOR 5-DOOR MODELS**

12.

Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (2x).

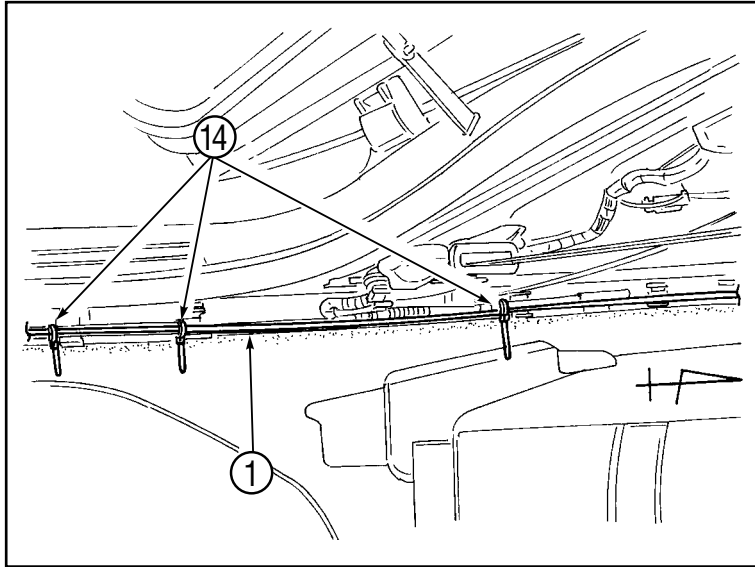


Fig. 30

**FOR 5-DOOR MODELS**

13.  
Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (3x).

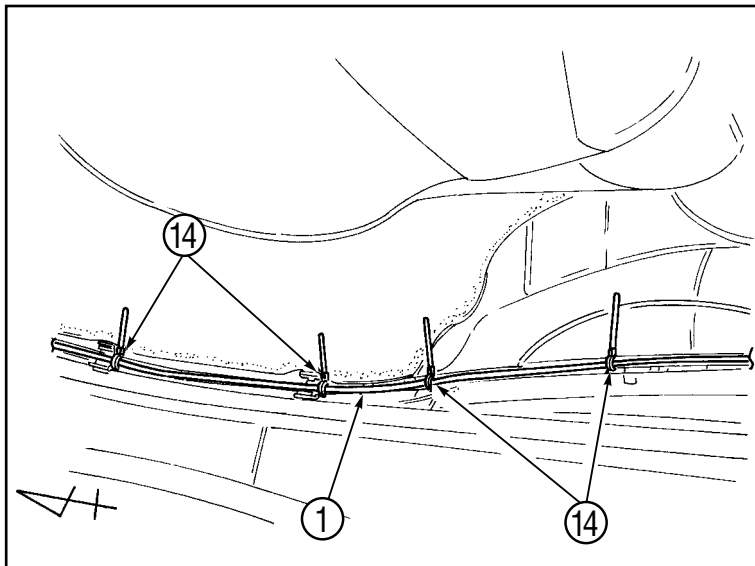


Fig. 31

**FOR 5-DOOR MODELS**

14.  
Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (4x).

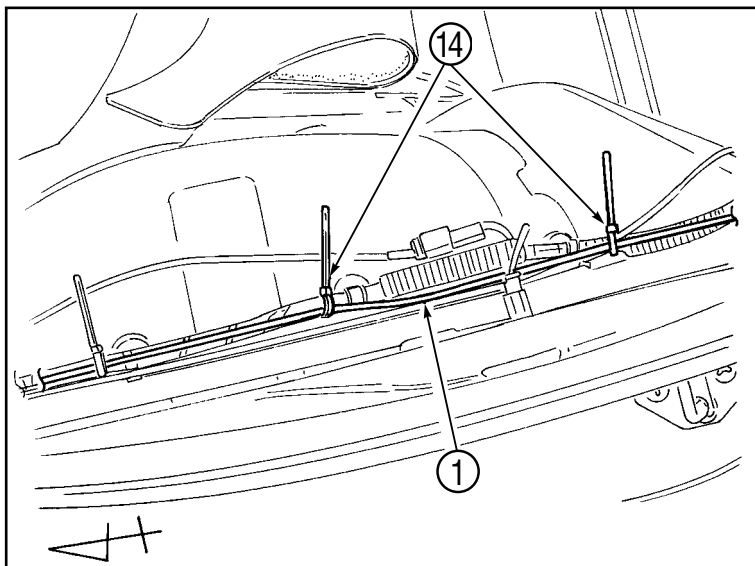


Fig. 32

**FOR 5-DOOR MODELS**

15.  
Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (2x).

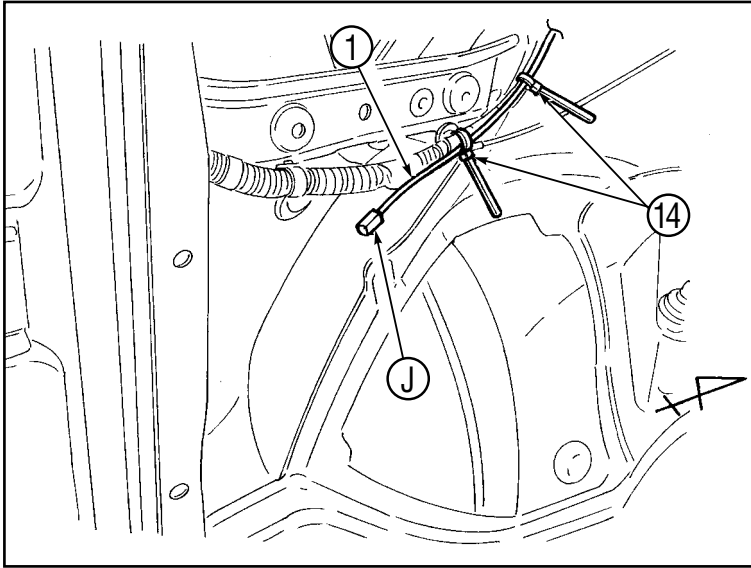


Fig. 33

FOR 5-DOOR MODELS

- 16. Route and attach the TVSS wire harness ① to the vehicle harness using the wire ties ⑭ (2x).

