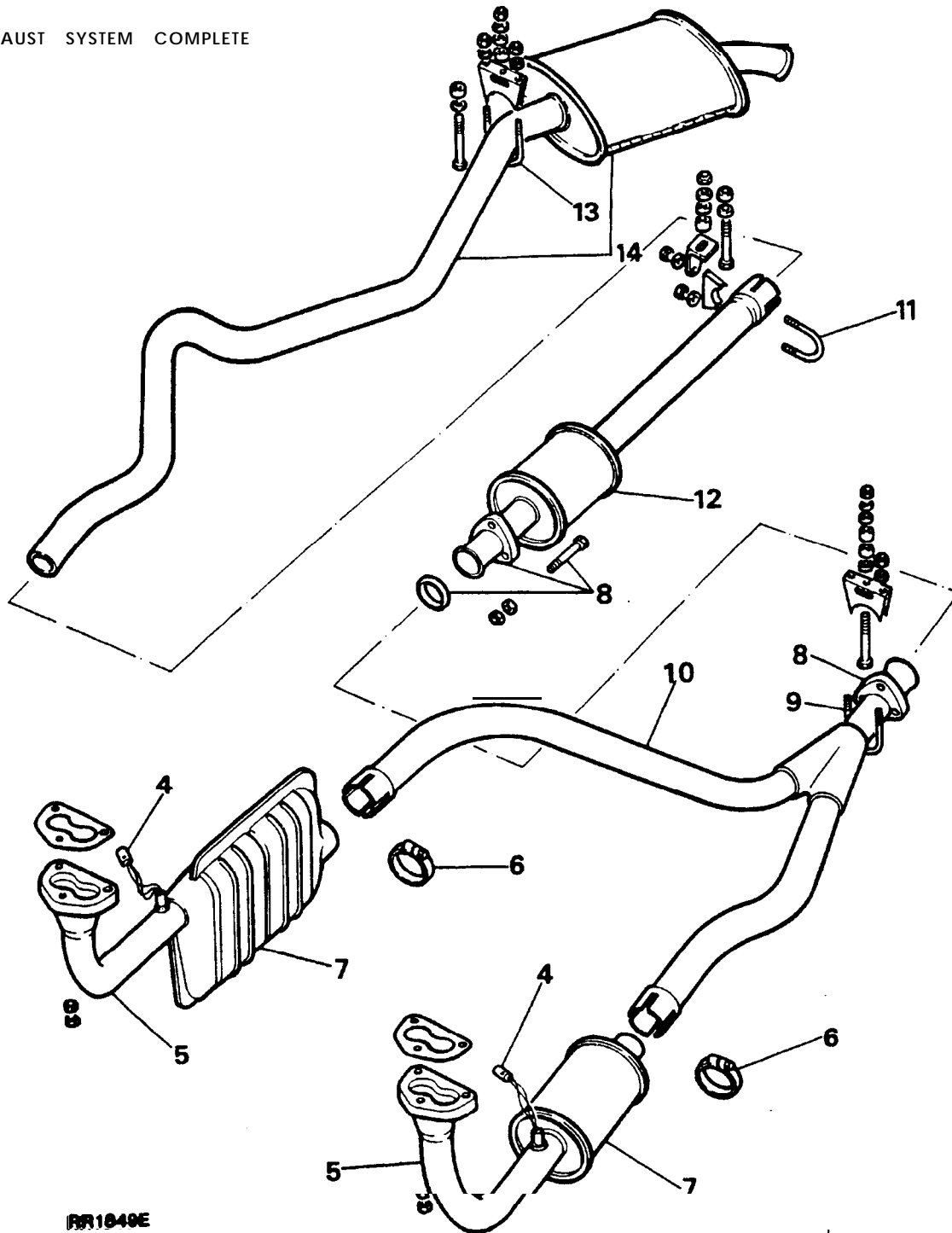


EXHAUST SYSTEM COMPLETE



RR1049E

EXHAUST SYSTEM COMPLETE

NOTE: Ensure that no exhaust leaks are evident in either a new or an old exhaust system, as this will affect vehicle performance, and contravene Federal emission regulations.

