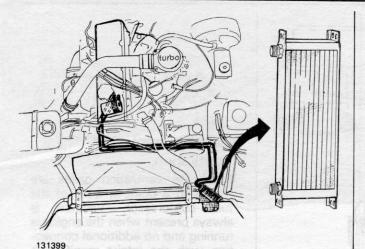


 Throw valve and any sodium contaminated tools in a bucket of water. Stand at least 3 m = 10 feet away: a sudden chemical reaction will occur.

This reaction stops within 1–2 minutes. The valve can now be scrapped.

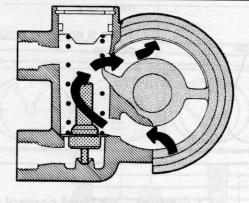
130659



#### Engine oil cooler.

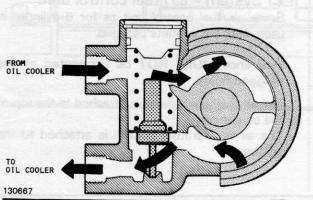
It is air cooled and located at the side of the radiator.

An engine oil thermostat located at the oil cooler fitting, controls engine oil temperature. This is accomplished by passing the engine oil through the oil cooler or by-passing the oil cooler.

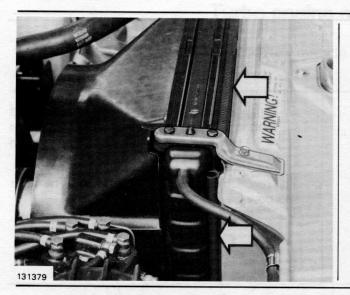


The oil cooler thermostat starts to open at approx.  $75^{\circ}C = 165^{\circ}F$  and is fully open at approx.  $90^{\circ}C = 195^{\circ}F$ .

Oil cooler thermostat closed.



- Oil cooler thermostat open.



#### Heat shield.

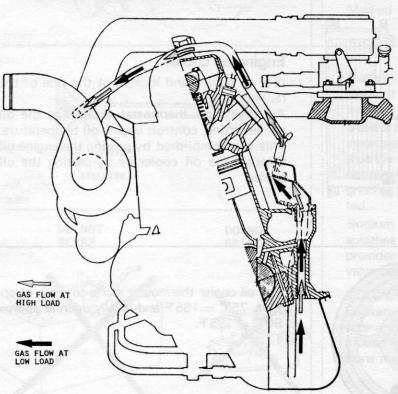
Because of heat radiation from the turbocompressor, some components are provided with heat shields, for instance the oil filter.

#### Engine support.

Heat-resistant engine mount on right side.

#### Cooling system.

Cooling air supply has been increased approx. 15% by sealing openings between radiator and vehicle front.



### Positive crankcase ventilation.

Crankcase ventilation gases are routed to a point in front of the turbo-compressor. Vacuum is always present when the engine is running and no additional connection with the intake manifold is necessary.

There is no flame protector at the oil trap.



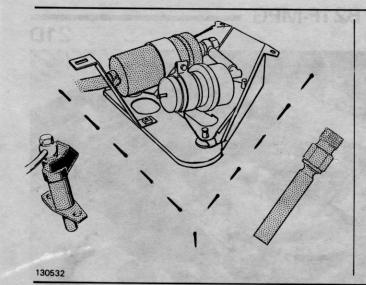
#### CI System – air/fuel control unit.

Same air/fuel control unit as for 6-cylinder is used, with two outlets plugged.

### Fuel lines MUST NOT be connected at the plugged holes.

The air /fuel control unit is attached to the top of the air cleaner.

The air temperature control is attached to the bottom.



#### CI System - fuel pump.

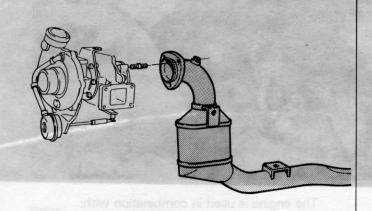
Has increased capacity, 130 liters per hour = 33 gallons per hour.

#### CI System - injectors.

Modified connection of fuel pipes and larger openings (larger quantity of fuel injected as necessary).

#### CI System - cold start injector.

Increased capacity.



#### Catalytic converter.

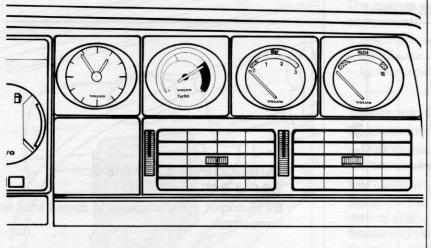
The catalytic converter is moved up close to the turbine. It is only 105 mm downstream from the turbine outlet.

A lot of heat is generated in the engine compartment and several heat shields protect equipment from excess heat.

The voltage regulator is moved to the inner wheel housing in front of the spring tower.

Motor mount cushions are made of extra heat resistant material.

130560



#### Instruments.

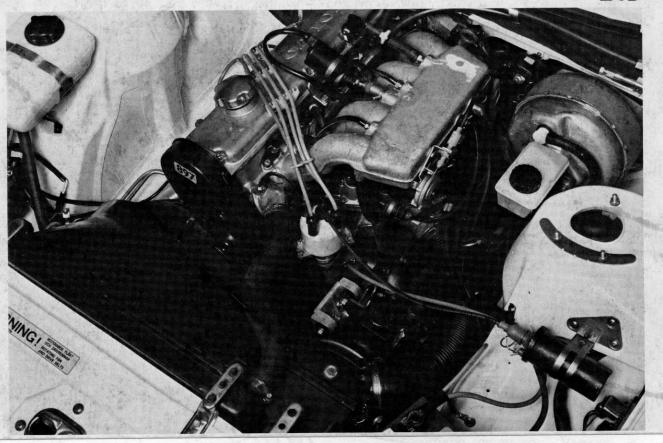
Vehicles with turbo engines are equipped with oil pressure gauge. This underlines the importance of proper oil pressure and turbocompressor lubrication at all times.

There is also a turbo pressure gauge. It helps the driver to monitor turbo conditions.

The instrument cluster is provided with a warning light which illuminates in case overpressure occurs. The overpressure switch will illuminate this light at the same time it shuts off the fuel pump to stop the engine and relieve overpressure.

### **Engine B21F-MPG**

21D

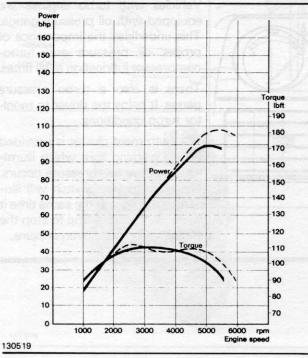


Engine B21F-"MPG" is basically a B21F engine, equipped with:

- Camshaft with A-profile.
- Computer controlled ignition system, assembled by Volvo.
- Constant Idle Speed System (CIS System).

The engine is used in combination with:

- A low first gear ratio of 4.03:1 (same as for Diesel).
- Rear axle 1030 with a low ratio of 3.54:1.
- 70 amp. alternator.

