SECTION DLK
DOOR & LOCK

CONTENTS

WITH INTELLIGENT KEY SYSTEM

PRECAUTION 8

PRECAUTIONS 8
- Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" 8
- Procedure without Cowl Top Cover 8
- Precaution for Servicing Doors and Locks 8

PREPARATION 10

PREPARATION 10
- Special Service Tools 10
- Commercial Service Tools 11

CLIP LIST 12
- Descriptions for Clips 12

SYSTEM DESCRIPTION 16

COMPONENT PARTS 16

POWER DOOR LOCK SYSTEM 16
- POWER DOOR LOCK SYSTEM : Component Parts Location 16
- POWER DOOR LOCK SYSTEM : Component Description 17

INTELLIGENT KEY SYSTEM 17
- INTELLIGENT KEY SYSTEM : Component Parts Location 18
- INTELLIGENT KEY SYSTEM : Component Description 19

TRUNK LID OPENER SYSTEM 20
- TRUNK LID OPENER SYSTEM : Component Parts Location 20
- TRUNK LID OPENER SYSTEM : Component Description 20

SYSTEM (POWER DOOR LOCK SYSTEM) 21
- System Diagram 21
- System Description 21

SYSTEM (INTELLIGENT KEY SYSTEM) 23

INTELLIGENT KEY SYSTEM 23
- INTELLIGENT KEY SYSTEM : System Description 23

DOOR LOCK FUNCTION 24
- DOOR LOCK FUNCTION : System Description 24

TRUNK OPEN FUNCTION 26
- TRUNK OPEN FUNCTION : System Description 26

REMOTE KEYLESS ENTRY FUNCTION 27
- REMOTE KEYLESS ENTRY FUNCTION : System Description 27

KEY REMINDER FUNCTION 29
- KEY REMINDER FUNCTION : System Description 29

WARNING FUNCTION 30
- WARNING FUNCTION : System Description 30

SYSTEM (TRUNK LID OPENER SYSTEM) 33
- System Diagram 33
- System Description 33

SYSTEM (INTEGRATED HOMELINK TRANSMITTER) 34
- System Description 34

DIAGNOSIS SYSTEM (BCM) 35

COMMON ITEM 35
- COMMON ITEM : CONSULT Function (BCM - COMMON ITEM) 35

DOOR LOCK 36
- DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) 36

INTELLIGENT KEY 36
INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) 36

TRUNK 39
TRUNK : CONSULT Function (BCM - TRUNK) 39

ECU DIAGNOSIS INFORMATION 40

BCM 40
List of ECU Reference 40

WIRING DIAGRAM 41

POWER DOOR LOCK SYSTEM 41
Wiring Diagram 41

INTELLIGENT KEY SYSTEM 49
Wiring Diagram 49

TRUNK LID OPENER 63
Wiring Diagram 63

HOMELINK UNIVERSAL TRANSCEIVER 67
Wiring Diagram 67

BASIC INSPECTION 69

DIAGNOSIS AND REPAIR WORK FLOW 69
Work Flow 69

DTC/CIRCUIT DIAGNOSIS 72

U1000 CAN COMM CIRCUIT 72
Description 72
DTC Logic 72
Diagnosis Procedure 72

U1010 CONTROL UNIT (CAN) 73
DTC Logic 73
Diagnosis Procedure 73

B2621 INSIDE ANTENNA 74
DTC Logic 74
Diagnosis Procedure 74

B2622 INSIDE ANTENNA 77
DTC Logic 77
Diagnosis Procedure 77

B2623 INSIDE ANTENNA 80
DTC Logic 80
Diagnosis Procedure 80

B2626 OUTSIDE ANTENNA 83
DTC Logic 83
Diagnosis Procedure 83

B2627 OUTSIDE ANTENNA 86
DTC Logic 86
Diagnosis Procedure 86

B2628 OUTSIDE ANTENNA 89
DTC Logic 89
Diagnosis Procedure 89

POWER SUPPLY AND GROUND CIRCUIT 92
Diagnosis Procedure 92

COMBINATION METER BUZZER 93
Component Function Check 93
Diagnosis Procedure 93

DOOR LOCK ACTUATOR 94

DRIVER SIDE 94
DRIVER SIDE : Component Function Check 94
DRIVER SIDE : Diagnosis Procedure 94

PASSENGER SIDE 95
PASSENGER SIDE : Component Function Check 95
PASSENGER SIDE : Diagnosis Procedure 95

REAR LH 96
REAR LH : Component Function Check 96
REAR LH : Diagnosis Procedure 96

REAR RH 97
REAR RH : Component Function Check 97
REAR RH : Diagnosis Procedure 97

DOOR LOCK AND UNLOCK SWITCH 99
Component Function Check 99
Diagnosis Procedure 99
Component Inspection 100

UNLOCK SENSOR 102
Component Function Check 102
Diagnosis Procedure 102
Component Inspection 103

KEY CYLINDER SWITCH 104
Description 104
Component Function Check 104
Diagnosis Procedure 104
Component Inspection 105

DOOR REQUEST SWITCH 106
Component Function Check 106
Diagnosis Procedure 106
Component Inspection 107

DOOR SWITCH 108
Component Function Check 108
Diagnosis Procedure 108
Component Inspection 109

HAZARD FUNCTION 111
Component Function Check 111
Diagnosis Procedure 111

INTELLIGENT KEY WARNING BUZZER 112
Component Function Check 112
Diagnosis Procedure 112
Component Inspection 113

INTELLIGENT KEY 114
Component Function Check 114
Diagnosis Procedure 114

KEY WARNING LAMP 115
Component Function Check 115
Diagnosis Procedure 115

REMOTE KEYLESS ENTRY RECEIVER 116
Component Function Check 116
Diagnosis Procedure 116

SHIFT P WARNING LAMP 118
Component Function Check 118
Diagnosis Procedure 118

TRUNK LID OPENER ACTUATOR 119
Component Function Check 119
Diagnosis Procedure 119

TRUNK LID OPENER SWITCH 121
Component Function Check 121
Diagnosis Procedure 121
Component Inspection 122

TRUNK LAMP SWITCH 123
Description 123
Component Function Check 123
Diagnosis Procedure 123
Component Inspection 124

SYMPTOM DIAGNOSIS 126

INTELLIGENT KEY SYSTEM SYMPTOMS 126
Diagnosis Procedure 126

ALL DOORS DO NOT LOCK/UNLOCK OR TRUNK/BACK DOOR DO NOT OPEN WITH REQUEST SWITCH 127
Description 127
Diagnosis Procedure 127

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/PUSH SW) (ALL KEYS) 129
Description 129
Diagnosis Procedure 129

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ALL I-KEY/REQ SW/PUSH SW) 131
Description 131
Diagnosis Procedure 131

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ALL KEYS) 132
Description 132
Diagnosis Procedure 132

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY 134
Description 134
Diagnosis Procedure 134

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH AND INTELLIGENT KEY 135
Description 135
Diagnosis Procedure 135

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ALL KEYS) 136
Description 136
Diagnosis Procedure 136

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY (ONE KEY) 138
Description 138
Diagnosis Procedure 138

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ONE I-KEY/REQ SW/PUSH SW) 139
Description 139
Diagnosis Procedure 139

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ONE KEY) 141
Description 141
Diagnosis Procedure 141

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ONE KEY) 143
Description 143
Diagnosis Procedure 143

REMOVAL AND INSTALLATION 144

HOOD 144

HOOD ASSEMBLY 144
HOOD ASSEMBLY : Exploded View 144
HOOD ASSEMBLY : Removal and Installation 144
HOOD ASSEMBLY : Adjustment 145

HOOD HINGE 147
HOOD HINGE : Removal and Installation 147

HOOD SUPPORT ROD 148
HOOD SUPPORT ROD : Removal and Installation 148

HOOD LOCK CONTROL 148
HOOD LOCK CONTROL : Exploded View 149
HOOD LOCK CONTROL : Removal and Installation 149

RADIATOR CORE SUPPORT 152
Exploded View 152
Removal and Installation 152

FRONT FENDER 154
Exploded View 154

Removal and Installation 154
Adjustment 155

FRONT DOOR 157

DOOR ASSEMBLY 157
DOOR ASSEMBLY : Removal and Installation 157
DOOR ASSEMBLY : Adjustment 159

DOOR HINGE 160
DOOR HINGE : Removal and Installation 160

DOOR CHECK LINK 161
DOOR CHECK LINK : Removal and Installation ..161

REAR DOOR 163

DOOR ASSEMBLY 163
DOOR ASSEMBLY : Removal and Installation 163
DOOR ASSEMBLY : Adjustment 164

DOOR HINGE 166
DOOR HINGE : Removal and Installation 166

DOOR CHECK LINK 166
DOOR CHECK LINK : Removal and Installation ..166

DOOR HANDLE 168

FRONT DOOR HANDLE 168
FRONT DOOR HANDLE : Exploded View 168
FRONT DOOR HANDLE : Removal and Installation - Inside Handle 168
FRONT DOOR HANDLE : Removal and Installation - Outside Handle 168

REAR DOOR HANDLE 170
REAR DOOR HANDLE : Exploded View 171
REAR DOOR HANDLE : Removal and Installation - Inside Handle 171
REAR DOOR HANDLE : Removal and Installation - Outside Handle 171

DOOR LOCK 174

FRONT DOOR LOCK 174
FRONT DOOR LOCK : Exploded View 174
FRONT DOOR LOCK : Removal and Installation..174

REAR DOOR LOCK 175
REAR DOOR LOCK : Exploded View 176
REAR DOOR LOCK : Removal and Installation ...176

TRUNK LID 178

TRUNK LID ASSEMBLY 178
TRUNK LID ASSEMBLY : Exploded View 178
TRUNK LID ASSEMBLY : Removal and Installation 178
TRUNK LID ASSEMBLY : Adjustment 180

TRUNK LID HINGE 181
TRUNK LID HINGE : Removal and Installation 181

TORSION BAR 182
TORSION BAR : Removal and Installation 182

TRUNK LID LOCK 182
TRUNK LID LOCK : Removal and Installation 182

EMERGENCY LEVER 183
EMERGENCY LEVER : Removal and Installation. 183

TRUNK LID STRIKER 183
TRUNK LID STRIKER : Removal and Installation. 183

FUEL FILLER LID OPENER 184
Exploded View 184

FUEL FILLER LID 184
FUEL FILLER LID : Removal and Installation 184

FUEL FILLER OPENER CABLE 185
FUEL FILLER OPENER CABLE : Removal and Installation 185

FUEL FILLER LID LOCK 186
FUEL FILLER LID LOCK : Removal and Installation 186

DOOR SWITCH 188
Removal and Installation 188

INSIDE KEY ANTENNA 189

CONSOLE 189
CONSOLE : Removal and Installation 189

LUGGAGE ROOM 189
LUGGAGE ROOM : Removal and Installation 189

INSTRUMENT CENTER 189
INSTRUMENT CENTER : Removal and Installation 189

OUTSIDE KEY ANTENNA 190

DRIVER SIDE 190
DRIVER SIDE : Removal and Installation 190

PASSENGER SIDE 190
PASSENGER SIDE : Removal and Installation ... 190

REAR BUMPER 190
REAR BUMPER : Removal and Installation 190

DOOR REQUEST SWITCH 191

DRIVER SIDE 191
DRIVER SIDE : Removal and Installation 191

PASSENGER SIDE 191
PASSENGER SIDE : Removal and Installation ... 191

TRUNK LID FINISHER 191
TRUNK LID FINISHER : Removal and Installation. 191

INTELLIGENT KEY WARNING BUZZER 192
Removal and Installation 192

REMOTE KEYLESS ENTRY RECEIVER 193
Removal and Installation 193

INTELLIGENT KEY BATTERY 194
Removal and Installation 194

TRUNK LID OPENER SWITCH 195
Removal and Installation 195

WITHOUT INTELLIGENT KEY SYSTEM

PRECAUTION 196

PRECAUTIONS 196
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" 196
Procedure without Cowl Top Cover 196
Precaution for Servicing Doors and Locks 196

PREPARATION 198

PREPARATION 198
Special Service Tools 198
Commercial Service Tools 199

CLIP LIST 200
Descriptions for Clips 200

SYSTEM DESCRIPTION 204

COMPONENT PARTS 204

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION. 204
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Parts Location 204
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Description 204

POWER DOOR LOCK SYSTEM 204
POWER DOOR LOCK SYSTEM : Component Parts Location 205
POWER DOOR LOCK SYSTEM : Component Description 205

REMOTE KEYLESS ENTRY SYSTEM 205
REMOTE KEYLESS ENTRY SYSTEM : Component Parts Location 206
REMOTE KEYLESS ENTRY SYSTEM : Component Description 206

TRUNK LID OPENER SYSTEM 206
TRUNK LID OPENER SYSTEM : Component Parts Location 207
TRUNK LID OPENER SYSTEM : Component Description 207

SYSTEM (POWER DOOR LOCK SYSTEM) .. 208

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION. 208
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Diagram 208
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Description 208

POWER DOOR LOCK SYSTEM 209
POWER DOOR LOCK SYSTEM : System Diagram 210
POWER DOOR LOCK SYSTEM : System Description 210

REMOTE KEYLESS ENTRY SYSTEM 210
REMOTE KEYLESS ENTRY SYSTEM : System Diagram 211
REMOTE KEYLESS ENTRY SYSTEM : System Description 211

SYSTEM (TRUNK LID OPENER SYSTEM) ... 213
System Description 213

DIAGNOSIS SYSTEM (BCM) 214

COMMON ITEM 214
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM) 214

DOOR LOCK 215
DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) 215

TRUNK 215
TRUNK : CONSULT Function (BCM - TRUNK) ... 215

ECU DIAGNOSIS INFORMATION 217

BCM 217
List of ECU Reference 217

WIRING DIAGRAM 218

REMOTE KEYLESS ENTRY SYSTEM 218
Wiring Diagram 218

POWER DOOR LOCK SYSTEM 226
Wiring Diagram 226

TRUNK LID OPENER 234
Wiring Diagram 234

BASIC INSPECTION 238

DIAGNOSIS AND REPAIR WORK FLOW 238
Work Flow 238

KEYFOB ID REGISTRATION 241
Description 241
Work Procedure 241

DTC/CIRCUIT DIAGNOSIS 243

U1000 CAN COMM 243
Description 243
DTC Logic 243
Diagnosis Procedure 243

U1010 CONTROL UNIT (CAN) 244

DTC Logic 244
Diagnosis Procedure 244

POWER SUPPLY AND GROUND CIRCUIT .. 245
Diagnosis Procedure 245

DOOR SWITCH 246
Description 246
Component Function Check 246
Diagnosis Procedure 246
Component Inspection 248

DOOR LOCK AND UNLOCK SWITCH 249

DRIVER SIDE 249
DRIVER SIDE : Description 249
DRIVER SIDE : Component Function Check 249
DRIVER SIDE : Diagnosis Procedure 249

PASSENGER SIDE 250
PASSENGER SIDE : Description 250
PASSENGER SIDE :
Component Function Check 250
PASSENGER SIDE : Diagnosis Procedure 251

KEY CYLINDER SWITCH 253
Description 253
Component Function Check 253
Diagnosis Procedure 253
Component Inspection 254

KEY SWITCH (BCM INPUT) 255
Diagnosis Procedure 255

DOOR LOCK ACTUATOR 256

DRIVER SIDE 256
DRIVER SIDE : Description 256
DRIVER SIDE : Component Function Check 256
DRIVER SIDE : Diagnosis Procedure 256

PASSENGER SIDE 257
PASSENGER SIDE : Description 257
PASSENGER SIDE :
Component Function Check 257
PASSENGER SIDE : Diagnosis Procedure 257

REAR LH 258
REAR LH : Description 258
REAR LH : Component Function Check 258
REAR LH : Diagnosis Procedure 258

REAR RH 259
REAR RH : Description 259
REAR RH : Component Function Check 259
REAR RH : Diagnosis Procedure 259

REMOTE KEYLESS ENTRY RECEIVER 261
Description 261
Component Function Check 261
Diagnosis Procedure 261

KEYFOB BATTERY AND FUNCTION 264
Description 264
Component Function Check 264
Diagnosis Procedure 264

HORN FUNCTION 266
Description 266
Component Function Check 266
Diagnosis Procedure 266

TRUNK LID OPENER ACTUATOR 268
Component Function Check 268
Diagnosis Procedure 268

TRUNK LID OPENER SWITCH 270
Component Function Check 270
Diagnosis Procedure 270
Component Inspection 271

TRUNK LAMP SWITCH 272
Description 272
Component Function Check 272
Diagnosis Procedure 272
Component Inspection 273

WARNING CHIME FUNCTION 275
Description 275
Component Function Check 275
Diagnosis Procedure 275

HAZARD FUNCTION 276
Description 276
Component Function Check 276
Diagnosis Procedure 276

KEYFOB ID SET UP WITH CONSULT 277
ID Code Entry Procedure 277

KEYFOB ID SET UP WITHOUT CONSULT ... 278
ID Code Entry Procedure 278

SYMPTOM DIAGNOSIS 280

POWER DOOR LOCK SYSTEM SYMPTOMS . 280
Symptom Table 280

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS 281
Symptom Table 281

SQUEAK AND RATTLE TROUBLE DIAGNOSES 283
Work Flow 283
Generic Squeak and Rattle Troubleshooting 284
Diagnostic Worksheet 287

REMOVAL AND INSTALLATION 289

HOOD 289

HOOD ASSEMBLY 289
HOOD ASSEMBLY : Exploded View 289
HOOD ASSEMBLY : Removal and Installation ... 289

HOOD ASSEMBLY : Adjustment 290

HOOD HINGE 292
HOOD HINGE : Removal and Installation 292

HOOD SUPPORT ROD 293
HOOD SUPPORT ROD : Removal and Installation 293

HOOD LOCK CONTROL 293
HOOD LOCK CONTROL : Exploded View 294
HOOD LOCK CONTROL : Removal and Installation 294

RADIATOR CORE SUPPORT 297
Exploded View 297
Removal and Installation 297

FRONT FENDER 299
Exploded View 299
Removal and Installation 299
Adjustment 300

FRONT DOOR 302

DOOR ASSEMBLY 302
DOOR ASSEMBLY : Removal and Installation 302
DOOR ASSEMBLY : Adjustment 304

DOOR HINGE 305
DOOR HINGE : Removal and Installation 305

DOOR CHECK LINK 306
DOOR CHECK LINK : Removal and Installation 306

REAR DOOR 308

DOOR ASSEMBLY 308
DOOR ASSEMBLY : Removal and Installation 308
DOOR ASSEMBLY : Adjustment 309

DOOR HINGE 311
DOOR HINGE : Removal and Installation 311

DOOR CHECK LINK 311
DOOR CHECK LINK : Removal and Installation 311

DOOR HANDLE 313

FRONT DOOR HANDLE 313
FRONT DOOR HANDLE : Exploded View 313
FRONT DOOR HANDLE : Removal and Installation - Inside Handle 313
FRONT DOOR HANDLE : Removal and Installation - Outside Handle 313

REAR DOOR HANDLE 315
REAR DOOR HANDLE : Exploded View 316
REAR DOOR HANDLE : Removal and Installation - Inside Handle 316
REAR DOOR HANDLE : Removal and Installation - Outside Handle 316

DOOR LOCK 319

FRONT DOOR LOCK 319
FRONT DOOR LOCK : Exploded View 319
FRONT DOOR LOCK : Removal and Installation 319

REAR DOOR LOCK 320
REAR DOOR LOCK : Exploded View 321
REAR DOOR LOCK : Removal and Installation 321

TRUNK LID 323

TRUNK LID ASSEMBLY 323
TRUNK LID ASSEMBLY : Exploded View 323
TRUNK LID ASSEMBLY : Removal and Installation 323
TRUNK LID ASSEMBLY : Adjustment 325

TRUNK LID HINGE 326
TRUNK LID HINGE : Removal and Installation 326

TORSION BAR 327
TORSION BAR : Removal and Installation 327

TRUNK LID LOCK 327
TRUNK LID LOCK : Removal and Installation 327

EMERGENCY LEVER 328
EMERGENCY LEVER : Removal and Installation 328

TRUNK LID STRIKER 328
TRUNK LID STRIKER : Removal and Installation 328

FUEL FILLER LID OPENER 329
Exploded View 329

FUEL FILLER LID 329
FUEL FILLER LID : Removal and Installation 329

FUEL FILLER OPENER CABLE 330
FUEL FILLER OPENER CABLE : Removal and Installation 330

FUEL FILLER LID LOCK 331
FUEL FILLER LID LOCK : Removal and Installation 331

DOOR SWITCH 333
Removal and Installation 333

REMOTE KEYLESS ENTRY RECEIVER 334
Removal and Installation 334

KEYFOB BATTERY 335
Exploded View 335
Removal and Installation 335

TRUNK LID OPENER SWITCH 336
Removal and Installation 336

STEERING LOCK UNIT 337
Exploded View 337
Removal and Installation - Steering lock unit 337
Removal and Installation - Ignition switch 338

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000013475470

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

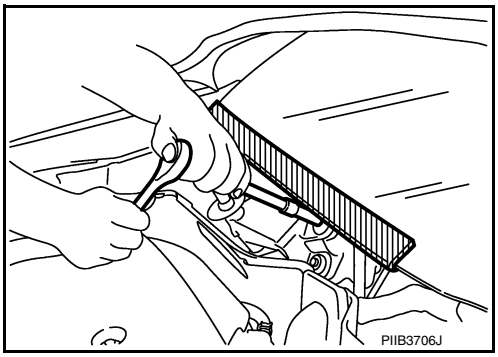
WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Procedure without Cowl Top Cover

INFOID:0000000012783050

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precaution for Servicing Doors and Locks

INFOID:0000000012783051

WARNING:

Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use,

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.
- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.

- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

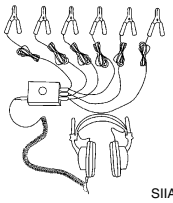
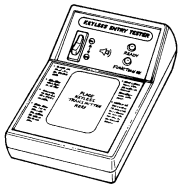
PREPARATION

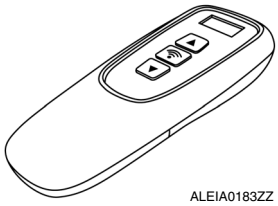
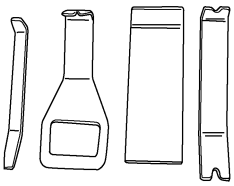
PREPARATION

Special Service Tools

INFOID:0000000012783052

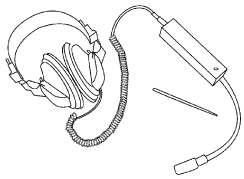
The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-39570) Chassis Ear  SIIA0993E	Locating the noise
— (J-50397) NISSAN Squeak and Rattle Kit ALJIA1232ZZ	Repairing the cause of noise
— (J-43241) Remote Keyless Entry Tester 	Used to test keyfobs
— (J-50190) Signal Tech II ALEIA0131ZZ	• Activate and display TPMS transmitter IDs • Display tire pressure reported by the TPMS transmitter • Read TPMS DTCs • Register TPMS transmitter IDs • Test remote keyless entry keyfob relative signal strength • Compatible with future sensors • Equipped with a display • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength

Tool number (TechMate No.) Tool name	Description
KV48105501 (J-45295-A) Transmitter activation tool  ALEIA0183ZZ	• Activate TPMS transmitter IDs • Compatible with future sensors • Equipped with a display (KV48105501 only)
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000012783053

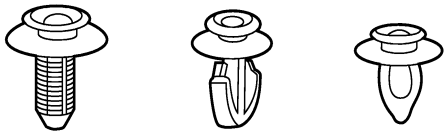
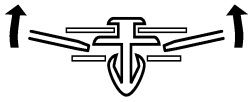
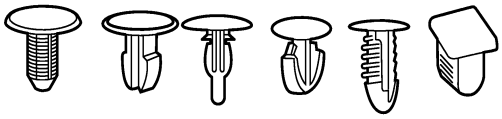
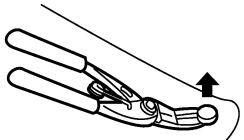
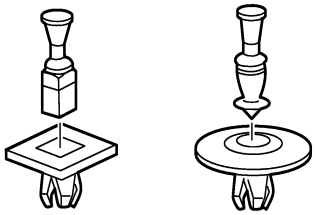
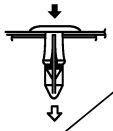
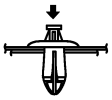
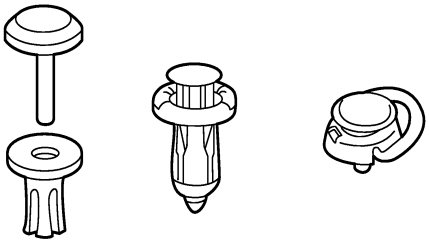
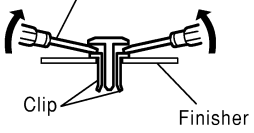
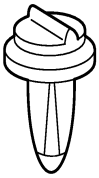
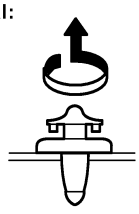
(TechMate No.) Tool name	Description
(J-39565) Engine Ear  SIIA0995E	Locating the noise
(—) Power tool PIIB1407E	Loosening nuts, screws and bolts
(—) Torsion bar wrench AWKIA3594ZZ	Removing trunk lid torsion bar

CLIP LIST

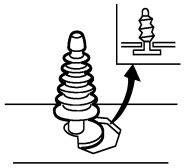
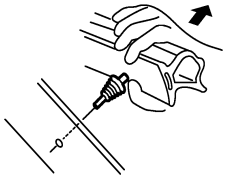
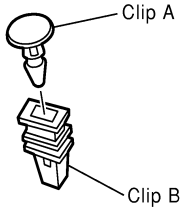
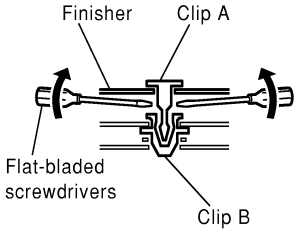
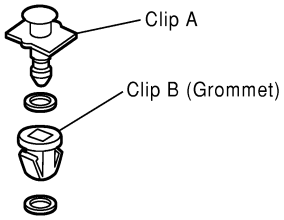
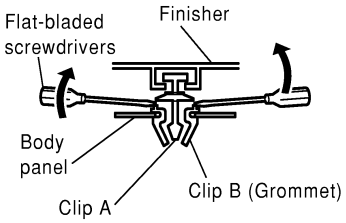
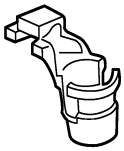
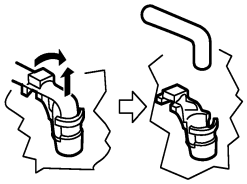
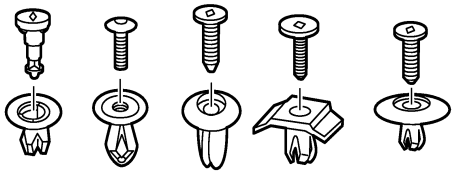
Descriptions for Clips

INFOID:0000000012783054

Replace any clips which are damaged during removal or installation.

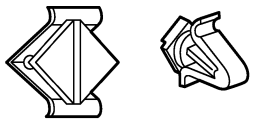
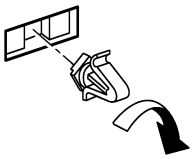
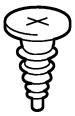
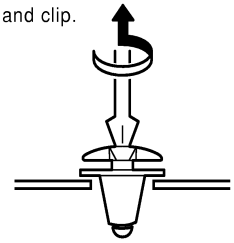
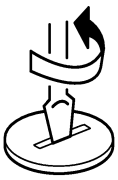
Symbol No.	Shapes	Removal & Installation
C101		**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover. 
C103		 **Removal:** Remove with a clip remover.
C203		**Removal:** Push center pin to catching position. (Do not remove center pin by hitting it.) Push  Push  **Installation:**
C205		**Removal:** Flat-bladed screwdriver  Clip Finisher
C206		**Removal:** 

SIIA0315E

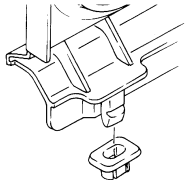
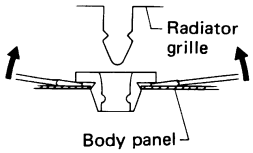
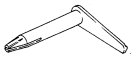
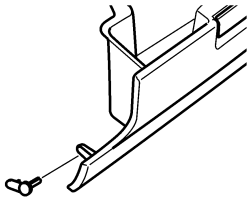
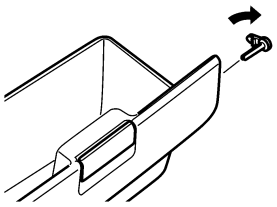
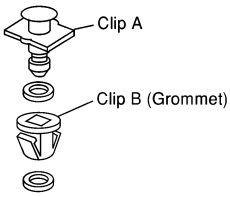
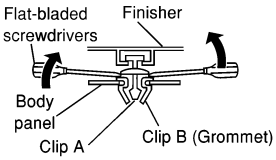
Symbol No.	Shapes	Removal & Installation
CE103		**Removal:** 
CF110		**Removal:** 
CF118		**Removal:** 
CR103		**Removal:** Holder portion of clip must be spread out to remove rod. 
CS101		**Removal:** 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver.

SIIA0316E

CLIP LIST

Symbol No.	Shapes	Removal & Installation
CG101		**Removal:** Rotate 45° to remove **Removal:** **Installation:** 
CS102		
CS113		**Removal:** Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip. 
C111		

SIIA0317E

Symbol No.	Shapes	Removal & Installation
CG104		**Removal:** **Remove by bending up with flat-bladed screwdrivers.** 
CE114 		
CF118		**Removal:** 

ALJIA0564GB

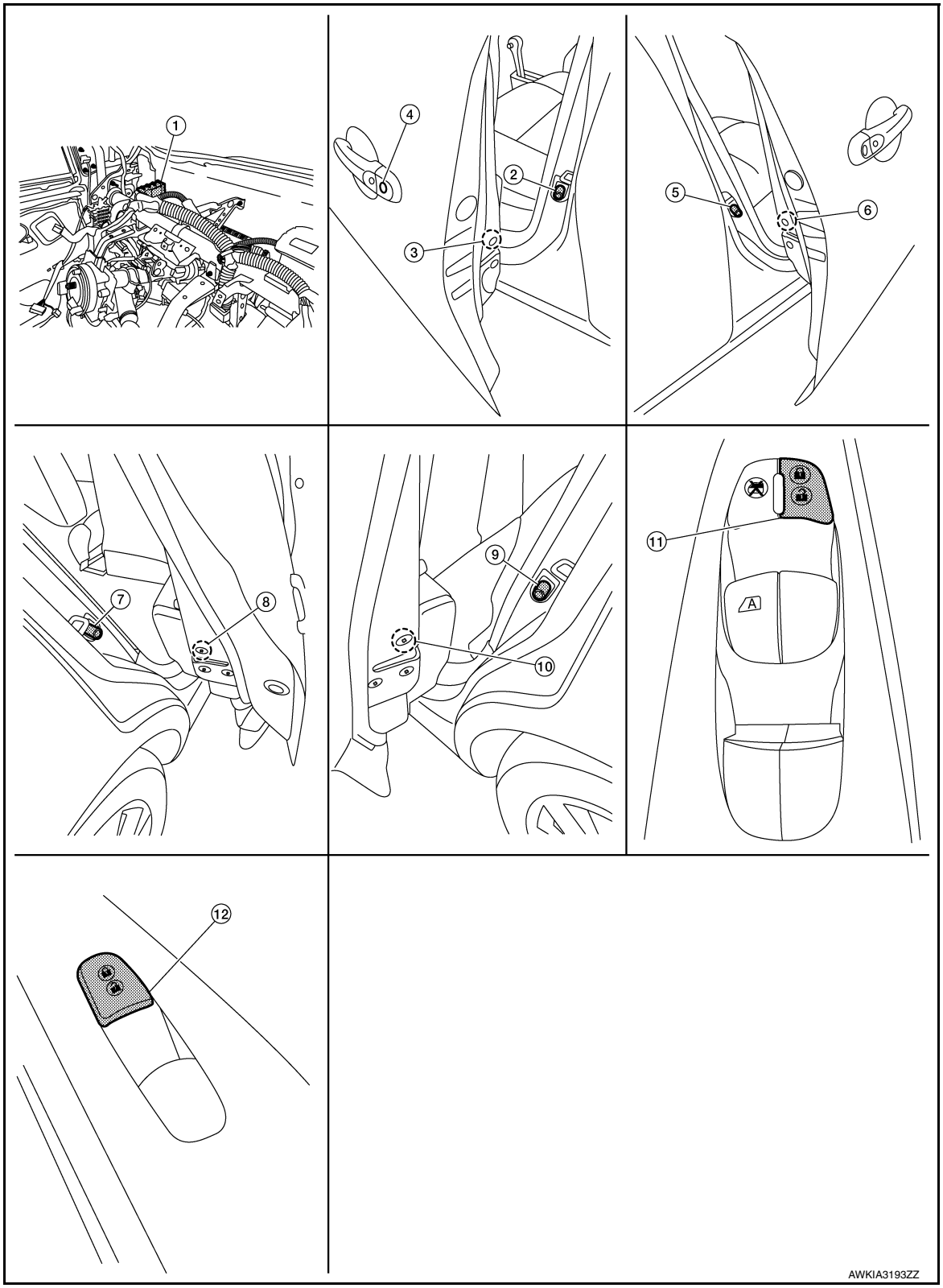
SYSTEM DESCRIPTION

COMPONENT PARTS

POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM : Component Parts Location

INFOID:0000000012783055



1. BCM (view with instrument panel removed)
2. Front door switch LH
3. Front door lock actuator LH
4. Front door lock assembly LH
5. Front door switch RH
6. Front door lock actuator RH
7. Rear door switch RH
8. Rear door lock actuator RH
9. Rear door lock switch LH
10. Rear door lock actuator LH
11. Main power window and door lock/unlock switch
12. Power window and door lock/unlock switch RH

POWER DOOR LOCK SYSTEM : Component Description

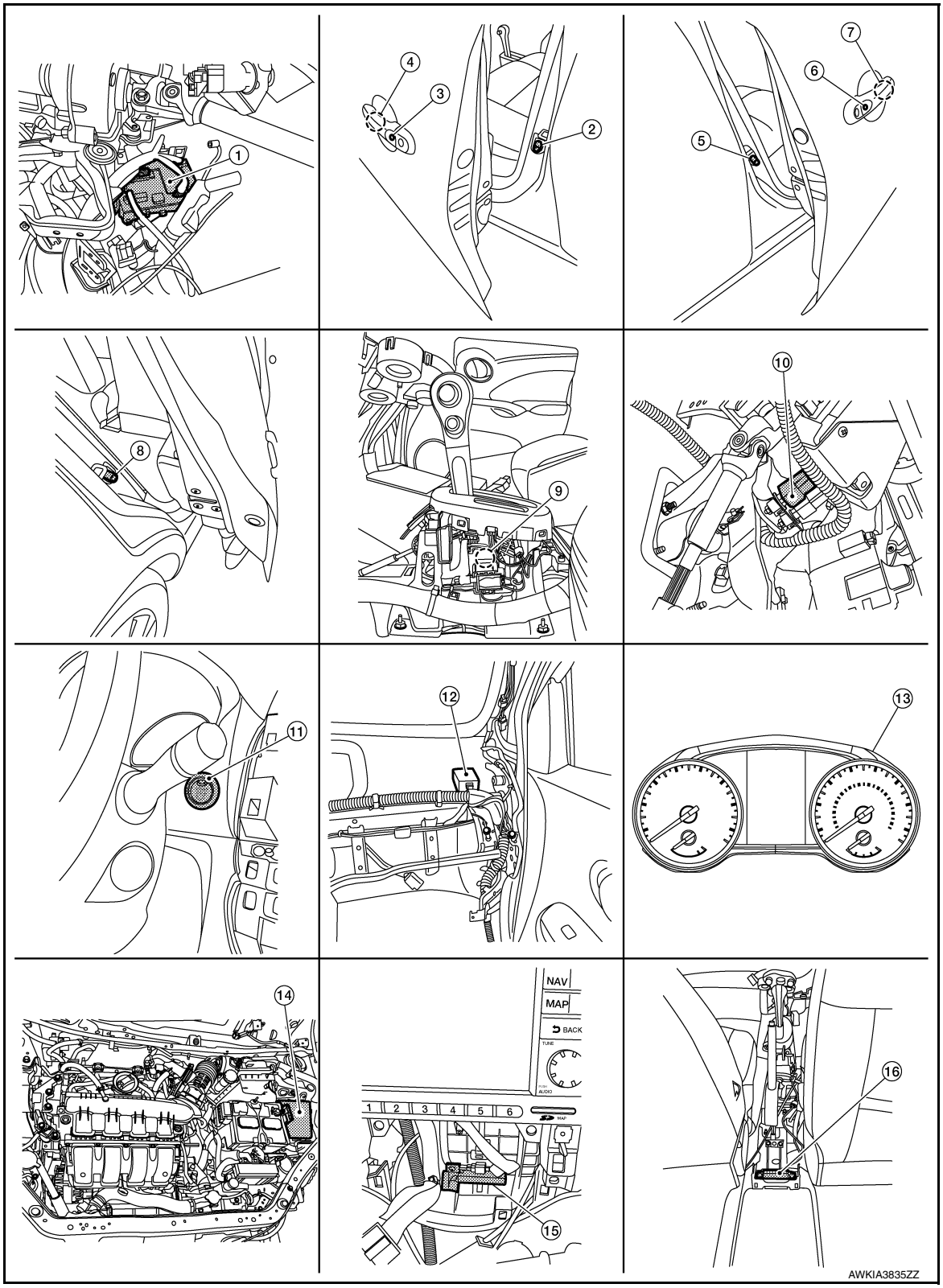
INFOID:0000000012783056

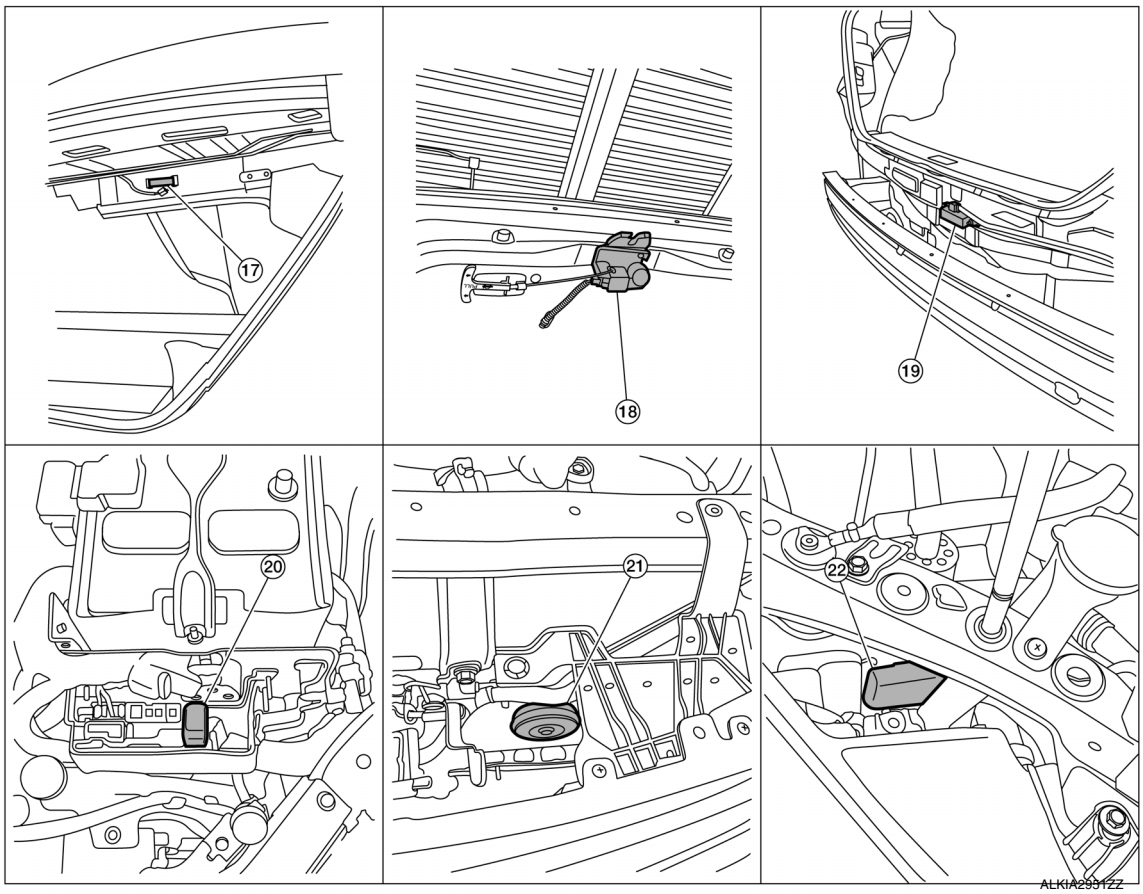
Item	Function
BCM	Controls the door lock system
Door switch	Inputs door open/close condition to BCM
Door lock and unlock switch	• Detects if door lock and unlock switch is press/release • Integrated in the main power window and door lock/unlock switch and power window and door lock/unlock switch RH
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door

INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM : Component Parts Location

INFOID:0000000012783057





1. BCM (view with instrument panel removed)
2. Front door switch LH
3. Door request switch LH
4. Outside key antenna (driver side)
5. Front door switch RH
6. Door request switch RH
7. Outside key antenna (passenger side)
8. Rear door switch RH (rear door switch LH similar)
9. CVT shift selector (park position switch) (if equipped) (view with center console removed)
10. Stop lamp switch
11. Push-button ignition switch
12. Remote keyless entry receiver (view with instrument panel removed)
13. Combination meter
14. IPDM E/R
15. Inside key antenna (instrument center)
16. Inside key antenna (console) (view with center console removed)
17. Inside key antenna (trunk room)
18. Trunk lid opener assembly
19. Outside key antenna (rear bumper) (view with rear bumper fascia removed)
20. Horn relay
21. Horn
22. Intelligent Key warning buzzer

INTELLIGENT KEY SYSTEM : Component Description

INFOID:0000000012783058

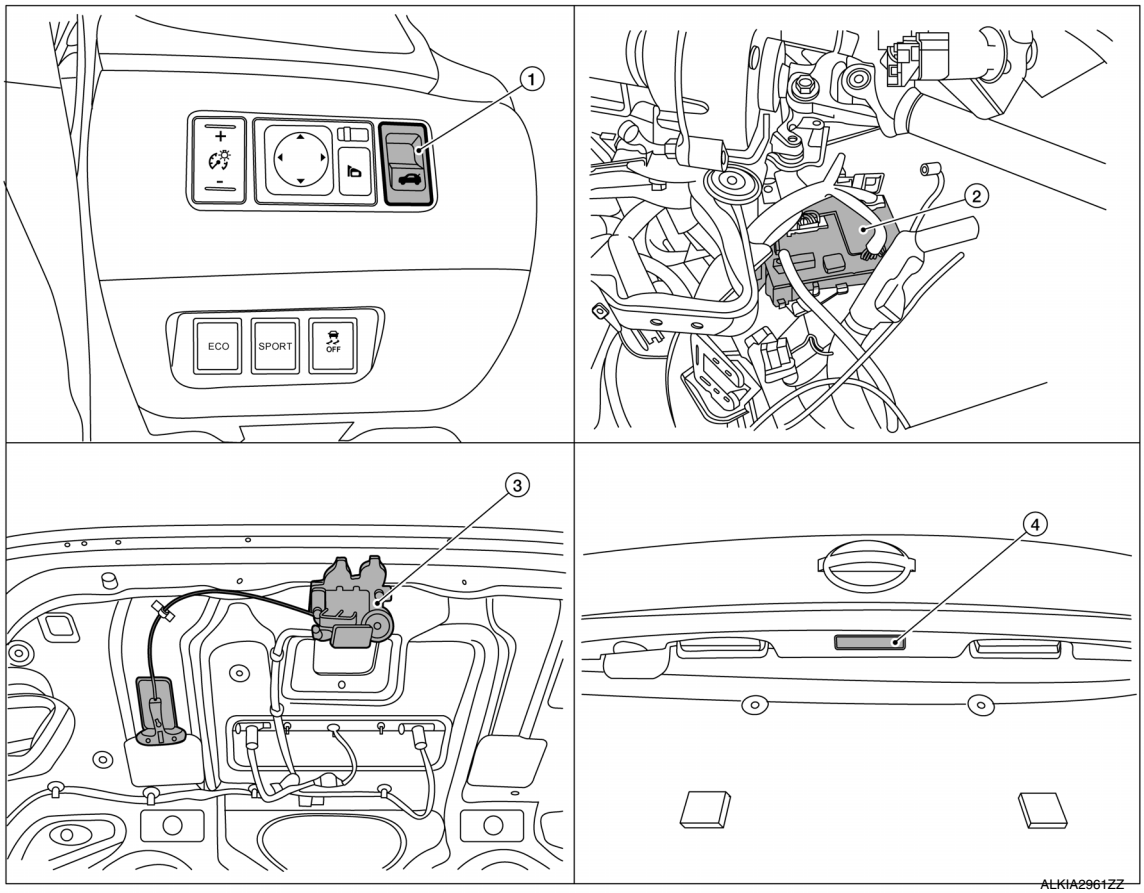
Item	Function
BCM	Controls the Intelligent Key system.
Trunk lid switch	Inputs trunk lid open/close condition to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Stop lamp switch	Inputs the brake pedal position condition to BCM.
Push-button ignition switch	Inputs the push-button ignition switch ON/OFF condition to BCM.
Door switch	Inputs door open/close condition to BCM.

