

A/C-ECU

Inspection procedure 6: outside/inside air changeover is not possible.....	55-93
Inspection procedure 7: A/C outlet air temperature does not increase.....	55-95
Inspection procedure 8: air outlet vent cannot be changed.....	55-98
Inspection procedure 9: blower motor power supply system.....	55-101
Auto-cruise control	
Auto-cruise control switch	
Removal and installation.....	17-69
Auto-cruise control system diagnosis	
Diagnostic function.....	17-10
Diagnostic troubleshooting strategy.....	17-10
Introduction to cruise control system diagnosis	17-10
Data list reference table.....	17-59
Diagnostic trouble code chart.....	17-13
Diagnostic trouble code procedures	
DTC 15: cruise control switch system.....	17-14
DTC 22: stoplight switch system.....	17-27
DTC 23: ECM and its related component	17-36
ECM terminal voltage reference chart for cruise control system operation	17-60
General information	17-9
On-vehicle service	
Cruise control switch check	17-65
Cruise control system component check	17-67
Special tools.....	17-63
Symptom chart.....	17-38
Symptom procedures	
Inspection procedure 1: when the brake pedal is depressed, cruise control system is not cancelled.	17-38
Inspection procedure 2: when the clutch pedal is depressed, cruise control system is not cancelled <M/T>	17-41
Inspection procedure 3: when the shift lever is moved to "N" position, cruise control system is not cancelled <tc-sst>.....	17-44
Inspection procedure 4: when the cruise control "CANCEL" switch is set to on, cruise control system is not cancelled.	17-47
Inspection procedure 5: cruise control cannot be set ("coast/set" or "acc/res" switch operation is not available).	17-48
Inspection procedure 6: hunting (repeated acceleration and deceleration) occurs at the set vehicle speed.....	17-53
Inspection procedure 7: when "on/off" switch is turned on, "CRUISE" indicator light inside combination meter does not illuminate (however, cruise control system is normal).....	17-56
Auto-cruise control system <M/T>.....	90-276
Auto-cruise control system <tc-sst>	90-282
Awc-ECU	
Removal and installation	
Manual transaxle.....	22A-132
Twin clutch-sportronic shift transmission (tc-sst)	22C-349

Backup light <M/T>	90-134
Backup light <tc-sst>	90-136
Basic brake system diagnosis	
Basic brake system diagnostic troubleshooting strategy	35A-4
Introduction to basic brake system diagnosis	35A-4
Symptom chart	35A-4
Symptom procedures	
Inspection procedure 1: vehicle pulls to one side when brakes are applied	35A-5
Inspection procedure 2: insufficient braking power	35A-5
Inspection procedure 3: increased pedal stroke (reduced pedal-to-floor board clearance)	35A-6
Inspection procedure 4: brake drag	35A-7
Inspection procedure 5: scraping or grinding noise when brakes are applied	35A-8
Inspection procedure 6: squealing, groaning or chattering noise when brakes are applied	35A-9
Inspection procedure 7: squealing noise when brakes are not applied	35A-10
Inspection procedure 8: groaning, clicking or rattling noise when brakes are not applied	35A-11

Battery					
General information	54A-7				
On-vehicle service					
Battery test.....	54A-9				
Charging	54A-8				
Electrolyte level and specific gravity checks.....	54A-8				
Removal and installation	54A-10				
Brake pedal					
Inspection					
Brake pedal distortion check.....	35A-26				
Stoplight switch check.....	35A-26				
Removal and installation	35A-25				
Brake warning light, fuel warning light and oil pressure warning light <M/T>	90-148				
Brake warning light, fuel warning light and oil pressure warning light <tc-sst>	90-152				
C					
Camshaft					
Inspection	11B-44				
Removal and installation					
Engine mechanical	11A-25				
Engine overhaul.....	11B-41				
CAN communication-related DTC (u-code) table.....	54C-240				
Center differential					
Disassembly and assembly	22B-53				
Central door locking system					
Centralized junction.....	90-20				
Charge air cooler					
Removal and installation	15-15				
Charging system					
Charging system diagnosis	16-3				
General information	16-2				
General specifications	16-3				
Generator assembly					
Disassembly and assembly	16-16				
Inspection	16-20				
Removal and installation.....	16-14				
On-vehicle service					
Generator output line voltage drop test	16-7				
Output current test	16-8				
Regulated voltage test	16-10				
Wave pattern check using an oscilloscope	16-11				
Service specifications	16-3				
Special tool	16-6				
Charging system <M/T>	90-44				
Charging system <tc-sst>.....	90-48				
Cigarette lighter					
Inspection	54A-271				
Removal and installation	54A-271				
Clutch					
Inspection	21B-6				
Removal and installation	21B-4				
Clutch control					
Inspection	21A-10				
Removal and installation	21A-8				
Clutch housing					
Disassembly and assembly	22B-44				
Clutch pedal and master cylinder					
Inspection					
Clutch switch check and adjustment.....	21A-7				
Interlock switch operating check.....	21A-7				
Removal and installation	21A-4				
Clutch release cylinder					
Disassembly and assembly	21B-7				
Inspection	21B-9				
Column switch					
Diagnostic trouble code procedures					
DTC B2350: lighting switch DTC B2351: wiper switch	54A-276				
General information	54A-272				
Inspection					
Column switch (switch body part) continuity check....	54A-280				
Wiper/washer switch continuity check	54A-279				
Removal and installation.....	54A-278				
Special tools.....	54A-273				
Troubleshooting					
Diagnostic function.....	54A-274				
Diagnostic trouble code table.....	54A-276				
Standard flow of diagnostic troubleshooting	54A-274				
Combination meter					
Actuator test table.....	54A-82				
Check at ECU terminals	54A-88				
Check procedure for each multi information display screen.....	54A-82				
Combination meter					
Disassembly and assembly	54A-102				
Removal and installation.....	54A-101				
Diagnostic trouble code chart	54A-28				
Diagnostic trouble code procedures					
DTC B1200: malfunction of odometer.....	54A-29				
DTC B1201: abnormal fuel information.....	54A-30				
DTC B1208: malfunction of lcd heater	54A-33				
DTC B1209: test mode	54A-34				
DTC B2203: vin not programmed	54A-35				
DTC B2463: the sticking of rheostat switch	54A-36				
DTC B2464: the sticking of multi information meter switch	54A-38				
DTC B2465: ignition switch signal error.....	54A-40				
DTC U0019: bus off (CAN-b)	54A-42				
DTC U0100: engine control module CAN timeout	54A-43				
DTC U0141: ETACS CAN timeout.....	54A-45				
DTC U0151: SRS-ECU CAN timeout	54A-47				
DTC U0154: occupant classification-ECU CAN timeout	54A-48				
DTC U0164: A/C-ECU CAN timeout.....	54A-50				
DTC U0168: kos-ECU or wcm CAN timeout.....	54A-51				
DTC U0184: audio CAN timeout.....	54A-53				
DTC U0197: hands free module CAN timeout.....	54A-54				
DTC U0245: audio visual navigation unit CAN timeout	54A-56				
DTC U1415: coding not completed/data fail	54A-57				
On-vehicle service					
Fuel level sensor check	54A-91				
Multi information meter switch check.....	54A-92				
Service reminder function set	54A-93				
Speedometer check	54A-89				
Tachometer check.....	54A-91				
Service data					
Service specifications	54A-78				
Service specifications	54A-23				
Special tools.....	54A-24				
Symptom procedures					
Inspection procedure 1: power supply circuit check. .	54A-60				
Inspection procedure 2: the speedometer does not work (the other meters work).....	54A-65				
Inspection procedure 3: the tachometer does not work (the other meters work).....	54A-67				
Inspection procedure 4: tone alarm does not sound normally.....	54A-69				
Inspection procedure 5: the combination meter light does not illuminate normally or the multi information display is not displayed normally.....	54A-72				
Inspection procedure 6: the multi information display screen cannot be changed with the operation of the multi information meter switch.	54A-75				
Trouble symptom chart	54A-59				
Troubleshooting					
Diagnosis function.....	54A-25				
Standard flow of diagnostic troubleshooting	54A-25				
Compressor assembly and tension pulley					
Disassembly and assembly	55-132				
Inspection					
Heater, air conditioning and ventilation	55-132				
Heater, air conditioning and ventilation	55-134				
Removal and installation.....	55-130				
Condenser assembly					
Removal and installation.....	55-135				

Control housing		Diagnostic item 18: diagnose when the scan tool cannot receive the data sent by occupant classification-ECU.....	54C-133
Disassembly and assembly	22B-40	Diagnostic item 19: diagnose when the scan tool cannot receive the data sent by A/C-ECU.....	54C-136
Control link and lower arm		Diagnostic item 2: malfunction of the ETACS-ECU. ..	54C-32
Control link ball joint dust cover inspection.....	34-15	Diagnostic item 20: diagnose when the scan tool cannot receive the data sent by radio and cd player or cd changer.	54C-139
Control link ball joint dust cover replacement.....	34-16	Diagnostic item 21: diagnose when the scan tool cannot receive the data sent by CAN box unit.....	54C-142
Control link ball joint rotation starting torque check.....	34-14	Diagnostic item 22: diagnose when the scan tool cannot receive the data sent by satellite radio tuner. .	54C-145
Control link slide bushing rotation starting torque check.....	34-15	Diagnostic item 23: diagnose when the scan tool cannot receive the data sent by hands free module. .	54C-148
Lower arm pillow ball bushing rotation starting torque check.....	34-15	Diagnostic item 24: diagnose when the scan tool cannot receive the data sent by combination meter... ..	54C-151
Removal and installation	34-12	Diagnostic item 25: short to power supply or ground in both CAN _h and CAN _l lines of the CAN-bus lines.	54C-154
Control unit.....	70-4	Diagnostic item 26: diagnose the ETACS-ECU joint connector (can1) or lines between ETACS-ECU and joint connector (can1).	54C-190
Controller area network (CAN) <M/T>.....	90-358	Diagnostic item 27: short to power supply or ground, open circuit or line-to-line short in the CAN-bus lines.	54C-195
Controller area network (CAN) <tc-sst>	90-362	Diagnostic item 3: abnormal short between the CAN-c bus lines.	54C-33
Coolant	14-3	Diagnostic item 4: diagnose shorts in the ground to CAN-c bus line.	54C-50
Cooling system.....	90-76	Diagnostic item 5: diagnose shorts in the power supply to CAN-c bus line.	54C-70
Crankshaft and cylinder block		Diagnostic item 6: diagnose when the scan tool cannot receive the data sent by s-awc-ECU.....	54C-89
Inspection	11B-76	Diagnostic item 7: diagnose when the scan tool cannot receive the data sent by steering wheel sensor.	54C-93
Removal and installation	11B-71	Diagnostic item 8: diagnose when the scan tool cannot receive the data sent by shift lever. <tc-sst> ..	54C-97
Crankshaft oil seal		Diagnostic item 9: diagnose when the scan tool cannot receive the data sent by ASC-ECU.....	54C-100
Removal and installation	11A-54	CAN bus diagnostics table.....	54C-14
Crankshaft pulley		CAN-related connector position.....	54C-25
Removal and installation	11A-21	Check at ECU terminals	
Curtain air bag module(s)		Active skid control system (ASC).....	35C-259
Inspection	52B-412	Wireless control module (wcm).....	42C-113
Removal and installation	52B-409	Data list reference table	
Cylinder head and valves		Active skid control system (ASC).....	35C-255
Inspection	11B-52	Keyless operation system (kos).....	42B-170
Removal and installation	11B-47	Wireless control module (wcm).....	42C-83
Cylinder head gasket		Diagnostic function	
Removal and installation	11A-57	Active skid control system (ASC).....	35C-8
		Keyless operation system (kos).....	42B-10
		Wireless control module (wcm).....	42C-6
		Diagnostic trouble code chart	
		Active skid control system (ASC).....	35C-20
		Keyless operation system (kos).....	42B-20
		Wireless control module (wcm).....	42C-14
		Diagnostic trouble code procedures	
		Code No.U1417 implausible coding data.....	42B-167
		DTC B1731: engine control module communication timeout	
		Keyless operation system (kos).....	42B-22
		Wireless control module (wcm).....	42C-16
		DTC B1761: vin code not programmed	
		Keyless operation system (kos).....	42B-24
		Wireless control module (wcm).....	42C-18
		DTC b1a08: keyless/kos key1 performanceDTC b1a09: keyless/kos key2 performanceDTC b1a0a: keyless/kos key3 performanceDTC b1a0b: keyless/kos key4 performance.....	42B-26
		DTC b1a08: keyless/kos key1 performanceDTC b1a09: keyless/kos key2 performanceDTC b1a0a: keyless/kos key3 performanceDTC b1a0b: keyless/kos key4 performanceDTC b1a0c: keyless key 5 performanceDTC b1a.....	42C-19
		DTC b1a10: keyless/kos key 1 low batteryDTC b1a11: keyless/kos key 2 low batteryDTC b1a12: keyless/kos key 3 low batteryDTC b1a13: keyless/kos key 4 low battery.....	42B-27
		DTC b1a10: keyless/kos key 1 low batteryDTC b1a11: keyless/kos key 2 low batteryDTC b1a12: keyless/kos key 3 low batteryDTC b1a13: keyless/kos key 4 low batteryDTC b1a14: keyless key 5 low batteryDTC ...	42C-21
		DTC b1a24: key id not registered	
		Keyless operation system (kos).....	42B-28
		Wireless control module (wcm).....	42C-22

D

Dash panel	
Configuration diagrams	80A-10
Splice locations.....	80B-5
Daytime running light (drl) <discharge type>	90-110
Daytime running light (drl) <halogen type>	90-106
Defogger	
General information	54A-713
On-vehicle service	
Printed heater check.....	54A-724
Rear window defogger relay check.....	54A-724
Removal and installation	54A-723
Special tools	54A-713
Symptom procedures	
Rear window defogger does not operate.....	54A-715
Troubleshooting	
Standard flow of diagnostic troubleshooting	54A-714
Symptom chart.....	54A-714
Diagnosis	
ABS warning light and brake warning light inspection...	35C-7
Actuator test reference table	35C-257
Actuator test table.....	42B-171
ASC diagnostic troubleshooting strategy.....	35C-6
CAN bus diagnostics	
Diagnostic item 1: diagnose when the scan tool cannot receive the data sent by ETACS-ECU.	54C-27
Diagnostic item 10: diagnose when the scan tool cannot receive the data sent by ECM.....	54C-104
Diagnostic item 11: diagnose when the scan tool cannot receive the data sent by tc-sst-ECU. <tc-sst>	54C-109
Diagnostic item 12: diagnose the lines between the ETACS-ECU and joint connector (can2).....	54C-112
Diagnostic item 13: diagnose the lines between joint connector (can2) and joint connector (can3).....	54C-117
Diagnostic item 14: diagnose the lines between joint connector (can3) and joint connector (can4). <tc-sst>	54C-121
Diagnostic item 15: diagnose when the scan tool cannot receive the data sent by kos-ECU.....	54C-124
Diagnostic item 16: diagnose when the scan tool cannot receive the data sent by wcm.....	54C-127
Diagnostic item 17: diagnose when the scan tool cannot receive the data sent by SRS-ECU.....	54C-130

