HYUNDAI **Technical Service Bulletin**

Group	1/29/04 CAMPAIGN
Number	03-01-007
Subject	**FRONT SUSPENSION LOWER CONTROL ARM CORROSION - CAMPAIGN 058**
Date	JUNE, 2003
Model	1995 - 1996 ACCENT

DESCRIPTION:

This bulletin provides a procedure to inspect for, and if necessary, correct corrosion damage to the front suspension lower control arms.

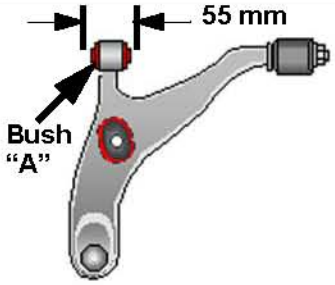
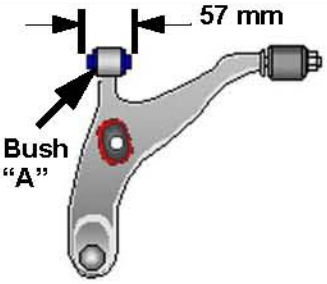
AFFECTED VEHICLES:

Accent vehicles produced through **August 31, 1996,** which were originally sold in or currently registered and operated in the affected states listed below.

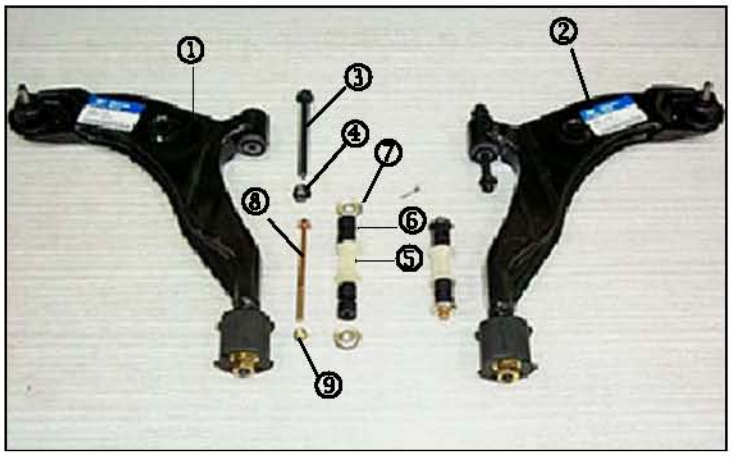
AFFECTED STATES:

Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia and Wisconsin, and the District of Columbia.

PARTS INFORMATION:

FACTORY INSTALLED-PARTS (LOWER CONTROL ARM IDENTIFICATION ON VEHICLE)	PART NAME	LOWER CONTROL ARM ASSEMBLY				
	PRODUCTION DATE RANGE	JOB #1 ~ JUNE 15, 1996			JUNE 15, 1996 ~ AUGUST 31, 1996	
	Difference in dimension (Bush "A")					
REQUIRED PARTS FOR INSTALLATION OF REPLACE-MENT LOWER CONTROL ARMS	PART NAME	LOWER CONTROL ARM ASSEMBLY AND LINK KIT				
	KIT P/N	54500-22A00			54500-22B00	
	CONTENTS FOR KIT (LOWER ARM AND LINK KIT)	PART NAME	PART NUMBER	QTY	PART NAME	PART NUMBER	QTY
		Lower arm - LH	① 54500-2210A	1	Lower arm - LH	① 54500-2220A	1
		Lower am - RH	② 54501-2210A	1	Lower am - RH	② 54501-2220A	1
		Link kit*	54500-22C00	1	Link kit*	54500-22C00	1

* CONTENTS FOR LINK KIT	54500-22C00: LINK KIT*		
	PART NAME	PART NUMBER	QTY
	Bolt (A)	③ 54557-22100	2
	Flange nut (A)	④ 54559-22500	2
	Spacer	⑤ 54823-22000	2
	Bush	⑥ 54826-22000	8
	Cup	⑦ 54815-22001	4
	Bolts (S)	⑧ 54825-22000	2
	Flange nut (S)	⑨ 54828-22000	2



