



**Silver Spirit and Bentley Mulsanne 1987-1989 Model
Years
20,000-Series Supplement**



ABS Braking System

**Although This Section was Prepared for 30,000-Series SZ Vehicles, it Also
Generally Applies to 20,000-series SZ Vehicles**

Anti-lock braking system

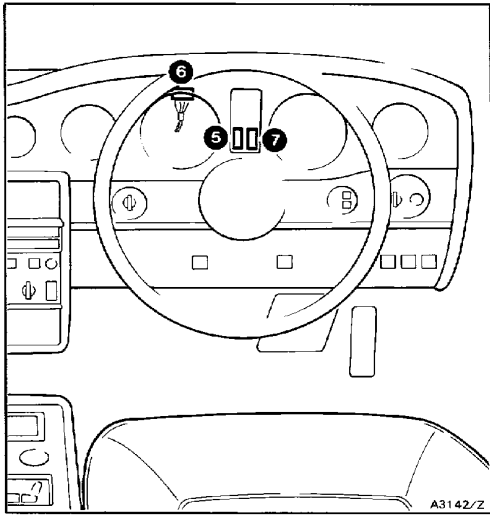
Component locations

[002620](#) Shown Below.

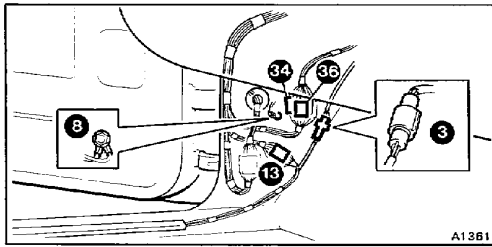
Wiring diagram

[002621](#) Shown Below.

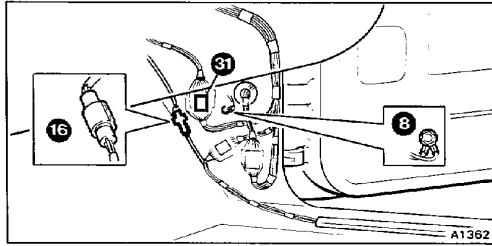
- 1) Left-hand front wheel speed sensor
- 2) Wheel speed sensor plug and socket
- 3) Valance loom to anti-lock braking system loom plug and socket 7-way - left hand 'A' post
- 4) Anti-lock braking system warning panel
- 5) Instruments module socket 26-way - yellow
- 6) Instruments module socket 16-way
- 7) Instruments module socket 26-way - blue
- 8) 'A' post earth points
- 9) Splice 155
- 10) Splice 159
- 11) Right-hand front wheel speed sensor
- 12) Splice 160
- 13) Main loom to anti-lock braking system loom plug and socket 12-way - left-hand 'A' post
- 14) Luggage compartment earth point - left-hand side
- 15) Body loom to anti-lock braking system loom plug and socket 3-way - located beneath the right-hand rear seat cushion
- 16) Body loom to valance loom plug and socket 3-way - right-hand 'A' post
- 17) Splice 161
- 18) Splice 167
- 19) Splice 157
- 20) Anti-lock braking system electronic control unit plug 35-way
- 21) Anti-lock braking system electronic control unit
- 22) Splice 92
- 23) Splice 154
- 24) Valance loom to engine loom plug and socket 5-way - right-hand side
- 25) Splice 88
- 26) Splice 156
- 27) Hydraulic modulator valves plug 5-way
- 28) Hydraulic modulator valves
- 29) Splice 7. Right-hand drive cars Splice 44. Left-hand drive cars
- 30) Splice 193
- 31) Main loom to valance loom plug and socket 9-way - right-hand 'A' post
- 32) Splice 23. Right-hand drive cars Splice 51. Left-hand drive cars
- 33) Splice 158
- 34) Main loom to valance loom plug and socket 18-way - left hand 'A' post
- 35) Starter motor
- 36) Main loom to valance loom plug and socket 9-way - left-hand 'A' post
- 37) Diode - taped back into loom
- 38) Modulator relay
- 39) Splice 198
- 40) Splice 19. Right-hand drive cars Splice 67. Left-hand drive cars
- 41) Valance loom to brake switch loom plug and socket 5-way - left-hand side
- 42) Anti-lock braking system relay
- 43) Valance loom to engine loom plug and socket 12-way - left-hand side
- 44) Stop lamps switch
- 45) Body loom to anti-lock braking system loom plug and socket 3-way - located in the luggage compartment
- 46) Battery earth point
- 47) Splice 5. Right-hand drive cars Splice 53. Left-hand drive cars
- 48) Fuseboard F1, fuse B4, 20 amp
- 49) Fuseboard F1, fuse A4, 4 amp
- 50) Battery
- 51) Fuseboard F2, fuse B1, 20 amp
- 52) Anti-lock braking system fuse, 10 amp - located in the luggage compartment
- 53) Fuseboard F2, fuse A9, 10 amp
- 54) Anti-lock braking system fuse, 20 amp - located in the luggage compartment
- 55) Left-hand rear wheel speed sensor
- 56) Alternator
- 57) Battery master switch. Cars other than those conforming to a West German specification
- 58) Splice 95
- 59) Right-hand rear wheel speed sensor