DTC b1a25: key id unmatched		DTC c104b: abnormality in fl wheel inlet valve system	
Keyless operation system (kos).....	42B-29	DTC c104f: abnormality in fr wheel inlet valve system	
Wireless control module (wcm).....	42C-23	DTC c1053: abnormality in rl wheel inlet valve system	
DTC b1a28: engine control module authenticate error		DTC c1057: abnormality in rr wheel inlet valve system	
Keyless operation system (kos).....	42B-31	DTC c105f:	35C-116
Wireless control module (wcm).....	42C-25	DTC C1073: faulty motor drive circuit	35C-122
DTC b1a35: transponder read error		DTC C1210: abnormality in g and yaw rate sensor (longitudinal g sensor).....	35C-167
Keyless operation system (kos).....	42B-33	DTC C1219: abnormality in steering wheel sensor signal.....	35C-184
Wireless control module (wcm).....	42C-27	DTC c121a: abnormality in steering wheel sensor initialization	35C-187
DTC B2101: ig sw start pos.circuit lowDTC B2102: ig sw start pos.circuit high		DTC c121c: torque request signal rejection	35C-157
Keyless operation system (kos).....	42B-36	DTC c121d: abnormality in brake fluid pressure sensor circuit.....	35C-130
Wireless control module (wcm).....	42C-30	DTC c121e: abnormality in brake fluid pressure sensor output signal.....	35C-132
DTC B2204: coding data mismatch		DTC c123a: abnormality in sensor calibration	35C-182
Keyless operation system (kos).....	42B-39	DTC c123b: prolonged operation of ASC	35C-146
Wireless control module (wcm).....	42C-33	DTC c123c: abnormality in g and yaw rate sensor (lateral g or yaw rate).....	35C-171
DTC B2206: vin code mismatch		DTC C1242: abnormality in g and yaw rate sensor (longitudinal g sensor).....	35C-169
Keyless operation system (kos).....	42B-41	DTC C1290: CAN time-out error.....	35C-159
Wireless control module (wcm).....	42C-35	DTC C1395: brake fluid filling not completed.....	35C-156
DTC B2352: antenna fail		DTC C1608: EEPROM error	
Keyless operation system (kos).....	42B-43	Keyless operation system (kos)	42B-130
Wireless control module (wcm).....	42C-37	Wireless control module (wcm)	42C-45
DTC B2400: kos key registration fail	42B-49	DTC C1608: implausible diagnosis data.....	35C-190
DTC B2401: keyless/kos key id not register	42C-38	DTC C1900: No registration	
DTC B2401: keyless/kos key id not registered	42B-60	Keyless operation system (kos)	42B-131
DTC B2402: stl unit comm.(system id)DTC B2403: stl unit comm.(crc)DTC B2404: stl unit comm.(function code)DTC B2405: stl unit comm.(rolling code)DTC B2406: stl unit comm.(ptc operate)DTC B2407: stl unit comm.(EEPROM)	42B-62	Wireless control module (wcm)	42C-46
DTC B2409 stl unit comm.(No response)	42B-67	DTC C1901: vehicle speed information abnormality	
DTC b240a: fr antenna(outdoor) open.....	42B-72	Keyless operation system (kos)	42B-132
DTC b240b: fl antenna(outdoor) open	42B-78	Wireless control module (wcm)	42C-47
DTC b240c: tail gate antenna(outdoor) open	42B-84	DTC C1910: transmitter low battery voltage abnormality 1	42B-134
DTC b240d: front antenna(indoor) open	42B-90	DTC C1920: transmitter low battery voltage abnormality 2	42C-49
DTC B2410: rear antenna(indoor) open	42B-95	DTC C1930: transmitter low battery voltage abnormality 3	
DTC B2412: lf antenna power voltage.....	42B-101	DTC C1940: transmitter low battery voltage abnormality 4 ...	
DTC B2413: stl unit power voltage	42B-108	Keyless operation system (kos)	42B-144
DTC B2414: unlock sensor fail	42B-111	Wireless control module (wcm)	42C-58
DTC B2415: ra module power voltage		DTC C1912: tire inflation pressure warning 1	
Keyless operation system (kos).....	42B-118	DTC C1922: tire inflation pressure warning 2	
Wireless control module (wcm).....	42C-39	DTC C1932: tire inflation pressure warning 3	
DTC B2416: ECU internal error		DTC C1942: tire inflation pressure warning 4	
Keyless operation system (kos).....	42B-129	Keyless operation system (kos)	42B-144
Wireless control module (wcm).....	42C-44	Wireless control module (wcm)	42C-58
DTC C1000: abnormality in spotlight switch circuit...	35C-140	DTC C1913: acceleration sensor abnormality 1	
DTC c100a: abnormality in fl wheel speed sensor circuit	35C-23	DTC C1923: acceleration sensor abnormality 2	
DTC C1011: abnormality in fl wheel speed sensor signal	35C-43	DTC C1933: acceleration sensor abnormality 3	
DTC C1014: mutual monitoring of fl wheel speed sensor	35C-68	DTC C1943: acceleration sensor abnormality 4	
DTC C1015: abnormality in fr wheel speed sensor circuit	35C-28	DTC C1914: pressure sensor abnormality 1 ...	
DTC c101c: abnormality in fr wheel speed sensor signal	35C-49	Keyless operation system (kos)	42B-142
DTC c101f: mutual monitoring of fr wheel speed sensor	35C-72	Wireless control module (wcm)	42C-56
DTC C1020: abnormality in rl wheel speed sensor circuit	35C-33	DTC C1915: transmitter off mode 1	
DTC C1027: abnormality in rl wheel speed sensor signal	35C-55	DTC C1925: transmitter off mode 2	
DTC c102a: mutual monitoring of rl wheel speed sensor	35C-75	DTC C1935: transmitter off mode 3	
DTC c102b: abnormality in rr wheel speed sensor circuit	35C-38	DTC C1945: transmitter off mode 4	
DTC C1032: abnormality in rr wheel speed sensor signal	35C-62	Keyless operation system (kos)	42B-147
DTC C1035: mutual monitoring of rr wheel speed sensor	35C-79	Wireless control module (wcm)	42C-61
DTC C1041: abnormality in periodical signal for fl wheel speed sensor	35C-82	DTC C2000: abnormality in wheel fluid pressure sensor circuit.....	35C-135
DTC C1042: abnormality in periodical signal for fr wheel speed sensor	35C-85	DTC C2001: abnormality in wheel fluid pressure sensor output signal.....	35C-136
DTC C1043: abnormality in periodical signal for rl wheel speed sensor	35C-87	DTC C2002: abnormality in valve calibration.....	35C-196
DTC C1044: abnormality in periodical signal for rr wheel speed sensor	35C-90	DTC C2101: abnormality in battery voltage (high voltage)	35C-150
DTC C1046: fl wheel speed sensor control phase time exceeded	35C-92	DTC C2104: faulty valve power supply circuit	35C-118
DTC C1047: fr wheel speed sensor control phase time exceeded	35C-98	DTC C2111: brake fluid pressure sensor power supply circuit (low input).....	
DTC C1048: rl wheel speed sensor control phase time exceeded	35C-104	DTC C2112: brake fluid pressure sensor power supply circuit (high input).....	35C-176
DTC C1049: rr wheel speed sensor control phase time exceeded	35C-110	DTC C2114: abnormality in g and yaw rate sensor operation voltage	
		DTC C2115: abnormality in g and yaw rate sensor operation voltage	35C-178
		DTC C2116: abnormality in power supply voltage in pump motor.....	35C-126
		DTC C2200: abnormality in ASC-ECU	35C-149
		DTC C2203: vin not recorded	35C-162
		DTC C2204: internal abnormality in g and yaw rate sensor	35C-174
		DTC C2205: internal malfunction of steering wheel sensor	35C-188
		DTC C2206: re-execution of variant coding.....	35C-164

DTC U0001: bus-off.....	35C-198	Inspection procedure 1: the scan tool cannot communicate with the ABS/ASC system.....	35C-220
DTC U0019: bus off (CAN-b)		Inspection procedure 10: driver's door unlock sensor does not work.....	42B-213
Keyless operation system (kos).....	42B-148	Inspection procedure 10: skid control/TCL does not operate.....	35C-241
Wireless control module (wcm).....	42C-62	Inspection procedure 11: ASC-ECU power supply circuit system.....	35C-243
DTC U0100: engine time-out error		Inspection procedure 11: front passenger's door lock switch does not work.....	42B-217
DTC U0101: tc-sst time-out error		Inspection procedure 12: ABS/skid control/TCL operates too frequently.....	35C-251
DTC U0126: steering wheel sensor time-out error		Inspection procedure 12: front passenger's door unlock sensor does not work.....	42B-223
DTC U0141: ETACS time-out error		Inspection procedure 13: trunk lid opener switch does not work.....	42B-229
DTC U0136: awc time-out error.....	35C-199	Inspection procedure 14: keyless entry system does not work.....	42B-234
DTC U0125: g and yaw rate sensor message time-out error/message error.....	35C-202	Inspection procedure 15: kos timer lock function does not work.....	42B-243
DTC U0141: ETACS-ECU CAN timeout		Inspection procedure 16: keyless entry hazard light answerback function, the dome light answerback function or the horn answerback function does not work normally.....	42B-245
Keyless operation system (kos).....	42B-150	Inspection procedure 17: the trunk is not opened when the keyless operation key "TRUNK" button is operated.....	42B-248
Wireless control module (wcm).....	42C-64	Inspection procedure 18: outer tone alarm does not sound.....	42B-255
DTC U0151: SRS-ECU CAN timeout		Inspection procedure 2: the ignition key cannot be registered using scan tool.....	42C-86
Keyless operation system (kos).....	42B-151	Inspection procedure 2: the keyless operation key cannot be registered using scan tool.....	42B-174
Wireless control module (wcm).....	42C-65	Inspection procedure 2: with the parking brake released, the brake warning light remains illuminated (ABS warning light is turned off).....	35C-221
DTC U0154: occupant classification-ECU CAN timeout		Inspection procedure 3: abnormality in kos-ECU power supply and ground circuits.....	42B-185
Keyless operation system (kos).....	42B-153	Inspection procedure 3: engine does not start (cranking but no initial combustion).....	42C-88
Wireless control module (wcm).....	42C-67	Inspection procedure 3: the ABS warning light does not illuminate when ignition switch is turned to the on position (engine stopped).....	35C-225
DTC U0155: combination meter CAN timeout		Inspection procedure 4: abnormality in wcm power supply and ground circuits.....	42C-90
Keyless operation system (kos).....	42B-154	Inspection procedure 4: keyless operation warning display does not disappear.....	42B-188
Wireless control module (wcm).....	42C-68	Inspection procedure 4: the brake warning light does not illuminate when ignition switch is turned to the on position (engine stopped).....	35C-228
DTC U0164: A/C-ECU CAN timeout		Inspection procedure 5: ig knob will not turn (keyless operation is not recognized).....	42B-190
Keyless operation system (kos).....	42B-156	Inspection procedure 5: keyless entry system does not work.....	42C-93
Wireless control module (wcm).....	42C-70	Inspection procedure 5: the ABS warning light remains illuminated even after the engine is started.....	35C-230
DTC U0184: audio CAN timeout		Inspection procedure 6: keyless entry hazard light answerback function, the dome light answerback function or the horn answerback function does not work normally.....	42C-102
Keyless operation system (kos).....	42B-157	Inspection procedure 6: the ASC warning display stays on even after the engine is started.....	35C-232
Wireless control module (wcm).....	42C-71	Inspection procedure 6: the engine will not start with kos (ig knob operates normally).....	42B-199
DTC U0195: satellite radio tuner CAN timeout		Inspection procedure 7: engine does not start with emergency key (cranking but no initial combustion).....	42B-201
Keyless operation system (kos).....	42B-159	Inspection procedure 7: the ASC off display remains illuminated after the engine is started.....	35C-234
Wireless control module (wcm).....	42C-73	Inspection procedure 7: the timer lock function does not work after the doors have been unlocked by the keyless entry system.....	42C-104
DTC U0197: hands free module CAN timeout		Inspection procedure 8: after the ASC off switch is pressed to turn "off," the skid control/TCL cannot be cancelled.....	35C-237
Keyless operation system (kos).....	42B-160	Inspection procedure 8: No door will be locked or unlocked by operating a lock switch on any door, or by touching the unlock sensor.....	42B-203
Wireless control module (wcm).....	42C-74	Inspection procedure 8: the trunk is not opened when the keyless entry transmitter "TRUNK" button is operated.....	42C-105
DTC U0245: audio visual navigation unit CAN timeout		Inspection procedure 9: abnormality in brake operation	35C-239
Keyless operation system (kos).....	42B-162	Inspection procedure 9: driver's door lock switch does not work.....	42B-208
Wireless control module (wcm).....	42C-76	Terminal voltage reference chart.....	42B-262
DTC U0251: awc time-out error (local CAN)		Trouble symptom chart	
DTC U0440: awc communication error (local CAN)		Active skid control system (ASC).....	35C-219
DTC U0435: awc signal abnormality (local CAN).....	35C-208	Keyless operation system (kos).....	42B-172
DTC U0401: engine malfunction detected.....	35C-205	Wireless control module (wcm).....	42C-84
DTC U0428: communication error in steering wheel sensor.....	35C-206		
DTC U1003: g and yaw rate sensor bus-off.....	35C-210		
DTC U1412: implausible vehicle speed signal received			
Keyless operation system (kos).....	42B-163		
Wireless control module (wcm).....	42C-77		
DTC U1415: coding not completed/data fail			
Keyless operation system (kos).....	42B-165		
Wireless control module (wcm).....	42C-79		
DTC U1415: variant coding not completed.....	35C-213		
DTC U1417: implausible coding data.....	42C-80		
DTC U1417: variant coding value invalid (includes faulty installation).....	35C-215		
Id code registration necessity judgment table.....	42B-12		
Id codes registration judgment table.....	42C-9		
Input signal procedures			
Signals from transmitter switches are not received.			
Keyless operation system (kos).....	42B-260		
Wireless control module (wcm).....	42C-111		
Input signal reference table			
Keyless operation system (kos).....	42B-259		
Wireless control module (wcm).....	42C-111		
Introduction to ASC diagnosis.....	35C-6		
Precautions for diagnosis.....	35C-7		
Standard flow of diagnostic troubleshooting			
Keyless operation system (kos).....	42B-10		
Wireless control module (wcm).....	42C-6		
Symptom procedures			
Inspection procedure 1: scan tool cannot communicate with kos-ECU.....	42B-172		
Inspection procedure 1: scan tool cannot communicate with wcm.....	42C-85		