REQUIRED TOOLS & SUPPLIES FOR CORROSION INSPECTION AND LOWER ARM REPLACEMENT PROCEDURES:

SERVICE TOOLS SUPPLIED BY HYUNDAI:

KIT	KIT PARTS	QTY	PHOTO	COMMENTS
Gage and drill bit	Go/No-Go gauge	2		1.5 mm gauge
	Drill bit (10 mm)	2		Center point type 10 mm diameter drill bit

NOTE: **Tool kit will be supplied by Hyundai.**

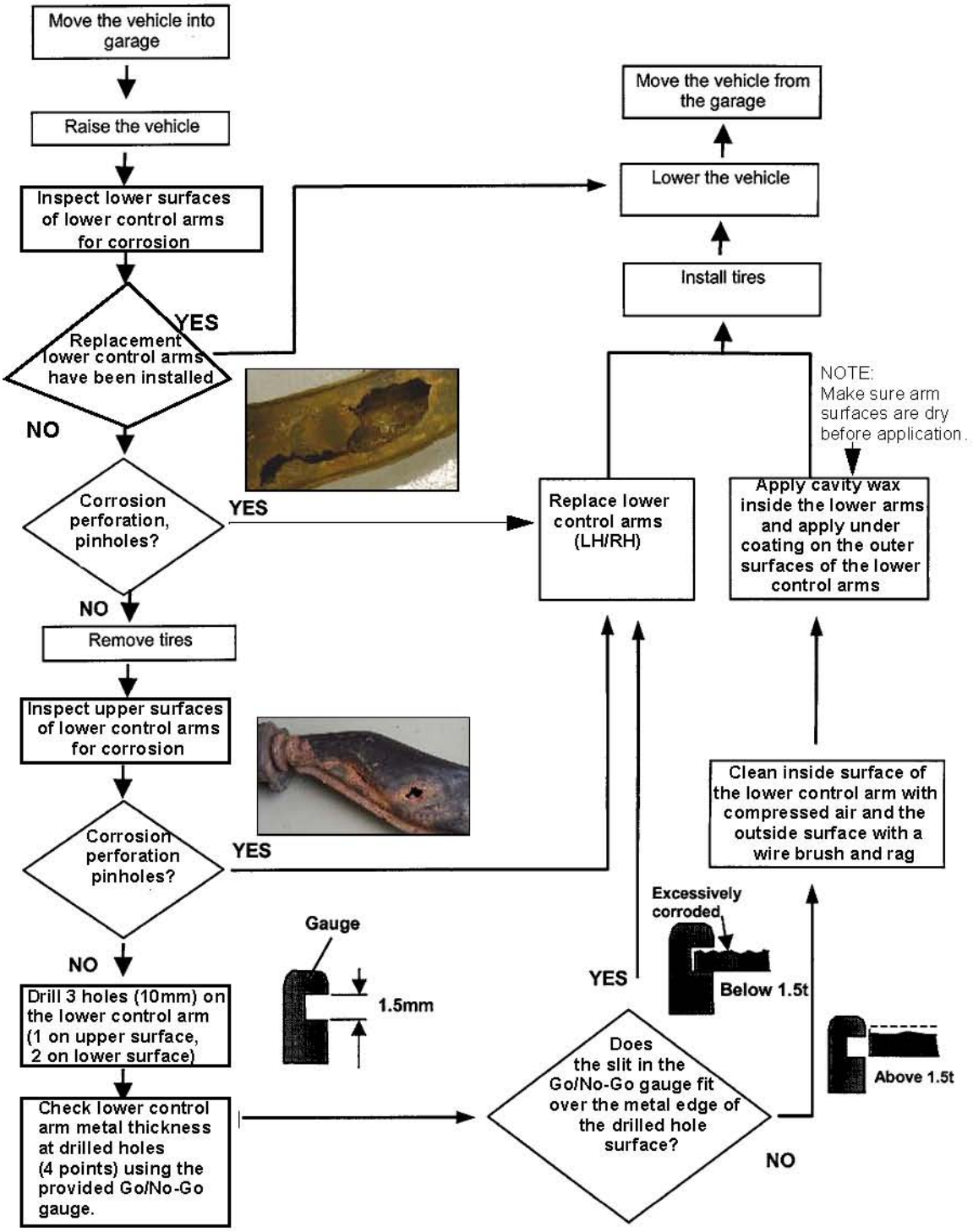
NOTE: **RECOMMENDED TOOLS AND PARTS (SOURCE LOCALLY):**

