

AUDIO SYSTEM

SPECIFICATIONS

GENERAL SPECIFICATIONS

N08NB-

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

TROUBLESHOOTING

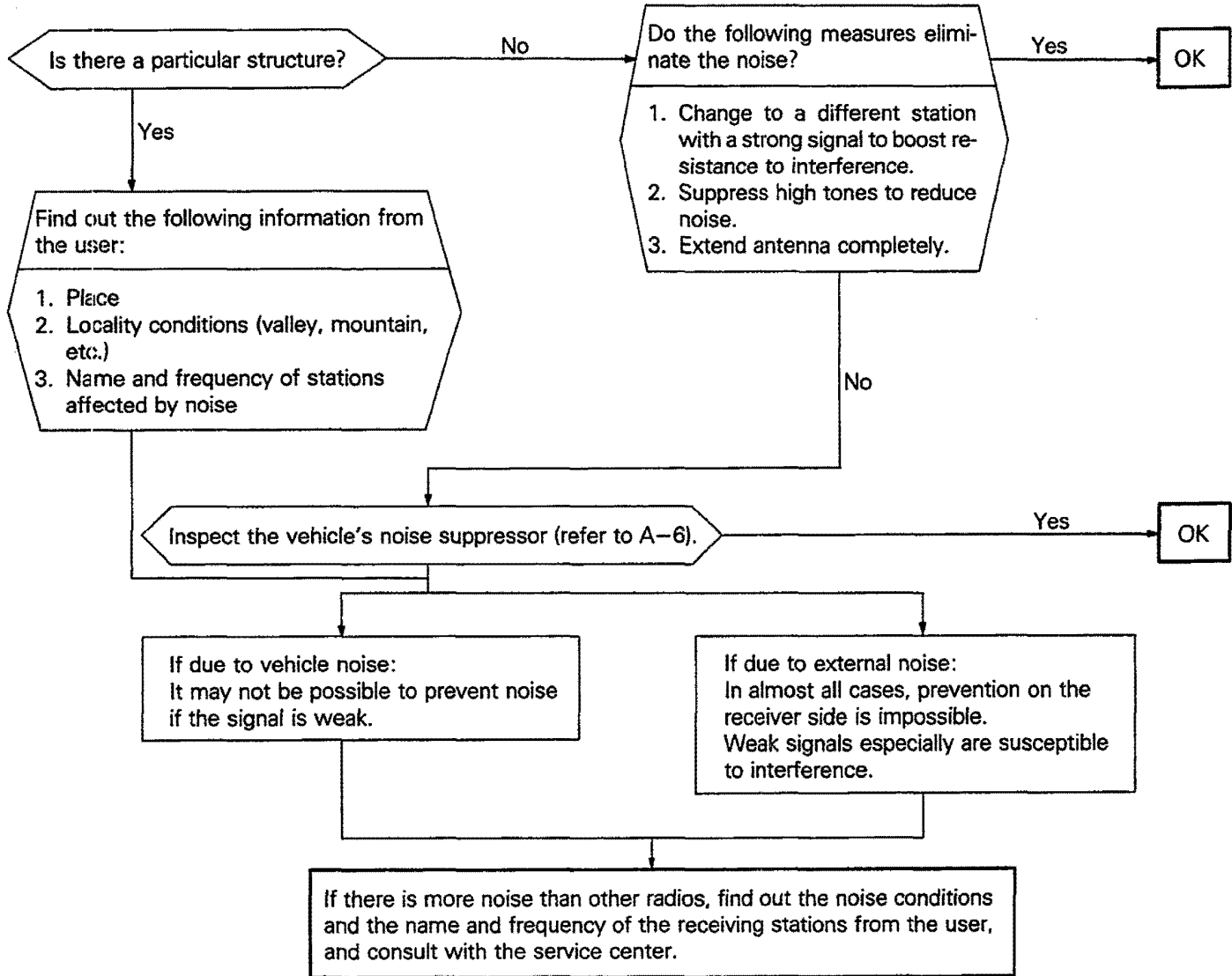
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Item	Problem Symptom	Relevant Chart
A. Noise	1. Noise appears at certain places when traveling (AM).	A-1
	2. Noise appears at certain places when traveling (FM).	A-2
	3. Mixed with noise, only at night (AM).	A-3
	4. Broadcasts can be heard but both 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

