**Contents**

NOTE:
Diesel circuitry is generally = GLE

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuses and related circuits</td>
<td>DL, GL, GLT 2</td>
</tr>
<tr>
<td></td>
<td>GLE, Coupe 3</td>
</tr>
<tr>
<td>How to use the diagrams</td>
<td>4</td>
</tr>
<tr>
<td>Alternator circuits (main wiring)</td>
<td>6</td>
</tr>
<tr>
<td>Starting circuits</td>
<td>8</td>
</tr>
<tr>
<td>Diesel: starting and glow plug system</td>
<td>10</td>
</tr>
<tr>
<td>CI fuel injection system</td>
<td>B21F, B23E 12</td>
</tr>
<tr>
<td></td>
<td>B28F 14</td>
</tr>
<tr>
<td>Oxygen sensor feedback system (Lambda-sond)</td>
<td>B21F 16</td>
</tr>
<tr>
<td></td>
<td>B21F-Turbo 18</td>
</tr>
<tr>
<td></td>
<td>B28F 20</td>
</tr>
<tr>
<td>Ignition system, w. breaker points</td>
<td>B21A, 22</td>
</tr>
<tr>
<td>breakerless electronic</td>
<td>B21F, B21F-Turbo 24</td>
</tr>
<tr>
<td>computer controlled</td>
<td>B23E (Canada)</td>
</tr>
<tr>
<td>breakerless electronic</td>
<td>B21F-MPG 26</td>
</tr>
<tr>
<td></td>
<td>B28F 28</td>
</tr>
<tr>
<td>Constant Idle Speed (CIS) System</td>
<td>B21F, B21F-MPG 30</td>
</tr>
<tr>
<td></td>
<td>B21F-Turbo 32</td>
</tr>
<tr>
<td></td>
<td>B28F 34</td>
</tr>
<tr>
<td>Lights</td>
<td>36</td>
</tr>
<tr>
<td>Headlights</td>
<td>38</td>
</tr>
<tr>
<td>Parking lights, tail lights,</td>
<td>DL, GL</td>
</tr>
<tr>
<td>license plate lights</td>
<td>GLE, GLT, Coupe 40</td>
</tr>
<tr>
<td>Parking light, tail lights, license plate lights</td>
<td>Wagon 42</td>
</tr>
<tr>
<td>Brake lights</td>
<td>DL, GL 44</td>
</tr>
<tr>
<td></td>
<td>GLE, GLT, Coupe 46</td>
</tr>
<tr>
<td></td>
<td>Wagon 48</td>
</tr>
<tr>
<td>Back-up lights, manual transmission</td>
<td>DL, GL 50</td>
</tr>
<tr>
<td></td>
<td>GLE, GLT, Coupe 52</td>
</tr>
<tr>
<td></td>
<td>Wagon 54</td>
</tr>
<tr>
<td>automatic transmission</td>
<td>DL, GL 56</td>
</tr>
<tr>
<td></td>
<td>GLE, Coupe 58</td>
</tr>
<tr>
<td></td>
<td>Wagon 60</td>
</tr>
<tr>
<td>Interior light</td>
<td>DL, GL, GLT 62</td>
</tr>
<tr>
<td>Rear interior light</td>
<td>Wagon 64</td>
</tr>
<tr>
<td>Delayed interior light</td>
<td>GLE, Coupe 66</td>
</tr>
<tr>
<td></td>
<td>Coupe 68</td>
</tr>
<tr>
<td>Engine compartment light, trunk light</td>
<td>70</td>
</tr>
<tr>
<td>Glove box light</td>
<td>72</td>
</tr>
<tr>
<td>Instrument lights, lights on controls</td>
<td>74</td>
</tr>
</tbody>
</table>

TP 30316/1
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Items associated with instrument panel
Instrument cluster ................................................................. 6
Oil pressure gauge ................................................................. 78
Voltmeter .............................................................................. 80
Ambient temperature gauge .................................................. 82
Clock ..................................................................................... 84
Cigarette lighter ................................................................. 86

Warning systems
Bulb failure warning system .................................................. 88
Brake failure warning system ............................................... 90
Seat belt warning system ....................................................... 92
Ignition key and light warning buzzer ..................................... 94

Signals
Turn signals and hazard warning flashers ................................ 96
Horn ..................................................................................... 98
Wagon ................................................................................... 100

Wiper/washer
Windshield wiper and washer ............................................... 102
- operation modes .............................................................. 104
Tail gate window wiper and washer
- With interval relay ............................................................ 106
- Without interval relay ......................................................... 108

