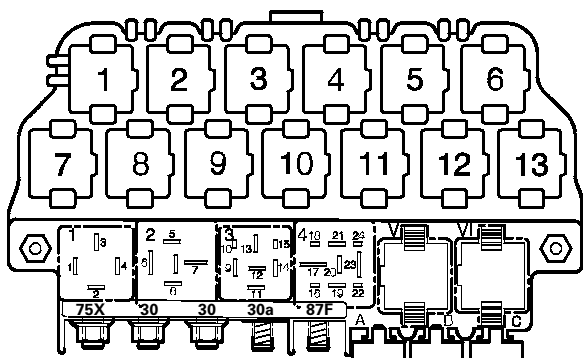


## 1,9L-Engine - Turbo Diesel Fuel Injection (DFI)/66 kW, code ALH,

from June 2001

Deviate relay location and fuseplacements as well as the locations of multiple connectors see section "component locations".



97-21956

**Relay location on the thirteen position auxiliary relay panel, above relay panel:**

- 10** Glow Plug Relay (180)
- 12** Power Supply (Terminal 30, B+) Relay (109)

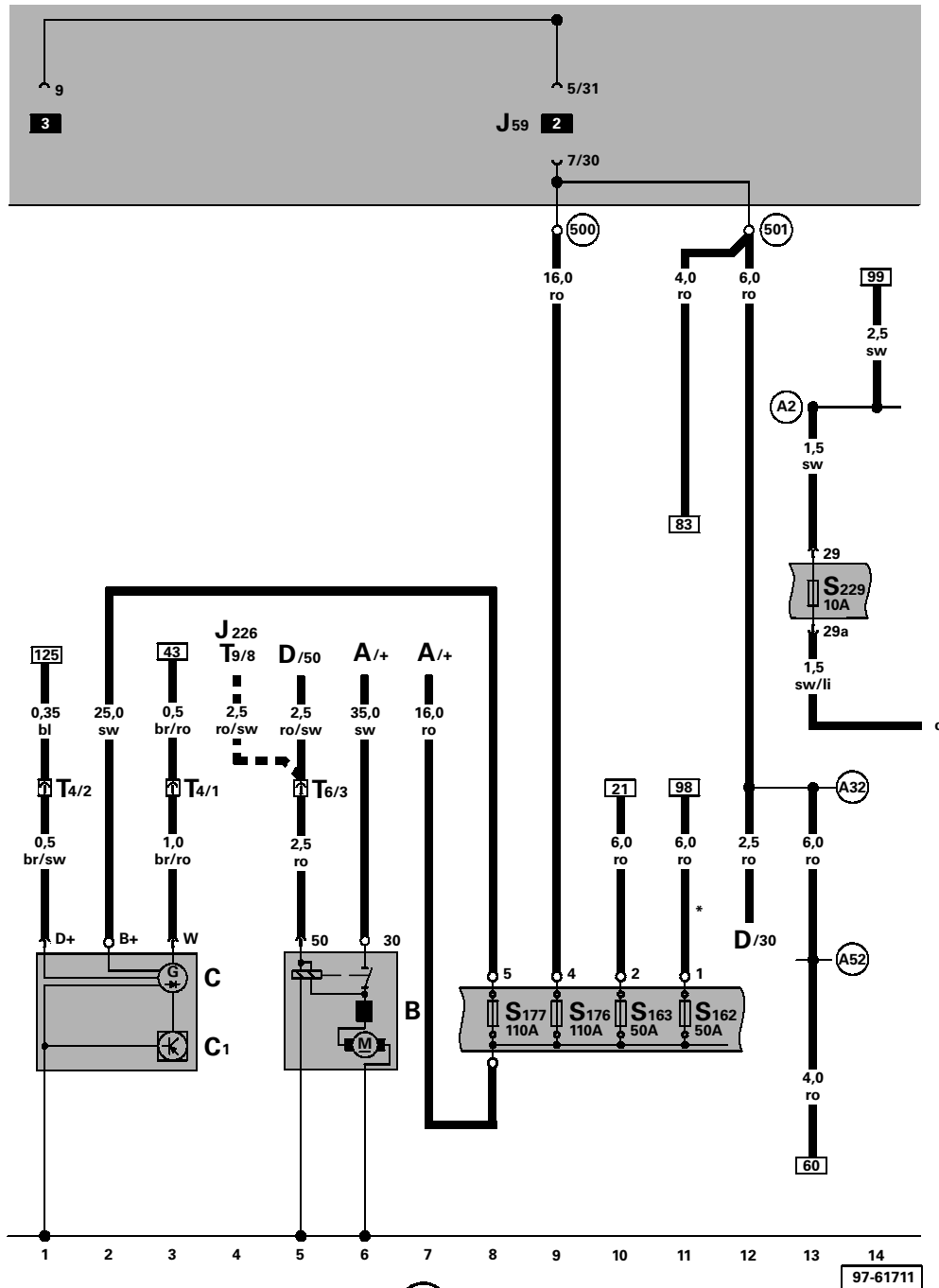
**Relay panel:**

- 2** Load Reduction Relay (100)

Note: Number in parentheses indicates production control number stamped on relay housing.