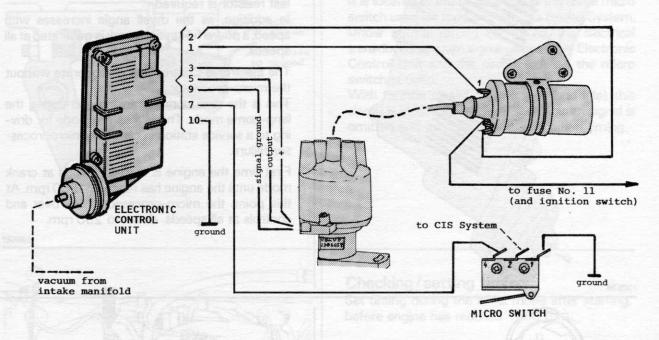


## Output curve, B21F-MPG, SAE J 245 Net.

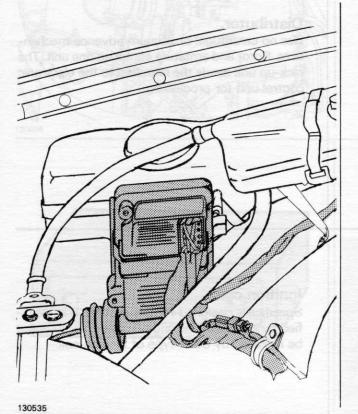
B21F output curve is shown in dotted lines for comparison.

#### Computer Controlled Ignition System.

A new type ignition system is introduced for the B21F-MPG. It is a breakerless electronic ignition system with computer controlled spark advance. The electronic control unit also controls the power flow through the ignition coil and sets the dwell angle.



130534



### Components.

The system is comprised of the following main components:

- Electronic control unit.
- Distributor.
- Ignition coil.

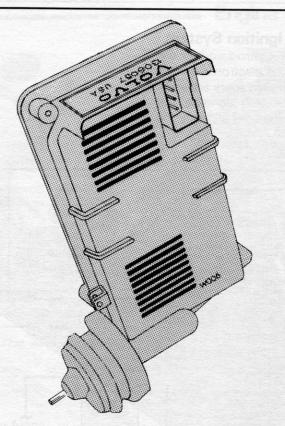
### Electronic Control Unit. Receives information from two sources:

- Distributor, on engine speed.
- Vacuum, from intake manifold, on engine load.

The vacuum signal is transduced to an electrical signal by the micro-processor in the electronic control unit.

Speed and vacuum signals are then processed in the micro-computer. The resulting information is used to control the spark advance.

Speed advance is 0° at 1000 rpm and reaches a peak of 24° at 5000 rpm. Vacuum (load) advance is 0° at 0 vacuum and reaches a peak of 22° at a vacuum of 400 mm Hg = 16" Hg.



#### Electronic control unit (cont.)

The electronic control unit also controls the dwell. It is 25° at 1000 rpm and 70° at 5000 rpm. Thus there is no excessive current flow through the ignition coil at cranking and low speeds and no ballast resistor is required.

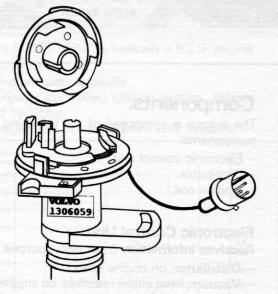
In addition, as the dwell angle increases with speed, a powerful ignition spark is generated at all speeds.

The Electronic Control Unit can operate without the micro-processor.

This is the case during cranking and during the limp-home mode. This is a safety mode for driving to a service station in case of a microprocessor failure.

First time the engine is started, it runs at crank mode until the engine has reached 1500 rpm. At this point, the micro-processor takes over and controls at all speeds, down to 250 rpm.

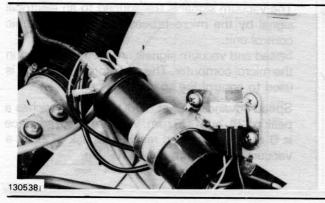




#### Distributor.

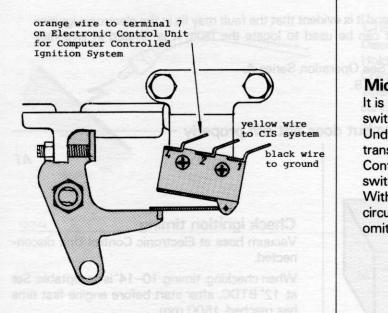
Has no centrifugal or vacuum advance mechanisms. Rotor and armature comprise one unit. The pick-up unit sends the impulses to the electronic control unit for processing.

130537



#### Ignition coil.

Specifically designed for this system. It is identified by specifications and number only. It cannot be replaced by other type of ignition coil.



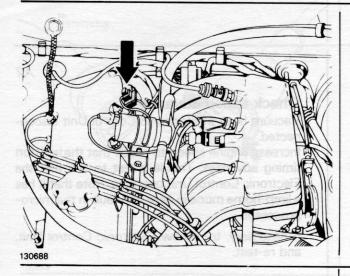
#### Micro switch.

electronic ignition system for 821F-MPG

It is located at the throttle and is the same micro switch used for the Constant Idle Speed System. Under normal driving conditions, the electrical transduced vacuum signal goes to the Electronic Control Unit and the circuit through the micro switch is open.

With throttle closed (deceleration and idle), this circuit is closed (grounded). The vacuum signal is omitted and does not influence ignition timing.

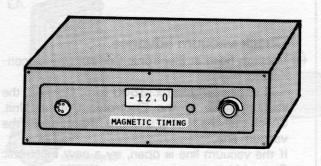




#### Checking/setting timing.

Set timing during the initial mode after starting, before engine has reached 1500 rpm.

Thus there is no influence from timing advance. It is preferred to use instruments connected to the engine's magnetic timing sensor.



Instruments used are "Magnetic Timing" Units, equipped with proper adapter.

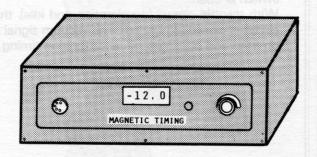
## electronic ignition system for B21F-MPG

If other fault sources have been eliminated, and it is evident that the fault may lie in the electronic ignition system, following fault tracing procedures can be used to locate the fault. It is divided in two fault categories:

- Engine starts but does not run properly. See Operation Series A.
- Engine does not start. See Operation Series B.

#### Engine starts but does not run properly

A1

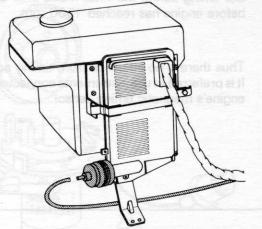


#### Check ignition timing.

Vacuum hose at Electronic Control Unit disconnected.

When checking, timing 10–14° is acceptable. Set at 12° BTDC, after start before engine first time has reached 1500 rpm.

130683



#### A2

#### Check speed advance.

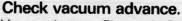
Vacuum hose at Electronic Control Unit disconnected.

Increase engine speed to check that the ignition timing advances. This is a test to see that the Electronic Control Unit operates. Note that it has a limp-home mode in case of a fault in the microprocessor.

If necessary, try a new Electronic Control Unit, and re-test.

130540

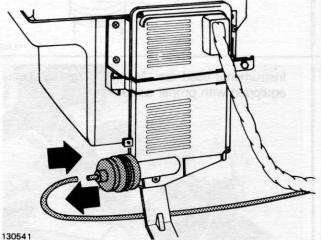




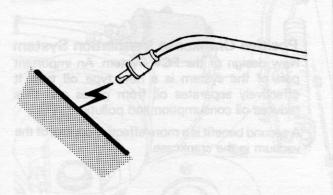
Vacuum hose at Electronic Control Unit disconnected.

Run engine at approx. 1500 rpm. Connect the vacuum hose at the Electronic Control Unit. Check that the timing changes. If not: check the vacuum line.

If the vacuum line is open, try a new Electronic Control Unit,



#### Engine does NOT start -



Check spark.

Disconnect high tension wire at distributor cap. Hold it approx.  $12\,\text{mm} = 1/2\text{"}$  from engine block. Crank engine.

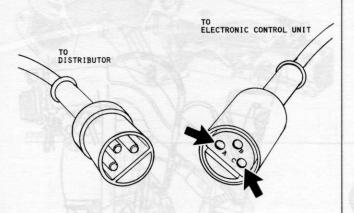
**Spark:** check that it reaches spark plugs. If necessary, check distributor rotor and cap.

