

VOLVO

Service Manual

Fault tracing

Repairs

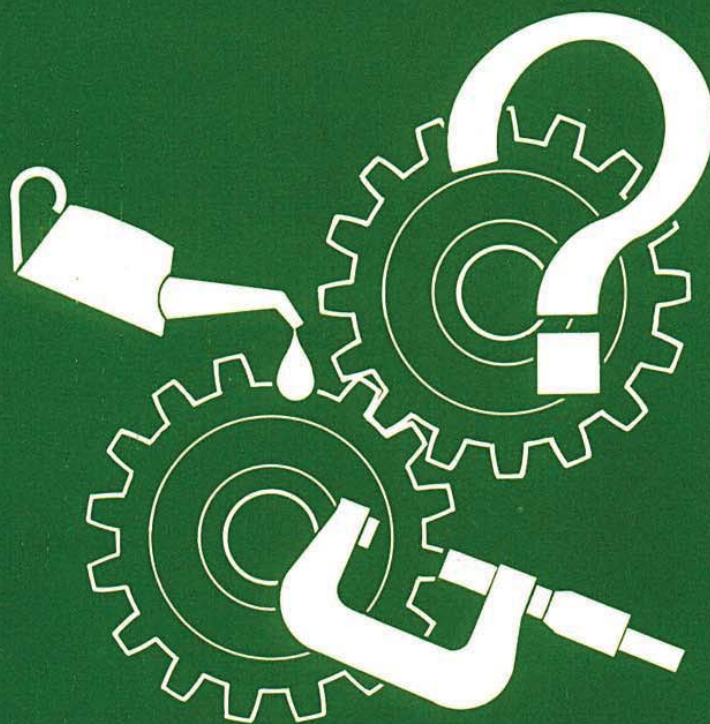
Maintenance

Section 3 (39)

Wiring Diagrams

940 1994

TP 3904202



Volvo Car Corporation

Cars with SRS

Warning

Cars equipped with a Supplemental Restraint System (SRS) must be treated extra carefully when repairs are being made. This is to help prevent:

1. Injuries when carrying out a repair.
2. Damage or malfunction of the SRS system.

Repair to either the SRS itself or a related system or component must be carried out by an authorized Volvo workshop. Refer to the appropriate SRS service manual for complete system information.

Is the car equipped with SRS?

Cars with SRS are most easily recognized by the SRS letters on the steering wheel pad. If the car is also equipped with an air bag on the passenger side, the letters 'SRS' will be embossed on the instrument panel above the glove compartment. Most cars with SRS are also equipped with pyrotechnical seat belt tensioners in the B-posts.

Dashboard or around steering column

Take care to avoid electric wiring being pinched, frayed or pierced by screws when working on firewall, knee bolster, ignition switch, steering column casings, glove compartment, instrument panel, door sills and B-posts.

Driver's seat, centre console or carpeting at left front seat

The SRS collision sensor is located under the left front seat. Do not disconnect the collision sensor connector. Never install accessories on or near the sensor. The crash sensor connector on 1992 and earlier models must **never** be disconnected.

Repairs to steering gear and column

When carrying out repairs to the steering wheel, steering gear or column always follow the repair procedures given in the appropriate SRS service manual. The contact reel in the steering column will be damaged if the steering wheel is turned more than three turns in either direction.

Test terminal

- 1992 : An unused terminal in the fusebox is used as a hook-up for SRS diagnostics. Do not install a fuse or connect an accessory to this terminal.

1993 - : Diagnostic unit B in the engine compartment is used for fault-tracing purposes.

Modifications to September 1993 included

Modifications introduced after the above date are not covered in this manual.
See Service Bulletins as applicable.

Volvos are sold in versions adapted for different markets. These adaptations depend on many factors including legal, taxation and market requirements. This manual may therefore show illustrations and text which do not apply to cars in your country.

Volvo owners planning to export their car(s) to another country should investigate the applicable safety and exhaust emission requirements. In some cases it may be impossible to comply with these requirements.

Contents

How to use the wiring diagrams	2	Group 37	
Electrical distribution unit, fuses	4	On-board diagnosis (OBD)	98
Fuses	5	Pre-routed wiring for anti-theft alarm	100
Ignition lock and relay location in engine compartment	6	Pre-routed wiring for towing hook	102
Relay location, electrical dist. unit	7		
Wiring harnesses	8	Group 38	
Connectors	9	Bulb malfunction indicator	104
Ground connections	20	Bulb malfunction indicator for cars with extra brake light	106
		Bulb malfunction indicator with brake monitor	108
Group 23		Seat belt reminder	110
LH-jetronic 2.4 multiport fuel injection system (MFI)		Seat belt reminder with ignition key warning, USA, Canada, Korea	112
(B 200 F/G, B 230 F/FB/FD/G)	22	Combined instrument	114
LH-jetronic 2.4 multiport fuel injection system (MFI)		Speedometer and tripmeter	116
(B 200 FT, B 230 FT/GT)	24	Ambient temperature gauge	118
Regina multiport fuel injection system (MFI) (B 230 F)	26		
		Group 39	
Group 26		Radio connections, 4-door	120
Engine cooling fan	28	Radio connections, 5-door	122
		Radio connections, 4-door (Radio with integrated amplifier)	124
Group 27		Radio connections, 5-door (Radio with integrated amplifier)	126
Cruise control	30		
Cruise control, function (schematic presentation)	32	Group 43	
		M 46 Overdrive	128
Group 28		AW 70/70/72 Overdrive with kickdown inhibitor AW 71/72	130
EZ 116 K Distributor ignition (DI) system		P-shift lock, automatic transmission	132
(B 200 F/G, B 230 F/FB/FD/G)	34		
EZ 116 K Distributor ignition (DI) system (B 200 FT, B 230 FT/GT)	36	Group 59	
REX-1 Distributor ignition (DI) system (B 230 F)	38	ABS Brake system	134
Group 32		Group 83	
Power supply	40	Power window lifts	136
		Central locking	138
Group 33		Power sunroof	140
Starter system	42		
Diesel preheating, overload protector and EGR (D 24 TIC)	44	Group 84	
		Heated rear window	142
Group 35		Heated rear window and door mirrors with timer relay	144
High and low beam	46	Power door mirrors	146
High and low beam, Nordic region, Netherlands, Belgium	48		
High and low beam, Great Britain	50	Group 85	
Reduced intensity low beam (DIM-DIP) Great Britain	52	Heated driver's/passenger's seat, normal output	148
High and low beam, USA	54	Heated driver's/passenger's seat, high output	150
High and low beam, Canada	56	Power seat	152
Beam width control	58	Power seat with memory	154
Parking lights, tail lights and number plate lights	60		
Parking lights, tail lights and number plate lights USA, Canada	62	Group 87	
Brake lights	64	Cabin fan, standard heater	156
Brake lights, USA, Canada	66	Manual Climate Control (MCC)	158
Backup (reversing) lights	68	Electronic Climate Control (ECC)	160
Glove compartment and vanity mirror lighting	70	Exhaust temperature sensor (Japan)	162
Interior lighting	72		
Trunk light	74	Group 88	
Instrument and control panel lights	76	SRS Supplemental Restraint System (airbag)	164
Foglights	78	SRS Supplemental Restraint System (airbag) USA, Canada	166
Foglights, Japan, Saudi Arabia, Taiwan and Overseas	80		
Foglights, USA, Canada	82	Feedback	168
Rear foglights, USA, Canada	84	List of components (foldout)	at the end of the book
		Alphabetical index	at end of book
Group 36			
Turn signals and hazard warning flashers	86		
Horn	88		
Headlight wash/wipe	90		
Windshield wash/wipe	92		
Tailgate wash/wipe	94		
Cigar lighter	96		

Order no. TP 3904032 (UK)	Order no. TP 3904202 (USA/CDN)
Supersedes TP 3904031	Supersedes TP 3904201

We reserve the right to make alterations to specification

How to use the wiring diagrams

Look up the relevant electrical function in the index.
Let us say you want to look at the central locking system.
According to the index, the central locking system is found on page 138.

Here is a schematic presentation of how the components are connected to each other and their internal appearance.

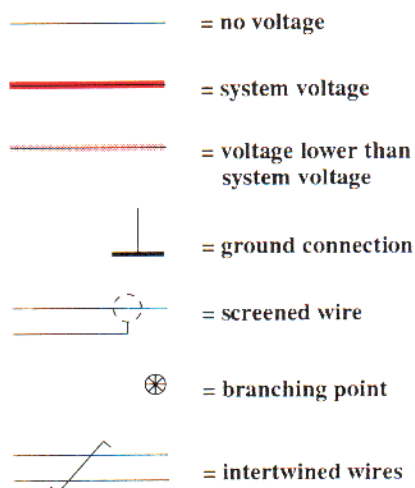
Each component has a component designation.
At the end of the manual there is a component list where you can see what each component is called.

