

Audi A3

Current Flow Diagram

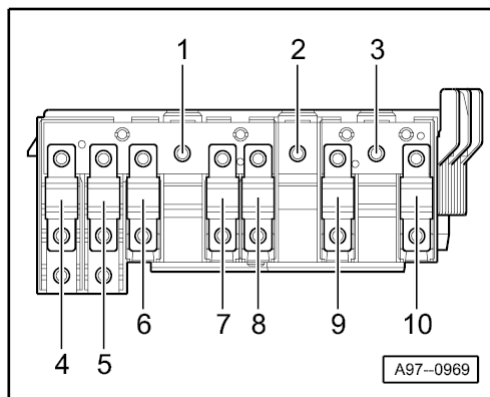
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Edition 04.2006

1.6 I - Fuel injection engine (75 kW - Simos - 4 cylinder), engine code BGU

from model year 2004

Main fuse holder, electronics box



- ♦ On electronics box, in engine compartment, front left

Main supply connection

2 - Screw connection M (terminal 30)

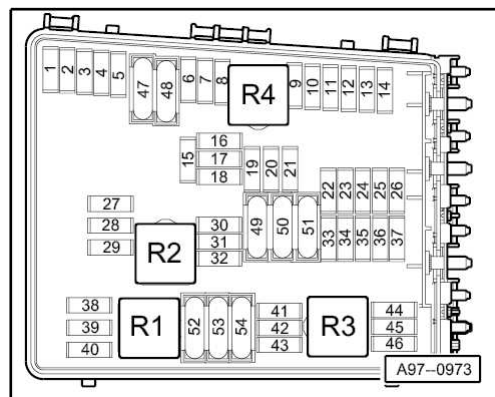
Fuse locations

4 - Fuse 1 on fuse holder/battery (SA1)

9 - Fuse 6 on fuse holder/battery (SA6)

**Note:***The fuses in the main fuse holder are designated as SA in the Current Flow Diagram.*

Relay and fuse carrier, electronics box



♦ In engine compartment, front left

Fuse colours

- 40 A - orange
- 30 A - green
- 25 A - white
- 20 A - yellow
- 15 A - blue
- 10 A - red
- 5 A - beige



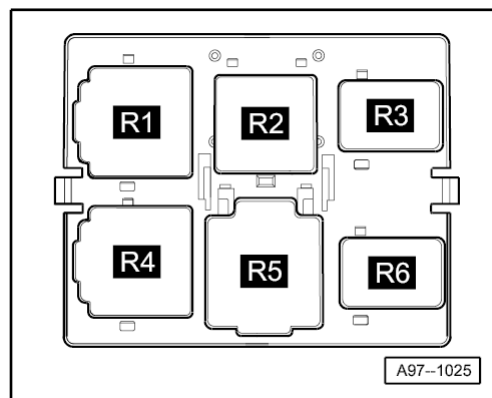
Note:

The fuses in electronics box with the designation F are designated as SB in the Current Flow Diagram.

Position of relays

- R1 - Terminal 15 voltage supply relay - J329
- R2 - Terminal 50 voltage supply relay - J682
- R3 - Fuel pump relay - J17
- R4 - Current supply relay for Simos control unit - J363

6-point relay carrier

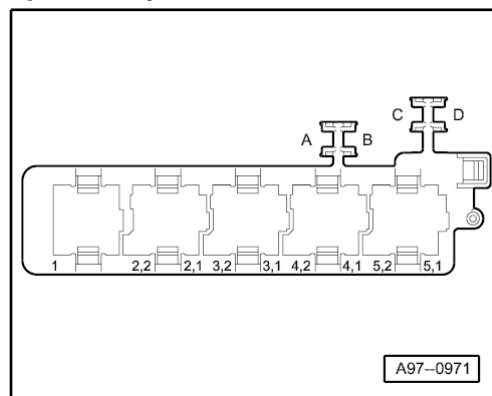


- ◆ Under electronics box in engine compartment, left

Position of relays

R5 - Secondary air pump relay - J299

5-point relay carrier

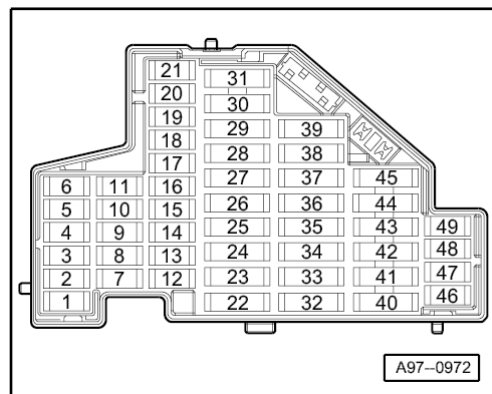


- ◆ Above the onboard power supply control unit, dash panel, driver side, bottom left

Position of relays

2.1 - Electric fuel pump 2 relay - J49

Fuse holder



♦ Driver side dash panel

Fuse colours

15 A - blue

10 A - red

5 A - beige



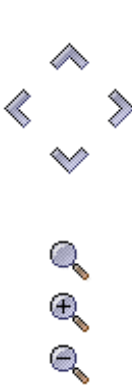
Note:

The fuses in the fuse holder are designated as SC in the Current Flow Diagram.

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Current Flow Diagram

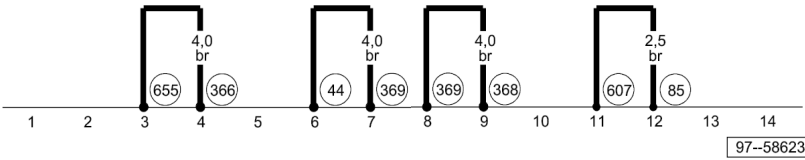
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Earth points, earth connections

- 44 - Earth point, lower part of left A-pillar
- 85 - Earth connection -1-, in engine compartment wiring harness
- 366 - Earth connection 1, in main wiring harness
- 368 - Earth connection 3, in main wiring harness
- 369 - Earth connection 4, in main wiring harness
- 607 - Earth point, on left in plenum chamber
- 655 - Earth point, on left headlight

