



autoemotion

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With the launch of the Exeo, SEAT enters the saloon car market with a vehicle aimed at fulfilling the needs of the most demanding customers.

The Exeo is outstanding because of its comfort, high performance engines, safety and technological innovation.

Comfort offered by the Exeo is the result of its generous interior measurements, which make it a spacious car, and of the architecture of its drivetrain which favours the dynamic performance of the car to a great extent.

For the first time in SEAT, engines are fitted longitudinally; there are three petrol powertrains available and one diesel engine, all of them combined with a 6 speed manual gearbox.

Active and passive safety are guaranteed by means of different systems, amongst which the brakes management and the airbag system with double phase front modules and a knee-module for the driver are to be highlighted.

Technological innovation in the Exeo is made clear with the incorporation of systems such as the automatic air recirculation, the roof with solar power panels for the blower fan activation, and the infotainment system.



D122-01

**Note:** The exact instructions for checking, adjusting and repairing are included in the ELSA application and in the VAS 505X guided diagnostics.

# SUMMARY OF CONTENTS

■	Presentation .....	4
■	Bodywork .....	6
■	Occupant protection .....	10
■	Powertrain .....	18
■	Drivetrain .....	22
■	Electrical system .....	24
■	Instrument panel .....	30
■	Immobiliser .....	34
■	Infotainment .....	36
■	Climate control system .....	38
■	Solar power roof .....	45
■	Self-diagnosis .....	46

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# PRESENTATION

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## FINISHINGS

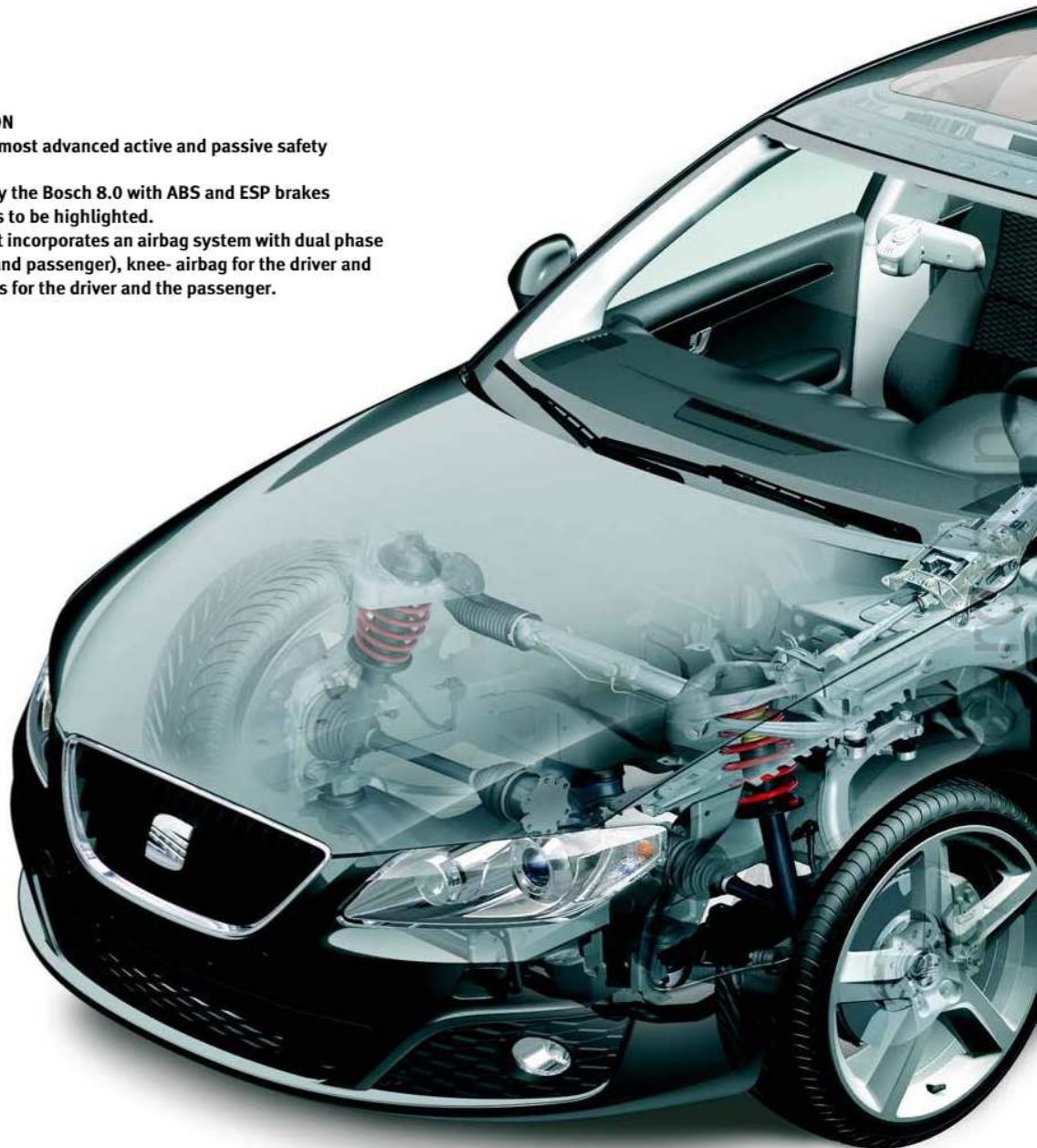
The Exeo is available in three finishing levels, Reference, Stylance and Sport.

## OCCUPANT PROTECTION

The Exeo includes the most advanced active and passive safety systems.

Regarding active safety the Bosch 8.0 with ABS and ESP brakes management system is to be highlighted.

As for passive safety, it incorporates an airbag system with dual phase front modules (driver and passenger), knee- airbag for the driver and pyrotechnical seatbelts for the driver and the passenger.

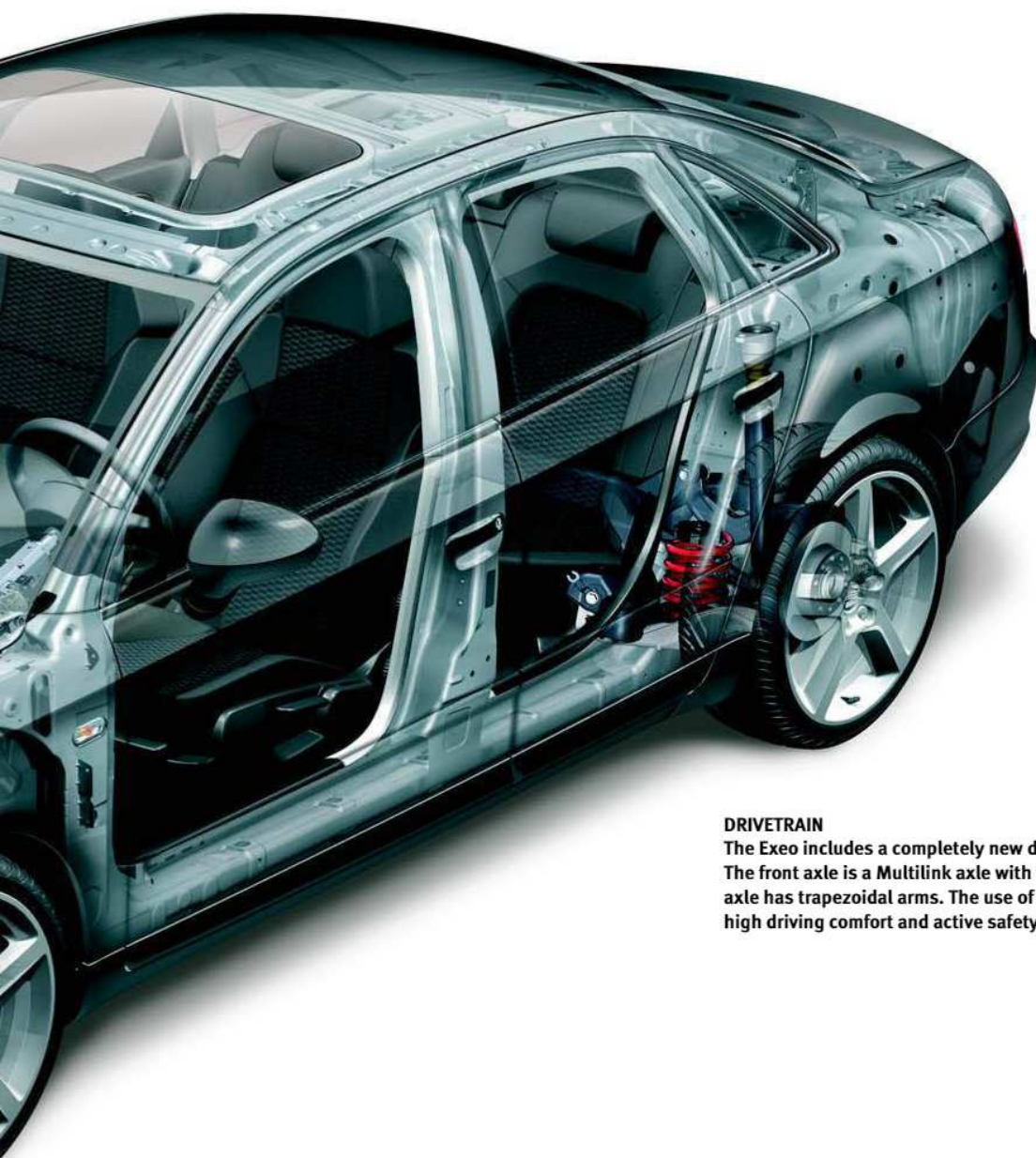


## ENGINES

The Exeo has three petrol engines from 75 kW up to 147 kW and one diesel TDI 105kW "Common Rail" engine.

All the engines are combined with a 6 speed manual gearbox.

The main new feature about the Exeo is the longitudinal position of the engine and the gearbox.



#### **ELECTRICAL SYSTEM**

The Exeo has a decentralised electrical system with four CAN-Bus lines. The LIN-Bus lines vary depending on the vehicle's equipment. A new feature is the electric sun-shade on the rear window.

#### **DRIVETRAIN**

The Exeo includes a completely new drivetrain for SEAT. The front axle is a Multilink axle with four trailing arms, and the rear axle has trapezoidal arms. The use of this type of drivetrain provides high driving comfort and active safety is directly improved.

#### **CLIMATE CONTROL SYSTEM**

All the Exeo versions include the Climatronic 2C. The diesel powertrain includes auxiliary heating. As an option a solar-powered roof is also available for activating the fresh air blower fan when the car is stopped.



# BODYWORK

## DIMENSIONS

The Exeo is a vehicle with generous external and interior dimensions, which together with a good drag coefficient make it a high performance saloon car.

The most relevant external dimensions are:

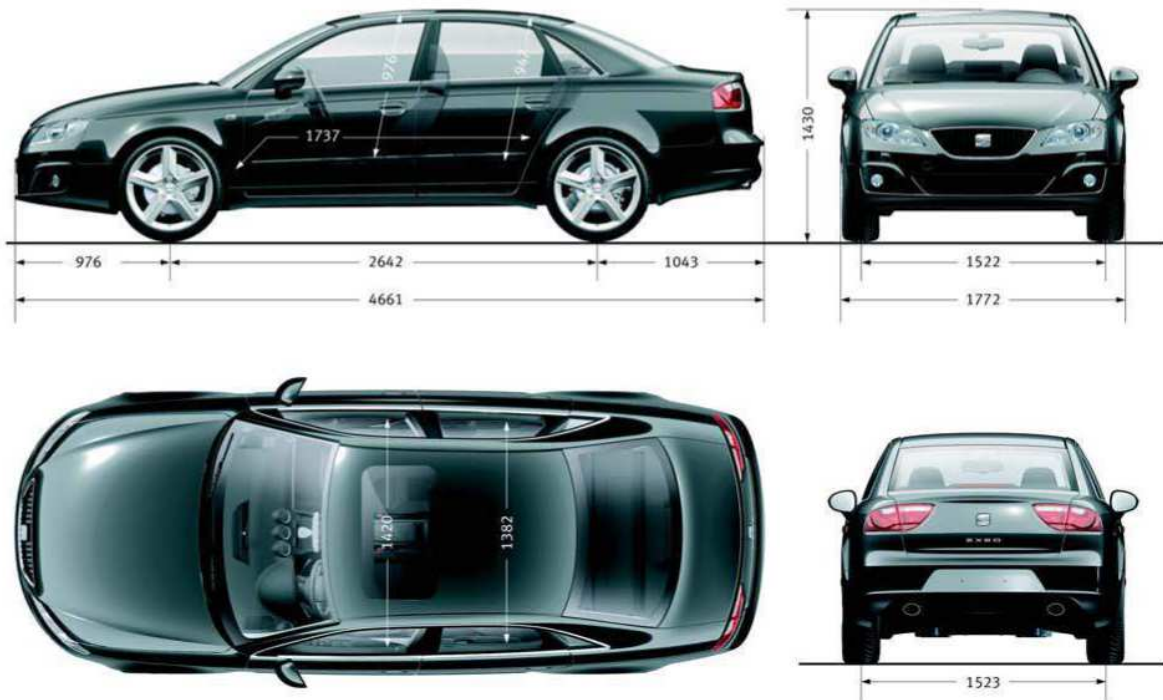
- Total length (4661 mm).
- Track (front 1522 mm and rear 1523 mm).
- Wheelbase (2642 mm).

The high wheelbase rate provides improved stability and dynamic performance of the car.

Interior dimensions have a direct influence on occupant comfort and convenience. The most relevant interior dimensions are:

- Height from the seat to the roof (front 976mm and rear 947mm).
- Elbow width (front 1420 mm and rear 1382 mm).

Drag coefficient (Cx) is 0.28 .



D122-03

### **CAPACITY AND LOAD**

Total **luggage compartment capacity** is 460 litres.

The Exeo maximum load capacity is 560 Kg and maximum load on the roof is 75 Kg.

The maximum trailer nose weight is 75 Kg.

The capacity of the fuel tank is 70 litres.

The Exeo has an armrest on the rear seats, which can be turned into a ski holder.



# BODYWORK

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The Exeo body has been designed to provide maximum safety to occupants in the event of an impact.

The main new feature the Exeo has to offer compared to other SEAT models is the incorporation of the *Top Tether* attachments.

The **Top Tether attachments** are placed in the upper panel of the luggage compartment and are used to hold in place the upper zone of the child restrain seat by using the belt included in the child seat.

This type of attachment eliminates the rotation effect the seat is subject to with the *Isofix* attachment in the event of a front impact.

The Exeo has three *Top Tether* attachments for the rear seats.

Other aspects to highlight are:

- The front members are hollow.
- It incorporates two reinforcements at the lower part of the A and B pillars.
- There is no separation panel between the passenger and the luggage compartments.
- The crossbar has a collapsible support in order to absorb small impacts.



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D122-05

## OCCUPANT PROTECTION

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## **AIRBAG**

The Exeo airbag system has been designed to provide maximum passive safety to all the vehicle occupants.

There are two airbag system configurations.

The **basic configuration** includes the following:

- The front driver and passenger modules.
- The front seats side modules.
- The driver and passenger head modules.
- The knee- airbag module for the driver.
- And the pyrotechnical front seatbelts.

