

03V-257

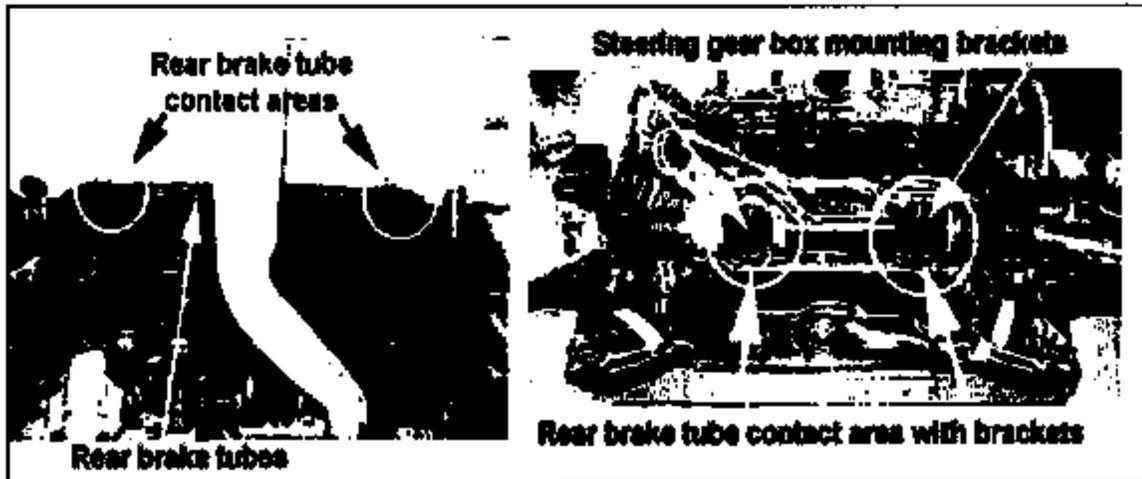


HYUNDAI Technical Service Bulletin

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| Subject REAR BRAKE TUBE REPOSITIONING CAMPAIGN 081 | Group CAMPAIGN |
| | Number 03-01-009 |
| | Date JULY, 2003 |
| Model ELANTRA AND TIBURON | |

DESCRIPTION:

This bulletin provides the procedures that reposition the rear brake tubes to prevent contact with the front suspension cross member's steering gear box mounting brackets. The photos below show the areas where the rear brake tubes may contact the steering gear box mounting brackets.



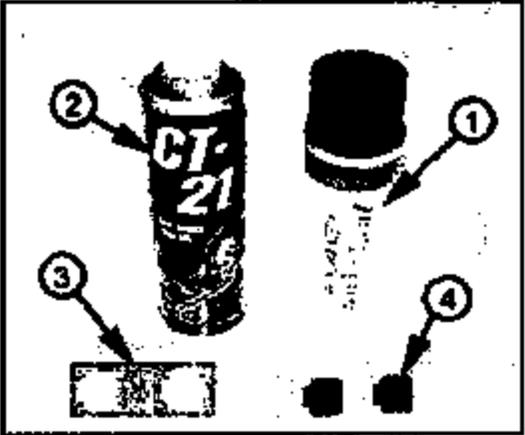
AFFECTED VEHICLES:

1. All 2001 - 2003 Model Year Elantra vehicles produced through December 15, 2002
 - Both ABS and non-ABS Elantras
2. All 2003 Model Year Tiburon vehicles produced through February 15, 2003
 - Both ABS and non-ABS Tiburons

SUMMARY OF PROCEDURES:

1. Elantra vehicles with ABS: Treat the left and right side (two) rear brake tube contact areas with zinc spray and anti-corrosion wax; then install a white color brake tube clip at each contact area (refer to service procedure – A).
2. Elantra vehicles not equipped with ABS: Treat the left side (one) rear brake tube contact area with zinc spray and anti-corrosion wax; then install a white color brake tube clip at the left side contact area (refer to service procedure – B).
3. Tiburon vehicles with ABS: Install two black color brake tube clips, one each at the left and the right side rear brake tube contact areas (refer to service procedure – C).
4. Tiburon vehicles not equipped with ABS: Install a black color brake tube clip at the left side rear brake tube contact area (refer to service procedure – D).