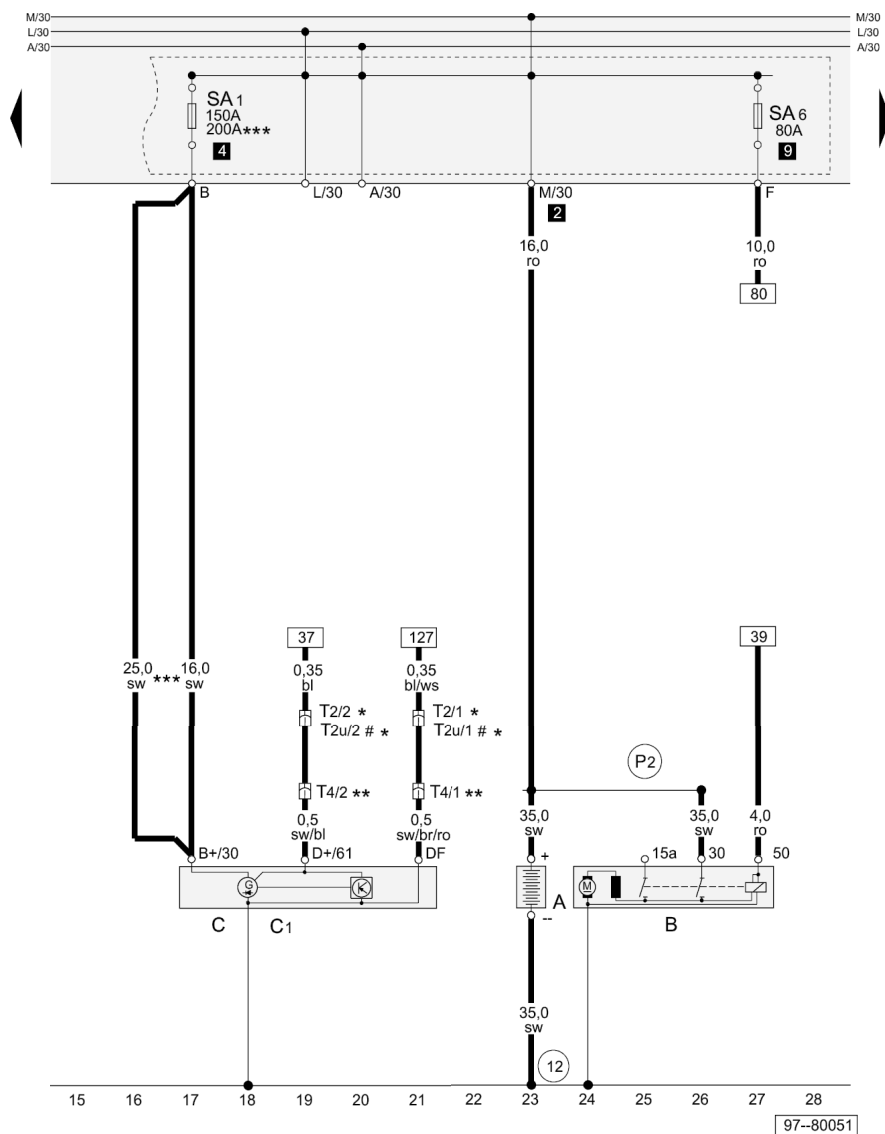
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = purple
ge = yellow
or = orange
rs = pink



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Current Flow Diagram

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Battery, starter, alternator

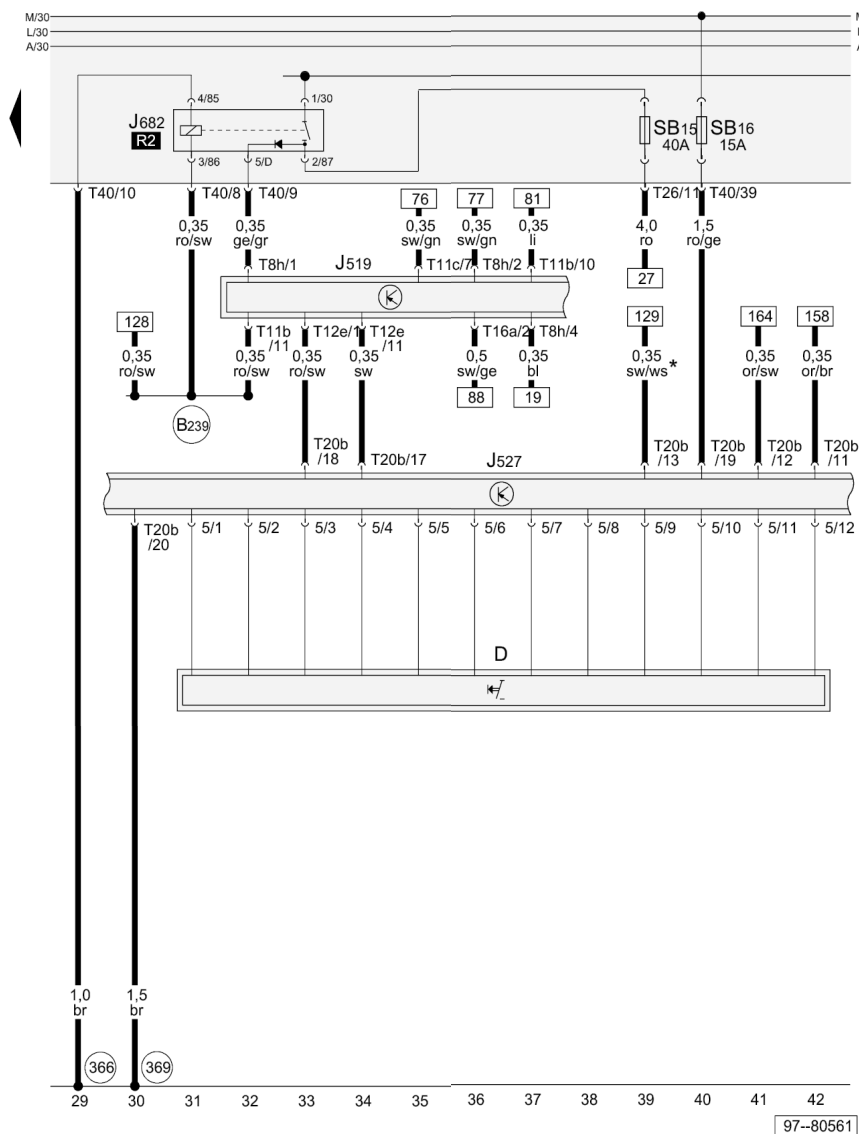
- A - Battery
 - B - Starter
 - C - Alternator
 - C1 - Voltage regulator
 - SA1 - Fuse 1 on fuse holder/battery
 - SA6 - Fuse 6 on fuse holder/battery
 - T2 - 2-pin connector, black, in front left engine compartment
 - T2u - 2-pin connector, brown, in front left engine compartment
 - T4 - 4-pin connector, black, in front left engine compartment
 - 12 - Earth point, on left in engine compartment
 - P2 - Positive connection (30), in battery wiring harness
- * - for models without air conditioning system only
 ** - for models with air conditioning system only
 *** - for models with alternator (140A) only
 # - T2 is replaced by T2u, applicable from November 2003

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 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = purple
 ge = yellow
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Current Flow Diagram

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Ignition/starter switch, onboard supply control unit, steering column electronics control unit, terminal 50 voltage supply relay