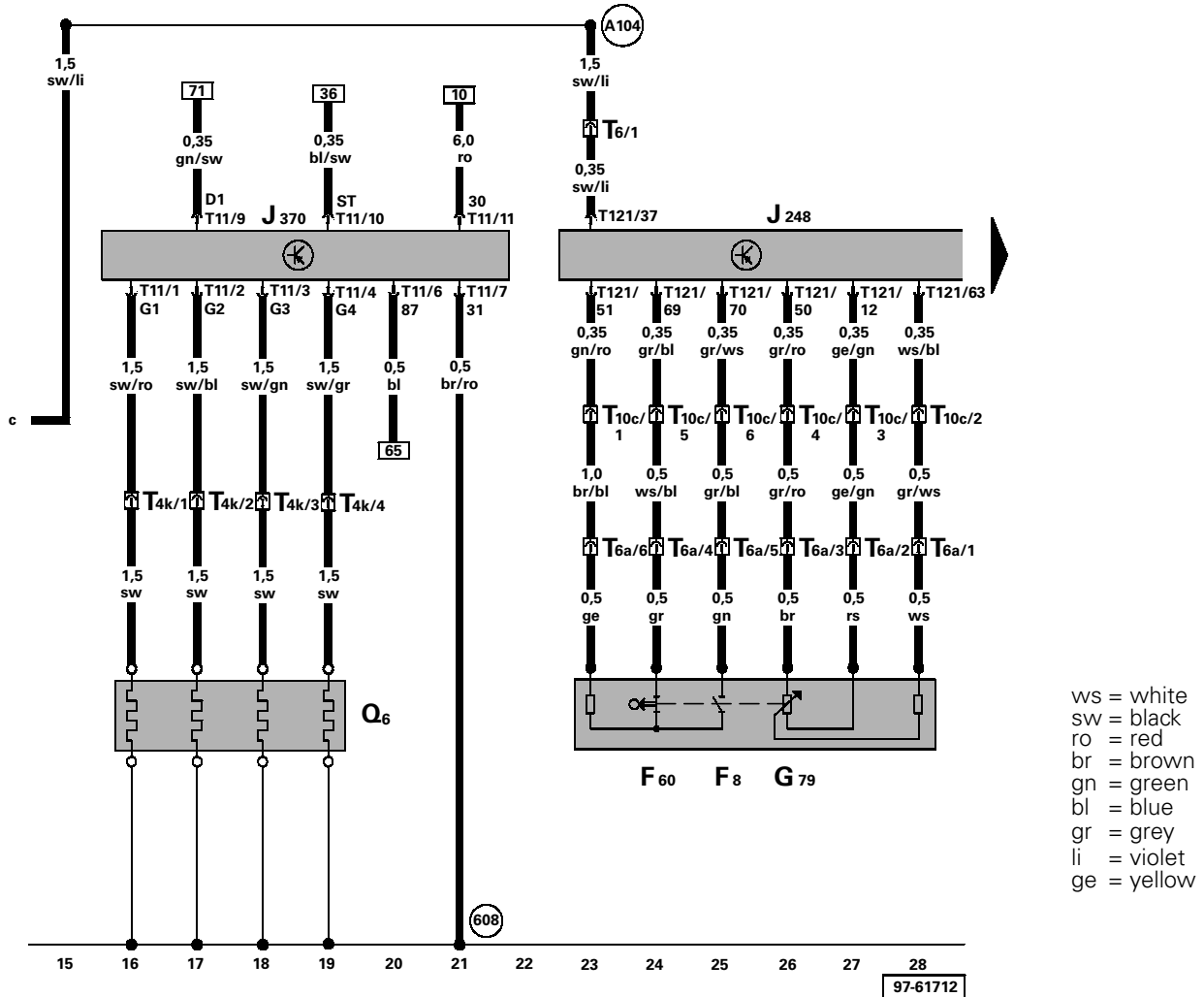
### Fuse colors

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



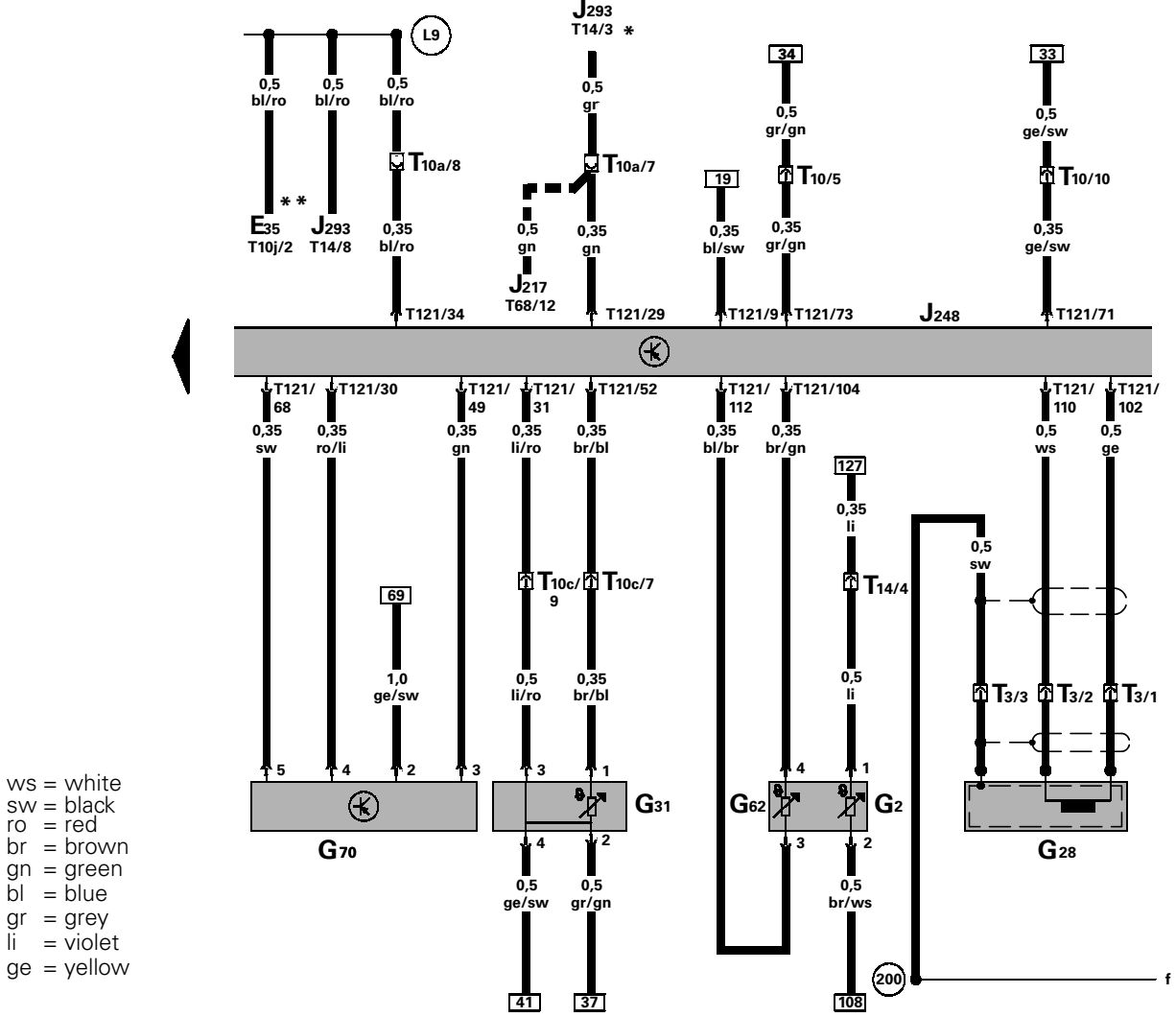
ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