PARTS INFORMATION:

| PART NAME | PART NUMBER | PHOTO |
|--|-------------|--|
| ① Surface treatment (Zinc spray) | 00306-2D000 |  |
| ② Anti-corrosion wax (CT-21) | 00305-2D000 | |
| ③ Brake tube clip (White - Elantra) | 58799-2D000 | |
| ④ Brake tube clip (Black - Tiburon) | 58799-2C000 | |



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ZINC AND WAX APPLICATION AMOUNT SPECIFIED FOR EACH AREA:

| MODEL | SPRAY CHEMICAL | APPROXIMATE SPRAY AREA | RECOMMENDED SQUIRT TIMES AND SQUIRT DURATION | ONE SPRAY CAN MAY SERVICE |
|-----------------|----------------|------------------------------|--|---------------------------|
| Elantra ABS | ① Zinc spray | LH = 3 sq.in RH = 3 sq.in | Maximum 3 light squirts covering each area (maximum 1 second/squirt) | 35-40 vehicles |
| | ② Wax | LH = 3 sq.in RH = 3 sq.in | Maximum 6 light squirts covering each area (maximum 1 second/squirt) | 12-17 vehicles |
| Elantra Non-ABS | ① Zinc spray | LH = 3 sq.in | Maximum 3 light squirts covering the LH area (maximum 1 second/squirt) | 75-80 vehicles |
| | ② Wax | LH = 3 sq.in | Maximum 6 light squirts covering the LH area (maximum 1 second/squirt) | 30-34 vehicles |

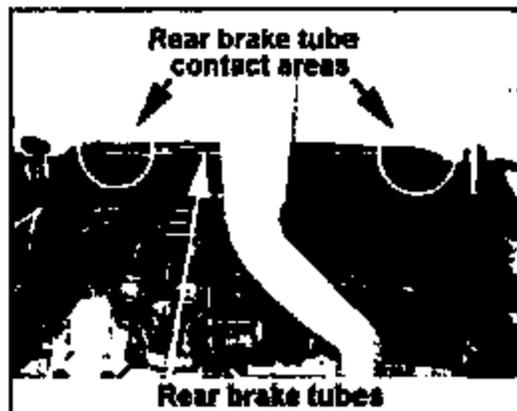
NOTE: For Tiburon vehicles – install rear brake tube clips only (no chemical treatment necessary – refer to service procedures C and D).

SERVICE PROCEDURE A (For Elantra vehicles with ABS):

CAUTION: Wear eye protection when performing this procedure.

1. Verify the vehicle is affected by identifying the vehicle production date range and VIN.

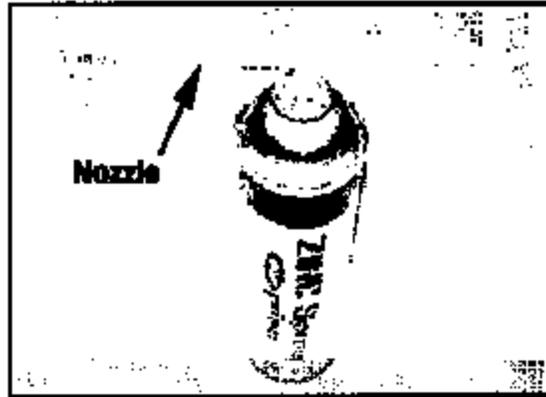
NOTE: Apply this procedure to both left and right sides at the rear brake tube contact areas.



2. Raise the vehicle.
3. Locate the rear brake tube contact areas with the steering gear box mounting brackets.
4. Clean the rear brake tube contact areas using shop air and a rag.



5. Before applying the surface treatment (zinc primer), insert the nozzle into the spray tip.



6. Make a gap between the rear brake tubes and the steering gear box mounting bracket at the contact areas by gently prying with a screwdriver as shown.



NOTE: If there is not a sufficient gap between the rear brake tubes and the steering gear box mounting bracket, the primer may not cover all of the contact area.



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7. Apply the surface treatment on the steering gear box mounting bracket and the rear brake tube contact area evenly as shown (apply 3 light squirts).



NOTE: Keep the gap open for at least 3~4 minutes or until the surface treatment is dry.

Repeat application of the surface treatment on the other side of the vehicle at the rear brake tube contact area with the steering gear box mounting bracket.



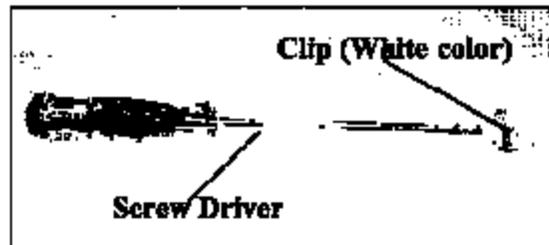
8. Before applying the anti-corrosion wax (CT-21), insert the nozzle into the spray tip.



9. Evenly apply anti-corrosion wax on the steering gear box mounting bracket and the rear brake tube contact area (apply 5 to 6 light squirts).



