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List of components 1:5

Explanations

Abbreviations

Groups

Group 23	= Fuel system
Group 26	= Cooling system
Group 27	= Engine controls
Group 32	= Alternator and voltage regulator
Group 33	= Starting system
Group 35	= Lighting
Group 36	= Additional electrical equipment
Group 37	= Wiring and fuses
Group 38	= Instruments
Group 39	= Other
Group 43	= Transmission
Group 59	= Brake system
Group 64	= Steering
Group 83	= Doors and openings
Group 84	= Exterior decorative elements, etc.
Group 85	= Interior equipment
Group 87	= Climate control system
Group 88	= Internal equipment

Ignition switch symbols

X	= Accessories (audio position)
S	= Powered upon insertion of key
15	= Contact remains connected during start
15I	= Contact is broken while starting
30	= Constant power from the battery
50	= Start

Countries/Markets

A	= Austria
AUS	= Australia
B	= Belgium
CDN	= Canada
CH	= Switzerland
D	= Germany
DK	= Denmark
E	= Spain
EU/OS	= Markets outside USA and Canada
FIN	= Finland
GB	= Great Britain
ISR	= Israel
J	= Japan
KOR	= Korea
N	= Norway
NL	= Netherlands
S	= Sweden
USA	= United States of America
WEU	= Western Europe

Other

AUTO	= Automatic transmission
AWD	= All wheel drive
CAN	= CAN communication
DIESEL	= Diesel
DPY	= Display
ECC	= Electronic climate control system
ETA	= Engine throttle body
EXT. X	= Extended X-feed
GDL	= Gas discharge lamp
HISPEED	= High speed data bus
IR	= Infrared sensor
LIN	= LIN communication
LHD	= Left-hand drive
LOSPEED	= Low speed data bus
MAN	= Manual transmission
MEMORY	= Memory driver's seat
MMS	= Mass Movement Sensor
GASOLINE	= Gasoline
RHD	= Right-hand drive
SCR	= Screen
SRS	= Airbag
T	= Turbocharged engine
W/O	= Without
2WD	= Two-wheel drive
4CYL, I4	= 4-cylinder engine
5CYL, I5	= 5-cylinder engine

Colors

BK, SB	= Black
BN	= Brown
BU, BL	= Blue
GN	= Green
GY, GR	= Gray
LGN	= Light Green
OG, OR	= Orange
PK, P	= Pink
RD, R	= Red
VT, VO	= Violet
WH, W	= White
YE, Y	= Yellow

How to use the wiring diagrams 1:2

The descriptions below apply in general to all wiring diagram manuals, although not all sections are necessarily contained in this manual.

A. Component designation

Every component has a component designation that consists of two parts.

The first part is a type number that describes the type of component in question, for example 3/xx.

The second part of the designation is a serial number, e.g. x/2.

Together, this constitutes a component designation, e.g. 3/2.

At the end of the manual is a list of components, where, with the help of the component designation, you can read off the name of the component, for example, 3/2 = light switch.

List of type numbers

The list shows which type of component that respective type numbers refer to, for example, 3/x = switch, 6/x = electric motor, etc.

1	Battery
2	Relay
3	Switch
4	Control module
5	Driver information module
6	Electric motor
7	Sensor
8	Actuator
9	Heating element
10	Light
11	Fuse
15	Electrical distribution rail/box
16	Audio
17	Service/diagnostics
18	Contact reel
19	Meter
20	Ignition component/shunt
27	Optics
31	Ground connection
63	Branching point
64	Connector

B. Branching points

The wiring diagrams contain numbered junction points, e.g. 63/352.

This manual contains a section with a list of branching points. This list shows all the components that are connected to each branching point.

The location of the branching points is shown in the "Cable harness routing in vehicle" section.

C. Connectors

Connectors provide a bridge between two cable harnesses and are described in the "Connectors" section.

D. Electrical distribution

Operation of the fuses and relays is shown in the "Electrical distribution" section.

E. Data communication

Today's cars contain CAN and MOST networks that transfer information. Connections to these networks are not shown in their entirety in the respective wiring diagram. Complete information on CAN and MOST communication is found in the section "Control modules".