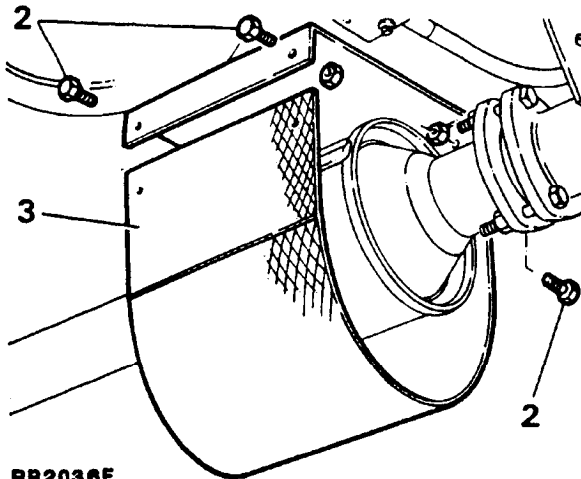
WARNING: To prevent personal injury occurring from a hot exhaust system, DO NOT attempt to disconnect any of the components until ample time has elapsed to allow the exhaust system to cool.

Continued

**Remove and refit**

**Removing**

1. Raise the vehicle on a suitable hoist and apply the parking brake.
2. Remove the four fixings securing the grass shield (if fitted) to the mounting bracket at the centre catalyst.
3. Withdraw the grass shield from the bracket.



**RR2036E**

4. Disconnect the electrical plugs from the Lambda sensors.
5. Remove the nuts and disconnect the front pipe(s) from the manifold(s) and remove the gaskets.
6. Loosen the pinch bolt clamps securing the front pipe to the intermediate pipe.
7. Withdraw the front pipe(s) with catalysts.
8. Remove three bolts securing the intermediate pipe to the centre catalyst and withdraw the doughnut.
9. Remove the U-bolt from the pipe mounting bracket.
10. Withdraw the intermediate pipe.
11. Remove the U-bolt securing the centre catalyst to the main muffler.
12. Withdraw the catalyst.
13. Remove the U-bolt from the tail pipe mounting bracket.
14. Withdraw the tail pipe and rear muffler.

**Refitting**

**NOTE: Apply Firegum Putty, Part No. 15608 to all exhaust system joints with the exception of the exhaust flange to manifold flange where new gaskets should be fitted.**

15. Reverse the removal instructions.

**EXHAUST MANIFOLD**

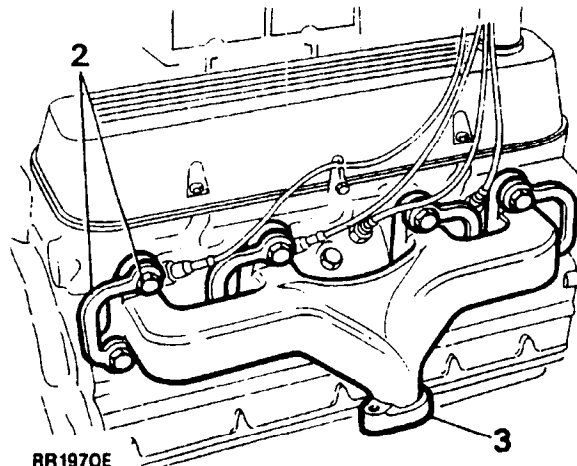
**Remove and refit**

**Left hand**

**Right hand**

**Removing**

1. Disconnect the front exhaust pipe(s) from the manifold(s).
2. Tap back the bolt locking tabs and remove the eight bolts, lock tabs and washers.
3. Remove the manifold(s) and old gaskets.



