Structure of electrical/electronic system

The electrical equipment on this vehicle makes use of the Small 2 architecture developed specifically to integrate the most sophisticated electronic functions in the most efficient way.

This structure makes up the car's "nervous system", directly controlling all the bodywork functions (access control, visibility, on board information, comfort, etc.) and communicates with the various chassis and power unit subsystems, improving system fault diagnosis, reliability, weight and cost. A further advantage compared with traditional systems is the simplification of the fitting through the reduction in the number of control units (in line with the functions offered to the customer) and the number of power and signal connections, through the extensive use of serial communication networks (2 CAN dual wire networks, 1 LIN single wire network, 1 A-BUS single wire subnetwork).

Power distribution takes place by means of four junction and relay fuse boxes, connected to the control elements (static actuators and relays). These boxes also act as an interconnection for the wiring and as an electrical distributor to ensure the maximum level of electrical protection and the minimum degree of wiring complexity.

It is a simplified version of the previous "MINI FLORENCE" system: the structure has been simplified to manage a greater number of functions with the Body Computer.

The main electronic components managed by the architecture are listed below:

B-CAN network



C-CAN network



NBC Body Computer node NGE Electric steering node NFR Brake node NCM Engine control node NFA Self-Adaptive Lighting Node NSC Gear Selector Node (TCT) NCA Automatic Transmission Node (TCT) NQS Instrument panel node NAB Air Bag node NSP Parking sensor node NAG Driver's Seat Position Node NAP Passenger's Seat Position Node NRR Radio receiver node RNM Map radio navigator NCV Bluetooth control unit node NCL Climate control node EOBD Diagnosis connector (the code used in wiring diagrams is shown in brackets)

The structure of the communication lines includes:

- A 50 Kbit/s B-CAN type network. Specifications: presence of two network cables, B-CANb and B-CANa, resistant to network malfunctions; 29 bit standard
- A 500 Kbit/s C-CAN type network. Specifications: presence of two tangled network cables, C-CANH and C-CANL, not resistant to network malfunctions; 29 bit standard

Replacing and initializing network nodes

Some of the CAN nodes are programmed with default settings which the customer will discover on acquiring the vehicle.

The nodes storing this information are the:

- Body Computer;
- Instrument Panel Node;
- Bluetooth Control Unit Node;
- Radio Navigator Node;
- Climate Control Unit Node;
- Airbag Node

If the Body Computer is being replaced, an "identical copy" of the Body Computer must be obtained from the Spare Parts Dept. as a V.O.R. order supplying the vehicle chassis number: this copy will contain all the default settings entered into the new vehicle which are stored in the Parts Dept. database for the vehicle chassis number.

If the other nodes described above are being replaced, the Spare Parts Dept. will send a blank component: once fitted, the initial default data must be transferred to it by carrying out the PROXI ALIGNMENT procedure using the Examiner.

Battery disconnection

If the battery is disconnected,

- Body Computer;
- Instrument Panel Node;
- Bluetooth Control Unit Node;
- Radio Navigator Node;
- Climate Control Unit Node;
- Airbag Node

they keep the information received and do not need to be initialized after the battery is disconnected, whilst the other nodes lose some or all of the information memorized and should be initialized.

Logistic mode

Logistic mode: the software inside the Body Computer cut-out all vehicle electrical loads, except the main functions (vehicle starting, lights). This function makes it possible to save battery energy which is useful when the vehicle is parked, possibly for long periods, in forecourts before being sold.

The function should be disabled in the workshop before the vehicle is handed over to the customer.

Deactivation procedure

The procedure is as follows:

- connect the diagnosis device terminal to the vehicle EOBD socket and turn the ignition ON.
- Check that the "alternator recharging" warning light is in flashing mode to indicate that the Logistic Mode low consumption mode is activated.
- Deactivate the low consumption supply mode by carrying out the fault diagnosis of the Body Computer using the Examiner.
- The Body Computer and all control units involved, on receiving the CAN message, will restore their full operation and send a confirmation message to the Body Computer node.
- Delete the error memory in all control units with a diagnosis function.
- Carry out a key OFF key ON.
- Check that the "alternator recharging" warning light is on constantly.

