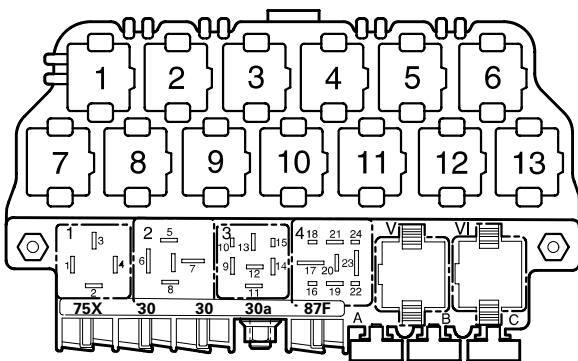


2,8L- Engine - Motronic Multiport Fuel Injection (MFI)/142 kW, code ATQ

from August 1999

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

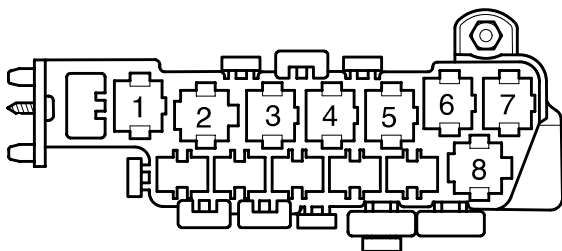


97-20676

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

Relay panel:

- 4** Fuel Pump (FP) Relay (372)



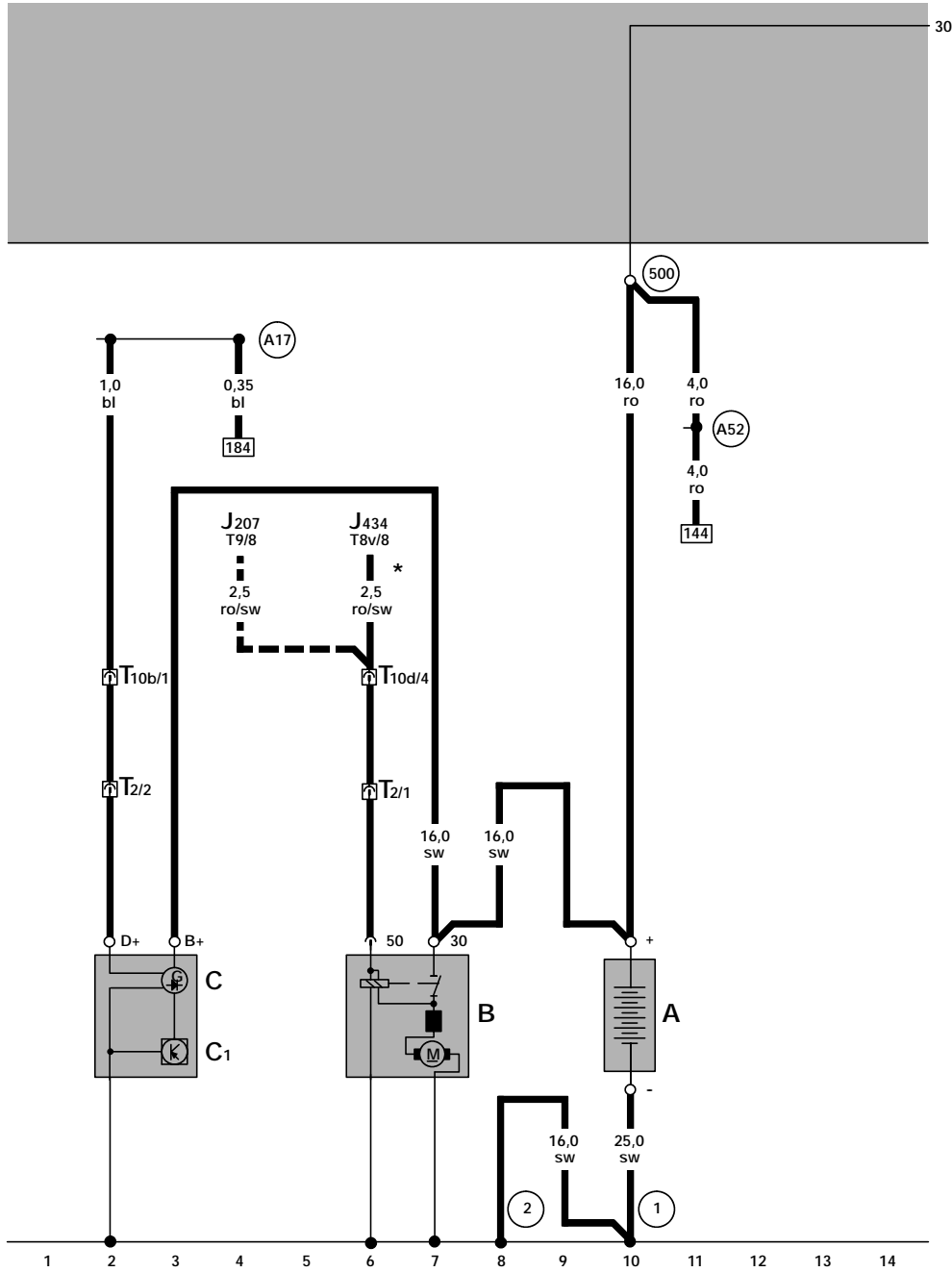
97-20515

Relay location on the eightfold auxiliary relay panel, behind relay panel:

Fuse colors

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

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

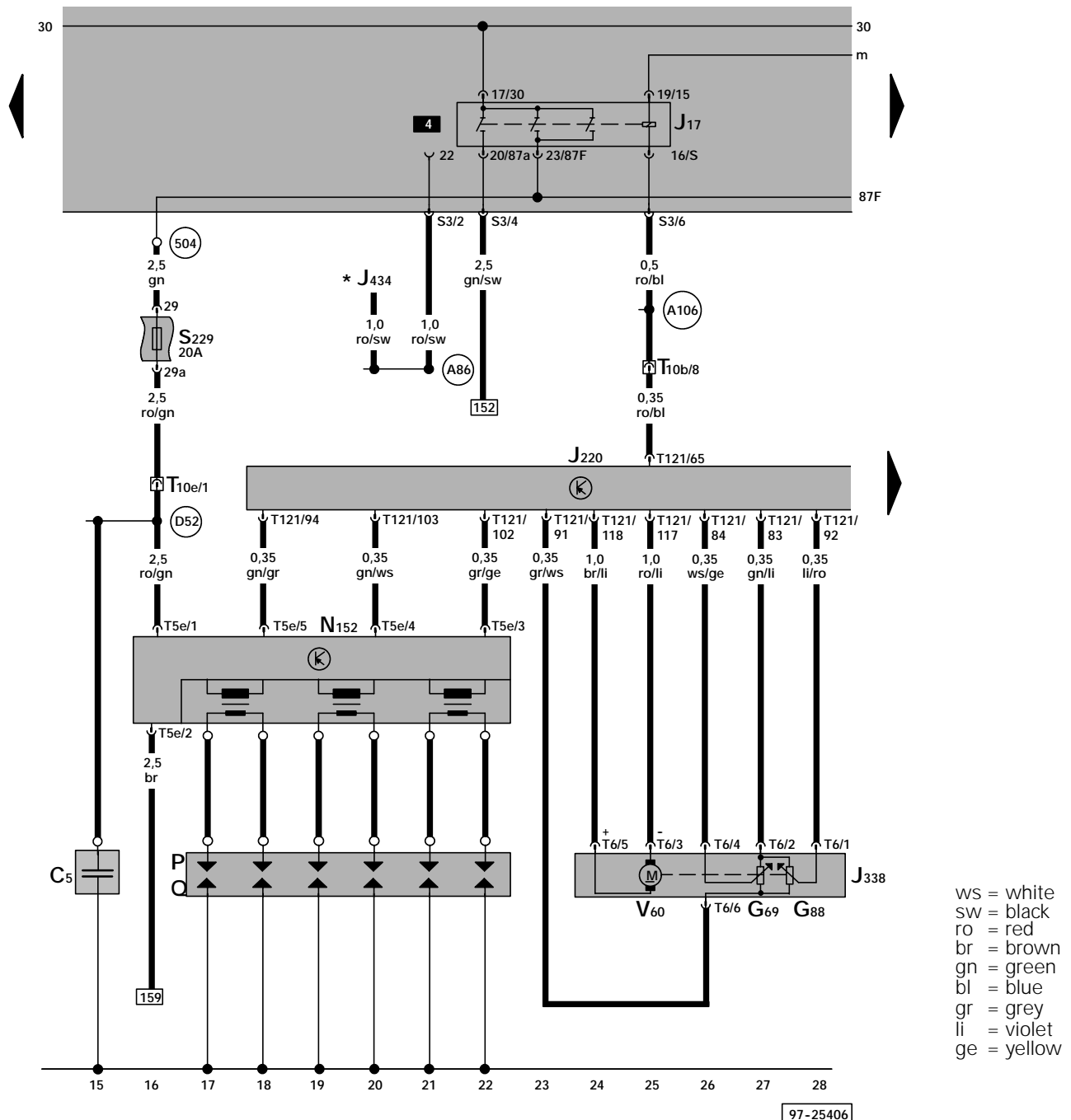


ws = white
 sw = black
 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = violet
 ge = yellow

- A - Battery
- B - Starter
- C - Generator (GEN)
- C1 - Voltage Regulator (VR)
- J207 - Starting Interlock Relay
- J434 - Starting Interlock Relay (clutch position)
- T2 - Double Connector, on engine right
- T8v - 8-Pin Connector, on Starting Interlock Relay
- T9 - 9-Pin Connector, on Starting Interlock Relay
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left
- T10d - 10-Pin Connector, brown, on protective housing for control module, in engine compartment, left

- (2) - Ground strap, transmission to body
- (500) - Screw Connection -1- (30), on relay panel
- (A17) - wire connection (61), in instrument panel wiring harness
- (A52) - plus connection (30), in instrument panel wiring harness
- - - automatic transmission only
- * - manual transmission only

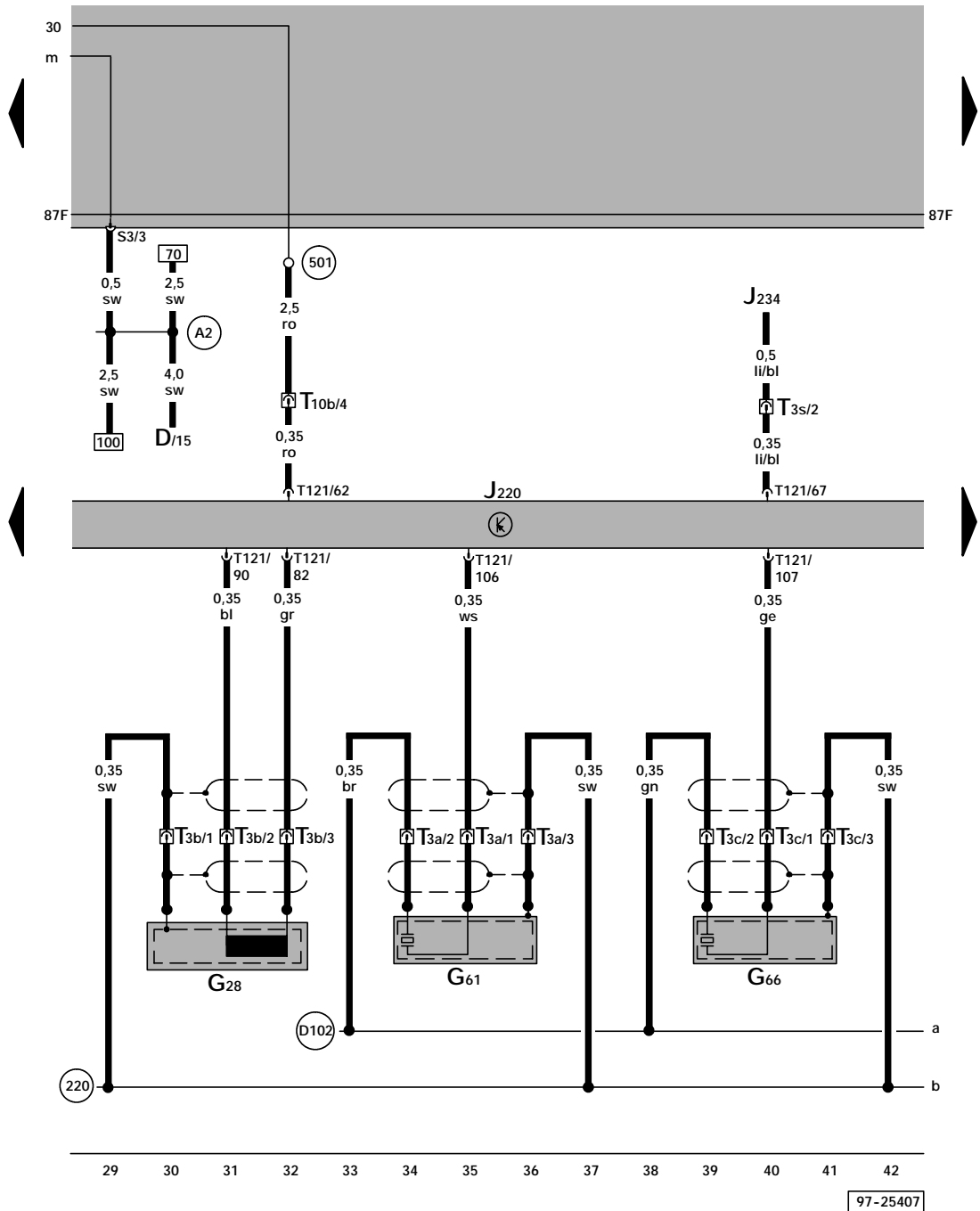
- (1) - Ground strap, battery to body



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

- C5 - Suppressor (Terminal 15)
- G69 - Throttle Position (TP) Sensor
- G88 - Throttle Position (TP) Sensor
- J17 - Fuel Pump (FP) Relay, production control number (208)
- J220 - Motronic Engine Control Module (ECM)
- J338 - Throttle Valve Control Module
- J434 - Starting Interlock Relay (clutch position)
- N152 - Ignition Coil
- P - Spark Plug Connectors
- Q - Spark Plugs
- S229 - Fuse in fuse holder
- T5e - 5-Pin Connector, black, on Ignition Coil
- T6 - 6-Pin Connector, black, on Throttlet Valve Control Module
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left