Warnings/alarms			
Keyless operation system (kos).....	42B-16		
Wireless control module (wcm).....	42C-12		
Diagnosis <s-awc(super all wheel control)>			
AWD-ECU terminal voltage reference chart for acd.....	22A-114		
Data list reference table.....	22A-107		
Diagnostic function	22A-9		
Diagnostic trouble code chart.....	22A-11		
Diagnostic trouble code procedures			
DTC C1000: stoplight switch system	22A-15		
DTC c100a <fl>, C1015 <fr>, C1020 <rl>, c102b <rr>: wheel speed sensor system (faulty circuit).....	22A-19		
DTC C1011 <fl>, c101c <fr>, C1027 <rl>, C1032 <rr>: wheel speed sensor system (faulty signal).....	22A-20		
DTC C1014 <fl>, c101f <fr>, c102a <rl>, C1035 <rr>: wheel speed sensor system (characteristics abnormality)	22A-21		
DTC C1078: tire turning malfunction	22A-22		
DTC C1219: steering wheel sensor system (faulty signal)	22A-24		
DTC c121a: steering wheel sensor system (neutral learning abnormality).....	22A-26		
DTC c123c: g and yaw rate sensor (faulty signal).....	22A-27		
DTC C1242: g and yaw rate sensor (longitudinal g output data error).....	22A-29		
DTC C1610: awc actuator power supply electronic relay malfunction.....	22A-31		
DTC C1611: awc pressure sensor system (low voltage)	22A-33		
DTC C1612: awc pressure sensor system (high voltage)	22A-35		
DTC C1613: awc mode select switch system (clogging) <vehicles with steering audio remote control switch>	22A-37		
DTC C1613: awc mode select switch system (clogging) <vehicles without steering audio remote control switch>	22A-40		
DTC C1614: parking brake switch system (clogging on)	22A-43		
DTC C1615: brake control prohibition request	22A-45		
DTC C1616: cranking signal system (on sticking).....	22A-46		
DTC C1617: awc CAN main data system (data not received).....	22A-49		
DTC C1618: awc CAN local data system (data not received).....	22A-50		
DTC c161c: acd proportioning valve system (malfunction).....	22A-53		
DTC c161d: electric pump relay circuit system (malfunction).....	22A-56		
DTC c161e: electric pump relay circuit system (stuck)	22A-59		
DTC C1622: acd controlled system (malfunction).....	22A-61		
DTC C1623: brake controlled system (malfunction) ..	22A-62		
DTC C1624: awc-ECU system (internal malfunction)	22A-63		
DTC C1625: awc pressure sensor system (abnormal power supply voltage).....	22A-64		
DTC C2100: battery voltage malfunction (low voltage)	22A-66		
DTC C2101: battery voltage malfunction (high voltage)	22A-70		
DTC C2114: g and yaw rate sensor power supply (low voltage).....	22A-72		
DTC C2115: g and yaw rate sensor power supply (high voltage).....	22A-75		
DTC C2203: vin not recorded.....	22A-77		
DTC C2204: g and yaw rate sensor system (internal malfunction).....	22A-78		
DTC C2205: steering wheel sensor system (internal malfunction).....	22A-79		
DTC U0001: bus off	22A-80		
DTC U0100: engine time-out error	22A-81		
DTC U0101: tc-sst time-out error.....	22A-82		
DTC U0121: ASC time-out error.....	22A-83		
DTC U0126: steering wheel sensor time-out error	22A-84		
DTC U0141: ETACS time-out error	22A-85		
DTC U0401: engine data error	22A-86		
DTC U0428: steering wheel sensor data error	22A-87		
DTC U0431: ETACS data error	22A-88		
DTC U1003: bas-off (local CAN).....	22A-90		
DTC U1415: coding incomplete/fail	22A-91		
DTC U1417: coding data malfunction.....	22A-93		
DTC U1425: tc-sst data error.....	22A-94		
DTC U1426: ASC data error.....	22A-95		
DTC U1427: wheel speed sensor data error	22A-96		
DTC U1428: g and yaw rate sensor data error.....	22A-97		
Introduction			
Manual transaxle	22A-8		
Twin clutch-sportronic shift transmission (tc-sst)	22C-328		
Special function reference table.....	22A-113		
Symptom chart.....	22A-14		
Symptom procedures			
Inspection procedure 1: communication between the scan tool and awc-ECU cannot be established	22A-99		
Inspection procedure 2: mode does not change even when the awc switch is pressed <vehicles with steering wheel audio remote control switch>	22A-99		
Inspection procedure 2: mode does not change even when the awc switch is pressed <vehicles without steering wheel audio remote control switch>	22A-102		
Inspection procedure 3: awc-ECU power supply circuit malfunction	22A-104		
Troubleshooting strategy	22A-8		
Diagnosis <shift lever>			
Data list reference table.....	22C-322		
Diagnostic function	22C-300		
Diagnostic trouble code chart	22C-302		
Diagnostic trouble code procedures			
DTC P0563: power supply system.....	22C-303		
DTC p198d: EEPROM system.....	22C-304		
DTC p198e, p198f: lever position sensor system	22C-304		
DTC U0001: bus-off	22C-305		
DTC U0100: engine time-out error.....	22C-306		
DTC U0101: tc-sst time-out error.....	22C-306		
DTC U0121: ASC time-out error	22C-307		
DTC U0141: ETACS time-out error.....	22C-308		
Introduction.....	22C-300		
Shift lever -ECU terminalvoltage reference chart	22C-325		
Special function (actuator test reference table)	22C-325		
Symptom chart.....	22C-302		
Symptom procedures			
Inspection procedure 1: the scan tool cannot communicate with the shift lever-ECU	22C-309		
Inspection procedure 2: shift indicator light does not illuminate.....	22C-309		
Inspection procedure 3: back-up light does not illuminate.....	22C-312		
Inspection procedure 4: the driving mode cannot be changed.....	22C-316		
Inspection procedure 5: speed change with the paddle shift is impossible.....	22C-317		
Inspection procedure 6: shift lever-ECU power supply circuit abnormality	22C-319		
Troubleshooting strategy	22C-300		
Diagnosis <tc-sst>			
Data list reference table.....	22C-298		
Diagnostic function	22C-6		
Diagnostic trouble code chart	22C-10		
Diagnostic trouble code procedures			
DTC P0630: vin not recorded	22C-15		
DTC P0701: EEPROM system (malfunction)	22C-16		
DTC P0702: internal control module, monitoring processor system (malfunction).....	22C-16		
DTC P0711: tc-sst-ECU temperature sensor system (gradient error)	22C-18		
DTC P0712: tc-sst-ECU temperature sensor system (output low range out).....	22C-20		
DTC P0713: tc-sst-ECU temperature sensor system (output high range out).....	22C-22		
DTC P0715: input shaft 1 (odd number gear axle) speed sensor system (output high range out).....	22C-24		
DTC P0716: input shaft 1 (odd number gear axle) speed sensor system (poor performance).....	22C-26		
DTC P0717: input shaft 1 (odd number gear axle) speed sensor system (output current low range out).....	22C-30		
DTC P0725: engine speed signal abnormality.....	22C-32		
DTC P0746: line pressure solenoid system (drive current range out).....	22C-33		
DTC P0753: shift select solenoid 1 system (open circuit).....	22C-35		
DTC P0758: shift select solenoid 2 system (open circuit).....	22C-36		
DTC P0776: clutch cooling flow solenoid system (drive current range out)	22C-38		
DTC P0777: clutch cooling flow solenoid system (stuck)	22C-39		
DTC P0841: clutch 1 pressure sensor system (poor performance).....	22C-41		
DTC P0842: clutch 1 pressure sensor system (output low range out).....	22C-43		

DTC P0843: clutch 1 pressure sensor system (output high range out)	22C-45	DTC p182d: shift fork position sensor 3 system (neutral)	22C-133
DTC P0846: clutch 2 pressure sensor system (poor performance)	22C-47	DTC p182e: shift fork position sensor 3 system (poor performance)	22C-135
DTC P0847: clutch 2 pressure sensor system (output low range out)	22C-49	DTC P1831: shift fork position sensor 4 system (voltage low range out)	22C-137
DTC P0848: clutch 2 pressure sensor system (output high range out)	22C-51	DTC P1832: shift fork position sensor 4 system (voltage high range out)	22C-139
DTC P0960: line pressure solenoid system (open circuit)	22C-53	DTC P1833: shift fork position sensor 4 system (output range out)	22C-141
DTC P0961: line pressure solenoid system (overcurrent)	22C-54	DTC P1834: shift fork position sensor 4 system (neutral)	22C-143
DTC P0962: line pressure solenoid system (short to ground)	22C-56	DTC P1835: shift fork position sensor 4 system (poor performance)	22C-145
DTC P0963: line pressure solenoid system (short to power supply)	22C-58	DTC P1836: shift fork 1 malfunction	22C-148
DTC P0964: clutch cooling flow solenoid system (open circuit)	22C-59	DTC p183d: shift fork 2 malfunction	22C-156
DTC P0965: clutch cooling flow solenoid system (overcurrent)	22C-61	DTC P1844: shift fork 3 malfunction	22C-164
DTC P0966: clutch cooling flow solenoid system (short to ground)	22C-63	DTC p184b: shift fork 4 malfunction	22C-171
DTC P0967: clutch cooling flow solenoid system (short to power supply)	22C-65	DTC P1852: shift fork 1 or 2 opposite direction movement	22C-179
DTC P0968: shift/cooling changeover solenoid system (open circuit)	22C-66	DTC P1855: shift fork 3 or 4 opposite direction movement	22C-182
DTC P0970: shift/cooling changeover solenoid system (short to ground)	22C-68	DTC P1857: odd number gear axle interlock	22C-185
DTC P0971: shift/cooling changeover solenoid system (short to power supply)	22C-69	DTC P1858: even number gear axle interlock	22C-187
DTC P0973: shift select solenoid 1 system (short to ground)	22C-71	DTC P1859: disengagement too late with clutch 1 ...	22C-189
DTC P0974: shift select solenoid 1 system (short to power supply)	22C-72	DTC p185a: engagement too late with clutch 1	22C-190
DTC P0976: shift select solenoid 2 system (short to ground)	22C-74	DTC p185b: disengagement too late with clutch 2 ...	22C-191
DTC P0977: shift select solenoid 2 system (short to power supply)	22C-75	DTC p185c: engagement too late with clutch 2	22C-193
DTC P1637: EEPROM system (DTC storing malfunction)	22C-77	DTC p185d: clutch open not possible	22C-193
DTC P1676: coding incomplete	22C-78	DTC P1862: high side 1 system (overcurrent)	22C-195
DTC P1802: shift lever system (lin communication malfunction)	22C-80	DTC P1863: high side 1 system (open circuit)	22C-197
DTC P1803: shift lever system (CAN, lin time-out error)	22C-82	DTC P1864: high side 1 system (short to power supply)	22C-199
DTC P1804: shift fork position sensor 1 and 2 system (power supply voltage low range out)	22C-84	DTC P1866: high side 2 system (overcurrent)	22C-201
DTC P1805: shift fork position sensor 1 and 2 system (power supply voltage high range out)	22C-86	DTC P1867: high side 2 system (open circuit)	22C-203
DTC P1806: shift fork position sensor 3 and 4 system (power supply voltage low range out)	22C-88	DTC P1868: high side 2 system (short to power supply)	22C-205
DTC P1807: shift fork position sensor 3 and 4 system (power supply voltage high range out)	22C-90	DTC p186a: high side 3 system (overcurrent)	22C-207
DTC P1808: tc-sst-ECU temperature, fluid temperature sensor system (correlation error)	22C-92	DTC p186b: high side 3 system (open circuit)	22C-209
DTC p180c: clutch pressure cut spool sticking	22C-93	DTC p186c: high side 3 system (short to power supply)	22C-211
DTC p181b: clutch 1 (pressure low range out)	22C-94	DTC p186d: high side 1 system (voltage low range out)	22C-213
DTC p181c: clutch 1 (pressure high range out)	22C-95	DTC p186e: high side 2 system (voltage low range out)	22C-215
DTC p181e: clutch 2 (pressure low range out)	22C-99	DTC p186f: high side 3 system (voltage low range out)	22C-217
DTC p181f: clutch 2 (pressure high range out)	22C-101	DTC P1870: engine torque signal abnormality	22C-219
DTC P1820: shift fork position sensor 1 system (voltage low range out)	22C-105	DTC P1871: aps system (signal abnormality)	22C-221
DTC P1821: shift fork position sensor 1 system (voltage high range out)	22C-107	DTC P1872: between shift lever and tc-sst system (q-a function abnormality)	22C-223
DTC P1822: shift fork position sensor 1 system (output range out)	22C-109	DTC P1873: clutch 1 system (pressure abnormality)	22C-225
DTC P1823: shift fork position sensor 1 system (neutral)	22C-111	DTC P1874: clutch 2 system (pressure abnormality)	22C-225
DTC P1824: shift fork position sensor 1 system (poor performance)	22C-113	DTC P1875: damper speed sensor system (poor performance)	22C-226
DTC P1825: shift fork position sensor 2 system (voltage low range out)	22C-116	DTC P1876: 1st gear block	22C-229
DTC P1826: shift fork position sensor 2 system (voltage high range out)	22C-118	DTC P1877: gear block 2nd gear	22C-230
DTC P1827: shift fork position sensor 2 system (output range out)	22C-120	DTC P1878: gear block 3rd gear	22C-232
DTC P1828: shift fork position sensor 2 system (neutral)	22C-122	DTC P1879: gear block 4th gear	22C-233
DTC P1829: shift fork position sensor 2 system (poor performance)	22C-124	DTC p187a: gear block 5th gear	22C-235
DTC p182a: shift fork position sensor 3 system (voltage low range out)	22C-127	DTC p187b: gear block 6th gear	22C-236
DTC p182b: shift fork position sensor 3 system (voltage high range out)	22C-129	DTC p187c: gear block reverse gear	22C-238
DTC p182c: shift fork position sensor 3 system (output range out)	22C-131	DTC P1880: eol mode active	22C-239
		DTC P1881: twin clutch sst control mode switch system (malfunction)	22C-240
		DTC P2718: clutch/shift pressure solenoid 1 system (open circuit)	22C-241
		DTC P2719: clutch/shift pressure solenoid 1 system (overcurrent)	22C-243
		DTC P2720: clutch/shift pressure solenoid 1 system (short to ground)	22C-245
		DTC P2721: clutch/shift pressure solenoid 1 system (short to power supply)	22C-247
		DTC P2727: clutch/shift pressure solenoid 2 system (open circuit)	22C-249
		DTC P2728: clutch/shift pressure solenoid 2 system (overcurrent)	22C-251
		DTC P2729: clutch/shift pressure solenoid 2 system (short to ground)	22C-253
		DTC P2730: clutch/shift pressure solenoid 2 system (short to power supply)	22C-255
		DTC P2733: clutch/shift changeover solenoid 1, spool stuck	22C-257
		DTC P2736: clutch/shift changeover solenoid 1 system (open circuit)	22C-259

