

Audi A4

Current Flow Diagram

No. 12 / 1

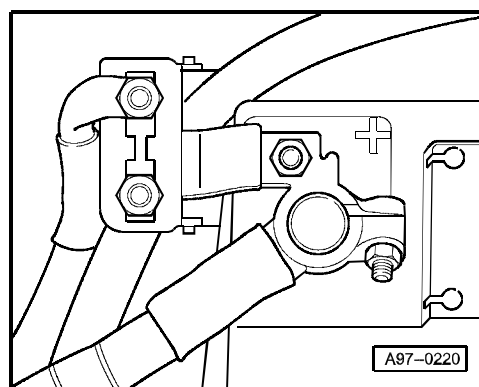
Edition 04.2005

4.2 I - Fuel injection engine (253 kW - Motronic - 8 cylinder), engine code BBK

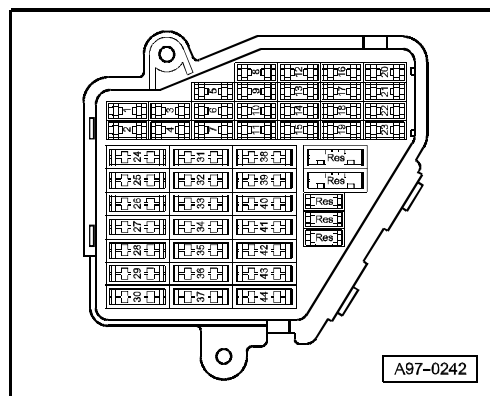
from model year 2003

4.2 I - Fuel injection engine (253 kW - Motronic - 8 cylinder), engine code BHF

from model year 2003

Main fuse

- ♦ On the battery

Fuse holder

♦ Driver side dash panel

Fuse colours

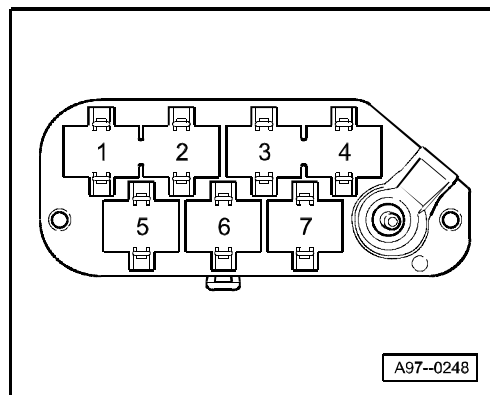
- 30 A - green
- 25 A - white
- 20 A - yellow
- 15 A - blue
- 10 A - red
- 7,5 A - brown
- 5 A - beige



Note:

From fuse number 23 upwards the fuses in the fuse holder are designated as 223 in the Current Flow Diagram.

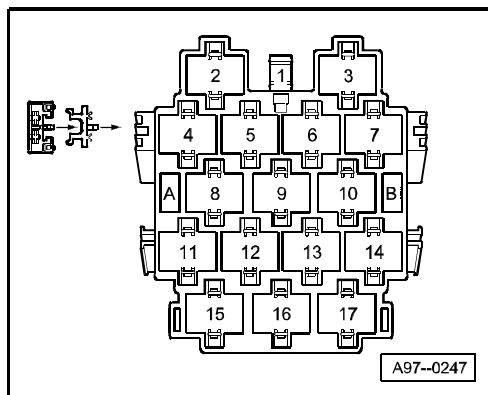
Coupling station with screw connection



♦ In electronics box in plenum chamber

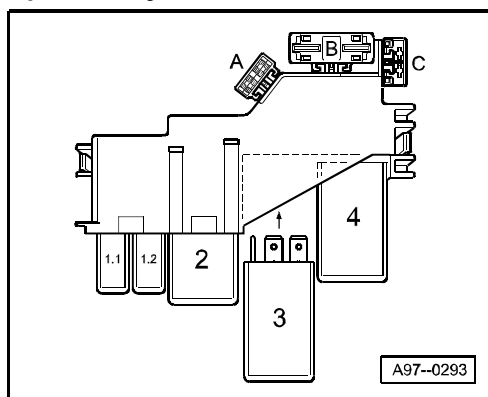
- 1 - 10-pin connector, black (T10)
- 2 - 10-pin connector, brown (T10a)
- 3 - 17-pin connector, red (T17d)
- 6 - 17-pin connector, white (T17e)

Coupling station of A-pillar



- ◆ Left bottom behind side trim
 - 13 - 10-pin connector, violet (T10c)
 - 14 - 10-pin connector, grey (T10d)
 - 15 - 17-pin connector, green (T17b)
 - 16 - 17-pin connector, red (T17a)
 - 17 - 17-pin connector, black (T17)

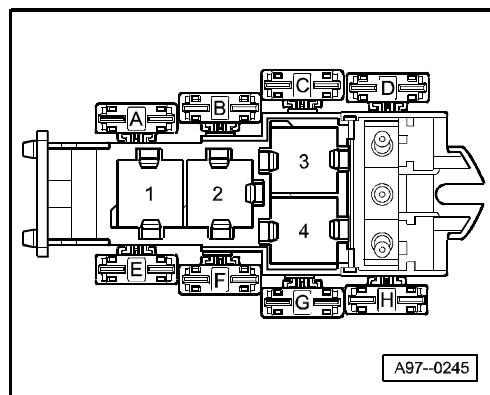
4-point relay carrier



- ◆ In electronics box in plenum chamber
 - 1.1 - Continued coolant circulation relay (J151)
 - 2 - Secondary air pump relay (J299)
 - 3 - Motronic current supply relay (J271)

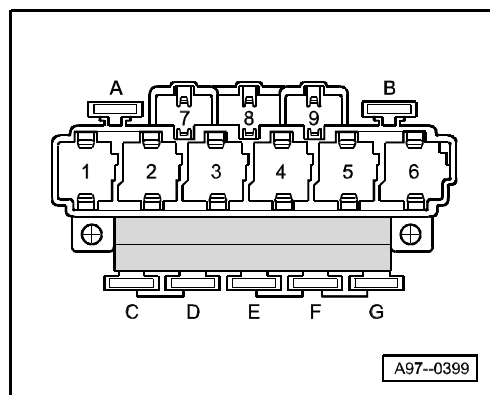
- A - Engine electronics fuse (S282)
- B - Secondary air pump fuse (S130)
- C - Automatic gearbox fuse, run-on (S286)