Wire colours are indicated with letters of the alphabet:

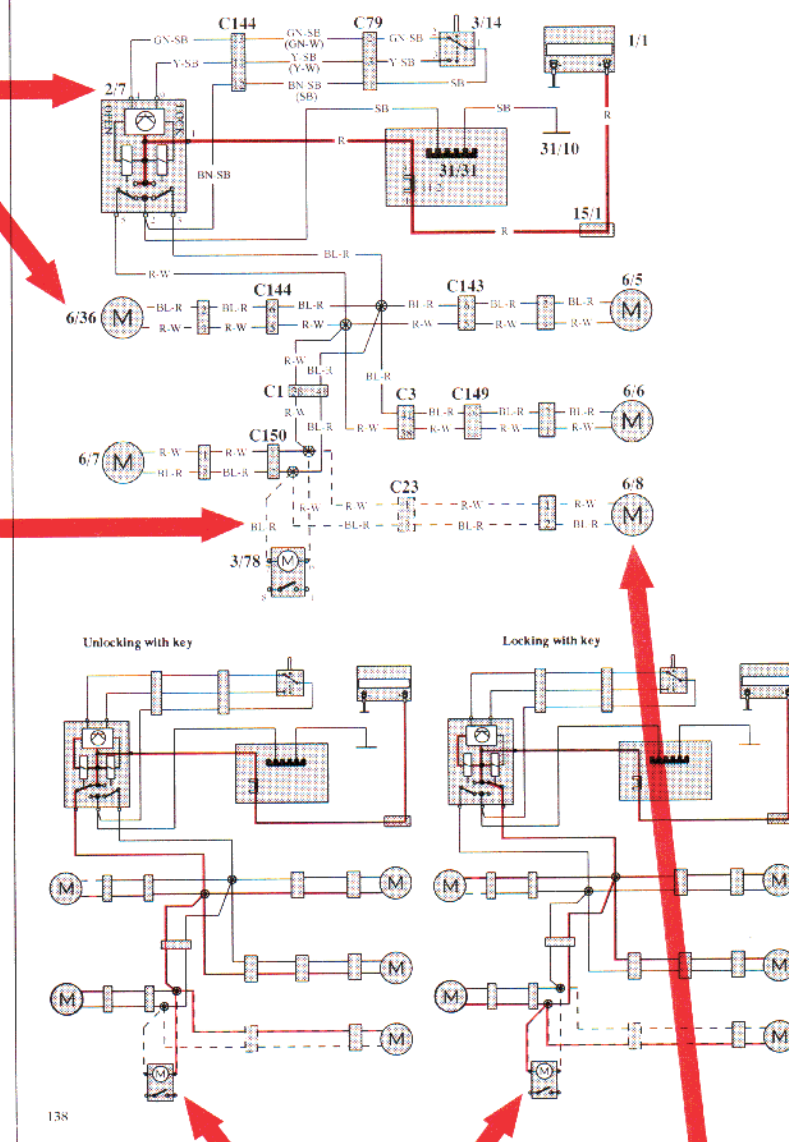
SB = Black	BN = Brown	GN = Green
GR = Grey	Y = Yellow	OR = Orange
W = White	P = Pink	VO = Purple
R = Red	BL = Blue	

BL-R is thus = Blue-red.

Code to colours in the wiring diagram

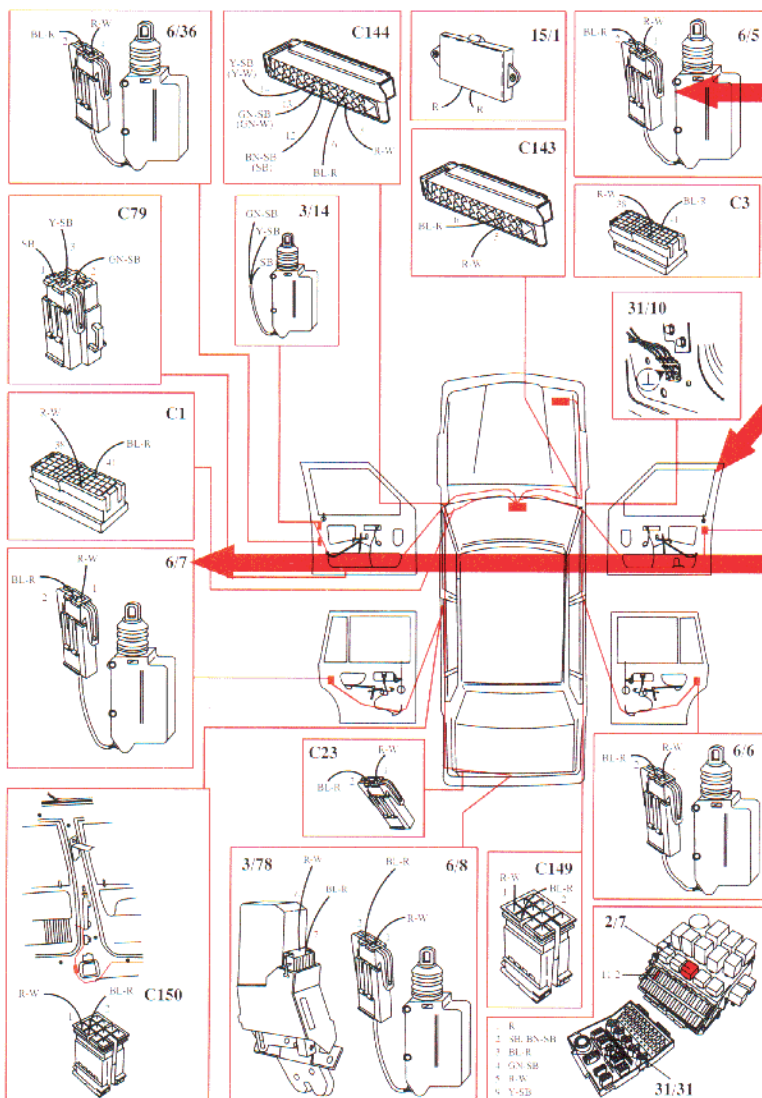


Central locking



Here you see the voltage under operational conditions.

How to use the wiring diagrams



Here you can see how the various wires are connected to each component.

You can also see where in the car the relevant components are located and how the wires are routed.

The component designation consists of a type number and a component number, except for the connectors which feature the letters C or D and a number.

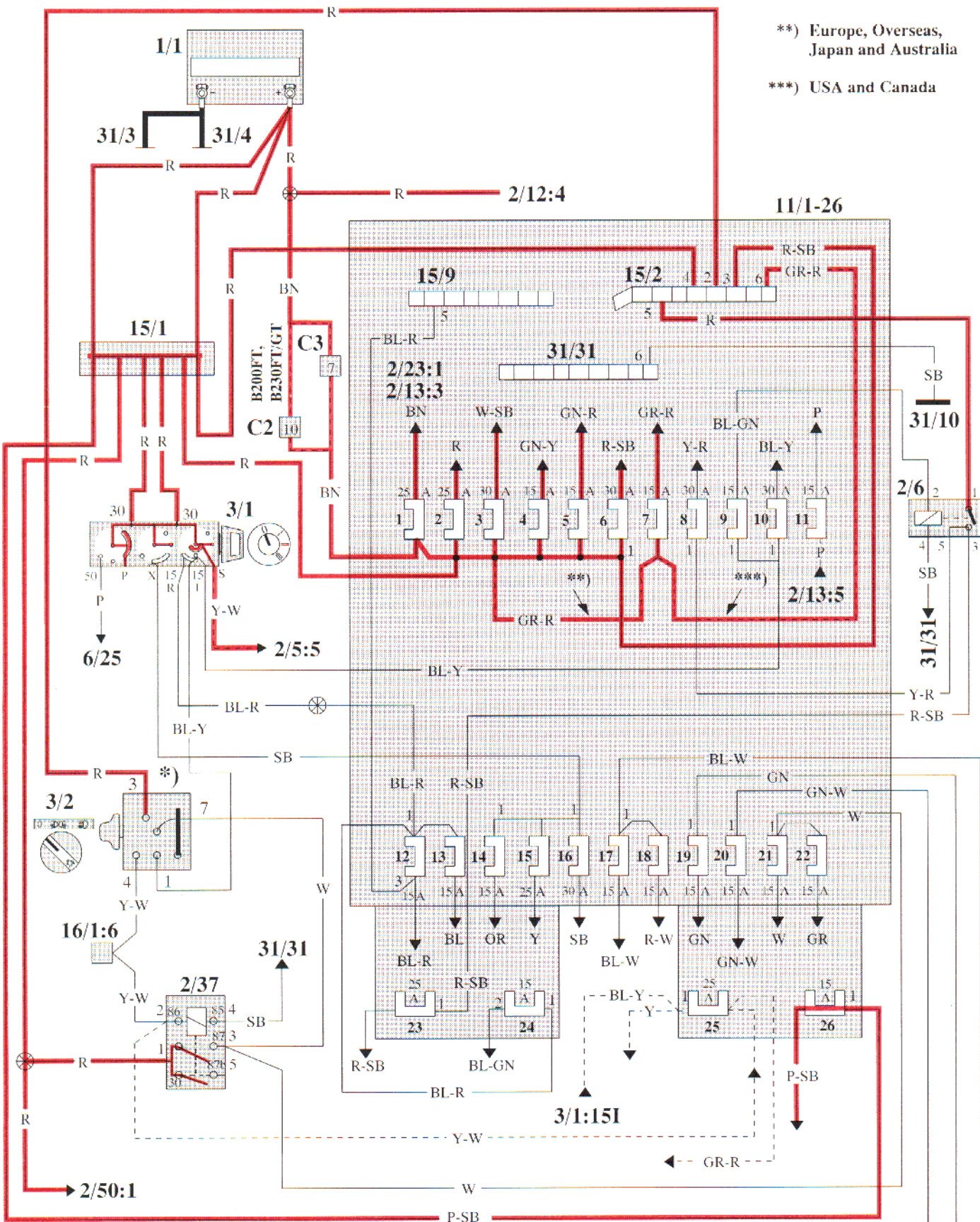
The type number (in this case 6) indicates what type of component it is, eg switch, electric motor or sensor, see the list below. The component number (7) indicates which specific component we are dealing with, eg light switch, central lock motor driver's side rear or knock sensor (KS).