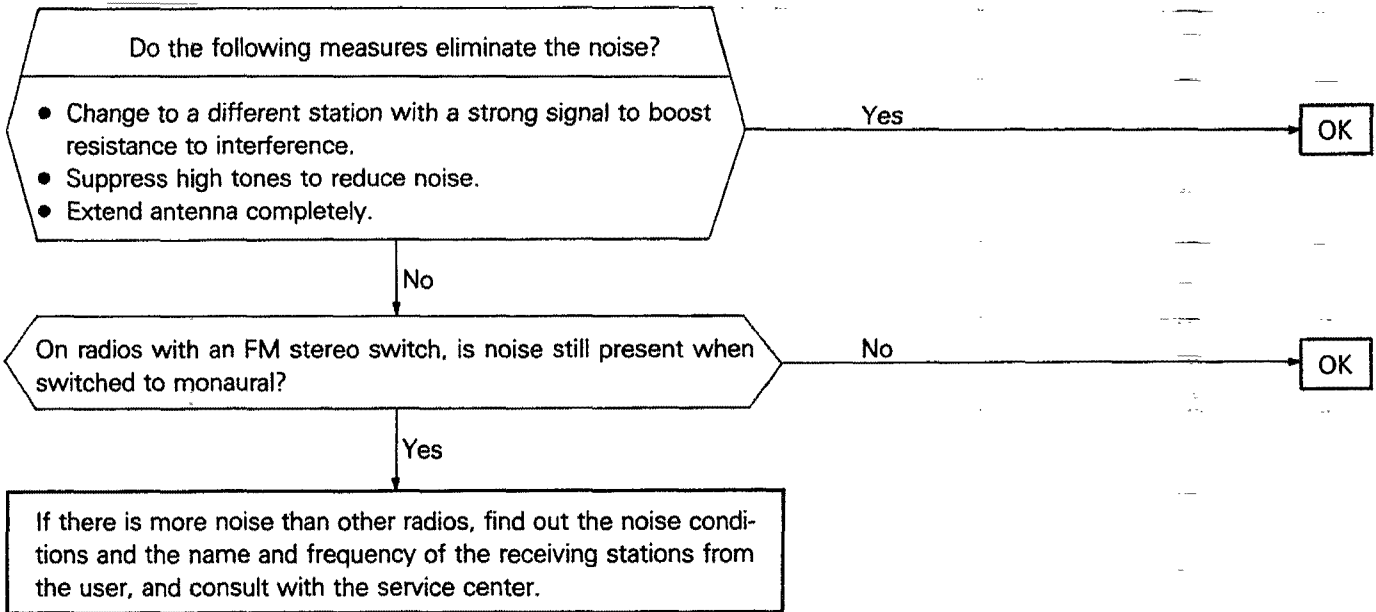
CHART

A. NOISE

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



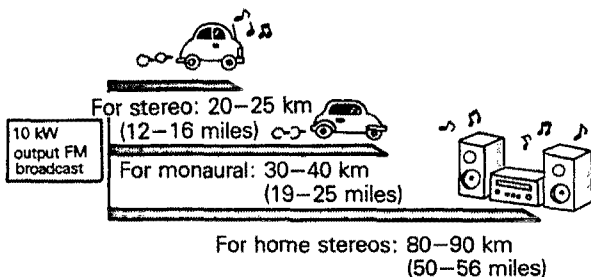
A-2 Noise appears at certain places when traveling (FM).



