

SS-2

Suspension System

General Information

SPECIFICATIONS

FRONT SUSPENSION

Item			
Suspension type		Double wishbone coil spring	
Shock absorber	Type	Gas pressurized	
	Stroke	112mm (4.41in.)	
	Damping force(Piston speed: 0.3m/s)	Compression	82±15kg (804±147N)
		Extension	124±18kg (1217±177N)
I.D. color		Red	
Coil spring	Free height	341.8mm	
	I.D. color		Red

REAR SUSPENSION

Item		Specification	
Suspension type		5 link coil spring	
Shock absorber	Type	Gas pressurized	
	Stroke	186mm (7.32in.)	
	Damping force (Piston speed: 0.3m/s)	Compression	78±14kg (765±137N)
		Extension	158±23kg (1550±226N)
I.D. color		Yellow	
Shock absorber (Self levelizer)	Type	Gas pressurized	
	Stroke	180mm (7.09in.)	
	Damping force (Piston speed: 0.3m/s)	Compression	36±9kg (350±85N)
		Extension	175±23 (1710±220N)
I.D. color		Yellow	
Coil spring	Free height	353.9mm (13.93in.)	
	I.D. color		Blue
Coil spring (Self levelizer)	Free height	360.4mm (14.19in.)	
	I.D. color		Purple

WHELL AND TIRE

Item	Specification
Tire	225/75 R16
	245/70 R16
	245/65 R17
Wheel	7.0J × 16
	7.0J × 17

General Information

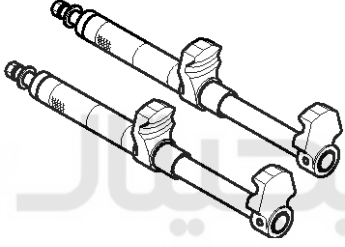
SS-3

Tire pressure	Front	2.1kg/cm ² (30psi)
	Rear	2.1kg/cm ² (30psi)

WHEEL ALIGNMENT

TYPE		SPECIFICATION
Front	Toe	0°±0.2° (0±0.079in.)
	Camber angle	0°±0.5°
	Caster angle	3.89°±0.5°
	King pin angle	12.13°
Rear	Camber	0.5°±0.5°
	Toe-in	0° ± 0.2° (0±0.079)

SPECIAL SERVICE TOOL

Tool (Number and name)	Illustration	Use
0K2A1 341 001A Coil spring compressor		For removal of front shock absorber spring

TROUBLESHOOTING


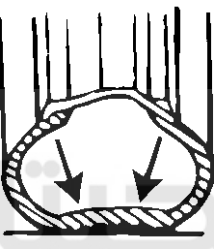

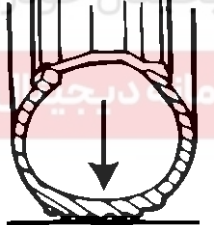

Symptoms	Possible causes	Remedy
Excessive vehicle rolling	Broken or deteriorated stabilizer	Replace
	Damaged shock absorber	Replace
Abnormal noise	Loose mounting parts	Retighten
	Broken or worn wheel bearing	Replace
	Shock absorber malfunction	Replace
	Damaged tire	Replace
Poor riding	Excessive tire inflation pressure	Adjust the tire inflation the pressure
	Shock absorber malfunction	Replace
	Loose wheel nut	Tighten to the specified torque
	Distorted or broken coil spring	Replace
	Damaged tire	Replace
	Worn bushing	Replace
Vehicle leans to one side	Deformed arm assembly	Replace
	Worn bushing	Replace
	Distorted or broken coil spring	Replace

SS-4

Suspension System

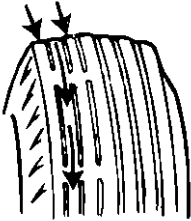
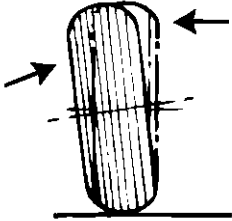
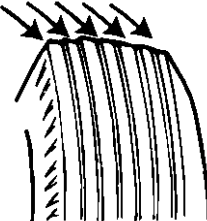
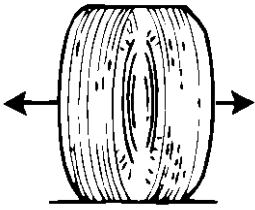

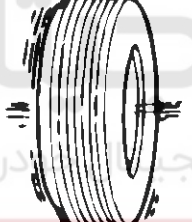
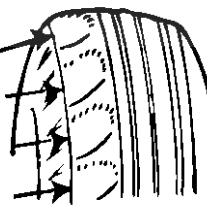
Symptoms	Possible causes	Remedy
Hard steering	Improper front wheel alignment	Repair
	Excessive turning resistance of lower arm ball joint	Replace
	Lack of tire inflation pressure	Adjust
	Power steering malfunction	Repair or Replace
Wandering	Improper front wheel alignment	Repair
	Worn or loose lower arm bushing	Retighten or Replace
Bottoming	Broken or worn coil spring	Replace

DIAGNOSIS (TIRES/WHEELS)

Problem	Possible Cause	Action
Rapid wear at shoulders 	Under-inflation or lack of rotation 	Adjust the tire pressure
Rapid wear at center 	Over-inflation or lack of rotation 	
Cracked treads 	Under-inflation	

General Information

SS-5

Problem	Possible Cause	Action
Wear on one side 	Excessive camber 	Inspect the camber
Feathered edge 	Incorrect toe 	Adjust the toe-in
Bald spots 	Unbalanced wheel 	Adjust the imbalanced wheels
Scalloped wear 	Lack of rotation of tires or worn or out-of-alignment suspension	Rotate the tires inspect the front suspension alignment

SS-6

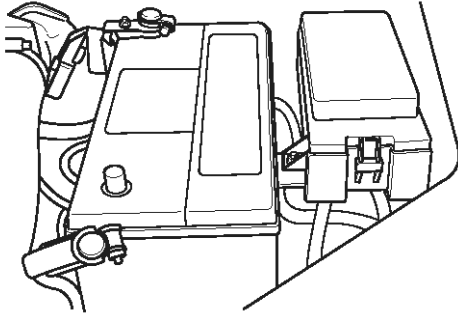
Suspension System

Front Suspension System

Front Strut Assembly

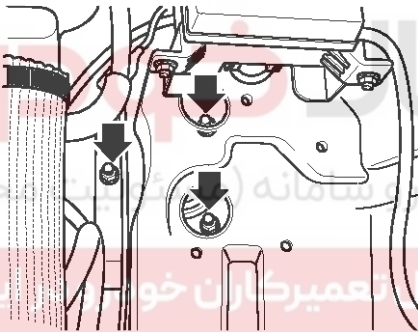
REMOVAL

1. Loosen battery cable and mounting bolt and then remove battery.



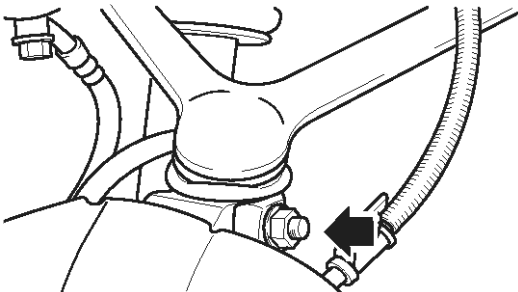
LHAC005C

2. Remove three shock absorber mounting block nuts from the mounting block.



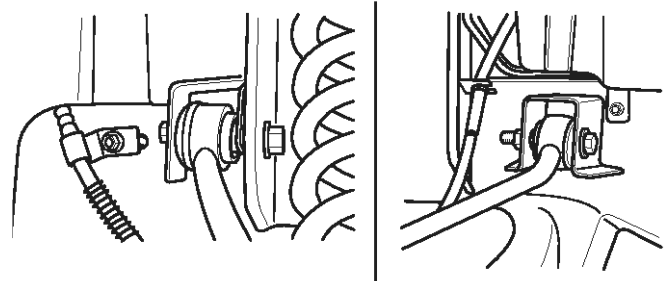
LHAC005A

3. Raise the front of the vehicle and support it with safety stands.
4. Remove the front wheels.
5. Remove the bolt on the steering knuckle side that secures the upper arm ball joint.



