



Volvo V50
(2008-2009)



Wiring Diagrams and Electric Model Year 2009



VOLVO C30, S40 (04-), V50 & C70 (06-)

WIRING DIAGRAM 2009



TP 39129202

Table of Contents 1:3

Vehicles with SRS (Airbag)/SIPS bag/IC (Inflatable Curtain)	2
Abbreviations	6
How to use the wiring diagrams 1:2.....	7
Electrical distribution 1:2.....	9
Fuses	
Distribution box in engine compartment F1-F10	11
Distribution box in engine compartment F11-F18	12
Distribution box in engine compartment F20-F31	13
Distribution box in engine compartment F32-F34	14
Distribution box in engine compartment F35-FH1	15
Central Electronic Module (CEM) F43-F48.....	16
Central Electronic Module (CEM) F49-F61.....	17
Central Electronic Module (CEM) F62-F69.....	18
Central Electronic Module (CEM) F73-F85.....	19
Fuses in the Central electronic module (CEM) F86.....	20
Battery PF1-PF2	21
Fuses in holder	22
Relays	
Ignition switch and relays.....	23
Distribution box in engine compartment R2-R14	24
Central Electronic Module (CEM) R15-R18.....	25
Central Electronic Module (CEM) R1-R11B	26
Other relays	27
Ground connections	
Overview.....	28
31/3 - 31/10 cont.....	29
31/10 - 31/11	30
31/12 - 31/66 cont.....	31
31/66 - 31/80	32
31/83 - 31/102	33
31/107 - 31/114	34
31/115 - 31/119	35
Ground connections in chassis.....	36
Control modules	
Overview of locations.....	37
Overview of designations.....	38
Central Electronic Module (CEM) 1:2	39
Data communication, Low speed CAN 1:2	41
Data communication, High speed CAN	43
Data communication MOST.....	44
Data communication LIN 1:2	45
Start Control Module (SCU).....	47
Accessory Electronic Module (AEM)	48
Group 23 Fuel system	
Engine management system, 4-Cyl. 1.6l 1:2	49
Engine management system, 4-Cyl. 1.8l & 2.0l 1:2	51
Engine management system, 5-Cyl. 1:2	53
Engine management system, 5-Cyl. Turbo 1:2.....	55
Engine management system, Diesel, 4-Cyl. 1.6l 1:2	57
Engine management system, Diesel, 4-Cyl. 2.0l 1:2	59
Engine management system, Diesel, 4-Cyl. 2.0l MPS6 1:2	61
Engine management system, Diesel, 5-Cyl. 2.4l 1:3	63
Emission control, 4-Cyl. 1.6l	66
Emission control, 4-Cyl. 1.8l & 2.0l	67
Emission control, 5-Cyl.	68
Emission control, 5-Cyl. Turbo	69
Group 26 Cooling system	
Cooling fan.....	70
Group 27 Engine controls	
Cruise control, 4-Cyl.	71
Cruise control, 5-Cyl.	72
Group 32 Alternator and voltage regulator	
Power supply, 4-Cyl.	73
Power supply, 5-Cyl.	74
Group 33 Starting system	
Starting system, 4-Cyl.	75
Starting system, 5-Cyl.	76
Group 35 Lighting	
High and low beam	77
Active headlight (Bi-Xenon®) S40/V50	78
High and low beam (Bi-Xenon®) C30/C70	79
Running lights/ Parking lights, Tail lights S40/V50	80
Running light/ Parking light, Tail lights (Bi-Xenon®) S40/V50	81
Running lights/ Parking lights, Tail lights C30/C70	82
Running/ Parking lights, Tail lights (Bi-Xenon®) C30/C70	83
Brake light S40/V50	84
Brake lights C30/C70	85
Reversing lights S40/V50	86
Reversing lights C30/C70	87
Fog lights S40/V50	88
Fog lights C30/C70	89
Fog lights LHD Japan S40/V50	90
Fog lights LHD Japan C30/C70	91
Follow-me-home lighting	92
Interior lighting C30/S40/V50 1:2	93
Interior lighting C70 1:2	95
Instrument and control illumination	97
Auxiliary lights	98

