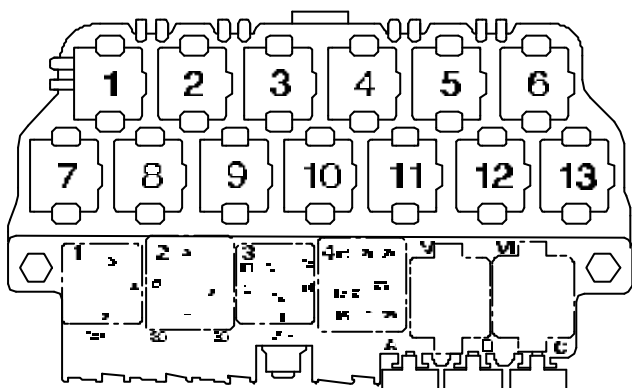


1.9L - Engine - Turbo Diesel Fuel Injection (DFI)/66KW, code ALH, (with manual transmission),

from May 1999

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



97-14163

Relay location on the thirteenfold auxiliary relay panel, above relay panel:

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

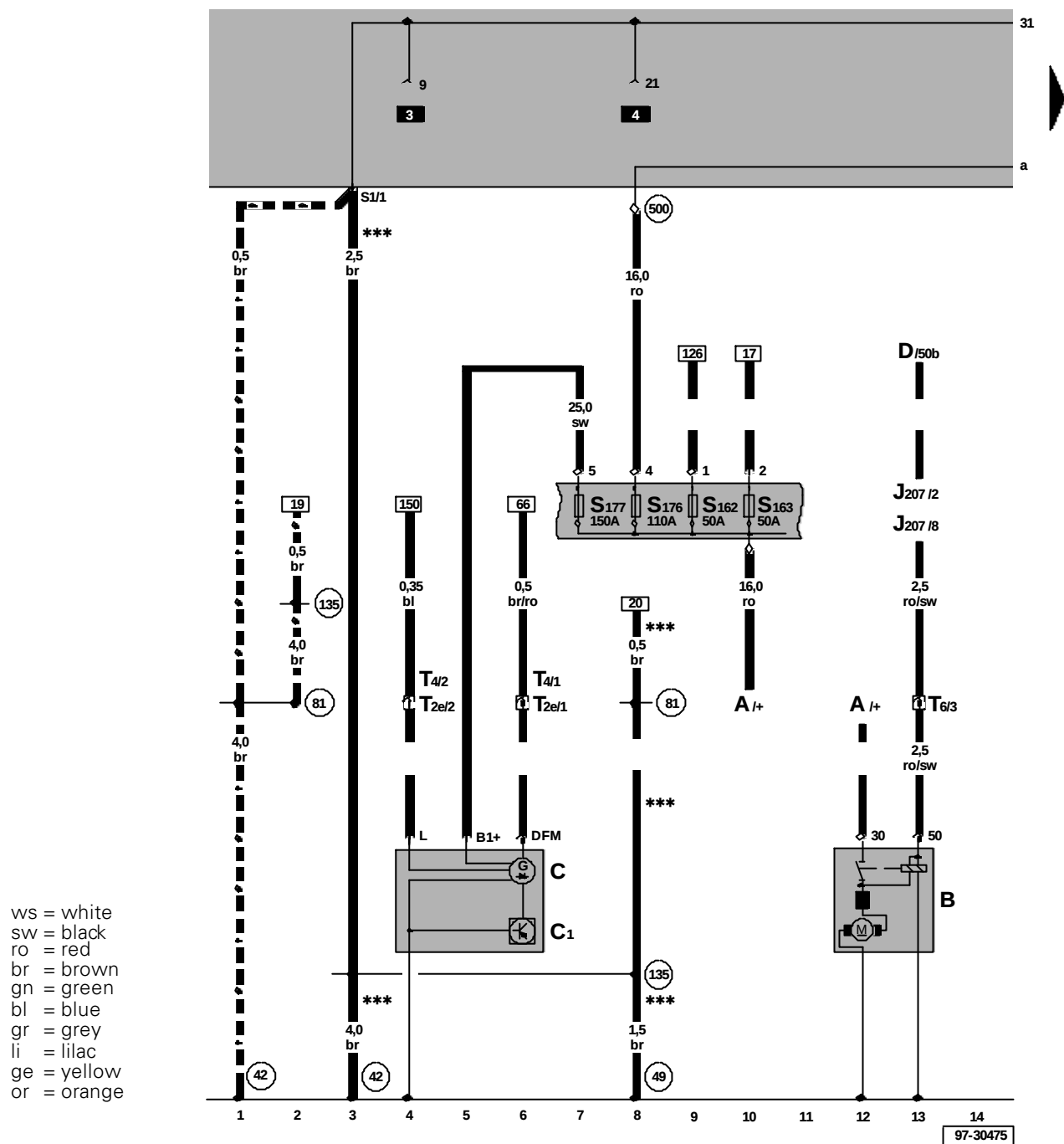
Relay panel:

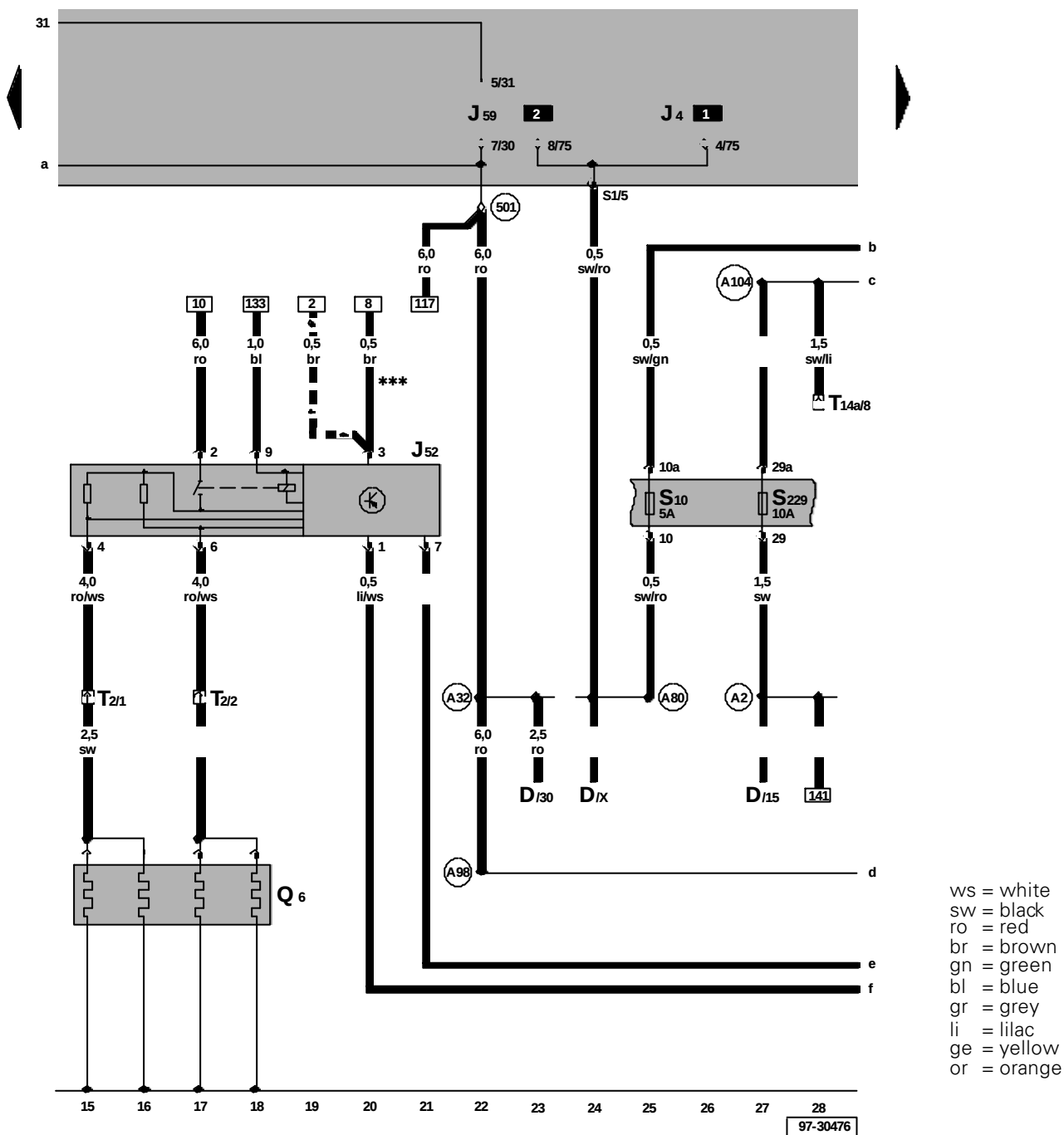
- 2** Load Reduction Relay (100)

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
- 3 A - violet



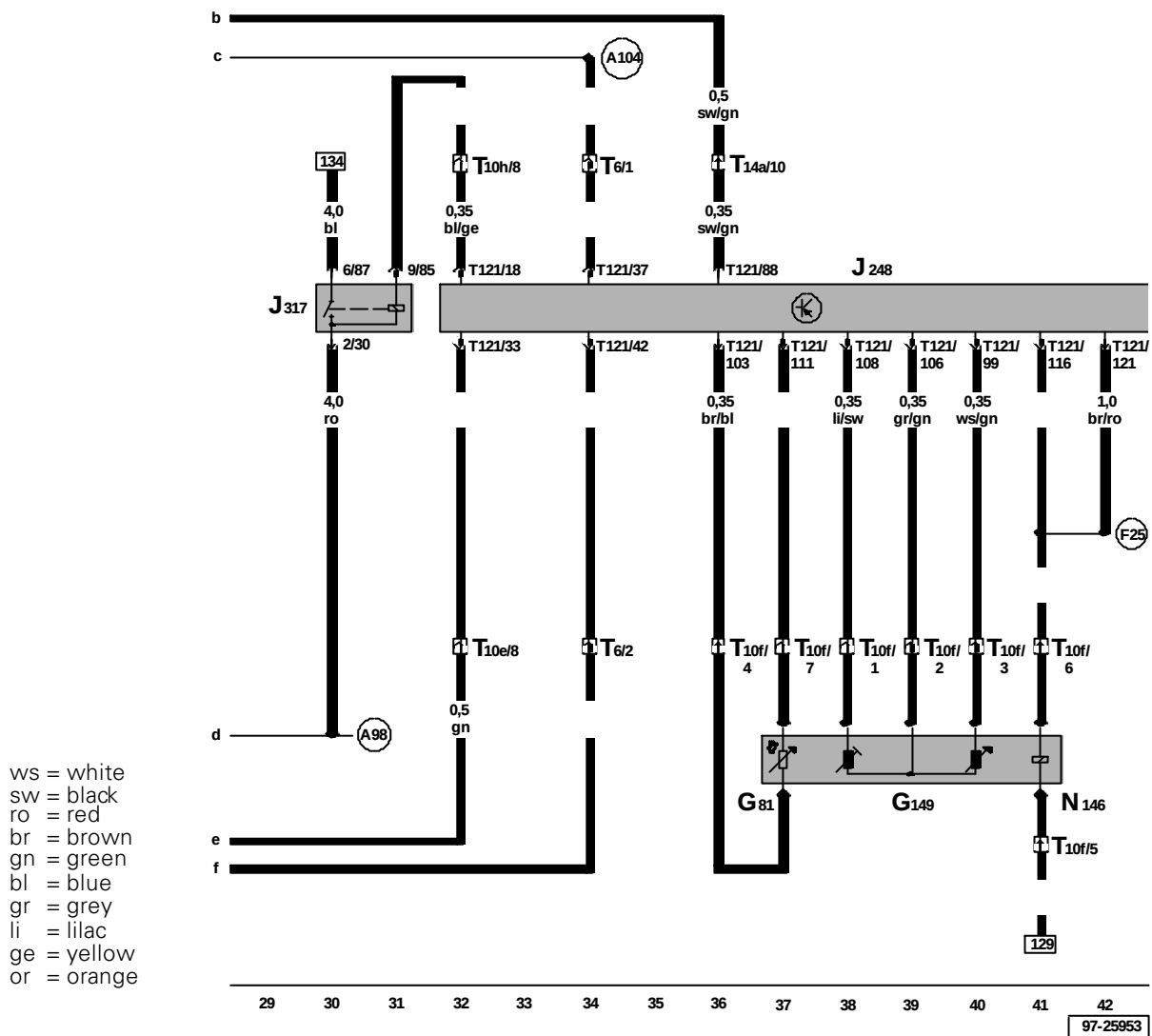


- D - Ignition/Starter Switch
- J4 - Dual Horn Relay
- J52 - Glow Plug Relay, on the thirteenfold auxiliary relay panel, above relay panel
- J59 - Load Reduction Relay
- Q6 - Glow plugs (engine)
- S10 - Fuse 10 in fuse holder
- S229 - Fuse 29 in fuse holder
- T2 - Double Connector, in engine compartment, in wiring duct, left
- T14a - 14-Pin Connector, near battery

- (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
- (A80) - Connector -1- (X) in instrument panel wiring harness
- (A98) - Plus connector -4- (30), in instrument panel wiring harness
- (A104) - Plus connector -2- (15), in instrument panel wiring harness

