

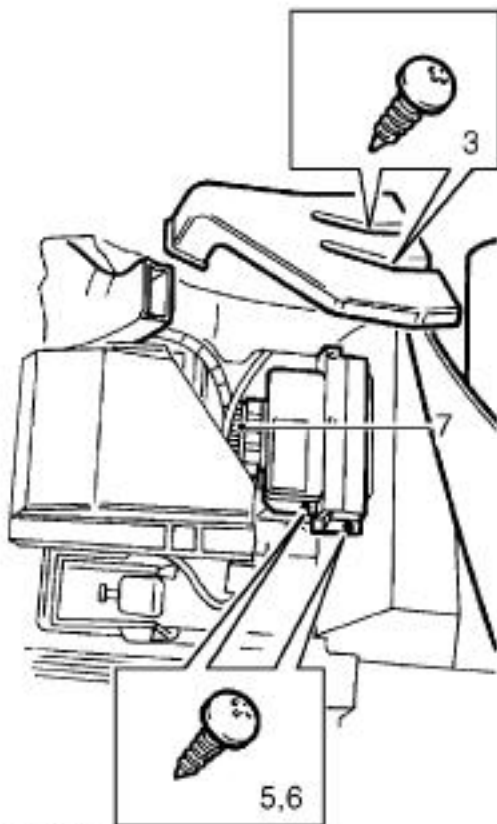


## ELECTRONIC CONTROL UNIT

Service repair no - 41.30.01

### Remove

1. Position left hand front seat fully up and forward.
2. Disconnect battery negative lead.
3. Remove 2 screws securing heater air duct. Remove duct.



4. Raise carpet and underlay for access.
5. Remove 2 screws securing heater duct mounting. Remove mounting.
6. Remove 2 screws securing ECU.
7. Disconnect multiplug. Remove ECU.

### Refit

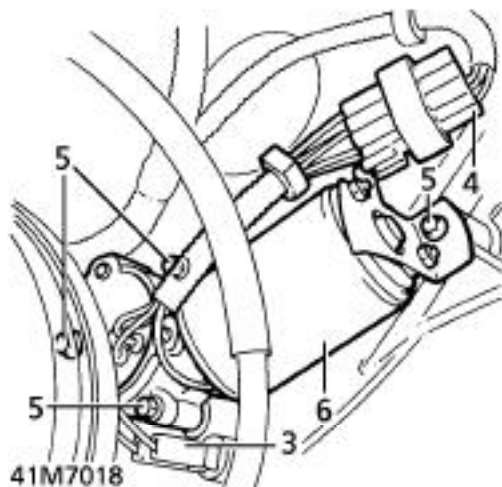
8. Position ECU. Connect multiplug. Secure with screws.
9. Position heater duct mounting. Secure with screws.
10. Position underlay and carpet.
11. Position heater air duct. Secure with screws.
12. Reposition front seat.
13. Reconnect battery negative lead.

**RATIO CONTROL MOTOR**

Service repair no - 41.30.03

**Remove**

1. Raise vehicle on four post lift.
2. Disconnect battery negative lead.
3. Disconnect temperature sensor.
4. Disconnect motor multiplug.
5. Remove 4 bolts securing motor to transfer gearbox.
6. Remove motor.

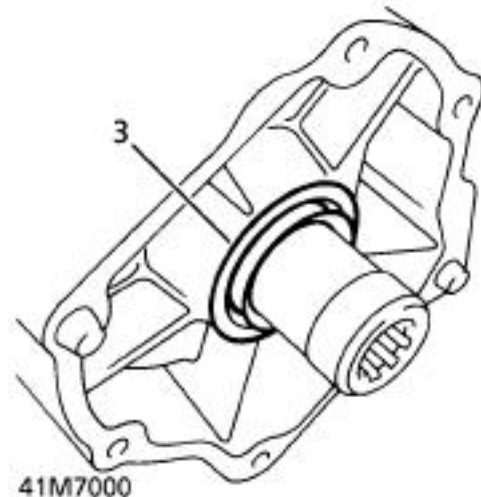
**Refit**

7. Fit motor and engage to drive spindle.
8. Tighten bolts to **10Nm (7 lbf.ft)**.
9. Connect motor and temperature sensor.
10. Reconnect battery negative lead.
11. Lower vehicle.

**INPUT SHAFT OIL SEAL**

Service repair no - 41.20.50

1. Disconnect battery negative lead.
2. Remove transfer box. **See this section.**
3. Lever seal from location in transfer box.



**CAUTION:** Ensure seal location does not become damaged.

**Refit**

4. Ensure mating faces are clean.
5. Lubricate seal lip with transmission fluid.
6. Using LRT-41-011, fit seal to transfer box.
7. Fit transfer box. **See this section.**
8. Reconnect battery negative lead.

