



Volvo S80
(2009-2010)



Wiring Diagrams and Electric Model Year 2010



VOLVO V70 (08-), XC70 (08-) & S80 (07-)

WIRING DIAGRAM 2010



TP 39152202

Table of Contents 1:3

Vehicles with SRS (Airbag)/SIPS bag/	
IC (Inflatable curtain)	2
Explanations	6
How to use the wiring diagrams 1:2.....	7
Electrical distribution 1:2	9

Fuses

Distribution box in engine compartment F1-F7	11
Distribution box in engine compartment F9-F24	12
Distribution box in engine compartment F25-F31	13
Distribution box in engine compartment F32-F37	14
Distribution box in engine compartment F38	15
Distribution box in engine compartment F38-F39	16
Distribution box in engine compartment F39-F44	17
Central Electronic Module (CEM) F1-F11	18
Central Electronic Module (CEM) F13-F19	19
Central Electronic Module (CEM) F20-F28	20
Passenger compartment	21
Distribution box in cargo compartment FA1-FA12	22
Distribution box in cargo compartment FB1-FB12	23
Distribution box in cargo compartment FD1-FD7	24
Battery PF1-PF2	25

Relays

Relays in the engine compartment R2	26
Relays in the engine compartment R8-R9	27
Relays in the engine compartment R10-R13	28
Cargo compartment	29
Distribution box in cargo compartment RA1-RD1	30
Central Electronic Module (CEM)	31

Ground connections

Overview	32
31/1 - 31/6	33
31/7 - 31/15 continues	34
31/15 - 31/48	35
31/65 - 31/83 continues	36
31/83 - 31/90	37
31/93 - 31/XX10	38
31/XX14 - 31/AL	39

Control modules

Overview locations	40
Overview designations	41
Central Electronic Module (CEM) 1:3	42
Data communication high speed CAN	45
Data communication high speed CAN, 4-Cyl.	46
Data communication intermediate speed CAN, LHD...	47

Data communication intermediate speed CAN, RHD ..	48
Data communication, LIN 1:2	49
Data communication MOST	51
Steering Wheel Module (SWM)	52

Group 23 Fuel system

Engine management system, 4-Cyl. 1:2	53
Engine management system, 5-Cyl. Turbo 1:2	55
Engine management system, 6-Cyl. 1:2	57
Engine management system, 6-Cyl. B6324S2 1:2	59
Engine management system, 6-Cyl. Turbo 1:2	61
Engine management system, 8-Cyl. 1:2	63
Emission control 4-Cyl.	65
Emission control 5-Cyl. Turbo	66
Emission control 6-Cyl.	67
Emission control 8-Cyl.	68
Engine management system, 4-Cyl. Diesel	
DW10 1:2	69
Engine management system, 4-Cyl. Diesel	
DV6B 1:3	71
Engine management system, 5-Cyl. Diesel	
Single Turbo 1:3	74
Engine management system, 5-Cyl. Diesel	
Twin Turbo 1:3	77

Group 26 Cooling system

Cooling fan 4-Cyl.	80
Cooling fan, 5-Cyl. Turbo & 6-Cyl.	81
Cooling fan, 4-Cyl. Diesel	82
Cooling fan, 5-Cyl. Diesel	83
Cooling fan 8-Cyl.	84

Group 27 Engine controls

Cruise control 4-Cyl.	85
Cruise control 4-Cyl. Diesel	86
Cruise control 5-Cyl. & 6-Cyl.	87
Cruise control 5-Cyl. Diesel	88
Cruise control 8-Cyl.	89

Group 32 Alternator and voltage regulator

Power supply 4-Cyl.	90
Power supply	91

Group 33 Starting system

Starting system 4-Cyl.	92
Starting system 5-, 6- & 8-Cyl.	93
Starting system 5-Cyl. Diesel	94

Table of Contents 2:3

Group 35 Lighting

High and low beam	95
High and low beam (Dual Xenon)	96
Beam length adjustment, manual	97
Beam length adjustment, automatic (Dual Xenon)	98
Running/Parking lights, Tail lights V70	99
Running/Parking lights, Tail lights S80	100
Running/Parking lights, Tail lights (Dual Xenon) V70	101
Running/Parking lights, Tail lights (Dual Xenon) S80	102
Fog lights V70	103
Fog lights S80	104
Brake lights V70	105
Brake lights S80	106
Reversing lights V70	107
Reversing lights S80	108
Follow-me-home lighting LHD	109
Follow-me-home lighting RHD	110
Interior lighting, LHD 1:2	111
Interior lighting, RHD 1:2	113
Active headlight	115
Lighting in door sill trims	116
Auxiliary lights	117
Lighting mug holder and floor	118

