



TNS 200

TOYOTA NAVIGATION SYSTEM



RAV4 (RHD)

INSTALLATION INSTRUCTIONS

FOR ****A2*R**

PART NUMBER

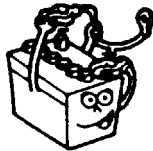
NAVIGATION KIT

08545-00802

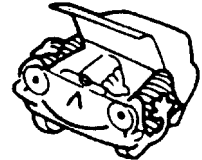
PRECAUTIONS

PLEASE READ THOROUGHLY THESE PRECAUTIONS BEFORE THE INSTALLATION

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



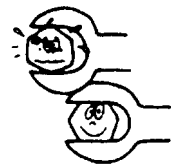
- Protect your car with fender covers, seat and so on.



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



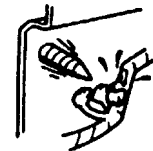
- Use the correct tool when tightening bolts or nuts.



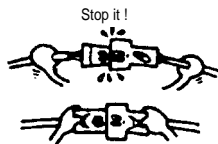
- When passing the wires through the dashboard or other panels, use a grommet to ensure waterproofing.
- Protect the wiring with tape when it is passed through a hole.



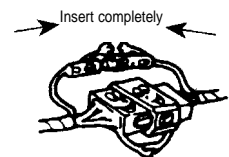
- Before drilling a hole, check that the rear of the mounting wall is clear.



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



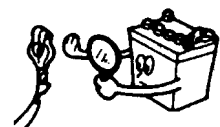
- Be sure to firmly tighten connectors and terminals.



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



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



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



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

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AUDIO APPLICATION CHART

TMME-CA Division Dev. Dept. II - June 1st, 2000

RAV4 **A2*R

(RHD)

		+ ADD-ON UNIT(S)	
		CD-Changer TM0461 (08601-00879)	MD-Changer TM0660 (08601-00900)
		In-Dash CD-Changer TM0561 (08601-00892)	Navigation System TNS500 (08545-00803)
		CD-Deck TF0411 (08601-00893)	Navigation System TNS200 (08545-00802)
		Cassette-Deck TM0300 (08690-00824)	Cassette-Storage PZ437-90342-00 or CD-Storage PZ437-90341-00
COMBINATION	HEAD UNIT		
1	Radio/Cassette (only)	TF4301 (08600-00922) TM4201 (08600-00934) TP4000 (08600-00933) TF2002 (08600-00920) TM2002 (08600-00932)	A-box (55521-16030) A-box (55521-16030) A-box (55521-16030) A-box (55521-16030) A-box (55521-16030)
2	CD-Tuner (only)	TM4412 (08600-00922) TM4414 (08600-00936)	A-box (55521-16030) A-box (55521-16030)
3	Radio/Cassette + Cassette storage	TF4301 (08600-00922) TM4201 (08600-00934) TP4000 (08600-00933) TF2002 (08600-00920) TM2002 (08600-00932)	- - - - -
4	Radio/Cassette + CD-Deck	TF4301 (08600-00922) TM4201 (08600-00934)	- -
5	Radio/Cassette + CD-Changer	TF4301 (08600-00922) TM4201 (08600-00934)	A-box (55521-16030) + F/K (08695-42802) A-box (55521-16030) + F/K (08695-42802)
6	Radio/Cassette + In dash CD-Changer	TF4301 (08600-00922) TM4201 (08600-00934)	- -
7	Radio/Cassette + MD-Changer	TF4301 (08600-00922) TM4201 (08600-00934)	A-box (55521-16030) + F/K (08695-42802) A-box (55521-16030) + F/K (08695-42802)
8	Radio/Cassette + Full Map Navigation	TF4301 (08600-00922) TM4201 (08600-00934)	- -

1 DIN Head-Unit

AUDIO APPLICATION CHART


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(RHD)

COMBINATION		+ ADD-ON UNIT(S)		REQUIRED ADDITIONAL PARTS
		CD-Changer TM0461 (08601-00879) In-Dash CD-Changer TM0561 (08601-00892) CD-Deck TF0411 (08601-00893) Cassette-Deck TM0300 (08690-00824)	MD-Changer TM0660 (08601-00900) Navigation System TNS500 (08545-00803) Navigation System TNS200 (08545-00802) Cassette-Storage PZ437-90342-00 or CD-Storage PZ437-90341-00	
9	Radio/Cassette + CD-Deck + CD-Changer	TF4301 (08600-00922)	●	Wire (08695-00260) + F/K (08695-42802)
10	Radio/Cassette + CD-Deck + MD-Changer	TF4301 (08600-00922)	●	Wire (08695-00260) + F/K (08695-42802)
11	Radio/Cassette + CD-Changer CD/Cass-storage	TF4301 (08600-00922) TM4201 (08600-00934)	● ●	F/K (08695-42802) F/K (08695-42802)
12	Radio/Cassette + CD-Changer + MD-Changer	TF4301 (08600-00922)	●	Wire (08695-00260) + A-box (55521-16030) + F/K (08695-42802)
13	Radio/Cassette + CD-Changer + MD-Changer+CD/Cass-storage	TF4301 (08600-00922)	●	Wire (08695-00260) + F/K (08695-42802)
14	Radio/Cassette + CD-Changer + Full Map Navigation	TF4301 (08600-00922) TM4201 (08600-00934)	● ●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
15	Radio/Cassette + In dash CD-Changer + MD-Changer	TF4301 (08600-00922)	●	Wire (08695-00260) + F/K (08695-42802)
16	Radio/Cassette + MD-Changer + Cass-storage	TF4301 (08600-00922) TM4201 (08600-00934)	● ●	F/K (08695-42802) F/K (08695-42802)
17	Radio/Cassette + MD-Changer + Full Map Navigation	TF4301 (08600-00922) TM4201 (08600-00934)	● ●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
18	CD-Tuner + CD-storage	TM4412 (08600-00935) TM4414 (08600-00936)	● ●	- -

1 DIN Head-Unit

		+ ADD-ON UNIT(S)		REQUIRED ADDITIONAL PARTS
		CD-Changer TM0461 (08601-00879)	MD-Changer TM0660 (08601-00900)	
COMBINATION		HEAD UNIT		
19	CD-Tuner + Cassette-Deck	TM4414 (08600-00936)	●	-
20	CD-Tuner + CD-Changer	TM4414 (08600-00936)	●	A-box (55521-16030) + F/K (08695-42802)
21	CD-Tuner + In dash CD-Changer	TM4414 (08600-00936)	●	-
22	CD-Tuner + MD-Changer	TM4414 (08600-00936)	●	A-box (55521-16030) + F/K (08695-42802)
23	CD-Tuner + Full Map Navigation	TM4414 (08600-00936)	●	-
24	CD-Tuner + Cassette-Deck + CD-Changer	TM4414 (08600-00936)	●	Wire (08695-00260)
25	CD-Tuner + Cassette-Deck + MD-Changer	TM4414 (08600-00936)	●	Wire (08695-00260)
26	CD-Tuner + CD-Changer + CD-storage	TM4414 (08600-00936)	●	F/K (08695-42802)
27	CD-Tuner + CD-Changer + MD-Changer	TM4414 (08600-00936)	●	Wire (08695-00260) + A-box (55521-16030) + F/K (08695-42802)
28	CD-Tuner + CD-Changer + MD-Changer + CD-Storage	TM4414 (08600-00936)	●	Wire (08695-00260) + F/K (08695-42802)
29	CD-Tuner + CD-Changer + Full Map Navigation	TM4414 (08600-00936)	●	Wire (08695-00260) + F/K (08695-42802)
30	CD-Tuner + In-Dash CD-Changer + MD-Changer	TM4414 (08600-00936)	●	Wire (08695-00260) + F/K (08695-42802)

1 DIN Head-Unit

AUDIO APPLICATION CHART

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(RHD)

		+ ADD-ON UNIT(S)				REQUIRED ADDITIONAL PARTS
		CD-Changer TM0461 (08601-00879)	MD-Changer TM0660 (08601-00900)	Navigation System TNS500 (08545-00803)	Cassette-Storage PZ437-90342-00 or CD-Storage PZ437-90341-00	
		In-Dash CD-Changer TM0561 (08601-00892)	CD-Deck TF0411 (08601-00893)	Navigation System TNS200 (08545-00803)		
		Cassette-Deck TM0300 (08690-00824)				
		HEAD UNIT				
1 DIN Head-Unit	31	CD-Tuner + MD-Changer + CD-storage	TM4414 (08600-00936)	●	●	F/K (08695-42802)
	32	CD-Tuner + MD-Changer + Full Map Navigation	TM4414 (08600-00936)	●	●	Wire (08695-00260) + F/K (08695-42802)
Wide 2-DIN	33	Radio/Cassette (only)	MOP-unit 08600-00954 (note1)			-
	34	CD-Tuner (only)	MOP-unit 08600-00955 (note1)			-
	35	Radio/Cassette + CD-Changer	MOP-unit 08600-00954 (note1)	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
	36	Radio/Cassette + MD Changer	MOP-unit 08600-00954 (note1)	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
	37	Radio/Cassette + Navigation (TBT)	MOP-unit 08600-00954 (note1)		●	-
	38	Radio/Cassette + CD-Changer + MD-Changer	MOP-unit 08600-00954 (note1)	●	●	2x Wire (08695-00260) + F/K (08695-42802) 2x Wire (08695-00260) + F/K (08695-42802)
	39	Radio/Cassette + CD-Changer + Navigation (TBT)	MOP-unit 08600-00954 (note1)	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)