Electrical equipment
Overdrive .............................................................................. 110
Heater blower ....................................................................... 112
Air conditioning .................................................................... 114
- operation modes .............................................................. 116
Rear demist ............................................................................ 118
Electrically heated driver’s seat ............................................ 120
Electrically heated passenger seat ......................................... 122
Electrically operated side mirrors ......................................... 124
Window lifts, 2-door ............................................................ 126
- 4-door .............................................................................. 128
Central lock, 4/5-door .......................................................... 130
- operation modes .............................................................. 132
Coupe .................................................................................... 134
- operation modes .............................................................. 136
Cruise control ....................................................................... 138
- operation modes .............................................................. 140
Radio and power antenna ..................................................... 142
Electric cooling fan ............................................................. 144
Locations for relays, buzzers, control units etc ..................... 146
Locations for Electronic Control Units ................................ 148
Wiring harnesses .................................................................. 149

Master wiring diagram
Contents .............................................................................. 153
Alphabetical index ................................................................... 154
Wiring diagrams and locators .............................................. 156
Master wiring diagram, fold-out sheet .................................. End of manual
Fuses and related circuits
DL, GL (GLT except rear lights)

Connection Box on Left Wheel Housing

Light Switch

Ignition Switch

TO Upper/Lower Beam Switch Relay

Red 14

Red 12

Yellow 16

Black 15

Blue 16

Blue-Yellow 12

TO Starter Motor

86 Cigarette lighter
106, 108 Tail gate wiper/washer
124 El. op. side mirrors
142 Radio, antenna

102 Windshield wiper/washer
100 Horn

92 Seat belt warning
94 Ignition key buzzer

62-64 Relay, interior light
44 Brake light
48 - Wagon

62, 64 Interior light
72 Glove box light
70 Trunk light
70 Engine compartment light
84 Clock
130-136 Central locks

126 Window lifts, 2-door
128 Window lifts, 4-door

110 Overdrive
118 Rear demist

50, 56 Back-up lights
60 - Wagon

50, 56 Back-up lights
60 - Wagon

126-128 Relay, window lifts
120 Seat heater, driver
114 Air conditioning

76 Instruments
96 Turn signals
92 Seat belt warning
12 Relay fuel injection
30, 32 CIS system

78 Oil pressure gauge
80 Voltmeter
82 Ambient temperature gauge

38, 42 Parking light, left side
38, 42 License plate light

38, 42 Parking light, right side
74 Instrument lights
74 Lights on controls
94 Buzzer, headlight

Group 39
Wiring diagrams 1981
How to use the diagrams

Left page
Illustrates the electrical circuit.
De-energized condition is shown at top of page. Energized condition(s) at bottom of page.

Legend:
A Fuse box
B Ignition switch
C Blower motor
D Switch

1. Low speed
2. Medium speed
3. High speed
4. Highest speed

Fused components

Fuse No. 3:
Heater blower

Fuse No. 12:
Back-up lights
Relay, window lifts
Seat heater
Air conditioning

Wire color and size (gauge).
Note: Where conversion from metric does not correspond to actual gauge size, nearest gauge size is indicated.

Current flow in energized condition
How to use the diagrams

Right page
Illustrates the physical location of the components in the vehicle and the exact routing of the wiring harness. Each component is shown with terminals and connections.

Component location and routing of wiring harness

Component terminals and wire connections

Letters facilitate referencing components on either page
Alternator circuits

Fuse No. 13:
- Instruments
- Turn signals
- Seat belt warning
- Relay, fuel injection
- Solenoid valve (carburetor)

Legend:
- A Voltage regulator
- B Instrument cluster
- C Ignition switch
- D Alternator
- E Starter motor
- F Fuse box
- G Capacitor

NOTE: Voltage regulator shown in schematic is symbolic and not actual regulator. A solid state regulator is presently used.

Ignition ON (engine not running)

Alternator charging
Starting circuits

Legend:
A Ignition coil
B Remote starter pick-up point
C Ignition switch
D Starter motor
E Connector
  1 Manual transmission
  2 Automatic transmission
F Start inhibitor switch (automatic transmission)
G Ballast resistor

Automatic transmission: start inhibitor switch circuit closed.

First step:
Solenoid pushes starter motor gear into contact with ring gear.

Second step:
Gears connected, starter motor contacts close, starter operates.