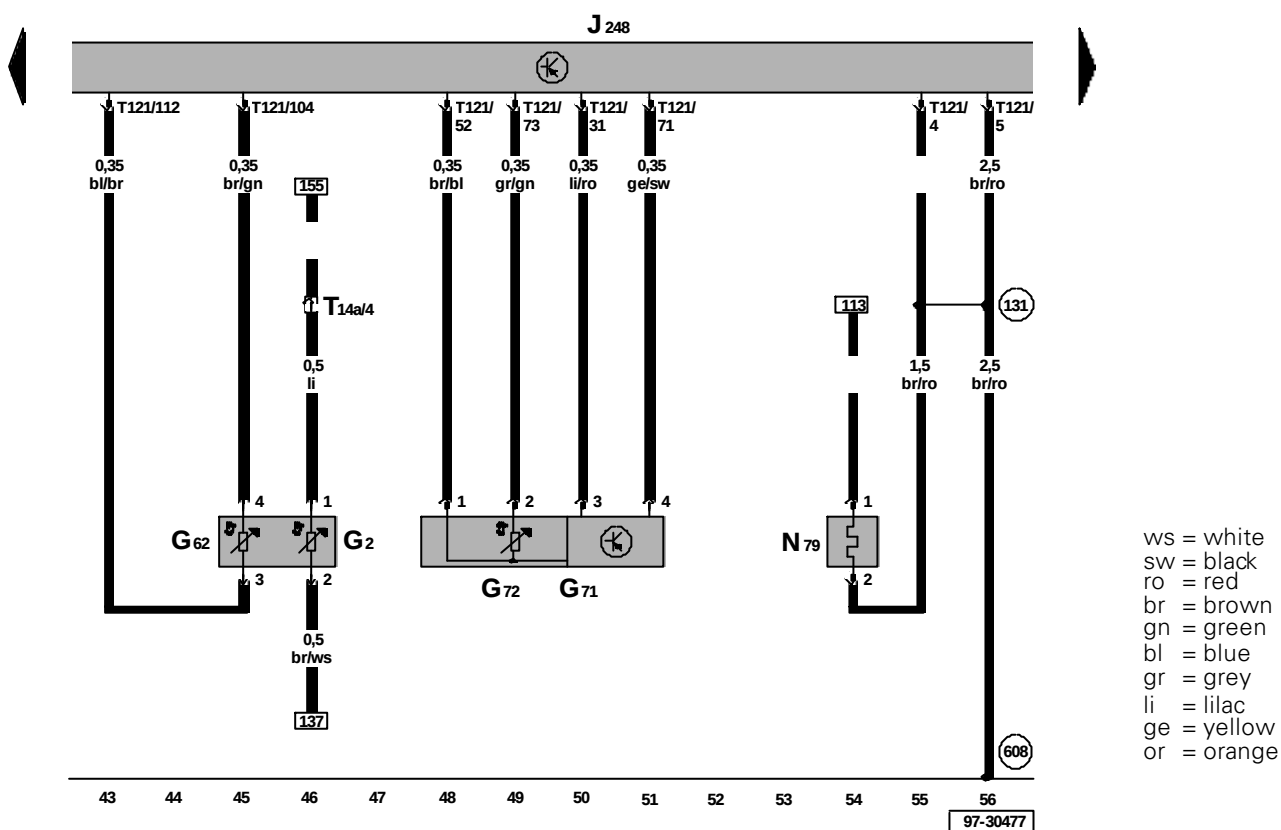
- *** - Beginning May 2000
- - Through April 2000



- G81 - Fuel Temperature Sensor
G149- Modulating Piston Displacement Sensor
J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
J317 - Power Supply (Terminal 30, B+) Relay, on the thirteenfold auxiliary relay panel, above relay panel
N146- Quantity Adjuster
T6 - 6-Pin Connector, brown, in protective housing for connectors, in plenum chamber, left
T10e - 10-Pin Connector, black, in protective housing for connectors, in plenum chamber, left
T10f - 10-Pin Connector, in engine compartment, front
T10h - 10-Pin Connector, blue, in protective housing for connectors, in plenum chamber, left
T14a - 14-Pin Connector, near battery

T121 - Connector, 121 point

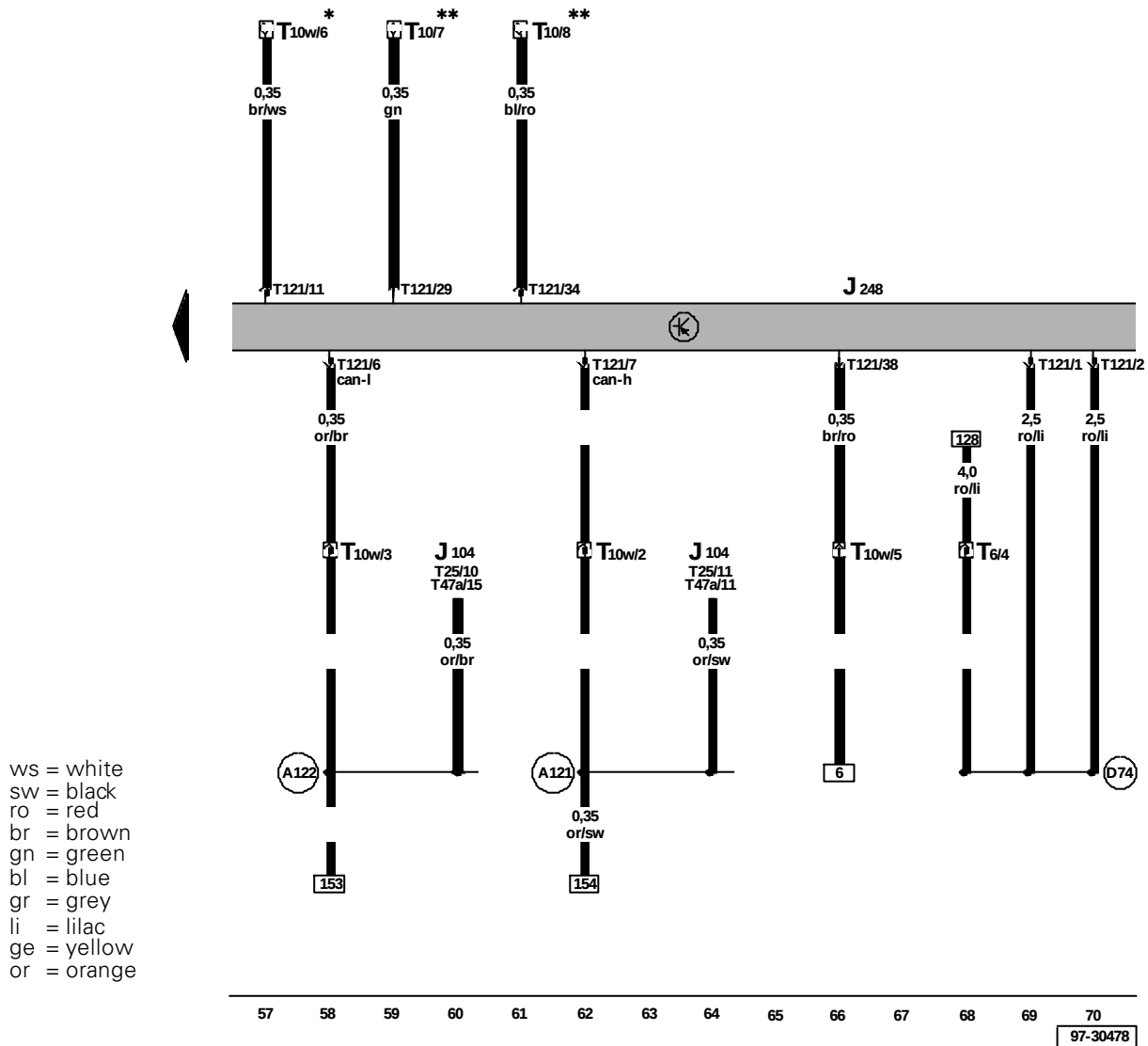
- A98 - Plus connector -4- (30), in instrument panel wiring harness
A104 - Plus connector -2- (15), in instrument panel wiring harness
F25 - Wire connection -1-, in Diesel Direct Fuel Injection (DFI) system wiring harness