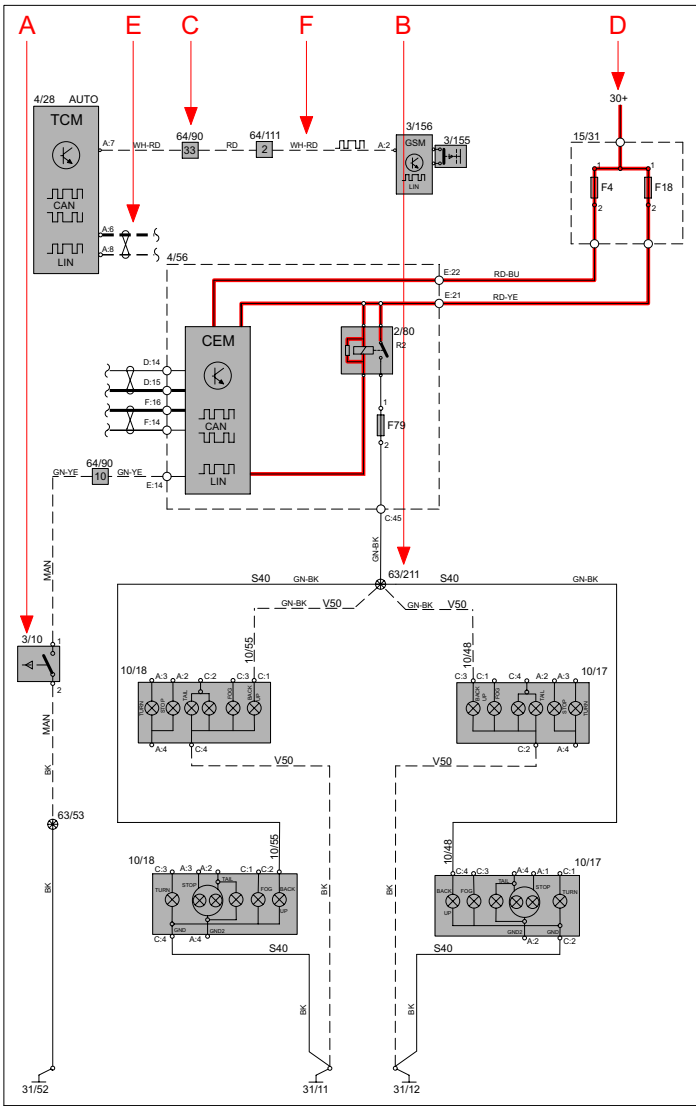
F. Abbreviations

A number of different abbreviations are used in the manual. These are explained in the section "Abbreviations".




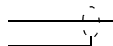

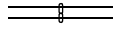
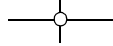
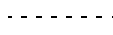

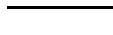
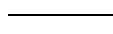
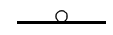

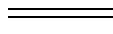


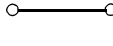
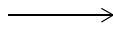


G. Component location

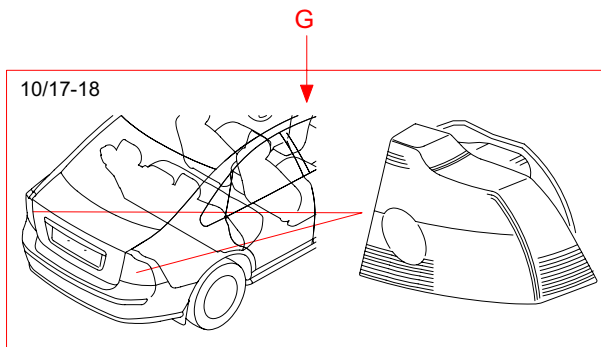
There is a section at the end of the manual in which the appearance and location of components is described in numerical order.