DTC P2738: clutch/shift changeover solenoid 1 system (short to ground).....	22C-261	Inspection.....	42A-123
DTC P2739: clutch/shift changeover solenoid 1 system (short to power supply).....	22C-262	Removal and installation.....	42A-121
DTC P2741: fluid temperature sensor system (gradient error).....	22C-264	Door diagnosis	
DTC P2742: fluid temperature sensor system (output low range out).....	22C-266	Glass and door diagnostic troubleshooting strategy ..	42A-104
DTC P2743: fluid temperature sensor system (output high range out).....	22C-268	Introduction to glass and door diagnosis	42A-104
DTC P2766: input shaft 2 (even number gear axle) speed sensor system (poor performance).....	22C-270	Symptom chart.....	42A-104
DTC P2809: clutch/shift changeover solenoid 2, spool stuck.....	22C-274	Door glass and regulator	
DTC P2812: clutch/shift changeover solenoid 2 system (open circuit).....	22C-276	Inspection.....	42A-127
DTC P2814: clutch/shift changeover solenoid 2 system (short to ground).....	22C-278	Removal and installation.....	42A-124
DTC P2815: clutch/shift changeover solenoid 2 system (short to power supply).....	22C-280	Door handle and latch	
DTC U0001: bus-off.....	22C-282	Inspection.....	42A-133
DTC U0100: engine time-out error.....	22C-284	Removal and installation.....	42A-129
DTC U0103: shift lever time-out error.....	22C-286	General information	42A-28
DTC U0121: ASC time-out error.....	22C-287	How to locate wind noise.....	42A-107
DTC U0136: awc time-out error.....	22C-287	On-vehicle service	
DTC U0141: ETACS time-out error	22C-288	Central door locking system check	42A-118
Introduction.....	22C-6	Check of key lock prevention function	42A-118
Symptom chart	22C-15	Configuration function	42A-120
Symptom procedures		Door fit adjustment.....	42A-111
Inspection procedure 1: the scan tool cannot communicate with tc-sst-ECU.....	22C-289	Door inside handle check.....	42A-119
Inspection procedure 2: the driving mode cannot be changed	22C-290	Door outside handle play check.....	42A-118
Inspection procedure 3: speed change with the paddle shift is impossible.....	22C-292	Door window glass adjustment	42A-114
Inspection procedure 4: tc-sst-ECU power supply circuit malfunction	22C-295	Glass sliding mechanism check and adjustment	42A-115
Tc-sst-ECU terminal voltage reference chart.....	22C-299	Learning procedures of the power window fully closed position <driver's side>.....	42A-117
Troubleshooting strategy	22C-6	Power window check	42A-115
Differential carrier assembly		Power window operating current check	42A-116
Disassembly and reassembly.....	27-54	Power window safety mechanism check <driver's side>.....	42A-116
Removal and installation	27-52	Power window timer function check.....	42A-116
Dome light		Shift "P" interlink door unlock function check <vehicles with tc-sst>.....	42A-118
Diagnosis		Power window diagnosis	
Diagnostic function	54A-241	Diagnostic trouble code chart	42A-58
Standard flow of diagnostic troubleshooting	54A-241	Trouble symptom chart	42A-58
Dome light removal and installation.....	54A-259	Troubleshooting strategy	42A-57
General information	54A-239	Protector film	
Luggage compartment light removal and installation	54A-260	Removal and installation.....	42A-141
On-vehicle service		Special tools.....	42A-109
Customization function	54A-258	Specification(s)	
Special tools	54A-240	Component identifications.....	42A-28
Symptom procedures		Sealant.....	42A-28
Inspection procedure 1: the front dome light does not illuminate normally.....	54A-243	Service specifications	42A-28
Inspection procedure 2: the rear dome light does not illuminate normally.....	54A-248	Symptom procedures	
Inspection procedure 3: the luggage compartment light does not illuminate normally.....	54A-252	Inspection procedure 1: water leak through door window glass.....	42A-104
Inspection procedure 4: the interior light auto-cut function does not operate correctly.....	54A-255	Inspection procedure 2: door window glass malfunction	42A-105
Trouble symptom chart.....	54A-243	Inspection procedure 3: water leak through door edge	42A-105
Dome light, luggage compartment light and ignition key hole illumination light.....	90-122	Inspection procedure 4: water leak from door center.....	42A-105
Door.....	80A-18	Inspection procedure 5: door hard to open	42A-106
Door		Inspection procedure 6: door does not open or close completely.....	42A-106
Central door locking system diagnosis		Inspection procedure 7: uneven gap between body ..	42A-106
Trouble symptom chart	42A-30	Inspection procedure 8: wind noise around door.....	42A-107
Troubleshooting strategy	42A-30	Symptom procedures <central door locking system>	
Check at ECU terminal.....	42A-103	Inspection procedure 1: central door locking system does not work at all.....	42A-31
Diagnostic trouble code procedures <power window>		Inspection procedure 2: central door locking system does not operate even when door lock switch of power window main switch operated (door lock switch of front power window sub switch operate normally).....	42A-36
Code no. L0730 p/w (dr) sw pulse 1 disconnection ...	42A-59	Inspection procedure 3: central door locking system does not operate even when door lock switch of front power window sub switch operated (door lock switch of power window main switch operate normally).....	42A-40
Code no. L0732 p/w (dr) sw pulse 2 disconnection ...	42A-61	Inspection procedure 4: a door cannot be locked or unlocked by the central door locking system.....	42A-44
Code no. L0734 p/w (dr) above window position.....	42A-63	Inspection procedure 5: selector "P" position-linked door unlock function does not operate normally. <vehicles with tc-sst>.....	42A-55
Code no. L0736 p/w (dr) sensor fail (ground).....	42A-64	Symptom procedures <power window>	
Code no. L0740 p/w (dr) 3 times jam - protection.....	42A-66	Inspection procedure 1: power windows do not work at all.....	42A-68
Code no. L0746 p/w (dr) parameter read failcode no. L0750 p/w (dr) position read fail	42A-67	Inspection procedure 2: driver's power window does not work by means of the power window main switch.....	42A-75
Door assembly		Inspection procedure 3: relevant power window(s) does not work by means of the front and rear passenger's power window sub switches.....	42A-78

Inspection procedure 4: front and/or rear passenger's power window(s) do not work by means of the power window main switch.....	42A-94	Engine and transaxle	
Inspection procedure 5: the power window timer function does not work normally.....	42A-98	Configuration diagrams.....	80A-6
Inspection procedure 6: power window anti-trap function does not work normally. <driver's side seat>.....	42A-100	Splice locations.....	80B-4
Inspection procedure 7: the window glass lowers automatically while it is rising.....	42A-102	Engine assembly	
Window glass runchannel and door opening weatherstrip Removal and installation.....	42A-136	Removal and installation.....	11A-80
Door ajar warning tone alarm.....	90-340	Engine compartment	
Door mirror		Configuration diagrams.....	80A-4
Inspection.....	51-81	Splice locations.....	80B-4
Removal and installation.....	51-79	Engine control	
Door sash tape		Accelerator pedal	
Removal and installation.....	51-10	Removal and installation.....	17-8
Special tool.....	51-9	Engine control system diagnosis	
Door trim		Introduction.....	17-3
Removal and installation.....	52A-15	Troubleshooting strategy.....	17-3
Driver's air bag module and clock spring		General information.....	17-3
Inspection.....	52B-392	Special tool.....	17-7
Removal and installation.....	52B-386	Symptom chart.....	17-3
Driveshaft assembly		Symptom procedures	
Disassembly and assembly		Inspection procedure 1: throttle valve will not fully open or close.....	17-4
Front axle.....	26-20	Inspection procedure 2: accelerator pedal operation not smooth (over acceleration).....	17-5
Rear axle.....	27-48	Engine control module (ECM)	
Ebj boot replacement		Removal and installation.....	13A-920
Front axle.....	26-23	Engine control resistor	
Rear axle.....	27-51	Removal and installation.....	13A-919
Removal and installation		Engine cooling diagnosis	
Front axle.....	26-15	Introduction.....	14-3
Rear axle.....	27-43	Symptom chart.....	14-3
Ducts		Symptom procedures	
Removal and installation.....	55-138	Inspection procedure 1: coolant leak.....	14-4
		Inspection procedure 2: engine overheating.....	14-5
		Inspection procedure 3: radiator fan and condenser fan do not operate.....	14-6
		Troubleshooting strategy.....	14-3
		Engine diagnosis.....	11A-2
		Engine mounting	
		Removal and installation.....	32-4
		Engine oil cooler	
		Removal and installation.....	12-9
		Engine oil pressure switch	
		Removal and installation.....	12-7
		ETACS	
		Check with terminal voltage.....	54A-677
		Diagnosis trouble code procedures	
		DTC B1761: vin not recorded.....	54A-619
		DTC b210a: +b power supply (low input)	
		DTC b210b: +b power supply (high input).....	54A-621
		DTC B2206: chassis number does not match.....	54A-625
		DTC B2215: ECU internal error.....	54A-627
		DTC b222c: coding incomplete.....	54A-625
		DTC B2353: ignition power supply (low input)	
		DTC B2354: ignition power supply (high input).....	54A-627
		DTC U0001: bus off (CAN-c) DTC U0019: bus off (CAN-b).....	54A-584
		DTC U0100: engine control module CAN timeout.....	54A-585
		DTC U0101: tc-sst-ECU CAN timeout.....	54A-587
		DTC U0103: shift lever CAN timeout.....	54A-589
		DTC U0121: ASC-ECU CAN timeout.....	54A-591
		DTC U0126: steering wheel sensor CAN timeout.....	54A-593
		DTC U0136: s-awc-ECU CAN timeout.....	54A-595
		DTC U0151: SRS-ECU CAN timeout.....	54A-597
		DTC U0154: occupant classification-ECU CAN timeout.....	54A-599
		DTC U0155: combination meter CAN timeout.....	54A-601
		DTC U0164: A/C-ECU CAN timeout.....	54A-603
		DTC U0168: wcm or kos-ECU CAN timeout.....	54A-605
		DTC U0184: audio CAN timeout.....	54A-607
		DTC U0195: satellite radio tuner CAN timeout.....	54A-609
		DTC U0197: hands free module CAN timeout.....	54A-611
		DTC U0245: CAN box unit CAN timeout.....	54A-613
		DTC U0331: ECU internal error.....	54A-618
		DTC U1108: excess CAN-b ECU detection.....	54A-615

E

Emission control MFI - t/c

Catalytic converter	
Removal and installation.....	17-81
Diagnosis.....	17-69
Evaporative emission canister and fuel tank pressure relief valve	
Inspection.....	17-80
Removal and installation.....	17-79
Evaporative emission control system	
Barometric pressure sensor check.....	17-78
Component location.....	17-76
Crankshaft position sensor check.....	17-78
Engine coolant temperature sensor check.....	17-78
Evaporative emission purge solenoid check.....	17-77
General information (evaporative emission system).....	17-74
Mass airflow sensor check.....	17-78
No. 1 intake air temperature sensor check.....	17-78
Purge control system check (purge flow check).....	17-76
Throttle position sensor check.....	17-78
General information.....	17-69
Positive crankcase ventilation system	
Component location.....	17-73
General information (positive crankcase ventilation system).....	17-72
Positive crankcase ventilation (pcv) system check	
Engine and emission control.....	17-73
Engine and emission control.....	17-73
Service specifications.....	17-69
Special tools.....	17-69
Vacuum hoses.....	17-70
Vacuum hoses	
Vacuum circuit diagram.....	17-71
Vacuum hose check.....	17-72
Vacuum hose installation.....	17-72
Vacuum hose routing.....	17-70

DTC U1120: bus line (CAN-c) low input			
DTC U1121: bus line (CAN-c) high input	54A-617		
Diagnostic trouble code chart	54A-582		
ETACS-ECU			
Removal and installation	54A-676		
Input signal procedures			
Inspection procedure 1: ETACS-ECU does not receive any signal from the ignition switch (acc)	54A-640		
Inspection procedure 10: ETACS-ECU does not receive any signal from the hazard warning light switch	54A-667		
Inspection procedure 11: ETACS-ECU does not receive any signal from the column switch signal	54A-669		
Inspection procedure 12: ETACS-ECU does not receive any signal from the hood switch	54A-670		
Inspection procedure 2: ETACS-ECU does not receive any signal from the ignition switch (ig1)	54A-642		
Inspection procedure 3: ETACS-ECU does not receive any signal from the key reminder switch	54A-644		
Inspection procedure 4: ETACS-ECU does not receive any signal from the front door lock actuator	54A-647		
Inspection procedure 5: ETACS-ECU does not receive any signal from the front door switch (lh)	54A-654		
Inspection procedure 6: ETACS-ECU does not receive any signal from the front door switch (rh)	54A-656		
Inspection procedure 7: ETACS-ECU does not receive any signal from the rear door switch (lh)	54A-658		
Inspection procedure 8: ETACS-ECU does not receive any signal from the rear door switch (rh)	54A-661		
Inspection procedure 9: ETACS-ECU does not receive any signal from the trunk lid latch	54A-663		
On-vehicle service			
Customization function	54A-673		
Service data	54A-630		
Special tool	54A-578		
Symptom procedures			
Malfunction of ETACS-ECU power supply circuit	54A-636		
Trouble symptom chart	54A-635		
Trouble symptom chart for input signal	54A-639		
Troubleshooting			
Diagnostic function	54A-579		
Standard flow of diagnostic troubleshooting	54A-579		
ETACS-ECU	90-10		
Exhaust manifold			
Removal and installation	11B-20		
Exhaust manifold and turbocharger			
Inspection	15-23		
Removal and installation	15-16		
Exhaust pipe and main muffler			
Removal and installation	15-24		
Explanation about the sCAN tool (M.U.T.-III) CAN bus diagnostics	54C-9		
Exterior transmitter antenna assembly, interior transmitter antenna assembly, receiver antenna module			
Removal and installation	42B-279		
F			
Fastener tightening specification	22D-2		
Fastener tightening specifications			
Engine overhaul	11B-4		
Manual transaxle overhaul	22B-4		
Front suspension	33-2		
Rear suspension	34-4		
Heater, air conditioning and ventilation	55-5		
Fender			
Removal and installation	42A-11		
Floor and roof			
Configuration diagrams	80A-16		
Splice locations	80B-6		
Floor console assembly			
Removal and installation	52A-9		
Fog light	90-114		
Fog light			
Diagnosis			
Diagnostic function	54A-219		
Standard flow of diagnostic troubleshooting	54A-219		
Inspection			
Front fog light relay check	54A-237		
On-vehicle service			
Front fog light aiming	54A-234		
Front fog light bulb replacement	54A-235		
Removal and installation	54A-236		
Service specifications	54A-217		
Special tools	54A-218		
Symptom procedures			
Inspection procedure 1: all the front fog lights do not illuminate normally	54A-222		
Inspection procedure 2: one of the fog lights does not illuminate	54A-228		
Inspection procedure 3: the front fog light indicator does not illuminate normally	54A-232		
Trouble symptom chart	54A-221		
Front axle diagnosis			
Symptom chart	26-4		
Symptom procedures			
Inspection procedure 1: noise during wheel rotation	26-5		
Inspection procedure 2: noise due to excessive play of wheel in turning direction	26-6		
Troubleshooting strategy	26-4		
Front axle hub assembly			
Inspection	26-13		
Removal and installation	26-9		
Front bumper assembly and radiator grille			
Disassembly and assembly	51-4		
Removal and installation	51-3		
Front disc brake assembly			
Disassembly and assembly	35A-35		
Inspection			
Basic brake system	35A-34		
Basic brake system	35A-36		
Removal and installation	35A-33		
Front impact sensors			
Inspection	52B-382		
Removal and installation	52B-380		
Front roll stopper and centermember			
Removal and installation	32-8		
Front suspension diagnosis			
Front suspension diagnosis troubleshooting strategy	33-4		
Introduction to front suspension diagnosis	33-4		
Symptom chart	33-4		
Symptom procedures			
Inspection procedure 1: steering wheel is heavy, vibrates or pulls to one side	33-4		
Inspection procedure 2: excessive body rolling	33-5		
Inspection procedure 3: poor ride	33-5		
Inspection procedure 4: unequal ride height	33-5		
Inspection procedure 5: noise	33-6		
Fuel filler lid			
Removal and installation	42A-14		
Fuel supply diagnosis			
Introduction	13B-2		
Symptom procedures	13B-3		
Troubleshooting strategy	13B-2		
Fuel tank			
Disassembly and assembly	13B-15		
Disassembly and reassembly	13B-17		
Fuel tank inspection	13B-18		
Removal and installation	13B-10		
Fusible link, fuse and iod or storage connector	70-13		
G			
G and yaw rate sensor			
Removal and installation	35C-278		
Garnishes and moldings			
Removal and installation	51-8		
Special tool	51-8		
General data and specifications	00-52		