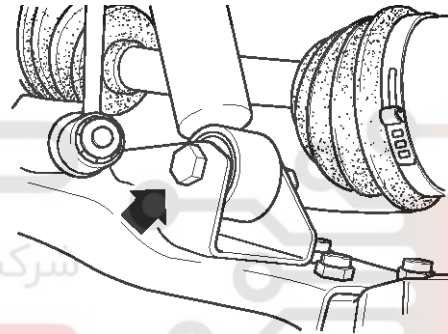
LHAC005E

6. Remove the brake hose bracket and then the remove the upper arm bolts and nuts.



LHAC005D

7. Remove the shock absorber lower nut.



LHAC005B

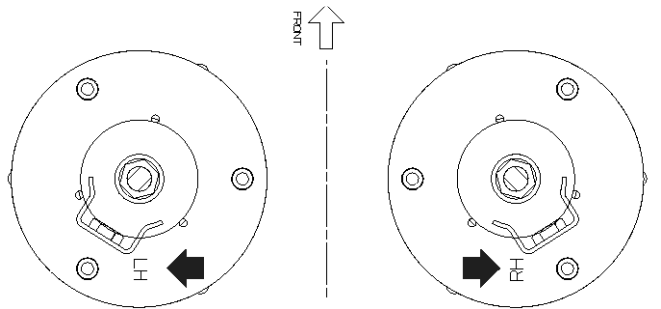
8. Remove the spring and shock absorber assembly from the vehicle as an assembly.

Front Suspension System

SS-7

INSTALLATION

1. After making sure identification mark on the spring seat. Position the spring and shock absorber assembly into the upper mounting block.

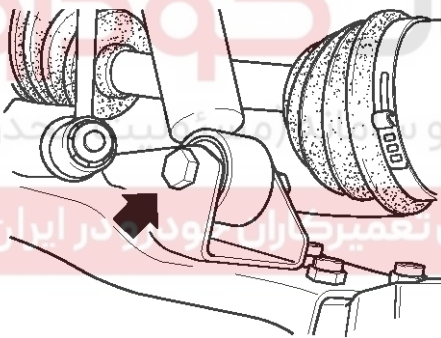


LHAC009A

2. Install the mounting block nuts by 3-4 threads only.
3. Insure the front of the vehicle is raised and supported with safety stands.
4. Tighten the lower nut of the shock absorber.

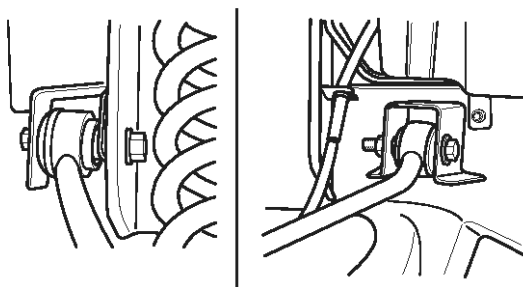
Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)



LHAC005B

5. Position the upper arm to the frame brackets, insert the bolts and hand tighten the nuts.

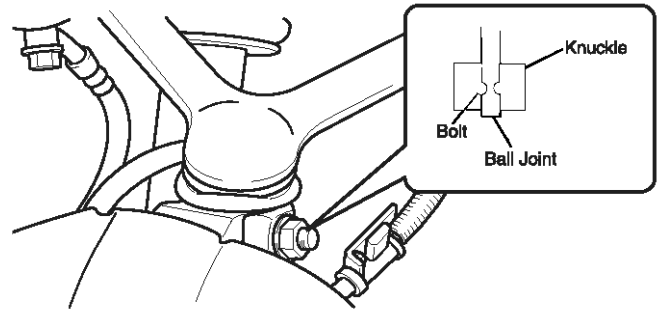


LHAC017A

6. Install the upper arm ball joint into the top of the steering knuckle and tighten the side bolt and nut.

Tightening torque :

45-55 N·m (4.4-5.5 kg·m, 31-39 lb·ft)

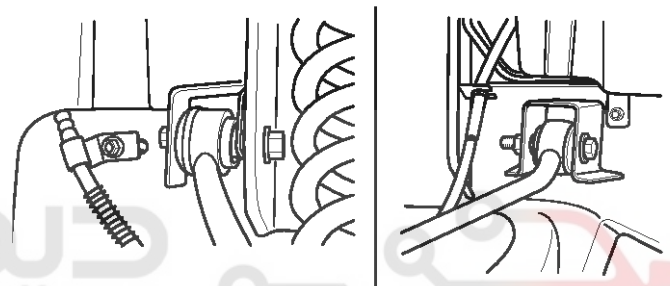


LHAC017B

7. Tighten the upper arm bolts and nuts and then install brake hose brackets.

Tightening torque :

76-95 N·m (7.6-9.5 kg·m, 54-68 lb·ft)



LHAC005D

8. Install the wheels and secure with lock nuts.

Tightening torque :

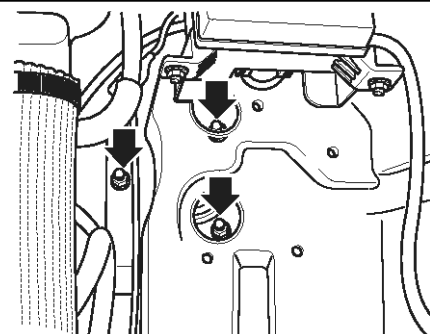
90-120 N·m (9-12 kg·m, 65-86 lb·ft)

9. Lower the vehicle.

10. Tighten the mounting block nut.

Tightening torque :

44-55 N·m (4.4-5.5 kg·m, 31-39 lb·ft)



LHAC005A

11. Install the battery mounting bracket and the battery.

12. After installing the front shock absorber and coil spring assembly, measure the wheel alignment and adjust if necessary.

SS-8

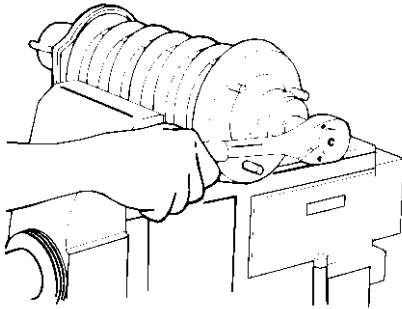
Suspension System

DISASSEMBLY

1. Secure the shock absorber in a suitable vise.
2. Loosen the piston rod nut several turns.

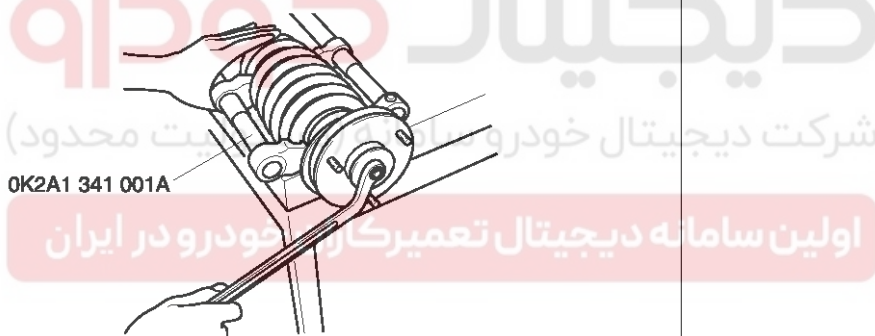
NOTICE

- Use copperplate in the jaws of the vise to protect the shock absorber bottom bracket.
- Remove the piston rod nut until coil spring is compressed and secured.