4-point relay carrier with screw connection



- ♦ Driver side dash panel

9-point relay carrier with onboard supply control unit

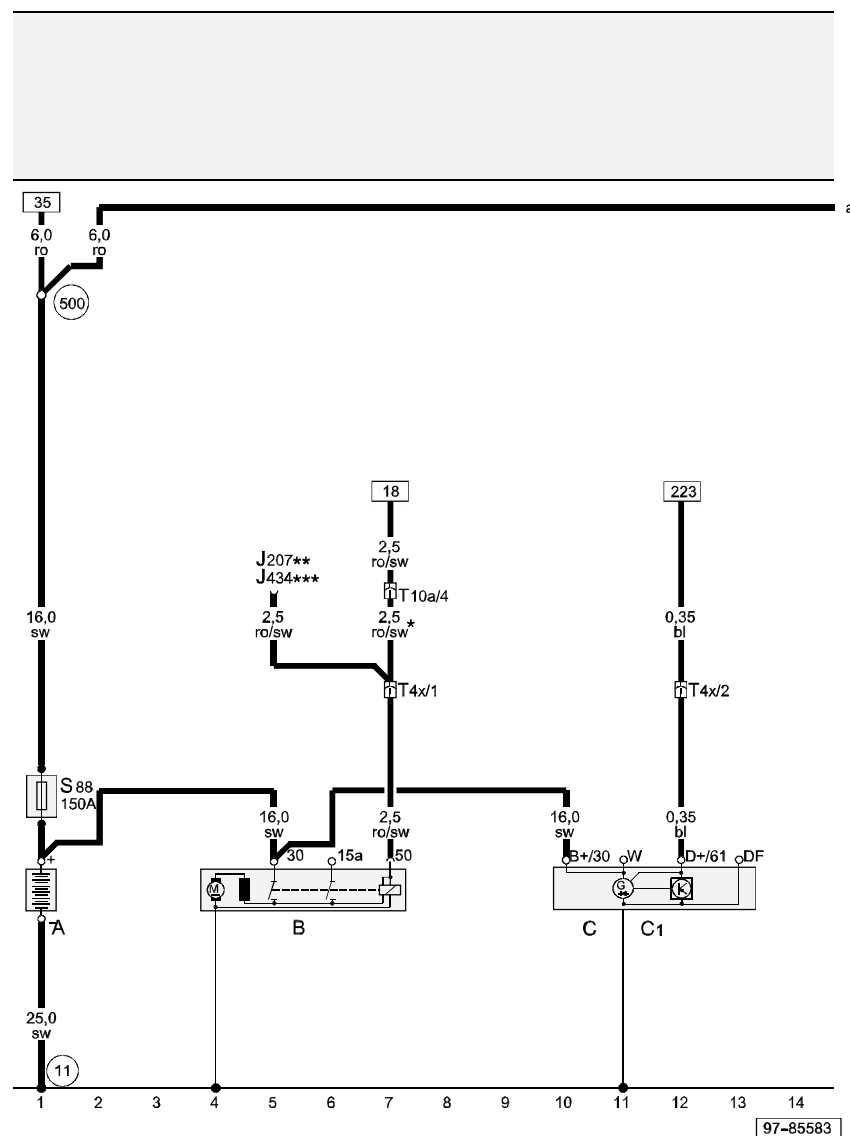


- ♦ Driver side dash panel, behind the 3-point relay carrier
 - 1 - Fuel pump relay (J17)

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Current Flow Diagram

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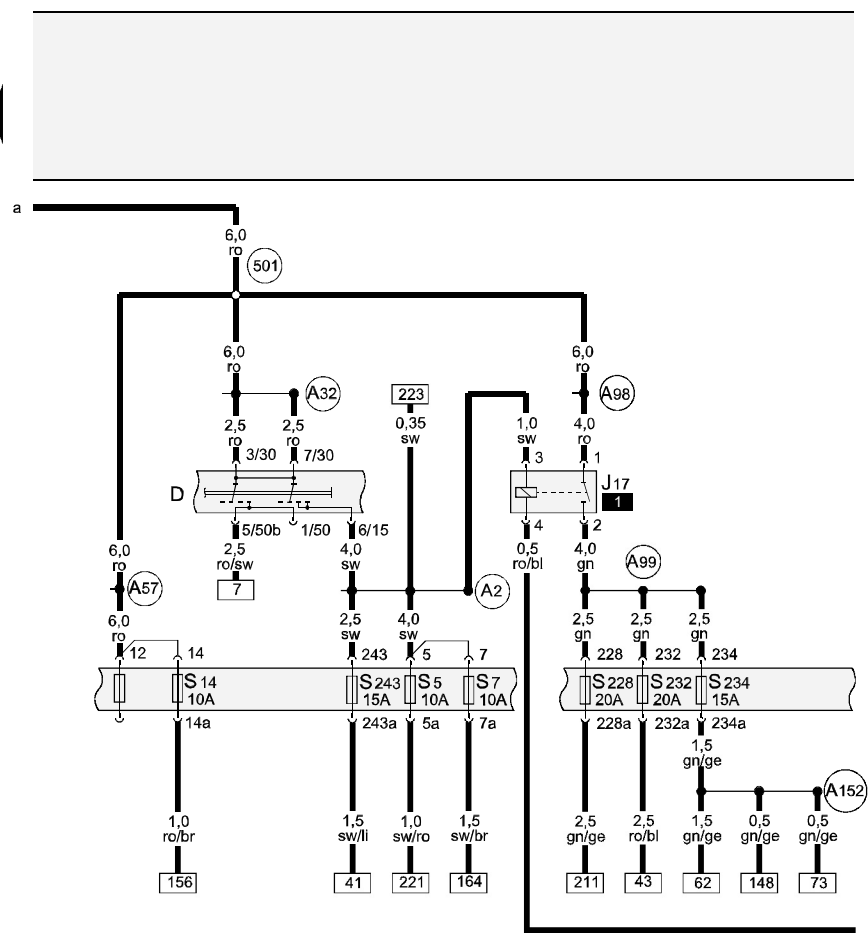
Battery, starter, alternator

- A - Battery
- B - Starter
- C - Alternator
- C1 - Voltage regulator
- J207 - Starter inhibitor relay 📷
- J434 - Starter inhibitor relay, clutch pedal switch 📷
- S88 - Strip fuse (main fuse) 📷
- T4x - 4-pin connector, black, near to the battery
- T10a - 10-pin connector, brown, coupling station on electronics box, plenum chamber
- 11 - Earth point, in battery box 📷
- 500 - Screw connection 1 (30), on relay plate
- * - for models with manual gearbox only
- ** - for models with automatic gearbox only (AG6), ⇒ applicable Current Flow Diagram: automatic gearbox
- *** - for models with US equipment only and manual gearbox, ⇒ applicable Current Flow Diagram starter inhibitor relay, clutch pedal switch

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Current Flow Diagram

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

Fuel pump relay, ignition/starter switch, fuses

- D - Ignition/starter switch
- J17 - Fuel pump relay
- S5 - Fuse in relay plate fuse holder
- S7 - Fuse in relay plate fuse holder
- S14 - Fuse in relay plate fuse holder
- S228 - Fuse in fuse holder
- S232 - Fuse in fuse holder
- S234 - Fuse in fuse holder
- S243 - Fuse in fuse holder
- 501 - Screw connection 2 (30), on relay plate
- A2 - Positive connection (15), in dash panel wiring harness
- A32 - Positive connection (30), in dash panel wiring harness
- A57 - Positive connection 3 (30), in dash panel wiring harness
- A98 - Positive connection 4 (30), in dash panel wiring harness
- A99 - Connection 1 (87), in dash panel wiring harness
- A152 - Connection 5 (87), in dash panel wiring harness

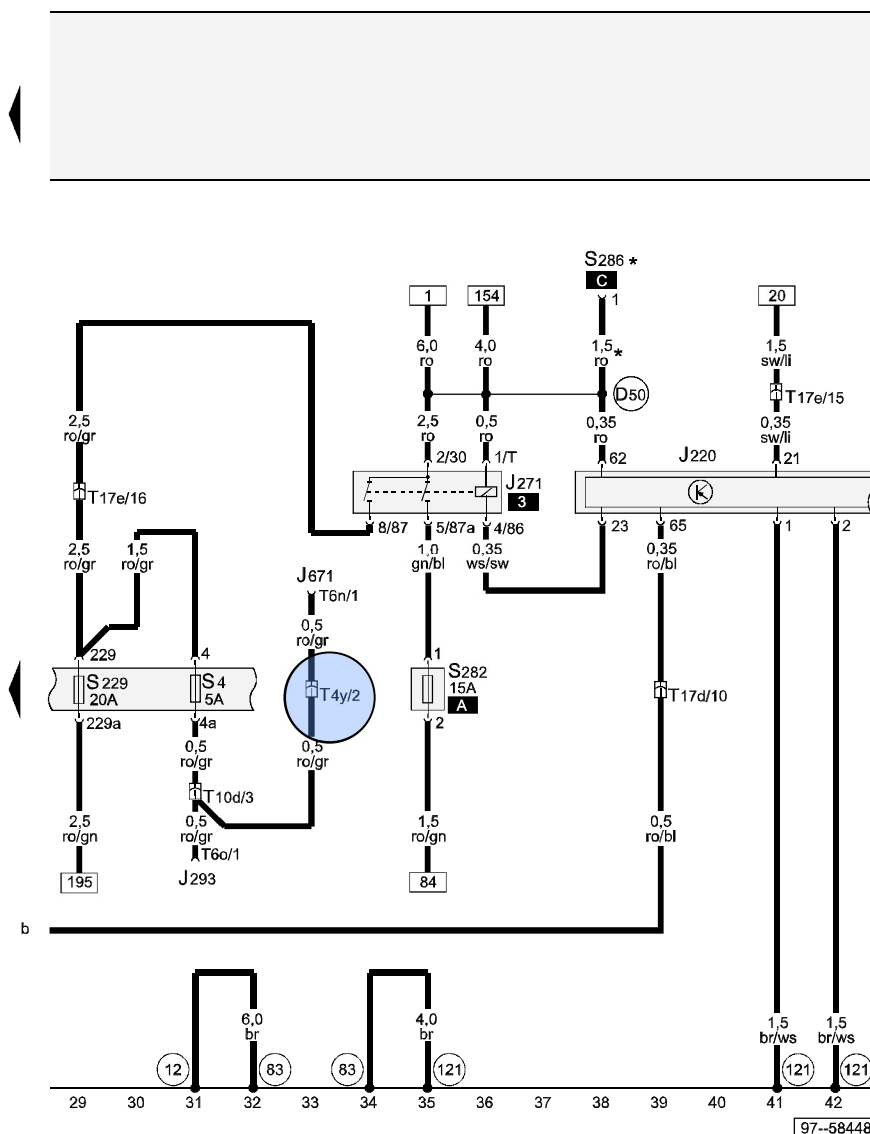
15 16 17 18 19 20 21 22 23 24 25 26 27 28