Item	Function
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.

TRUNK LID OPENER SYSTEM

TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:0000000012783059



1. Trunk lid opener switch
2. BCM (view with instrument panel removed)
3. Trunk lid opener assembly (trunk lid opener actuator and trunk lid switch)
4. Trunk opener request switch

TRUNK LID OPENER SYSTEM : Component Description

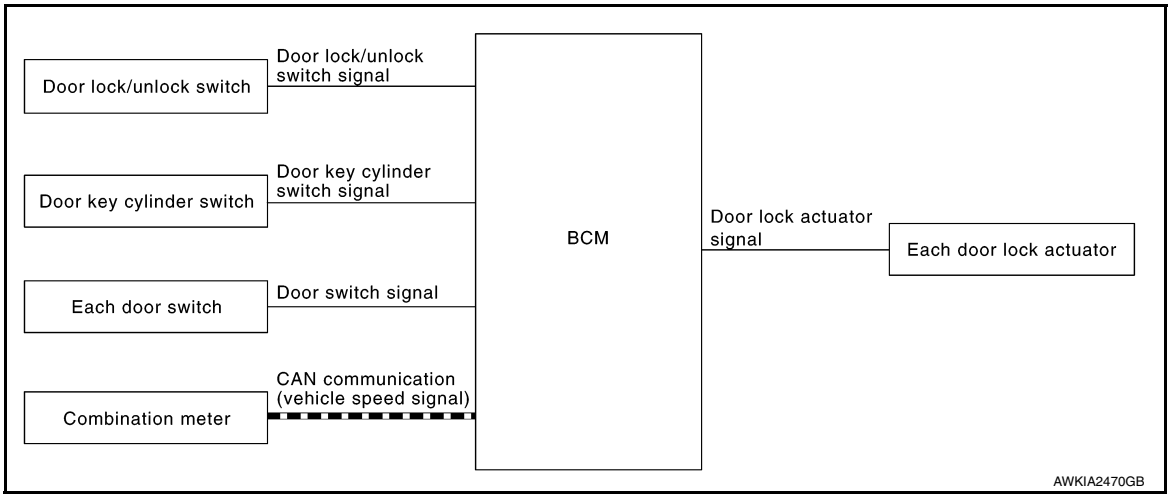
INFOID:0000000012783060

Item	Function
BCM	Controls the Intelligent Key system.
Trunk opener request switch	Inputs the trunk open request to the BCM.
Trunk lid opener actuator	Releases the mechanical latch to open the trunk lid.
Trunk lid opener switch	Inputs the trunk open request to the BCM.
Trunk lid switch	Inputs the trunk lid open/close condition to the BCM.

SYSTEM (POWER DOOR LOCK SYSTEM)

System Diagram

INFOID:0000000012783061



System Description

INFOID:0000000012783062

Input	Single	Function	Actuator
Door lock/unlock switch	Door lock/unlock signal	Door lock function	• Each door lock actuator
Door key cylinder switch			
Each door switch	Door open/close signal	Key reminder function	
Combination meter	Warning buzzer signal		
	Vehicle speed signal	Automatic door lock/unlock function	

DOOR LOCK FUNCTION

- The door lock and unlock switch (driver side) is built into main power window and door lock/unlock switch.
- The door lock and unlock switch (passenger side) is built into power window and door lock/unlock switch RH.
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors are unlocked.

Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to “LOCK”, will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to “UNLOCK” once unlocks the driver side door lock actuator; turning it to “UNLOCK” again within 60 seconds after the first unlock operation unlocks all of the other doors. - (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using “AUTO LOCK SET” mode in “WORK SUPPORT”. Refer to DLK-36, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

AUTOMATIC DOOR LOCKS (LOCK OPERATION)

The automatic door locks function is the function that locks all doors linked with the vehicle speed or shift position.

Vehicle Speed Sensing Auto Door Lock*1

All doors are locked when the vehicle speed reaches 24 km/h (15 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the combination meter via CAN communication becomes 24 km/h (15 MPH) or more.

If a door is opened and closed at any time during one ignition cycle (OFF → ON), even after initial auto door lock operation has taken place, the BCM will relock all doors when the vehicle speed reaches 24 km/h (15 MPH) or more again.

Setting change of Automatic Door Locks (LOCK) Function

The LOCK operation setting of the automatic door locks function can be changed.

With CONSULT

The ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the automatic door locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to DLK-36, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Without CONSULT

The automatic door locks (LOCK) function can be switched ON/OFF by performing the following operation.

1. Close all doors (door switch OFF)
2. Push the ignition switch to the ON position
3. Press and hold the door lock and unlock switch for 5 seconds or more in the lock direction within 20 seconds after turning the ignition switch ON.
4. The switching is completed when the hazard lamp blinks.

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

5. The ignition switch must be turned OFF and ON again between each setting change.

AUTOMATIC DOOR LOCKS (UNLOCK OPERATION)

The automatic door locks (UNLOCK) function is the function that unlocks all doors linked with the key position or shift position.

IGN OFF Interlock Door Unlock[*1]

All doors are unlocked when the power supply position is changed from ON to OFF.
BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.

Setting change of Automatic Door Locks (UNLOCK) Function

The UNLOCK operation setting of the automatic door locks function can be changed.

With CONSULT

The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic door locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to DLK-36, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Without CONSULT

The automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following operation.

1. Close all doors (door switch OFF)
2. Place the ignition switch in the ON position
3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
4. The switching is completed when the hazard lamp blinks.

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

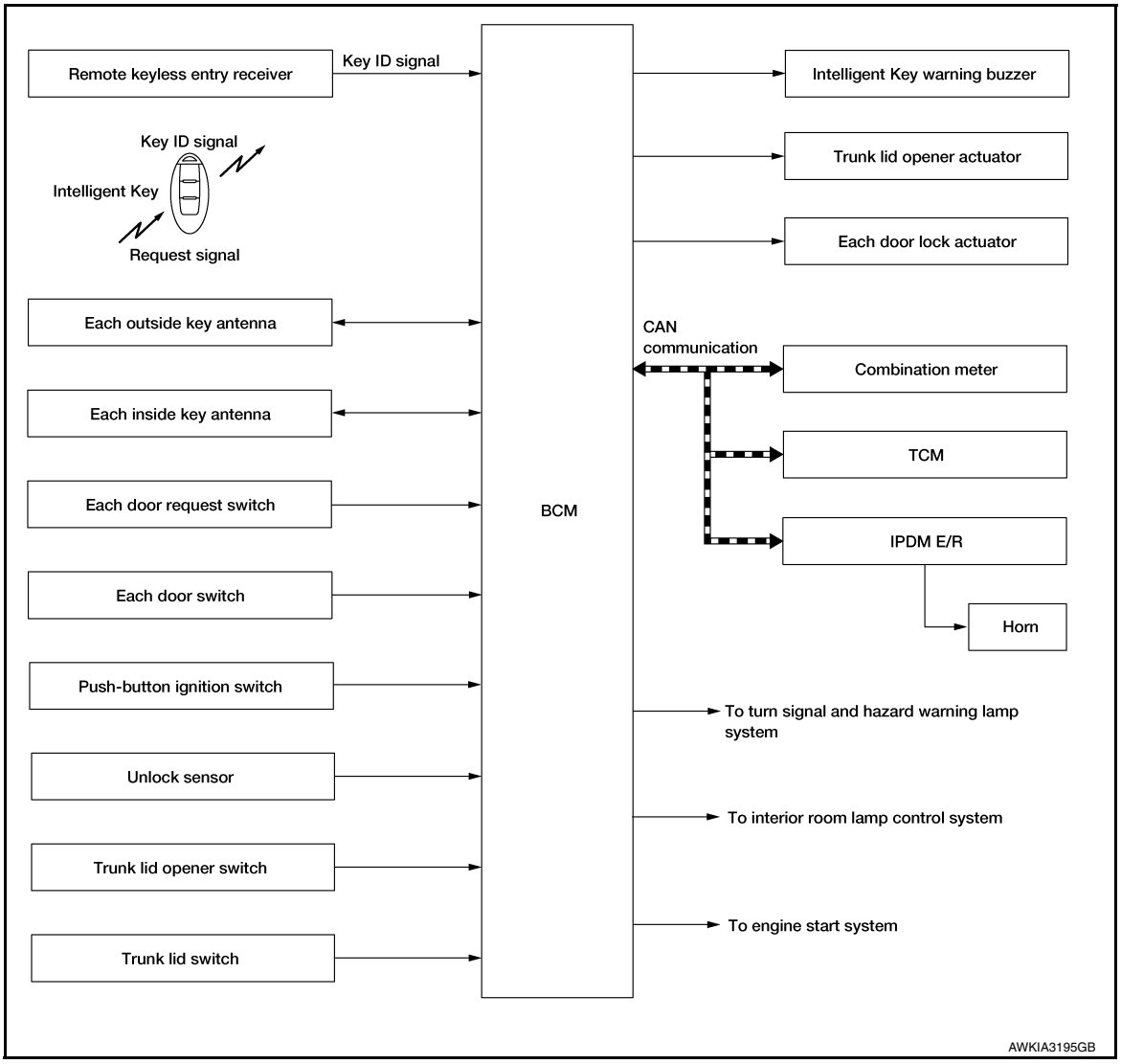
5. The ignition switch must be turned OFF and ON again between each setting change.

[*1]: This function is set to ON before delivery.

SYSTEM (INTELLIGENT KEY SYSTEM)
INTELLIGENT KEY SYSTEM
INTELLIGENT KEY SYSTEM : System Description

INFOID:0000000012783063

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communication between the Intelligent Key and the vehicle (BCM).
  NOTE:
  The driver should always carry the Intelligent Key
- The settings for each function can be changed with CONSULT.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with CONSULT.
- For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Function	Description	Refer
Door lock	Lock/unlock can be performed by pressing the request switch	DLK-24
Trunk open	The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener switch	DLK-26

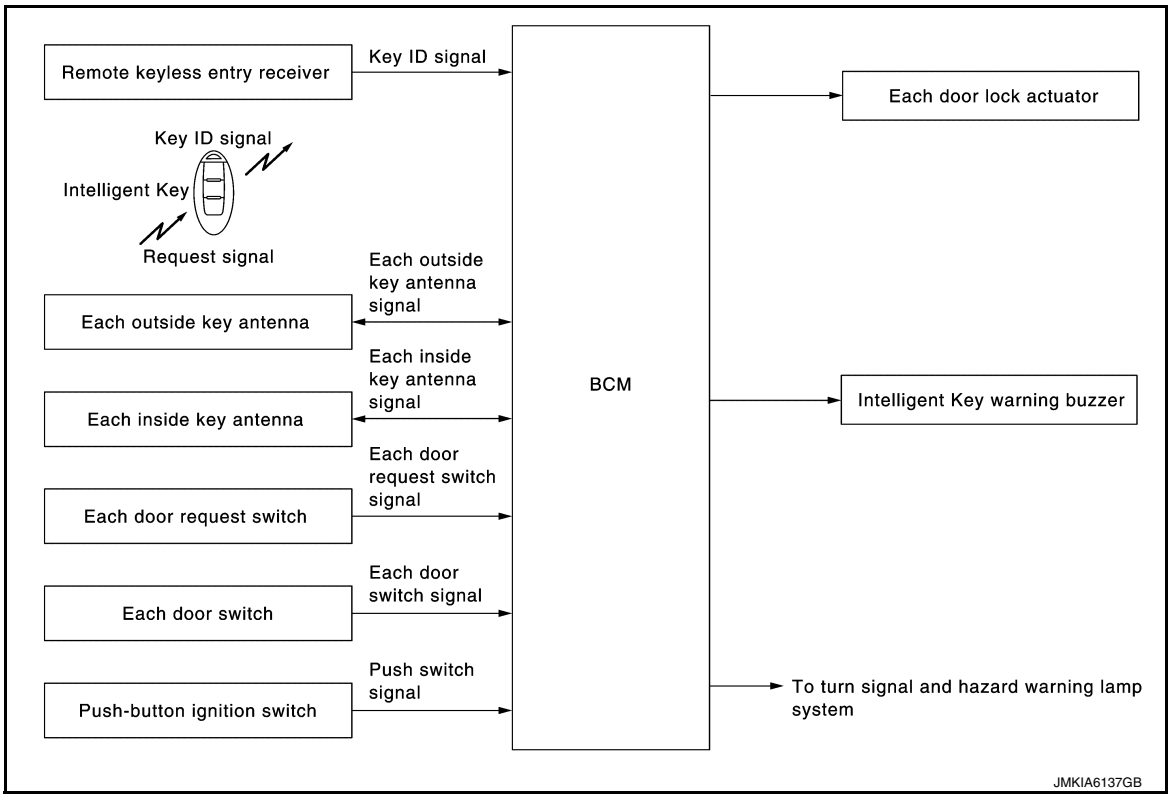
Function	Description	Refer
Remote keyless entry	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key	DLK-27
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle	DLK-29
Warning	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver	DLK-30
Engine start	The engine can be turned on while carrying the Intelligent Key	DLK-23
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state	INL-8

DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Description

INFOID:0000000012783064

SYSTEM DIAGRAM



DOOR REQUEST SWITCH OPERATION

When pressing the request switch, it is possible to lock and unlock the door by carrying the Intelligent Key.

OPERATION DESCRIPTION

- When the BCM detects that each door request switch is pressed, it starts the outside key antenna and inside key antenna corresponding to the pressed door request switch and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM transmits door lock/unlock signal and operates each door lock actuator. At the same time, BCM blinks hazard warning lamp (lock: 2 times, unlock: 1 time) and sounds Intelligent Key buzzer (lock: 2 times, unlock: 1 time) as a reminder.

OPERATION CONDITION

If the following conditions are satisfied, door lock/unlock operation is performed if the door request switch is operated.

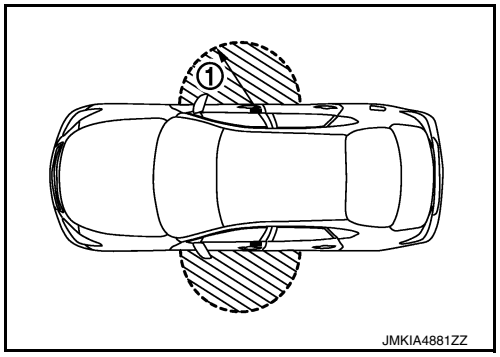
Each request switch operation	Operation condition
Lock	• All doors are closed • Ignition switch is in the LOCK or OFF position • Panic alarm is not activated • Intelligent Key is outside the vehicle • Intelligent Key is within outside key antenna detection area • P position warning is not activated
Unlock	• All doors are closed • Ignition switch is in the LOCK or OFF position • Panic alarm is not activated • Intelligent Key is outside the vehicle • Intelligent Key is within outside key antenna detection area *

*: Even with a registered Intelligent Key remaining inside the vehicle, door locks can be unlocked from outside of the vehicle with a spare Intelligent Key as long as key IDs are different.

Door lock function can be changed using “LOCK/UNLOCK BY I-KEY” mode in “WORK SUPPORT”. Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver, passenger door handles (1). However, this operating range depends on the ambient conditions.



HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 2 times, unlock: 1 time) and sounds Intelligent Key warning buzzer (lock: 2 times, unlock: 1 time) when door lock or unlock operates by operation of each door request switch.

How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

After door is unlocked by door request switch operation and if 30 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

Operating condition	• Door switch is ON (door is open) • BCM receives lock signal • Push switch is pressed

Auto door lock mode can be changed by the “AUTO LOCK SET” mode in “WORK SUPPORT”. Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

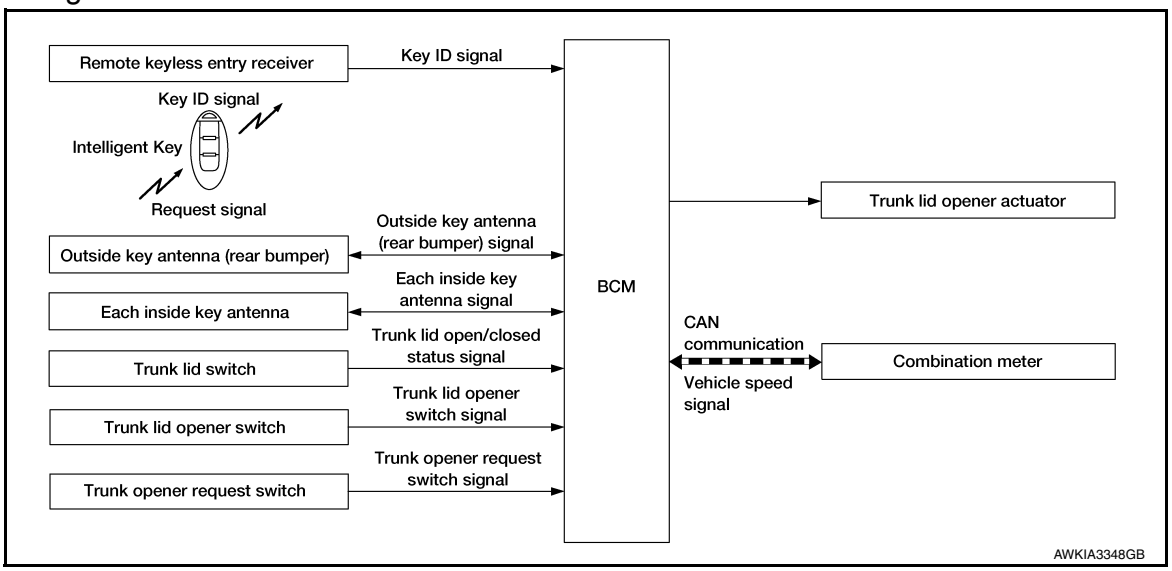
Door lock function	Intelligent Key	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch	Combination meter
Door lock/unlock function	×	×	×	×	×	×	×			×			
Hazard and buzzer reminder function								×	×	×	×		×
Auto door lock function	×	×	×	×	×		×			×		×	

TRUNK OPEN FUNCTION

TRUNK OPEN FUNCTION : System Description

INFOID:0000000012783065

System Diagram



TRUNK LID OPENER OPERATION

- When the BCM detects that trunk opener request switch is pressed, it starts the outside key antenna (rear bumper) and inside key antenna and transmits the request signal to the Intelligent Key. Then, checks that the Intelligent Key is near the trunk lid.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.

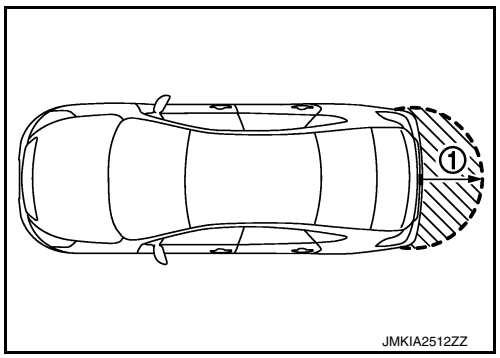
OPERATION CONDITION

If the following conditions are satisfied, the trunk lid can be opened.

Trunk lid open function	Operation condition
Trunk open operation	• Vehicle speed is less than 5 km/h (3 MPH) • Intelligent Key is within outside key antenna (rear bumper) detection area • Trunk lid is closed

OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of trunk lid open function is in the range of approximately 80 cm (31.50 in) surrounding trunk opener request switch (1). However, this operating range depends on the ambient conditions.



LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

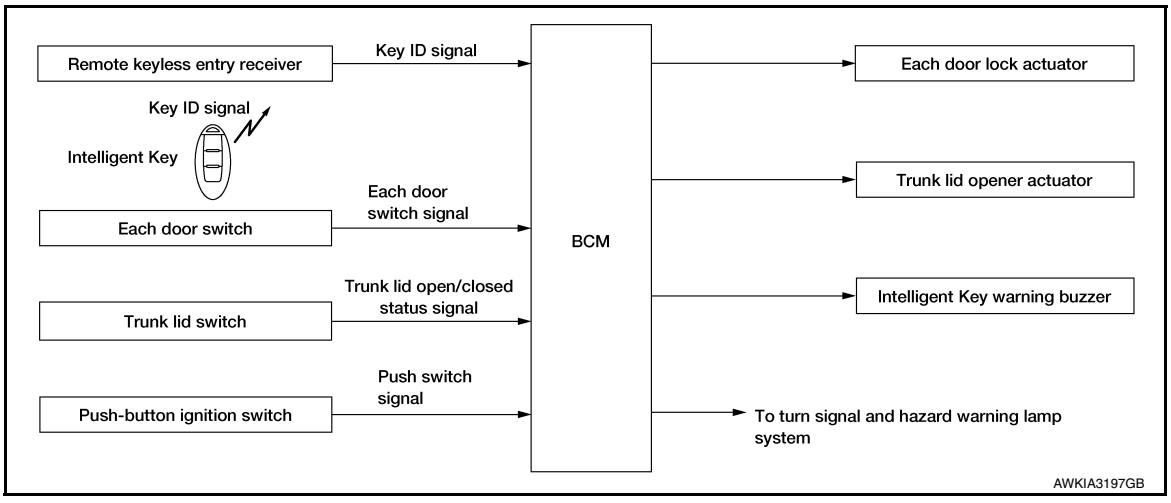
Trunk open function	Intelligent Key	Remote keyless entry receiver	Trunk lid opener actuator	Trunk lid switch	Inside key antenna	Outside key antenna (rear bumper)	CAN communication system	BCM	Trunk lid opener switch	Combination meter	Trunk opener request switch
Trunk lid open function	×	×	×	×	×	×	×	×	×	×	×

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:0000000012783066

SYSTEM DIAGRAM



REMOTE KEYLESS ENTRY OPERATION

The Intelligent Key has the same functions as the remote control entry system. Therefore, it can be used in the same manner as the remote controller by operating the door lock/unlock button.

Remote keyless entry system controls operation of the following items.

- Auto door lock
- Door lock/unlock
- Hazard and buzzer reminder
- Panic alarm
- Trunk lid open

OPERATION AREA

To check that the Intelligent Key works normally, use within 1 m (3 ft) range of each door, however the operable range may differ according to surroundings.

DOOR LOCK/UNLOCK FUNCTION

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmitted from Intelligent Key to BCM via remote keyless entry receiver.
- BCM receives the signal and compares it with the registered key ID to the vehicle.
- BCM transmits door lock/unlock signal to each door lock actuator and operates each door lock actuator, when key ID matches. At the same time, BCM blinks hazard warning lamps (lock: 2 times, unlock: 1 time) and sounds Intelligent Key buzzer (lock: 1 time) as a reminder.

OPERATION CONDITION

Remote controller operation	Operation condition
Lock	• All door are closed • Ignition switch is in the LOCK or OFF position • Panic alarm is not activated • P position warning is not activated
Unlock	• Ignition switch is in the LOCK or OFF position • Intelligent Key is outside the vehicle • Panic alarm is not activated • P position warning is not activated

TRUNK OPEN FUNCTION

- When trunk button of the Intelligent Key is pressed, the trunk open signal is transmitted from the Intelligent Key to the BCM via remote keyless entry receiver.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

OPERATION CONDITION

Remote controller operation	Operation condition
Trunk open	• Press and hold the trunk open button for 0.4 second or more* • Ignition switch is except the ON position • Vehicle speed is less than 5 km/h (3 MPH)

*: Pattern of trunk open button can be selected using CONSULT. Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

PANIC ALARM FUNCTION

When ignition switch is OFF, BCM transmits theft warning horn request signal to IPDM E/R. Then, IPDM E/R turns on and off horn intermittently.
The horn sounds intermittently.
The alarm automatically turns off.

- After 25 seconds
- When BCM receives any signal from Intelligent Key

How to Change Panic Alarm Operation Mode

Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 2 times, unlock: 1 time) and sounds Intelligent Key warning buzzer (lock: 1 time) when door lock or unlock operates by each remote controller button operation of Intelligent Key.

How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

After door is unlocked by Intelligent Key button operation and if 30 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

Operating condition	• Door switch is ON (door is open) • BCM receives lock signal • Push switch is pressed

Auto door lock mode can be changed by the “AUTO LOCK SET” mode in “WORK SUPPORT”. Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

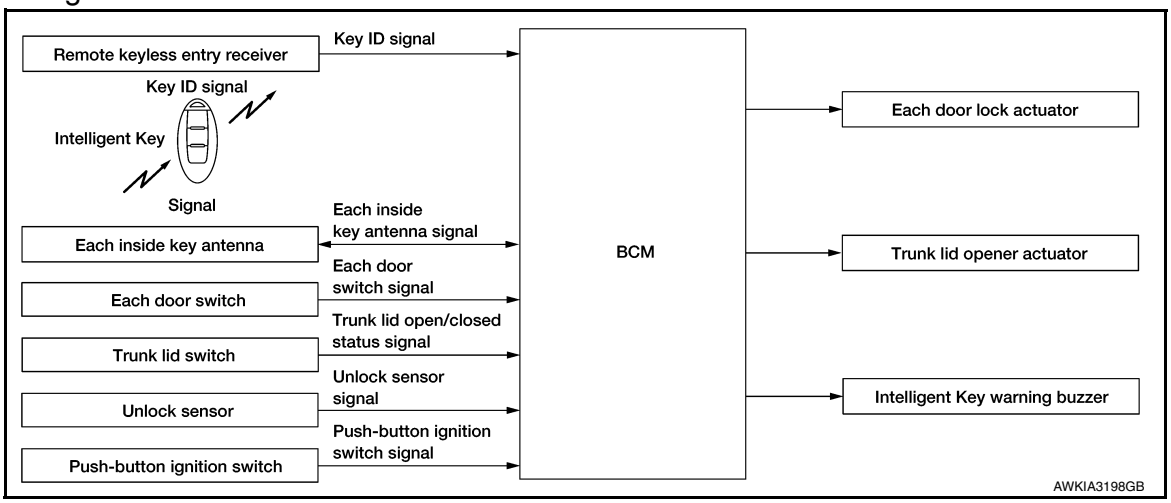
Remote keyless entry functions	Intelligent Key	Remote keyless entry receiver	Door switch	Door lock actuator	Push-button ignition switch	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamp	Trunk lid opener actuator	Trunk lid switch	IPDM E/R	Horn
Door lock/unlock function by remote control button	×	×	×	×	×			×						
Trunk open function	×	×			×	×	×	×			×	×		
Hazard and buzzer reminder function	×	×				×	×	×	×	×				
Auto door lock function	×	×	×	×	×			×						
Panic alarm function	×						×	×					×	×

KEY REMINDER FUNCTION

KEY REMINDER FUNCTION : System Description

INFOID:0000000012783067

System Diagram



BASIC OPERATION

Key reminder is the function that prevents the key from being left in the vehicle.
Key reminder has the following 3 functions.

Key reminder function	Operation condition	Operation
Driver side door closed*	Right after driver side door is closed under the following conditions • Intelligent Key is inside the vehicle • Driver side door is opened • Driver side door is in unlock state	All doors unlock
Door is open or closed	Right after all doors are closed under the following conditions • Door lock/unlock switch or driver side door lock knob are operated • Intelligent Key is inside the vehicle • Any door is opened • All doors are locked.	• All doors unlock • Honk Intelligent Key warning buzzer
Trunk is closed	Right after trunk is closed under the following conditions • Intelligent Key is inside trunk room • All doors are closed • All doors are locked	• Trunk open • Honk Intelligent Key warning buzzer

*:When closing the door if something comes into contact with the door lock switch it might activate the door locks accidentally, but the unlock operation will override this.

NOTE:

The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function does not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.

WARNING FUNCTION

WARNING FUNCTION : System Description

INFOID:0000000012783068

OPERATION DESCRIPTION

The warning function are as per the following items and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, combination meter buzzer, KEY warning lamp, shift P warning lamp and engine start operation indicator lamp.

- Intelligent Key system malfunction
- OFF position warning
- P position warning
- ACC warning
- Take away warning
- Door lock operation warning
- Engine start information
- Intelligent Key low battery warning
- Key ID warning

OPERATION CONDITION

Operation condition of warning and information is as per the following table.

Warning/Information functions	Operation procedure
Intelligent Key system malfunction	A malfunction is detected on BCM and key warning lamp turns ON

Warning/Information functions		Operation procedure
OFF position warning	For internal	When condition A, B or condition C is satisfied • Condition A - Ignition switch: ACC position - Door switch (driver side): ON (Door is open) • Condition B - Turn ignition switch from ON to OFF while door is open • Condition C - Intelligent Key backside is contacted to push-button ignition switch while brake pedal is depressed and ignition switch is LOCK or OFF (When the Intelligent Key battery is discharged) - Door switch (driver side): ON (Door is open)
	For external*	OFF position warning (For internal) is in active mode, driver side door has been closed. **NOTE:** OFF position (For external) active only when each of the sequence has occurred as below: P position warning → ACC warning → OFF position warning (For internal) → OFF position warning (For internal)
P position warning	For internal	• Shift position: Other than P • Engine is stopped (Ignition switch is turned from ON to OFF)
	For external	• P position warning (For internal) operates • Door switch: ON to OFF (Door is open to close) • Intelligent Key cannot be detected inside the vehicle
ACC warning		• After P position warning operates, or when ignition switch is turned ON immediately after P position warning operates • Ignition switch: ACC
Take away warning	Door status changes from open to close	• Ignition switch: Other than LOCK and OFF • Door switch: ON to OFF (Door status changes from open to close) • Registered Intelligent Key is not detected inside the vehicle
	Door status is open	• Ignition switch: Other than LOCK and OFF • Door switch: ON (Door is open) • Registered Intelligent Key is not detected inside the vehicle during Key ID verification for 5 seconds
	Push-button ignition switch operation	• Ignition switch: Other than LOCK position • Push-button ignition switch is pressed • Registered Intelligent Key is not detected inside the vehicle
Door lock operation warning		Door lock operation is requested while door lock operation condition of door request switch is not satisfied
Engine start information	Ignition switch is ON position	• Ignition switch: ON position • Shift position: P • Engine is stopped
	Ignition switch is other than ON position	• Ignition switch: Other than ON • Shift position: P • Intelligent Key is in the passenger room after driver door is opened and closed
	Ignition switch is ON position to OFF position	• Ignition switch: ON position to OFF position • Shift position: P position **NOTE:** Engine start information turns ON for several seconds and then turns OFF, when ignition switch is turned to the ON position from the OFF position. Engine start information does not turn ON until opening and closing of driver door is detected again.
Intelligent Key low battery warning		BCM detects that Intelligent Key is low battery, after ignition switch is turned ON
Key ID warning		• Push-button ignition switch is pressed • Registered Intelligent Key is not detected inside the vehicle

*: M/T models do not apply.

WARNING METHOD

The following table shows the alarm or warning methods with chime.

Warning/Information functions		"KEY" warning lamp	Shift P warning lamp	Warning chime		Engine start operation indicator lamp
				Combination meter buzzer	Intelligent Key warning buzzer	
Intelligent Key system malfunction		Indicate	—	—	—	—
OFF position warning	For internal	—	—	Activate	—	—
	For external	—	—	—	Activate	—
P position warning	For internal	Blink (yellow)	Indicate	Activate	—	—
	For external		—	—	Active	—
ACC warning		—	—	Activate	—	—
Take away warning	Door is open to close	Blink (yellow)	—	Activate	Activate	—
	Door is open		—	—	—	—
	Push-ignition switch operation		—	Activate	—	—
Door lock operation warning		—	—	—	Activate	—
Engine start information		—	—	—	—	Indicate
Intelligent Key low battery warning		Blink (green)	—	—	—	—
Key ID warning		Blink (yellow)	—	—	—	—

LIST OF OPERATION RELATED PARTS

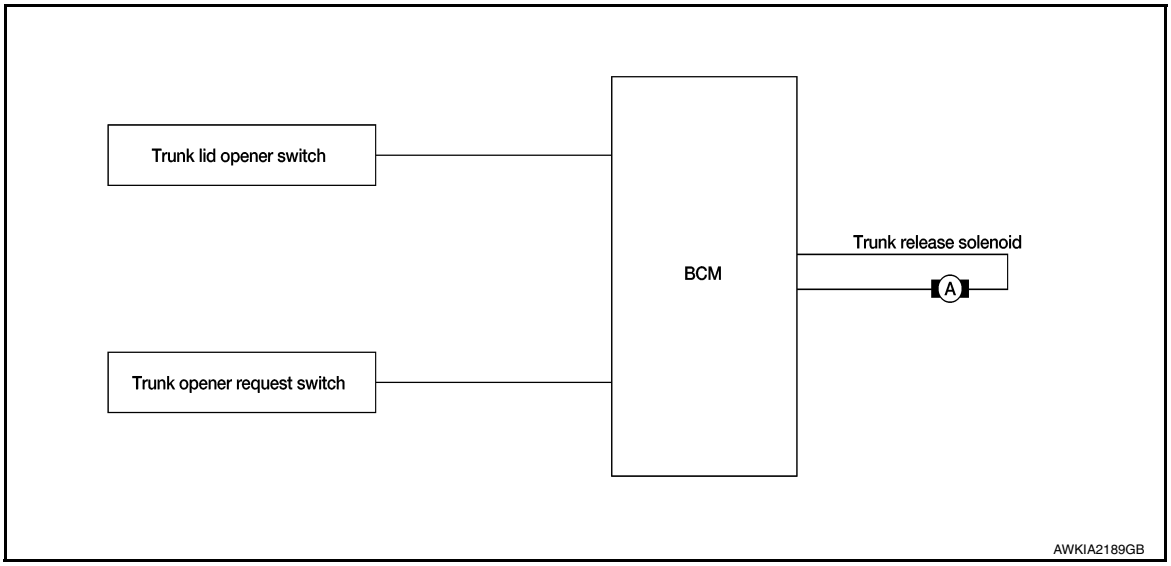
Parts marked with × are the parts related to operation.

Function		Intelligent Key	Push-button ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter buzzer	CAN communication system	BCM	Shift P warning lamp	Engine start operation indicator lamp	"KEY" warning lamp
Intelligent Key system malfunction										×	×			×
OFF position warning	For internal			×					×	×	×			
	For external			×				×			×			
P position warning			×						×	×	×	×		×
ACC warning			×						×	×	×			
Take away warning	Door is open or close	×		×		×		×	×	×	×			×
	Door is open	×		×		×				×	×			×
	Push-button ignition switch operation	×	×			×			×	×	×			×
Door lock operation warning		×		×	×	×	×	×			×			
Key ID warning			×			×				×	×			×
Engine start information		×	×			×				×	×		×	
Intelligent Key low battery warning		×				×				×	×			×

SYSTEM (TRUNK LID OPENER SYSTEM)

System Diagram

INFOID:0000000012783069



System Description

INFOID:0000000012783070

TRUNK LID OPENER OPERATION

When trunk lid opener switch is ON, BCM operates trunk lid opener actuator.

OPERATION CONDITION

If the following conditions are satisfied, trunk open operation is performed.

Trunk lid opener switch operation	Operation condition
Trunk lid open	• Trunk lid opener switch is ON • Vehicle speed is less than 5 km/h (3 MPH)

SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

System Description

INFOID:0000000012783071

Item	Function
Integrated Homelink® transmitter	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000013370564

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION
BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK			×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×		×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER				×			
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000013370565

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
REQ SW -BD/TR [On/Off]	Indicates condition of trunk open switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of trunk switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [OTR ULK/AS UNLK/DR UNLK/ALL UNLK/ALL LOCK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTOMATIC LOCK/UNLOCK SELECT	Lock/Unlock*	Automatic door locks function operates in lock and unlock.
	Lock Only	Automatic door locks function operates in lock only.
	Unlock Only	Automatic door locks function operates in unlock only.
	Off	Automatic door locks function OFF.
AUTOMATIC DOOR LOCK SELECT	P RANGE	Doors lock automatically when shifted out of Park (P).
	VH SPD*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
AUTOMATIC DOOR UNLOCK SELECT	MODE6*	Drivers door unlocks automatically when key is removed.
	MODE5	Drivers door unlocks automatically when shifted into Park (P).
	MODE4	Drivers door unlocks automatically when ignition is switched from ON to OFF.
	MODE3	Doors unlock automatically when key is removed.
	MODE2	Doors unlock automatically when shifted into Park (P).
	MODE1	Doors unlock automatically when ignition is switched from ON to OFF.

*: Initial setting

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000013370566

SELF DIAGNOSTIC RESULT

Refer to BCS-50, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH.
REQ SW -BD/TR [On/Off]	×	Indicates condition of trunk open switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
CLUCH SW [On/Off]	×	Indicates condition of clutch switch.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch.
BRAKE SW 2 [On/Off]		Indicates condition of brake switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of P (park) position.
SFT PN/N SW [On/Off]	×	Indicates condition of P (park) or N (neutral) position.
UNLK SEN -DR [On/Off]	×	Indicates condition of driver door unlock sensor.
PUSH SW -IPDM [On/Off]		Indicates condition of push-button ignition switch received from IPDM E/R on CAN communication line.
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line.
DETE SW -IPDM [On/Off]		Indicates condition of detent switch received from TCM on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
SFT P -MET [On/Off]		Indicates condition of P (park) position from TCM on CAN communication line.
SFT N -MET [On/Off]		Indicates condition of N (neutral) position from IPDM E/R on CAN communication line.
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line.
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line.
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line.
DOOR STAT-DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT-AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk lid switch.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.
RKE-TR/BD [On/Off]		Indicates condition of trunk open signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
LCD	This test is able to check combination meter display information [Off/LK WN/OUTKEY/NO KY/BATT/INSRT/SFT P/ROTAT/ID NG/B&P I/B&P N].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].
TRUNK/BACK DOOR	This test is able to check trunk actuator operation [Open].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
HORN	This test is able to check horn operation [On].
P RANGE	This test is able to check CVT shift selector illumination operation [On/Off].

WORK SUPPORT

Support Item	Setting		Description
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.
	Off		Door lock/unlock function from Intelligent Key OFF.
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function from trunk opener switch.
	Off		No buzzer reminder function from trunk opener switch.
ANTI KEY LOCK IN FUNCTI	On*		Anti lock out setting ON.
	Off		Anti lock out setting OFF.
ANS BACK I-KEY UNLOCK	Off		No buzzer reminder when doors are unlocked with request switch.
	On*		Buzzer reminder when doors are unlocked with request switch.
ANS BACK I-KEY LOCK	Horn Chirp		Horn chirp reminder when doors are locked with request switch.
	Buzzer*		Buzzer reminder when doors are locked with request switch.
	Off		No reminder when doors are locked with request switch.
HORN WITH KEYLESS LOCK	Off		Horn chirp reminder when doors are locked with Intelligent Key.
	On*		No horn chirp reminder when doors are locked with Intelligent Key.
HAZARD ANSWER BACK	Lock/Unlock*		Hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch.
	Unlock Only		Hazard warning lamp activation when doors are unlocked with Intelligent Key or request switch.
	Lock Only		Hazard warning lamp activation when doors are locked with Intelligent Key or request switch.
	Off		No hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch.
INSIDE ANT DIAGNOSIS	—		This function allows inside key antenna self-diagnosis.
CONFIRM KEY FOB ID	—		Intelligent Key ID code can be checked.
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration time setting.
		100 msec	
		200 msec	
	End		—

Support Item	Setting		Description
PANIC ALARM SET	MODE 3	1.5 sec	Intelligent Key panic alarm button setting.
	MODE 2	OFF	
	MODE 1*	0.5 sec	
LO-BATT OF KEY FOB WARN	On*		Intelligent Key low battery warning ON.
	Off		Intelligent Key low battery warning OFF.
AUTO LOCK SET	MODE7	5 min	Auto door lock time setting.
	MODE6	4 min	
	MODE5	3 min	
	MODE4	2 min	
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	Off	
TRUNK OPEN DELAY	MODE 3	1.5 sec	Intelligent Key trunk open button setting.
	MODE 2	OFF	
	MODE 1*	0.5 sec	

*: Initial Setting

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000013370567

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of driver door unlock sensor.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TR/BD OPEN SW [On/Off]	Indicates condition of trunk open switch.
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk lid switch.
RKE-TR/BD [On/Off]	Indicates condition of trunk open signal from Intelligent Key.