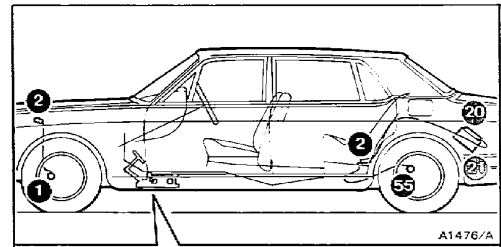
A3142/Z



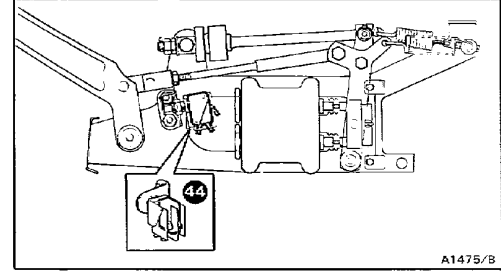
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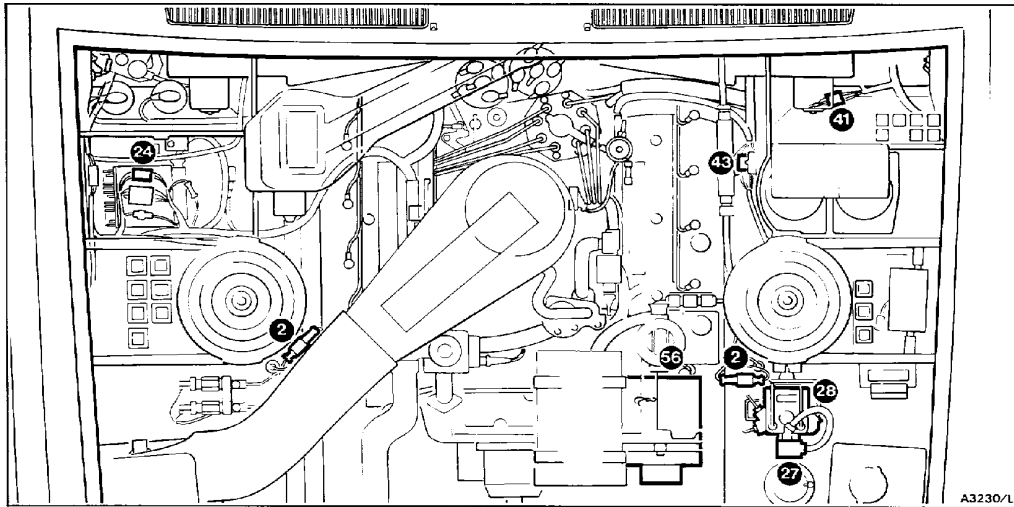
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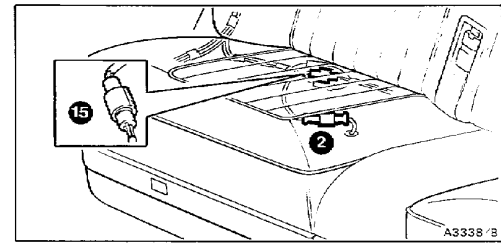
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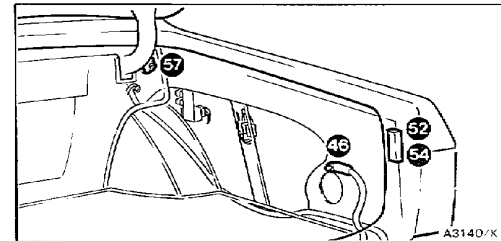
