



Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety measures when working on vehicles with a start/stop system	1
1.2 Safety precautions when using testers and measuring instruments during a road test	1
2 Repair instructions	2
2.1 Contact corrosion	2
2.2 Routing and attachment of lines	2
3 Battery	3
3.1 Battery - general notes	3
3.2 Types of battery	3
27 - Starter, current supply, CCS	4
1 Battery	4
1.1 Assembly overview – battery	4
1.2 Removing and installing battery	6
1.3 Disconnecting and connecting battery	9
1.4 Removing and installing battery tray	11
1.5 Checking battery	12
1.6 Charging battery	12
1.7 Removing and installing earth wire with battery monitor control unit J367	12
1.8 Adapting battery monitor control unit J367	13
2 Alternator	14
2.1 Assembly overview – alternator	14
2.2 Removing and installing alternator	15
2.3 Checking alternator	21
2.4 Removing and installing poly V-belt pulley	22
2.5 Removing and installing voltage regulator	31
3 Starter	35
3.1 Assembly overview – starter	35
3.2 Removing and installing starter	38
4 Cruise control system (CCS)	47
5 Start/stop system	48
5.1 General description - start/stop system	48
5.2 Overview of fitting locations - start/stop system	48
90 - Gauges, instruments	49
1 Dash panel insert	49
1.1 Assembly overview – dash panel insert	49
1.2 Removing and installing dash panel insert KX2	50
2 Horn	55
2.1 Assembly overview – horn (8Y0)	55
2.2 Removing and installing left horn H33	55
2.3 Assembly overview – horn (8Y1)	56
2.4 Removing and installing treble horn H2 and bass horn H7	57
92 - Windscreen wash/wipe system	59
1 Windscreen wiper system	59
1.1 Assembly overview – windscreen wiper system	59
1.2 Moving wipers to service position	61
1.3 Removing and installing wiper blade	61
1.4 Removing and installing wiper arms	62
1.5 Adjusting wiper arms	64



1.6	Removing and installing wiper motor V	65
1.7	Removing and installing rain and light sensor	67
1.8	Repairing rain and light sensor	69
2	Windscreen washer system	73
2.1	Assembly overview – windscreen washer system	73
2.2	Removing and installing washer fluid reservoir	74
2.3	Removing and installing windscreen washer fluid level sender	76
2.4	Removing and installing windscreen washer pump	77
2.5	Removing and installing spray jets	78
2.6	Adjusting spray jets	79
3	Washer fluid lines	80
3.1	Repairing washer fluid lines	80
94	Lights, bulbs, switches - exterior	81
1	Headlights	81
1.1	Assembly overview – headlight	81
1.2	Removing and installing headlight	82
1.3	Adjusting headlights	87
1.4	Adjusting headlight installation position	87
1.5	Removing and installing front turn signal bulb M5/M7	88
1.6	Removing and installing headlight range control motor V48/V49	90
1.7	Removing and installing headlight dipped beam bulb	90
1.8	Removing and installing headlight main beam bulb M30/M32	90
1.9	Removing and installing side light bulb M1/M3	90
1.10	Removing and installing LED modules for daytime running light and side light L176/L177	90
1.11	Removing and installing bulbs for cornering light L148/L149	91
1.12	Removing and installing output module for headlight J667/J668	91
1.13	Removing and installing output module 1 for LED headlight A31/A27	91
2	Fog light	92
2.1	Assembly overview - fog lights	92
2.2	Removing and installing fog light	92
2.3	Removing and installing fog light bulb L22/L23	93
2.4	Adjusting fog lights	94
3	Lights in exterior mirror	95
3.1	Assembly overview - lights in exterior mirror	95
3.2	Removing and installing turn signal	97
3.3	Removing and installing entry light in exterior mirror	98
4	Tail light cluster	100
4.1	Assembly overview – tail light cluster in body	100
4.2	Assembly overview – tail light clusters in rear lid	101
4.3	Removing and installing tail light in rear lid	103
4.4	Adjusting installation position of tail light	104
4.5	Removing and installing tail light cluster	105
4.6	Removing and installing tail light bulb M2/M4	106
4.7	Removing and installing rear fog light bulb L46/L47	106
4.8	Removing and installing brake and tail light bulb M21/M22	106
4.9	Removing and installing reversing light bulb	106
4.10	Removing and installing turn signal bulb	106
5	High-level brake light	108
5.1	Assembly overview – high-level brake light	108
5.2	Removing and installing high-level brake light	108
5.3	Removing and installing high-level brake light	109
6	Number plate light	110
6.1	Removing and installing number plate light X4/X5	110
6.2	Removing and installing bulb for number plate light X4/X5	111

7 **Vehicle diagnosis, testing and information systems** 215