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:0000000012783076

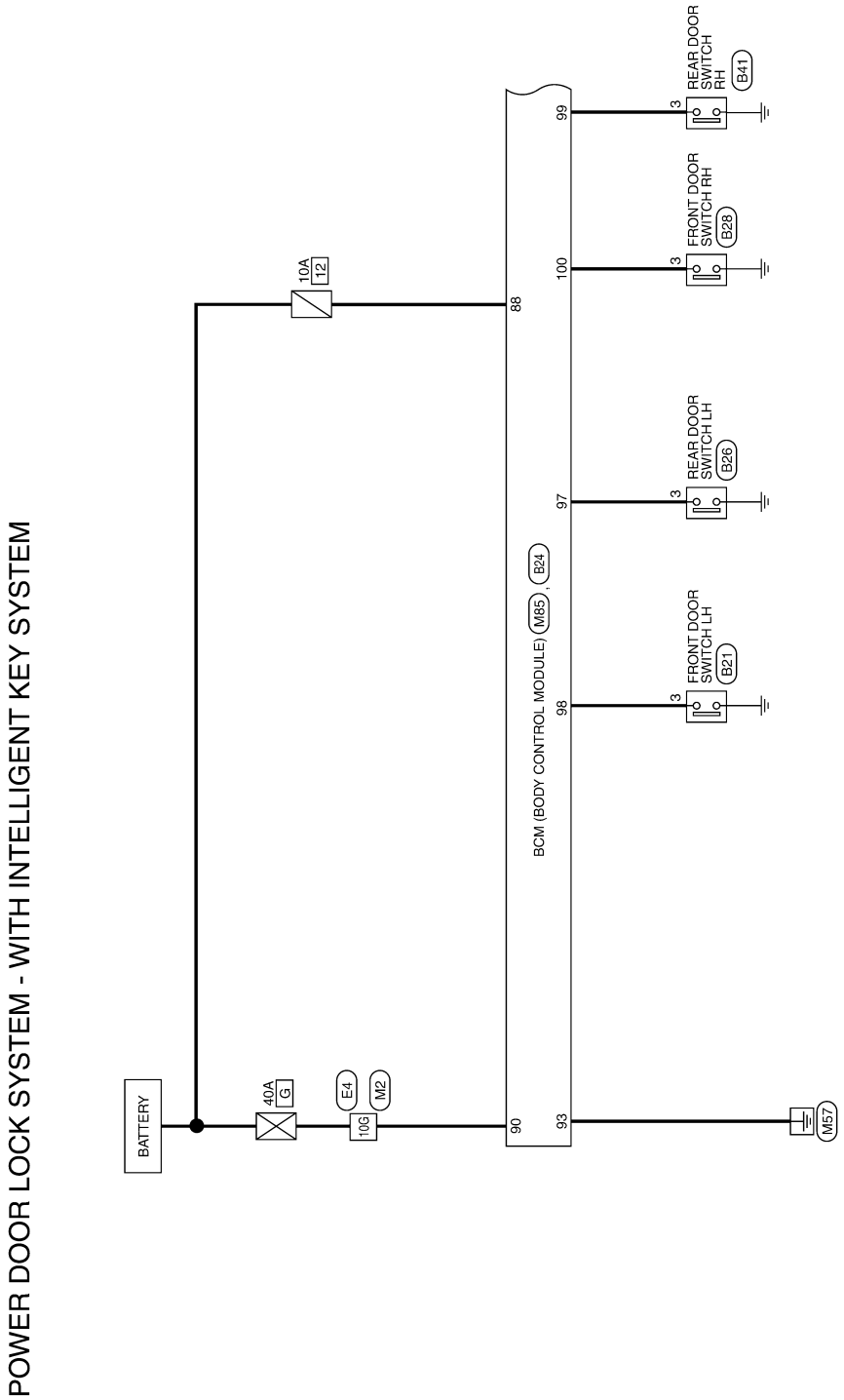
ECU	Reference
BCM	BCS-30, "Reference Value"
	BCS-48, "Fail-safe"
	BCS-49, "DTC Inspection Priority Chart"
	BCS-50, "DTC Index"

WIRING DIAGRAM

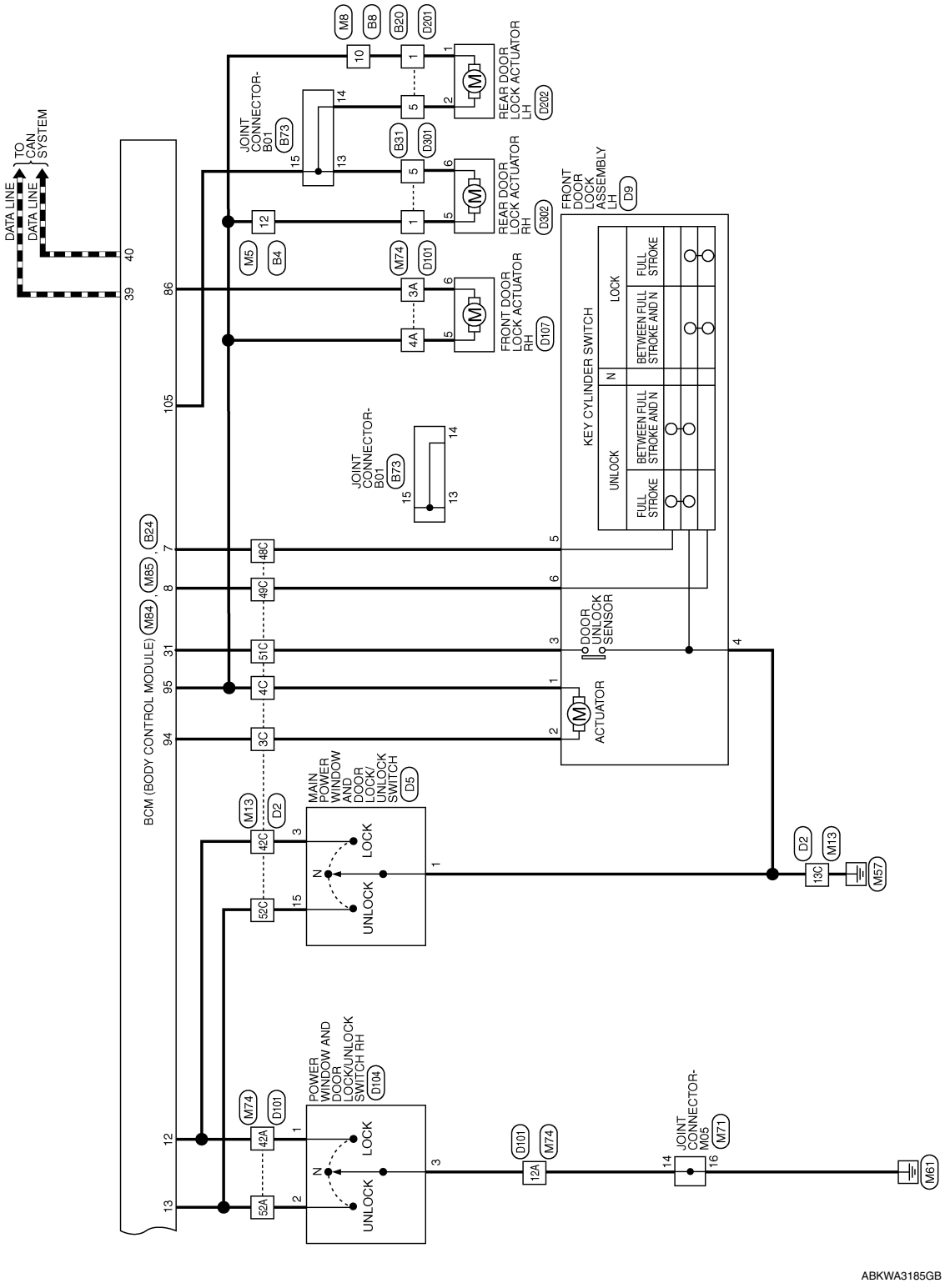
POWER DOOR LOCK SYSTEM

Wiring Diagram

INFOID:0000000012783077



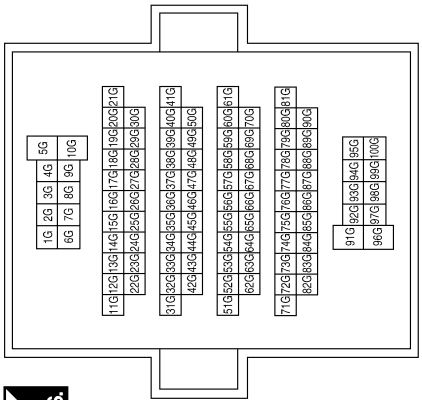
AAKWA0529GB


TO CAN SYSTEM
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE)
JOINT CONNECTOR-B01
REAR DOOR LOCK ACTUATOR LH
REAR DOOR LOCK ACTUATOR RH
FRONT DOOR LOCK ACTUATOR RH
FRONT DOOR LOCK ASSEMBLY LH
KEY CYLINDER SWITCH
UNLOCK
LOCK
FULL STROKE
BETWEEN FULL STROKE AND N
DOOR UNLOCK SENSOR
ACTUATOR
MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
JOINT CONNECTOR-M05
ABKWA3185GB

POWER DOOR LOCK SYSTEM CONNECTORS - WITH INTELLIGENT KEY SYSTEM

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

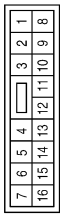
H.S.



Terminal No.	Color of Wire	Signal Name
10G	Y	–

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Color	WHITE

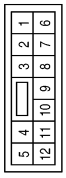
H.S.



Terminal No.	Color of Wire	Signal Name
12	O	–

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE

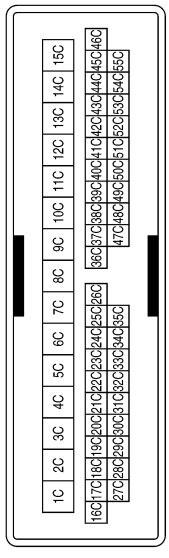
H.S.



Terminal No.	Color of Wire	Signal Name
10	O	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
3C	SB	–
4C	O	–
13C	B	–
42C	GR	–
48C	L	–
49C	V	–
51C	R	–
52C	BR	–

ABKIA5383GB

Connector No.	M71
Connector Name	JOINT CONNECTOR-M05
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
14	B	–
16	B	–

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3A	SB	–
4A	O	–
12A	B	–
42A	GR	–
52A	BR	–

Connector No.	M84
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
7	L	KEY CYLINDER UNLOCK SW
8	V	KEY CYLINDER LOCK SW
12	GR	CENTRAL DOOR LOCK SW
13	BR	CENTRAL DOOR UNLOCK SW
31	R	DOOR LOCK STATUS SW (DR)
39	L	CAN-H
40	P	CAN-L

Connector No.	M85
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
86	SB	DOOR UNLOCK OUTPUT (AS)
88	BG	BATTERY (FUSE)
90	Y	BATTERY (F/L)
93	B	GND (POWER)
94	SB	DOOR UNLOCK COMMON (DR)
95	O	DOOR LOCK OUTPUT (ALL)

Connector No.	E4
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10G	G	–

ABKIA7265GB

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
12	SB	–

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3		4	5
6	7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
10	V	–

Connector No.	B20
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
1	V	–
5	Y	–

Connector No.	B21
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
3	Y	–

Connector No.	B24
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

104	103	102	101	100	99	98	97	96
110	109	108	107	106	105

Terminal No.	Color of Wire	Signal Name
97	GR	DOOR SW (RL)
98	Y	DOOR SW (DR)
99	P	DOOR SW (RR)
100	R	DOOR SW (AS)
105	G	DOOR UNLOCK OUTPUT (RR,RL)

Connector No.	B26
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
3	GR	–

AAKIA0986GB

Connector No.	B28
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	R	–

Connector No.	B31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	SB	–
5	P	–

Connector No.	B41
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	P	–

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3C	L	–
4C	BR	–
13C	B	–
42C	L	–
48C	Y	–
49C	R	–
51C	W	–
52C	BR	–

Connector No.	B73
Connector Name	JOINT CONNECTOR-B01
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
13	P	–
14	Y	–
15	G	–

ABKIA5385GB

Connector No.	D5
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE

H.S.

7	6	5	4		3	2	1
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	L	LOCK SW
15	BR	UNLOCK SW

Connector No.	D9
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
1	BR	–
2	L	–
3	W	–
4	B	–
5	Y	–
6	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
46A	45A	44A	43A	42A	41A	40A	39A	38A	37A	36A	26A	25A	24A	23A	22A	21A	20A	19A	18A	17A	16A
		55A	54A	53A	52A	51A	50A	49A	48A	47A			35A	34A	33A	32A	31A	30A	29A	28A	27A

Terminal No.	Color of Wire	Signal Name
3A	Y	–
4A	V	–
12A	B	–
42A	Y	–
52A	BR	–

Connector No.	D104
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE

H.S.

1	2		3	4	5
6	7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–

Connector No.	D107
Connector Name	FRONT DOOR LOCK ACTUATOR RH
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
5	V	–
6	Y	–

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

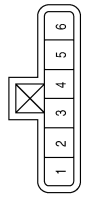
1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
1	V	–
5	G	–

ABKIA5386GB

Connector No.	D202
Connector Name	REAR DOOR LOCK ACTUATOR LH
Connector Color	GRAY

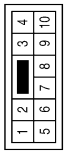
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	–
2	G	–

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE

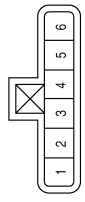
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	–
5	G	–

Connector No.	D302
Connector Name	REAR DOOR LOCK ACTUATOR RH
Connector Color	GRAY

H.S.



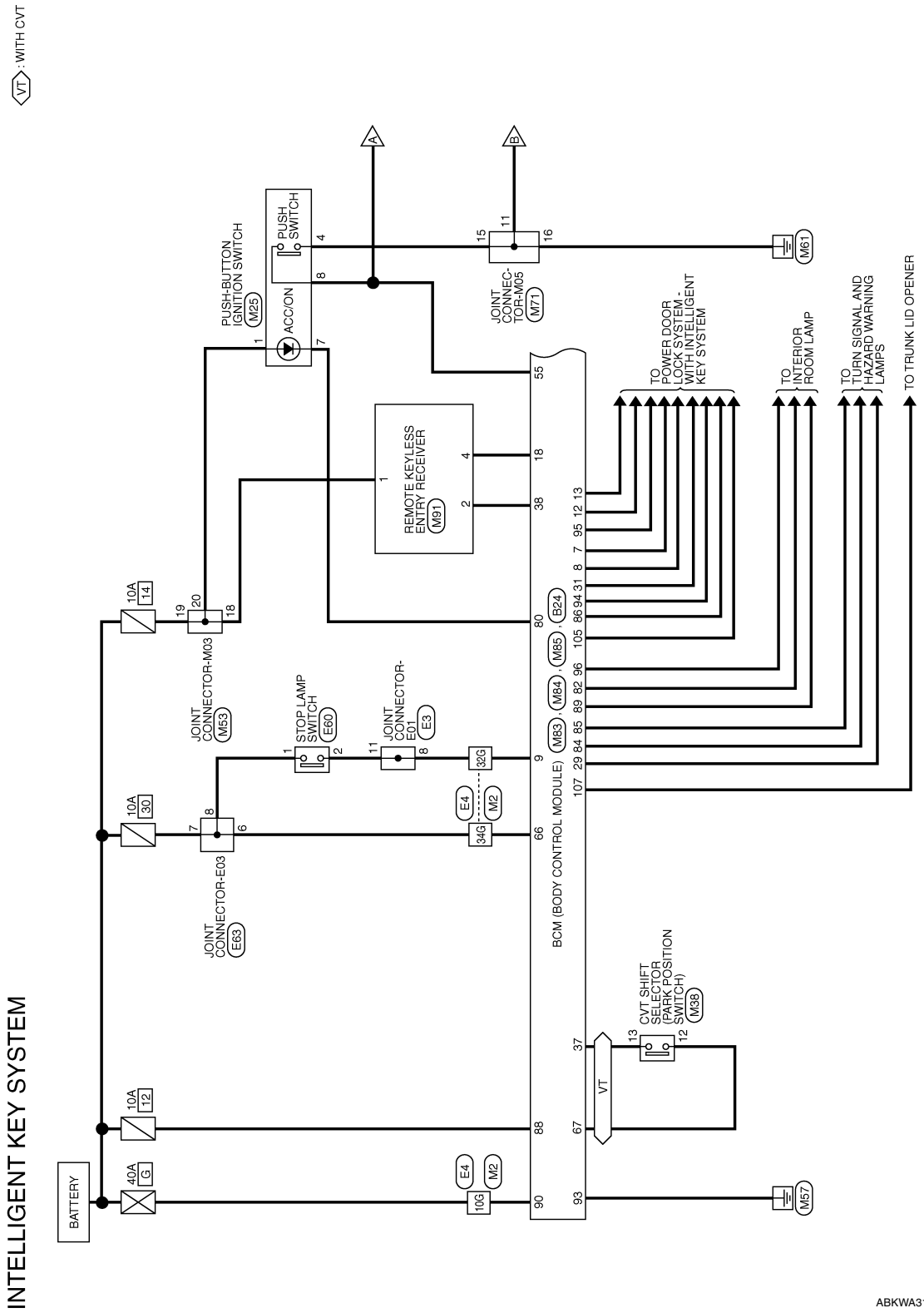
Terminal No.	Color of Wire	Signal Name
5	V	–
6	G	–

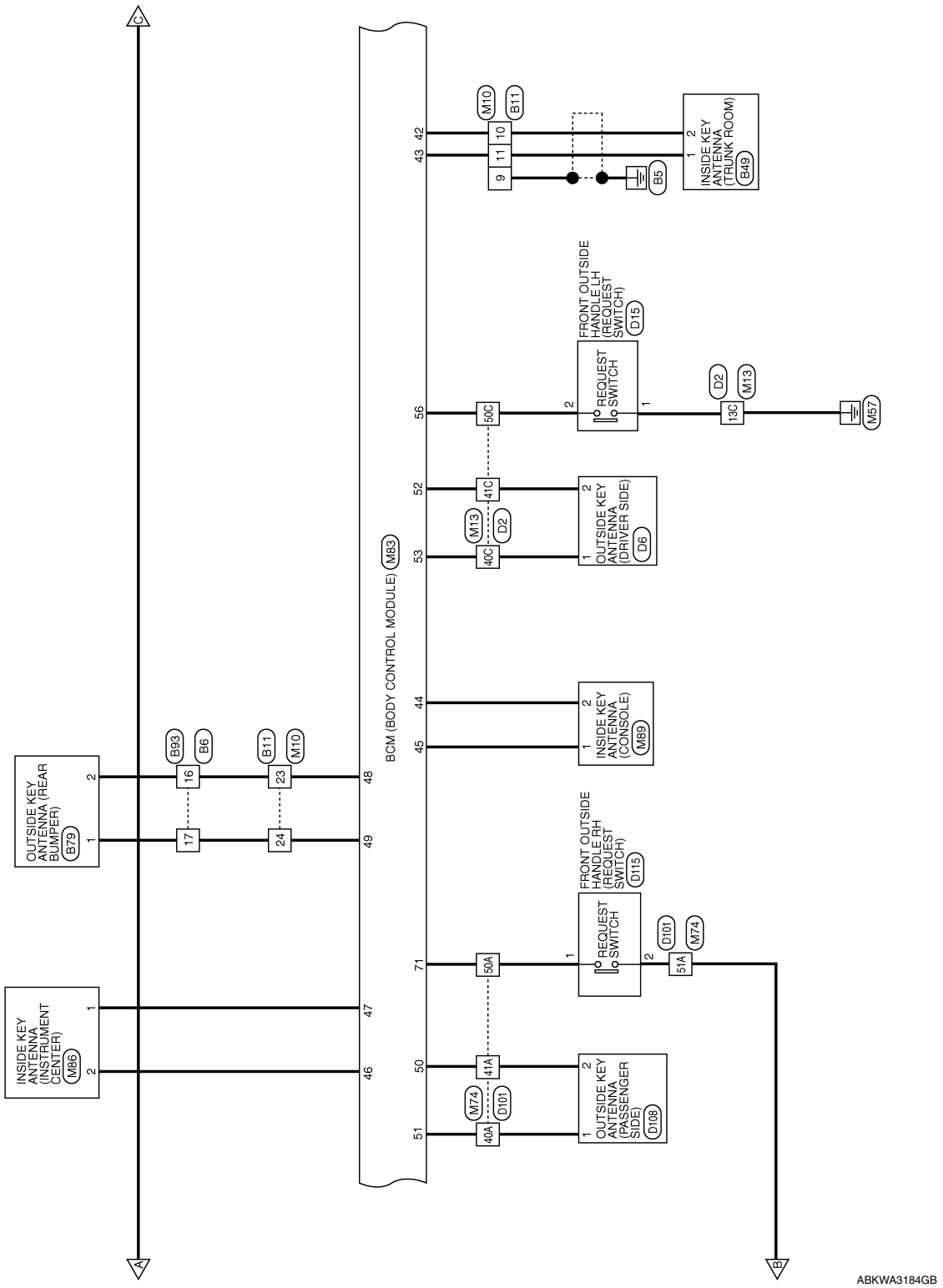
AAKIA0989GB

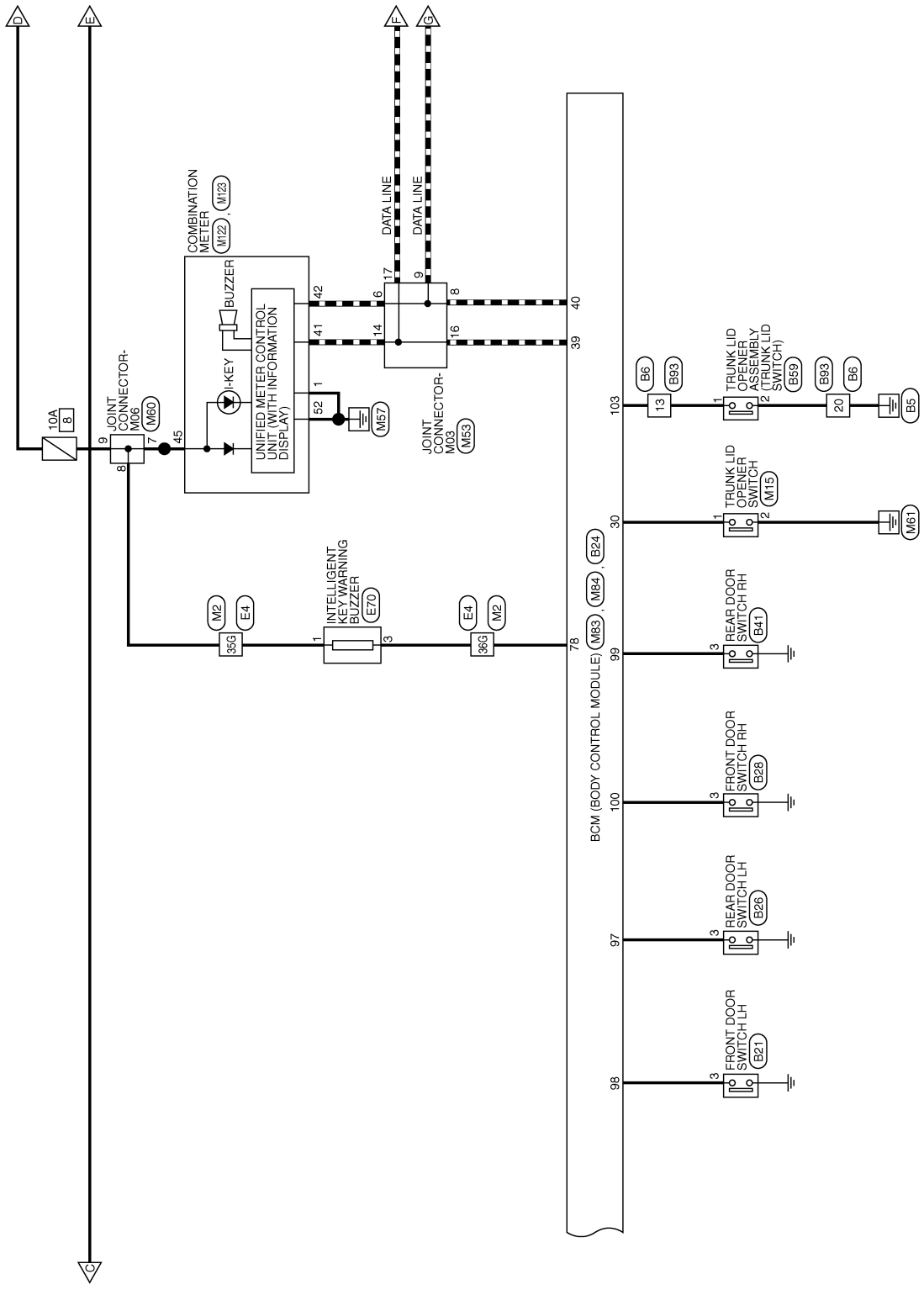
INTELLIGENT KEY SYSTEM

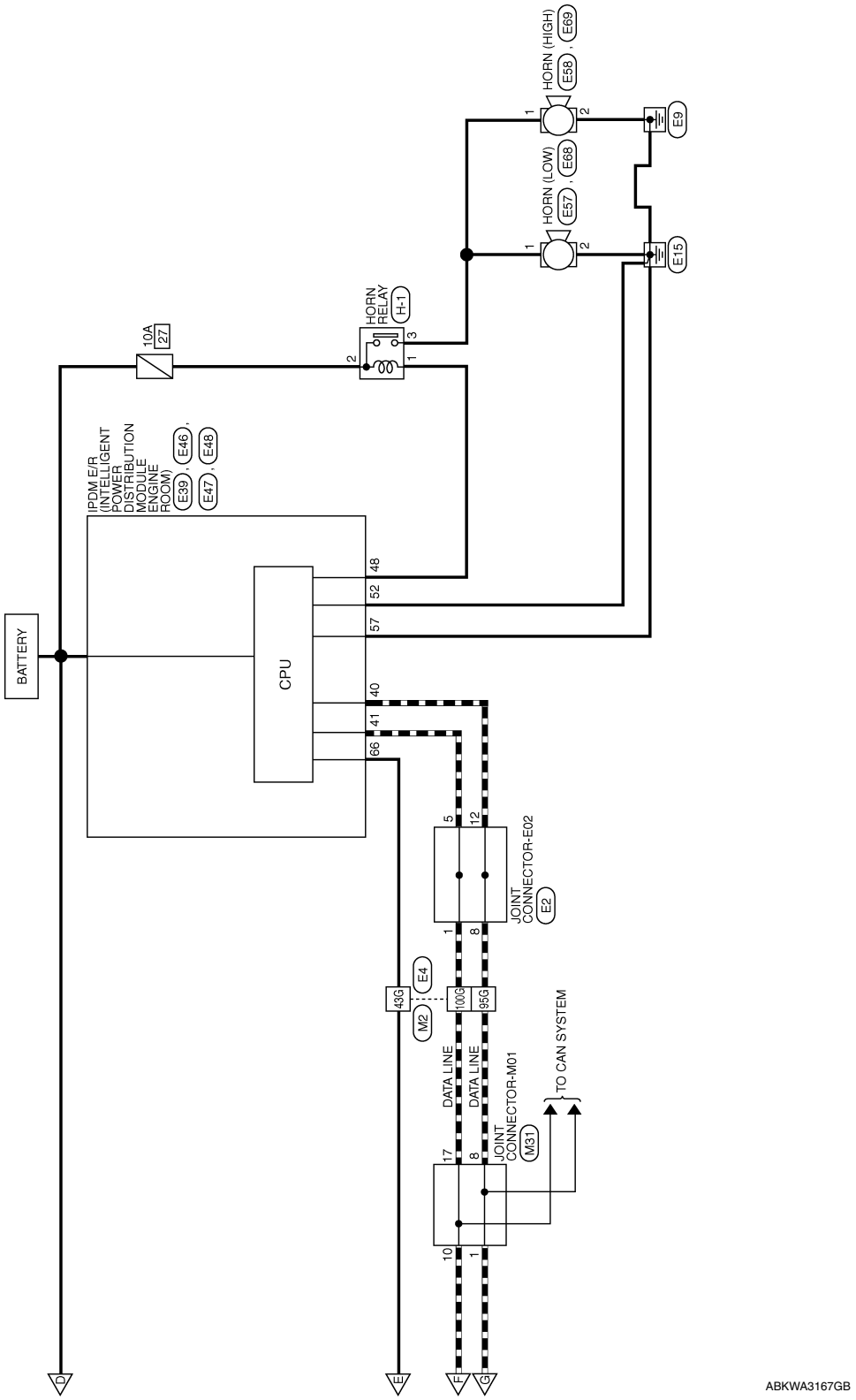
Wiring Diagram

INFOID:0000000012783078




C
A
B
BCM (BODY CONTROL MODULE) M83
INSIDE KEY ANTENNA (TRUNK ROOM) B49
B5
FRONT OUTSIDE HANDLE LH (REQUEST SWITCH) D15
REQUEST SWITCH
M57
OUTSIDE KEY ANTENNA (DRIVER SIDE) D6
INSIDE KEY ANTENNA (CONSOLE) M89
OUTSIDE KEY ANTENNA (REAR BUMPER) B79
FRONT OUTSIDE HANDLE RH (REQUEST SWITCH) D115
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M86
OUTSIDE KEY ANTENNA (PASSENGER SIDE) D108
ABKWA3184GB

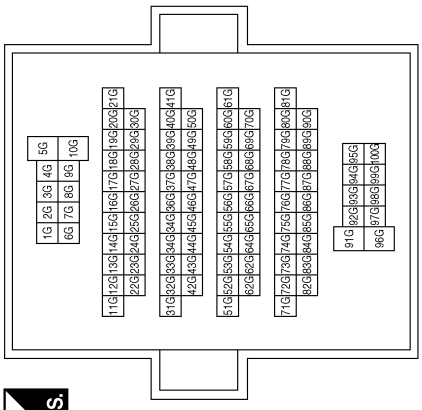

D
E
F
G
C
10A
8
JOINT CONNECTOR-M06
M60
9
7
45
8
COMBINATION METER
M122
M123
BUZZER
I-KEY
UNIFIED METER CONTROL UNIT (WITH INFORMATION DISPLAY)
42
41
1
52
M57
DATA LINE
DATA LINE
17
9
6
14
8
16
40
39
JOINT CONNECTOR-M03
M53
M2
E4
35G
INTELLIGENT KEY WARNING BUZZER
E70
1
3
E4
M2
36G
78
BCM (BODY CONTROL MODULE)
M83
M84
B24
103
30
99
100
97
98
B6
13
TRUNK LID OPENER ASSEMBLY (TRUNK LID SWITCH)
B59
B93
20
B6
B5
TRUNK LID OPENER SWITCH
M15
M61
REAR DOOR SWITCH RH
B41
FRONT DOOR SWITCH RH
B28
REAR DOOR SWITCH LH
B26
FRONT DOOR SWITCH LH
B21
ABKWA3166GB


HORN (HIGH)
E69
E58
E9
HORN (LOW)
E68
E57
E15
HORN RELAY
H-1
10A
27
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E46
E48
E39
E47
BATTERY
CPU
48
52
57
40
41
66
JOINT CONNECTOR-E02
E2
E4
43G
100G
95G
M2
DATA LINE
DATA LINE
JOINT CONNECTOR-M01
M31
TO CAN SYSTEM
D
E
F
G
ABKWA3167GB

INTELLIGENT KEY SYSTEM CONNECTORS

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

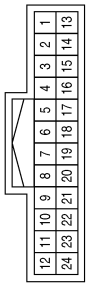
H.S.



Terminal No.	Color of Wire	Signal Name
10G	Y	–
32G	R	–
34G	V	–
35G	BR	–
36G	W	–
43G	LG	–
95G	P	–
100G	L	–

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	WHITE

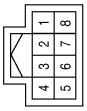
H.S.



Terminal No.	Color of Wire	Signal Name
10	BR	–
11	Y	–
23	R	–
24	W	–

Connector No.	M25
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	WHITE

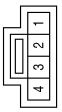
H.S.



Terminal No.	Color of Wire	Signal Name
1	SB	–
4	B	–
7	V	–
8	LG	–

Connector No.	M15
Connector Name	TRUNK LID OPENER SWITCH
Connector Color	WHITE

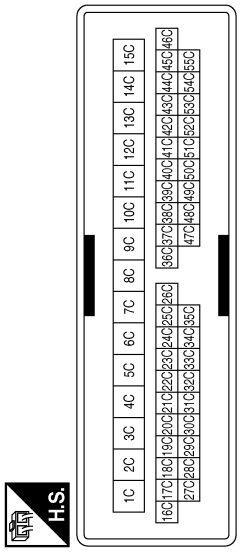
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	–
2	B	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
13C	B	–
40C	P	–
41C	LG	–
50C	G	–

ABKIA7268GB

Connector No.	M53
Connector Name	JOINT CONNECTOR-M03
Connector Color	BLUE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
6	P	–
8	P	–
9	P	–
14	L	–
16	L	–
17	L	–
18	SB	–
19	SB	–
20	SB	–

Connector No.	M38
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE

H.S.

8	7	6	5	4	3	2	1	9
16	15	14	13	12	11	10		

Terminal No.	Color of Wire	Signal Name
12	SB	–
13	P	–

Connector No.	M31
Connector Name	JOINT CONNECTOR-M01
Connector Color	BLUE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
1	P	–
8	P	–
10	L	–
17	L	–

Connector No.	M71
Connector Name	JOINT CONNECTOR-M05
Connector Color	BLUE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
11	B	–
15	B	–
16	B	–

Connector No.	M60
Connector Name	JOINT CONNECTOR-M06
Connector Color	WHITE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
7	W	–
8	BR	–
9	W	–

ABKIA7269GB

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A
16A	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	36A	37A	38A	39A	40A	41A	42A	43A	44A	45A	46A
27A	28A	29A	30A	31A	32A	33A	34A	35A			47A	48A	49A	50A	51A	52A	53A	54A	55A		

Terminal No.	Color of Wire	Signal Name
40A	BR	–
41A	Y	–
50A	GR	–
51A	B	–

Connector No.	M83
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
42	BR	ROOM ANTENNA 3 -
43	Y	ROOM ANTENNA 3 +
44	R	ROOM ANTENNA 2 -
45	G	ROOM ANTENNA 2 +
46	GR	ROOM ANTENNA 1 -
47	BR	ROOM ANTENNA 1 +

Terminal No.	Color of Wire	Signal Name
48	R	BACK DOOR ANTENNA -
49	W	BACK DOOR ANTENNA +
50	Y	DOOR ANTENNA (AS) -
51	BR	DOOR ANTENNA (AS) +
52	LG	DOOR ANTENNA (DR) -
53	P	DOOR ANTENNA (DR) +
55	LG	ENGINE START SW
56	G	REQUEST SW (DR)
66	V	BRAKE SW2
67	SB	AT DEVICE OUTPUT
71	GR	REQUEST SW (AS)
78	W	SMART KEYLESS BUZZER OUTPUT
80	V	POWER POSITION LED (LOCK POSITION LED)

Connector No.	M84
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
7	L	KEY CYLINDER UNLOCK SW
8	V	KEY CYLINDER LOCK SW
9	R	BRAKE SW1
12	GR	CENTRAL DOOR LOCK SW
13	BR	CENTRAL DOOR UNLOCK SW
18	V	KEYLESS TUNER, AUTO LIGHT SENSOR GND

Terminal No.	Color of Wire	Signal Name
29	SB	HAZARD SW
30	L	TRUNK OPENER SW
31	R	DOOR LOCK STATUS SW (DR)
37	P	SHIFT P POSITION, PARKING POSITION SW (WITH CVT)
38	LG	INTELLIGENT TUNER
39	L	CAN-H
40	P	CAN-L

ABKIA7270GB

Connector No.	M85
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

88	87	86	85	84	83	82	81
95	94	93	92	91	90		

Terminal No.	Color of Wire	Signal Name
82	BR	ROOM LAMP OUTPUT
84	W	FLASHER OUTPUT (RIGHT)
85	Y	FLASHER OUTPUT (LEFT)

Terminal No.	Color of Wire	Signal Name
86	SB	DOOR UNLOCK OUTPUT (AS)
88	BG	BATTERY (FUSE)
89	P	BATTERY SAVER OUTPUT
90	Y	BATTERY (F/L)
93	B	GND
94	SB	DOOR UNLOCK COMMON (DR)
95	O	DOOR LOCK OUTPUT

Connector No.	M86
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Color	BLUE

H.S.

1 2

Terminal No.	Color of Wire	Signal Name
1	BR	–
2	GR	–

Connector No.	M89
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Color	BLUE

H.S.

1 2

Terminal No.	Color of Wire	Signal Name
1	G	–
2	R	–

Connector No.	M91
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (WITH INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1 2 3 4

Terminal No.	Color of Wire	Signal Name
1	SB	–
2	LG	–
4	V	–

Connector No.	M122
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	B	GND

ABKIA7271GB

Connector No.	M123
Connector Name	COMBINATION METER (WITH TYPE B)
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
41	L	CAN-H
42	P	CAN-L
45	LG	BAT
52	B	GND

Connector No.	E2
Connector Name	JOINT CONNECTOR-E02
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	L	–
5	L	–
8	P	–
12	P	–

Connector No.	E3
Connector Name	JOINT CONNECTOR-E01
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
8	SB	–
11	SB	–

Connector No.	E4
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10G	G	–
32G	SB	–
34G	W	–
35G	R	–
36G	GR	–
43G	L	–
95G	P	–
100G	L	–

Connector No.	E39
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

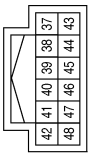
H.S.

Terminal No.	Color of Wire	Signal Name
66	L	PUSH START SW

ABKIA7272GB

Connector No.	E46
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

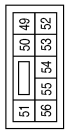
H.S.



Terminal No.	Color of Wire	Signal Name
40	P	CAN-L
41	L	CAN-H
48	L	HORN RLY CONT

Connector No.	E47
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
52	B/Y	SIGNAL GND

Connector No.	E48
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
57	B/Y	POWER GND

Connector No.	E57
Connector Name	HORN (LOW)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–

Connector No.	E58
Connector Name	HORN (HIGH)
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–

Connector No.	E60
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE

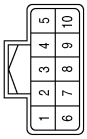
H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	SB	–

ABKIA7273GB

Connector No.	E63
Connector Name	JOINT CONNECTOR-E03
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
6	W	–
7	W	–
8	W	–

Connector No.	E68
Connector Name	HORN (LOW)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
2	B/R	–

Connector No.	E69
Connector Name	HORN (HIGH)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
2	B/W	–

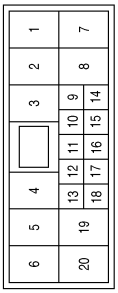
Connector No.	E70
Connector Name	INTELLIGENT KEY WARNING BUZZER
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	–
3	GR	–

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

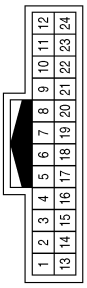
H.S.



Terminal No.	Color of Wire	Signal Name
13	V	–
16	Y	–
17	W	–
20	B	–

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
9	SHIELD	–
10	LG	–
11	V	–
23	Y	–
24	W	–

ABKIA7274GB

Connector No.	B21
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	Y	–

Connector No.	B24
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
96	LG	LUGGAGE LAMP OUTPUT
97	GR	DOOR SW (RL)
98	Y	DOOR SW (DR)
99	P	DOOR SW (RR)
100	R	DOOR SW (AS)
103	V	TRUNK SW
105	G	DOOR UNLOCK OUTPUT (RR,RL)
107	GR	TRUNK OPEN OUTPUT

Connector No.	B26
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	GR	–

Connector No.	B28
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	R	–

Connector No.	B41
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	P	–

Connector No.	B49
Connector Name	INSIDE KEY ANTENNA (TRUNK ROOM)
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	LG	–

ABKIA7275GB

Connector No.	B59
Connector Name	TRUNK LID OPENER ASSEMBLY
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–

Connector No.	B79
Connector Name	OUTSIDE KEY ANTENNA (REAR BUMPER)
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	B	–

Connector No.	B93
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
13	R	–
16	B	–
17	W	–
20	B	–

Connector No.	D15
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–
2	LG	–

Connector No.	D6
Connector Name	OUTSIDE KEY ANTENNA (DRIVER SIDE)
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	P	–
2	V	–

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
13C	B	–
40C	P	–
41C	V	–
50C	LG	–

ABKIA7276GB

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
46A	45A	44A	43A	42A	41A	40A	39A	38A	37A	36A	26A	25A	24A	23A	22A	21A	20A	19A	18A	17A	16A
55A	54A	53A	52A	51A	50A	49A	48A	47A			35A	34A	33A	32A	31A	30A	29A	28A	27A		

Terminal No.	Color of Wire	Signal Name
40A	P	–
41A	V	–
50A	P	–
51A	B	–

Connector No.	D108
Connector Name	OUTSIDE KEY ANTENNA (PASSENGER SIDE)
Connector Color	GRAY

H.S.

1 2

Terminal No.	Color of Wire	Signal Name
1	P	–
2	V	–

Connector No.	D115
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Color	BLACK

H.S.