## MOUNTING THE STATUS MONITOR

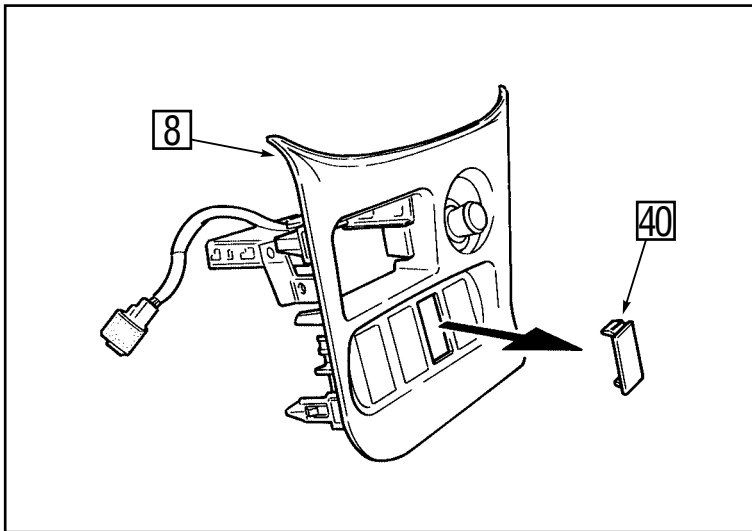


Fig. 34

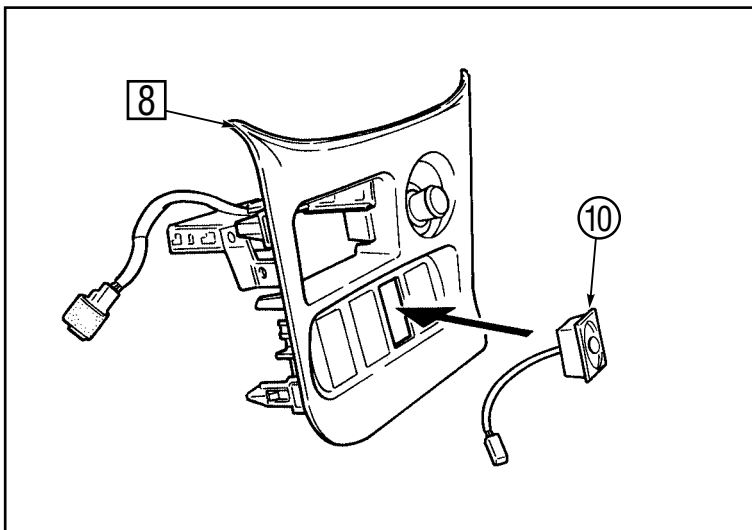


Fig. 35

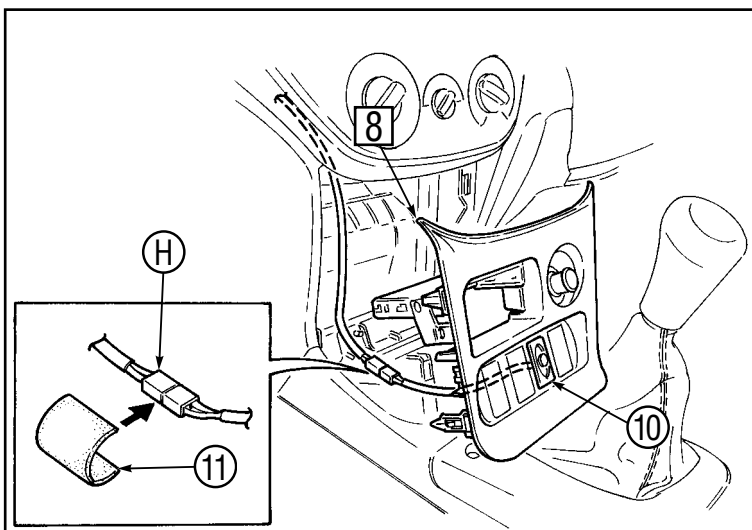


Fig. 36

1.

Remove and discard the knockout panel 40 from the centre cluster under panel 8.

2.

Fit the status monitor 10 to the centre cluster under panel 8.

3.

- a) Connect the 2P connector H (clear) of the TVSS wire harness 1 to the 2P connector (clear) of the status monitor 10.
- b) Wrap the 2P connectors into the foam tape 11.

**MOUNTING THE RADAR SENSOR**

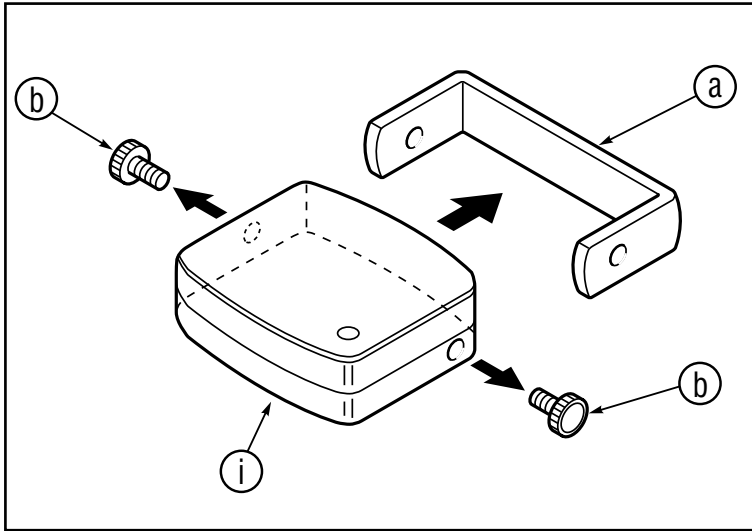


Fig. 37

1.

Remove the screws (b) and the bracket (a) (2x) from the radar sensor (i).

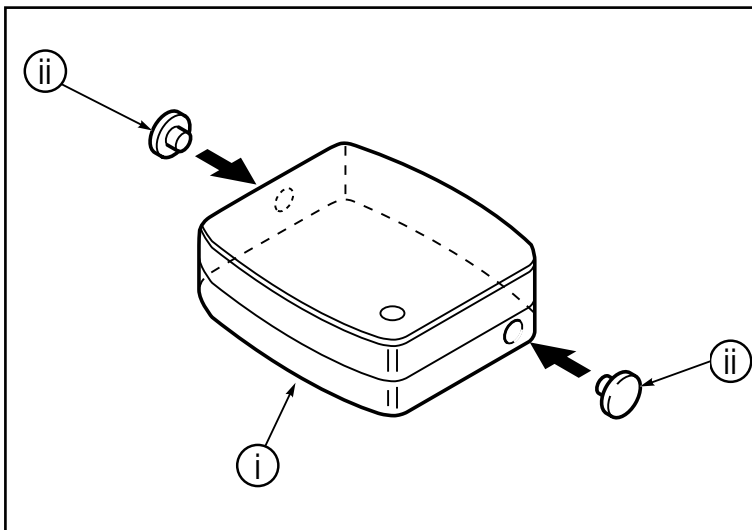


Fig. 38

2.

Fit the caps (ii) (2x) to the radar sensor (i).

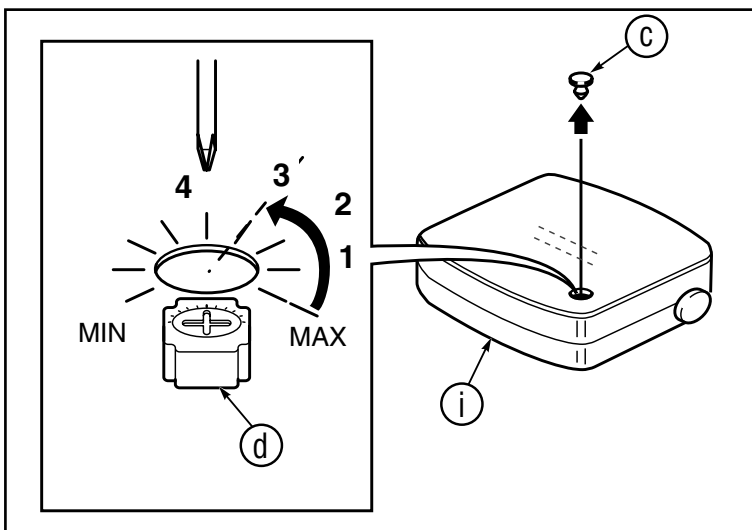


Fig. 39

3.

- a) Remove the cap (c) from the radar sensor (i).
- b) Locate the trimmer (d) in the small hole.
- c) Turn the trimmer (d) clockwise to the maximum position.
- d) Turn the trimmer (d) counterclockwise to the third position from maximum.
- e) Test and adjust the sensor sensitivity according to the SETTING GUIDE.
- f) Refit the cap (c).