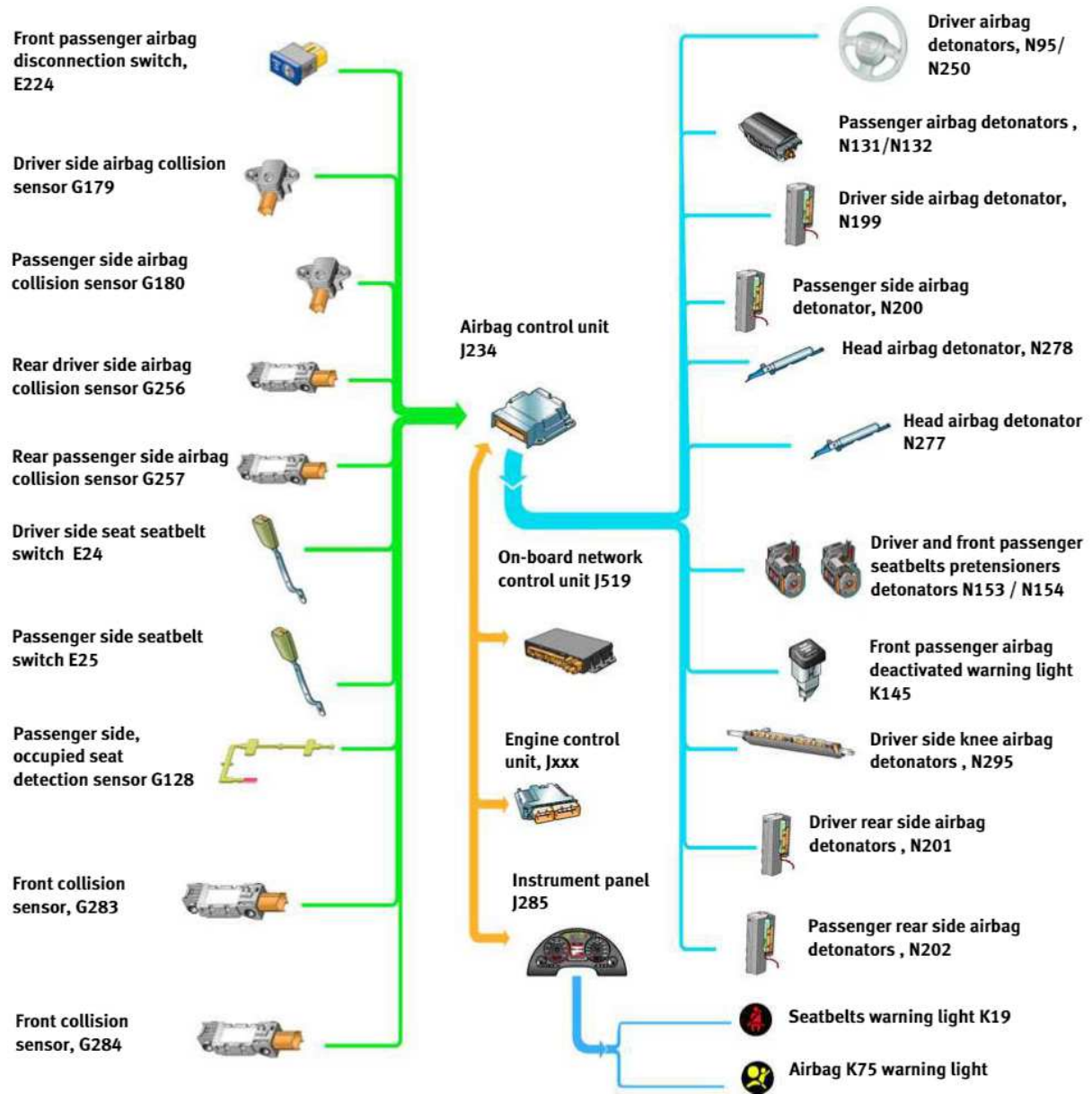
The basic configuration offers, as an option and depending on the markets, the passenger airbag disconnection switch.

And the **high-line configuration** includes the side modules.





# OCCUPANT PROTECTION



D122-07

Most of the Exeo airbag system components are identical to the ones used in other models.

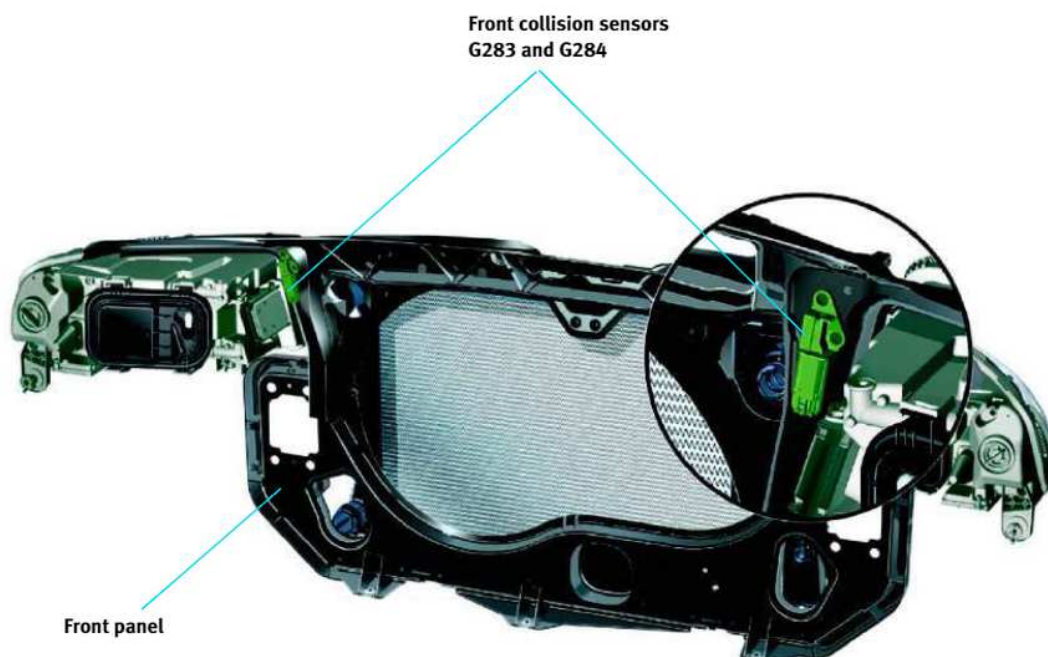
The main new features are:

- Both front airbags (driver and passenger) are two-stage airbags and have two detonators per module.

- The driver knees airbag module.

- The front acceleration sensors.

The use of two-stage front airbags allows optimising the inflation time, depending on the seriousness of the impact.



D122-08

## **FRONT COLLISION SENSORS G283 AND G284.**

The front collision sensors are attached to the front panel.

They are piezoelectric type of sensors which register the vehicle's longitudinal accelerations and decelerations and inform the airbag control unit.

Their assembly position is defined by an arrow indicating the vehicle's direction of travel.

### **SIGNAL APPLICATION**

The front collision sensors inform the airbag control unit about the acceleration and deceleration dynamics.

The airbag control unit determines the seriousness of the impact depending on the acceleration or deceleration signal received.

The seriousness of the impact has a direct influence on the moment of activation of the airbag front modules.

In the event of serious impacts with a high deceleration value, front modules activation is advanced.

By advancing the airbag activation occupant protection is increased.

# OCCUPANT PROTECTION

## **DRIVER AND PASSENGER AIRBAG MODULES, N95 AND N131.**

The front, driver and passenger modules, are **two-stage modules**. The driver module is a solid fuel module, and the passenger module is an hybrid one.

The driver module is made up of:

- two detonators.
- two detonator charges.
- two fuel charges.
- one bag

The passenger module is made up by:

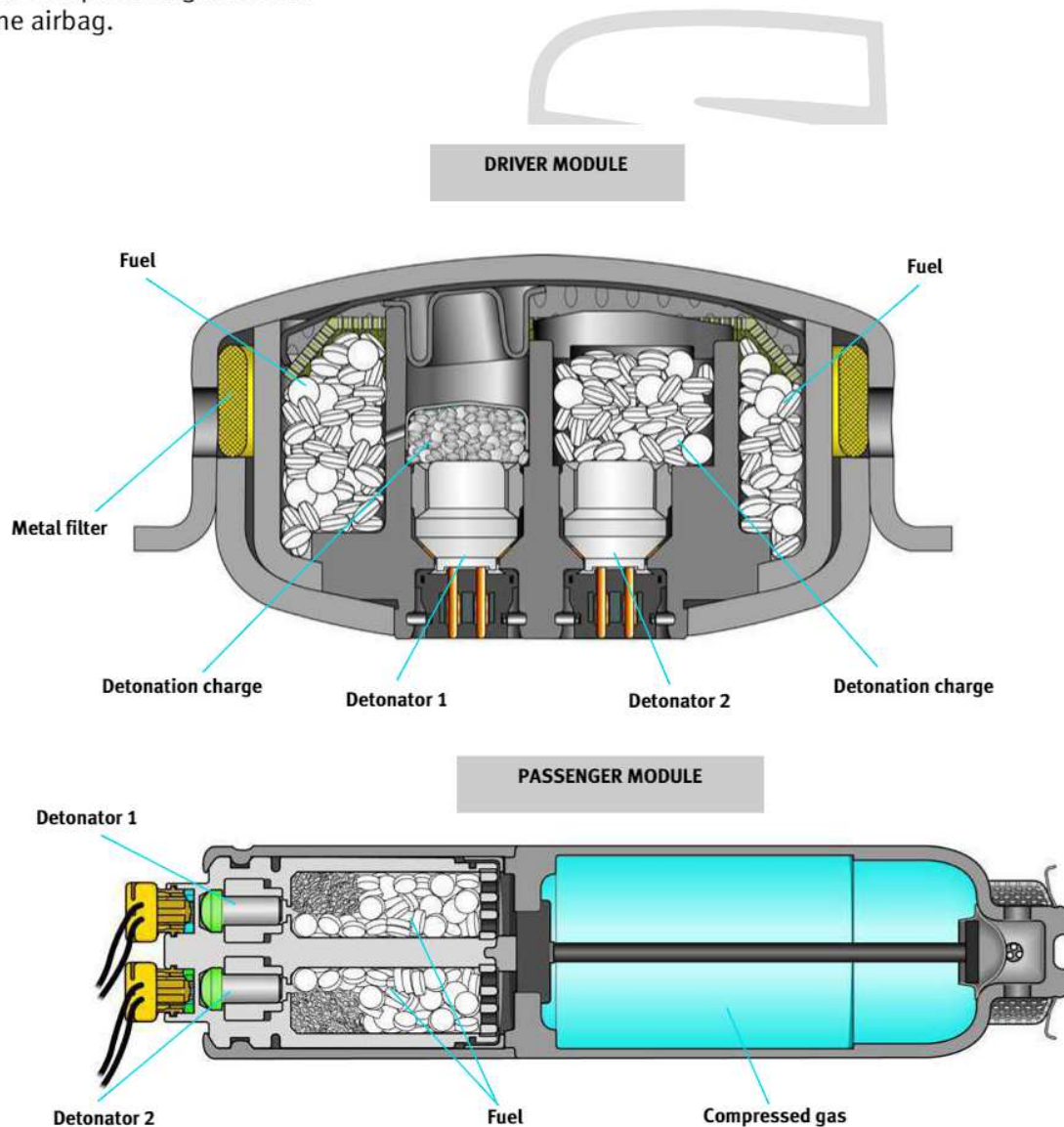
- two detonators.
- two fuel charges.
- one compressed gas bottle.
- one airbag.

The main difference between both modules is to be found in the use of compressed gas for the passenger module.

Detonators are made up by a small amount of explosive which is activated by means of an electrical signal.

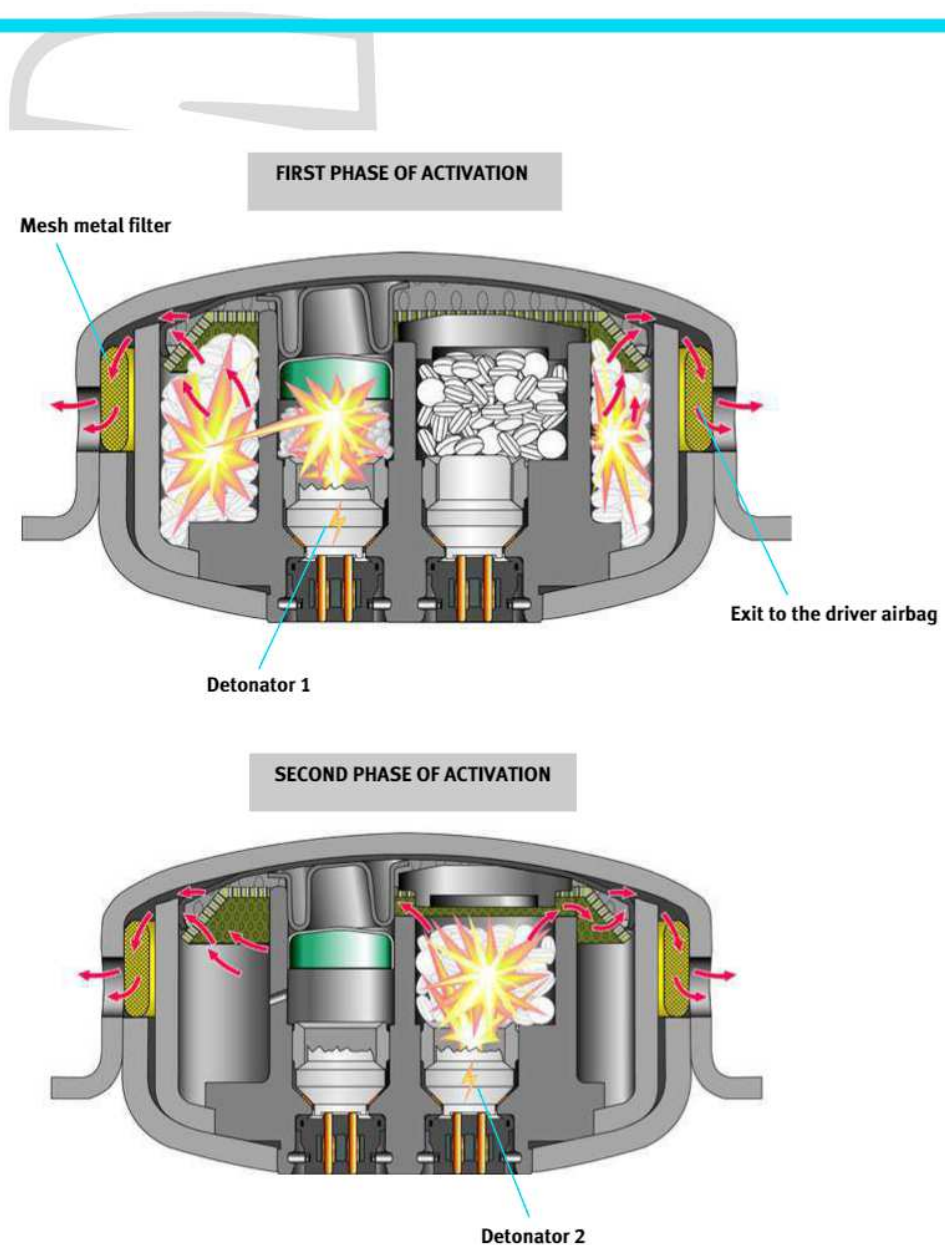
The detonation charge and the fuel charge are made of a solid compound which generates a gas when it inflames -mainly nitrogen- and fills up the airbag.

The compressed gas bottle contains a mixture of gas, 95% argon and 5% helium.



D122-09





D122-10

### DRIVER MODULE OPERATION

The airbag control unit energises the two driver module detonators independently, with a time offsetting of between 5ms and 50 ms, depending on the seriousness of the impact.