- A - Battery
- B - Starter
- C - Generator (GEN)
- C1 - Voltage Regulator (VR)
- D - Ignition/Starter Switch
- J226 - Park/Neutral Position (PNP) Relay
- S162 - Fuse -1- in fuse bracket/battery
- S163 - Fuse -2- in fuse bracket/battery
- S176 - Fuse -4- (30), in fuse bracket/battery
- S177 - Fuse -5- (30), in fuse bracket/battery
- S229 - Fuse 29 in fuse holder
- T4 - 4-Pin connector, in engine compartment, left
- T6 - 6-Pin Connector, brown, behind instrument panel, left
- T9 - 9-Pin Connector
- (500) - Threaded connection -1- (30) on the relay plate
- (501) - Threaded connection -2- (30) on the relay plate
- (A2) - plus connection (15), in instrument panel wiring harness
- (A32) - plus connection (30), in instrument panel wiring harness
- (A52) - Plus connection (30), in instrument panel wiring harness
- \* - Manual transmission only
- Automatic transmission only



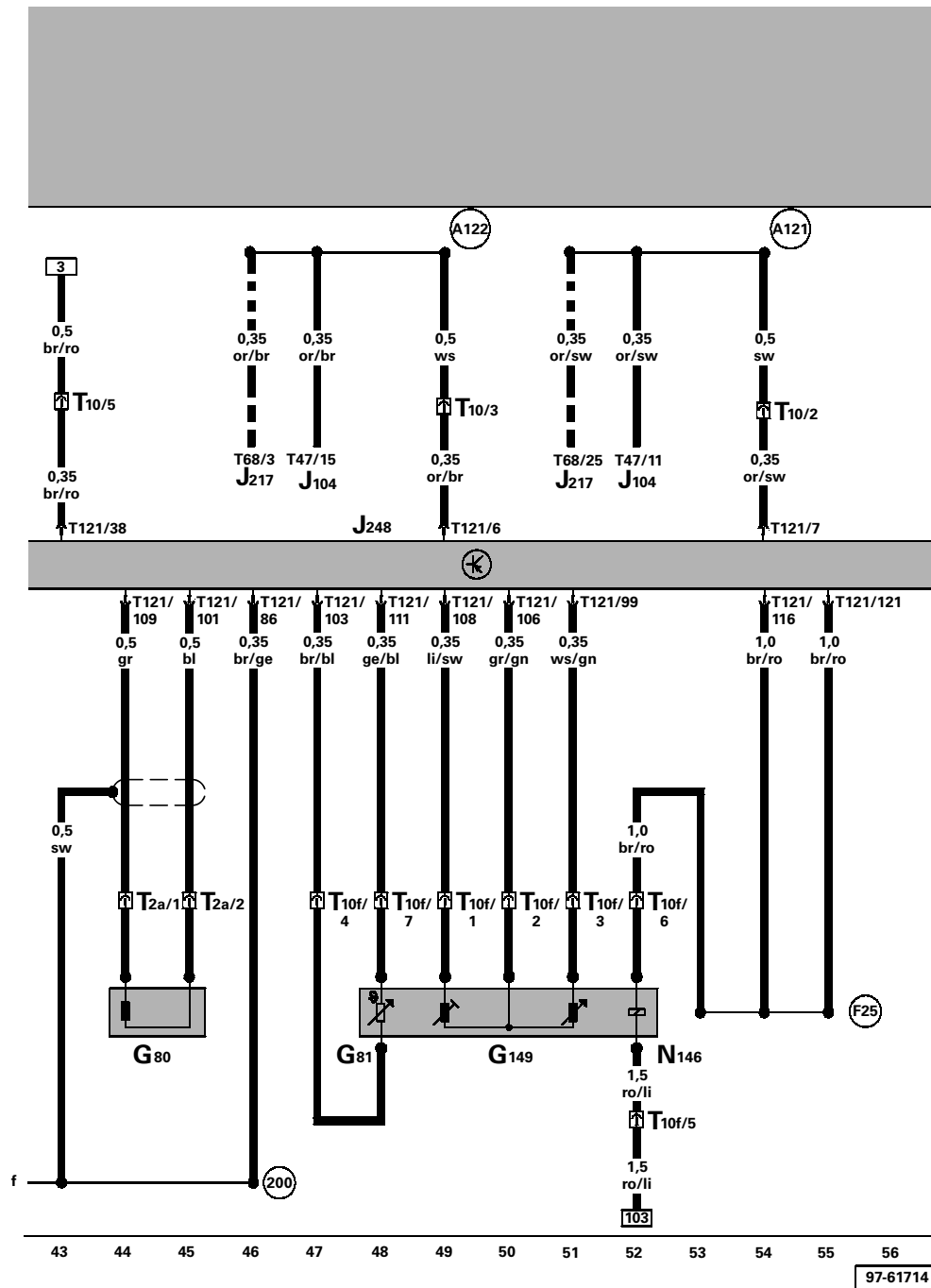
- F8 - Kick Down Switch
- F60 - Closed Throttle Position (CTP) Switch
- G79 - Throttle Position (TP) Sensor
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- J370 - Control module for glow plug triggering
- Q6 - Glow plugs (engine)
- T4k - 4 Pin Connector
- T6 - 6-Pin Connector, brown, behind instrument panel, left
- T6a - 6-Pin Connector
- T10c - 10-Pin Connector, blue, behind instrument panel, left
- T11 - 11-Pin Connector
- T121 - 121-Pin Connector, on DFI ECM