AUDIO APPLICATION CHART
 TMME-CA Division Dev. Dept. II - June 1st, 2000

RAV4 **A2*R

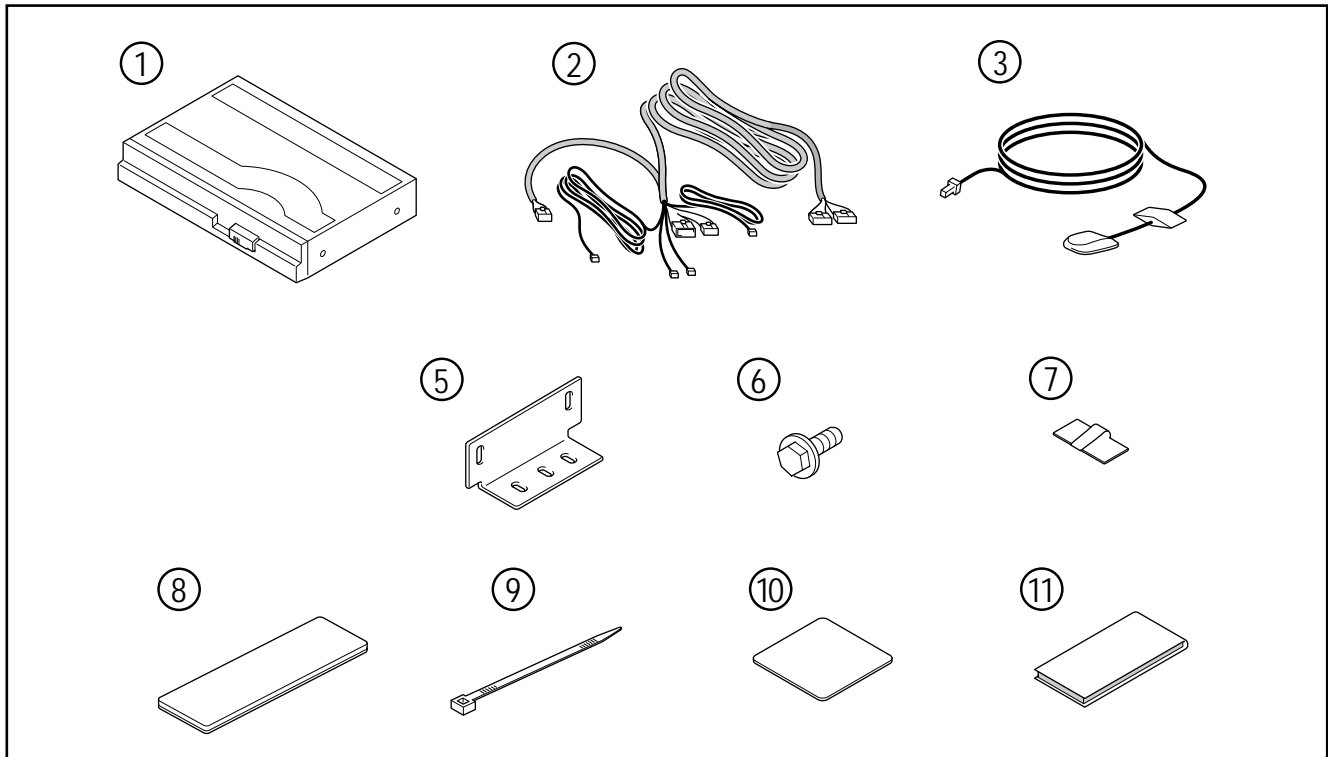
(RHD)

		+ ADD-ON UNIT(S)				REQUIRED ADDITIONAL PARTS
		CD-Changer TM0461 (08601-00879)	MD-Changer TM0660 (08601-00900)	Navigation System TNS500 (08545-00803)	Navigation System TNS200 (08545-00802)	
		In-Dash CD-Changer TM0561 (08601-00892)				
		CD-Deck TF0411 (08601-00893)				
		Cassette-Deck TM0300 (08690-00824)				
COMBINATION		HEAD UNIT				
40	Radio/Cassette + MD Changer + Navigation (TBT)	MOP-unit 08600-00954 (note 1)	●	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
41	CD-Tuner + CD-Changer	MOP-unit 08600-00955 (note 1)	●	●		Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
42	CD-Tuner + MD-Changer	MOP-unit 08600-00955 (note 1)	●	●		Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
43	CD-Tuner + Navigation (TBT)	MOP-unit 08600-00955 (note 1)	●	●		- -
44	CD-Tuner + CD-Changer + MD-Changer	MOP-unit 08600-00955 (note 1)	●	●	●	2x Wire (08695-00260) + F/K (08695-42802) 2x Wire (08695-00260) + F/K (08695-42802)
45	CD-Tuner + CD-Changer + Navigation (TBT)	MOP-unit 08600-00955 (note 1)	●	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)
46	CD-Tuner + MD-Changer + Navigation (TBT)	MOP-unit 08600-00955 (note 1)	●	●	●	Wire (08695-00260) + F/K (08695-42802) Wire (08695-00260) + F/K (08695-42802)

Wide 2-DIN

08695-42802 = Mounting Kit // 08695-00260 = Junction Cord
 (note 1): Outside temperature sensor PZ432-R0310-00 can be retro-fitted.

COMPONENT PARTS **08545-00802** 



No.	Part name	Quantity
①	COMPUTER	1
②	WIRE HARNESS	1
③	GPS ANTENNA	1
⑤	COMPUTER BRACKET	2
⑥	BOLT (M5 X 8)	4
⑦	CORD CLAMP	2
⑧	FOAM	2
⑨	WIRE TIE	5
⑩	EARTH PLATE	1
⑪	BUTYL TAPE	4

REQUIRED PARTS**CD-ROM**

To be ordered separately.

Please refer to the list of available CD-ROM for TNS200 Navigation System (Access to accessories).

OWNER'S MANUAL

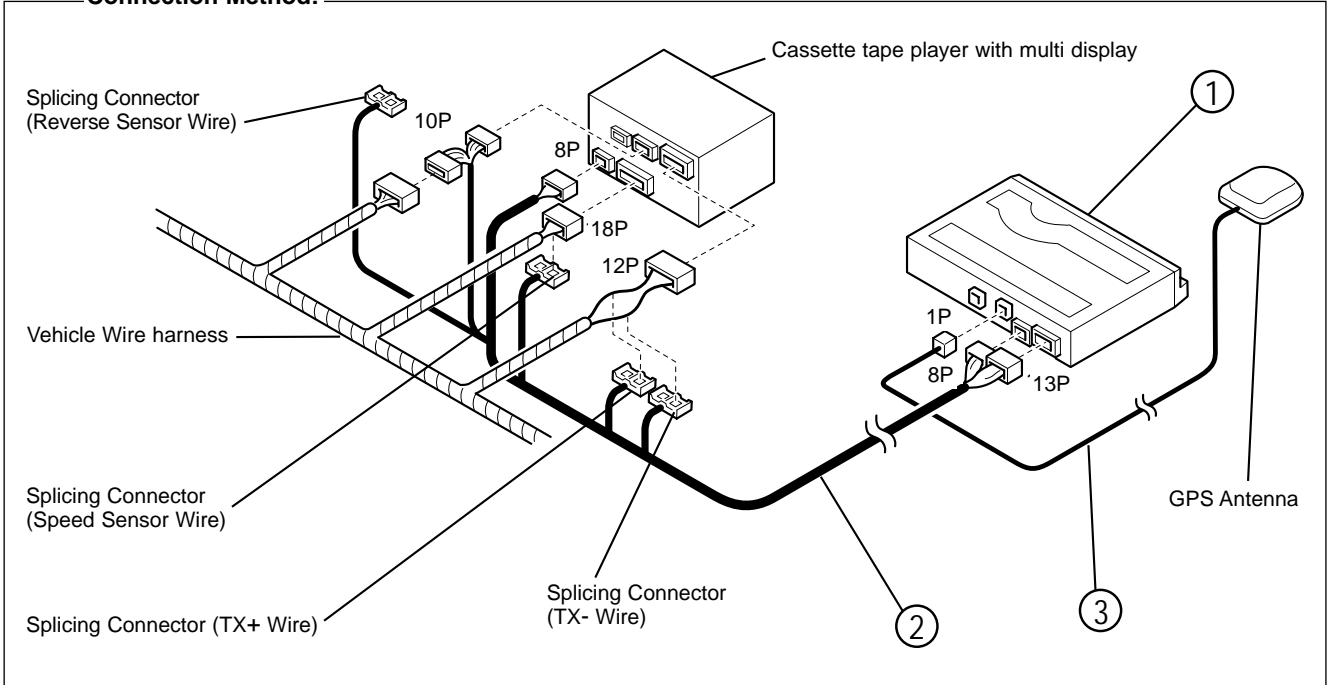
To be ordered separately.