General description	22D-2	DTC U0154: ocm CAN timeout.....	54A-478
General information		DTC U0155: meter CAN timeout	54A-479
Engine mechanical	11A-2	DTC U0164: A/C CAN timeout.....	54A-481
Engine lubrication	12-2	DTC U0168: wcm CAN timeout	54A-482
Multiport fuel injection (MFI)	13A-2	DTC U0195: satellite radio CAN timeout	54A-485
Fuel supply	13B-2	DTC U0245 and CAN timeout.....	54A-487
Engine cooling	14-2	General information	54A-455
Intake and exhaust	15-2	On-vehicle service	
Clutch	21A-2	Erase the passcode	54A-516
Manual transaxle	22A-2	Pairing a cellular phone or deleting a phone.....	54A-513
Manual transaxle overhaul	22B-2	Removal and installation.....	54A-517
Twin clutch-sportronic shift transmission (tc-sst).....	22C-3	Service data	54A-516
Propeller shaft	25-2	Special tools.....	54A-458
Front axle.....	26-2	Steering wheel voice control switch continuity check	54A-518
Rear axle	27-2	Symptom procedures	
Power plant mount.....	32-2	Inspection procedure 1: hands free cellular phone system does not work normally.....	54A-489
Front suspension	33-2	Inspection procedure 2: during the conversation with the hands free cellular phone system, the speaker's voice cannot be heard by the other party.	54A-497
Rear suspension.....	34-2	Inspection procedure 3: during the conversation with the hands free cellular phone system, the voice of other party cannot be heard.....	54A-500
Basic brake system	35A-2	Inspection procedure 4: even when the steering wheel voice control switch is operated, the conversation is not possible.....	54A-501
Active skid control system (ASC)	35C-2	Inspection procedure 5: the cellular phone is not recognized or the connection cannot be established.....	54A-506
Parking brakes.....	36-2	Inspection procedure 6: steering wheel voice control switch illumination does not come on.	54A-507
Power steering.....	37-2	Inspection procedure 7: check the hands free module power supply circuit.....	54A-511
Keyless operation system (kos).....	42B-2	Trouble symptom chart	54A-488
Wireless control module (wcm)	42C-2	Harness connector inspection	00E-2
Interior	52A-2	Hazard warning light switch	
Supplemental restraint system (SRS)	52B-3	Diagnosis	
Local interconnect network (lin)	54B-2	Diagnostic function.....	54A-263
Controller area network (CAN)	54C-2	Standard flow of diagnostic troubleshooting	54A-263
Heater, air conditioning and ventilation.....	55-3	Diagnostic trouble code chart	54A-265
General specification.....	22D-2	Diagnostic trouble code procedures	
General specification(s).....	13A-5	DTC b16a6: turn-signal fuse blown.....	54A-265
General specifications		Inspection	
Engine overhaul.....	11B-2	Hazard warning light switch check.....	54A-268
Clutch overhaul.....	21B-2	Removal and installation.....	54A-268
Manual transaxle overhaul	22B-3	Special tools.....	54A-262
Propeller shaft	25-2	Symptom procedures	
Front axle.....	26-3	Inspection procedure 1: the hazard warning lights do not illuminate.....	54A-266
Rear axle	27-3	Trouble symptom chart	54A-266
Wheel and tire	31-2	Headlight	
Front suspension	33-3	Data list reference table.....	54A-174
Rear suspension.....	34-4	Diagnosis	
Basic brake system	35A-2	Diagnostic function.....	54A-105
Power steering.....	37-2	Standard flow of diagnostic troubleshooting	54A-105
Heater, air conditioning and ventilation.....	55-5	Diagnostic trouble code chart	54A-107
Generator and ignition system		Diagnostic trouble code procedures	
Removal and installation	11B-10	DTC b16a2: blown turn-signal light (lh) bulb.....	54A-107
Glove box		DTC b16a3: turn-signal light (lh) short circuit.....	54A-113
Removal and installation	52A-6	DTC b16a4: blown turn-signal light (rh) bulb	54A-116
Grounding.....	70-17	DTC b16a5: turn-signal light (rh) short circuit	54A-121
Grounding cable	70-16	DTC L0432: rls rs adaptation error	54A-124
		DTC L0434: rls rain sensor errorDTC L0436: rls light sensor error.....	54A-125
		General information	54A-102
		Headlight leveling switch removal and installation.....	54A-186
		Headlight removal and installation.....	54A-184
		Inspection	
		Headlight leveling switch check	
		<vehicles with headlight manual leveling system>	54A-190
		Headlight relay check.....	54A-189
		Lighting control sensor (light sensor) check.....	54A-191
		Lighting control sensor removal and installation.....	54A-187
		On-vehicle service	
		Customization function.....	54A-183
		Headlight aiming	54A-175
		Headlight auto light function check	54A-182

H

Hands free system	90-318
Hands-free cellular phone system	
Diagnosis.....	54A-459
Diagnosis	
Diagnosis function	54A-459
Standard flow of diagnostic troubleshooting	54A-459
Diagnostic trouble code chart.....	54A-462
Diagnostic trouble code procedures	
Code No.U0184 audio CAN timeout.....	54A-484
DTC B2468: microphone input short to batt	
DTC B2470: microphone input short to ground	54A-463
DTC B2471: on hook button stuck	
DTC B2472: off hook button stuck	
DTC B2473: vr button stuck.....	54A-466
DTC B2475: vin not programmed	54A-472
DTC U0019: bus off (CAN-b).....	54A-473
DTC U0141: ETACS CAN timeout.....	54A-475
DTC U0151: SRS-abg CAN timeout.....	54A-476

TSB Revision

TSB Revision

MFI system <tc-sst>	90-64	DTC P0037: heated oxygen sensor (rear) heater circuit low	13A-77
Mitsubishi multi-communication system (mmcs)	90-228	DTC P0038: heated oxygen sensor (rear) heater circuit high	13A-84
Mmcs		DTC P0069: abnormal correlation between manifold absolute pressure sensor and barometric pressure sensor	13A-88
Diagnosis		DTC P0096: intake air temperature circuit range/performance problem (sensor 2)	13A-92
Diagnosis function	54A-382	DTC P0097: intake air temperature circuit low input (sensor 2)	13A-98
Precautions on servicing mmcs	54A-368	DTC P0098: intake air temperature circuit high input (sensor 2)	13A-101
Service mode	54A-369	DTC P0101: mass airflow circuit range/performance problem	13A-107
Standard flow of diagnostic troubleshooting	54A-368	DTC P0102: mass airflow circuit low input	13A-113
Diagnostic trouble code chart	54A-384	DTC P0103: mass airflow circuit high input	13A-120
Diagnostic trouble code procedures		DTC P0106: manifold absolute pressure circuit range/performance problem	13A-125
DTC B2226: and error	54A-385	DTC P0107: manifold absolute pressure circuit low input	13A-134
DTC B2240: communication error with CAN box	54A-387	DTC P0108: manifold absolute pressure circuit high input	13A-142
DTC B2477: vin not programmed	54A-390	DTC P0111: intake air temperature circuit range/performance problem (sensor 1)	13A-147
DTC U0019: bus off (CAN-b)	54A-391	DTC P0112: intake air temperature circuit low input (sensor 1)	13A-153
DTC U0141: ETACS CAN timeout	54A-392	DTC P0113: intake air temperature circuit high input (sensor 1)	13A-157
DTC U0151: SRS-agb CAN timeout	54A-394	DTC P0116: engine coolant temperature circuit range/performance problem	13A-163
DTC U0154: ocm CAN timeout	54A-396	DTC P0117: engine coolant temperature circuit low input	13A-169
DTC U0155: meter CAN timeout	54A-397	DTC P0118: engine coolant temperature circuit high input	13A-174
DTC U0164: A/C CAN timeout	54A-399	DTC P0122: throttle position sensor (main) circuit low input	13A-181
DTC U0168: wcm CAN timeout	54A-400	DTC P0123: throttle position sensor (main) circuit high input	13A-185
DTC U0195: satellite radio CAN timeout	54A-402	DTC P0125: insufficient coolant temperature for closed loop fuel control	13A-192
DTC U0197: hands free module CAN timeout	54A-403	DTC P0128: coolant thermostat (coolant temperature below thermostat regulating temperature)	13A-200
DTC U1415: coding not completed/data fail	54A-405	DTC P0131: heated oxygen sensor (front) circuit low voltage	13A-203
DTC U1417: implausible coding data	54A-406	DTC P0132: heated oxygen sensor (front) circuit high voltage	13A-211
ETACS function customization function	54A-450	DTC P0133: heated oxygen sensor (front) circuit slow response	13A-215
Inspection		DTC P0134: heated oxygen sensor (front) circuit No activity detected	13A-220
Audio and video adapter inspection	54A-455	DTC P0137: heated oxygen sensor (rear) circuit low voltage	13A-226
Mitsubishi multi communication system	54A-366	DTC P0138: heated oxygen sensor (rear) circuit high voltage	13A-234
Removal and installation	54A-453	DTC P0139: heated oxygen sensor (rear) circuit slow response	13A-238
Special tools	54A-367	DTC P0140: heated oxygen sensor (rear) circuit No activity detected	13A-242
Symptom procedures		DTC P0171: system too lean	13A-246
Inspection procedure 1: No navigation screen is displayed	54A-409	DTC P0172: system too rich	13A-252
Inspection procedure 10: sound of a dvd (video disk) can be played, but no image is played	54A-441	DTC P0181: fuel tank temperature sensor circuit range/performance	13A-258
Inspection procedure 11: the picture and sound of external input are not played	54A-443	DTC P0182: fuel tank temperature sensor circuit low input	13A-265
Inspection procedure 12: check the CAN box unit power supply circuit	54A-445	DTC P0183: fuel tank temperature sensor circuit high input	13A-270
Inspection procedure 2: No sound is heard. <vehicles with audio amplifier>	54A-415	DTC P0201: injector circuit-cylinder 1	13A-277
Inspection procedure 3: No sound is heard from one of the speakers. <vehicles with audio amplifier>	54A-424	DTC P0202: injector circuit-cylinder 2	13A-287
Inspection procedure 4: the navigation system can be operated while the vehicle is driven	54A-432	DTC P0203: injector circuit-cylinder 3	13A-297
Inspection procedure 5: the screen is not normal in the navigation mode. (the own vehicle mark is dislocated.)	54A-434	DTC P0204: injector circuit-cylinder 4	13A-307
Inspection procedure 6: poor reception	54A-437	DTC P0222: throttle position sensor (sub) circuit low input	13A-317
Inspection procedure 7: gps signal can not be received	54A-438	DTC P0223: throttle position sensor (sub) circuit high input	13A-323
Inspection procedure 8: cd (compact disk)/dvd (video disk) cannot be played	54A-439	DTC P0234: turbocharger wastegate system malfunction	13A-328
Inspection procedure 9: image of a dvd (video disk) is played, but no sound is played	54A-440	DTC P0243: turbocharger wastegate solenoid 1 circuit	13A-330
Trouble symptom chart	54A-408	DTC P0247: turbocharger wastegate solenoid 2 circuit	13A-337
Motors and transistor		DTC P0300: random/multiple cylinder misfire detected	13A-343
Inspection	55-126	DTC P0301: cylinder 1 misfire detected	13A-348
Removal and installation	55-125	DTC P0302: cylinder 2 misfire detected	13A-351
Multiport fuel injection (MFI) diagnosis		DTC P0303: cylinder 3 misfire detected	13A-354
Actuator test reference table	13A-871	DTC P0304: cylinder 4 misfire detected	13A-357
Check at the engine control module (ECM)	13A-872	DTC P0327: knock sensor circuit low	13A-361
Data list reference table	13A-852		
Diagnostic function	13A-9		
Diagnostic trouble code chart	13A-44		
Diagnostic trouble code procedures			
DTC P0011: intake variable valve timing system target error	13A-51		
DTC P0012: camshaft position -timing over-retarded	13A-54		
DTC P0014: exhaust variable valve timing system target error	13A-55		
DTC P0016: crankshaft/camshaft (intake) position sensor phase problem	13A-58		
DTC P0017: crankshaft/camshaft (exhaust) position sensor phase problem	13A-62		
DTC P0031: heated oxygen sensor (front) heater circuit low	13A-66		
DTC P0032: heated oxygen sensor (front) heater circuit high	13A-73		