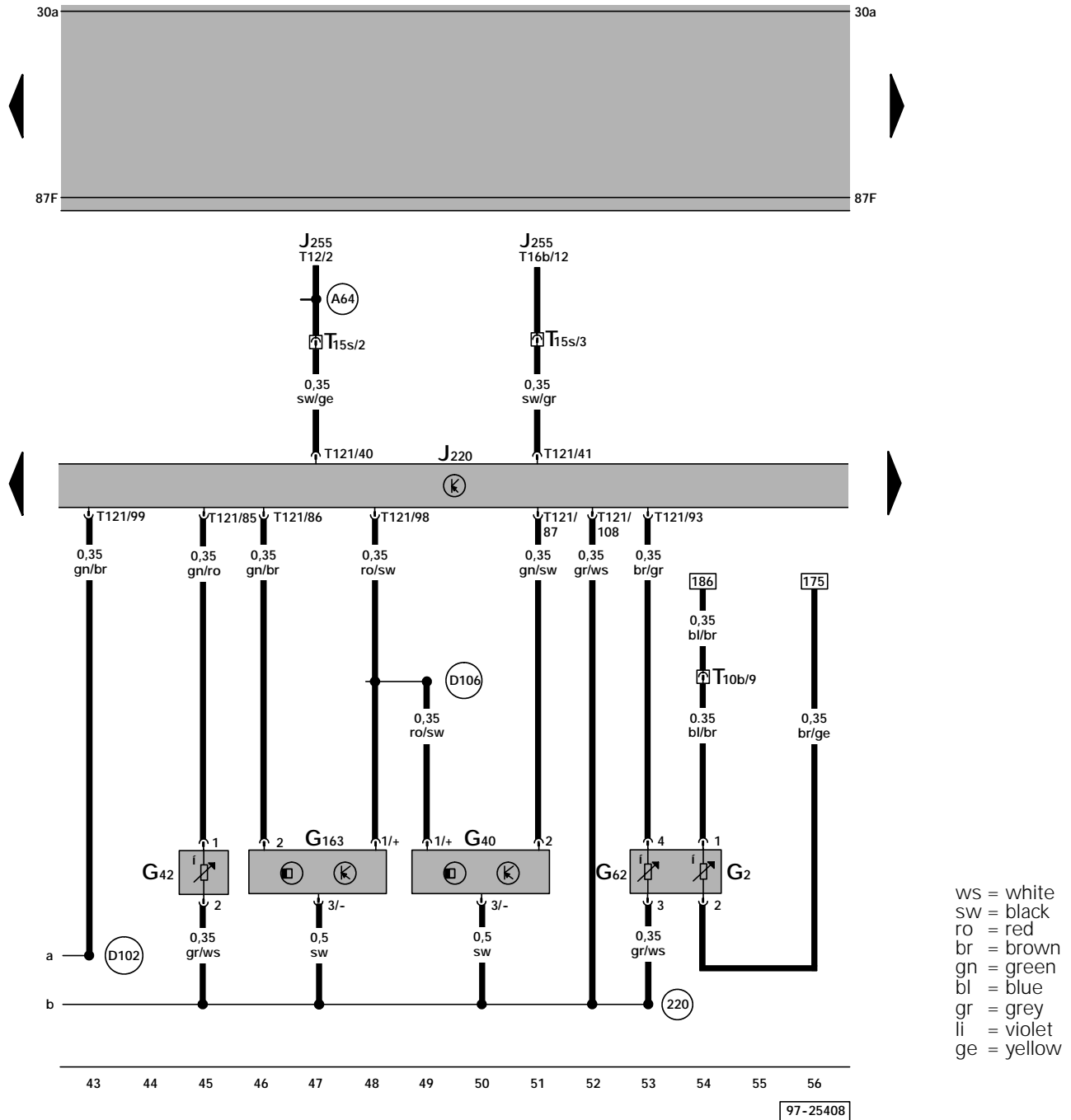
- T10e - 10-Pin Connector, orange, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- V60 - Throttle Position (TP) Actuator
- 504 - Screw Connection (87F), on relay panel
- A86 - Connection (50a) in instrument panel wiring harness
- A106 - Connector -2- (86s), in instrument panel wiring harness
- D52 - plus connection (15a), in engine compartment wiring harness
- * - manual transmission only



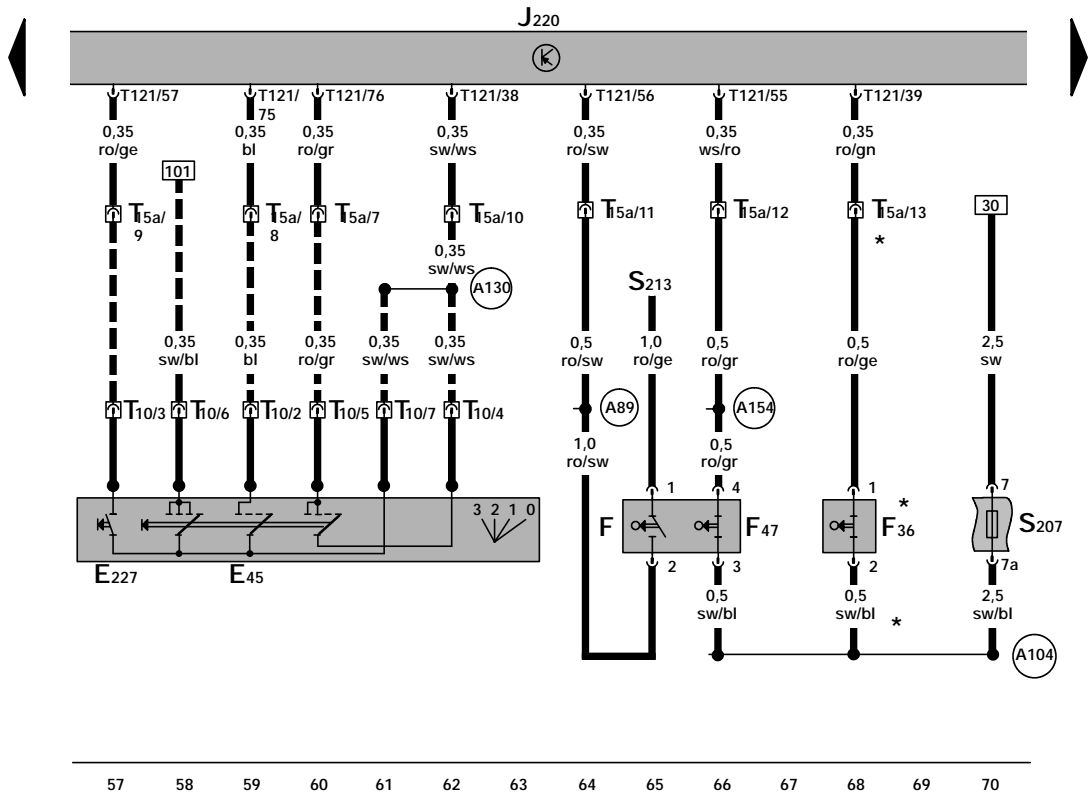
ws = white
 sw = black
 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = violet
 ge = yellow

- D - Ignition/Starter Switch
- G28 - Engine Speed (RPM) Sensor
- G61 - Knock Sensor (KS) 1
- G66 - Knock Sensor (KS) 2
- J220 - Motronic Engine Control Module (ECM)
- J234 - Airbag Control Module
- T3a - 3-Pin Connector, blue, on firewall, left
- T3b - 3-Pin Connector, grey, on firewall, left
- T3c - 3-Pin Connector, blue, on firewall, left
- T3s - 3-Pin Connector, red, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- 220 - Ground connection (sensor ground), in engine compartment wiring harness

- 501 - Screw Connection -2- (30), on relay panel
- A2 - plus connection (15), in instrument panel wiring harness
- D102 - Wire connection -2-, in engine compartment wiring harness



- G2 - Engine Coolant Temperature (ECT) Sensor
- G40 - Camshaft Position (CMP) Sensor
- G42 - Intake Air Temperature (IAT) Sensor
- G62 - Engine Coolant Temperature (ECT) Sensor
- G163 - Camshaft Position (CMP) Sensor 2
- J220 - Motronic Engine Control Module (ECM)
- J255 - Climatronic Control Module
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left
- T12 - 12-Pin Connector, on Climatronic Control Module
- T15s - 15-Pin Connector, red, on protective housing for control module, in engine compartment, left
- T16b - 16-Pin Connector, on Climatronic Control Module
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- (220) - Ground connection (sensor ground), in engine compartment wiring harness
- (A64) - Connector (30, idle boost), in instrument panel wiring harness
- (D102) - wire connection -2-, in engine compartment wiring harness
- (D106) - wire connection -4-, in engine compartment wiring harness



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

97-25409

- E45 - Cruise Control Switch
- E227 - Button for cruise control (set)
- F - Brake Light Switch
- F36 - Clutch Vacuum Vent Valve Switch
- F47 - Brake Vacuum Vent Valve Switch for cruise control/diesel
- J220 - Motronic Engine Control Module (ECM)
- S207 - Fuse 7 in fuse holder
- S213 - Fuse 13 in fuse holder
- T10 - 10-Pin Connector
- T15a - 15-Pin Connector, white, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)