- (608) - Ground Connection (in center plenum chamber)
- (A104) - Plus connector -2- (15), in instrument panel wiring harness



29 30 31 32 33 34 35 36 37 38 39 40 41 42 97-61713

- E 35 - A/C Switch
- G2 - Engine Coolant Temperature (ECT) Sensor
- G28 - Engine Speed (RPM) Sensor
- G31 - Charge Air Pressure Sensor
- G62 - Engine Coolant Temperature (ECT) Sensor
- G70 - Mass Air Flow (MAF) Sensor
- J217 - Transmission Control Module (TCM)
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- J293 - Coolant FC (Fan Control) Control Module
- T3 - 3-Pin connector, on engine, front
- T10 - 10-Pin connector, white, behind instrument panel, left
- T10a - 10-Pin connector, orange, behind instrument panel, left
- T10c - 10-Pin connector, blue, behind instrument panel, left
- T10j - 10-Pin connector
- T14 - 14-Pin connector, in plenum chamber
- T68 - 68-Pin connector, on TCM
- T121 - 121-Pin connector, on DFI ECM
- 200 - Ground connection (shielding), in engine compartment wiring harness
- L9 - Wire connection -1-, in A/C wiring harness
- \* - A/C clutch cut-out signal from ECM/TCM
- \*\* - A/C "ON" signal from -E35-
- - Automatic transmission only