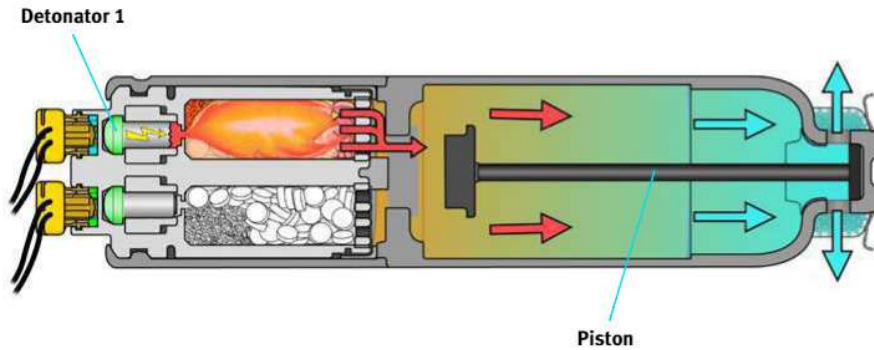
The airbag inflation process is as follows:

- the control unit energises detonator 1 and an explosion fires the detonation charge.
- the detonation charge fires the fuel charge 1 through a drilling.

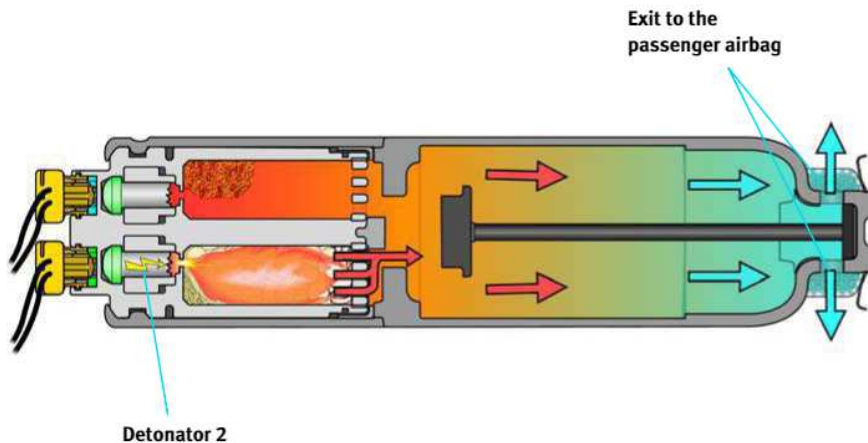
- the detonation charge combustion generates gas, mainly nitrogen, which flows through the metal filter to the bag.
- next, the control unit energises detonator 2 and an explosion fires the fuel charge 2
- this combustion generates gas which arrives to the airbag passing through the metal filter.

# OCCUPANT PROTECTION

## FIRST PHASE OF ACTIVATION



## SECOND PHASE OF ACTIVATION



D122-11

### PASSENGER MODULE OPERATION

The airbag control unit energises the two passenger airbag module detonators independently with a time offsetting of between 5ms and 50 ms depending on the seriousness of the impact.

The airbag inflation process is as follows:

- The control unit energises detonator 1 and an explosion sets off the fuel charge 1.

- The combustion of the charge drives the gas bottle piston and mixes the gas from the bottle with the gas generated by the combustion.
- The movement of the piston opens the gas outlet through the upper part of the bottle to the airbag.

Then the control unit energises detonator 2 and the fuel charge 2 charge combusts and the pressure of the output gas increases.

## KNEE AIRBAG

The knee airbag is placed at the lower area of the dashboard, on the driver's side.

The purpose of the knee airbag is to protect the driver's knee and lower leg in the event of a front impact.

The knee airbag has a 20 litre bag and an hybrid generator.

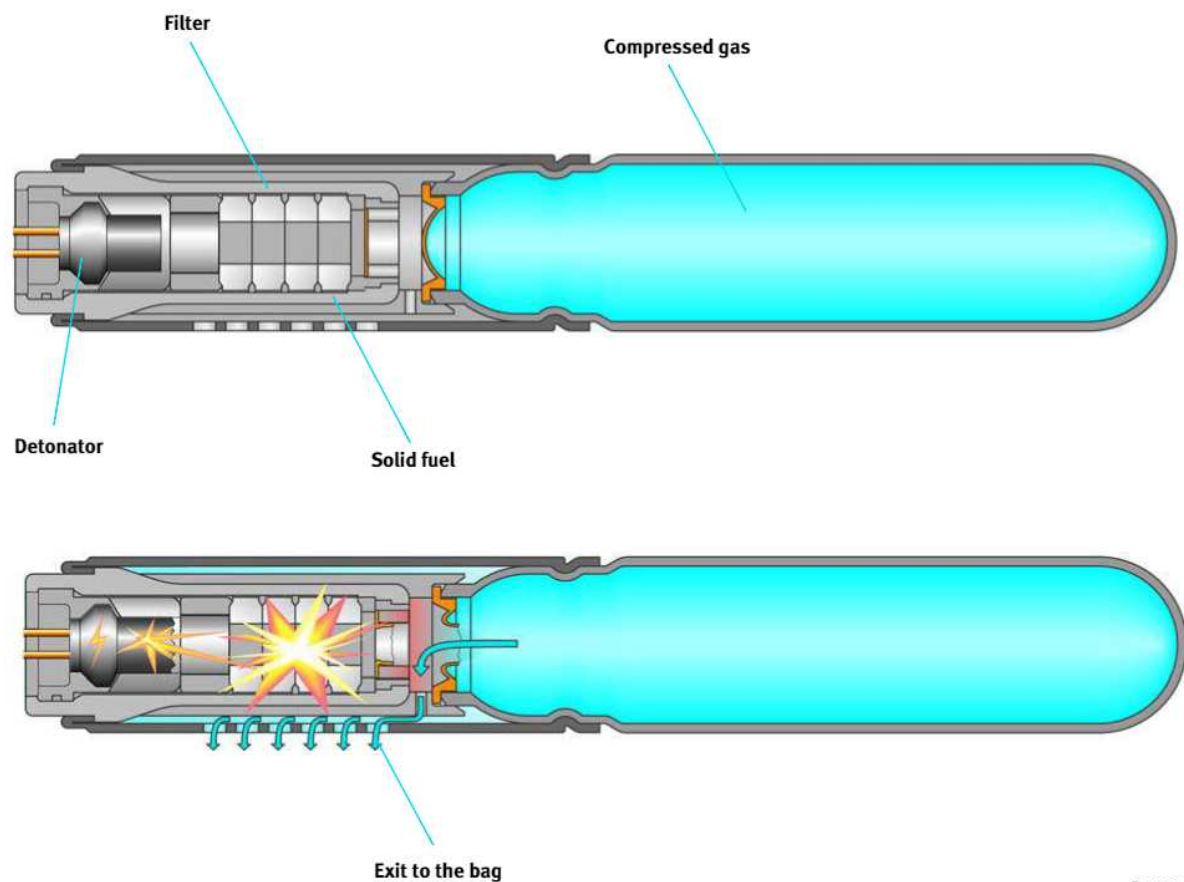
It is activated when the front airbags are activated.



Gas generator

knee airbag

D122-12



D122-13



# POWERTRAIN

The Exeo has **three petrol engines** and **one diesel engine**. All engines are combined with a **manual gearbox**. The engine and the gearbox are longitudinally fitted in the vehicle.

The petrol engines available are:

- the 1.6L MPI and 75 kW engine.
- the 1.8L 20VT and 110kW engine.
- the 2.0L TFSI and 147 kW engine.

All the petrol engines belong to the EA 113 family of engines and comply with the EU5 emission standards.

The diesel engine is the 2.0L TDI “common rail” and 105kW engine. This engine belongs to the EA 189 family and includes a particulate filter and complies with the EU5 emissions standard.

The petrol engines and the diesel engine combine with a 6 speed manual gearbox.

The engine is attached to the subchassis and to the front panel with three silentblocks (dampers). The gearbox is attached to the subchassis by means of another silentblock (damper).

All the Exeo engines will have long service intervals. Maximum service inspection intervals is 30,000 Km or 2 years.

**Note:** for further information about the long service intervals consult Self Study Programme No. 77 “Leon 06”.

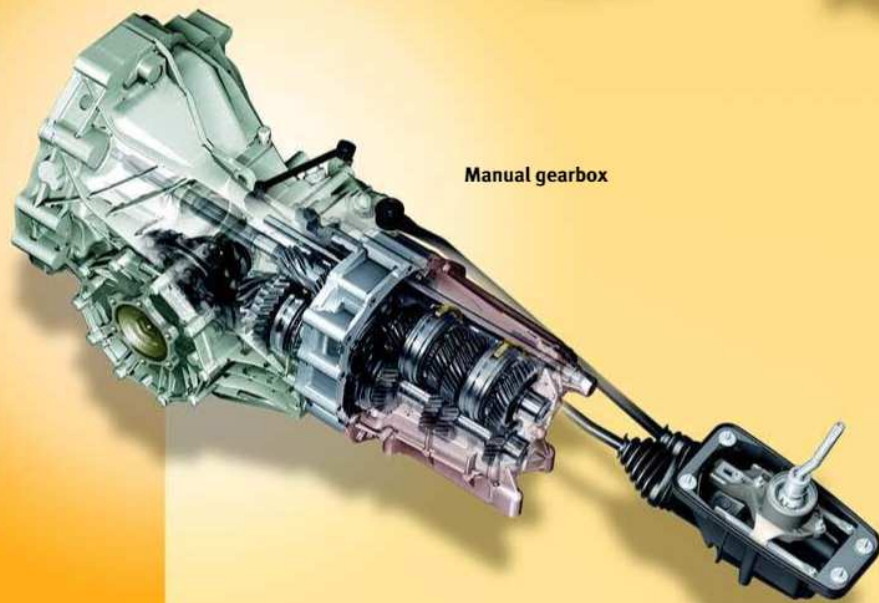
Diesel engine



Petrol engines



Manual gearbox



D122-14



# POWERTRAIN

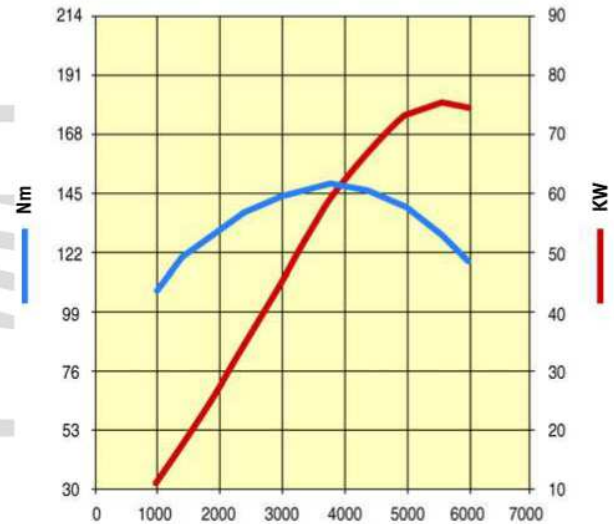
## 1.6L MPI ENGINE

The 1.6L engine with designation letters ALZ complies with the EU5 emission standard.

It is the smallest capacity engine fitted in the Exeo, with a power output of 75 kW at 5600 revs and a maximum torque delivery of 148 Nm at 3800 revs.

The engine management is a Simos system and the most outstanding functions are:

- Exhaust gases recirculation
- Variable Inlet manifold.
- Secondary air system for the exhaust.



D122-15

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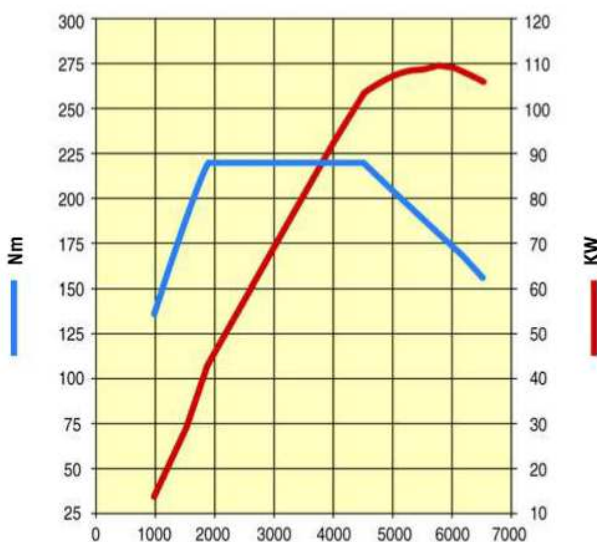
## 1.8L 20VT ENGINE

The 1.8L engine with designation letters CFMA is a 4 cylinder and 5 valves per cylinder and complies with the EU5 emissions standard.

This engine delivers a maximum power of 110 kW at 5700 revs and its maximum torque is 210 Nm between 1750 and 4600 revs.

The engine management system is a Bosch Motronic with inlet variable timing and secondary air injection for the exhaust.

This engine has been designed to use 98 octane petrol. If 95 octane petrol is used a drop of power will be noticed.



D122-16



## 2.0L TFSI ENGINE

The 2.0L TFSI engine with BWE engine designation letters is the most powerful Exeo engine.

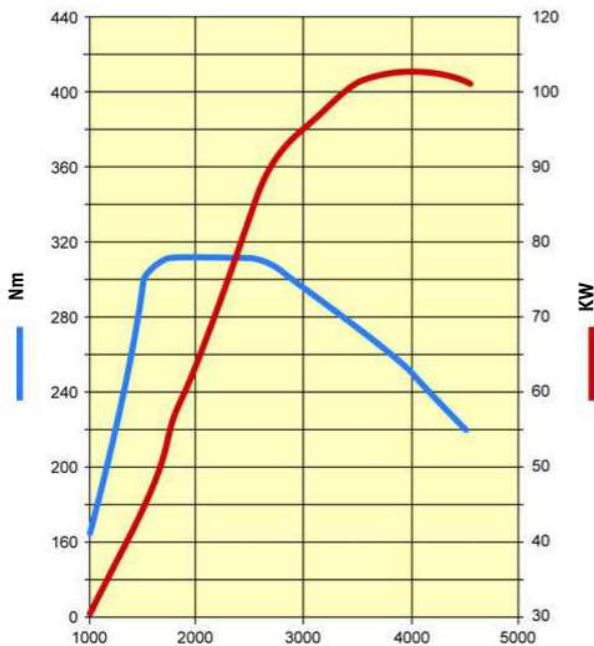
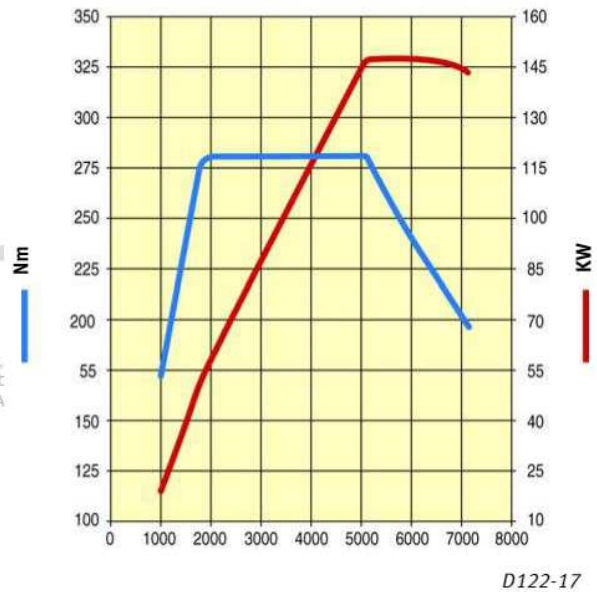
It is a direct petrol injection overboosted engine that complies with the EU5 emissions standard.

This engine's maximum power output is 147 kW at 5700 revs and maximum torque delivery is 280 Nm at 1800 revs.

It is a Motronic engine management with inlet variable timing.