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Current Flow Diagram

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Motronic control unit, Motronic current supply relay, fuses

- J220 - Motronic control unit
- J271 - Motronic current supply relay
- J293 - Radiator fan control unit
- J671 - Radiator fan control unit -2-
- S4 - Fuse in relay plate fuse holder
- S229 - Fuse in fuse holder
- S282 - Engine electronics fuse
- S286 - Automatic gearbox fuse, run-on
- T4y - 4-pin connector, black, in engine compartment
- T6n - 6-pin connector, on radiator fan control unit -2-
- T6o - 6-pin connector, on radiator fan control unit
- T10d - 10-pin connector, grey, coupling station on left of A-pillar
- T17d - 17-pin connector, red, coupling station on electronics box, plenum chamber
- T17e - 17-pin connector, white, coupling station on electronics box, plenum chamber
- 12 - Earth point, on left in engine compartment
- 83 - Earth connection 1, in front right wiring harness
- 121 - Earth connection 2, in front right wiring harness
- D50 - Positive connection (30), in engine compartment wiring harness
- * - for models with automatic gearbox (AG6) only

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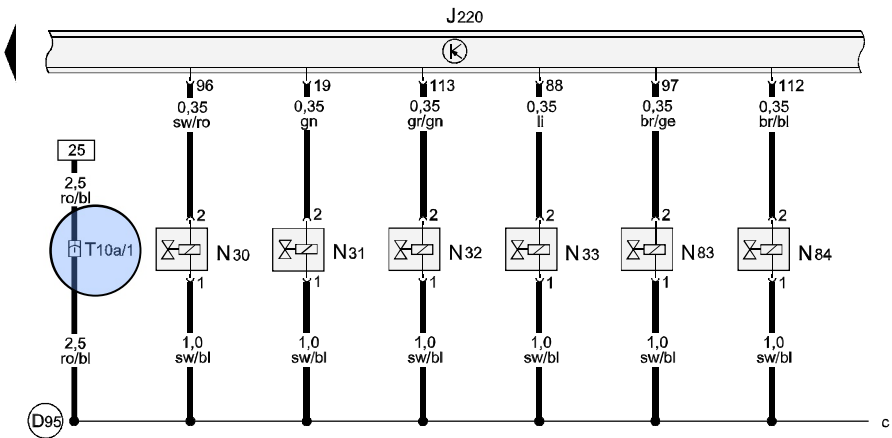
Current Flow Diagram

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Motronic control unit, injectors

- J220 - Motronic control unit
- N30 - Injector, cylinder 1
- N31 - Injector, cylinder 2
- N32 - Injector, cylinder 3
- N33 - Injector, cylinder 4
- N83 - Injector, cylinder 5
- N84 - Injector, cylinder 6
- T10a** - 10-pin connector, brown, coupling station on electronics box, plenum chamber
- D95 - Connection (injectors), in engine compartment wiring harness