1 2

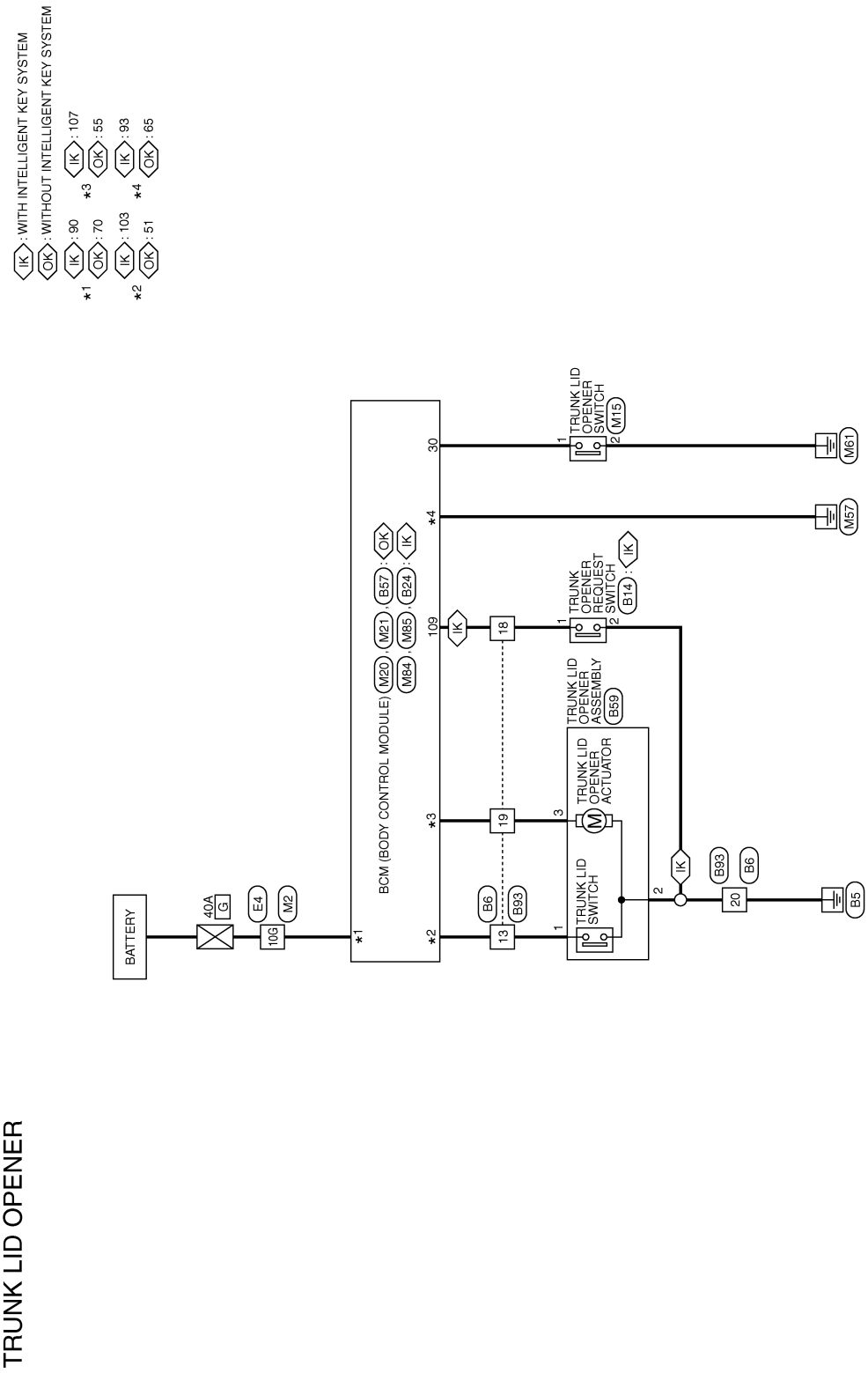
Terminal No.	Color of Wire	Signal Name
1	P	–
2	B	–

ABKIA7277GB

TRUNK LID OPENER

Wiring Diagram

INFOID:0000000012783079



TRUNK LID OPENER

ABKWA3187GB

TRUNK LID OPENER CONNECTORS

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1G	2G	3G	4G	5G
6G	7G	8G	9G	10G

11G	12G	13G	14G	15G	16G	17G	18G	19G	20G	21G
22G	23G	24G	25G	26G	27G	28G	29G	30G		

31G	32G	33G	34G	35G	36G	37G	38G	39G	40G	41G
42G	43G	44G	45G	46G	47G	48G	49G	50G		

51G	52G	53G	54G	55G	56G	57G	58G	59G	60G	61G
62G	63G	64G	65G	66G	67G	68G	69G	70G		

71G	72G	73G	74G	75G	76G	77G	78G	79G	80G	81G
82G	83G	84G	85G	86G	87G	88G	89G	90G		

91G	92G	93G	94G	95G
96G	97G	98G	99G	100G

Terminal No.	Color of Wire	Signal Name
10G	Y	–

Connector No.	M15
Connector Name	TRUNK LID OPENER SWITCH
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	L	–
2	B	–

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

64	63	62	61	60	59	58	57	56
70	69	68	67	66	65			

Terminal No.	Color of Wire	Signal Name
65	B	GND
70	Y	BATTERY (F/L)

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
30	L	TRUNK OPENER SW

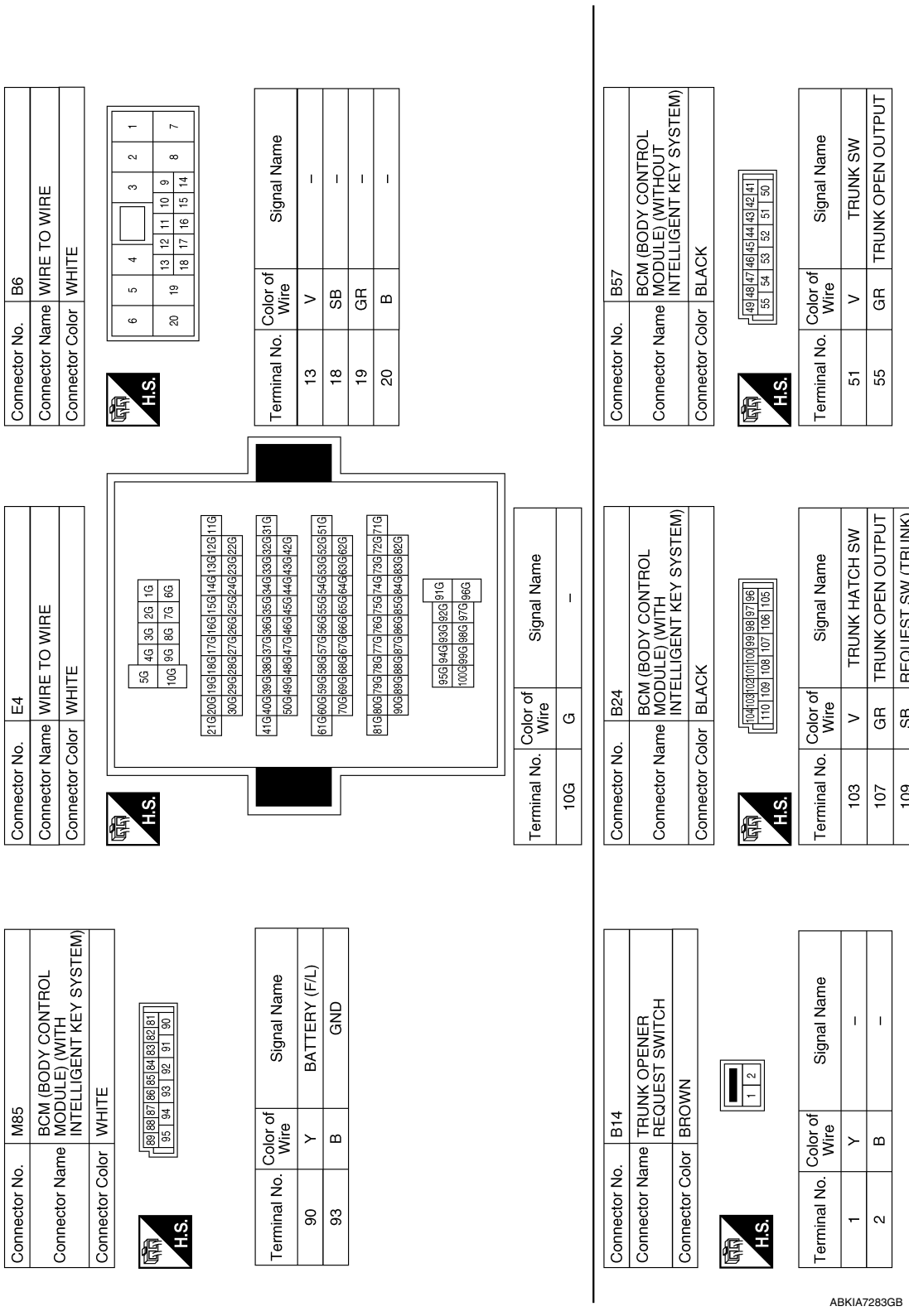
Connector No.	M84
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

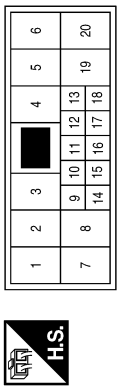
Terminal No.	Color of Wire	Signal Name
30	L	TRUNK OPENER SW

ABKIA7282GB



ABKIA7283GB

Connector No.	B93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	R	–
18	Y	–
19	GR	–
20	B	–

Connector No.	B59
Connector Name	TRUNK LID OPENER ASSEMBLY
Connector Color	WHITE

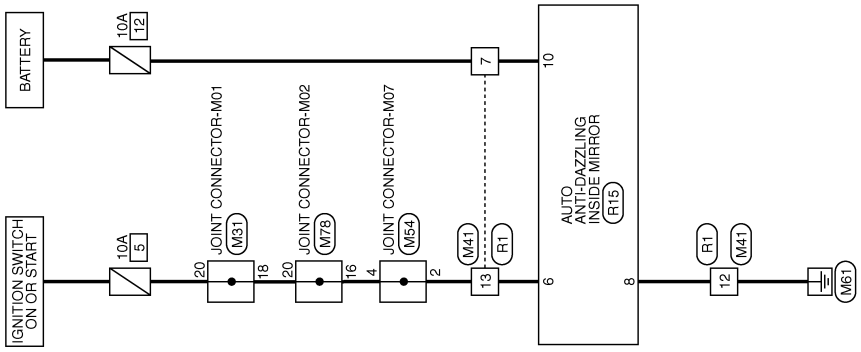
Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–
3	GR	–

AAKIA1010GB

HOMELINK UNIVERSAL TRANSCEIVER

Wiring Diagram

INFOID:0000000012783080



HOMELINK UNIVERSAL TRANSCEIVER

ABKWA3164GB

HOMELINK UNIVERSAL TRANSCEIVER CONNECTORS

Connector No.	M31
Connector Name	JOINT CONNECTOR-M01
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
18	LG	–
20	LG	–

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
7	BG	–
12	B	–
13	BR	–

Connector No.	M54
Connector Name	JOINT CONNECTOR-M07
Connector Color	GREEN

H.S.

Terminal No.	Color of Wire	Signal Name
2	BR	–
4	LG	–

Connector No.	M78
Connector Name	JOINT CONNECTOR-M02
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
16	LG	–
20	LG	–

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
7	O	–
12	B	–
13	BR	–

Connector No.	R15
Connector Name	AUTO ANTI-DAZZLING INSIDE MIRROR (WITH HOMELINK UNIVERSAL TRANSCEIVER)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
6	BR	–
8	B	–
10	O	–

ABKIA7267GB

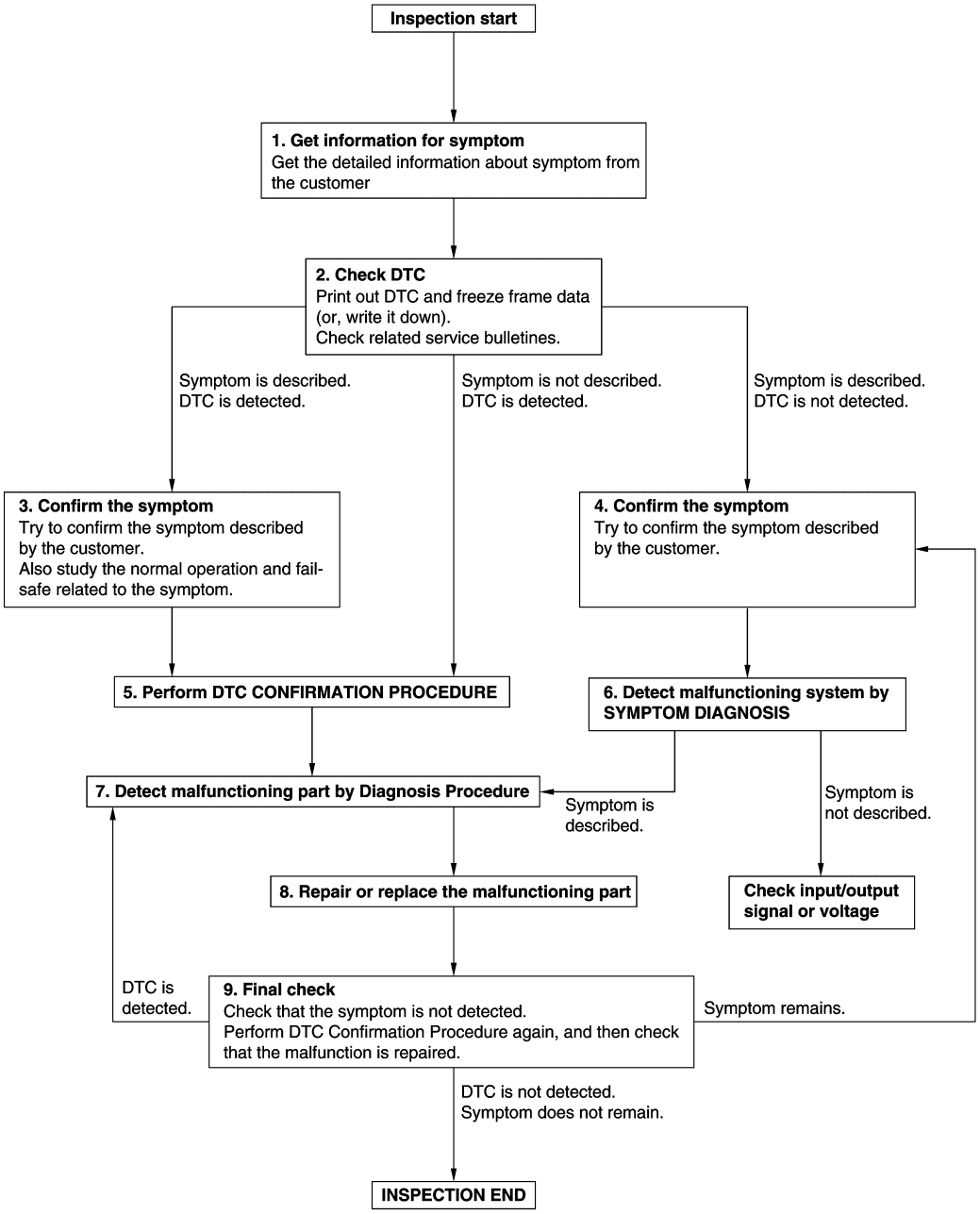
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012783081

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.

- Record DTC and freeze frame data (Print them out using CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.

3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.
Symptom is described, DTC is not detected>>GO TO 4.
Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Also study the normal operation and fail-safe related to the symptom.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-49, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.
NO >> Check according to GI-41, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check according to GI-41, "Intermittent Incident".

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000012783082

Refer to LAN-26, "CAN COMMUNICATION SYSTEM : System Description".

DTC Logic

INFOID:0000000012783083

DTC DETECTION LOGIC

NOTE:
U1000 can be set if a module harness was disconnected and reconnected, perhaps during a repair. Confirm that there are actual CAN diagnostic symptoms and a present DTC by performing the Self Diagnostic Result procedure.

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	When any listed module cannot communicate with CAN communication signal continuously for 2 seconds or more with ignition switch ON	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000012783084

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “SELF- DIAG RESULTS”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT operation manual.
NO >> Refer to GI-41, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000012783085

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000012783086

1.REPLACE BCM

When DTC “U1010” is detected, replace BCM.

>> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2621 INSIDE ANTENNA

DTC Logic

INFOID:0000000012783087

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
• Check Intelligent Key relative signal strength
• Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA 1	An excessive high or low voltage from inside antenna (instrument center) is sent to BCM.	• Inside key antenna (instrument center) • Harness between BCM and inside-key antenna (instrument center) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
4. Check BCM for DTC.

Is inside key antenna DTC detected?

YES >> Refer to DLK-74, "Diagnosis Procedure".
NO >> Inside key antenna (instrument center) is OK.

Diagnosis Procedure

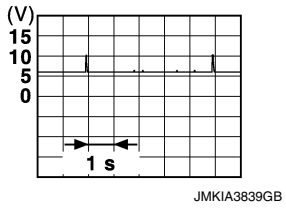
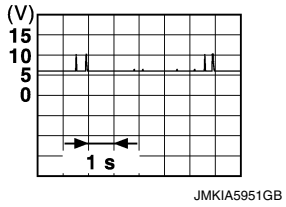
INFOID:0000000012783088

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
• Check Intelligent Key relative signal strength
• Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M83	46 47	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and inside key antenna (instrument center) connector.
3. Check continuity between BCM harness connector and inside key antenna (instrument center) harness connector.

BCM Connector	BCM Terminal	Inside key antenna (instrument center) Connector	Inside key antenna (instrument center) Terminal	Continuity
M83	47	M86	1	Yes
	46		2	

4. Check continuity between BCM harness connector and ground.

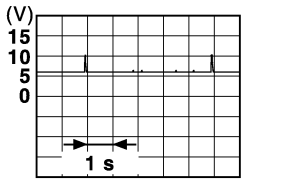
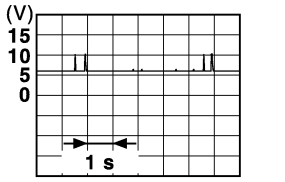
BCM Connector	BCM Terminal	Ground	Continuity
M83	47		No
	46		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace inside key antenna (instrument center). (New antenna or other antenna)
2. Connect BCM connector and inside key antenna (instrument center) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+)		(–)	Condition	Signal (Reference value)
BCM				
Connector	Terminal			
M83	47 46	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace inside key antenna (instrument center).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2622 INSIDE ANTENNA

DTC Logic

INFOID:0000000012783089

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2622	INSIDE ANTENNA 2	An excessive high or low voltage from inside antenna (console) is sent to BCM	• Inside key antenna (console) • Harness between BCM and inside key antenna (console) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
4. Check BCM for DTC.

Is inside key antenna DTC detected?

YES >> Refer to DLK-77, "Diagnosis Procedure".
NO >> Inside key antenna (console) is OK.

Diagnosis Procedure

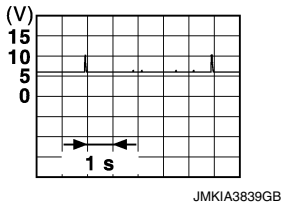
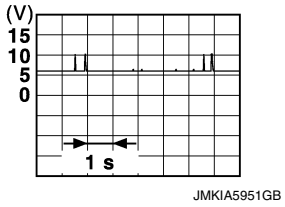
INFOID:0000000012783090

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M83	45 44	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2.CHECK INSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and inside key antenna (console) connector.
3. Check continuity between BCM harness connector and inside key antenna (console) harness connector.

BCM Connector	BCM Terminal	Inside key antenna (console) Connector	Inside key antenna (console) Terminal	Continuity
M83	45	M89	1	Yes
	44		2	

4. Check continuity between BCM harness connector and ground.

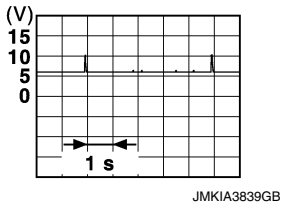
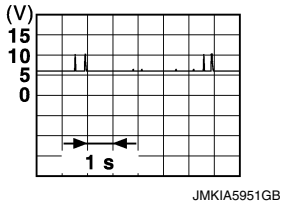
BCM Connector	BCM Terminal	Ground	Continuity
M83	45		No
	44		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace inside key antenna (console). (New antenna or other antenna)
2. Connect BCM connector and inside key antenna (console) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M83	45 44	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace inside key antenna (console).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2623 INSIDE ANTENNA

DTC Logic

INFOID:0000000012783091

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA 3	An excessive high or low voltage from inside antenna (trunk room) is sent to BCM	• Inside key antenna (trunk room) • Harness between BCM and inside key antenna (trunk room) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
4. Check BCM for DTC.

Is inside key antenna DTC detected?

YES >> Refer to DLK-80, "Diagnosis Procedure".
NO >> Inside key antenna (trunk room) is OK.

Diagnosis Procedure

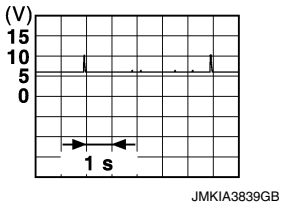
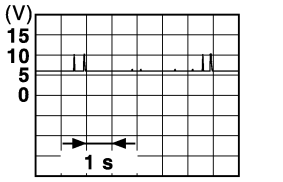
INFOID:0000000012783092

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M83	43 42	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and inside key antenna (trunk room) connector.
3. Check continuity between BCM harness connector and inside key antenna (trunk room) harness connector.

BCM Connector	BCM Terminal	Inside key antenna (trunk room) Connector	Inside key antenna (trunk room) Terminal	Continuity
M83	43	B49	1	Yes
	42		2	

4. Check continuity between BCM harness connector and ground.

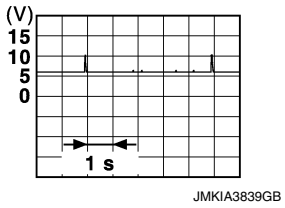
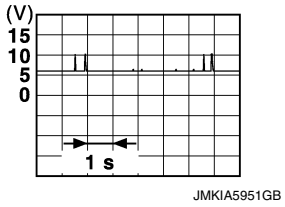
BCM Connector	BCM Terminal	Ground	Continuity
M83	43		No
	42		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace inside key antenna (trunk room). (New antenna or other antenna)
2. Connect BCM connector and inside key antenna (trunk room) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M83	43 42	Ground	When Intelligent Key is in the antenna detection area	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace inside key antenna (trunk room).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2626 OUTSIDE ANTENNA

DTC Logic

INFOID:0000000012783093

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2627	OUTSIDE ANTENNA 2	An excessive high or low voltage from outside key antenna (driver side) is sent to BCM	• Outside key antenna (driver side) • Harness between BCM and outside key antenna (driver side) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is DTC detected?

YES >> Refer to DLK-83, "Diagnosis Procedure".
NO >> Outside key antenna (driver side) is OK.

Diagnosis Procedure

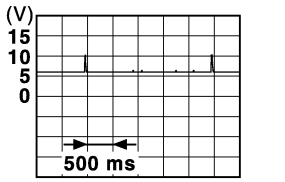
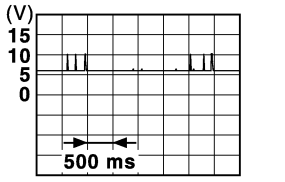
INFOID:0000000012783094

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	53 52	Ground	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and outside key antenna (driver side) connector.
3. Check continuity between BCM harness connector and outside key antenna (driver side) harness connector.

BCM		Outside key antenna (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M83	53	D6	1	Yes
	52		2	

4. Check continuity between BCM harness connector and ground.

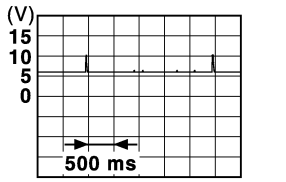
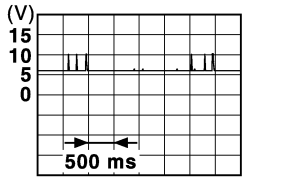
BCM		Ground	Continuity
Connector	Terminal		
M83	53		No
	52		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace outside key antenna (driver side). (New antenna or other antenna)
2. Connect BCM connector and outside key antenna (driver side) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	52 53	Ground	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (driver side).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2627 OUTSIDE ANTENNA

DTC Logic

INFOID:0000000012783095

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2626	OUTSIDE ANTENNA 1	An excessive high or low voltage from outside key antenna (passenger side) is sent to BCM	• Outside key antenna (passenger side) • Harness between BCM and outside key antenna (passenger side) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check Self Diagnostic Result mode of BCM using CONSULT.

Is outside key antenna DTC detected?

YES >> Refer to DLK-86, "Diagnosis Procedure".
NO >> Outside key antenna (passenger side) is OK.

Diagnosis Procedure

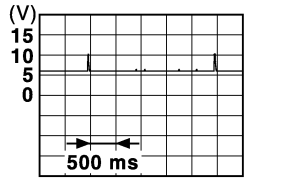
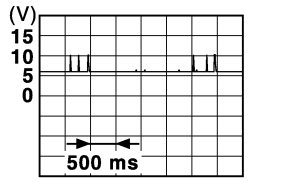
INFOID:0000000012783096

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	51 50	Ground	When the passenger side door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and outside key antenna (passenger side) connector.
3. Check continuity between BCM harness connector and outside key antenna (passenger side) harness connector.

BCM Connector	BCM Terminal	Outside key antenna (passenger side) Connector	Outside key antenna (passenger side) Terminal	Continuity
M83	51	D108	1	Yes
	50		2	

4. Check continuity between BCM harness connector and ground.

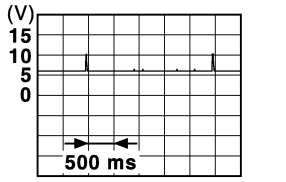
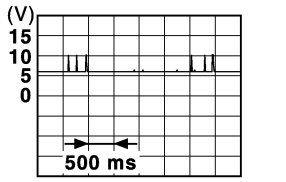
BCM Connector	BCM Terminal	Ground	Continuity
M83	51		No
	50		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace outside key antenna (passenger side). (New antenna or other antenna)
2. Connect BCM connector and outside key antenna (passenger side) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	51 50	Ground	When the passenger side door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (passenger side).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

B2628 OUTSIDE ANTENNA

DTC Logic

INFOID:0000000012783097

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2628	OUTSIDE ANTENNA 3	An excessive high or low voltage from outside key antenna (rear bumper) is sent to BCM	• Outside key antenna (rear bumper) • Harness between BCM and outside key antenna (rear bumper) • BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check Self Diagnostic Result mode of BCM using CONSULT.

Is outside key antenna DTC detected?

YES >> Refer to DLK-89, "Diagnosis Procedure".
NO >> Outside key antenna (rear bumper) is OK.

Diagnosis Procedure

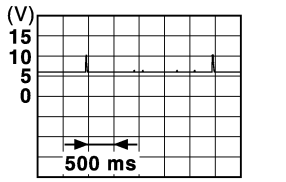
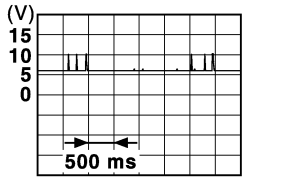
INFOID:0000000012783098

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.
2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	48,49	Ground	When the trunk opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and outside key antenna (rear bumper) connector.
3. Check continuity between BCM harness connector and outside key antenna (rear bumper) harness connector.

BCM		Outside key antenna (rear bumper)		Continuity
Connector	Terminal	Connector	Terminal	
M83	49	B79	1	Yes
	48		2	

4. Check continuity between BCM harness connector and ground.

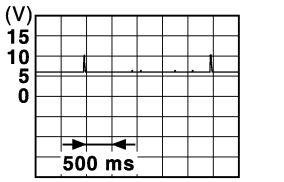
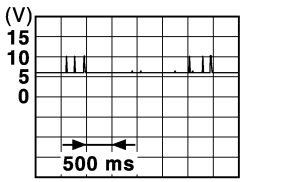
BCM		Ground	Continuity
Connector	Terminal		
M83	49		No
	48		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace outside key antenna (rear bumper). (New antenna or other antenna)
2. Connect BCM and outside key antenna (rear bumper) connector.
3. Turn ignition switch ON.
4. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminal	(–)	Condition		Signal (Reference value)
M83	49,48	Ground	When the trunk opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (rear bumper).
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013372790

Regarding Wiring Diagram information, refer to BCS-53, "Wiring Diagram".

1.CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
88	Battery power supply	12 (10A)
90		G (40A)

Is the fuse blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M85.
2. Check voltage between BCM connector M85 and ground.

BCM		Ground	Voltage
Connector	Terminal		
M85	88	—	Battery voltage
	90		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector M85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M85	93	—	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair harness or connector.

COMBINATION METER BUZZER

Component Function Check

INFOID:0000000012783100

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select INSIDE BUZZER in ACTIVE TEST mode.
3. Touch Key, Knob or Take Out to check that it works normally.

Is the inspection result normal?

Yes >> Combination meter buzzer is OK.
No >> Refer to DLK-93, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783101

1.CHECK METER BUZZER CIRCUIT

Refer to WCS-35, "Component Function Check".

Is the inspection result normal?

Yes >> GO TO 2.
No >> Repair or replace harness.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

DOOR LOCK ACTUATOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012783102

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR LOCK in ACTIVE TEST mode.
3. Touch ALL LOCK or ALL UNLK to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-94, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012783103

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock actuator LH connector.
3. Check voltage between front door lock actuator LH harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
Front door lock actuator LH					
Connector	Terminal				
D9	1	Ground	Door lock and unlock switch	Lock	Battery voltage
	2			Unlock	

Is the inspection result normal?

YES >> Replace front door lock actuator LH .
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector and all door lock actuator connectors.
2. Check continuity between BCM harness connector and front door lock actuator LH harness connector.

BCM		Front door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M85	95	D9	1	Yes
	94		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M85	95		No
	94		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between front door lock actuator LH harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M85	95	Ground	Door lock and unlock switch	Lock	Battery voltage
	94			Unlock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012783104

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR LOCK in ACTIVE TEST mode.
3. Touch ALL LOCK or ALL UNLK to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-95, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012783105

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock actuator RH connector.
3. Check voltage between front door lock actuator RH harness connector and ground.

(+) Front door lock actuator RH		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
D107	5	Ground	Door lock and unlock switch	Lock	Battery voltage
	6			Unlock	

Is the inspection result normal?

YES >> Replace front door lock actuator RH.
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector and all door lock actuators.
2. Check continuity between BCM harness connector and front door lock actuator RH harness connector.

BCM		Front door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M85	95	D107	5	Yes
	86		6	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M85	95		No
	86		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between front door lock actuator RH harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M85	95	Ground	Door lock and unlock switch	Lock	Battery voltage
	86			Unlock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

REAR LH

REAR LH : Component Function Check

INFOID:0000000012783106

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR LOCK in ACTIVE TEST mode.
3. Touch ALL LOCK or ALL UNLK to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-96, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000012783107

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear door lock actuator LH connector.
3. Check voltage between rear door lock actuator LH harness connector and ground.

(+) Rear door lock actuator LH		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
D202	1	Ground	Door lock and unlock switch	Lock	Battery voltage
	2			Unlock	

Is the inspection result normal?

YES >> Replace rear door lock actuator LH.
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector and all door lock actuator connectors.
2. Check continuity between BCM harness connector and rear door lock actuator LH harness connector.

BCM		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M85	95	D202	1	Yes
B24	105		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M85	95		No
B24	105		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between rear door lock actuator LH harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M85	95	Ground	Door lock and unlock switch	Lock	Battery voltage
B24	105			Unlock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

REAR RH

REAR RH : Component Function Check

INFOID:0000000012783108

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR LOCK in ACTIVE TEST mode.
3. Touch ALL LOCK or ALL UNLK to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-97, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012783109

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear door lock actuator RH connector.
3. Check voltage between rear door lock actuator RH harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
Rear door lock actuator RH					
Connector	Terminal				
D302	5	Ground	Door lock and unlock switch	Lock	Battery voltage
	6			Unlock	

Is the inspection result normal?

YES >> Replace rear door lock actuator RH.
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector and all door lock actuator connectors.
2. Check continuity between BCM harness connector and rear door lock actuator RH harness connector.

BCM		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M85	95	D302	5	Yes
B24	105		6	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M85	95		No
B24	105		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between rear door lock actuator RH harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M85	95	Ground	Door lock and unlock switch	Lock	Battery voltage
B24	105			Unlock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

DOOR LOCK AND UNLOCK SWITCH

Component Function Check

INFOID:0000000012783110

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select CDL LOCK SW, CDL UNLOCK SW in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
CDL LOCK SW	Main power window and door lock/unlock switch	LOCK	ON
		UNLOCK	OFF
CDL UNLOCK SW		LOCK	OFF
		UNLOCK	ON

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.
NO >> Refer to DLK-99, "Diagnosis Procedure".

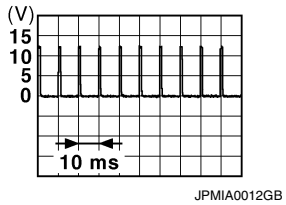
Diagnosis Procedure

INFOID:0000000012783111

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch connector.
3. Check signal between main power window and door lock/unlock switch harness connector and ground using oscilloscope.

(+)		(–)	Signal (Reference value)
Main power window and door lock/unlock switch			
Connector	Terminal		
D5	15	Ground	 JPMIA0012GB 1.0 - 1.5 V
	3		

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and main power window and door lock/unlock switch harness connector.

BCM		Main power window and door lock/unlock switch		Continuity
Connector	Terminal	Connector	Terminal	
M84	12	D5	3	Yes
	13		15	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M84	12		No
	13		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between main power window and door lock/unlock switch harness connector and ground.

Main power window and door lock/unlock switch		Ground	Continuity
Connector	Terminal		
D5	1		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK DOOR LOCK AND UNLOCK SWITCH

Refer to DLK-100, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-69, "Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783112

1.CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch connector.
3. Check continuity between main power window and door lock/unlock switch terminals.

Main power window and door lock/unlock switch		Condition		Continuity
Terminal				
15	1	Main power window and door lock/ unlock switch	LOCK	No
			UNLOCK	Yes
3			LOCK	Yes
			UNLOCK	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-69, "Removal and Installation".

UNLOCK SENSOR

Component Function Check

INFOID:0000000012783113

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select UNLK SEN-DR in DATA MONITORmode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
UNLK SEN -DR	Driver side door	Lock	OFF
		Unlock	ON

Is the inspection result normal?

YES >> Unlock sensor is OK.
NO >> Refer to DLK-102, "Diagnosis Procedure".

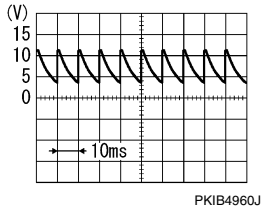
Diagnosis Procedure

INFOID:0000000012783114

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK UNLOCK SENSOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH connector.
3. Check signal between front door lock assembly LH harness connector and ground with oscilloscope.

(+)		(–)	Signal (Reference value)
Front door lock assembly LH			
Connector	Terminal		
D9	3	Ground	

PKIB4960J

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK UNLOCK SENSOR CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and front door lock assembly LH harness connector.

BCM		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	
M84	31	D9	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M84	31		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK UNLOCK SENSOR GROUND CIRCUIT

Check continuity between front door lock assembly LH harness connector and ground.

Front door lock assembly LH		Ground	Continuity
Connector	Terminal		
D9	4		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK UNLOCK SENSOR

Refer to DLK-103, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace front door lock assembly LH. Refer to DLK-174, "FRONT DOOR LOCK : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783115

1.CHECK UNLOCK SENSOR

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH connector.
3. Check continuity between front door lock assembly LH terminals.

Front door lock assembly LH		Condition		Continuity
Terminal				
3	4	Driver side door	Unlock	Yes
			Lock	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace front door lock assembly LH. Refer to DLK-174, "FRONT DOOR LOCK : Removal and Installation".

KEY CYLINDER SWITCH

Description

INFOID:0000000012783116

When the mechanical key is inserted and turned into the front door lock key cylinder switch LH, the switch transmits the LOCK or UNLOCK signal directly to the BCM.

Component Function Check

INFOID:0000000012783117

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer to DLK-36, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Monitor item	Condition	
KEY CYL LK-SW	Lock	: ON
	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Refer to DLK-104, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783118

Regarding Wiring Diagram information, refer to DLK-41, "Wiring Diagram".

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM connector and ground.

Terminals			Key position	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M84	8	Ground	Lock	0
			Neutral / Unlock	7.0 - 8.0 V
	7		Unlock	0
			Neutral / Lock	7.0 - 8.0 V

Is the inspection result normal?

YES >> Front door lock key cylinder switch LH is OK.
NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front door lock key cylinder switch LH connector.
3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M84.
2. Check continuity between front door lock key cylinder switch LH connector and BCM connector M84.

Front door lock key cylinder switch LH connector	Terminal	BCM connector	Terminal	Continuity
D9	6	M84	8	Yes
	5		7	

3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	6		No
	5		

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.
Refer to DLK-105, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace front door lock key cylinder switch LH.

Component Inspection

INFOID:0000000012783119

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

Terminal		Key position	Continuity
Front door lock key cylinder switch LH connector			
6	4	Lock	Yes
		Neutral / Unlock	No
5		Unlock	Yes
		Neutral / Lock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Replace front door lock key cylinder switch LH.

DOOR REQUEST SWITCH

Component Function Check

INFOID:0000000012783120

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of CM using CONSULT.
2. Select REQ SW-DR, REQ SW-AS in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
REQ SW -DR	Door request switch LH	Pressed	ON
		Released	OFF
REQ SW -AS	Door request switch RH	Pressed	ON
		Released	OFF

Is the inspection result normal?

YES >> Front door request switch is OK.
NO >> Refer to DLK-106, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783121

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK DOOR REQUEST SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect malfunctioning front door request switch connector.
3. Check voltage between malfunctioning front door request switch harness connector and ground.

(+)			(–)	Voltage (Approx.)
Front door request switch				
Connector		Terminal		
Left side	D15	2	Ground	Battery voltage
Right side	D115	1		

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between malfunctioning front door request switch harness connector and BCM harness connector.

Front door request switch			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Left side	D15	2	M83	56	Yes
Right side	D115	1		71	

3. Check continuity between malfunctioning front door request switch harness connector and ground.

Front door request switch			Ground	Continuity
Connector		Terminal		
Left side	D15	2		No
Right side	D115	1		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

Check continuity between malfunctioning front door request switch harness connector and ground.

Front door request switch			Ground	Continuity
Connector		Terminal		
Left side	D15	1		Yes
Right side	D115	2		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK DOOR REQUEST SWITCH

Refer to DLK-107, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace malfunctioning front door request switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783122

1.CHECK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunctioning front door request switch connector.
3. Check continuity between malfunctioning front door request switch terminals.

Front door request switch		Condition		Continuity
Terminal				
1	2	Door request switch	Pressed	Yes
			Released	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunctioning front door request switch.

DOOR SWITCH

Component Function Check

INFOID:0000000012783123

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL and DOOR SW-RR in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Front door LH	Open	ON
		Closed	OFF
DOOR SW-AS	Front door RH	Open	ON
		Closed	OFF
DOOR SW-RL	Rear door LH	Open	ON
		Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
		Closed	OFF

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to DLK-108, "Diagnosis Procedure".

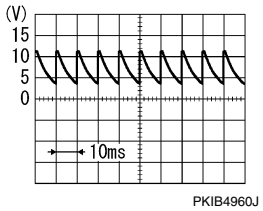
Diagnosis Procedure

INFOID:0000000012783124

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect malfunctioning door switch connector.
3. Check signal between malfunctioning door switch harness connector and ground using oscilloscope.

(+)			(–)	Signal (Reference value)
Door switch				
Connector		Terminal		
Front door switch LH	B21	3	Ground	 PKIB4960J 7.0 - 8.0 V
Front door switch RH	B28	3		
Rear door switch LH	B26	3		
Rear door switch RH	B41	3		

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between door switch harness connector and BCM harness connector.

Door switch			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Front door switch LH	B21	3	B24	98	Yes
Front door switch RH	B28			100	
Rear door switch LH	B26			97	
Rear door switch RH	B41			99	

3. Check continuity between door switch harness connector and ground.

Door switch				Continuity
Connector		Terminal		
Front door switch LH	B21	3	Ground	No
Front door switch RH	B28			
Rear door switch LH	B26			
Rear door switch RH	B41			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to DLK-109, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783125

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunctioning door switch connector.
3. Check continuity between door switch terminals.

Door switch			Condition		Continuity
Terminal					
Front door switch LH	3	Ground part of door switch	Door switch	Pressed	No
				Released	Yes
Front door switch RH				Pressed	No
				Released	Yes
Rear door switch LH				Pressed	No
				Released	Yes
Rear door switch RH				Pressed	No
				Released	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunction door switch.

HAZARD FUNCTION

Component Function Check

INFOID:0000000012783126

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select FLASHER in ACTIVE TEST mode.
3. Touch LH or RH to check that it works normally.

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.
NO >> Refer to DLK-111, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783127

1.CHECK HAZARD SWITCH CIRCUIT

Refer to EXL-113, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

INTELLIGENT KEY WARNING BUZZER

Component Function Check

INFOID:0000000013399310

1.CHECK FUNCTION

1. Select “INTELLIGENT KEY” of “BCM” using CONSULT.
2. Select “OUTSIDE BUZZER” in “ACTIVE TEST” mode.
3. Touch “On” or “Off” to check that it works normally.

Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.
NO >> Refer to DLK-112, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013399311

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10 A fuse [No. 8, located in fuse block (J/B)].

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

1. Disconnect Intelligent Key warning buzzer connector.
2. Check voltage between Intelligent Key warning buzzer harness connector and ground.

(+)		(–)	Voltage (Approx.)
Intelligent Key warning buzzer			
Connector	Terminal		
E70	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK INTELLIGENT KEY WARNING BUZZER CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and Intelligent Key warning buzzer harness connector.

BCM		Intelligent Key warning buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M83	78	E70	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M83	78		No

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK INTELLIGENT KEY WARNING BUZZER

Refer to DLK-113, "Component Inspection".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Replace Intelligent Key warning buzzer. Refer to DLK-192, "Removal and Installation".

Component Inspection

INFOID:0000000013399312

1. CHECK INTELLIGENT KEY WARNING BUZZER

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key warning buzzer connector.
3. Connect battery power supply directly to Intelligent Key warning buzzer terminals and check the operation.

Intelligent Key warning buzzer		Operation
Terminal		
(+)	(–)	
1	3	Buzzer sounds

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace Intelligent Key warning buzzer. Refer to DLK-192, "Removal and Installation".

INTELLIGENT KEY

Component Function Check

INFOID:0000000012783128

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.

1.CHECK FUNCTION

1. Select “INTELLIGENT KEY” of “BCM” using CONSULT.
2. Select “RKE OPE COUN1” in “DATA MONITOR” mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition
RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.

Is the inspection result normal?

YES >> Intelligent Key is OK.
NO >> Refer to DLK-114, "Diagnosis Procedure".

Diagnosis Procedure

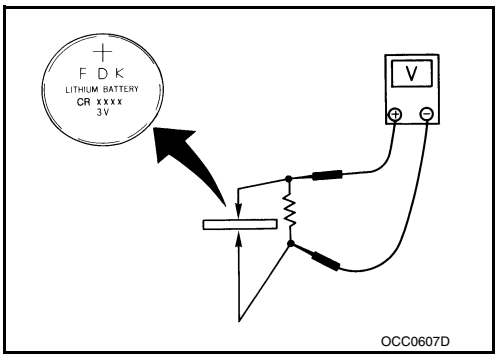
INFOID:0000000012783129

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.

1.CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA. Refer to DLK-194, "Removal and Installation".

Standard : Approx. 2.5 - 3.0V



Is the measurement value within the specification?

YES >> Replace Intelligent Key.
NO >> Replace Intelligent Key battery.

KEY WARNING LAMP

Component Function Check

INFOID:0000000012783130

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select INDICATOR in ACTIVE TEST mode.
3. Touch KEY IND or KEY ON to check that it works normally.

Is the inspection result normal?

YES >> Key warning lamp is OK.
NO >> Refer to DLK-115, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783131

1.CHECK KEY WARNING LAMP

Refer to DLK-30, "WARNING FUNCTION : System Description".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

REMOTE KEYLESS ENTRY RECEIVER

Component Function Check

INFOID:0000000012783132

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select RKE OPE COUN1 in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating Intelligent Key

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.
NO >> Refer to DLK-116, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783133

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between BCM harness connector and ground.

(+)		(–)	Condition		Signal (Reference value)
BCM					
Connector	Terminal				
M84	38	Ground	Push-button ignition switch	OFF or ACC	0 V
				ON	Battery voltage

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> GO TO 2.

2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT

1. Disconnect BCM and remote keyless entry receiver connectors.
2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

BCM		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M84	38	M91	2	Yes

3. Check continuity between BCM harness connector and ground.

(+)		(–)	Continuity
BCM			
Connector	Terminal		
M84	38	Ground	No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

Check voltage between remote keyless entry receiver harness connector and ground.

(+)		(–)	Voltage Approx.
Remote keyless entry receiver			
Connector	Terminal		
M91	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.
NO-1 >> Check 10A fuse No. 14 [located in fuse block J/B].
NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 14.

4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver harness connector and ground.

Remote keyless entry receiver		Ground	Continuity
Connector	Terminal		
M91	4		Yes

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to DLK-193, "Removal and Installation".
NO >> Repair or replace harness.

SHIFT P WARNING LAMP

Component Function Check

INFOID:0000000012783134

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select LCD in ACTIVE TEST mode.
3. Touch SET P to check that it works normally.

Is the inspection result normal?

YES >> Shift P warning lamp is OK.
NO >> Refer to DLK-118, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783135

1.CHECK SHIFT P WARNING LAMP

Refer to TM-244, "Component Parts Function Inspection".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

TRUNK LID OPENER ACTUATOR

Component Function Check

INFOID:0000000012783136

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select TRUNK/GLASS HATCH in ACTIVE TEST mode.
3. Touch OPEN to check that it works normally.

Is the inspection result normal?

YES >> Trunk lid opener actuator is OK.
NO >> Refer to DLK-119, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783137

Regarding Wiring Diagram information, refer to DLK-63, "Wiring Diagram".

1.CHECK TRUNK LID OPENER INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener assembly connector.
3. Check voltage between trunk lid opener assembly harness connector and ground.

(+)		(–)	Condition	Voltage (Approx.)
Trunk lid opener assembly				
Connector	Terminal			
B59	3	Ground	Trunk lid opener switch is ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and trunk lid opener assembly harness connector.

BCM		Trunk lid opener assembly		Continuity
Connector	Terminal	Connector	Terminal	
B24	107	B59	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
B24	107		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

Check continuity between trunk lid opener assembly harness connector and ground.

