AUDIO SYSTEM

SPECIFICATIONS

GENERAL SPECIFICATIONS

N08NB–

Item	Specifications		
Radio			
Model	AR-4377Y	RX-330Y	RX-321Y
Receiving band	AM/FM	AM/FM	AM/FM
Tape player			
Model	—		
Speaker			
Instrument panel			
Model	SR-10WZ4-UKB	SR-10WZ4-UKB	SR-10WZ4-UKB
Rated input power	15W (Max. 20W)	15W (Max. 20W)	15W (Max. 20W)
Center pillar trim			
Model	SR-16SA4-4-DK	SR-16SA4-4-DK	SR-16SA4-4-DK
Reted input power	15W (Max. 30W)	15W (Max. 30W)	15W (Max. 30W)
Antenna type	Pole antenna	Pole antenna	Pole antenna

TROUBLESHOOTING

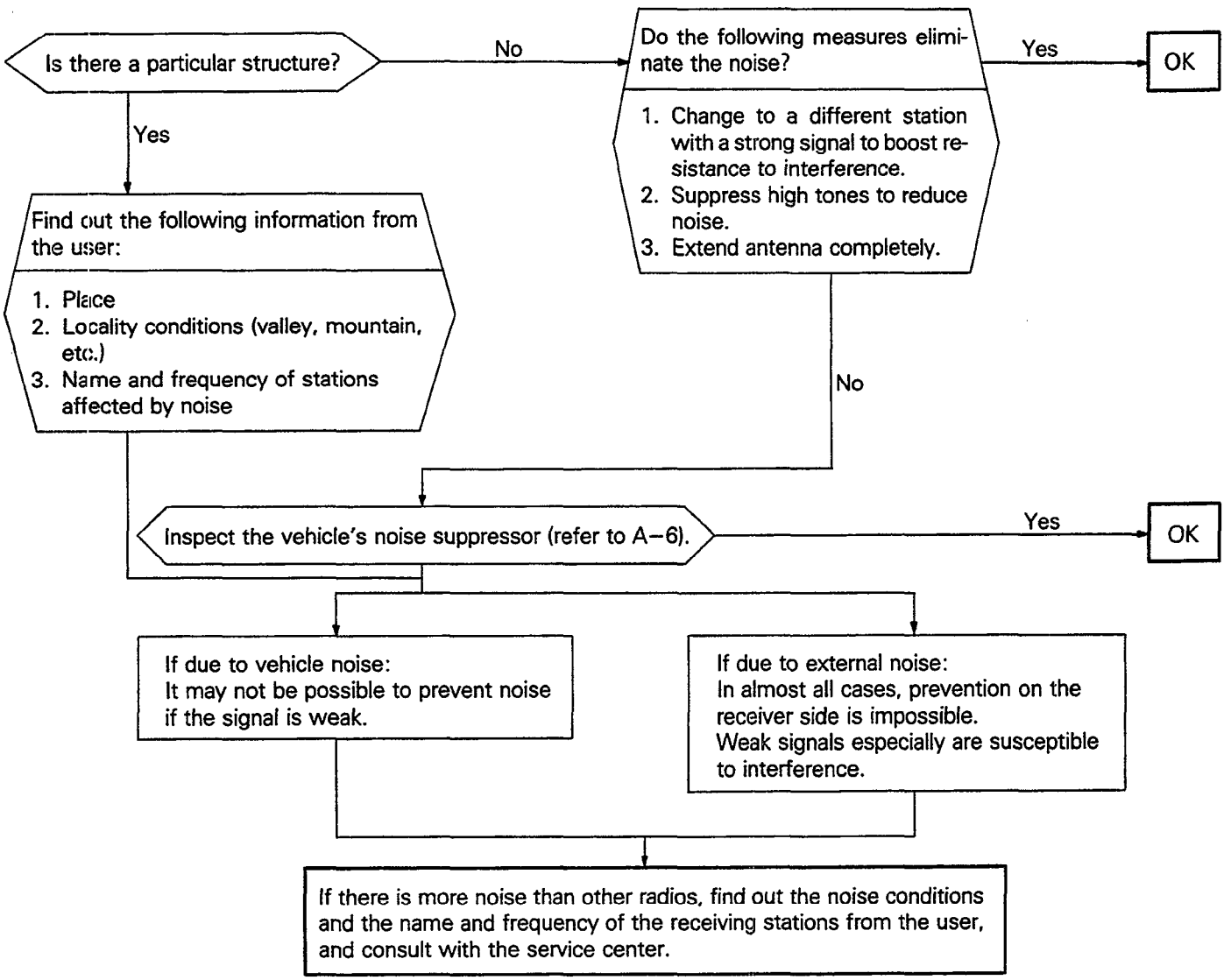
N08NHAF

Item	Problem Symptom	Relevant Chart
A. Noise	1. Noise appears at certain places when traveling (AM).	A–1
	2. Noise appears at certain places when traveling (FM).	A–2
	3. Mixed with noise, only at night (AM).	A–3
	4. Broadcasts can be heard but both AM and FM have a lot of noise.	A–4
	5. There is more noise either on AM or on FM.	A–5
	6. There is noise when starting the engine.	A–6
	7. Some noise appears when there is vibration or shocks during traveling.	A–7
	8. Noise sometimes appears on FM during traveling.	A–8
	9. Ever-present noise.	A–9
B. Radio	1. No sound.	B–1
	2. No sound from one speaker.	B–2
	3. There is noise but no reception for both AM and FM.	B–3
	4. No sound from AM, or no sound from FM.	B–4
	5. Insufficient sensitivity.	B–5
	6. Distortion on AM or on both AM and FM.	B–6
	7. Distortion on FM only.	B–7
	8. Too few automatic select stations.	B–8
	9. Insufficient memory (preset stations are erased).	B–9
C. Cassette Player	1. Cassette tape will not insert.	C–1
	2. No sound.	C–2
	3. No sound from one speaker.	C–3
	4. Sound quality is poor, or sound is weak.	C–4
	5. Cassette tape will not eject.	C–5
	6. Uneven revolution. Tape speed is fast or slow.	C–6
	7. Automatic search does not work (only for models with automatic search function).	C–7
	8. Faulty auto reverse.	C–8
	9. Tape gets caught in mechanism.	C–9

CHART

A. NOISE

A–1 Noise appears at certain places when traveling (AM).



A–2 Noise appears at certain places when traveling (FM).

Do the following measures eliminate the noise?

- Change to a different station with a strong signal to boost resistance to interference.
- Suppress high tones to reduce noise.
- Extend antenna completely.

Yes → OK

No

On radios with an FM stereo switch, is noise still present when switched to monaural?

No → OK

Yes

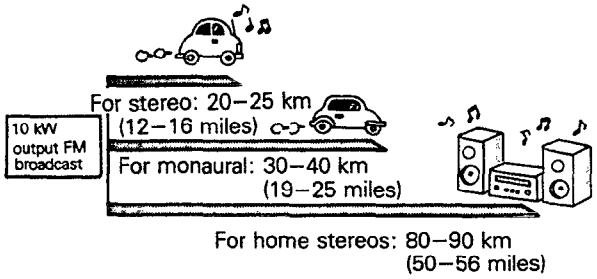
If there is more noise than other radios, find out the noise conditions and the name and frequency of the receiving stations from the user, and consult with the service center.

NOTE

- About FM waves:
  FM waves have the same properties as light, and can be deflected and blocked. Wave reception is not possible in the shadow of obstructions such as buildings or mountains.

1. The signal becomes weak as the distance from the station's transmission antenna increases. Although this may vary according to the signal strength of the transmitting station and intervening geographical formations or buildings, the area of good reception is approx. 20–25 km (12–16 miles) for stereo reception, and 30–40 km (19–25 miles) for monaural reception.
2. The signal becomes weak when an area of shadow from the transmitting antenna (places where there are obstructions such as mountains or buildings between the antenna and the car), and noise will appear. <This is called first fading, and gives a steady buzzing noise.>
3. If a direct signal hits the antenna at the same time as a signal reflected by obstructions such as mountains or buildings, interference of the two signals will generate noise. During traveling, noise will appear each time the vehicle's antenna passes through this kind of obstructed area. The strength and interval of the noise varies according to the signal strength and the conditions of deflection. <This is called multipath noise, and is a repetitious buzzing.>
4. Since FM stereo transmission and reception has a weaker field than monaural, it is often accompanied by a hissing noise.

FM Broadcast Good Reception Areas



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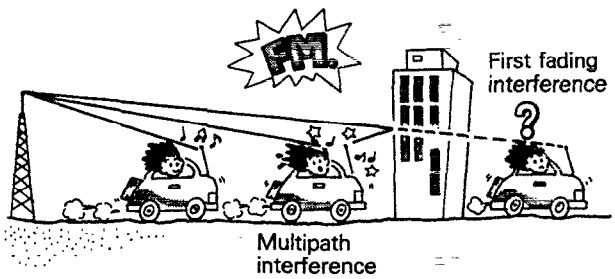
FM Signal Characteristics and Signal Interference



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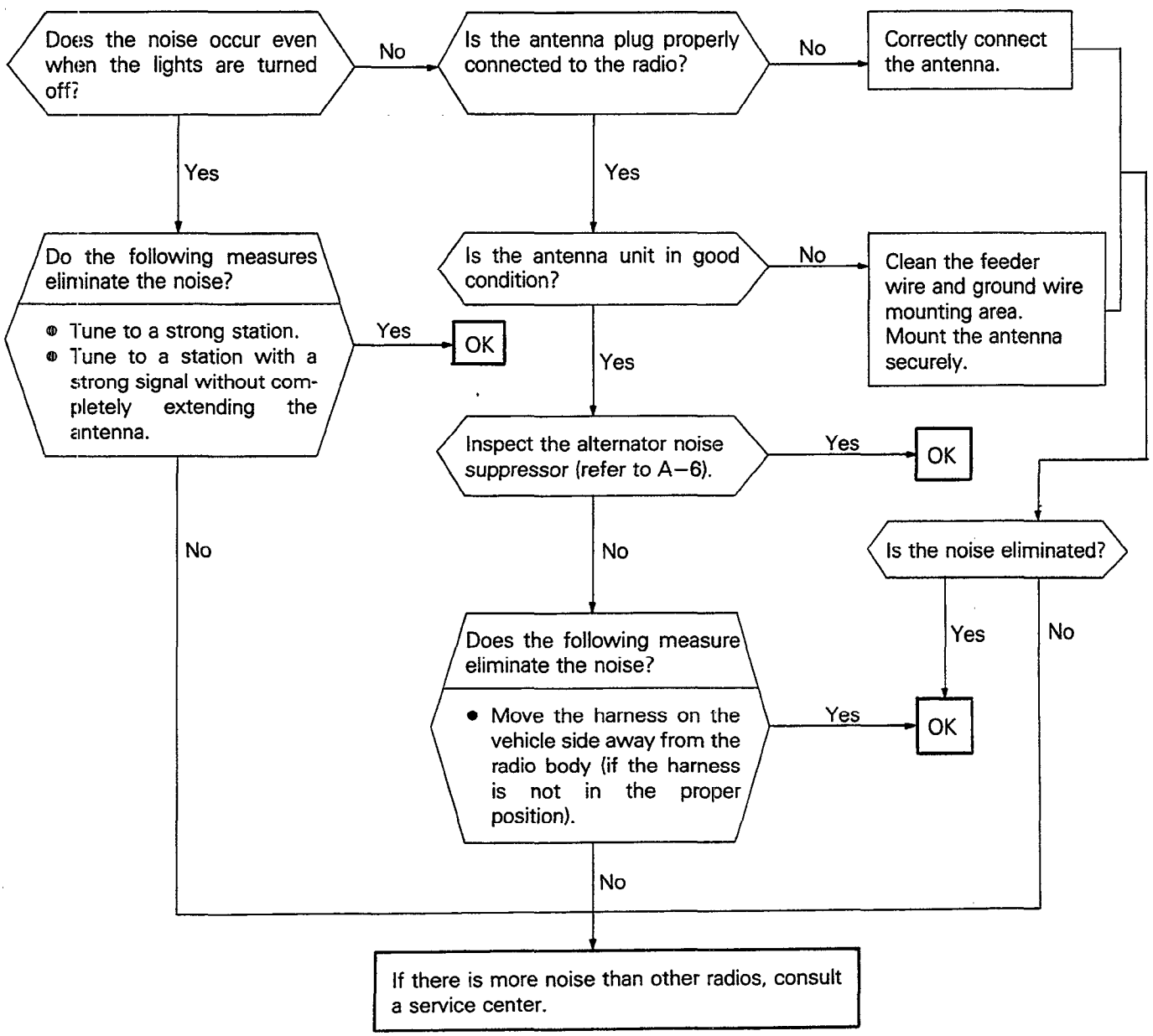
TSB Revision

A–3	**Mixed with noise, only at night (AM).**

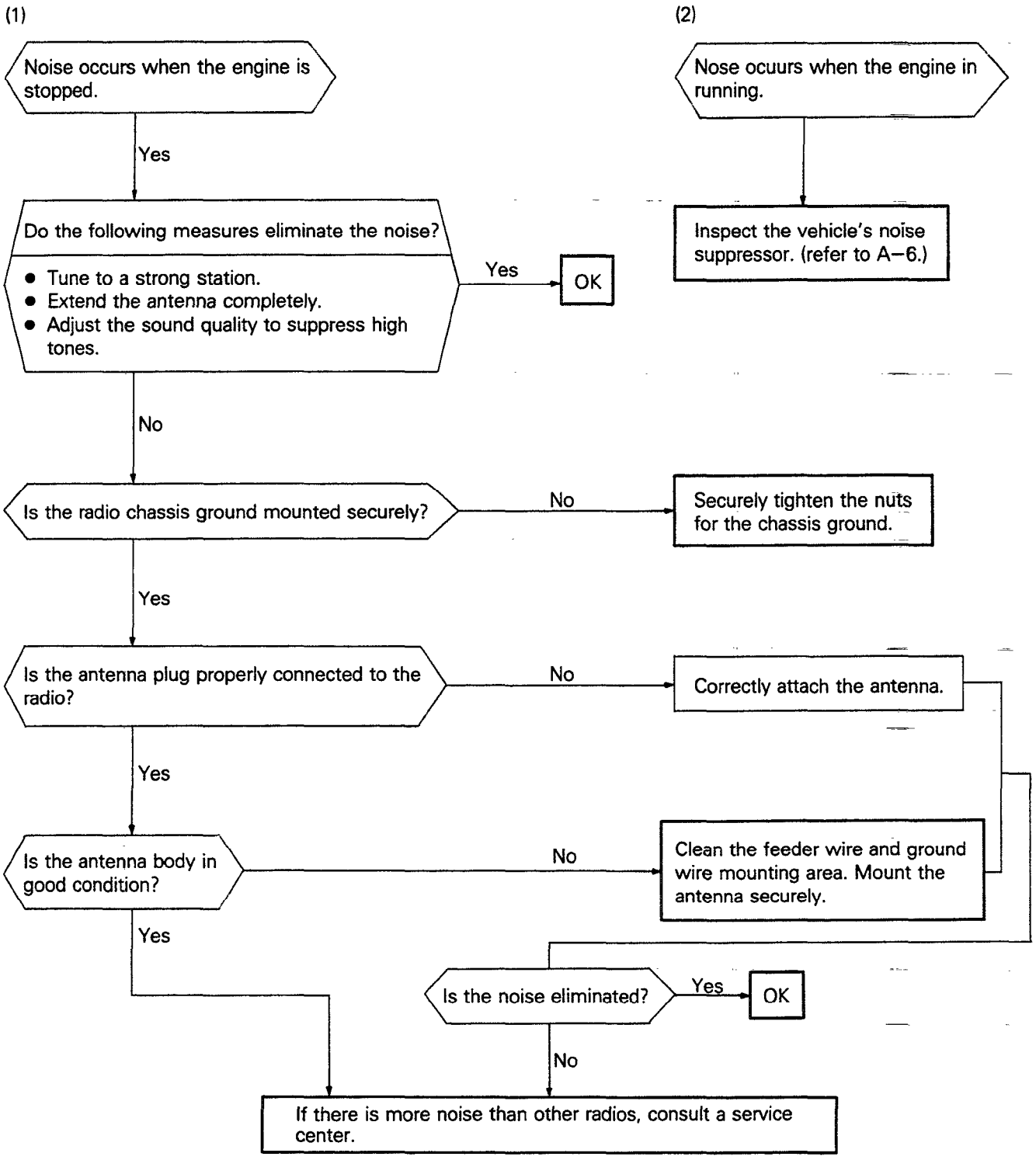
The following factors can be considered as possible causes of noise appearing at night.