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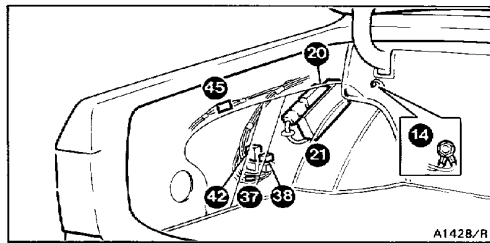
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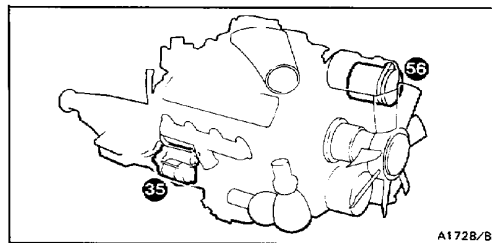
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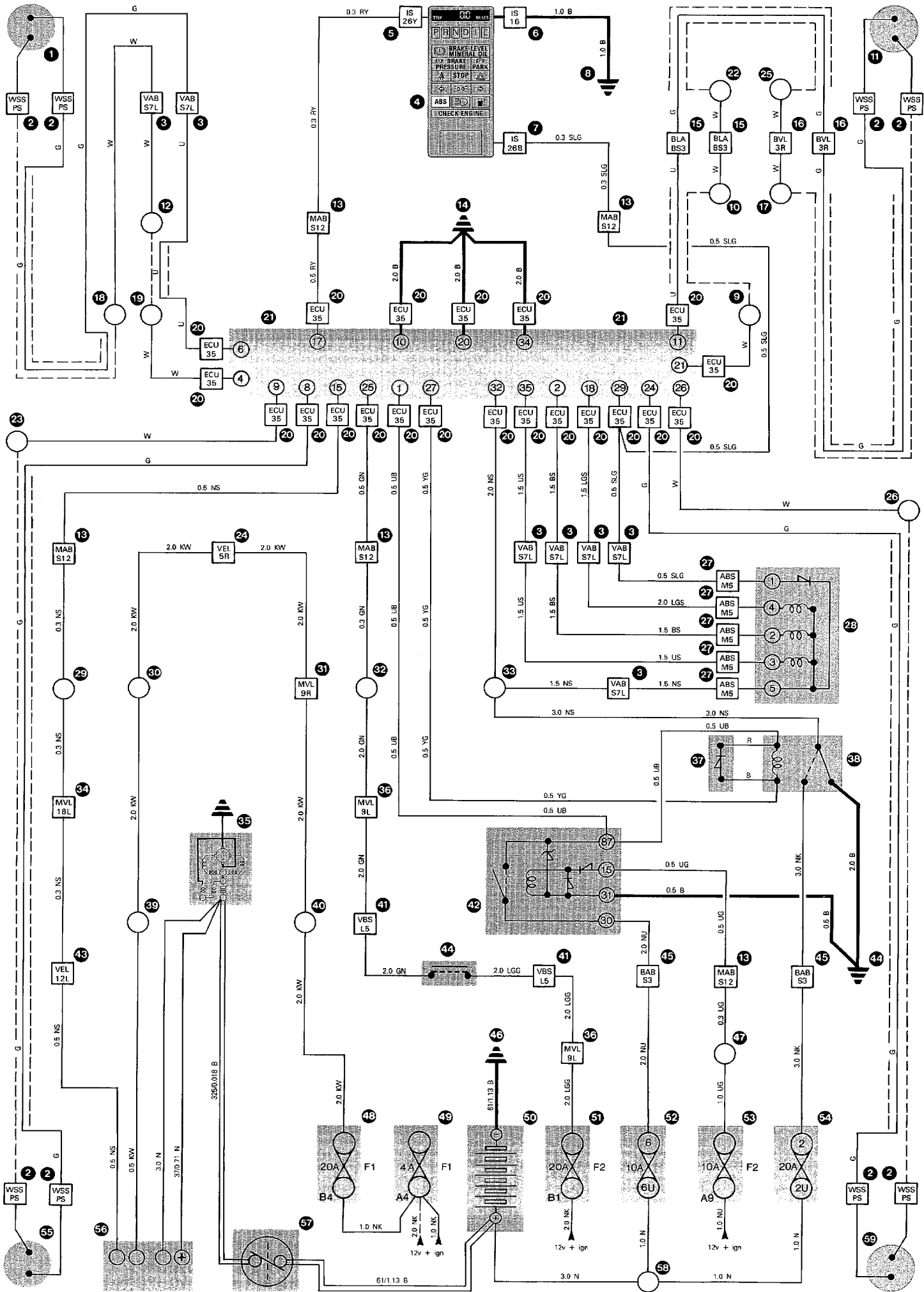
A3140/K