LHAC006A

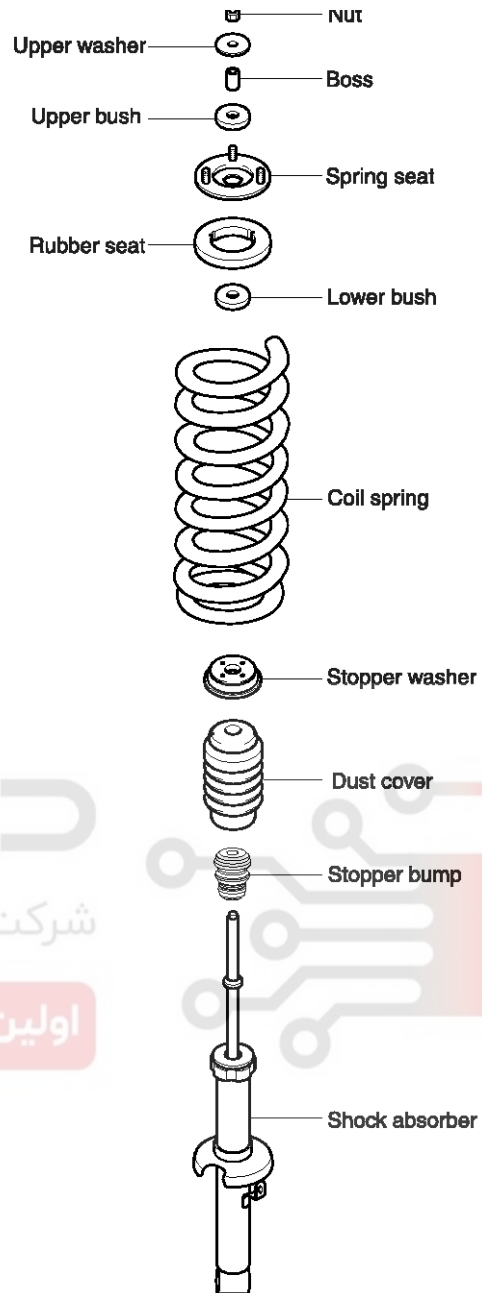
3. While still secured in a vise, compress the coil spring with SST.



OK2A1 341 001A

LHAC006B

4. Remove the piston rod nut and each part as below.



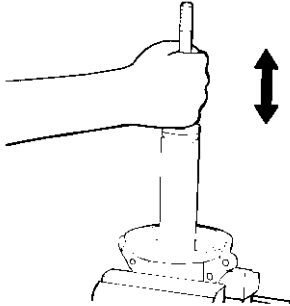
LHAC006C

Front Suspension System

SS-9

INSPECTION/REBUILD

1. Secure a handle to the shock absorber piston rod and compress and lift the rod three times with a constant speed. Inspect for uniform working force and abnormal noise.



LHAC007A

2. Inspect the entire shock absorber for signs of oil leakage; replace if required.
3. Inspect the coil spring for stress cracks and/or other damage.
4. Inspect for damage or deterioration of the upper and lower bushes.
5. Inspect for damage or tearing of the spring seat and rubber seat.



Spring seat

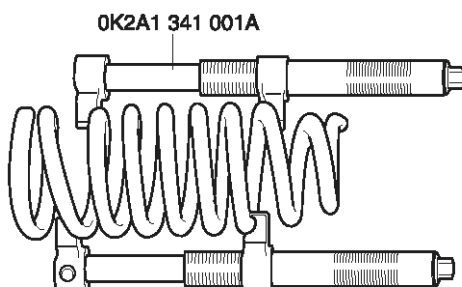


Rubber seat

LHAC007B

ASSEMBLY

1. Secure the bottom portion of the shock absorber in a vise and compress the coil spring with SST.

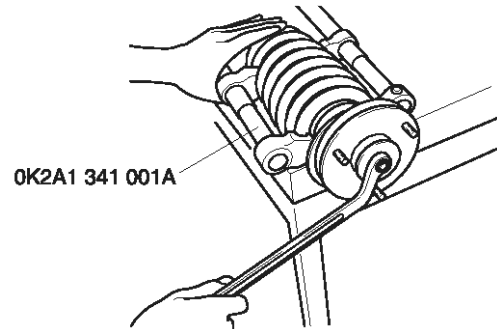


LHAC008A

NOTICE

Use copperplate in the jaws of the vise to protect the shock absorber bottom bracket.

2. Set the end of the coil spring to the rubber seat and install the coil spring.
3. Assemble stopper bump, dust cover, stopper washer, lower bush, rubber seat, spring seat, boss, upper bush and upper washer in sequence.
4. Hand tighten the piston rod nut.

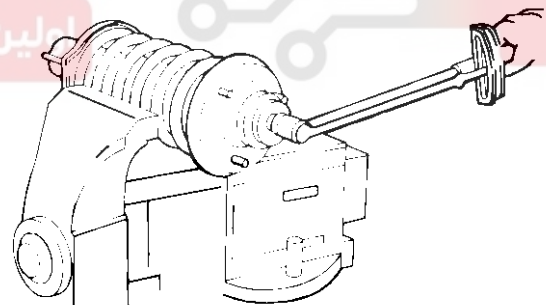


LHAC006B

5. Carefully loosen the coil spring compressor and remove it.
6. With the bottom bracket of the shock absorber still in the vise, tighten the piston rod nut.

Tightening torque :

76-95 N·m (7.6-9.5 kg·m, 54-68 lb·ft)



LHAC008B

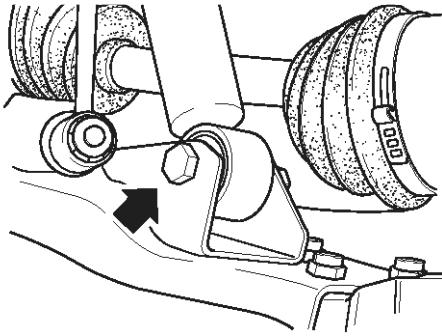
SS-10

Suspension System

Front Lower Arm

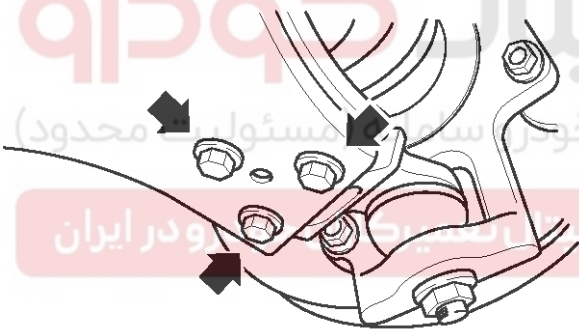
REMOVAL

1. Raise the front of the vehicle and support it with safety stands.
2. Remove the front wheels.
3. Remove the lower nut of control link of stabilizer bar.
4. Remove the lower nut of shock absorber.



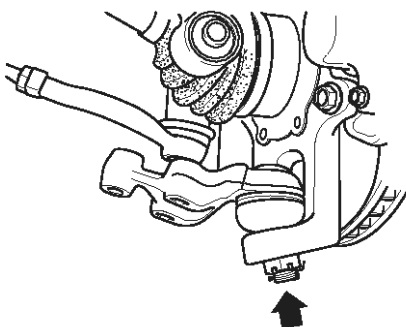
LHAC005B

5. Remove the bolts and nuts that joins lower arm and lower arm ball joint.



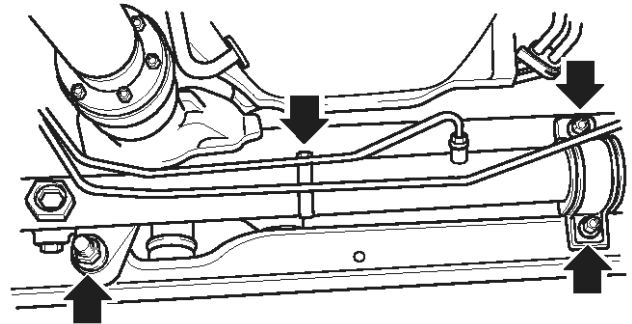
LHAC010A

6. Remove the cotter pin and castle nut from the lower arm ball joint.



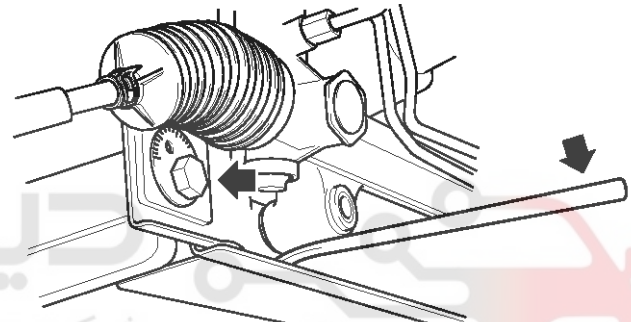
LHAC010B

7. Remove the lower arm ball joint from the steering knuckle with SST.
8. Remove the steering gear mounting bolts and nuts.