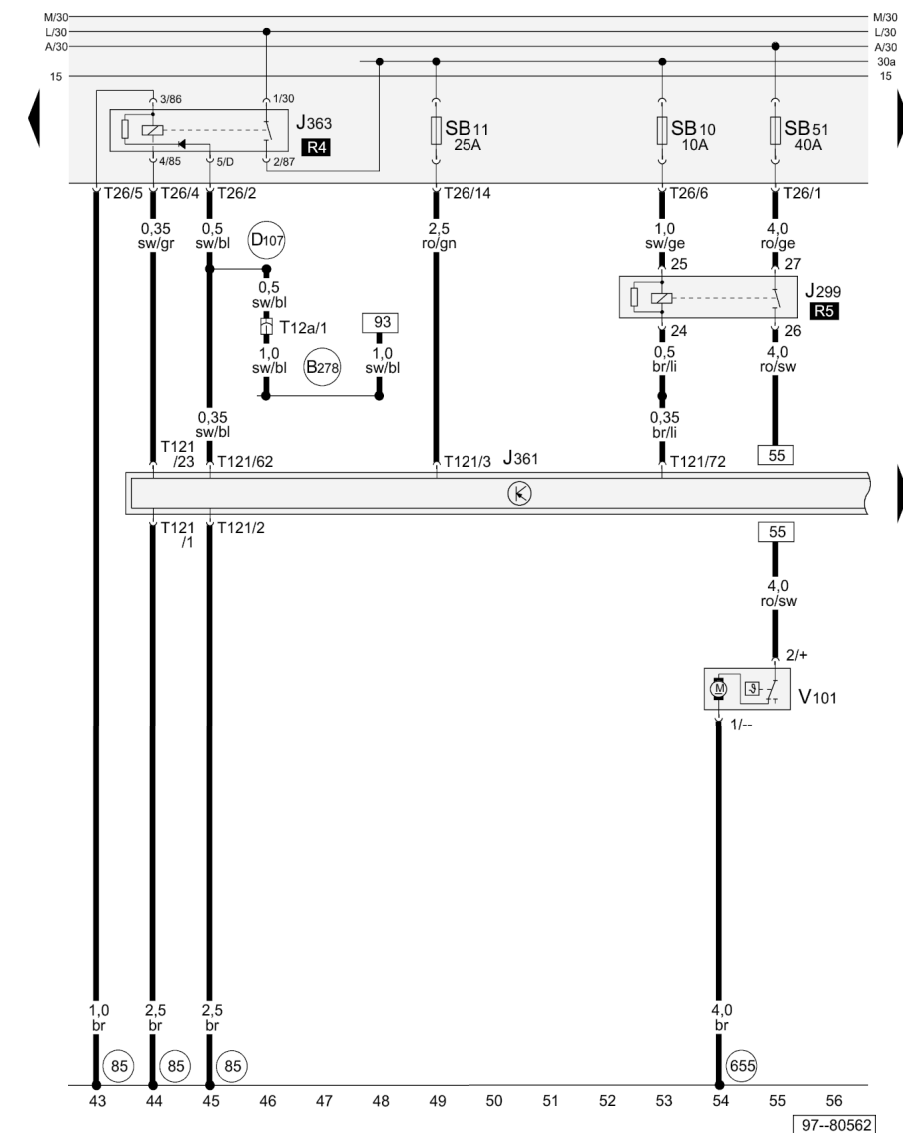
- D - Ignition/starter switch
- J519 - Onboard supply control unit
- J527 - Steering column electronics control unit
- J682 - Terminal 50 voltage supply relay
- SB15 - Fuse 15 on fuse holder
- SB16 - Fuse 16 on fuse holder
- T8h - 8-pin connector, black (connector F)
- T11b - 11-pin connector, black (connector A)
- T11c - 11-pin connector, brown (connector D)
- T12e - 12-pin connector, black (connector G)
- T16a - 16-pin connector, black (connector E)
- T20b - 20-pin connector, black (connector A)
- T26 - 26-pin connector, brown on electronics box, in engine compartment (connector K)
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- 366 - Earth connection 1, in main wiring harness
- 369 - Earth connection 4, in main wiring harness
- B239 - Positive connection 1 (50), in interior wiring harness
- * - for models with cruise control system only

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 gr = grey
 li = purple
 ge = yellow
 or = orange
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Current Flow Diagram

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Secondary air pump relay, simos control unit, current supply relay for Simos control unit, secondary air pump motor

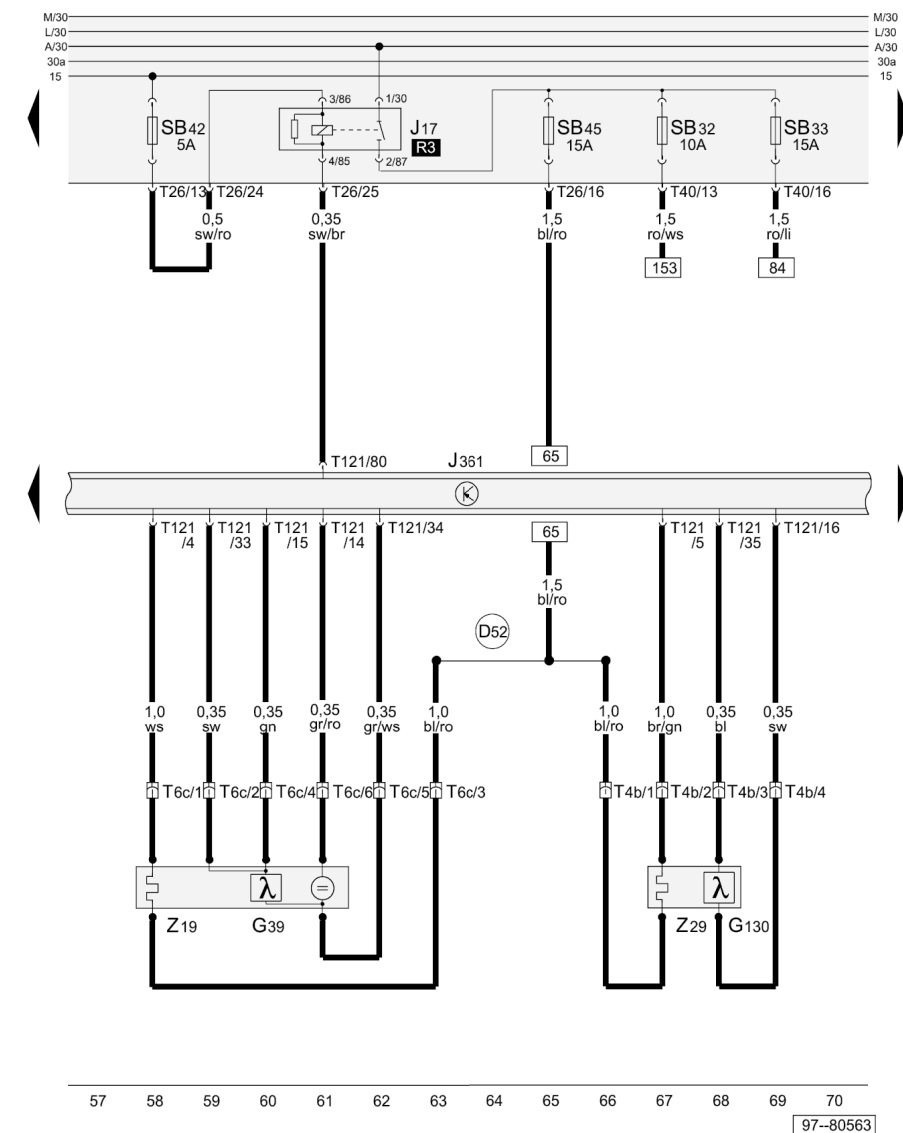
- J299 - Secondary air pump relay
- J361 - Simos control unit
- J363 - Current supply relay for Simos control unit
- SB10 - Fuse 10 on fuse holder
- SB11 - Fuse 11 on fuse holder
- SB51 - Fuse 51 on fuse holder
- T12a - 12-pin connector, blue, in plenum chamber
- T26 - 26-pin connector, black, on electronics box, in engine compartment (connector K)
- T121 - 121-pin connector, black, on engine control unit
- V101 - Secondary air pump motor
- 85 - Earth connection 1, in engine compartment wiring harness
- 655 - Earth point, on left headlight
- B278 - Positive connection 2 (15a), in main wiring harness
- D107 - Connection 5, in engine compartment wiring harness