How to use the wiring diagrams 2:2

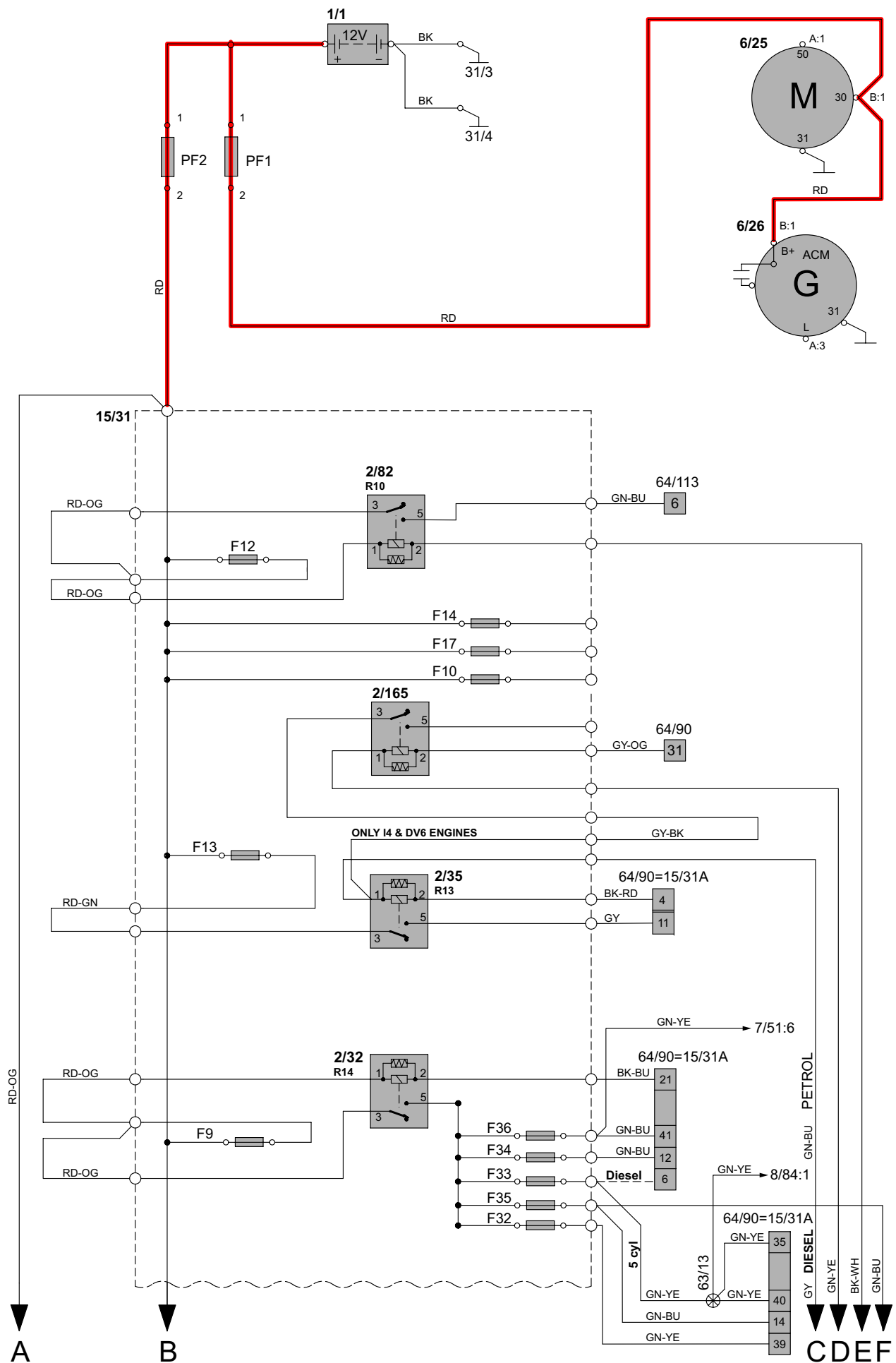


List of symbols

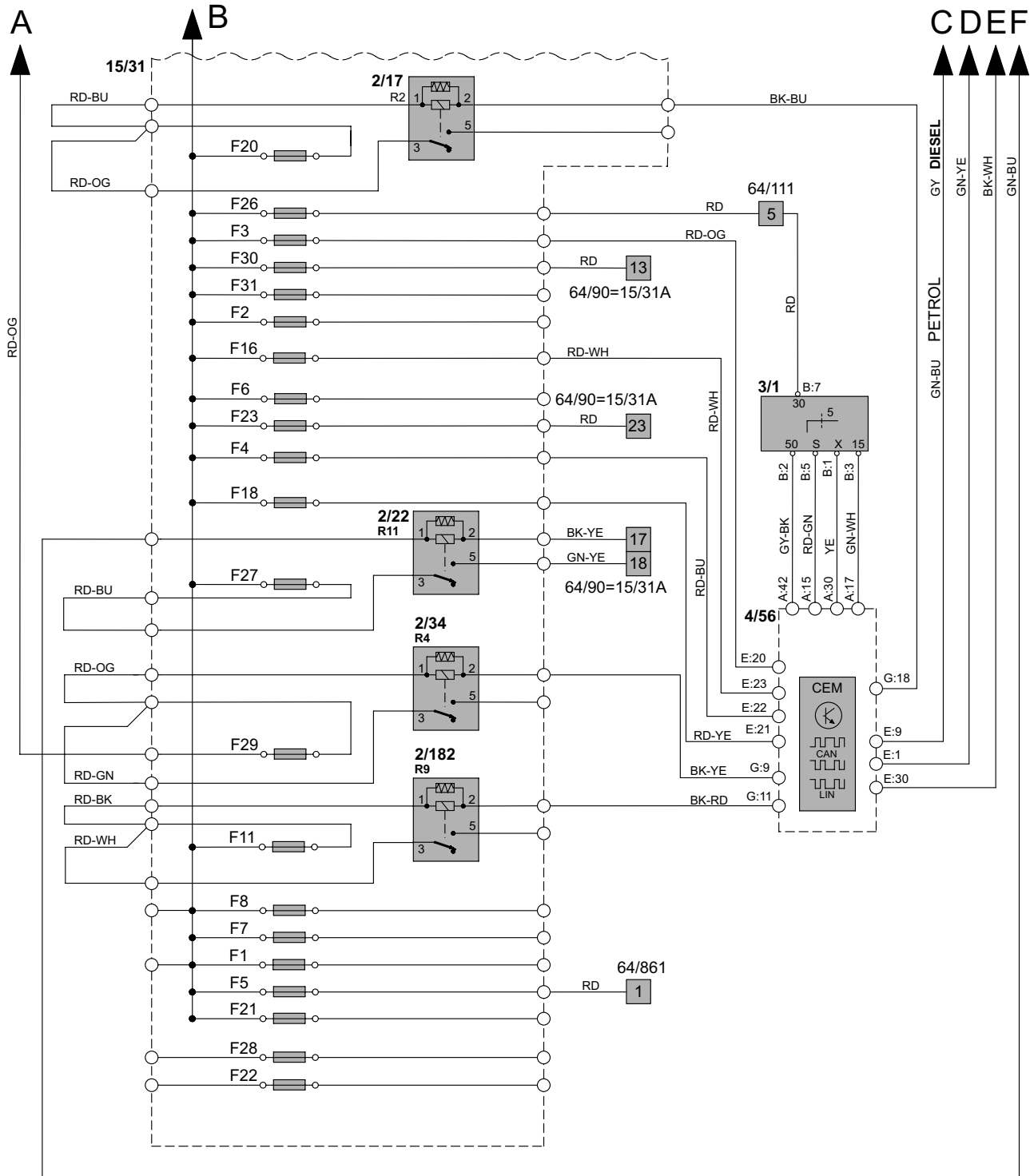
-  = System voltage
-  = Ground connection via wiring
-  = Ground connection on component/chassis
-  = Screened wire
-  = Junction point
-  = Twisted cable
-  = Electrical connection
-  = Variant
-  = CAN communication
-  = CAN high data signal (CAN H)
-  = CAN low data signal (CAN L)
-  = MOST communication
-  = LIN communication
-  = DIN cable, coaxial cable, etc.
-  = Data communication
-  = CAN communication
-  = Connection with distribution box
-  = Further connection to...
-  = Connector between cable harnesses
-  = Connector connected to component