LHAC010D

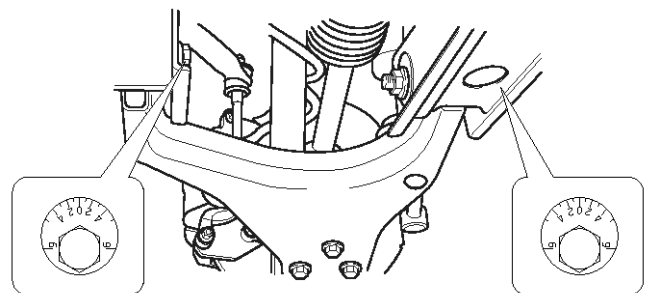
9. Remove the spindle from the front frame crossmember brackets during raising the steering gear box by using suitable bar.



LHAC010E

NOTICE

Before loosening the nuts of the spindles, make note of the numerical setting and mark the location on the frame bracket and plate so it can be re-installed to the same setting and location.



LHAC014B

10. Remove the lower arm.

Front Suspension System

SS-11

BUSHING REPLACEMENT

1. For bushing removal, utilize a standard bearing press.
2. Install the new bushing using a standard bearing press.

NOTICE

Apply lubricant to the new bushings prior to installation.

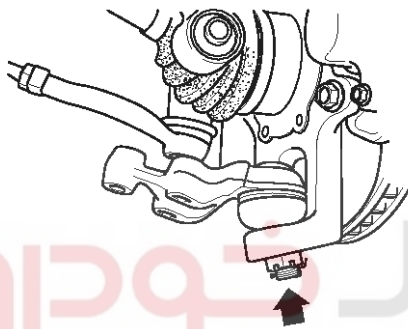
INSTALLATION

1. Install the lower arm ball joint to the steering knuckle.

Tightening torque :

160-180 N·m (16-18 kg·m, 115-130 lb·ft)

2. Install a new cotter pin through the castle nut.



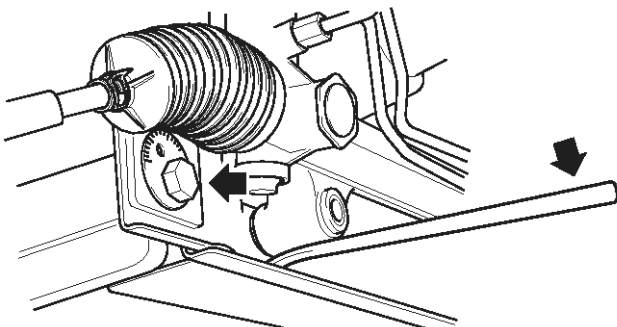
LHAC010B

3. Position the lower arm to the front frame crossmember brackets and then position the spindle during lift up the steering gear box by using suitable bar.

4. Install the lower arm spindles.

Tightening torque :

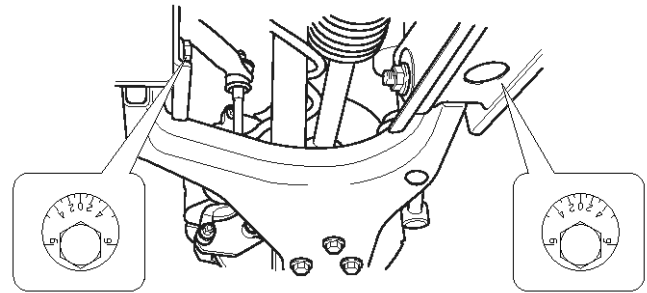
265-305 N·m (26.5-30.5 kg·m, 191-220 lb·ft)



LHAC010E

NOTICE

Align the spindle to the numerical setting and marked location on the frame bracket and plate so the same setting and location is maintained.

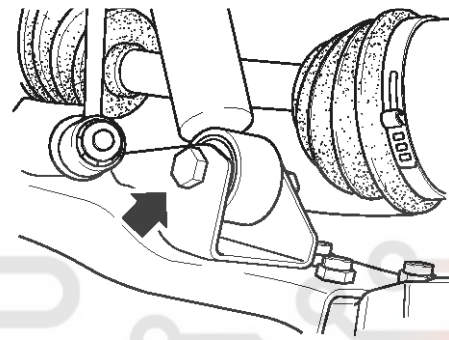


LHAC014B

5. Install the lower nut of the shock absorber.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)



LHAC005B

6. Install the lower nut of control link of stabilizer bar.

Tightening torque :

95-117 N·m (9.5-11.7 kg·m, 68-84 lb·ft)

7. Install the wheels and secure the lock nuts.

Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

8. Remove the safety stands and lower the vehicle.

NOTICE

After installation, measure the wheel alignment and adjust if necessary. Refer to "Wheel Alignment" in this section.

INSPECTION

1. Inspect for worn or deteriorated lower arm bushings.
2. Inspect for bent, cracked or damaged lower arm.
3. Inspect for worn or damaged ball joint.
4. Replace if damaged, deformed or cracked; replace bushing if worn or deteriorated. Refer to "Bushing Replacement" in the following procedure.

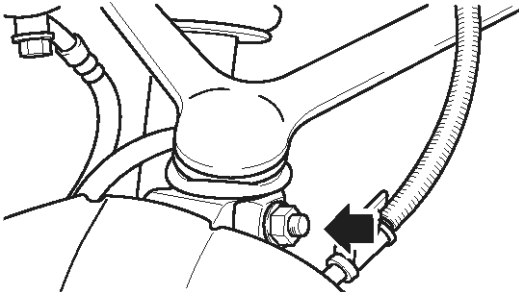
SS-12

Suspension System

Front Upper Arm

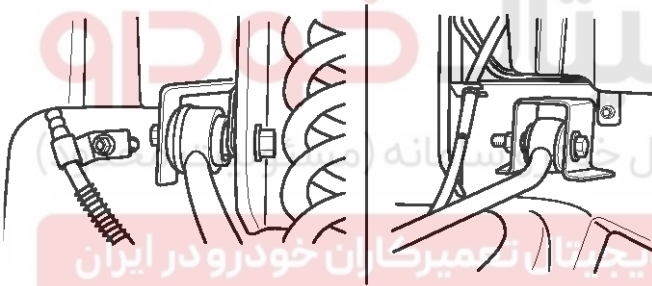
REMOVAL

1. Raise the front of the vehicle and support it with safety stands.
2. Remove the front wheels.
3. Remove the bolt on the steering knuckle side that secures the upper arm ball link.



LHAC005E

4. Remove the brake hose bracket and then remove the upper arm bolts and nuts.



LHAC005D

REPLACING THE BUSHING

1. Secure the upper arm in a suitable vise.
2. Using a standard bearing press, remove the old bushing.
3. Install the new bushing and then press it into the upper arm with a standard bearing press.

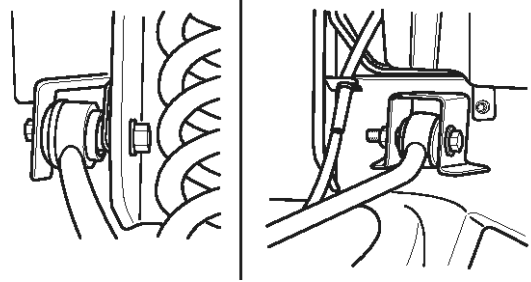
NOTICE

Apply lubricant to the new bushings to facilitate insertion into the upper arm.

The upper arm ball joint link and dust boot are non-replaceable items. Replace the upper arm if these items are damaged and/or deteriorated.