WIRING CONNECTION



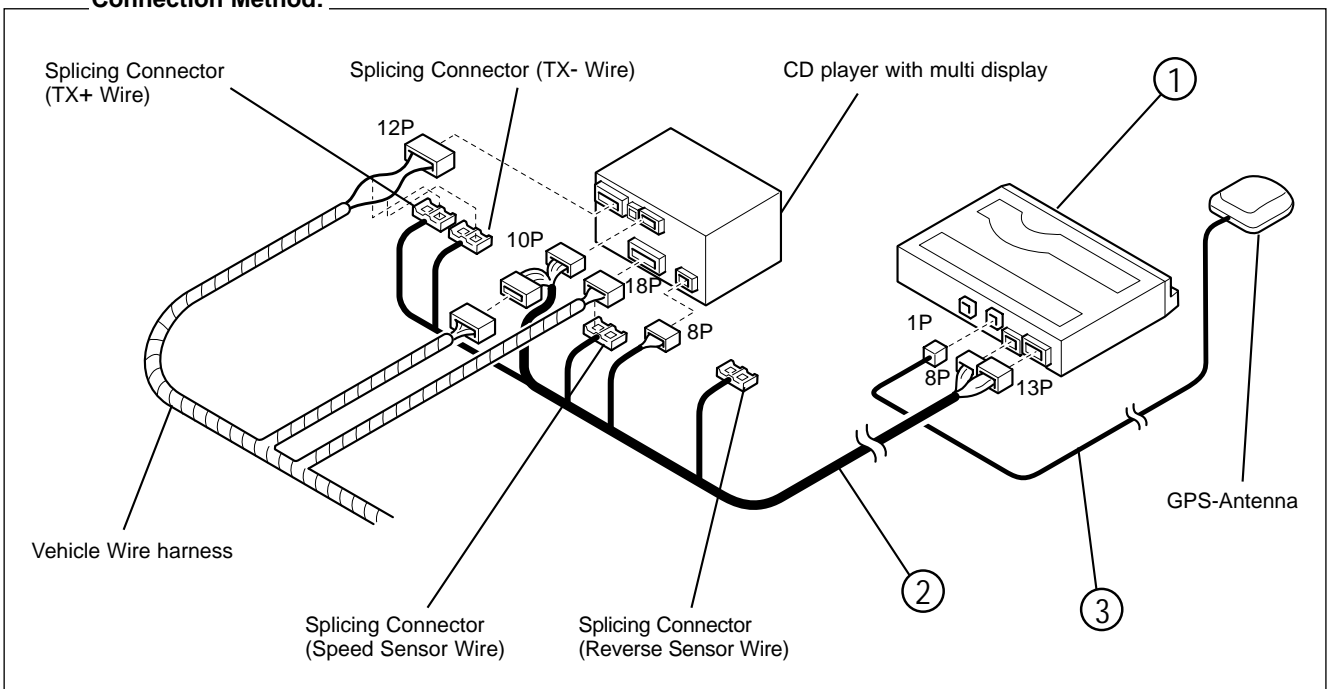
CASSETTE TAPE PLAYER WITH MULTI-DISPLAY

Connection Method:

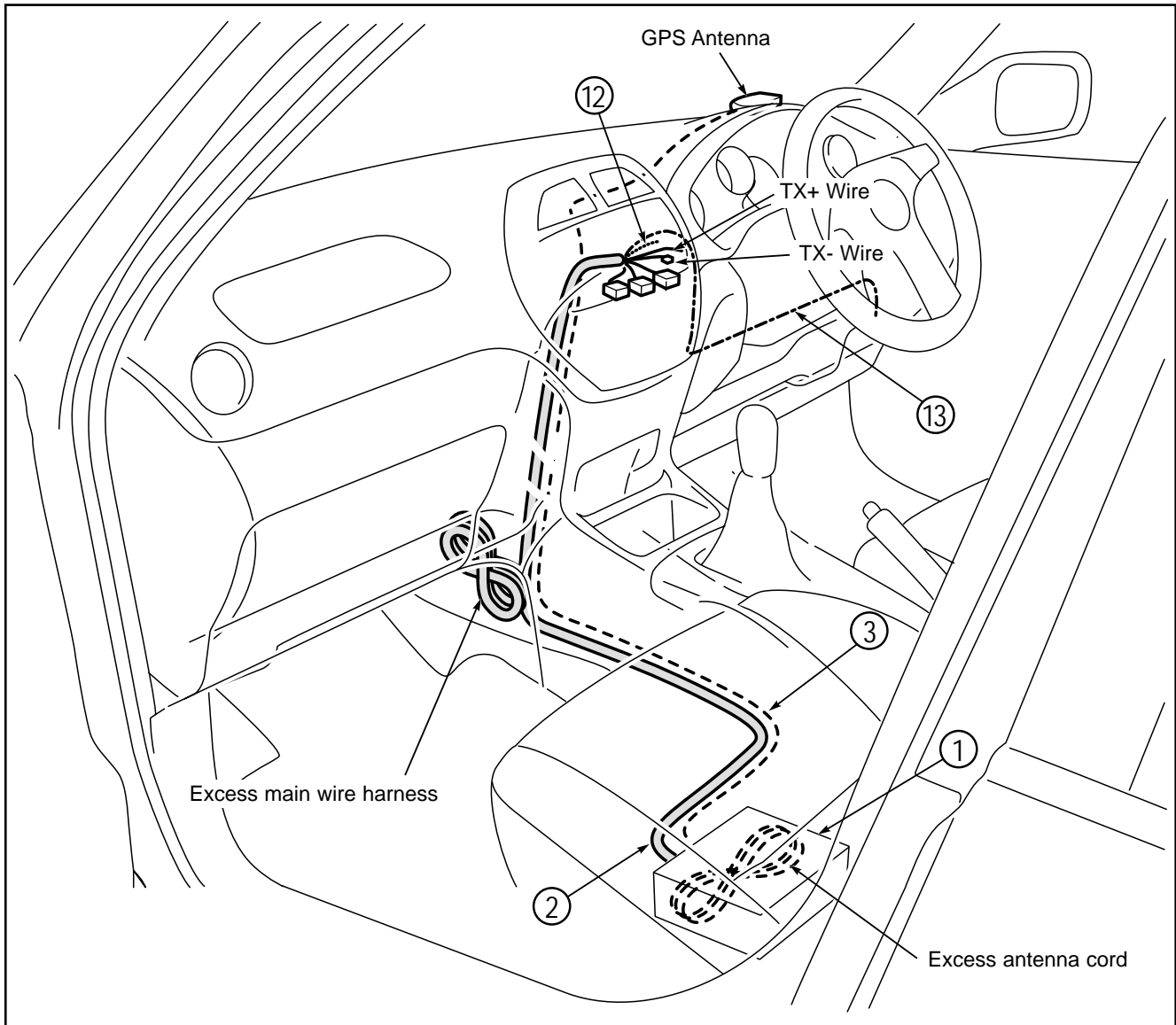


CD PLAYER WITH MULTI-DISPLAY

Connection Method:



INSTALLATION OVERVIEW



- ⑫ WIRE HARNESS - SPEED LINE (VIOLET/WHITE)
- ==== ② WIRE HARNESS
- ③ ANTENNA CORD
- - - - ⑬ WIRE HARNESS REVERSE SENSOR WIRE (RED/BLUE)

VEHICLE DISASSEMBLY

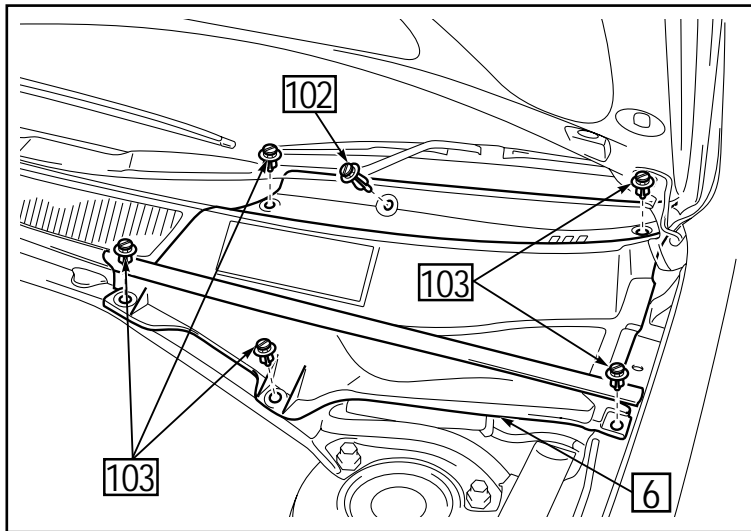


Fig. 1

1. Remove the battery cover **6** to disconnect the battery.

102: Clip (1x)

103: Clip (5x)

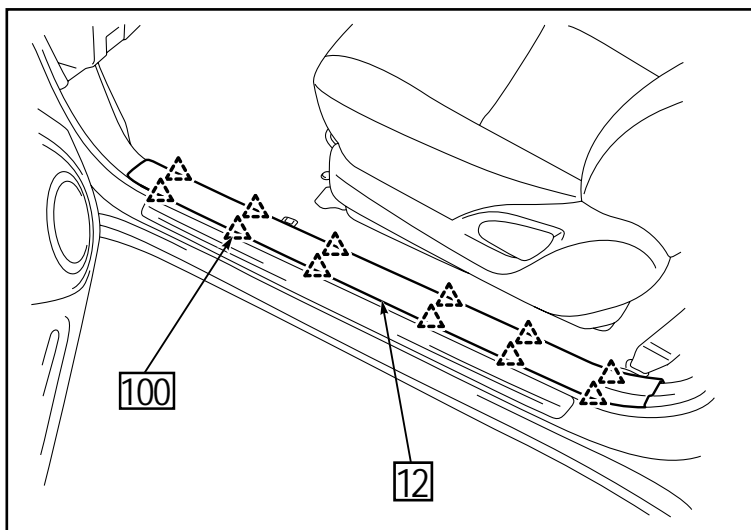


Fig. 2

2. Remove the front door scuff plate (L) **12**.

12.

