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”.

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
No. 32/2  Wiring diagram  Golf/Jetta

A - Battery
B - Starter
C - Generator (GEN)
C1 - Voltage Regulator (VR)
D - Ignition/Starter Switch
J207 - Starting Interlock Relay
S162 - Fuse-1- (30) in fuse bracket/battery
S163 - Fuse-2- (30) in fuse bracket/battery
S176 - Fuse-4- (30) in fuse bracket/battery
S177 - Fuse-5- (30) in fuse bracket/battery
T2e - Double Connector, near starter (vehicles without air conditioning)
T4 - 4-Pin Connector, near starter (vehicles with air conditioning only)
T6 - 6-Pin Connector, brown, in protective housing for connectors, in plenum chamber, left

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

- Ground connection, beside steering column
- Ground connection, on steering column
- Ground connection -1-, in instrument panel wiring harness
- Ground connection -2-, in instrument panel wiring harness
- Threaded connection -1- (30) on the relay plate
- Beginning May 2000
- Through April 2000

Edition 09/01
USA.5102.11.21
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
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
A96 - 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

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

Edition 09/01
USA.5102.11.21

Glow plug relay, glow plugs (engine)
No. 32/4  Wiring diagram  Golf/Jetta

Diesel direct fuel injection (DFI) engine control module (ECM), power supply (terminal 30, B+), relay, fuel temperature sensor, quantity adjuster, modulating piston displacement sensor

Edition 09/01
USA.5102.11.21

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
Golf/Jetta

Wiring diagram

No. 32/5

Edition 09/01
USA.5102.11.21

Diesel direct fuel injection (DFI) engine control module (ECM), engine coolant temperature (ECT) sensor, intake air temperature (IAT) sensor, manifold absolute pressure (MAP) sensor
Diezel direct fuel injection (DFI) engine control module (ECM)

- J104 - ABS Control Module (w/EDL), in engine compartment, left
- J248 - Diesel Direct Fuel Injection (DFI) Engine Control Module (ECM), in plenum chamber, center
- 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
- T10w - 10-Pin Connector, white, in protective housing for connectors, in plenum chamber, left
- T25 - 25-Pin Connector, on ABS Control Module (through July 2000)
- T47a - 47-Pin Connector, on ABS Control Module (beginning August 2000)
- T121 - Connector, 121 point

- A121 - Connection (high bus), in instrument panel wiring harness
- A122 - Connection (low bus), in instrument panel wiring harness
- D74 - Wire connection (86), in engine compartment wiring harness
- Q - Coolant Fan Control (FC) Control Module connection
- QQ - A/C connection
Golf/Jetta

Wiring diagram

No. 32/7

---

Edition 08/99
USA.5102.04.21

Diesel direct fuel injection (DFI) engine control module (ECM), kick down switch, (CTP) switch, engine speed (RPM) sensor, throttle position (TP) sensor, needle lift sensor

---

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
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

(DFI) engine control module (ECM), mass air flow sensor, change-over valve for intake manifold flap, wastegate bypass regulator valve, EGR vacuum regulator solenoid valve
**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

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

**- Vehicles with cruise control only**

Edition 08/99
USA.5102.04.21

Diesel direct fuel injection (DFI) engine control module (ECM), cruise control switch, clutch vacuum vent valve switch, cold start injector, fuel cut-off valve
Diesel direct fuel injection (DFI) engine control module (ECM), brake light switch, brake vacuum vent valve switch for cruise control/diesel, glow plugs (coolant)

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
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
Fuel level sensor, engine coolant level (ECL) sensor

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

Connection (86) in passenger compartment wiring harness
- Vehicles with Multi-Function Indicator (MFI) only

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

ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = lilac
gle = yellow
or = orange
Instrument cluster, oil pressure switch, speedometer vehicle speed sensor, generator (GEN) warning light, engine coolant level/temperature (ECL/ECT) warning light

Edition 09/01
USA.5102.11.21
**Golf/Jetta**  
*Wiring diagram*

**Edition 08/99**  
USA.5102.04.21

- **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

---

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

---

**USA.5102.04.21**  
Edition 08/99

**Instrument cluster, engine coolant temperature (ECT) gauge, fuel gauge, tachometer, speedometer, glow plug indicator light**