DTC P0328: knock sensor circuit high.....	13A-364	DTC P1244: ram test for all area	13A-638
DTC P0335: crankshaft position sensor circuit.....	13A-367	DTC P1245: cycle ram test (engine).....	13A-639
DTC P0340: intake camshaft position sensor circuit ..	13A-377	DTC P1247: tc-sst plausibility <tc-sst>	13A-640
DTC P0365: exhaust camshaft position sensor circuit	13A-385	DTC P1320: ignition timing retard insufficient.....	13A-641
DTC P0420: warm up catalyst efficiency below threshold	13A-394	DTC P1506: idle control system rpm lower than expected at low temperature.....	13A-644
DTC P0441: evaporative emission control system incorrect purge flow	13A-396	DTC P1507: idle control system rpm higher than expected at low temperature.....	13A-647
DTC P0442: evaporative emission system leak detected (small leak).....	13A-400	DTC P1590: tcm to ECM communication error in torque reduction request	13A-650
DTC P0443: evaporative emission purge solenoid circuit		DTC P1603: battery backup circuit malfunction.....	13A-653
Multiport fuel injection (MFI).....	13A-412	DTC P1676: variant coding	13A-657
Multiport fuel injection (MFI).....	13A-463	DTC P2066: fuel level sensor (sub) circuit range/performance	13A-659
DTC P0446: evaporative emission ventilation solenoid circuit		DTC P2100: throttle actuator control motor circuit (open).....	13A-663
Multiport fuel injection (MFI).....	13A-419	DTC P2101: throttle actuator control motor magneto malfunction.....	13A-668
Multiport fuel injection (MFI).....	13A-470	DTC P2122: accelerator pedal position sensor (main) circuit low input	13A-672
DTC P0450: fuel tank differential pressure sensor malfunction		DTC P2123: accelerator pedal position sensor (main) circuit high input	13A-677
Multiport fuel injection (MFI).....	13A-426	DTC P2127: accelerator pedal position sensor (sub) circuit low input	13A-682
Multiport fuel injection (MFI).....	13A-477	DTC P2128: accelerator pedal position sensor (sub) circuit high input	13A-687
DTC P0451: fuel tank differential pressure circuit range/performance problem		DTC P2135: throttle position sensor (main and sub) range/performance problem.....	13A-691
Multiport fuel injection (MFI).....	13A-435	DTC P2138: accelerator pedal position sensor (main and sub) range/performance problem.....	13A-697
Multiport fuel injection (MFI).....	13A-485	DTC P2195: heated oxygen sensor (front) inactive ...	13A-704
DTC P0452: fuel tank differential pressure circuit low input		DTC P2228: barometric pressure circuit low input....	13A-707
Multiport fuel injection (MFI).....	13A-444	DTC P2229: barometric pressure circuit high input ...	13A-709
Multiport fuel injection (MFI).....	13A-494	DTC P2252: heated oxygen sensor offset circuit low voltage	13A-711
DTC P0453: fuel tank differential pressure circuit high input		DTC P2253: heated oxygen sensor offset circuit high voltage	13A-713
Multiport fuel injection (MFI).....	13A-455	DTC P2263: intake charge system malfunction.....	13A-715
Multiport fuel injection (MFI).....	13A-504	DTC U0001: bus off	13A-718
DTC P0455: evaporative emission system leak detected (gross leak).....	13A-512	DTC U0101: tc-sst-ECU time-out.....	13A-719
DTC P0456: evaporative emission system leak detected (very small leak).....	13A-523	DTC U0121: ASC-ECU time-out.....	13A-723
DTC P0461: fuel level sensor (main) circuit range/performance	13A-534	DTC U0141: ETACS-ECU time-out	13A-727
DTC P0462: fuel level sensor circuit low input	13A-537	DTC U0167: immobilizer communication error	13A-731
DTC P0463: fuel level sensor circuit high input.....	13A-540	DTC U1180: combination meter time-out.....	13A-733
DTC P0500: vehicle speed signal malfunction	13A-542	Fail-safe function reference table	13A-40
DTC P0506: idle control sytem rpm lower than expected	13A-545	General scan tool (gst) mode 01 reference table	13A-866
DTC P0507: idle control sytem rpm higher than expected	13A-548	Inspection procedure using an oscilloscope	13A-881
DTC P0513: immobilizer malfunction	13A-551	Symptom chart.....	13A-48
DTC P0551: power steering pressure switch circuit range/performance.....	13A-553	Symptom procedures	
DTC P0554: power steering pressure switch circuit intermittent.....	13A-560	Inspection procedure 1: communication with ECM only is not possible.....	13A-737
DTC P0603: EEPROM malfunction.....	13A-564	Inspection procedure 10: when the engine is cold, it stalls at idle (die out)	13A-766
DTC P0606: engine control module main processor malfunction	13A-566	Inspection procedure 11: when the engine is hot, it stalls at idle (die out)	13A-769
DTC P0622: generator fr terminal circuit malfunction	13A-568	Inspection procedure 12: the engine stalls accelerating (pass out)	13A-772
DTC P0630: vehicle identification number (vin) malfunction	13A-573	Inspection procedure 13: the engine stalls decelerating	13A-774
DTC P0638: throttle actuator control motor circuit range/performance	13A-575	Inspection procedure 14: hesitation, sag, stumble, poor acceleration or surge	13A-776
DTC P0642: throttle position sensor power supply....	13A-579	Inspection procedure 15: acceleration shock.....	13A-779
DTC P0657: throttle actuator control motor relay circuit malfunction	13A-581	Inspection procedure 16: knocking	13A-781
DTC P0830: clutch pedal position switch circuit range/performance.....	13A-589	Inspection procedure 17: too high co and hc concentration when idling	13A-782
DTC P1021: intake engine oil control valve circuit	13A-594	Inspection procedure 18: transient, mass emission tailpipe test failure	13A-785
DTC P1025: exhaust engine oil control valve circuit ..	13A-601	Inspection procedure 19: purge flow test of the evaporative emission canister failure.....	13A-789
DTC P1231: active stability control plausibility	13A-607	Inspection procedure 2: the malfunction indicator lamp (service engine soon or check engine lamp) does not illuminate right after the ignition switch is turned to the "ON" position.....	13A-741
DTC P1232: fail safe system	13A-609	Inspection procedure 20: pressure test of the evaporative system failure	13A-789
DTC P1233: throttle position sensor (main) plausibility	13A-610	Inspection procedure 21: generator output voltage is low (approximately 12.3 volts)	13A-791
DTC P1234: throttle position sensor (sub) plausibility	13A-614	Inspection procedure 22: power supply system and ignition switch-ig system	13A-794
DTC P1235: mass airflow sensor plausibility.....	13A-617	Inspection procedure 23: fuel pump system	13A-805
DTC P1236: a/d converter	13A-620	Inspection procedure 24: ignition switch-st system and starter relay system <M/T>	13A-818
DTC P1237: accelerator pedal position sensor plausibility	13A-621	Inspection procedure 25: ignition switch-st system and starter relay system <tc-sst>	13A-830
DTC P1238: mass airflow sensor plausibility (torque monitor)	13A-624		
DTC P1239: engine rpm plausibility	13A-628		
DTC P1240: ignition angle.....	13A-630		
DTC P1241: torque monitor.....	13A-631		
DTC P1242: fail safe control monitor.....	13A-635		
DTC P1243: inquiry/response error.....	13A-637		

Inspection procedure 26: ignition circuit system.....	13A-842	Drive belt tension check.....	11A-8
Inspection procedure 27: A/C system.....	13A-847	Drive belt tension check and adjustment.....	37-17
Inspection procedure 28: engine oil pressure switch system.....	13A-849	Engine coolant change.....	14-17
Inspection procedure 3: the malfunction indicator lamp (service engine soon or check engine lamp) remains illuminated and never goes out.....	13A-742	Engine coolant concentration test.....	14-18
Inspection procedure 4: cranks, won't start.....	13A-744	Engine coolant leak check.....	14-16
Inspection procedure 5: starts up and dies.....	13A-751	Engine coolant temperature sensor check.....	13A-907
Inspection procedure 6: hard starting.....	13A-755	Engine oil check.....	12-4
Inspection procedure 7: unstable idle (rough idle, hunting).....	13A-760	Engine oil control valve check.....	13A-912
Inspection procedure 8: idle speed is high (improper idle speed).....	13A-764	Engine oil filter replacement.....	12-5
Inspection procedure 9: idle speed is low (improper idle speed).....	13A-765	Engine oil replacement.....	12-5
Troubleshooting strategy.....	13A-9	Evaporative emission purge solenoid check.....	13A-913
		Evaporative emission ventilation solenoid check.....	13A-913
		Fluid check.....	
		Manual transaxle.....	22A-118
		Twin clutch-sportronic shift transmission (tc-sst).....	22C-332
		Fluid level check.....	
		Rear axle.....	27-29
		Power steering.....	37-17
		Fluid replacement.....	37-18
		Front wheel alignment check and adjustment.....	33-7
		Fuel level sensor (sub) check.....	13B-6
		Fuel level sensor (sub) replacement.....	13B-9
		Fuel pressure test.....	13A-897
		Fuel pump circuit resistor check.....	13A-906
		Fuel pump connector disconnection (how to reduce pressurized fuel pressure).....	13A-901
		Fuel pump module replacement.....	13B-6
		Fuel pump operation check.....	
		Multiport fuel injection (MFI).....	13A-901
		Fuel supply.....	13B-6
		Fuel pump relay continuity check.....	13A-903
		G and yaw rate sensor calibration.....	35C-266
		Gear oil level check.....	27-28
		Gear oil replacement.....	27-29
		Heated oxygen sensor check.....	13A-908
		Hub bolt replacement.....	
		Front axle.....	26-8
		Rear axle.....	27-34
		Hydraulic pressure check.....	
		Manual transaxle.....	22A-119
		Twin clutch-sportronic shift transmission (tc-sst).....	22C-333
		Hydraulic unit check.....	35C-263
		Id codes registration procedure.....	42C-114
		Id codes registration procedures.....	42B-265
		Idle mixture check.....	11A-13
		Idle-up operation check.....	55-118
		Ignition timing check.....	11A-10
		In the event of a discharged battery.....	35C-266
		Injector check.....	13A-910
		Injector relay continuity check.....	13A-905
		Inspection of keyless entry timer lock function.....	
		Keyless operation system (kos).....	42B-275
		Wireless control module (wcm).....	42C-125
		Intake air temperature sensor check.....	13A-906
		Intake charge pressure check.....	15-5
		Intake charge pressure control system check.....	15-7
		Key interlock mechanism check.....	22C-330
		Keyless entry system check.....	
		Keyless operation system (kos).....	42B-275
		Wireless control module (wcm).....	42C-125
		Lower arm ball joint looseness check.....	33-8
		Manifold vacuum check.....	
		Engine mechanical.....	11A-16
		Intake and exhaust.....	15-5
		Master cylinder brake fluid pressure sensor calibration.....	35C-268
		Multiport fuel injection (MFI) relay continuity check.....	13A-903
		Oil pressure check.....	
		Engine lubrication.....	12-6
		Rear axle.....	27-32
		Oil pump pressure test.....	37-20
O			
Oil cooler.....			
Removal and installation.....	22C-347		
Oil pan.....			
Inspection.....	11A-54		
Removal and installation.....	11A-51		
Oil pan and timing chain case.....			
Removal and installation.....	11B-27		
Oil pump.....			
Removal and installation.....	12-12		
Oil pump chain.....			
Inspection.....	11B-61		
Removal and installation.....			
Engine overhaul.....	11B-56		
Engine lubrication.....	12-10		
On-vehicle service.....			
A/C compressor clutch test.....	55-113		
Accuracy check of occupant classification sensor.....	52B-378		
Acd operation check.....			
Manual transaxle.....	22A-119		
Twin clutch-sportronic shift transmission (tc-sst).....	22C-333		
Antenna communication test.....	42B-275		
Auto-tensioner check.....	11A-8		
Ayc bleeding.....	27-30		
Ayc differential carrier oil seal replacement.....	27-34		
Ayc operation check.....	27-31		
Ball joint dust cover check.....	33-8		
Ball joint dust cover inspection.....	34-10		
Bleeding.....			
Manual transaxle.....	22A-118		
Twin clutch-sportronic shift transmission (tc-sst).....	22C-332		
Basic brake system.....	35A-16		
Brake booster operation check.....	35A-15		
Brake drag force check.....	35A-24		
Brake fluid level switch check.....	35A-17		
Brake pad check.....	35A-17		
Brake pad replacement.....	35A-18		
Brake pedal check and adjustment.....	35A-12		
Calibration of cut valve and inlet valve.....	35C-269		
Charging.....	55-114		
Check valve operation check.....	35A-16		
Clutch bleeding.....	21A-3		
Clutch pedal check.....	21A-2		
Component location.....	13A-891		
Compression pressure check.....	11A-15		
Compressor drive belt adjustment.....	55-114		
Compressor noise check.....	55-117		
Cooling fan motor check.....	14-21		
Cooling fan relay continuity check.....	14-19		
Curb idle speed check.....	11A-12		
Customization function.....			
Keyless operation system (kos).....	42B-276		
Wireless control module (wcm).....	42C-126		
Disk brake rotor check.....	35A-21		

Parking brake lever stroke check and adjustment.....	36-11	Panic alarm	
Parking brake lining seating procedure	36-12	Diagnosis	
Parking brake switch check	36-12	Diagnostic function.....	54A-709
Performance test	55-115	Standard flow of diagnostic troubleshooting	54A-709
Power relay check	55-117	General information	54A-707
Power steering pressure switch check	37-21	On-vehicle service	
Power steering system air bleeding.....	37-19	Customization function.....	54A-712
Radiator cap opening pressure check.....	14-16	Removal and installation.....	54A-712
Rear axle total backlash check.....	27-27	Special tools.....	54A-708
Rear wheel alignment check and adjustment.....	34-9	Symptom procedures	
Refrigerant leak repair procedure.....	55-116	Panic alarm does not work normally.	54A-710
Refrigerant level test.....	55-113	Trouble symptom chart	54A-710
Replace the clean air filter	55-119	Parking brake cable	
Shift lever operation check	22C-330	Removal and installation.....	36-15
Shift lock mechanism check	22C-332	Parking brake diagnosis	
Simple inspection of the A/C pressure sensor.....	55-113	Introduction	36-3
Stationary steering effort check	37-16	Symptom chart.....	36-3
Steering angle check	37-14	Symptom procedures	
Steering wheel free play check.....	37-14	Inspection procedure 1: insufficient parking brake	
Steering wheel return to center check	37-17	function	36-3
Steering wheel sensor calibration.....	35C-267	Inspection procedure 2: when the parking brake lever is	
Throttle actuator control motor check	13A-911	pulled, the brake warning light does not illuminate. ...	36-4
Throttle actuator control motor relay continuity check...	13A-905	Inspection procedure 3: when the parking brake lever is	
Throttle body (throttle valve area) cleaning.....	13A-897	released, the brake warning light does not turn off. ...	36-7
Tie rod end ball joint breakaway torque check	37-15	Troubleshooting strategy	36-3
Tie rod end ball joint dust cover check	37-15	Parking brake lever	
Timing chain elongation visual check	11A-17	Removal and installation.....	36-13
Tire inflation pressure check.....	31-8	Parking brake lining and drum	
Tire wear check	31-8	Inspection	36-20
TPMS transmitter check		Removal and installation.....	36-17
Keyless operation system (kos).....	42B-275	Parking brake reminder tone alarm	90-344
Wireless control module (wcm).....	42C-125	Passenger's (front) air bag module	
TPMS transmitter id check		Inspection	52B-397
Keyless operation system (kos).....	42B-275	Removal and installation.....	52B-393
Wireless control module (wcm).....	42C-125	Piston and connecting rod	
Transfer oil change		Inspection	11B-70
Manual transaxle	22A-117	Removal and installation.....	11B-62
Twin clutch-sportronic shift transmission (tc-sst)	22C-329	Post-collision diagnosis	52B-371
Transfer oil check		Power distribution system.....	90-28
Manual transaxle	22A-117	Power steering diagnosis	
Twin clutch-sportronic shift transmission (tc-sst)	22C-329	Introduction to power steering diagnosis	37-4
Transmission oil change		Power steering diagnosis troubleshooting strategy	37-4
Manual transaxle	22A-116	Symptom chart.....	37-4
Twin clutch-sportronic shift transmission (tc-sst)	22C-328	Symptom procedures	
Transmission oil level check		Inspection procedure 1: excessive play of steering	
Manual transaxle	22A-116	wheel.....	37-5
Twin clutch-sportronic shift transmission (tc-sst)	22C-328	Inspection procedure 10: oil leakage from hose	
Turbocharger bypass valve check.....	15-9	connection.....	37-10
Turbocharger waste gate solenoid check.....	15-8	Inspection procedure 11: oil leakage from hose assembly	37-11
Turbocharger wastegate actuator check	15-6	Inspection procedure 12: oil leakage from oil reservoir	37-11
Valve clearance check and adjustment	11A-10	Inspection procedure 13: oil leakage from oil pump ..	37-11
Water pump coolant leak check	14-18	Inspection procedure 14: oil leakage from steering gear	37-12
Wheel bearing end play check		Inspection procedure 2: difficult steering wheel operation	
Front axle	26-7	(insufficient power assist).....	37-6
Rear axle	27-33	Inspection procedure 3: rattling noise	37-7
Wheel runout check.....	31-8	Inspection procedure 4: shrill noise	37-8
Other devices	70-3	Inspection procedure 5: squealing noise	37-8
Output shaft.....	22B-29	Inspection procedure 6: hissing noise.....	37-8
Output shaft		Inspection procedure 7: droning noise.....	37-9
Disassembly and assembly.....	22B-29	Inspection procedure 8: squeaking noise	37-9
Inspection	22B-35	Inspection procedure 9: vibration.....	37-10
Overall configuration diagram	80A-2	Power steering gear box and linkage	
		Disassembly and reassembly	37-36
		Inspection	37-35
		Removal and installation.....	37-31
		Power steering hoses	
		Removal and installation.....	37-40
		Power steering oil pump assembly	
		Removal and installation.....	37-38
		Power windows.....	90-156
		Precautions before service	
		Application of anti-corrosion agents and undercoats.....	00-38
		Bolts and nuts with stabilizer for coefficient of friction....	00-47