Ignition coil voltage supplied from starter motor terminal 16.
Glow plug system Diesel

Fuse No. 13:
Instruments
Turn signals
Seat belt warning
Control unit, Diesel

Start key ON
Coolant temperature below +50°C = 122°F

Legend:
A Temperature sensor
B Stop valve
C Indicator light
D Start switch
E Glow plug
F Glow plug relay
G Remote starter pick-up point
H Control unit
I Fuse box

Start motor operating
Engine running
Cl fuel injection system
B21F, B23E

Legend:

A Thermal time switch
B Fuel feed pump (tank pump)
C Connector
D Connector
D1 Capacitor
E Starter motor
F Ignition switch
G Fuel pump (main pump)
H Fuse box
J Electronic pump relay
K Overload protection switch (Turbo only)
L Control pressure regulator
M Cold start injector
N Ignition electronic module
O Distributor
P Auxiliary air valve
R Ignition coil

Engine stalled (ignition on, but engine not running)

Fuse No. 5:
Fuel feed pump (tank pump)

Fuse No. 7:
Fuel pump (main pump)

Fuse No. 13:
Instruments
Turn signals
Seat belt warning
Relay, fuel injection

Starting engine cold

Starting engine warm

Engine running

12 Group 39
Wiring diagrams 1981
Cl fuel injection system

**Legend:**
- A Fuel feed pump (tank pump)
- B Connector
- C Capacitor
- D Electronic pump relay
- E Ignition switch
- F Fuel pump (main pump)
- G Starter motor
- H Thermal time switch
- J Cold start injector
- K Control pressure regulator
- L Distributor
- M Auxiliary air valve
- N Ignition coil
- O Impulse relay
- P Ignition electronic module
- R Connector

**Fuse No. 5:**
Fuel feed pump (tank pump)

**Fuse No. 7:**
Fuel pump (main pump)

**Fuse No. 13:**
- Instruments
- Turn signals
- Seat belt warning
- Relay, fuel injection

**Engine stalled**
(ignition on, but engine not running)

Starting engine
cold

Starting engine
warm
Oxygen sensor feedback system
(Lambda-sond)
B21F

Fuse No. 7:
Fuel pump (main pump)

Legend:
A Electronic module
B Ground points
C Frequency valve
D Fuse box
E Test instrument pick-up point
F Oxygen sensor
G Electronic pump relay
H System relay

Warm engine.
System operates on duty cycle, regulating air/fuel mixture.

Cold engine.
Circuit through thermal switch is closed = system operates on fixed cycle and provides richer air/fuel mixture.
Oxygen sensor feedback system
(Lambda-sond)
B21F-Turbo

Fuse No. 7:
Fuel pump (main pump)

Legend:
A Frequency valve
B Electronic module
C Ground points
D Pressure switch
E Test instrument pick-up point
F Fuse box
G Oxygen sensor
H System relay
J Electronic pump relay

Acceleration.
Increasing compressor discharge pressure causes pressure switch to ground terminal 7 of Electronic module. This will cause Lambda system to operate on special fixed cycle and provide enrichment.

Normal driving.
Oxygen sensor feedback system (Lambda-sond) B28F

Fuse No. 7:
Fuel pump (main pump)

Legend:
A Electronic module
B Frequency valve
C Thermal switch
D Oxygen sensor
E Electronic pump relay
F Fuse box
G System relay
H Test instrument pick-up point
J Micro switch (for enrichment at maximum acceleration)
K Ground points

Cold engine.
Circuit through thermal switch is closed = system operates on fixed cycle and provides richer air/fuel mixture.

Maximum acceleration.
Circuit through micro switch is closed = system operates on fixed cycle and provides richer air/fuel mixture.
Oxygen sensor feedback system
B28F

Diagram showing various components and parts labeled A through G.
Ignition system with breaker points, B21A

**Legend:**
A Ignition coil
B Ignition switch
C Distributor
D Starter motor
E Fuse box
F Ballast resistor

Current flows through breaker points and ignition coil. Ignition coil is energized.

Breaker points open, ignition coil discharges (sparks) through secondary winding.
Breakerless electronic ignition system
B21F and B21F–Turbo
B23E/Canada

Legend:
A Ignition electronic module
B Ignition coil with ballast resistor
C Ignition switch
D Distributor w. impulse sender
E Fuse box

Current flows through electronic module, ignition coil primary winding is energized.

Electronic module interrupts current flow, ignition coil discharges (sparks) through secondary winding.
Breakerless electronic ignition system
B21F and B21F-Turbo

A

B

C

D

E