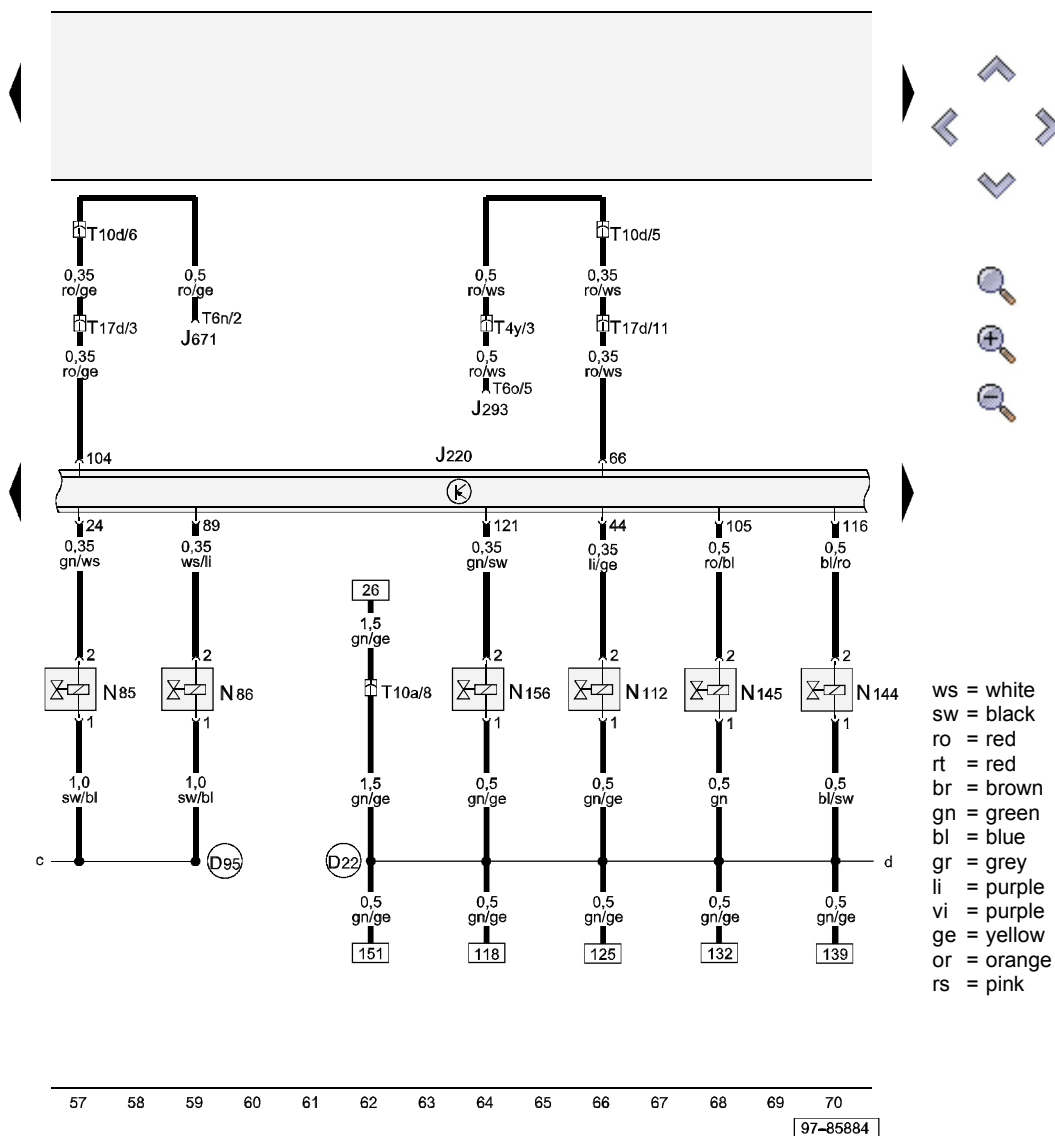


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Current Flow Diagram

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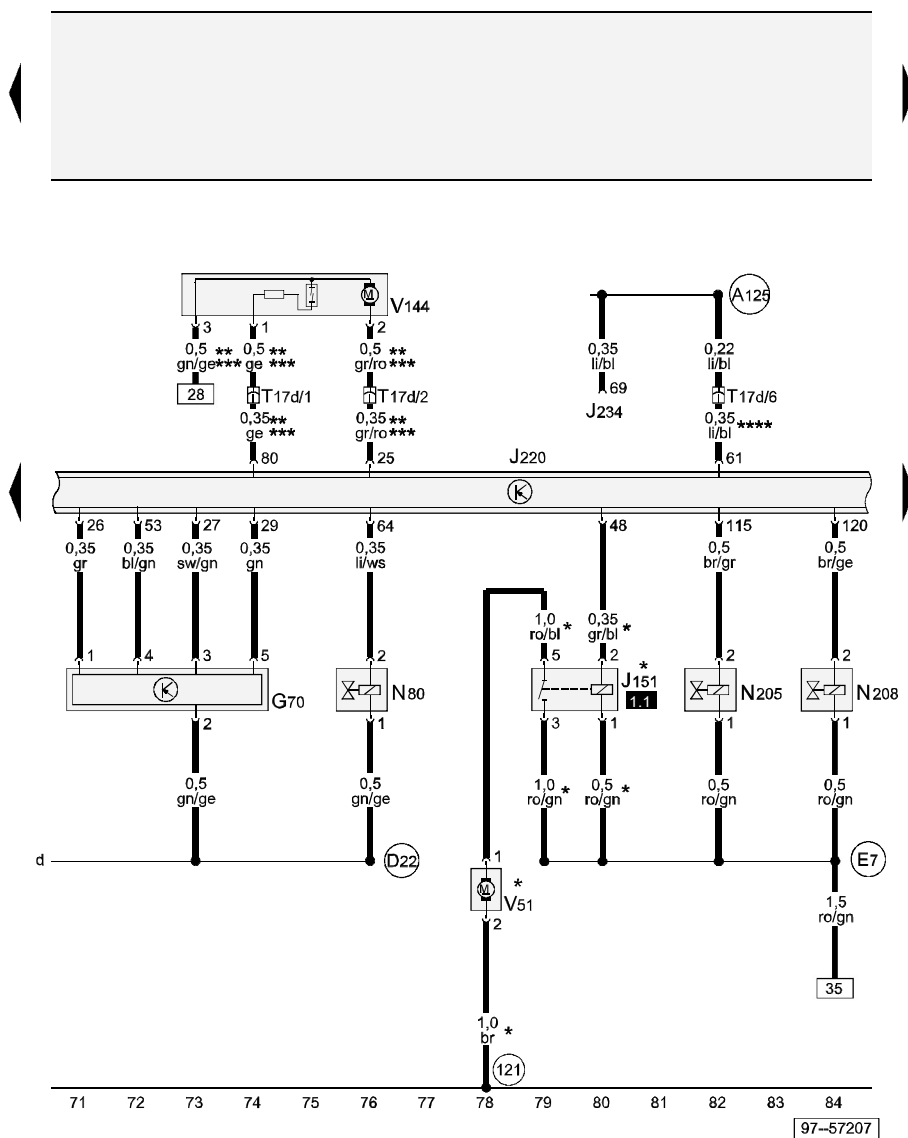
Motronic control unit, secondary air inlet valve, variable intake manifold change-over valve, injectors, electrohydraulic engine mounting solenoid valve

- J220 - Motronic control unit
- J293 - Radiator fan control unit
- J671 - Radiator fan control unit -2-
- N85 - Injector, cylinder 7
- N86 - Injector, cylinder 8
- N112 - Secondary air inlet valve
- N144 - Left electrohydraulic engine mounting solenoid valve
- N145 - Right electrohydraulic engine mounting solenoid valve
- N156 - Variable intake manifold change-over valve
- T4y - 4-pin connector, black, in engine compartment
- T6n - 6-pin connector, on radiator fan control unit -2-
- T6o - 6-pin connector, on radiator fan control unit
- T10a - 10-pin connector, brown, coupling station on electronics box, plenum chamber
- T10d - 10-pin connector, grey, coupling station on left of A-pillar
- T17d - 17-pin connector, red, coupling station on electronics box, plenum chamber
- D22 - Connection (via fuse 234), in front right wiring harness
- D95 - Connection (injectors), in engine compartment wiring harness

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Current Flow Diagram

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Motronic control unit, inlet camshaft control valve, continued coolant circulation pump, air mass meter, active charcoal filter system solenoid valve 1, fuel system diagnostic pump

- G70 - Air mass meter
- J151 - Continued coolant circulation relay
- J220 - Motronic control unit
- J234 - Airbag control unit
- N80 - Activated charcoal filter system solenoid valve 1 (pulsed)
- N205 - Inlet camshaft control valve 1
- N208 - Inlet camshaft control valve 2
- T17d - 17-pin connector, red, coupling station on electronics box, plenum chamber
- V51 - Continued coolant circulation pump
- V144 - Fuel system diagnostic pump
- 121 - Earth connection 2, in front right wiring harness
- A125 - Connection (crash signal), in dash panel wiring harness
- D22 - Connection (via fuse 234), in front right wiring harness
- E7 - Positive connection (87a), in Motronic wiring harness
- * - for countries with hot climate only
- ** - for models with automatic gearbox only (shift gearbox US equipment)
- *** - for models with automatic gearbox (AG6) only
- **** - is dropped, from model year 2003 (phased-in modification)

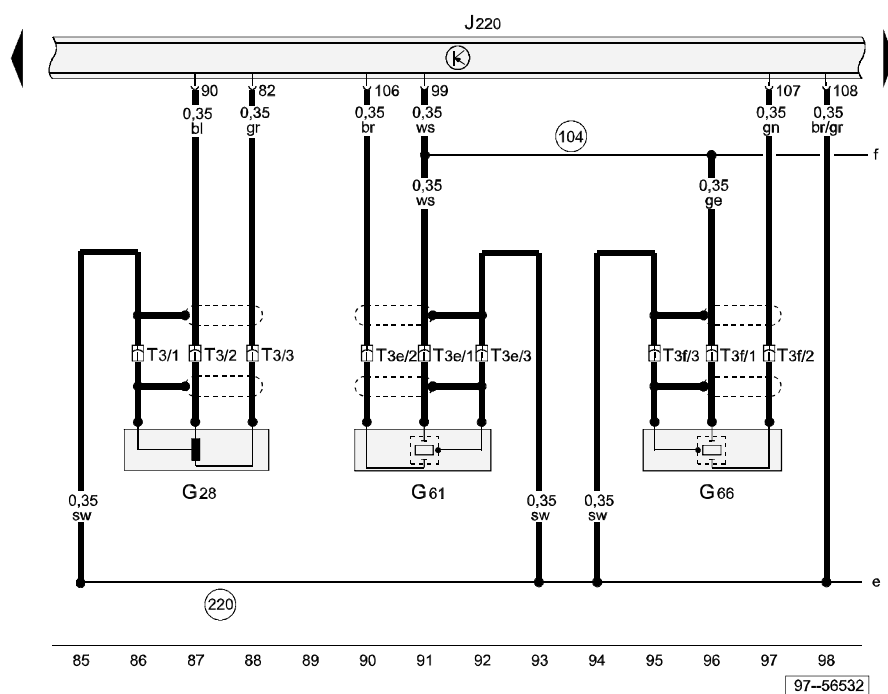
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Current Flow Diagram

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**Engine speed sender, knock sensors, Motronic control unit**

