



Volvo V40
(2017-2018)



Wiring Diagrams and Electric Model Year 2018



WIRING DIAGRAM 2018

Structure week 17w17 TP 39422031 - VOLVO V40 (13-), V40CC -

Table of Contents

Explanations & Abbreviations

How to use the wiring diagrams 1:2.....	8
How to use the wiring diagrams 2:2.....	9

Electrical distribution

Overview.....	10
Overview, Distribution box in engine compartment.....	11
Overview, Distribution box in engine compartment.....	12
Overview, Distribution box in passenger compartment.....	13

Fuses

Distribution box, engine compartment F7 - F23.....	14
Distribution box, engine compartment F24 - F32.....	15
Distribution box, engine compartment F33 - F33.....	16
Distribution box, engine compartment F34 - F36.....	17
Distribution box, engine compartment F37 - F48.....	18
Central Electronic Module (CEM) F57 - F68.....	19
Central Electronic Module (CEM) F69 - F87.....	20
Distribution box, passenger compartment F1 - F18.....	21
Distribution box, passenger compartment F19 - F35.....	22
Distribution box, passenger compartment F36 - F46.....	23
Main fuse box battery PF1 - PF5.....	24
Main fuse box battery PF6 - PF10.....	25
Distribution box, cold zone, engine compartment F1 - F1.....	26

Relays

Relays in the engine compartment.....	27
Relays in passenger and luggage compartment.....	28

Ground connections

Overview.....	29
31/2-31/6.....	30
31/10-31/32.....	31
31/47-31/80.....	32
31/83.....	33
31/84.....	34
31/88-31/95.....	35
31/107-31/X1.....	36

Control modules

Overview locations.....	37
Overview designations.....	38
Central Electronic Module (CEM), 1:3.....	39
Central Electronic Module (CEM), 2:3.....	40
Central Electronic Module (CEM), 3:3.....	41
Data communication, high speed CAN, 1:2.....	42
Data communication, high speed CAN, 2:2.....	43
Data communication, intermediate speed CAN.....	44
Data communication, Local CAN.....	45
Data communication, Extended CAN.....	46
Data communication MOST.....	47
Data communication LIN, 1:2.....	48
Data communication LIN, 2:2.....	49
Steering Wheel Module (SWM).....	50

Group 26 Cooling system

Cooling fan, VED4.....	51
Cooling fan, VEP4.....	52

Group 27 Engine controls

Cruise control, VED4.....	53
Cruise control, VEP4.....	54
Start-/Stop function, VED4.....	55
Start-/Stop function, VEP4.....	56

Group 28 Ignition and control system

Engine management system, VED4, 1:3.....	57
Engine management system, VED4, 2:3.....	58
Engine management system, VED4, 3:3.....	59
Engine management system, VEP4, 1:3.....	60
Engine management system, VEP4, 2:3.....	61
Engine management system, VEP4, 3:3.....	62
Emission control, VEP4.....	63

Group 32 Alternator and voltage regulator

Power supply.....	64
-------------------	----

Group 33 Starting system

Starting system.....	65
Starting system, 1:2, KLESS.....	66
Starting system, 2:2, KLESS.....	67

Group 35 Lighting

High and low beam - Halogen.....	68
High and low beam, LED.....	69
Beam length adjustment, manual.....	70
Running/Parking light, Tail lights.....	71
Running/Parking light, Tail lights, LED.....	72
Daytime running lights.....	73
Daytime running lights, LED.....	74
Fog lights.....	75
Brake lights.....	76
Reversing lights.....	77
Licence plate lighting.....	78
Follow-me-home lighting, LHD.....	79
Follow-me-home lighting, RHD.....	80
Active headlight.....	81
Interior lighting, 1:2, LHD.....	82
Interior lighting, 2:2, LHD.....	83
Interior lighting, 1:2, RHD.....	84
Interior lighting, 2:2, RHD.....	85

Group 36 Additional electrical equipment

Rain sensor.....	86
Direction indicator and hazard warning flashers, LHD.....	87
Direction indicator and hazard warning flashers, RHD.....	88
Wiper/washer windshield.....	89
Washer headlights.....	90
Wiper/Washer rear window.....	91
Keyless vehicle, 1:2.....	92
Keyless vehicle, 2:2.....	93
Horn.....	94
Anti-theft alarm.....	95
Pedestrian airbag system.....	96
Parking assistance and Park Assist Pilot (PAP), 2WD.....	97
Parking assistance and Park Assist Pilot (PAP), 4WD.....	98
Collision warning with power brake booster, W/O ACTGR.....	99
Collision warning with power brake booster, ACTGR.....	100
Alcohol lock.....	101