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 br = brown
 gn = green
 bl = blue
 gr = grey
 li = purple
 ge = yellow
 or = orange
 rs = pink

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Current Flow Diagram

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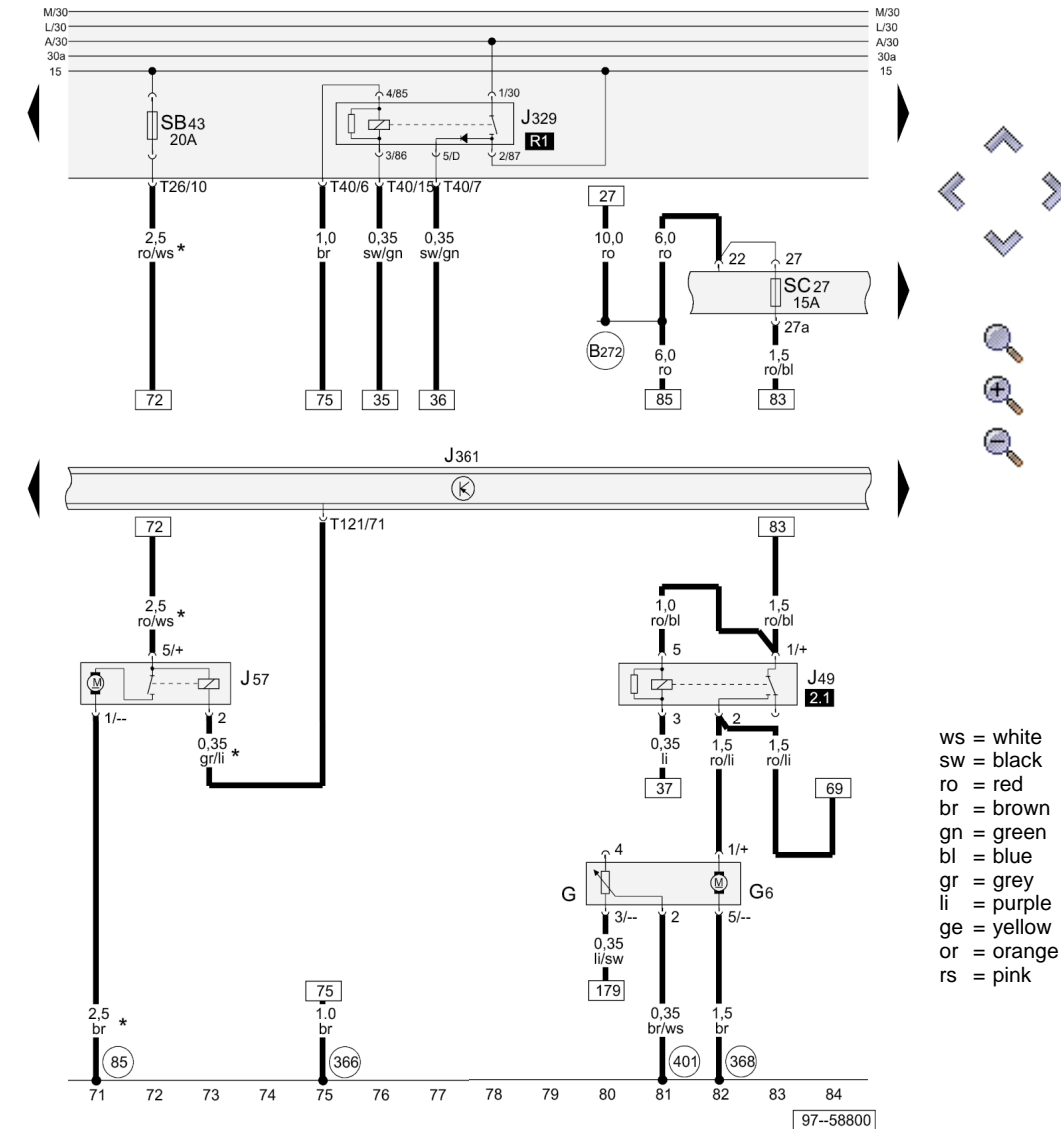
Lambda probe, lambda probe after catalytic converter, electric fuel pump 2 relay, Simos control unit

- G39 - Lambda probe
- G130 - Lambda probe after catalytic converter
- J17 - Fuel pump relay
- J361 - Simos control unit
- SB32 - Fuse 32 on fuse holder
- SB33 - Fuse 33 on fuse holder
- SB42 - Fuse 42 on fuse holder
- SB45 - Fuse 45 on fuse holder
- T4b - 4-pin connector, black, on lambda probe after catalytic converter
- T6c - 6-pin connector, black, on lambda probe upstream of catalytic converter
- T26 - 26-pin connector, brown on electronics box, in engine compartment (connector K)
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- T121 - 121-pin connector, black, on engine control unit
- Z19 - Lambda probe heater
- Z29 - Lambda probe 1 heater after catalytic converter
- D52 - Positive connection (15a), in engine compartment wiring harness

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Current Flow Diagram

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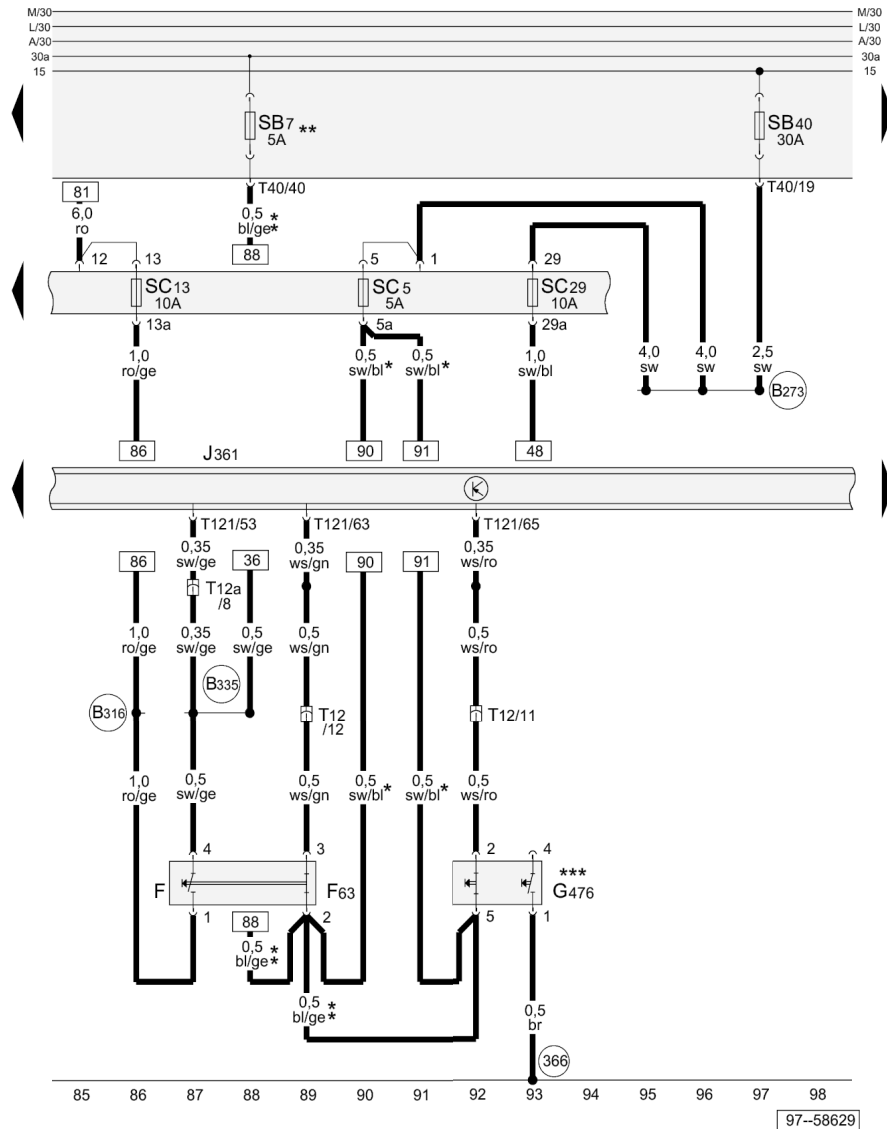
Fuel system (pressurisation pump), fuel pump relay, vacuum pump relay, terminal 15 voltage supply relay