INSTALLATION

1. Raise the front of the vehicle and support it with safety stands.
2. Position the upper arm to the frame brackets, insert the bolts and hand tighten the nuts.

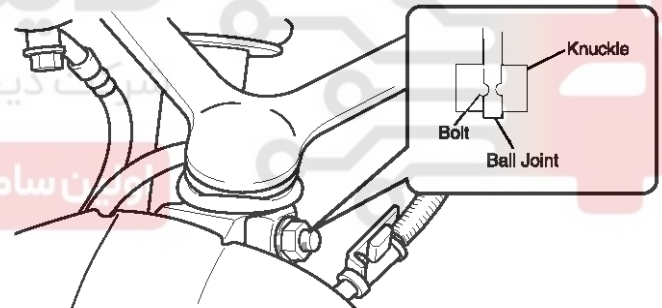


LHAC017A

3. Install the upper arm ball joint into the top of the steering knuckle and tighten the side bolt and nut.

Tightening torque :

44-55 N·m (4.4-5.5 kg·m, 31-39 lb·ft)

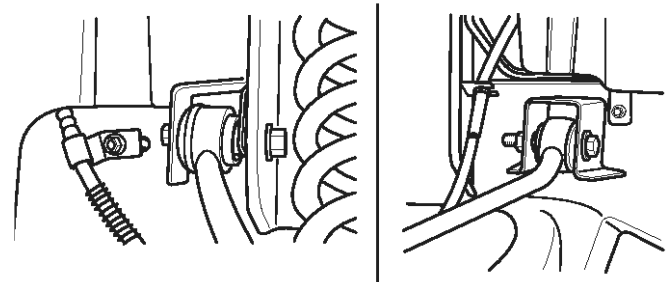


LHAC017B

4. Tighten the upper arm bolts and nuts and then install brake hose brackets.

Tightening torque :

76-95 N·m (7.6-9.5 kg·m, 54-68 lb·ft)



LHAC005D

5. Install the wheels and secure with lock nuts.

Front Suspension System

SS-13

Tightening torque :

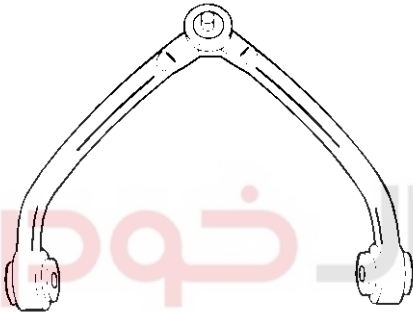
90-120 N·m (9-12 kg·m, 65-86 lb·ft)

NOTICE

After installation, measure the wheel alignment and adjust if necessary. Refer to "Wheel Alignment" in this section.

INSPECTION

1. Inspect for bent, cracked or otherwise damaged upper arm.
2. Inspect for worn or deteriorated upper arm bushing.
3. Inspect for worn or damaged ball link and replace if damaged, deformed or cracked.
4. Replace bushings if worn or deteriorated. Refer to "Replacing the Bushing" in the following procedure.



دیجیتال خودرو
شرکت دیجیتال خودرو سامانه (مسئولیت محدود)
LHAC015A

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



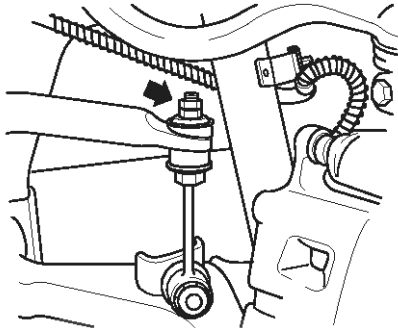
SS-14

Suspension System

Front Stabilizer Bar

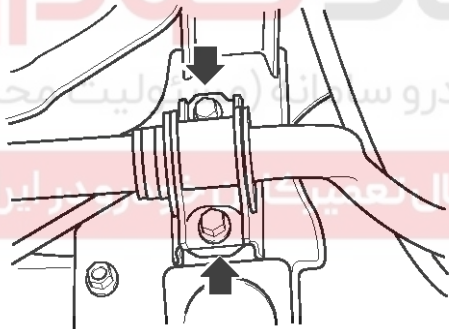
REMOVAL

1. Raise up the front of the vehicle and support it with safety stands.
2. Remove the wheels.
3. Remove the undercover.
4. Remove the nuts and oil damper rubbers of control link.



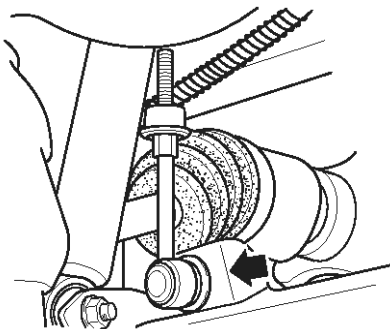
LHAC018A

5. Remove the stabilizer bar bushing brackets and then remove the stabilizer bar.



LHAC018B

6. Remove the control link from the lower arm.



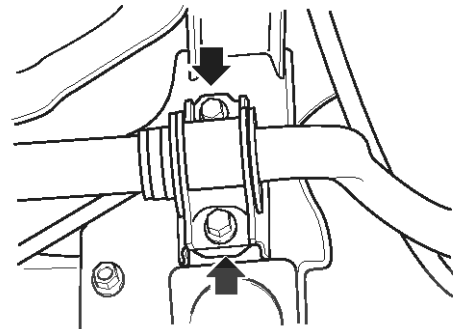
LHAC018C

INSTALLATION

1. Position the control links to the lower arm.
2. Loosely tighten the control link nuts.
3. Install the stabilizer bar on the control link.
4. Align the clamp bushing inside of stabilizer bushing and install bracket.

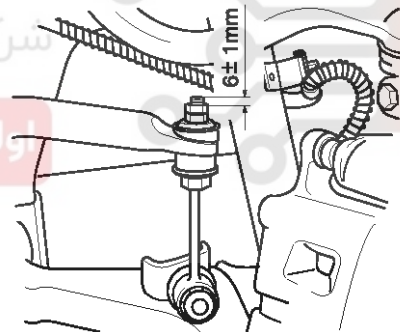
Tightening torque :

44-55 N·m (4.4-5.5 kg·m, 31-39 lb·ft)



LHAC018B

5. Install the oil damper rubber and nut, and then tighten to the specified length.



LHAC020A

6. Tighten the lower nut of control link.

Tightening torque :

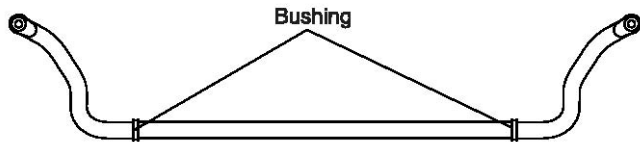
95-117 N·m (9.5-11.7 kg·m, 68-84 lb·ft)

Front Suspension System

SS-15

INSPECTION

1. Inspect for bent, cracked or damaged stabilizer bar.
2. Inspect for worn or deteriorated stabilizer bar bushing.



LHAC028A

3. Inspect for worn or damaged ball joint of control link.

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



SS-16

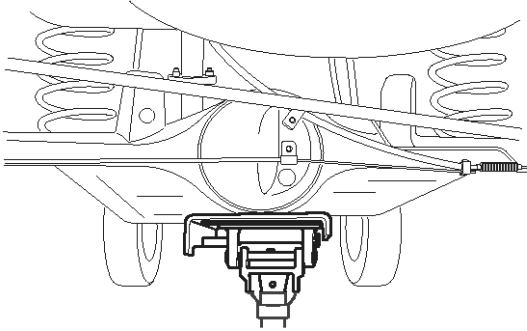
Suspension System

Rear Suspension System

Rear Shock Absorber

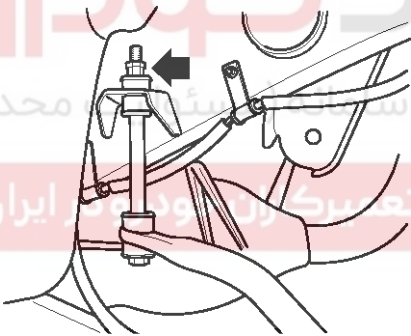
REMOVAL

1. Raise the rear of the vehicle and support it with safety stands.
2. Remove the rear wheels.
3. Raise the rear axle housing to facilitate removal of the shock absorbers.