Table of Contents 2:3

Group 36 Additional electrical equipment

Direction indicators and hazard warning flashers	
S40/V50	99
Direction indicator and hazard warning flashers	
(Bi-Xenon®) S40/V50	100
Direction indicators and hazard warning flashers	
C30/C70	101
Direction indicator and hazard warning flashers	
(Bi-Xenon®) C30/C70.....	102
Windshield wiper/washer	103
Headlight washer	104
Rear window wiper/washer C30/V50.....	105
Rain sensor.....	106
Keyless vehicle C30/S40/V50 1:2.....	107
Keyless vehicle C70 1:2	109
Parking assistance.....	111
Electronic Immobilizer/ Steering Column Lock	
Module (SCL)	112
Horn.....	113
Anti-theft alarm C30.....	114
Anti-theft alarm S40/V50.....	115
Anti-theft alarm C70.....	116
Alcolock	117
Accessory Electronic Module (AEM)	118

Group 37 Wiring and fuses

12V outlet C30/S40/V50	119
12V outlet C70	120
Diagnostics system.....	121
Tow hitch cable harness, 4-pin S40/V50	122
Tow hitch cable harness, 4-pin C30/C70.....	123
Tow hitch cable harness, 7-pin S40/V50	124
Tow hitch cable harness, 7-pin C30/C70.....	125
Tow hitch cable harness, 13-pin S40/V50/C70.....	126
Tow hitch cable harness, 13-pin C30	127
USB control module (AUU).....	128

Group 38 Instruments

Driver information module.....	129
Seat belt reminder C30/S40/V50	130
Seat belt reminder C70	131

Group 39 Other

Audio C30/S40/V50	132
Audio C70	133
Audio High Performance/Premium Sound	
C30/S40/V50 1:2	134
Audio High Performance/Premium Sound C70 1:2... ..	136
Cellular phone 1:2.....	138

Multimedia & Traffic information	140
Satellite radio	141
Subwoofer.....	142
Navigation system, portable.....	143
Bluetooth.....	144
Bluetooth Handsfree, internal amplifier.....	145
Bluetooth Handsfree, external amplifier.....	146
Bluetooth Handsfree & AUU, internal amplifier.....	147
Bluetooth Handsfree & AUU, external amplifier.....	148
Bluetooth Handsfree with AEM, internal amplifier, LHD.....	149
Bluetooth Handsfree with AEM, internal amplifier, RHD.....	150
Bluetooth Handsfree with AEM, external amplifier, LHD.....	151
Bluetooth Handsfree with AEM, external amplifier, RHD.....	152

Group 43 Transmission

Automatic transmission AW55-51.....	153
Transmission M66.....	154
Automatic transmission MPS6	155
Differential Electronic Module (DEM), S40/V50	156

Group 59 Brake system

Brake control system & STC.....	157
Brake control system & DSTC	158

Group 64 Steering

Electronic power steering.....	159
--------------------------------	-----

Group 83 Doors and openings

Central locking, front doors C30/S40/V50.....	160
Central locking, rear doors S40/V50.....	161
Central locking C70.....	162
Central locking, trunk lid/tailgateC30	163
Central locking, trunk lid/tailgateS40/V50	164
Central locking, trunk lid/tailgateC70	165
Central locking, storage compartment C70.....	166
Child safety lock S40/V50	167
Central locking, fuel filler flap	168
Signal receiver, central locking C30/S40/V50	169
Signal receiver, central locking C70.....	170
Power windows, front doors C30/S40/V50	171
Power windows C70	172
Power windows, rear doors S40/V50.....	173
Power sunroof C30/S40/V50	174
Power roof C70	175

Table of Contents 3:3

Group 84 Exterior decorative elements, etc.

Power door mirrors C30/S40/V50.....	176
Power door mirrors C70.....	177
Heated door mirrors.....	178
Heated rear window.....	179
Blind Spot Information System	180

Group 85 Interior equipment

Power driver's seat with memory function	
LHD S40/V50.....	181
Power driver's seat with memory function	
RHD S40/V50	182
Power driver's seat with memory function	
LHD C30/C70	183
Power driver's seat with memory function	
RHD C30/C70.....	184
Power passenger seat with memory function	
LHD C30/C70	185
Power passenger seat with memory function	
RHD C30/C70.....	186
Power driver's seat LHD S40/V50	187
Power driver's seat RHD S40/V50.....	188
Power passenger seat LHD S40/V50	189
Power passenger seat RHD S40/V50	190
Heated seats.....	191