ITEM	PRODUCT NAME	PHOTO	COMMENTS	REMARKS
Pneumatic spray gun	ValuGard Cavity Wax Spray Gun & Lances P/N: VG-X-RG		(1)	(1) Gun P/N: VG-X-RG will be supplied by Hyundai.
Rust Inhibi-tor (Cavity wax)	ValuGard P/N: VG-101 NOTE: Do not substitute		0.917 Liter (31 oz) (886 grams)	(2) One can - each of VG-101 and VG-104 will be supplied with the cavity wax gun (3) For additional chemicals, contact ValuGard at 800-543-7156 or e-mail cfields@ autoint.com
Undercoating	ValuGard P/N: VG-104 NOTE: Do not substitute		(2) & (3)	
Brush	1" Pure Bristle Brush		A well maintained brush can do at least five cars	Purchase from local source

NOTE: **For additional information on chemical products and spay gun, visit www.autoint.com.**

SERVICE PROCEDURE:

NOTE: Verify that the vehicle is affected by identifying the vehicle production date range (through August 31, 1996).



LOWER CONTROL ARM INSPECTION AND CORROSION PROTECTION TREATMENT APPLICATION PROCEDURE:

NOTE: This procedure applies to both left and right lower control arms.

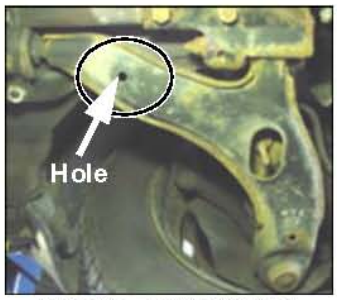
1. Move the vehicle into the garage.

2. Raise the vehicle to the chest height of the technician.

3. Clean any dirt, surface corrosion, mud, etc., from the lower panel surfaces of both lower control arms.

   • Inspect the lower panel surfaces of the lower control arms on both sides to determine whether the vehicle requires this repair service.

VEHICLE REQUIRES INSPECTION



VEHICLE DOES NOT REQUIRE INSPECTION

- If the vehicle's lower control arms contain a hole in the lower surface as shown in the photograph, no further action is required (vehicle is not affected by this campaign).
- Lower the vehicle. The vehicle may be returned to the owner.
- If the vehicle's lower control arms do not contain a hole in the lower surface, proceed to the next steps to inspect the lower arms for corrosion (vehicle is affected by this campaign).

4. Check the lower surfaces of both lower control arms for any corrosion perforation.

- If corrosion perforation or pinholes are observed in any lower control arm as shown, proceed to the "Lower control arm replacement procedure" on page 16 of this bulletin.

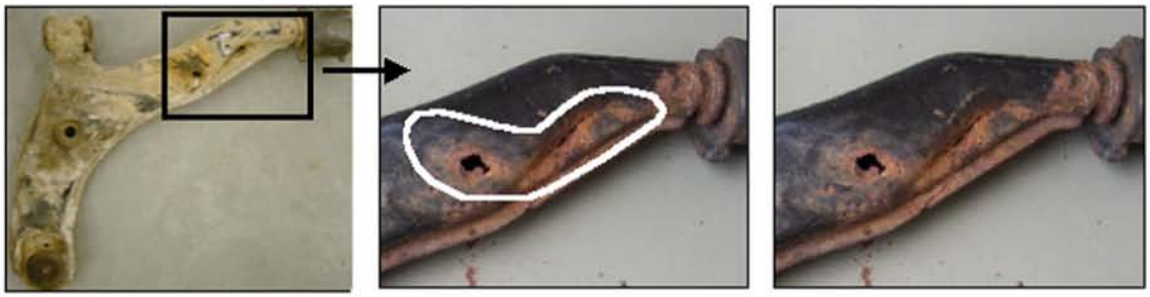
- If a light surface corrosion is observed without any perforation or pinholes, proceed to the next steps for further inspection of the upper surfaces of the arms.