Trunk lid opener assembly		Ground	Continuity
Connector	Terminal		
B59	2		Yes

Is the inspection normal?

YES >> Replace trunk lid opener assembly.
NO >> Repair or replace harness.

TRUNK LID OPENER SWITCH

Component Function Check

INFOID:0000000012783138

1.CHECK FUNCTION

1. Select TRUNK of BCM using CONSULT.
2. Select TR/BD OPEN SW in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
TR/BD OPEN SW	Trunk lid opener switch	Pressed	On
		Released	Off

Is the inspection result normal?

YES >> Trunk lid opener switch is OK.
NO >> Refer to DLK-121, "Diagnosis Procedure".

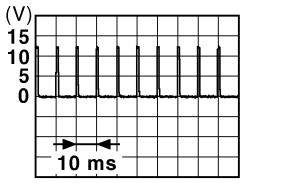
Diagnosis Procedure

INFOID:0000000012783139

Regarding Wiring Diagram information, refer to DLK-63, "Wiring Diagram".

1.CHECK TRUNK LID OPENER INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener switch connector.
3. Check signal between trunk lid opener switch harness connector and ground using oscilloscope.

(+)		(–)	Signal (Reference value)
Trunk lid opener switch			
Connector	Terminal		
M15	1	Ground	

JPMIA0012GB

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and trunk lid opener switch harness connector.

BCM		Trunk lid opener switch		Continuity
Connector	Terminal	Connector	Terminal	
M84	30	M15	1	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M84	30		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch harness connector and ground.

Trunk lid opener switch		Ground	Continuity
Connector	Terminal		
M15	2		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK TRUNK LID OPENER SWITCH

Refer to DLK-122, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace trunk lid opener switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783140

1.CHECK TRUNK LID OPENER SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener switch connector.
3. Check continuity between trunk lid opener switch terminals.

Trunk lid opener switch		Condition		Continuity
Terminal				
1	2	Trunk lid opener switch	Pressed	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk lid opener switch.

TRUNK LAMP SWITCH

Description

INFOID:0000000012783141

Detects trunk open/close condition.

Component Function Check

INFOID:0000000012783142

1.CHECK FUNCTION

With CONSULT

Check TRNK/HAT MNTR in Data Monitor mode with CONSULT.

Monitor item	Condition	
TRNK/HAT MNTR	OPEN	: ON
	CLOSE	: OFF

Is the inspection result normal?

YES >> Trunk lid switch is OK.
NO >> Refer to DLK-123, "Diagnosis Procedure".

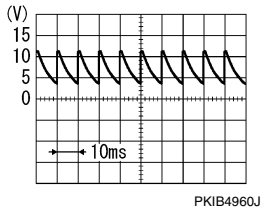
Diagnosis Procedure

INFOID:0000000012783143

Regarding Wiring Diagram information, refer to DLK-63, "Wiring Diagram".

1.CHECK TRUNK LID SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between BCM connector and ground.

Terminals			Trunk condition	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
B24	103	Ground	OPEN	0
			CLOSE	 PKIB4960J 7.0 - 8.0V

Is the inspection result normal?

YES >> GO TO 6
NO >> GO TO 2

2.CHECK TRUNK LID SWITCH CIRCUIT

1. Disconnect BCM and trunk lid opener assembly connector.
2. Check continuity between BCM connector and trunk lid opener assembly connector.

BCM connector	Terminal	Trunk lid opener assembly connector	Terminal	Continuity
B24	103	B59	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
B24	103		No

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness between BCM and trunk lid opener assembly.

3.CHECK TRUNK LID SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener assembly connector and ground.

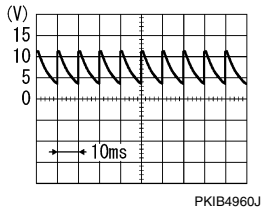
Trunk lid opener assembly connector	Terminal	Ground	Continuity
B59	2		Yes

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace trunk lid opener assembly ground circuit.

4.CHECK BCM OUTPUT SIGNAL

1. Ensure trunk lid remains closed during this step.
2. Connect BCM connector.
3. Check voltage between BCM connector and ground.

Terminals			Voltage (V) (Approx.)
(+)		(–)	
BCM connector	Terminal		
B24	103	Ground	 PKIB4960J 7.0 - 8.0V

Is the inspection result normal?

YES >> GO TO 5
NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

5.CHECK TRUNK LID SWITCH

Refer to DLK-124, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6
NO >> Replace trunk lid opener assembly.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783144

1.CHECK TRUNK LID SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener assembly connector.
3. Check trunk lid switch.

Terminal		Trunk condition	Continuity
Trunk lid switch			
1	2	OPEN	Yes
		CLOSE	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk lid opener assembly.

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM SYMPTOMS

Diagnosis Procedure

INFOID:0000000013372757

NOTE:
Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

SYMPTOM TABLE 1 (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

No.	Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)	Symptom
1	OK	OK	No start	No start	SEC-134
2	OK	NG	OK	OK	DLK-127
3	OK	NG	No crank, No start	OK	DLK-129
4	NG	NG	No crank, No start	OK	DLK-131
5	NG	NG	No start	No start	DLK-132
6	OK	OK	No crank, No start	OK	SEC-135
7	NG	OK	OK	OK	DLK-134
8	NG	NG	OK	OK	DLK-135
9	Poor range	OK	OK	OK	DLK-136

SYMPTOM TABLE 2 (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

No.	Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)	Symptom
1	NG	OK	OK	OK	DLK-138
2	NG	NG	No crank, No start	OK	DLK-139
3	NG	NG	No crank, No start	No crank, No start	DLK-141
4	OK	OK	No crank, No start	No crank, No start	SEC-137
5	OK	NG	No crank, No start	OK	SEC-138
6	Poor range	OK	OK	OK	DLK-143

ALL DOORS DO NOT LOCK/UNLOCK OR TRUNK/BACK DOOR DO NOT OPEN WITH REQUEST SWITCH

Description

INFOID:0000000013372758

All doors do not lock/unlock using front door request switch or trunk lid does not open using trunk lid opener request switch.

NOTE:
Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	NG	OK	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- “LOCK/UNLOCK BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.
- Registered Intelligent Key is within the detection area of outside key antenna.

DIAGNOSIS PROCEDURE

Refer to DLK-127, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372759

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS RESULT

Select “Self Diagnostic Result” mode of “BCM”, and check if DTC is detected.

Is DTC detected?

YES >> Perform the trouble diagnosis for detected DTC.
NO >> GO TO 3.

3.CHECK OUTSIDE KEY ANTENNA

Use SIGNAL TECH II to check each outside key antenna. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4.CHECK INTELLIGENT KEY OUTPUT SIGNAL

Use SIGNAL TECH II to check Intelligent Key outside signal. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace the malfunctioning outside key antenna. Refer to DLK-190, "DRIVER SIDE : Removal and Installation" (Drive side), DLK-190, "PASSENGER SIDE : Removal and Installation" (Passenger side) and DLK-190, "REAR BUMPER : Removal and Installation" (Rear bumper).

5.CHECK DOOR REQUEST SWTICH

Check each door request switch.
- Front door: Refer to DLK-106, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace the malfunctioning parts. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

6. REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/PUSH SW) (ALL KEYS)

Description

INFOID:0000000013372760

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

NOTE:

Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
OK	NG	No crank, No start	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- “LOCK/UNLOCK BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.
- “ENGINE START BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.

DIAGNOSIS PROCEDURE

Refer to DLK-129, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372761

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.

Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA AND INSIDE KEY ANTENNA

Use SIGNAL TECH II to check each outside key antenna and inside key antenna. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 4.

4.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 5.

5.REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".

2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ALL I-KEY/REQ SW/PUSH SW)

Description

INFOID:0000000013372762

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, Intelligent Key, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	NG	No crank, No start	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

“ENGINE START BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.

DIAGNOSIS PROCEDURE

Refer to DLK-131, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372763

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.PERFORM SELF-DIAGNOSIS RESULT

Select “Self Diagnostic Result” mode of “BCM”, and check if DTC “B26FF” is detected.

Is DTC “B26FF” detected?

YES >> Perform the trouble diagnosis for detected DTC.
NO >> GO TO 3.

3.CHECK INTELLIGENT KEY BATTERY

Check Intelligent Key battery.
Refer to DLK-114, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts. Refer to DLK-194, "Removal and Installation".

4.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.
Refer to DLK-116, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace the malfunctioning parts. Refer to DLK-193, "Removal and Installation".

5.REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ALL KEYS)

Description

INFOID:0000000013372764

Intelligent Key system all functions cannot operate (door lock and engine start).

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	NG	No start	No start

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

“ENGINE START BY I-KEY” setting in “Work support” mode of “INTELLIGENT KEY” of “BCM” is ON.

DIAGNOSIS PROCEDURE

Refer to DLK-132, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372765

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.

Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY-1

For both Intelligent Key that cannot be used for door lock and unlock, check that the Intelligent Key belongs to the vehicle to be checked.

- Check if the Intelligent Key that is checked is the Intelligent Key for a different NISSAN/INFINITI vehicle that the user owns.
- Check that the Intelligent Key buttons match the vehicle specifications.

Does the Intelligent Key belong to the vehicle to be checked?

YES >> GO TO 3.

NO >> Check Intelligent Key button operation using a registered Intelligent Key that belongs to the vehicle.

3.CHECK INTELLIGENT KEY-2

Check the inside of the both Intelligent Keys for rust or corrosion by water. Simultaneously check the internal circuits for damage.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace Intelligent Key.

4.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 5.

5.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 6.

6. REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check the operation after replacement.

Is the inspection result normal?

YES >> Inspection End
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Description

INFOID:0000000013372766

All doors do not lock/unlock using Intelligent Key button.

NOTE:

Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	OK	OK	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

Registered Intelligent Key is within the detection area of remote keyless entry receiver.

DIAGNOSIS PROCEDURE

Refer to DLK-134, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372767

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.

Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY OUTPUT SIGNAL

Use SIGNAL TECH II to check Intelligent Key output signal. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-78, "Removal and Installation".

NO >> Replace Intelligent Key.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH AND INTELLIGENT KEY

Description

INFOID:0000000013372768

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch or Intelligent Key button.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	NG	OK	OK

DIAGNOSIS PROCEDURE

Refer to DLK-135, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372769

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK POWER DOOR LOCK OPERATION

Check door lock/unlock using door lock and unlock switch.

Does door lock/unlock using door lock and unlock switch?

YES >> GO TO 3.
NO >> Refer to [DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH].

3.REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ALL KEYS)

Description

INFOID:0000000013372770

Intelligent Key button operation has poor range.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
Poor range	OK	OK	OK

DIAGNOSIS PROCEDURE

Refer to DLK-136, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372771

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning operates.

Is the Intelligent Key low battery warning operated?

YES >> GO TO 3.
NO >> Replace Intelligent Key battery. Refer to DLK-194, "Removal and Installation".

3.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.
Refer to DLK-114, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace Intelligent Key battery. Refer to DLK-194, "Removal and Installation".

4.PERFORM SELF-DIAGNOSIS RESULT-1

Select “Self Diagnostic Result” mode of “BCM”, and check if DTC “B26FF” is detected.

Is DTC “B26FF” detected?

YES >> Perform the trouble diagnosis for detected DTC.
NO >> GO TO 5.

5.REMOTE AFTERMARKET DEVICE

1. If the vehicle is equipped with any interference-generating aftermarket device such as a vehicle security system, charger and remote engine starter etc., remove them.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 6.

6.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.
Refer to DLK-116, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

7. REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY (ONE KEY)

Description

INFOID:0000000013372772

All doors do not lock/unlock using Intelligent Key button. (One Intelligent Key has the symptom, other keys operate normally.)

NOTE:

Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	OK	OK	OK

DIAGNOSIS PROCEDURE

Refer to DLK-138, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372773

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.

Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY OUTPUT SIGNAL

Use SIGNAL TECH II to check Intelligent Key output signal. For the inspection method and how to use SIGNAL TECH II, refer to “NISSAN/INFINITI SIGNAL TECH II USER GUIDE”.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace Intelligent Key.

3.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 4.

4.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 5.

5.REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ONE I-KEY/REQ SW/PUSH SW)

Description

INFOID:0000000013372774

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, Intelligent Key, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key. (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	NG	No crank, No start	OK

DIAGNOSIS PROCEDURE

Refer to DLK-139, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372775

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY

Check the inside of the Intelligent Key for rust or corrosion by water. Simultaneously check the internal circuits for damage. Squeeze, twist or bend the Intelligent Key and check the functionality again. Is the Intelligent Key operating normally?

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace Intelligent Key.

3.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace Intelligent Key battery. Refer to DLK-194, "Removal and Installation".

4.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 5.

5.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 6.

6. REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Confirm the operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ONE KEY)

Description

INFOID:0000000013372776

Intelligent Key system all functions cannot operate (door lock and engine start). (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	NG	No crank, No start	No crank, No start

DIAGNOSIS PROCEDURE

Refer to DLK-141, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372777

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY-1

For Intelligent Key that cannot be used for door lock and unlock, check that the Intelligent Key belongs to the vehicle to be checked.

Does the Intelligent Key belong to the vehicle to be checked?

YES >> GO TO 3.
NO >> Check Intelligent Key button operation using a registered Intelligent Key that belongs to the vehicle.

3.CHECK INTELLIGENT KEY-2

Check the inside of the Intelligent Key for rust or corrosion by water. Simultaneously check the internal circuits for damage.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace Intelligent Key.

4.REGISTER INTELLIGENT KEY

1. Register the Intelligent Key again.
2. Check the operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 5.

5.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 6.

6. REPLACE BCM

1. Replace BCM. Refer to BCS-78, "Removal and Installation".
2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ONE KEY)

Description

INFOID:0000000013372778

Intelligent Key button operation has poor range. (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or trunk open operation (opener switch)	Engine started with push-button ignition switch operation (Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
Poor range	OK	OK	OK

DIAGNOSIS PROCEDURE

Refer to DLK-143, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000013372779

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table.
Refer to DLK-126, "Diagnosis Procedure".

>> GO TO 2.

2.CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning operates.

Is the Intelligent Key low battery warning operated?

YES >> Replace Intelligent Key battery. Refer to DLK-194, "Removal and Installation".
NO >> GO TO 3.

3.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.

Is the inspection result normal?

YES >> Replace Intelligent Key and register new Intelligent Key.
NO >> Replace Intelligent Key battery. Refer to DLK-194, "Removal and Installation".

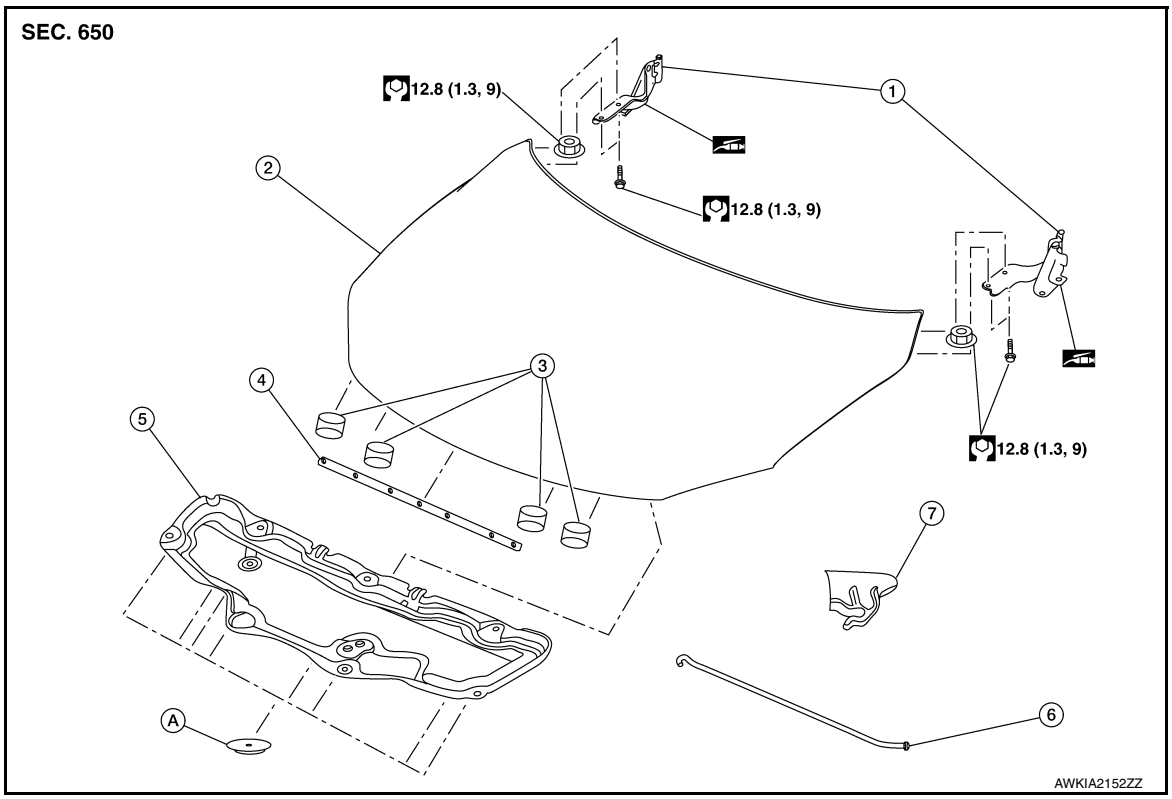
REMOVAL AND INSTALLATION

HOOD

HOOD ASSEMBLY

HOOD ASSEMBLY : Exploded View

INFOID:0000000012783184



1. Hood hinge (LH/RH)
2. Hood assembly
3. Hood bumper rubber
4. Hood seal
5. Hood insulator
6. Hood support rod
7. Hood support rod clamp
A. Clip

HOOD ASSEMBLY : Removal and Installation

INFOID:0000000012783185

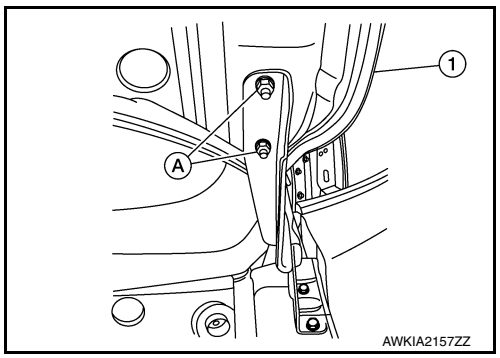
CAUTION:
- **Use two people when removing or installing hood assembly due to its heavy weight.**
- **Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of hood assembly.**

REMOVAL

1. Support the hood assembly using a suitable tool.

   WARNING:
   Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.
2. Disconnect front washer nozzle and tube.

3. Remove hood hinge to hood nuts (A) and then remove the hood assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

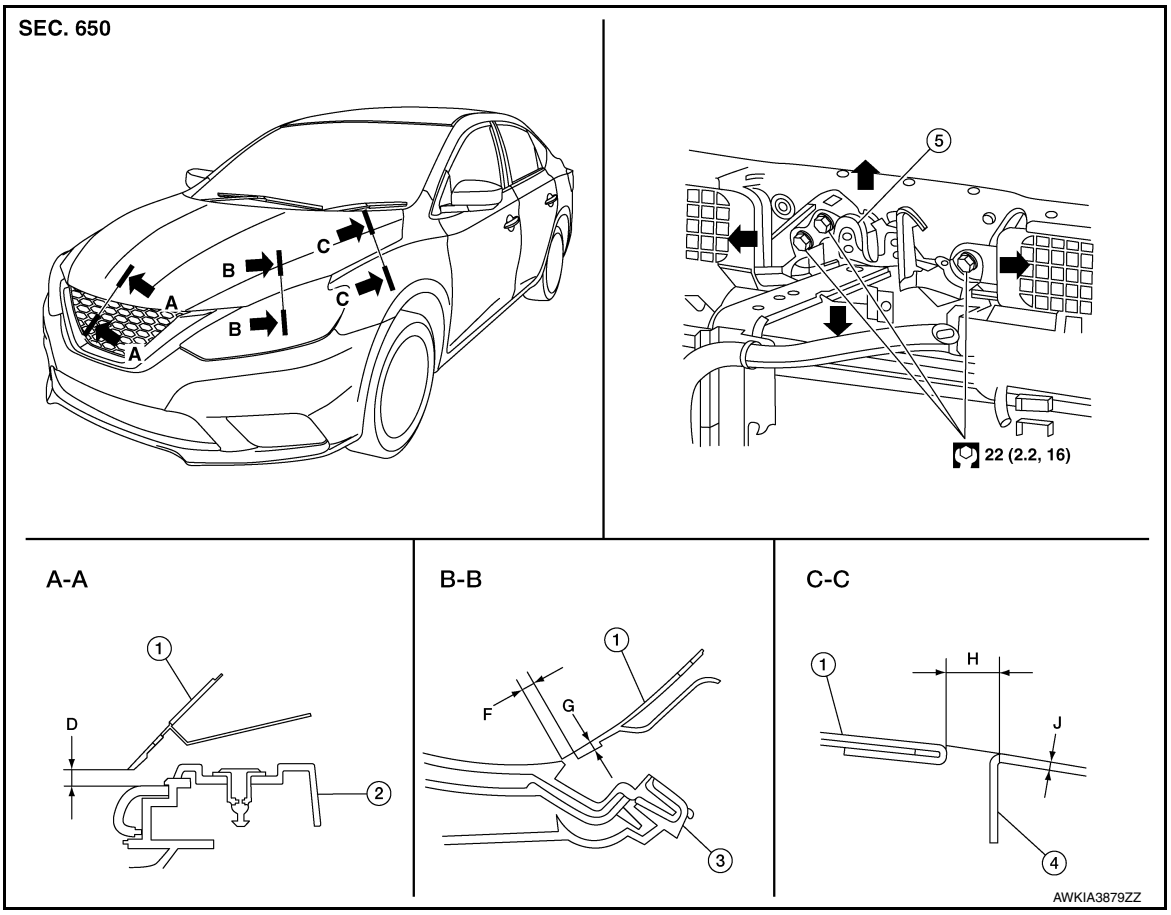
Tighten hood hinge to hood nuts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".

CAUTION:

- **Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.**
- **After installation, perform the hood assembly adjustment procedure. Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".**

HOOD ASSEMBLY : Adjustment

INFOID:0000000012783186



1. Hood assembly
2. Front grille
3. Front combination lamp
4. Front fender
5. Hood lock assembly

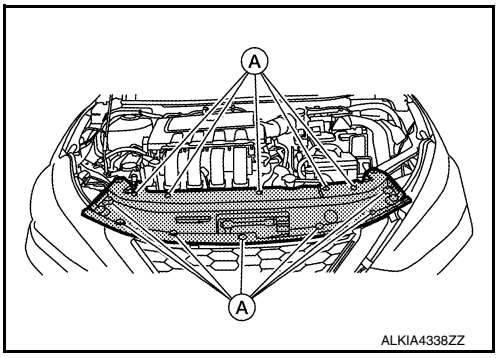
Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard	Parallelism	Equality
A – A	D	Clearance	6.2 ±2.3 (0.24 ±0.09)	<2.0	—
B – B	F	Clearance	3.5 ±2.4 (0.14 ±0.09)	<2.0	<3.0
	G	Surface height	0.7 ±2.0 (0.03 ±0.08)	<2.0	<2.0
C – C	H	Clearance	3.7 ±1.0 (0.15 ±0.04)	<2.0	<2.0
	J	Surface height	0.0 ±1.0 (0.00 ±0.04)	—	—

CLEARANCE ADJUSTMENT

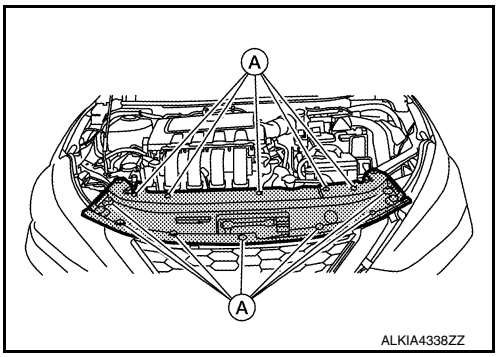
1. Loosen hood hinge (LH/RH) nuts and bolts.
   NOTE:
   The anticorrosive agent applied between the hoodledge and the hood hinges also acts as an adhesive. This seal must be broken before the hinges will move.
2. Remove the radiator core support upper cover clips (A) and remove.



3. Loosen the hood lock assembly bolts.
4. Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".
5. Tighten the hood lock assembly bolts to specified torque. Refer to DLK-149, "HOOD LOCK CONTROL : Exploded View".
6. Install the radiator core support upper cover.

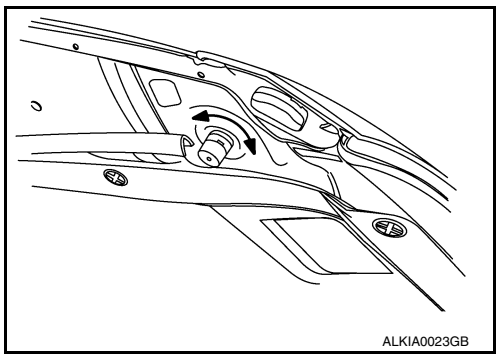
HEIGHT ADJUSTMENT

1. Remove the radiator core support upper cover clips (A) and remove.

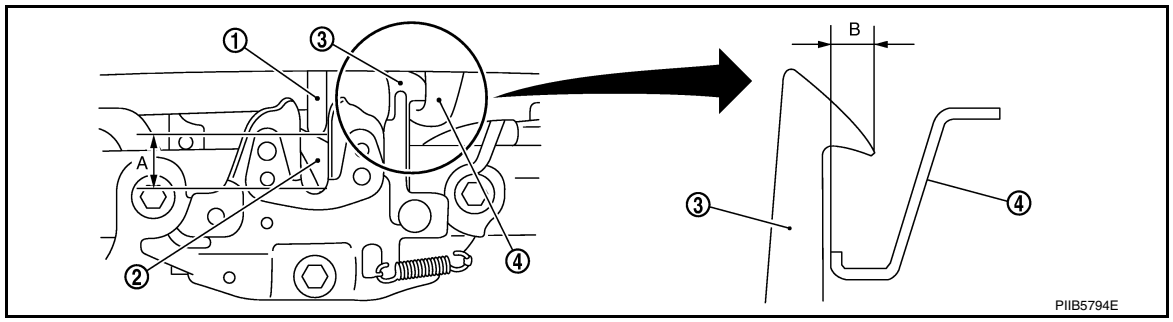


2. Loosen the hood lock assembly bolts.

3. Adjust the surface height of the hood assembly to front bumper fascia and front fender according to the specified values by rotating the hood bumper rubbers.
NOTE:
Only one hood bumper rubber shown for clarity.



4. Temporarily tighten the hood lock assembly bolts.
5. Adjust (A) and (B) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.9 in) height or by pressing hood lightly [approximately 29 Nm (3.0 kg-m, 21 ft-lb)].



1. Hood striker
2. Primary latch
3. Secondary striker
4. Secondary latch
A. 20 mm (0.8 in)
B. 6.8 mm (0.27 in)

6. After adjustment, tighten hood hinge nuts and bolts to the specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".
CAUTION:
- **Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.**
7. Tighten the hood lock assembly bolts to specified torque.
8. Install the radiator core support upper cover.
9. If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to DLK-155, "Adjustment".

HOOD HINGE

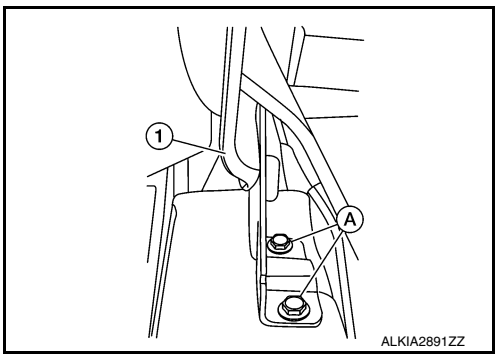
HOOD HINGE : Removal and Installation

INFOID:0000000012783187

REMOVAL

1. Remove the fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
2. Remove the core support upper cover. Refer to HA-39, "Exploded View".
3. Remove the front fascia. Refer to EXT-17, "Removal and Installation".
4. Remove the front combination lamp. Refer to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
5. Remove the front fender. Refer to DLK-154, "Removal and Installation".

6. Remove hood hinge bolts (A) and hood hinge (1).



INSTALLATION

Installation is in the reverse order of removal.

Tighten bolts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".

CAUTION:

- **Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.**
- **After installation, perform hood assembly adjustment procedure. Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".**

HOOD SUPPORT ROD

HOOD SUPPORT ROD : Removal and Installation

INFOID:0000000012783188

REMOVAL

1. Support hood assembly using a suitable tool.

   WARNING:
   Bodily injury may occur if hood assembly is not supported properly when removing hood support rod.

2. Rotate and remove hood support rod from grommet.
3. Remove grommet from hood hinge using a suitable tool (if necessary).

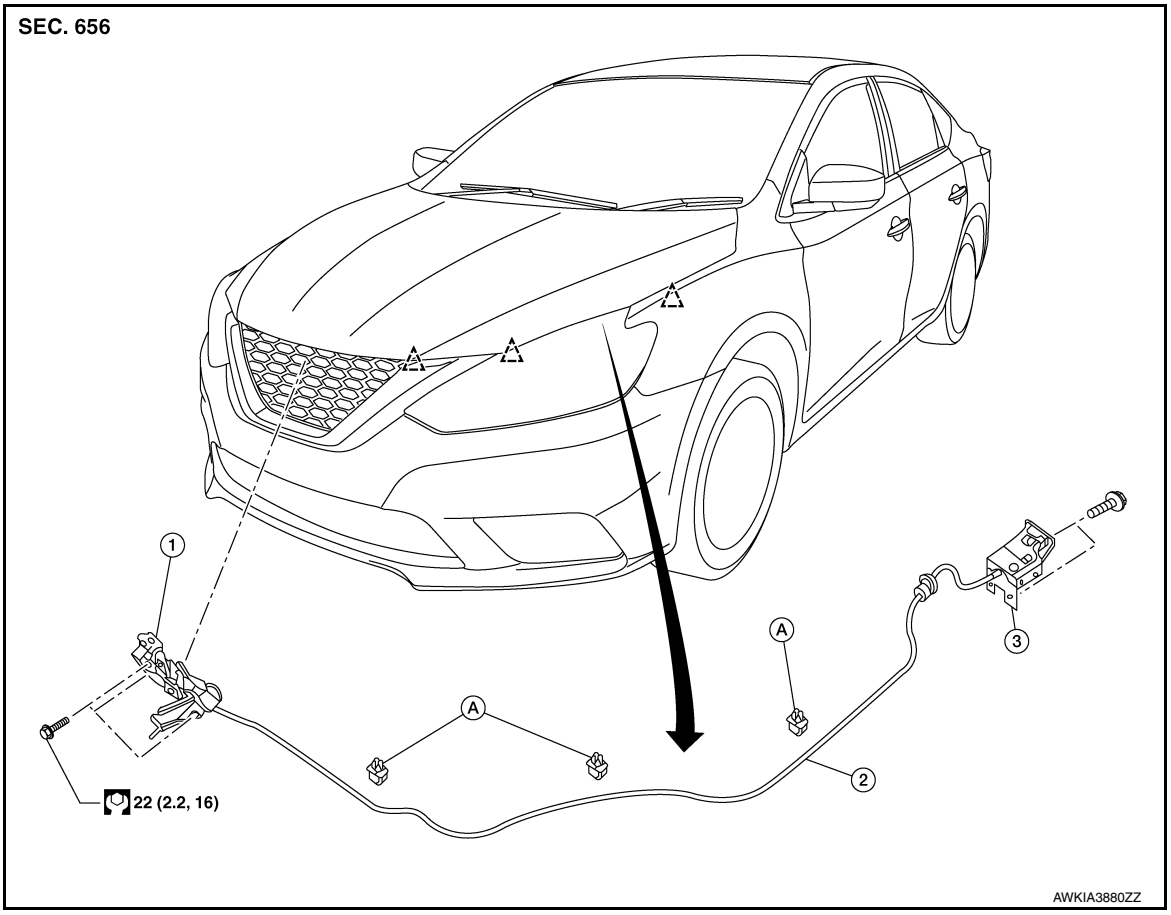
INSTALLATION

Installation is in the reverse order of removal.

HOOD LOCK CONTROL

HOOD LOCK CONTROL : Exploded View

INFOID:0000000012783189



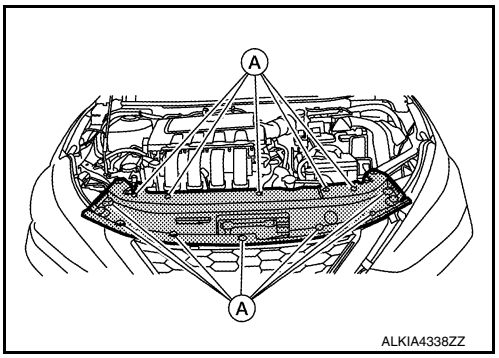
1. Hood lock assembly
2. Hood lock release cable
3. Hood lock/fuel filler door release handle assembly
A. Hood lock release cable clip
Clip

HOOD LOCK CONTROL : Removal and Installation

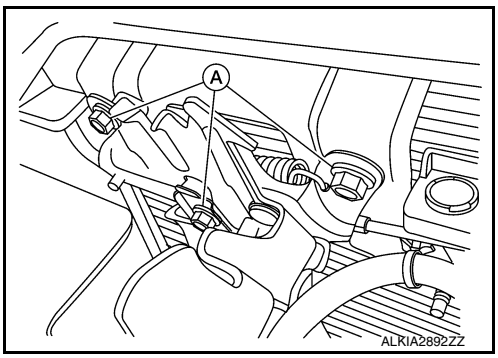
INFOID:0000000012783190

REMOVAL

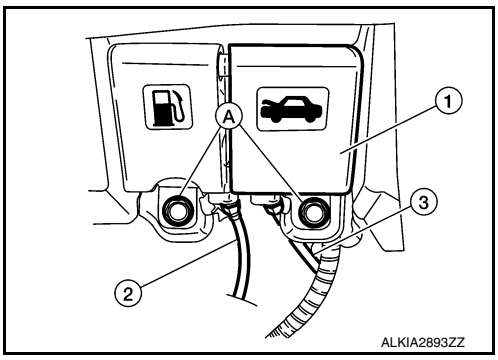
1. Remove the fender protector (LH). Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
2. Remove the radiator core support upper cover clips (A) and remove.



3. Remove the hood lock assembly bolts (A).



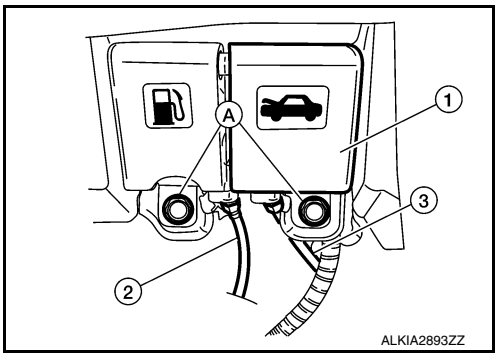
4. Disconnect the hood lock release cable from the hood lock assembly.
5. Remove the bolts (A), then separate the hood lock/fuel filler door release handle assembly (1) from the hood lock release cable (3) and fuel filler door release cable (2).



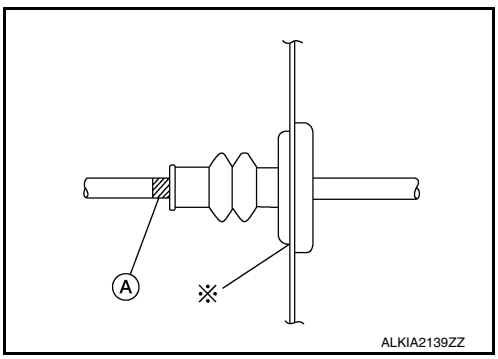
6. Remove the grommet from the dash assembly and pull the hood lock release cable into the passenger compartment.
   CAUTION:
   While pulling, be careful not to damage (peel) the outside of the hood lock release cable.

INSTALLATION

1. Pull the hood lock release cable through the dash assembly into the engine compartment.
   CAUTION:
   Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.
2. Attach the hood lock release cable (3) and the fuel filler door release cable (2) to the hood lock/fuel filler door release handle assembly (1).
3. Place hood lock/fuel filler door release handle assembly in position and retain with bolts (A).

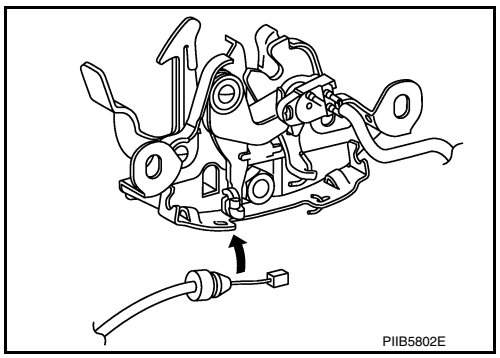


4. Check that the cable is not offset from the center of the grommet and seat the grommet into the dash hole.
   NOTE:
   Make sure that the marked area (A) of the cable is located as shown after mounting grommet to dash upper assembly.
   Apply sealant around the grommet at * mark.



5. Position the hood lock release cable and clip it into place.

6. Connect the hood lock release cable to the hood lock assembly.

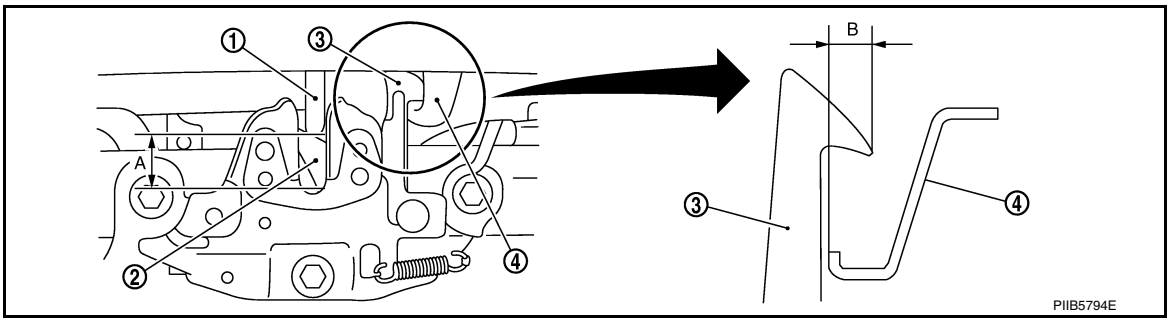


7. Perform hood fitting adjustment. Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".
8. Perform the hood lock control inspection.

INSPECTION

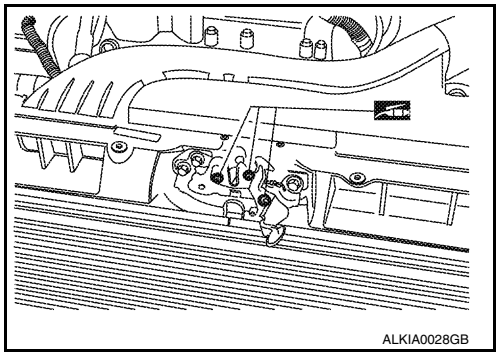
NOTE:
If the hood lock release cable is bent or deformed, replace it.

1. Check that the secondary latch is properly engaged with the secondary striker and meets specification provided (B) with hood's own weight.



1. Hood striker	2. Primary latch	3. Secondary striker
4. Secondary latch	A. 20 mm (0.8 in)	B. 6.8 mm (0.27 in)

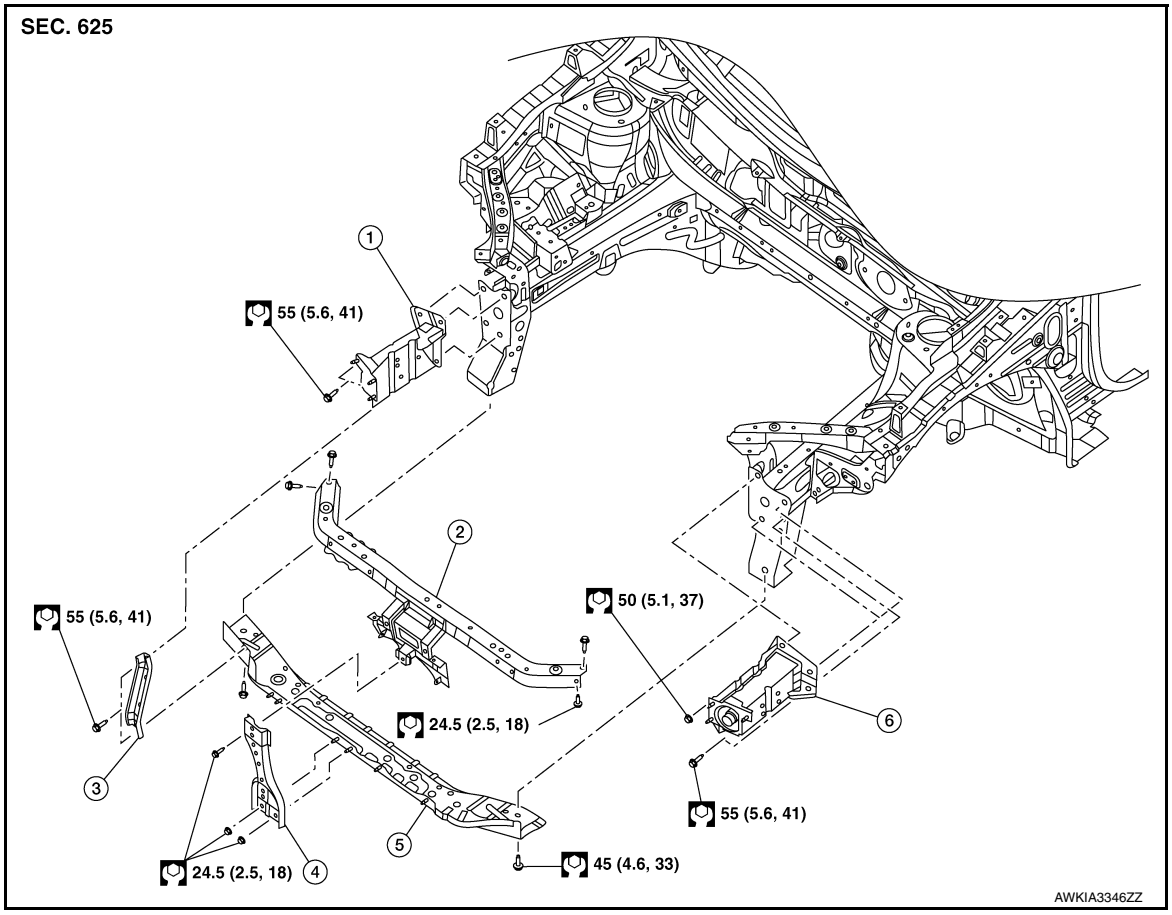
2. While operating the hood lock release handle, carefully check that the front end of the hood assembly is raised and meets the specification provided (A). Also check that the hood lock release handle returns to the original position.
3. Check that the hood lock release handle operating force is 49 N (5.0 kg, 11 lb) or less.
4. Install so the static closing force of the hood assembly is 49 – 490 N (5.0 – 50 kg-f, 36 - 110.2 lb-f).
5. Check the hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease as shown.