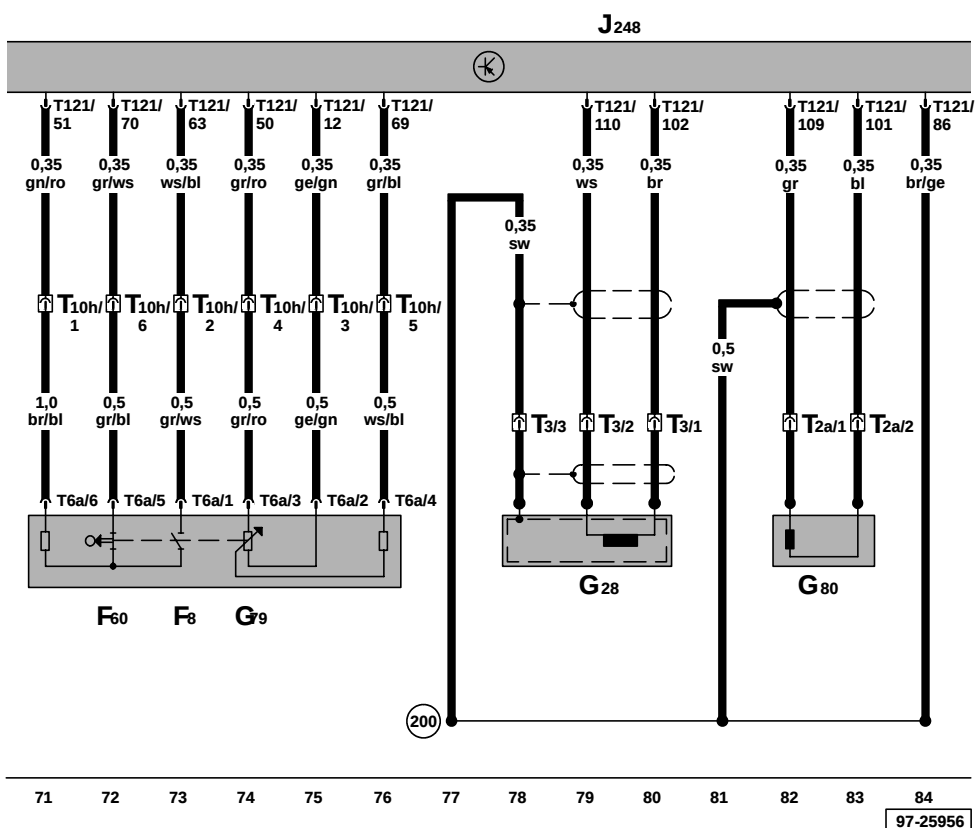
- G2 - Engine Coolant Temperature (ECT) Sensor
 G62 - Engine Coolant Temperature (ECT) Sensor
 G71 - Manifold Absolute Pressure (MAP) Sensor
 G72 - Intake Air Temperature (IAT) Sensor
 J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
 N79 - Positive Crankcase Ventilation (PCV) Heating Element
 T14a - 14-Pin Connector, near battery
 T121 - Connector, 121 point

(131) - Ground connection -2-, in engine compartment wiring harness

(608) - Ground Connection (in center plenum chamber)



- | | | | | |
|--------|---|---|--------|--|
| J104 - | ABS Control Module (w/EDL), in engine compartment, left |  | A121 - | Connection (high bus), in instrument panel wiring harness |
| J248 - | Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center |  | A122 - | Connection (low bus), in instrument panel wiring harness |
| T6 - | 6-Pin Connector, brown, in protective housing for connectors, in plenum chamber, left |  | D74 - | Wire connection (86), in engine compartment wiring harness |
| T10 - | 10-Pin Connector, orange, in protective housing for connectors, in plenum chamber, left | | | |
| T10w- | 10-Pin Connector, white, in protective housing for connectors, in plenum chamber, left | | * | Coolant Fan Control (FC) Control Module connection |
| T25 - | 25-Pin Connector, on ABS Control Module (through July 2000) | | ** | A/C connection |
| T47a- | 47-Pin Connector, on ABS Control Module (beginning August 2000) | | | |
| T121 - | Connector, 121 point | | | |