P

Paddle shift assembly	
Inspection	
Paddle shift switch check.....	22C-348
Removal and installation	22C-348

Cautions for working in engine compartment	00-26	Inspection procedure 17: poor reception.	54A-357
Coding list	00-39	Inspection procedure 18: distortion on am and/or fm.	54A-358
Engine idling learning procedure	00-32	Inspection procedure 19: distortion on fm only.	54A-359
How to perform vehicle identification number (vin) writing	00-27	Inspection procedure 2: No sound is heard. <vehicles with audio amplifier>	54A-322
Initialization procedure for learning value in MFI engine	00-31	Inspection procedure 20: auto select function inoperative, too few automatic stations are selected.	54A-359
Scan tool (multi use tester { M.U.T.-III } sub assembly).	00-39	Inspection procedure 21: preset stations are erased.	54A-360
Servicing electrical system	00-37	Inspection procedure 22: cd can not be inserted.	54A-360
Supplemental restraint system (SRS)	00-26	Inspection procedure 23: No sound. (cd only)	54A-361
Timing chain maintenance	00-33	Inspection procedure 24: cd sound skips.	54A-361
Vehicle washing	00-38	Inspection procedure 25: sound quality is poor.	54A-362
Precautions on how to repair the CAN bus lines	54C-8	Inspection procedure 26: cd can not be ejected.	54A-362
Propeller shaft		Inspection procedure 3: No sound is heard from one of the speakers. <vehicles with audio amplifier>	54A-333
Disassembly and assembly	25-9	Inspection procedure 3: No sound is heard from one of the speakers. <vehicles without audio amplifier>	54A-328
Inspection	25-8	Inspection procedure 4: the audio does not operate normally by operating the radio and cd player of the center panel unit.	54A-340
Removal and installation	25-6	Inspection procedure 5: audio illuminations does not work normally.	54A-344
Propeller shaft diagnosis		Inspection procedure 6: the sound of external input are not played.	54A-348
Introduction to propeller shaft diagnosis	25-3	Inspection procedure 7: noise is present while moving (am).	54A-350
Propeller shaft diagnostic troubleshooting strategy	25-3	Inspection procedure 8: noise is present while moving (fm).	54A-350
Symptom chart	25-4	Inspection procedure 9: sound mixed with noise, only at night (am).	54A-351
Symptom procedures		Trouble symptom chart	54A-317
Inspection procedure 1: noise at start	25-4	Rear axle diagnosis <ayc>	
Inspection procedure 2: noise and vibration at high speed	25-4	Actuator test reference table	27-22
		Check at awc-ECU	27-22
		Data list reference table	27-22
		Diagnostic function	27-6
		Diagnostic trouble code chart	27-8
		Inspection procedure for diagnosis code	
		Code No. C1619 ayc current value abnormality	27-9
		Code No. c161a ayc direction valve (rh) output error	27-13
		Code No. c161b ayc direction valve (lh) output error.	27-17
		Code No. C1620 ayc control abnormality	27-21
		Inspection procedure for trouble symptoms	
		Inspection procedure 1: abnormal noise from ayc differential (torque transfer mechanism) during cornering	27-22
		Standard flow of diagnostic troubleshooting	27-6
		Trouble symptom chart	27-22
		Rear axle diagnosis <except ayc>	
		Inspection procedure for trouble symptoms	
		Inspection procedure 1: noise during wheel rotation <driveshaft>	27-5
		Inspection procedure 8: oil leakage <differential>	27-5
		Introduction	27-4
		Symptom chart	27-4
		Troubleshooting strategy	27-4
		Rear axle hub assembly	
		Inspection	27-39
		Removal and installation	27-36
		Rear bumper assembly	
		Removal and installation	51-6
		Rear combination light	
		Diagnosis	
		Diagnostic function	54A-194
		Standard flow of diagnostic troubleshooting	54A-194
		Diagnostic trouble code chart	54A-196
		Diagnostic trouble code procedures	
		DTC b16a0: taillight (rh) circuit open (open circuit in taillight (rh) or position light (rh))	
		DTC b16a7: taillight (rh) circuit short (short circuit in taillight (rh) or position light (rh))	54A-197
		DTC b16a1: taillight (lh) circuit open (open circuit in taillight (lh), position light (lh), or license plate light) DTC b16a8: taillight (lh) circuit short (short circuit in taillight (lh), position light (lh), or license plate light) ..	54A-203
		General information	54A-192
		Rear combination light removal and installation	54A-216
		Special tools	54A-192

Symptom procedures		Scheduled maintenance table	00-59
Inspection procedure 1: all the taillights do not illuminate.....	54A-209	Sealant	
Inspection procedure 2: one of the headlights does not illuminate.....	54A-212	Engine lubrication	12-3
Taillight removal and installation.....	54A-217	Engine cooling	14-3
Trouble symptom chart.....	54A-209	Propeller shaft.....	25-3
Rear disc brake assembly		Sealant and adhesive	
Disassembly and assembly	35A-40	Multiport fuel injection (MFI)	13A-6
Inspection		Rear axle	27-4
Basic brake system.....	35A-39	Sealants	
Basic brake system.....	35A-41	Engine mechanical	11A-4
Removal and installation	35A-38	Power steering.....	37-3
Rear roll stopper and crossmember		Sealants and adhesives	
Removal and installation	32-10	Engine overhaul.....	11B-7
Rear spoiler		Manual transaxle overhaul.....	22B-4
Removal and installation	51-17	Seat assembly	
Rear suspension crossmember		Front seat assembly	
Removal and installation	34-30	Disassembly and assembly	52A-24
Rear suspension diagnosis		Inspection.....	52A-22
Introduction to rear suspension diagnosis	34-6	Removal and installation.....	52A-20
Rear suspension diagnostic troubleshooting strategy ...	34-6	Rear seat assembly	
Symptom chart	34-6	Disassembly and assembly	52A-27
Symptom procedures		Removal and installation.....	52A-25
Inspection procedure 1: squeaks or other abnormal noise	34-6	Seat belt	
Inspection procedure 2: poor ride.....	34-7	Front seat belt	
Inspection procedure 3: body tilting	34-7	Inspection.....	52A-29
Rear window defogger	90-208	Removal and installation.....	52A-28
Receiver antenna assembly		Rear seat belt	
Removal and installation	42C-137	Removal and installation.....	52A-30
Recommended lubricants and lubricant capacities table ..	00-56	Seat belt warning tone alarm.....	90-336
Refrigerant line		Seat belts with pre-tensioner	
Removal and installation	55-136	Inspection	52B-416
Relay	70-2	Removal and installation.....	52B-413
Remote controlled mirror.....	90-206	Select lever	
Reverse idler gear		Disassembly and assembly	22B-43
Disassembly and assembly	22B-37	Sensor	70-8
Inspection	22B-39	Sensor, switch and relay	
		Inspection	
		Awc switch check.....	22A-133
		Electric pump relay check	22A-133
		Removal and installation	
		Manual transaxle.....	22A-132
		Twin clutch-sportronic shift transmission (tc-sst)	22C-349
		Service precautions	
		Supplemental restraint system (SRS).....	52B-25
		Controller area network (CAN)	54C-7
		Service precautions	
		Caution label.....	55-6
		Service specification	
		Intake and exhaust	15-2
		Manual transaxle	22A-2
		Propeller shaft.....	25-3
		Service specification(s)	
		Engine lubrication	12-2
		Multiport fuel injection (MFI)	13A-6
		Clutch.....	21A-2
		Service specifications	
		Engine mechanical	11A-3
		Engine overhaul.....	11B-2
		Engine cooling	14-2
		Clutch overhaul.....	21B-2
		Manual transaxle overhaul.....	22B-3
		Front axle.....	26-4
		Rear axle	27-3
		Wheel and tire.....	31-2
		Front suspension	33-3
		Rear suspension.....	34-5
		Basic brake system.....	35A-3
		Active skid control system (ASC).....	35C-6
		Parking brakes.....	36-2
		Power steering.....	37-3
		Keyless operation system (kos).....	42B-8

S

Satellite radio tuner	
Diagnosis	
Diagnosis function	54A-537
Introduction to satellite radio diagnosis.....	54A-537
Standard flow of diagnostic troubleshooting	54A-537
Diagnostic trouble code chart.....	54A-540
Diagnostic trouble code procedures	
DTC B2222: radio receiver internal fail.....	54A-540
DTC U0019: bus off (CAN-b).....	54A-542
DTC U0141: ETACS CAN timeout.....	54A-543
DTC U0151: SRS-abg CAN timeout.....	54A-545
DTC U0154: ocm CAN timeout.....	54A-546
DTC U0155: meter CAN timeout	54A-548
DTC U0164: A/C CAN timeout	54A-549
DTC U0168: wcm CAN timeout.....	54A-551
DTC U0184: audio CAN timeout.....	54A-552
DTC U0197: hands free module CAN timeout.....	54A-554
General information	54A-536
On-vehicle service	
How to read sirius id	54A-565
Removal and installation	54A-565
Special tools	54A-536
Symptom procedures	54A-556
Symptom procedures	
Inspection procedure 1: a satellite radio cannot be received	54A-556
Inspection procedure 2: check the satellite radio tuner power supply circuit.....	54A-561
Inspection procedure 3: the error code "antenna error" is displayed on the display.....	54A-564
Trouble symptom chart.....	54A-555

Wireless control module (wcm)	42C-4	Diagnostic trouble code procedures	
Heater, air conditioning and ventilation	55-5	<occupant classification-ECU>	
Shift lock mechanism	90-80	DTC b1b78: passenger seat weight sensor (front: lh)	
Shock absorber assembly		performance	
Disassembly and assembly	34-25	DTC b1b7d: passenger seat weight sensor (front: rh)	
Removal and installation	34-24	performance	
Side air dam		DTC b1b82: passenger seat weight sensor (rear: lh)	
Removal and installation	51-14	performance	
Side impact sensor		DTC b1b87: passenger seat weight sensor (.....	52B-300
Inspection	52B-404	DTC b1b79: passenger seat weight sensor (ground side)	
Removal and installation	52B-402	short-circuited (front: lh)	
Side turn-signal light		DTC b1b7e: passenger seat weight sensor (ground side)	
Removal and installation	54A-237	short-circuited (front: rh)	
Side-airbag module(s)		DTC b1b83: passenger seat weight sensor (ground side)	
Inspection	52B-408	short-circuited (rea	52B-304
Removal and installation	52B-405	DTC b1b7a: passenger seat weight sensor	
Solenoid and solenoid valve	70-14	(power supply side) short-circuited or open (front: lh)	
Spare connector (for navigation system)	90-240	DTC b1b7f: passenger seat weight sensor	
Spare connector (multi-purpose)	90-357	(power supply side) short-circuited or open (front: rh)	
Speaker		DTC b1b84: passenger seat weight sensor (power ...	52B-308
General information	54A-570	DTC b1b8c: seat slide sensor circuit performance	52B-312
On-vehicle service		DTC b1b8d: seat slide sensor open circuit	52B-316
Speaker test <vehicles with mmcs>	54A-575	DTC b1b8e: seat slide sensor (power supply side)	
Speaker test <vehicles with radio and cd player>	54A-573	short circuit	52B-319
Removal and installation	54A-575	DTC b1b91: driver seat slide sensor configuration	
Special tool		mismatch	52B-322
Multiport fuel injection (MFI)	13A-7	DTC b1ba7: occupant classification system verification	
Propeller shaft	25-5	required	52B-323
Rear axle	27-23	DTC b1ba8: occupant classification-ECU out of	
Power plant mount	32-3	calibration not/calibrated	52B-325
Parking brakes	36-10	DTC b1bba: passenger seat weight sensor power supply	
Keyless operation system (kos)	42B-8	circuit	52B-326
Wireless control module (wcm)	42C-5	DTC b1bbc: occupant classification system negative	
Interior	52A-2	system weight	52B-328
Special tools		DTC b1bbd: occupant classification-ECU current	
Engine mechanical	11A-5	configuration table unprogrammed	52B-330
Engine overhaul	11B-8	DTC b1c23: passenger seat weight sensor (front: lh)	
Engine lubrication	12-4	configuration mismatch	
Fuel supply	13B-5	DTC b1c24: passenger seat weight sensor (front: rh)	
Engine cooling	14-14	configuration mismatch	
Intake and exhaust	15-4	DTC b1c25: passenger seat weight sensor (rear: lh)	
Clutch overhaul	21B-3	configuration mismatch	
Manual transaxle	22A-3	DTC b1c2	52B-331
Manual transaxle overhaul	22B-8	DTC b1cb2: occupant classification-ECU parameter table	
Twin clutch-sportronic shift transmission (tc-sst)	22C-4	incompatible	
Front axle	26-6	DTC B2212: occupant classification-ECU internal failure	
Front suspension	33-6	DTC B2250: occupant classification-ECU not parameter	
Rear suspension	34-8	flash requiredDTC B2262: occupant classification-ECU	
Basic brake system	35A-12	e	52B-333
Active skid control system (ASC)	35C-262	DTC b210d: battery voltage lowDTC b210e: battery	
Power steering	37-12	voltage high	52B-335
Supplemental restraint system (SRS)	52B-369	DTC B2206: chassis number does not match	52B-339
Local interconnect network (lin)	54B-3	DTC U0020: CAN-b bus off performance	
Controller area network (CAN)	54C-5	DTC U0021: CAN-b bus (hi) circuit open	
Heater, air conditioning and ventilation	55-111	DTC U0022: CAN-b bus (hi) shorted to circuit ground	
Specification(s)	51-2	DTC U0023: CAN-b bus (hi) shorted to circuit power	
Specification(s)		supply	
Adhesive	51-2	DTC U0024: CAN-b bus (lo) circuit open	52B-341
Lubricant	51-2	DTC U0141: ETACS CAN timeout	52B-343
Service specifications	51-2	DTC U0151: SRS-ECU CAN timeout	52B-344
Splash shield		DTC U0155: combination meter CAN timeout	52B-346
Removal and installation	42A-13	DTC U0164: A/C-ECU CAN timeout	52B-347
SRS air bag diagnosis		DTC U0168: kos-ECU or wcm CAN timeout	52B-349
Accuracy check of occupant classification sensor		DTC U0184: audio CAN timeout	52B-350
reference table	52B-368	DTC U0195: satellite radio tuner CAN timeout	52B-352
Actuator test reference table	52B-368	DTC U0197: hands free module CAN timeout	52B-353
Data list reference table	52B-367	DTC U0245: audio visual navigation unit CAN timeout	
Diagnostic function	52B-28	unusual	52B-355
Diagnostic trouble code chart		DTC u1419: the signal from a weight sensor (front: lh) is	
<occupant classification-ECU>	52B-297	unusual	
Diagnostic trouble code chart <SRS-ECU>	52B-31	DTC u141a: the signal from a weight sensor (front: rh) is	
		unusual	
		DTC u141b: the signal from a weight sensor (rear: lh) is	
		unusual	
		DTC u141c: the signal from a weight	52B-356
		Diagnostic trouble code procedures <SRS-ECU>	
		DTC B1206: passenger's air bag off indicator light	
		(open circuit)	52B-35
		DTC B1207: passenger's air bag off indicator light	
		(short circuit between circuit terminal)	52B-38
		DTC b1b00: driver's air bag module (1st squib) system	
		(shorted to squib circuit ground)	
		DTC b1b04: driver's air bag module (2nd squib) system	
		(shorted to squib circuit ground)	52B-42
		DTC b1b01: driver's air bag module (1st squib) system	
		(shorted to squib circuit power supply)	
		DTC b1b05: driver's air bag module (2nd squib) system	
		(shorted to squib circuit power supply)	52B-49
		DTC b1b02: driver's air bag module (1st squib) system	
		(squib circuit open)	
		DTC b1b06: driver's air bag module (2nd squib) system	
		(squib circuit open)	52B-56
		DTC b1b03: driver's air bag module (1st squib) system	
		(short circuit between squib circuit terminals)	
		DTC b1b07: driver's air bag module (2nd squib) system	
		(short circuit between squib circuit terminals)	52B-63