RADIATOR CORE SUPPORT

Exploded View

INFOID:0000000012783191



1. Core support side member (RH)
2. Core support upper
3. Core support lower stay
4. Hood lock support
5. Core support lower
6. Core support side member (LH)

Removal and Installation

INFOID:0000000012783192

REMOVAL

CAUTION:

Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

1. Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to PG-74, "Removal and Installation (Battery)".
2. Remove crash zone sensor. Refer to SR-27, "Removal and Installation".
3. Remove radiator. Refer to CO-15, "Removal and Installation".
4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
5. Remove the horns. Refer to HRN-6, "Removal and Installation".
6. Remove air guides (LH/RH).
7. Remove the hood lock support bolts and hood lock support.
8. Remove the core support lower stay bolts and core support lower stay.
9. Remove the core support lower bolts and core support lower.
10. Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

INSTALLATION

Installation is in the reverse order of removal.
Tighten bolts to specification. Refer to DLK-152, "Exploded View".

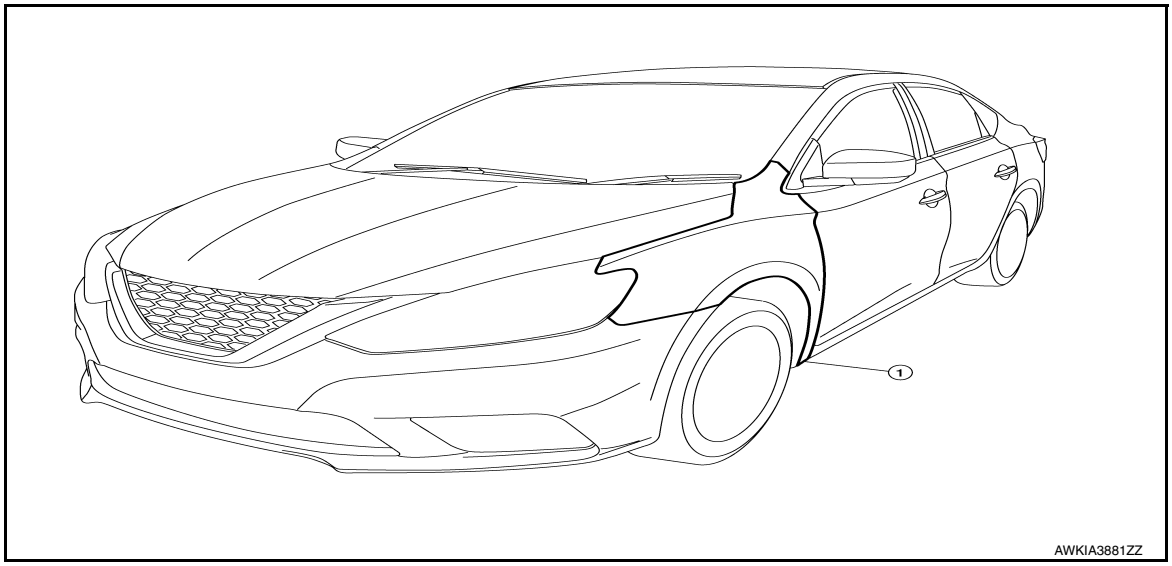
CAUTION:

After installation, perform hood fitting adjustment. Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".

FRONT FENDER

Exploded View

INFOID:0000000012783193



1. Front fender

Removal and Installation

INFOID:0000000012783194

REMOVAL

1. Remove the front combination lamp. Ref to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
2. Remove the front bumper fascia. Refer to EXT-17, "Removal and Installation".
3. Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
4. Remove the front fender bolts and the front fender.
   CAUTION:
   Use shop cloths to protect the body from being damaged during removal and installation.

INSTALLATION

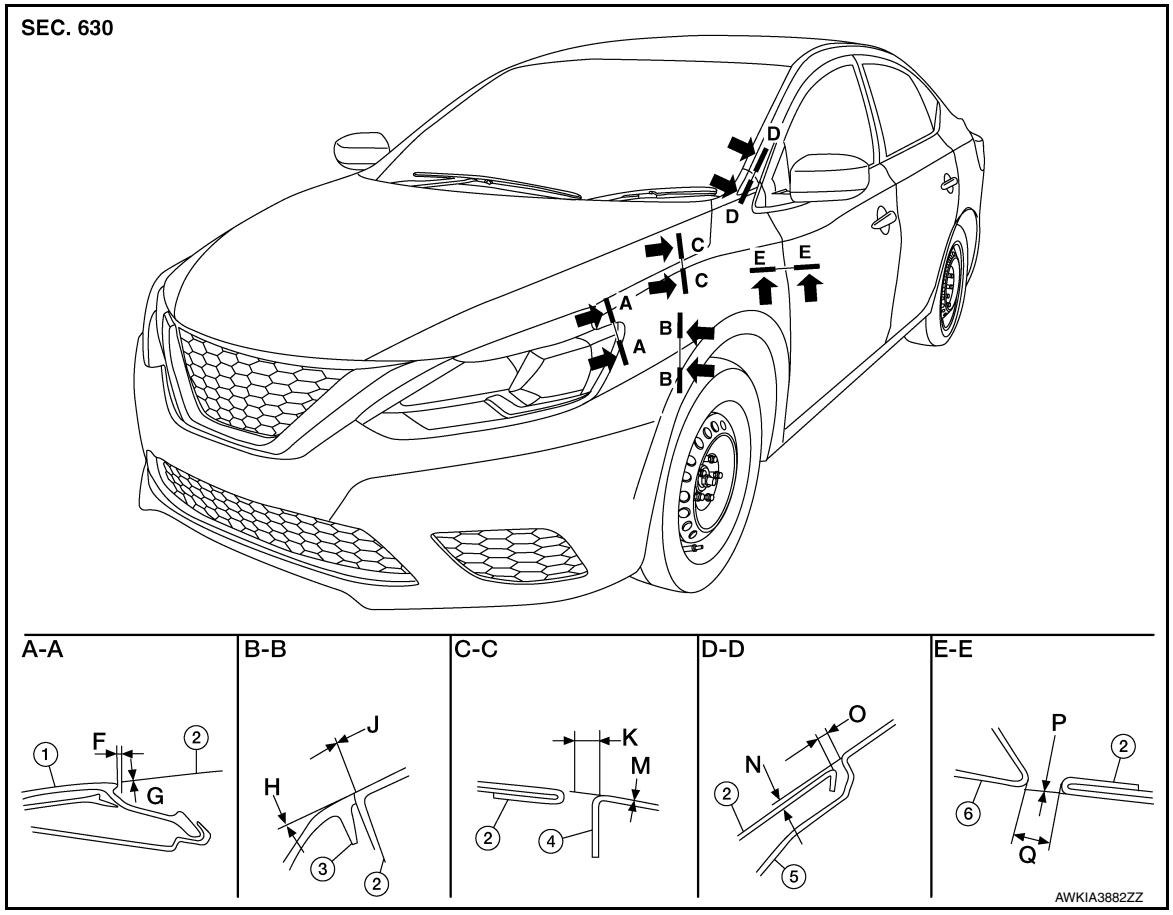
Installation is in the reverse order of removal.

CAUTION:

After installation, perform fender adjustment procedure. Refer to DLK-155, "Adjustment".

Adjustment

INFOID:0000000012783195



1. Front combination lamp assembly
2. Fender
3. Front bumper fascia
4. Hood assembly
5. Body side outer
6. Front door

Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	F	Clearance	1.5 ± 1.3 (0.06 ± 0.05)
	G	Surface height	0.7 ± 1.3 (0.03 ± 0.05)
B – B	H	Surface height	0.7 ± 1.0 (0.03 ± 0.04)
	J	Clearance	0.0 ± 1.0 (0.00 ± 0.04)
C – C	K	Clearance	3.7 ± 1.0 (0.15 ± 0.04)
	M	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
D – D	N	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
	O	Clearance	3.0 ± 1.0 (0.12 ± 0.04)
E – E	P	Surface height	—
	Q	Clearance	3.8 ± 1.0 (0.15 ± 0.04)

Adjustment

1. Remove front bumper fascia. Refer to EXT-17, "Removal and Installation".
2. Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".

3. Loosen the front fender bolts.
4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
5. Tighten the rear upper and lower front fender bolts.
6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
8. Tighten the inner front fender bolts.
9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
10. Tighten the front fender to front fascia and bracket screws.
11. Install front bumper fascia. Refer to EXT-17, "Removal and Installation".
12. Install front combination lamp.Refer to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
13. Install the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".

CAUTION:

- **If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.**
- **Hood assembly: Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".**
- **Front door: Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**
- **After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.**

FRONT DOOR
DOOR ASSEMBLY
DOOR ASSEMBLY : Removal and Installation

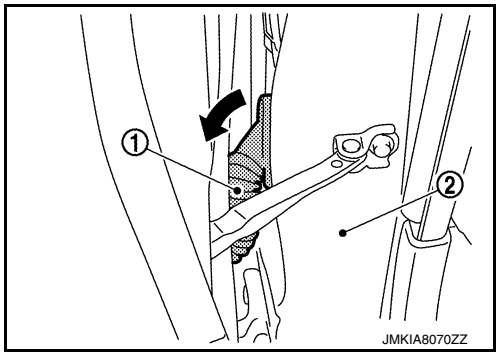
INFOID:0000000012783196

CAUTION:
- **Use two people when removing or installing the front door assembly due to its heavy weight.**
- **When removing and installing front door assembly, support front door using a suitable tool.**
- **Do not use air tools or electric tools for servicing.**
- **Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.**

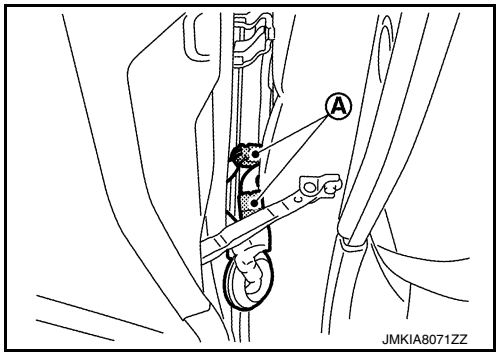
NOTE:
LH side shown; RH side similar.

REMOVAL

1. Disconnect the battery negative and positive terminals and wait at least three minutes, if equipped with the side air bag (satellite) sensor. Refer to PG-74, "Removal and Installation (Battery)".
2. Remove front door assembly harness grommet LH (1) then pull out door harness from body (2).

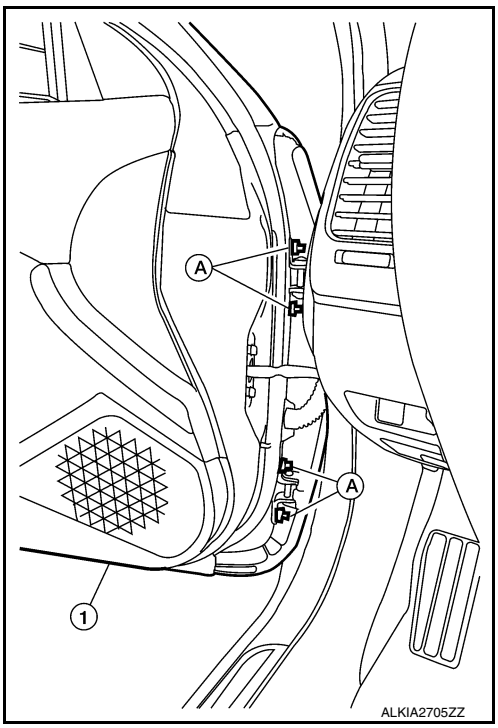


3. Disconnect the harness connectors (A) from the front door assembly harness.



4. Remove check link bolt (body side).

5. Remove front door assembly hinge nuts (A) (door side) and the door assembly (1).



INSTALLATION

Installation is in the reverse order of removal.
Tighten door hinge nuts to specified torque.

CAUTION:

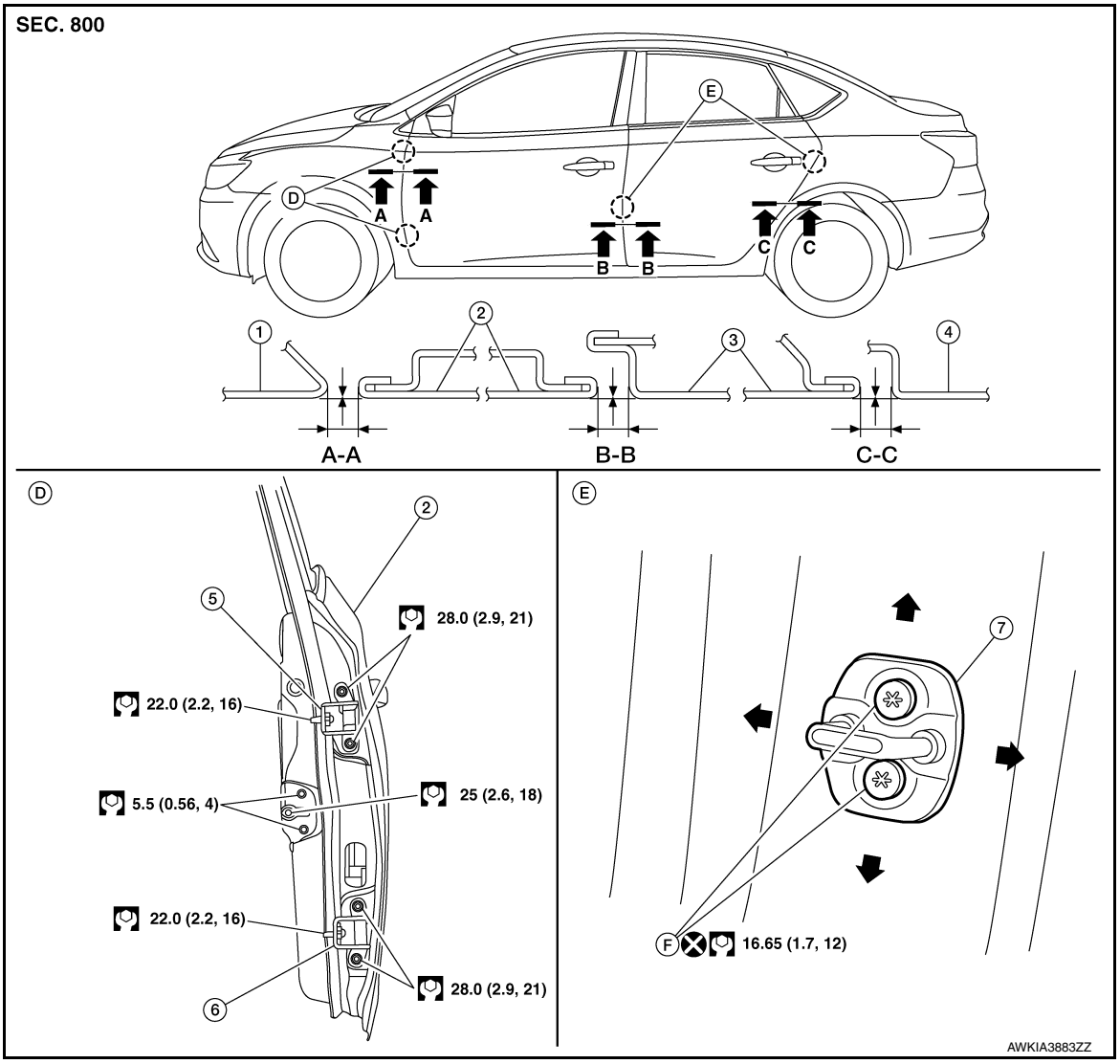
- **After installation, check front door open/close, lock/unlock operation.**
- **After installation, perform the front door adjustment procedure. Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**

NOTE:

When main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-28, "Description".

DOOR ASSEMBLY : Adjustment

INFOID:0000000012783197



1. Front fender
2. Front door assembly
3. Rear door assembly
4. Body side outer
5. Front door upper hinge
6. Front door lower hinge
7. Front door striker
F. Front door striker bolts

Check the clearance and surface height between front door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	G	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	H	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
B – B	H	Clearance	4.2 ± 1.0 (0.17 ± 0.04)
	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	K	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to DLK-154, "Removal and Installation".

2. Loosen the front door hinge to body bolts. Move the door forward or backward as necessary until within specifications provided.
3. Tighten the hinge to body bolts to specified torque.

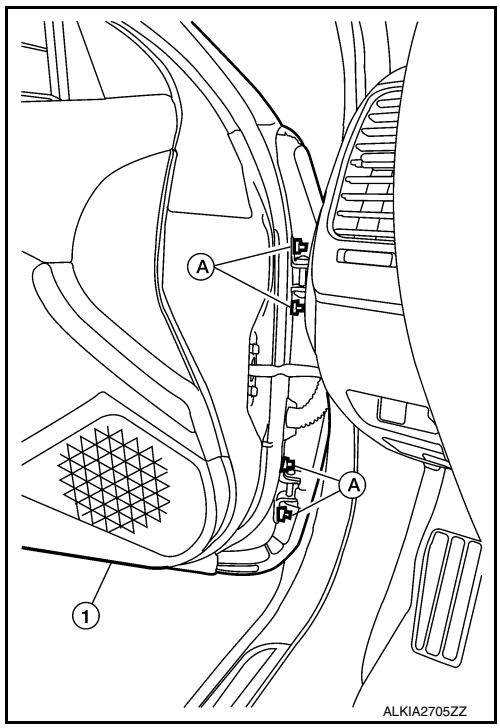
Front door hinge bolts	**22.0 N·m (2.2 kg-m, 16 ft-lb)**

4. Install the front fender. Refer to DLK-154, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the front door hinge nuts (A).
2. Move the top and/or bottom of the door (1) in or out as necessary until it is within specifications provided.
3. Tighten the front door hinge nuts to specified torque.

Front door hinge nuts	**28.0 N·m (2.9 kg-m, 21 ft-lb)**



CAUTION:
- **Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.**
- **If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.**

- **Front fender: Refer to DLK-155, "Adjustment".**
- **Rear door: Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".**

DOOR STRIKER ADJUSTMENT

Adjust front door assembly striker so that it becomes parallel with door lock insertion direction.

DOOR HINGE

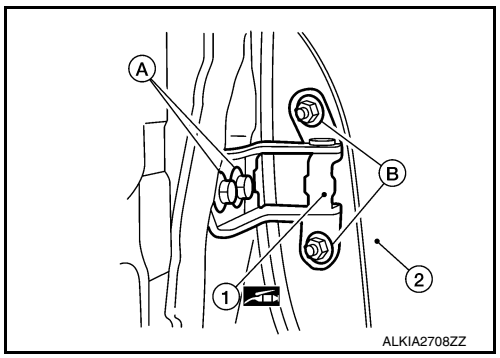
DOOR HINGE : Removal and Installation

INFOID:0000000012783198

REMOVAL

1. Remove front door fender. Refer to DLK-154, "Removal and Installation".
2. Remove front door assembly (2). Refer to DLK-157, "DOOR ASSEMBLY : Removal and Installation".
3. Remove bolt (A) and door hinge (1).

4. Remove door hinge bolts (B) and remove hinge (1).



INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.DLK-159, "DOOR ASSEMBLY : Adjustment"

CAUTION:

- **Apply anticorrosive agent onto the front door hinge mating surface.**
- **After installation, check front door open/close, lock/unlock operation.**
- **After installation, perform the front door adjustment procedure. Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**

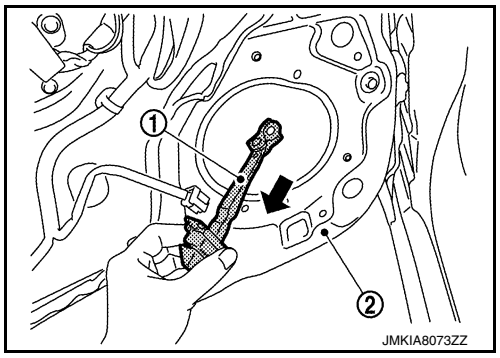
DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012783199

REMOVAL

1. Fully close the front door glass.
2. Remove front door speaker. Refer to AV-58, "Removal and Installation" (BASE AUDIO), AV-119, "Removal and Installation" (DISPLAY AUDIO SYSTEM), AV-323, "Removal and Installation" (NAVIGATION WITH BOSE) and AV-212, "Removal and Installation" (NAVIGATION WITHOUT BOSE).
3. Remove door check link bolt from body.
4. Remove door check link bolts on door panel.
5. Remove door check link (1) through the hole in door panel (2).



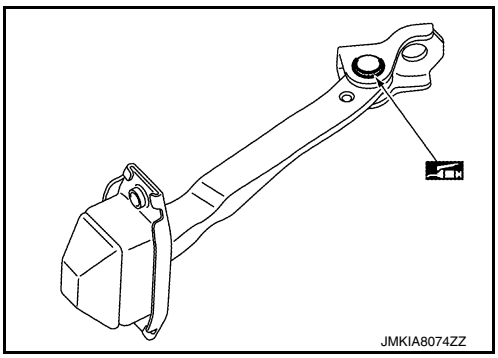
INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After installation, check front door open/close, lock/unlock operation.**
- **Check front door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**

: Grease



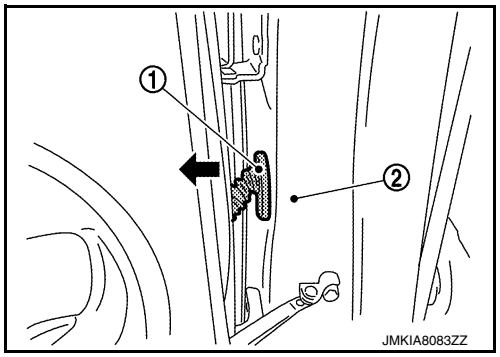
REAR DOOR
DOOR ASSEMBLY
DOOR ASSEMBLY : Removal and Installation

INFOID:0000000012783200

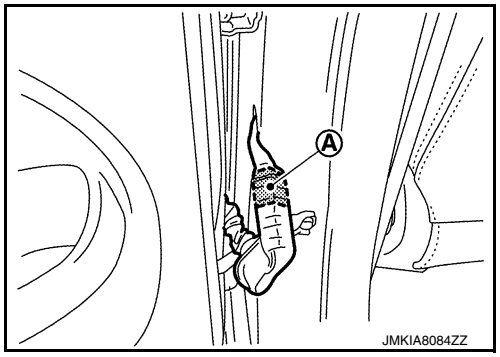
CAUTION:
- **Use two people when removing or installing the rear door assembly due to its heavy weight.**
- **When removing and installing rear door assembly, support rear door with a suitable tool.**

REMOVAL

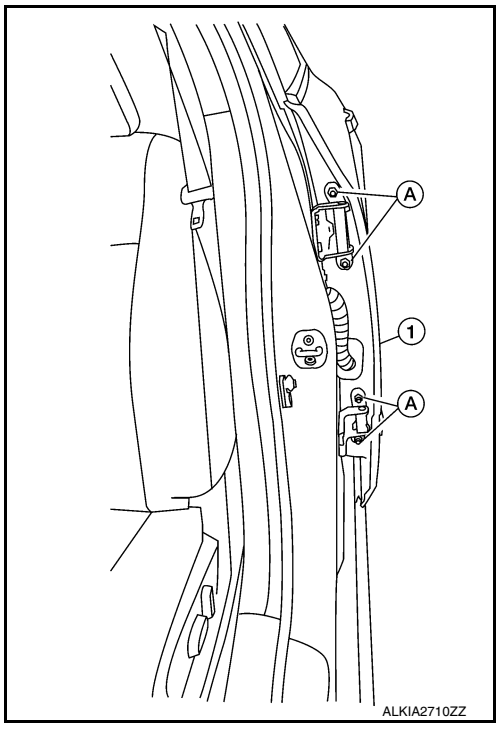
1. Remove rear door assembly harness grommet (LH) (1) then pull out door harness from body (2).



2. Disconnect the harness connector (A) from the door harness.



3. Remove the check link bolt from the body.
4. Remove rear door assembly hinge nuts (A) (door side) and the door assembly (1).



INSTALLATION

Installation is in the reverse order of removal.
Tighten rear door hinge nuts (door side) to specified torque.

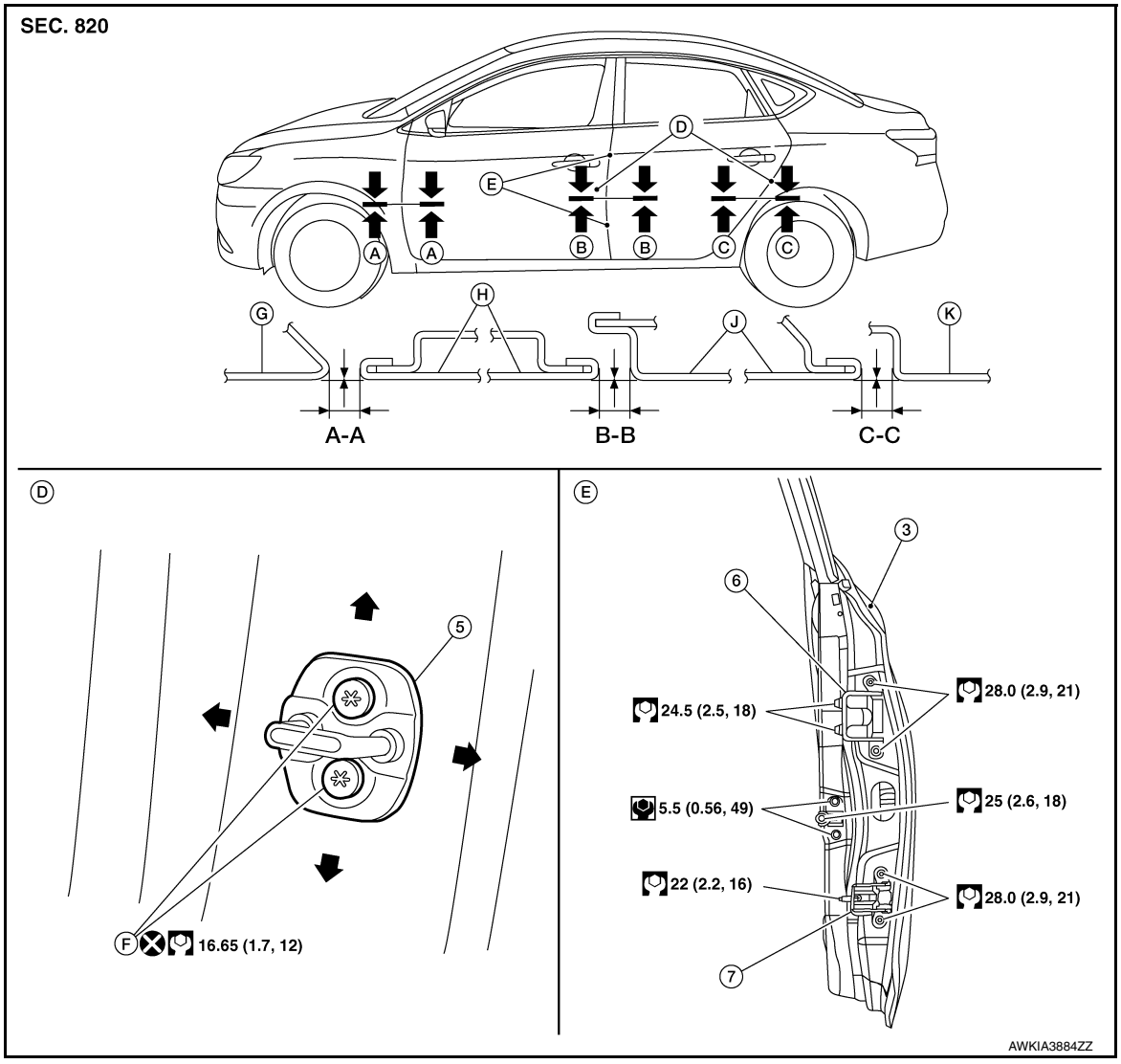
CAUTION:

- **After installation, check rear door open/close, lock/unlock operation.**
- **After installation, perform the rear door adjustment procedure. Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".**

DOOR ASSEMBLY : Adjustment

INFOID:0000000012783201

ADJUSTMENT



1. Front fender
2. Door assembly
3. Rear door assembly
4. Body side outer
5. Rear door striker
6. Rear door upper hinge
7. Rear door lower hinge
F. Rear door striker screws

Check the clearance and surface height between rear door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	G	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	H	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
B – B	H	Clearance	4.2 ± 1.0 (0.17 ± 0.04)
	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	K	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

LONGITUDINAL CLEARANCE

1. Remove the center pillar upper finisher. Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation" .
2. Loosen the rear door upper hinge nuts.
3. Loosen the rear door lower hinge bolts.
4. Move the rear door forward or backward as necessary until within specifications provided.
5. Tighten the lower hinge bolts to specification.

Rear door lower hinge bolts **22 N·m (2.2 kg-m, 16 ft-lb)**

6. Tighten the upper hinge nuts to specification.

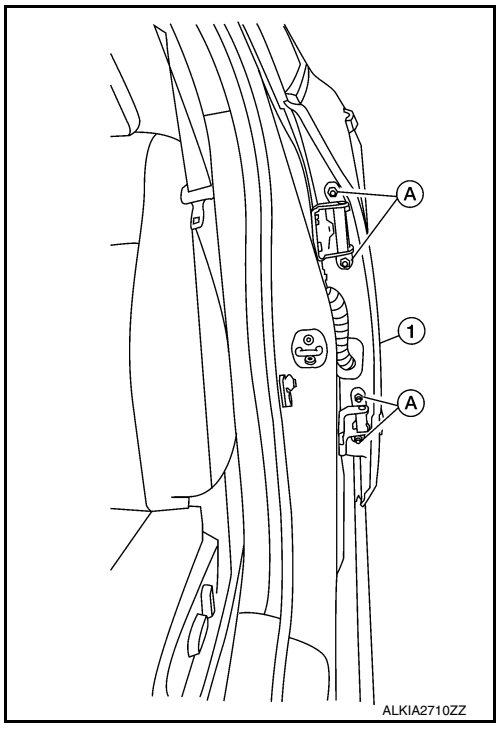
Rear door upper hinge nuts **24.5 N·m (2.5 kg-m, 18 ft-lb)**

7. Install the center pillar upper finisher. Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the rear door hinge nuts (door side) (A).
2. Move the top and/or the bottom of the rear door (1) in or out as necessary until it is within specifications provided.
3. Tighten the rear door hinge nuts (door side) (A) to specification.

Rear door nuts **28.0 N·m (2.9 kg-m, 21 ft-lb)**



CAUTION:

- **Check rear door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of rear door assembly hinge bolts and nuts.**

- **If the clearance measurements cannot be corrected by adjusting the rear door, adjust the front door. Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**

DOOR STRIKER ADJUSTMENT

Adjust rear door assembly striker so that it becomes parallel with door lock insertion direction.

DOOR HINGE

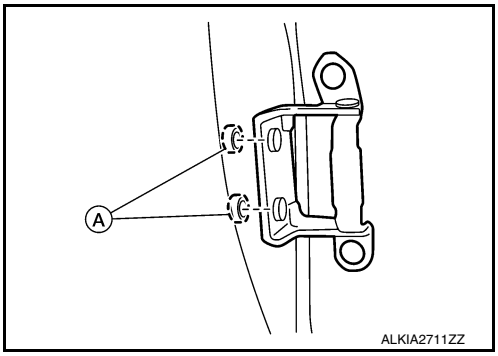
DOOR HINGE : Removal and Installation

INFOID:0000000012783202

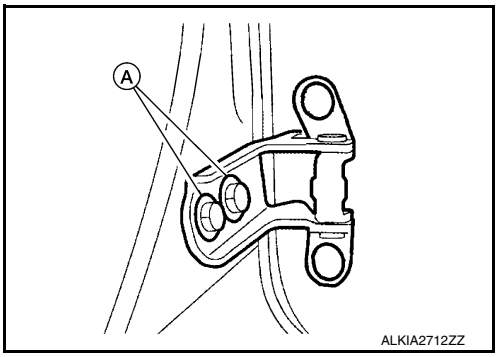
CAUTION:
- **Use two people when removing or installing rear door assembly due to its heavy weight.**
- **When removing and installing rear door assembly, support door using a suitable tool.**

REMOVAL

1. Remove rear door assembly. Refer to DLK-163, "DOOR ASSEMBLY : Removal and Installation".
2. Remove center pillar upper finisher (upper hinge only). Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation".
3. Remove rear door assembly upper hinge nuts (A) and remove.



4. Remove rear door assembly lower hinge bolts (A) and remove.



INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to DLK-164, "DOOR ASSEMBLY : Adjustment"

CAUTION:
- **Apply anticorrosive agent onto the hinge mating surface.**
- **After installation, check rear door open/close, lock/unlock operation.**
- **After installation, perform the rear door adjustment procedure. Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".**

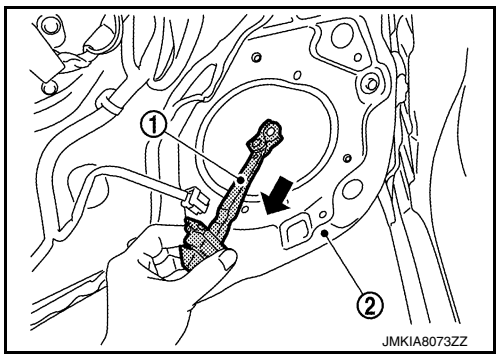
DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012783203

REMOVAL

1. Fully close the rear door glass.
2. Remove rear door speaker. Refer to AV-59, "Removal and Installation" (BASE AUDIO), AV-119, "Removal and Installation" (DISPLAY AUDIO SYSTEM), AV-324, "Removal and Installation" (NAVIGATION WITH BOSE) and AV-213, "Removal and Installation" (NAVIGATION WITHOUT BOSE).
3. Remove door check link bolt from body.
4. Remove door check link bolts on door panel.
5. Remove door check link (1) through the hole in door panel (2).

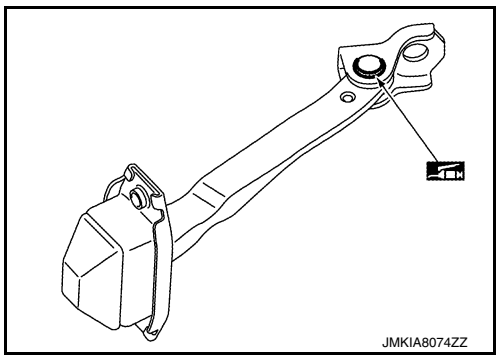


INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After installation, check rear door open/close, lock/unlock operation.**
- **Check rear door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**

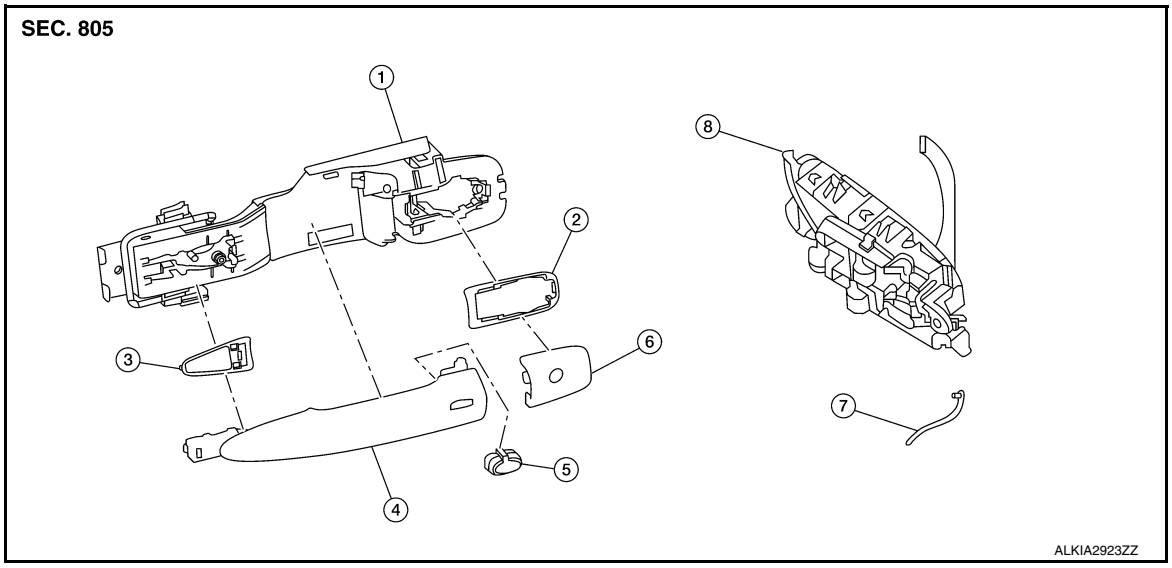


DOOR HANDLE

FRONT DOOR HANDLE

FRONT DOOR HANDLE : Exploded View

INFOID:0000000012783204



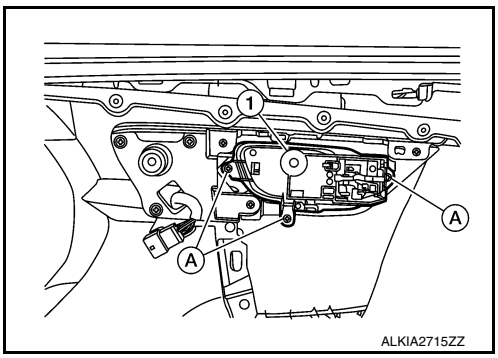
1. Outside handle bracket
2. Rear gasket
3. Front gasket
4. Outside handle
5. Door request switch
6. Outside handle escutcheon
7. Door key cylinder rod
8. Inside handle assembly

FRONT DOOR HANDLE : Removal and Installation - Inside Handle

INFOID:0000000012783205

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove screws (A) and inside handle assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check front door lock cables are properly engaged to inside handle.**
- **After installation, check front door open/close, lock/unlock operation.**

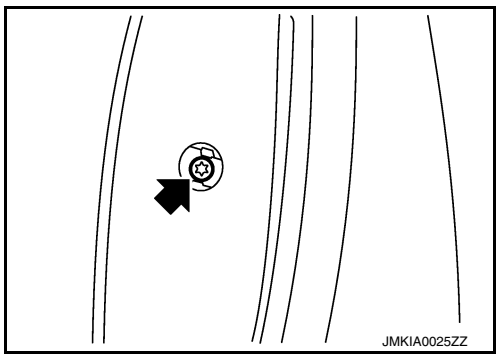
FRONT DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:0000000012783206

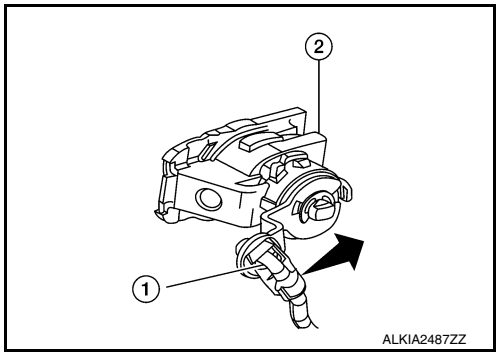
REMOVAL

1. Fully close front door glass.
2. Remove front door finisher. Refer to INT-15, "Removal and Installation".
3. Remove front door vapor barrier.

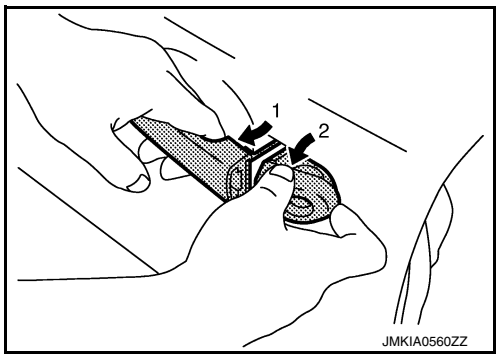
4. Remove front door glass channel rear.
5. Disconnect the harness connectors from the door antenna and door request switch and then remove harness clamp on outside handle bracket.
6. Remove door side grommet, and loosen screw (⬅) that retains the front door outside handle bracket.



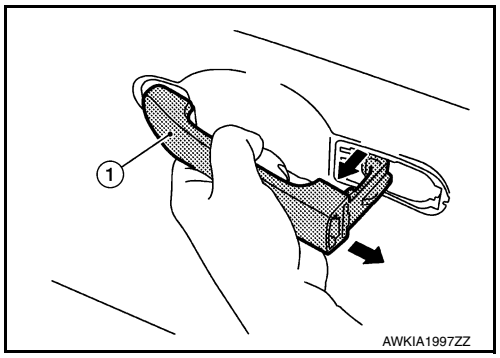
7. Reach in to separate door key cylinder rod (LH side) (1) from door key cylinder assembly (LH side) (2).



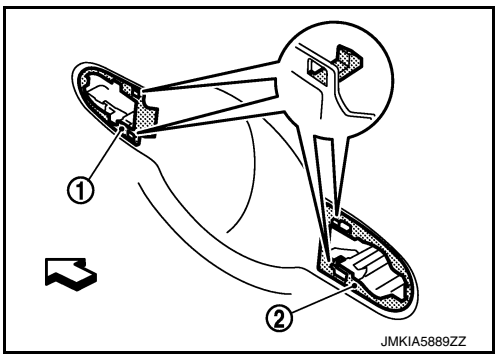
8. While pulling (1) outside handle, remove (2) door key cylinder assembly (LH side) or outside handle escutcheon (RH side).



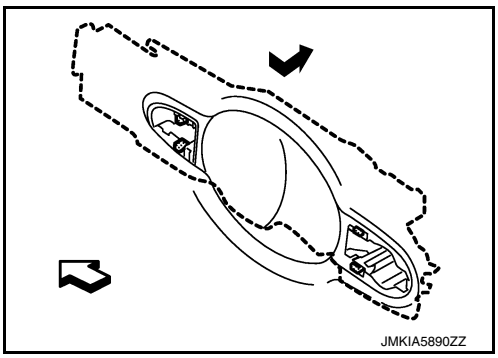
9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



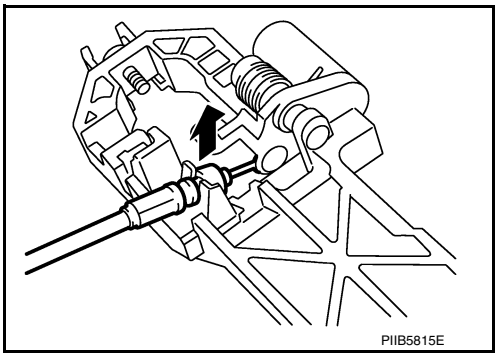
10. Remove front gasket (1) and rear gasket (2).
    ⇦: Front



11. Slide outside handle bracket toward rear of vehicle to remove.
    ⇦: Front



12. Disconnect the outside handle cable from the outside handle bracket connection.



INSTALLATION

Installation is in the reverse order of removal.