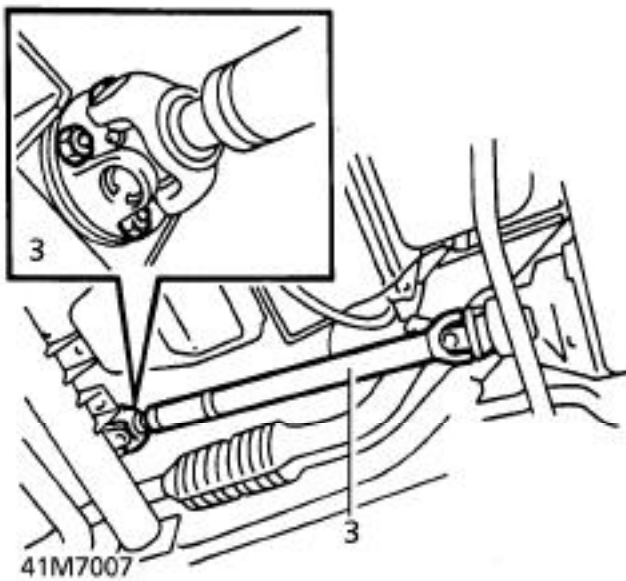


## OUTPUT SHAFT OIL SEAL - FRONT

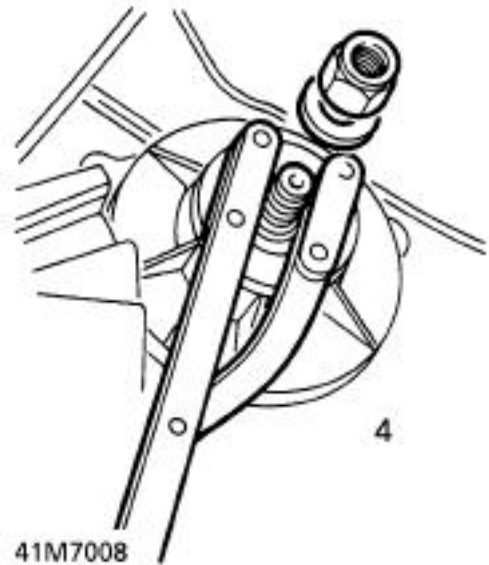
Service repair no - 41.20.51

### Remove

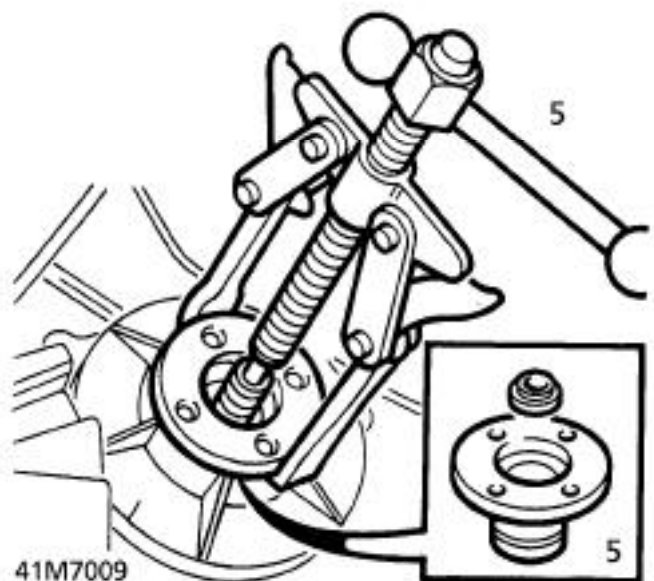
1. Remove chassis cross member. *See CHASSIS AND BODY, Repair.*
2. Mark propeller shaft and transfer gearbox flanges to aid assembly.
3. Remove 4 nuts and bolts securing propeller shaft flange. Tie shaft aside.



4. Use LRT-51-003 to restrain transfer box drive flange. Remove nut and discard. Collect washer.

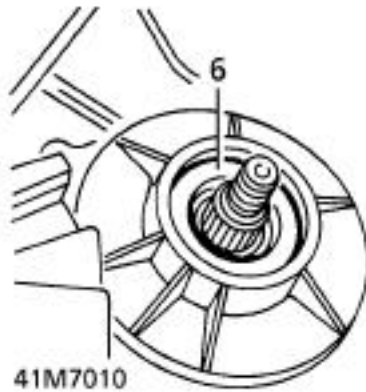


5. Using LRT-99-500 if necessary, withdraw flange from transfer box. Collect sealing washer.



6. Lever seal from location in transfer box.

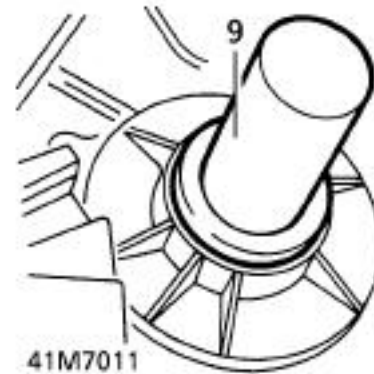




**CAUTION:** Ensure seal location does not become damaged.

#### Refit

7. Ensure mating faces are clean.
8. Lubricate seal lip with transmission fluid.
9. Fit seal using LRT-41-011.



10. Position flange. Fit sealing washer.
11. Use LRT-51-003 to restrain flange.
12. Secure flange with washer and new Nyloc nut. Tighten to **148 Nm. (109 lbf.ft)**
13. Position propeller shaft to output flange. Align marks.
14. Secure propeller shaft with nuts and bolts. Tighten to **48 Nm. (35 lbf.ft)**
15. Fit chassis cross member. **See CHASSIS AND BODY, Repair.**
16. Replenish transfer box oil. **See LUBRICANTS, FLUIDS AND CAPACITIES, Information.**