100: Hook (3 door:12x / 5 door:8x)

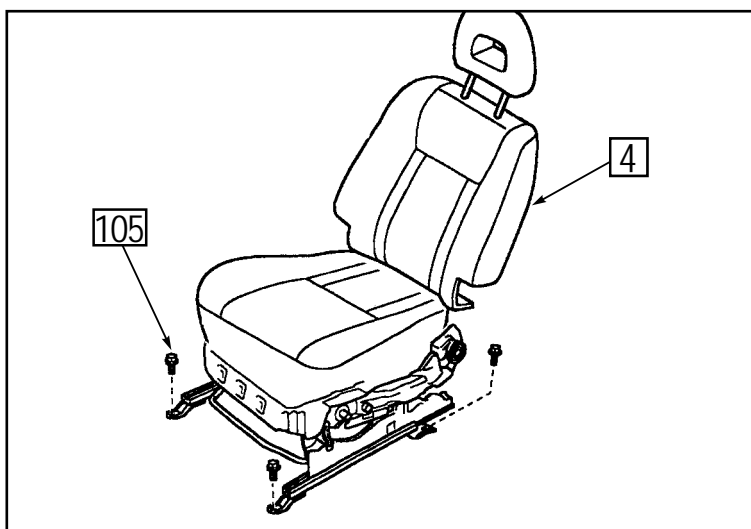


Fig. 3

3. Remove the passenger's seat **4**.

105: Bolt (4x)

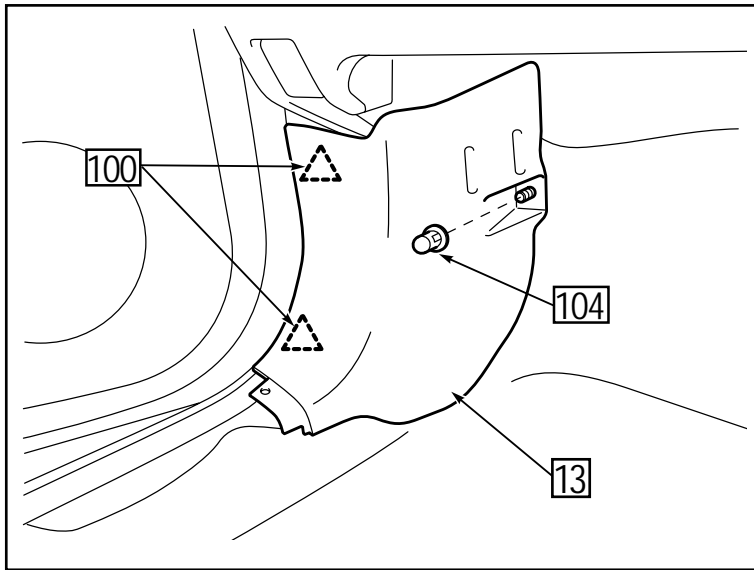


Fig. 4

4. Remove the kick panel (L) **13**.

100: Hook (2x)

104: Nut (1x)

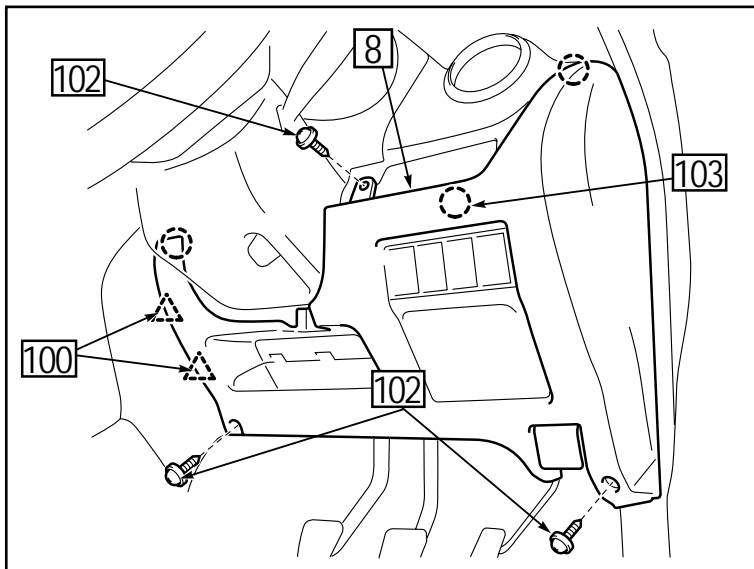


Fig. 5

5. Remove the instrument finish lower panel **8**.

100: Hook (2x)

102: Screw (3x)

103: Clip (3x)

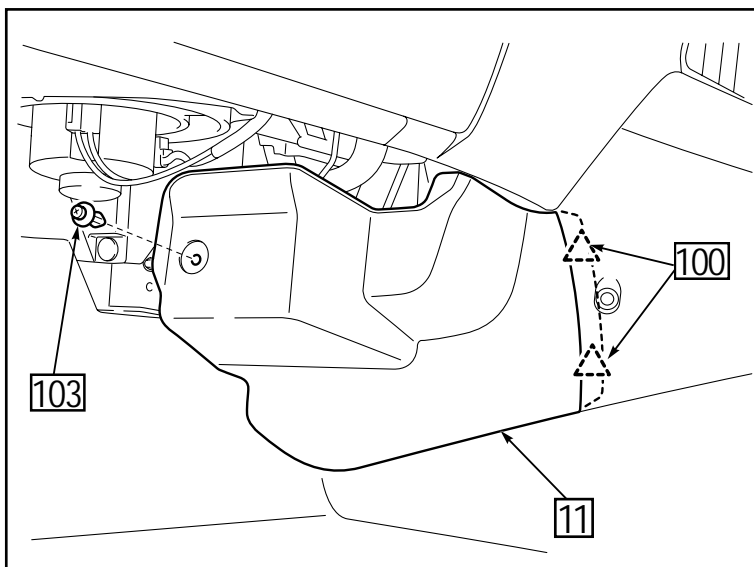


Fig. 6

6. Remove the centre lower cover (L) **11**.

100: Hook (2x)

103: Clip (1x)

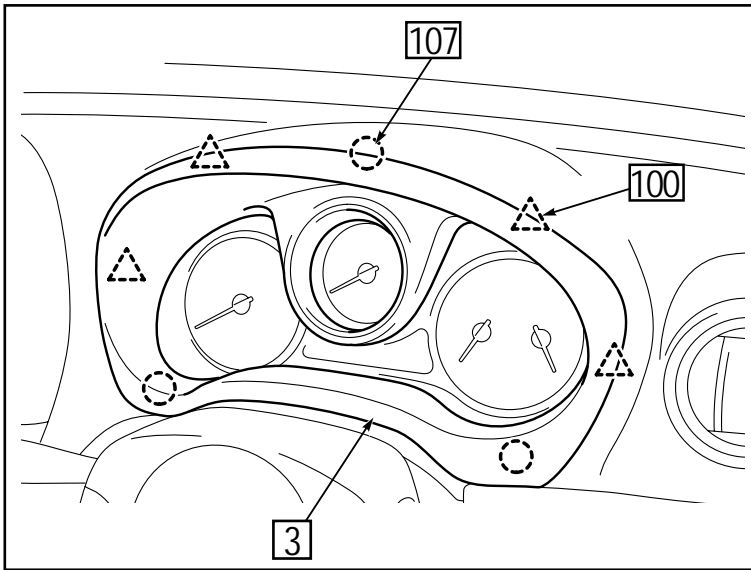


Fig. 7

7. Remove the meter cluster panel **3**.

100: Hook (4x)

107: Clip (3x)

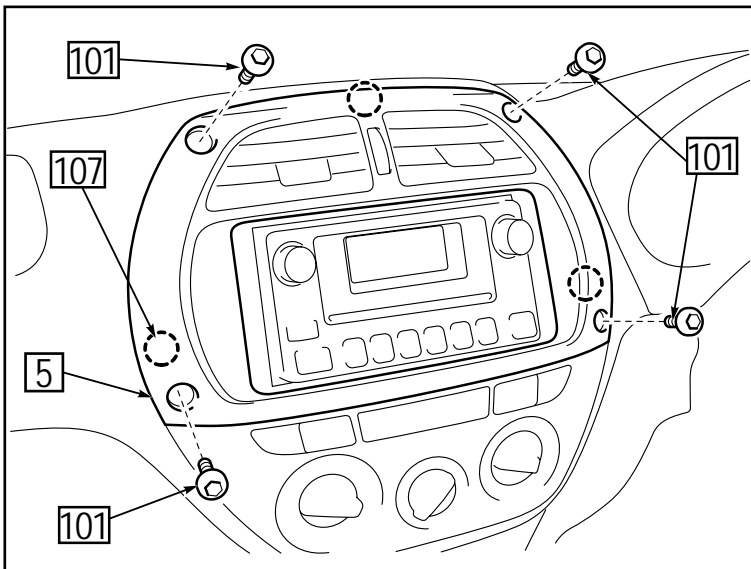


Fig. 8

8. Remove the centre cluster panel **5**.

101: Bolt (4x)

107: Clip (3x)

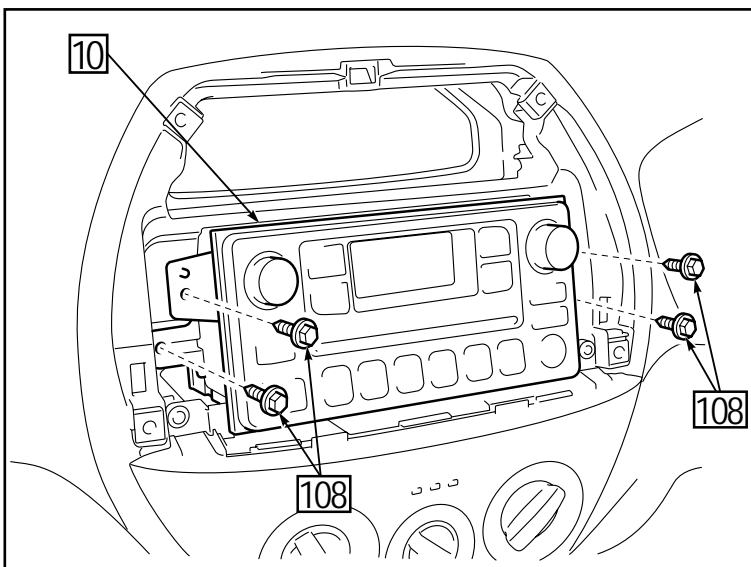


Fig. 9

9. Remove the CD (Cassette) tuner with multi display **10**.

108: Bolt (4x)