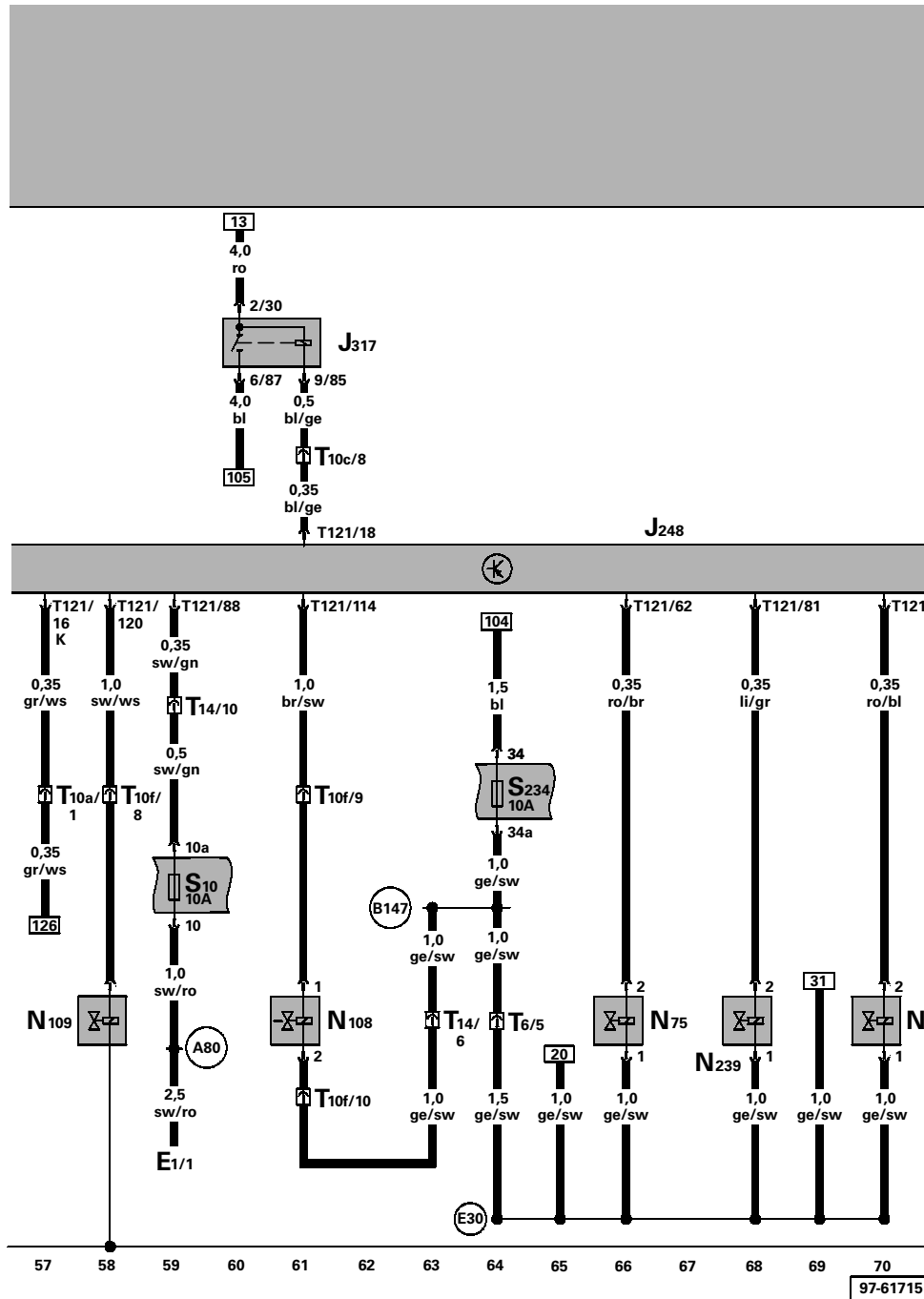


ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

97-61714

- G 80 - Needle Lift Sensor
- G 81 - Fuel Temperature Sensor
- G149- Modulating Piston Displacement Sensor
- J104 - ABS Control Module (w/EDL)
- J217 - Transmission Control Module (TCM)
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- N146- Quantity Adjuster
- T2a - 2-Pin connector, on engine, front
- T10 - 10-Pin connector, white, behind instrument panel, left
- T10f - 10-Pin connector, on engine, front
- T47 - 47-Pin connector
- T68 - 68-Pin connector

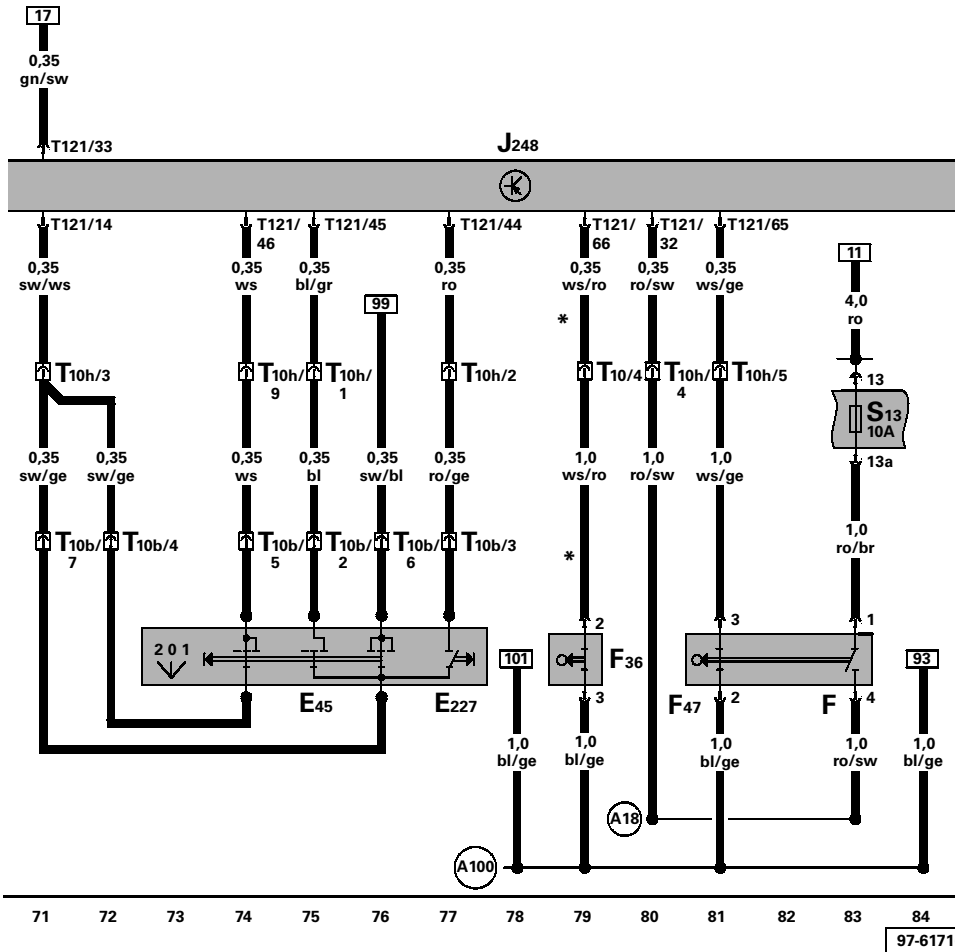
- T121 - 121-Pin connector, on DFI ECM
- (200) - Ground connection (shielding), in engine compartment wiring harness
- (A121) - Connection (high bus) in instrument panel wiring harness
- (A122) - Connection (low bus) in instrument panel wiring harness
- (F25) - Wire connection -1-, in Diesel Direct Fuel Injection (DFI) system wiring harness



ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

- E 1 - Light switch
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- J317 - Power Supply (Terminal 30, B+) Relay
- N 18 - EGR Vacuum Regulator Solenoid Valve
- N 75 - Wastegate Bypass Regulator Valve
- N108 - Cold Start Injector
- N109 - Fuel Cut-off Valve
- N239 - Change-over valve for intake manifold flap
- S10 - Fuse 10 in fuse holder
- S234 - Fuse 34 in fuse holder
- T6 - 6-Pin connector, brown, behind instrument panel, left
- T10a - 10-Pin connector, orange, behind instrument panel, left