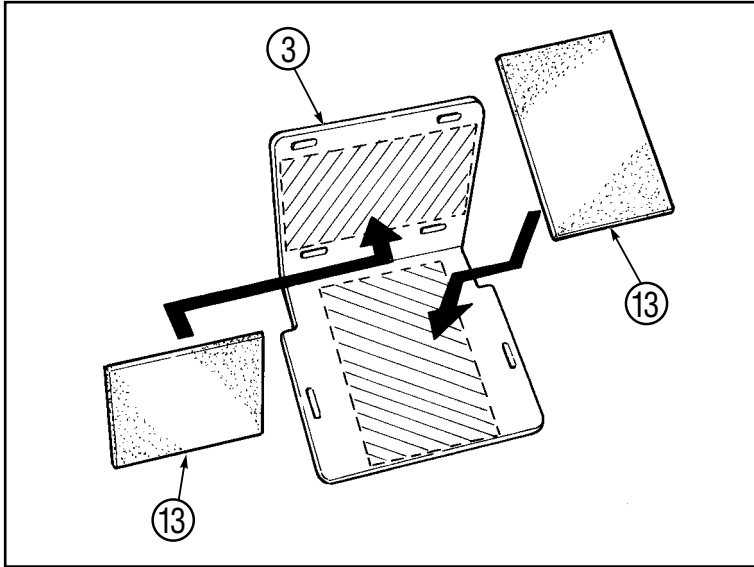


Fig. 40

4. Attach the butyl tape ⑬ (2x) to the radar sensor bracket ③ as indicated in the drawing.

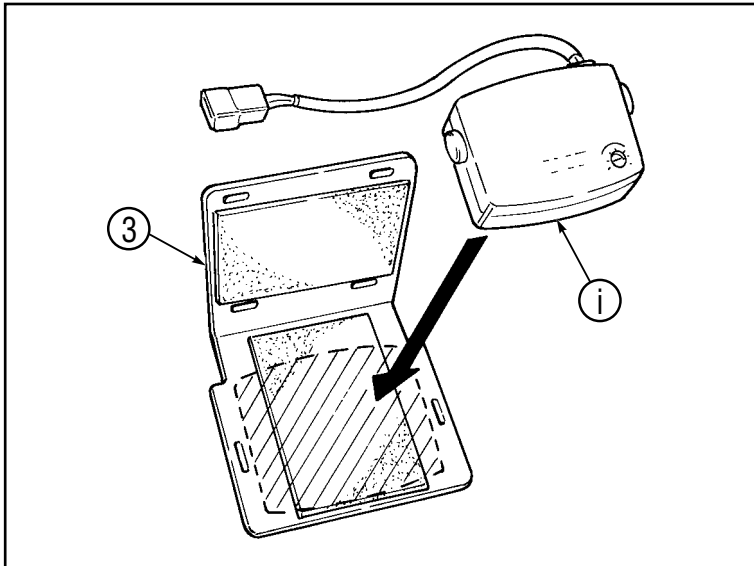


Fig. 41

5. Ensure to attach the radar sensor ① to the radar sensor bracket ③ as shown.

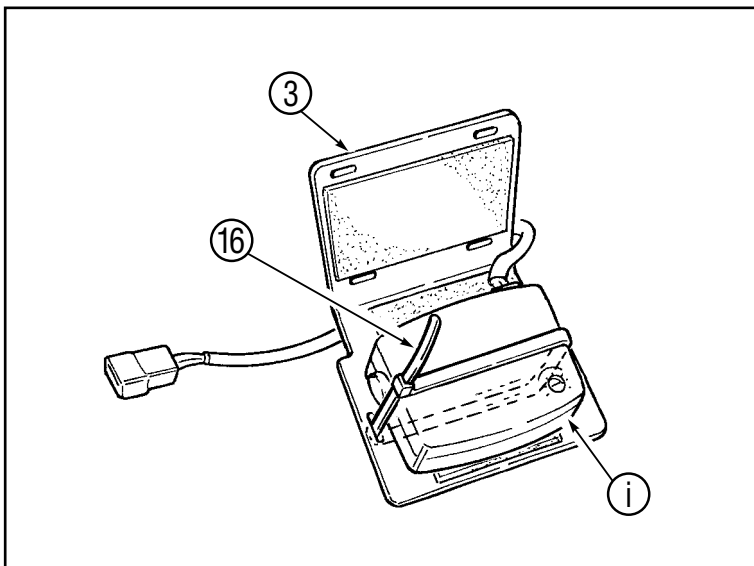


Fig. 42

6. Secure the radar sensor ① to the radar sensor bracket ③ with the wire tie ⑯ (1x).



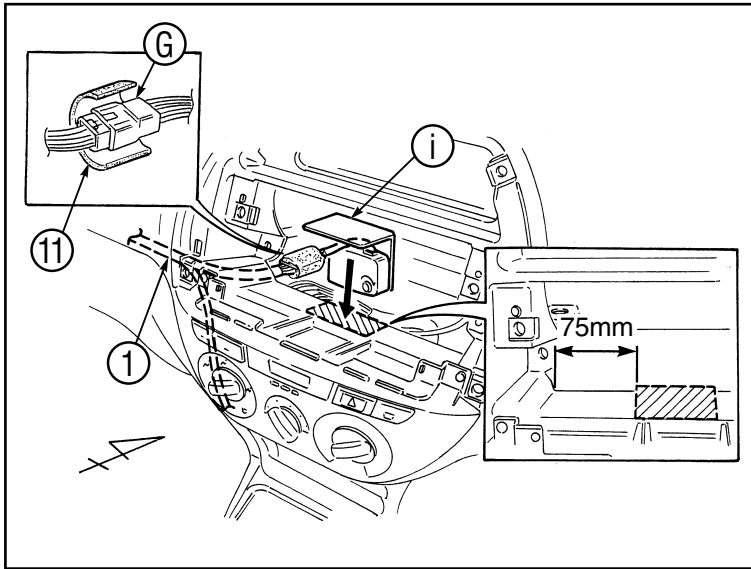


Fig. 43

7.

- a) Connect the 4P connector (G) of the TVSS wire harness (1) to the 4P connector of the radar sensor (i).
- b) Wrap the 4P connectors into the foam tape (11).
- c) Position the radar sensor (i) as shown.

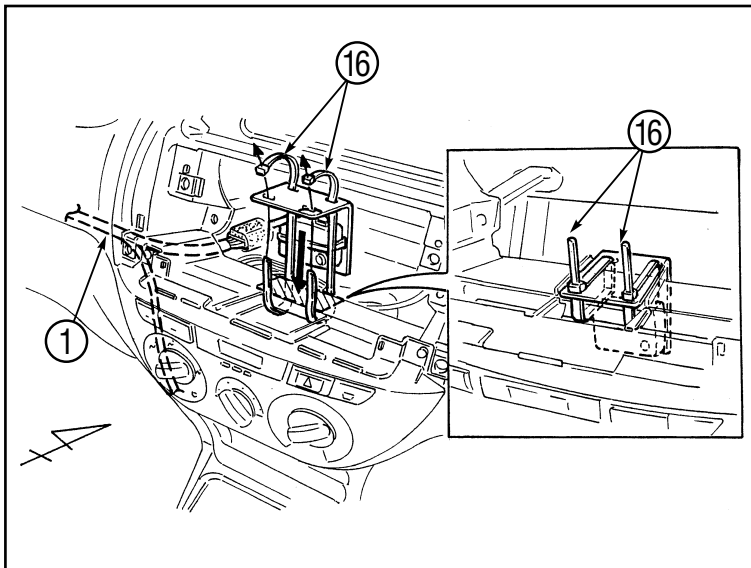


Fig. 44

8.

- Secure the radar sensor (i) with the wire ties (16) (2x) as shown.

## MOUNTING THE GLASS BREAKAGE SENSOR CONTROL UNIT (Only 5-door models)

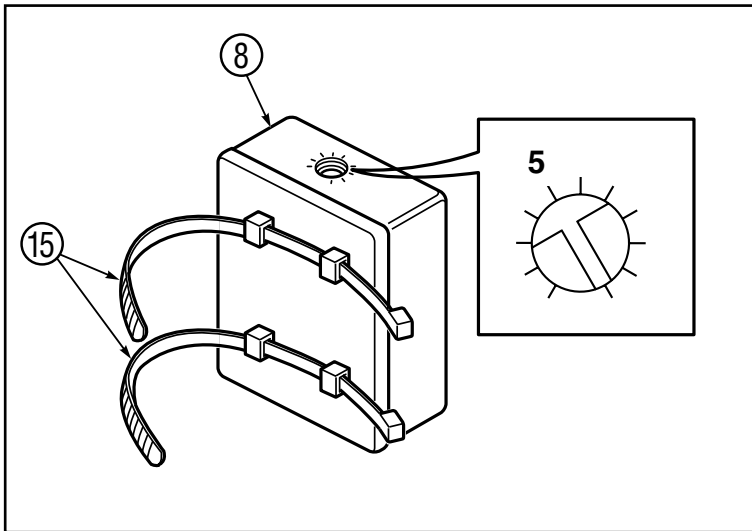


Fig. 45

1.
  - a) Turn the sensor adjustment screw to position "5" for optimum sensitivity.
  - b) Run the wire tie ⑮ (2x) through the glass breakage sensor control unit ⑧.

### NOTE:

False alarm may occur if the sensitivity is set too high. Test the system according to the SETTING GUIDE to ensure the correct setting.