INSTALLATION OF THE GPS ANTENNA

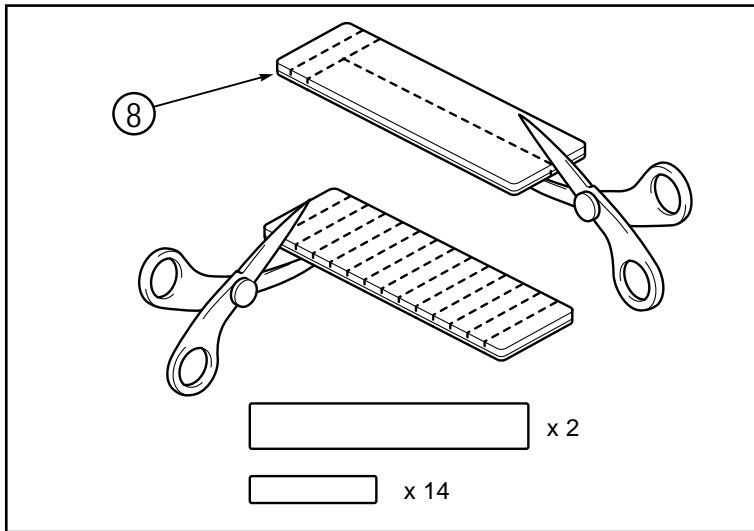


Fig. 10

1. Cut the foam ⑧ into 2 large pieces and 14 small pieces as shown in the illustration.

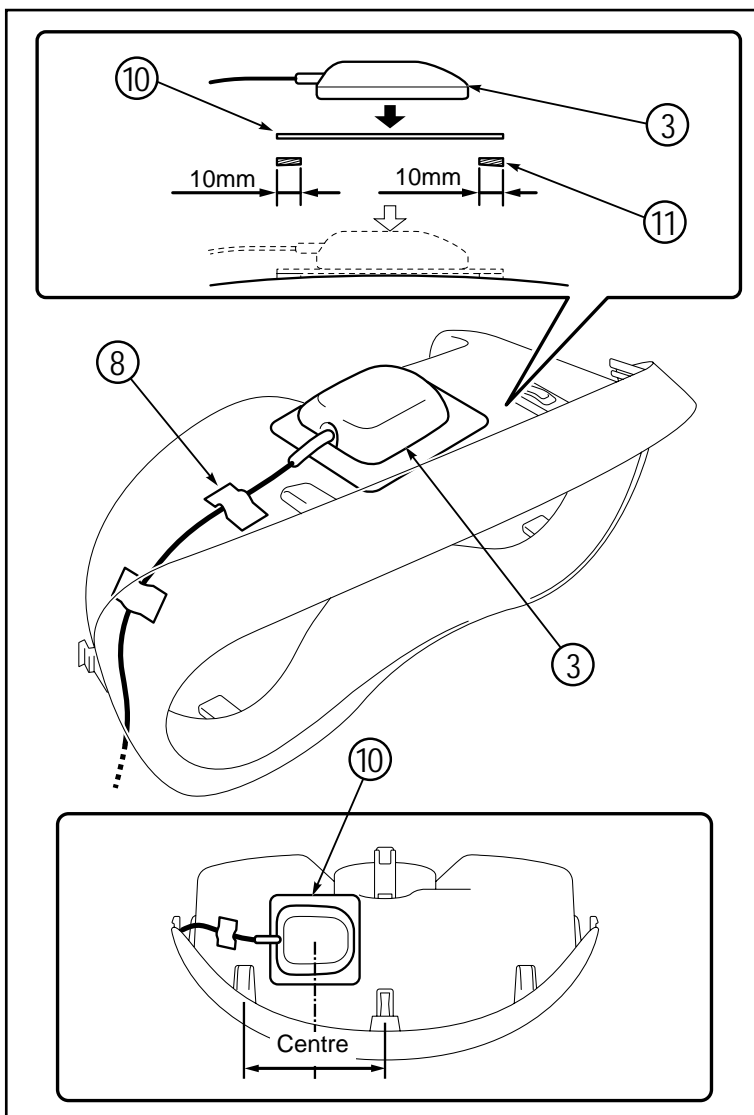
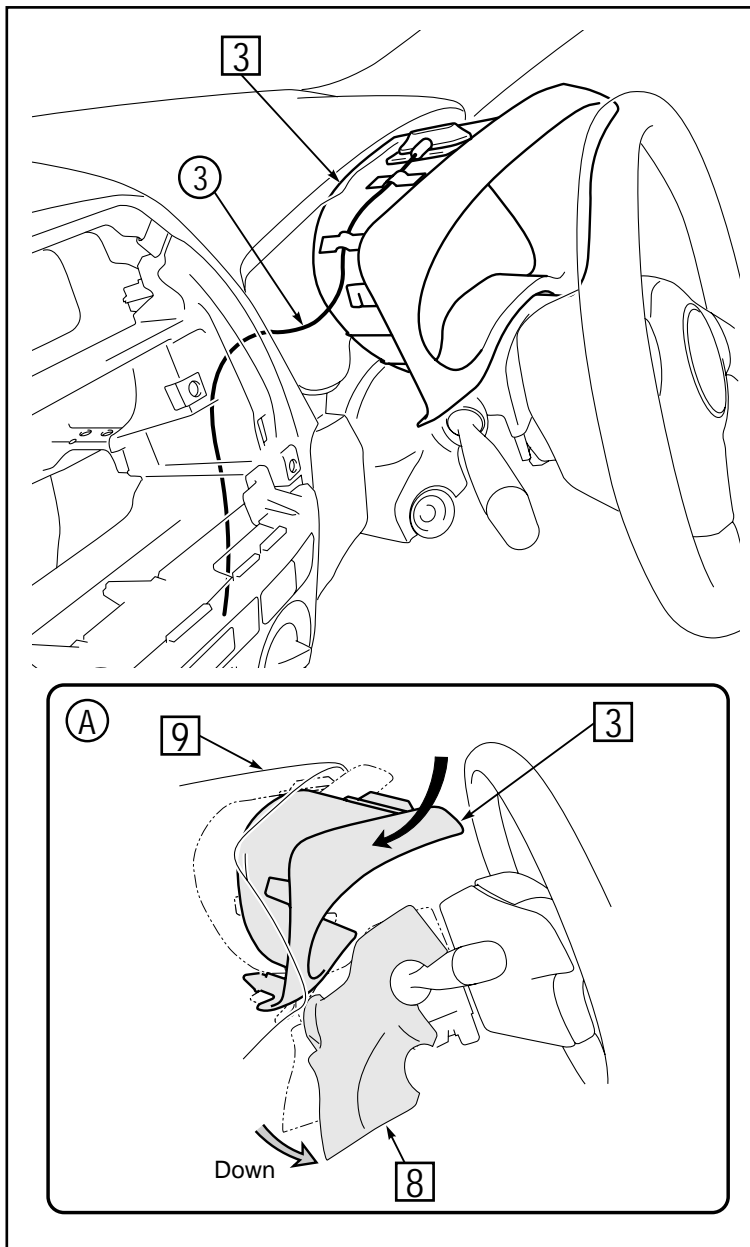


Fig. 11

2. Cut the butyl tape ⑪ into pieces of 10mm width. Remove the release paper of the earth plate ⑩ and apply the tape ⑪. Attach the earth plate ⑩ to the meter cluster panel ③ as shown and mount the GPS antenna ③ to the earth plate ⑩.

CAUTION: Clean the installation position surface before attaching the earth plate ⑩.

Fix the antenna cord using the foam ⑧ (2x).



3. Route the antenna cord (3) as shown in the illustration.
4. According to the illustration (A), push down the lower steering column cover (8), and return the meter cluster (3) to its original position, without rubbing the GPS antenna (3) against the instrument panel (9).

CAUTION: Be careful not to slip away the GPS antenna (3) from the earth plate (10).