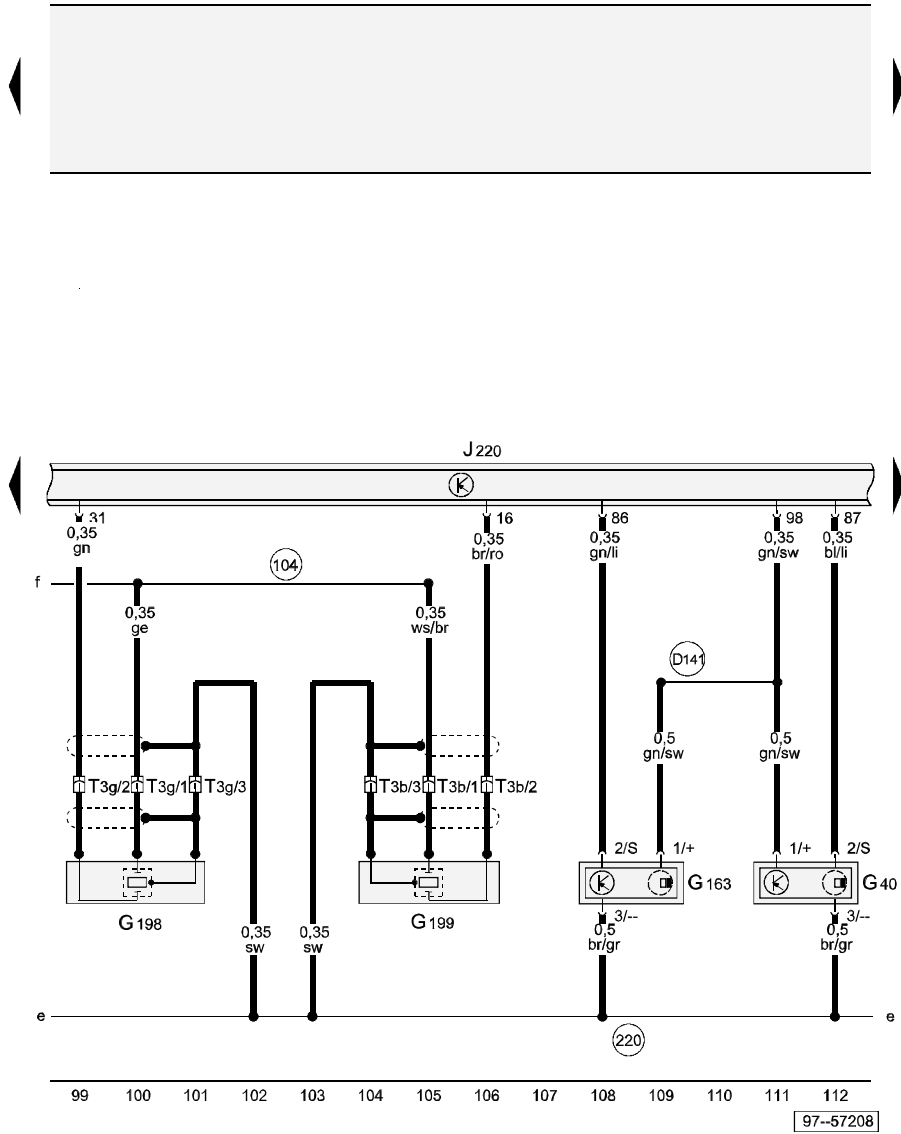
- G28 - Engine speed sender
- G61 - Knock sensor 1
- G66 - Knock sensor 2
- J220 - Motronic control unit
- T3 - 3-pin connector, grey, on engine block
- T3e - 3-pin connector, blue, on engine block
- T3f - 3-pin connector, black, on engine block
- 104 - Earth connection in front right wiring harness - sensor earth -
- 220 - Earth connection (sender earth), in engine wiring harness



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Current Flow Diagram

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Hall sender, knock sensor, Motronic control unit

- G40 - Hall sender
- G163 - Hall sender 2
- G198 - Knock sensor 3
- G199 - Knock sensor 4
- J220 - Motronic control unit
- T3b - 3-pin connector, blue, on engine block
- T3g - 3-pin connector, black, on engine block
- 104 - Earth connection in front right wiring harness - sensor earth -
- 220 - Earth connection (sender earth), in engine wiring harness
- D141 - Connection (5V), in engine wiring harness

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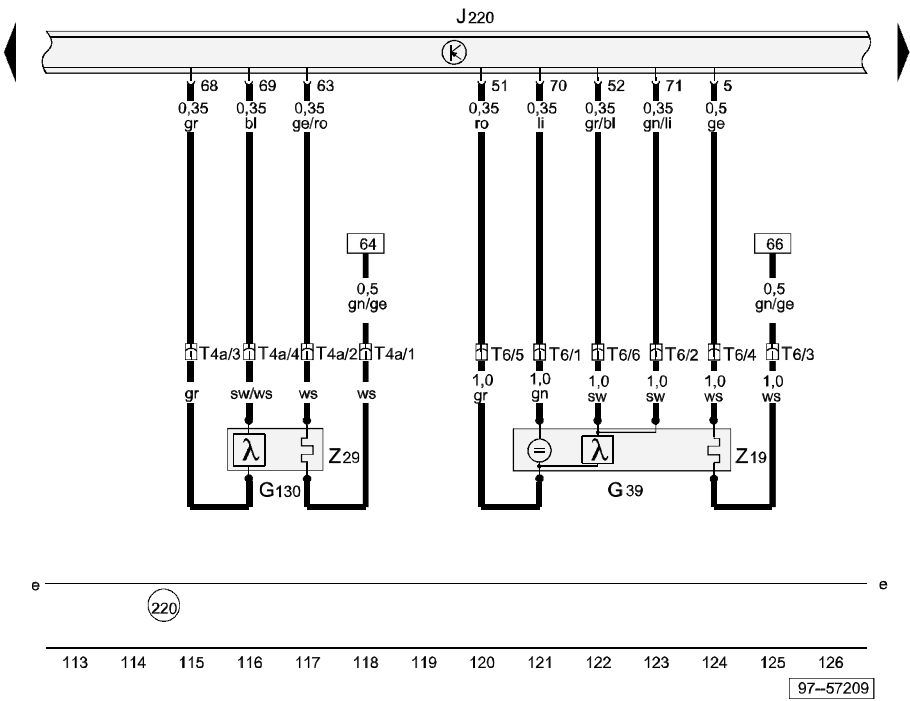
Current Flow Diagram

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Lambda probes, Motronic control unit

- G39 - Lambda probe
- G130 - Lambda probe after catalytic converter
- J220 - Motronic control unit
- T4a - 4-pin connector, green, connector point lambda probe (bulkhead)
- T6 - 6-pin connector, black, connector point lambda probe (bulkhead)
- Z19 - Lambda probe heater
- Z29 - Lambda probe 1 heater after catalytic converter
- 220 - Earth connection (sender earth), in engine wiring harness

