

## SECTION 9A

# GENERAL BODY

### TABLE OF CONTENTS

Specification .....	9A-2	Check .....	9A-4
Dignosis and Action Taken .....	9A-3	Repair .....	9A-7
Diagnosis for Leaking Water .....	9A-3	<b>Special Tool and Equipment.....</b>	<b>9A-9</b>
Check and Repair .....	9A-4	Special Tools Table .....	9A-9

# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



## 9A-2 GENERAL BODY

## SPECIFICATION

Application		Specification
Hood	Type	Rear Hinge and Type of Front Opening, Gas Lifter
Front Door	Structure	Front Hinge and Frame Door
	Type of Regulator	Wire and Drum
	Lock System	Pin and Fork
Rear Door	Structure	Front Hinge and Frame Door
	Type of Regulator	Wire and Drum
	Lock System	Pin and Fork
Tail Gate	Type	Internal Hinge, Gas Lifter
Thickness of Glass	Wind Shield	5 mm
	Front Door Glass	4.0 mm
	Rear Door Glass	4.0 mm
	Rear Fix Glass	4.0 mm
	Glass of Tail Gate	Fixing Type 4.0 mm
		Opening Type 5.0 mm
Specification of Test Water Leaking	Type of Nozzle	Spray Nozzle of #1/2 GG-25 or Nozzle with Sloping Angle 60° Equivalent
	Height of Nozzle	Keep Distance 1,600 mm from Ground
	Quantity of Injecting	14L Per Mir
	Pressure	155kPa(22.5 psi): Checking Pressure from nozzle
	Position of a Piller Test Stand and Wing Shield	Keep Injecting Water, 30° of Lower Direction and 45° of Backwards, Approximately at the corner of Wind-shield
	Position of "B" Piller Test Stand	Keep Injecting Water, 30° of Lower Direction and 45° of Backwards, Approximately at the corner Line of Rear Door.
	Position of Rear Decklid Test and Tail Gate Glass	Keep Injecting Water, 30° of Lower Direction and 45° of Forwards, Approximately at Distance of 60mm to the Corner of Rear Door

## DIGNOSIS AND ACTION TAKEN

Cause		Action Taken
Wind noise around door	1) Not installed weather strip tightly 2) Misinstalled of weather strip 3) Not closed door accurately 4) Misinstalled or door 5) Not keep constant clearance between door glass and moulding 6) Deformed of door	Adjust weather strip Adjust and replace weather strip Adjust Adjust Adjust Repair or replace
Leaking water from sun roof	1) Abnormal material build up on drain hose and pipe 2) Drain hose or pipe is clogged up 3) Misinstalled of drain hose or pipe, deformed or broken clip 4) Deformed weather strip of roof-lid 5) Not keep clearance constant between roof-lid and body or mis Installed weather strip	1) Remove abnormal material from drain hose or pipe 2) Abnormal material is removed from drain hose or pipe by compressor 3) Check the state of installing and connecting section in the drain hose or pipe 4) Replace 5) Adjust
Wind noise around sun roof	1) Loose or deformed deflector	1) Retighten or replace
Failure of door glass	1) Misinstall of wind glass 2) Failure of motor 3) Failure of power window switch	1) Adjust the position 2) Replace 3) Replace
Not closed door or not opened completely.	1) Misinstalled of door 2) Misoperated of door lock 3) Deformed of door checker 4) Lack of grease at door hinge	1) Adjust position 2) Replace 3) Repair or replace 4) Grease
Not closed hood or not opened completely.	1) Not fitted the position between striker and latch 2) Misinstalled of hood 3) Inproper height of hood bumper	1) Adjust 2) Adjust 3) Adjust
Leak from windshield or rear window	Lack of sealing Damaged flange	Spread sealant Repair

## DIAGNOSIS FOR LEAKING WATER

It is required for technician to inspect and diagnose accurately problems of leaking water.

Problem of leaking water is repaired by adjusting of misaligned parts by using proper equipment, first of all check condition of leaking water.

For example, condition caused leaking water to occur should be checked if vehicle is parked on the sloping road or spare tire in the trunk.