Table of Contents

Group 37 Wiring and fuses

Diagnostics system.....	102
Outlet 12V.....	103
Cable harness towbar/tow hitch 13-pin.....	104

Group 38 Instruments

Seat belt reminder.....	105
Driver information system.....	106

Group 39 Other

Audio, 1:2.....	107
Audio, 2:2.....	108
Audio High/Premium, 1:2, IAM.....	109
Audio High/Premium, 2:2, IAM.....	110
Audio High/Premium, 1:2, IHU.....	111
Audio High/Premium, 2:2, IHU.....	112
Cellular phone, 1:2.....	113
Cellular phone, 2:2.....	114
DAB Radio.....	115
TV receiver/TV control module.....	116
Bluetooth Handsfree, IAM.....	117
Bluetooth Handsfree, IHU.....	118
Navigation system & Traffic information, portable, VICS, JP.....	119
Parking camera, 2WD.....	120
Parking camera, 4WD.....	121
Sensus Connected Touch.....	122

Group 43 Transmission

Manual Transmission, MAN.....	123
Automatic transmission, AWF22.....	124
Differential Electronic System (DEM), 4WD.....	125

Group 59 Brake system

Brake control system, DSTC.....	126
---------------------------------	-----

Group 64 Steering

Speed dependent power steering.....	127
-------------------------------------	-----

Group 83 Doors and openings

Central locking front doors, LHD.....	128
Central locking front doors, RHD.....	129
Central locking rear doors.....	130
Central locking tailgate.....	131
Signal receiver central locking.....	132
Central locking fuel filler flap.....	133
Power windows front doors, LHD.....	134
Power windows front doors, RHD.....	135
Power windows rear doors.....	136
Power sunroof.....	137

Group 84 Exterior decorative elements, etc.

Power door mirrors, LHD.....	138
Power door mirrors, RHD.....	139
Heated door mirrors, LHD.....	140
Heated door mirrors, RHD.....	141
Blind spot information system, 1:2, LHD.....	142
Blind spot information system, 2:2, LHD & 2WD.....	143
Blind spot information system, 2:2, LHD & 4WD.....	144
Blind spot information system, 1:2, RHD.....	145
Blind spot information system, 2:2, RHD & 2WD.....	146
Blind spot information system, 2:2, RHD & 4WD.....	147
Heated windscreen.....	148

Group 85 Interior equipment

Power driver's seat with memory function, LHD.....	149
Power driver's seat with memory function, RHD.....	150
Power passenger seat, LHD.....	151
Power passenger seat, RHD.....	152
Heated front seats with fans, 2WD.....	153
Heated front seats with fans, 4WD.....	154
Heated front seats without fans, 2WD.....	155
Heated front seats without fans, 4WD.....	156
Heated rear seat, 2WD.....	157
Heated rear seat, 4WD.....	158

Group 87 Climate control system

Climate control system PTC-elements.....	159
Climate control system, 1:2.....	160
Climate control system, 2:2.....	161
Parking heater, auxiliary heater.....	162

Group 88 Internal equipment

Supplemental restraint system, 1:2.....	163
Supplemental restraint system, 2:2.....	164
Rear-view mirror with automatic dimming.....	165