For maximum engine performance 98 octane petrol should be used. If 95 octane petrol is used the maximum power supplied by the engine will drop.

**Note:** for further information about the engine management consult SSP No. 114 "1.8L TFSI Engine".



## 2.0L TDI ENGINE

The 2.0L TDI engine with designation letters CAGA is the first Common Rail injection system fitted in SEAT.

This engine includes oxidation catalyst and particulate filter, and complies with the EU5 emissions standard.

The maximum engine power output is 105 kW at 4200 revs and maximum torque delivery is 320 Nm between 1750 and 2500 revs.

The engine management system is a Bosch EDC 17 with exhaust gases recirculation.

The 2.0L engine is available in all the Exeo finishing levels.

**Note:** for further information about this engine consult Self Study Programme No. 123 "2.0L TDI Common Rail Engine".

# DRIVETRAIN

The Exeo drivetrain is new compared to the previous layouts used in other SEAT models.

The **front axle is a four trailing arms** “multilink” type. Its main features are:

- When driving in a straight line it holds the wheels straight up at a 90° angle with the road surface.
- When turning it modifies the steering geometry (camber and toe) to help manoeuvre and to provide a good contact surface with the road. This prevents vibrations being transmitted from the wheels to the steering wheel.
- It provides a good driving stability and exceptional dynamic vehicle performance.
- It increases steering accuracy.
- It reduces vehicle pitching when braking.

The **rear axle is a trapezoidal arms type** and its main features are:

- it favours and simplifies steering accuracy.
- it reduces vehicle heading when braking.

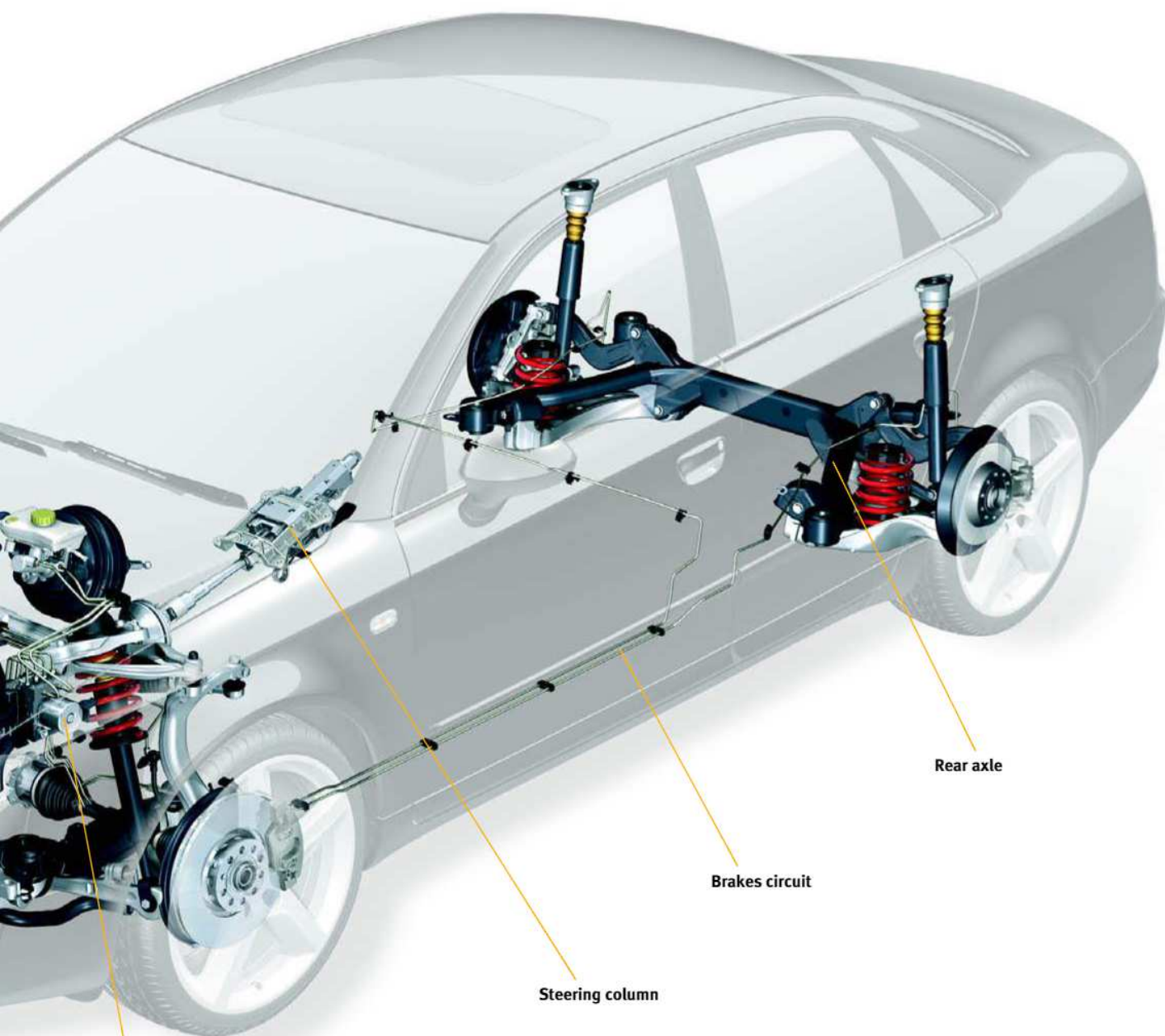
The combination of the front and rear axles guarantee enhanced comfort and reduce tyres wear.

The Exeo has two steering systems, a conventional hydraulic system for the 1.6l MPI and 1.8l 20VT engines, and the Servotronic system for the 2.0l TFSI and 2.0l TDI engines. The Servotronic is available as an option in the 1.8l 20VT engine.

The brakes system is the Bosch 8.0 with ABS and ESP.

**Note:** for further information about the Exeo drivetrain consult Self Study Programme No. 128 “Exeo drivetrain”.





BS/ESP control unit, J104

Steering column

Brakes circuit

Rear axle



# ELECTRICAL SYSTEM

The Exeo has an electrical system with a decentralised (or networked) structure.

The main components are:

- a battery placed in the “plenum chamber”.
- a battery fuse placed next to the battery.
- an electrical box next to the battery, which houses the large consumers fuses and relays.
- one fuseholder at the left of the dashboard.
- one relayholder at the left of the dashboard.
- one relayholder placed next to the steering column.
- one relayholder placed on the on-board network control unit.

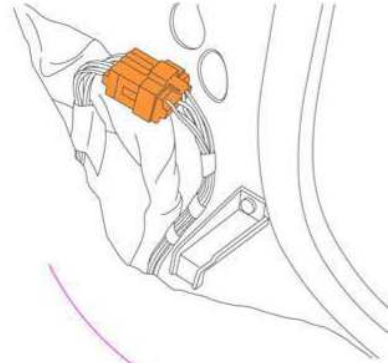
The Exeo includes the following coupling stations:

- on the right and left A pillar.
- under the front seats.
- in the engine compartment plenum chamber.
- and, in all four doors.

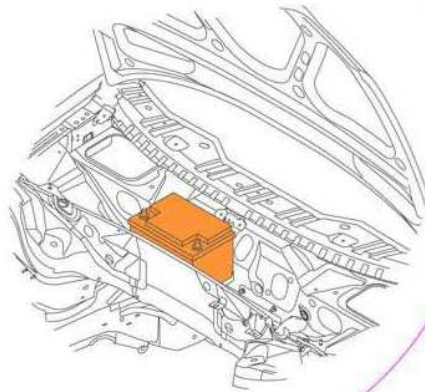
**Note:** for further information about the electrical system consult the Self Study Programme No 124 “Exeo electrical system”

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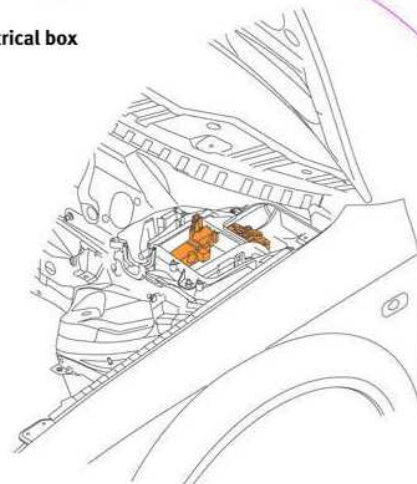
Coupling station



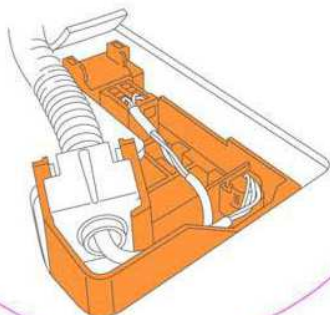
Battery



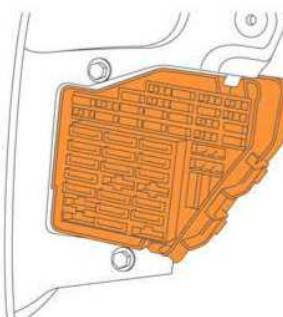
Electrical box



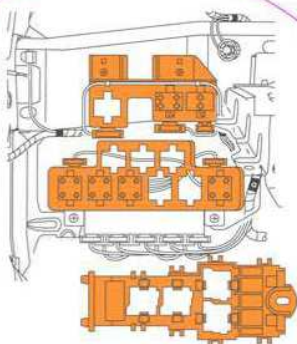
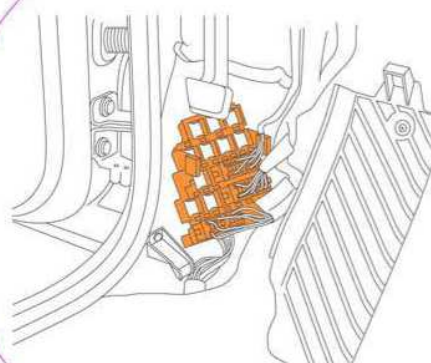
**Coupling station**



**Fuse holder**

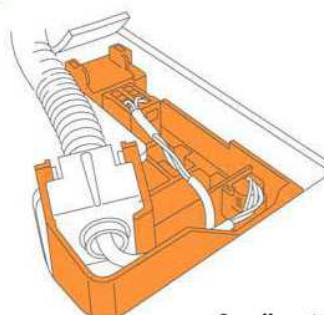


**Coupling station**



**Relay holder**

**Coupling station**



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D122-20

# ELECTRICAL SYSTEM

## DATA BUSES

The Exeo may have four CAN-Bus lines, two LIN-Bus lines and two specific diagnosis lines.

The **CAN-Bus lines** are:

- the drive line at 500 kbauds.
- the comfort line at 100 kbauds.
- the infotainment line at 100 kbauds.
- and, the lighting line (only if the car is equipped with bixenon headlights) at 500 kbauds.

The “high” wire is orange/black for the drive line, orange/green for the comfort line, orange/purple for the infotainment line, and green/red for the lighting line.

The “low” wire is orange/brow for the drive, comfort and infotainment lines and green/red for the lighting line.

There are **LIN-Bus lines** for:

- the rain and light sensor.
- the steering wheel controls.

The LIN-Bus wire is purple/yellow.

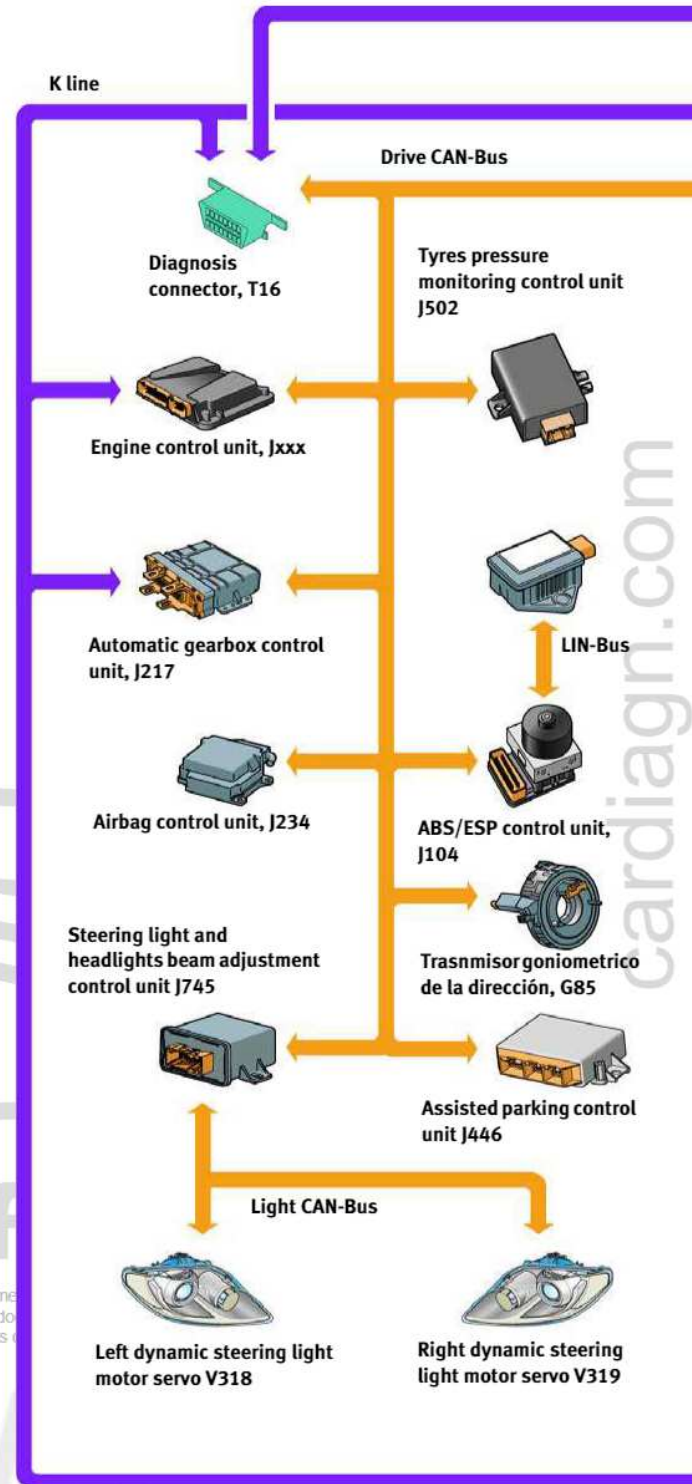
The diagnosis lines are:

- the **K line**.
- the **L line**.

These two lines are used for the control units that do not carry out the diagnosis via CAN-Bus.