No spark: proceed to B2.

130542

B2

B1



#### Eliminate distributor.

Disconnect connector at distributor.

Connect a **jumper** wire to pin A in connector going to Electronic Control Unit. With ignition ON, touch pin C repeatedly.

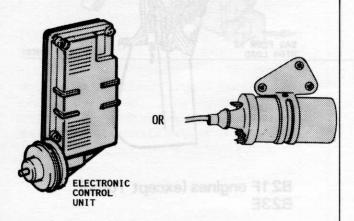
Spark: check that pin B is live.

- Live: try a new pick-up plate in distributor.
- Not live: first check wiring harness, then try a new Electronic Control Unit.

No spark: proceed to B3.

130543





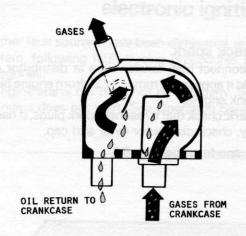
#### Eliminate wires.

Check wires and connectors carefully.

If no fault is found: try a new Electronic Control Unit.

Still no spark: try a new ignition coil.

### PCV System



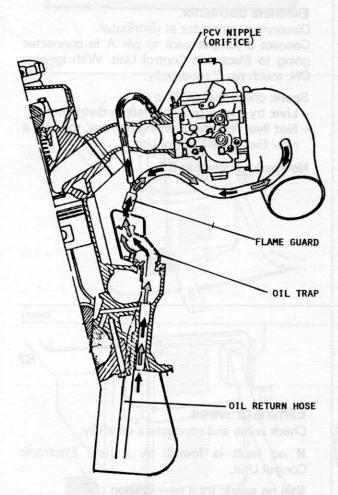
Positive Crankcase Ventilation System New design of the PCV System. An important part of the system is a new type oil trap. It effectively separates oil from gases and thus reduces oil consumption and pollution.

A second benefit is a more effective control of the vacuum in the crankcase.

130668

22A

**22B** 

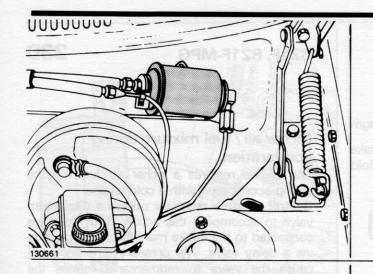


Engine B21A

GAS FLOW AT HIGH LOAD

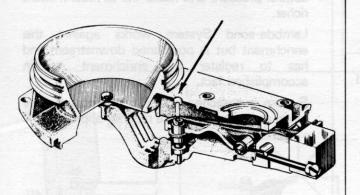
B21F engines (except Turbo) B23E

1306651



B21F B28F 23 A

Increased capacity fuel filter.



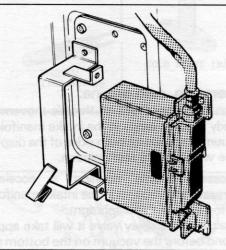
B21F B28F (except Canada) 23**B** 

#### CO adjustment sealed.

Initial CO setting is made at the factory and should then not be changed. The access hole for CO adjustment is sealed with a steel plug.

For Canada, where CO adjustment is permitted, there will be a rubber plug or other removable item.

130555

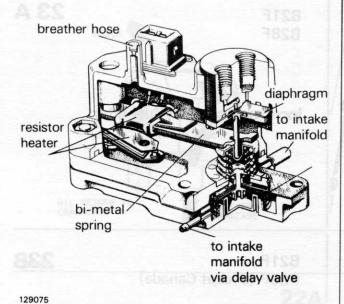


B21F B28F 23C

### Electronic modules for Lambda-sond systems.

New modules introduced to accomodate various changes to the fuel systems.

New label markings and identification numbers.



thermostatic to air. cond.
valve compensation intake manifold

delay valve

Operation, cruising at steady speed

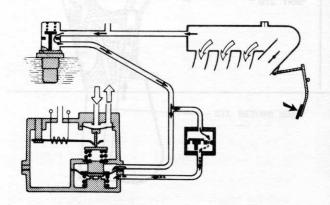
(gray side, marked DIST, from control

pressure regulator)

129073

control pressure

regulator



Operation, acceleration

129074

#### **B21F, B21F-MPG**

23D

## Richer air/fuel mixture during acceleration.

The engine requires a richer air/fuel mixture during acceleration with a cold engine.

Control pressure regulator utilizes a diaphragm valve to accomplish this action. Both sides are connected to the intake manifold, the underside via a delay valve. The pressure difference will cause the valve to momentarily reduce the control pressure and make the air/fuel mixture richer.

Lambda-sond System works against this enrichment but is positioned downstream and has to register the enrichment as an accomplished fact.

System is switched off by a thermostat valve when engine temperature reaches approx. 53 °C = 12 °F.

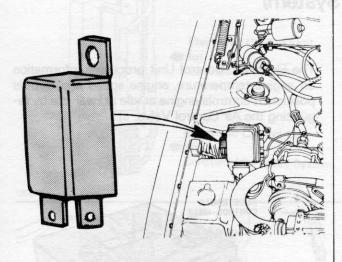
#### Operation, cold engine.

At cruising speed and no throttle movements, a steady vacuum exists in the intake manifold. This vacuum is applied on both sides of the diaphragm valve which is in a rest position.

Increased throttle opening = acceleration, decreases the vacuum in the intake manifold and the top side of the diaphragm.

Because of the delay valve it will take approx. 1 second before the vacuum on the bottom side of the diaphragm valve has equalized.

This will create a higher pressure on the top side of the diaphragm valve. The diaphragm valve moves downward, causing the control pressure regulator to open, lowering the control pressure. The air-fuel mixture is thus made richer.



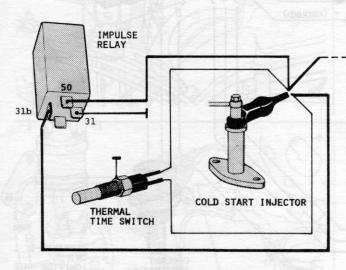
B28F 23E

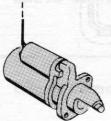
#### Enrichment at warm starts.

This system utilizes an impulse relay and the cold start injector to provide enrichment when starting an engine after it has been shut down for a while. This is especially effective after the vehicle has been parked for a couple of hours.

At warm starts, the impulse relay is engaged after approx. 1.5 seconds. It then starts to give 0.1 second of injection with 0.3 second interval.

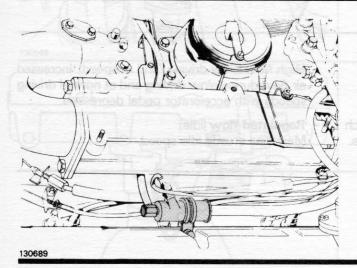
130557





The impulse relay is wired in parallel to the thermal time switch, which provides enrichment at cold starts.

130558



B<sub>28</sub>F

23F

#### New location for frequency valve.

On engine left bank. This location provides protection and easy access for listening. It is stated in the Lambda-sond Fault Tracing Manual that "if the frequency valve buzzes, something other than this system is most likely at fault".