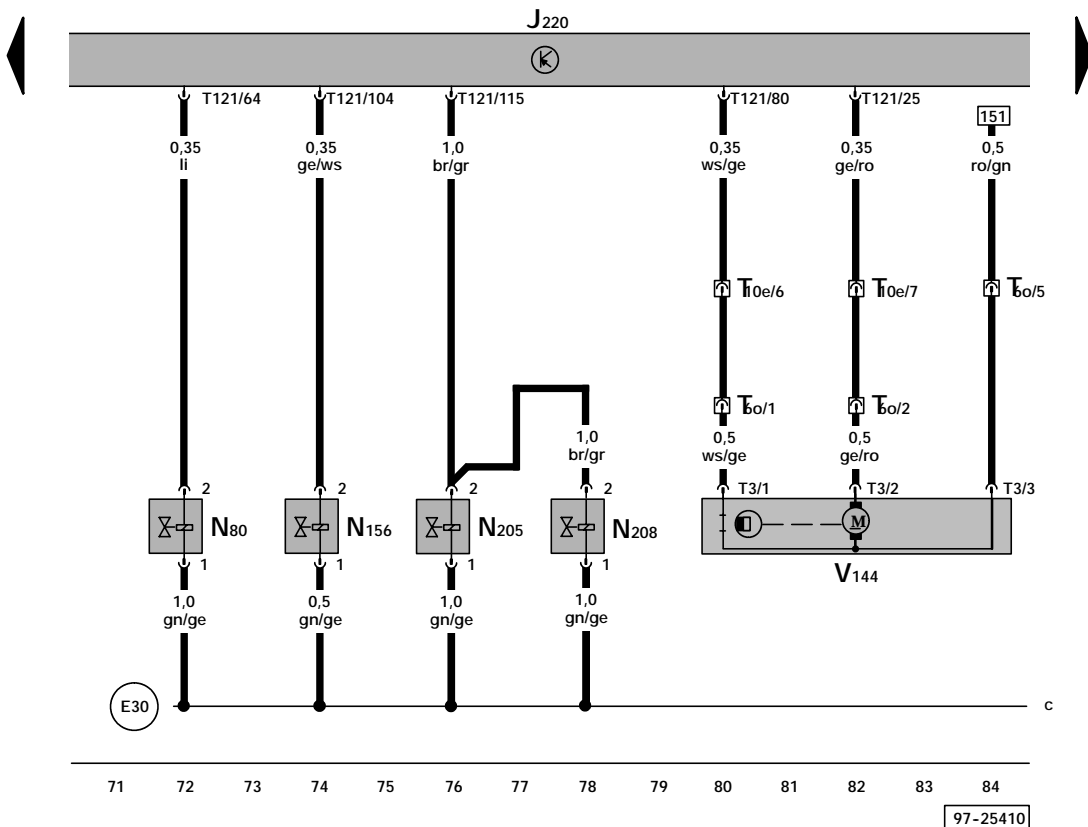
- (A104) - Plus connector -2- (15), in instrument panel wiring harness
- (A130) - Connection for Cruise Control (instrument panel wiring harness)
- (A154) - Connection (Brake Vacuum Vent Valve Switch) in instrument panel wiring harness
- - - automatic transmission only
- * - manual transmission only

- (A89) - Connector (54) in instrument panel wiring harness



87F

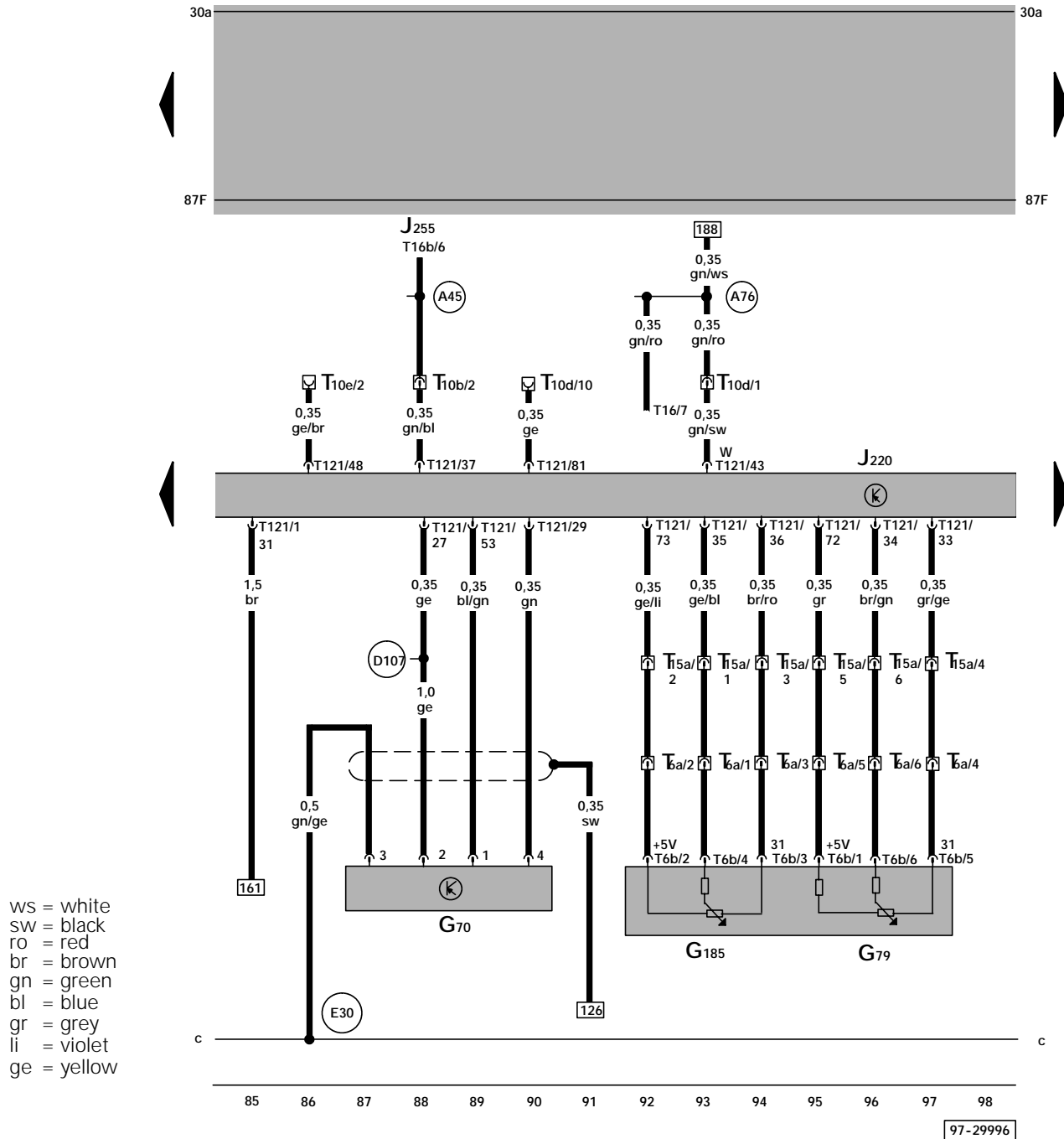
87F



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

- J220 - Motronic Engine Control Module (ECM)
- N80 - Evaporative Emission (EVAP) Canister Purge Regulator Valve
- N156 - Intake Manifold Change-Over Valve
- N205 - Valve -1- for camshaft adjustment
- N208 - Valve -2- for camshaft adjustment
- T6o - 6-Pin Connector, brown, connector station A-pillar, right
- T10e - 10-Pin Connector, orange, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- V144 - Leak Detection Pump (LDP)