Next step of checking leaking section of water is following as belows. If general leaking section of water is detected, check accurate leaking section of water, by using water hose or air hose. If general leaking

section of water is not detected, check leaking section of water, by using the stand of tester of leaking water.

It is required for technician to check accurate leaking section of water such as, removal of internal trim panel or component parts .

**Notice:** Technician should detect cause of leaking water before leaking section of water is repaired.

It is difficult for technician to do temporary solution of leaking water, but also this one will cause more difficult situation to solve problem of leaking water.

To ensure detecting leaking section of water, keep test for leaking section of water.

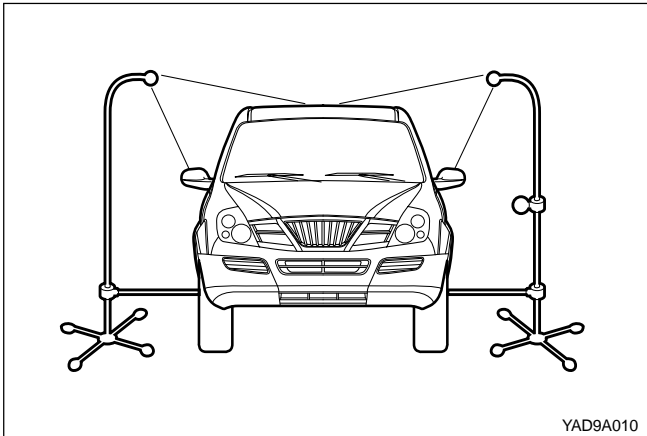
## 9A-4 GENERAL BODY

## CHECK AND REPAIR

## CHECK

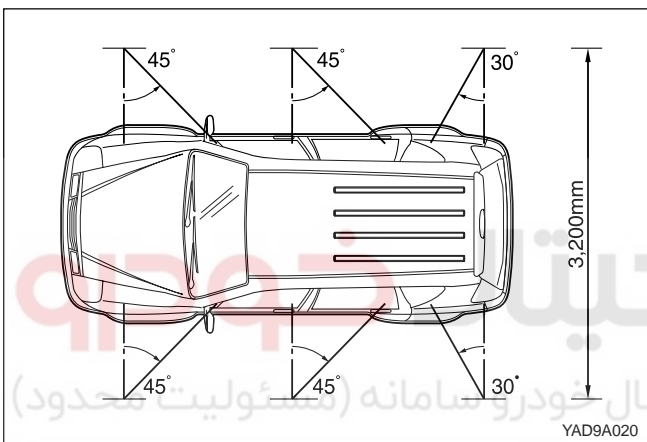
## General Checking Leaking Water

1. Install checking equipment
2. Check leaking water.
3. If water pressure is getting below regulated water pressure, to inject water overlapping, technician keeps vehicle close to stand of each side.



## Check Local Section of Leaking Water

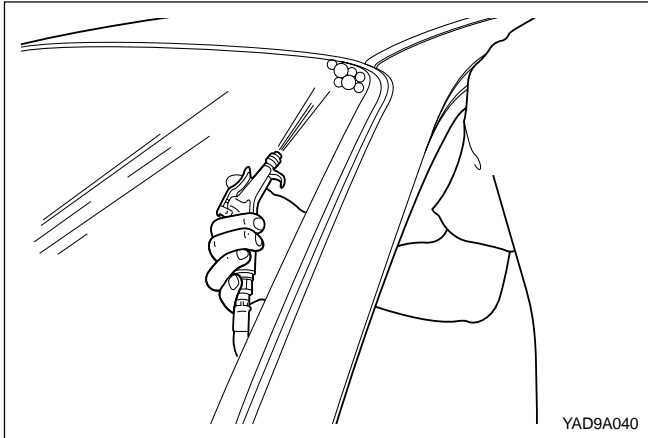
1. Test local section of leaking water by using water hose or air hose
2. First of all, test dubious section of leaking water by injecting water or air, until technician detect section of leaking water, point of checking is moving from the low of vehicle to the upper of vehicle.