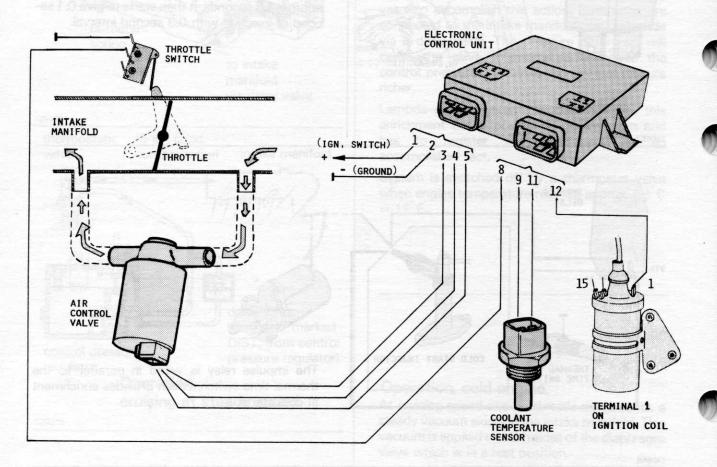
This location change was introduced as a running change during the 1980 model year and is from 1981 models on all B28F.

## Constant Idle Speed System (CIS System)

The system is comprised of the following main components:

- Electronic Control Unit.
- Air Control Valve.
- Throttle switch.
- Coolant temperature sensor.
- Distributor.

The Electronic Control Unit processes information on engine temperature, engine speed and throttle position. It controls engine at idle or near idle by regulating the Air Control Valve.

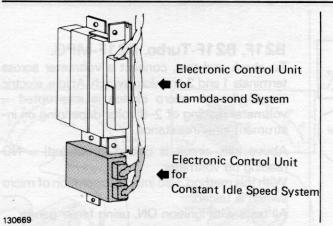


130545

#### Air flow modes.

The system has three basic air flow modes:

- Low flow (deceleration / idle).
   Reduced air flow occurs when the throttle switch circuit is closed, i.e. during deceleration and idle.
- High flow (slow driving / and at speed). Increased air flow during slow driving and at normal driving speeds with accelerator pedal depressed.
- Regulated flow (idle).
   Maintains steady idle speed.

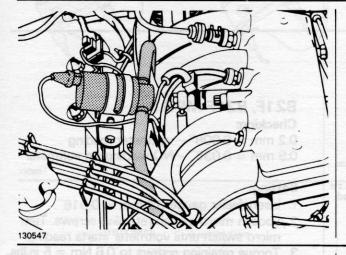


#### **Electronic Control Unit.**

Receives information from three sources:

- Coolant temperature sensor gives input to provide higher idle rpm at low temperatures.
- Terminal 1 on ignition coil provides information on engine speed.
- A micro switch at the throttle provides input when the throttle control is at idle position.

The Electronic Control Unit is located below the Control Unit for the Lambda-sond system, in front of right front door.

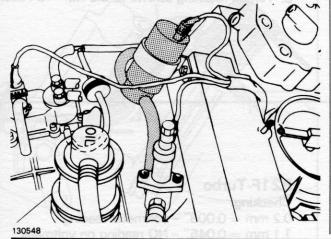


#### Air Control Valve.

Bypasses air around the throttle valve. A small electric motor rotates clockwise or counter-clockwise, depending on signal from the Electronic Control Unit.

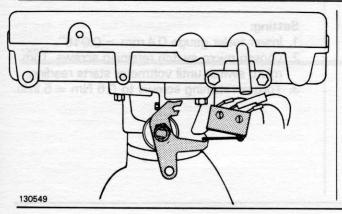
The valve responds very quickly to obtain a precise air flow.

Left: Air Control Valve for B21F.



Left: Air Control Valve for B28F.

 Air Control Unit for B21F-Turbo is located in front under intake manifold.



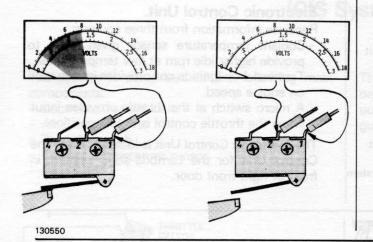
#### Throttle Switch.

The throttle actuates a micro switch which controls a circuit in the Electronic Control Unit when the throttle goes to idle position. This occurs during idle and deceleration.

For B21F, B21F-Turbo and B21F-MPG the ground circuit is interrupted at idle. For B28F it is closed at idle.

For throttle switch checking and setting, see next page.

#### Throttle switch checking and setting



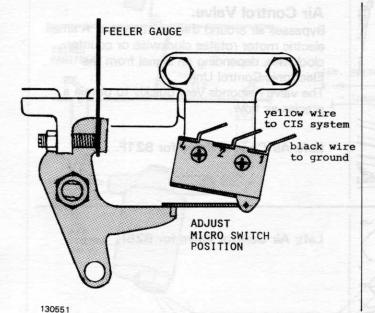
#### B21F, B21F-Turbo, B21F-MPG.

To check and test, connect a voltmeter across terminals 1 and 2 on micro switch. At idle, electric circuit through micro switch is interrupted = voltmeter reading of 2–8 volts, depending on instrument inner resistance.

Above idle, circuit is closed (grounded) = NO reading on voltmeter.

With this method, also internal operation of micro switch is tested.

All tests with ignition ON, using feeler gauge.



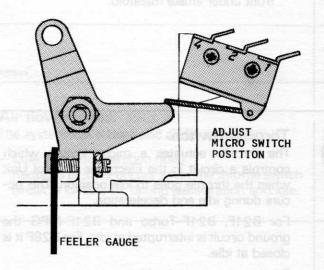
#### **B21F, B21F-MPG.**

#### Checking:

0.2 mm = 0.008" - voltmeter reading 0.9 mm = 0.036" - NO reading on voltmeter

#### Setting:

- 1. Insert feeler gauge 0.4 mm = 0.016".
- Loosen micro switch retaining screws. Turn micro switch until voltmeter starts reading.
- 3. Torque retaining screws to 0.6 Nm = 5 in.lbs.



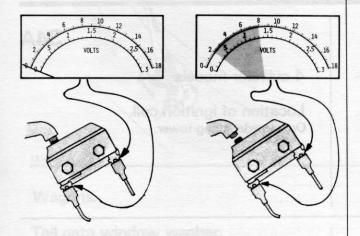
#### **B21F-Turbo**

#### Checking:

0.2 mm = 0.008" - voltmeter reading 1.1 mm = 0.045" - NO reading on voltmeter

#### Setting:

- 1. Insert feeler gauge 0.4 mm = 0.016".
- Loosen micro switch retaining screws. Turn micro switch until voltmeter starts reading.
- 3. Torque retaining screws to 0.6 Nm = 5 in.lb.



#### B28F.

airieminiani

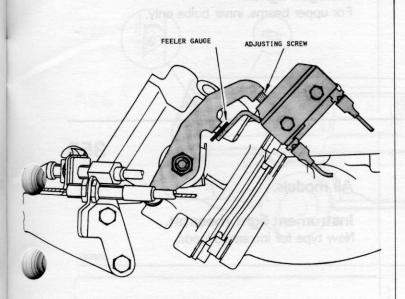
To check and test, connect a voltmeter across terminals on micro switch. At idle, electric circuit through micro switch is closed (grounded) = NO reading on voltmeter.

Above idle, circuit is interrrupted = voltmeter readings of 2–8 volts, depending on instrument inner resistance.

With this method, also internal operation of micro switch is tested.

All tests with ignition ON, using feeler gauge.

130687



#### **B28F**

#### Checking:

0.2 mm = 0.008" – NO reading on voltmeter. 0.6 mm = 0.024" – voltmeter reading.

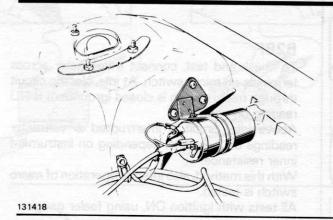
#### Setting:

- 1. Insert feeler gauge 0.3 mm = 0.012".
- 2. Turn adjusting screw until voltmeter drops to 0.
- 3. Torque lock nut to 3 Nm = 2 ft.lbs.