Group 36 Additional electrical equipment

Rain sensor	119
Direction indicator and hazard warning flashers LHD V70	120
Direction indicator and hazard warning flashers LHD S80	121
Direction indicator and hazard warning flashers RHD V70	122
Direction indicator and hazard warning flashers RHD S80	123
Wiper/washer windshield	124
High pressure headlight washer	125
Wiper/Washer rear window	126
Horn	127
Keyless vehicle 1:2	128
Anti-theft alarm	130
Parking assistance	131
Collision warning with power brake booster	132
Tire pressure monitoring system (TPMS)	133
Alcohol lock	134

Group 37 Wiring and fuses

Diagnostics system	135
Outlet 12V	136
Cable harness towbar/tow hitch 4-pin V70	137
Cable harness towbar/tow hitch 4-pin S80	138
Cable harness towbar/tow hitch 7-pin V70	139
Cable harness towbar/tow hitch 7-pin S80	140
Cable harness towbar/tow hitch 13-pin V70	141
Cable harness towbar/tow hitch 13-pin S80	142
Accessory USB unit (AUU)	143

Group 38 Instruments

Seat belt reminder	144
Driver information module	145
Analog clock	146

Group 39 Other

Audio Premium 1:3	147
Audio 1:2	150
Cellular phone 1:2	152
DAB Radio	154
Telephone system Bluetooth	155
Bluetooth Handsfree	156
Multimedia & Traffic information	157
Rear seat entertainment	158
Satellite radio	159
Parking camera	160
Navigation system, portable	161

Group 43 Transmission

Transmission M66	162
Automatic transmission, TF-80SC AWD	163
Automatic transmission MPS6	164
Differential Electronic Module (DEM)	165

Group 55 Parking brake

Electric parking brake	166
------------------------------	-----

Group 59 Brake system

Brake control system & DSTC	167
-----------------------------------	-----

Group 64 Steering

Speed dependent power steering	168
--------------------------------------	-----

Group 76 Shock absorbers

Four-C	169
--------------	-----

Table of Contents 3:3

Group 83 Doors and openings

Central locking front doors LHD.....	170
Central locking front doors RHD	171
Central locking rear doors.....	172
Central locking trunk lid/tailgate V70	173
Central locking trunk lid/tailgate S80	174
Central locking fuel filler flap.....	175
Signal receiver central locking	176
Power windows front doors LHD	177
Power windows front doors RHD.....	178
Power windows rear doors	179
Power sunroof.....	180

Group 84 Exterior decorative elements, etc.

Power door mirrors LHD	181
Power door mirrors RHD	182
Heated door mirrors LHD.....	183
Heated door mirrors RHD	184
Blind spot information system LHD.....	185
Blind spot information system RHD	186
Heated rear window.....	187

Group 85 Interior equipment

Power driver's seat with memory function, LHD	188
Power driver's seat with memory function, RHD	189
Power passenger seat, LHD.....	190
Power passenger seat, RHD	191
Heated front seats with fans	192
Heated front seats without fans	193
Heated rear seat.....	194
Massage seats.....	195

Group 87 Climate control system

Climate control system PTC-element	196
Climate control system, 4-Cyl. 1:2	197
Climate control system, 5-, 6- & 8-Cyl. 1:2	199
Climate control system 5-Cyl. Diesel 1:2	201
Parking heater, auxiliary heater	203
Parking heater, remote start	204
Refrigeration box rear seat	205

Group 88 Internal equipment

Rear-view mirror with automatic dimming.....	206
Supplemental restraint system 1:2	207
Power folding headrest.....	209
Remote controlled garage opening.....	210