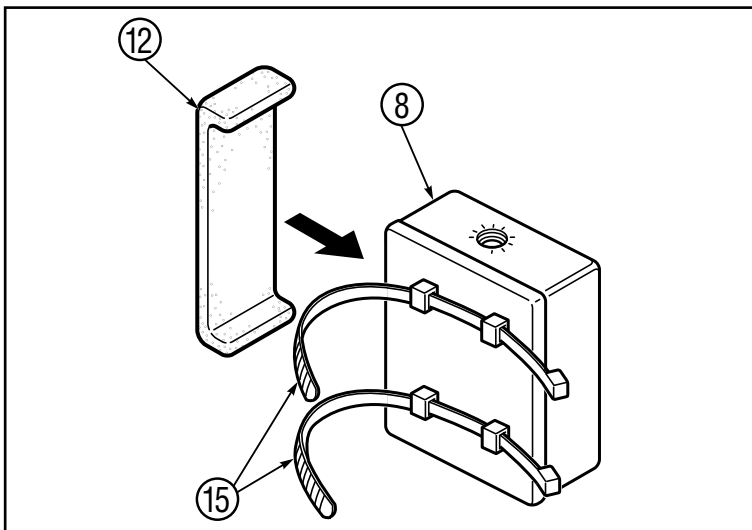


Fig. 46

2. Fit the foam tape ⑫ to the glass breakage sensor control unit ⑧ as shown.

### NOTE:

Foam should not cover setting.

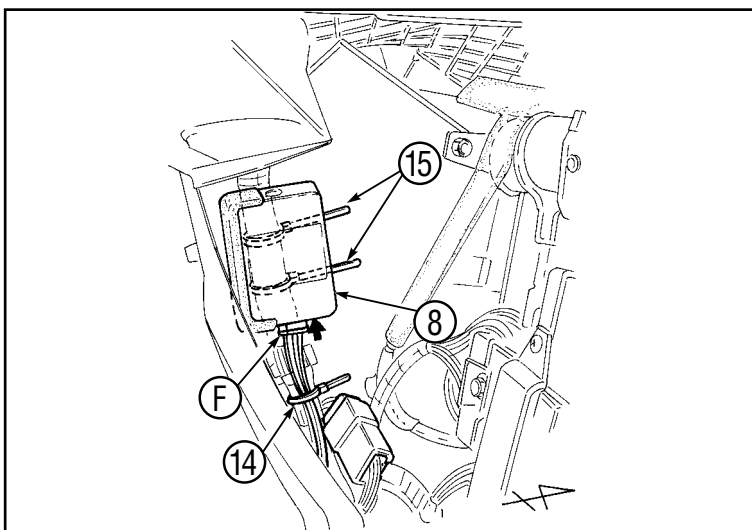


Fig. 47

3.
  - a) Connect the glass breakage sensor control unit ⑧ to the 6P connector F (clear) of the TVSS wire harness ①.
  - b) Attach the glass breakage sensor control unit ⑧ to the vehicle wire harness using the wire ties ⑮ (2x).
  - c) Attach the TVSS wire harness ① to the vehicle harness using the wire tie ⑭.

## MOUNTING THE MICROPHONE (Only 5-door models)

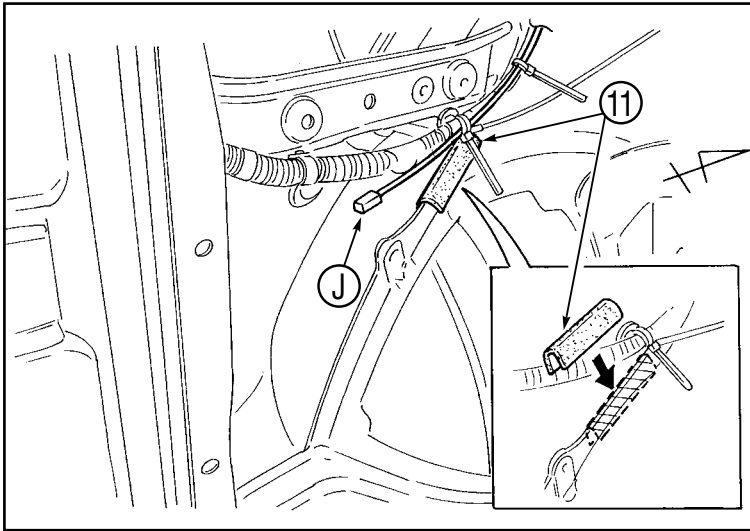


Fig. 48

1.

Fit the foam tape ⑪ underneath the wire route as shown.

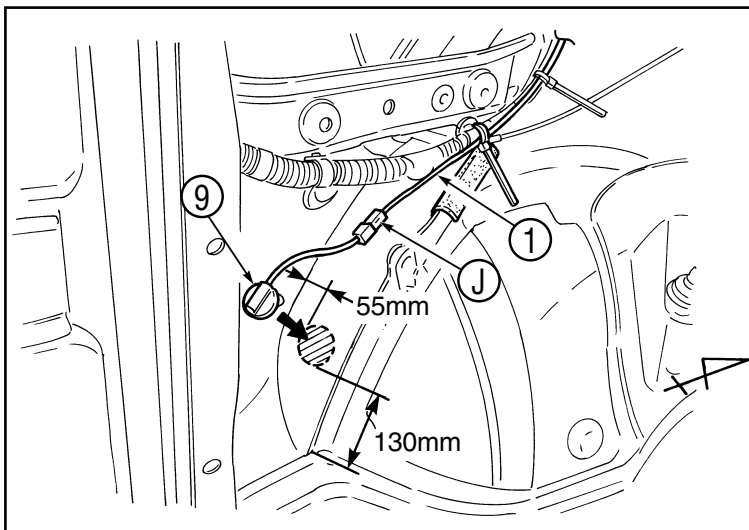


Fig. 49

2.

- a) Connect the 2P connector of the microphone ⑨ to the 2P connector ① of the TVSS wire harness ①.
- b) Attach the microphone ⑧ as shown.

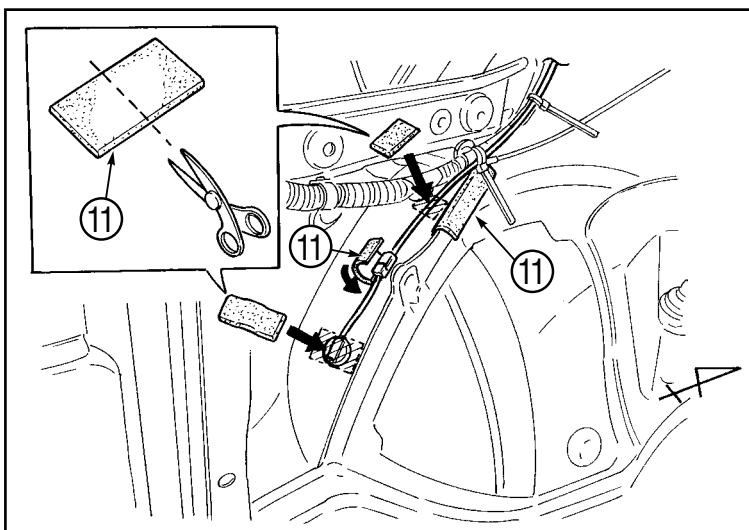


Fig. 50

3.

- a) Wrap the 2P connectors in the foam tape ⑪.
- b) Cut the foam tape ⑪ in half and attach as shown.
- c) Fit one half over the microphone and the other half to secure the wire in place.

## MOUNTING THE TVSS ECU

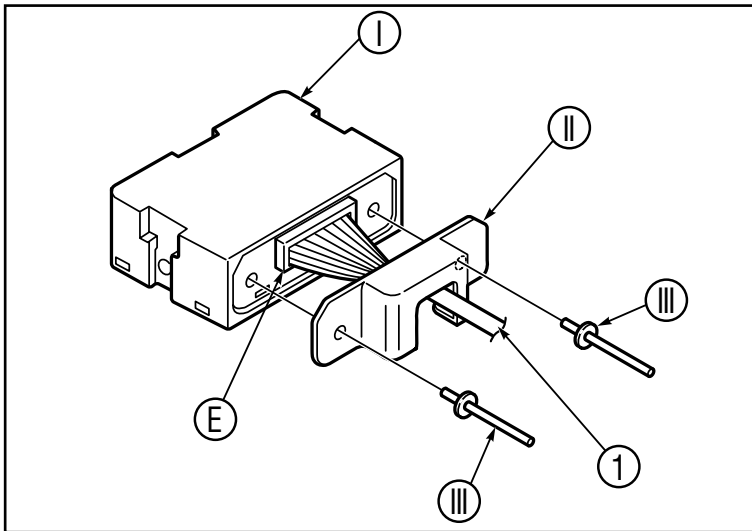


Fig. 51

1.
  - a) Connect the TVSS ECU wire harness ① 26P connector ⑤ (grey) to the TVSS ECU ①.
  - b) Fit the protective bracket ② to the TVSS ECU ① with blind rivets ③ (2x).