- G - Fuel gauge sender
- G6 - Fuel pump (pre-supply pump)
- J49 - Electric fuel pump 2 relay
- J57 - Vacuum pump relay
- J329 - Terminal 15 voltage supply relay
- J361 - Simos control unit
- SB43 - Fuse 43 on fuse holder
- SC27 - Fuse 27 on fuse holder
- T26 - 26-pin connector, brown on electronics box, in engine compartment (connector K)
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- T121 - 121-pin connector, black, on engine control unit
- 85 - Earth connection -1-, in engine compartment wiring harness
- 366 - Earth connection 1, in main wiring harness
- 368 - Earth connection 3, in main wiring harness
- 401 - Earth connection (sender earth), in interior wiring harness
- B272 - Positive connection (30), in main wiring harness
- * - for models with automatic gearbox only

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Current Flow Diagram

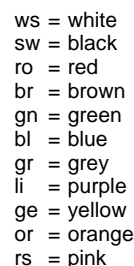
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Brake light switch, brake pedal switch, clutch position sender

- F - Brake light switch
- F63 - Brake pedal switch
- G476 - Clutch position sender
- J361 - Simos control unit
- SB7 - Fuse 7 on fuse holder
- SB40 - Fuse 40 on fuse holder
- SC5 - Fuse 5 on fuse holder
- SC13 - Fuse 13 on fuse holder
- SC29 - Fuse 29 von fuse holder
- T12 - 12-pin connector, green, in plenum chamber
- T12a - 12-pin connector, blue, in plenum chamber
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- T121 - 121-pin connector, black, on engine control unit
- 366 - Earth connection 1, in main wiring harness
- B273 - Positive connection (15), in main wiring harness
- B316 - Positive connection 2 (30a), in main wiring harness
- B335 - Connection 1 (54), in main wiring harness
- * - From week 17/2003 no longer fitted
- ** - applicable from week 17/2003
- *** - for models with manual gearbox only

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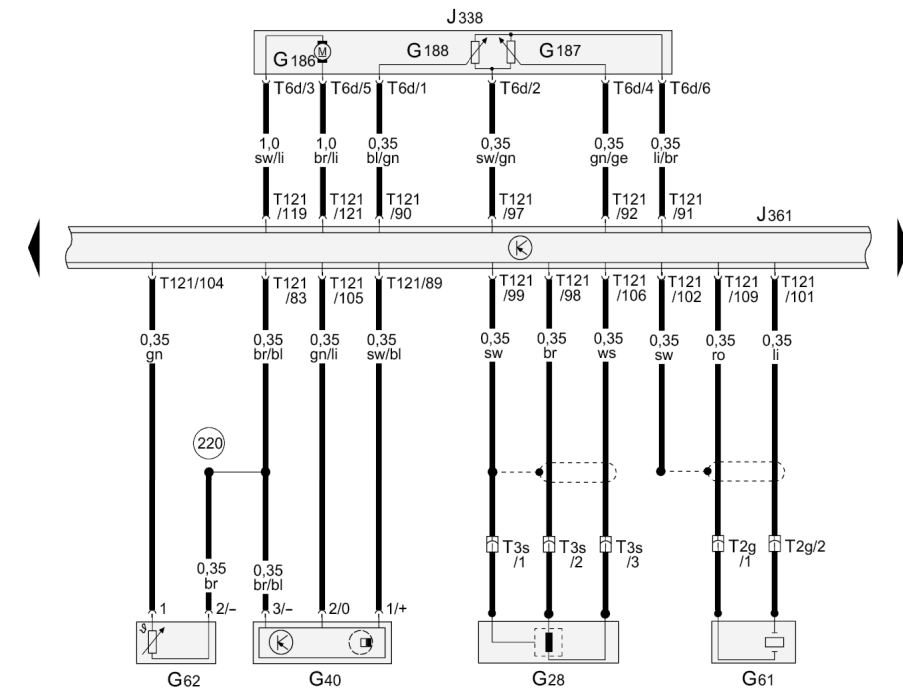
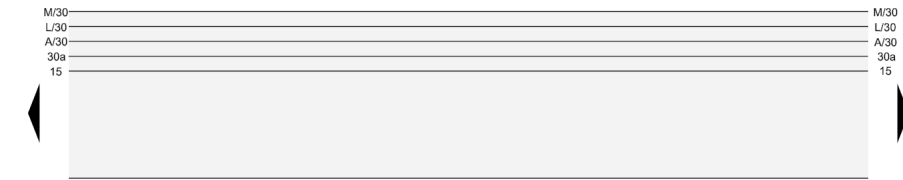


- G42 - Intake air temperature sender
- G71 - Intake manifold pressure sender
- G79 - Accelerator position sender
- G185 - Accelerator position sender -2-
- G212 - Exhaust gas recirculation potentiometer
- J361 - Simos control unit 
- N18 - Exhaust gas recirculation valve
- N80 - Activated charcoal filter system solenoid valve 1 (pulsed)
- N156 - Variable intake manifold change-over valve
- SB8 - Fuse 8 on fuse holder 
- T6k - 6-pin connector, black, near accelerator position sender
- T12 - 12-pin connector, green, in plenum chamber
- T14 - 14-pin connector, black, near longitudinal member, front left
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- T121 - 121-pin connector, black, on engine control unit
- B320 - Positive connection 6 (30a), in main wiring harness
- D112 - Connection 10, in engine compartment wiring harness
- D141 - Connection (5V), in engine wiring harness

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Current Flow Diagram

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ws = white
 sw = black
 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = purple
 ge = yellow
 or = orange
 rs = pink

Engine speed sender, Hall sender, knock sensor 1, coolant temperature sender, throttle valve module