## Check the Water Hose

1. In order to detect section of leaking water, another technician, is moving into the internal of vehicle.
2. Use water hose not having a nozzle.
3. First of all, test dubious section of leaking water by injecting water or air, until technician detect section of leaking water, point of checking is moving from the low of vehicle to the upper of vehicle.





### Check Air Hose

1. Soap bubbles is fed on the dubious section of leaking water.
2. Inject air from the internal of the vehicle, not to keep compressing air, over 205 kPa ( 29.7 psi ).
3. Check whether bubble of soap is occurred on the dubious section of leaking water, or not and then make sure section of leaking water.

### Dignosis of Wind Noise

**Notice:** If technician diagnose the vehicle wind noise, another technician is driving the diagnosed vehicle for the prevention of vehicle unsafe.

It is necessary for technician to drive vehicle in order to analyse position of wind noise, accurately, wind noise is occurred by first leaking and second, if all the leaking section is not repaired, wind noise will be reduced little bit, but wind noise will not be reduced completely

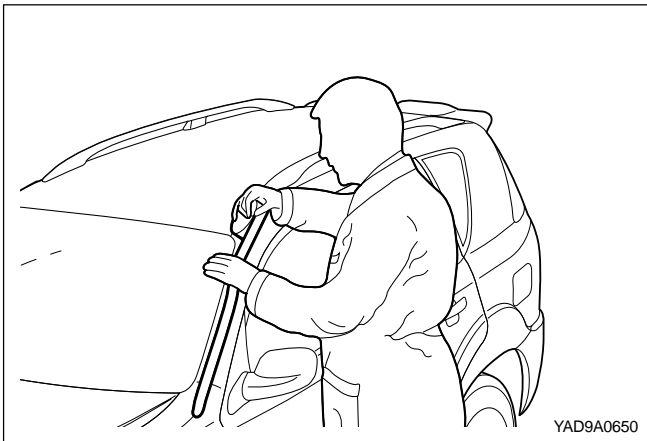
For technician to diagnose position of wind nose with driving test, following description should be provided

- vacuum hose
- vinyl tape
- scrip cork
- pencil indicating
- screw driver

Driving test should be observed as followings.

1. Select straight and even road which is available to East, West, South, and North.
2. Select road not preventing test which has no noise or traffic obstacle.
3. Drive the vehicle when wind noise is occurred Keep in mind within specified vehicle speed.
4. If following condition happen, each one is defined, as external wind noise.
  - wind noise is occurred by wind
  - wind noise happen on the lower side of door glass under vehicle is driving
  - wind noise is removed by taping of moulding

## 9A-6 GENERAL BODY



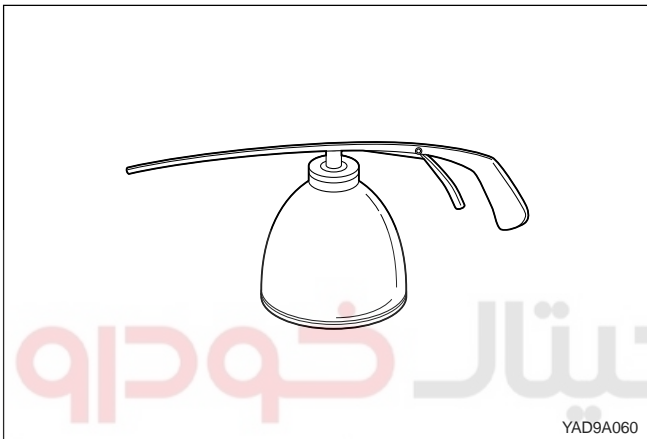
YAD9A0650

5. Internal wind noise is repaired following description

- Leaking section is detected by using stethoscope or vacuum hose is repaired by using vinyl tape temporarily.
- Keep driving test to check whether wind noise is removed or not if leaking section is checked.
- Wind noise will be completely repaired by proper equipment, tool of sealing.

### Body

Periodically hood and locking system should be fed for operating smoothly, specially feeding oil to the section of closing and opening is depending on operation smooth and prevention of noise.