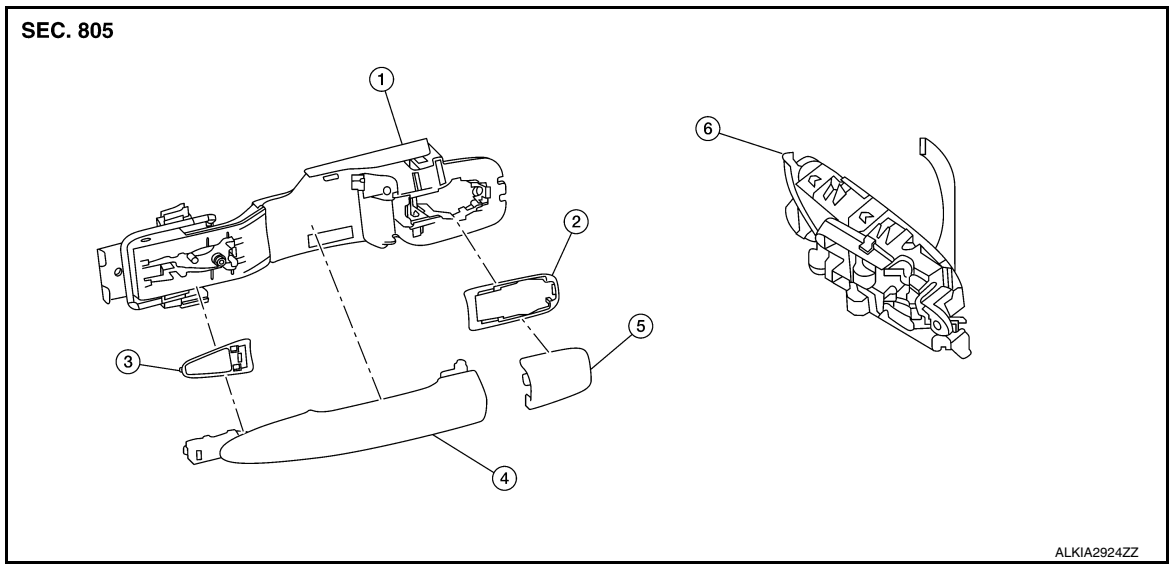
CAUTION:

- **When installing door key cylinder rod on the (LH) front door, be sure to rotate door key cylinder rod holder until a click is felt.**
- **Check front door lock cable is properly engaged to outside handle bracket.**
- **After installation, check front door open/close, lock/unlock operation.**

REAR DOOR HANDLE

REAR DOOR HANDLE : Exploded View

INFOID:0000000012783207



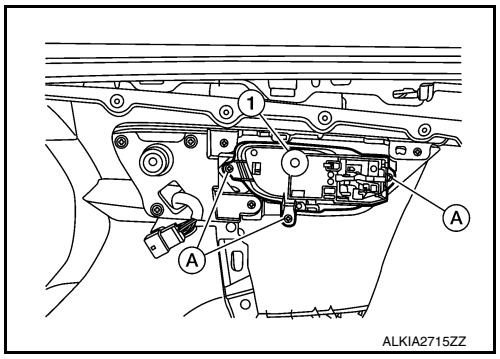
1. Outside handle bracket
2. Rear gasket
3. Front gasket
4. Outside handle
5. Outside handle escutcheon
6. Inside handle assembly

REAR DOOR HANDLE : Removal and Installation - Inside Handle

INFOID:0000000012783208

REMOVAL

1. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
2. Remove screws (A) and inside handle (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check rear door lock cables are properly engaged to inside handle.**
- **After installation, check rear door open/close, lock/unlock operation.**

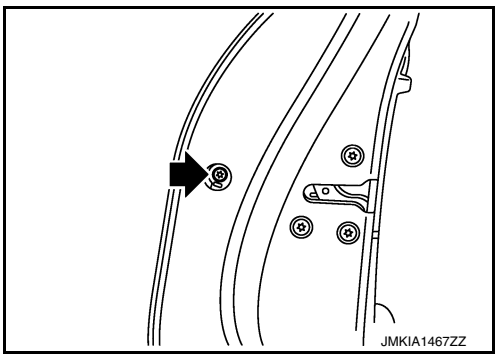
REAR DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:0000000012783209

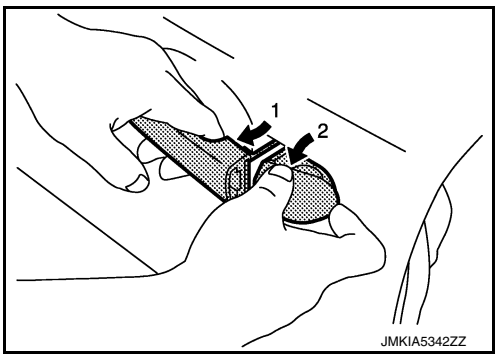
REMOVAL

1. Fully close rear door glass.
2. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
3. Remove rear door vapor barrier.

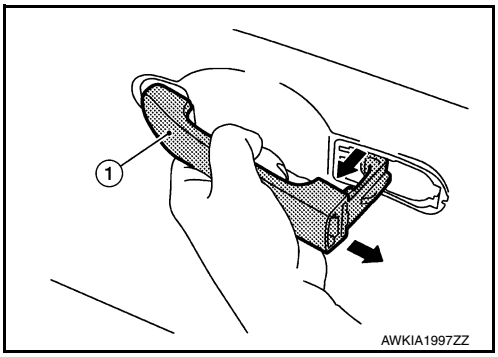
4. Remove door side grommet, and loosen screw (⬅)that retains the rear door outside handle bracket.



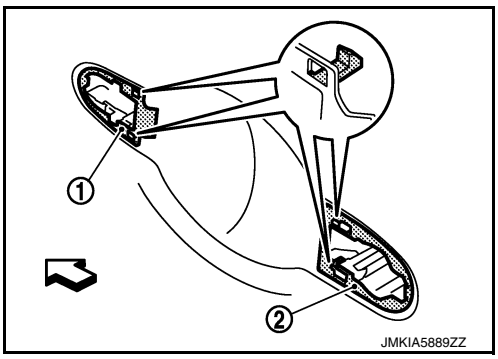
5. While pulling (1) outside handle, remove (2) outside handle escutcheon.



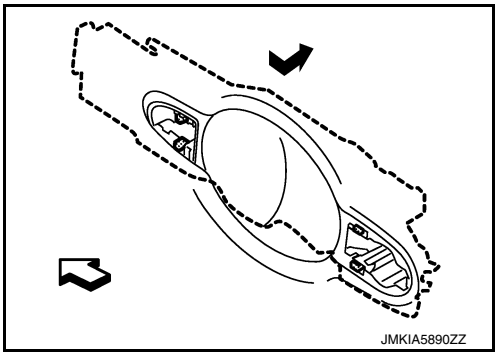
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



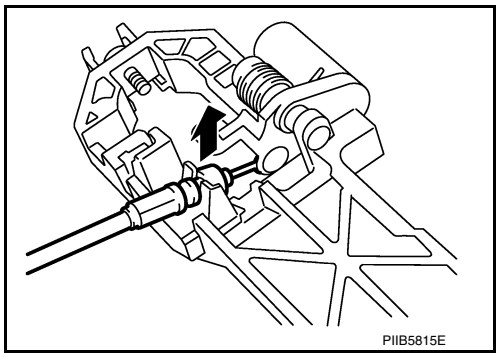
7. Remove front gasket (1) and rear gasket (2).
⇦: Front



8. Slide outside handle bracket toward rear of vehicle to remove.
⇦: Front



9. Remove clip and disconnect the outside handle cable from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

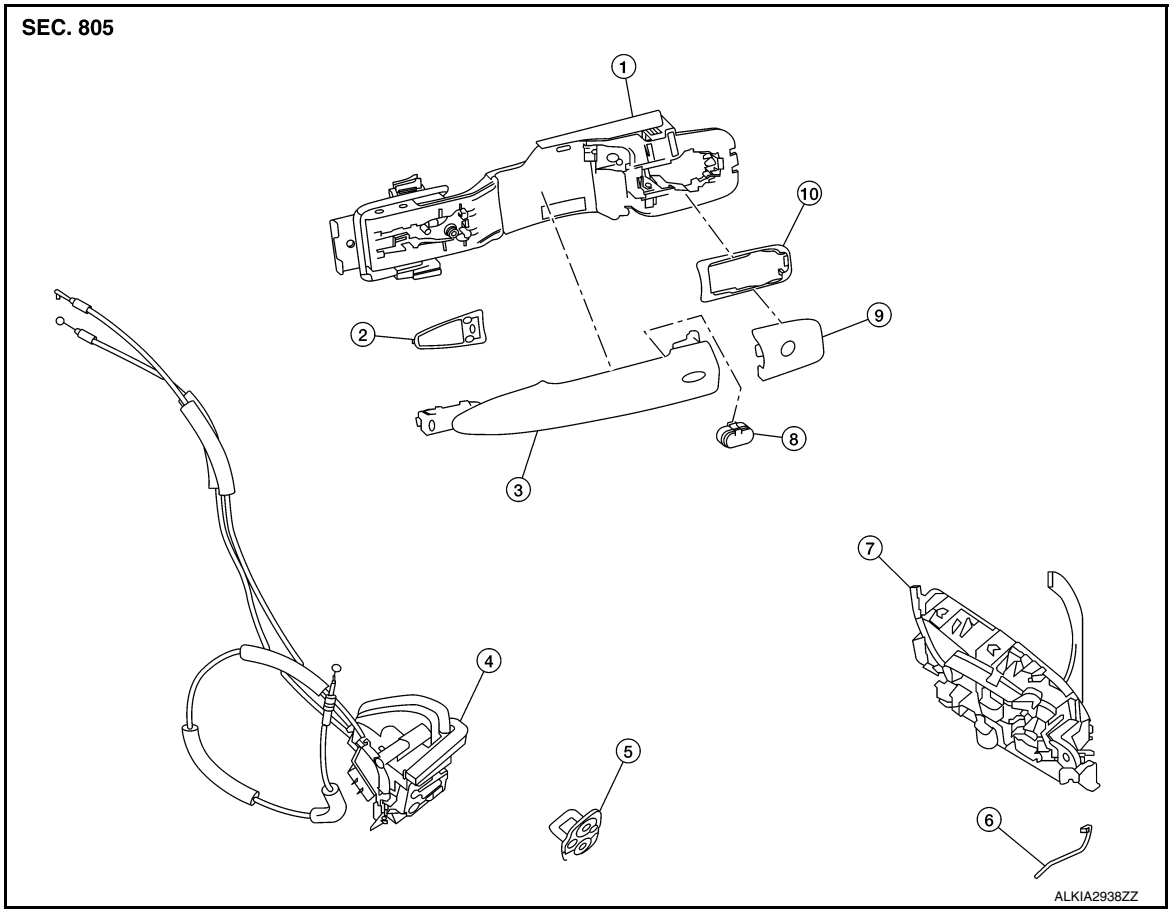
- **Check rear door lock cable is properly engaged to outside handle bracket.**
- **After installation, check rear door open/close, lock/unlock operation.**

DOOR LOCK

FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

INFOID:0000000012783210



1. Outside handle bracket
2. Front gasket
3. Front door handle
4. Front door lock assembly
5. Door striker
6. Door key cylinder rod (driver side)
7. Inside handle
8. Door request switch
9. Outside handle escutcheon
10. Rear gasket

FRONT DOOR LOCK : Removal and Installation

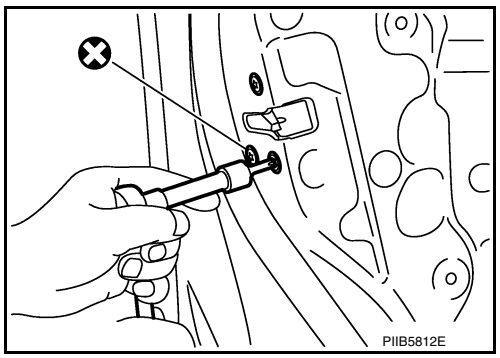
INFOID:0000000012783211

CAUTION:
Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

REMOVAL

1. Remove the front door outside handle. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".
2. Remove the rear glass run.
3. Disconnect the harness connector from the front door lock actuator.

4. Remove screws and the front door lock assembly.



5. Disconnect door key cylinder rod (LH only) from door key cylinder (LH only).
6. Disconnect door lock cables from inside handle.

INSTALLATION

Installation is in the reverse order of removal.
Tighten front door lock screws to specified torque.

Front door lock screws: 5.8 Nm (0.59 kg-m, 51 in-lb)

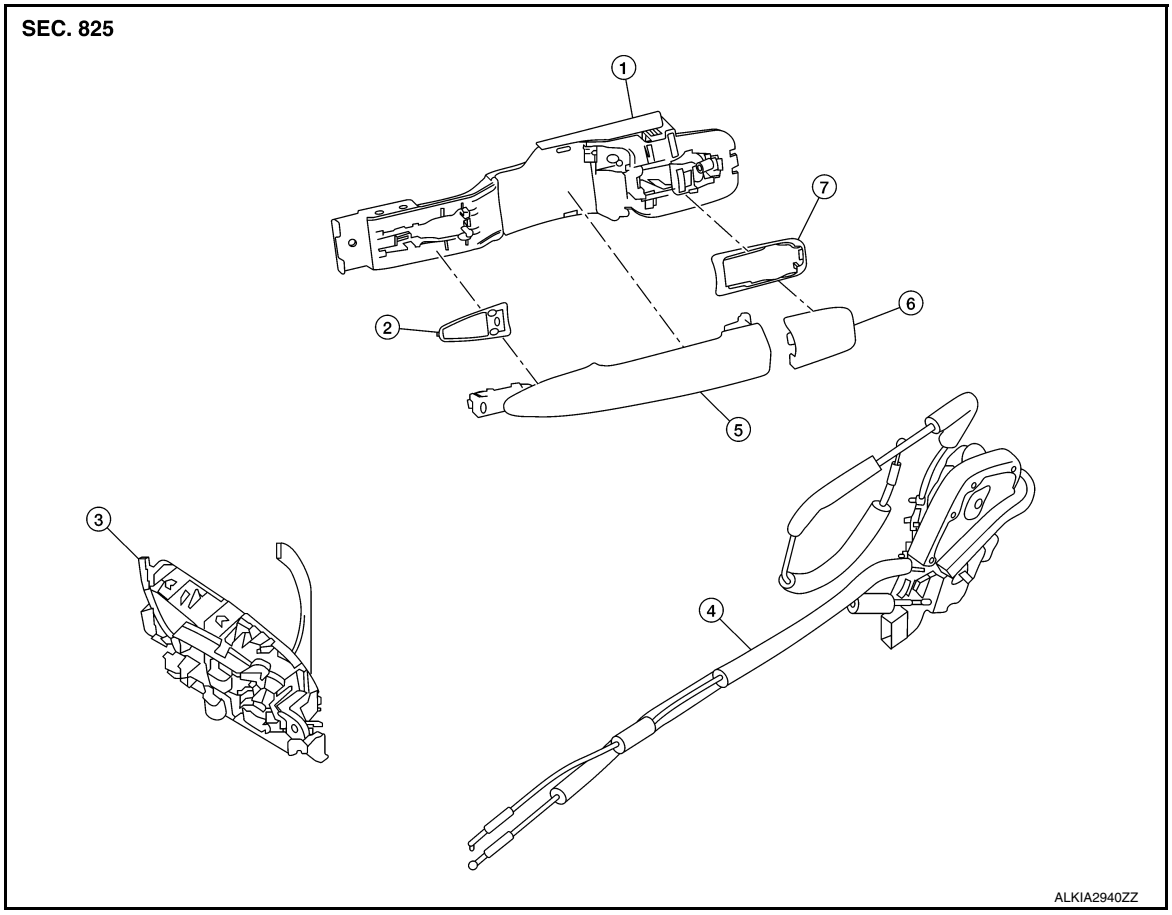
CAUTION:

- **Do not reuse front door lock assembly screws. Always replace screws with new ones when removed.**
- **Check front door lock cables are properly engaged to inside handle and outside handle bracket.**
- **When installing door key cylinder rod on the (LH) front door, be sure to rotate door key cylinder rod holder until a click is felt.**
- **After installation, check front door open/close, lock/unlock operation.**
- **Check front door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.**

REAR DOOR LOCK

REAR DOOR LOCK : Exploded View

INFOID:0000000012783212



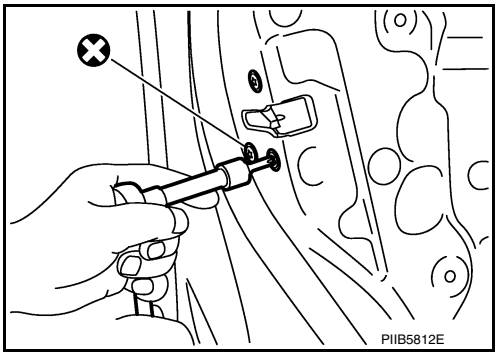
1. Outside handle bracket
2. Front gasket
3. Inside handle assembly
4. Door lock assembly
5. Outside handle
6. Outside handle escutcheon
7. Rear gasket

REAR DOOR LOCK : Removal and Installation

INFOID:0000000012783213

REMOVAL

1. Remove the rear door outside handle. Refer to DLK-171, "REAR DOOR HANDLE : Removal and Installation - Outside Handle".
2. Disconnect the harness connector from the rear door lock actuator.
3. Remove the screws and the rear door lock assembly.



INSTALLATION

Installation is in the reverse order of removal.
Tighten rear door lock screws to specified torque.

Rear door lock screws: 5.8 Nm (0.59 kg-m, 51 in-lb)

CAUTION:

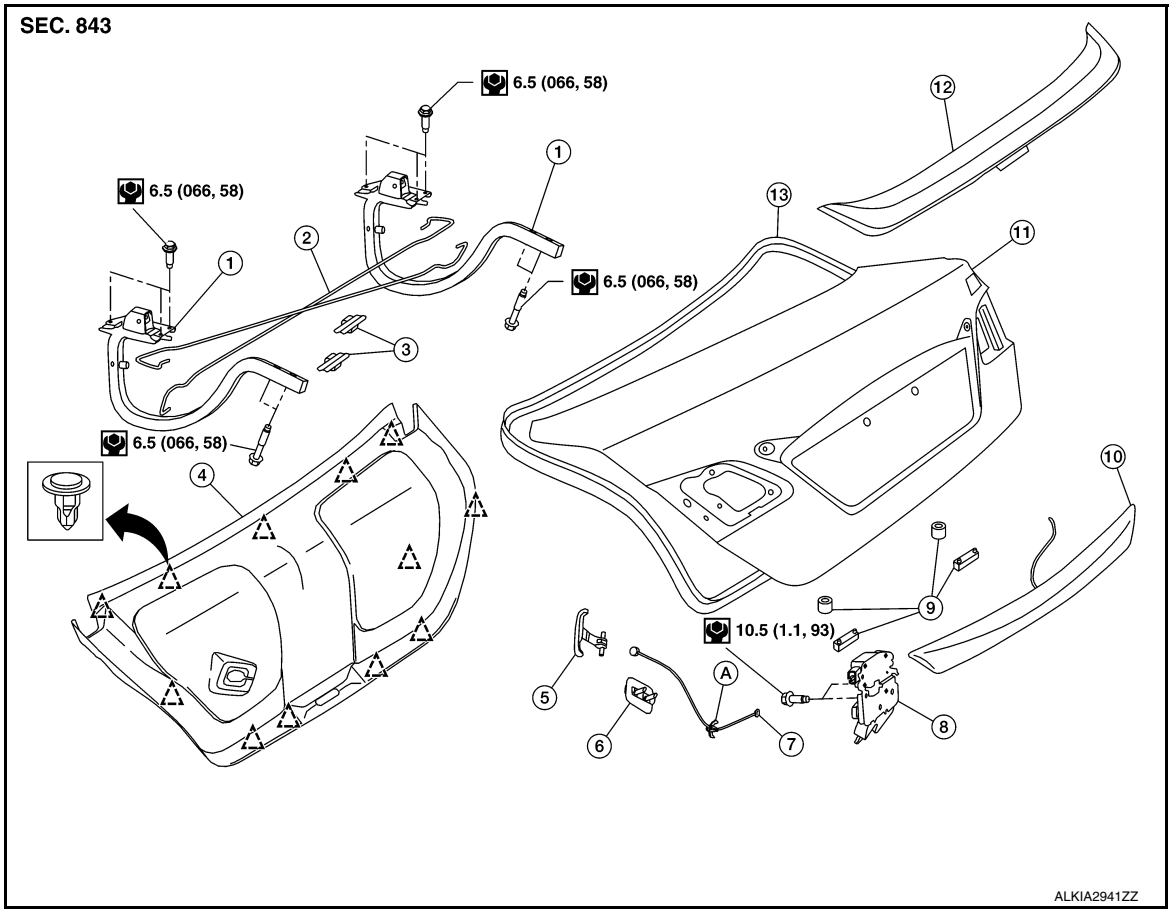
- **Do not reuse rear door lock assembly screws. Always replace screws with new ones when removed.**
- **Check rear door lock cables are properly engaged to inside handle and outside handle bracket.**
- **After installation, check rear door open/close, lock/unlock operation.**
- **Check rear door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.**

TRUNK LID

TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

INFOID:0000000012783214



1.	Trunk lid hinge LH/RH	2.	Torsion bar LH/RH	3.	Torsion bar clips
4.	Trunk lid finisher (if equipped)	5.	Emergency release handle	6.	Emergency release handle clip
7.	Emergency release handle cable	8.	Trunk lid lock	9.	Trunk lid bumpers
10.	License lamp finisher	11.	Trunk lid	12.	Rear spoiler (if equipped)
13.	Weatherstrip	A.	Clip		Clip

TRUNK LID ASSEMBLY : Removal and Installation

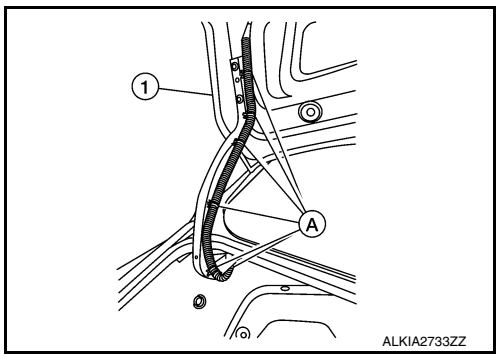
INFOID:0000000012783215

CAUTION:
- **Use two people when removing or installing trunk lid assembly due to its heavy weight.**
- **Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of trunk lid assembly.**

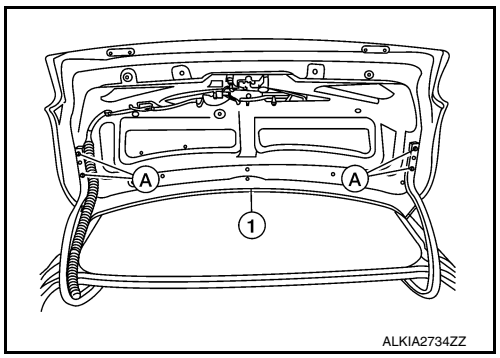
REMOVAL

1. Remove trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".

2. Disconnect the harness connectors in the trunk lid assembly (1) and remove the harness clips (A) then pull out harness from the trunk lid assembly (1).



3. Remove the bolts (A) and remove the trunk lid assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

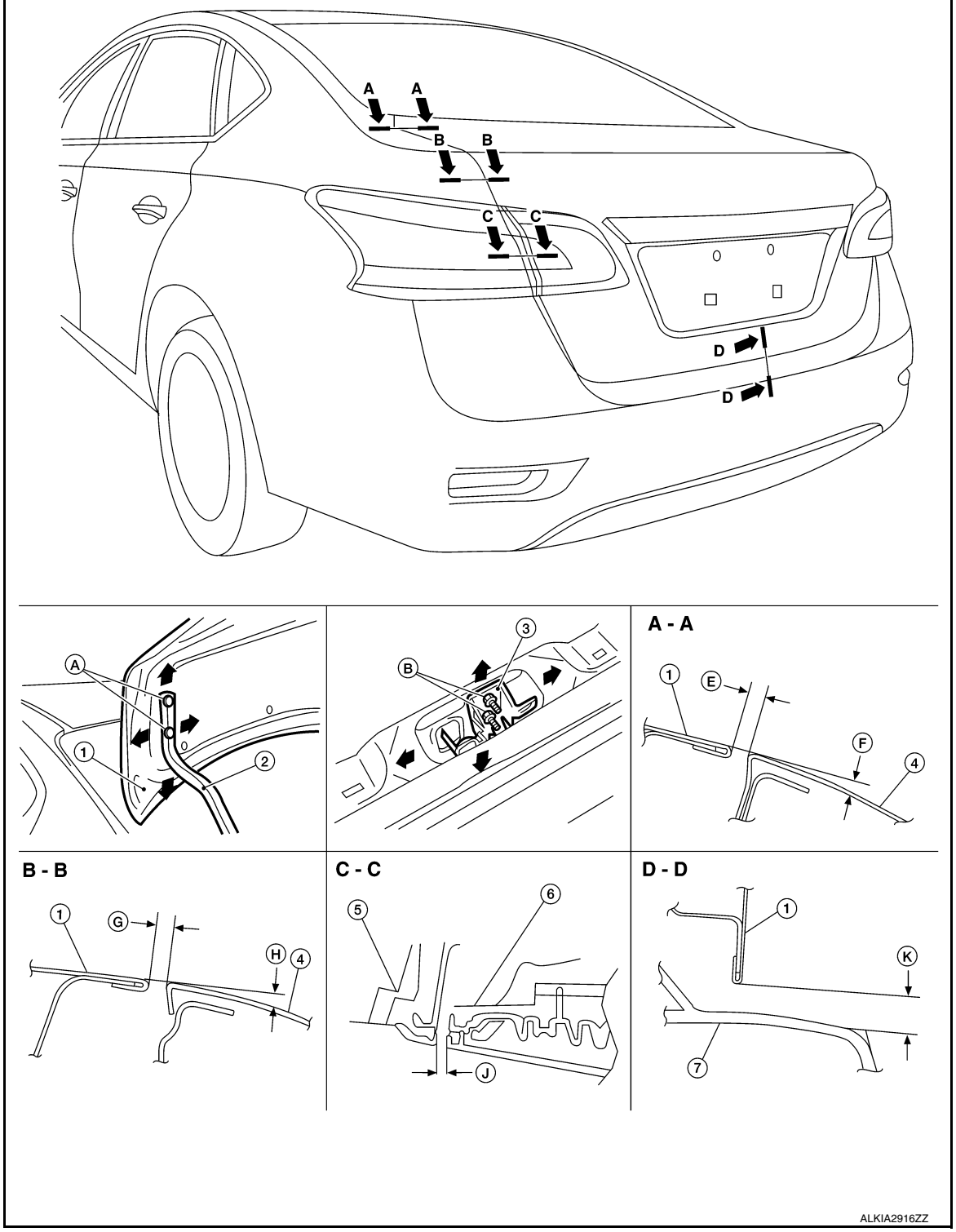
CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK LID ASSEMBLY : Adjustment".

TRUNK LID ASSEMBLY : Adjustment

INFOID:0000000012783216

SEC. 843



1. Trunk lid assembly
2. Trunk lid hinge
3. Trunk lid striker
4. Body side outer
5. Rear combination lamp
6. Reflector
7. Rear bumper fascia
A. Trunk lid bolts
B. Striker bolts

Check the clearance and the surface height between trunk lid and each part by visual inspection and tactile feel.
If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard	Parallelism (MAX)	Right/Left Difference (MAX)
A – A	E	Clearance	3.5 ±1.0 (0.14 ±0.04)	2.5 (0.10)	2.0 (0.08)
	F	Surface height	0.0 ±1.0 (0.00 ±0.04)	1.5 (0.06)	1.5 (0.06)
B – B	G	Clearance	3.5 ±1.0 (0.14 ±0.04)	2.5 (0.10)	2.0 (0.08)
	H	Surface height	0.0 ±1.0 (0.00 ±0.04)	1.5 (0.06)	1.5 (0.06)
C – C	J	Clearance	4.5 ±1.9 (0.18 ±0.07)	2.0 (0.08)	3.0 (0.12)
D – D	K	Clearance	7.0 ±2.0 (0.28 ±0.08)	2.0 (0.08)	—

LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

1. Loosen the trunk lid to hinge bolts.
2. Move the trunk lid so that the clearance measurements are within specifications provided.
3. Tighten the trunk lid to hinge bolts.

Trunk Lid Hinge Removed From Vehicle

1. Remove the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
2. Loosen the hinge to parcel shelf bolts.
3. Move the trunk lid so that the clearance measurements are within specifications provided.
4. Tighten the hinge to parcel shelf bolts.
5. Install the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the bumper rubber.
2. Loosen the striker bolts.
3. Lift up the trunk lid approx. 100 - 150 mm (3.94 - 5.91 in) height then close it lightly. Make sure it engages firmly with the trunk lid closed.
4. Tighten the trunk lid striker.

TRUNK LID HINGE

TRUNK LID HINGE : Removal and Installation

INFOID:0000000012783217

REMOVAL

1. Remove trunk lid assembly. Refer to DLK-178, "TRUNK LID ASSEMBLY : Removal and Installation".
2. Remove torsion bar. Refer to DLK-182, "TORSION BAR : Removal and Installation".
3. Remove rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
4. Remove trunk lid hinge bolts (body side) and remove.

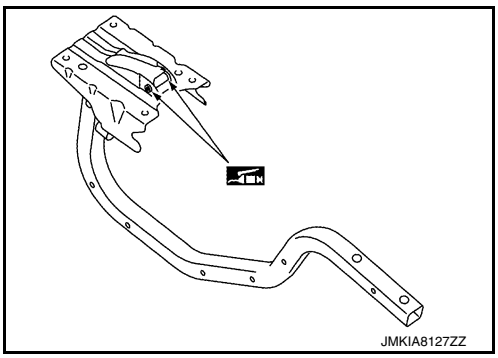
INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check trunk lid open/close, lock/unlock operation after installation.**
- **After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK LID ASSEMBLY : Adjustment".**

- **Check trunk lid hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**



TORSION BAR

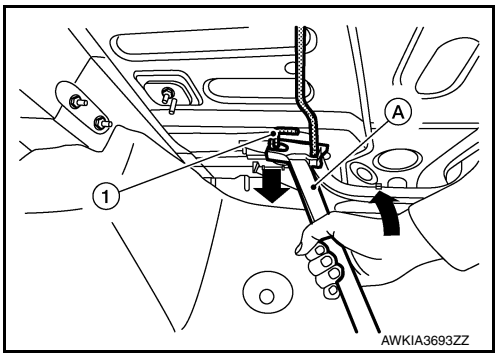
TORSION BAR : Removal and Installation

INFOID:0000000012783218

REMOVAL

1. Remove torsion bar clip.
2. Support the trunk lid assembly using a suitable tool.

   WARNING:
   Bodily injury may occur if hood assembly is not supported properly when removing the torsion bars.
3. Apply suitable tool (A) to torsion bar (1) and lift torsion bar to remove it.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
After installation check the trunk lid open/close, lock/unlock operation.

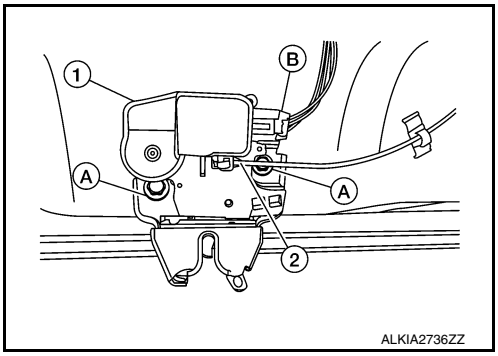
TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

INFOID:0000000012783219

REMOVAL

1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".
2. Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
3. Remove the trunk lid lock bolts (A) and remove.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK LID ASSEMBLY : Adjustment".

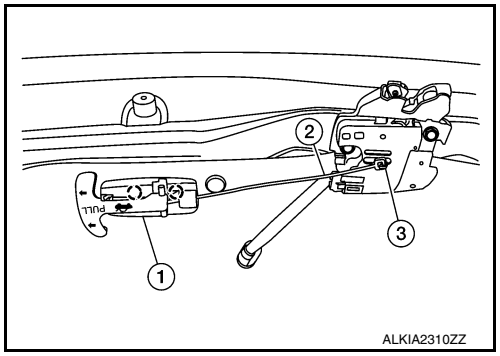
EMERGENCY LEVER

EMERGENCY LEVER : Removal and Installation

INFOID:0000000012783220

REMOVAL

1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".
2. Using a suitable tool release the pawls and remove emergency release handle (1) from trunk lid assembly.
   ( ): Pawl
3. Disconnect emergency release handle cable (2) from trunk lid lock assembly (3).



INSTALLATION

Installation is in the reverse order of removal.

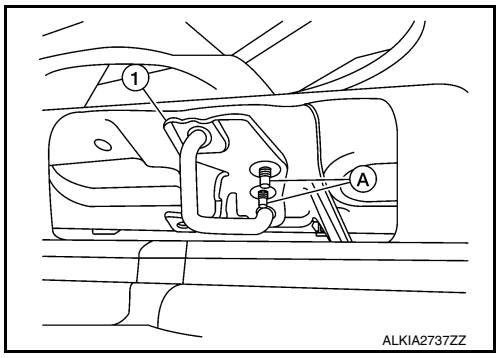
TRUNK LID STRIKER

TRUNK LID STRIKER : Removal and Installation

INFOID:0000000012783221

REMOVAL

1. Remove the trunk kicking plate. Refer to INT-42, "TRUNK REAR PLATE : Removal and Installation".
2. Remove bolts (A) and striker (1).



INSTALLATION

Installation is in the reverse order of removal.

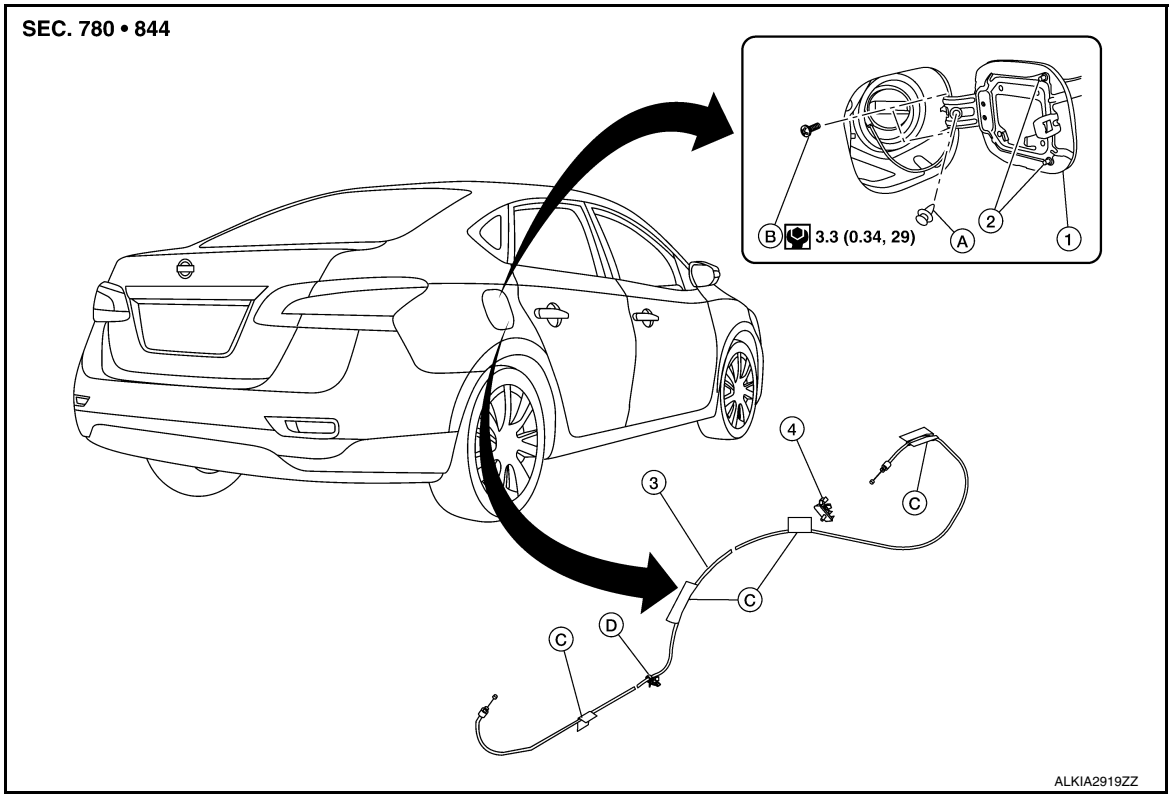
CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK LID ASSEMBLY : Adjustment".

FUEL FILLER LID OPENER

Exploded View

INFOID:0000000012783222



1. Fuel filler lid
2. Bumper rubber
3. Fuel filler lid opener cable
4. Fuel filler lid lock
A. Clip
B. Bolt
C. Cable protector

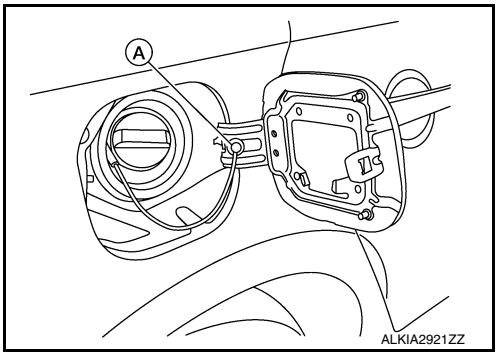
FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

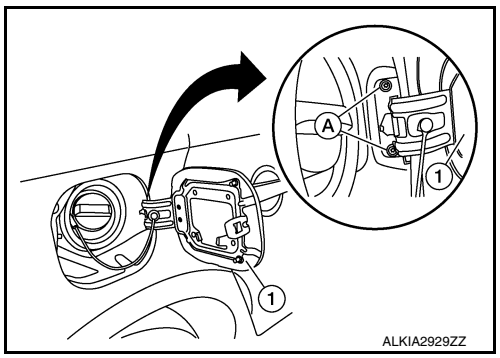
INFOID:0000000012783223

REMOVAL

1. Fully open fuel filler lid.
2. Remove fuel cap clip (A).



3. Remove fuel filler lid screws (A) and fuel filler lid (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid assembly open/close, lock/unlock operation.

NOTE:

- The following table shows the specifications for a correctly installed fuel filler lid.
- Fitting adjustment cannot be performed.

Unit: mm (in)

Portion	Measurement	Standard
Fuel filler lid – Body side outer	Clearance	5.1 ±1.0 (0.20 ±0.04)
Fuel filler lid – Body side outer	Surface height	0.0 ±1.0 (0.0 ±0.04)

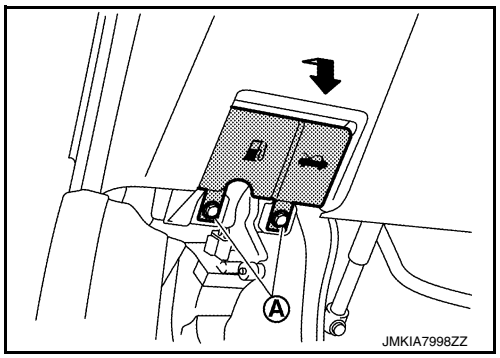
FUEL FILLER OPENER CABLE

FUEL FILLER OPENER CABLE : Removal and Installation

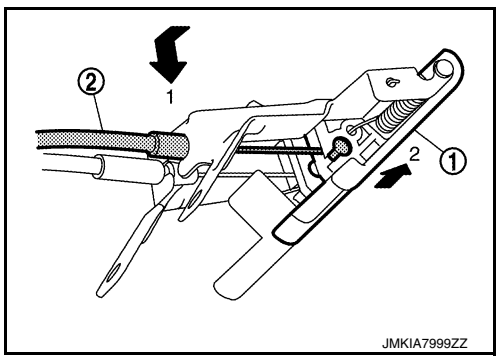
INFOID:0000000012783224

REMOVAL

1. Remove hood and fuel filler handle assembly bolts (A).

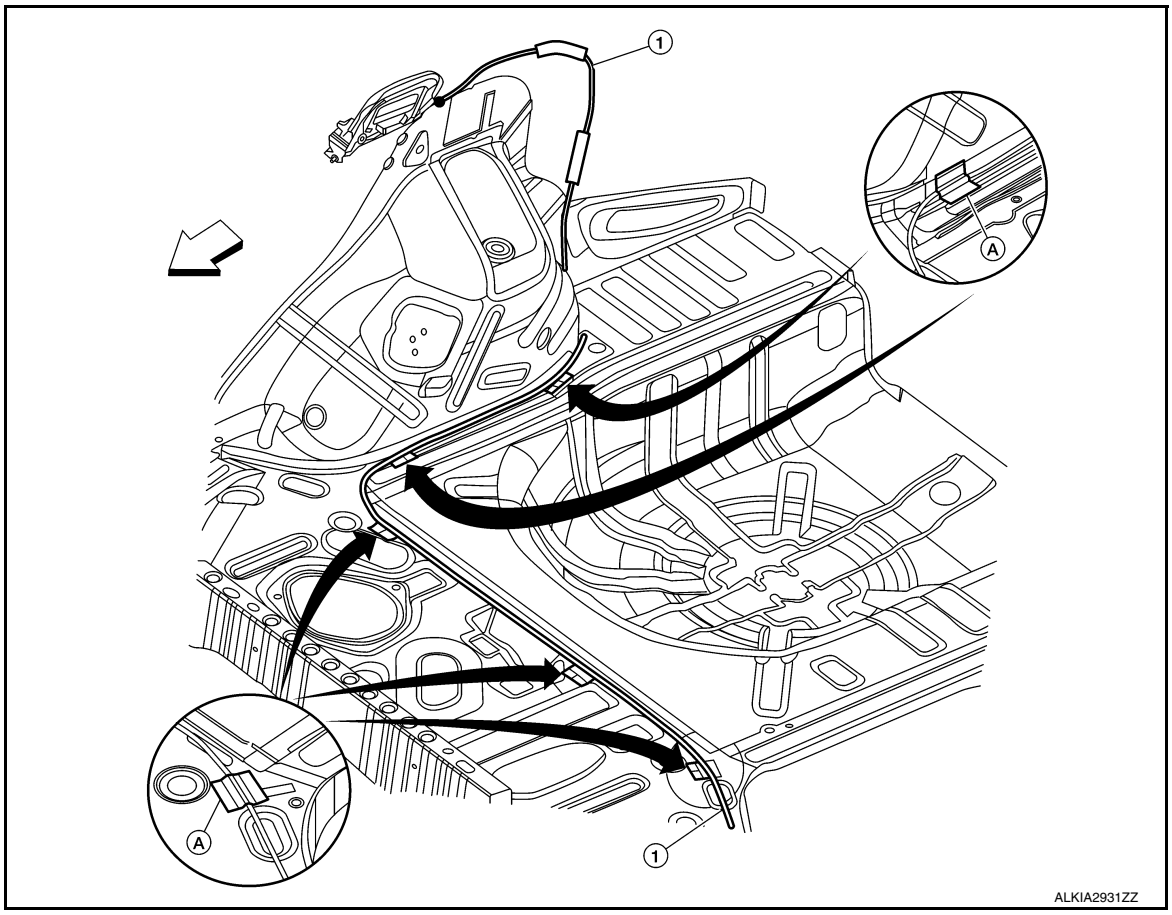


2. Release fuel filler lid opener cable (2) by pulling downward and then sliding cable end to the side to remove from hood and fuel filler handle assembly (1).



3. Remove dash side finisher (LH). Refer to IP-14, "Removal and Installation".
4. Remove center pillar lower finisher (LH). Refer to INT-27, "CENTER PILLAR LOWER FINISHER : Removal and Installation".

5. Remove rear seat bolster (LH). Refer to SE-37, "Removal and Installation - Rear Seat Bolster".
6. Remove trunk side finisher (LH). Refer to INT-43, "TRUNK SIDE FINISHER : Removal and Installation".
7. Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to DLK-186, "FUEL FILLER LID LOCK : Removal and Installation".



⇦ Front

8. Remove each cable protector (A), then remove fuel filler lid opener cable (1).

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid assembly open/close, lock/unlock operation.