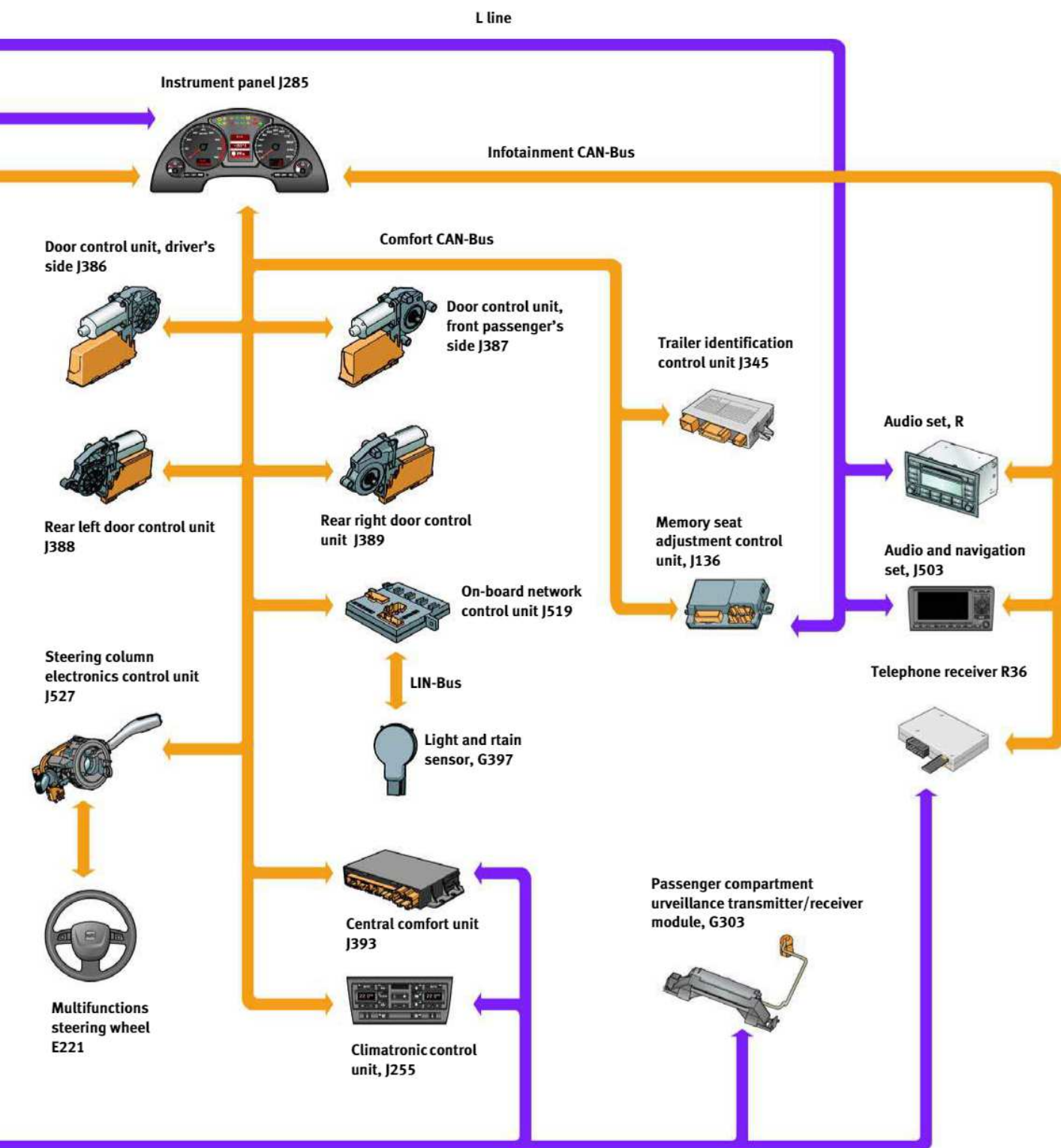
The diagnosis protocol for the K and L lines is the same.

The K line wire is green/red and the L line is green/blue.

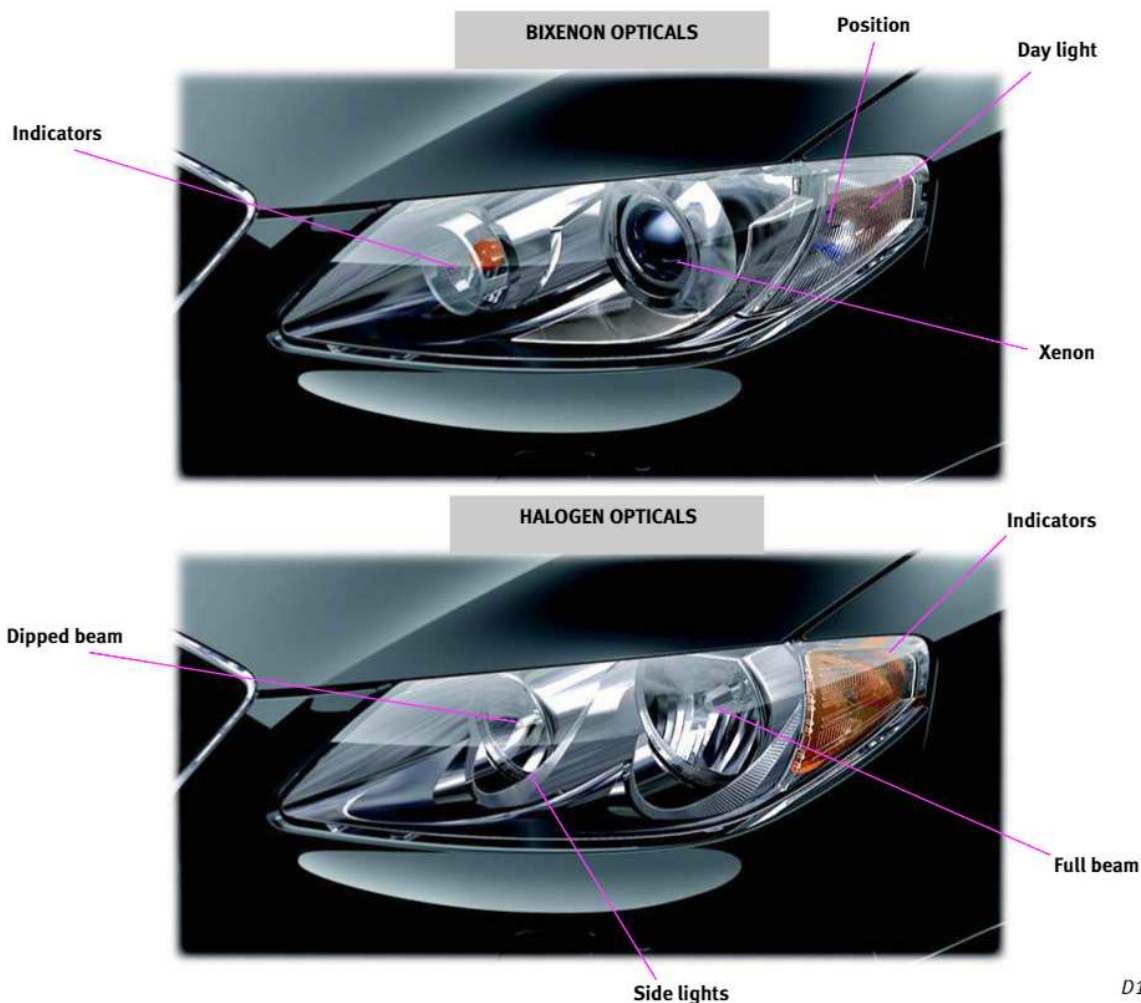


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# ELECTRICAL SYSTEM



D122-22

## EXTERIOR LIGHTING.

The Exeo has two configurations of front exterior lights and only one single configuration for the rear exterior lights. The front and rear foglights are series fitted in all the Exeo versions.

### FRONT LIGHTS

The available front optical assemblies are:

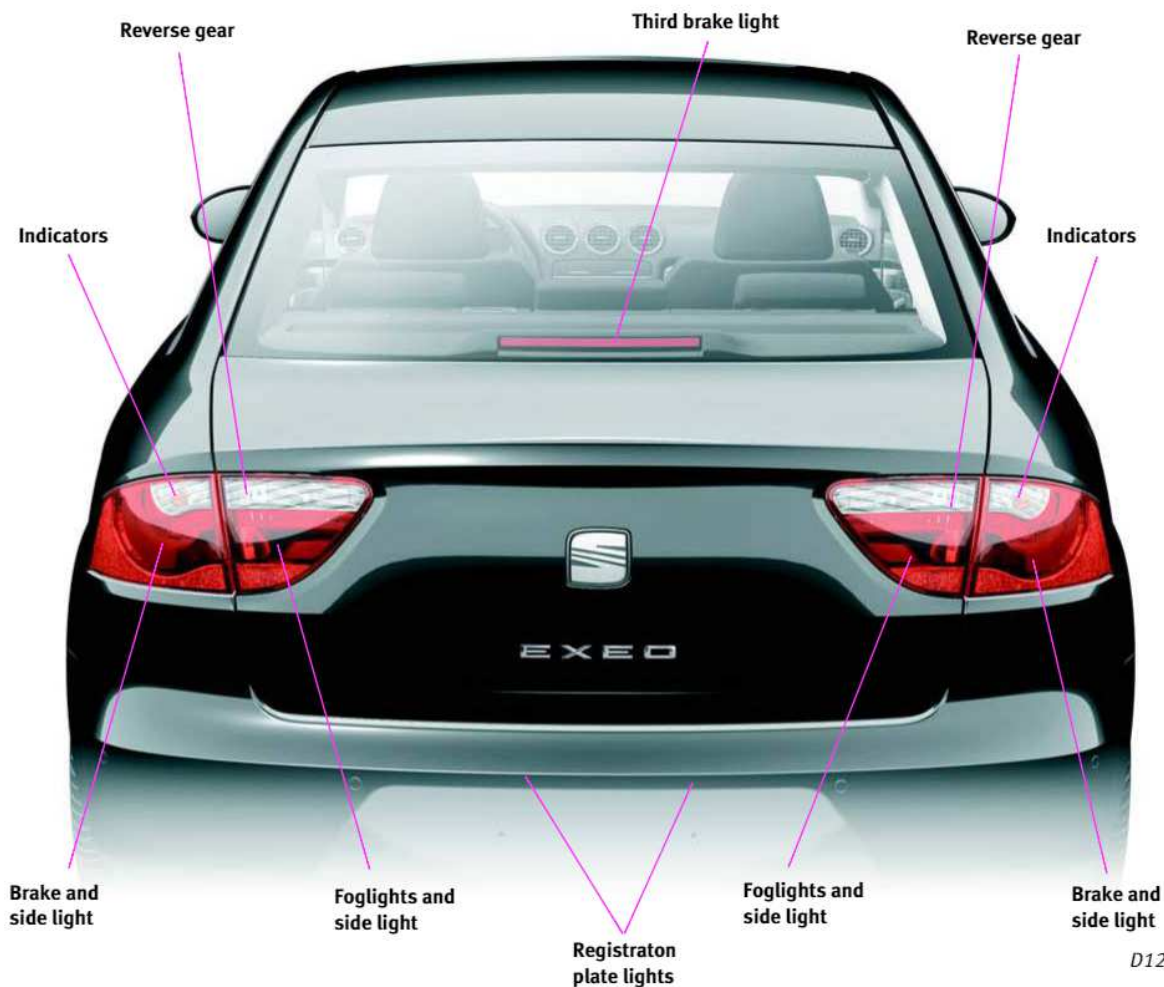
- Double optics with halogen bulbs.
- Bixenon.

The **double optical assemblies** have 5 bulbs, one for the dipped beam (H7), one for the full beam (H1), one for the side indicator (21W) and two for the side lights (5W).

The **bixenon optical assemblies** have 4 bulbs, one xenon bulb for the dipped and full beam lights, one for the side lights (5W), one for the indicator (21W), and one for the daytime driving light (21W).

The daytime driving light function is series fitted in all the bixenon opticals and has its own specific bulb.

In the double opticals with halogen bulbs the daytime driving light can be coded on the on-board network control unit.



D122-23

### REAR LIGHTS.

At the tail of the Exeo there are body section and tailgate section rear lights, the third brake light and the registration plate lights.

The following bulbs are fitted in each of the body section rear lights.

- One single filament bulb for the brake and side lights (21W)
- One for the side indicator (21W)
- One for the side light (21W)

And the following bulbs are fitted in the tailgate section rear lights:

- One single filament bulb for the foglight and the side light (21W)

- One reverse light (21W)

The third brake light is made up by an electronic board with 12 LEDs.

The registration plate lights have a 5W bulb on each rear light.

All the rear opticals bulbs, except for the registration plate lights, are activated and controlled by the on-board network control unit.

The registration plate lights are activated directly through the lights switch.



# INSTRUMENT PANEL

The Exeo has **two instrument panel versions**, the **High-line and the Mid-line**.

The following components are common to both versions:

- speed indicator.
- revs indicator.
- engine temperature indicator.
- fuel level indicator.
- multifunctional display.
- digital clock.
- mileage counter (km).
- warning lights.
- keys.

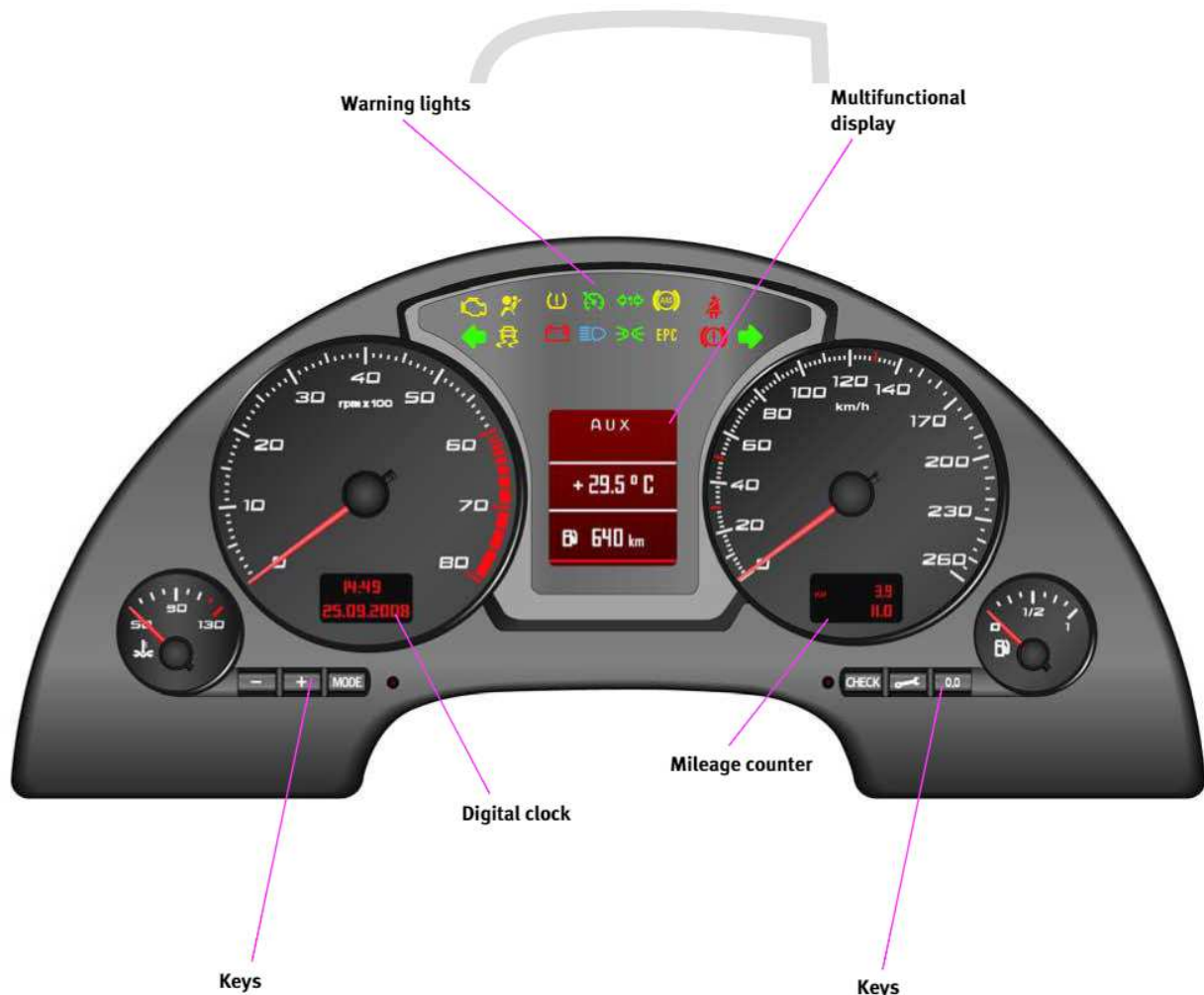
The difference between both instrument panel versions is to be found in the multifunctions display and its indications.