Electrical distribution 1:2 Overview

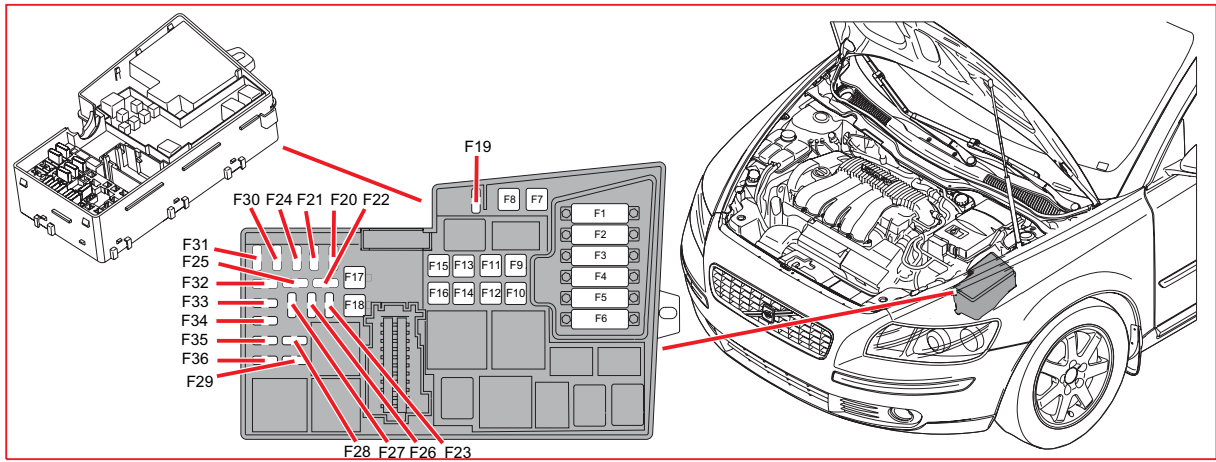


Electrical distribution 2:2 Overview



Fuses

Engine compartment distribution box F1-F8

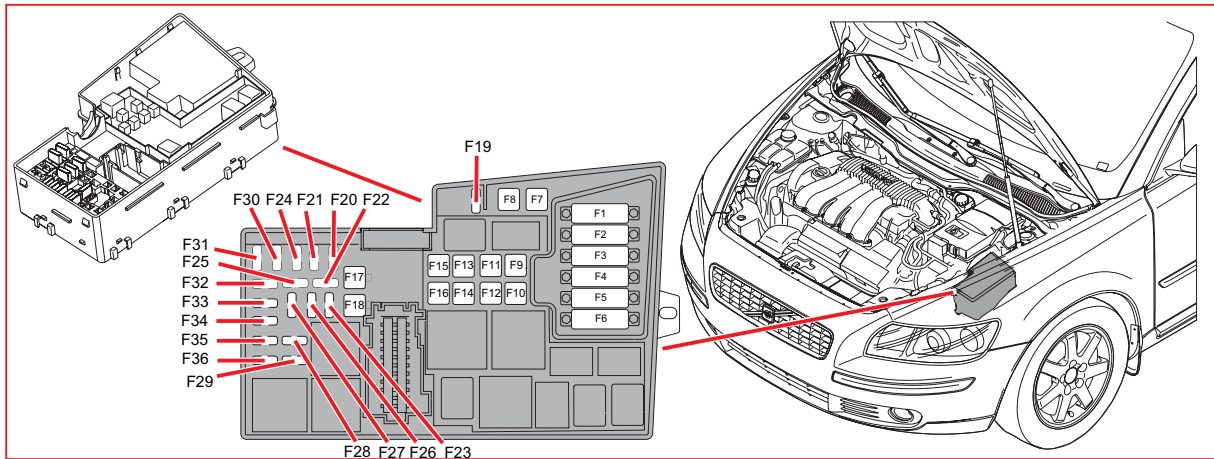


15/31 Engine compartment distribution box

No.	Fuse function	via	A
F1	4/71 Cooling fan control module	-	50
F2	6/71 Electrical Power Steering Module (EPS)	-	80
F3	2/193 Relay, comfort functions F45 Fuse in the Central Electronic Module (CEM) F48-F49 Fuses in the Central Electronic Module (CEM) F60-F61 Fuses in the Central Electronic Module (CEM) F62-F63 Fuses in the Central Electronic Module (CEM) F68-F69 Fuses in the Central Electronic Module (CEM) F84-F85 Fuses in the Central Electronic Module (CEM)	- 2/193 2/193 2/193 - 2/193 -	60
F4	2/63 Relay, high beam F55 Fuses in the Central Electronic Module (CEM) F58-F59 Fuses in the Central Electronic Module (CEM) F74 Fuses in the Central Electronic Module (CEM) F77 Fuses in the Central Electronic Module (CEM)	- - 2/63 - -	60
F5	9/41 PTC element, Diesel	-	80
F6	4/109 Glow plug control module	-	60
F7	4/16 Brake Control Module (BCM), pump	-	30
F8	4/16 Brake Control Module (BCM), valves	-	20
continues			