YAD9A060

### Bolt and Nut

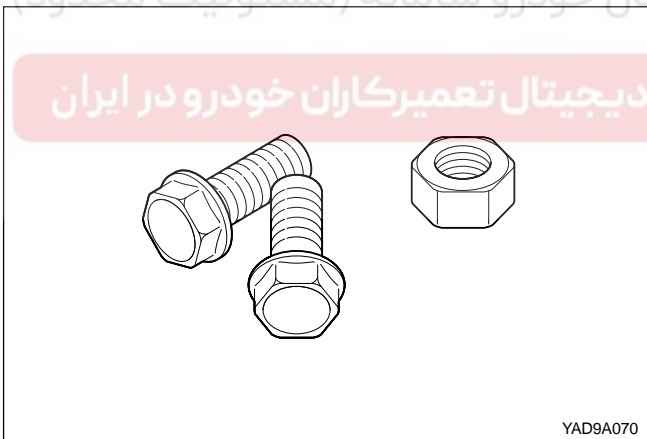
**Notice:** Contacting surface to the non-characteristic of each metal cause each metal to corrode so, for prevention of early corrosion, use specified bolt and nut

Alloy of aluminium is using currently most vehicle

Contacting between steel and aluminium cause to corrode if those are ,not hardening.

Special bolt and nut are using for prevention of corrosion in the vehicle.

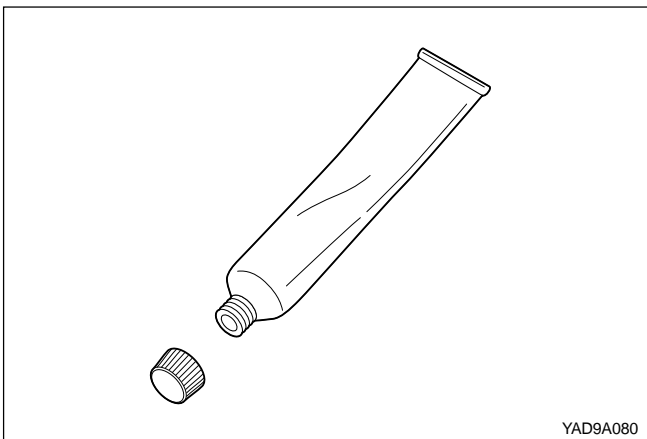
If bolt and nut are replaced, same specification of bolt and nut should be, used or similar material of bolt and nut.



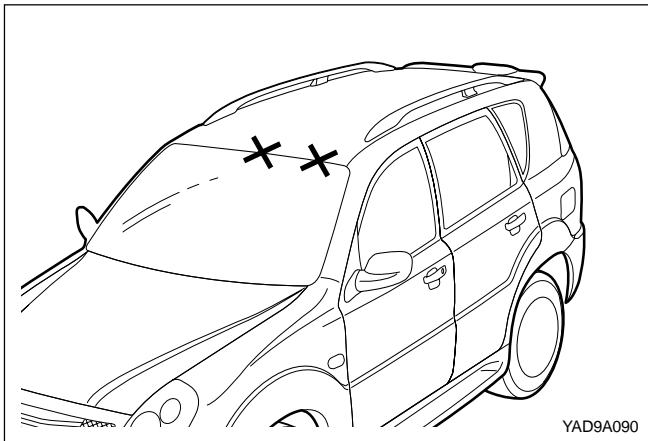
YAD9A070

### The Prevention of Corrosion

In order not to corrode body, surface of internal panels of metal is added, material of anti-corrosion. If those panel are replaced, spread material of anti- corrosion on the panels with proper quantity



YAD9A080



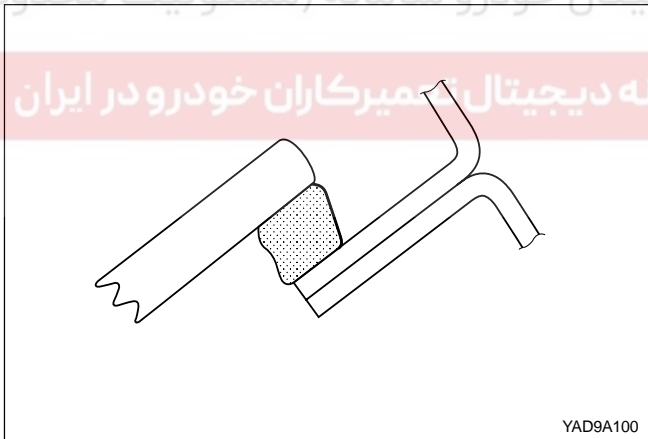
## REPAIR

### Repair Leaking Water

Leaking water on the section of glass can be repaired without removal of glass.