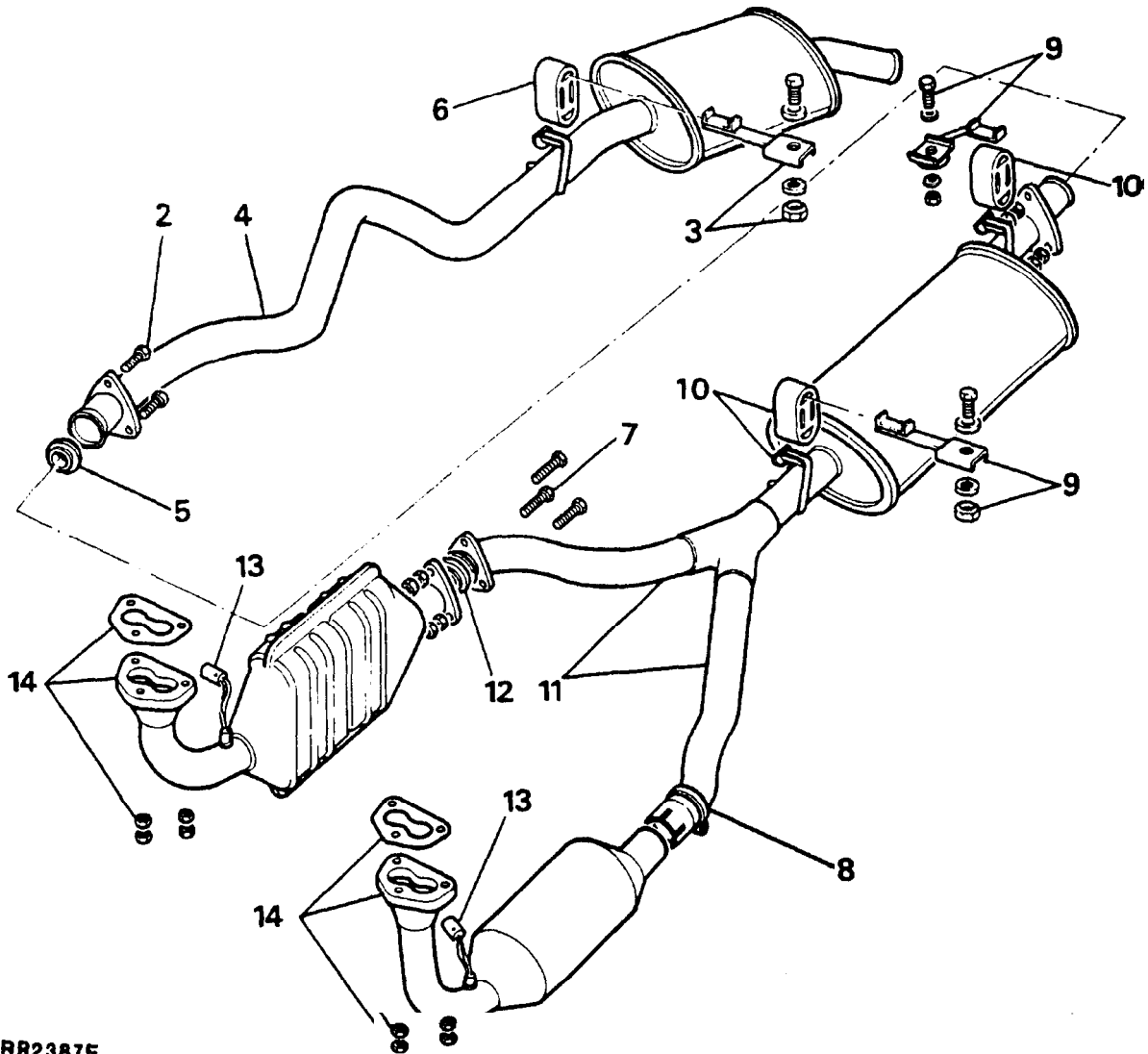
**RR1970E**

**Refitting**

4. Ensure that the mating surfaces of the cylinder head and exhaust manifold are clean and smooth.
5. Coat the threads of each bolt with anti-seize compound.
6. Place the manifold and new gaskets in position on the cylinder head and fit the securing bolts, new lockplates and plain washers. The plain washers are fitted between the manifold and lockplates.
7. Evenly tighten the manifold bolts to the correct torque, see torque values-section 06, and bend over the lockplate tabs.
8. Reconnect the front exhaust pipe, using new exhaust flange gaskets.