NOTE

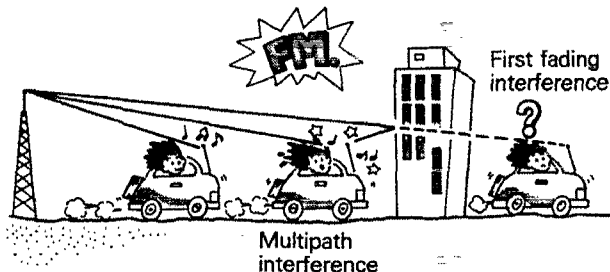
- About FM waves:
FM waves have the same properties as light, and can be deflected and blocked. Wave reception is not possible in the shadow of obstructions such as buildings or mountains.
1. The signal becomes weak as the distance from the station's transmission antenna increases. Although this may 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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A-3 Mixed with noise, only at night (AM).

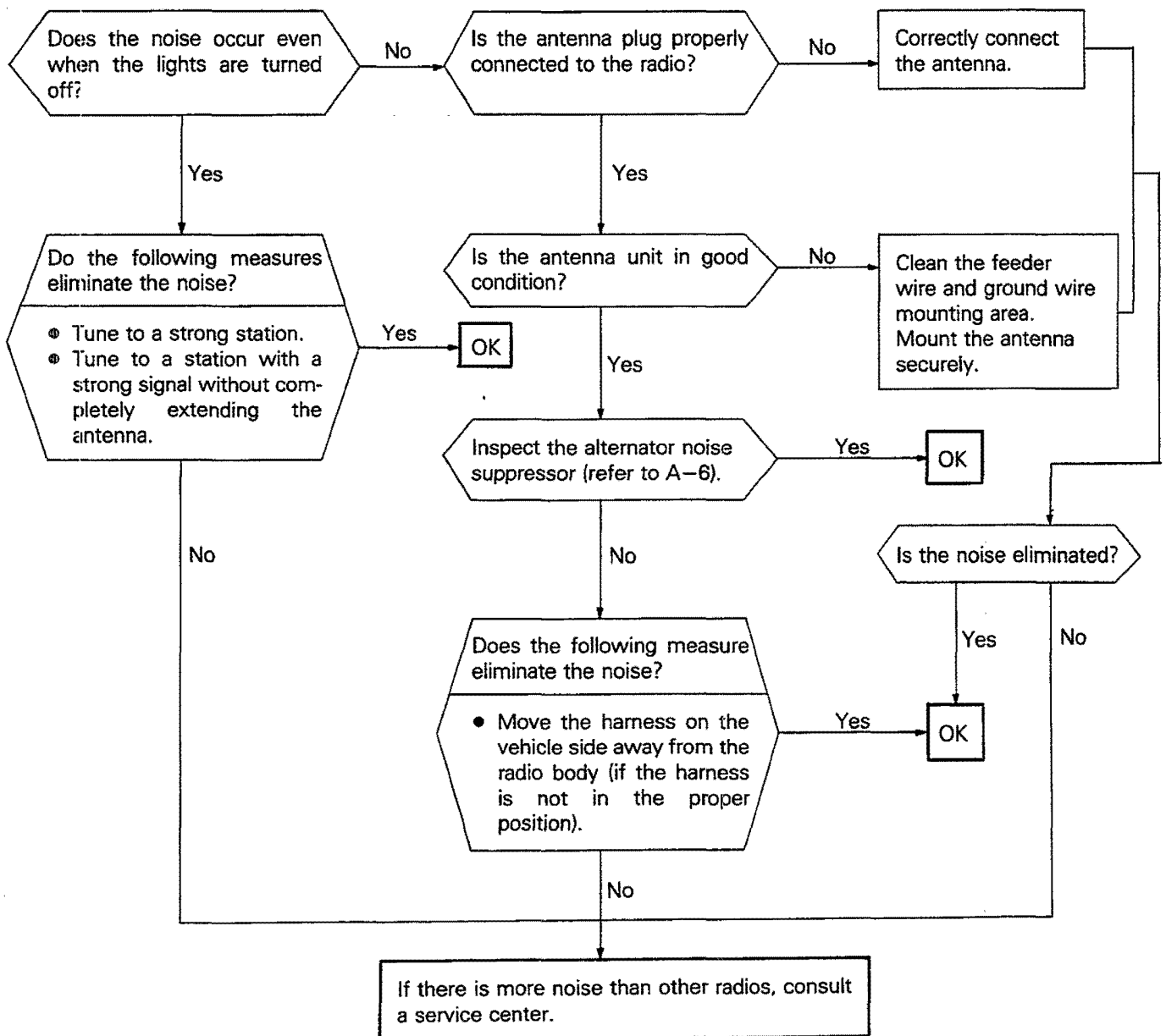
The following factors can be considered as possible causes of noise appearing at night.