Fuses

Engine compartment distribution box F9-F18

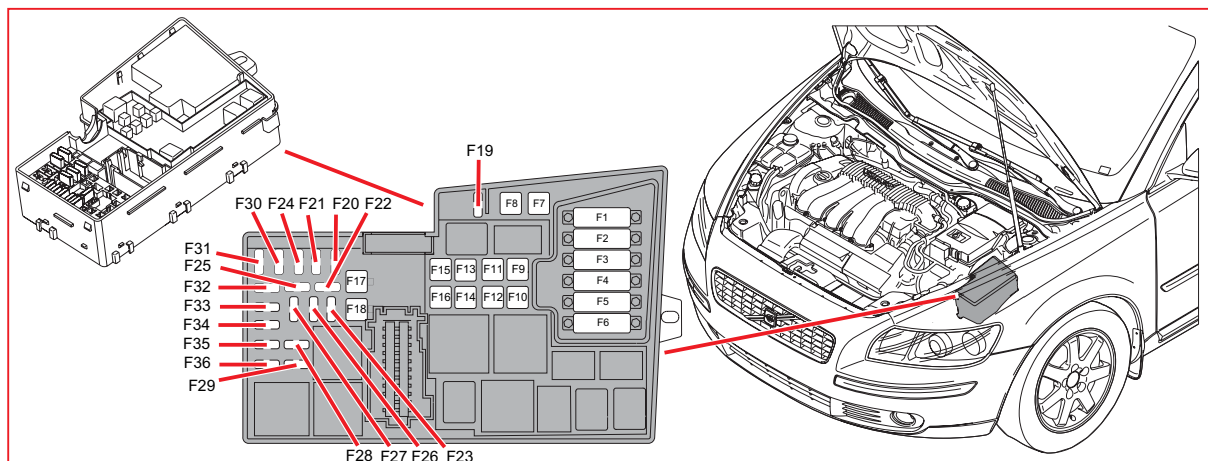


15/31 Engine compartment distribution box

No.	Fuse function	via	A
F9	2/32 Main relay, engine management system F32-F36 Fuses in the engine compartment distribution box	- 2/32	30
F10	4/31 Fan control module	-	40
F11	6/104 Pump, high pressure headlight washer	2/182	20
F12	2/82 Relay, heated rear window 9/2 Heated rear window	- 2/82	30
F13	6/25 Starter motor	2/35	30
F14	4/110 Trailer Module (TRM)	-	40
F16	2/159 Relay, infotainment 16/105 Audio Module (AUD) F43 Fuse in the Central Electronic Module (CEM) F64 Fuse in the Central Electronic Module (CEM) F65-F67 Fuses in the Central Electronic Module (CEM)	- - - - 2/159	30
F17	6/1 Wiper Motor Module (WMM)	-	30
F18	2/80 Relay, reversing lights 2/89 Relay, interior lighting 4/56 Central Electronic Module (CEM) F46-F47 Fuses in the Central Electronic Module (CEM) F56-F57 Fuses in the Central Electronic Module (CEM) F79 Fuse in the Central Electronic Module (CEM) F81-F83 Fuses in the Central Electronic Module (CEM) F86 Fuse in the Central Electronic Module (CEM)	- - - 2/89 - - - 2/89	40
continues			