The electronic immobiliser control unit is integrated in the instrument panel and it is not possible to replace it independently.

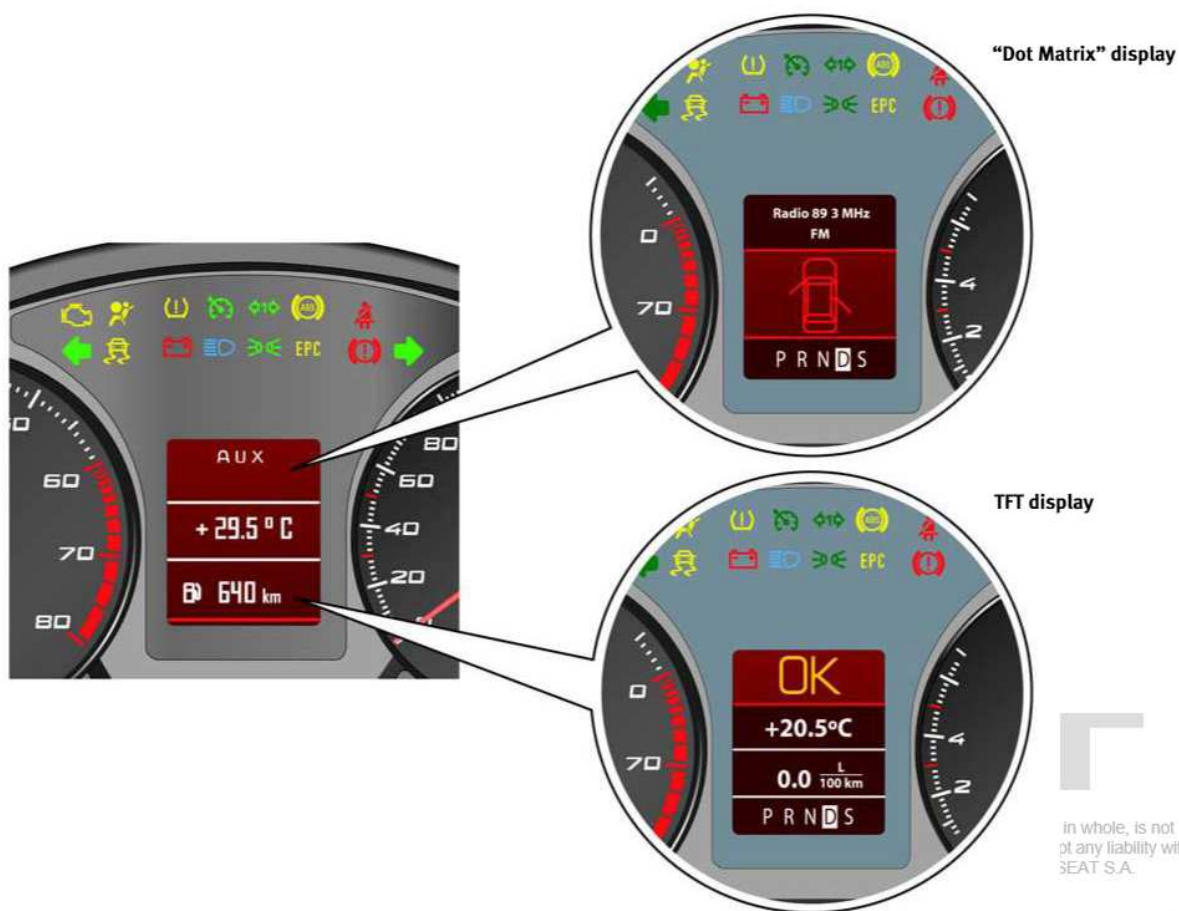
The instrument panel has the **transportation mode** to reduce the vehicle's electrical consumption.

When the transportation mode is activated the interior lights and the radio or navigator are deactivated.

The transportation mode can be deactivated manually by using the VAS 505x tester or automatically when the car has driven more than 50 Km.



D122-24



D122-25

## MULTIFUNCTIONS DISPLAY

There are two versions of the multifunctions display. The Mid-line instrument panel is a "Dot-Matrix" display, and in the High-line instrument panel it is a 256 colours TFT display.

The Mid-line multifunctions display show the following information:

- audio set.
- outside temperature
- fuel autonomy.
- open doors and tailgate warning.
- speed warning.

- self-checking system status.
- service intervals indicator.
- advice to driving (handbrake activated, oil level, engine temperature...)

The High-line instrument panel display shows all the Mid-line information plus:

- bulbs failure.
- tyres pressure monitoring.
- navigation data.
- On-board computer.
- phone.

# INSTRUMENT PANEL



WARNING LIGHT	DESCRIPTION
	EOBD
	Airbag
	Tyres pressure monitoring
	Cruise control
	Shift lever lock
	Fasten seatbelt.
	Left side indicator
	ESP
	Battery
	Full beam
	Engine fault (petrol)
	Pre-heat / fault (diesel)
	Brake
	Right side indicator

D122-26

## WARNING LIGHTS

The warning lights are placed at the upper part of the multifunctions display and are common to all the instrument panel versions except for the EPC warning light, which is specific for the petrol engine vehicles, and the glow-plugs warning light, which is specific to the diesel engine versions.

The fuel temperature and reserve warning lights are integrated in the temperature and fuel indicator.

All warning lights, except the alternator warning light, are activated by a signal transmitted via CAN-Bus.

The instrument panel gets the signal for activating the ABS, ESP-TCS and brakes warning lights via CAN-Bus and conventional cable.



## KEYS

The instrument panel includes the following keys/buttons:

- settings
- checking.
- service intervals indicator.
- resetting.

The settings or adjustment keys are used to change the time of the digital clock.

The checking key is used for the following:

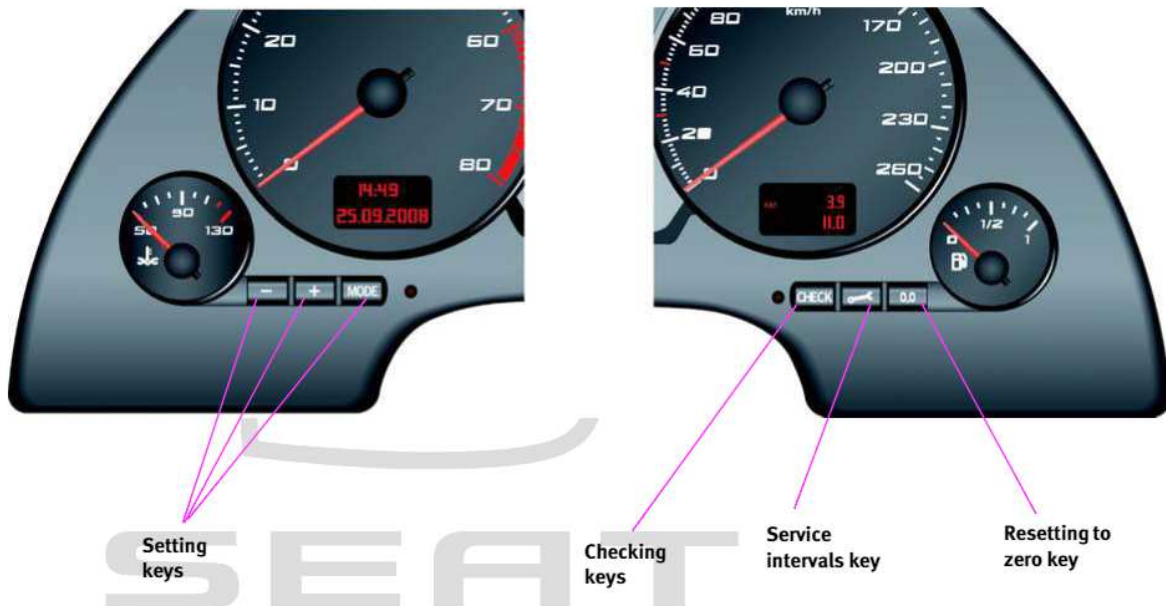
- activating the digital clock for a few seconds when the ignition is off.
- starting self-check cycle and showing the result at the top of the multifunctions display.

- displaying the indications to the driver.
- programming the speed limit surpassed warning.

The service intervals indicator key has two functions:

- visualising the mileage(Km) remaining to the next inspection.
- resetting to zero the service intervals indicator.

The reset to zero key is used to reset the partial mileage (Km) counter to zero.



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erWin

D122-27

# IMMOBILISER

The Exeo has two immobiliser versions, the 3A type and the 4C type.

The **type 3A immobiliser** is the one used for the 1.6L MPI and the 1.8L 20 VT petrol engines.

The **type 4C immobiliser** is the one used for the 2.0L TFSI petrol engine and for the 2.0L CR diesel engine.

The immobiliser has the following adaptation functions, which are already known from other immobiliser models:

- Engine control unit adaptation.
- Instrument panel adaptation.

**New keys adaptation.**  
And it also incorporates two new functions:

- Creating a new identity.
- And, regeneration (only for the 4C immobiliser).

All functions are carried out on-line via FAZIT, both for the 3A and the 4C immobilisers.

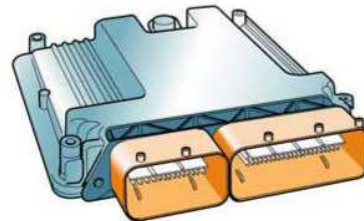
The engine control unit adaptation or instrument panel adaptation functions are to be carried out when replacing either component.

The adapt new keys function allows increasing the number of authorised keys for the car. When carrying out this action it is necessary to adapt all the keys of the car, the new and the existing keys.

**The new identity function** is necessary if all the immobiliser components have to be adapted or if the vehicle keys and barrels are changed. This function allows memorising the new vehicle data in FAZIT.

**The regeneration function** only needs to be carried out if the process has been interrupted during the new identity function and it cannot be restarted again.

Engine control unit  
Jxxx



Keys



Instrument panel J285

D122-28



# INFOTAINMENT

Audio set, R

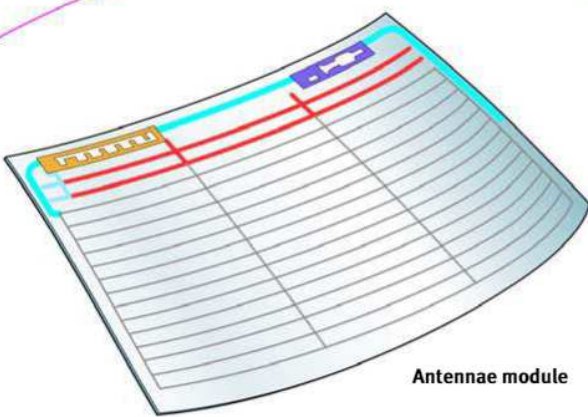


Audio and navigation set,  
J503



Multifunctions steering wheel E22





1000

## CLIMATE CONTROL SYSTEM



D122-30

The Exeo includes the Climatronic in all its model versions.

The main features of the Climatronic are:

- independent temperature setting for the driver and the passenger side.
- automatic recirculation, which allows activating and deactivating the recirculation depending on the incoming air quality.
- heated rear window control.

As an optional the Climatronic also includes:

- front heated seats management.
- carbon active filter at the exterior air intake.
- cooled passenger glovebox.
- blower fan activation via the sun roof.

All the diesel engines include auxiliary heating, which is controlled by the engine control unit.



## CLIMATE ASSEMBLY

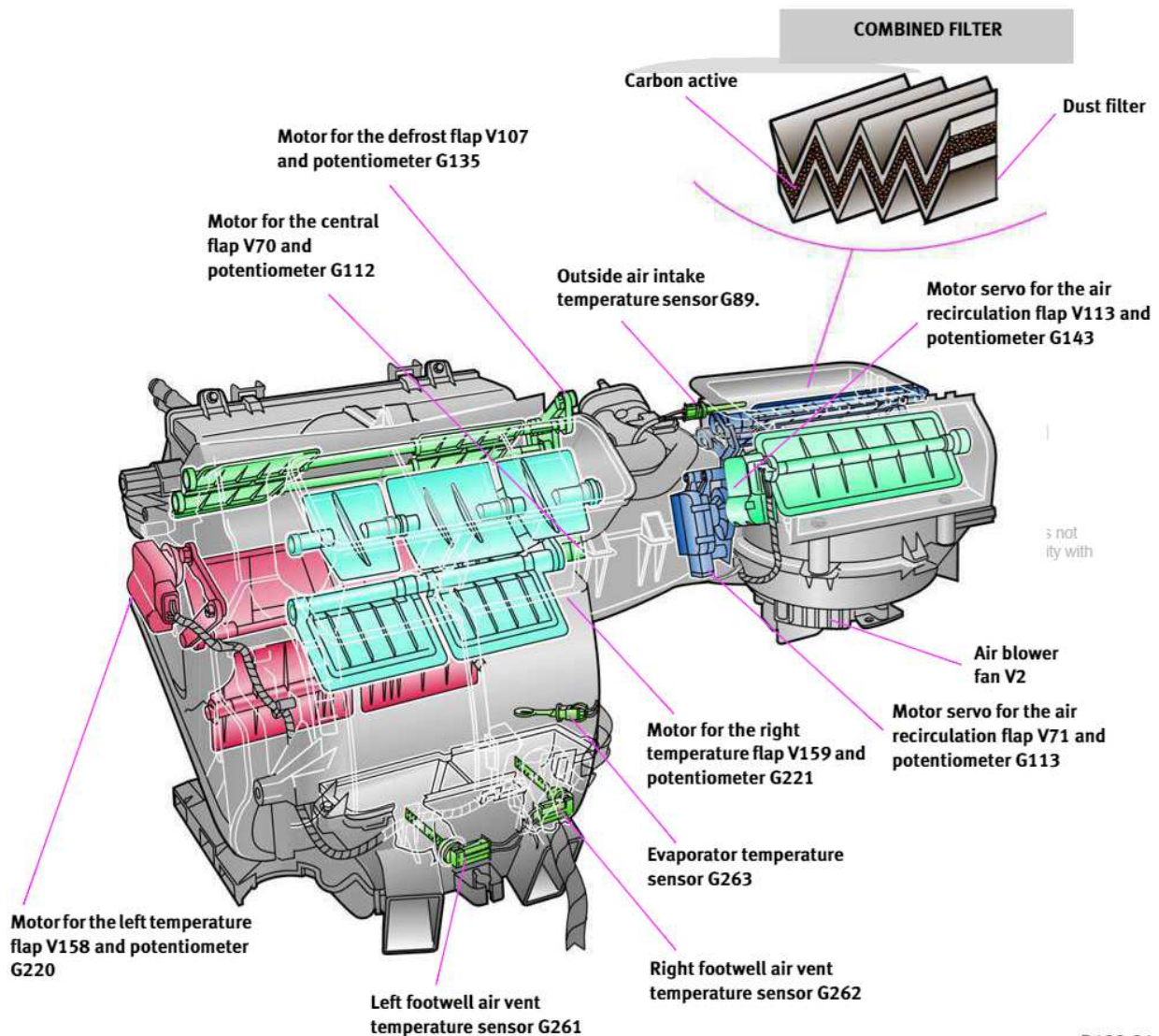
The following components are placed on the Exeo climate assembly:

- temperature sensors.
- flaps activation motors.
- blower fan.
- heater.
- evaporator.
- air quality sensor.
- pollen or combined filter (depending on versions)

The air quality sensor and the combined filter are new in SEAT.

The combined filter, which is offered as an option in all the Exeo model versions, which replaces the pollen filter.