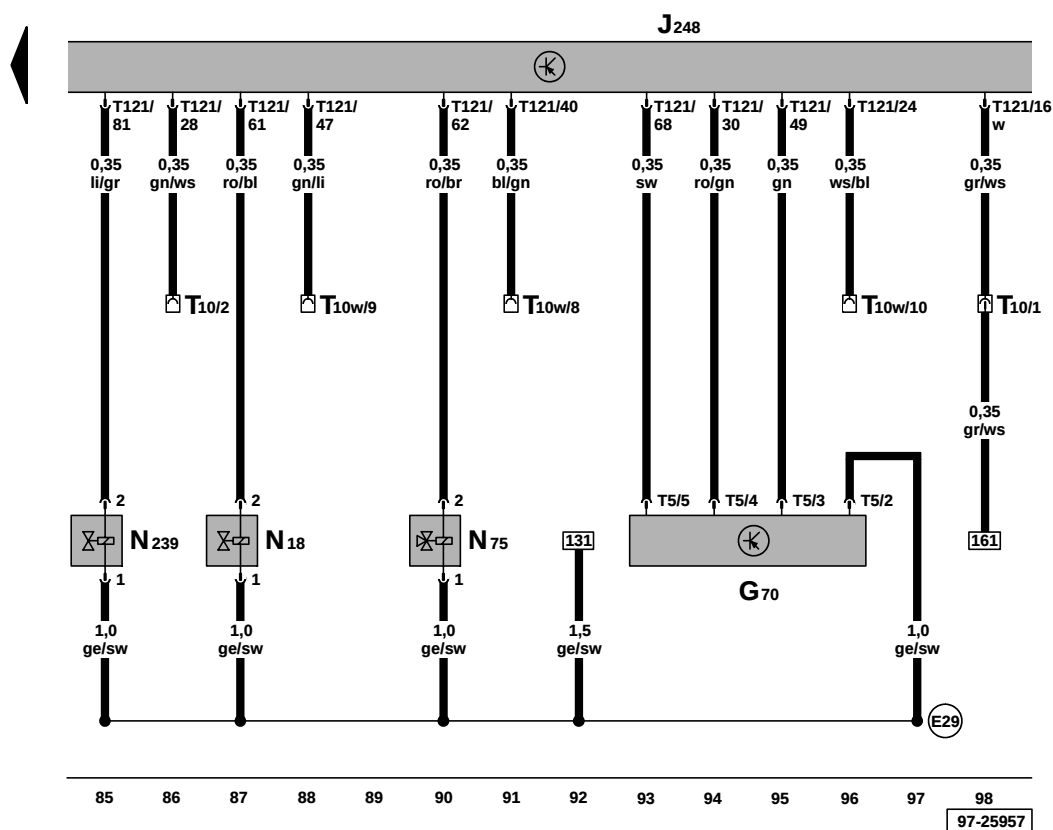


ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = lilac
ge = yellow

- 71 72 73 74 75 76 77 78 79 80 81 82 83 84
- 97-25956
- F8 - Kick Down Switch
 - F60 - Closed Throttle Position (CTP) Switch
 - G28 - Engine Speed (RPM) Sensor
 - G79 - Throttle Position (TP) Sensor
 - G80 - Needle Lift Sensor
 - J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
 - T2a - Double Connector, in engine compartment, front
 - T3 - 3-Pin Connector, in engine compartment, front
 - T6a - 6-Pin Connector
 - T10h - 10-Pin Connector, blue, in protective housing for connectors, in plenum chamber, left
 - T121 - Connector, 121 point

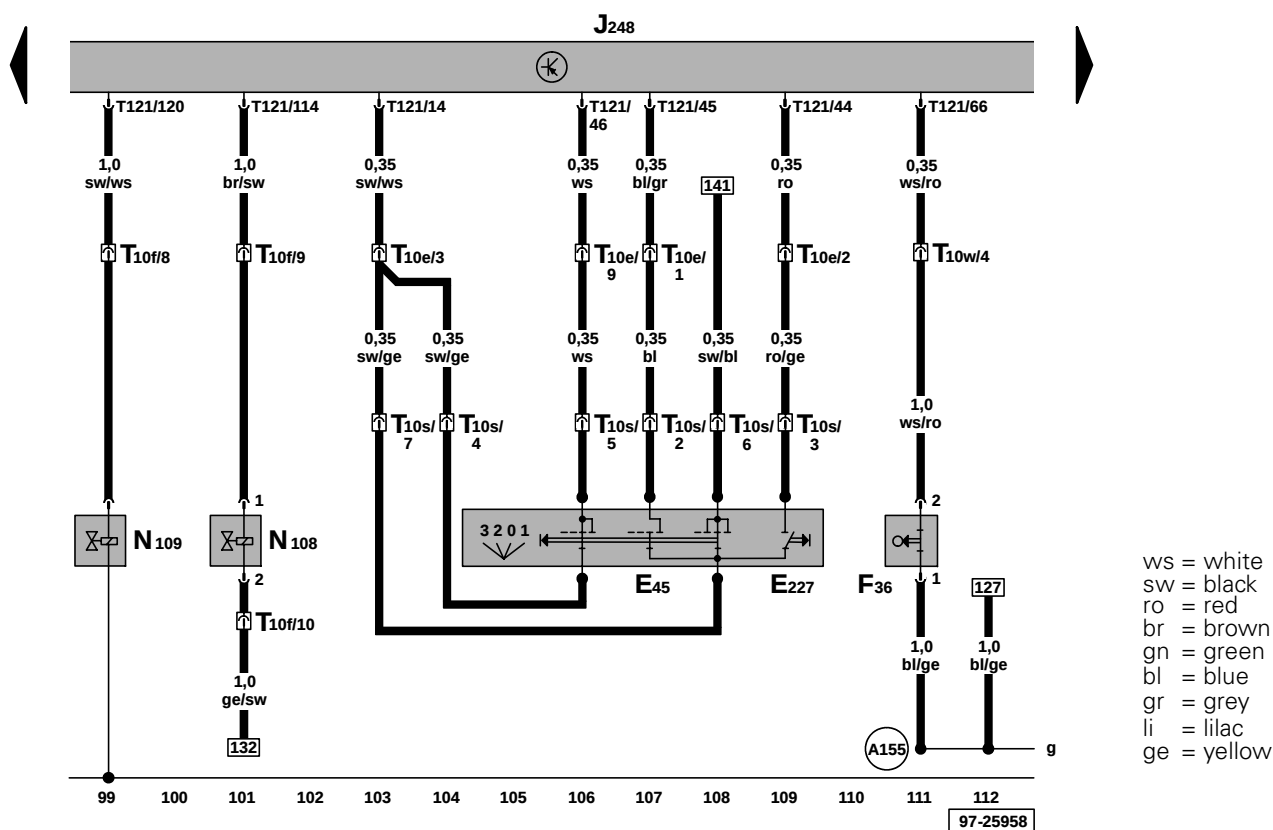
- (200) - Ground connection (shielding), in engine compartment wiring harness

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



- G70 - Mass Air Flow (MAF) Sensor
 J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
 N18 - EGR Vacuum Regulator Solenoid Valve
 N75 - Wastegate Bypass Regulator Valve
 N239 - Change-over valve for intake manifold flap
 T5 - 5-Pin Connector
 T10 - 10-Pin Connector, orange, in protective housing for connectors, in plenum chamber, left
 T10w - 10-Pin Connector, white, in protective housing for connectors, in plenum chamber, left
 T121 - Connector, 121 point