**Notice:** Method to repair of following description is applied on the equipped glass of urethane sealing.

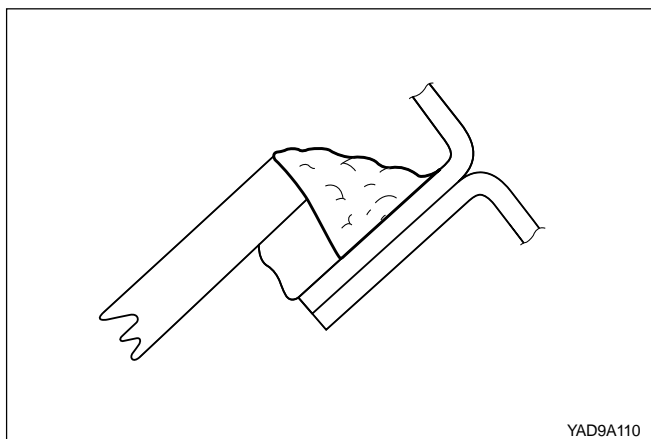
1. Remove leaking moulding and section of trim, to detect position of leaking water it is necessary for technician to remove trim and garnish moulding
2. During injecting water on the leaking section, to detect quantity of leaking water, carefully push the glass external area.
3. Mark accurate position of leaking water.
4. Wash section of leaking water and dry up air hose.



5. Remove ununiform section of cohesive material on the distance of 75 - 100 mm to leaking section
6. Spread prima on the uniform section leaking



## 9A-8 GENERAL BODY



7. Wait approximately 5 minutes, until drying up prima.
8. Spread cohesive material on the distance of 75 - 100 mm to leaking section.
9. After spreading cohesive material, using the flat stick and similar equipment, keep body and cohesive material uniform in order not to leak water.
10. To make sure to finish repairing leaking water, inject warm water or, hot water on the section of leaking water.
11. Install parts removed to repair leaking section.

**Notice:** After repairing section of leaking water completely, using stand for leaking. test, check the section of leaking water again, if abnormal pressure is checked, repaired cohesive material may get out of position itself. So leaking water test should not check on local section of leaking .

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

پایانه دیجیتال تعمیرکاران خودرو در ایران

### Method to Repair Wind Noise

Method to repair wind noise is similar to method to repair leaking water.

Wind noise of around door opening weather strip is not proper installed.

Weather but depends on adjusting door and window.

### Method to Repair Body Noise

Due to not properly installed parts of body, body noise is occurred, in order not to make a noise, proceed the following description.

- Install completely relative moving parts under vehicle's moving.
- Repair clearance of moving parts under vehicle's moving.
- In order not to cause body noise about moving parts, separate, moving parts, treat soundproof.
- Uniform surface of friction can prevent harding state.



## SPECIAL TOOLS AND EQUIPMENT

### SPECIAL TOOLS TABLE

 <p>YAD9A120</p>	<p><b>09793-21000</b> <b>Adjusting Wrench of Door Wrench</b></p>	 <p>YAD9A130</p>	<p><b>09800-21000</b> <b>Ornament Remover</b></p>
 <p>YAD9A140</p>	<p><b>09853-31000</b> <b>Remover of Headlining Clip</b></p>	 <p>YAD9A150</p>	<p><b>09861-31100</b> <b>Cutting Tool of Sealant</b></p>
 <p>YAD9A160</p>	<p><b>09861-31200</b> <b>Cutting Knife of Sealant</b></p>	 <p>YAD9A170</p>	<p><b>09861-31300</b> <b>Sealant Gun</b></p>
 <p>YAD9A180</p>	<p><b>09861-31400</b> <b>Glass Holder</b></p>	 <p>YAD9A190</p>	<p><b>09861-31000</b> <b>Remover of Wind Shield Molding</b></p>