It is made up by a dust filter and a carbon active filtering element. The dust filter traps the solid particles and the carbon active filter traps any gaseous impurities contained in the air.



D122-31

# CLIMATE CONTROL SYSTEM

## SYSTEM LAYOUT

The Climatronic assumes the following functions:

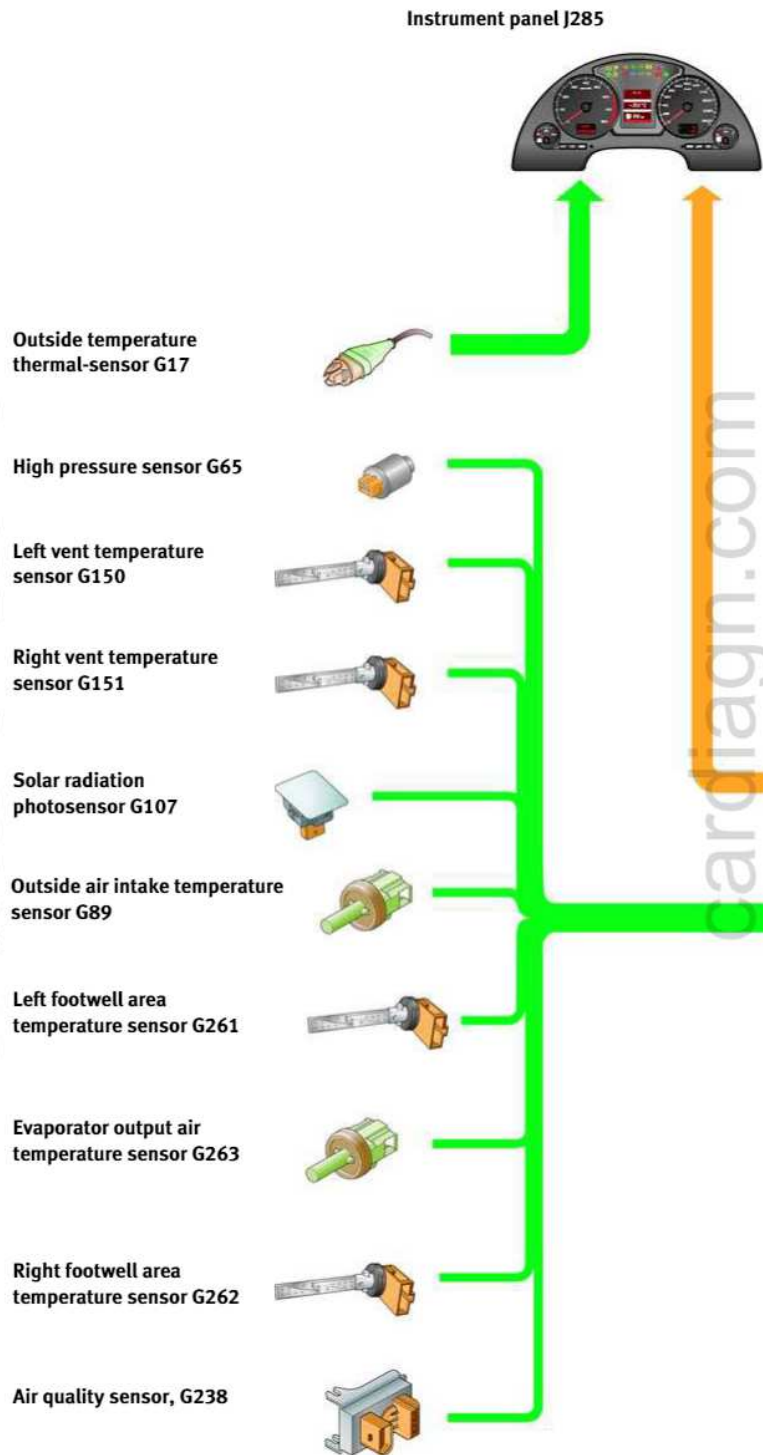
- Temperature regulation at the driver and passenger sides.
- Air vents regulation.
- Compressor performance regulation.
- Activation of engine coolant fans.
- Auxiliary heating regulation.
- Heated rear window regulation.
- Heated seats activation and deactivation.
- Automatic air recirculation.

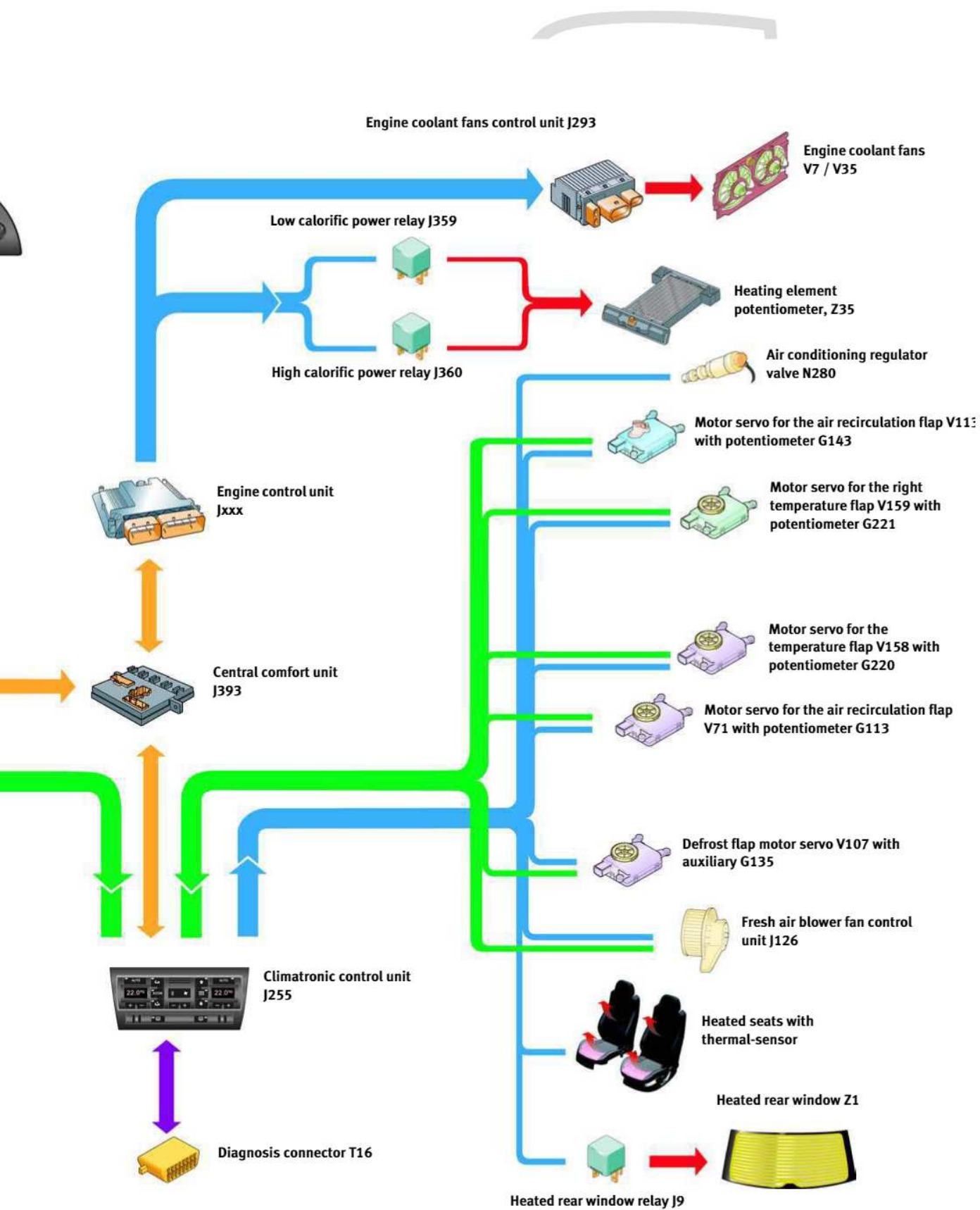
Except for the automatic air recirculation, the rest of functions are already known from other SEAT models.

The automatic recirculation, allows controlling the air recirculation flap according to the quality of the incoming air. The quality of the incoming air is detected through the air quality sensor G238.

The automatic recirculation is limited to a maximum of 12 minutes, after which the air recirculation flap opens up and lets fresh air in from the outside.

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# CLIMATE CONTROL SYSTEM

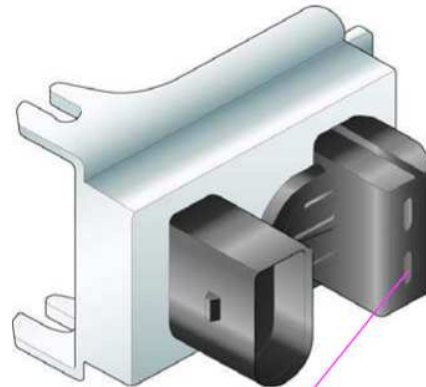
## AIR QUALITY SENSOR, G238

The air quality sensor is placed at the air intake of the climate assembly, next to the outside air intake sensor G89.

Its purpose is to detect polluting gases in the air so that the Climatronic control unit automatically activates the air recirculation and therefore prevent the polluting gases from reaching the passenger compartment.

The type of polluting gases the sensor detects are oxidable and reducible gases.

Oxidable gases are the ones capable of absorbing oxygen and reducible gases are the ones capable of releasing oxygen.



Air intake

D122-33

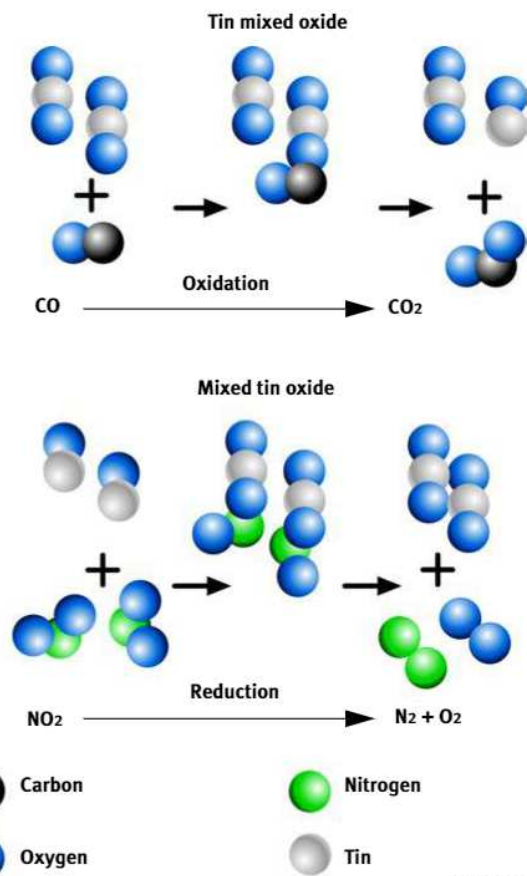
## CHEMICAL PRINCIPLE OF OPERATION

The sensor detects the oxidable and reducible gases contents of the air.

Some oxidable gases present in the air are:

- Carbon monoxide. (CO)
- Fuel vapours.
- Hydrocarbons and unburned or incompletely burned fuel components.

And the most common case of airborne reducible gases are nitrous oxides (NOx).



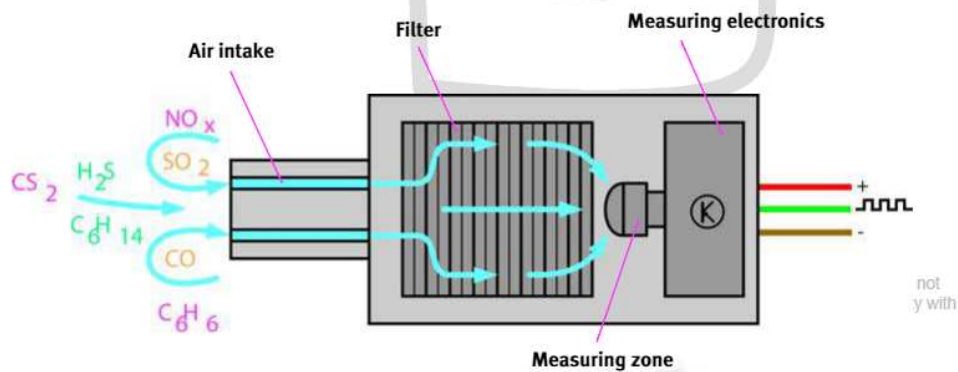
D122-34

## OPERATION

The sensor is made up by a measuring or reading zone and by a control electronics.

The reading zone is the mixed tin oxide zone. Mixed tin oxide has the property of modifying its resistance by releasing or absorbing oxygen particles.

The control electronics receives positive and negative supply, and evaluates the resistance value of the reading zone. Depending on the value obtained it sends a digital signal to the Climatronic control unit informing about the air contents type of gases.



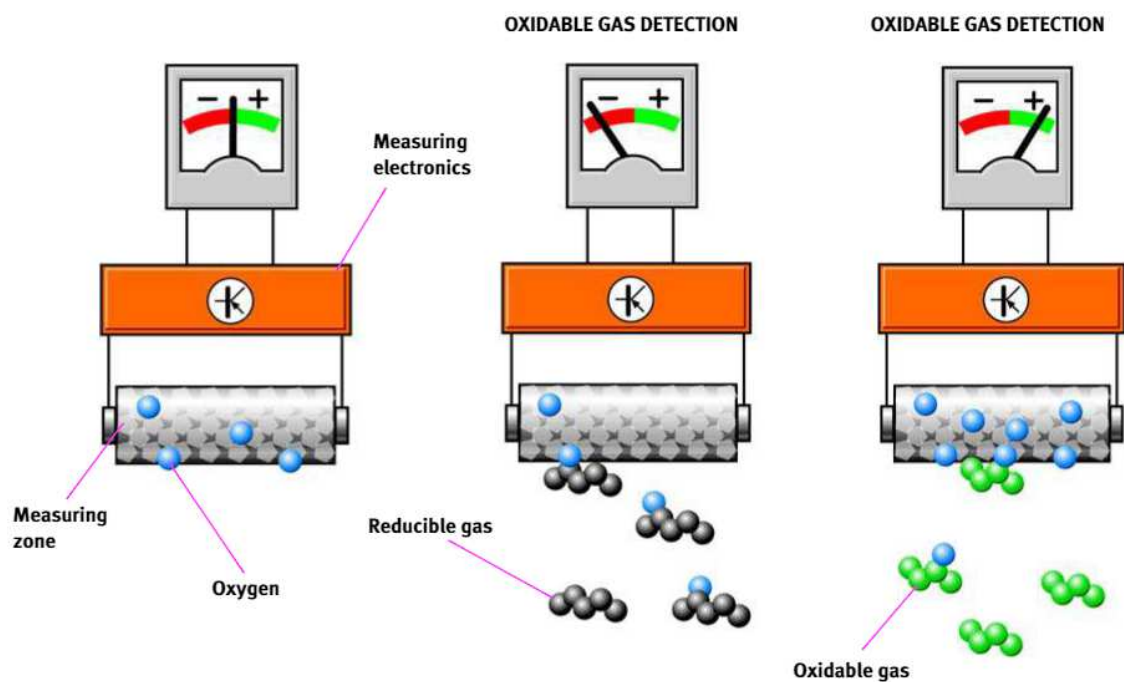
D122-35

## OXIDABLE GASES DETECTION

When mixed tin oxide comes into contact with oxidable gases it releases oxygen. Such a loss of oxygen modifies the properties of the mixed tin oxide and reduces its resistance value.

## REDUCIBLE GASES DETECTION

When mixed tin oxide comes into contact with reducible gases it absorbs oxygen. Such an absorption of oxygen modifies the properties of the mixed tin oxide and increases its resistance value.