E30 - Connector (87a), in wiring harness engine

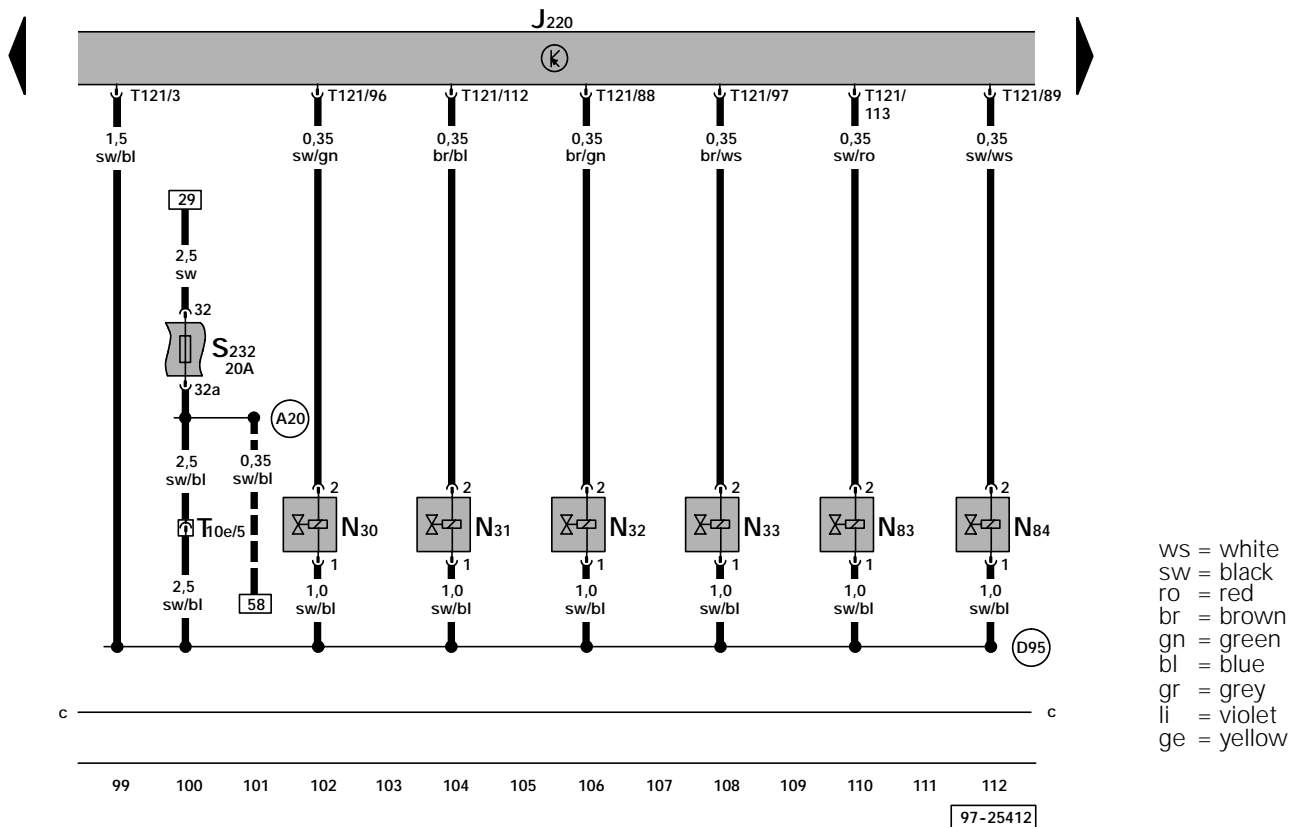


ws = white
 sw = black
 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = violet
 ge = yellow

97-29996

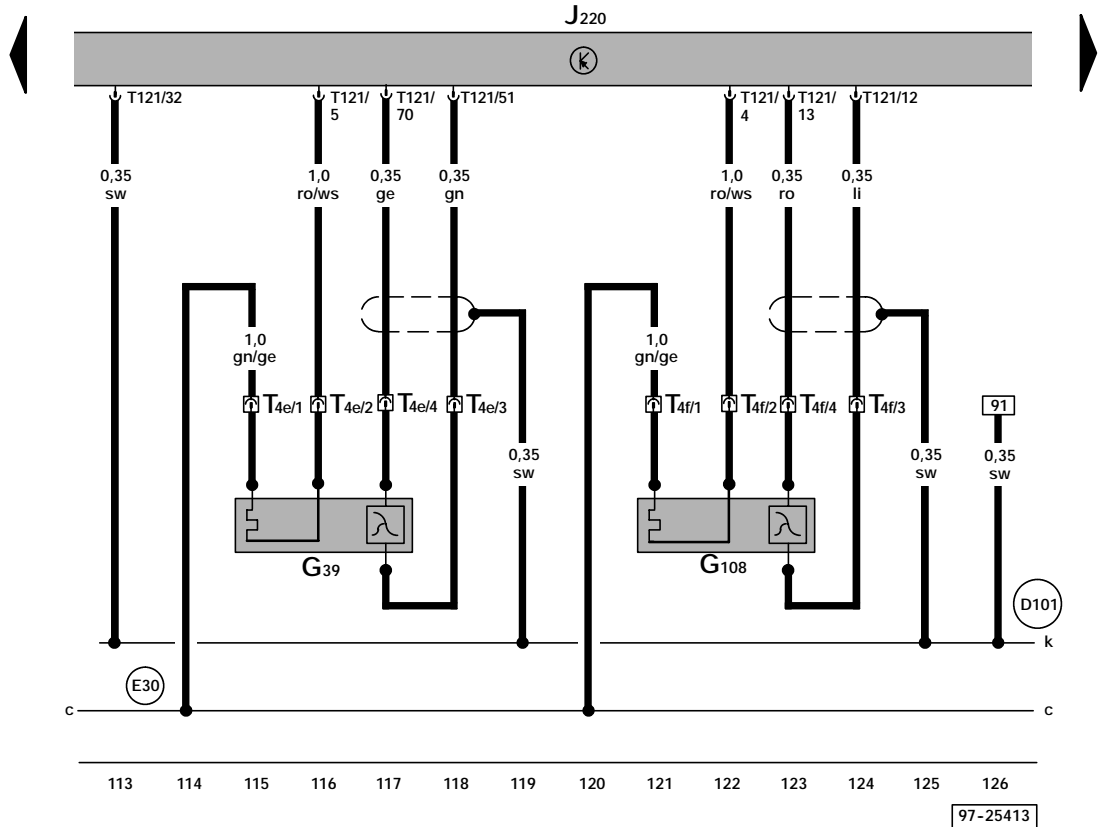
- G70 - Mass Air Flow (MAF) Sensor
- G79 - Throttle Position (TP) Sensor
- G185 - Sender -2- for accelerator pedal position
- J220 - Motronic Engine Control Module (ECM)
- J255 - Climatronic Control Module
- T6a - 6-Pin Connector
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left
- T10d - 10-Pin Connector, brown, on protective housing for control module, in engine compartment, left
- T10e - 10-Pin Connector, orange, on protective housing for control module, in engine compartment, left
- T15a - 15-Pin Connector, white, on protective housing for control module, in engine compartment, left
- T16 - 16-Pin Connector, Data Link Connector (DLC), below instrument panel, left

- T16b - 16-Pin Connector, on Climatronic Control Module
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- (A45) - wire connection (RPM-signal), in instrument panel wiring harness
- (A76) - Connector (K-diagnosis wire), in instrument panel wiring harness
- (D107) - wire connection -5-, in engine compartment wiring harness
- (E30) - Connector (87a), in wiring harness engine



- J220 - Motronic Engine Control Module (ECM)
- N30 - Cylinder 1 Fuel Injector
- N31 - Cylinder 2 Fuel Injector
- N32 - Cylinder 3 Fuel Injector
- N33 - Cylinder 4 Fuel Injector
- N83 - Cylinder 5 Fuel Injector
- N84 - Cylinder 6 Fuel Injector
- S232 - Fuse 32 in fuse holder
- T10e - 10-Pin Connector, orange, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)