Group 87 Climate control system

Climate control system, 4-Cyl. Gasoline 1:2.....	192
Climate control system, Diesel 1.6l & 2.0l 1:2	194
Climate control system, 5-Cyl. 1:2	196
Climate control system PTC element	198
Parking heater, auxiliary heater.....	199
Relay, electric engine heater	200
Electric engine heater Flexifuel.....	201

Group 88 Internal equipment

Supplemental Restraint System (SRS)	
C30/S40/V50 1:2	202
Supplemental Restraint System (SRS) C70 1:2	204
Remote garage opening	206
Auto-dimming rearview mirror.....	207

Connectors

208

Branching points

250

Routing of harnesses in the car

Engine harness, Gasoline 4-Cyl. 1.6	262
Engine harness, Gasoline 4-Cyl. 1.8	262
Engine harness, Gasoline 5-Cyl.	263
Engine harness, Gasoline 5-Cyl. Turbo	263
Engine harness, Diesel 1.6l	264
Engine harness, Diesel 2.0l	264
Engine harness, Diesel 2.4l	265
Engine compartment harness, 4-Cyl.....	266
Engine compartment harness, 5-Cyl.....	266
Dashboard harness, LHD	267
Dashboard harness, RHD.....	267
Floor harness, C30 LHD	268
Floor harness, C30 RHD.....	269
Floor harness, S40 LHD	270
Floor harness, S40 RHD.....	271
Floor harness, V50 LHD	272
Floor harness, V50 RHD.....	273
Floor harness, C70 LHD	274
Floor harness, C70 RHD.....	275
Roof harness, C30	276
Roof harness, S40	276
Roof harness, V50	277
Roof harness, C70	277
Tunnel harness, C30/S40/V50.....	278
Tunnel harness, C70	278
Driver's door harness, C30	279
Passenger door harness, C30	279
Driver's door harness, S40/V50	280
Passenger door harness, S40/V50	280
Driver's door harness, C70	281
Driver's door harness supplement, C70.....	281
Passenger door harness, C70	282
Passenger door harness supplement, C70.....	282
Rear door harness, right S40/V50	283
Left, rear door harness S40/V50.....	283
Rear side panel harness, left C70.....	284
Right, rear side panel harness C70	284
Trunk lid/tailgate harness, C30	285
Trunk lid/tailgate harness, S40	285
Trunk lid/tailgate harness, V50	286
Trunk lid/tailgate harness, C70	286