D122-36

# CLIMATE CONTROL SYSTEM

## HANDLING UNIT E87

The handling unit is a single assembly with the Climatronic unit.

The keys and two displays are placed on the handling unit.

The available keys are the following:

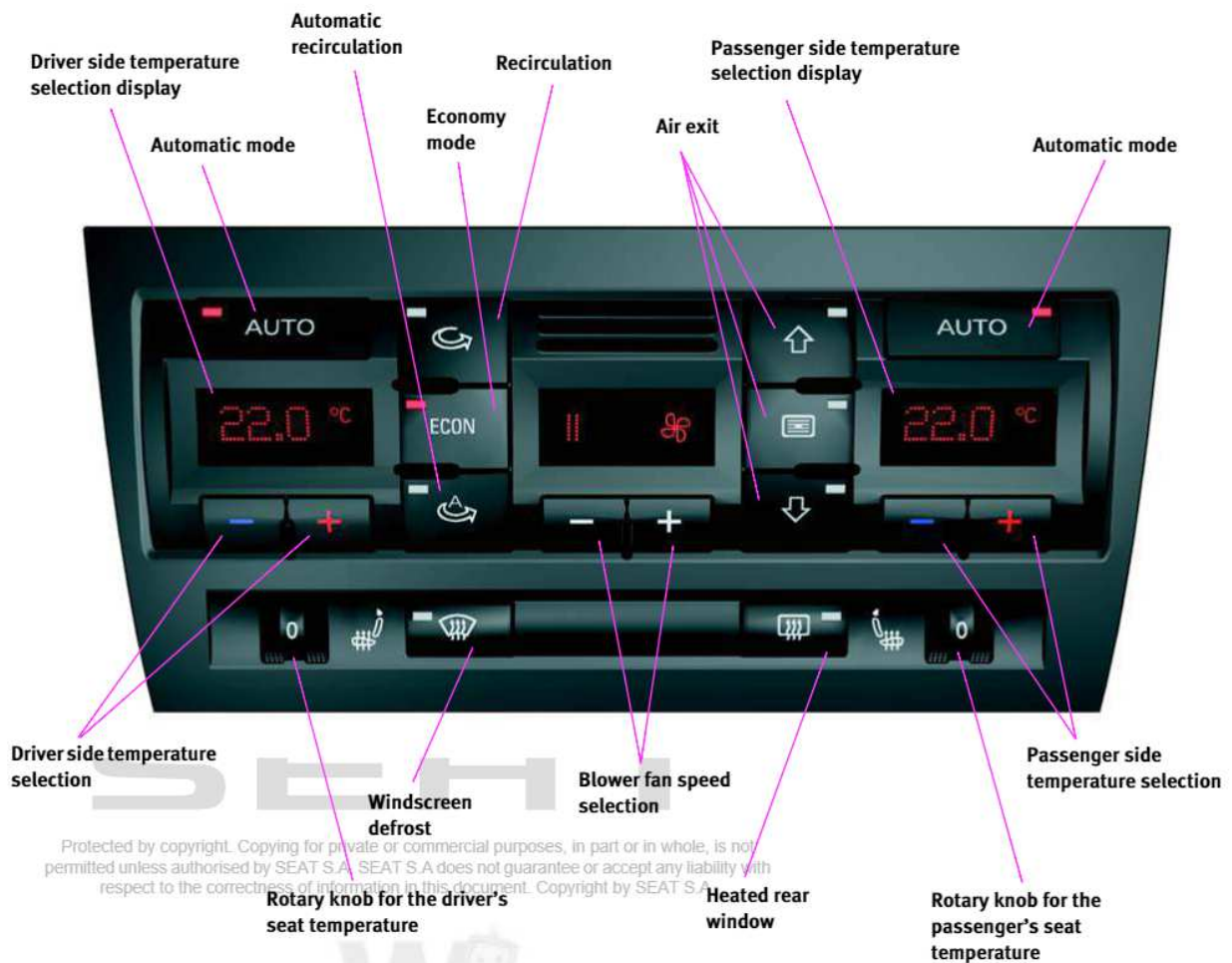
- driver and passenger temperature selection.
- automatic mode.
- recirculation.
- automatic recirculation.
- economy mode.
- air blower fan speed.
- selection of air vents.
- windscreen defrost.
- heated rear window.

If the car is equipped with heated seats, the rotary control knobs for the driver and passenger seats are also on the handling unit.

The selected temperature for the driver and passenger sides is displayed on the screen.

The °C can be switched over to °F by pressing the driver's recirculation and temperature rise keys simultaneously for 2 seconds.

To deactivate the Climatronic the blower fan speed must be reduced to the minimum.



D122-37



# SOLAR POWER ROOF

As an option, the Exeo can be equipped with a **solar power** roof.

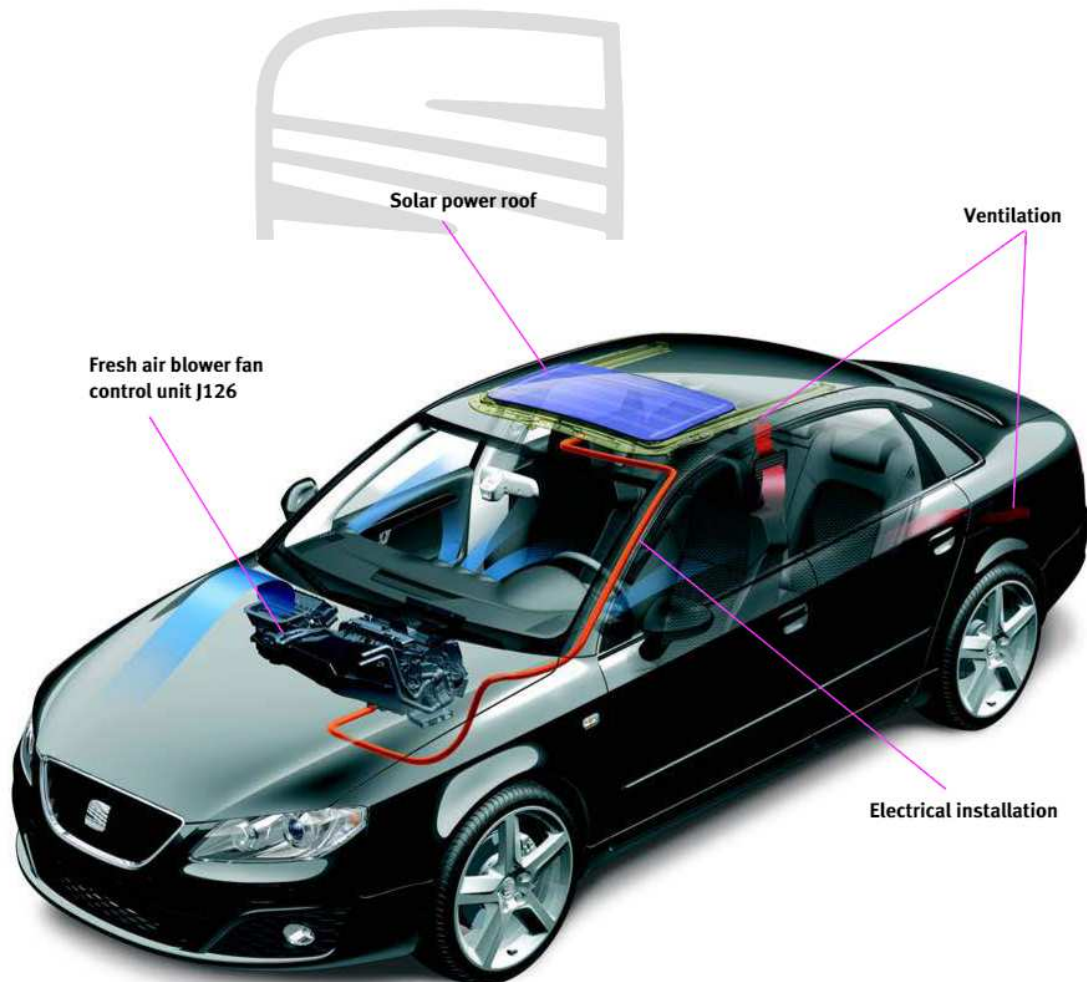
It includes solar panels which are used to generate electricity, when the car is stopped, for activating the fresh air blower fan.

The fresh air blower fan activation allows driving the air circulation inside the passenger compartment in order to:

- reduce the passenger compartment temperature when the car is parked in the sun.
- increase the Climatronic effectiveness, as the selected temperature is reached faster.

The necessary conditions for the system to activate are:

- ignition off.
- sun hitting the roof.
- and, roof closed



D122-38

# SELF-DIAGNOSIS

In the Exeo communication between the diagnosis tester and the control units takes place via different lines depending on the protocol each control unit uses.

The three communication lines are:

- CAN-Bus.
- K wire.
- L wire

Each of the units uses one of the communication lines exclusively.

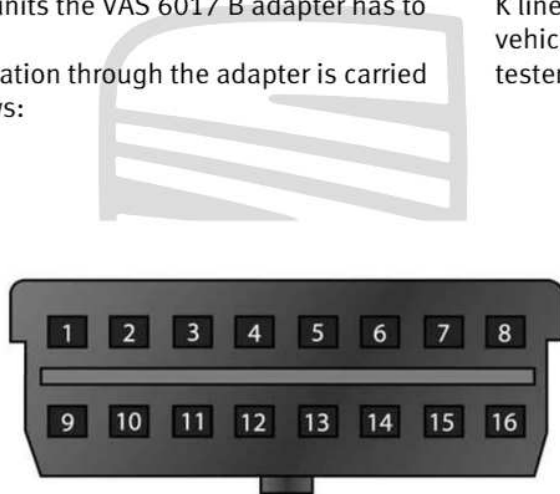
So that the diagnosis tester can communicate with all the units the VAS 6017 B adapter has to be used.

Communication through the adapter is carried out as follows:

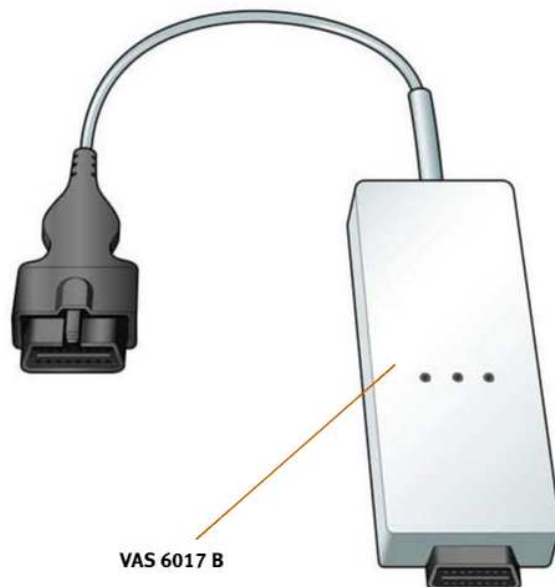
The diagnosis tester sends the message via CAN-Bus, and all the VAS 6017 B adapter does is it transmits the message directly again.

If there is no reply from the control unit the diagnosis tester repeats the message via the K line. In this case, the adapter duplicates the message and transmits it to the vehicle via the K line and the L line.

If the control unit replies via the L line, the adapter recognises this situation and establishes direct communication between the L line and the K line of the diagnosis tester. In this situation the vehicle K line is disconnected from the diagnosis tester to prevent any interfering.



PIN	DESCRIPTION
1	Terminal 15
2	Only for USA cars
3	Free
4	Terminal 31
5	Terminal 31
6	Diagnosis CAN-Bus - High
7	K wire
8	Free
9	Free
10	Only for USA cars
11	Free
12	Free
13	Free
14	Diagnosis CAN-Bus - High
15	L wire
16	Terminal 30





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**Technical status 09.08.** Due to constant product development and improvement, all data displayed is subject possible changes.

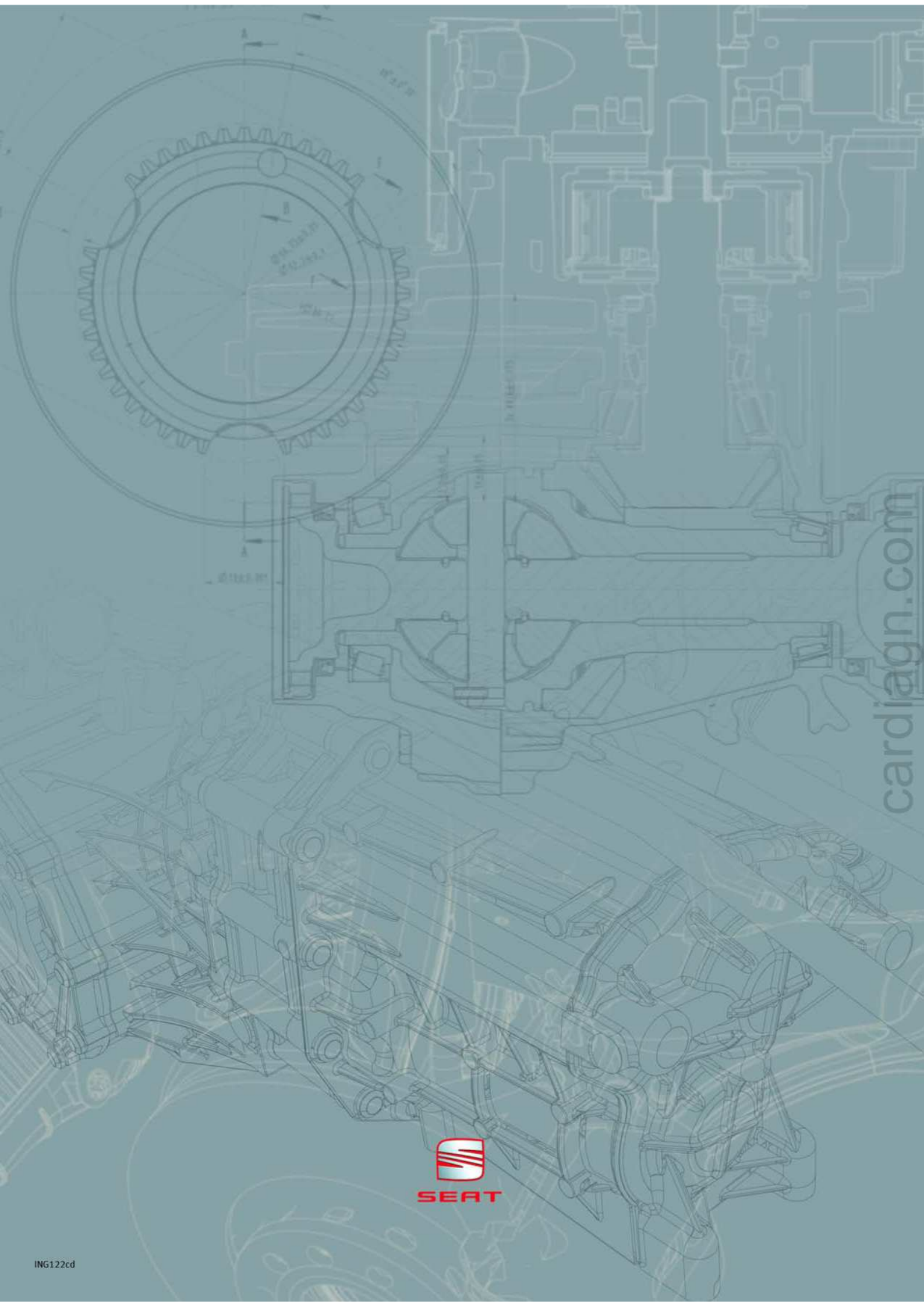
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