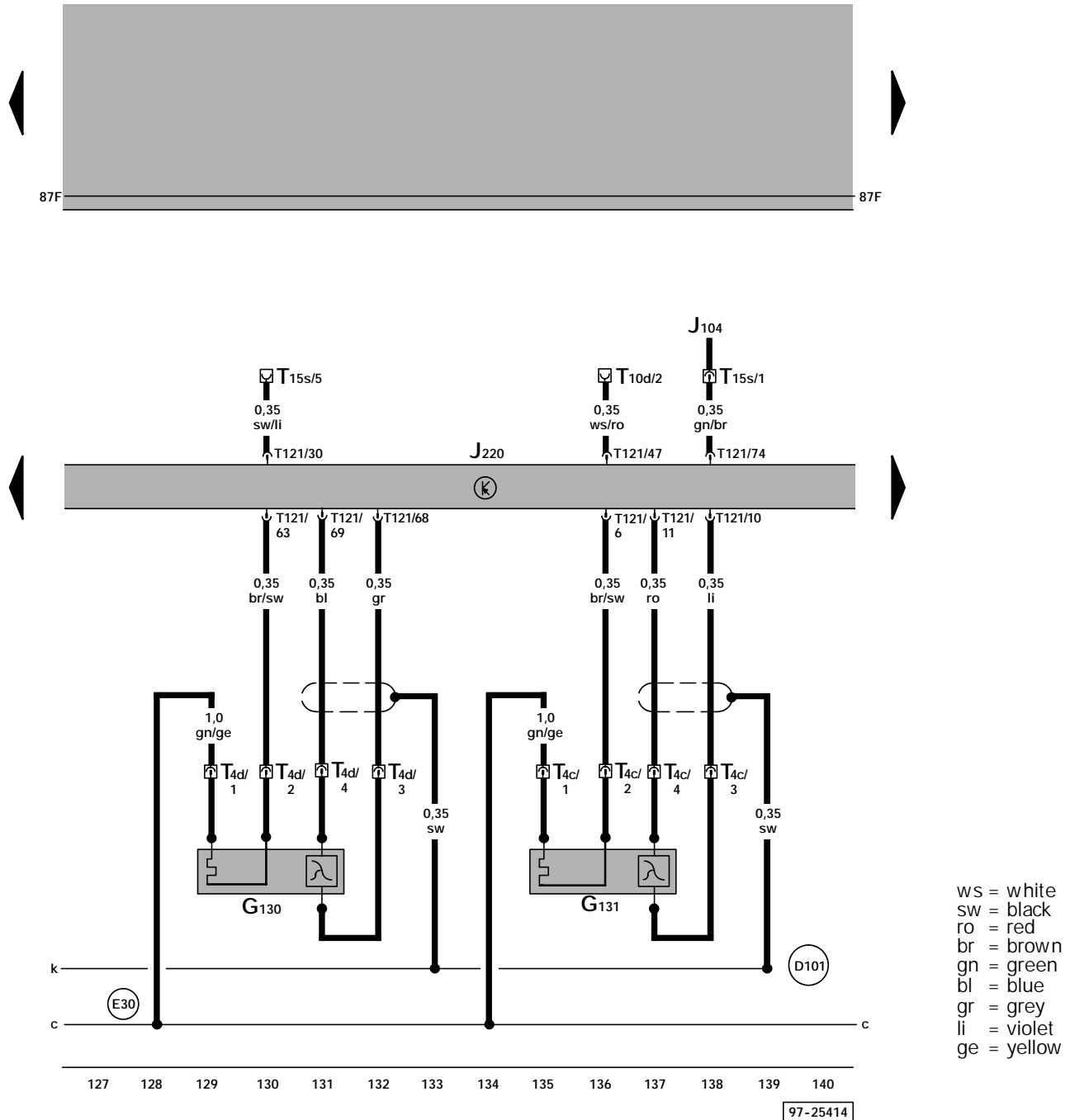
- (A20) - wire connection (15a), in instrument panel wiring harness
- (D95) - wire connection (injectors), in engine compartment wiring harness
- - - - - cruise control only



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

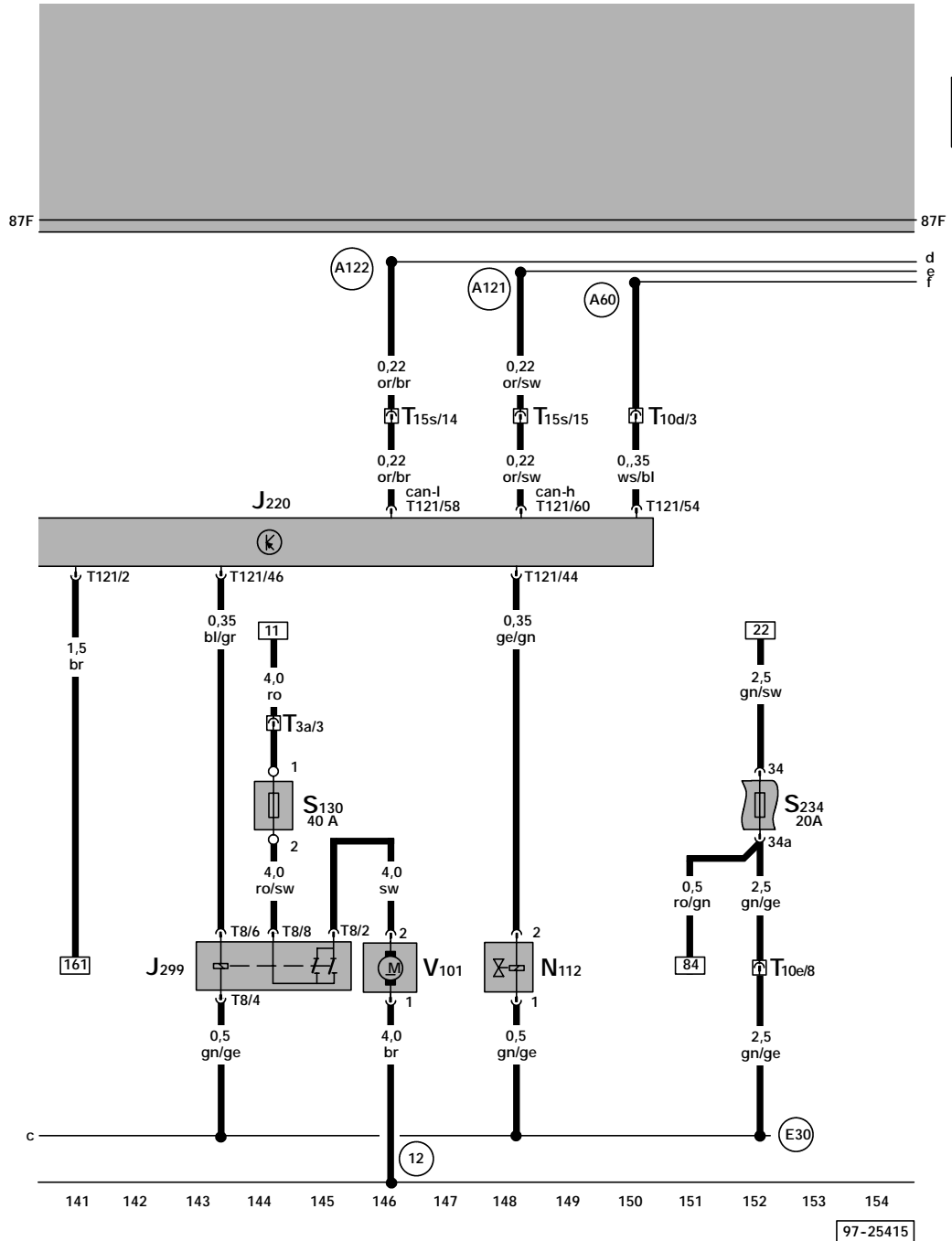
- G39 - Heated Oxygen Sensor (HO2S)
- G108 - Heated Oxygen Sensor (HO2S) 2
- J220 - Motronic Engine Control Module (ECM)
- T4e - 4-Pin Connector, black
- T4f - 4-Pin Connector, black
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)