Component illustrations

287

Index 1:2

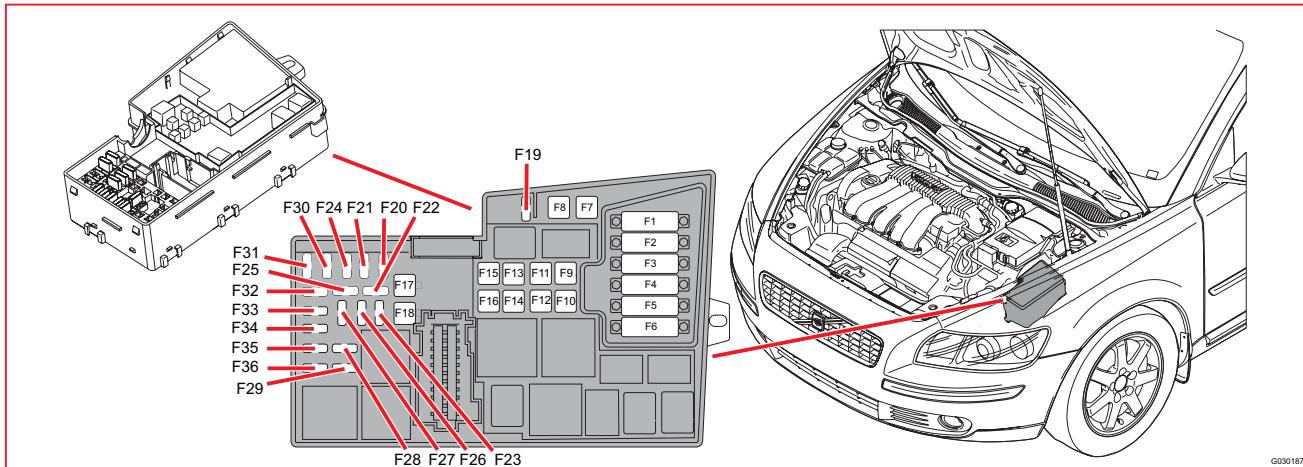
343

List of components 1:7

345

Fuses

Distribution box in engine compartment F11-F18



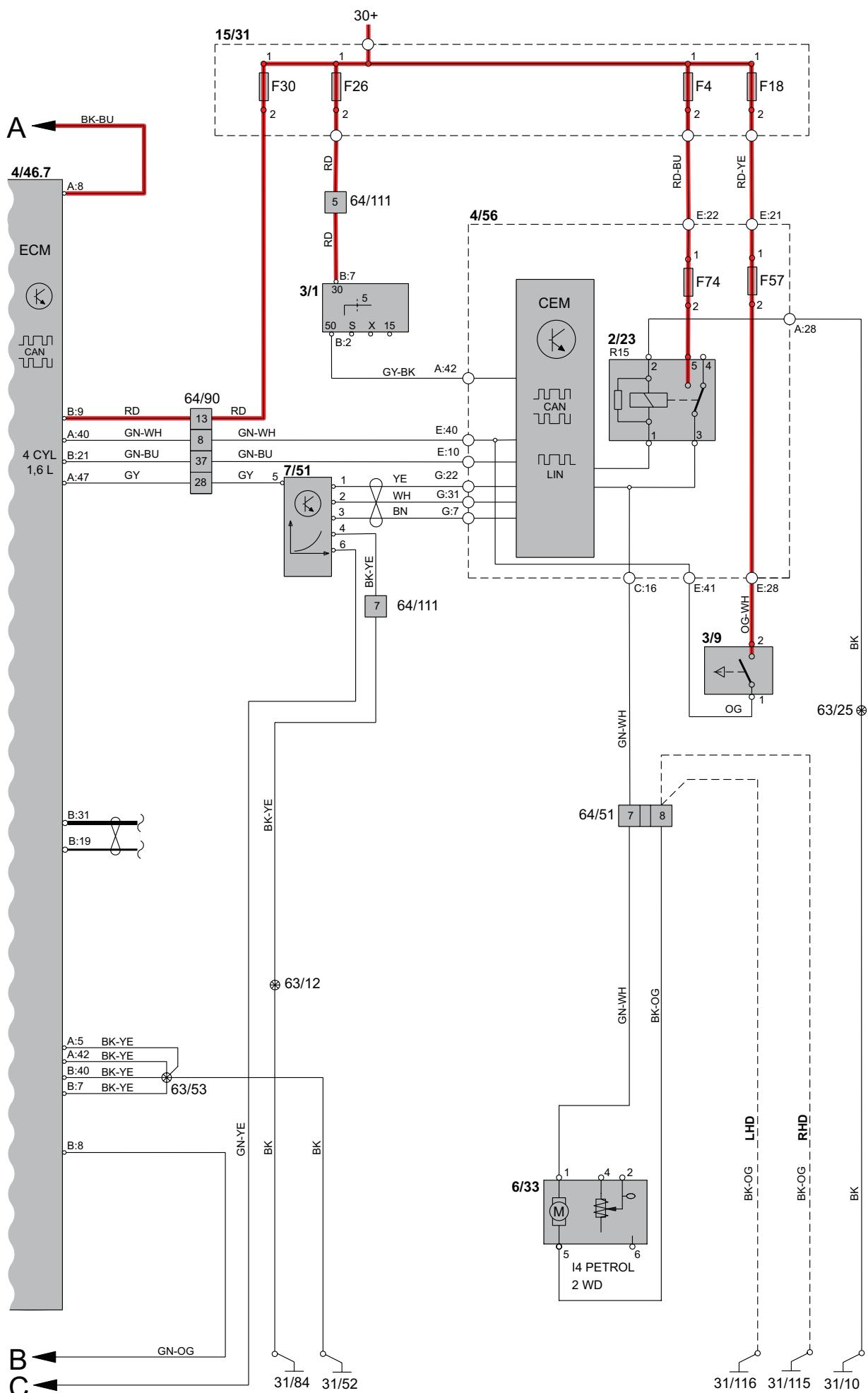
15/31 Distribution box in engine compartment