**INTAKE MANIFOLD**

The removal and refit of the intake manifold is incorporated in the Fuel Injection System, Section 19.



RR2387E

**EXHAUST SYSTEM COMPLETE**

**NOTE:** Ensure that no exhaust leaks are evident in either a new or old exhaust system, as this will affect vehicle performance, and contravene Federal emission regulations.

**WARNING:** To prevent personal injury occurring from a hot exhaust system, DO NOT attempt to disconnect any of the components until ample time has elapsed to allow the exhaust system to cool.

Remove and refit

Removing

Tail pipe and rear muffler

1. Raise the vehicle on a suitable hoist and apply the parking brake.
2. Remove the three bolts securing the tail pipe assembly to the intermediate pipe assembly.
3. Remove the bolt securing the rear mounting bracket to the chassis.
4. Maneuver the tail pipe over the rear axle and remove from the vehicle.
5. Retain the doughnut from the intermediate pipe for reassembly.

Continued

6. Detach the rubber from the tailpipe and hanger.

**intermediate pipe and centre muffler**

7. Remove the three bolts securing the right hand branch of the intermediate pipe to the right hand catalyst.
8. Release the pinch bolt clamp securing the left hand branch of the intermediate pipe to the left hand catalyst and slide the clamp along the pipe.
9. Remove the bolts securing the front and rear hanger brackets to the chassis.
10. Detach the rubbers from the main muffler assembly and hangers.
11. Carefully separate the intermediate pipes from the front downpipes.
12. Retain the doughnut from the right hand joint.

**Front downpipes**

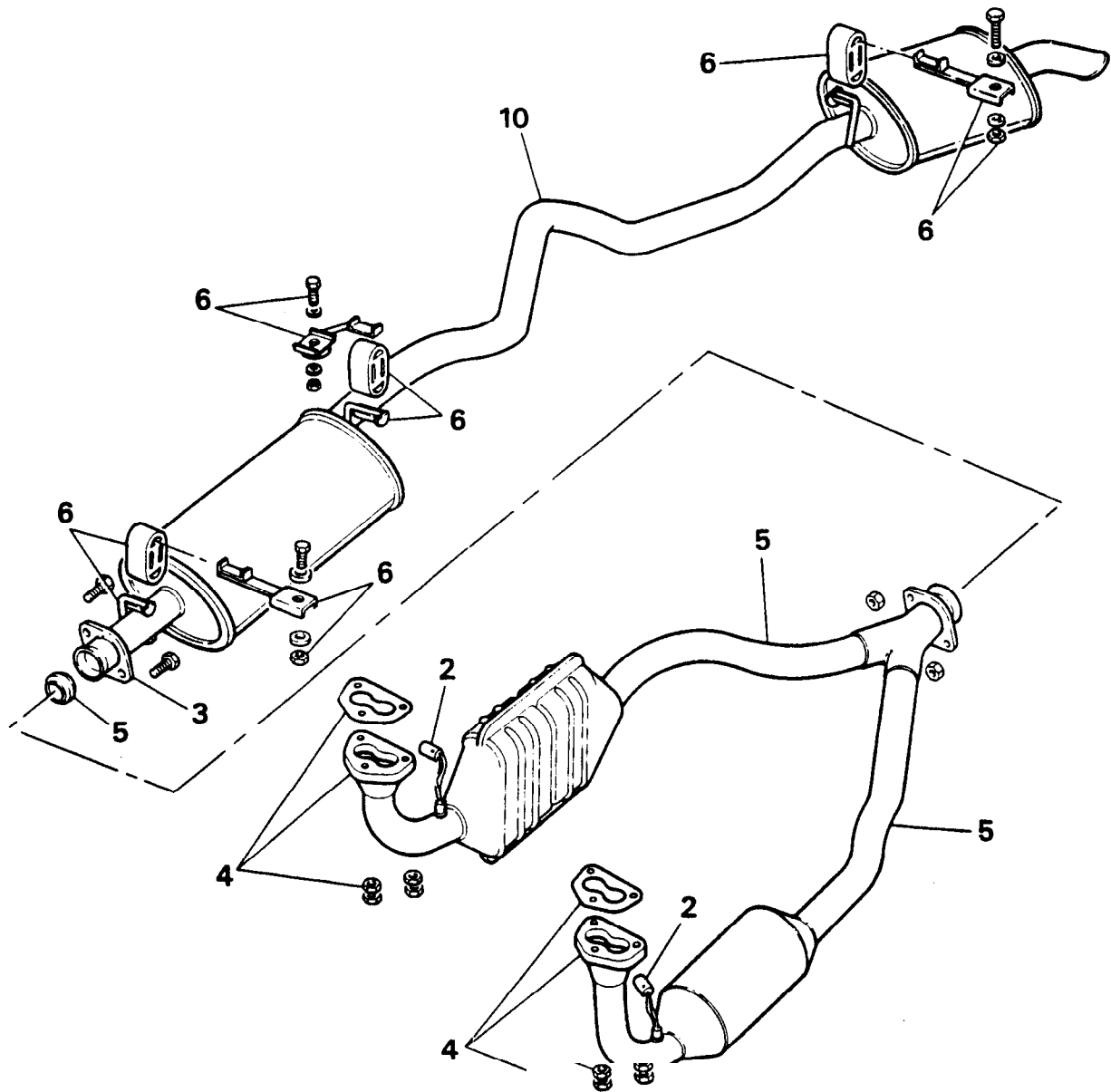
13. Disconnect both Lambda sensor multiplugs.
14. Remove the nuts and release the front downpipes from the manifolds, discard the gaskets.