- G28 - Engine speed sender
- G40 - Hall sender
- G61 - Knock sensor 1
- G62 - Coolant temperature sender
- G186 - Throttle valve drive (electric power control)
- G187 - Throttle valve drive angle sender 1 for electric throttle
- G188 - Throttle valve drive angle sender 2 for electric throttle
- J338 - Throttle valve module
- J361 - Simos control unit
- T2g - 2-pin connector, black, in left engine compartment (knock sensor)
- T3s - 3-pin connector
- T6d - 6-pin connector, black, near throttle valve module
- T121 - 121-pin connector, black, on engine control unit
- 220 - Earth connection (sender earth), in engine wiring harness

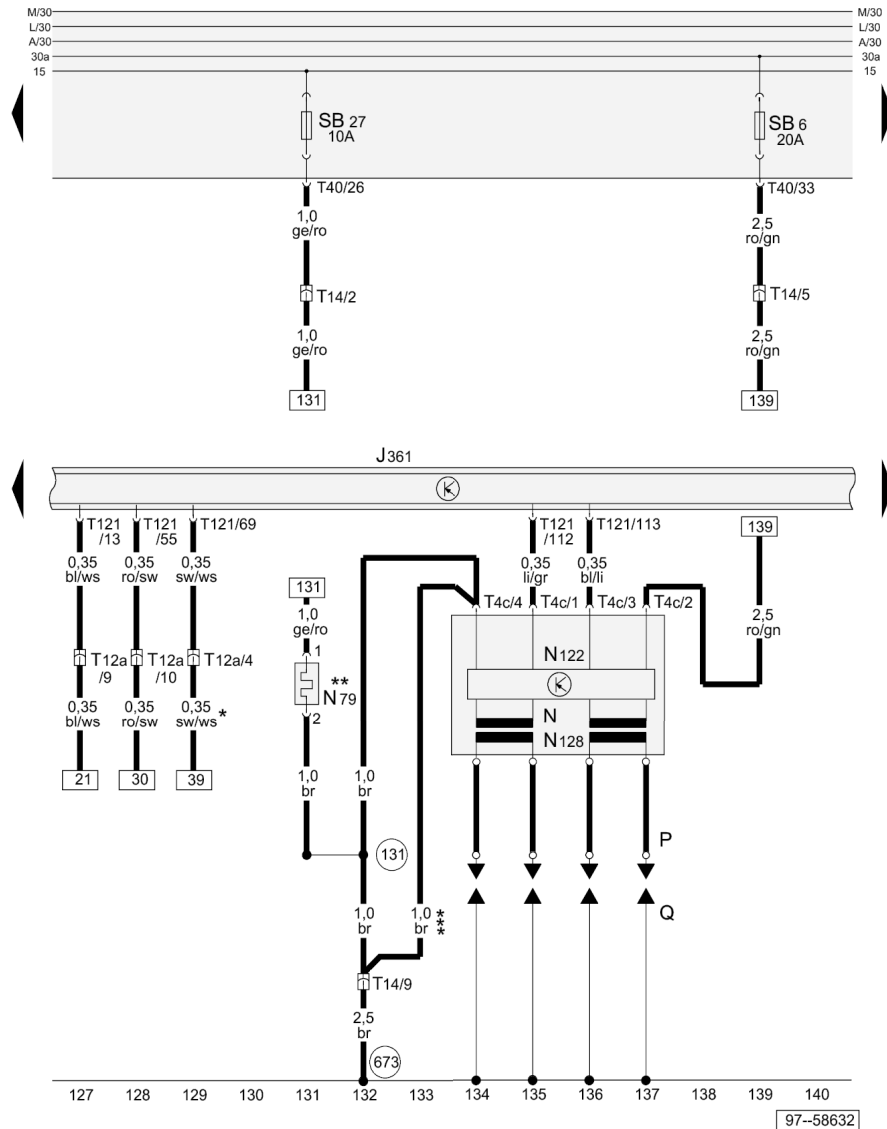
113 114 115 116 117 118 119 120 121 122 123 124 125 126

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Current Flow Diagram

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Simos control unit, ignition coil with output stage, heater element (crankcase breather)

- J361 - Simos control unit
- N - Ignition coil 1 with output stage
- N79 - Heater element for crankcase breather
- N122 - Output stage
- N128 - Ignition coil 2
- P - Spark plug connector
- Q - Spark plugs
- SB6 - Fuse 6 on fuse holder
- SB27 - Fuse 27 on fuse holder
- T4c - 4-pin connector, black, on output stage
- T12a - 12-pin connector, blue, in plenum chamber
- T14 - 14-pin connector, black, near longitudinal member, front left
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- T121 - 121-pin connector, black, on engine control unit
- 131 - Earth connection -2-, in engine compartment wiring harness
- 673 - Earth point 3, on front of left longitudinal member

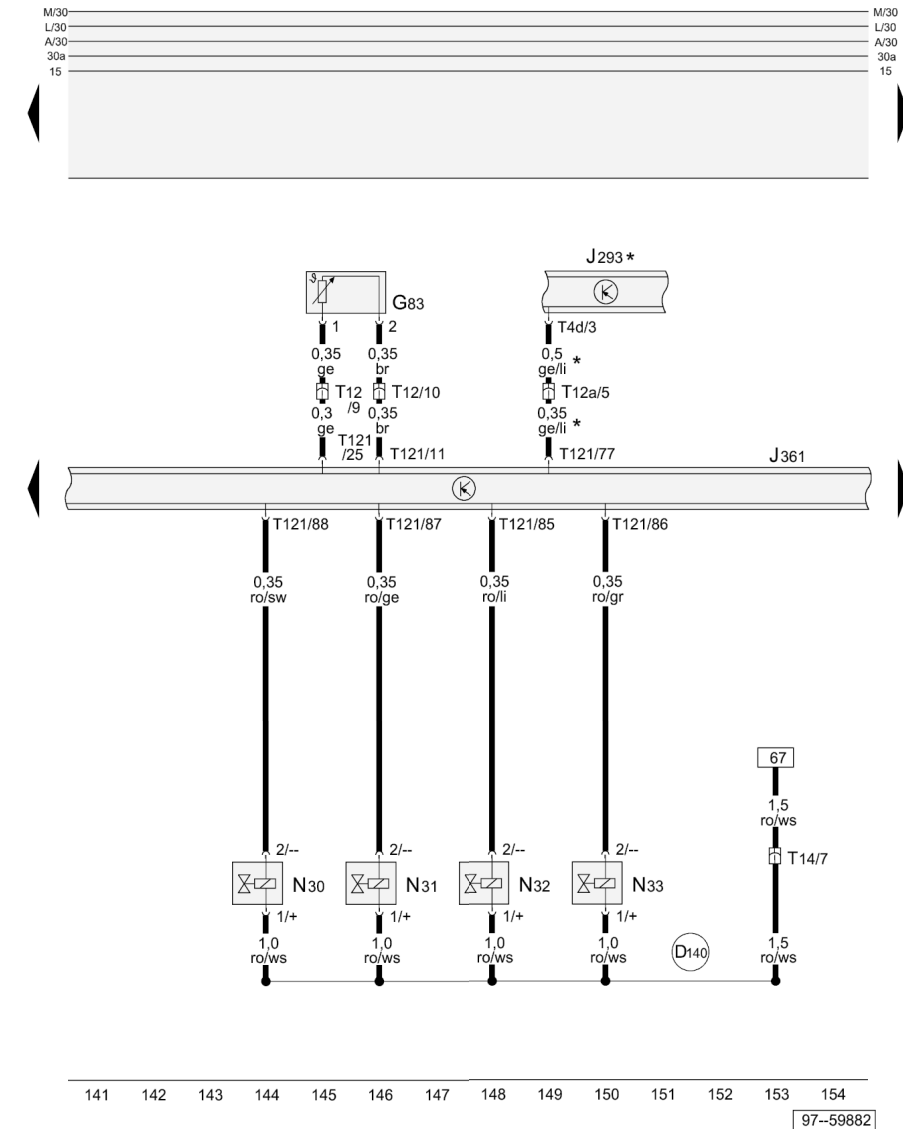
- * - for models with cruise control system only
- ** - for models with heater element only
- *** - for models without heater element only