Fig. 12

WIRE HARNESS INSTALLATION

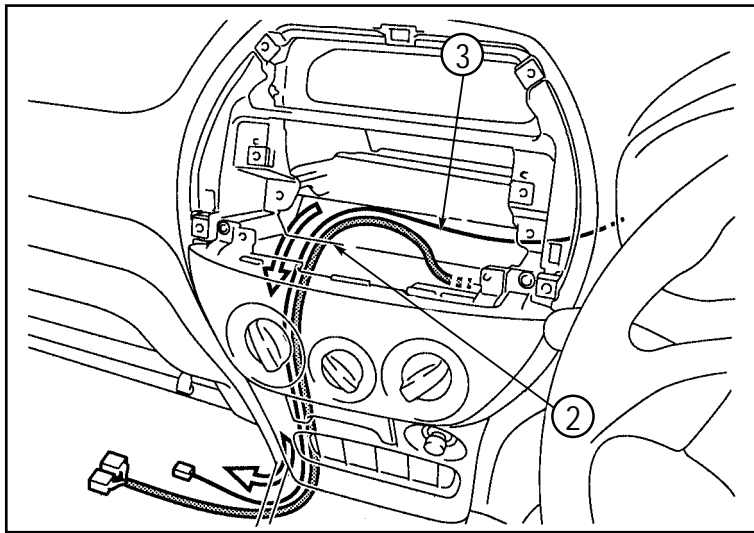


Fig. 13

1. Route the wire harness ② and GPS antenna ③ along the midconsole area to the ECU location.

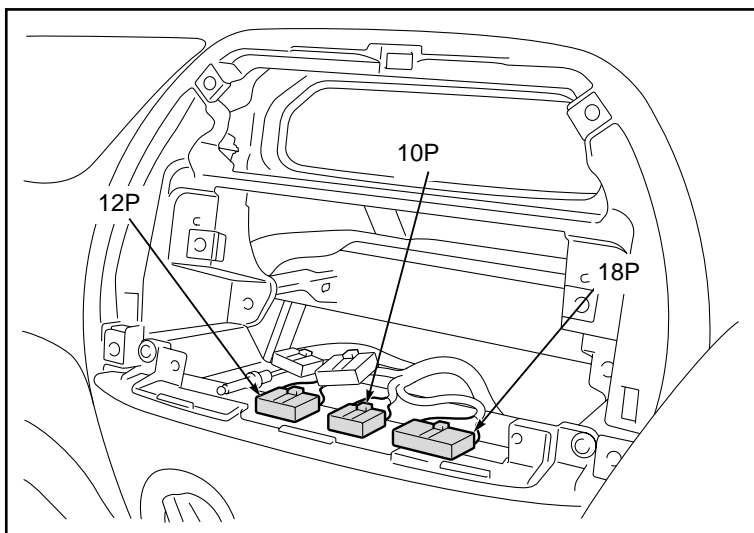


Fig. 14

2. The connectors shown in the illustration are the vehicle side connectors to be spliced.

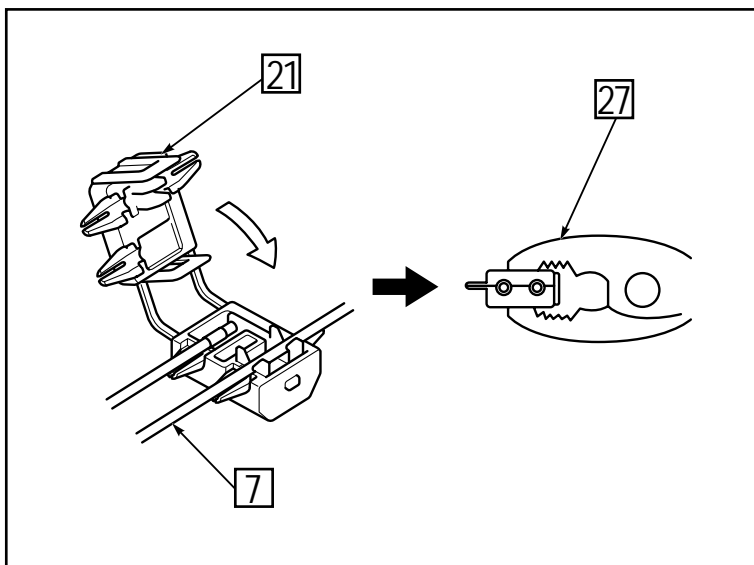


Fig. 15

WIRE SPLICING CONNECTOR INSTRUCTIONS

3.
 - a) Remove appropriate amount of tape wrapping the vehicle side harness to be connected.
 - b) Insert the vehicle harness ⑦ to be connected securely into the guide slit.
 - c) After inserting the vehicle side harness into the guide slit, fix the splicing connector ⑳, and lock it securely using a plier ㉓ until the connector clicks.

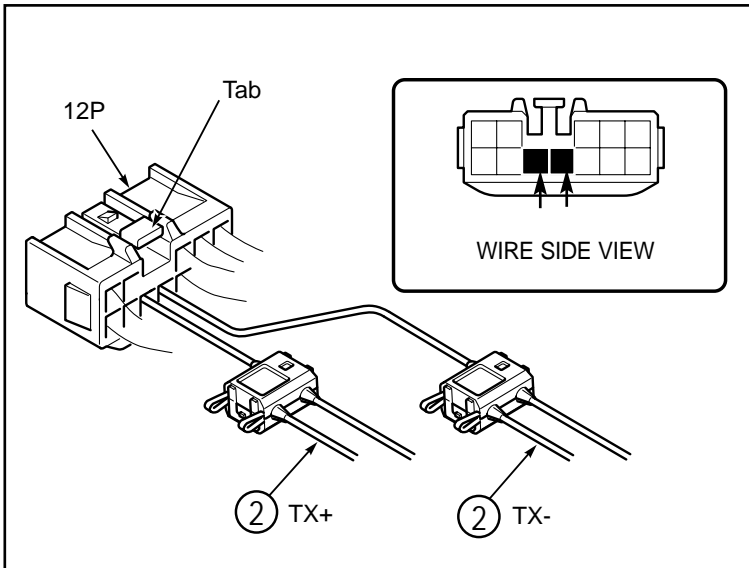


Fig. 16

TX WIRE CONNECTION

4. Connect the TX(-) wire of the wire harness ② to the vehicle side 12P connector terminal 9.
Connect the TX(+) wire of the wire harness ② to the vehicle side 12P connector terminal 10.

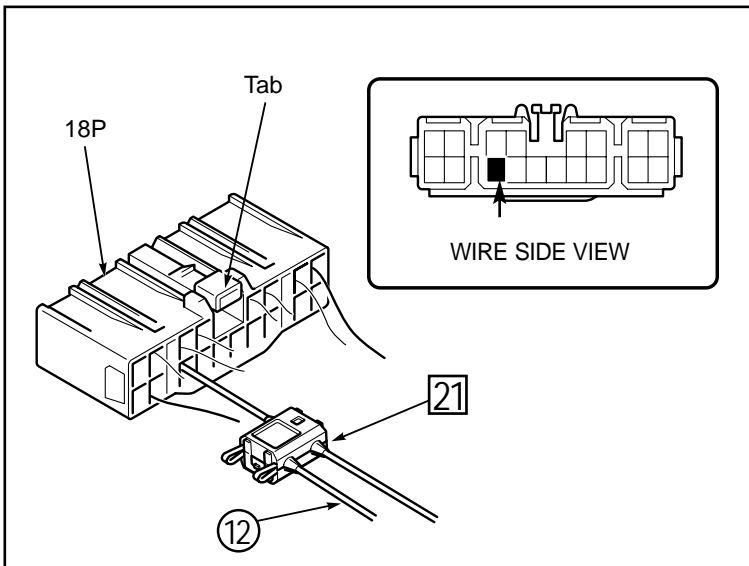


Fig. 17

SPEED SENSOR CONNECTION

5. Connect the speed sensor wire (violet/white) ⑫ of the wire harness ② to the vehicle side 18P connector terminal 16.

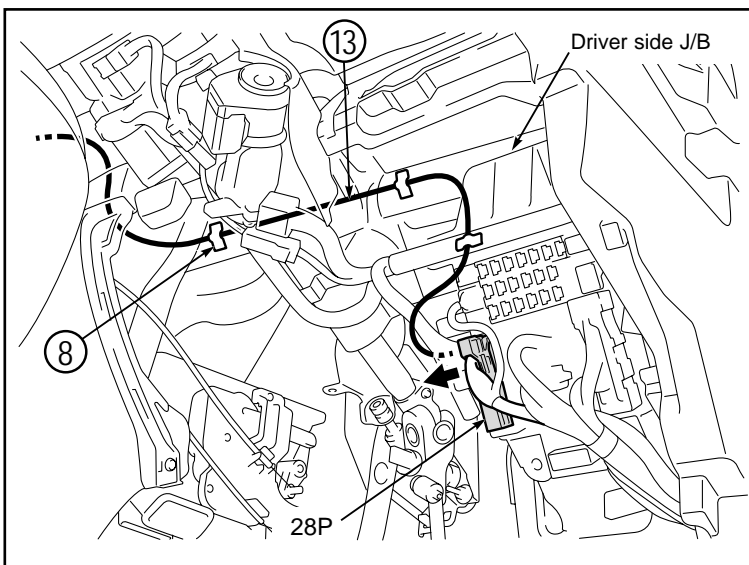


Fig. 18

REVERSE SENSOR CONNECTION

6. Route the reverse sensor wire (red/blue) ⑬ as shown in the illustration, and attach the reverse sensor wire ⑬ using the foam ⑧ (3x).

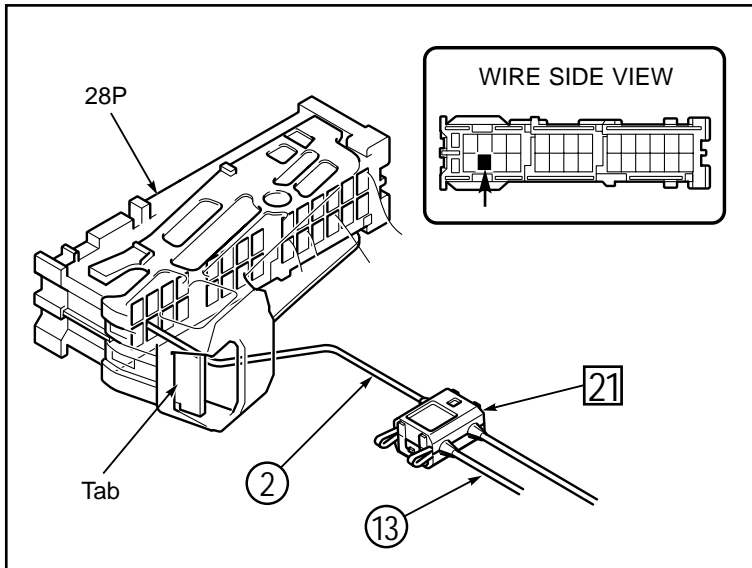


Fig. 19

7. Connect the reverse sensor wire ⑬ of the wire harness ② to the 28P connector terminal 27.
8. Reconnect the 28P connector to the driver's side J/B.