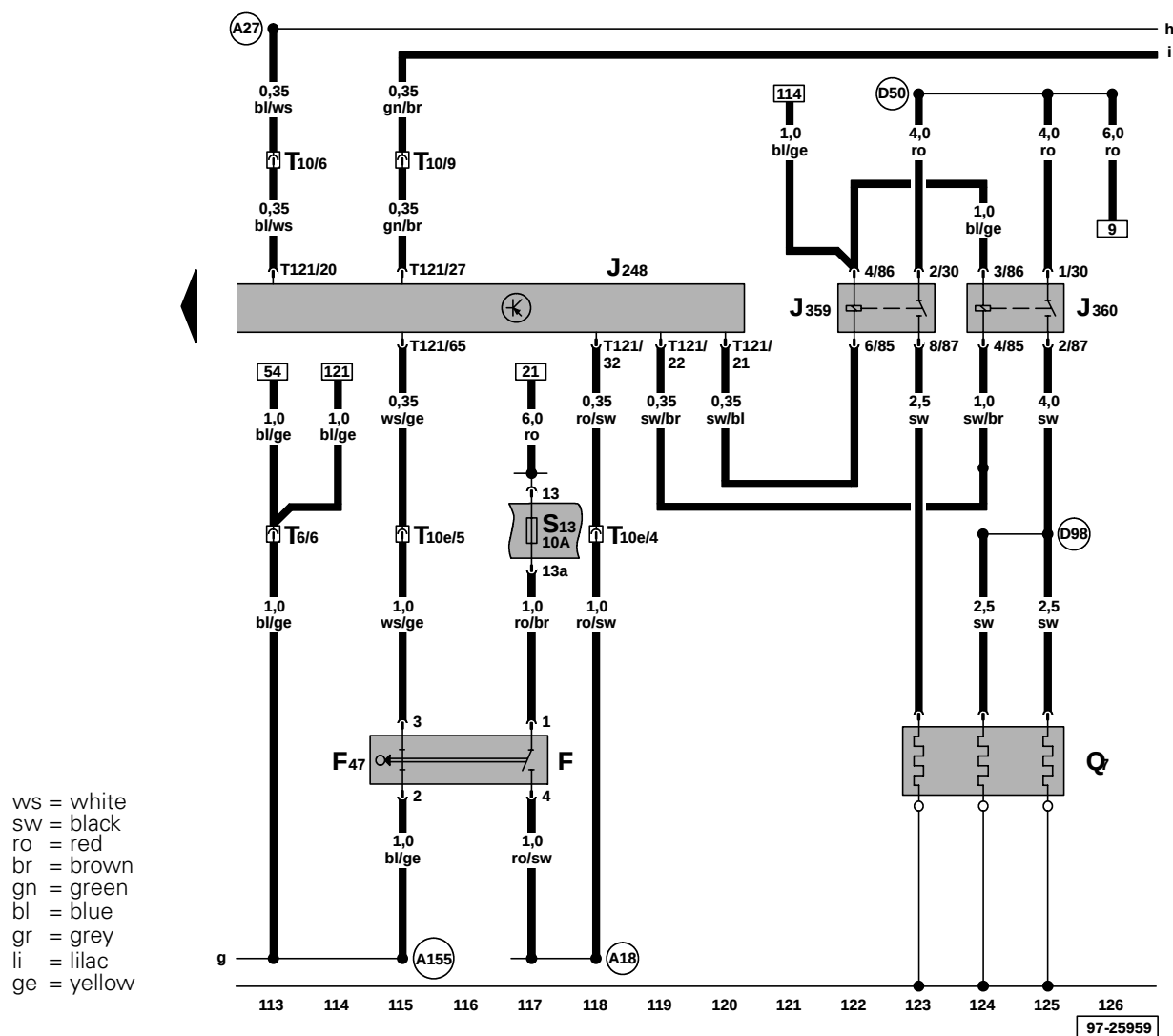
(E29) - Connector, in wiring harness engine



- E45 - Cruise Control Switch**
 E227 - Cruise Control Push Button (SET)**
 F36 - Clutch Vacuum Vent Valve Switch
 J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
 N108 - Cold Start Injector
 N109 - Fuel Cut-off Valve
 T10e - 10-Pin Connector, black, in protective housing for connectors, in plenum chamber, left
 T10f - 10-Pin Connector, in engine compartment, front
 T10s - 10-Pin Connector, near steering column**
 T10w - 10-Pin Connector, white, in protective housing for connectors, in plenum chamber, left
 T121 - Connector, 121 point

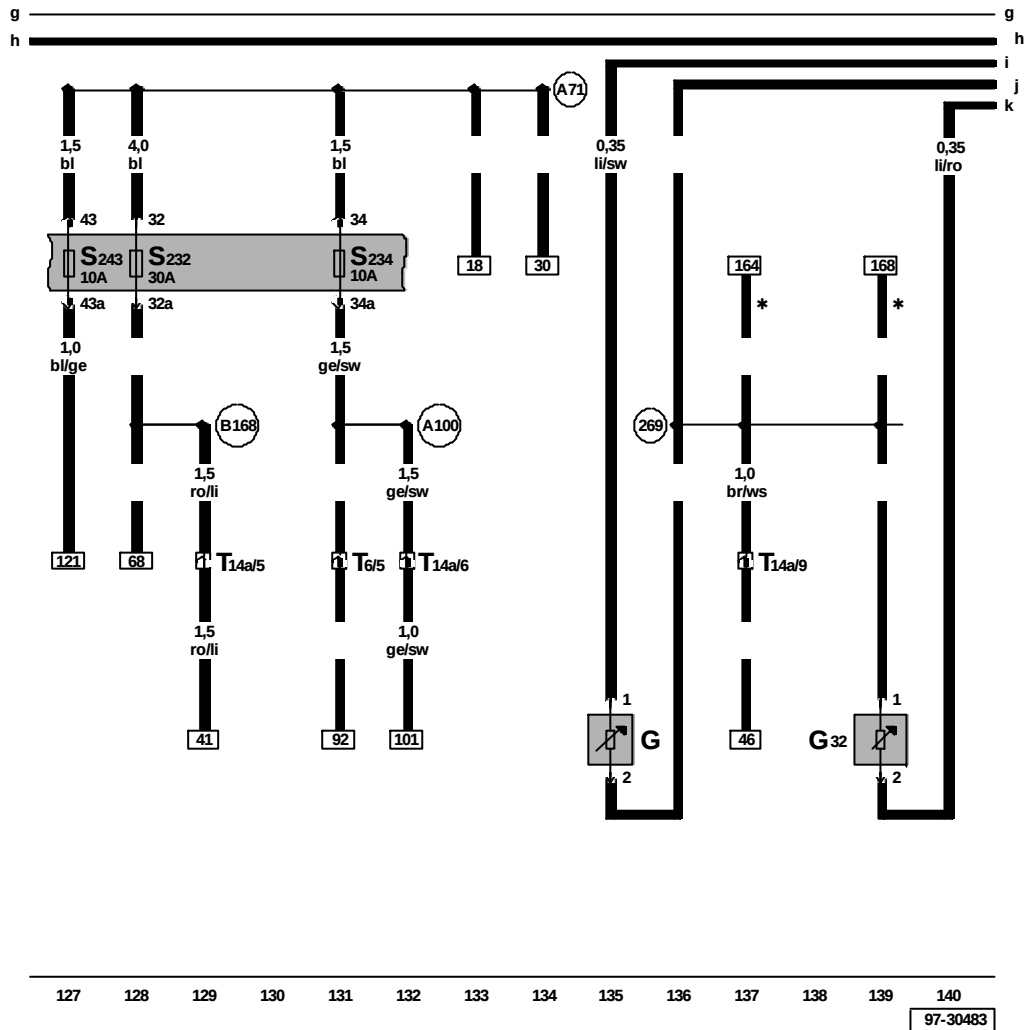
A155 - Connector -2- (86), in instrument panel wiring harness