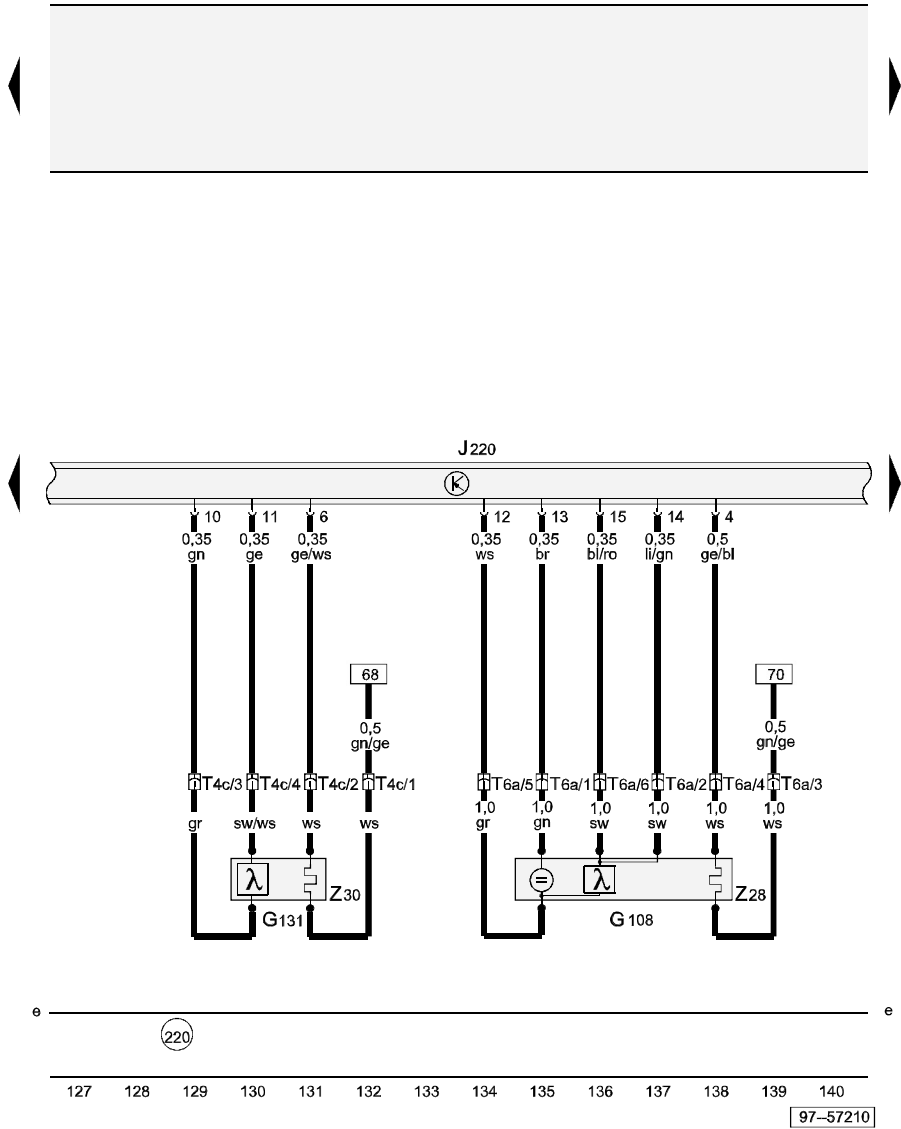


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Current Flow Diagram

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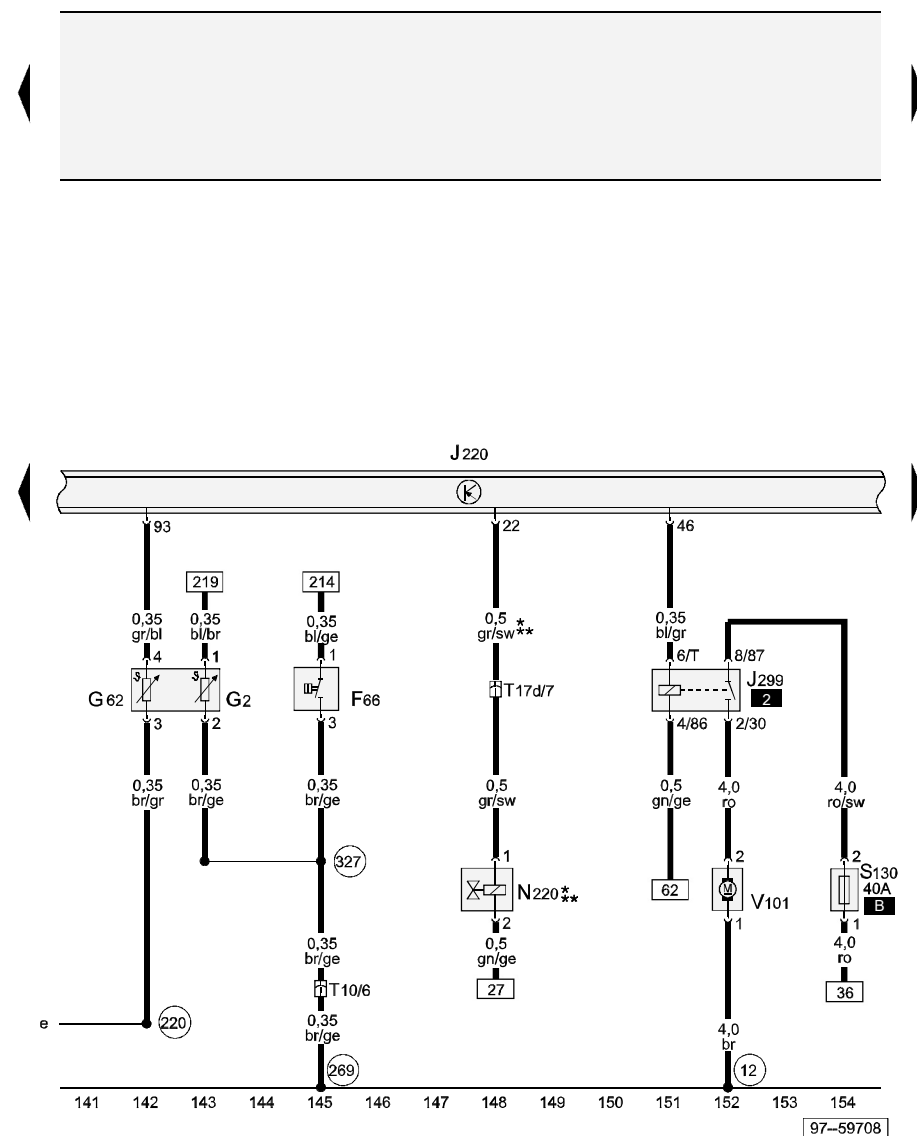
Lambda probes, Motronic control unit

- G108 - Lambda probe 2
- G131 - Lambda probe 2 after catalytic converter
- J220 - Motronic control unit
- T4c - 4-pin connector, brown, connector point lambda probe
- T6a - 6-pin connector, black, connector point lambda probe
- Z28 - Lambda probe 2 heater
- Z30 - Lambda probe 2 heater after catalytic converter
- 220 - Earth connection (sender earth), in engine wiring harness

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Current Flow Diagram

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Motronic control unit, secondary air pump motor, coolant shortage indicator switch, coolant temperature sender, exhaust flap valve

- F66 - Coolant shortage indicator switch
- G2 - Coolant temperature display sender
- G62 - Coolant temperature sender
- J220 - Motronic control unit
- J299 - Secondary air pump relay
- N220 - Exhaust flap valve
- S130 - Secondary air pump fuse
- T10 - 10-pin connector, black, coupling station on electronics box, plenum chamber
- T17d - 17-pin connector, red, coupling station on electronics box, plenum chamber
- V101 - Secondary air pump motor
- 12 - Earth point, on left in engine compartment
- 220 - Earth connection (sender earth), in engine wiring harness
- 269 - Earth connection (sender earth) 1, in dash panel wiring harness
- 327 - Earth connection (sender earth), in engine compartment wiring harness
- * - for models with automatic gearbox (AG6) only
- ** - for models with manual gearbox only, from March 2004

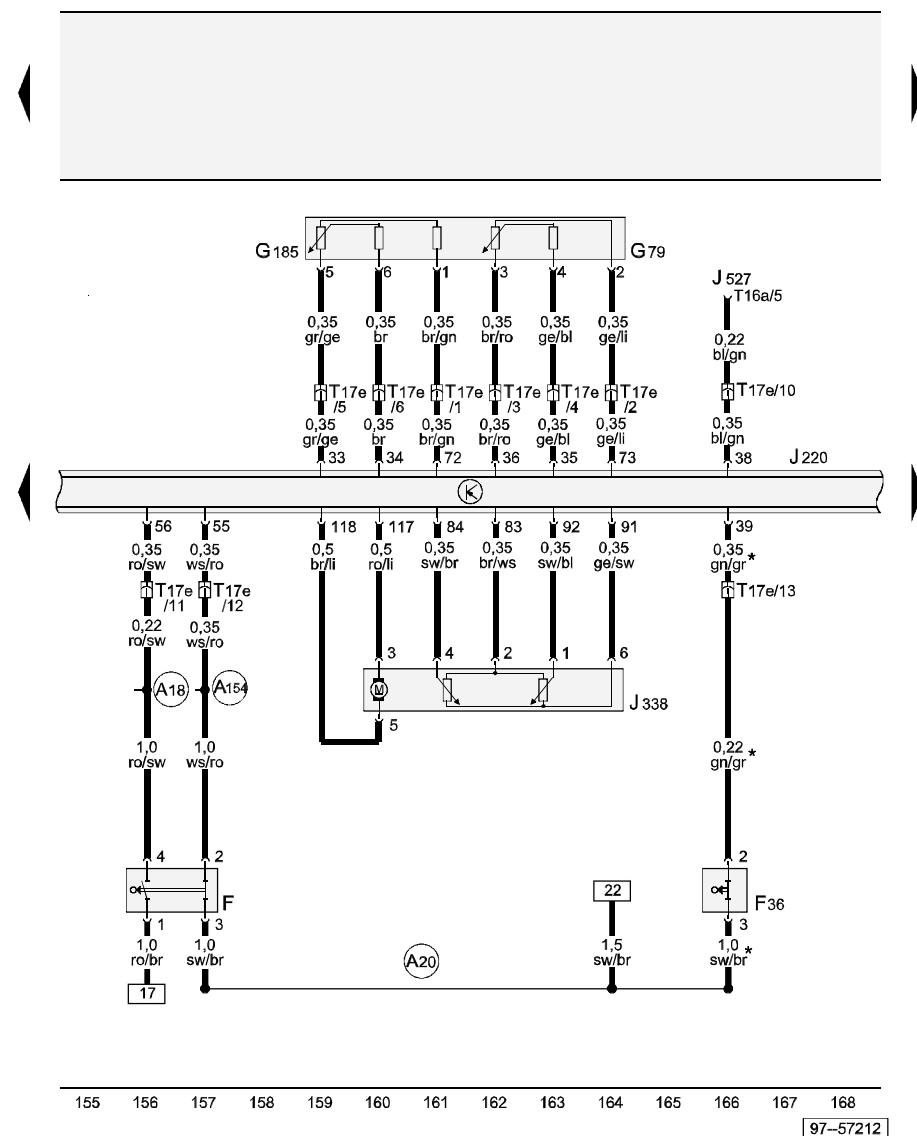
ws = white
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Current Flow Diagram