10. Prepare the brake tube clip as shown.



11. Before installing the brake tube clip, apply anti-corrosion wax inside the clip as shown.



12. Make a gap between the rear brake tubes and the steering gear box mounting bracket using a flathead screwdriver.



13. Install the brake tube clip on the rear brake tubes where the surface treatment and anti-corrosion wax were applied.

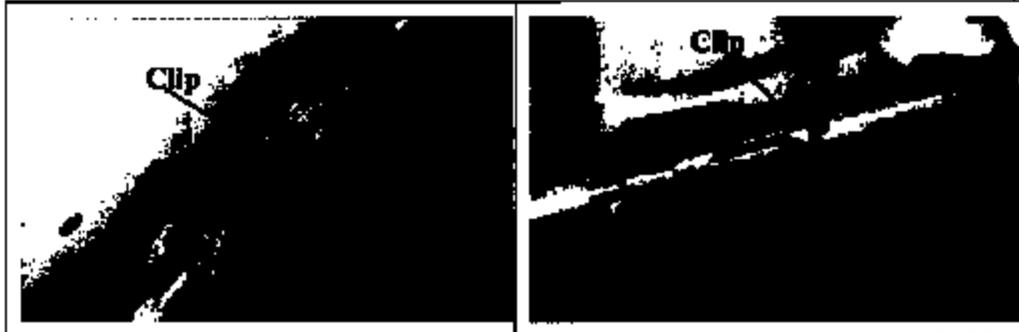
Left side view

Right side view



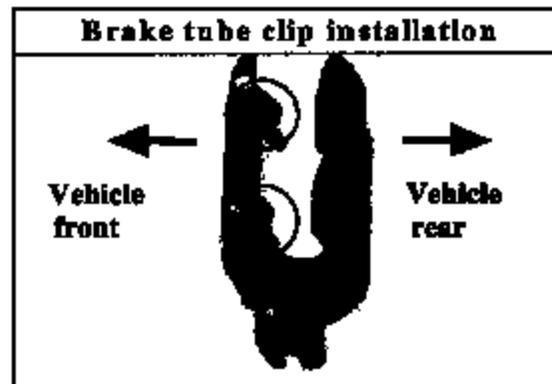
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NOTE: The brake tube clip is directional. The locking tabs inside the clip should face toward the vehicle front.

Repeat installation of the brake tube clip on the other side of the vehicle.



14. Apply the anti-corrosion wax on the rear brake tubes and brake tube clips on both sides.

15. Lower the vehicle.



SERVICE PROCEDURE B (For Elantra vehicles not equipped with ABS):

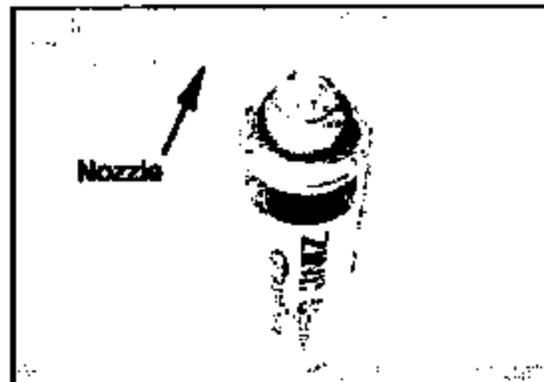
CAUTION: Wear eye protection when performing this procedure:

1. Verify the vehicle is affected by identifying the vehicle production date range and VIN.

NOTE: Apply this procedure only to the left side at the rear brake tube contact area with the steering gear box mounting bracket.



2. Raise the vehicle.
3. Locate the rear brake tube contact area with the steering gear box mounting bracket (left side).
4. Clean the brake tube contact area using shop air and a rag.
5. Before applying the surface treatment (zinc primer), install the nozzle into the spray tip.