5. Remove the front tires.

6. Clean any dirt, mud, surface corrosion, etc., from the upper panels of both lower control arms.

7. Inspect the upper panel surfaces of the arms for any corrosion perforation, pinholes or cracks.

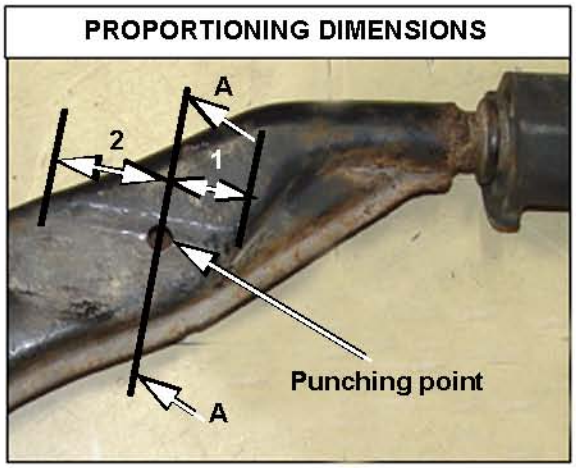
- If corrosion perforation or pinholes are observed in any lower control arm as shown, proceed to the "Lower control arm replacement procedure" on page 16 of this bulletin.



- If light surface corrosion is observed without pinholes, perforation or cracks, perform the following steps to determine the integrity of the lower and upper surfaces of the lower control arms.

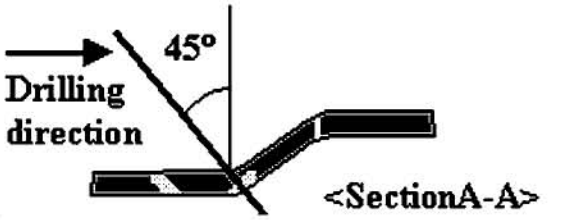
8. Mark the punch locations on the RH and LH upper panel surfaces of the lower control arms.

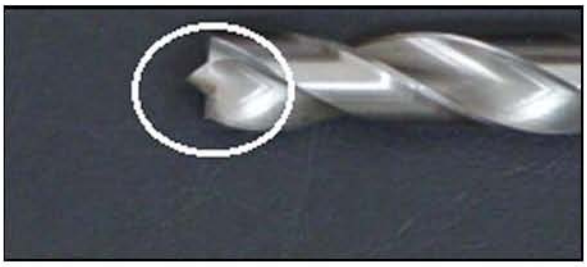
   • Removed lower control arm shown in photo for clarity.



9. Punch these locations as shown.

10. Using a center point type 10 mm diameter drill bit, drill the punched points on both sides.

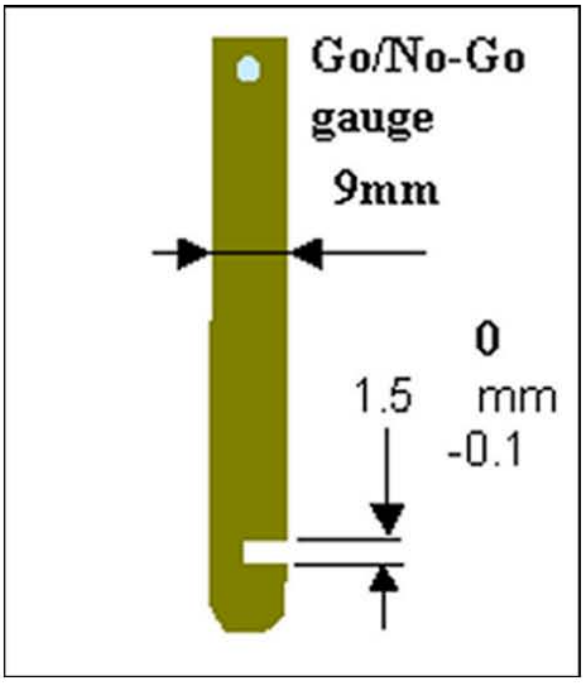


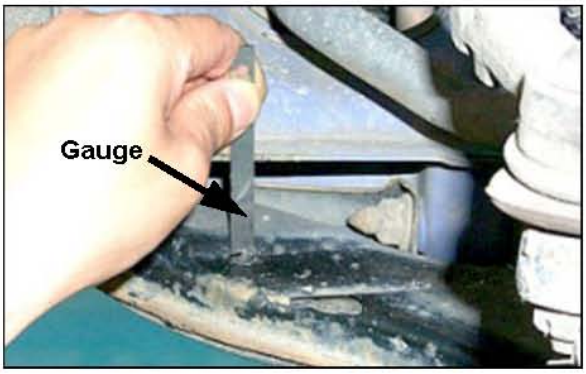


NOTES:

- **Wear goggles, gloves and a mask while drilling.**
- **Hold the drill with both hands and use caution while drilling.**
- **Deburring is not needed when drilling by using a center point type drill bit.**

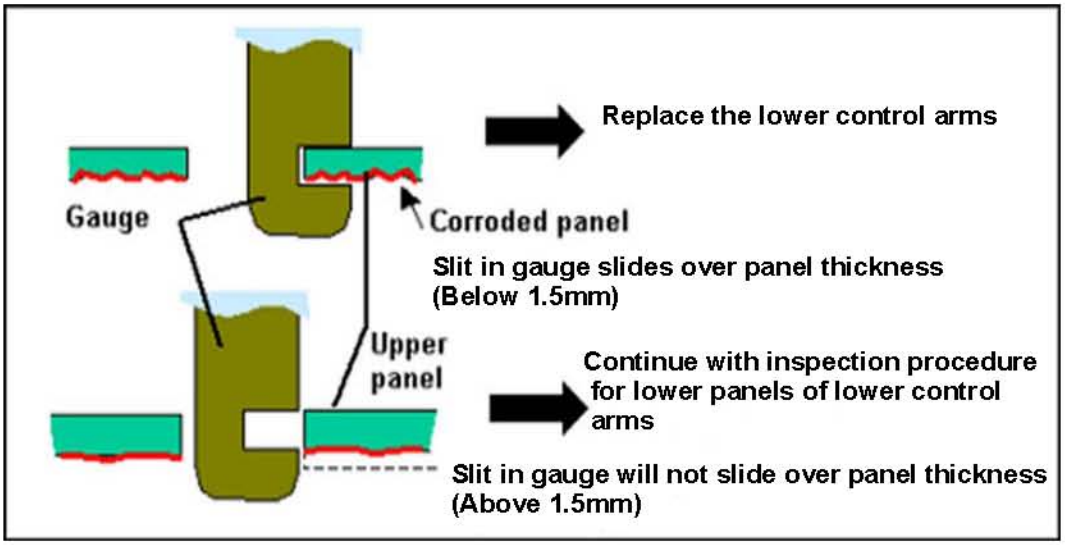
11. Using the Go/No-Go gauge, insert the gauge into the drilled holes on the upper surfaces of the lower control arms on both sides.





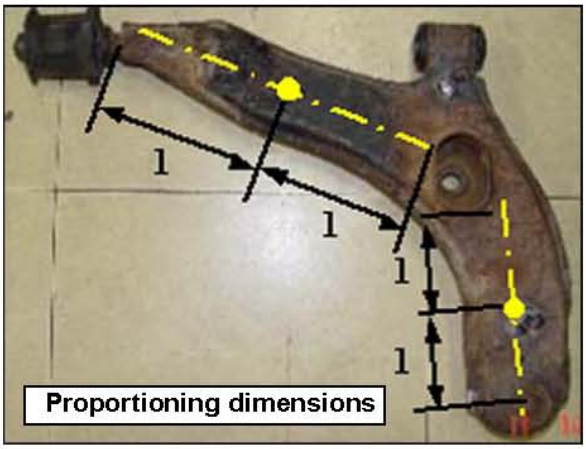
- Slide the slit portion in the gauge in the direction of the formed line on the upper panels of both lower control arms to measure the Go/ No-Go thickness at the two arrow locations.

- If the 1.5 mm slit in the gauge can slide over any of the upper panels of the lower control arms, proceed to the "Lower control arm replacement procedure" on page 16 of this bulletin.
- If the 1.5 mm slit in the gauge cannot be slid over any upper panels, the upper panels of the lower control arms on both sides are acceptable.
- Continue with the next steps to check the integrity of the lower panels of both lower control arms.