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.



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

(1)

Noise occurs when the engine is stopped.

Yes

Do the following measures eliminate the noise?

- Tune to a strong station.
- Extend the antenna completely.
- Adjust the sound quality to suppress high tones.

Yes

OK

No

Is the radio chassis ground mounted securely?

No

Securely tighten the nuts for the chassis ground.

Yes

Is the antenna plug properly connected to the radio?

No

Correctly attach the antenna.

Yes

Is the antenna body in good condition?

No

Clean the feeder wire and ground wire mounting area. Mount the antenna securely.

Yes

Is the noise eliminated?

Yes

OK

No

If there is more noise than other radios, consult a service center.

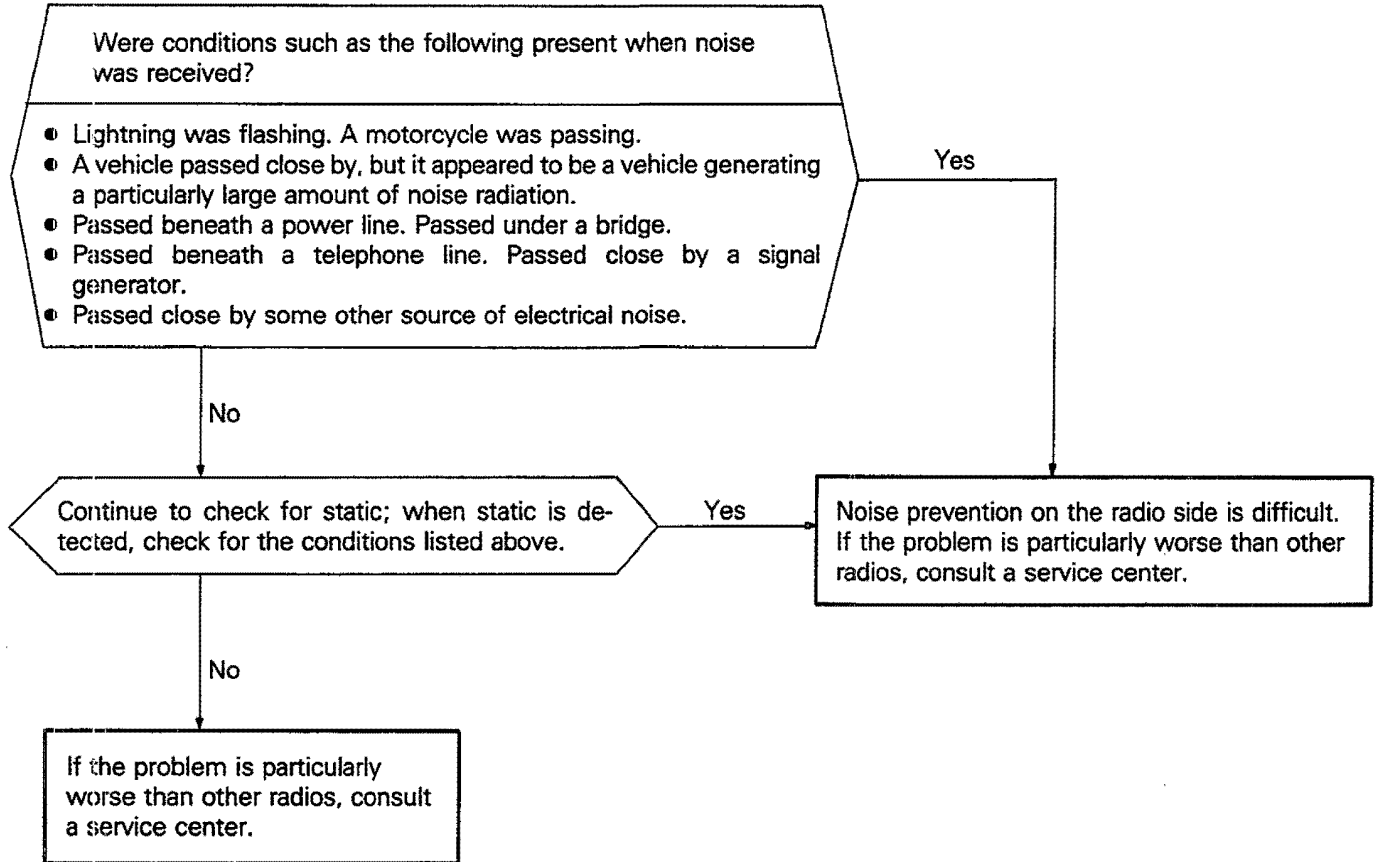
(2)