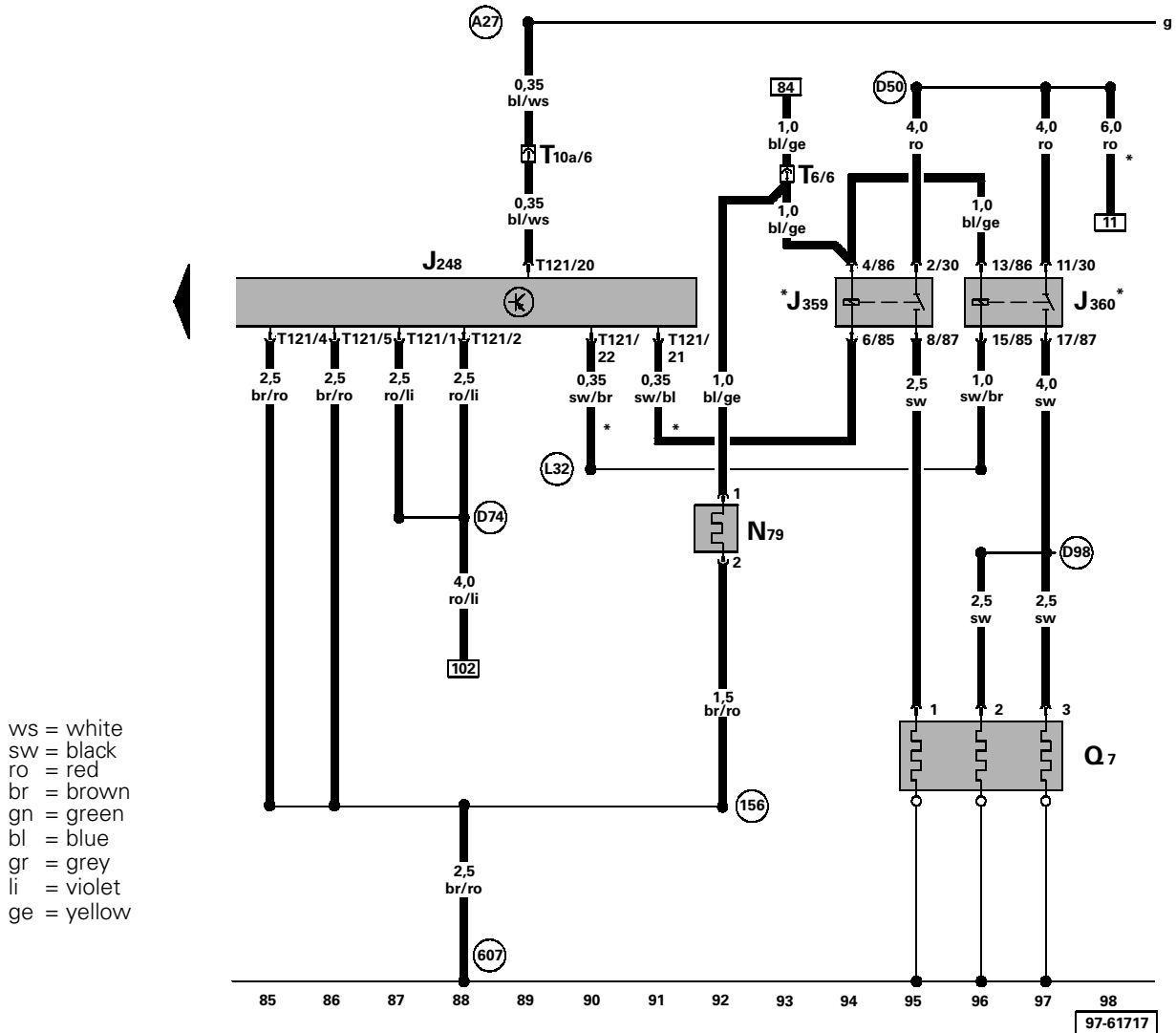
- T10c - 10-Pin connector, blue, behind instrument panel, left
- T10f - 10-Pin connector, black, on engine, front
- T14 - 14-Pin connector, in plenum chamber
- T121 - 121-Pin connector, on DFI ECM
- (A80) - Connector -1- (X) in instrument panel wiring harness
- (B147) - Plus connector -2- (87), in wiring harness
- (E30) - Connector (87a), in wiring harness engine



ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

- E 45 - Cruise Control Switch
- E227 - Button for cruise control (set)
- F - Brake Light Switch
- F36 - Clutch Vacuum Vent Valve Switch
- F47 - Brake Pedal Switch (cruise control/Diesel Direct Fuel Injection)
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- S13 - Fuse 13 in fuse holder
- T10 - 10-Pin connector, white, behind instrument panel, left
- T10b - 10-Pin connector, black, near steering column
- T10h - 10-Pin connector, black, behind instrument panel, left

- T121 - 121-Pin connector, on DFI ECM
- (A18) - wire connection (54), in instrument panel wiring harness
- (A100) - Connector -2- (87), in instrument panel wiring harness
- \* - Manual transmission only



ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM)
- J359 - Relay for preheating coolant, low heat output \*
- J360 - Relay for preheating coolant, high heat output\*
- N 79 - Positive Crankcase Ventilation (PCV) Heating Element
- Q7 - Spark plugs (coolant)
- T6 - 6-Pin connector, brown, behind instrument panel, left
- T10a - 10-Pin connector, orange, behind instrument panel, left
- T121 - 121-Pin connector, on DFI ECM
- (607) - Ground Connection (in left plenum chamber)