Fault diagnosis and diagnosis connector

The diagnosis socket (EOBD) is external to the Body Computer node and joins the two CAN networks. Therefore, node diagnosis is not performed by means of diagnosis sent on communication networks, except for the two discharge gas headlight control units (CPS and CPD), which are connected to the diagnosis socket directly.

No. A 16HS diagnosis connector is needed in order to be able to converse with the various electronic units.



There are also the ISO 5 A-BUS serial line for alarm, wiping functions, lighting and battery charge status sensor.



CSP rain/dusk sensor control unit CAV - Volumetric Alarm Control Unit CSA Alarm siren control unit IBS Intelligent Battery Sensor

Body computer node

Location of the Body Computer Node (left hand drive versions)



Location of the Body Computer Node (right hand drive versions)



The rear part of the Body Computer Node is illustrated below.



	Connector M001G PIN OUT (dashboard wiring)
Pin	Function
1	Earth (window lifting earth) (N.C.)
2	Active digital input to Vbat INT
3	Power supply from F-50 INT for AIRBAG
4	Power supply from F-53 +30 for NQS
5	Power supply from F-53 +30 for NBS/TEG reader (N.C.)
6	SBMT output for glove compartment light
7	Power supply from F-51, INT for NRR / MYPORT
8	Power supply from F-51, INT for NCV
9	Active digital input Vbat KL 15a
10	Power supply from F-36 +30 for NRR / NAV
11	Earth
12	Power supply from F-49, INT for controls on the steering wheel
13	Power supply from F-51, INT for voltage stabiliser
14	Power supply from F-49, INT for AUX socket
15	Power supply from F-49, INT for PCS and vehicle dynamics selector
16	Power supply from F-49, INT for PCS and Hazard
17	Power supply from F-37, INT for NQS/SBR
18	Power supply from F-36 +30 for EOBD
19	Power supply from F-36 +30 for NCV
20	Power supply from F-36 +30 for NRR with BOSE system
	Connector M001H PIN OUT (dashboard wiring)

Pin	Function
1	Earth active analogue input, negative digital signal for vehicle locking/unlocking
2	Earth active analogue input, negative analogue signal for Resume/Up/Down from CSM (N.C.)
3	Driver relay Low Side, negative control for coil of TEG locking relay (N.C.)
4	Driver relay Low Side, negative control for coil of TEG unlocking relay (N.C.)
5	Driver High Side, LED positive control (N.C.)
6	Driver Low Side, negative control for All weather LED
7	Driver High Side, Fog lights signal LED positive control
8	Driver High Side, hazard light on LED positive control
9	B-CAN A line
10	B-CAN A line
11	B-CAN A line
12	B-CAN A line
13	C-CAN H line for Convergence (N.C.)
14	C-CAN L line for Convergence (N.C.)
15	Specific input, immobiliser signal
16	Earth active analogue input, negative analogue signal for boot opening button (N.C.)
17	Active analogue input Vbat/earth, Positive digital signal for passenger side window lifting control (N.C.)
18	Active analogue input for Vbat/earth, positive digital/analogue signal for driver side window lowering control (N.C.)
19	Earth active analogue input, negative analogue input for TEG reader locked/unlocked (N.C.)
20	Earth active analogue input, negative analogue signal for windscreen wiper intermittent operation from CSM (N.C.)
21	Earth active analogue input Active analogue input for 4WD control earth

21	(N.C.)
	Earth active analogue input, negative analogue input for TEG reader on (N.C.)
23	Driver High Side, Door status/deterrent LED positive control
24	B-CAN B line
25	B-CAN B line
26	B-CAN B line