No.	Fuse function	via	A
F11	2/182 Relay, headlight washer motor 4/59 Convertible Roof Module (CRM), C70 6/104 Pump, high pressure headlight washer	- - 2/182	20
F12	2/82 Relay, heated rear window 9/2 Rear window defroster	- 2/82, 16/141	30
F13	6/25 Starter motor	2/35	30
F14	4/110 Trailer Module (TRM)	-	40
F15	4/59 Convertible Roof Module (CRM), C70		30
F16	2/159 Infotainment relay, S40/V50/C30 16/105 Audio module (AUD), S40/V50/C30 F22 Fuse, engine compartment distribution box, S40/V50/C30 F43 Fuse in the Central Electronic Module (CEM), S40/V50/C30 F64 Fuse in the Central Electronic Module (CEM), S40/V50/C30 F65-F67 Fuses in the Central Electronic Module (CEM), S40/V50/C30	- - - - - 2/159	30
F16	2/159 Infotainment relay, C70 16/105 Audio module (AUD), C70 F22 Fuse, engine compartment distribution box, C70 F43 Fuse in the Central Electronic Module (CEM), C70 F64 Fuse in the Central Electronic Module (CEM), C70 F65-F67 Fuses in the Central Electronic Module (CEM), C70	- - - - - 2/159	40
F17	6/1 Wiper Motor Module (WMM)	-	30
F18	2/80 Relay, reversing light 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 - 2/80 - 2/89	40