12. Raise the vehicle fully.

13. Mark the punch locations on the RH and LH lower panel surfaces of the lower control arms.
    - Lower control arm removed in photo for clarity.



Proportioning dimensions

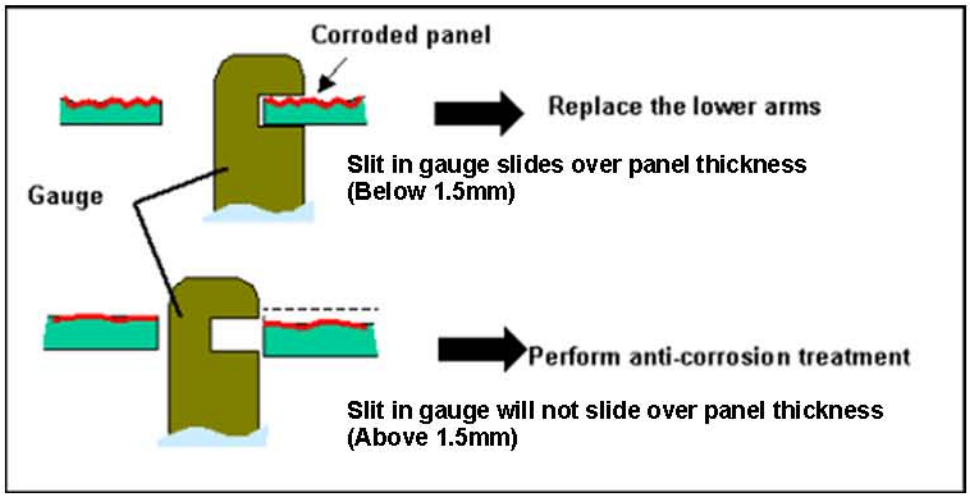
14. Punch these locations as shown.

15. Using the center point type 10 mm diameter drill bit, drill all punched points on both sides.

NOTE: Wear goggles, gloves and a mask while drilling. Use both hands not to slip off the drill.

16. Slide the slit portion in the gauge in the direction of the formed lines on the lower panels of both lower control arms as shown to measure the Go/ No-Go thickness at the four arrow locations.

- If the 1.5 mm slit in the gauge can slide over any of the lower panels of the lower control arms, proceed to the "Lower control arm replacement procedure" on page 16 of this bulletin.
- If the 1.5 mm slit in the gauge cannot be slid over any lower panels, the lower panels of the lower control arms on both sides are acceptable.
- Perform the anti-corrosion treatment in steps 17 through 26:



17. Using shop air, blow out rust and foreign objects that may be inside both the lower control arms.

NOTE: Wear goggles and a mask.

18. Clean all surfaces of both lower control arms using a wire brush and shop rag.

NOTE: Do not apply rust preventive and under coating materials unless the lower control arm surfaces are completely dry.

19. Prepare for rust preventive cavity wax spraying.

Required wax:
ValuGard Rust Preventive P/N VG-101

- Put approximately 250 g of the cavity wax into the spray gun container.
- Connect the shop air to the gun.
- Test spray wax and adjust air pressure as needed.

20. Insert the spray nozzle through the drilled hole on the lower surface of the lower control arm.

21. Spray cavity wax inside each lower control arm by moving the nozzle location inside the arm.

22. Insert the nozzle into the other drilled hole on the lower surface of the lower control arm and coat with wax.

NOTES:

- **Wear goggles and a mask.**
- **Apply enough wax to completely coat the inside surfaces of the lower control arm (approximately 120 g per arm).**

NOTES:

- **Clean the spray gun and nozzle after spraying.**
- **The nozzle must be cleaned using thinner or solvent to prevent the wax in the nozzle from hardening.**

- **Internal view of lower control arm that has been treated with injected cavity wax.**

23. Apply undercoating to the outer surfaces of both lower control arms using a 1" bristle brush.

Undercoating:
ValuGard Undercoating P/N: VG-104

NOTES:

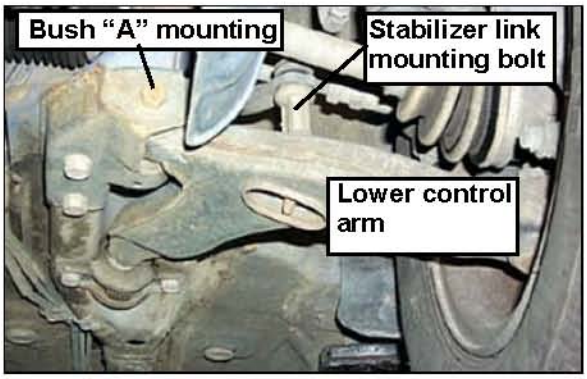
- **Place a shop rag or paper cover around the backing plate to protect brake parts from undercoating.**
- **Make sure not to drop any undercoat material on brake disc, CV Shaft, belts and exhaust system**
- **Do not apply undercoat material on any bolt threads.**
- **Apply approximately 50 - 60 g of undercoating to each lower control arm.**

24. Install the front tires.
25. Lower the vehicle.
26. Move the vehicle from the shop.

LOWER CONTROL ARM REPLACEMENT PROCEDURE:

NOTES:

- **This procedure applies to both left and right lower control arms.**
- **The following components must be replaced with new parts supplied with the service kit.**
  - **Lower control arm (LH/RH)**
  - **Bush "A" mounting bolt (LH/RH)**
  - **Stabilizer link mounting bolt (LH/RH)**



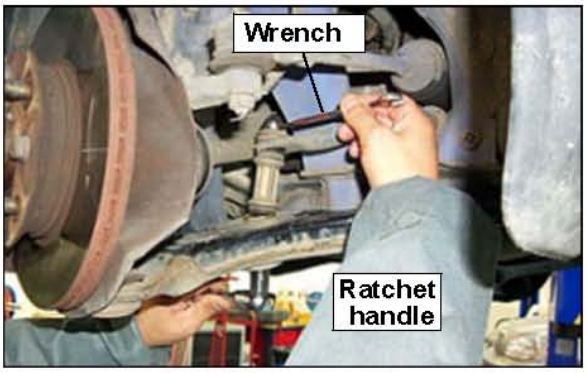
REMOVAL:

1. Loosen the LH lower control arm mounting ball joint nut (19 mm, 1 each) to the knuckle.

Tightening torque:
60 - 72 Nm (600-720 kg.cm, 43-52 lb.ft)

2. Using the special tool (P/N 09568-34000), disconnect the lower control arm ball joint from the knuckle.

3. Remove the stabilizer link self-locking nut (12 mm) and detach the stabilizer link from the lower control arm.



4. Remove the lower control arm bush "A" mounting nut and bolt (17 mm).

Tightening torque:
95-102 Nm (950-1200 kg.cm, 69-87 lb.ft)

Remove the lower control arm rod bush bracket mounting bolts.

Tightening torque:
60-80 Nm (600-800 kg.cm, 43-58 lb.ft)

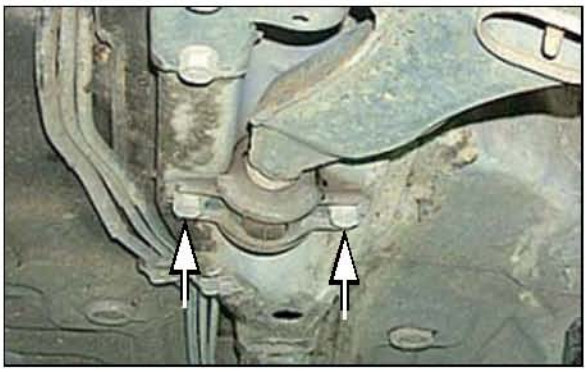
5. Completely remove the loosened lower control arm mounting ball joint nut (in step 1) and separate the lower control arm from the vehicle.