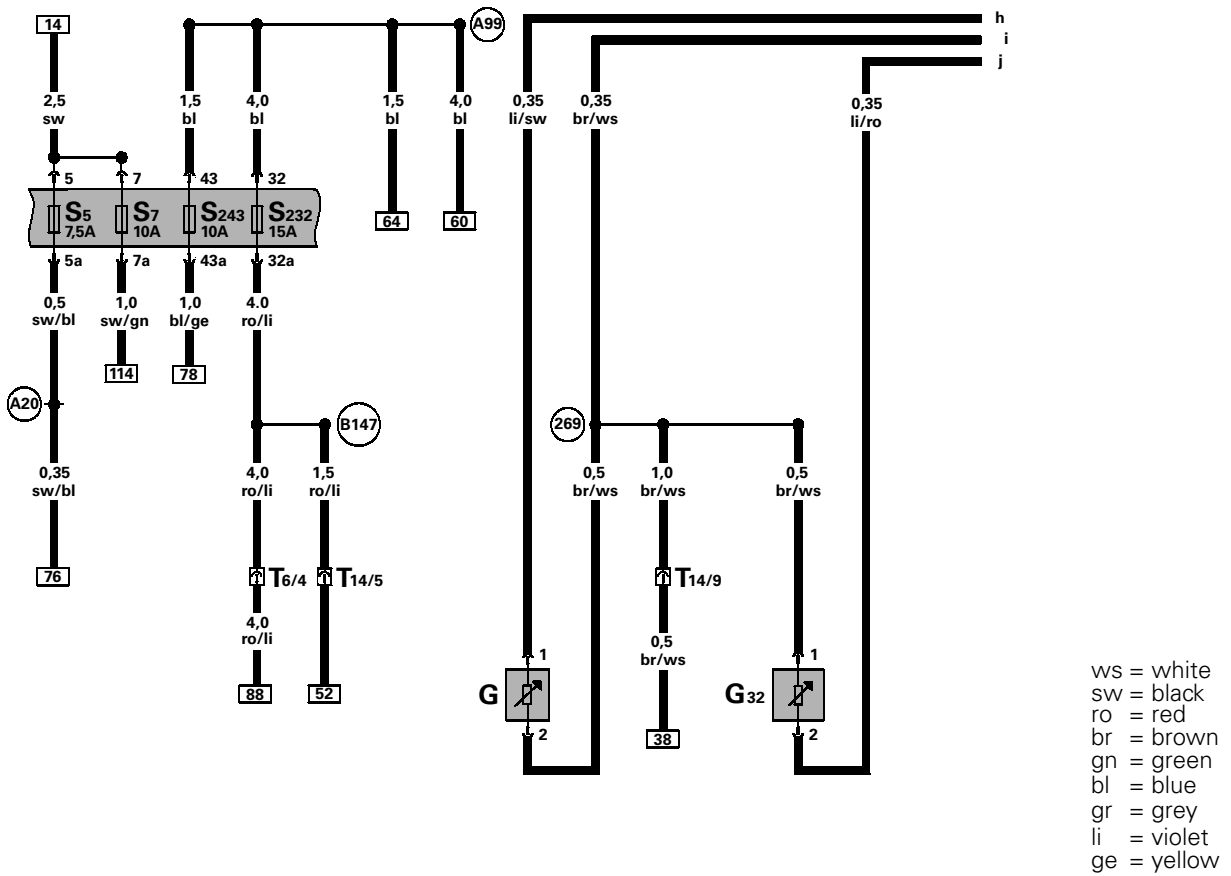
- (156) - Ground connection, in Diesel Direct Fuel Injection (DFI) wiring harness
- (A27) - Wire Connection (vehicle speed signal), in instrument panel wiring harness
- (D50) - Plus connection (30), in engine compartment wiring harness
- (D74) - Wire connection (86), in engine compartment wiring harness
- (D98) - Wire connection (glow plugs), in engine compartment wiring harness
- (L32) - Wire connection -1-, in heater wiring harness