- (D101) - wire connection -1-, in engine compartment wiring harness
- (E30) - Connector (87a), in wiring harness engine



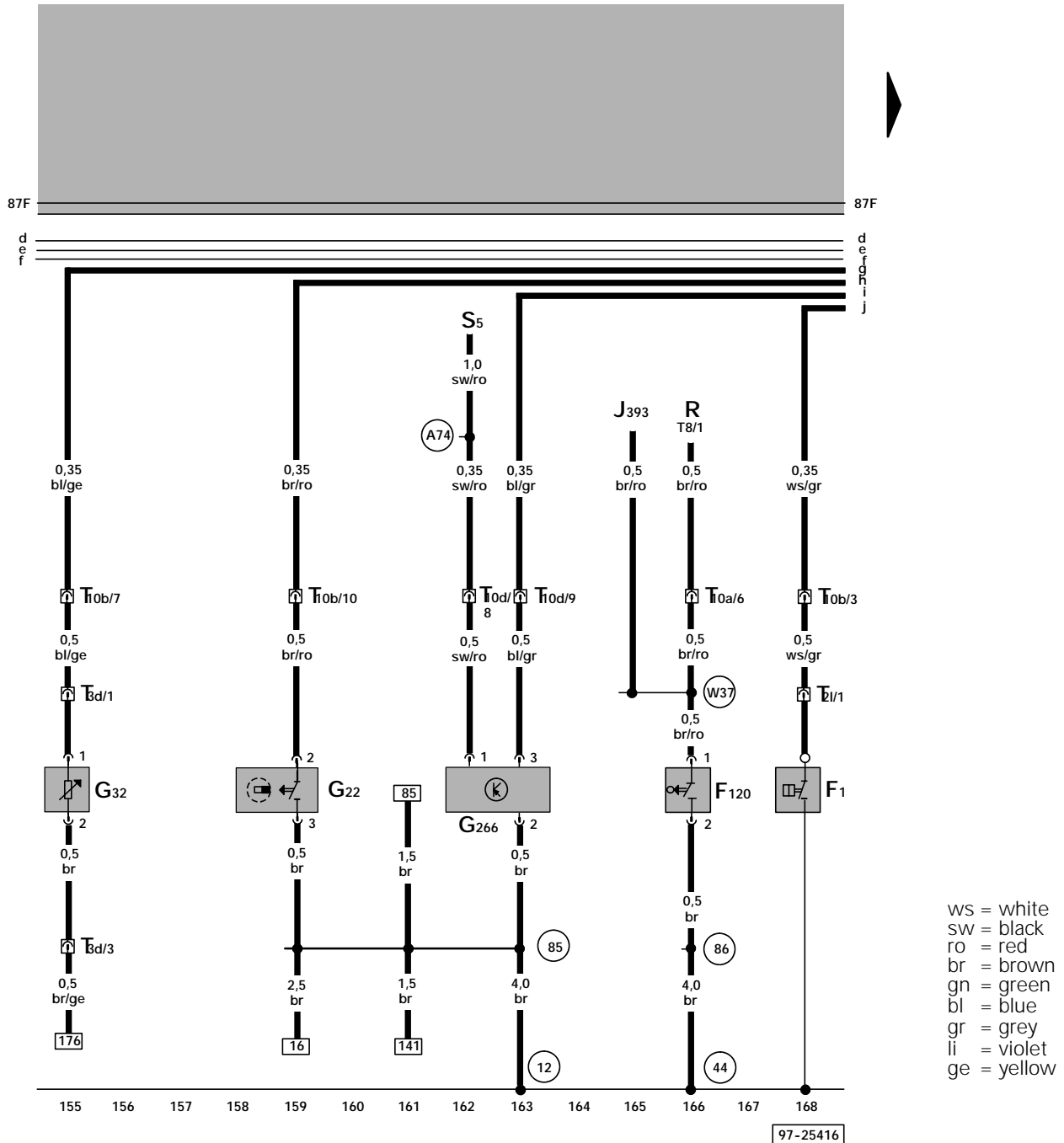
- G130 - Oxygen Sensor (O2S) Behind Three Way Catalytic Converter (TWC)
- G131 - Oxygen Sensor (O2S) 2 Behind Three Way Catalytic Converter (TWC)
- J104 - ABS Control Module (w/EDL)
- J220 - Motronic Engine Control Module (ECM)
- T4c - 4-Pin Connector, green
- T4d - 4-Pin Connector, brown
- T10d - 10-Pin Connector, brown, on protective housing for control module, in engine compartment, left
- T15s - 15-Pin Connector, red, on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)

- (D101) - wire connection -1-, in engine compartment wiring harness
- (E30) - Connector (87a), in wiring harness engine



- J220 - Motronic Engine Control Module (ECM)
- J299 - Secondary Air Injection (AIR) Pump Relay
- N112 - Secondary Air Injection (AIR) Solenoid Valve
- S130 - Fuse for secondary air pump, in fuse adaptor In ECM Box
- S234 - Fuse 34 in fuse holder
- T3a - 3-Pin Connector,
- T8 - 8-Pin Connector, black on Radio
- T10d - 10-Pin Connector, brown, on protective housing for control module, in engine compartment, left
- T10e - 10-Pin Connector, yellow, on protective housing for control module, in engine compartment, left
- T15s - 15-Pin Connector, red, , on protective housing for control module, in engine compartment, left
- T121 - Connector, 121 point, on Motronic Engine Control Module (ECM)
- V101 - Secondary Air Injection (AIR) Pump Motor

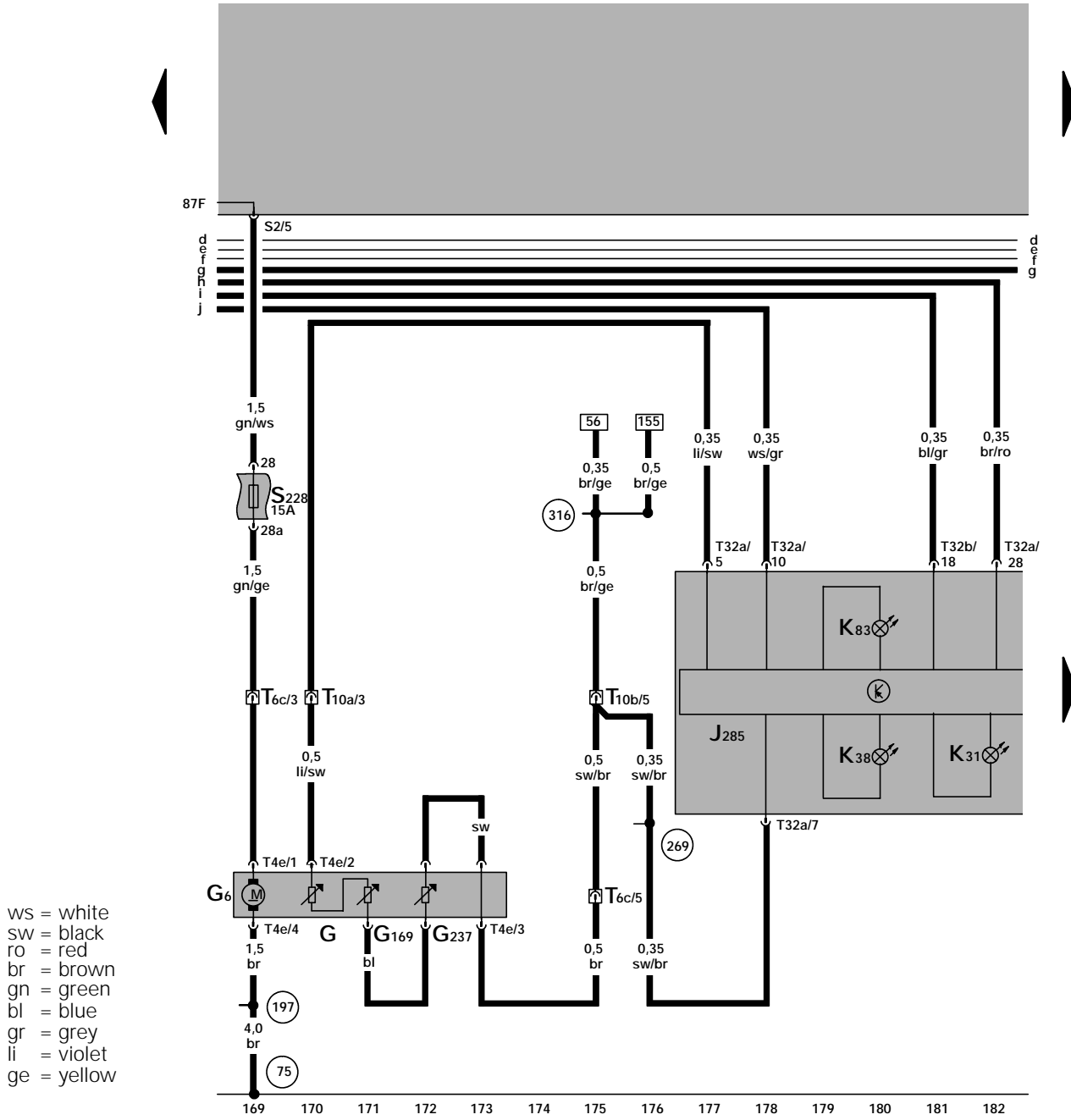
- 12 - Ground connection, in engine compartment, left
- A60 - Wire connection (Vehicle speed signal), in instrument cluster wiring harness
- A121 - Connection (high bus) in instrument panel wiring harness
- A122 - Connection (low bus) in instrument panel wiring harness
- E30 - Connector (87a), in wiring harness engine