6. Remove the opposite side lower control arm by repeating the above steps.

INSTALLATION:

1. Temporarily tighten the left lower control arm ball joint mounting nut (19 mm) to the knuckle.

2. Temporarily tighten the left lower control arm bush "A" mounting bolt and rod bush bracket mounting bolts.

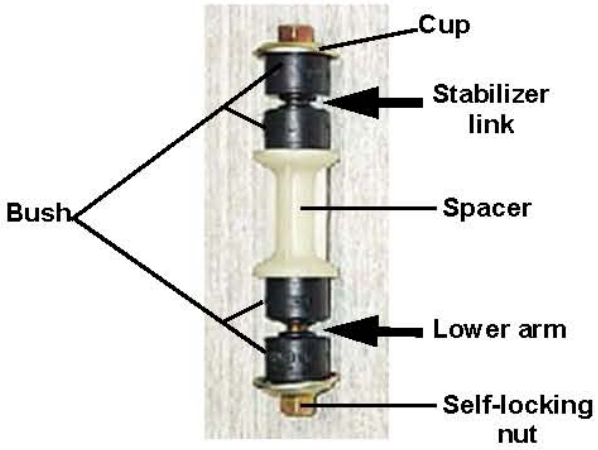


3. Apply steps 1 and 2 to the right side lower control arm.

4. Install the stabilizer bolt as shown.

CAUTION: The stabilizer link bush is directional. The bushes must be inserted as shown below.

Gradually tighten self-locking nuts on left and right stabilizer links by turns.



5. Tighten the self-locking nut on the stabilizer link to the specified distance.

Standard value (A): 28-30 mm (1.10-1.18 in)

6. Tighten the lower control arm bush "A" mounting nut and rod bush bracket mounting bolts on both sides to the specifications.
7. Install the front tires.
8. Lower the vehicle.

CAMPAIGN CLAIM INFORMATION:

OP CODE	OPERATION	OP TIME
31B024R0	Inspection and corrosion protection treatment of lower arms	0.6 M/H
31B024R1	Inspection of lower arms without drilling and replacement of lower arms	0.9 M/H
31B024R2	Inspection of lower arms after drilling and replacement of lower arms	1.1 M/H

MOTOR VEHICLE RECALL

Dear 1995 or 1996 Accent Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Hyundai has decided that a defect, which relates to motor vehicle safety, exists in certain 1995 and 1996 Accent vehicles registered and operated in the states of Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin, and the District of Columbia.

What is the problem?

- During winter months, large quantities of salt are used to de-ice roads in the states noted above. This road salt may result in corrosion of the front lower control arms. Severe corrosion may result in perforation and potential fracture of the front lower control arm. If perforation related fracture occurs, the tire and wheel assembly remains connected to the chassis through the forward lower control arm pivot point and through the strut attachment to the upper wheelhouse. However, the tire and wheel assembly may be allowed to move rearward in the front wheel opening during braking, which could result in the tire rubbing against the rear of the front wheel house, generating noise that can be heard by the driver.
- Reduced control of the front wheel location may increase the risk of a vehicle crash without warning.

What will Hyundai do?

- To ensure that your vehicle's front lower control arms have not been weakened by structural corrosion, we are asking you to schedule an appointment as soon as possible to take your vehicle to your Hyundai dealer. The Hyundai dealer will inspect the condition of the left and right front lower control arms with respect to structural corrosion and, if necessary, will replace one or both front lower control arms if structural damage has occurred. The procedure will be performed at no

charge to you. You should plan to leave your vehicle at your Hyundai dealer for a half day to have this service performed.

What should you do?

- We urge you to call your Hyundai dealer to schedule an appointment to have this work performed as soon as possible.

What if you have other questions?

- If you have any difficulty having this repair performed, we recommend that you call the Hyundai Customer Assistance Center at 1-800-633-5151. If you are still not satisfied that we have remedied this situation without charge, and within a reasonable amount of time, you may wish to write to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S. W., Washington, D.C. 20590 or call their toll-free Auto Safety Hotline at 1-888-327-4236.

Reimbursement Notification

- Hyundai has a program for reimbursing owners of 1995 or 1996 Accents who paid to have the front lower control arm(s) replaced after December 17, 2001 and prior to receiving this recall notification letter.
- To obtain information about reimbursement from Hyundai, please call the Hyundai Customer Assistance Center at 1-800-633-5151. Ask about reimbursement information for campaign 058.

We urge your prompt attention to this important safety matter.

Hyundai Motor America