#### Note:

B28F is equipped with **two** micro switches actuated by the throttle control. The other micro switch closes a Lambda-sond circuit at full throttle to provide a richer air/fuel mixture at maximum acceleration.

# Section 3: Electrical system and instruments



34A

4-cylinder models

**Location of ignition coil.**On left side spring tower.

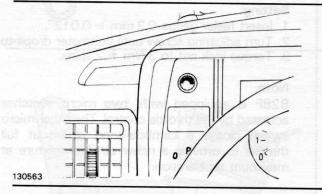




All models.

Halogen lights.

For upper beams, inner bulbs only.



All models.

Instrument light rheostat.

New type for increased loads.

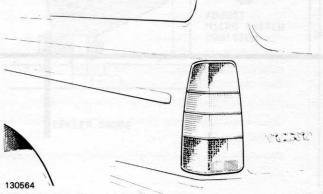
35C

35**B** 

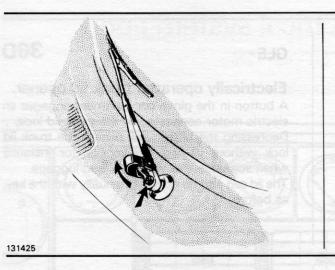


Tail lights.

Larger, "wrap-around"-type. Side marker lights no longer necessary, therefore deleted. Bulbs replaced from inside.



Group 34: Ignition system Group 35: Lights



**36A** 

#### Window wipers.

Improved wiper power transmission system with larger diameter wiper shaft. Wiper arms retained on shaft by nuts, torque 20 Nm = 15 ft.lbs.

Wiper blades and arms are also modified type.

Wagons.

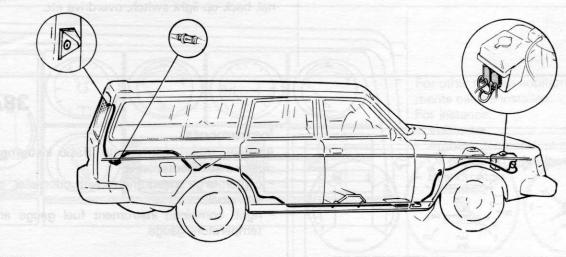
**36B** 

#### Tail gate window washer.

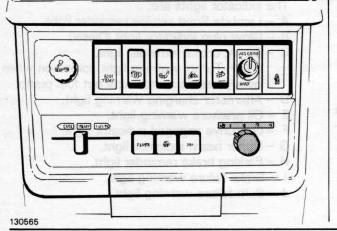
Fluid container common for windshield washer and tail gate window washer.

The pump for the tail gate window washer is separate and marked with a blue dot. The pump for the windshield washer has increased power, 40 W.

Both pumps are located on the side of the fluid container.







All models.

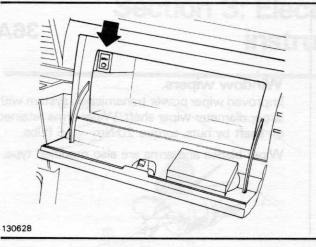
**36C** 

#### Heater blower.

More powerful blower motor. Air flow increased approx. 20% at max. speed compared to previous model.

The motor has permanent magnet fields.

Also the switch has been changed to stand the increased load. It has four positions, no OFF position. Blower motor is always on when ignition is ON.



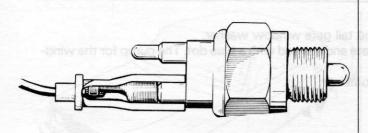
36D GLE

#### Electrically operated trunk lid opener.

A button in the glove compartment engages an electric motor connected to the trunk lid lock. Depressing the button will release the trunk lid lock without leaving the vehicle, for instance when someone else wants to load luggage.

The lid can also be opened manually with the key, as before.

37A



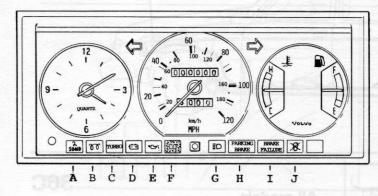
#### Circular pin connectors.

Circular pin terminals in combination with tight fitting seals provide reliable contacts and improved resistance against moisture and corroding gases.

These connectors are used for several items, such as: washer pump, front parking light and turn signal, back-up light switch, overdrive etc.

131422

38A



#### Instruments.

All new, round instruments. Basic instrument cluster instrumentation is:

- center: large speedometer with odometer.
- left: clock.
- right: combined instrument fuel gauge and temperature gauge.

#### NOTE:

Several instrumentation versions exist.

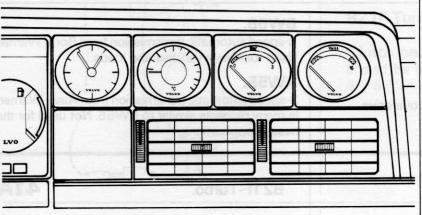
On versions with tachometer, it is located to the left and a smaller clock is located to the right of the instrument cluster.

There are also digital clocks.

The indicator lights are:

- A Lambda Sond service reminder light.
- B Glow plug indicator light (Diesel).
- C B21A: choke reminder light. B21F-Turbo: warning light comes on when over-pressure switch cuts out fuel pump.
- D Alternator charging warning light.
- E Oil pressure warning light.
- F Overdrive engaged indicator light.
- G Upper beam indicator light.
- H Parking brake reminder light.
- I Brake failure warning light.
- J Bulb failure warning light.





#### Additional instruments.

Some models utilize the space to the right of the instrument cluster for additional instrumentation.

#### Example:

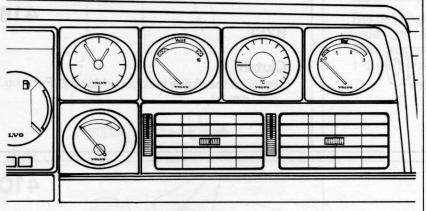
Model GLT, USA (engine B21F-Turbo):

- Turbo pressure gauge.
- Oil pressure gauge.
- Voltmeter.

Model GLT, Canada (engine B23E):

- Ambient temperature gauge.
- Oil pressure gauge.
- Voltmeter.

130568



For other models additional instruments can be installed.

#### For instance:

- Voltmeter.
- Ambient temperature gauge.
- Oil pressure gauge (not B28F).
- Econometer.

### **Section 4: Power transmission**

#### **Transmissions**

#### M45.

Manual 4-speed transmission.

#### M46.

130569

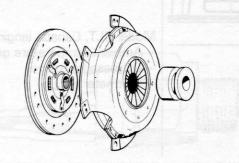
Manual 4-speed transmission with overdrive. Essentially a M45 with overdrive.

#### BW55.

3-speed automatic transmission from Borg-Warner. Used for heavy vehicles and loads.

#### AW55.

3-speed automatic transmission from Aisin-Warner. In many respects similar to BW55. Not used for the heavier applications.



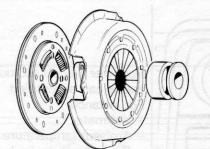
B21F-Turbo.

41A

#### Clutch.

A new clutch of heavy-duty type introduced to stand the increased torque developed with the Turbo engine.

Clamping force is increased approx. 45%.

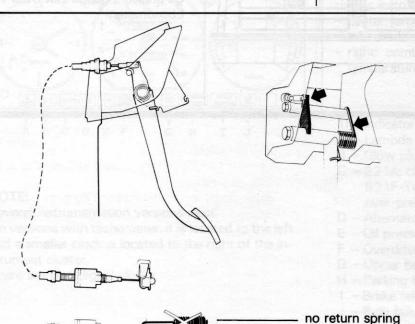


**B28F.** 

41B

#### Clutch.

Similar to the clutch introduced for B21F-Turbo.