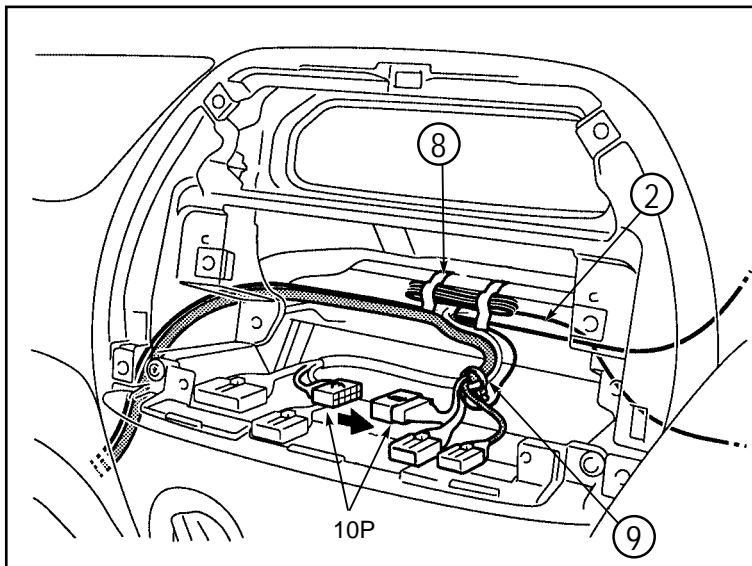


Fig. 20

9. Connect the wire harness ② 10P connector to the vehicle side 10P connector.
Attach the wire harness ② to the vehicle wire harness using the wire tie ⑨ (1x).
Attach the extra length of the wire harness ② (speed sensor wire and reverse sensor wire) as shown in the illustration using the foam ⑧ (2x).

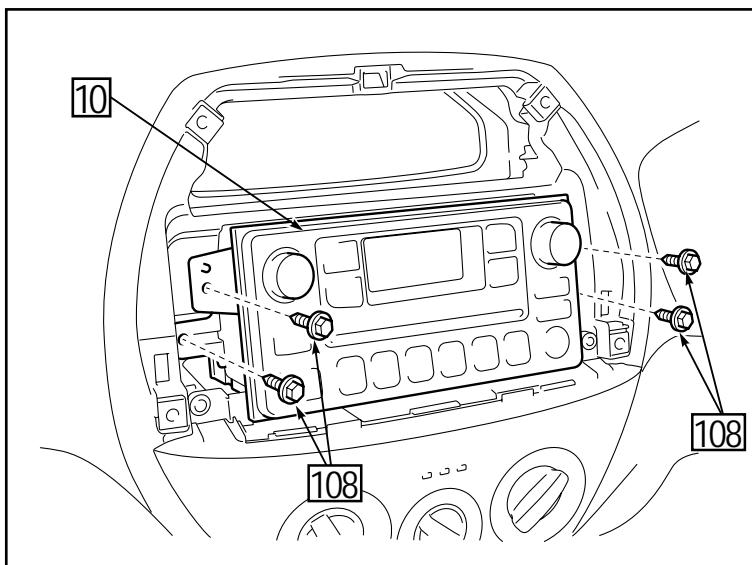


Fig. 21

10. Refit the CD (Cassette) tuner with multi display ⑩.
⑩⑧: Bolt (4x)

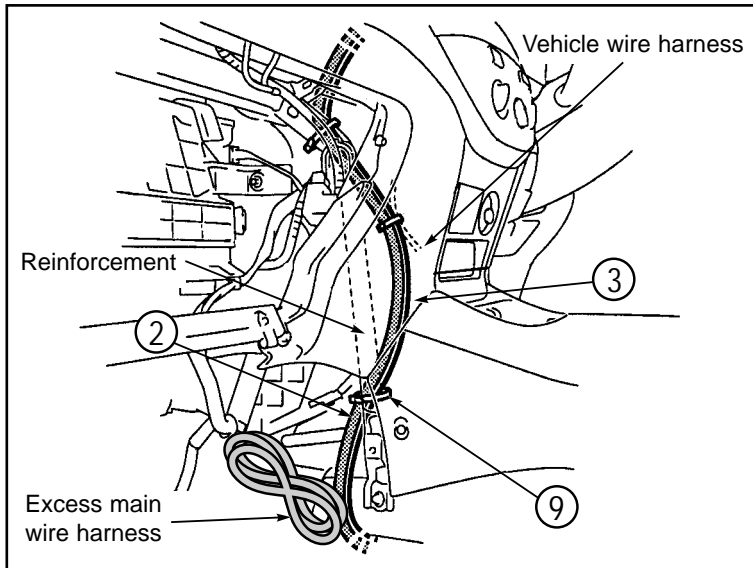


Fig. 22

11. Attach the wire harness ② and antenna cord ③ to the reinforcement using the wire ties ⑨ (3x).

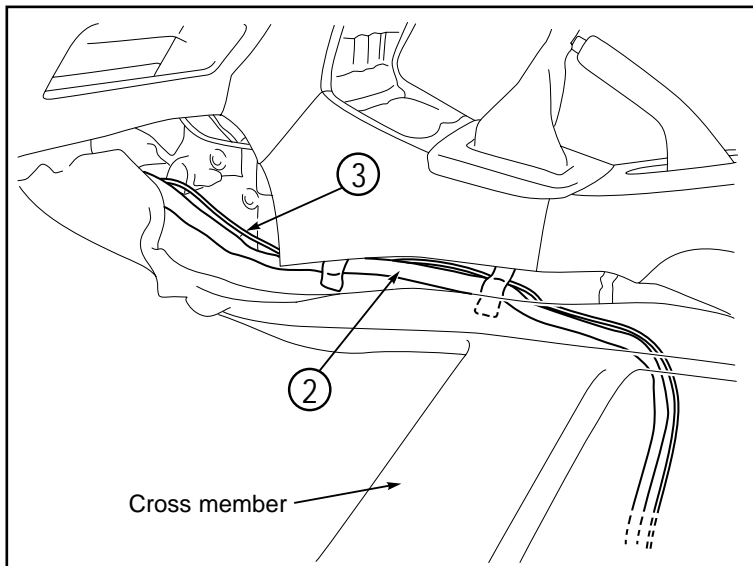


Fig. 23

12. Route the main wire harness ② and antenna cord ③ along the midconsole and then under the carpet behind the cross member.

INSTALLATION OF THE COMPUTER

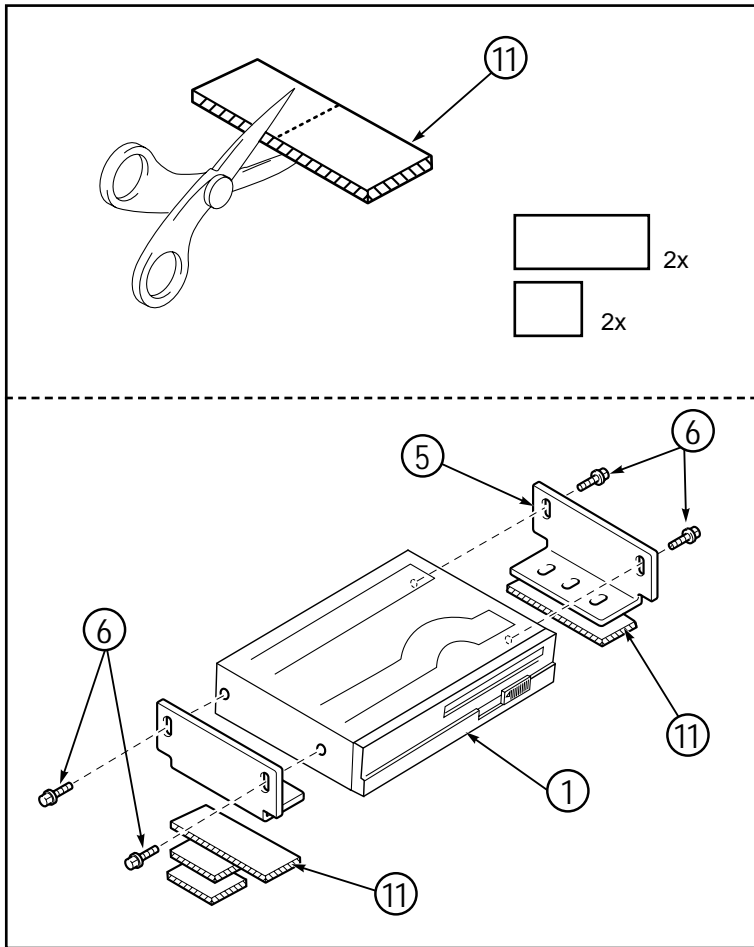


Fig. 24

1. Cut the butyl tape ⑪ into 2 large pieces and 2 small pieces as shown. Attach the butyl tape ⑪ to the bottom of the brackets ⑤.

CAUTION: Do not remove the release paper on the bottom of the butyl tape ⑪ yet.