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**Accelerator position sender, Motronic control unit, throttle valve module**

- F - Brake light switch
- F36 - Clutch pedal switch
- G79 - Accelerator position sender
- G185 - Accelerator position sender -2-
- J220 - Motronic control unit
- J338 - Throttle valve module
- J527 - Steering column electronics control unit
- T16a - 16-pin connector, black, on steering column electronics control unit
- T17e - 17-pin connector, white, coupling station on electronics box, plenum chamber
- A18 - Connection (54), in dash panel wiring harness
- A20 - Connection (15a), in dash panel wiring harness
- A154 - Connection (brake pedal switch), in dash panel wiring harness
- * - for models with manual gearbox only

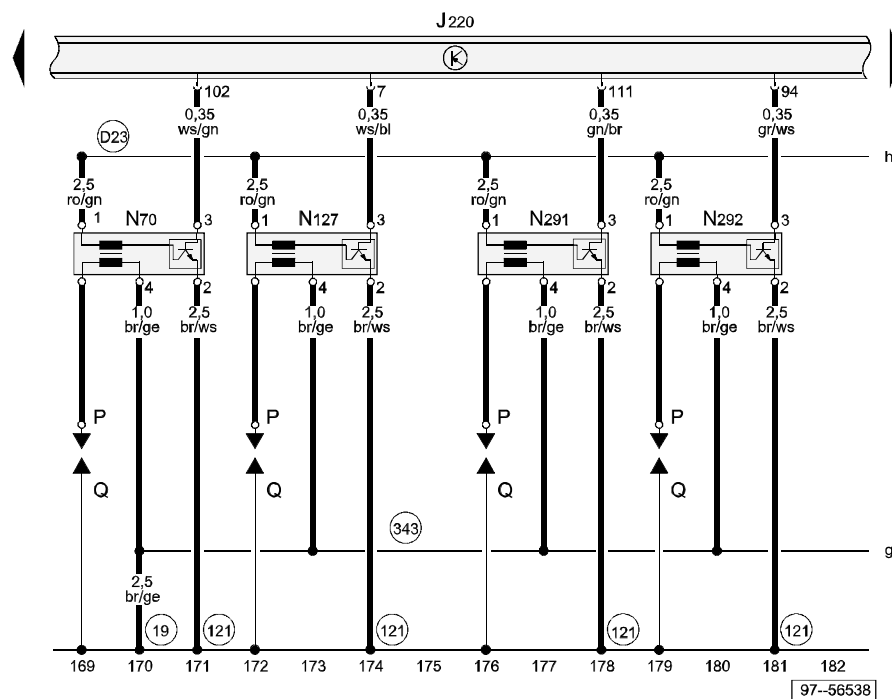
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Current Flow Diagram

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**Motronic control unit, ignition coils**

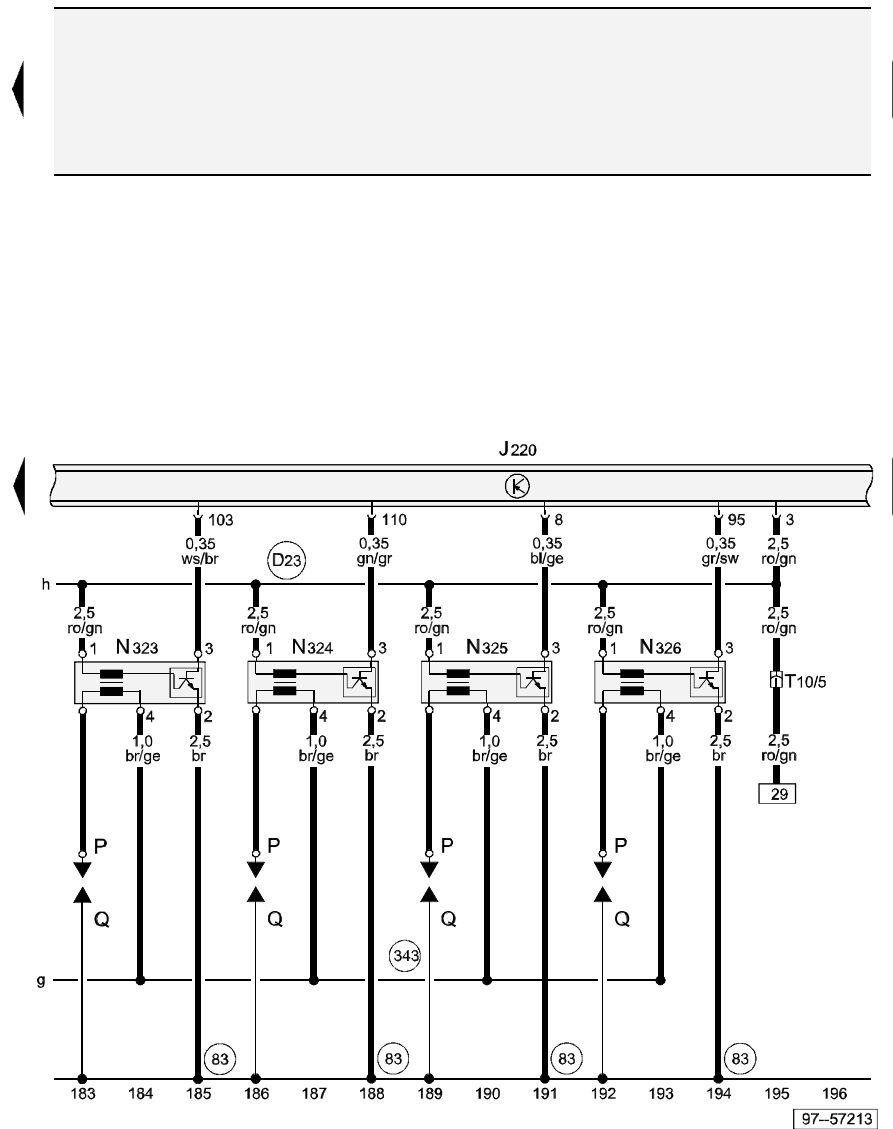
- J220 - Motronic control unit
- N70 - Ignition coil 1 with output stage
- N127 - Ignition coil 2 with output stage
- N291 - Ignition coil 3 with output stage
- N292 - Ignition coil 4 with output stage
- P - Spark plug connector
- Q - Spark plugs
- 19 - Earth point, near coil
- 121 - Earth connection 2, in front right wiring harness
- 343 - Earth connection (ignition coil), in injection system wiring harness
- D23 - Connection (via fuse 229), in front right wiring harness



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Current Flow Diagram

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**Motronic control unit, ignition coils**