1. Factors due to signal conditions: Due to the fact that long-distance signals are more easily received at night, even stations that are received without problem during the day may experience interference in a general worsening of reception conditions.
   The weaker a station is the more susceptible it is to interference, and a change to a different station or the appearance of a beating sound* may occur.
   *Beat sound: Two signals close in frequency interfere with each other, creating a repetitious high-pitched sound. This sound is generated not only by sound signals but by electrical waves as well.
2. Factors due to vehicle noise : Alternator noise may be a cause.



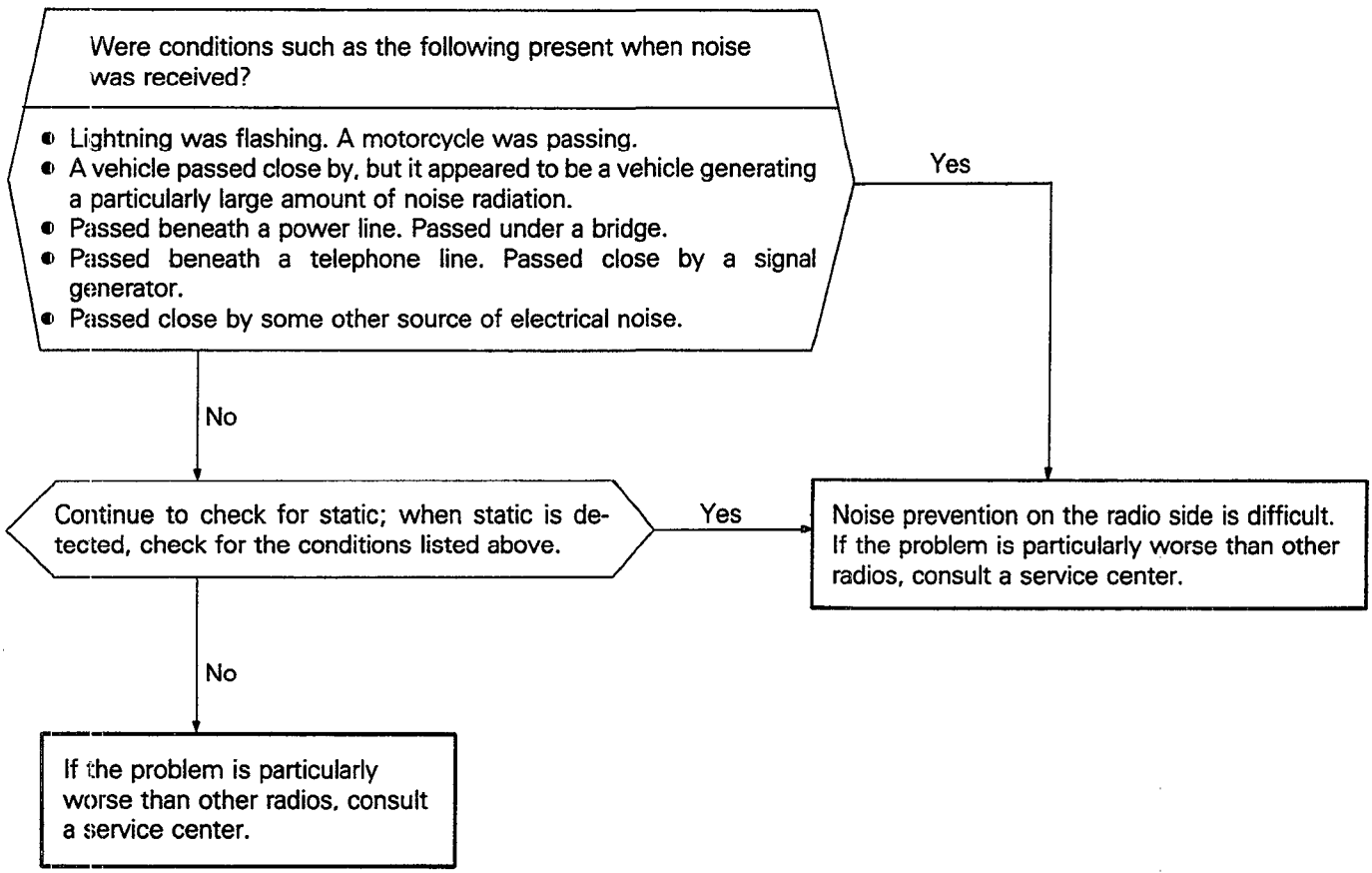
TSB Revision

A–4	**Broadcasts can be heard but both AM and FM have a lot of noise.**



A–5	**There is more noise either on AM or on FM.**

1. There is much noise only on AM
   Due to differences in AM and FM systems, AM is more susceptible to noise interference.



2. There is much noise only on FM
   Due to differences in FM and AM systems, FM is not as susceptible as AM to interference from engines, power lines, lightning, etc. On the other hand, there are cases due to the characteristics of FM waves of noise or distortion generated by typical noise interference (first fading and multipath). (Refer to A–2)
   <Noise (hissing) occurs in weak signal areas such as mountainous regions, but this is not due to a problem with the radio.>

A–6 There is noise when starting the engine.

Noise type Sounds are in parentheses ( )	Conditions	Cause	Response
AM, FM: Ignition noise (Popping, Snapping Crackling, Buzzing)	• Increasing the engine speed causing the popping sound to speed up, and volume decreases. • Disappears when the ignition switch is turned to ACC.	• Mainly due to the spark plugs. • Due to the engine noise.	• Noise filter • Noise condenser • Ground cable
AM, FM: Alternator noise (AM, FM) (Swishing)	• Noise becomes higher as engine speed increases, and in many cases is not present at idle speed.	• Due to ripples* contained in the voltage produced by the alternator. * The amount of fluctuation in voltage during full wave rectification of the three phase A.C. current of the alternator is called a ripple.	• Noise condenser
AM, FM: Wiper motor noise (Low-pitched buzzing Electrical buzzing)	• Appears with wiper operation and increases with wiper speed. Disappears when the wipers are stopped.	• Due to the wiper motor brushes.	• Noise filter
Other electrical components	–	Noise may appear as electrical components become older.	Repair or replace electrical components.
Static electricity (Crackling, Crinkling)	• Disappears when the vehicle is completely stopped. • Severe when the clutch is engaged.	Occurs when parts or wiring move for some reason and contact metal parts of the body.	Return parts or wiring to their proper position.
	• Various noises are produced depending on the body part of the vehicle.	Due to detachment from the body of the front hood, bumpers, exhaust pipe and muffler, suspension, etc.	Ground parts by bonding. Cases where the problem is not eliminated by a single response to one area are common, due to several body parts being imperfectly grounded.

Caution

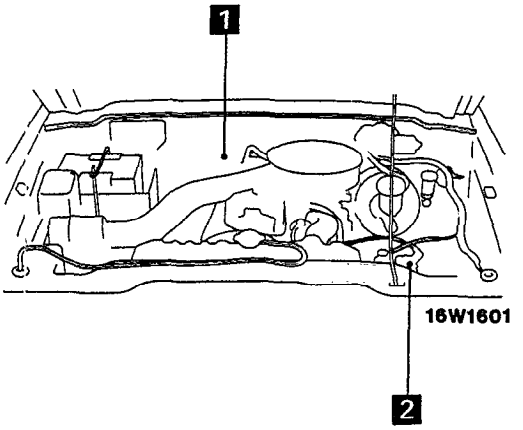
1. **Connecting a high tension cable to the noise filter may destroy the noise filter and should never be done.**
2. **Check that there is no external noise. Since failure due this may result in misdiagnosis due to inability to identify the noise source, this operation must be performed.**
3. **Noise prevention should be performed by suppressing strong sources of noise step by step.**

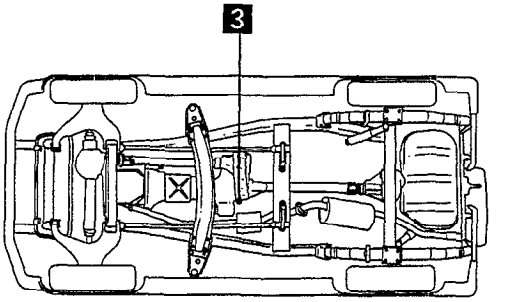
NOTE

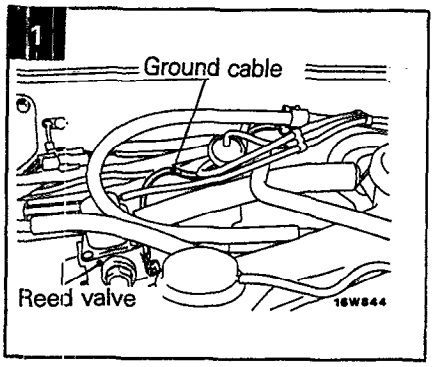
1. Condenser
   The condenser does not pass D.C. current, but as the number of waves increases when it passes A.C. current, impedance (resistance against A.C.) decreases, and current flow is facilitated. A noise suppressing condenser which takes advantage of this property is inserted between the power line for the noise source and the ground. This suppresses noise by grounding the noise component (A.C. or pulse signal) to the body of the vehicle.
2. Coil
   The coil passes D.C. current, but impedance rises as the number of waves increases relative to the A.C. current. A noise suppressing coil which takes advantage of this property is inserted into the power line for the noise source, and works by preventing the noise component from flowing or radiating out of the line.