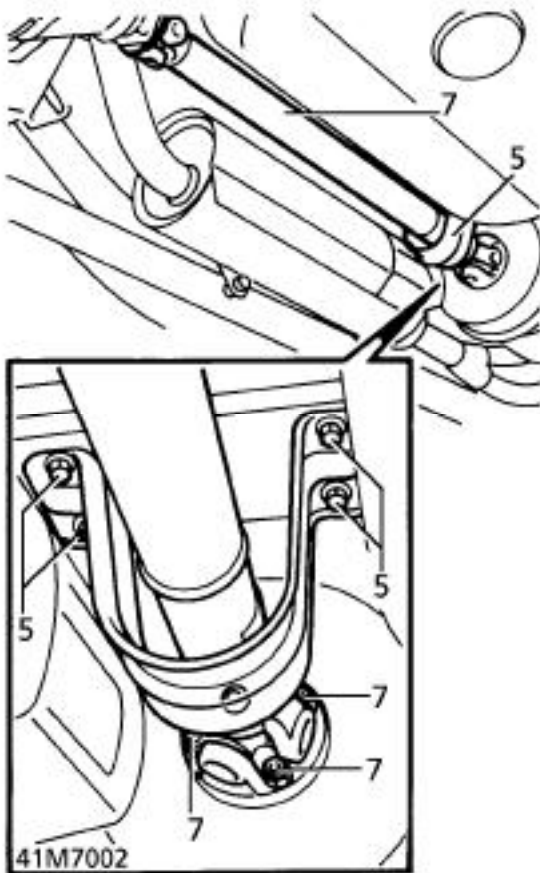


## OUTPUT SHAFT OIL SEAL - REAR

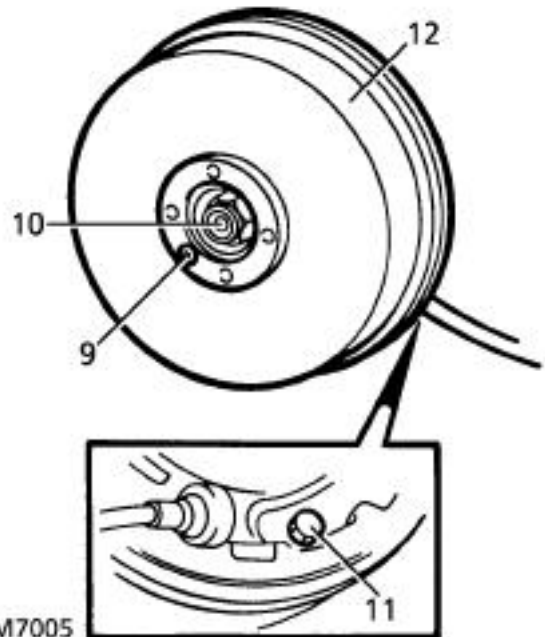
Service repair no - 41.20.54

### Remove

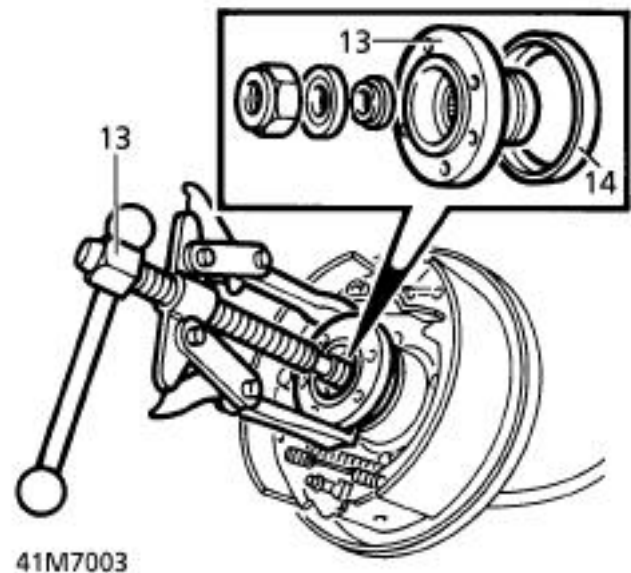
1. Raise vehicle on four post lift.
2. Disconnect battery negative lead.
3. Release handbrake.
4. Raise lift.
5. Remove 4 bolts securing propeller shaft guard to floor pan. Remove guard.



6. Mark propeller shaft flange and brake drum to aid assembly.
7. Remove 4 nuts securing propeller shaft flange to brake drum. Release shaft. Tie aside.

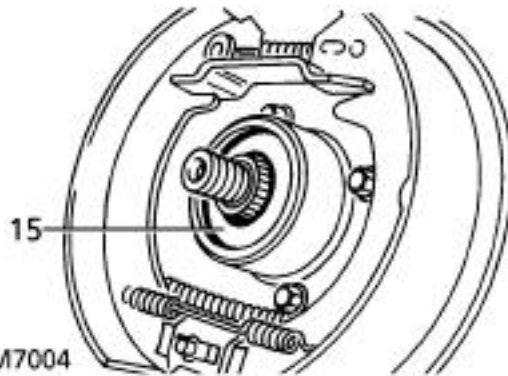


8. Apply handbrake.
9. Remove screw securing brake drum to flange.
10. Remove nut and washer securing flange to output shaft, discard nut.
11. Release handbrake. Slacken park brake drum adjusting screw.
12. Remove park brake drum.
13. Using LRT-99-500 if necessary, withdraw flange from transfer box. Collect sealing washer.



14. Remove dust shield.
15. Lever seal from location in casing.





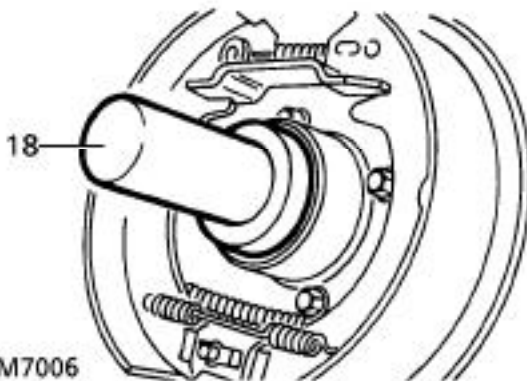
41M7004



**CAUTION:** Ensure seal location does not become damaged.

#### Refit

16. Ensure mating faces are clean.
17. Lubricate seal lip with transmission fluid.
18. Fit seal using LRT-41-011.



41M7006

19. Position dust shield.
20. Position flange. Fit sealing washer.
21. Fit flat washer and new Nyloc nut, finger tight.
22. Position brake drum. Secure to flange with screw.
23. Adjust park brake shoes. **See BRAKES, Adjustment.**
24. Apply handbrake.
25. Tighten flange nut to **148 Nm. (109 lbf.ft)**
26. Position propeller shaft flange on brake drum. Align marks.
27. Secure propeller shaft with bolts. Tighten to **48 Nm. (35 lbf.ft)**
28. Fit propeller shaft guard. Secure with bolts.
29. Replenish transfer box oil. **See LUBRICANTS, FLUIDS AND CAPACITIES, Information.**
30. Lower lift.
31. Reconnect battery negative lead.