**Refitting**

15. If the original system is being refitted, examine the system for damage and general condition renew sections as necessary.
16. Clean any previous putty from the doughnuts and exhaust pipe joints.
17. Fit NEW gaskets to the manifold joint face.

**NOTE: Apply exhaust sealer to all exhaust system joints with the exception of the exhaust flange to manifold flange.**

18. Reverse the removal instructions.
19. Examine a new or original system for leaks and ensure that the system does not foul any underbody components. If exhaust leaks or interference exists loosen the joints reseal and reset as necessary.



RR2777M

**EXHAUST SYSTEM COMPLETE**

To improve sealing and accuracy of assembly, 1990 model year vehicles have a new two piece exhaust system.

**NOTE:** Ensure that no exhaust leaks are evident in either a new or old exhaust system, as this will affect vehicle performance.

**WARNING:** To prevent personal injury occurring from a hot exhaust system, DO NOT attempt to disconnect any of the components until ample time has elapsed to allow the exhaust system to cool.

**Remove and refit**

**Removing**

1. Raise the vehicle on a suitable ramp. apply the parking brake.
2. **Catalyst vehicles only:** Disconnect the two lambda sensor wiring connectors.
3. Remove the two bolts securing the rear exhaust assembly to the front exhaust assembly.
4. Remove the nuts and release the front downpipes from the manifolds. Discard the gaskets.

5. Lower the front exhaust assembly, retrieving the doughnut from the joint.

**NOTE: The assistance of a second mechanic is required for removing and refitting the rear exhaust assembly.**

6. Remove the bolts securing the three hanger brackets to the chassis. Lower the exhaust assembly onto the rear axle. Detach the rubbers from the hanging brackets.
7. Place extended axle stands underneath the chassis, in front of the chassis mounted rear towing brackets.
8. Lower the hoist until the vehicle weight is supported securely on the stands.
9. Lower the hoist until the rear shock absorbers are almost fully extended.
10. Move the rear exhaust to a diagonal position with the centre silencer to the right of the vehicle.
11. Facing the rear of the vehicle, twist the assembly counter-clockwise until it clears the rear axle.
12. Remove the rear exhaust assembly from the vehicle.

#### Refitting

13. Position the rear exhaust assembly over the rear axle in a diagonal position, as for removing.
14. Twist the assembly clockwise until it is in the mounting position.
15. Reverse the removing instructions **1.** to 9. using new manifold gaskets and applying exhaust sealer to the system joint.
16. Examine the system for leaks and ensure that the system does not foul any underbody components. Rectify as necessary.