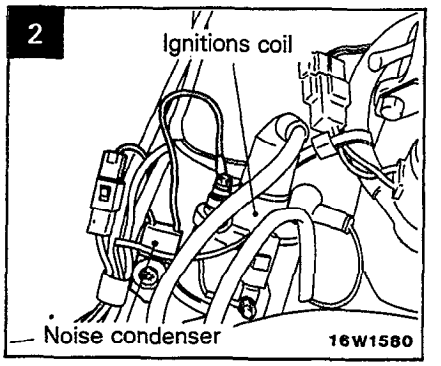
NOISE SUPPRESOR LOCATION

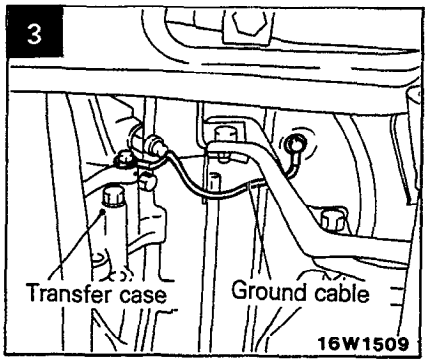
<2.6L Engine>



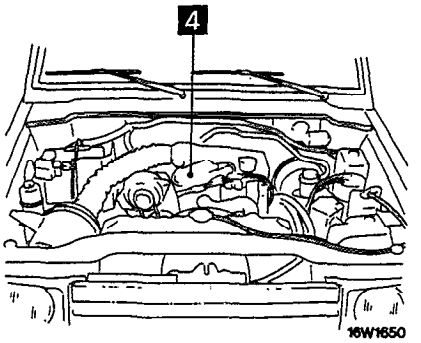


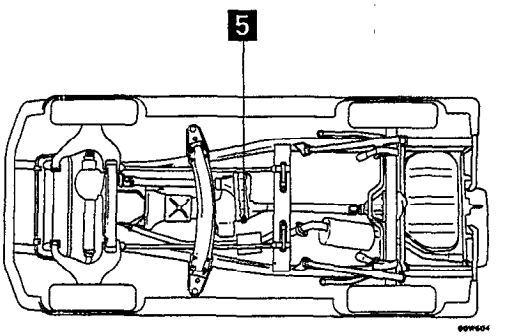


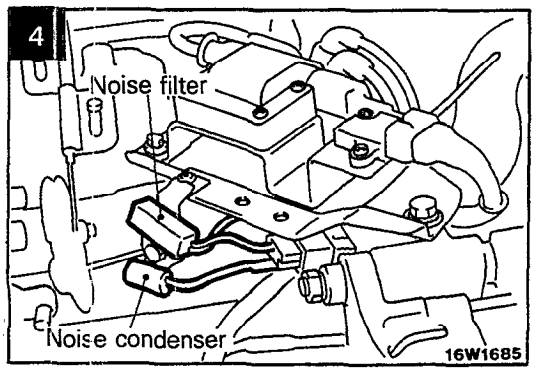


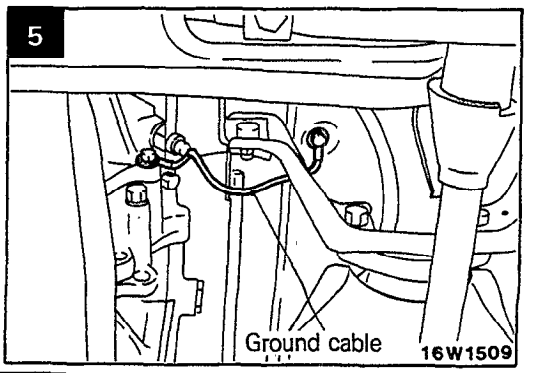


<3.0L Engine>



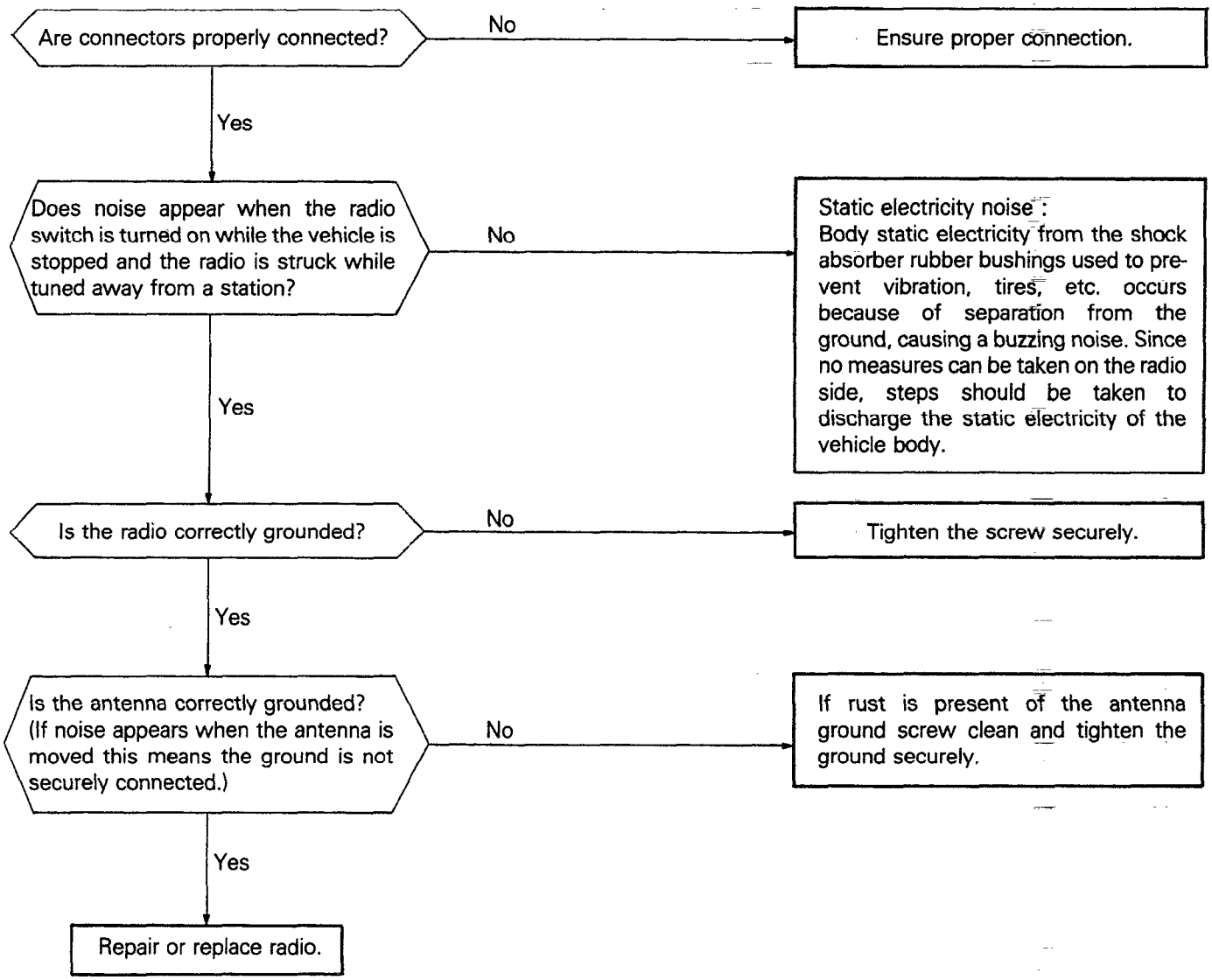




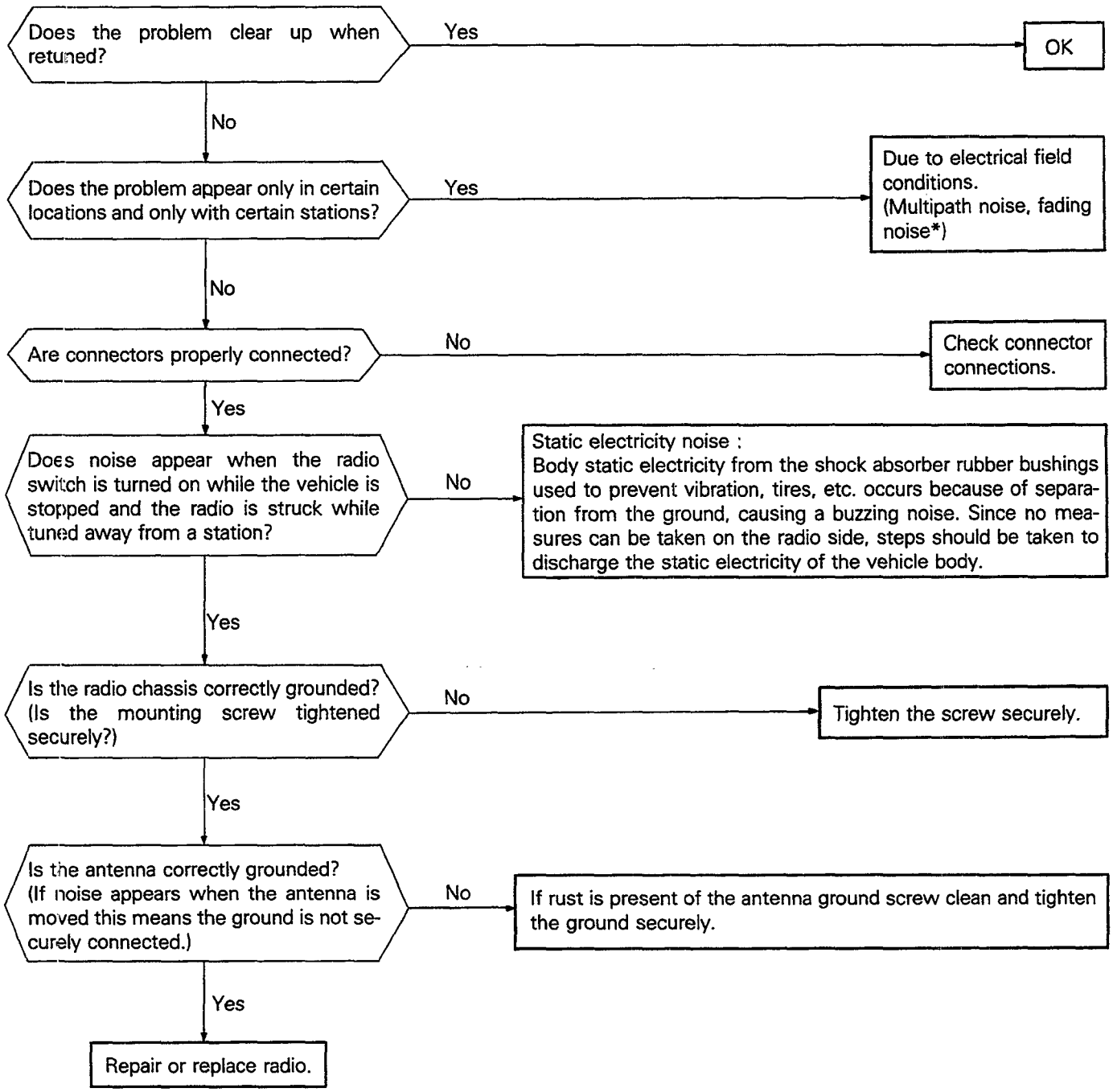


TSB Revision

A–7	**Some noise appears when there is vibration or shocks during traveling.**



A–8 Noise sometimes appears on FM during traveling.



* About multipath noise and fading noise
Because the frequency of FM waves is extremely high, it is highly susceptible to effects from geological formations and buildings. These effects disrupt the broadcast signal and obstruct reception in several ways.

- Multipath noise
  This describes the echo that occurs when the broadcast signal is reflected by a large obstruction and enters the receiver with a slight time delay relative to the direct signal. (repetitious buzzing)
- Fading noise
  This is a buzzing noise that occurs when the broadcast beam is disrupted by obstructing objects and the signal strength fluctuates intricately within a narrow range.

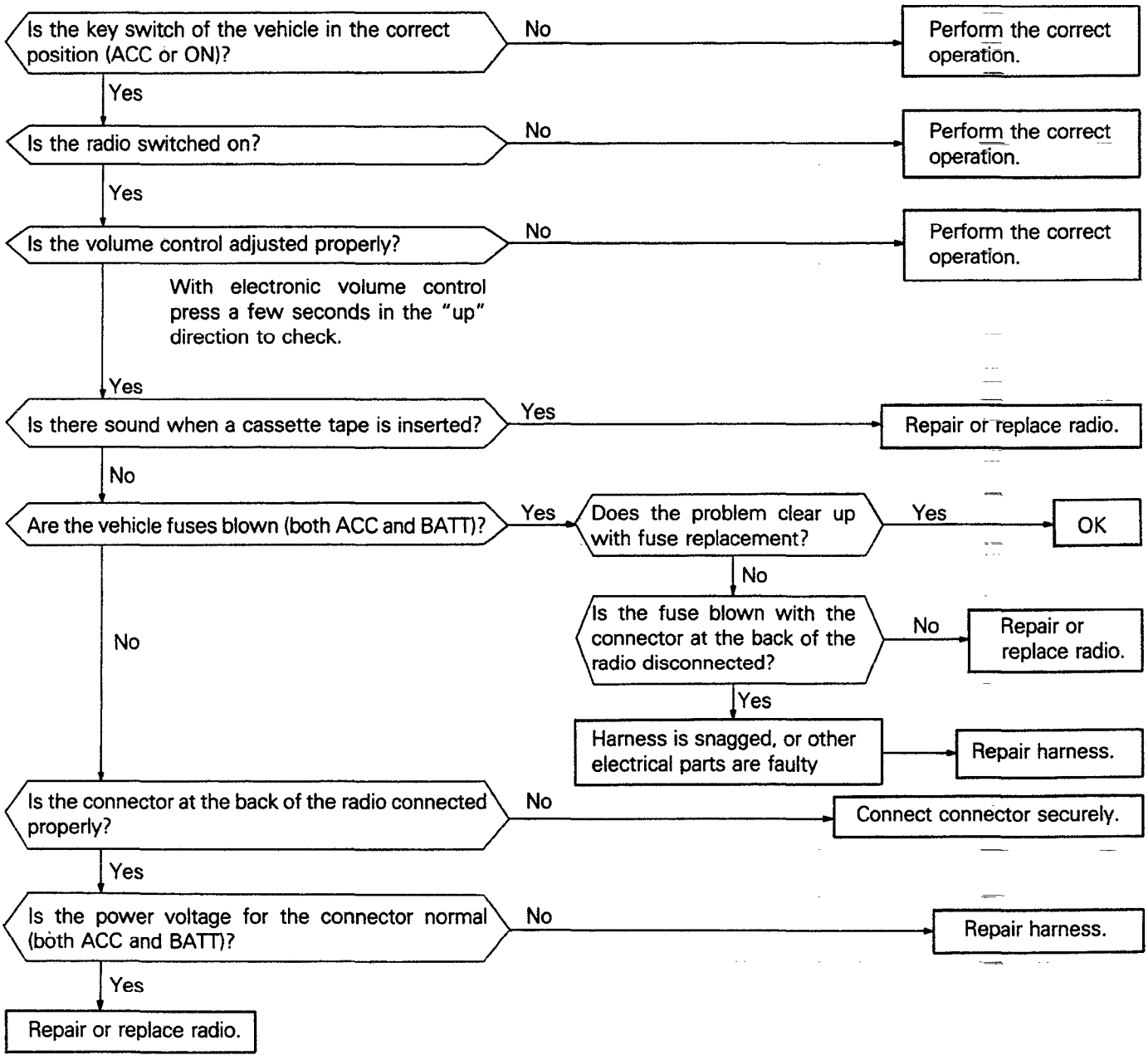
A–9	Noise.

Noise is often created by the following factors, and often the radio is OK when it is checked individually.
- Traveling conditions of the vehicle
- Terrain of area traveled through
- Surrounding buildings
- Signal conditions
- Time period

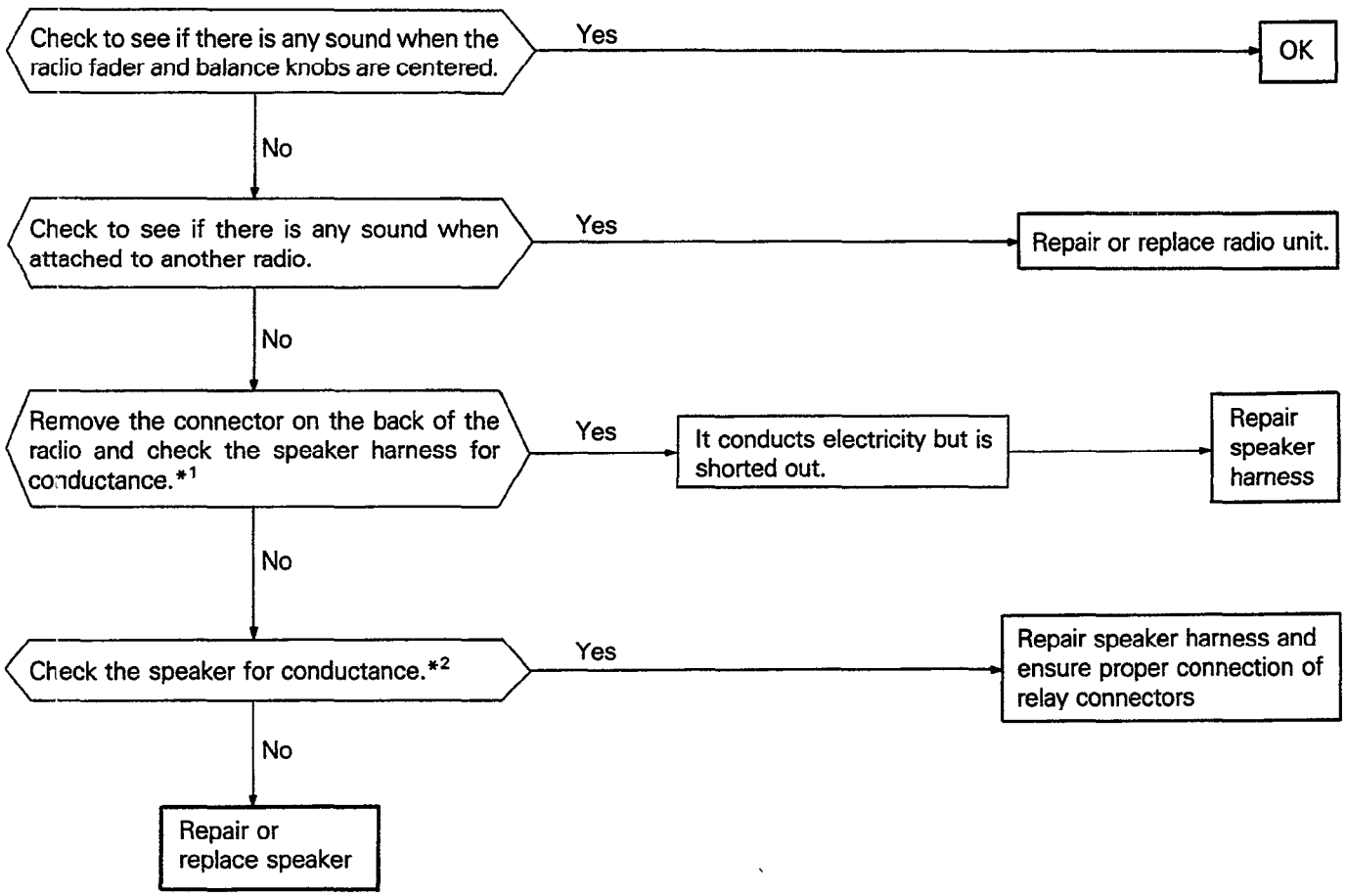
For this reason, if there are still problems with noise even after the measures described in steps A–1 to A–8 have been taken, get information on the factors listed above as well as determining whether the problem occurs with AM or FM, the station names, frequencies, etc., and contact a service center.