27	B-CAN B line
28	C-CAN H line EOBD
29	C-CAN L line EOBD
30	Specific input, immobiliser signal
31	Active analogue input Vbat/earth, positive digital signal for driver side window lifting control (N.C.)
32	Driver Low Side, negative control for Dynamic LED
33	Frequency input, Digital signal from Tachograph (N.C.)
34	Earth active analogue input, Negative analogue signal for Start&Stop enablement
35	Earth active analogue input, Negative digital signal from heated rear screen button (N.C.)
36	Earth reference for PCC
37	Earth reference for PCS (N.C.)
38	Earth active analogue input, Negative analogue signal for steering wheel controls, LH side
39	Earth active analogue input, Negative analogue signal for rear fog light / fog light
40	Earth active analogue input, Negative analogue signal for rear window wiper from CSM
41	Earth active analogue input, Negative analogue signal for Vehicle Dynamic Control switch
42	Earth active analogue input, Negative analogue signal for light selector from CSM
43	Earth active analogue input, Negative analogue signal for main beams / flashers from CSM
44	Serial line LIN 2 (N.C.)
45	Reference earth for CSM
46	LH CAF supply for NQS
47	Active analogue input for Vbat/earth, Negative digital signal for converter diagnosis
48	Active analogue input for Vbat/earth, Positive digital/analogue signal for

48	passenger side window lowering control (N.C.)
49	Positive side light control for CAF from NQS
50	Driver High Side Driver, Positive light control depending on side lights
51	Earth active analogue input, Negative analogue signal for steering wheel controls, RH side
52	Driver High Side, Start&Stop enablement LED positive control
53	Earth reference for steering wheel

54	Earth active analogue input, Negative analogue signal for windscreen washer from CSM
55	Earth active analogue input, Negative digital signal for hazard lights
56	Earth active analogue input, Negative analogue signal for Cruise Control Off from CSM
57	Earth active analogue input, Negative analogue signal for side lights from CSM
58	Earth active analogue input, Negative analogue signal for windscreen wiper switch from CSM
59	Serial line LIN 4 (N.C.)
60	Driver High Side, Rear fog light LED positive control

The front part of the Body Computer Node is illustrated below.



M001A connector (front wiring): Body Computer power supply M001B connector (rear wiring): luggage compartment control unit power supply

M001C connector	pinout (front wiring)
Pin	Function
1	Power supply from F-12, Output for RH dipped beam headlamp relay contact
2	Power supply from F-43, Output for windscreen wiper relay contact
3	Power supply from F-90, Output for LH main beam headlamp relay contact
4	Power supply from F-51, INT for NCL, AQS

5	Power supply from F-91, Output for RH main beam headlamp relay contact
6	Power supply from F-92, Output for LH fog light relay contact
7	Power supply from F-51, INT for reversing switch, clutch (NC) (manual gearbox)
8	Power supply from F-93, Output for RH fog light relay contact
9	Contact output for first speed window wiper relay
10	Contact output for second speed window wiper relay

11	Power supply from F-43, Output for rear window wiper relay contact
12	Power supply from F-13, Output for LH dipped beam headlamp/CAF relay contact
13	Power supply from F-36 +30 for NCL
14	Power supply from F-36 +30 for CSA
15	Power supply from F-37, INT for discharge lamp
16	Power supply from F-37, INT for brake switch (N.O.)
17	Power supply from F-51, INT for brake/clutch switch (N.C.)
18	Power supply from F-51, INT for coils T02, T05, T19, diesel filter, AFS, brake vacuum sensor
19	Active digital input Vbat, INT from key (N.C.)
20	Power supply from F-31, INT/A for coils T08, T40, T42
	M001D connector PIN-OUT (front wiring)
Pin	Function
1	Driver High Side, DRL/side light control
2	Earth active analogue input (N.C.)
3	Driver High Side, Wake-up positive control (N.C.)
4	Driver relay Low Side, Negative control for relay coil (N.C.)
5	Driver relay Low Side, Output for driver side door open repetition signal for TCT
6	Driver High Side, Positive control for hazard lights on LED (N.C.)
7	Signal driver (N.C.)
8	Earth active analogue signal, Negative digital signal from bonnet open signalling switch (N.C.)
9	Earth active analogue input, Negative digital signal for hazard lights switch (N.C.)
10	Driver relay Low Side, Negative control for relay coil (N.C.)
11	Active analogue input for Vbat/earth, Positive digital signal for brake light (N.C.)