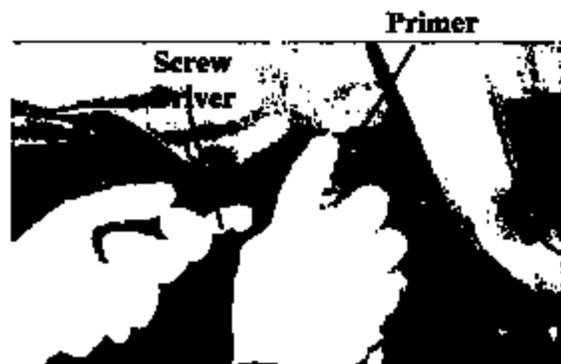
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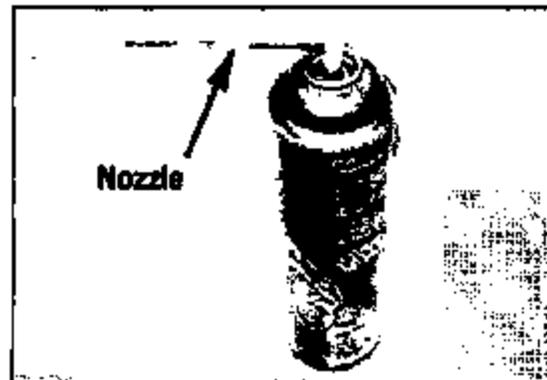
6. Make a gap between the rear brake tubes and the steering gear box mounting bracket at the contact area by gently prying with a screwdriver.



NOTE: If there is not a sufficient gap between the rear brake tubes and the steering gear box mounting bracket, the primer may not cover all of the contact area.



7. Apply the surface treatment on the bracket and the rear brake tube contact area evenly as shown (apply 3 light squirts).



NOTE: Keep the gap open for at least 3~4 minutes or until the surface treatment is dry.

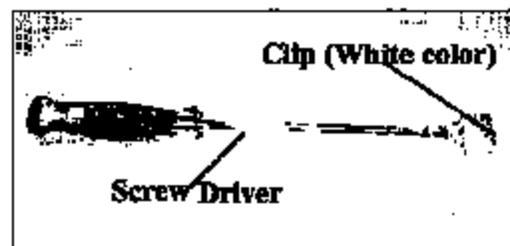


8. Before applying the anti-corrosion wax (CT-21), install the nozzle into the spray tip.

9. Evenly apply anti-corrosion wax on the steering gear box mounting bracket and the rear brake tube contact area (apply 6 light squirts).



10. Prepare the brake tube clip as shown.





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11. Before installing the brake tube clip, apply the anti-corrosion wax inside the clip as shown.



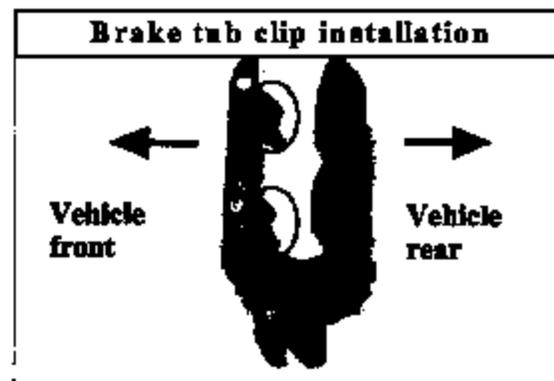
12. Make a gap between the rear brake tubes and the steering gear box mounting bracket using a flathead screwdriver.



13. Install the brake tube clip on the rear brake tubes where the surface treatment and anti-corrosion wax were applied.



NOTE: The brake tube clip is directional. The locking tabs inside the clip should face toward the vehicle front.



14. Apply the anti-corrosion wax on the rear brake tubes and brake tube clip evenly.

15. Lower the vehicle.



SERVICE PROCEDURE C (For Tiburon vehicles not equipped with ABS):

CAUTION: Wear eye protection when performing this procedure:

1. Verify the vehicle is affected by identifying the vehicle production date range and VIN.

NOTE: Apply this procedure to both left and right sides at the rear brake tube contact areas with the steering gear box mounting brackets.





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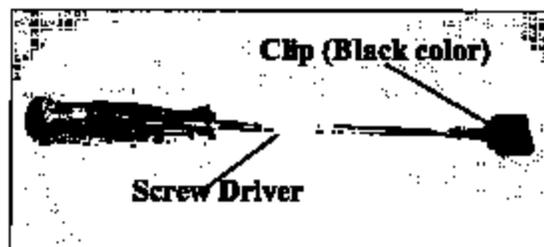
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2. Raise the vehicle.
3. Locate the rear brake tube contact areas with the steering gear box mounting brackets.
4. Clean the contact areas using shop air and a rag.



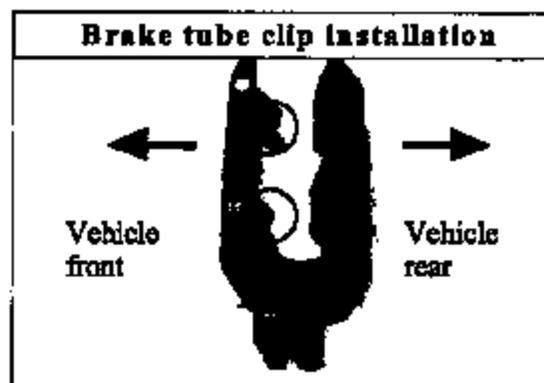
5. Prepare the brake tube clip as shown.