Connectors..... 211

Cable harness routing in vehicle

Engine harness 4-Cyl.....	249
Engine harness, 5-Cyl.....	249
Engine harness, 6-Cyl.....	250
Harness engine, 6-Cyl. Turbo.....	250
Engine harness, 8-Cyl.....	251
Harness engine, Diesel.....	251
Harness engine, 1.6L Diesel.....	252
Harness engine, 2.0L Diesel.....	252
Engine compartment harness	253
Harness dashboard, LHD	254
Harness Dashboard, RHD	255
Harness Floor, LHD S80.....	256
Harness Floor, RHD S80	257
Harness Floor, LHD V70	258
Harness Floor, RHD V70	259
Harness infotainment, LHD S80	260
Harness infotainment, RHD S80.....	261
Harness infotainment, LHD V70	262
Harness infotainment, RHD V70	263
Roof harness, S80	264
Roof harness, V70	264
Center console harness.....	265
Tunnel harness	265
Harness front door, left	266
Harness front door, right	266
Harness rear door, left	267
Harness rear door, right.....	267
Trunk lid/tailgate harness, S80	268
Trunk lid/tailgate harness, V70	268
Harnesses rear axle.....	269
Executive harnesses.....	270

Branching points271

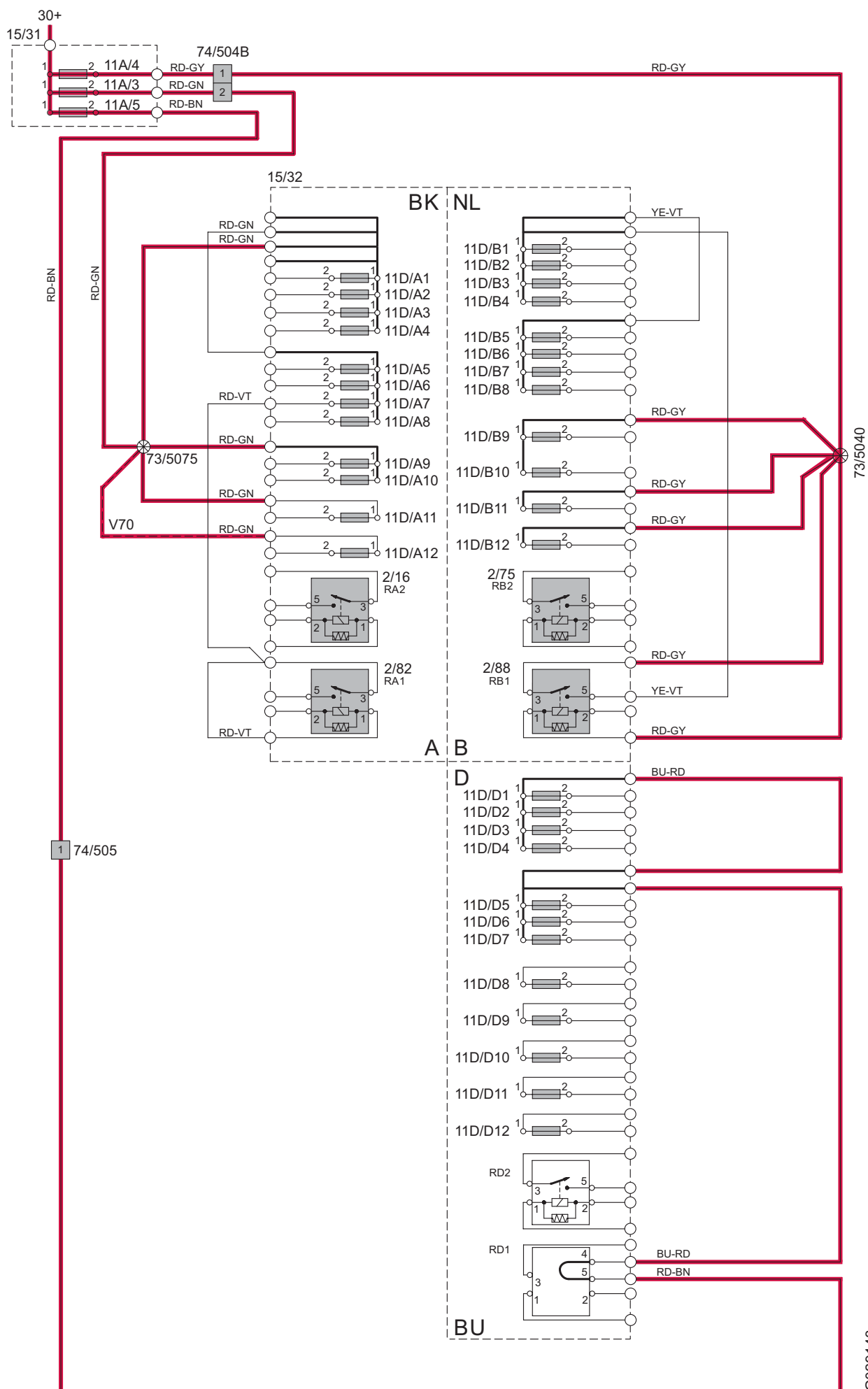
Component illustrations288

Index 1:2.....355

List of components 1:8357

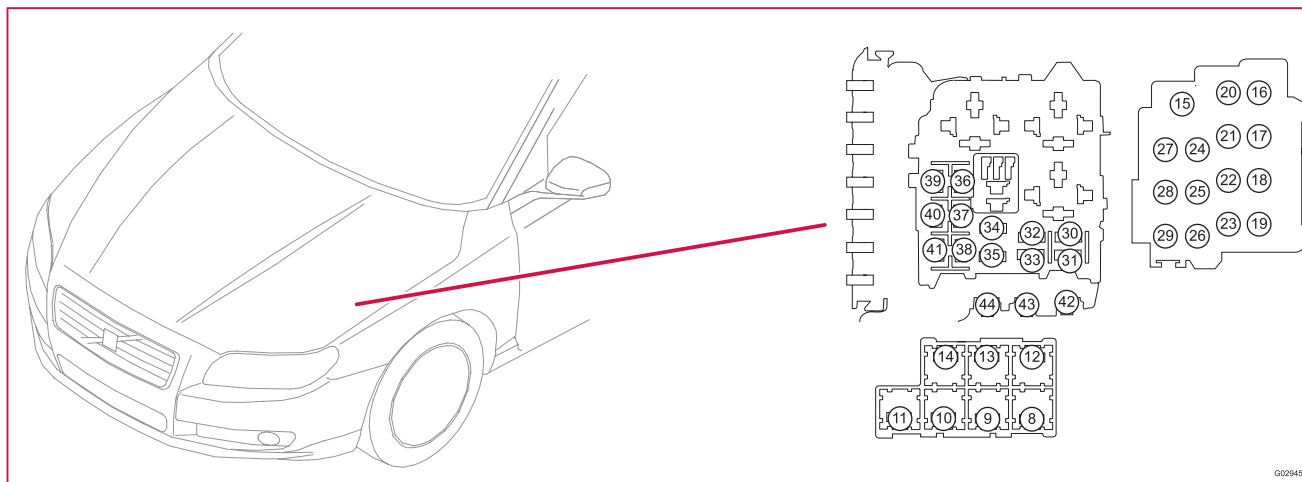
Electrical distribution 2:2

Overview, Distribution box in cargo compartment



Fuses

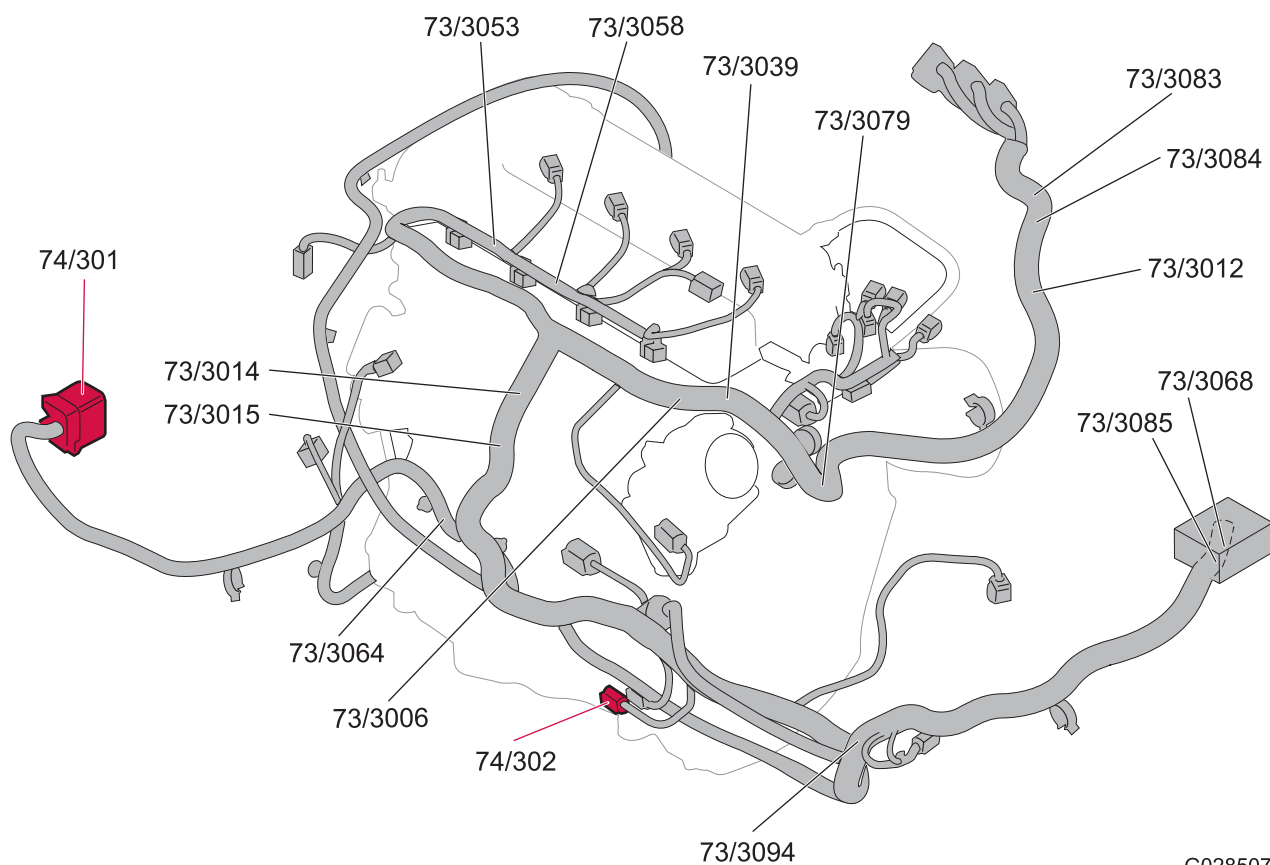
Distribution box in engine compartment F32-F37



15/31 Distribution box in engine compartment

No.	No.	Fuse function	via	A
F32	11B/32	8/3 Electromagnetic clutch, climate control system	2/22	15
F33	11B/33	2/14 Relay, glow plug system. 4-Cyl. Diesel	-	5
		2/22 Relay, climate control system	-	
		2/239 Relay, coolant pump, 8-Cyl.	-	
F34	11B/34	6/25 Starter motor	2/35	30
F35	11B/35	20/3-8 Spark plug with ignition coil, 5-, 6- & 8-Cyl.	-	20
		20/12-13 Spark plug with ignition coil, 8-Cyl.	-	
		20/16 Capacitor	-	
		4/109 Control module glow plug, 5-Cyl. Diesel	-	10