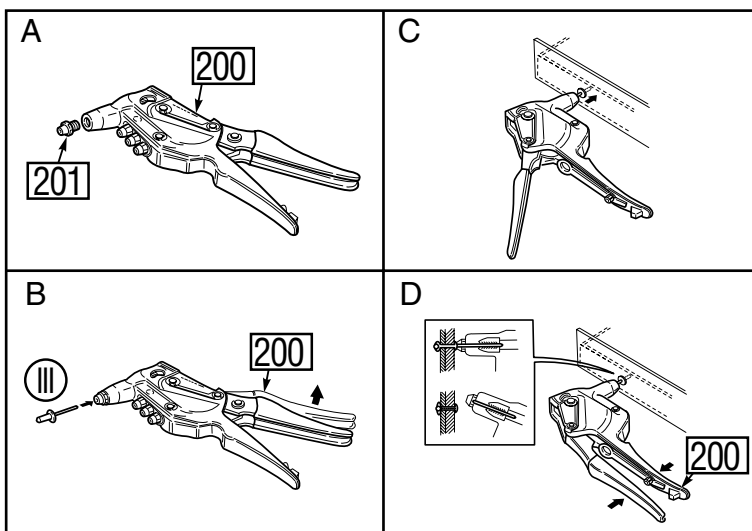


Fig. 52

2.
  - a) Fit the nose adapter fitting ②① to the nose of the riveting tool ②②.
  - b) Open the riveting tool ②② and put the blind rivet ③ on the nose.
  - c) Insert the tip of the blind rivet ③ through the hole in TVSS ECU ① as far as it will go.
  - d) Close the riveting tool ②② arms repeatedly until the blind rivet ③ comes away.

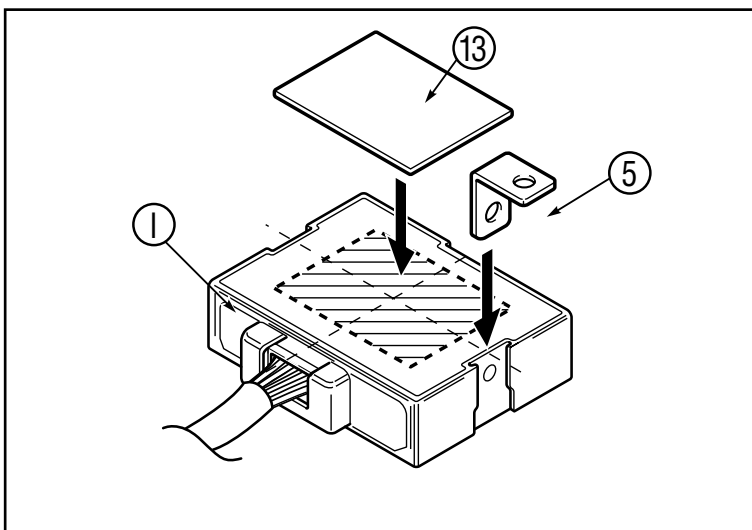


Fig. 53

3.
  - a) Fit the ECU bracket ⑤ to the TVSS ECU ①.
  - b) Attach the butyl tape ⑬ to the bottom of the TVSS ECU ①.

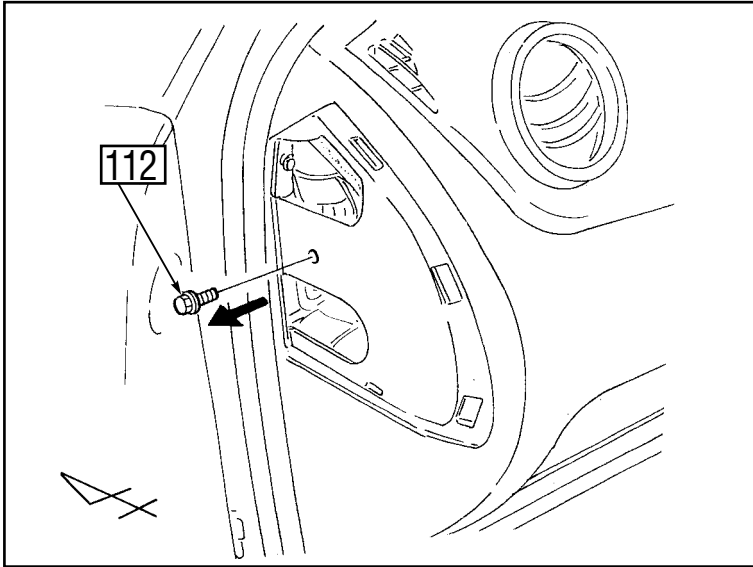


Fig. 54

4.

Remove the screw 112.

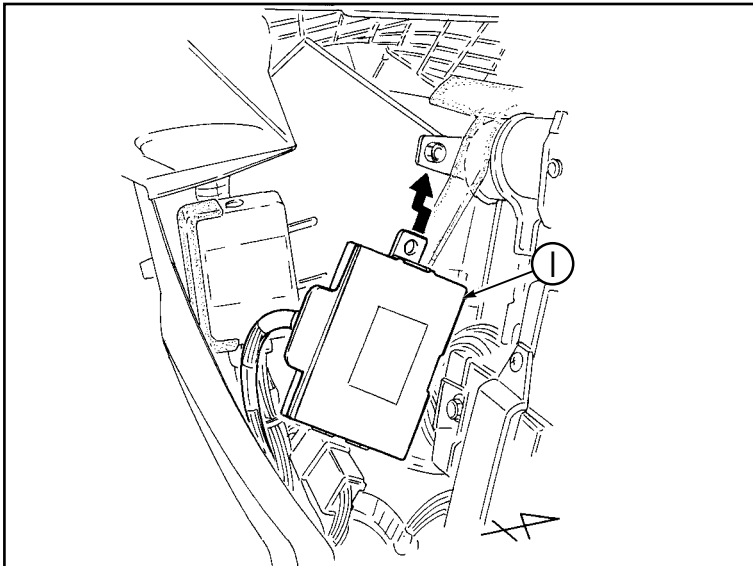


Fig. 55

5.

Position the TVSS ECU 1 in the passenger's side area as shown.

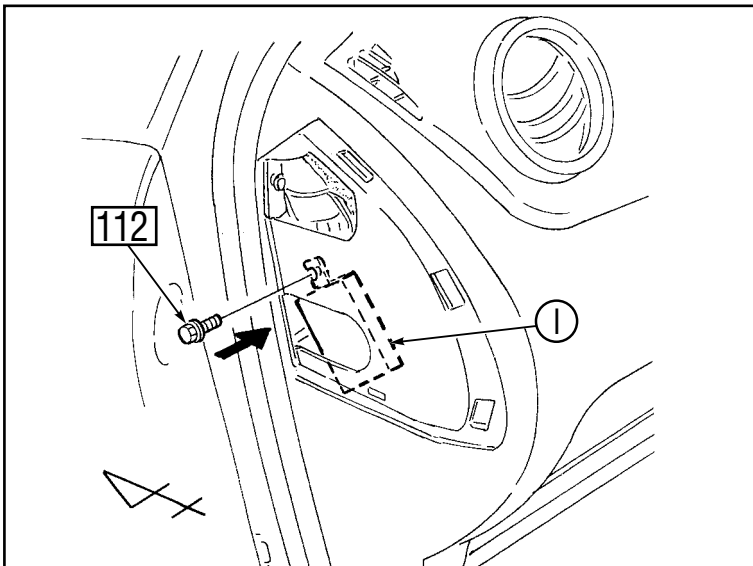


Fig. 56

6.