12	Power supply from F-42, INT for NFR NYL NAS
13	Power supply from F-42, INT for NFR, NGE
14	RH CAF power supply
15	Driver High Side Driver Power supply for LH DRL ECU (N.C.)
16	Reference earth for RH TPMS sensor (N.C.)
17	Earth active analogue input, Negative analogue signal from windscreen/rear window wiper switch (N.C.)

18	Earth active analogue input, Negative analogue signal from brake fluid level switch
19	Driver relay Low Side, Negative control for heated rear screen relay coil
20	Serial line LIN 4 (N.C.)
21	Driver High Side, heated rear screen signalling LED positive control
	(N.C.)
22	Driver relay Low Side, Negative control for headlamp washer relay coil
23	Earth active analogue input, Negative analogue signal from brake pad wear sensor
24	Earth active analogue input, Negative digital signal from heated rear screen button (N.C.)
25	Active digital input Vbat/earth (N.C.)
26	Serial line LIN 2 (N.C.)
27	Serial line LIN 3 (N.C.)
28	Power supply from F-42. INT for NFR, NGE (N.C.)
29	LH CAF power supply
30	Driver High Side Driver Power supply for DRL ECU
31	Driver High Side Front LH direction indicator activation
32	Driver High Side Side LH direction indicator activation
33	Driver High Side, DRL/side light control
34	Earth active analogue input (N.C.)
35	Earth active analogue input Diagnosis feedback (DRL/side lights)
36	Earth active analogue input Diagnosis feedback from LH headlamp active to earth (LED) (N.C.)
37	C-CAN L line
38	C-CAN H line
39	Speedometer sensor earth (N.C.)
40	B-CAN B line
41	B-CAN A line
42	Active analogue input for Vbat/earth, Positive digital signal for A/C (N.C.)
43	Active analogue input Vbat/earth, Negative digital signal for engine coolant level (N.C.)
44	Frequency input, Speedometer sensor signal (N.C.)
45	Active analogue input for Vbat, Positive analogue signal D+ for alternator (N.C.)
46	Driver High Side Front RH direction indicator activation

47	Driver High Side Side RH direction indicator activation
48	Driver High Side Driver, Positive light control depending on side lights (N.C.)
49	Driver relay Low Side, Negative control for starting relay enablement
50	Serial line LIN 1 for battery monitoring system, alarm siren
51	Driver Low Side Earth for rear parking sensors (N.C.)
52	C-CAN L line (N.C.)
53	C-CAN H line (N.C.)
54	Specific input, RH wheel TPMS signal (N.C.)
55	Specific input, LH wheel TPMS signal (N.C.)
56	Driver Low Side Regeneration, VSO signal (N.C.)
57	Active analogue input for Vbat, Positive digital signal for brake light (N.O.)
58	Earth active digital input, Windscreen wiper cam negative digital signal
59	Positive side light control for LH CAF
60	Positive side light control for RH CAF
Connector M001E P	IN OUT (rear wiring)
Pin	Function
Pin 1	Function Power supply from F-47, Output for driver side window lifting control relay contact (N.C.)
Pin 1 2	Power supply from F-47, Output for driver side window lifting control
1	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control
2	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.)
1 2 3	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact
1 2 3 4	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV
1 2 3 4 5	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR-
1 2 3 4 5 6	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor
1 2 3 4 5 6 7	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor
1 2 3 4 5 6 7 8	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor Power supply from F-49, INT for CTA Power supply from F-89, for navigator display Power supply from F-89, Output for opening rear window release contact
1 2 3 4 5 6 7 8 9	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor Power supply from F-49, INT for CTA Power supply from F-89, for navigator display Power supply from F-89, Output for opening rear window release contact (N.C.)
1 2 3 4 5 6 7 8 9 10	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor Power supply from F-49, INT for CTA Power supply from F-89, for navigator display Power supply from F-89, for navigator display Power supply from F-89, Output for opening rear window release contact (N.C.) Power supply from F-49, INT for volumetric sensors Power supply from F-51. INT for NSP to rear parking sensor power
1 2 3 4 5 6 7 8 9 10 11	Power supply from F-47, Output for driver side window lifting control relay contact (N.C.) Power supply from F-47, Output for driver side window lowering control relay contact (N.C.) Power supply from F-38, Output for Dead Lock control relay contact Power supply from F-36 +30 for CAV Power supply from F-49. INT for electrical seats (CSE) Power supply from F-49. INT for rain/dusk/electrochromic mirror/TMR- HR sensor Power supply from F-49, INT for CTA Power supply from F-49, INT for CTA Power supply from F-89, for navigator display Power supply from F-89, Output for opening rear window release contact (N.C.) Power supply from F-49, INT for volumetric sensors Power supply from F-49, INT for NSP to rear parking sensor power supply