DTC b1b08: passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)		DTC b1c4a: front passenger's pre-tensioner (squib) system (short circuit between squib circuit terminals)	52B-249
DTC b1b0c: passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)	52B-71	DTC b210d: battery abnormal low voltage	52B-255
DTC b1b09: passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)		DTC b212c: open circuit to ig1 power supply (fuse No.12 circuit)	
DTC b1b0d: passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)	52B-77	DTC b212d: open circuit to ig1 power supply (fuse No.18 circuit)	52B-260
DTC b1b0a: passenger's (front) air bag module (1st squib) system (squib circuit open)		DTC B2207: occupant restraint controller internal 1	
DTC b1b0e: passenger's (front) air bag module (2nd squib) system (squib circuit open)	52B-83	DTC B2208: occupant restraint controller internal 2	
DTC b1b0b: passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)		DTC B2209: occupant restraint controller internal 3	
DTC b1b0f: passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)	52B-88	DTC b220a: occupant restraint controller internal 4	52B-265
DTC b1b10: driver's knee air bag (squib) system (shorted to squib circuit ground)	52B-95	DTC b220b: occupant	
DTC b1b11: driver's knee air bag (squib) system (shorted to squib circuit power supply)	52B-100	DTC b223d: ocm (occupant classification-ECU)	52B-267
DTC b1b12: driver's knee air bag (squib) system (squib circuit open)	52B-105	DTC present	
DTC b1b13: driver's knee air bag (squib) system (short circuit between squib circuit terminals)	52B-110	DTC U0019: bus off (CAN-b)	52B-268
DTC b1b18: curtain air bag module (lh) (squib) system (shorted to squib circuit ground)	52B-116	DTC U0141: ETACS CAN timeout	52B-270
DTC b1b19: curtain air bag module (lh) (squib) system (shorted to squib circuit power supply)	52B-122	DTC U0154: occupant classification-ECU CAN timeout	52B-271
DTC b1b1a: curtain air bag module (lh) (squib) system (squib circuit open)	52B-128	DTC U0155: combination meter CAN timeout	52B-273
DTC b1b1b: curtain air bag module (lh) (squib) system (short circuit between squib circuit terminals)	52B-134	DTC U0164: A/C-ECU CAN timeout	52B-274
DTC b1b20: curtain air bag module (rh) (squib) system (shorted to squib circuit ground)	52B-140	DTC U0168: kos-ECU or wcm CAN timeout	52B-276
DTC b1b21: curtain air bag module (rh) (squib) system (shorted to squib circuit power supply)	52B-146	DTC U0170: front impact sensor (lh) communication error	52B-277
DTC b1b22: curtain air bag module (rh) (squib) system (squib circuit open)	52B-152	DTC U0171: front impact sensor (rh) communication error	52B-281
DTC b1b23: curtain air bag module (rh) (squib) system (short circuit between squib circuit terminals)	52B-158	DTC U0172: side impact sensor (lh) communication error	52B-284
DTC b1b54: seat belt switch (rh) circuit (ground side) shorted		DTC U0175: side impact sensor (rh) communication error	52B-287
DTC b1b55: seat belt switch (rh) circuit (power supply side) shorted		DTC U0184: audio CAN timeout	52B-290
DTC b1b56: seat belt switch (rh) circuit open	52B-164	DTC U0195: satellite radio tuner CAN timeout	52B-291
DTC b1b70: malfunction of G-sensor inside front impact sensor (lh)		DTC U0197: hands free module CAN timeout	52B-293
DTC b1b71: malfunction of G-sensor inside front impact sensor (rh)	52B-169	DTC U1414: defective coding data	52B-294
DTC b1b72: malfunction of G-sensor inside side impact sensor (lh)		DTC U1415: coding not completed/data fail	52B-296
DTC b1b75: malfunction of G-sensor inside side impact sensor (rh)	52B-170	Fail-safe function reference table	52B-368
DTC b1ba3: driver's seat slide sensor malfunction (occupant classification-ECU)	52B-172	Introduction to diagnosis	52B-28
DTC b1ba5: SRS-ECU squib count mismatch	52B-174	Passenger's air bag off indicator light check	52B-30
DTC b1baa: occupant classification-ECU configuration mismatch	52B-175	Passenger's seat belt warning light check	52B-30
DTC b1bc7: SRS-ECU (record data full) system	52B-177	SRS warning light check	52B-30
DTC b1c27: side-air bag module (lh) (squib) system (shorted to squib circuit ground)	52B-178	Symptom procedures	
DTC b1c28: side-air bag module (lh) (squib) system (shorted to squib circuit power supply)	52B-183	Inspection procedure 1: communication between the scan tool and the SRS-ECU is not possible	52B-358
DTC b1c29: side-air bag module (lh) (squib) system (squib circuit open)	52B-187	Inspection procedure 2: power supply circuit system	52B-359
DTC b1c2a: side-air bag module (lh) (squib) system (short circuit between squib circuit terminals)	52B-191	Inspection procedure 3: the SRS warning light does not illuminate	52B-362
DTC b1c2b: side-air bag module (rh) (squib) system (shorted to squib circuit ground)	52B-195	Inspection procedure 4: the SRS warning light does not go out	52B-365
DTC b1c2c: side-air bag module (rh) (squib) system (shorted to squib circuit power supply)	52B-200	Trouble symptom chart	52B-357
DTC b1c2d: side-air bag module (rh) (squib) system (squib circuit open)	52B-204	Troubleshooting strategy	52B-28
DTC b1c2e: side-air bag module (rh) (squib) system (short circuit between squib circuit terminals)	52B-208	SRS control unit (SRS-ECU)	
DTC b1c38: driver's pre-tensioner (squib) system (shorted to squib circuit ground)	52B-212	Inspection	52B-385
DTC b1c39: driver's pre-tensioner (squib) system (shorted to squib circuit power supply)	52B-218	Removal and installation	52B-383
DTC b1c3a: driver's pre-tensioner (squib) system (squib circuit open)	52B-222	Stabilizer bar	
DTC b1c3b: driver's pre-tensioner (squib) system (short circuit between squib circuit terminals)	52B-228	Removal and installation	
DTC b1c47: front passenger's pre-tensioner (squib) system (shorted to squib circuit ground)	52B-234	Front suspension	33-17
DTC b1c48: front passenger's pre-tensioner (squib) system (shorted to squib circuit power supply)	52B-239	Rear suspension	34-28
DTC b1c49: front passenger's pre-tensioner (squib) system (squib circuit open)	52B-243	Stabilizer link check	
		Front suspension	33-18
		Rear suspension	34-29
		Starting system	
		General information	16-23
		General specifications	16-24
		On-vehicle service	
		Starter relay check	16-26
		Service specifications	16-24
		Starter motor assembly	
		Disassembly and assembly	16-30
		Inspection	
		Engine electrical	16-28
		Engine electrical	16-32
		Removal and installation	16-27
		Starting system diagnosis	16-24
		Starting system <M/T>	90-36
		Starting system <tc-sst>	90-38
		Steering column	80B-5
		Steering shaft	
		Disassembly and reassembly	37-29
		Removal and installation	37-26

Steering wheel					T		
Removal and installation	37-22				Taillight, position light, license plate light and lighting monitor tone alarm	90-116	
Steering wheel audio remote control switch					Test equipment		
Diagnosis					Supplemental restraint system (SRS).....	52B-370	
Standard flow of diagnostic troubleshooting	54A-521				Controller area network (CAN)	54C-6	
Trouble symptom chart	54A-521				Theft alarm		
General information	54A-519				Diagnosis		
Removal and installation	54A-534				Diagnostic function.....	54A-685	
Special tools	54A-520				Standard flow of diagnostic troubleshooting	54A-685	
Steering wheel audio remote control switch inspection	54A-535				General information	54A-683	
Symptom procedures					Inspection		
Inspection procedure 1: steering wheel audio remote control switch does not function.					Theft-alarm indicator check.....	54A-706	
<vehicles with radio and cd player>.....	54A-522				Removal and installation.....	54A-706	
Inspection procedure 2: steering wheel audio remote control switch does not function.					Special tools.....	54A-684	
<vehicles with mmcs>.....	54A-527				Symptom procedures.....	54A-688	
Inspection procedure 3: steering wheel audio remote control switch illumination does not come on.	54A-531				Symptom procedures		
Steering wheel sensor					Inspection procedure 1: the theft-alarm is not armed (the theft-alarm indicator does not illuminate).....	54A-688	
Removal and installation	35C-279				Inspection procedure 2: the interior alarm does not work normally while the theft-alarm is triggered.....	54A-694	
Stoplight.....	90-138				Inspection procedure 3: theft-alarm horn does not sound while the theft-alarm system is triggered.....	54A-696	
Strut assembly					Inspection procedure 4: horn (high or low) does not sound while the theft-alarm system is triggered.....	54A-701	
Disassembly and reassembly.....	33-11				Trouble symptom chart	54A-687	
Inspection					Theft-alarm system.....	90-348	
Front suspension	33-11				Thermostat		
Front suspension	33-14				Inspection	14-24	
Removal and installation	33-10				Removal and installation.....	14-22	
Strut tower bar					Throttle body		
Removal and installation	42A-15				Removal and installation.....	11B-14	
Sunroof.....	90-312				Throttle body assembly		
Sunroof					Removal and installation.....	13A-918	
Check at ECU terminal.....	42A-179				Tightening torque.....	00-54	
Diagnostic trouble code procedures					Timing chain		
Code no. L0630 s/r power supply.....	42A-153				Inspection	11B-39	
Code no. L0632 s/r switch fail.....	42A-155				Removal and installation		
Code no. L0634 s/r sensor signal.....	42A-157				Engine mechanical.....	11A-69	
Code no. L0637 s/r position.....	42A-157				Engine overhaul.....	11B-34	
Code no. L0640 s/r over load	42A-158				Tire pressure monitoring system (TPMS)		
General information	42A-150				Removal and installation.....	31-8	
On-vehicle service					Tire pressure monitoring system (TPMS) <M/T>	90-290	
Learning procedures of the sunroof fully closed position.....	42A-183				Tire pressure monitoring system (TPMS) <tc-sst>	90-296	
Sunroof check.....	42A-182				Torque specifications	21B-2	
Sunroof fit adjustment.....	42A-182				Towing and hoisting	00-48	
Sunroof lid glass operation current check.....	42A-183				TPMS transmitter		
Sunroof operation check.....	42A-184				Removal and installation		
Sunroof safety function check.....	42A-182				Keyless operation system (kos).....	42B-285	
Sunroof timer function check	42A-182				Wireless control module (wcm).....	42C-131	
Water test	42A-181				Trailing arm		
Special tools	42A-180				Removal and installation.....	34-17	
Specification(s)					Trailing arm ball joint dust cover inspection	34-19	
Sealant.....	42A-150				Trailing arm ball joint dust cover replacement	34-20	
Service specification	42A-150				Trailing arm ball joint rotation starting torque check	34-18	
Sunroof					Trailing arm pillow ball bushing rotation torque check ...	34-19	
Disassembly and assembly	42A-190				Transaxle	22D-3	
Inspection	42A-189				Transaxle		
Sunroof assembly removal and installation	42A-187				Disassembly and assembly		
Sunroof diagnosis					Manual transaxle overhaul.....	22B-12	
Diagnostic trouble code chart	42A-152				Twin clutch sst overhaul.....	22D-3	
Trouble symptom chart	42A-152				Inspection	22B-19	
Troubleshooting strategy	42A-152				Transaxle adjustment.....	22B-19	
Symptom procedures					Transaxle (transmission) mounting		
Inspection procedure 1: sunroof does not work at all.	42A-159				Removal and installation.....	32-6	
Inspection procedure 2: the sunroof lid glass does not tilt-up (tilt-down, open, and close normally).	42A-164				Transaxle assembly		
Inspection procedure 3: the sunroof lid glass does not open (tilt-up, tilt-down, and close normally).	42A-167				Removal and installation		
Inspection procedure 4: the sunroof lid glass does not tilt-down or close (tilt-up and open normally).	42A-170				Manual transaxle.....	22A-127	
Inspection procedure 5: sunroof safety function does not work normally.	42A-173				Twin clutch-sportronic shift transmission (tc-sst)	22C-341	
Inspection procedure 6: the sunroof timer function does not work.	42A-175						
Supplemental restraint system (SRS)	90-266						

TSB Revision

Removal and installation.....	51-76
On-vehicle service	
Configuration function.....	51-65
Lighting control sensor (rain sensor) inspection	51-65
Windshield intermittent wiper interval check.....	51-64
Special tools	51-22
Symptom procedures	51-25
Symptom procedures	
Inspection procedure 1: the windshield wipers do not work at all.....	51-25
Inspection procedure 10: the windshield washer does not work normally.....	51-59
Inspection procedure 2: the windshield wipers do not work when the wiper switch is at the "INT", "washer" or "mist" position, however, the wipers work at low speed when the switch is at the "lo" or "hi" position.	51-32
Inspection procedure 3: windshield wipers do not stop at the specified park position.	51-35
Inspection procedure 4: windshield wipers do not work normally.....	51-38
Inspection procedure 5: the windshield intermittent wiper interval cannot be adjusted by operating the windshield intermittent wiper interval control switch. .	51-44
Inspection procedure 6: the windshield intermittent wiper interval is not changed according to the vehicle speed.....	51-46
Inspection procedure 7: the rain sensitive auto wiper function does not work at all <vehicles with lighting control sensor>.....	51-48
Inspection procedure 8: the rain sensitive auto wiper function works even though there is no rainfall <vehicles with lighting control sensor>.....	51-53
Inspection procedure 9: sometimes the rain sensitive auto wiper function works even though there is no rainfall < vehicles with lighting control sensor>.....	51-56
Windshield washer	
Inspection	51-73
Removal and installation.....	51-72
Windshield wiper	
Inspection	51-70
Removal and installation.....	51-66
Windshield wiper and washer diagnosis	
Standard flow of diagnostic troubleshooting	51-23
Trouble symptom chart	51-23