Refit the screw 112.

# WIRE HARNESS INSTALLATION (ENGINE COMPARTMENT)

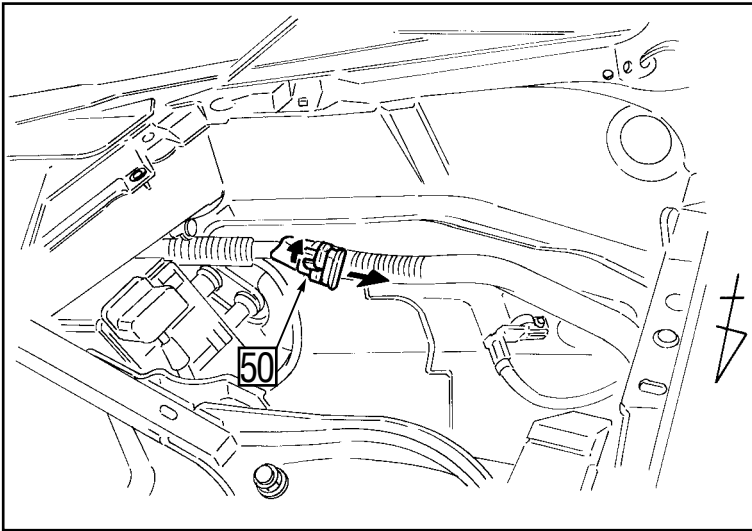


Fig. 57

1.
  - a) Remove the tape from the 6P connector 50 (grey).
  - b) Remove the cap from the 6P connector 50 (grey).

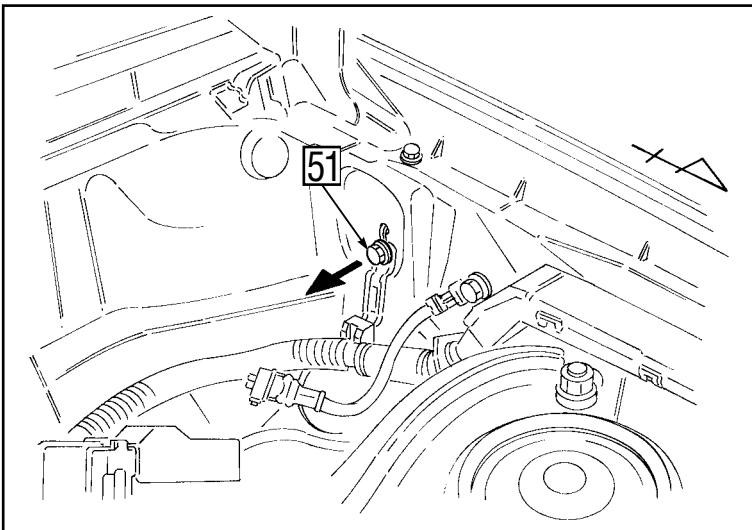


Fig. 58

2. Remove and discard the bolt 51.

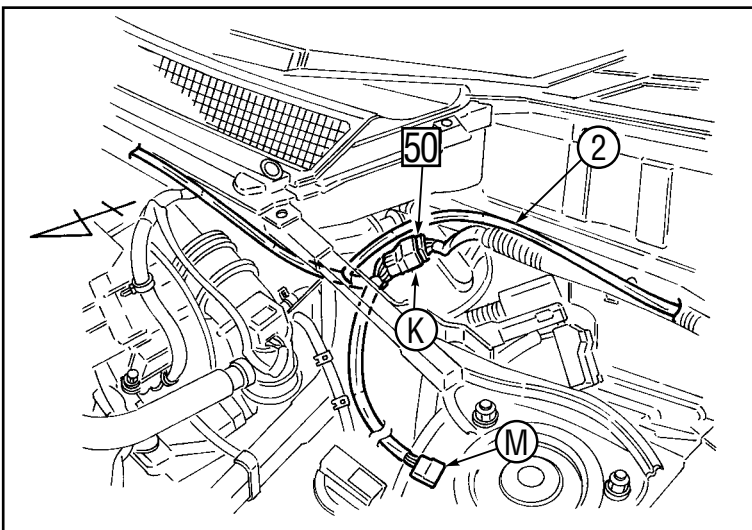


Fig. 59

3. Connect the 6P male connector K (grey) of the TVSS wire harness 2 to the vehicle harness 6P female connector 50.

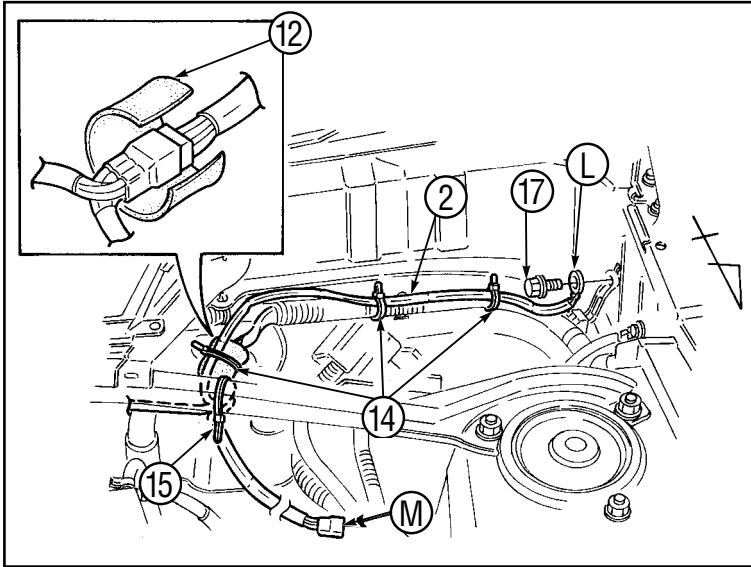


Fig. 60

4.
  - a) Wrap the 6P connectors in the foam tape ⑫.
  - b) Fit the ground terminal ① using the bolt ⑰.
  - c) Attach the TVSS wire harness ② to the vehicle harness using the wire ties ⑭ (3x) and ⑮ (1x).