14	Power works from E 29. Output for boot release releve contact	
14	Power supply from F-38, Output for boot release relay contact	
15	Power supply from F-48, Output for passenger side window lowering relay contact (N.C.)	
16	+30 power supply from F47 for drivers side window lifting	
17	+30 power supply from F-34 for RH rear window lifting	
18	Power supply from F-38, Output for door locking relay contact	
19	+30 power supply from F-33 for LH rear window lifting	
20	Driver High/Low Side, Rear window wiper motor positive control	
21	Power supply from F-36 +30 for folding mirrors	
22	SBMT power supply for sun visors	
23	SBMT power supply for front puddle lights	
24	SBMT power supply for rear roof light	
25	SBMT power supply for front roof light	
26	Reference earth for rear lights (PWM) (N.C.)	
27	Power supply from F-31, INT/A for coils T40 and T42	
28	SBMT power supply for boot light	
29	SBMT power supply for rear puddle lights	
30	Power supply from F-48, Output for passenger side window lifting relay contact (N.C.)	
31	+30 power supply from F-48, passenger side window lifting	
32	Power supply from F-38, Output for door unlocking/common relay contact (dead lock)	
M001F connector	pinout (rear wiring)	
Pin	Function	
1	Driver High Side RH reversing light activation	
2	Driver High Side LH side light/brake light activation on mobile part	
3	Driver High Side RH rear fog light activation	

4	Driver High Side LH reversing light activation
5	Driver High Side, Window lifting activation control
6	Driver High Side RH/LH number plate light activation
7	Driver High Side Driver, Positive light control depending on side lights
8	Driver Low Side, Negative control for timed/dimmed front courtesy light
9	Active analogue input for Vbat/earth, Positive analogue signal for LH rear courtesy light (N.C.)

10	Driver Low Side, Negative control for timed/dimmed rear courtesy light (N.C.)
11	Active analogue input Vbat/earth, Negative digital signal from FIS / trailer presence (N.C.)
12	Earth active analogue input Diagnosis feedback from LH light active to earth (LED) (N.C.)
13	Driver Low Side, Negative control for timed/dimmed rear courtesy light
14	Serial line LIN 1 for rain/dusk sensor (+15) / volumetric sensors (+30)
15	Input for RF receiver aerial
16	Driver High Side RH rear direction indicator activation
17	Driver High Side RH rear side light/brake light activation
18	Driver High Side light activation (N.C.)
19	Driver High Side light activation (N.C.)
20	Active analogue input for Vbat/earth, positive digital/analogue signal for driver side window lowering control (N.C.)
21	Driver Relay Low Side, Negative control for power window/sliding courtesy enablement (comfort closing)
22	Active analogue input for Vbat/earth, Positive analogue signal for RH rear courtesy light (N.C.)
23	Active analogue input for Vbat/earth, Positive analogue signal for front courtesy light on (N.C.)
24	Fuel level interface (negative), Negative signal for fuel level from tank
25	Fuel level interface (positive), Positive signal for fuel level from tank
26	Earth active digital input, Rear window wiper cam negative digital signal
27	Earth active analogue input, Negative digital signal for vehicle locking/unlocking from Control panel in the Tunnel (N.C.)
28	Serial line LIN 2 (N.C.)
29	Driver Low Side Signal Driver (N.C.)
30	Earth reference for RF aerial
31	Driver High Side LH rear fog light activation