Group 89 Body other

Radiator masking blind.....	166
-----------------------------	-----

Connectors..... 167

Branching points..... 210

Table of Contents

Cable harness routing in vehicle

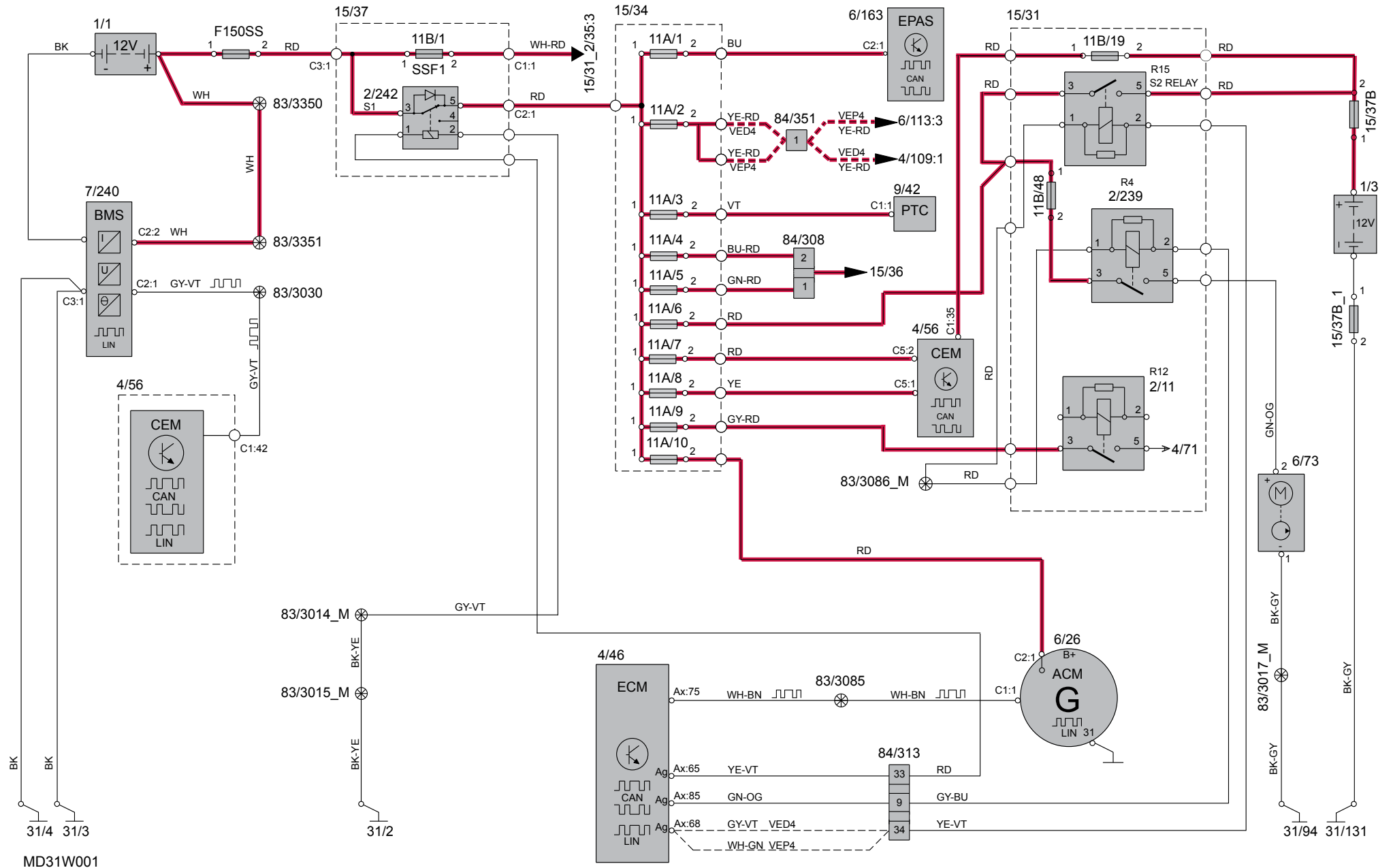
Rear door harness, left.....	224
Rear door harness, right.....	224
Driver door harness, LHD.....	225
Driver door harness, RHD.....	225
Passenger door harness, LHD.....	226
Passenger door harness, RHD.....	226
Alternator and generator harness, VED4 AUTO.....	227
Alternator and generator harness, VED4 MAN.....	227
Alternator and generator harness, VEP4 AUTO.....	228
Alternator and generator harness, VEP4 MAN.....	228
Front bumper harness, V40.....	229
Front bumper harness, V40CC.....	229
Rear bumper harness, V40.....	230
Rear bumper harness, V40CC.....	230
Boot lid/tailgate harness.....	231
Boot lid/tailgate harness.....	231
Rear right axle harness, 2WD.....	232
Rear right axle harness, 4WD.....	232
Left rear axle harness, 2WD.....	233
Left rear axle harness, 4WD.....	233
Crankshaft sensor harness.....	234
Tunnel harness.....	234
Fuel tank harness, VED4.....	235
Fuel tank harness, VEP4 2WD.....	235
Fuel tank harness, VEP4 4WD.....	236
Differential Eleconic Module (DEM) harness, V40.....	236
Differential Eleconic Module (DEM) harness, V40CC 2WD.....	237
Differential Eleconic Module (DEM) harness, V40CC 4WD.....	237
Electric power steering harness, LHD.....	238
Electric power steering harness, RHD.....	238
WEM Harness.....	239
Trailer module adapter harness.....	239
Door lock switch jumper, driver door.....	240
Door lock switch jumper, passenger door.....	240
Glow plug adapter harness, VED4.....	241
Floor harness, LHD.....	242
Floor harness, RHD.....	243
Dashboard harness, LHD.....	244
Dashboard harness, RHD.....	245
Engine harness, VED4.....	246
Engine harness, VEP4.....	247
Roof harness, LHD.....	248
Roof harness, RHD.....	249
Engine compartment harness, LHD.....	250
Engine compartment harness, RHD.....	251