List of type numbers

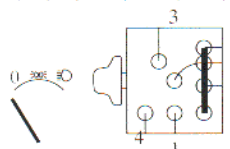
- 1 Battery
- 2 Relay
- 3 Switch
- 4 Control module
- 5 Combined instrument
- 6 Electric motor
- 7 Sensor
- 8 Actuator
- 9 Heater element
- 10 Lamp
- 11 Fuse
- 15 Distribution rail, current supply
- 16 Audio
- 17 Service socket
- 18 Bridge connector
- 19 Gauge
- 20 Ignition component
- 31 Ground connection

Use of the component ID makes it easy to switch from the component diagrams to the electrical wiring diagram itself.

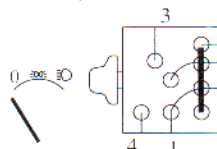
Electrical distribution unit, fuses



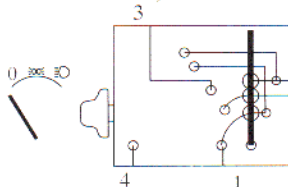
*) S, N, DK, FIN, NL, B:



***) GB:**



*) CDN:



7/75:7

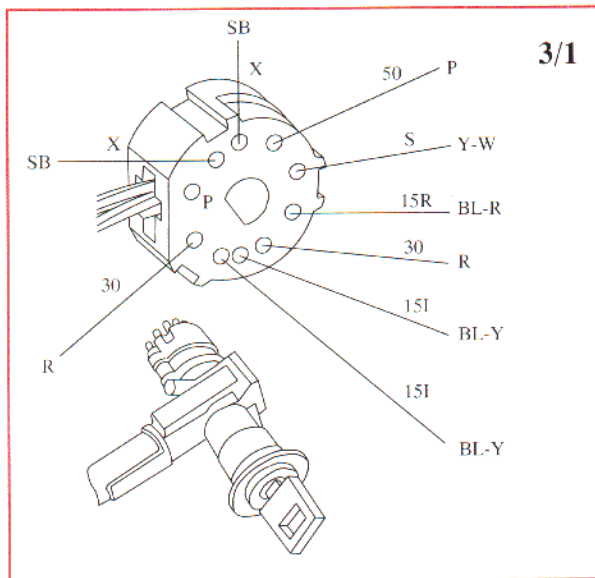
7/75:2

3/5:2/2/50:3

Fuse no.	Function
1	Fuel pump (LH-2.4 MFI) Fuel system Distributor Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm
3	Power seats (Towing hook)
4	Brake lights Solenoid, P-shift lock
5	Clock Vanity mirror light Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-autochanger Anti-theft alarm
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)
7	Front foglights Rear foglights (not USA, Canada)
8	Power windows
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay 15I (power windows/seat heating) Solenoid, P-shift lock (Towing hook)
10	Heated rear window Power sunroof Heated door mirrors
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating
12	Backup (reversing) lights Overdrive relay Bulb malfunction indicator with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm

Fuse no.	Functions
13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
17	Left high beam Indicator light, high beam
18	Right high beam Front fog lights (Japan, Taiwan and Saudi Arabia)
19	Left low beam Beam width control Relay, front foglights (USA/CDN)
20	Right low beam Beam width control
21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
22	Relay, front foglights (Europe) Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
23	Heated front seats
24	ABS
25	Rear foglights (USA, Canada, Japan) Disconnectable low beam (Nordic market, Netherlands, Belgium)
26	Amplifier, radio

Ignition lock and relay location in engine bay



Ignition lock

Inputs

30: two leads from battery

Outputs

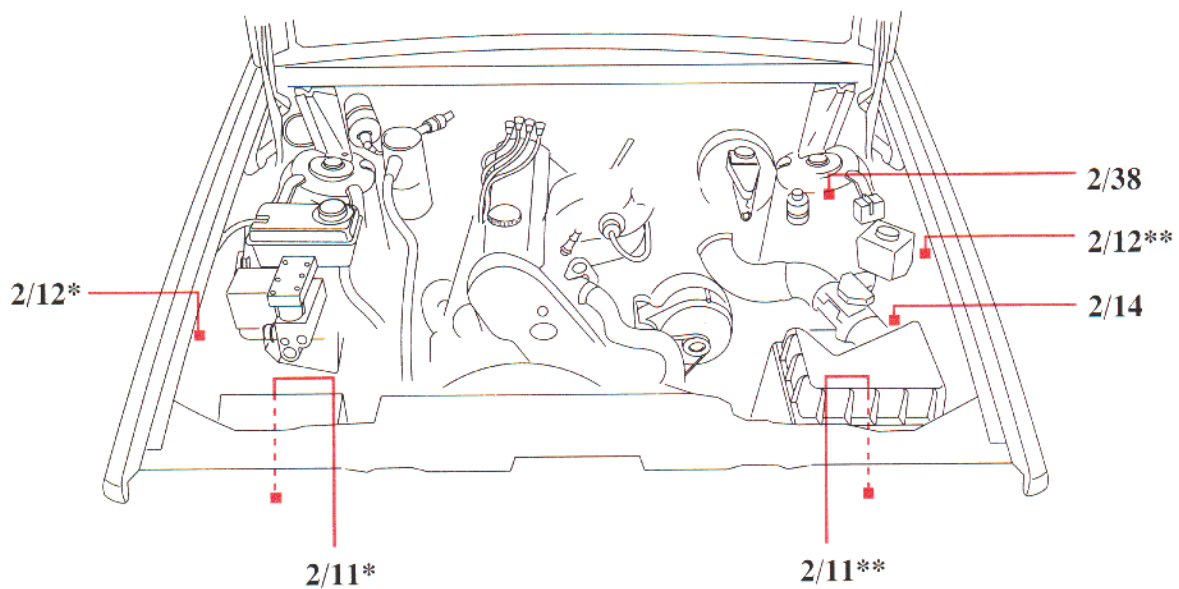
Key position:

-	Key withdrawn
0	Off
I	Radio
II	Drive
III	Start

Voltage at connection:

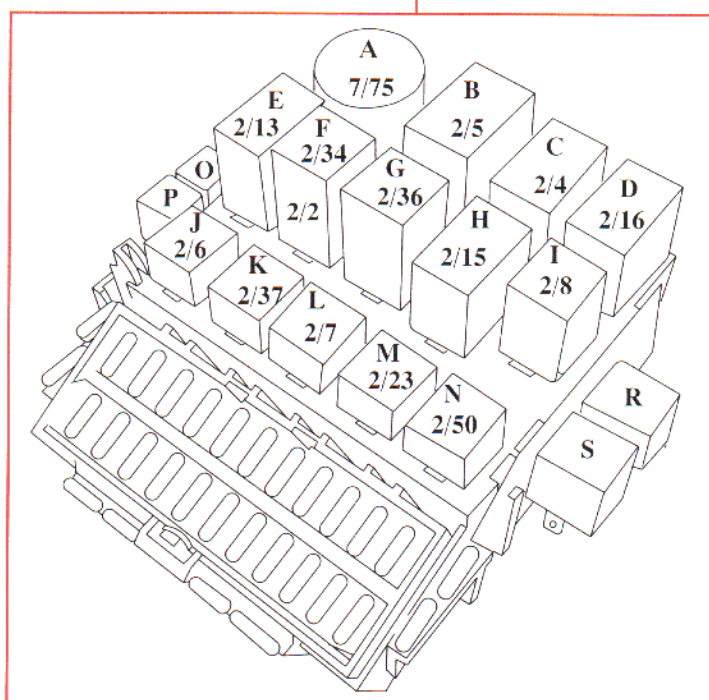
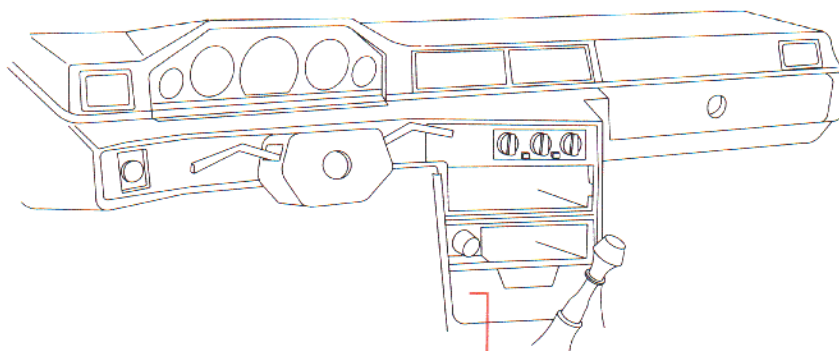
P
S,P
X,S,P
X,15R,15I,S
15R,50,S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