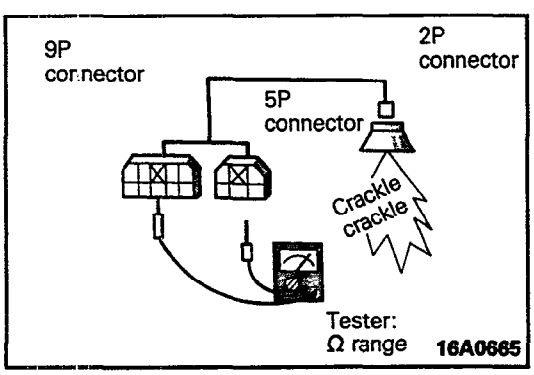
B. RADIO

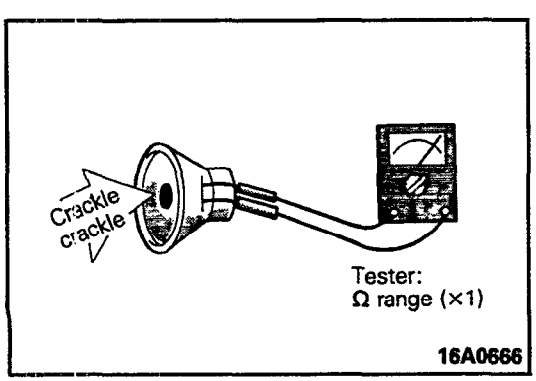
B–1	No sound.



B–2 No sound from one speaker.







***1 Conductance check method 1**

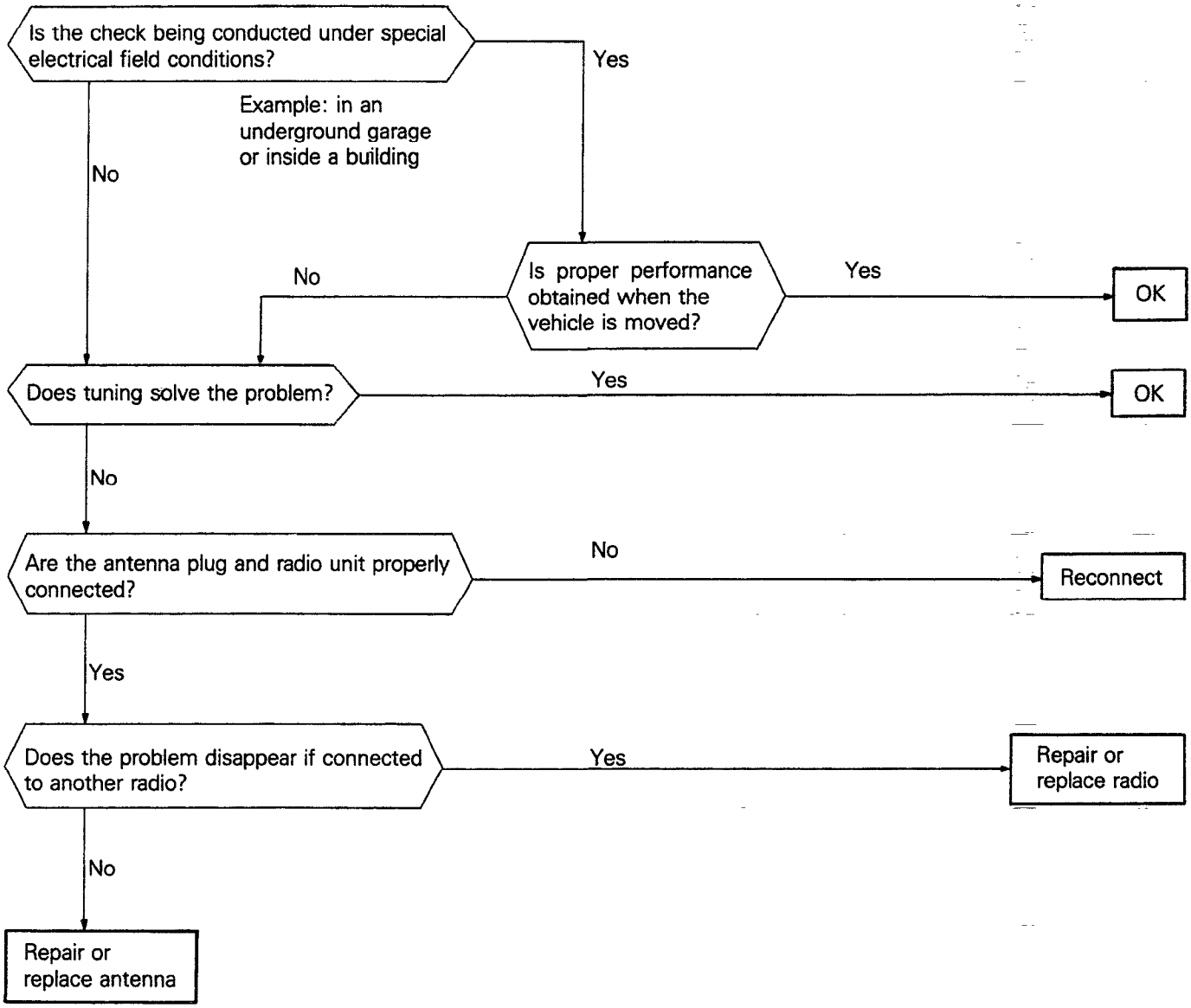
(1) Remove 9P and 5P connectors from radio.
(2) Insert test probe into connector terminal.
(Concerning speaker connector, refer to pages 8–250 and 252.)

	Check result		
Determination	Normal	Malfunction	Malfunction
Resistance (Ω)	4	Near 0	Test needle doesn't move
Condition	Speaker crackles	When there is no sound from the speaker, it is shorted out.	No sound from speaker, burns out

***2 Conductance check method 2**

(1) Remove the speaker 2P connector
(2) Insert the test probe into the connector terminal
(3) Refer the results to the above chart

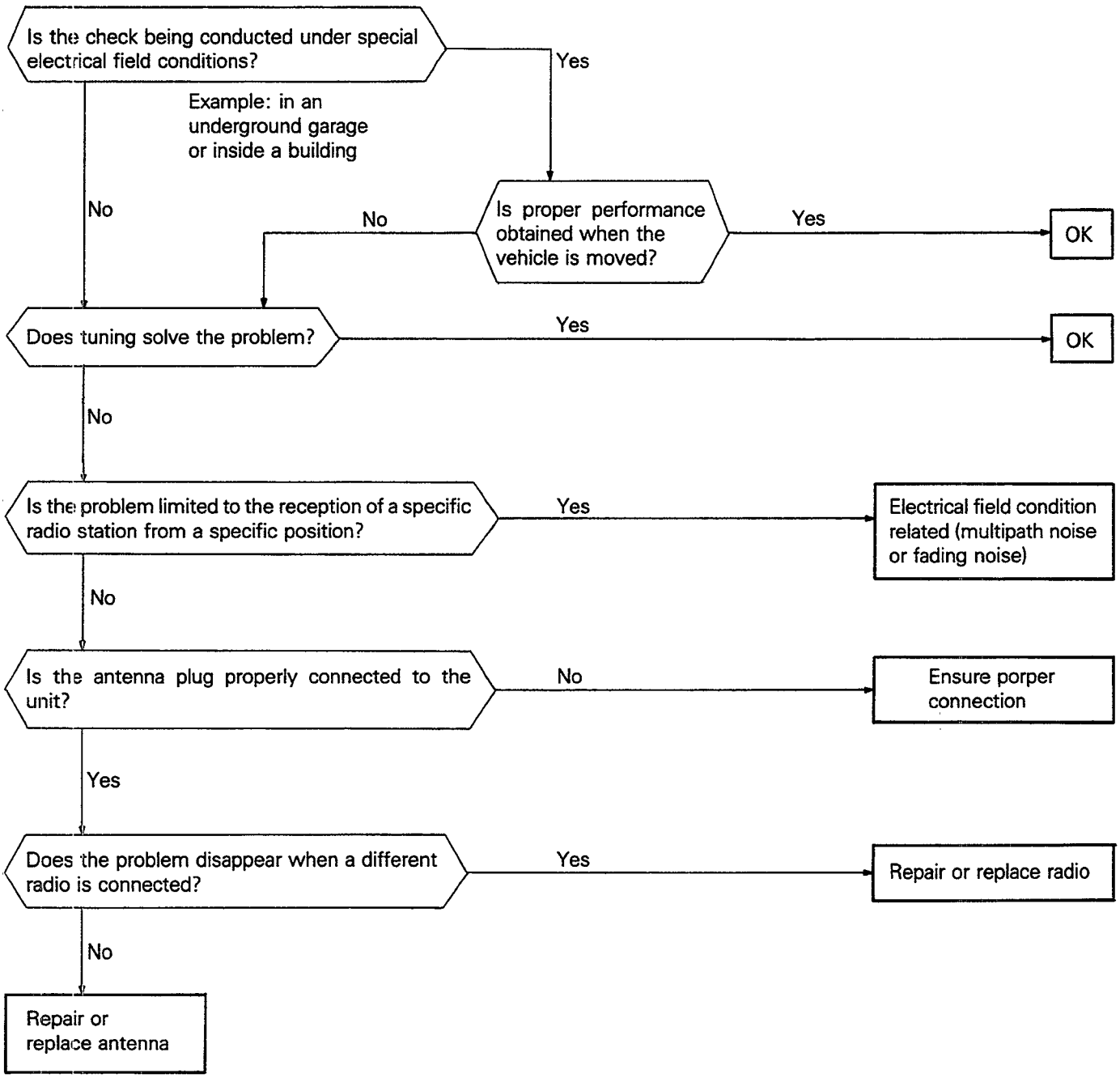
B–3	There is noise but no reception for both AM and FM.



B–4	No sound from AM, or no sound from FM.

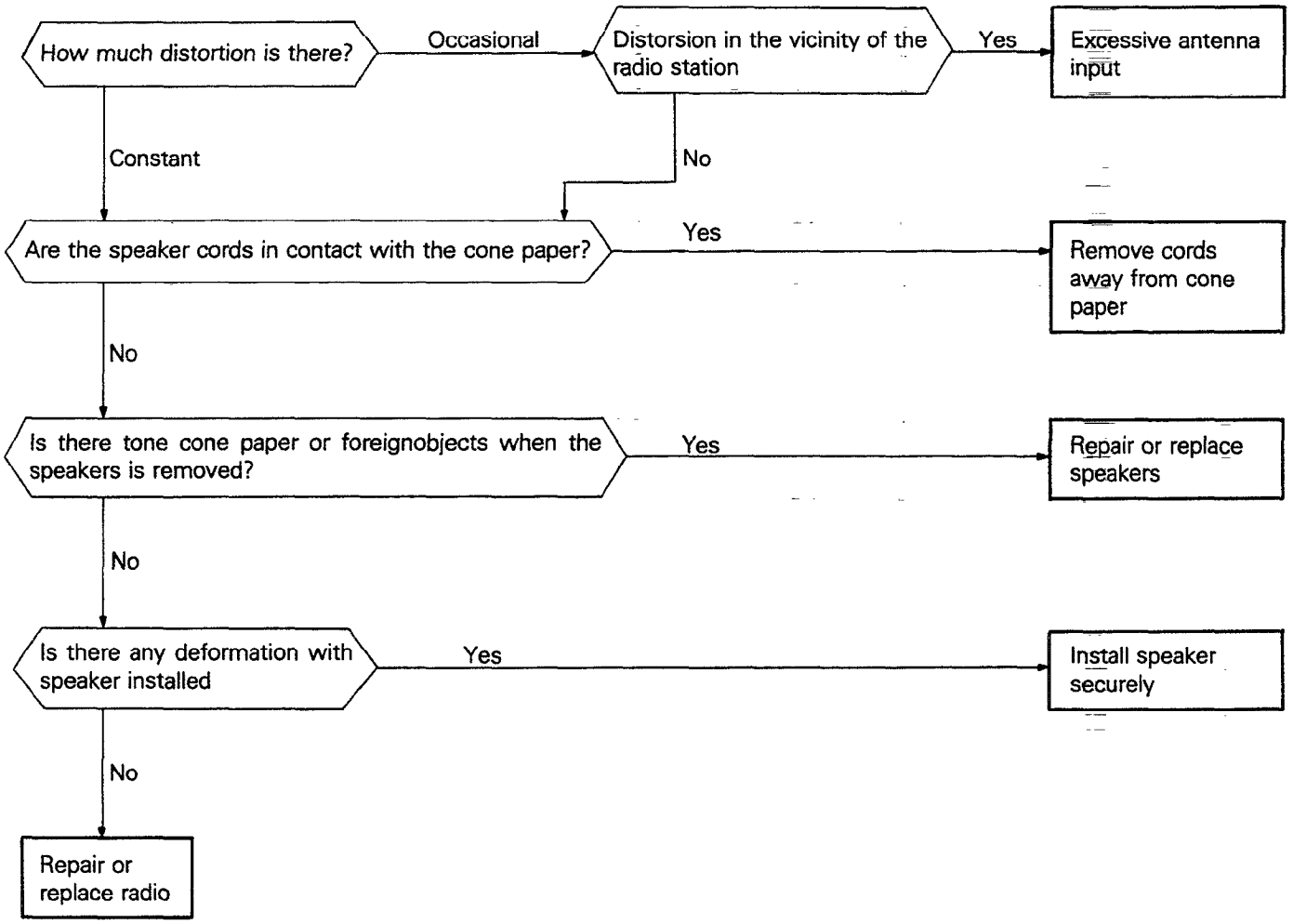
Refer to B–3.

B–5	Insufficient sensitivity.