Fuses

Engine compartment distribution box F20-F32

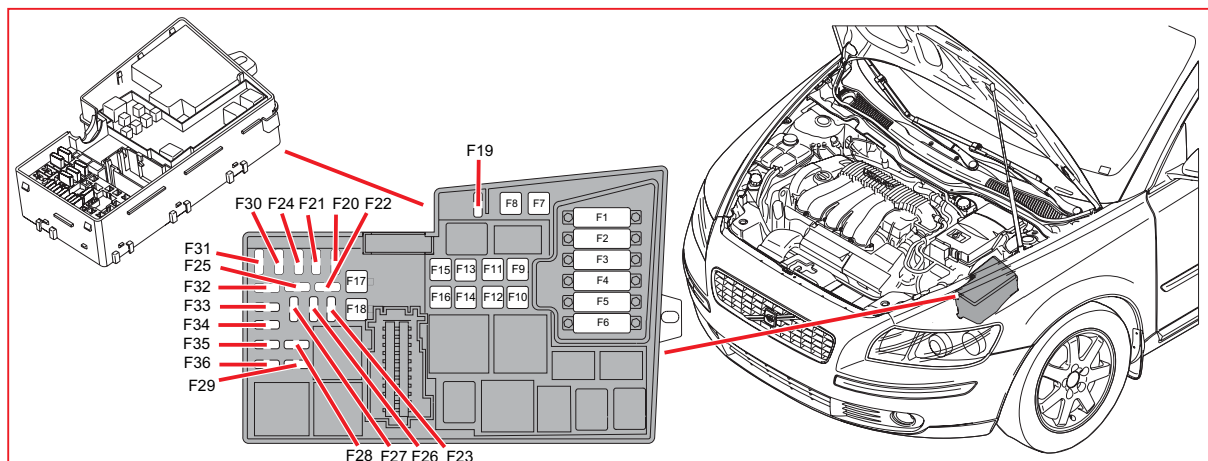


15/31 Engine compartment distribution box

No.	Fuse function	via	A
F20	2/17 Relay, horn	-	15
	16/10 Horn 1	2/17	
	16/11 Horn 2	2/17	
F21	4/7 Combustion Preheater Module (CPM)	-	20
F22	16/79 Subwoofer Module (SUB)	2/159	15
F23	4/28 Transmission Control Module (TCM)	-	10
	4/46 Engine Control Module (ECM) I5	-	
F26	2/35 Relay, starter motor	3/1	15
	3/1 Start Control Module (SCU)	4/56	
	4/46 Engine Control Module (ECM) I5	3/1	
	4/56 Central Electronic Module (CEM)	3/1	
	F44 Fuse in the Central Electronic Module (CEM)	3/1	
	F51-F54 Fuses in the Central Electronic Module (CEM)	3/1	
	F73 Fuse in the Central Electronic Module (CEM)	3/1	
F27	8/3 Electromagnetic clutch, climate control system	2/22	10
F28	3/112 Climate Control Module (CCM)	-	10
	16/108 Multimedia Module (MMM)	2/159	
F29	2/34 Relay, front fog lights	-	15
	10/5 Fog light, front left	2/34	
	10/6 Fog light, front right	2/34	
F30	4/46 Engine Control Module (ECM), DW10	-	3
F31	6/26 Alternator, I4	-	10
F32	2/142 Relay, pre-heater, fuel filter	-	10
	7/15 Heated oxygen sensor, front, I4	-	
	7/82 Heated oxygen sensor, rear, I4	-	
	8/6-8/10 Injection valves, I5	-	
	8/121 Coolant valve, DW10	-	
	8/122 Heated oxygen sensor, rear, DV6	-	
continues			