#### TRANSFER BOX - UP TO 99MY

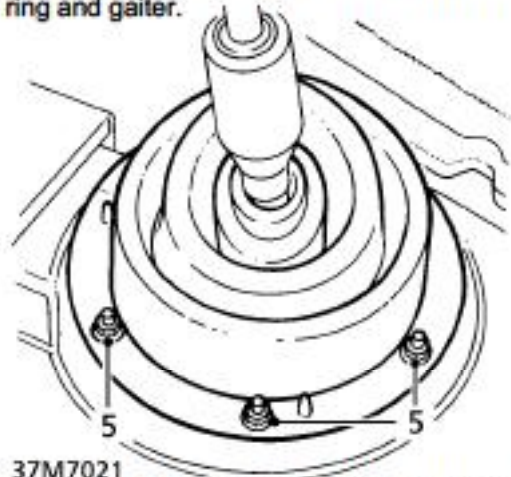
Service repair no - 41.20.25

#### Remove

1. Position vehicle on four post lift.
2. Disconnect battery negative lead.
3. **Automatic Vehicles.** Remove window switch pack. **See ELECTRICAL, Repair.**

#### Manual Vehicles:

4. Remove centre console. **See CHASSIS AND BODY, Repair.**
5. Remove 6 nuts securing gaiter ring. Remove ring and gaiter.



37M7021

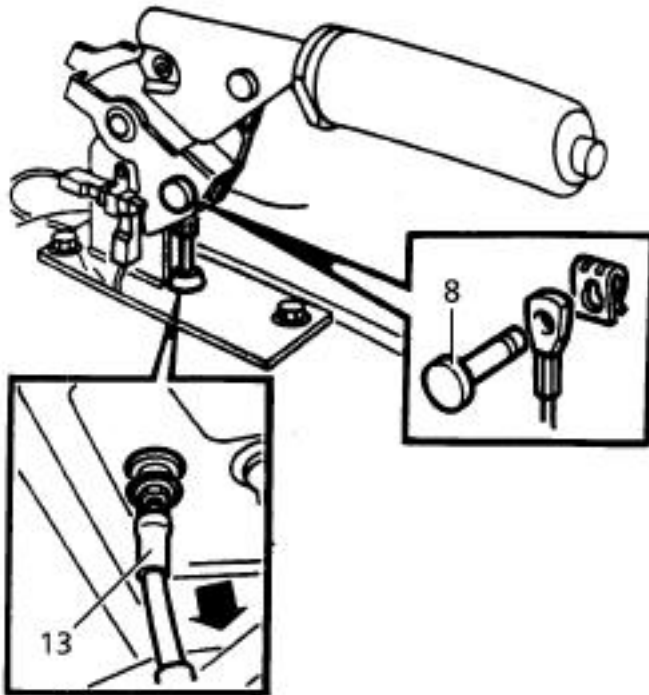
6. Remove 2 bolts securing gear lever. Remove lever.



37M7008

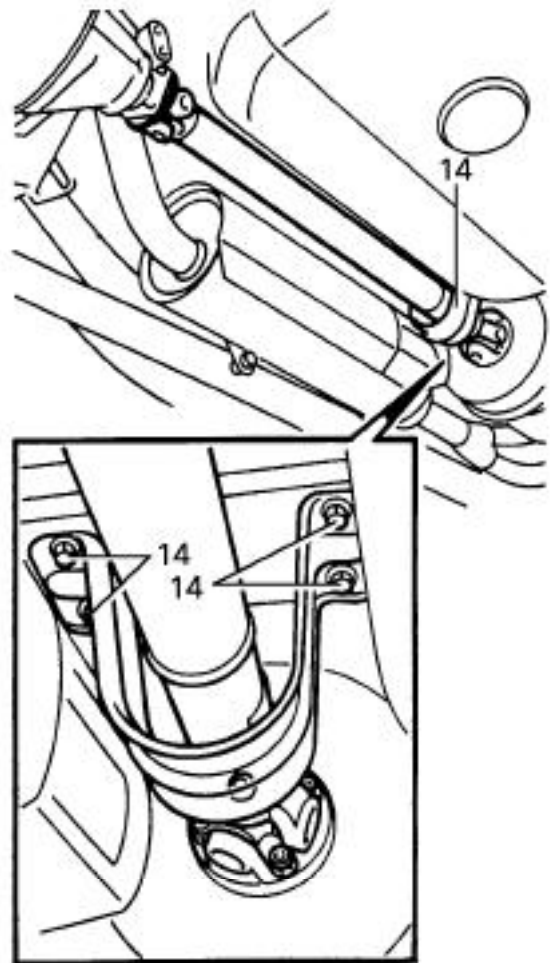
#### All Vehicles:

7. Release handbrake.
8. Remove handbrake cable clevis pin.



41M7014

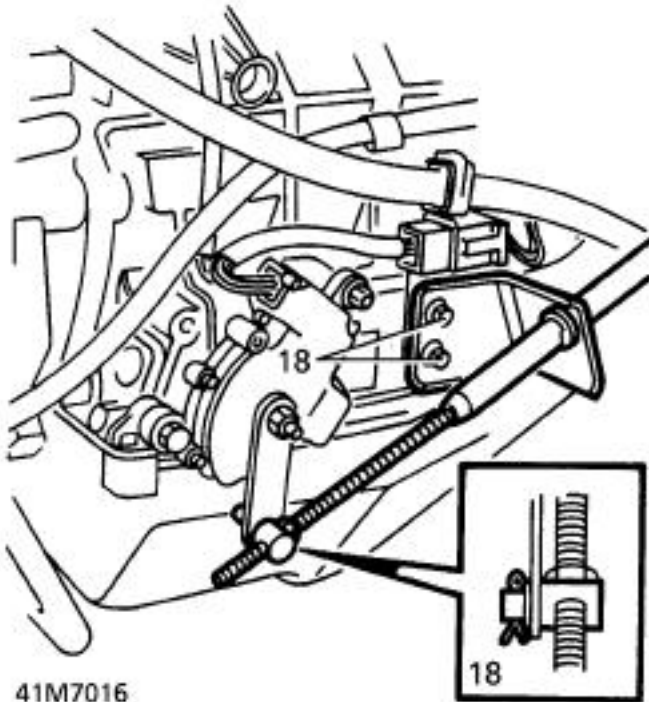
9. Raise lift. Drain gearbox and transfer box oil. **See SECTION 10, Maintenance.**
10. Support transmission with cross beam.
11. Remove exhaust front pipe. **See MANIFOLD AND EXHAUST SYSTEM, Repair.**
12. **Diesel Vehicles.** Remove chassis cross member. **See CHASSIS AND BODY, Repair.**
13. Release hand brake cable from grommet in tunnel.
14. Remove 4 bolts securing rear propeller shaft guard. Remove guard.