A1428/R



A1728/B



ABS wheel speed sensor operation check

Applicable to

All Rolls-Royce and Bentley motor cars from the following vehicle identification number (VIN)

Rolls-Royce

Silver Spirit *SCAZS0002HCH20003* onwards

Silver Spur *SCAZN0009HCX20004* onwards

Corniche *SCAZD42AXHCX15992* onwards

Touring Limousine *SCAZW02D5NCX80001* onwards

Bentley

Eight *SCBZS8009HCX20006* to 44562

Mulsanne S *SCBZS00A7JCH22047* to 44588

Continental *SCBZD0009HCH16035* onwards

Turbo R *SCBZS0T03HCX20001* onwards

Brooklands *SCBZE02D4PCX46004* onwards

Continental R *SCBZB03D5NCX42001* onwards

Introduction

The anti-lock braking system electronic control unit (ABS ECU) has a self-check programme, activated whenever the car is operating. If a fault is detected, the system switches off and the ABS warning panel on the drivers information panel (DIP) illuminates. If the panel remains illuminated after turning off the ignition and restarting the engine, the system may be checked using test box RH 9882. Proceed as indicated in Section G6 of the Workshop Manual, TSD 5000, referring also to the Electrical Workshop Manual, TSD 5002, Section 10.

The purpose of this Product Support Information Sheet is to:-

- i.) clarify the check procedure, and
- ii. supply the specified widths of the air gaps between the toothed wheel and wheel speed sensor for front and rear axles.

Description

Connect test box RH 9882 and proceed as stated in the Workshop Manual as referred to previously. When checking that wheel speed sensors are operating correctly, and connections are correct, switch position 6 should be selected.

Procedure

- 1.) Jack up the vehicle.
- 2.) Turn on the ignition.
- 3.) Ensure the wheel to be tested is free to rotate by hand, and when testing the rear wheels, the wheel not being tested must be held.
- 4.) Set the wheel speed selection switch to the wheel to be tested.
- 5.) Turn the wheel by hand at approximately one revolution per second until the LED indicator for rotary motion of the wheels illuminates without flickering.
- 6.) Read the instrument indication, if the minimum indication is less than 4 divisions, and/or the fluctuation is greater than 4% of the maximum indication, then possible causes of the fault are:-
 - a.) Wheel speed sensor lead is incorrectly connected or open circuit.
 - b.) Wheel bearing play is excessive.
 - c.) Toothed wheel defective or loose.
 - d.) Air gap between wheel speed sensor and toothed wheel blocked with debris, or incorrect to specification.

Note:
The specified widths of the air gaps are:-

0.082 to 0.88 mm for the front wheels

0.175 to 0.98 mm for the rear wheels

Francis Alford