32	Driver High Side RH side light/brake light activation on mobile part	
33	Earth active analogue signal, Negative digital signal from switch on rear right door	
34	Earth active analogue input, Negative analogue signal from boot handle opening switch	
35	Earth active analogue signal, Negative digital signal from switch on boot	
36	Earth active analogue signal, Negative digital signal from switch on rear left door	
37	Specific input, Positive signal for external temperature	
1	1	

38	Earth active analogue signal, Negative digital signal from switch on rear screen (N.C.)
39	Serial line LIN 3 (N.C.)
0	Active analogue input for Vbat/earth, Positive digital/analogue signal for passenger side window lowering control (N.C.)
1	Driver High Side, Positive control for door status LED (N.C.)
2	Earth active analogue input Diagnosis feedback from LH light active to earth (N.C.)
13	Earth active analogue input, Negative analogue signal from rear screen handle opening switch (N.C.)
44	Earth active analogue input, Negative digital signal from handbrake applied switch (N.O.)
45	B-CAN A line
16	Driver High Side Rear LH direction indicator activation
47	Driver High Side LH rear side light/brake light activation
48	Driver High Side for Third brake light activation
49	Driver Low Side Regeneration, VSO signal
50	Earth active analogue input, Negative digital signal from switch on driver side front door
51	Earth active analogue input, Negative digital signal from switch on passenger side front door
52	Earth reference for outside temperature sensor
53	Active analogue input for Vbat/earth, Negative analogue signal for pawl/engine bar on driver side
54	Active analogue input Vbat/earth, Positive digital signal for passenger side window lifting control (N.C.)
55	Active analogue input Vbat/earth, Positive digital signal for driver side window lifting control (N.C.)
	Active analogue input for Vbat/earth, Negative analogue signal for

56	pawl/engine bar on passenger side / Analogue signal for mirror folding (N.C.)
57	Driver Low Side, Timed negative control for left spot light in centre front courtesy light (N.C.)
58	Driver Low Side, Timed negative control for right spot light in centre front courtesy light (N.C.)
59	Active digital input Vbat/earth, Negative digital signal from anti-theft system with remote control (N.C.)
60	B-CAN B line

The fuses in the Body Computer are illustrated in the diagram below. Version up to September 2012



Version from October 2012



Fuse	Capacity	Users protected
F12	7,5	Right dipped beam headlight
F12	15	Right dipped headlamp (Xenon version)
F13	7,5	Left dipped beam headlight
F13	15	Left dipped headlamp (Xenon version)
F31	5	INT/A engine compartment junction unit relay switches
F32	10	Front courtesy lights, luggage compartment light, puddle lights, sun visors and glove compartment light
F33	20	Rear electric window (left side)
F34	20	Rear electric window (right side)
F36	10	+ 30 door controls, radio, Bluetooth, Navigator, climate control system, volumetric sensors, siren, diagnosis
F37	7,5	INT for headlamp control unit, panel, brake switch, seat belt display

F38	20	Central locking
F42	5	ABS/VDC, electric steering
F43	20	Two-way windscreen washer pump
F47	20	Front electric window (driver side)
F48	20	Front electric window (passenger side)
F49	5	INT interior mirror, control lighting, sun roof, seat controls, climate control system, volumetric sensors
F50	7,5	Airbag
F51	5	INT for engine compartment control unit relay switches, headlamp control unit, brake switch, clutch, reverse, parking sensors, voltage stabiliser, radio, Bluetooth, navigator display, brake servo sensor, climate control system, AQS sensor
F53	7,5	+ 30 panel
F89	15	Navigator Display
F90	7,5	Left main beam headlight
F91	7,5	Right main beam headlight
F92	7,5	Left fog light
F93	7,5	Right fog light

CONTROL UNIT ON BATTERY

Connects the battery terminal to the starter cable and to the engine compartment control unit, housing the first level power fuses protecting the power supply for the engine compartment control unit (CVM) and the luggage compartment control unit (CVB). It directly connects the electric power steering with a special main fuse.