Fuses

Engine compartment distribution box F33-FH1

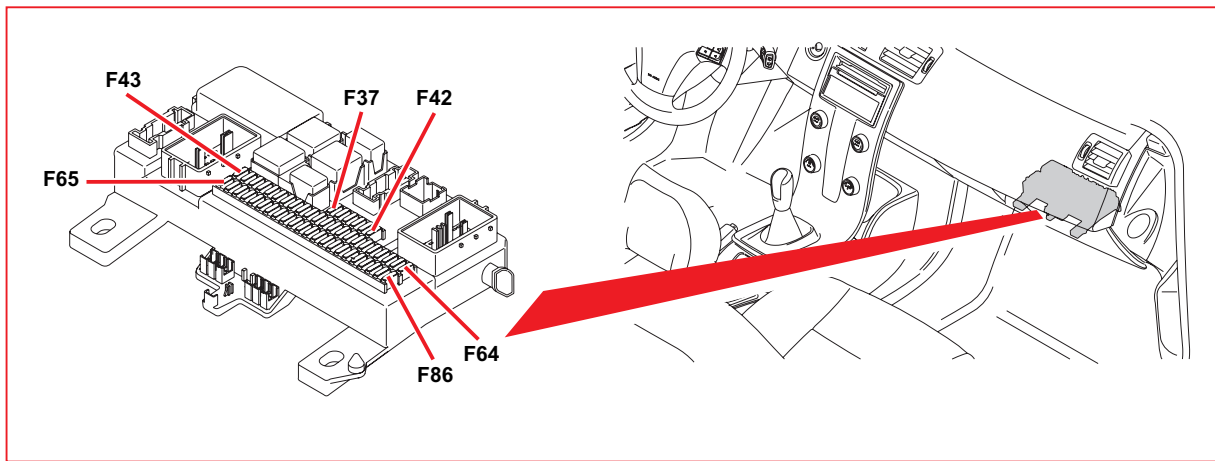


15/31 Engine compartment distribution box

No.	Fuse function	via	A
F33	6/114 Vacuum pump, I5 7/15 Heated oxygen sensor, front, I5 7/82 Heated oxygen sensor, I5T 7/186 Heated oxygen sensor, rear, I5 N/A 7/187 Heated oxygen sensor, center, I5 N/A 9/38 Heated fuel filter, Diesel	8/84 - - - -	20
F34	8/6-8/9 Injection valves, Sigma 8/77 Control valve, fuel volume, DW10 8/111 High-pressure solenoid valve, DV6 9/32 PTC resistor, oil trap, DW10 20/3 -20/7 Spark plug and ignition coil 20/17 Transformer, ignition coil, Sigma	- - - - - -	10
F35	2/22 Relay, climate control system 6/67 Pump, fuel leakage control 6/99 Engine EGR 7/17 Mass airflow sensor (MAF) 7/192 Water detection sensor 7/200 Premair sensor 8/6-8/9 Injection valves 8/18 EVAP valve 8/19 Solenoid, variable valve timing, intake 8/28 Turbocharger control valve 8/65 Power steering pressure switch 8/81 Solenoid, variable valve timing outlet 8/82 Solenoid, variable turbo geometry, Diesel 8/114 Valve mixing air/fuel 8/132 Control valve, intake, Diesel 9/32 PTC-resistor air preheating	- 2/22 - - - - - - - - - - - - - - - -	15
F36	4/46 Engine Control Module (ECM) 7/51 Accelerator pedal sensor	- -	10
FH1	10/65 Auxiliary light, front right 10/69 Auxiliary light, front left	2/64	20

Fuses

Central Electronic Module (CEM) F43-F52



4/56 Central Electronic Module (CEM)

No.	Fuse function	via	A
F43	16/1 Audio Module (AUM) 16/46 RTI Display 16/60 Phone Module (PHM) 16/108 Multimedia Module (MMM)	- - -	15
F44	4/9 Supplemental Restraint System Module (SRS)	-	10
F45	9/1 Front 12V outlet 9/25 Rear 12V outlet	- -	15
F46	5/1 Driver Information Module (DIM) 10/29 Glove compartment lighting 10/97 Courtesy lighting, left 10/102 Courtesy lighting, right	- - - -	5
F47	10/22 Ceiling light 10/150 Rear reading light 10/114 Vanity mirror lighting, left 10/115 Vanity mirror lighting, right	- - -	5
F48	2/16 Relay, rear window wiper 2/92 Relay, windshield washer motor 2/93 Relay, rear window washer motor 6/2 Washer pump 6/2 Washer pump 6/32 Rear window wiper motor	- - - 2/92 2/93 2/16	15
F49	4/9 Supplemental Restraint System Module (SRS) 7/93 Occupant Weight Sensor (OWS), USA/CDN	- -	10
F51	4/86 Parking Assistance Module (PAM) 4/112 Control module, gas discharge lamp master, left 4/113 Control module, gas discharge lamp slave, right 9/41 PTC element, Diesel 10/1 Lamp housing, front left, beam length adjustment 10/2 Lamp housing, front right, beam length adjustment	- - - - 4/112 4/113	10
F52	4/16 Brake Control Module (BCM)	-	5
continues			