Location of relays



Relays in electrical distribution unit

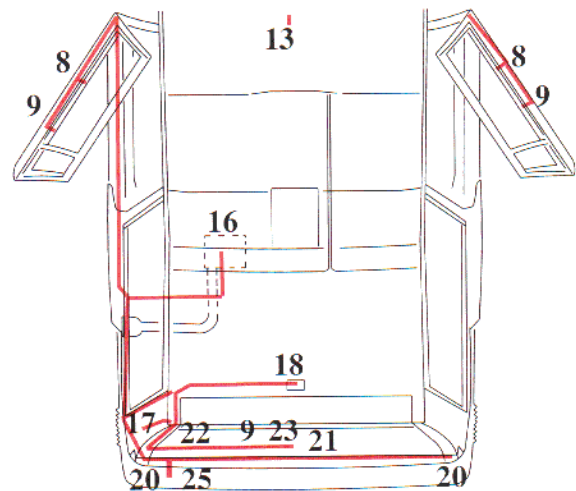
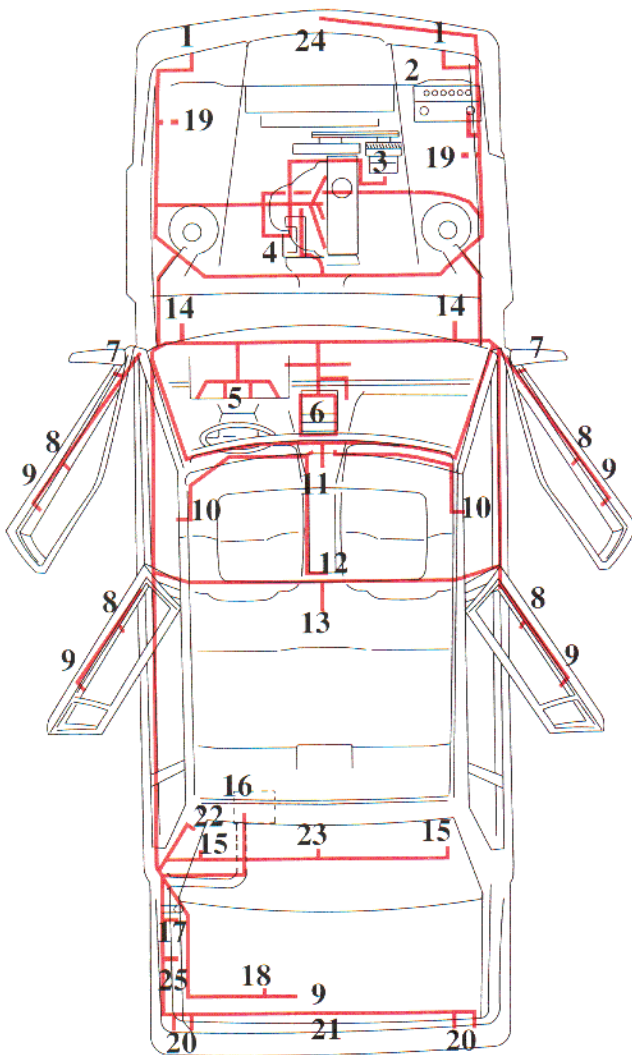
- | | | | |
|---|--|---|---------------------------------|
| A | Bulb failure warning sensor (7/75) | J | Overload relay 15I (2/6) |
| B | Seat belt reminder/key warning (2/5) | | (power windows/seat heater) |
| | (USA, Canada, Korea) | K | Headlight (2/37) |
| C | Windshield wiper intermittent relay (2/4) | L | Central lock (2/7) |
| D | Tailgate wiper intermittent relay (2/16) | M | Fuel pump relay (2/23) |
| E | Fuel injection (2/13) | N | Overload relay high beam (2/50) |
| F | Foglights, front (2/34 or 2/2 USA, Canada) | | (not USA, Canada) |
| G | Headlight flasher (2/36) | O | - |
| H | Exhaust temp. sensor (2/15) (Japan) | P | - |
| I | Overdrive (2/8) | R | - |
| | | S | - |

Wiring harnesses

Cable routing

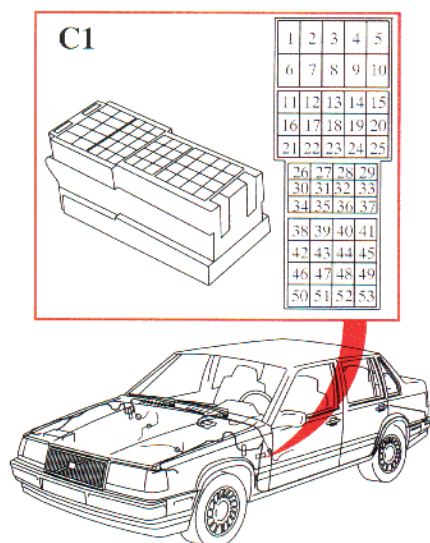
The routing of the main cables is shown in the illustration.

- | | | | |
|----|------------------------------|----|-----------------------------------|
| 1 | Front lights | 13 | Interior lighting |
| 2 | Battery | 14 | Loudspeakers, instrument panel |
| 3 | Generator | 15 | Loudspeakers, rear parcel shelf |
| 4 | Starter motor | 16 | Fuel gauge |
| 5 | Combined instrument | 17 | Power antenna |
| 6 | Electrical distribution unit | 18 | Trunk lighting |
| 7 | Power door mirrors | 19 | ABS hydraulic unit |
| 8 | Power windows | 20 | Tail lights |
| 9 | Central locking | 21 | Number plate lighting |
| 10 | Control modules, power seats | 22 | Heated rear window |
| 11 | Motor, power sunroof | 23 | Extra brake light |
| 12 | Ashtray lighting | 24 | Engine cooling fan |
| | | 25 | Pre-routed wiring for towing hook |



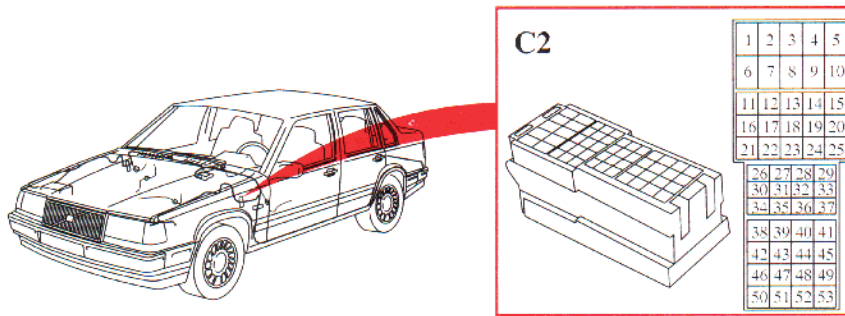
Connector at left A-post (bottom rail harness)

White connector C1 (53-pin)
Instrument panel harness - sill harness



all models		
1	Tail lights	(BN-W)
2	Tail lights	(R)
3	Brake light, left	(Y-R)
4	Brake light, right	(Y)
5	Backup (reversing) lights	(SB)
6	Number plate lights	(W)
7	Turn signal, left rear	(GN)
8	Turn signal, right rear	(BL-GN)
9	Fuel level sensor/primer pump (pump)	(GR-W)
10	Heated rear window	(Y)
11	Sensor, speedometer -	(BN-W)
12	Sensor, speedometer +	(GN-W)
13	Door switch, pre-routed interior lighting	(W-SB)
14	Towing hook pos. 10	(BL-GN)
15	Rear foglights	(GR)
16	Fuel level sensor/primer pump (pump)	(BN)
17	Fuel level sensor/primer pump (pump)	(P)
18	Extra brake light	(Y-SB)
19	Tailgate wiper	(OR)
20	Tailgate wiper	(Y-W)
21	Power antenna pos. 3	(GN-GR)
22	-	
23	-	
24	Ground connector, left A-post	(BN-GR)
25	Towing hook pos. 9	(W-SB)
26	Towing hook pos. 7	(W)
27	Towing hook pos. 5	(GR)
28	Towing hook pos. 6	(Y-BN)
29	Door-open warning light, left rear Interior lighting Trunk light Power antenna pos. 1	(GN-R)
30	Interior lighting	(BN-SB)
31	Connector, tailgate/trunk (anti-theft alarm)	(BN-OR)
32	-	
33	Loudspeaker rear parcel shelf right side +	(GN-BN)
34	Loudspeaker rear parcel shelf right side -	(GN)
35	Loudspeaker left rear door + Loudspeaker rear parcel shelf left side +	(Y-W)
36	Loudspeaker left rear door - Loudspeaker rear parcel shelf left side -	(W)
37	-	
38	Central locking, rear door Central locking, tailgate/trunk	(R-W)
39	-	
40	-	
41	Central locking rear door Central locking, tailgate/trunk	(BL-R)
42	-	
43	-	
44	-	
45	-	
46	-	
47	-	
48	-	
49	-	
50	Power window lift motor, rear door	(GN)
51	Power window lift motor, rear door	(GR)
52	-	
53	Power window lift motor, rear door ON/OFF	(P)