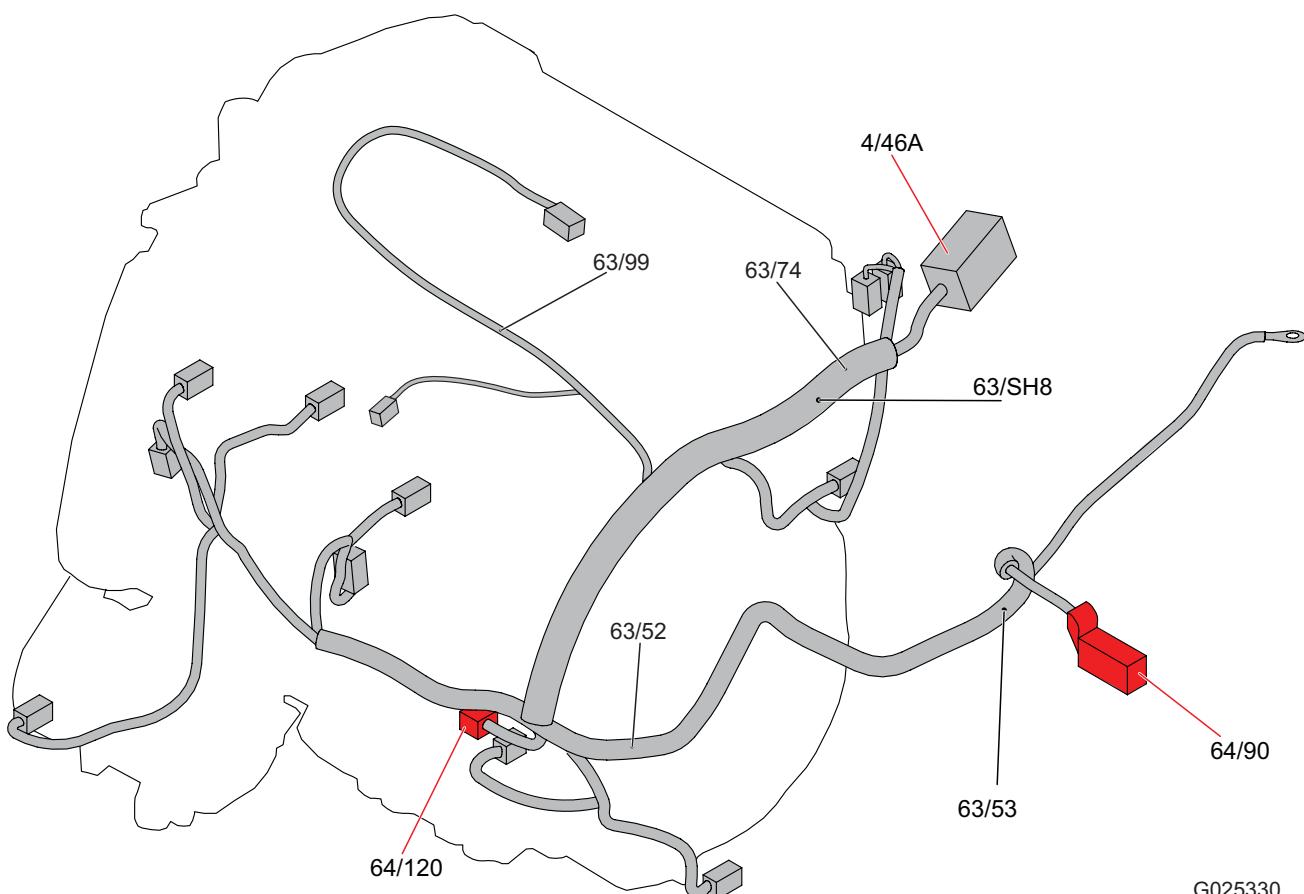
continues

Group 23 Fuel system

Engine management system, 4-Cyl. 1.6l 2:2

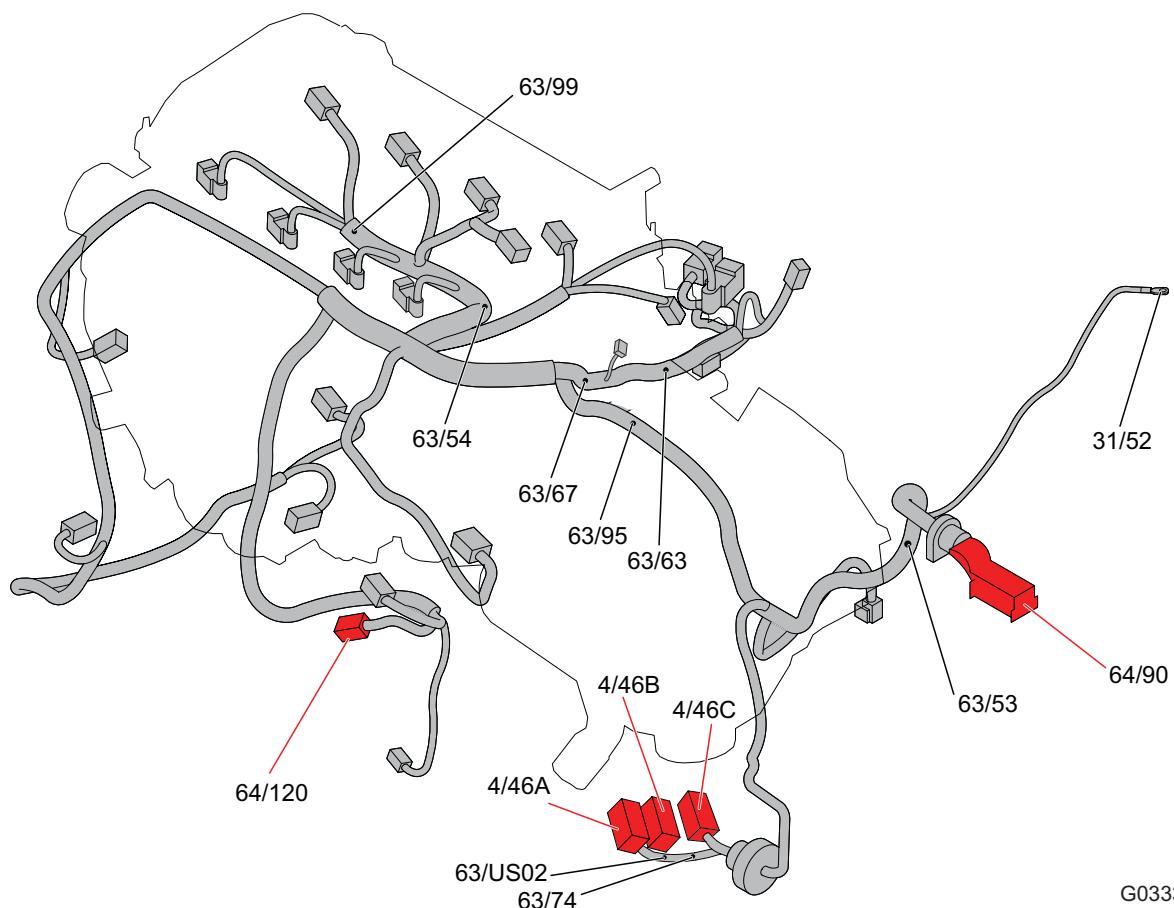


Routing of harnesses in the car Engine harness, Gasoline 4-Cyl. 1.6



G025330

Cable harness routing in vehicle Engine harness, Gasoline 4-Cyl. 1.8



G033386