41C

#### **B21F-Turbo**

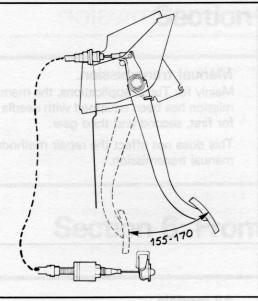
#### Clutch control.

The clutch is cable actuated and has been modified to fit the new clutch. The clutch pedal travel is longer to reduce pedal power.

The throw-out bearing has no play and operates with a small pre-load, which is applied by a spring located at the top of the pedal bracket, see illustration.

130570

Group 41

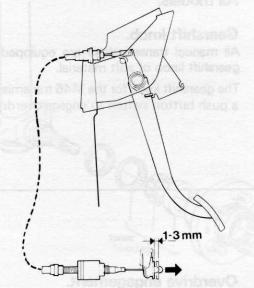


41C (cont.)

#### **B21F-Turbo**

#### Clutch pedal travel.

Should be unobstructed and  $155-170 \, \text{mm} = 6.1-6.7$ ".



131430

**B21F-Turbo** 

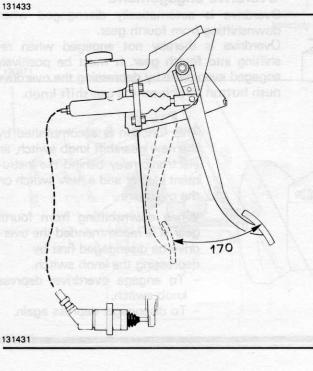
41C (cont.)

#### Clutch negative play.

The new clutch must have a negative play to allow wear.

The negative play is measured at the clutch fork, under the vehicle.

The free movement **rearward** should be 1–3 mm = approx. 5/64".



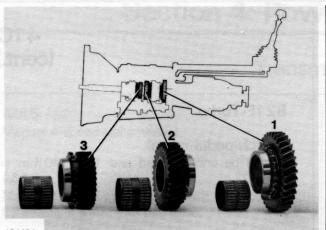
41D

#### **B28F**

#### Clutch control.

A similar clutch control is used for vehicles with B28F engines.

Clutch pedal travel should be  $170 \, \text{mm} = 6.7$ ". Because of the hydraulic power transfer there is no play to adjust.



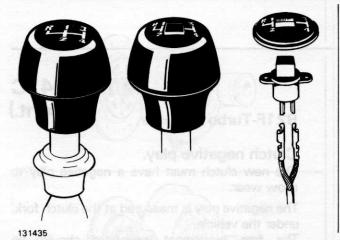
43A

#### Manual transmission.

Mainly for Turbo applications, the manual transmission has been equipped with needle bearings for first, second and third gear.

This does not affect the repair methods for manual transmission.

131434



43B

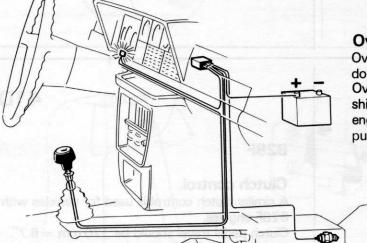
#### All models.

#### Gearshift knob.

All manual transmissions are equipped with a gearshift knob of soft material.

The gearshift knob for the M46 transmission has a push button switch to engage overdrive.

43C



Overdrive engagement.

Overdrive is automatically disengaged when downshifting from fourth gear.

Overdrive is thereby not engaged when reshifting into fourth gear. It must be positively engaged every time by depressing the overdrive push button switch on the gearshift knob.

> This function is accomplished by the new gearshift knob switch, an electronic relay behind the instrument cluster and a new switch on the overdrive.

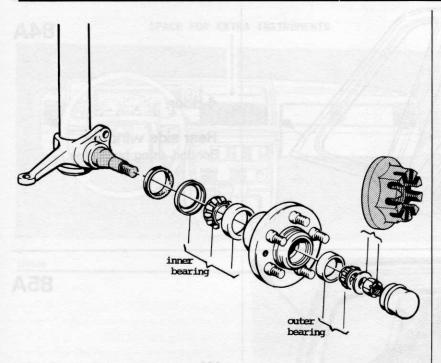
> When downshifting from fourth gear, it is recommended the over-drive be disengaged first by depressing the knob switch.

- To engage overdrive: depress knob switch.
- To disengage: depress again.

### Section 5: Brakes

No new features for 1981

### Section 6: Front end and steering



61A

#### All.

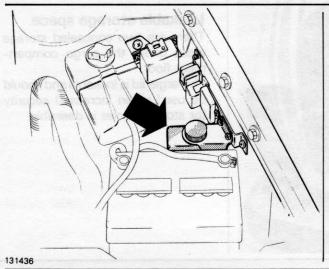
#### Front wheel bearings.

Previously there existed two different axle shafts and bearings for the front axle. One for standard and one for special applications.

Now there is one size bearing. There are still two axle shafts, but the difference is in material, not size.

A new nut, with flat washer, is introduced. It provides added adjustment possibilities.

130571



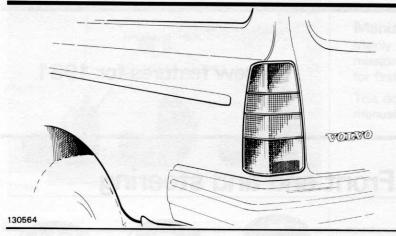
64A

#### **B28F**

## Location of power steering fluid container.

New location on a bracket behind the battery.

### Section 8: Body

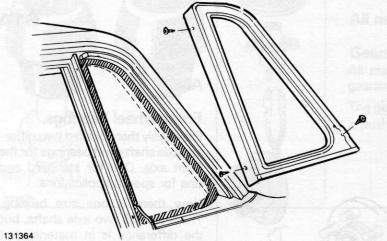


81A

#### Wagons

#### Rear fenders.

Modified to fit the new wrap-around rear lights.

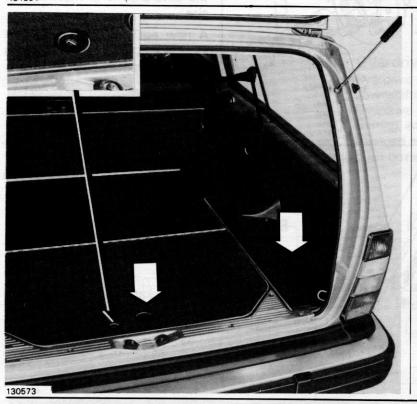


84A

#### 4-door.

### Rear side window.

Bonded, using butyl tape.



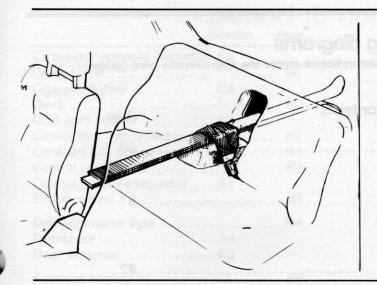
85A

#### Wagon.

### Lockable storage space.

There are two concealed storage areas under the cargo compartment floor.

The larger lid is lockable and should be used when increased security for stored articles is desirable.



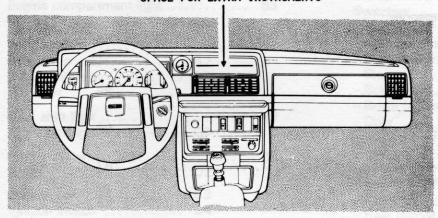
85**B** 

#### 2-door/4-door models.

#### Storage space for long cargo.

A flap in the rear seat can be opened to provide storage space for long cargo, like skis.





ALI

85C

#### Dashboard.

#### Redesigned:

- New instruments.
- New glove box.
- Additional storage spaces.
- New type switches.
- Space for extra instruments.
- Modified air louvers.