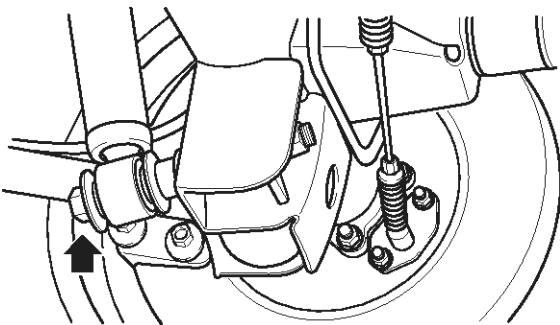
LHAC021D

4. Remove stabilizer link upper mounting nut.



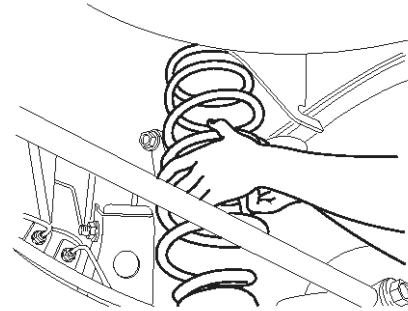
LHAC021E

5. Remove the rear shock absorber lower nut and washer.



LHAC021A

6. Remove the shock absorber upper bolt, and then remove the shock absorber.
7. Lower the rear axle housing slowly to facilitate removal of the coil spring.



LHAC021B

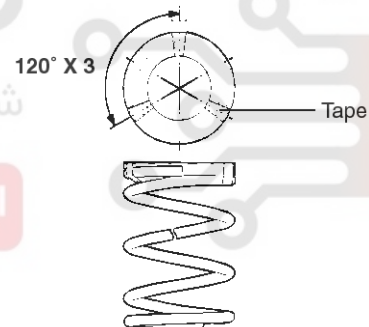
8. Remove the upper rubber seat.

INSTALLATION

1. Position the upper rubber seat to the coil spring.

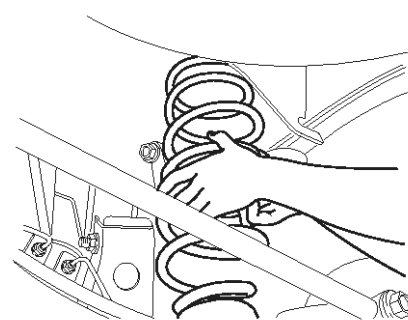
CAUTION

Align the spring end with the groove of the spring pad and fix the spring and the spring pad by adhering the 3 parts with tape.



LHAC023A

2. Slowly raise the rear axle housing while installing the coil spring.



LHAC021B

3. Install the shock absorber upper nut.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)

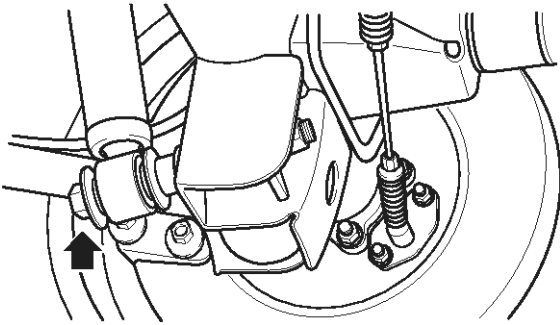
Rear Suspension System

SS-17

4. Install the shock absorber lower bolt.

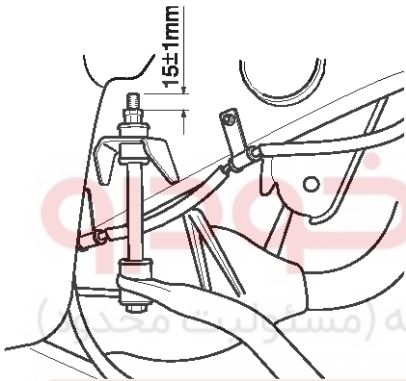
Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)



LHAC021A

5. Install the stabilizer link upper mounting nut to the specified length.



LHAC023C

6. Install the wheels and secure with lug nuts.

Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

7. Remove the safety stands and lower the vehicle.

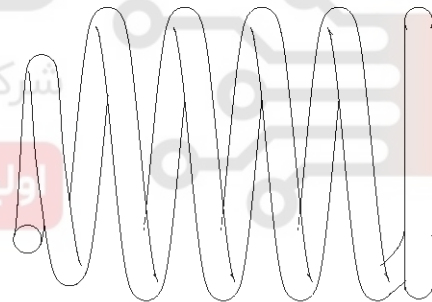
INSPECTION

1. Compress and expand the shock absorber three to four times and analyze for uniform working force and abnormal noise.
2. Inspect for gas leakage.



LHAC022A

3. Inspect the shock absorber for a worn or deteriorated rubber bushing.
4. Replace the rear shock absorber assembly if a problem is found.
5. Inspect the rear coil spring for bends, cracks or other damage.



LHAC022C

6. Inspect the upper rubber seats for tears and/or deterioration.
7. Inspect the rear jounce stop for damage and/or deterioration.
8. Replace if damaged, deformed or cracked; replace bushings if worn or deteriorated.

SS-18

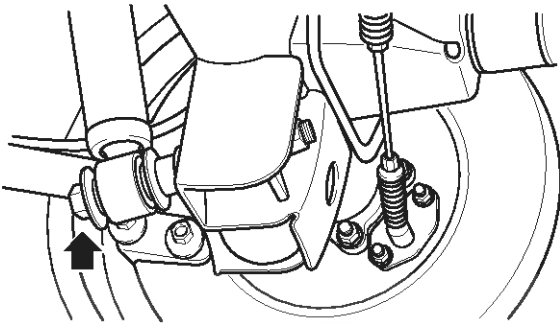
Suspension System

Upper Arm, Lower Arm And Assist Link

REAR UPPER ARM

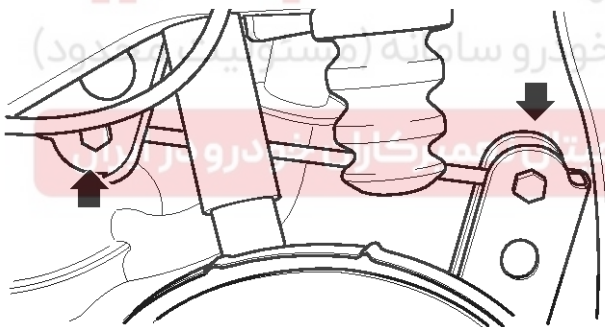
Removal

1. Raise the rear of the vehicle and support it with safety stands.
2. Remove the rear wheels.
3. Raise the rear axle housing to facilitate removal of the upper arm.
4. Remove shock absorber lower bolt.



LHAC021A

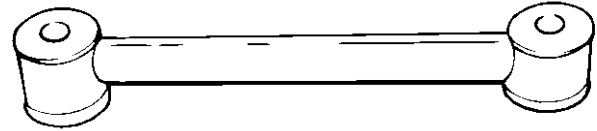
5. Loosen the upper arm bolts and remove the upper arm.



LHAC024A

Inspection

1. Inspect the upper arm for bends, cracks and/or other damage.
2. Inspect the upper arm bushings for wear and/or deterioration.
3. Replace if damaged, deformed or cracked; replace bushings if worn or deteriorated. Refer to Bushing Replacement in the following procedure.



LHAC024B

Bushing Replacement

1. Press out the bushing using a standard bearing press.
2. Apply soapy water to the bushing and press into place using a standard bearing press.