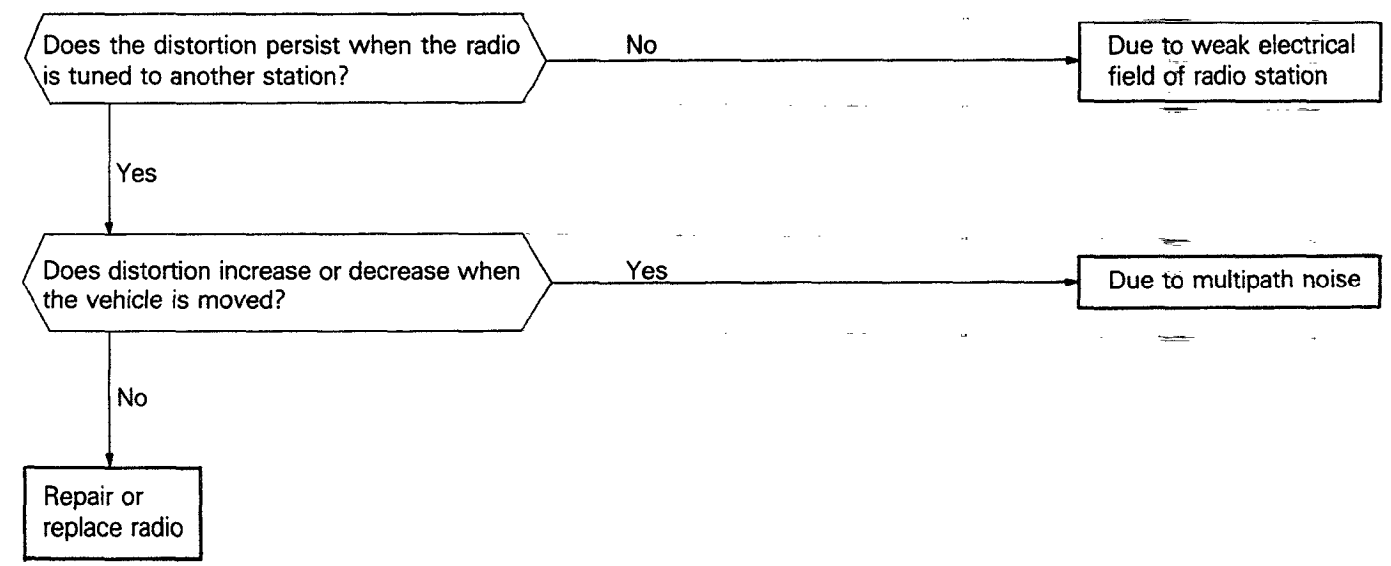


* For multipath noise and fading noise problems, refer to page 8–237

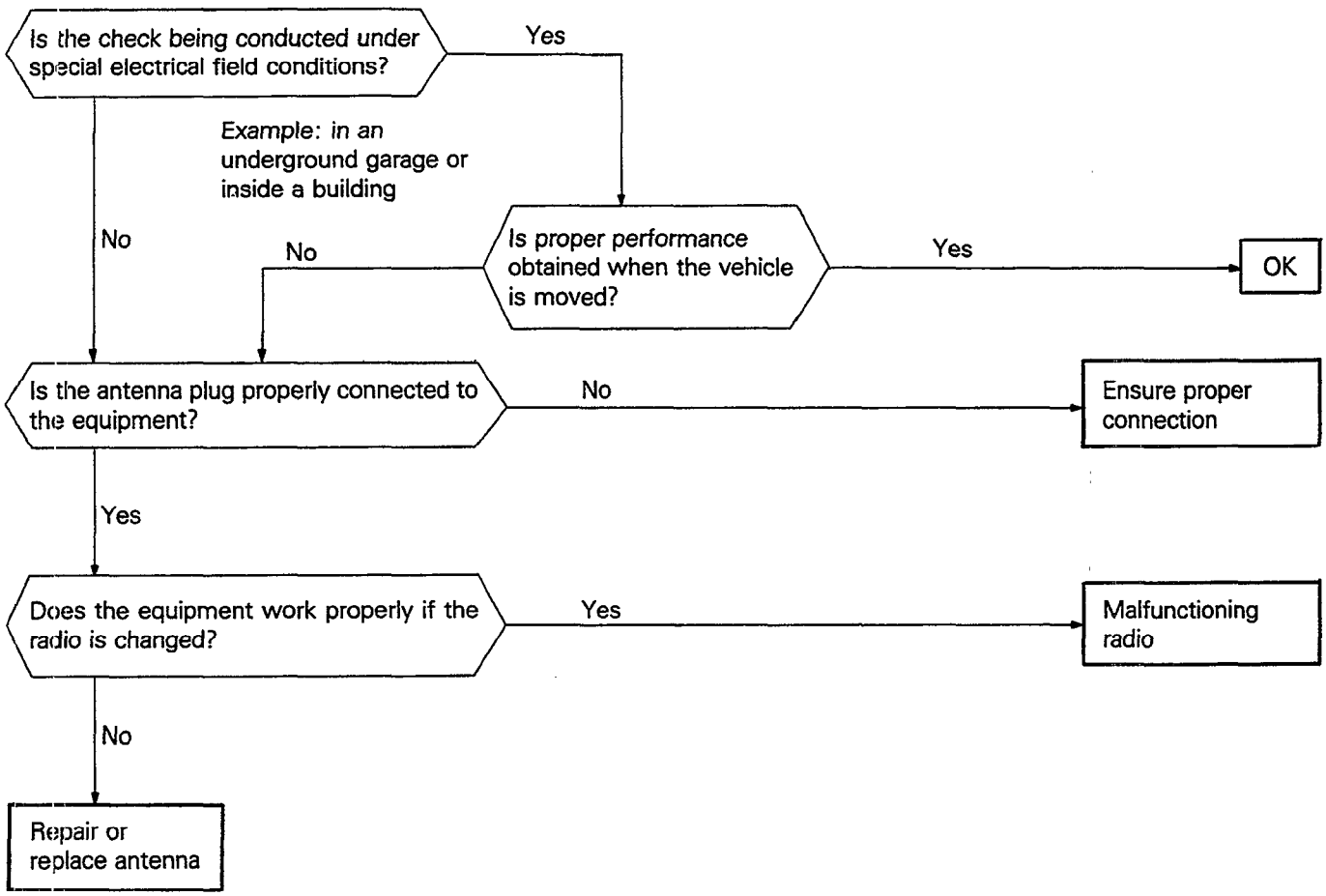
B–6 Distortion on AM or on both AM and FM.



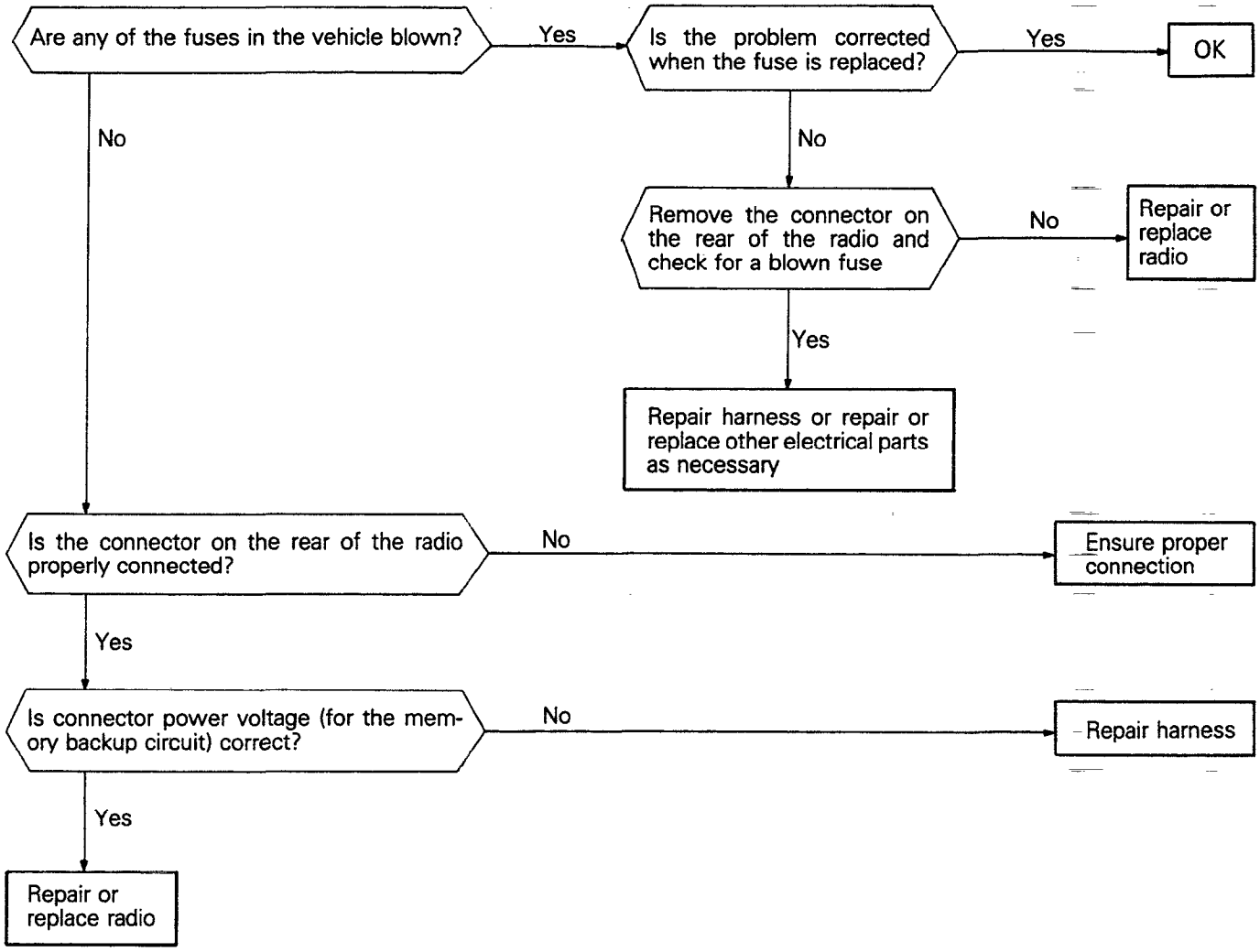
B–7 Distortion on FM only.



B–8	**Too few automatic select stations.**

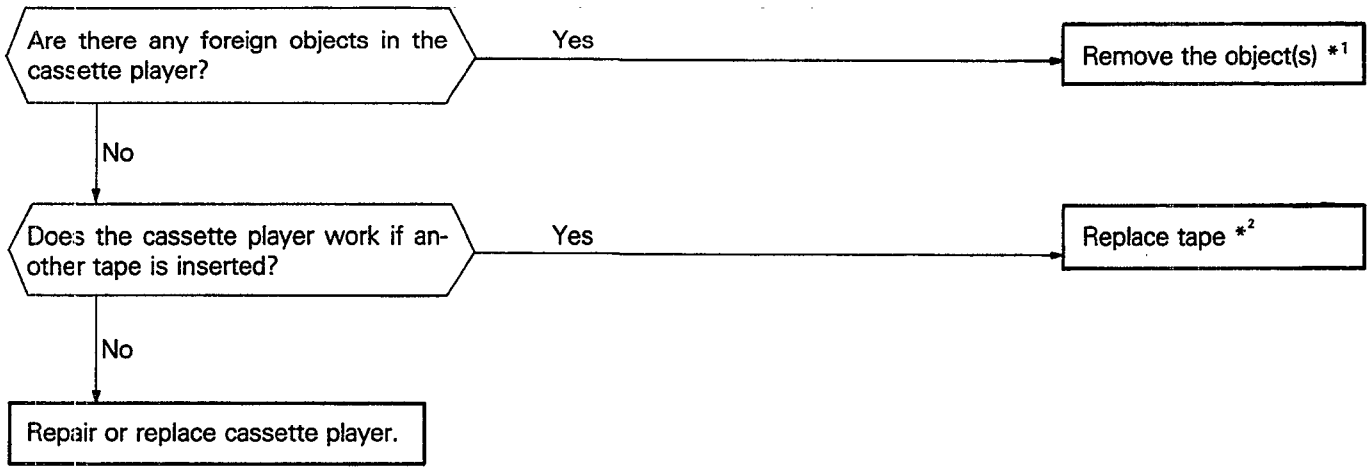


B–9 Insufficient memory (preset stations are erased).



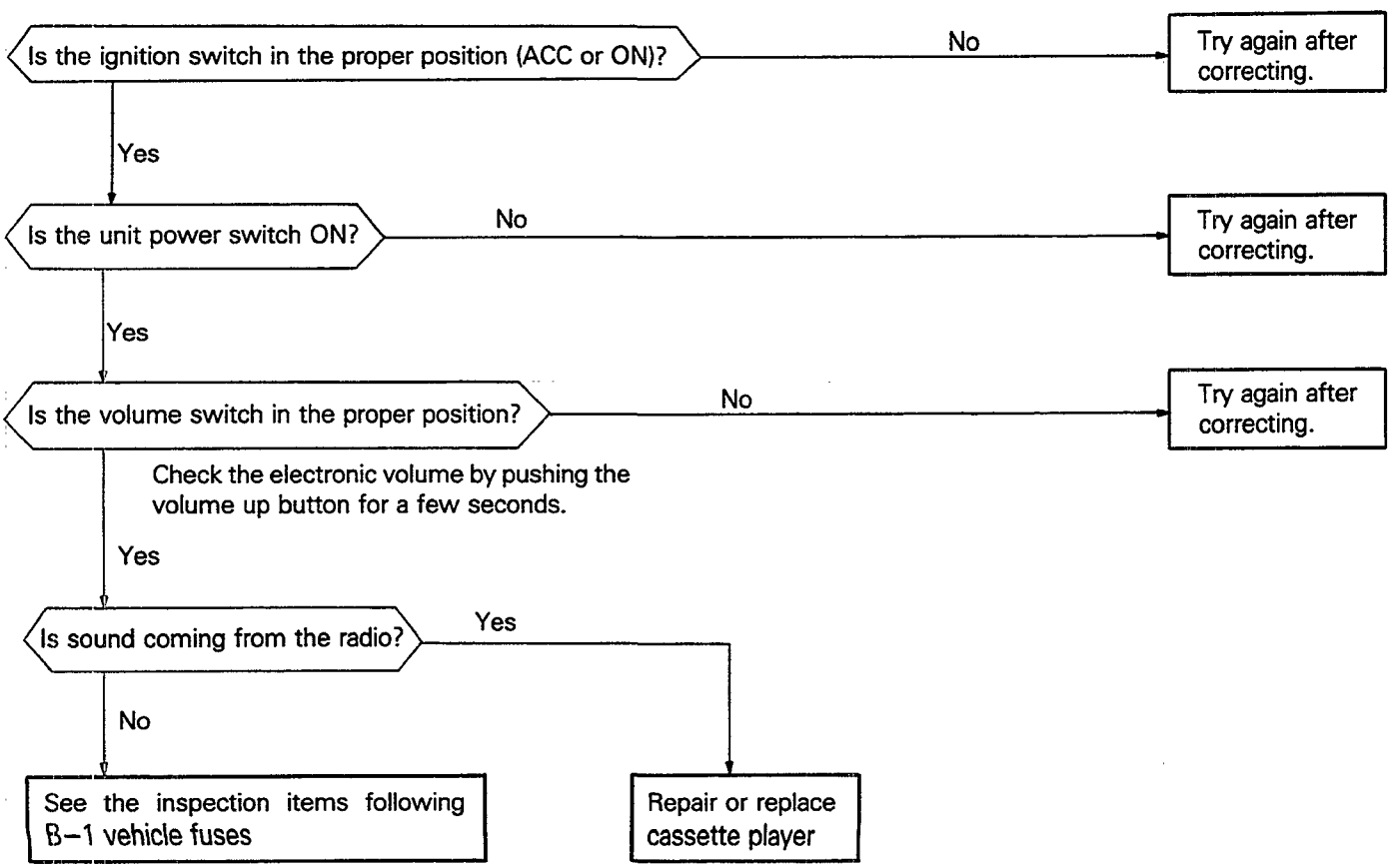
C. CASSETTE PLAYER

C–1 Cassette tape will not insert.