- 1 CVM power supply
- 2 CVB power supply
- 3 Electric STEERING power supply (with fuse F71)
- 4 Power supply to battery charge status sensor

Engine compartment fuse box

The engine compartment control unit is located on the left, protected by a special cover.

The cover removing-refitting sequence should be carried out correctly to avoid fitting the cover incorrectly which might allow fluid to enter the control

unit
 Op. 5505A28 CONTAINER FOR ADDITIONAL JUNCTION UNIT IN ENGINE COMPARTMENT - R.R.
 It is not advisable to use water jets on the engine compartment control unit guard during washing operations.



The engine compartment control unit is incorporated in the engine compartment cable bundle and cannot be replaced on its own.

Fuses and relay switches

The location of the fuses in the engine compartment control unit is illustrated in the diagram below



Fuse	Capacity	Users protected
F01	70 A	NBC (Body Computer)
F02	60 A	Luggage compartment control unit
003	20 A	Ignition switch
504	40 A	NFR 1 (pump)
F05	40 A	Heater PTC1
F06	30/40 A	Engine cooling electric fan low speed
F07	50/60 A	Engine cooling electric fan high speed
F08	40 A	Climate control system fan
F09	30 A	Headlight washers
F10	15 A	Horns
711	10 A	NCM (secondary loads)
	7.5 A	LPG valves
514	15 A	TCT transmission control unit

F15	15 A	LPG injectors
	15 A	TCT transmission control unit
F16	5 A	+15 NCM and TCT transmission
F17	10/15 A	NCM
F18	5 A	+30 NCM, TCT transmission
F19	7.5 A	Air conditioning compressor
F20	30 A	Heated rear window
F21	15/20 A	Fuel pump
F22	15/20 A	NCM, main loads
F23	20 A	NFR 2 (valves)
F24	-	Free
F30	5 A	TCT transmission controls
F81	60 A	Heater plug control unit (JTD)
F82	50 A	Heater PTC2
	40 A	Heated filter (JTD)
F83	40 A	TCT transmission pump
F85	10 A	Front power socket
F86	15 A	Rear power socket
F87	5 A	Battery charge status sensor
F88	7.5 A	Mirror defrosting and heated nozzles
Relay	Capacity	Users operated
T02	20 A	Headlight washers
Т03	20 A	Horns
Т05	20 A	Air conditioning compressor
T06	30 A	Engine cooling electric fan low speed
Т07	50 A	Engine cooling electric fan high speed
Т08	50 A	Climate control system fan, power sockets
Т09	30 A	Engine management system
T10	20 A	Fuel pump
T14	-	Free
	20 A	LPG valves
T17	30 A	S&S starting inhibitor
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T19	30 A	Heated rear window
	20 A	LPG injectors
T20	30 A	S&S starting
		Heated filter (JTD)
T30	50 A	TCT transmission pump

ADDITIONAL FUSE BOX

A number of fuses are arranged in the luggage compartment on the rear left side panel.



The following fuses are housed in the luggage compartment fuse box:

Code	Headlamp users	Capacity
F60	Seat lumbar adjustment	15 A
F61	Heated seats	15 A
F62	HiFi amplifier	20 A
F63	Left seat movement	15 A
F64	Right seat movement	15 A
F64	Sun roof	15 A
The following relays are housed in the	luggage compartment control unit:	
Code	Headlamp users	Capacity
Τ /Ω	Heated seats	20 A

T40	Heated seats	20 A
T42	Seat lumbar adjustment	20 A

The luggage compartment control unit is wired directly to the rear cable and does not have connections that can be disconnected; it can only be replaced by disconnecting the individual terminals; see

Op. 5505A14 SUPPLEMENTARY JUNCTION BOX IN LUGGAGE COMPARTMENT - R.R.