Installation

1. Install the upper arm and the bolts.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)

2. Install shock absorber lower bolt.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)

3. Lower the rear axle housing.
4. Install the wheels and secure with lug nuts.

Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

5. Remove the safety stands and lower the vehicle.

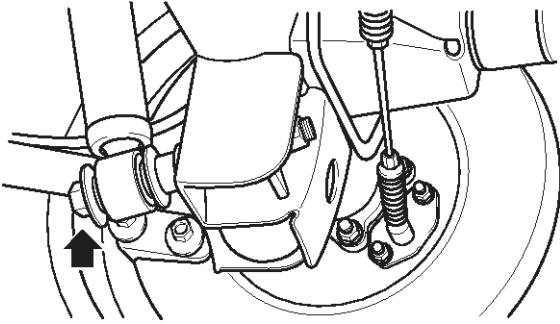
Rear Suspension System

SS-19

REAR LOWER ARM

Removal

1. Raise the rear of the vehicle and support it with safety stands.
2. Remove the rear wheels.
3. Raise the rear axle housing to facilitate removal of the lower arm.
4. Remove shock absorber lower bolt.



LHAC021A

5. Remove wheel speed sensor cable from rear lower arm.
6. Loosen the lower arm bolts and remove the lower arm.

Inspection

1. Inspect the lower arm for bends, cracks and/or other damage.
2. Inspect the lower arm bushings for wear and/or deterioration.
3. Replace if damaged, deformed or cracked; replace bushings if worn or deteriorated. Refer to Bushing Replacement in the following procedure.

Bushing Replacement

1. Press out the bushing using a standard bearing press.
2. Apply lubricant to the bushing and press into place using a standard bearing press.

Installation

1. Install the lower arm and the bolts.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)

2. Install wheel speed sensor cable to the rear lower arm.
3. Install shock absorber lower bolt.

Tightening torque :

122-140 N·m (12.2-14 kg·m, 88-101 lb·ft)

4. Lower the rear axle housing.
5. Install the wheels and secure with lug nuts.

Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

6. Remove the safety stands and lower the vehicle.

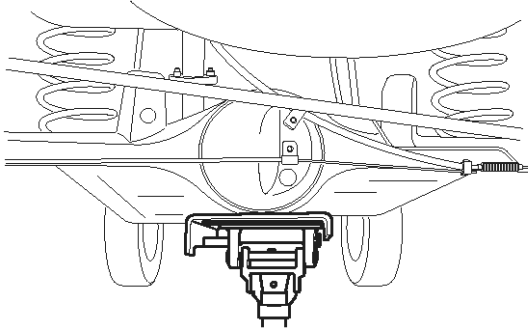
SS-20

Suspension System

Rear Stabilizer Bar

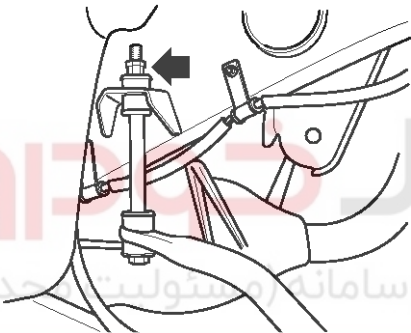
REMOVAL

1. Support the bottom of the rear differential carrier with a jack.



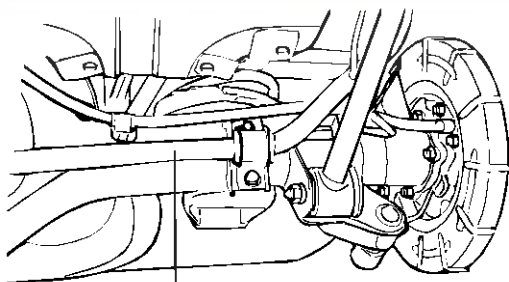
LHAC021D

2. Remove the stabilizer link mounting nut.



LHAC021E

3. Remove the stabilizer bar bushing bracket.



Stabilizer bar

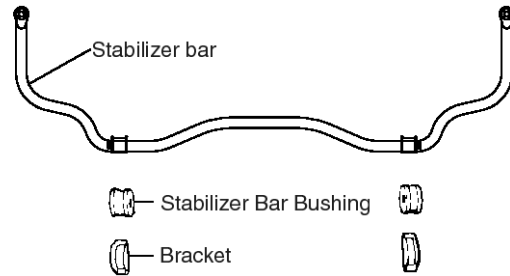
LHAC027B

INSTALLATION

1. Align the identification mark white paint on stabilizer bar with bushing and install the stabilizer bar bushing bracket.

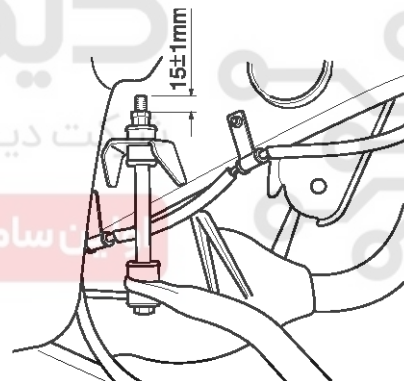
Tightening torque :

19-23N·m (1.9-2.3 kg·m, 13-16lb·ft)



LHAC019A

2. Install the joint cup and nut and then tighten to the specified length.



LHAC023C

Rear Suspension System

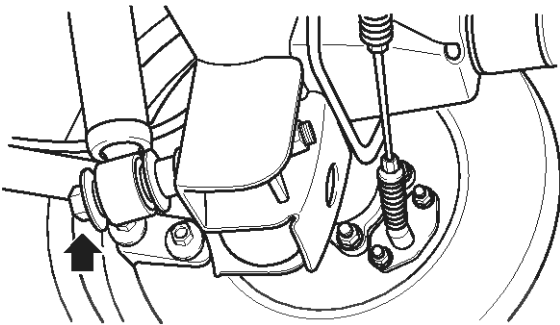
SS-21

Lateral Rod

LATERAL ROD

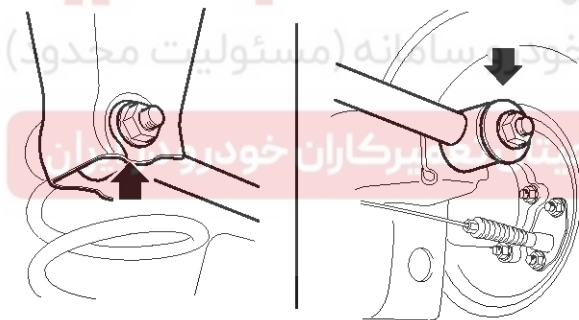
Removal

1. Raise the rear of the vehicle and support it with safety stands.
2. Remove the rear wheels.
3. Raise the rear axle housing to facilitate removal of the lateral rod.
4. Remove shock absorber lower bolt.



LHAC021A

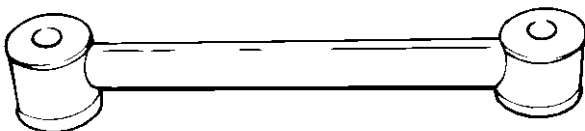
5. Loosen the lateral rod bolts and remove the lateral rod.



LHAC026A

Inspection

1. Inspect the lateral rod for bends, cracks and/or other damage.



LHAC024B

2. Inspect the lateral rod bushings for wear and/or deterioration.
3. Replace if damaged, deformed or cracked; replace bushings if worn or deteriorated. Refer to "Bushing Replacement" in the following procedure.

Bushing Replacement

1. Press out the bushing using a standard bearing press.
2. Apply lubricant to the bushing and press into place using a standard bearing press.

Installation

1. Install the lateral rod and the bolts.

Tightening torque :

187-215 N·m (18.7-21.5 kg·m, 135-155 lb·ft)

2. Install shock absorber lower bolt.

Tightening torque :

122-140 N·m (12.2-14.0 kg·m, 88-101 lb·ft)

3. Lower the rear axle housing.
4. Install the wheels and secure with lug nuts.

Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

5. Remove the safety stands and lower the vehicle.

SS-22

Suspension System

Tires/Wheels

FRONT WHEEL ALIGNMENT

⚠WARNING

PROVIDE SUFFICIENT SUPPORT FOR THE VEHICLE TO REDUCE THE POSSIBILITY OF THE VEHICLE FALLING, CAUSING PERSONAL INJURY OR DEATH.