Connector at left A-post (wheel housing harness)



Black connector C2 (53-pin)
Instrument panel harness - left wheel housing harness

B 230 F REX-I		
1	Starter motor 50	(BL-GN)
2	High beam left	(BL-W)
3	Low beam left	(GN)
4	Horn + Windshield wiper motor pos. 1 Headlight wiper motor (not USA/CDN)	(Y)
5	Windshield wiper motor pos. 2	(GR)
6	Windshield wiper motor pos. 3	(GN-W)
7	Windshield wiper motor pos. 4	(OR)
8	Front foglights	(W-SB)
9	Control module REX-I (DI) pos. 5	(BN)
10	-	
11	On-board diagnostic (OBD) socket B pos. 5	(GR-OR)
12	On-board diagnostic (OBD) socket A pos. 3	(BL-P)
13	Turn signal, left	(GN)
14	Parking light, left	(W)
15	-	
16	Oil pressure sensor	(SB)
17	Horn -	(BL-SB)
18	Headlight wiper motor (not USA/CDN) Windshield washer motor	(BL-R)
19	Brake fluid level sensor	(VO)
20	Engine coolant temperature (ECT) sensor pos. 1	(Y-W)
21	Engine coolant temperature (ECT) sensor pos. 2	(Y-SB)
22	Generator D+	(R)
23	On-board diagnostic (OBD) socket B pos. 6	(BL-W)
24	Service socket	(P)
25	On-board diagnostic (OBD) socket A pos. 2	(GN-W)
26	Control module REX-I (DI) pos. 3	(BN-W)
27	Power amplifier/ignition coil REX-I (DI) pos. C	(R-W)
28	On-board diagnostic (OBD) socket A pos. 4 Control module REX-I (DI) pos. 6 Power amplifier/ignition coil REX-I (DI) pos. A	(BL)
29	Control module REX-I (DI) pos. 17	(Y-GR)
30	-	
31	-	
32	Washer fluid level sensor	(R-SB)
33	Washer motor, tailgate	(BL-Y)
34	Door switch	(BN-SB)
35	Door switch	(W-SB)
36	-	
37	-	
38	Ambient temperature sensor	(GN-Y)
39	Ambient temperature sensor	(GN-R)
40	Anti-theft alarm, connector D4 pos. 1	(GR-W)
41	Anti-theft alarm, connector D4 pos. 2	(BN-P)
42	Control module cruise control pos. 10	(BN-GR)
43	Control module cruise control pos. 2	(P-SB)
44	Control module cruise control pos. 7	(BN-OR)
45	Control module cruise control pos. 11	(BL-OR)
46	Control module cruise control pos. 6	(BL-GR)
47	Control module cruise control pos. 4	(OR-W)
48	Control module cruise control pos. 3	(OR-SB)
49	Control module cruise control pos. 13	(GN-OR)
50	-	
51	-	
52	-	
53	-	

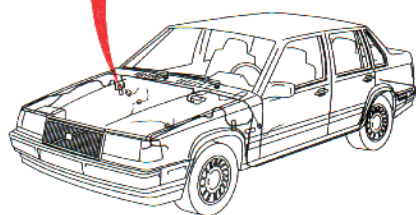
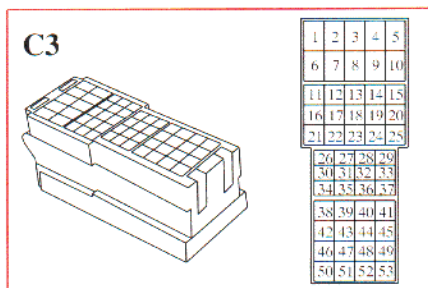
Connector at left A-post (wheel housing harness)

Black connector C2 (53-pin)
Instrument panel - left wheel housing

B200F/FT,B230F/FB/F/D/G/FT/GT-EZK (DI)			D24/D24TIC		
1	Starter motor 50 (BL-GN)		Starter motor 50 Relay, glowplug mechanism pos. 3 (BL-GN)		
2	High beam, left (BL-W)		High beam, left (BL-W)		
3	Low beam, left Beam width control (Germany) (GN) (GN-BN)		Low beam, left Beam width control (Germany) (GN) (GN-BN)		
4	Horn + Windshield wiper motor pos. 1 Headlight wiper motor (not USA/CDN) (Y)		Horn + Windshield wiper motor pos. 1 Headlight wiper motor (Y)		
5	Windshield wiper motor pos. 2 (GR)		Windshield wiper motor pos. 2 (GR)		
6	Windshield wiper motor pos. 3 (GN-W)		Windshield wiper motor pos. 3 (GN-W)		
7	Windshield wiper motor pos. 4 (OR)		Windshield wiper motor pos. 4 (OR)		
8	Front foglights (W-SB)		Front foglights (W-SB)		
9	Control module EZK (DI) pos. 5 (not FT/GT) (BL) (BN)		Relay, glowplug mechanism pos. 4 Pos. 3, connector C51 at left suspension tower (BL.)		
10	B200FT, B230FT/GT: Battery + Relay, radio interference suppression pos. 4 (BN)		-		
11	On-board diagnostic (OBD) socket B pos. 5 (GR-OR)		On-board diagnostic (OBD) socket B pos. 5 (GR-OR)		
12	On-board diagnostic (OBD) socket A pos. 3 (BL-P)		On-board diagnostic (OBD) socket A pos. 3 (BL-P)		
13	Turn signal, left (GN)		Turn signal, left (GN)		
14	Parking lights, left (W)		Parking lights, left (W)		
15	Beam width control (Germany) (GR)		Beam width control (Germany) (GR)		
16	Oil pressure sensor (SB)		Oil pressure sensor (SB)		
17	Horn - (BL-SB)		Horn - (BL-SB)		
18	Headlight wiper motor (not USA/CDN) Windshield washer motor (not FT/GT) (BL-R)		Headlight wiper motor (BL-R)		
19	Brake fluid level sensor (VO)		Brake fluid level sensor (VO)		
20	Engine coolant temperature (ECT) sensor pos. 1 (Y-W)		Engine coolant temperature (ECT) sensor pos. 1 (Y-W)		
21	Engine coolant temperature (ECT) sensor pos. 2 (Y-SB)		Engine coolant temperature (ECT) sensor pos. 2 (Y-SB)		
22	Generator D+ (R)		Generator D+ (R)		
23	On-board diagnostic (OBD) socket B pos. 6 (BL-W)		On-board diagnostic (OBD) socket B pos. 6 (BL-W)		
24	Service socket (P)		Service socket (P)		
25	On-board diagnostic (OBD) socket A pos. 2 (GN-GR)(GN-W)		-		
26	Ignition Control Module (ICM) pos. 3 (BN-W)		-		
27	Power amplifier EZK (DI) pos. 1 Ignition coil 1 (R-W)		Generator W (R-W)		
28	Ignition Control Module (ICM) pos. 6 Power amplifier EZK (DI) pos. 4 On-board diagnostic (OBD) socket A pos. 4 Converter, EGR (B230FD and B230FT California) (BL.)		On-board diagnostic (OBD) socket A pos. 4 (BL.)		
29	Ignition Control Module (ICM) pos. 17 (Y-GR)		-		
30	-		Pressure sensor, turbodiesel (D24TIC) (Y-R)		
31	-		-		
32	B200FT, B230FT/GT: Ignition Control Module (ICM) pos. 5 Others: Washer fluid level sensor (BN)(BN-W) (R-SB)(BL-W)		-		
33	B200FT, B230FT/GT: Relay, radio interference suppression pos. 2 Others: Wiper motor, tailgate (BL-Y)		-		
34	Door switch (BN-SB)		Door switch (BN-SB)		
35	Door switch (W-SB)		Door switch (W-SB)		
36	-		-		
37	Ignition Control Module (ICM) pos. 4 (GR-R)		Relay, glowplug mechanism pos. 1 (OR)		
38	Ambient temperature sensor (GN-Y)		Ambient temperature sensor (GN-Y)		
39	Ambient temperature sensor (GN-R)		Ambient temperature sensor (GN-R)		
40	Anti-theft alarm, connector D4 pos. 1 (GR-W)		Anti-theft alarm, connector D4 pos. 1 (GR-W)		
41	Anti-theft alarm, connector D4 pos. 2 (BN-P)		Anti-theft alarm, connector D4 pos. 2 (BN-P)		
42	Control module cruise control pos. 10 (BN-GR)		-		
43	Control module cruise control pos. 2 (P-SB)		-		
44	Control module cruise control pos. 7 (BN-OR)		-		
45	Control module cruise control pos. 11 (BL-OR)		-		
46	Control module cruise control pos. 6 (BL-GR)		-		
47	Control module cruise control pos. 4 (OR-W)		-		
48	Control module cruise control pos. 3 (OR-SB)		-		
49	Control module cruise control pos. 13 (GN-OR)		-		
50	B230FD: Solenoid valve, pulsed secondary air injection (PAIR) (BL-W)		-		
51	-		-		
52	-		-		
53	-		-		

Connector at right A-post (wheel housing harness and sill harness)

Connector **C3** (pos. 1-25 in 53-pin)
Instrument panel harness - right wheel
housing harness