		20/3-6 Spark plug with ignition coil, 4-Cyl.	-	
		8/82 Solenoid, variable turbo geometry, 4-Cyl. Diesel	-	
		8/111 Control valve fuel flow, 4-Cyl. 1.6L Diesel	-	
F36	11B/36	8/132 Control valve intake, 4-Cyl. 2.0L Diesel	-	10
		4/46 Engine Control Module (ECM), 4-, 5-, 6-, 8-Cyl.	-	
		6/120 Throttle unit	4/46	
F37	11B/37	4/46 Engine control module (ECM), 4-, 5-Cyl. Diesel	-	15
		6/120 Throttle unit, 5-Cyl. Diesel	4/46	
F37	11B/37	4/46 Engine Control Module (ECM), 6-Cyl. & 5-Cyl. 1.6L Diesel	-	15
		6/99 Engine EGR, 4-Cyl. 1.6L Diesel	-	
		7/35 Oil level sensor	-	
		8/6-11 Injection valves	-	
		8/98 Control valve fuel pressure, Diesel	-	
		8/111 Control valve fuel flow, 5-Cyl. Diesel	-	
		8/115 Injector	-	
		8/116 Injector	-	
		7/17 Mass airflow sensor (MAF)	-	
		7/17 Mass air flow sensor (MAF), 2.0L Diesel	-	
		continues		

Cable harness routing in vehicle Engine harness 4-Cyl.



Cable harness routing in vehicle Engine harness, 5-Cyl.