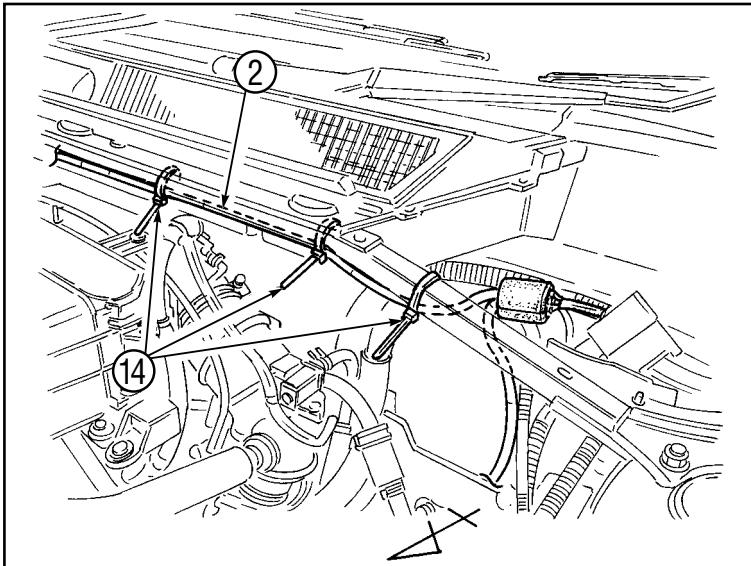


Fig. 61

5. Attach the TVSS wire harness ② using the wire ties ⑭ (3x).

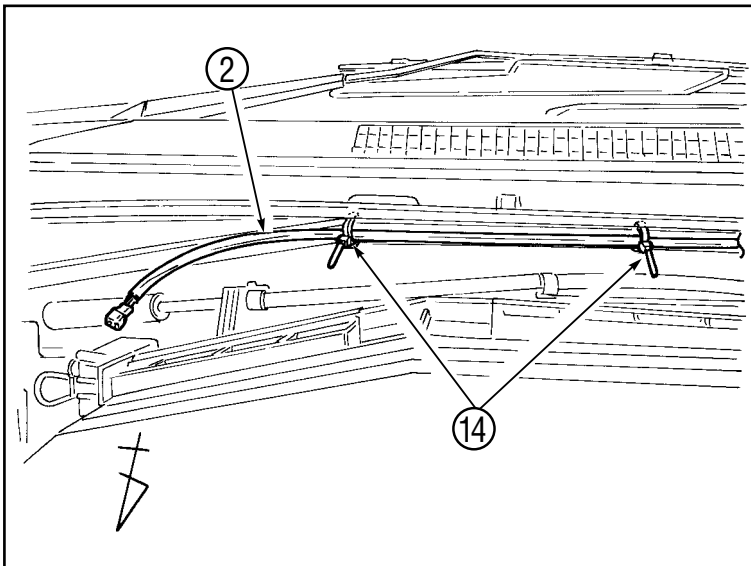


Fig. 62

6. Attach the TVSS wire harness ② using the wire ties ⑭ (2x).



## MOUNTING THE SIREN

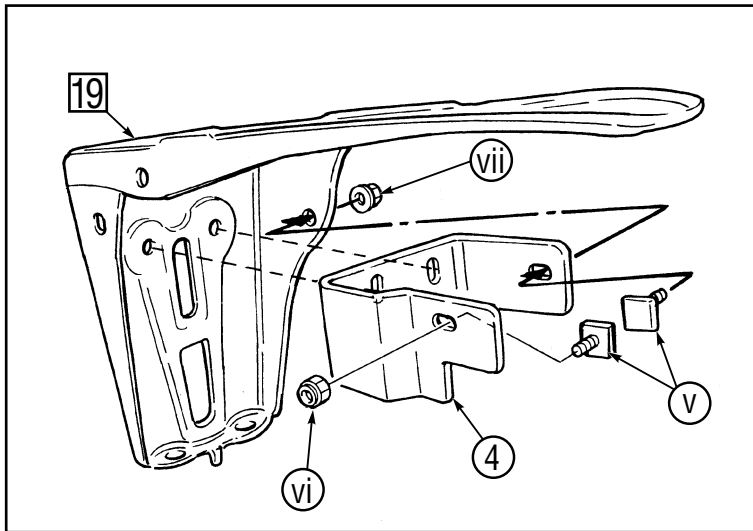


Fig. 63

1.

Fit the siren bracket (4) to the battery carrier (19) with the bolts (v) (2x) and the nuts (vi) (2x).

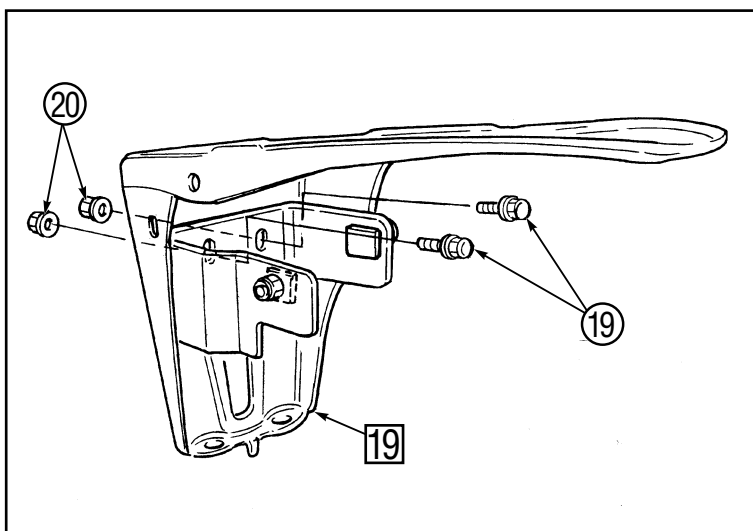


Fig. 64

2.

Fit the siren bracket (4) to the battery carrier (19) with the bolts (19) (2x) and the nuts (20) (2x).

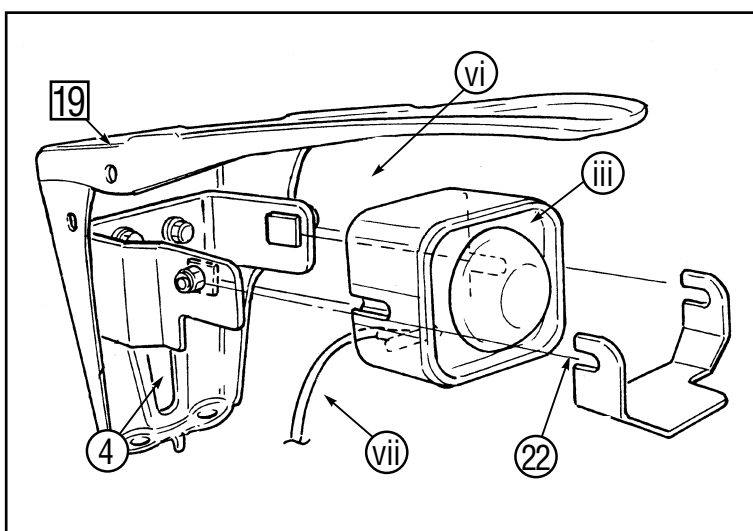


Fig. 65

3.

- a) Connect the siren wire harness (vii) to the siren (iii).
- b) Fit the siren (iii) and the siren protective bracket (22) to the siren bracket (4) with the nuts (vi) (2x).



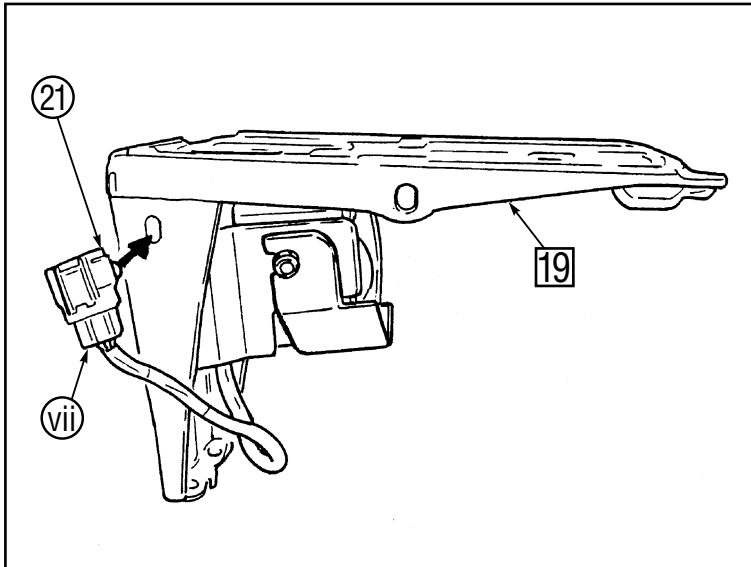


Fig. 66

4.
  - a) Attach the clip (21) to the 6P connector of the siren wire harness (vii).
  - b) Attach the clip (21) to the battery carrier (19).

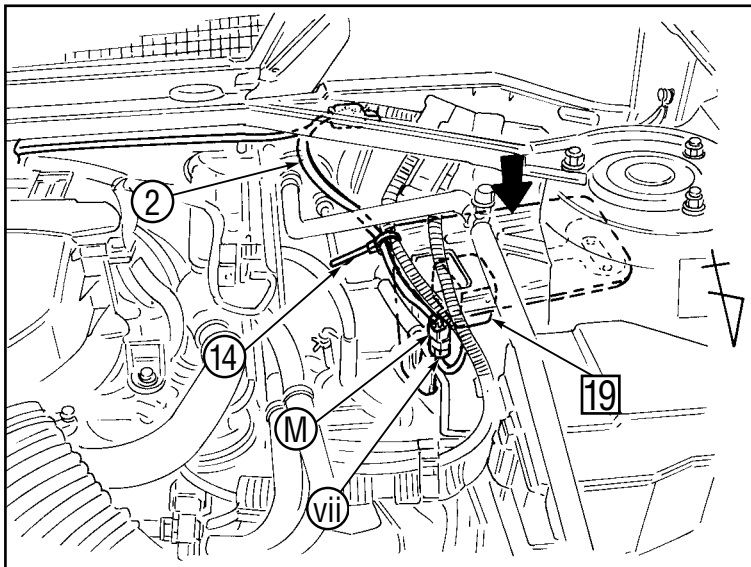


Fig. 67

5.
  - a) Refit the battery carrier (19).
  - b) Connect the 6P connector (M) of the TVSS wire harness (2) to the 6P connector of the siren wire harness (viii).
  - c) Attach the TVSS wire harness (2) to the vehicle harness using the wire ties (14) (1x).