41M7015

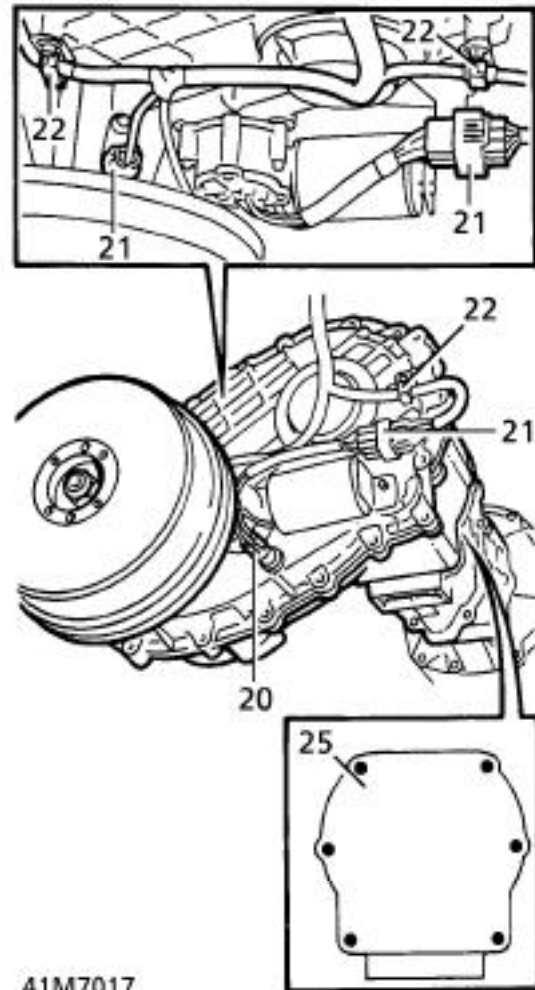
15. Mark flanges on propeller shafts and transfer box to aid reassembly.
16. Raise one wheel on each axle to allow rotation of propeller shafts.
17. Remove fixings securing shafts to transfer box. Release shafts. Tie aside.
18. **Automatic Vehicles.** Disconnect gear selector cable trunnion from gearbox lever. Remove 2 bolts securing selector cable abutment bracket to gearbox. Place selector cable aside.





41M7016

19. Lower gearbox for access.
20. Disconnect 2 Lucars from transfer box fluid temperature sensor.



41M7017

21. Disconnect multiplugs from High/Low motor and output shaft speed sensor.
22. Release harness from 2 clips on transfer box brackets.
23. Position adaptor plate LRT-99-012 to transmission lift. Secure with bolts.
24. Raise transmission lift. Secure adaptor plate to transfer gearbox.
25. Remove 6 bolts securing transfer box.
26. Adjusting tilt as necessary, release transfer box from gearbox. Lower transmission lift.





### Refit

27. **Manual Vehicles:** Renew gearbox output shaft seal. *See MANUAL GEARBOX, Repair.*
28. **Automatic Vehicles:** Renew gearbox output shaft seal. *See AUTOMATIC GEARBOX, Repair.*
29. Ensure mating faces are clean.
30. Lubricate input shaft with transmission fluid.
31. Raise transfer box on lift. Adjust tilt as necessary to align shafts.
32. Engage shafts. Locate transfer box dowels to gearbox.
33. Secure transfer box to gearbox with bolts. Tighten to **45 Nm. (33 lbf.ft)**
34. Remove transmission lift.
35. Connect multiplugs to High/Low motor and output shaft speed sensor.
36. Connect Lucars to transfer box fluid temperature sensor.
37. Secure harness in clips.
38. Raise gearbox on cross beam.
39. **Automatic vehicles.** Position selector cable abutment bracket to gearbox. Secure with bolts.
40. Raise one wheel on each axle to allow rotation of propeller shafts.
41. Position propeller shafts to transfer box flanges. Align marks.
42. Secure shafts with nuts and bolts. Tighten to **48 Nm. (35 lbf.ft)**
43. Fit propeller shaft guard. Tighten bolts.
44. Guide hand brake cable through grommet in transmission tunnel.
45. Fit exhaust front pipe. *See MANIFOLD AND EXHAUST SYSTEM, Repair.*
46. **Diesel Vehicles.** Fit chassis cross member. *See CHASSIS AND BODY, Repair.*
47. **Automatic Vehicles:** Adjust gear selector cable. *See AUTOMATIC GEARBOX, Adjustment.*
48. Replenish gearbox and transfer box fluids. *See LUBRICANTS, FLUIDS AND CAPACITIES, Information.*
49. Lower lift.
50. Connect handbrake cable to lever, secure with clevis pin and clip.

### Manual Vehicles:

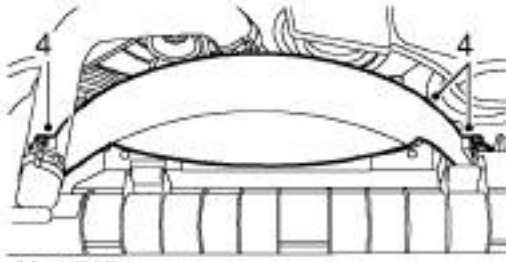
51. Fit seal around gearbox remote housing to transmission tunnel aperture.
52. Position gear lever. Secure with bolts. Tighten to **25 Nm. (18 lbf.ft)**
53. Fit gaiter and ring. Secure with nuts.
54. Fit centre console. *See CHASSIS AND BODY, Repair.*
55. **Automatic Vehicles:** Fit window switch pack. *See ELECTRICAL, Repair.*
56. Reconnect battery negative lead.