Wheel alignment refers to the angular relationship between the wheels, control arms, suspension and the ground. It deals with tire camber, caster, toe-in and wheel balancing. Proper wheel alignment and wheel balance insures a safe, quiet ride with minimal tire wear. This section assumes that all components are in good working condition. Performing this exercise may also detect any problem areas in the front suspension. It is advisable to replace defective components before attempting a wheel alignment.

Inspection

1. Inspect tires for proper balance and inflation. Balance tires and set to the recommended pressure if necessary.
2. Inspect front wheel bearing play and reduce the bearing play; replace any defective bearings.
3. Inspect for any excessive looseness of the ball joints and steering center link.
4. Place the vehicle on level ground and confirm that there are no passengers or luggage on board.
5. Push down on the front of the vehicle to determine the correct operation of the shock absorbers.

CAMBER

Inspection (Camber)

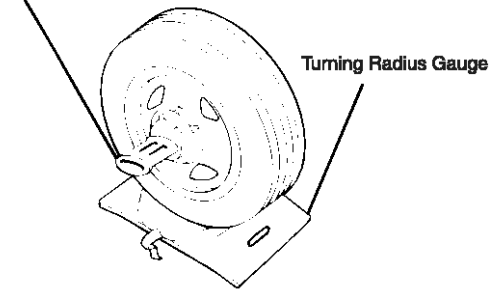
1. Position the vehicle so that the front wheel is on the turning-radius gauge.
2. Remove wheel cover.
3. Attach the standard camber gauge to the hub and measure the camber.

Camber :

$0.39 \pm 0.5^\circ$ (No Passenger Load)

0° (2 Passenger Load)

Combination Caster & Camber Gauge

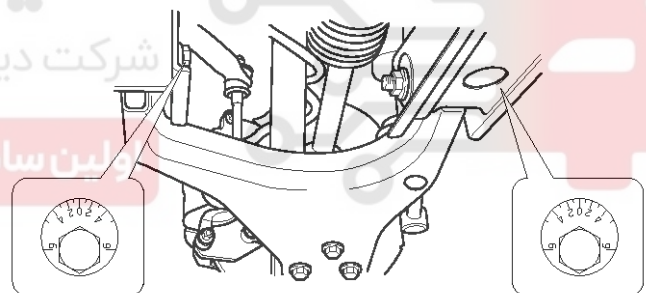


LHAC030A

Adjustment (Camber)

1. Turn the front spindle clockwise so that the number "1" mark is aligned with the vertical line on the spindle bracket.
2. Turn the rear spindle clockwise so that the number "1" mark is aligned with the vertical line on the spindle bracket.

Each numerical point indicated on the spindle increases the camber by 0.18 degrees when turned to the vertical line on the spindle bracket.



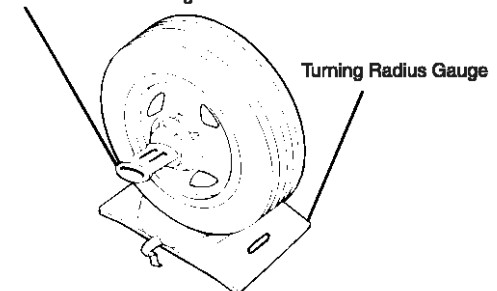
LHAC014B

CASTER

Inspection (Caster)

1. Position the vehicle so that the front wheel is on the turning-radius gauge.
2. Remove the wheel cover.

Combination Caster & Camber Gauge



LHAC030A

Tires/Wheels

SS-23

3. Attach a standard caster gauge to the hub and measure the caster.

Caster :

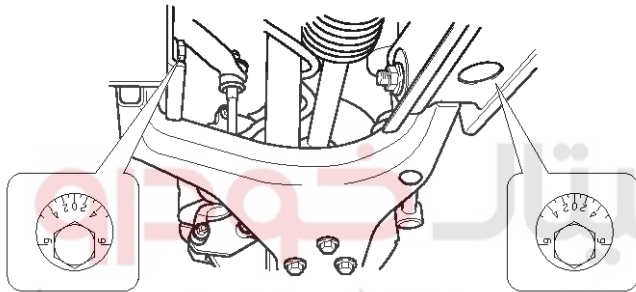
3.30° ± 0.5° (No Passenger Load)

3.55° (2 Passenger Load)

Adjustment (Caster)

1. Turn the front spindle clockwise until the number "1" mark is aligned with the vertical line on the spindle bracket.
2. Turn the rear spindle counter-clockwise until the number "1" mark is aligned with the vertical line on the spindle bracket.

Each numerical point indicated on the spindle increases the caster by 0.23 degrees when turned to the vertical line.



LHAC014B

TOE-IN

INSPECTION (TOE-IN)

1. Position the vehicle on level ground and place the front wheels in a straight-ahead position within ± 5 degrees.
2. Measure the toe-in with a standard toe-in gauge.

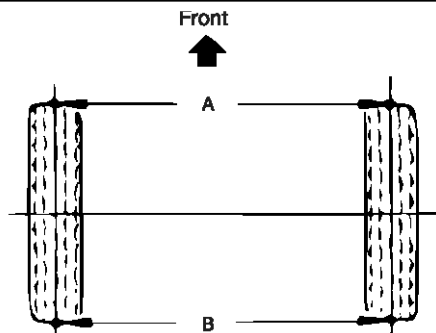
Toe-in (B-A) :

0° ± 0.2° (0 ± 0.079 in.)

(No Passenger Load)

0 in. (0°)

(2 Passenger Load)



LHAC032A

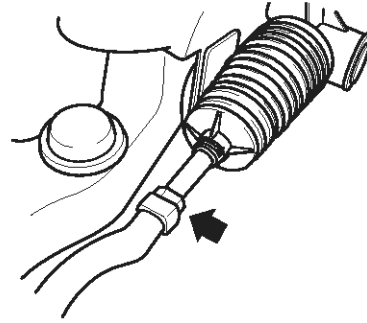
ADJUSTMENT (TOE-IN)

1. Loosen the left and right tie-rod lock nuts.
2. Toe to specifications by turning the tie-rod by the center adjuster.
3. Tighten the left and right tie-rod lock nuts.

Tightening torque :

50-55 N·m (5.0-5.5 kg·m, 36-39 lb·ft)

4. Repeat adjustment instructions for opposite side.



LHAC032B

SS-24

Suspension System

Tire

TIRE WEAR

1. Measure the tread depth of the tire.

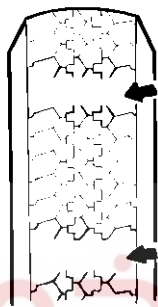
Tread depth of tire (Limit) :

1.6 mm (0.0630 in.)

2. If the tread depth is less than the limit, replace the tire.

NOTICE

When the tread depth of the tire is reduced to 1.6 mm(0.0630 in.) or less, the wear indicators will appear.



LHAC033A



دیجیتال خودرو
شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

Tires/Wheels

SS-25

Wheel

WHEEL RUNOUT

1. Jack up the vehicle and support it with jack stands.
2. Measure wheel runout with a dial indicator.
3. Replace the wheel if wheel runout exceeds the limit.

Wheel runout [Limit]

Direction	Aluminum wheel	Steel wheel
Radial	0.3 mm (0.012 in.)	1.0 mm (0.039 in.)
Axial	0.3 mm (0.012 in.)	1.2 mm (0.222 in.)



WHEEL NUT TIGHTENING

1. Tightening torque.

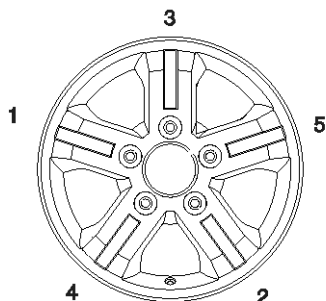
Tightening torque :

90-120 N·m (9-12 kg·m, 65-86 lb·ft)

⚠ CAUTION

When using an impact-wrench, adjust the tightening torque completely.

2. Tighten all the wheel nut according to the order shown in the illustration until they are all tight.



LHAC034B