** - Vehicles with cruise control only



- F - Brake Light Switch
F47 - Brake Vacuum Vent Valve Switch for cruise control/diesel
J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
J359 - Relay for preheating coolant, low heat output, in protective housing, in engine compartment, left, production control number (53)
J360 - Relay for preheating coolant, high heat output, in protective housing, in engine compartment, left, production control number (53)
Q7 - Glow plugs (coolant)
S13 - Fuse 13 in fuse holder
T6 - 6-Pin Connector, brown, in protective housing for connectors, in plenum chamber, left
T10 - 10-Pin Connector, orange, in protective housing for connectors, in plenum chamber, left

- T10e - 10-Pin Connector, black, in protective housing for connectors, in plenum chamber, left
T121 - Connector, 121 point
A18 - Wire connection (54), in instrument panel wiring harness
A27 - Wire Connection (vehicle speed signal), in instrument panel wiring harness
A155 - Connector -2- (86), in instrument panel wiring harness
D50 - Plus connection (30), in engine compartment wiring harness
D98 - Wire connection (glow plugs), in engine compartment wiring harness



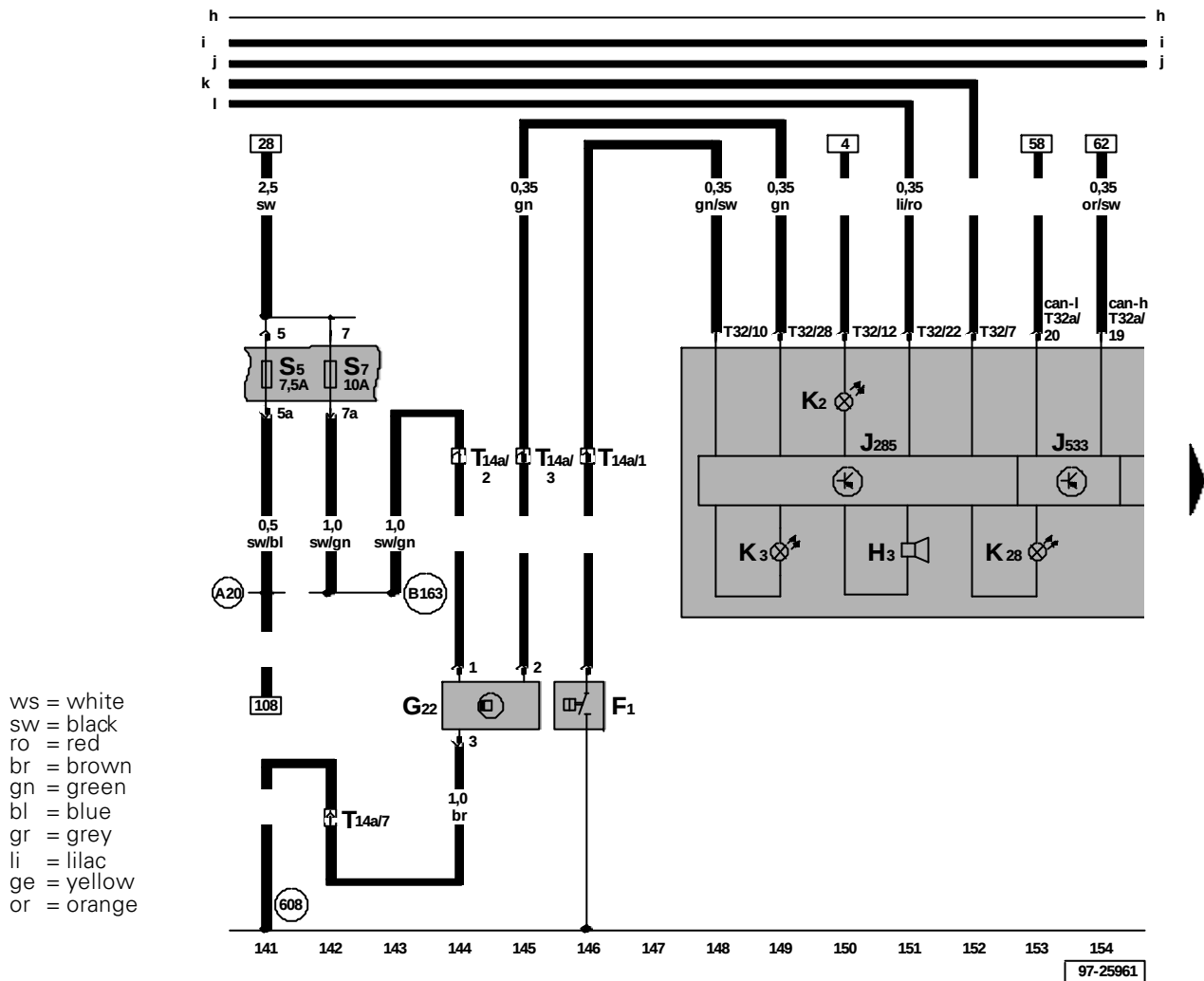
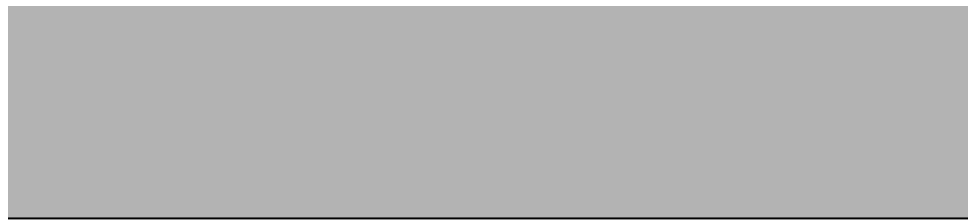
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = lilac
ge = yellow
or = orange