6. Make a gap between the rear brake tube and the steering gear box mounting bracket by gently prying with a flathead screwdriver.
7. Install the brake tube clip on the rear brake tubes where the tubes contact the steering gear box mounting bracket.



NOTE: The brake tube clip is directional. The locking tabs inside the clip should face toward the vehicle front.



8. Install the rear brake tube clip on the other side of the vehicle on the rear brake tubes at the contact area with the steering gear box mounting bracket.
9. Lower the vehicle.



SERVICE PROCEDURE D (For Tiburon vehicles not equipped with ABS):

CAUTION: Wear eye protection when performing this procedure:

1. Verify the vehicle is affected by identifying the vehicle production date range and VIN.

NOTE: Apply this procedure to left side at the rear brake tube contact area with the steering gear box mounting bracket.





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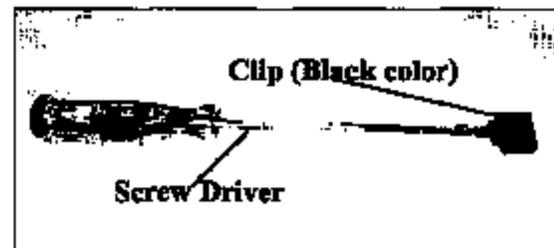
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2. Raise the vehicle.
3. Locate the rear brake tube contact area with the steering gear box mounting bracket.
4. Clean the contact area using shop air and a rag.



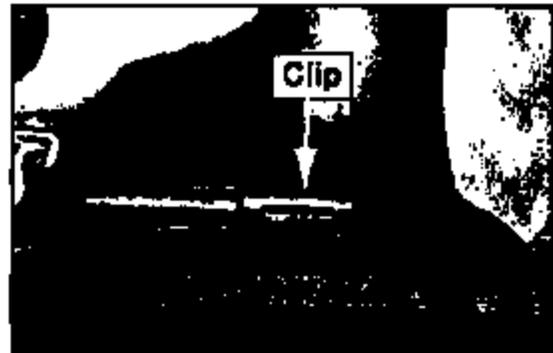
5. Prepare the brake tube clip as shown.



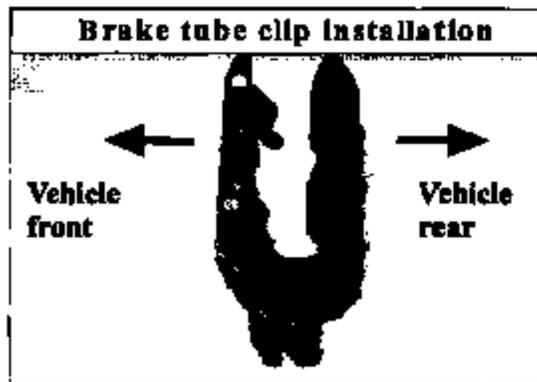
6. Make a gap between the rear brake tubes and the steering gear box mounting bracket by gently prying with a flathead screwdriver.



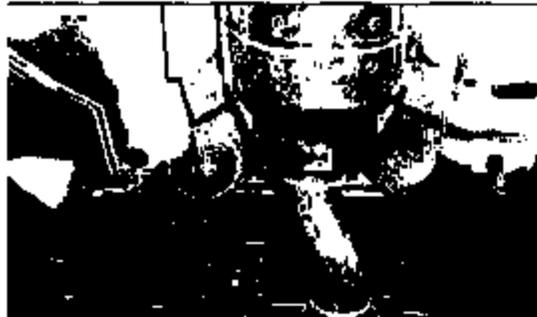
7. Install the brake tube clip on the rear brake tubes where the tube contacts the steering gear box mounting bracket.



NOTE: The brake tube clip is directional. The locking tabs inside the clip should face toward the vehicle front.



B. Lower the vehicle.



CAMPAIGN CLAIM INFORMATION:

| MODEL | OP CODE | OPERATION | OP TIME |
|----------------------|----------|--|---------|
| ELANTRA (XD) ABS | 31B034R0 | Primer & wax application and brake tube clip installation (Both sides) | 0.3 M/H |
| ELANTRA (XD) NON-ABS | 31B034R1 | Primer & wax application and brake tube clip installation (Left side) | 0.2 M/H |
| TIBURON (GK) | 31B034R2 | Brake tube clip installation (Both sides or left side) | 0.2 M/H |

Note: Submit Claim Using Campaign Claim Screen