B200F/G/FT, B230F/FB/FD/G/FT/GT

1	High beam, right	(R-W)
2	Low beam, right	(GN-W)
	Beam width control (Germany)	(GN-BN)
3	Turn signal, right	(BL-GN)
4	Parking light, right	(GR)
5	<u>B200FT, B230FT/GT:</u> Washer motor, tailgate	(BL-Y)
	<u>Others:</u> LH/Regina control module (MFI) pos. 30	(P-W)
6	<u>B200FT, B230FT/GT:</u> LH (MFI) control module pos. 12	(GN-GR)
	<u>Others with E/ZK (DJ):</u> Ignition coil 15	(BL)
7	<u>B200FT, B230FT/GT:</u> LH (MFI) control module pos. 30	(BN)
	<u>Others:</u>	
	Battery +	
	Relay, radio interference suppression pos. 2 and 4	
8	Oxygen sensor (HO2S) heating	(P)
9	LH/Regina control module (MFI) pos. 9	(BL-Y)
	Idle air control (IAC) valve pos. 1	
	Relay, radio interference suppression pos. 2 (not FT/GT)	
	Mass air flow sensor (MAF) pos. 5	
	<u>B200FT, B230FT/GT:</u>	
	PTC-resistor	
10	LH/Regina control module (MFI) pos. 35	(BL)
11	LH/Regina control module (MFI) pos. 22	(BN-W)
12	LH/Regina control module (MFI) pos. 4	(BN) (W)
13	Front foglights	(W-SB)
14	LH/Regina control module (MFI) pos. 20	(Y-SB)
15	Headlight wiper motor (not USA/CDN)	(Y)
	LH/Regina control module (MFI) pos. 26 (USA/CDN)	(W-SB)
16	Beam width control (Germany)	(GR)
17	Headlight wiper motor (not USA, CDN)	(BL-R)
	<u>B230FT USA, CDN:</u>	
	Washer motor	
	<u>B200FT, B230FT/GT EU/OS:</u>	
	Headlight wiper motor	
	Washer motor	
18	LH/Regina control module (MFI) pos. 1	(Y-GR)
19	LH control module (MFI) pos. 28	(GR-R)
20	-	
21	LH control module (MFI) pos. 15	(GN-Y)
22	LH/Regina control module (MFI) pos. 21	(R)
23	-	
24	<u>B200FT, B230FT/GT:</u>	
	Washer fluid level sensor	(BL-W)
	<u>Others:</u>	
	LH/Regina control module (MFI) pos. 12	(GN-W)
25	LH/Regina control module (MFI) pos. 34	(VO-W)

Connector **C3** (pos. 26-53 in 53-pin)
Instrument panel harness - sill harness

26	-	
27	-	
28	-	
29	Door-open warning light, right rear	(GN-R)
30	Door switch, front and rear doors	(W-SB) (BN-SB) (BL-SB)
31	Door switch, front door	(W-SB)
32	Side turn signal repeaters	(BL-GN)
33	-	
34	-	
35	Loudspeaker, right rear door +	(Y-W)
36	Loudspeaker, right rear door -	(W)
37	-	
38	Central locking, rear door	(R-W)
39	-	
40	-	
41	Central locking, rear door	(BL-R)
42	-	
43	-	
44	-	
45	-	
46	-	
47	-	
48	-	
49	-	
50	Power window lift motor, rear door	(GN)
51	Power window lift motor, rear door	(GR)
52	-	
53	Power window lift motor, rear door ON/OFF	(P)

Connector at right A-post (wheel housing harness and door sill harness)

Connector **C3** (pos. 1-25 in 53-pin)
Instrument panel harness - right wheel
housing harness

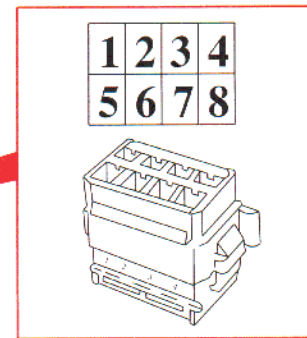
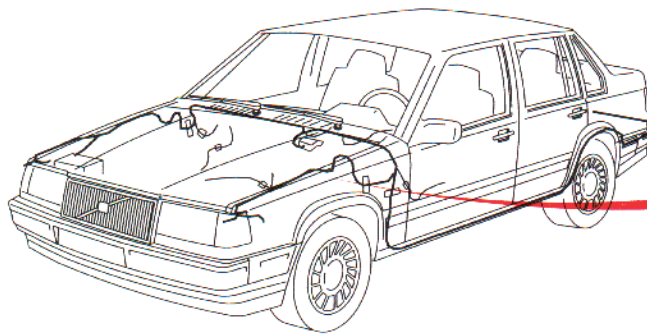
D24/D24TIC

1	High beam, right	(R-W)
2	Low beam, right	(GN-W)
	Beam width control (Germany)	(GN-BN)
3	Turn signal, right	(BL-GN)
4	Parking light, right	(GR)
5	Washer motor, tailgate	(BL-Y)
6	-	
7	-	
8	-	
9	-	
10	-	
11	-	
12	-	
13	Front foglights	(W-SB)
14	-	
15	Headlight wiper motor	(Y)
16	Beam width control (Germany)	(GR)
17	Headlight wiper motor	(BL-R)
	Washer motor	
18	-	
19	-	
20	-	
21	-	
22	-	
23	-	
24	Washer fluid level sensor	(BL-W)
25	-	

Connector **C3** (pos. 26-53 in 53-pin)
Instrument panel harness - door sill harness

26	-	
27	-	
28	-	
29	Door-open warning light, right rear	(GN-R)
30	Door switch, front and rear doors	(BL-SB)
31	Door switch, front door	(W-SB)
32	Side turn signal repeater	(BL-GN)
33	-	
34	-	
35	Loudspeaker, right rear door +	(Y-W)
36	Loudspeaker, right rear door -	(W)
37	-	
38	Central locking, rear door	(R-W)
39	-	
40	-	
41	Central locking, rear door	(BL-R)
42	-	
43	-	
44	-	
45	-	
46	-	
47	-	
48	-	
49	-	
50	Power window lift motor, rear door	(GN)
51	Power window lift motor, rear door	(GR)
52	-	
53	Power window lift motor, rear door ON/OFF	(P)

Connector in engine compartment at left suspension tower



B200F/G, B230F/FB/FD/G-EZK

B200FT, B230FT/GT

Connector C50 (8-pin)

Connector C50 (8-pin)

1	-	Injector 1	(GN)
2	Pos. 1, connector C137 at right suspension tower (4-pin) (BL-GN)	Injector 2	(GN)
3	Pos. 2, connector C137 at right suspension tower (4-pin) (BL-R)	Injector 3	(GN)
4	Pos. 3, connector C137 at right suspension tower (4-pin) (BL-W)	Injector 4	(GN)
5	Pos. 4, connector C137 at right suspension tower (4-pin) (BL-Y)	-	
6	Pos. 3, connector C55 at right suspension tower (4-pin) (Y-W)	-	
7	Control module LH (MFI) pos. 25 via pos. 2, connector C55 at right suspension tower (Y)	Control module LH (MFI) pos. 25 via pos. 2, connector C55 at right suspension tower (Y)	
8	-	-	

Connector C51 (8-pin)

Connector C51 (8-pin)

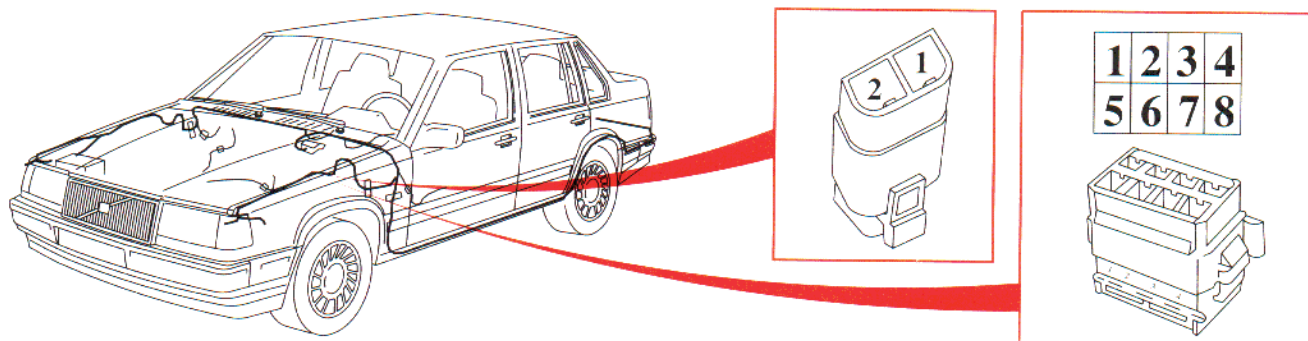
1	Engine coolant temperature (ECT) sensor pos. 1 (Y-W)	Engine coolant temperature (ECT) sensor pos. 1 (Y-W)	
2	Oil pressure sensor (SB)	Oil pressure sensor (SB)	
3	Ground, control module EZK pos. 20 (BN) (BN-SB)	Ground, ICM pos. 20 (BN)	
4	Generator D+ (R)	Generator D+ (R)	
5	Starter motor 50 (BL-GN)	Starter motor 50 (BL-GN)	
6	Throttle position (TP) switch pos. 1 (OR)	Throttle position (TP) switch pos. 1 (OR)	
7	Pos. 8, connector C54 at right suspension tower	Pos. 8, connector C54 at right suspension tower	
8	Engine coolant temperature (ECT) sensor fuel/ignition (MFI/DI) pos. 2 (R-SB)	Engine coolant temperature (ECT) sensor fuel/ignition (MFI/DI) system pos. 2 (R-SB)	
	Engine coolant temperature (ECT) sensor pos. 2 (Y-SB)	Engine coolant temperature (ECT) sensor pos. 2 (Y-SB)	