Wiring diagrams

In the wiring diagrams, the number after the color indicator states the approximate wire gauge.

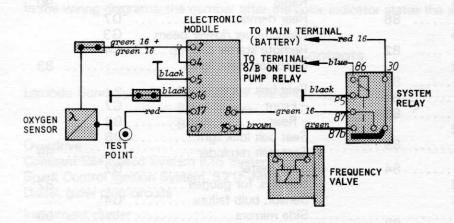
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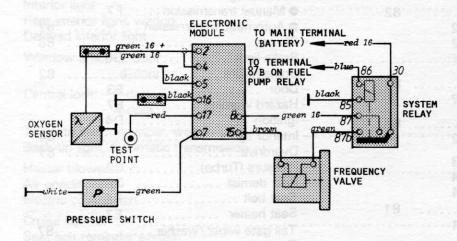
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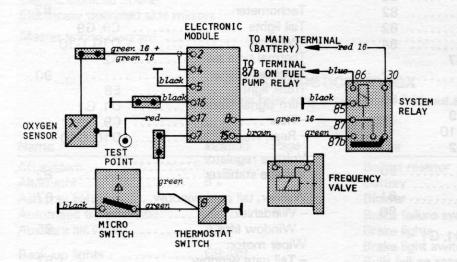
Lambda-sond System B21F-MPG

130576

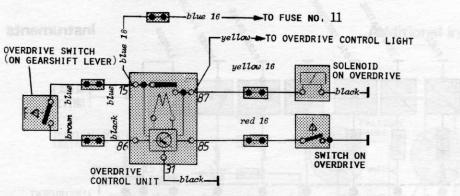


Lambda-sond System B21F-Turbo

130577

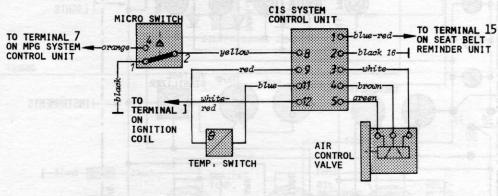


Lambda-sond System B21F B28F



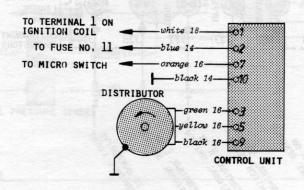
Overdrive

130579



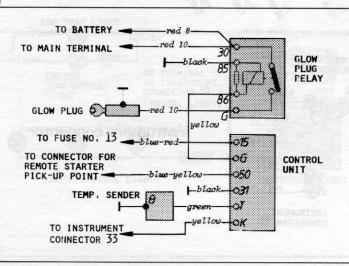
Constant Idle Speed System (CIS System)