**TRANSFER BOX - FROM 99MY**

Service repair no - 41.20.25.

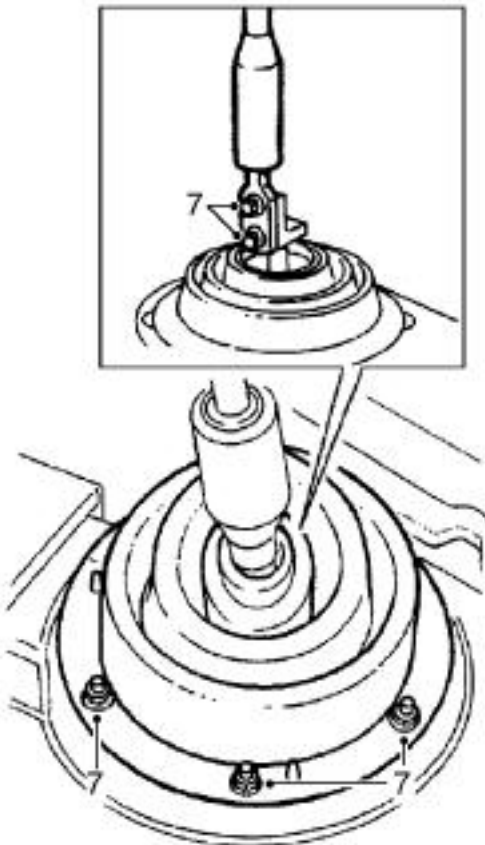
**Remove**

1. Position vehicle on a four post lift.
2. Release fixings and remove battery cover.
3. Disconnect battery earth lead.



M41 7654

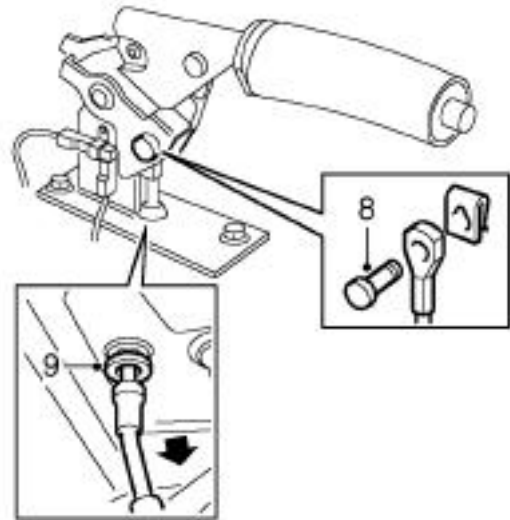
4. Release clips securing cooling fan cowl and remove cowl.
5. **Automatic models:** Remove window switch pack. *See ELECTRICAL, Repair.*
6. **Manual models:** Remove centre console. *See CHASSIS AND BODY, Repair.*



M41 7631

7. **Manual models:** Remove 6 nuts securing gaiter

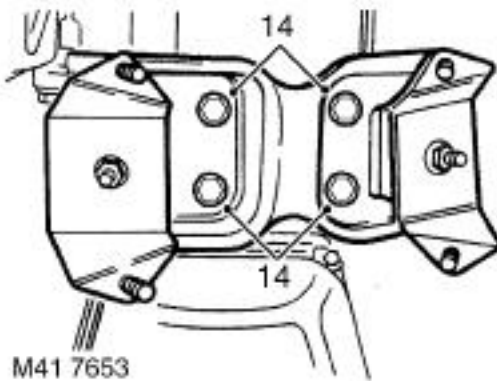
ring and remove gaiter ring and gaiter. Remove 2 bolts securing gear lever and remove lever.



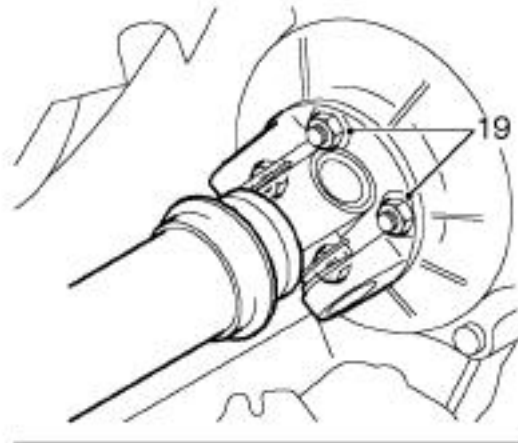
M41 7632

8. With the handbrake released, remove clip and clevis pin securing handbrake cable to handbrake.
9. Raise vehicle and release handbrake cable and grommet from tunnel.
10. Drain gearbox fluid. *See AUTOMATIC GEARBOX, Repair.*
11. Drain transfer box oil. *See SECTION 10, Maintenance. See LUBRICANTS, FLUIDS AND CAPACITIES, Information.*
12. **Petrol models:** Remove exhaust front pipe. *See MANIFOLD AND EXHAUST SYSTEM, Repair.*
13. **Diesel models:** Remove chassis crossmember. *See CHASSIS AND BODY, Repair.*