Connector C132 (8-pin)

Connector C132 (8-pin)

1	Ignition coil 1 (R-W)	Ignition coil 1 (R-W)	
2	All: Ground, power amplifier EZK (DI) (SB) B230FD and B230FT California: Ground, control module EZK (DI) pos. 14	All: Ground, power amplifier EZK (DI) (SB) California: Ground, ICM pos. 14	
3	B230FD and B230FT California: Temp. sensor, IGR pos. 1 (Y-SB)	Temperature sensor IGR pos. 1 (California) (Y-SB)	
4	Mass air flow (MAF) sensor pos. 1 (BN)	Ignition coil 15 (BL)	
5	Knock sensor (KS) pos. 1 (GN)	Knock sensor (KS) pos. 1 (GN)	
6	Knock sensor (KS) pos. 2 (SB)	Knock sensor (KS) pos. 2 (SB)	
7	Control module LH (MFI) pos. 31 via pos. 4, connector C55 at right suspension tower (B230FD) (Y-R)	-	

Connectors in engine compartment at left suspension tower



B 230 F, REX-I

D24/D24TIC

Connector C50 (8-pin)

1	Pos. 2, connector C137 at right suspension tower (4-pin)	(BL-R)
2	Ground, control module REX-I (DI), pos. 20	(BN)
	Ground, power amplifier/ignition coil REX-I (DI), pos. A	
3	Pos. 3, connector C137 at right suspension tower (4-pin)	(BL-SB)
4	Pos. 4, connector C137 at right suspension tower (4-pin)	(GN)
5	Control module Regina (MFI) pos. 25, via pos. 2, connector C55 at right suspension tower	(Y)
6	Knock sensor (KS) pos. 1	(GN)
7	Knock sensor (KS) pos. 2	(SB)
8	Pos. 1, connector C137 at right suspension tower (4-pin)	(BN-SB)

Connector C51 (8-pin)

1	Engine coolant temperature (ECT) sensor pos. 1	(Y-W)
2	Oil pressure sensor	(SB)
3	Ground, power amplifier/ignition coil REX-I pos. B	(SB)
4	Generator D+	(R)
5	Starter motor 50	(BL-GN)
6	Throttle position (TP) switch pos. 1	(OR)
	Pos. 8, connector C54 at right suspension tower	
7	Engine coolant temperature (ECT) sensor fuel/ignition (MFI/DI) system pos. 2	(R-SB)
8	Engine coolant temperature (ECT) sensor pos. 2	(Y-SB)

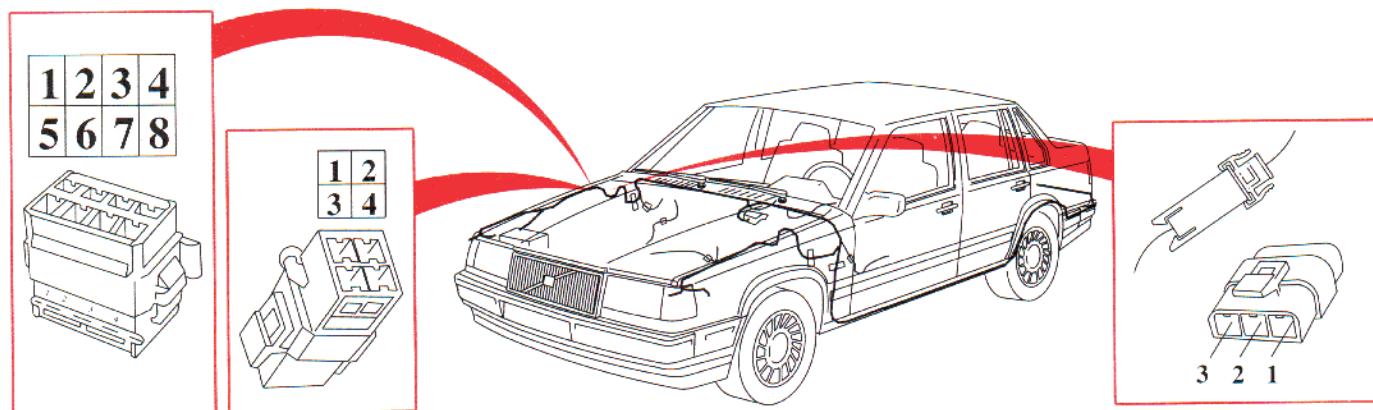
Connector C51 (8-pin)

1	Engine coolant temperature (ECT) sensor pos. 1	(Y-W)
2	Oil pressure sensor	(SB)
	Fuel valve	
3	Timer relay, exhaust gas recirculation (EGR) pos. 4	(BL)
	Idle air control (IAC) switch, EGR	
4	Generator D+	(R)
5	Starter motor 50	(BL-GN)
6	Engine coolant temperature (ECT) sensor diesel	(BN)
7	Generator W	(R-W)
8	Engine coolant temperature (ECT) sensor pos. 2	(Y-SB)

Connector C117 (2-pin)

1	Pressure sensor, turbodiesel (D24TIC)	(Y-R)
2	-	

Connectors in engine compartment at right suspension tower



B230F, REX-I (DI)

B200FT, B230FT/GT

Connector C54 (8-pin)

Connector C54 (8-pin)

1	Idle air control (IAC) valve pos. 3	(R-SB)	Idle air control (IAC) valve pos. 2	(R-SB)
2	Solenoid coupling, A/C	(GN-R)	Solenoid coupling A/C	(GN-R)
3	-		Idle air control (IAC) valve pos. 1	(BL-Y)
4	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system pos. 1	(GR-W)	Engine coolant temp. (ECT) sensor fuel/ignition (MFI/DI) system pos. 1	(GR-W)
5	-		-	
6	Ground, Regina (MFI) control module	(SB)	Ground, LII (MFI) control module	(SB)
7	Throttle position (TP) switch pos. 3	(R-W)	Throttle position (TP) switch pos. 3 from high-output system (accessory)	(R-W)
8	Throttle position (TP) switch pos. 1 Pos. 6, connector C51 at left suspension tower	(OR)	Throttle position (TP) switch pos. 1 Pos. 6, connector C51 at left suspension tower	(OR)

Connector C55 (8-pin)

Connector C55 (8-pin)

1	-		-	
2	Control module REX-I (DI) pos. 8 via pos. 5, connector C50 at left suspension tower	(Y)	ICM pos. 8 via pos. 7, connector C50 at left suspension tower	(Y)
3	-		High-power system (accessory) from LII (MFI) control module pos. 28	(GR-R)
4	-		-	
5	Ground, Regina (MFI) control module	(SB)	Ground, mass air flow (MAF) sensor	(BN)
6	Injectors IAC pos. 1 via splice	(GN-R) (GN)	-	
7	Injectors	(GR)	Injectors	(GR)
8	Ground, Regina (MFI) control module	(BN)	Ground, LII (MFI) control module	(BN)

Connector C137 (4-pin)

1	Pressure sensor, intake manifold, air temp. sensor via pos. 8, connector C50 at left suspension tower	(BN-SB)
2	Pressure sensor, intake manifold via pos. 1, connector C50 at left suspension tower	(BL-R)
3	Pressure sensor, intake manifold via pos. 3, connector C50 at left suspension tower	(BL-SB)
4	Air temp. sensor via pos. 4, connector C50 at left suspension tower	(GN)

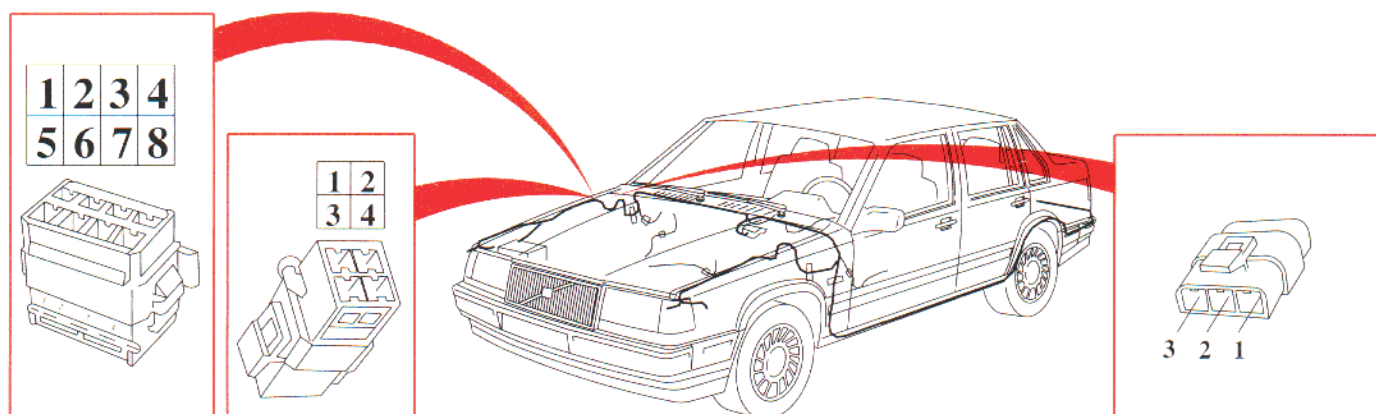
Connector C154 (1-pin)