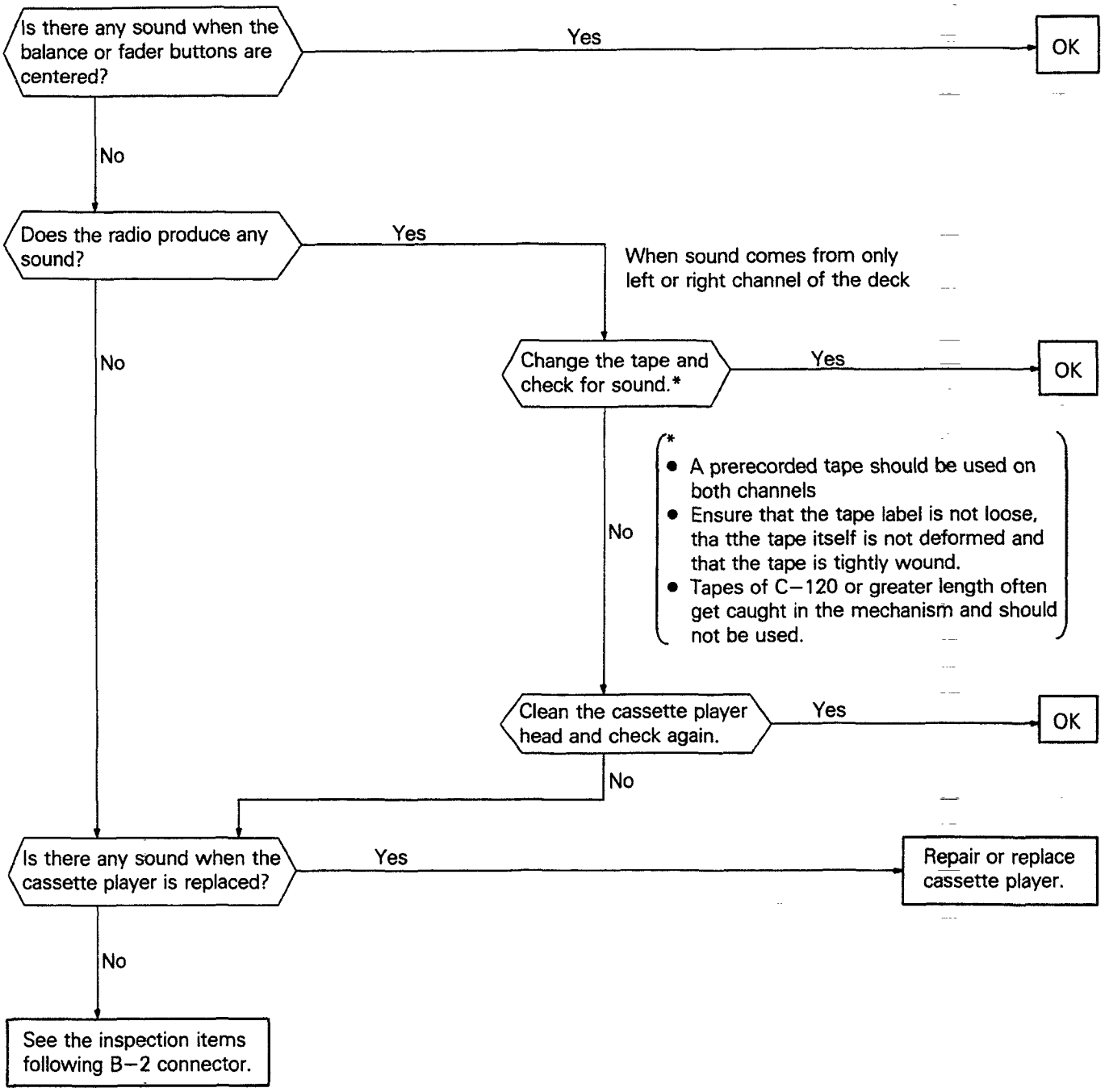
NOTE
*1 Attempting to force a foreign object (e.g., a coin or clip, etc.) out of the cassette player may damage the mechanism. The player should be taken to a service dealer for repair.
*2 Ensure that the tape label is not loose, that the tape itself is not deformed and that the tape is tightly wound. Also, tapes of C–120 or greater length often get caught in the mechanism and should not be used.

C–2 No sound (even after a tape has been inserted).

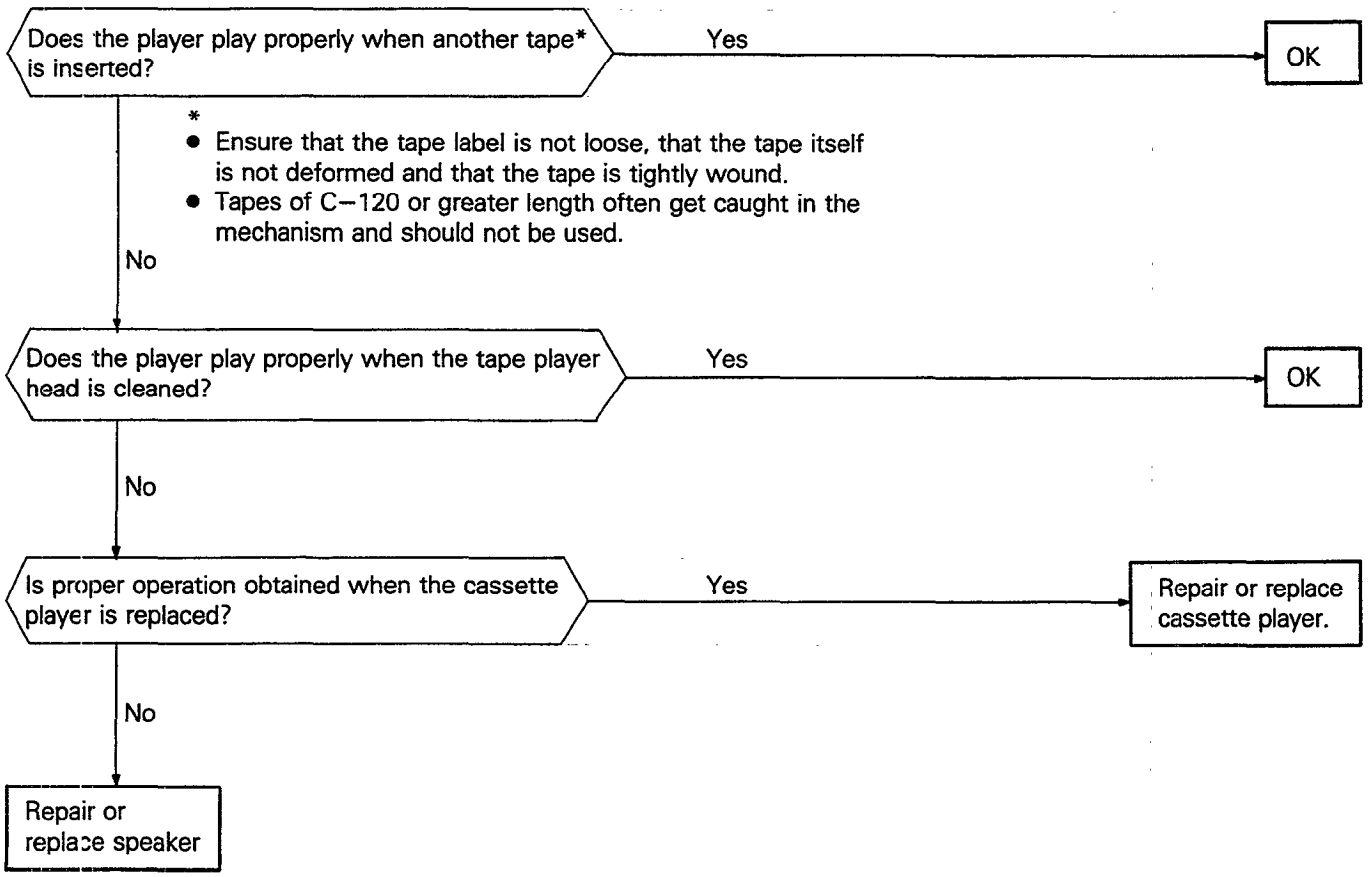


TSB Revision

C–3	No sound from one speaker.



C–4 Sound quality is poor, or sound is weak.

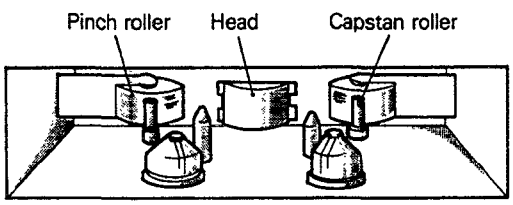


C–5 Cassette tape will not eject.

The problems covered here are all the result of the use of a bad tape (deformed or not properly tightened) or of a malfunction of the cassette player itself. Malfunctions involving the tape becoming caught in the mechanism and ruining the case are also possible, and attempting to force the tape out of the player can cause damage to the mechanism. The player should be taken to a service dealer for repair.

C–6 Uneven revolution. Tape speed is fast or slow.

Does the player play OK if the tape is changed?
- Yes → OK
- No → Are there any foreign objects inside the cassette player?
  - Yes → Remove foreign object(s).
  - No → Is the head or capstan roller dirty?



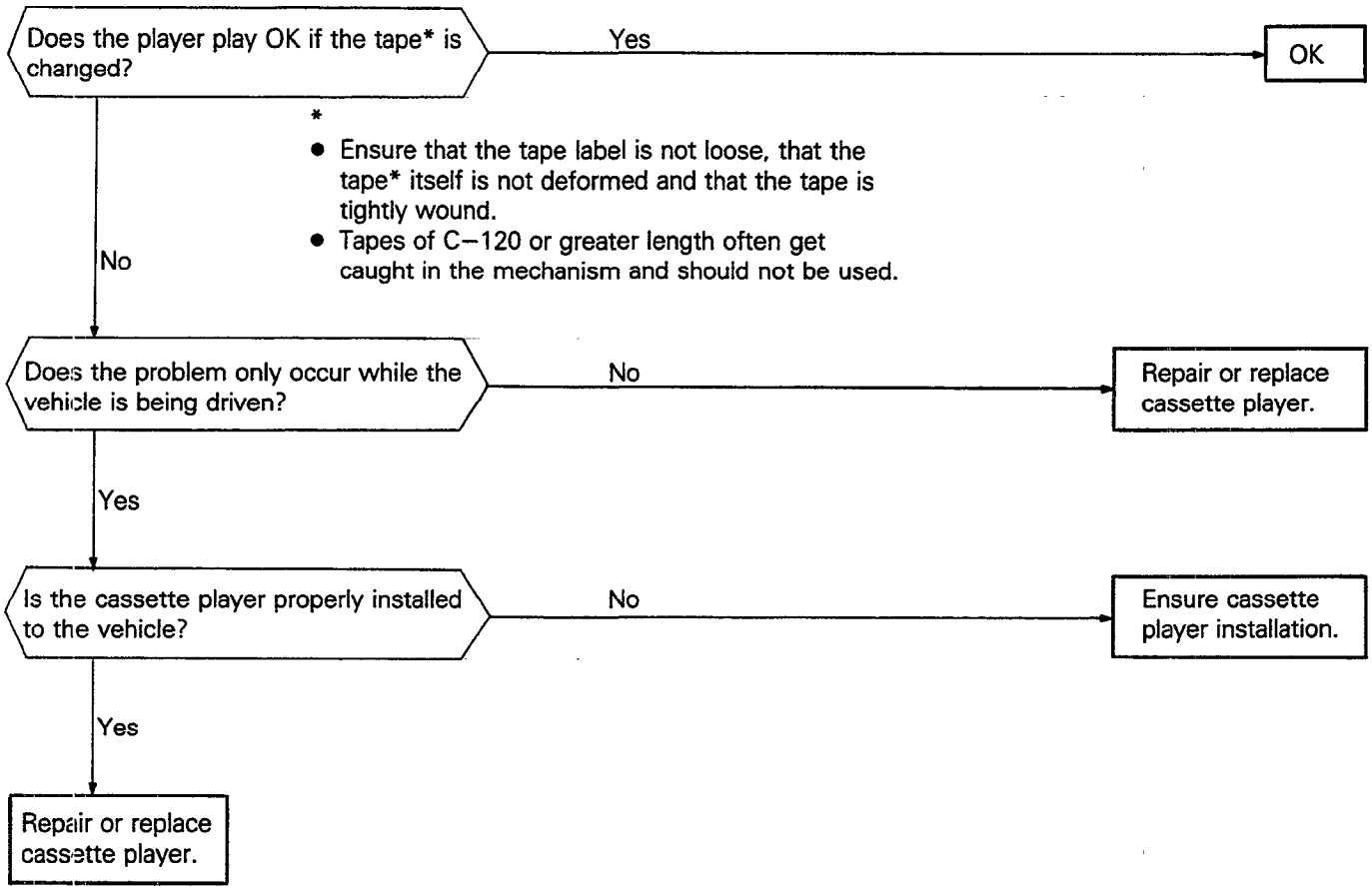
- Yes → Clean
- No → Repair or replace cassette player.

C–7 Automatic search does not work (only for models with the automatic search function).