Noise occurs when the engine is running.

Inspect the vehicle's noise suppressor. (refer to A-6.)

A-15 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)	<ul style="list-style-type: none"> Increasing the engine speed causing the popping sound to speed up, and volume decreases. Disappears when the ignition switch is turned to ACC. 	<ul style="list-style-type: none"> Mainly due to the spark plugs. Due to the engine noise. 	<ul style="list-style-type: none"> Noise filter Noise condenser Ground cable
AM, FM: Alternator noise (AM, FM) (Swishing)	<ul style="list-style-type: none"> Noise becomes higher as engine speed increases, and in many cases is not present at idle speed. 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Noise condenser
AM, FM: Wiper motor noise (Low-pitched buzzing Electrical buzzing)	<ul style="list-style-type: none"> Appears with wiper operation and increases with wiper speed. Disappears when the wipers are stopped. 	<ul style="list-style-type: none"> Due to the wiper motor brushes. 	<ul style="list-style-type: none"> Noise filter
Other electrical components	—	Noise may appear as electrical components become older.	Repair or replace electrical components.
Static electricity (Crackling, Crinkling)	<ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> 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.)

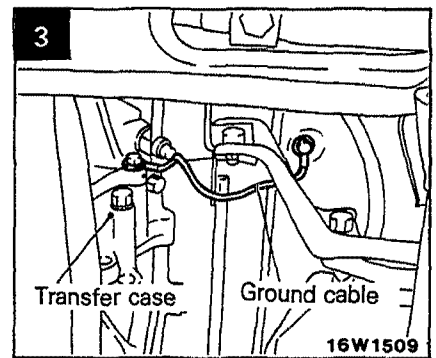
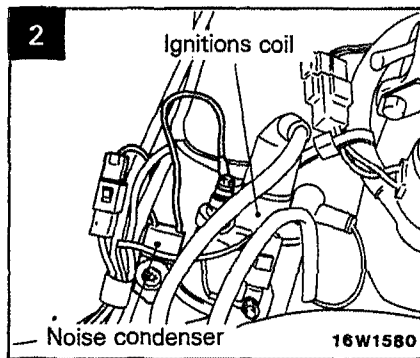
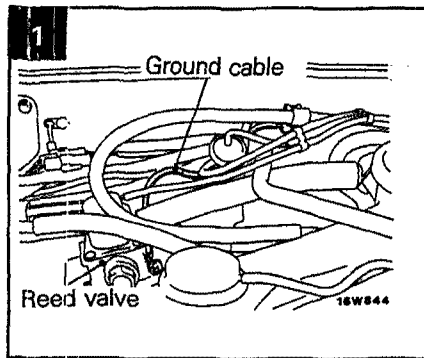
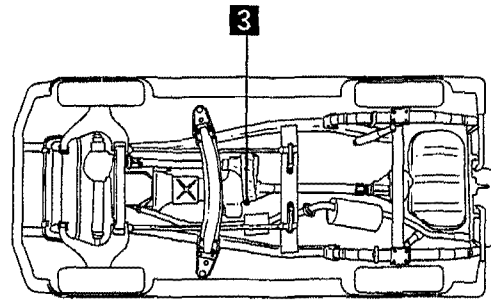
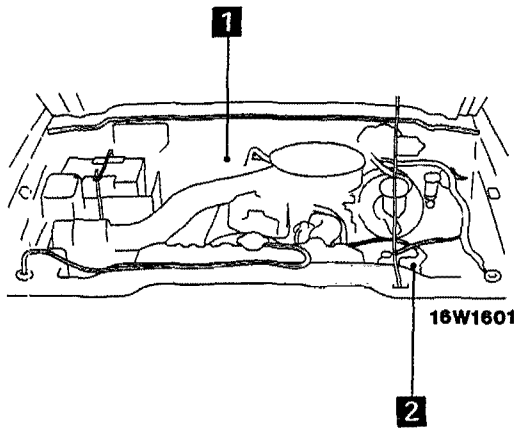
decreases, and current flow is facilitated. A noise suppressing condenser which takes advantage of this property is inserted between the power line for the noise source and the ground. This suppresses noise by grounding the noise component (A.C. or pulse signal) to the body of the vehicle.