1	High-pressure sensor A/C pos. 2	(GN-R)
---	---------------------------------	--------

Connector C154 (3-pin)

1	Low-speed pressure sensor, engine cooling fan Relay, engine cooling fan pos. 1B	(BL-SB)
2	High-speed pressure sensor, engine cooling fan Relay, engine cooling fan pos. 2B	(W-SB)
3	High-pressure sensor A/C pos. 2	(GN-R)

Connectors in engine compartment at right suspension tower



B200F/G, B230F/FB/FD/G-EZK (DI)

Connector C54 (8-pin)

1	Idle air control (IAC) valve pos. 2	(R-SB)
2	Solenoid coupling A/C	(GN-R)
3	Idle air control (IAC) valve pos. 1	(BL-Y)
4	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system pos. 1	(GR-W)
5	-	
6	Ground, LH (MFI) control unit	(SB)
7	Throttle position (TP) switch pos. 3	(R-W)
8	Throttle position (TP) switch pos. 1	(OR)
Pos. 6, connector C51 at left suspension tower		

Connector C55 (8-pin)

1	-	
2	Control module EZK (DI) pos. 8 via pos. 7, connector C50 at left suspension tower	(Y)
3	Mass air flow (MAF) sensor pos. 6 via pos. 6, connector C50 at left suspension tower (B200/230G)	(Y-W)
4	Solenoid valve pulsed secondary air injection (PAIR) via pos. 8	(Y-R)
5	Ground, LH (MFI) control unit	(BN)
6	Injectors	(GN-R)
7	Injectors	(GR)
8	Ground, LH (MFI) control module	(BN)

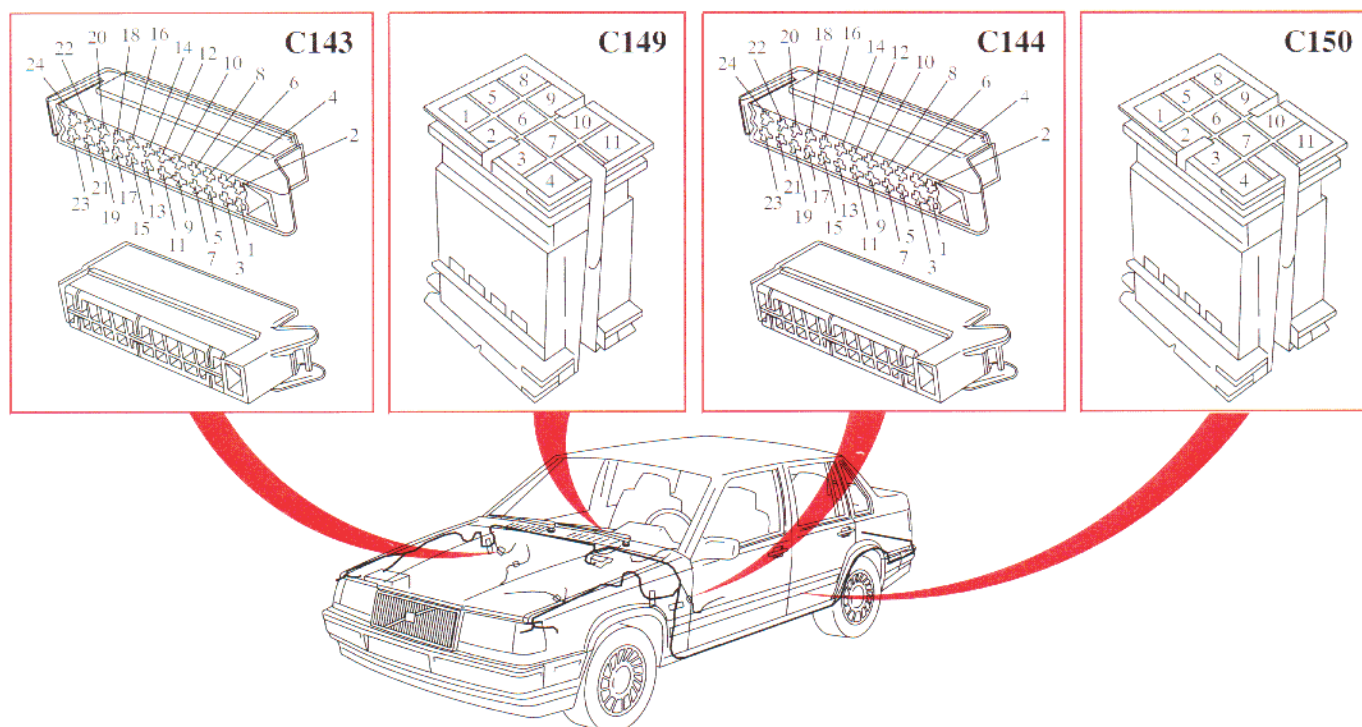
Connector C137 (4-pin)

1	Mass air flow (MAF) sensor pos. 2 via pos. 2, connector C50 at left suspension tower	(BL-GN)
2	Mass air flow (MAF) sensor pos. 3 via pos. 3, connector C50 at left suspension tower	(BL-R)
3	Mass air flow (MAF) sensor pos. 4 via pos. 4, connector C50 at left suspension tower	(BL-W)
4	Mass air flow (MAF) sensor pos. 5 via pos. 5, connector C50 at left suspension tower	(BL-Y)

Connector C154 (3-pin)

1	Low-speed pressure sensor, engine cooling fan Relay, engine cooling fan pos. 1B	(BL-SB)
2	High-speed pressure sensor, engine cooling fan Relay, engine cooling fan pos. 2B	(W-SB)
3	High-pressure sensor, A/C	(GN-R)

Connectors for doors



Connector **C143** (24-pin) at A-post passenger's side

1	Warning light	(GN-R)
2	Warning light	(W-SB)
3	Loudspeaker +	(GR-W) (Y-W)
4	Loudspeaker -	(GR)(W)
5	Central lock, unlocking	(R-W)
6	Central lock, locking	(BL-R)
7	Heating, power door mirrors	(BL-GN)
8	Power door mirrors	(BL-W)
9	Power door mirrors	(BN-W)
10	-	
11	Power door mirrors	(GN-W)
12	-	
13	-	
14	-	
15	-	
16	-	
17	-	
18	-	
19	-	
20	-	
21	Ground connector, power door mirrors	(SB)
22	Window lift motor	(BL)
23	Window lift motor	(GR-R)
24	Window lift motor, supply	(Y-R)

Connector **C144** (24-pin) at A-post, driver's side

1	Warning light	(GN-R)
2	Warning light	(W-SB)
3	Loudspeaker +	(BL-W) (Y-W)
4	Loudspeaker -	(W)
5	Central lock, unlocking	(R-W)
6	Central lock, locking	(BL-R)
7	Heating, power door mirrors	(BL-GN)
8	Power door mirrors passenger's door	(BL-W)
9	Power door mirrors passenger's door	(BN-W)
10	Power door mirrors, supply	(OR)
11	Power door mirrors passenger's door	(GN-W)
12	Ground connection, central locking	(SB) (BN-SB)
13	Central lock, unlocking	(GN-W) (GN-SB)
14	Central lock, locking	(Y-W) (Y-SB)
15	Window lift motor rear door pass. side	(BN)
16	Window lift motor rear door pass. side	(Y)
17	Window lift motor rear door driver's side	(GN)
18	Window lift motor rear door driver's side	(GR)
19	ON/OFF power window lift motors, rear doors	(P)
20	Window lift motor supply	(Y-R)
21	Ground connection, power window lift motors, power door mirrors	(SB)
22	Window lift motor passenger's door	(BL)
23	Window lift motor passenger's door	(R)
24	-	

Connector **C149** (11-pin) at B-post, passenger's side

1	Central lock, unlocking	(R-W)
2	Central lock, locking	(BL-R)
3	Warning light door	(GN-R)
4	Warning light door	(W-SB)
5	Window lift motor ON/OFF	(P)
6	Window lift motor	(BN)
7	Window lift motor	(R)
8	Loudspeaker +	(Y-W)
9	Loudspeaker -	(W)
10	-	
11	-	

Connector **C150** (11-pin) at B-post, driver's side

1	Central lock, unlocking	(R-W)
2	Central lock, locking	(BL-R)
3	Warning light door	(GN-R)
4	Warning light door	(W-SB)
5	Window lift motor ON/OFF	(P)
6	Window lift motor	(BN)
7	Window lift motor	(R)
8	Loudspeaker +	(Y-W)
9	Loudspeaker -	(W)
10	-	
11	-	