⑥: Bolt (4x)

2. Temporarily place the brackets ⑤ on the computer ①.

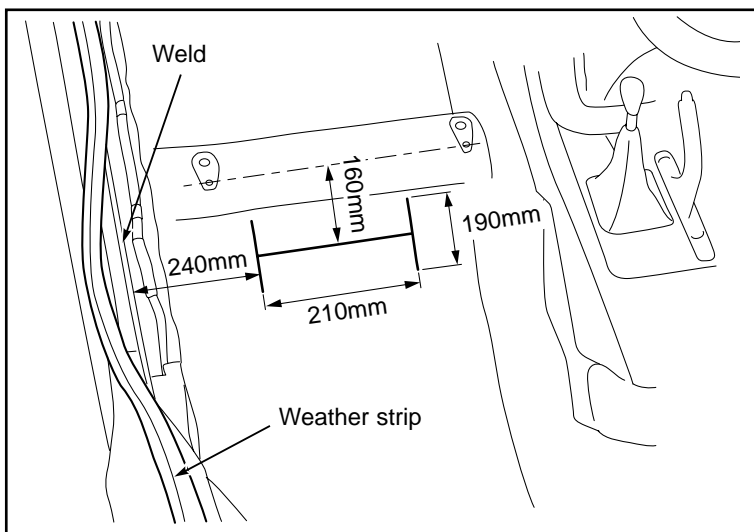


Fig. 25

3.
 - a) Partially remove the weather strip.
 - b) Make a slit in the carpet at the computer installation area as shown in the illustration.

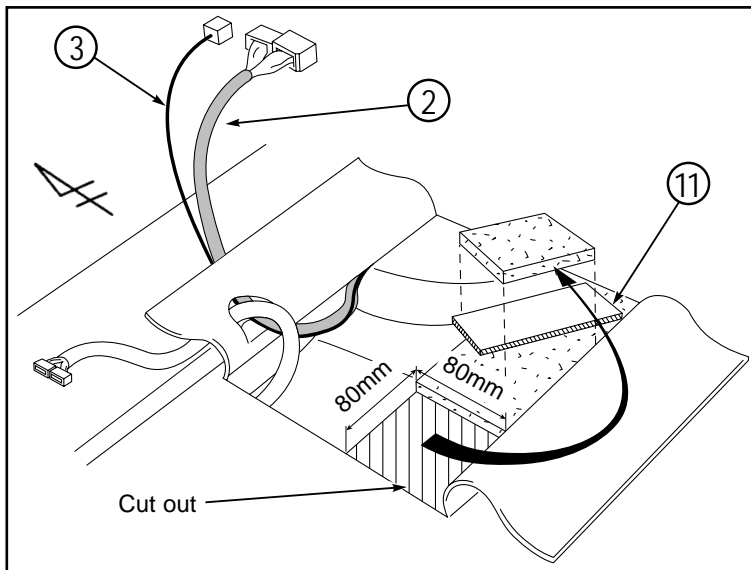


Fig. 26

4.
 - a) Route the main wire harness ② through the carpet.
 - b) Attach the butyl tape ⑪ to the vehicle floor as shown.
 - c) Cut out the insulation mat according to the dimensions indicated and put it on top of the butyl tape ⑪.

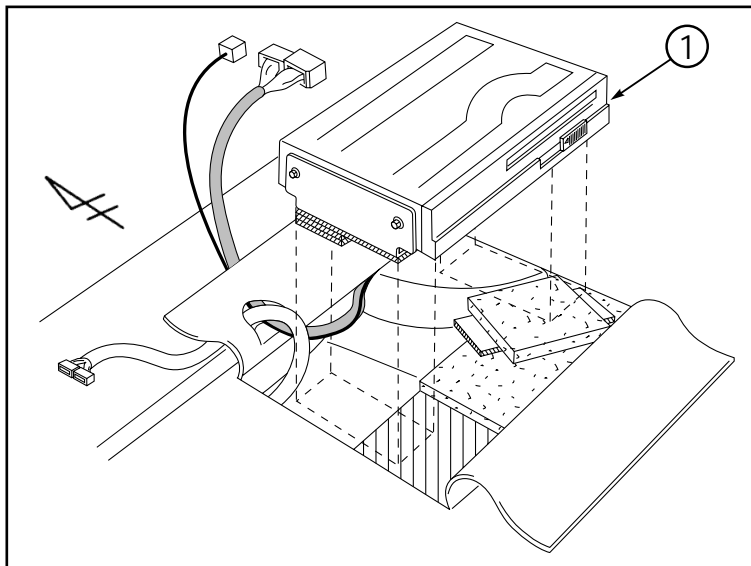
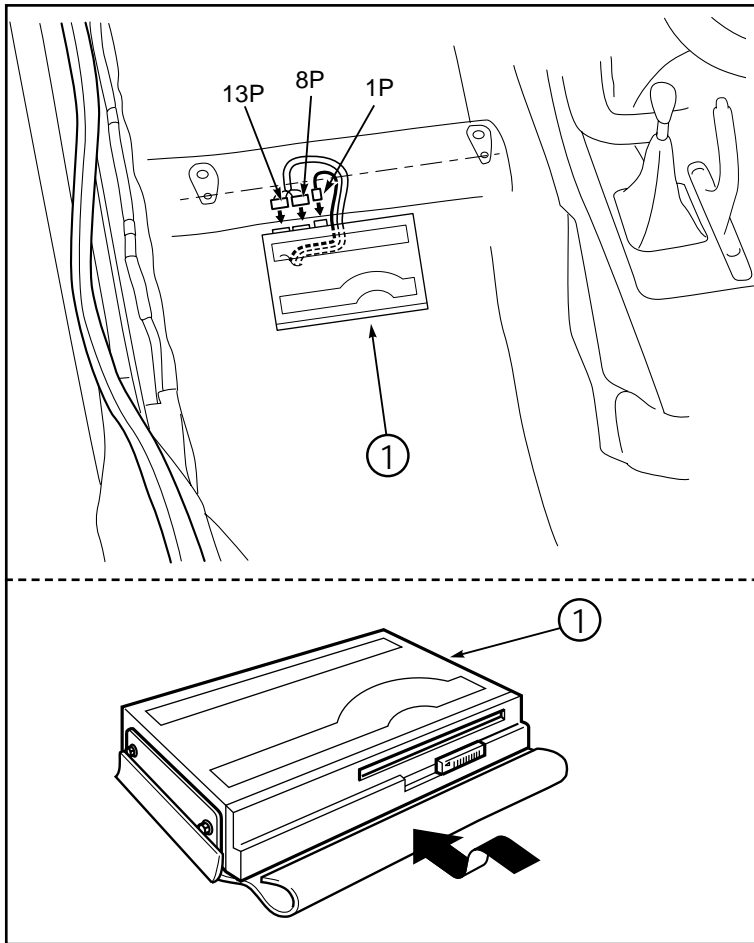


Fig. 27

5. Fit the computer ① to the slit as shown.

CAUTION: When affixing the computer ①, make sure to carefully wipe off any dirt, moisture or oil from the surface of the location where it is to be affixed.



6. Connect the 1P connector (GPS antenna ③), 8P connector and 13P connector (wire harness ②) to the computer ①.
7. Push in the slitted carpet under the computer ①.

Fig. 28

INSTALLATION OF NAVIGATION DISC

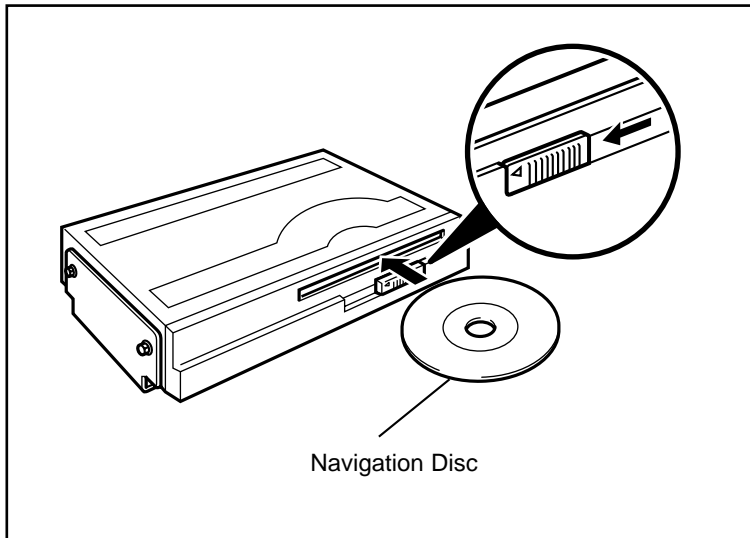


Fig. 29

1. Connect the battery and turn the ignition switch to the ACC position.
2. Slide the eject switch on the computer to the left to open the disc insertion slot.
3. With the label side of the disc facing up, insert the Navigation Disc into the disc insertion slot.
*** The disc will be pulled into the computer automatically.**
4. Slide the eject switch on the computer to the right to close the disc insertion slot.

POST-INSTALLATION INSPECTION



Installation Check

1. Inspect the wiring and installation for abnormalities.
2. Check particularly closely for any locations where the vehicle harness, wire harness or divergency harness is being pushed, pulled or pinched with excessive force. Also check again that clamps and bands have not shifted out of position and that all parts have been tightened.

Operation Check

1. Attach the (-) terminal of the battery and turn the key to the ACC or ON position or start the engine.
2. Press the NAVI switch and confirm that the navigation screen is displayed.
3. Adjust the volume by following the section on "Adjusting the Volume of the Guide Voice" in the TNS 200 Owner's Manual, and confirm that the sound from the speakers changes.
4. Perform the "auto-compensation" procedure by following the section on "When Tires are Replaced" in the TNS 200 Owner's Manual.

When an abnormality is suspected, perform troubleshooting based on the "Toyota Genuine Navigation System Service Manual".

REASSEMBLING

Return all vehicle parts that have been removed to their original locations. Especially make sure to attach trim and other interior materials properly so that they do not have a detrimental effect on the function of the vehicle. During restoration, make sure that wires are not pinched and all bolts and screws are tightened.

**ENSURE THAT ALL REMOVED CONNECTORS
ARE PUT BACK CORRECTLY.**

REFIT THE TRIM AND REMOVED PARTS.

NOTES



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NOTES



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NOTES



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TOYOTA
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