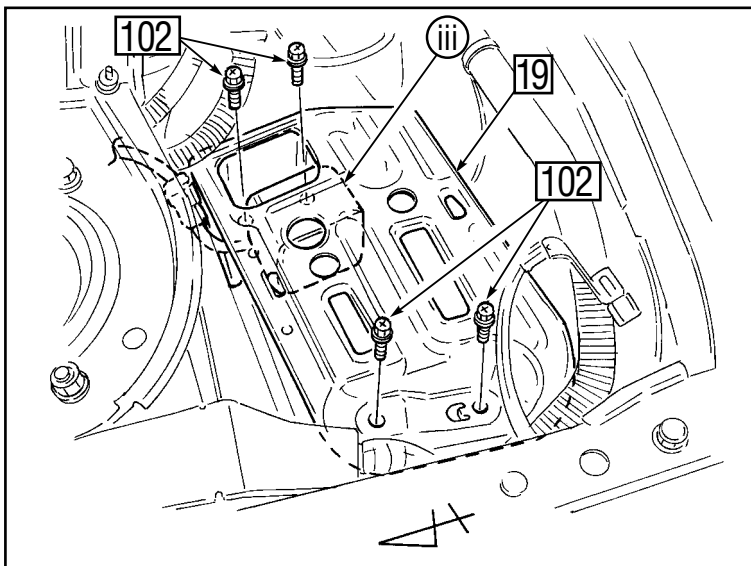


Fig. 68

6.
  - Fit the battery carrier (19) using the bolts (102) (4x).

## MOUNTING THE HOOD SWITCH

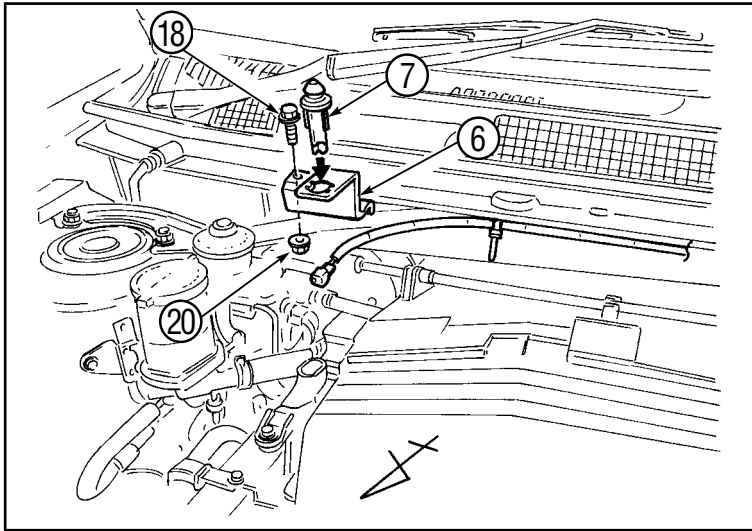


Fig. 69

- 1.
- a) Fit the hood switch bracket ⑱ using the bolt ⑱ (1x) and nut ⑳ (1x).
- b) Fit the hood switch ⑦ to the hood switch bracket ⑱.

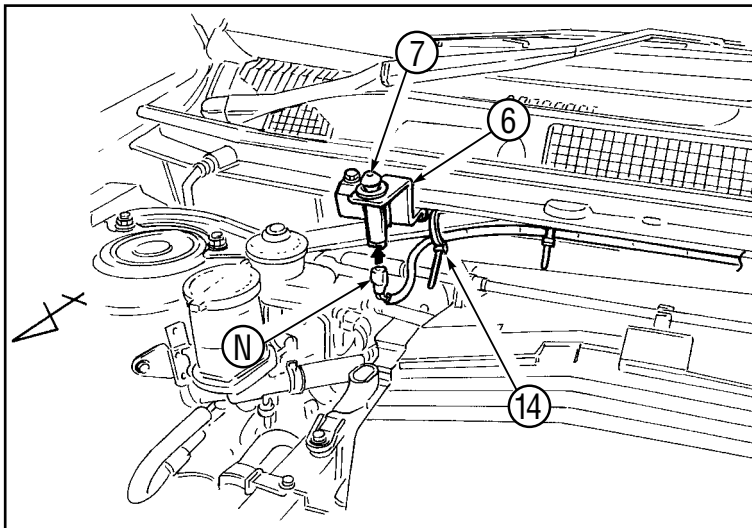


Fig. 70

- 1.
- a) Connect the 2P connector ① of the TVSS wire harness ② to the hood switch ⑦.
- b) Attach the TVSS wire harness ② using the wire ties ⑭ (1x).

## ATTACHING THE STICKERS

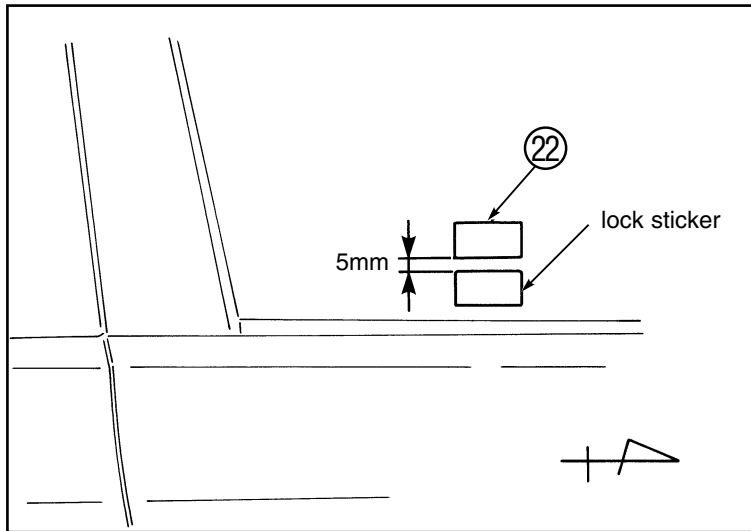


Fig. 71

### VEHICLES WITH DOUBLE LOCK

1.
  - a) Clean the inside surface of both front windows.
  - b) Attach the stickers ② to the indicated position.

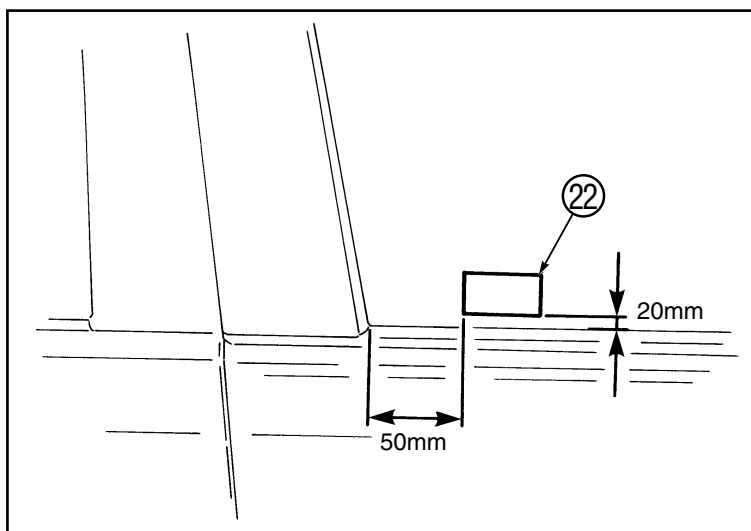


Fig. 72

### VEHICLES WITHOUT DOUBLE LOCK

2.
  - a) Clean the inside surface of both front windows.
  - b) Attach the stickers ② to the indicated position.

**REFIT THE TRIM AND REMOVED PARTS.**

**NOTES**



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**NOTES**



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**NOTES**



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**TOYOTA**  
**GENUINE PARTS**