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Current Flow Diagram

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Radiator outlet coolant temperature sender, radiator fan control unit, injectors

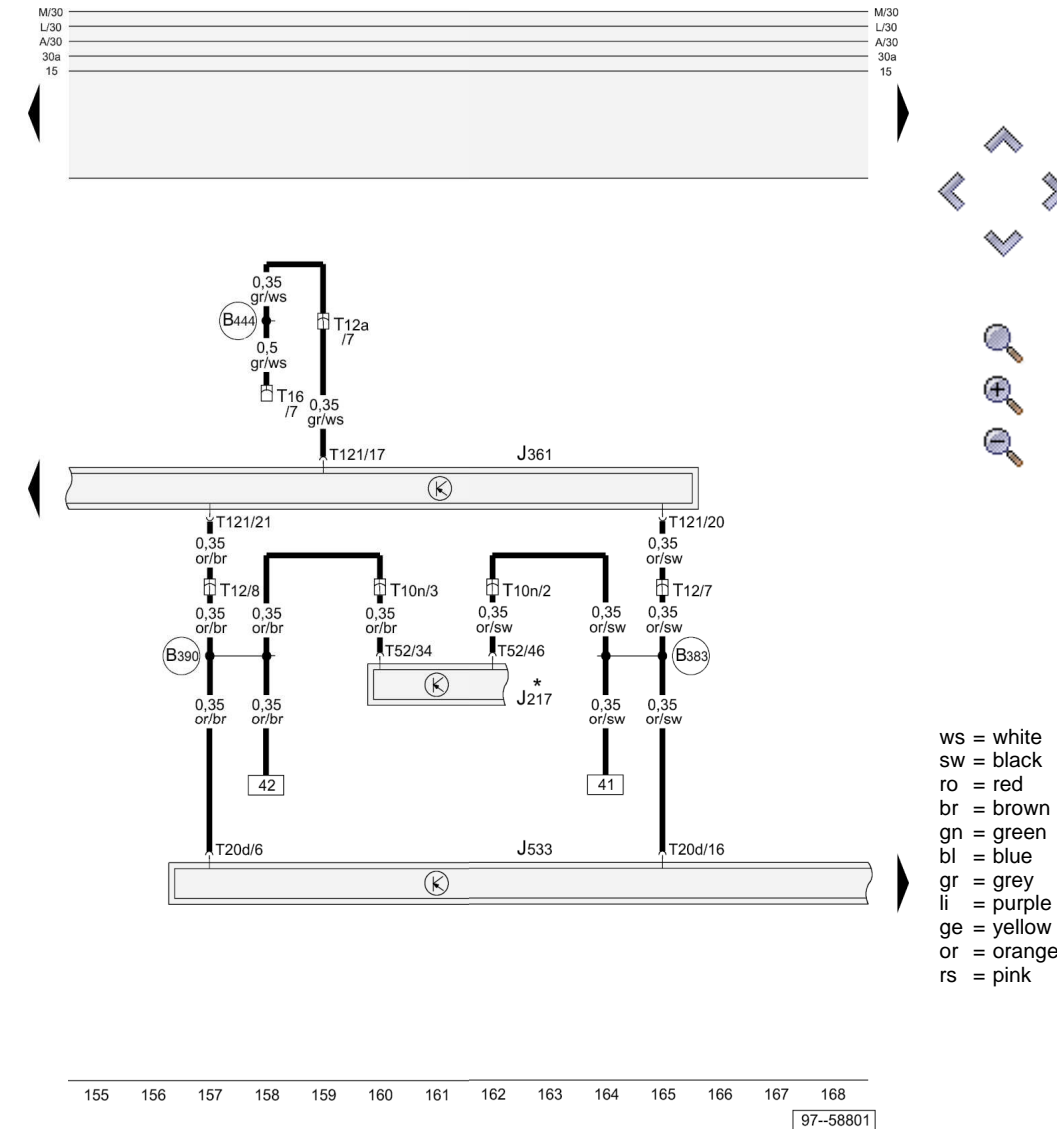
- G83 - Radiator outlet coolant temperature sender
- J293 - Radiator fan control unit
- J361 - Simos control unit
- N30 - Injector, cylinder 1
- N31 - Injector, cylinder 2
- N32 - Injector, cylinder 3
- N33 - Injector, cylinder 4
- T4d - 4-pin connector, black, on radiator fan (front end)
- T12 - 12-pin connector, green, in plenum chamber
- T12a - 12-pin connector, blue, in plenum chamber
- T14 - 14-pin connector, black, near longitudinal member, front left
- T121 - 121-pin connector, black, on engine control unit
- D140 - Connection (injectors), in engine wiring harness

* - See applicable Current Flow Diagram: radiator fan

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Current Flow Diagram

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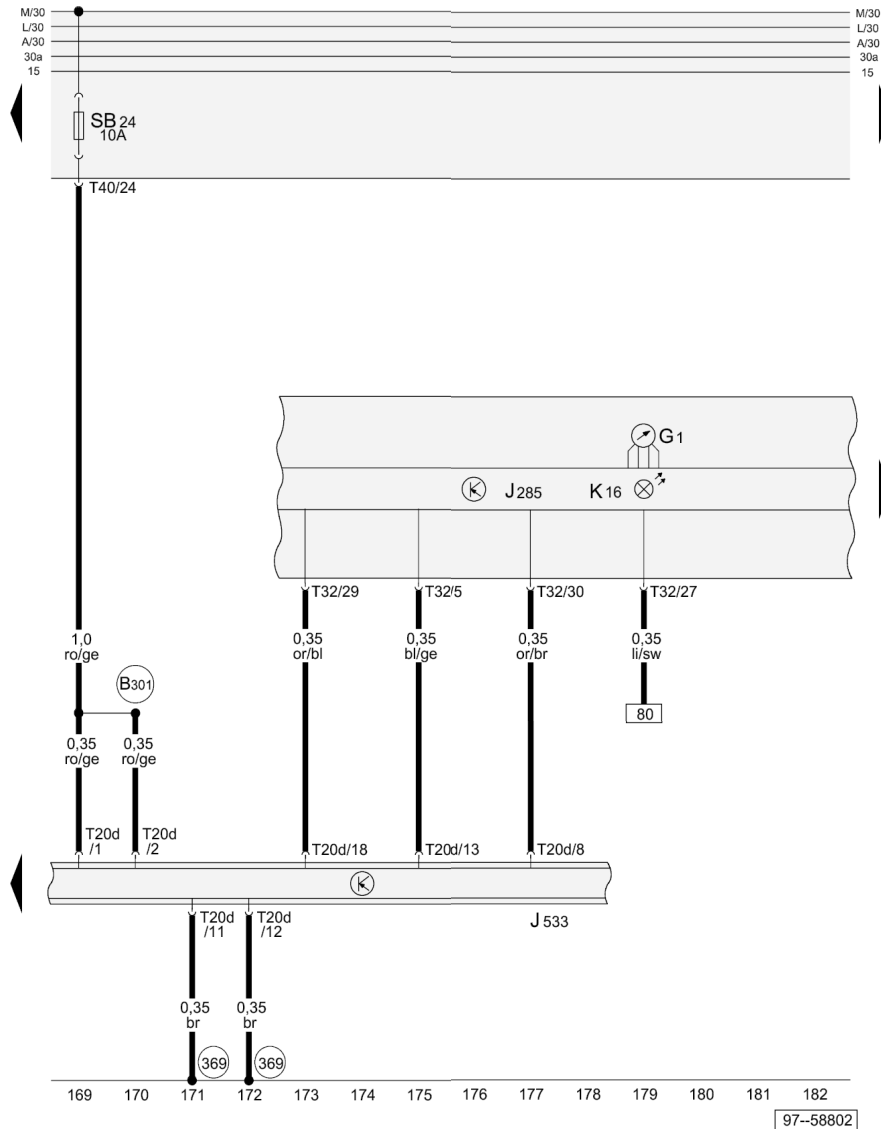
Simos control unit, data bus diagnostic interface