130580

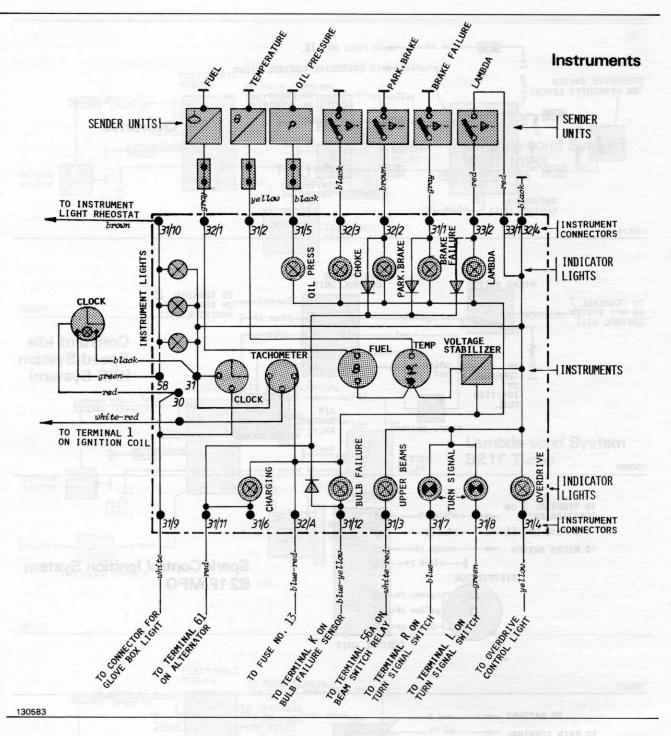


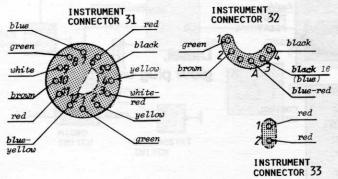
Spark Control Ignition System B21F-MPG

130581



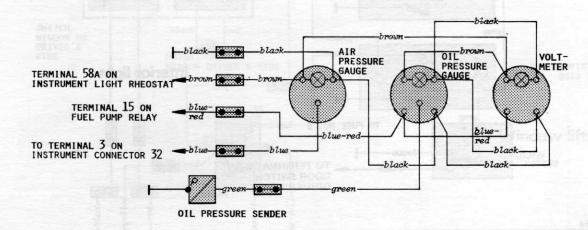
Diesel, glow plug circuits



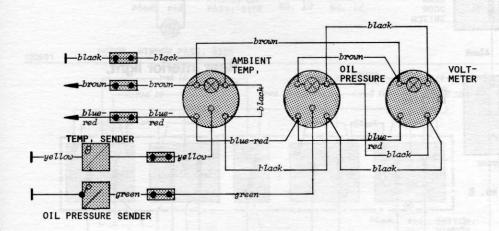


Instrument connector

#### Additional instruments, B21F-Turbo

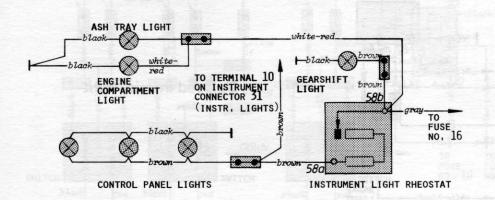


130585

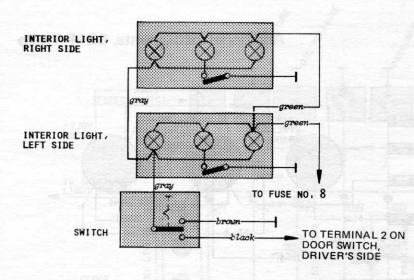


Additional instruments, B23E

130586

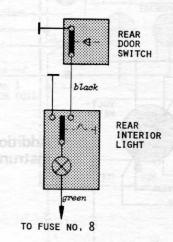


Control panel lights, lights on accessories



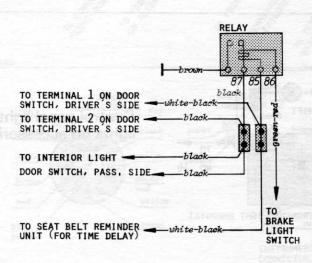
Interior light

130588

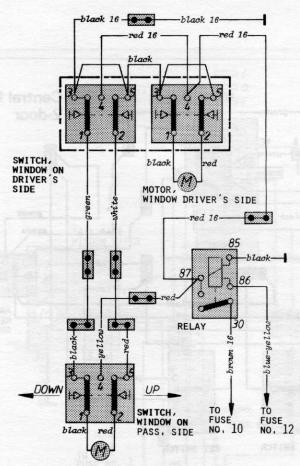


Rear interior light, wagon

130589



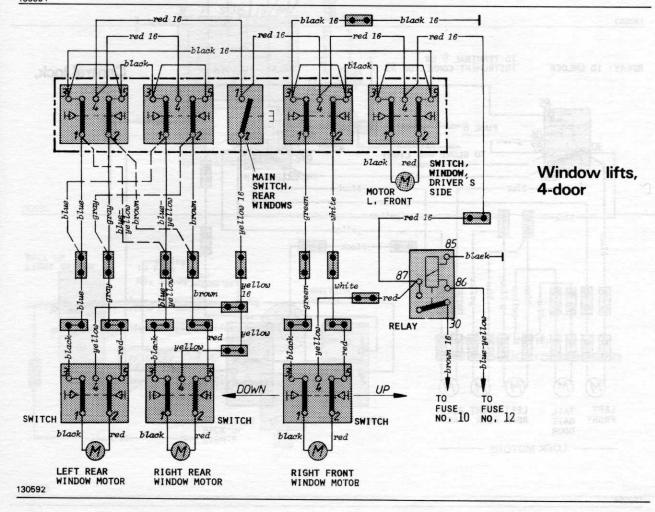
**Delayed interior light** 

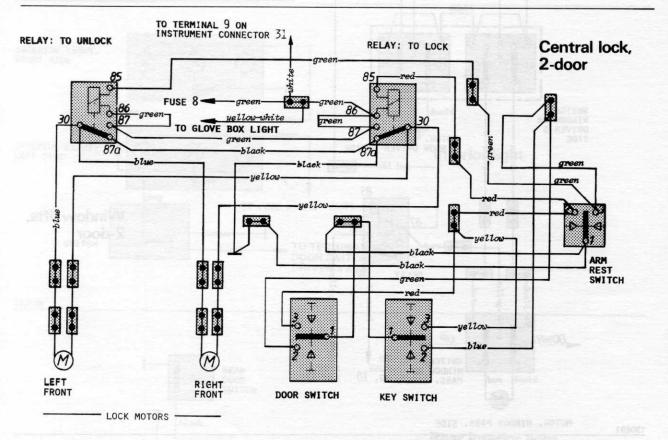


Window lifts, 2-door

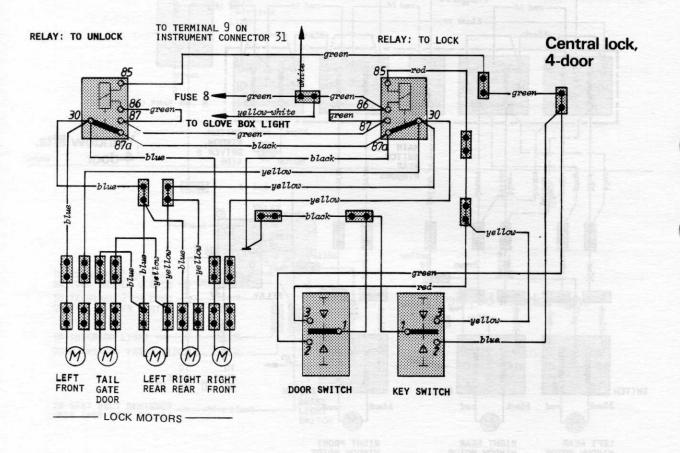
130591 MOTOR

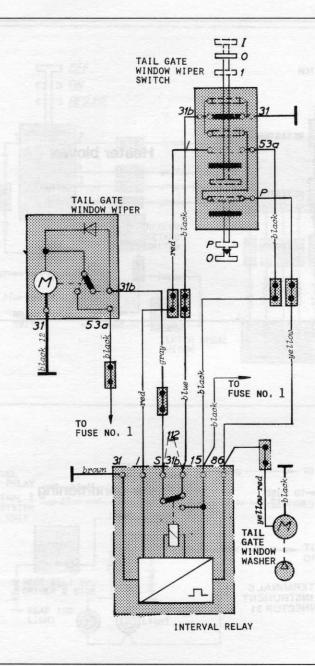
MOTOR, WINDOW PASS, SIDE





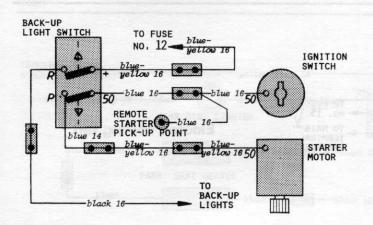
130593



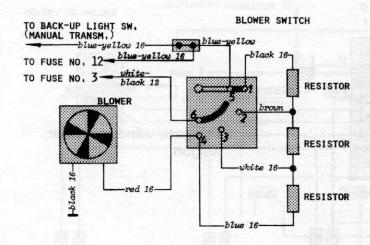


Tail gate window wiper, wagon

130595

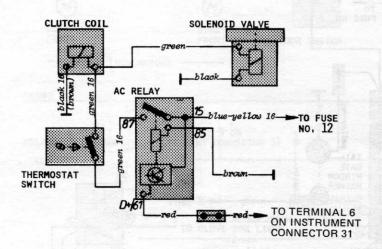


Back-up light, automatic transmission



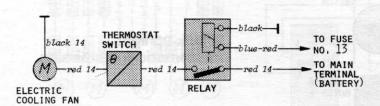
Heater blower

130597

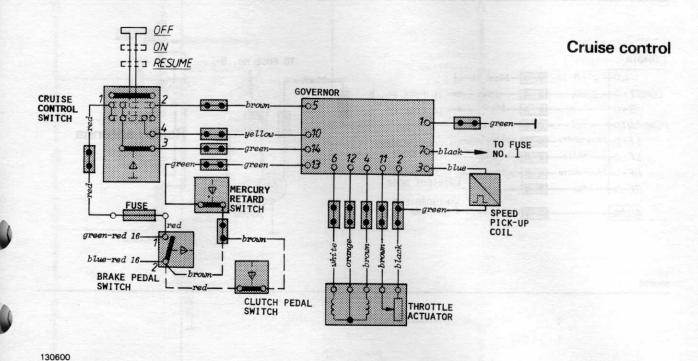


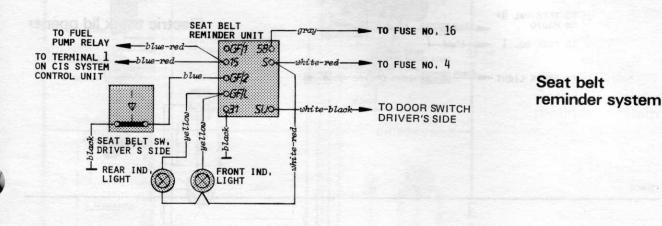
Air conditioning

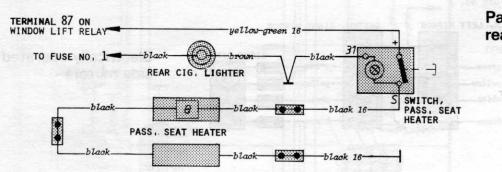
130598



Electric cooling fan

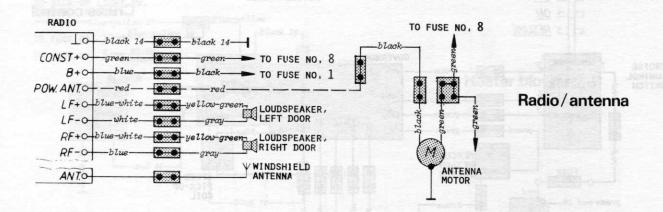




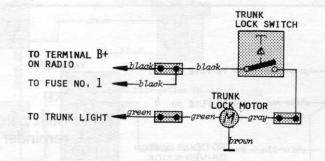


Pass. seat heater, rear cigarette lighter

130602

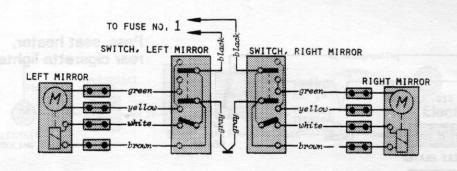


130603



Electric trunk lid opener

130604



Electrically operated side mirrors



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