- G - Fuel Level Sensor
- G32 - Engine Coolant Level (ECL) Sensor
- S232 - Fuse 32 in fuse holder
- S234 - Fuse 34 in fuse holder
- S243 - Fuse 43 in fuse holder
- T6 - 6-Pin Connector, brown, in protective housing for connectors, in plenum chamber, left
- T14a - 14-Pin Connector, near battery

- (269) - Ground connection (sensor ground) -1-, in instrument panel wiring harness
- (A71) - Connector (86), in instrument panel wiring harness
- (A100) - Connector -2- (87), in instrument panel wiring harness

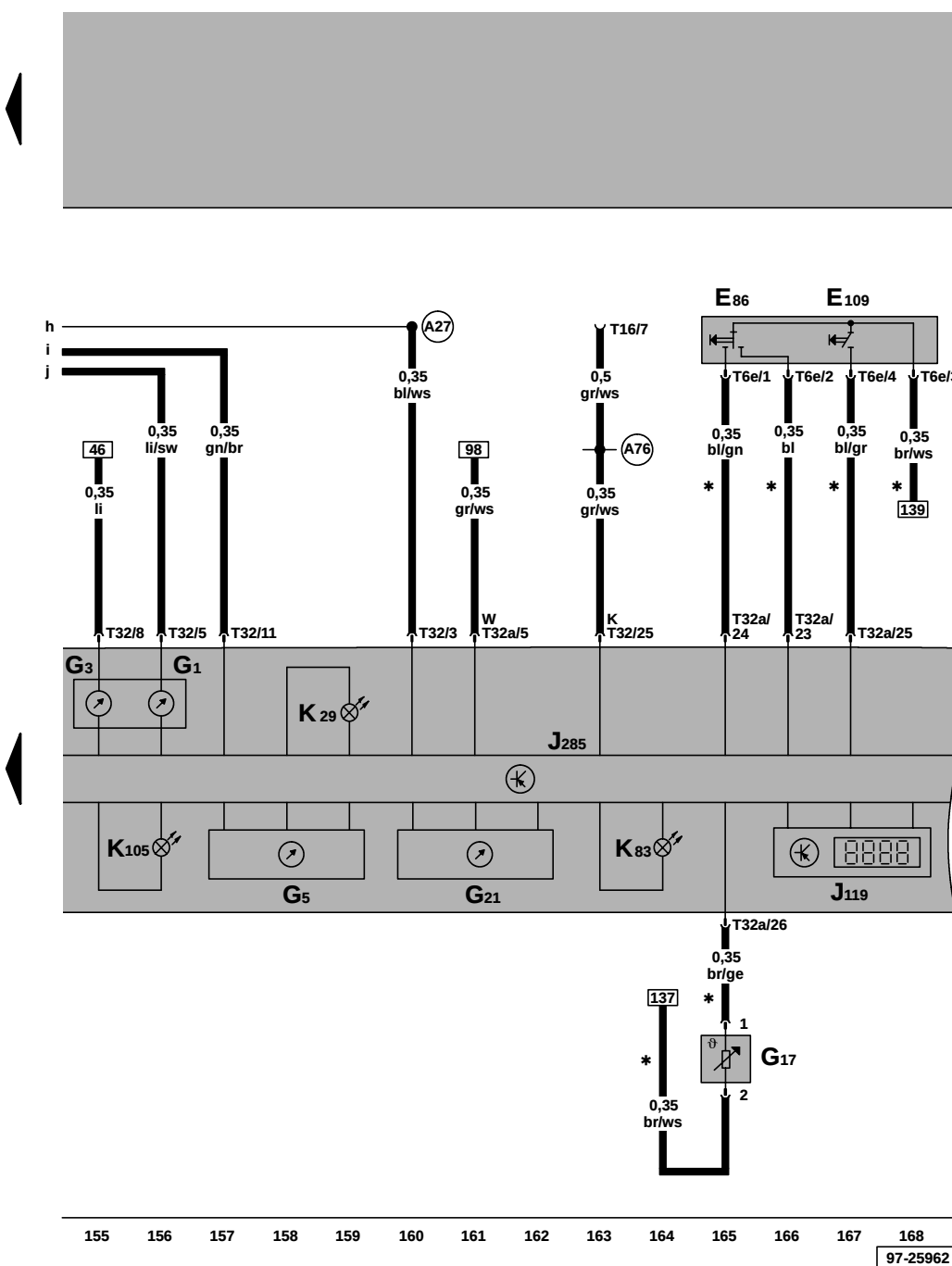
(B168) - Connection (86) in passenger compartment wiring harness

* - Vehicles with Multi-Function Indicator (MFI) only



- F1 - Oil Pressure Switch
- G22 - Speedometer Vehicle Speed Sensor (VSS)
- H3 - Warning Buzzer
- J285 - Control module with indicator unit in instrument panel insert
- J533 - Data Bus On Board Diagnostic Interface
- K2 - Generator (GEN) Warning Light
- K3 - Oil Pressure Warning Light
- K28 - Engine Coolant Level/Temperature (ECL/ECT) Warning Light
- S5 - Fuse 5 in fuse holder
- S7 - Fuse 7 in fuse holder
- T14a - 14-Pin Connector, near battery
- T32 - 32-Pin Connector, blue
- T32a - 32-Pin Connector, green

- (608) - Ground Connection (in center plenum chamber)
- (A20) - Wire connection (15a), in instrument panel wiring harness
- (B163) - Plus connector -1- (15) in wiring harness interior



E86 - Multi-Function Indicator Mode Select Switch*
 E109 - Multi-Function Indicator Memory Switch*
 G1 - Fuel gauge
 G3 - Engine Coolant Temperature (ECT) Gauge
 G5 - Tachometer
 G17 - Outside Air Temperature Sensor*
 G21 - Speedometer
 J119 - Multi-function Indicator (MFI)
 J285 - Control module with indicator unit in instrument panel insert
 K29 - Glow Plug Indicator Light
 K83 - Malfunction Indicator Lamp (MIL)
 K105 - Low Fuel Level Warning Light
 T6e - 6-Pin Connector
 T16 - Data Link Connector (DLC), below instrument panel, left

T32 - 32-Pin Connector, blue
 T32a - 32-Pin Connector, green

(A27) - Wire Connection (vehicle speed signal), in instrument panel wiring harness
 (A76) - Connector (K-diagnosis wire), in instrument panel wiring harness

* - Vehicles with Multi-Function Indicator (MFI) only