- J217 - Automatic gearbox control unit
- J361 - Simos control unit
- J533 - Data bus diagnostic interface
- T10n - 10-pin connector, black, near longitudinal member, front left
- T12 - 12-pin connector, green, in plenum chamber
- T12a - 12-pin connector, blue, in plenum chamber
- T16 - 16-pin connector, black, dash panel, driver side, bottom left (diagnostic connector)
- T20d - 20-pin connector, yellow (connector A)
- T52 - 52-pin connector, black (connector A)
- T121 - 121-pin connector, black, on engine control unit
- B383 - Connection 1 (drive train CAN bus, high), in main wiring harness
- B390 - Connection 1 (drive train CAN bus, low), in main wiring harness
- B444 - Connection 1 (diagnosis), in main wiring harness
- * - for models with automatic gearbox (09G) only

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Current Flow Diagram

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Data bus diagnostic interface, control unit with display in dash panel insert

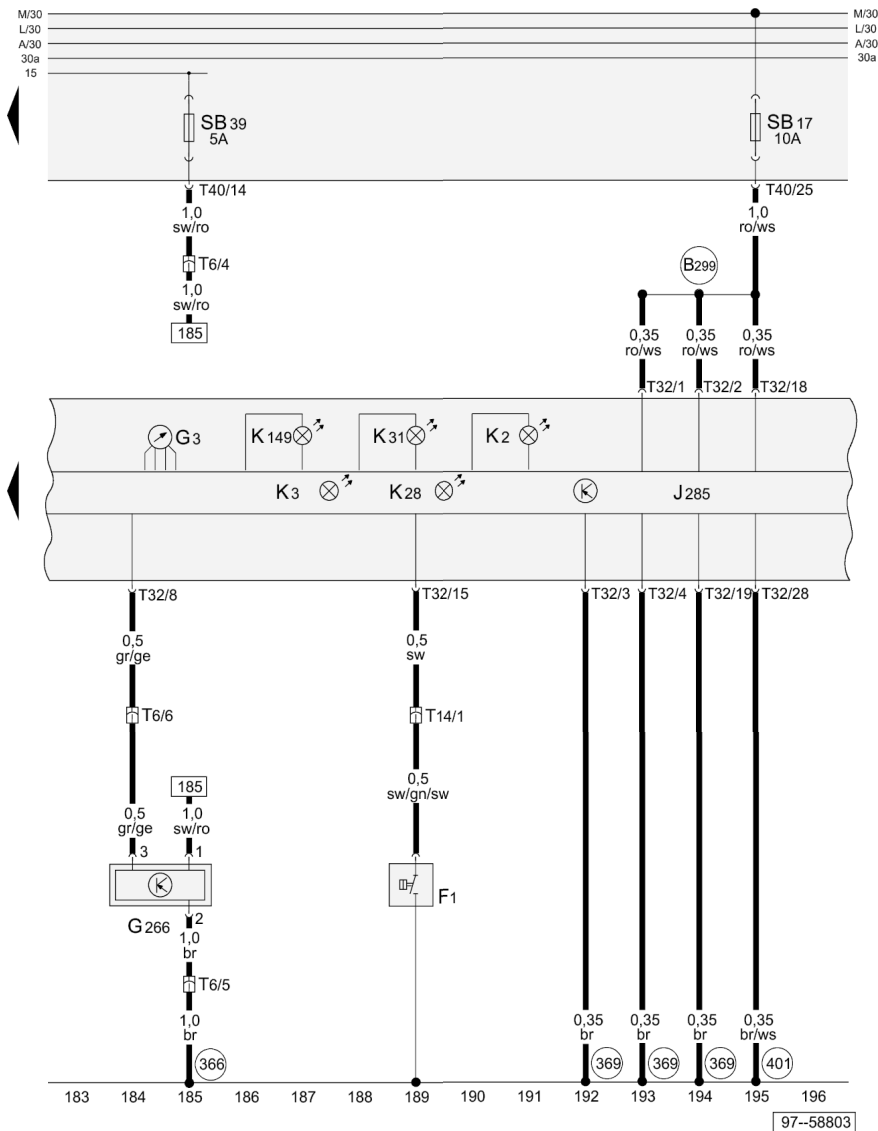
- G1 - Fuel gauge
- J285 - Control unit with display in dash panel insert
- J533 - Data bus diagnostic interface
- K16 - Reserve fuel warning lamp
- SB24 - Fuse 24 on fuse holder
- T20d - 20-pin connector, yellow (connector A)
- T32 - 32-pin connector, blue (connector A)
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- 369 - Earth connection 4, in main wiring harness
- B301 - Positive connection -5- (30), in main wiring harness

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 li = purple
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 rs = pink

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Current Flow Diagram

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Oil pressure switch, coolant shortage indicator switch, oil level and oil temperature sender

- F1 - Oil pressure switch
- G3 - Coolant temperature gauge
- G266 - Oil level and oil temperature sender
- J285 - Control unit with display in dash panel insert
- K2 - Alternator warning lamp
- K3 - Oil pressure warning lamp
- K28 - Coolant temperature/coolant shortage warning lamp
- K31 - Cruise control system warning lamp
- K149 - Engine electronics warning lamp
- SB17 - Fuse 17 on fuse holder
- SB39 - Fuse 39 on fuse holder
- T6 - 6-pin connector, black, near longitudinal member, front left
- T14 - 14-pin connector, black, near longitudinal member, front left
- T32 - 32-pin connector, blue (connector A)
- T40 - 40-pin connector, brown on electronics box, in engine compartment (connector J)
- 366 - Earth connection 1, in main wiring harness
- 369 - Earth connection 4, in main wiring harness
- 401 - Earth connection (sender earth), in interior wiring harness
- B299 - Positive connection -3- (30), in main wiring harness