2. Coil

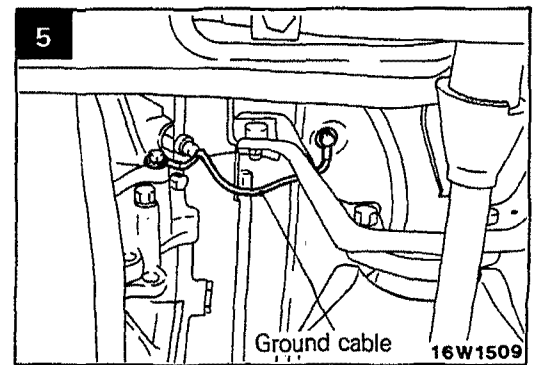
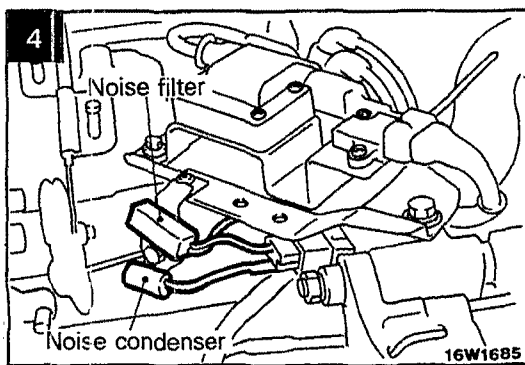
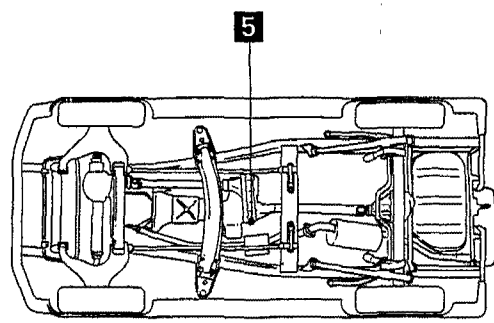
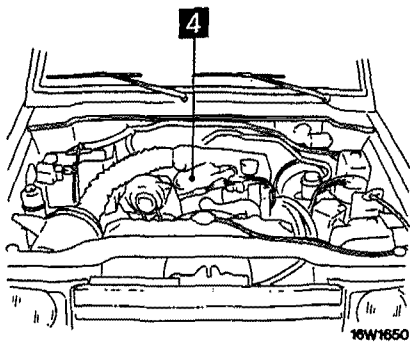
The coil passes D.C. current, but impedance rises as the number of waves increases relative to the A.C. current. A noise suppressing coil which takes advantage of this property is inserted into the power line for the noise source, and works by preventing the noise component from flowing or radiating out of the line.

NOISE SUPPRESSOR LOCATION

<2.6L Engine>



<3.0L Engine>



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