Does the MSS (automatic search) button depress properly?
- No → Button improperly operated.
- Yes → Does the player play OK if the tape* is changed?
  - Yes → Tape used is bad
  - No → Malfunction of the cassette player unit

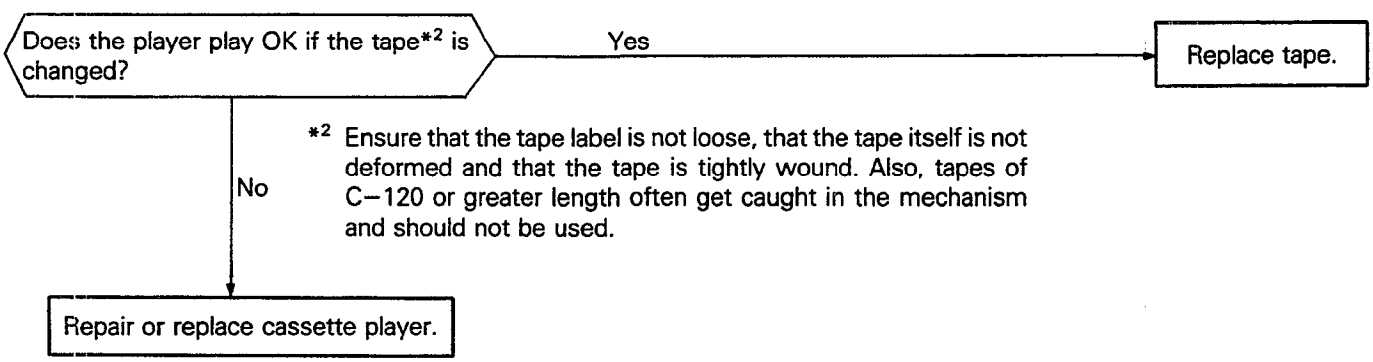
*
- When the time between songs on a tape is less than three seconds, or when there is a three second period in the middle of a song in which the volume level is extremely low, the automatic search function may not work properly.
- Ensure that the tape label is not loose, that the tape itself is not deformed and that the tape is tightly wound. Also, tapes of C–120 or greater length often get caught in the mechanism and should not be used.

C–8 Faulty auto reverse.



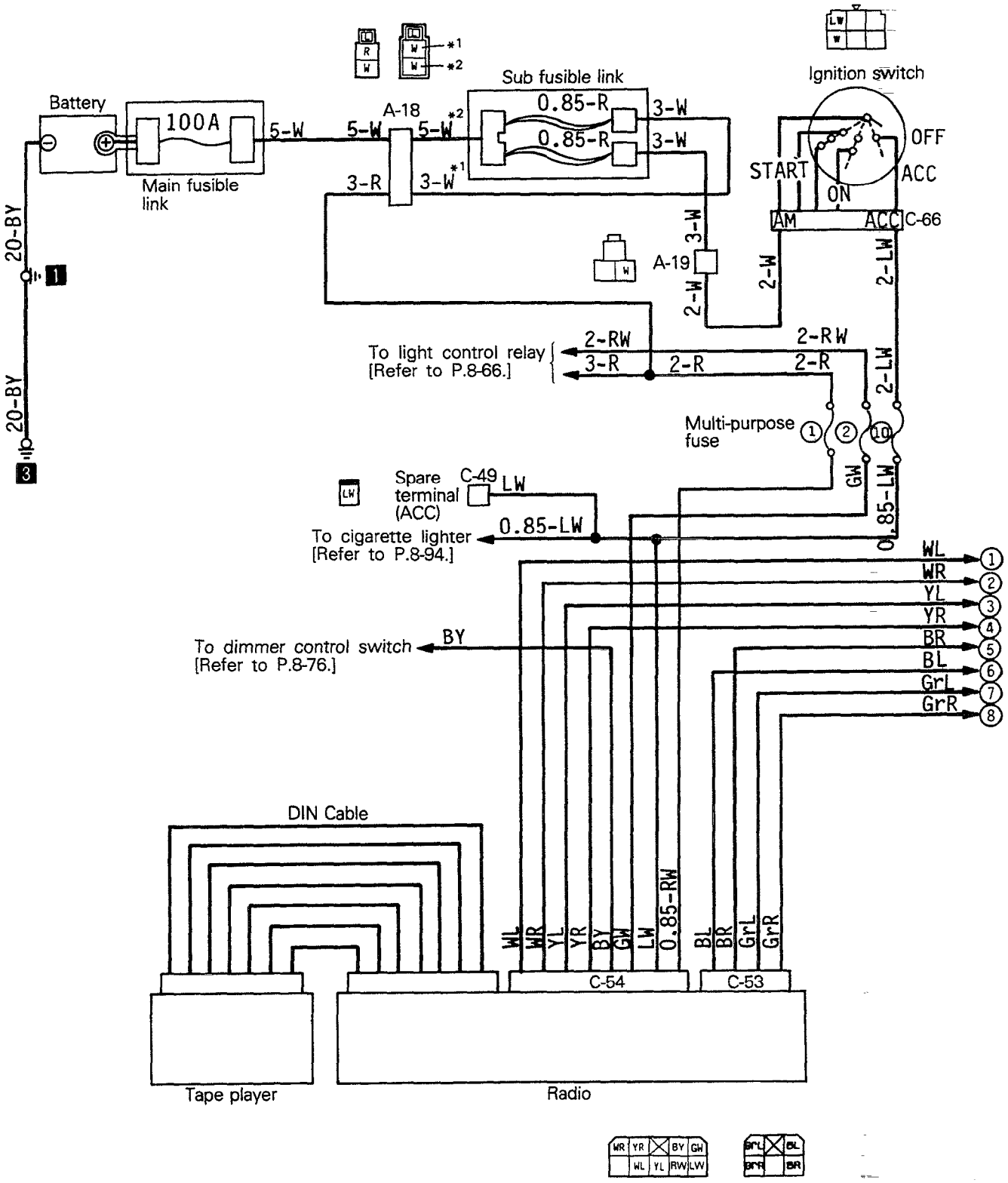
C–9 Tape gets caught in mechanism*1

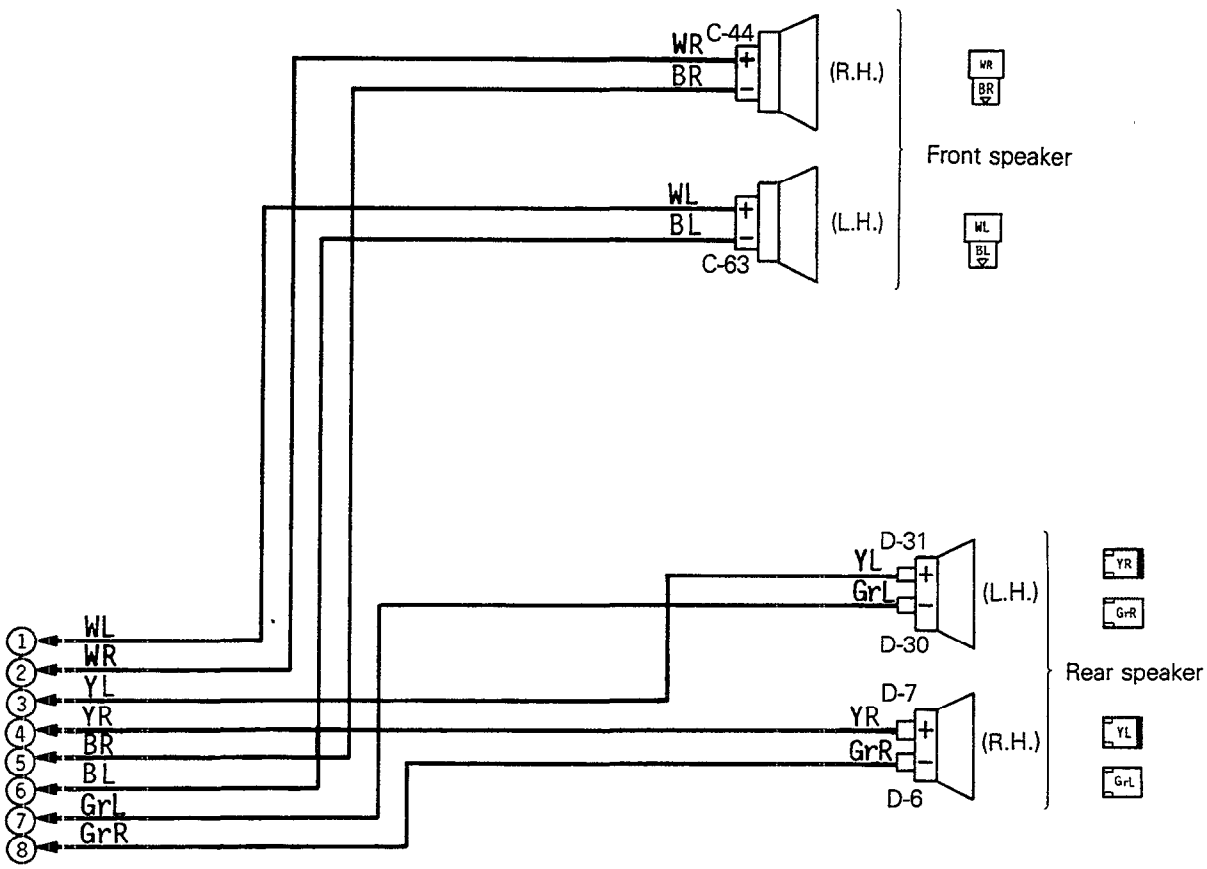
*1 When the tape is caught in the mechanism, the case may not eject. When this occurs, do not try to force the tape out as this may damage the tape player mechanism. Take the cassette to a service dealer for repair.



RADIO/CASSETTE DECK CIRCUIT

CIRCUIT DIAGRAM <2.6L Engine>





37W706

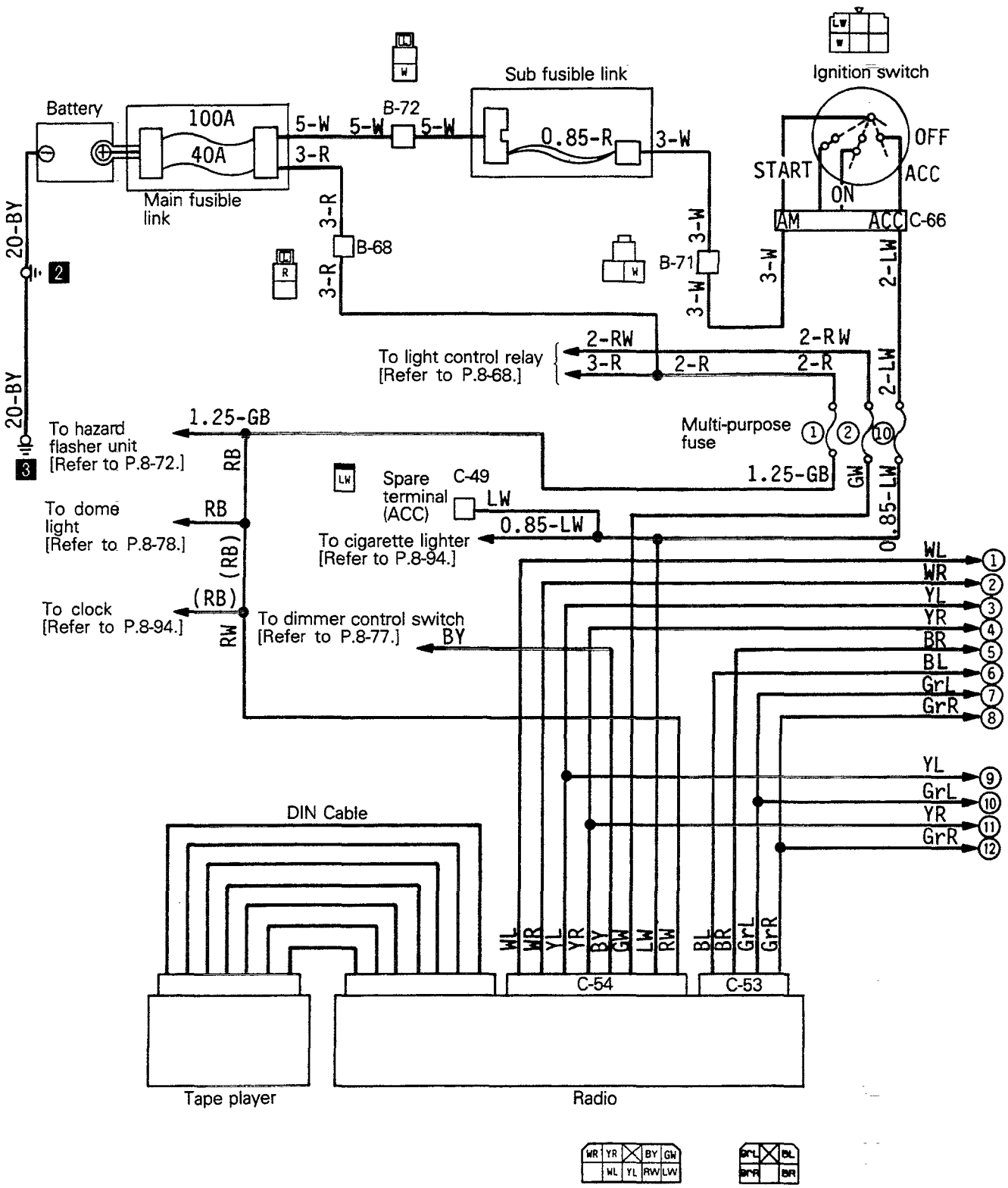
Remarks
(1) For information concerning the ground points (example: [redacted]), refer to P.8-12.
(2) The symbols ①, ②, etc. indicate that the wiring is connected (using the same numerical symbol) to the facing page.
(In other words, ① on the right page is connected to ① on the left page.)

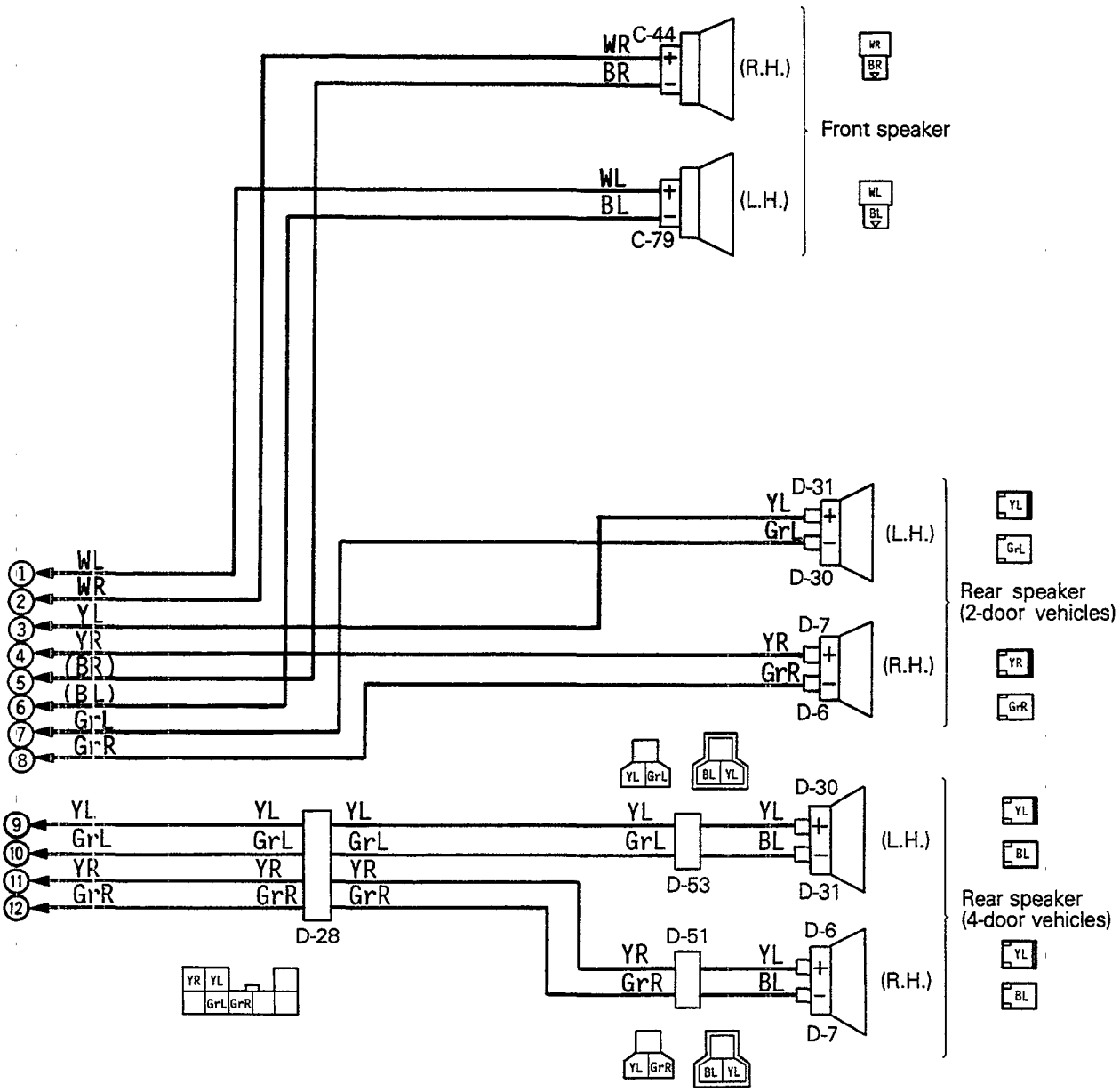
Wiring color code

B: Black	Br: Brown	G: Green	Gr: Gray	L: Blue	Lg: Light green
LI: Light blue	O: Orange	P: Pink	R: Red	Y: Yellow	W: White

RADIO/CASSETTE DECK CIRCUIT

CIRCUIT DIAGRAM <3.0L Engine>





37W705

Remarks
(1) For information concerning the ground points (example: [2]), refer to P.8-14.
(2) The symbols ①, ②, etc. indicate that the wiring is connected (using the same numerical symbol) to the facing page.
(In other words, ① on the right page is connected to ① on the left page.)