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

- F1 - Oil Pressure Switch
- F120 - Hood Alarm Switch
- G22 - Speedometer Vehicle Speed Sensor (VSS)
- G32 - Engine Coolant Level (ECL) Sensor
- G266 - Oil Level Thermal Sensor (SRI)
- J393 - Central control module for comfort system
- R - Radio
- S5 - Fuse
- T2l - Double Connector, black
- T3d - 3-Pin Connector, in engine compartment, left
- T8 - 8-Pin Connector, black, on radio
- T10a - 10-Pin Connector, brown, connector station A-pillar, left
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left
- T10d - 10-Pin Connector, brown, on protective housing for control module, in engine compartment, left

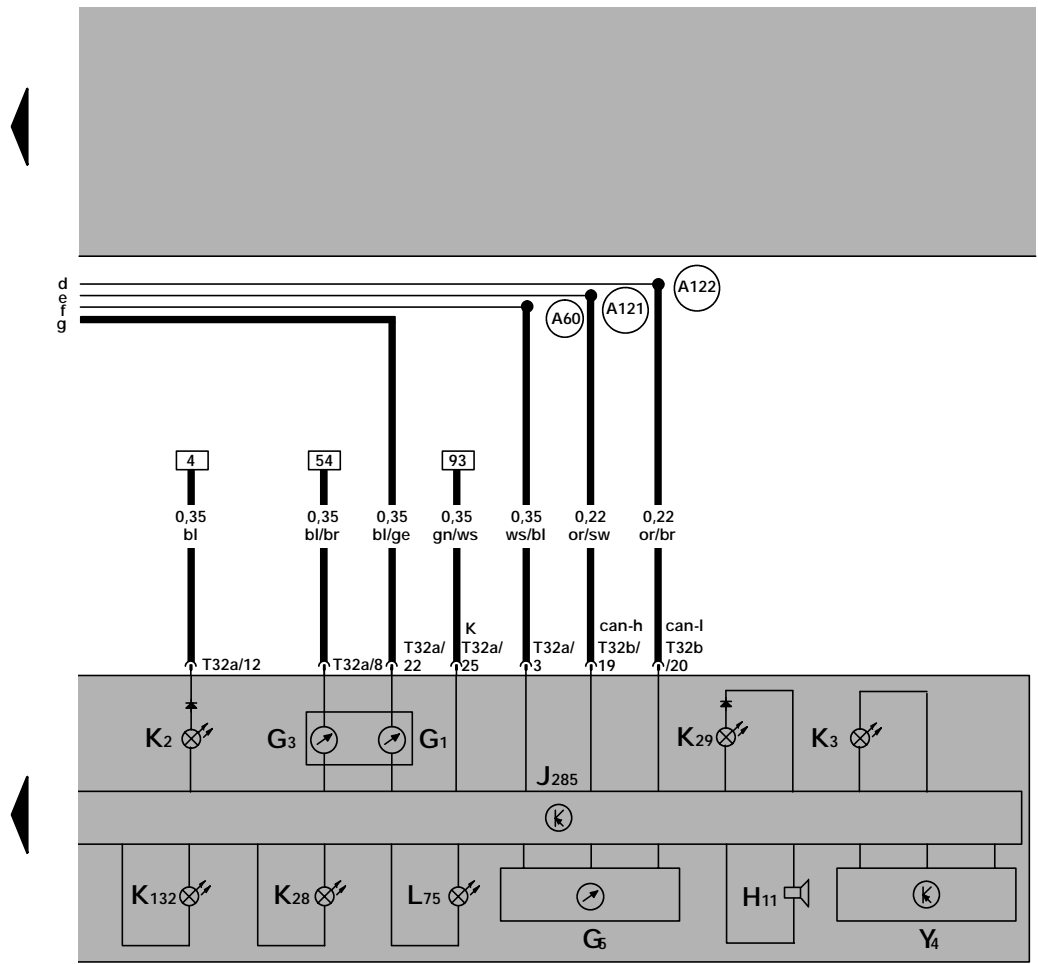
- (12) - Ground connection, in engine compartment, left
- (44) - Ground connection, on left A-pillar, lower part
- (85) - Ground connection, -1-, in engine compartment wiring harness
- (86) - Ground connection, -1-, in rear compartment wiring harness
- (A74) - Connector (15a - fuse 5), in instrument panel wiring harness
- (W37) - Connection (DWA - alarm system) in floor wiring harness



97-26825

- G - Sender for fuel gauge
- G6 - Fuel Pump (FP)
- G169 - Sender -2- for fuel supply
- G237 - Sensor -3- for fuel supply
- J285 - Control module with indicator unit in instrument panel insert
- K31 - Cruise Control Indicator Light
- K38 - Engine Oil Level Indicator Light
- K83 - Malfunction Indicator Lamp (MIL)
- S228 - Fuse 28 in fuse holder
- T4e - 4-Pin Connector, on Sender for fuel gauge
- T6c - 6-Pin Connector, blue, connector station A-pillar, left
- T10a - 10-Pin Connector, brown, connector station A-pillar, left
- T10b - 10-Pin Connector, black, on protective housing for control module, in engine compartment, left

- T32a - 32-Pin Connector, blue, on instrument cluster
- T32b - 32-Pin Connector, green, on instrument cluster
- (75) - Ground connection, on right rear pillar
- (197) - Ground connection -4-, in wiring harness rear
- (269) - Ground connection (sensor ground) -1-, in instrument panel wiring harness
- (316) - Ground connection (sensor ground -2-), in engine compartment wiring harness



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

183 184 185 186 187 188 189 190 191 192 193 194 195 196

97-26826

- G1 - Fuel gauge
- G3 - Engine Coolant Temperature (ECT) Gauge
- 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
- K132 - Electronic Power Control (EPC) Warning Lamp
- L75 - Digital Display Light
- T32a - 32-Pin Connector, blue, on instrument cluster
- T32b - 32-Pin Connector, green, on instrument cluster
- Y4 - Odometer Display

- (A60) - Wire connection (Vehicle speed signal), in instrument cluster wiring harness
- (A121) - Connection (high bus) in instrument panel wiring harness
- (A122) - Connection (low bus) in instrument panel wiring harness