\* - Manual Transmission only





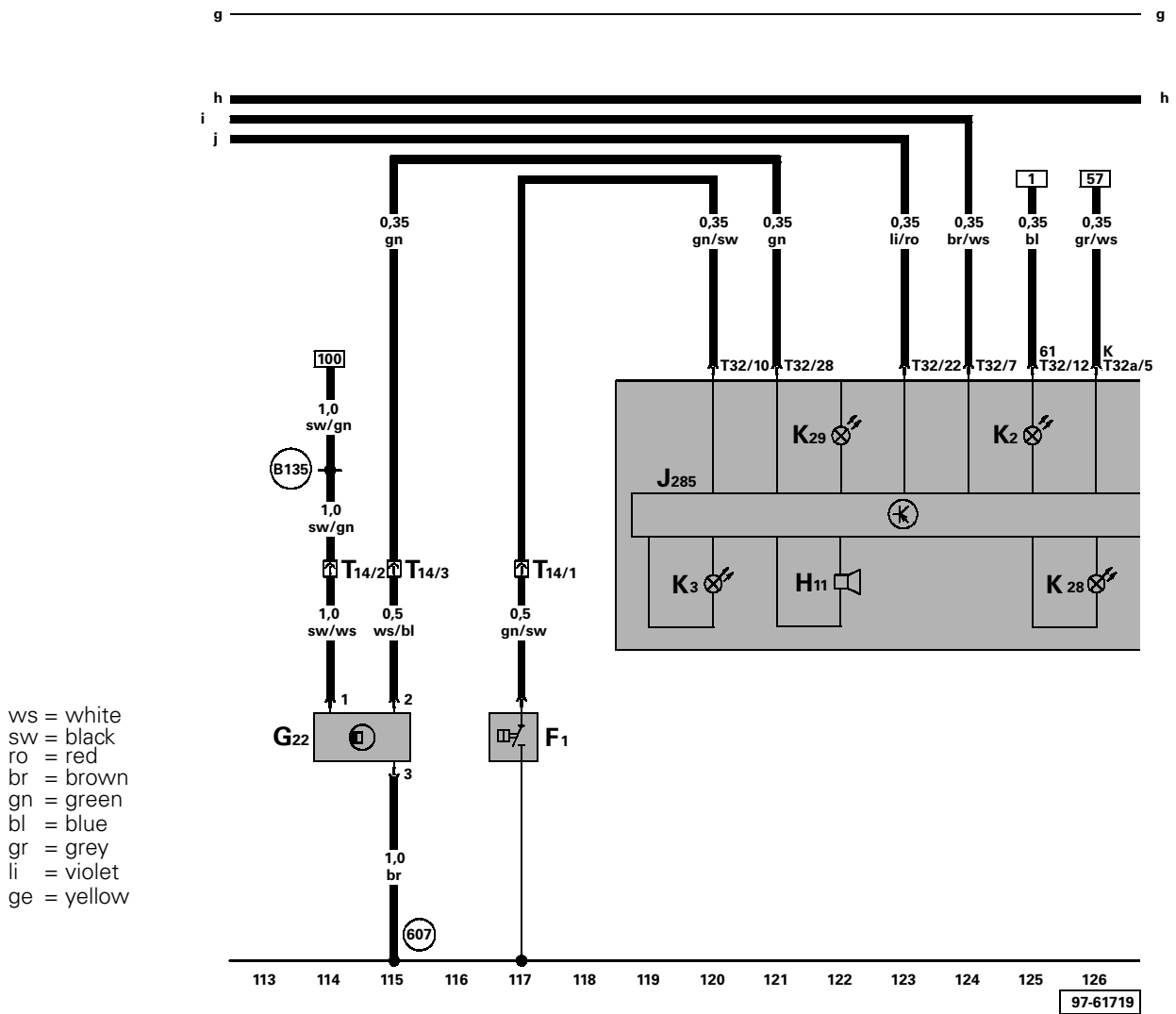
g ————— g



99 100 101 102 103 104 105 106 107 108 109 110 111 112  
 97-61718

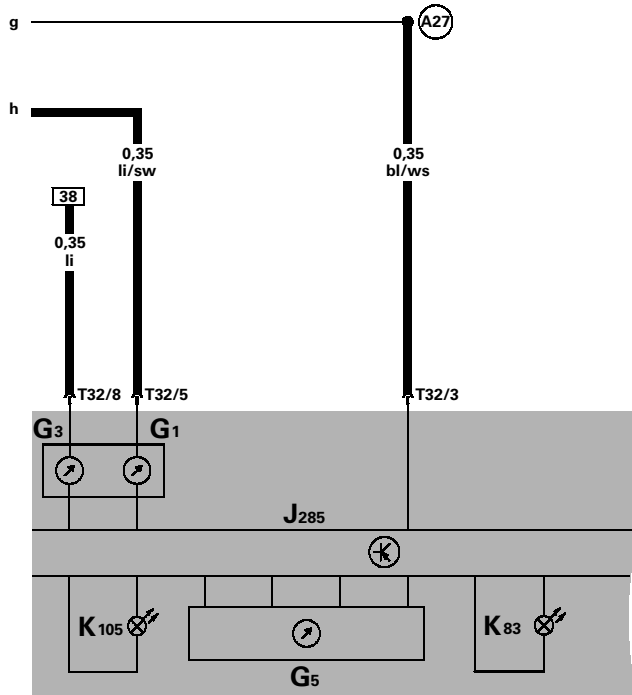
- G - Sender for fuel gauge
- G32 - Engine Coolant Level (ECL) Sensor
- S5 - Fuse 5 in fuse holder
- S7 - Fuse 7 in fuse holder
- S232 - Fuse 32 in fuse holder
- S243 - Fuse 43 in fuse holder
- T6 - 6-Pin connector, brown, behind instrument panel, left
- T14 - 14-Pin connector, in plenum chamber
- 269 - Ground connector (sensor ground) -1-, in instrument panel wiring harness
- A20 - Wire connection (15a), in instrument panel wiring harness

- A99 - Connector -1- (87), in instrument panel wiring harness
- B147 - Plus connector -2- (87), in wiring harness



- F1 - Oil Pressure Switch
- G22 - Speedometer Vehicle Speed Sensor (VSS)
- H11 - Oil Pressure Warning Buzzer
- J285 - Control module with indicator unit in instrument panel insert
- K2 - Generator (GEN) Warning Light
- K3 - Oil Pressure Warning Light
- K28 - Engine Coolant Level/Temperature (ECL/ECT) Warning Light
- K29 - Glow Plug Indicator Light
- T14 - 14-Pin connector, in plenum chamber
- T32 - 32-Pin connector, blue, on instrument cluster
- T32a - 32-Pin connector, green, on instrument cluster

- (607) - Ground Connection (in left plenum chamber)
- (B135) - Plus connector -1- (15a) in wiring harness interior



ws = white  
 sw = black  
 ro = red  
 br = brown  
 gn = green  
 bl = blue  
 gr = grey  
 li = violet  
 ge = yellow

127 128 129 130 131 132 133 134 135 136 137 138 139 140 97-61720

- G1 - Fuel Gauge
- G3 - Engine Coolant Temperature (ECT) Gauge
- G5 - Tachometer
- J285 - Control module with indicator unit instrument panel insert
- K83 - Malfunction Indicator Lamp (MIL)
- K105 - Low Fuel Level Warning Light
- T32 - 32-Pin connector, blue, on instrument cluster

A27 - Wire Connection (vehicle speed signal), in instrument panel wiring harness