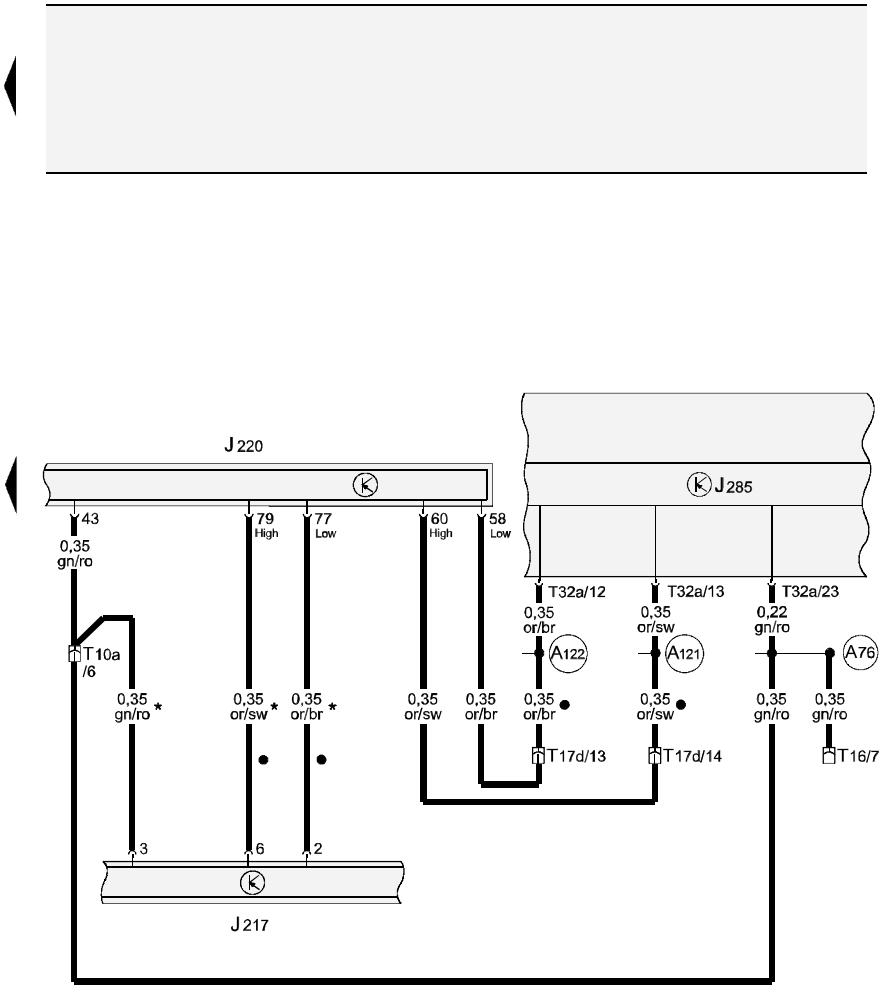
- J220 - Motronic control unit
- N323 - Ignition coil -5- with output stage
- N324 - Ignition coil -6- with output stage
- N325 - Ignition coil -7- with output stage
- N326 - Ignition coil -8- with output stage
- P - Spark plug connector
- Q - Spark plugs
- T10 - 10-pin connector, black, coupling station on electronics box, plenum chamber
- 83 - Earth connection 1, in front right wiring harness
- 343 - Earth connection (ignition coil), in injection system wiring harness
- D23 - Connection (via fuse 229), in front right wiring harness

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Current Flow Diagram

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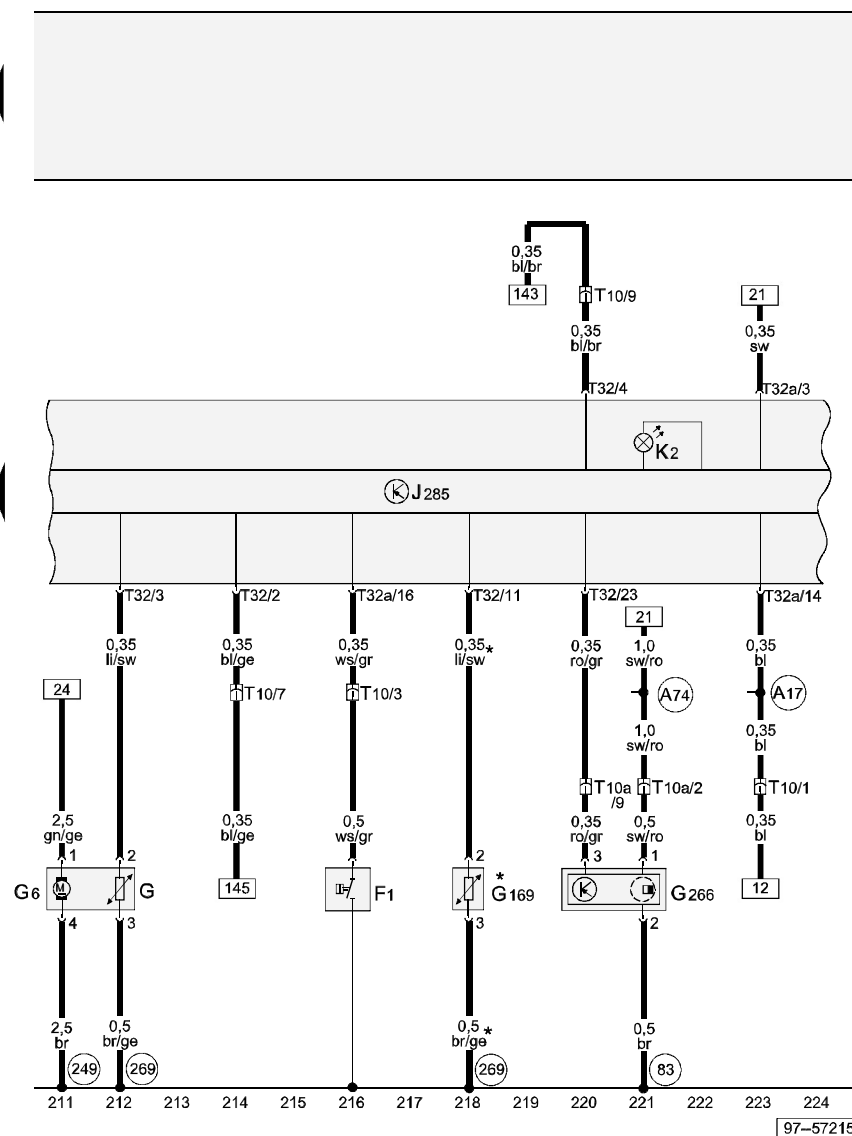
- Motronic control unit, automatic gearbox control unit, data bus wire**
- J217 - Automatic gearbox control unit
 - J220 - Motronic control unit
 - J285 - Control unit with display in dash panel insert
 - T10a - 10-pin connector, brown, coupling station on electronics box, plenum chamber
 - T16 - 16-pin connector, black, diagnostic connector
 - T17d - 17-pin connector, red, coupling station on electronics box, plenum chamber
 - T32a - 32-pin connector, green, on dash panel insert
 - A76 - Connection (diagnosis wire K), in dash panel wiring harness
 - A121 - Connection (high bus), in dash panel wiring harness
 - A122 - Connection (low bus), in dash panel wiring harness
 - * - for models with automatic gearbox (AG6) only
 - - Data bus wire (CAN bus)

ws = white
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ro = red
rt = red
br = brown
gn = green
bl = blue
gr = grey
li = purple
vi = purple
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or = orange
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Current Flow Diagram

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Control unit with display in dash panel insert, oil pressure switch, fuel pump, oil level and oil temperature sender

- F1 - Oil pressure switch
- G - Fuel gauge sender
- G6 - Fuel pump (pre-supply pump)
- G169 - Fuel gauge sender 2
- G266 - Oil level and oil temperature sender
- J285 - Control unit with display in dash panel insert
- K2 - Alternator warning lamp
- T10 - 10-pin connector, black, coupling station on electronics box, plenum chamber
- T10a - 10-pin connector, brown, coupling station on electronics box, plenum chamber
- T32 - 32-pin connector, blue, on dash panel insert
- T32a - 32-pin connector, green, on dash panel insert
- 83 - Earth connection 1, in front right wiring harness
- 249 - Earth connection 2, in interior wiring harness
- 269 - Earth connection (sender earth) 1, in dash panel wiring harness
- A17 - Connection (61), in dash panel wiring harness
- A74 - Connection (15a, fuse 5), in dash panel wiring harness
- * - for models with four-wheel drive only