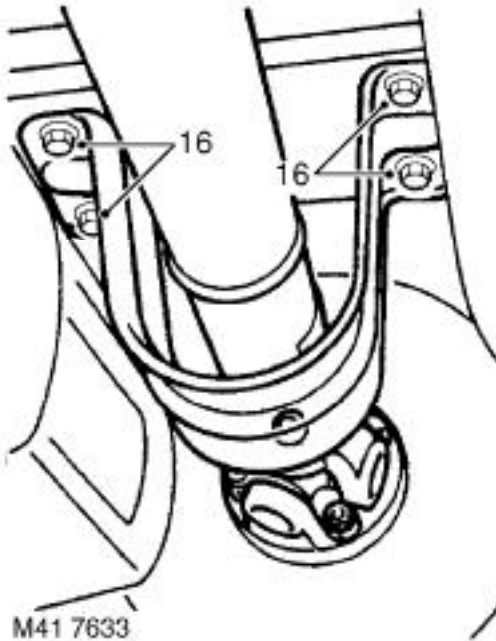




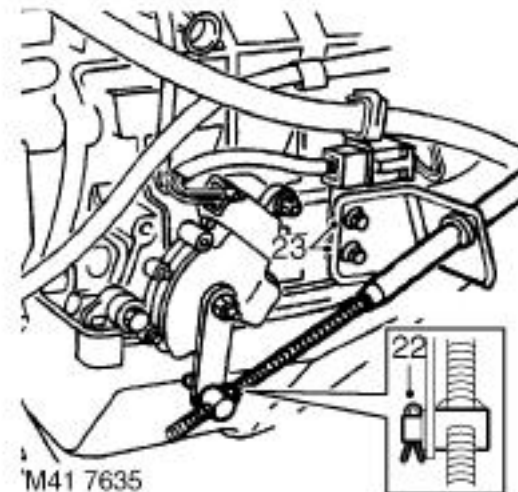
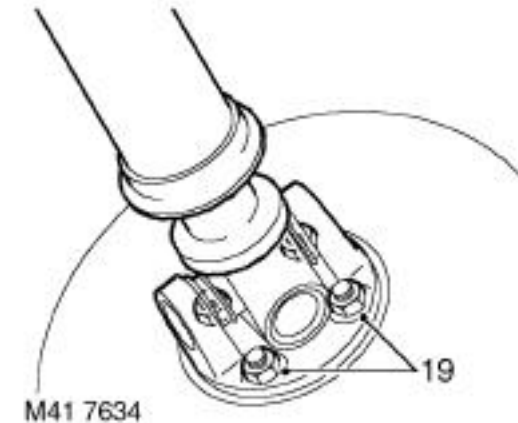
14. Remove 4 bolts securing transmission mounting assembly and remove assembly.
15. Support engine and gearbox with transmission jack.



19. Remove 4 nuts from each propeller shaft flange.
20. Release propeller shafts and tie aside.
21. Lower transmission for access.



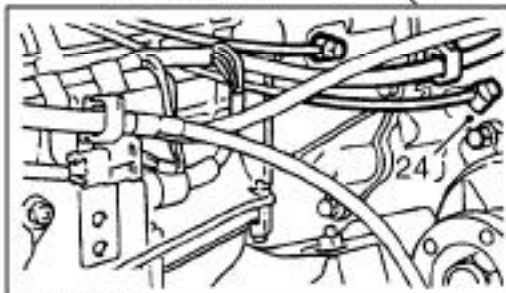
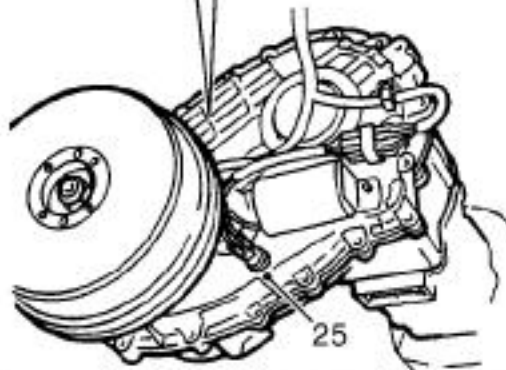
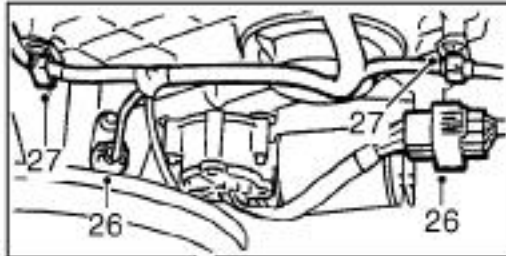
16. Remove 4 bolts securing rear propeller shaft guard and remove guard.
17. Mark transfer box and propeller shaft flanges to aid re-assembly.
18. Raise one wheel on each axle to allow rotation of propeller shafts.



22. **Automatic models:** Remove split pin securing gear selector cable trunnion to gearbox lever and release trunnion.



23. Remove 2 bolts securing gear selector cable abutment bracket and harness support bracket to gearbox, and position selector cable and brackets aside.



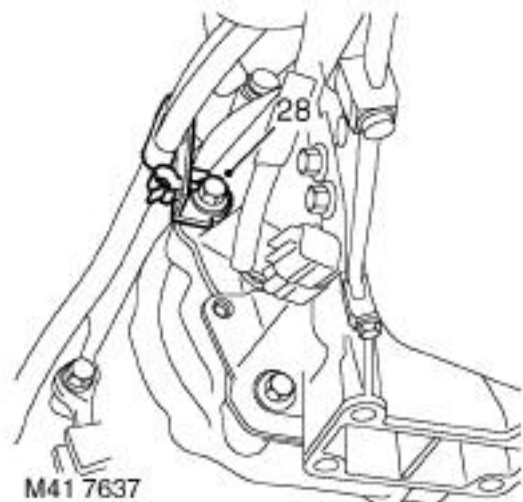
M41 7636

24. Remove banjo bolt securing breather pipe to transfer box, remove and discard sealing washer.



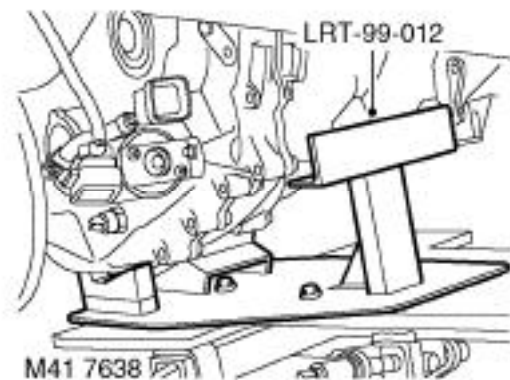
**CAUTION: Plug the connections.**

25. Disconnect 2 Lucars from transfer box oil temperature sensor.  
 26. Disconnect multiplugs from High/Low motor and output shaft speed sensor.  
 27. Release harness from 2 clips.