Component Illustrations.....	252
-------------------------------------	------------

Index.....	314
-------------------	------------

List of Components.....	316
--------------------------------	------------

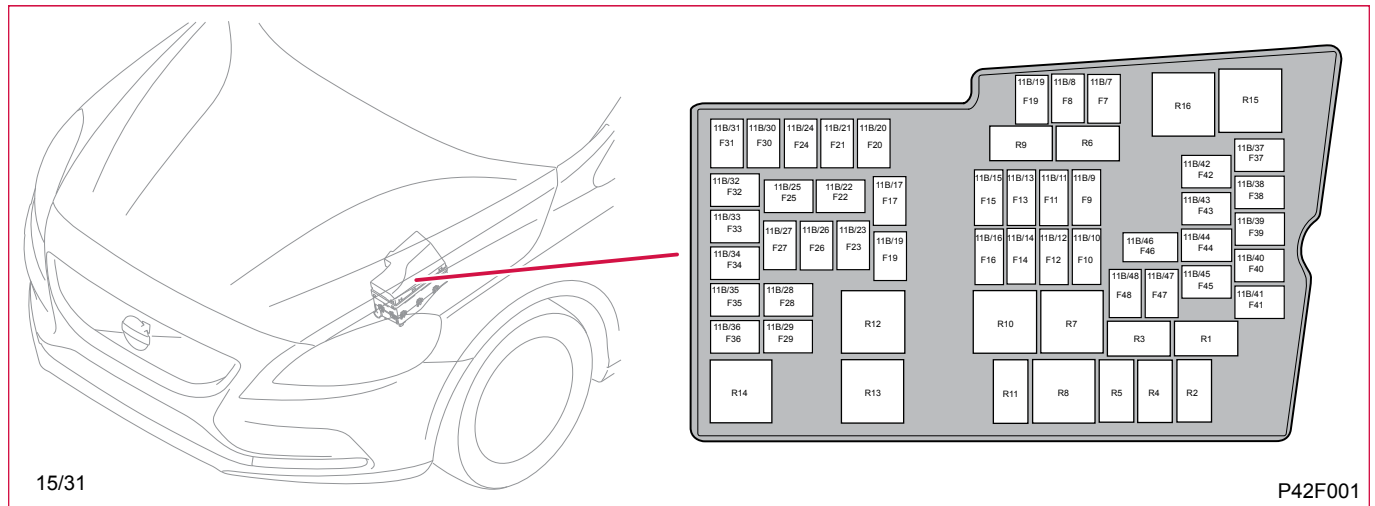
Electrical distribution Overview



MD31W001

Fuses

Distribution box, engine compartment F7 - F23



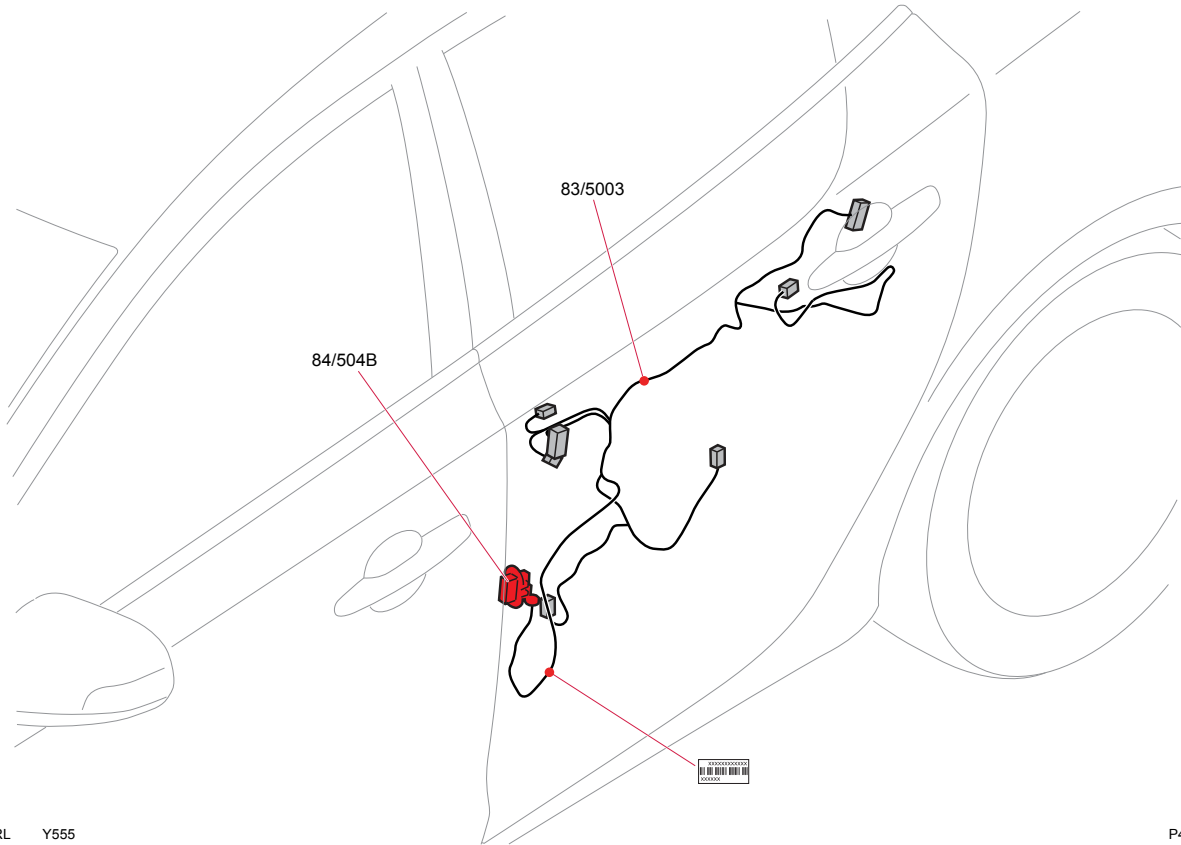
15/31

P42F001

15/31 Distribution box, engine compartment

No.	No.	Fuse function	via	A
F7	11B/7	4/16 Brake Control Module (BCM)	-	40
F8	11B/8	4/16 Brake Control Module (BCM)	-	30
F9	11B/9	2/182 Relay, headlight washer motor, [15/31] 6/104 High pressure headlight washer motor	- 2/182	20
F10	11B/10	4/31 Fan control module, passenger compartment	-	40
F11	11B/11	Spare Spare	-	-
F12	11B/12	11B/32-36 Fuse in engine compartment distribution box, [15/31]	2/32	30
F13	11B/13	Spare Spare	-	-
F14	11B/14	9/46 Electrically heated window, right	-	40
F15	11B/15	Spare Spare	-	-
F16	11B/16	9/45 Electrically heated window, left	-	40
F17	11B/17	9/30 Auxiliary heater	-	20
F18	11B/18	6/1 Wiper Motor Module (WMM)	-	20
F19	11B/19	4/56 Central Electronic Module (CEM)	-	5
F20	11B/20	16/10 Horn, right 16/11 Horn, left	2/17 2/17	15
F21	11B/21	3/38 Switch brake	-	5
F22	11B/22	10/1 Lamp housing, front left	-	20
F23	11B/23	3/111 Light Switch Module (LSM)	-	5
Continues				

Cable harness routing in vehicle Rear door harness, left



Cable harness routing in vehicle Rear door harness, right