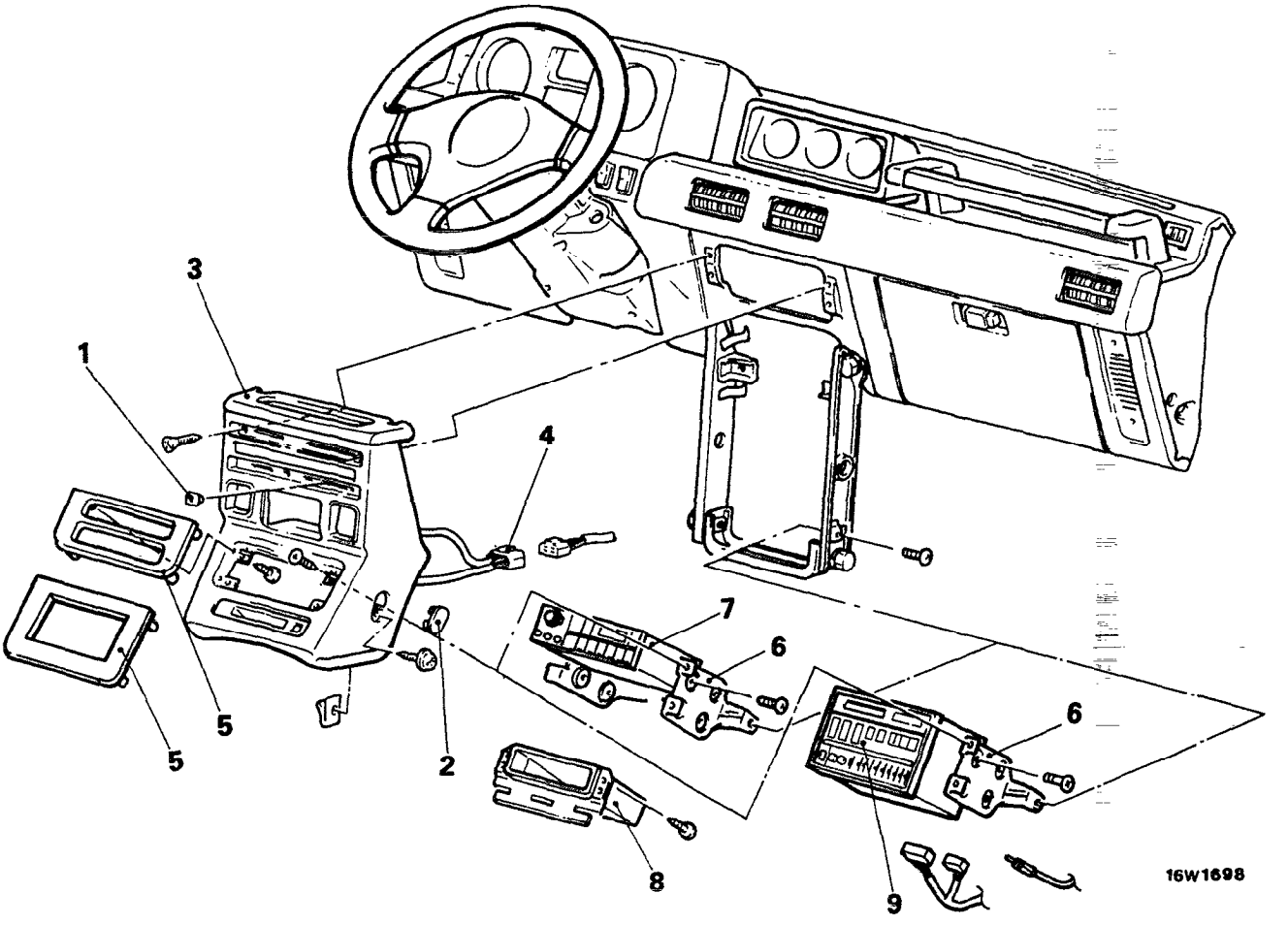
Wiring color code

B: Black	Br: Brown	G: Green	Gr: Gray	L: Blue	Lg: Light green
LI: Light blue	O: Orange	P: Pink	R: Red	Y: Yellow	W: White

RADIO AND TAPE PLAYER

REMOVAL AND INSTALLATION

N06NJAK



Removal steps

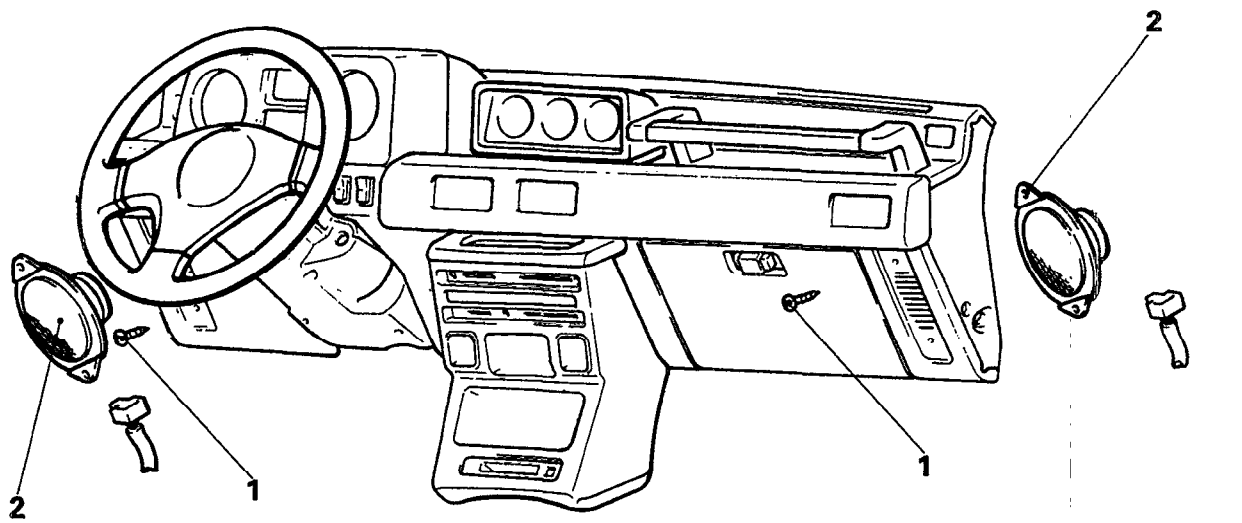
1. Knob
2. Plug
3. Center console
4. Connection of center panel wiring harness to front wiring harness connector
5. Radio panel
6. Radio bracket
7. Radio
8. Box (Vehicles without tape player)
9. Radio with tape player

NOTE
Reverse the removal procedures to reinstall.

FRONT SPEAKER

REMOVAL AND INSTALLATION

N08NMAE



16W1593

Removal steps

1. Mounting screws
2. Front speaker

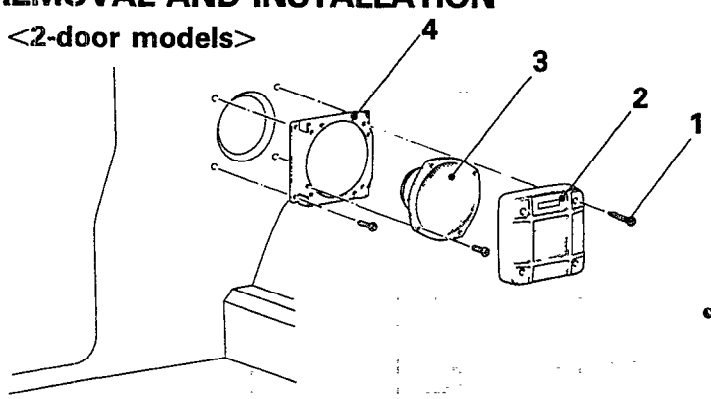
NOTE
Reverse the removal procedures to reinstall.

REAR SPEAKER

REMOVAL AND INSTALLATION

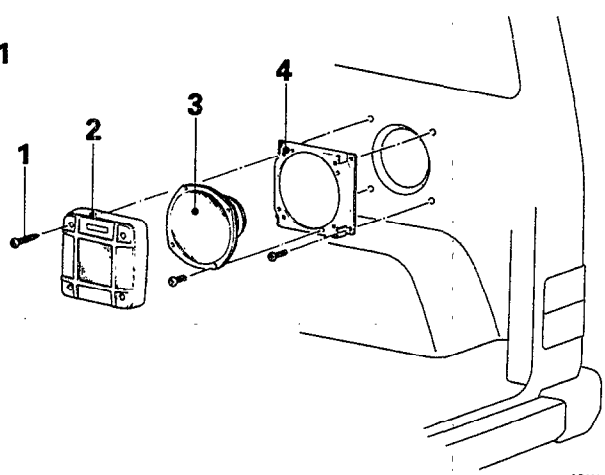
N08NOAD

<2-door models>



16W1699

<4-door models>



16W1700

Removal steps

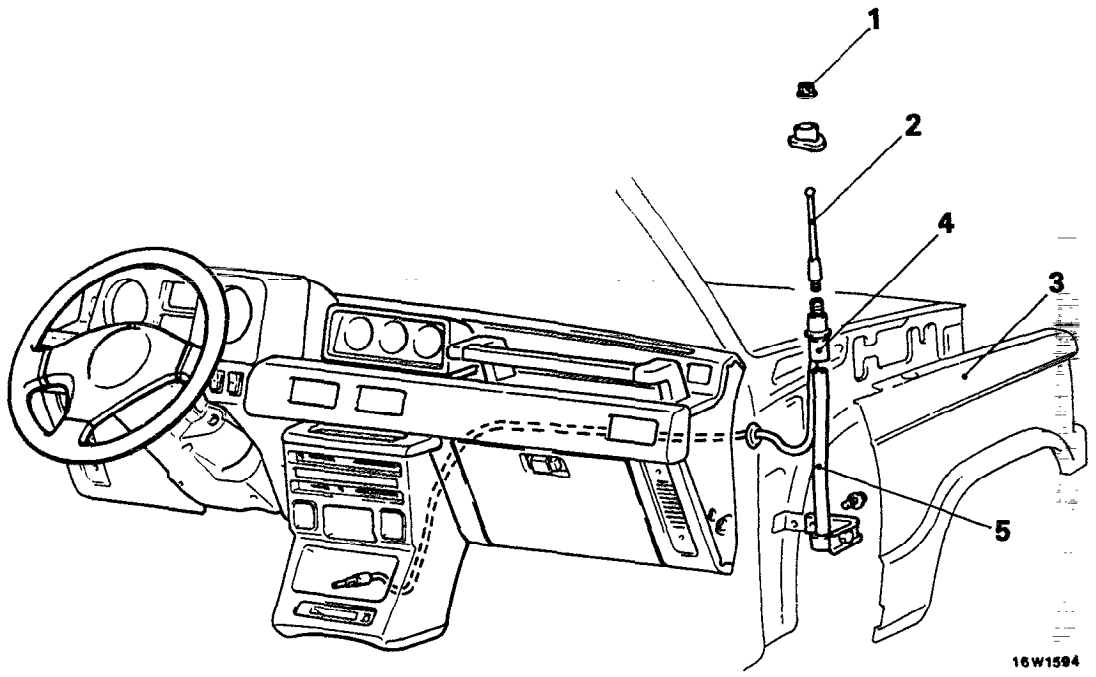
1. Mounting screws
2. Rear garnish
3. Rear speaker
4. Bracket

NOTE
Reverse the removal procedures to reinstall.

ANTENNA

REMOVAL AND INSTALLATION

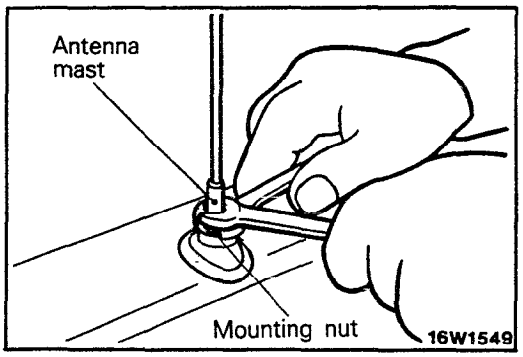
N06NPA



Removal steps

◆◆ 1. Mounting nut
2. Antenna mast
◆◆ ◆◆ 3. Front fender panel
4. Ground base
5. Antenna base

NOTE
(1) Reverse the removal procedures to reinstall.
(2) ◆◆ : Refer to "Service Points of Removal"
(3) ◆◆ : Refer to "Service Points of Installation".



SERVICE POINTS OF REMOVAL

1. REMOVAL OF MOUNTING NUT

Hold the antenna mast, and then remove the mounting nut.

3. REMOVAL OF FRONT FENDER PANEL

Refer to GROUP 23 – Front Fender

SERVICE POINTS OF INSTALLATION

3. INSTALLATION OF FRONT FENDER PANEL

Refer to GROUP 23 – Front Fender.

TSB Revision