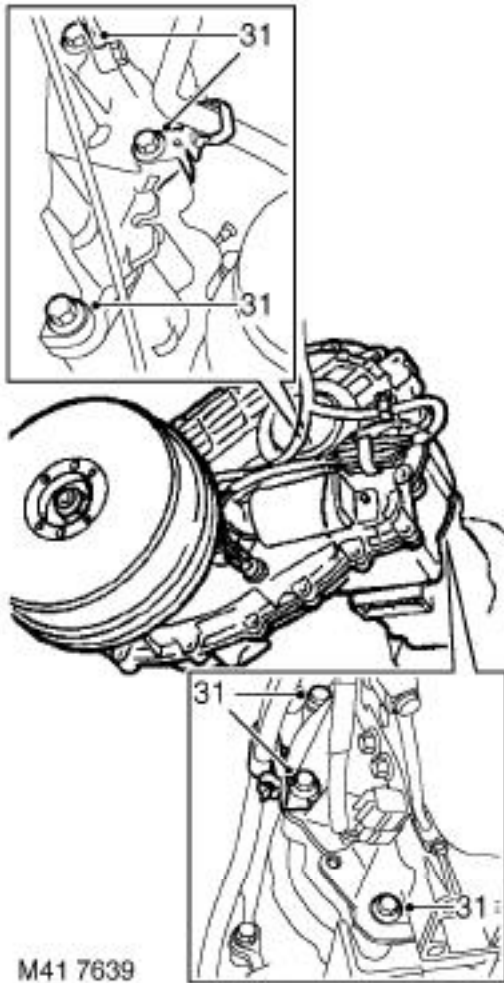
M41 7637

28. Remove bolt securing fuel pipe and purge pipe retaining bracket to transfer box and release bracket.



M41 7638

29. Position adaptor plate LRT-99-012 to transmission lift and secure with nuts and bolts.  
 30. Raise and adjust transmission lift so that LRT-99-012 is correctly located to transfer box.



M41 7639

31. Remove 6 bolts securing transfer box to gearbox and release 2 harness clip mounting brackets.
32. Adjust transmission lift as necessary, release and remove transfer box.
33. Remove seal from transfer box casing using a suitable lever.



**CAUTION:** Ensure seal location does not become damaged as seal is levered from casing.

34. Remove seal from gearbox casing using a suitable lever.

### Refit

35. Ensure seal location faces on gearbox are clean.
36. Lubricate oil seal lip with transmission fluid
37. **Automatic models:** Using LRT-44-001 fit seal to gearbox casing.
38. **Manual models:** Using LRT-37-014 fit seal to extension housing.
39. Ensure seal location faces on transfer box are clean.
40. Lubricate oil seal lip with transfer box oil.
41. Using LRT-41-011 fit seal to transfer box.
42. Clean transfer and gearbox mating faces and dowel and dowel holes.
43. Lubricate transfer box input shaft with transmission fluid.
44. Raise transfer box on lift and adjust angle of lift as necessary to align shafts.
45. Engage shafts and locate transfer box dowels to gearbox.
46. Fit bolts securing transfer box to gearbox and tighten to **45 Nm (33 lbf.ft)**. Ensure that the 2 harness clip mounting brackets are correctly fitted when fitting bolts.
47. Secure harness to clips.
48. Align bracket securing fuel pipe and purge pipe to transfer box and secure with bolt.
49. Connect multiplugs to High/Low motor and output shaft speed sensor.
50. Connect 2 Lucars to transfer box fluid temperature sensor.
51. Clean breather pipe bolt and banjo, fit new sealing washers and tighten bolt to **15 Nm (11 lbf.ft)**.
52. Align harness support bracket and gear selector cable abutment bracket to gear box, and secure with bolts.
53. **Automatic models:** Connect gear selector cable trunnion to gearbox lever and secure with split pin.



54. Adjust gear selector cable. *See AUTOMATIC GEARBOX, Repair.*
55. Raise transmission.
56. Clean propeller shaft and transfer box flanges.
57. Fit propeller shafts to transfer box flanges and align marks.
58. Fit nuts to propeller shafts and tighten to **48 Nm (35 lbf.ft)**.
59. Fit rear propeller shaft guard and secure with bolts.
60. Fit and engage handbrake cable grommet into transmission tunnel.
61. Fit transmission mounting assembly and tighten bolts to **44 Nm (33 lbf.ft)**.
62. Support transmission under brake drum.
63. Lower lift and remove adaptor plate LRT-99-012 from lift.
64. **Petrol models:** Fit exhaust front pipe. *See MANIFOLD AND EXHAUST SYSTEM, Repair.*
65. **Diesel models:** Fit chassis crossmember. *See CHASSIS AND BODY, Repair.*
66. Connect handbrake cable to lever, fit clevis pin and secure pin with clip.
67. **Manual models:** Position gear lever and tighten bolts to **25 Nm (18 lbf.ft)**. Fit gaiter and gaiter ring and secure with nuts.
68. **Manual models:** Fit centre console. *See CHASSIS AND BODY, Repair.*
69. **Automatic models:** Fit window switch pack. *See ELECTRICAL, Repair.*
70. Position fan cowl and secure with clips.
71. Connect battery earth lead.
72. Fit battery cover and secure with fixings.
73. Fill transfer box with oil. *See SECTION 10, Maintenance. See LUBRICANTS, FLUIDS AND CAPACITIES, Information.*
74. Fill gearbox with fluid. *See AUTOMATIC GEARBOX, Repair.*