FUEL FILLER LID LOCK

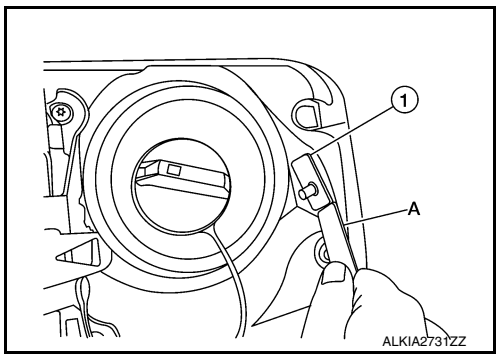
FUEL FILLER LID LOCK : Removal and Installation

INFOID:0000000012783225

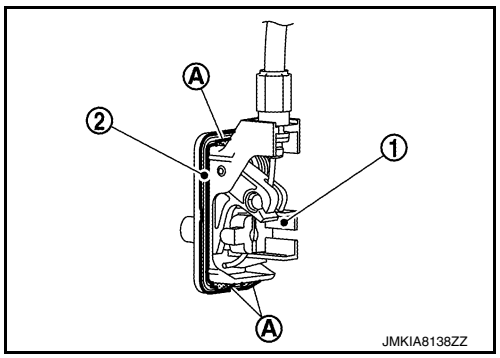
REMOVAL

1. Fully open fuel filler lid.

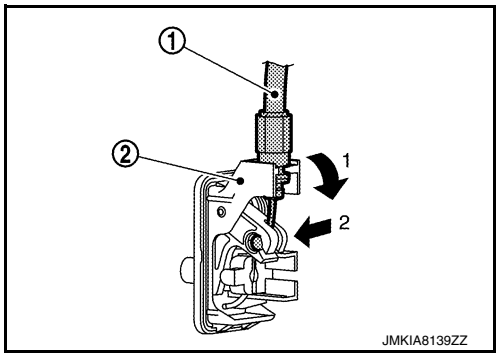
2. Insert a suitable tool (A) as shown into bottom of fuel filler lock assembly (1).



3. Release upper and lower pawls (A) using a suitable tool and remove fuel filler lid lock assembly (1).
CAUTION:
Be careful not to damage gasket (2) when removing.



4. Disconnect fuel filler lid opener cable (1) by pulling downward and then sliding cable end to the side to remove from fuel filler lid lock assembly (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
After installation, check fuel filler lid assembly open/close, lock/unlock operation.

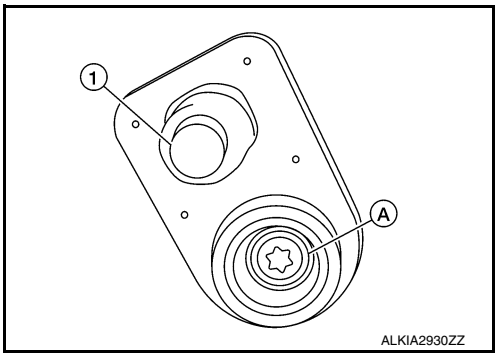
DOOR SWITCH

Removal and Installation

INFOID:0000000012783226

REMOVAL

1. Remove the door switch screw (A).
2. Disconnect the harness connector from the door switch (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

INSIDE KEY ANTENNA

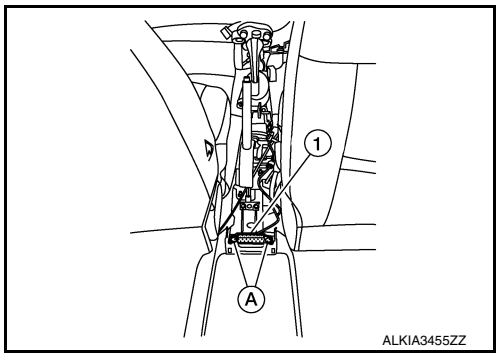
CONSOLE

CONSOLE : Removal and Installation

INFOID:0000000012783227

REMOVAL

1. Remove the shift selector finisher. Refer to IP-17, "Removal and Installation".
2. Remove the inside key antenna (console) screws (A) and inside key antenna (console) (1).



INSTALLATION

Installation is in the reverse order of removal.

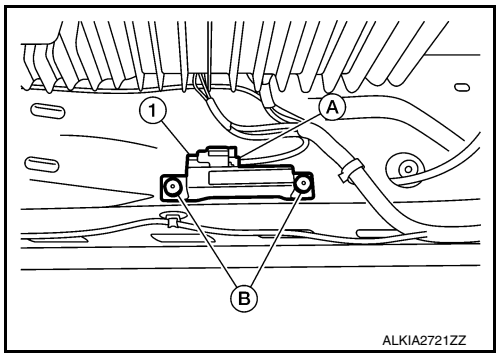
LUGGAGE ROOM

LUGGAGE ROOM : Removal and Installation

INFOID:0000000012783228

REMOVAL

1. Disconnect the harness connector (A) from the inside key antenna (luggage room) (1).
2. Remove the inside key antenna (luggage room) clips (B), and remove.



INSTALLATION

Installation is in the reverse order of removal.

INSTRUMENT CENTER

INSTRUMENT CENTER : Removal and Installation

INFOID:0000000012783229

REMOVAL

1. Remove the A/C switch assembly (automatic air conditioner). Refer to HAC-104, "Removal and Installation".
2. Remove the A/C switch assembly (manual air conditioner). Refer to HAC-189, "Removal and Installation"
3. Disconnect the harness connector from the inside key antenna (instrument center).
4. Remove the inside key antenna (instrument center) screws and inside key antenna (instrument center).

INSTALLATION

Installation is in the reverse order of removal.

OUTSIDE KEY ANTENNA

DRIVER SIDE

DRIVER SIDE : Removal and Installation

INFOID:0000000012783230

The driver side outside key antenna and driver side outside handle are serviced as an assembly. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

PASSENGER SIDE

PASSENGER SIDE : Removal and Installation

INFOID:0000000012783231

The passenger side outside key antenna and passenger side outside handle are serviced as an assembly. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

Installation is in the reverse order of removal.

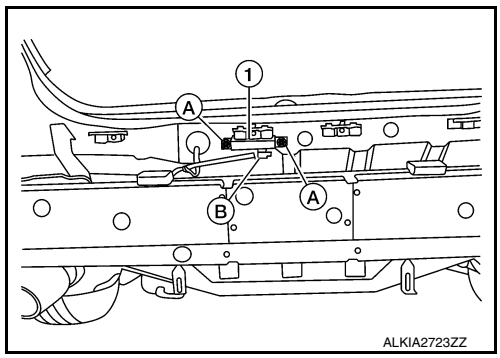
REAR BUMPER

REAR BUMPER : Removal and Installation

INFOID:0000000012783232

REMOVAL

1. Remove rear bumper fascia. Refer to EXT-20, "Removal and Installation".
2. Disconnect the harness connector (B) from the rear bumper key antenna (1).
3. Remove the nuts (A) that retain the rear bumper key antenna (1) to the body.



INSTALLATION

Installation is in the reverse order of removal.

DOOR REQUEST SWITCH

DRIVER SIDE

DRIVER SIDE : Removal and Installation

INFOID:0000000012783233

The driver side door request switch and driver side outside handle are serviced as an assembly. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

PASSENGER SIDE

PASSENGER SIDE : Removal and Installation

INFOID:0000000012783234

The passenger side door request switch and passenger side outside handle are serviced as an assembly. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

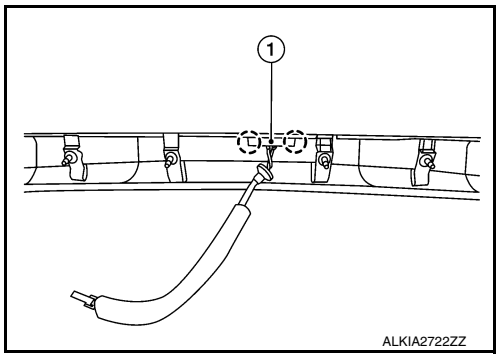
TRUNK LID FINISHER

TRUNK LID FINISHER : Removal and Installation

INFOID:0000000012783235

REMOVAL

1. Remove the license lamp finisher. Refer to EXT-44, "Removal and Installation".
2. Release the pawls and remove the trunk lid request switch (1).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

INTELLIGENT KEY WARNING BUZZER

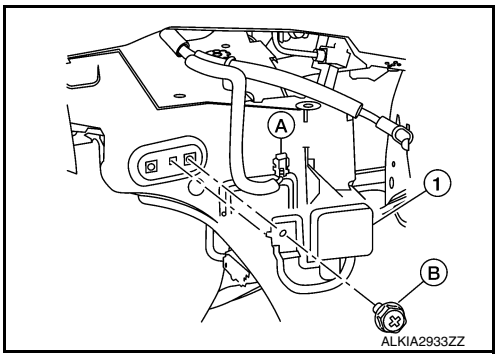
Removal and Installation

INFOID:0000000012783236

REMOVAL

NOTE:
The Intelligent Key warning buzzer is located in the front passenger side area of the engine compartment, near the washer tank.

1. Remove the washer tank inlet. Refer to WW-53, "Exploded View".
2. Remove the nut (B) and the Intelligent Key warning buzzer (1).
3. Disconnect the harness connector (A) from the Intelligent Key warning buzzer (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

INFOID:0000000012783237

REMOVAL

1. Remove glove box assembly. Refer to IP-22, "Removal and Installation".
2. Disconnect the harness connector from the remote keyless entry receiver.
3. Remove the screw and remote keyless entry receiver.

INSTALLATION

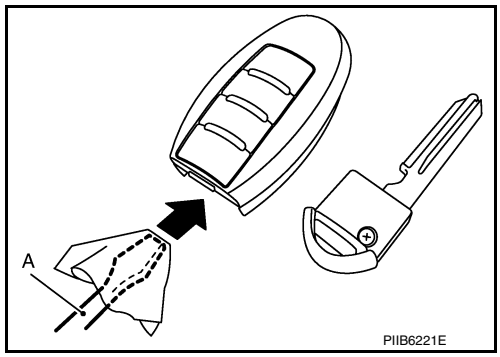
Installation is in the reverse order or removal.

INTELLIGENT KEY BATTERY

Removal and Installation

INFOID:0000000012783238

1. Release the lock knob on the back of the Intelligent Key and remove the key.
2. Insert a suitable tool (A) wrapped with a cloth into the slit of the corner and rotate it to separate the upper part from the lower part.



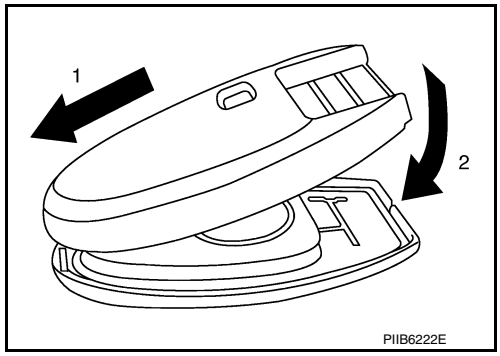
CAUTION:

- **Do not insert a tool into the notches of the Intelligent Key to pry it open, as this may damage the circuit board.**
- **Do not use excessive force when opening the Intelligent Key, as this may result in damage to the internal components.**
- **Do not touch the circuit board or battery terminal.**
- **The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.**

3. Replace the battery with a new one.

Battery replacement	**:Coin-type lithium battery (CR2032)**

4. Align the tips of the upper and lower parts, and then push them together until unit is securely closed.



CAUTION:

- **When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.**
- **After replacing the battery, check that all Intelligent Key functions work normally.**

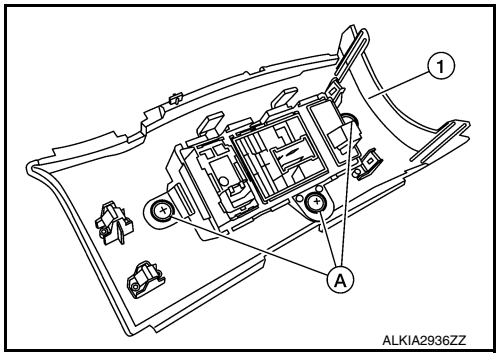
TRUNK LID OPENER SWITCH

Removal and Installation

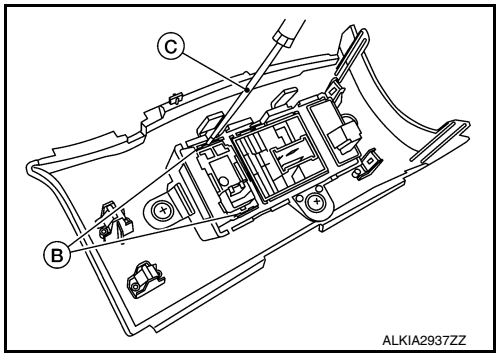
INFOID:0000000012783239

REMOVAL

1. Remove the instrument lower panel LH. Refer to IP-21, "Removal and Installation".
2. Remove to the instrument finisher D (1).
3. Remove the screws (A) that retain the switch carrier to the instrument finisher D (1).



4. Release upper tab and lower tab (B) using a suitable tool (C), then remove the trunk lid opener switch from the upper switch carrier.



INSTALLATION

Installation is in the reverse order of removal.

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000013475471

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

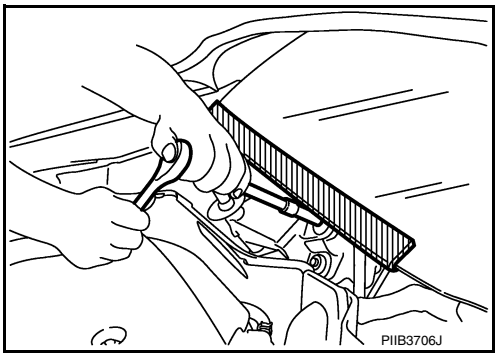
WARNING:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

Procedure without Cowl Top Cover

INFOID:0000000012783241

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precaution for Servicing Doors and Locks

INFOID:0000000012783242

WARNING:

Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use,

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.
- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.

- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

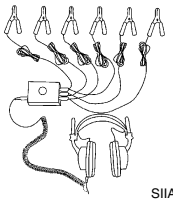
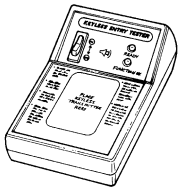
PREPARATION

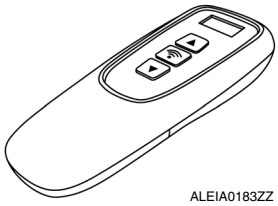
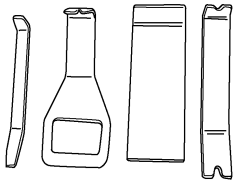
PREPARATION

Special Service Tools

INFOID:0000000012783243

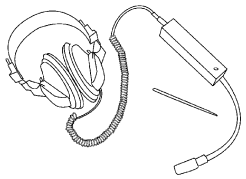
The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-39570) Chassis Ear  SIIA0993E	Locating the noise
— (J-50397) NISSAN Squeak and Rattle Kit ALJIA1232ZZ	Repairing the cause of noise
— (J-43241) Remote Keyless Entry Tester  LEL946A	Used to test key fobs
— (J-50190) Signal Tech II ALEIA0131ZZ	• Activate and display TPMS transmitter IDs • Display tire pressure reported by the TPMS transmitter • Read TPMS DTCs • Register TPMS transmitter IDs • Test remote keyless entry keyfob relative signal strength • Compatible with future sensors • Equipped with a display • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength

Tool number (TechMate No.) Tool name	Description
KV48105501 (J-45295-A) Transmitter activation tool  ALEIA0183ZZ	• Activate TPMS transmitter IDs • Compatible with future sensors • Equipped with a display (KV48105501 only)
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

Commercial Service Tools

INFOID:0000000012783244

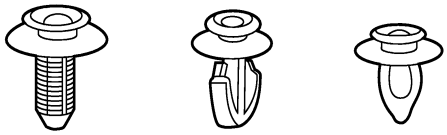
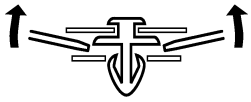
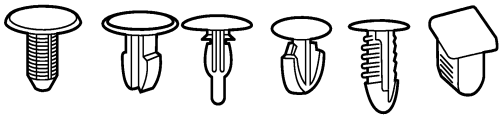
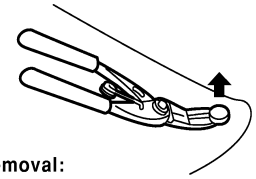
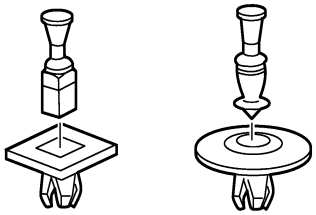
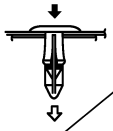
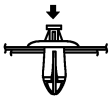
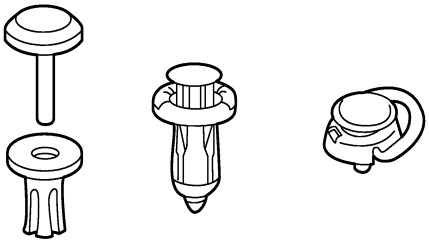
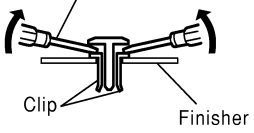
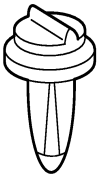
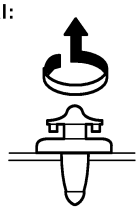
(TechMate No.) Tool name	Description
(J-39565) Engine Ear  SIIA0995E	Locating the noise
(—) Power tool PIIB1407E	Loosening nuts, screws and bolts
(—) Torsion bar wrench AWKIA3594ZZ	Removing trunk lid torsion bar

CLIP LIST

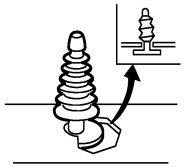
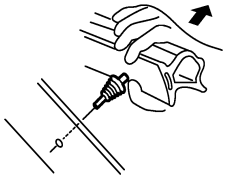
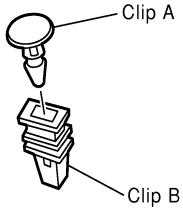
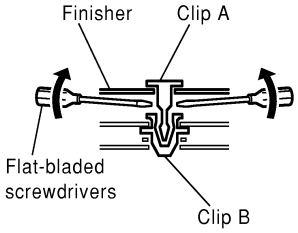
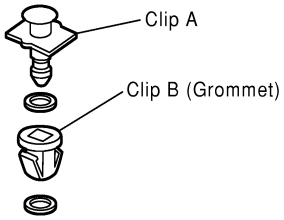
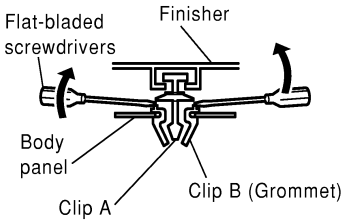
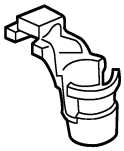
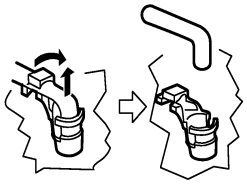
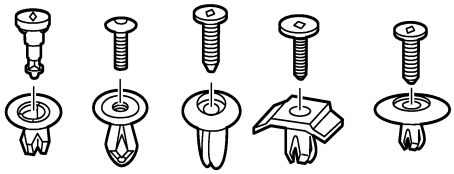
Descriptions for Clips

INFOID:0000000012783245

Replace any clips which are damaged during removal or installation.

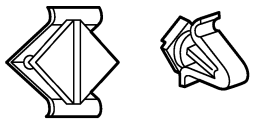
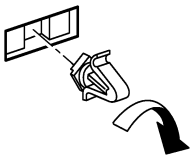
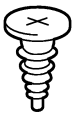
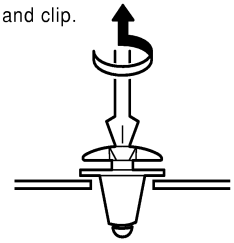
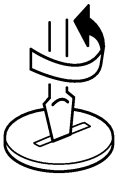
Symbol No.	Shapes	Removal & Installation
C101		**Removal:** Remove by bending up with flat-bladed screwdrivers or clip remover. 
C103		 **Removal:** Remove with a clip remover.
C203		**Removal:** Push center pin to catching position. (Do not remove center pin by hitting it.) Push  Push  **Installation:**
C205		**Removal:** Flat-bladed screwdriver  Clip Finisher
C206		**Removal:** 

SIIA0315E

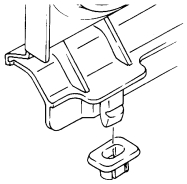
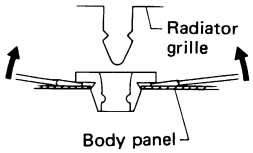
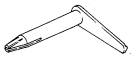
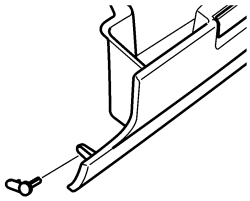
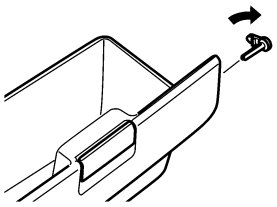
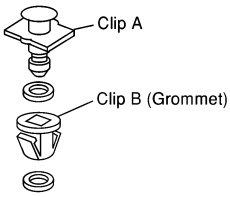
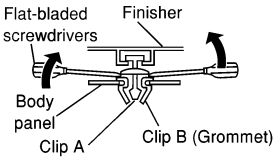
Symbol No.	Shapes	Removal & Installation
CE103		**Removal:** 
CF110		**Removal:** 
CF118		**Removal:** 
CR103		**Removal:** Holder portion of clip must be spread out to remove rod. 
CS101		**Removal:** 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver.

SIIA0316E

CLIP LIST

Symbol No.	Shapes	Removal & Installation
CG101		**Removal:** Rotate 45° to remove **Removal:** **Installation:** 
CS102		
CS113		**Removal:** Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip. 
C111		

SIIA0317E

Symbol No.	Shapes	Removal & Installation
CG104		**Removal:** **Remove by bending up with flat-bladed screwdrivers.** 
CE114 		
CF118		**Removal:** 

ALJIA0564GB

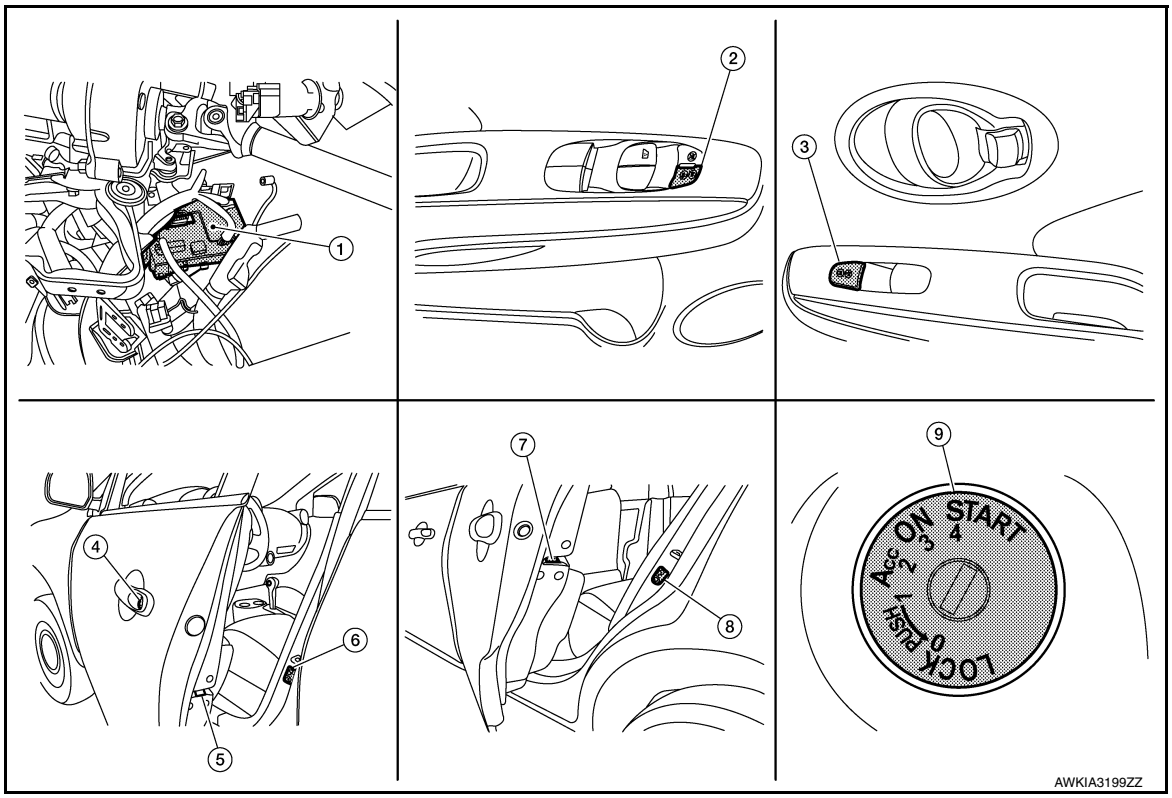
SYSTEM DESCRIPTION

COMPONENT PARTS

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Parts Location

INFOID:0000000012783246



1. BCM (view with instrument panel removed)
2. Main power window and door lock/unlock switch
3. Power window and door lock/unlock switch RH
4. Front door lock key cylinder switch LH
5. Front door lock actuator LH (RH similar)
6. Front door switch LH (RH similar)
7. Rear door lock actuator LH (RH similar)
8. Rear door switch LH (RH similar)
9. Key switch

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Description

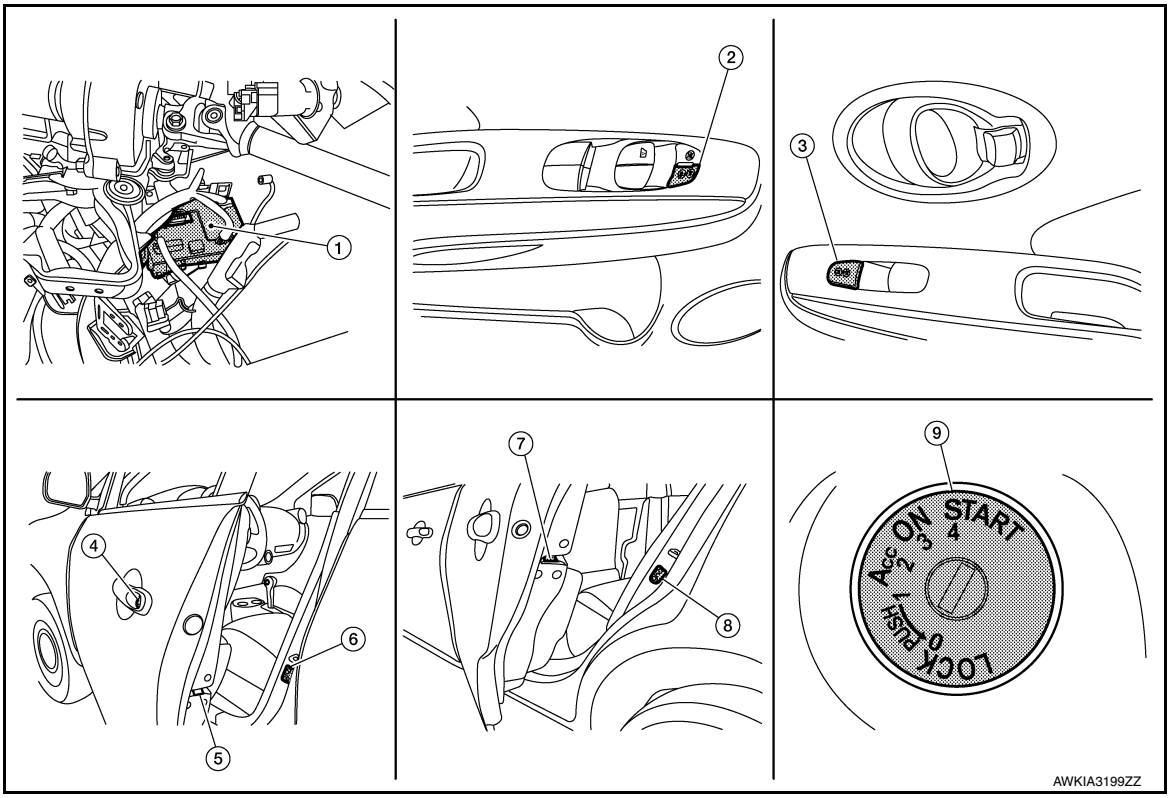
INFOID:0000000012783247

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Key switch	Input key switch condition to BCM.
Front door lock key cylinder switch LH	Input lock or unlock signal to the BCM.
ABS actuator and electric unit (control unit)	Transmits vehicle speed signal to CAN communication line.
Ignition switch	Input ignition switch ON/OFF condition to BCM.

POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM : Component Parts Location

INFOID:0000000012783248



1. BCM (view with instrument panel removed)
2. Main power window and door lock/unlock switch
3. Power window and door lock/unlock switch RH
4. Front door lock key cylinder switch LH
5. Front door lock actuator LH (RH similar)
6. Front door switch LH (RH similar)
7. Rear door lock actuator LH (RH similar)
8. Rear door switch LH (RH similar)
9. Key switch

POWER DOOR LOCK SYSTEM : Component Description

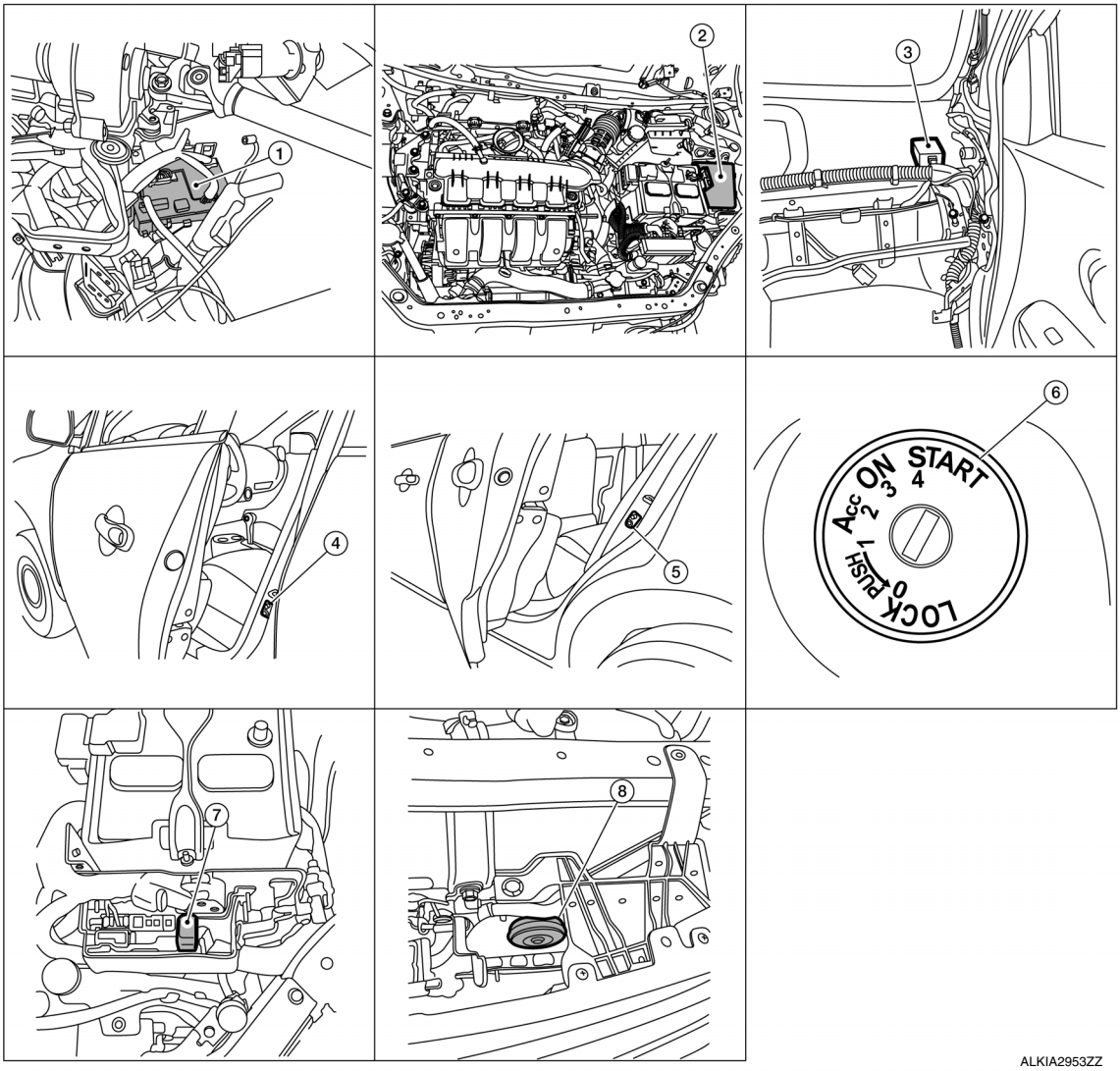
INFOID:0000000012783249

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Key switch	Input key switch condition to BCM.
Front door lock key cylinder switch LH	Input lock or unlock signal to the BCM.
ABS actuator and electric unit (control unit)	Transmits vehicle speed signal to CAN communication line.
Ignition switch	Input ignition switch ON/OFF condition to BCM.

REMOTE KEYLESS ENTRY SYSTEM

REMOTE KEYLESS ENTRY SYSTEM : Component Parts Location

INFOID:0000000012783250



ALKIA2953ZZ

1. BCM (view with instrument panel removed)
2. IPDM E/R
3. Remote keyless entry receiver (view with instrument panel removed)
4. Front door switch LH (RH similar)
5. Rear door switch LH (RH similar)
6. Key switch
7. Horn relay
8. Horn

REMOTE KEYLESS ENTRY SYSTEM : Component Description

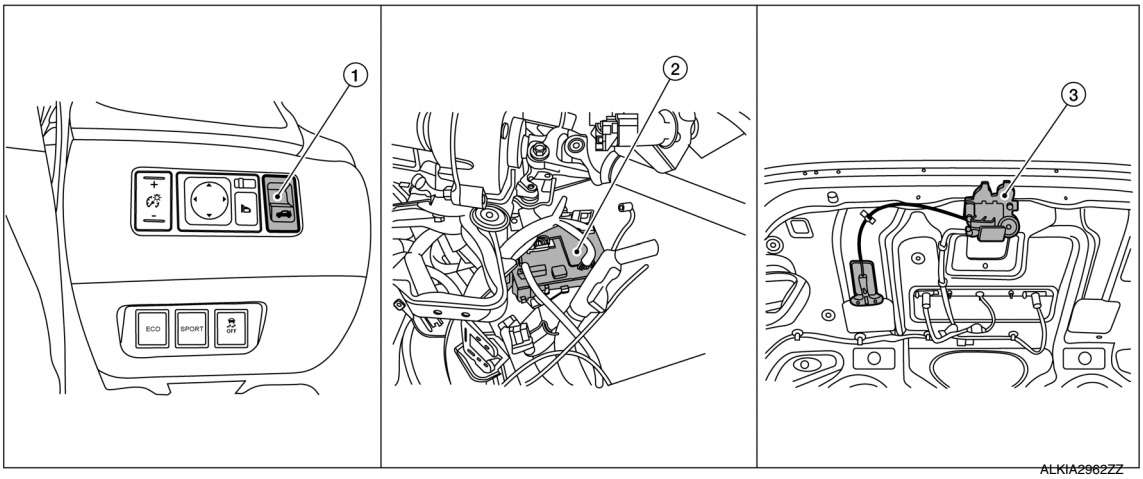
INFOID:0000000012783251

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door switch	Input door open/close condition to BCM.
Key switch	Input key switch condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the keyfob, and then transmits to BCM.
Ignition switch	Input ignition switch ON/OFF condition to BCM.
Horn	Provides audible warning in panic mode.

TRUNK LID OPENER SYSTEM

TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:0000000012783252



1. Trunk lid opener switch
2. BCM (view with instrument panel removed)
3. Trunk lid opener assembly (trunk lid opener actuator and trunk lid switch)

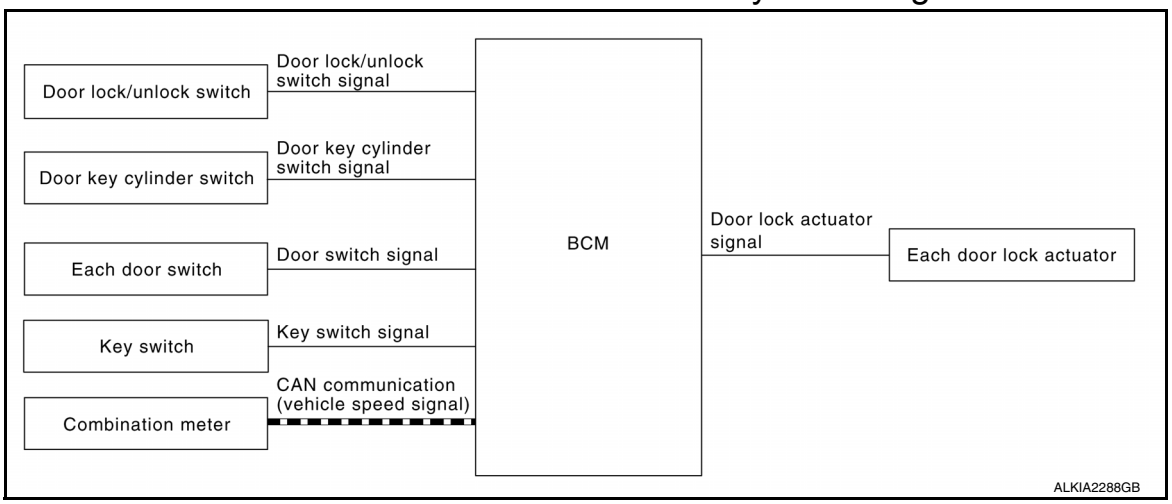
TRUNK LID OPENER SYSTEM : Component Description

INFOID:0000000012783253

Item	Function
BCM	Controls the trunk lid opener system.
Trunk lid opener actuator	Releases the mechanical latch to open the trunk lid.
Trunk lid opener switch	Inputs the trunk open request to the BCM.
Trunk lid switch	Inputs the trunk lid open/close condition to the BCM.

SYSTEM (POWER DOOR LOCK SYSTEM)
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Diagram

INFOID:0000000012783254



AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Description

INFOID:0000000012783255

Input	Single	Function	Actuator
Door lock/unlock switch	Door lock/unlock signal	Door lock function	• Each door lock actuator
Door key cylinder switch			
Each door switch	Door open/close signal	Key reminder function	
Combination meter.	Warning buzzer signal		
	Vehicle speed signal	Automatic door lock/unlock function	

DOOR LOCK FUNCTION

- The door lock and unlock switch (driver side) is built into main power window and door lock/unlock switch.
- The door lock and unlock switch (passenger side) is built into power window and door lock/unlock switch RH.
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors are unlocked.

Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to “LOCK”, will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to “UNLOCK” once unlocks the driver side door lock actuator; turning it to “UNLOCK” again within 60 seconds after the first unlock operation unlocks all of the other doors. - (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using “DOOR LOCK-UNLOCK SET” mode in “WORK SUPPORT”. Refer to BCS-93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

AUTOMATIC DOOR LOCKS (LOCK OPERATION)

The automatic door locks function is the function that locks all doors linked with the vehicle speed or shift position.

Vehicle Speed Sensing Auto Door Lock[*1]

All doors are locked when the vehicle speed reaches 24 km/h (15 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the combination meter via CAN communication becomes 24 km/h (15 MPH) or more.

If a door is opened and closed at any time during one ignition cycle (OFF → ON), even after initial auto door lock operation has taken place, the BCM will relock all doors when the vehicle speed reaches 24 km/h (15 MPH) or more again.

Setting change of Automatic Door Locks (LOCK) Function

The LOCK operation setting of the automatic door locks function can be changed.

With CONSULT

The ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the automatic door locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to BCS-93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Without CONSULT

The automatic door locks (LOCK) function can be switched ON/OFF by performing the following operation.

1. Close all doors (door switch OFF)
2. Push the ignition switch to the ON position
3. Press and hold the door lock and unlock switch for 5 seconds or more in the lock direction within 20 seconds after turning the ignition switch ON.
4. The switching is completed when the hazard lamp blinks.

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

5. The ignition switch must be turned OFF and ON again between each setting change.

AUTOMATIC DOOR LOCKS (UNLOCK OPERATION)

The automatic door locks (UNLOCK) function is the function that unlocks all doors linked with the key position or shift position.

IGN OFF Interlock Door Unlock*1

All doors are unlocked when the power supply position is changed from ON to OFF.
BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.

Setting change of Automatic Door Locks (UNLOCK) Function

The UNLOCK operation setting of the automatic door locks function can be changed.

With CONSULT

The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic door locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to BCS-93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Without CONSULT

The automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following operation.

1. Close all doors (door switch OFF)
2. Place the ignition switch in the ON position
3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
4. The switching is completed when the hazard lamp blinks.

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

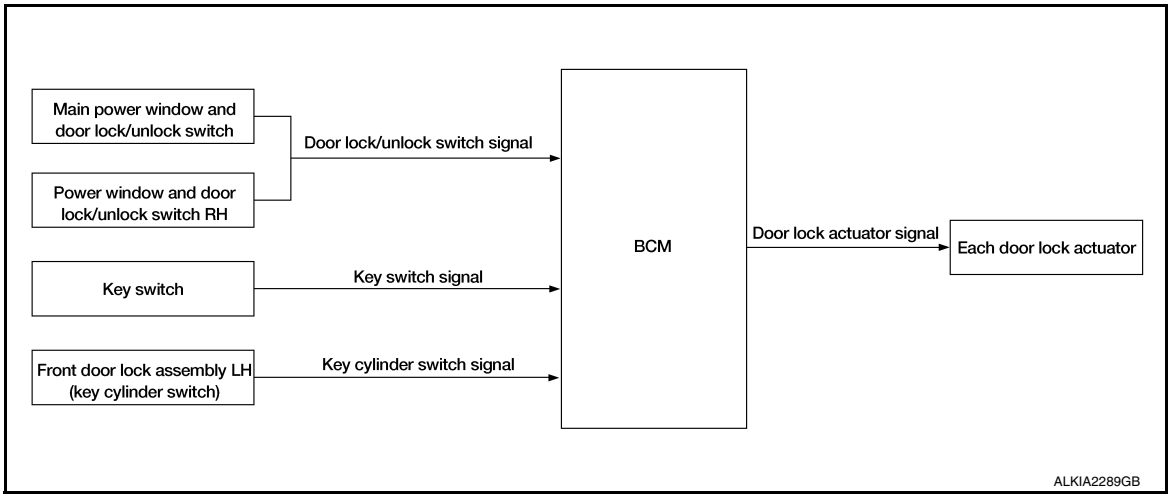
5. The ignition switch must be turned OFF and ON again between each setting change.

*1: This function is set to ON before delivery.

POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM : System Diagram

INFOID:0000000012783256



POWER DOOR LOCK SYSTEM : System Description

INFOID:0000000012783257

Switch	Input/output signal to BCM	BCM function	Actuator
Main power window and door lock/unlock switch	Door lock/unlock signal	Door lock/unlock control	Door lock actuator
Power window and door lock/ unlock switch RH			
Front door lock key cylinder switch LH			

DOOR LOCK FUNCTION

Functions Available by Operating the Door Lock and Unlock Switches on Driver Door and Passenger Door

- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all door lock actuators are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all door lock actuators are unlocked.

Functions Available by Operating the Key Cylinder Switch on Driver Door

- Interlocked with the locking operation of door key cylinder, door lock actuators of all door lock actuators are locked.

Selective Unlock Operation

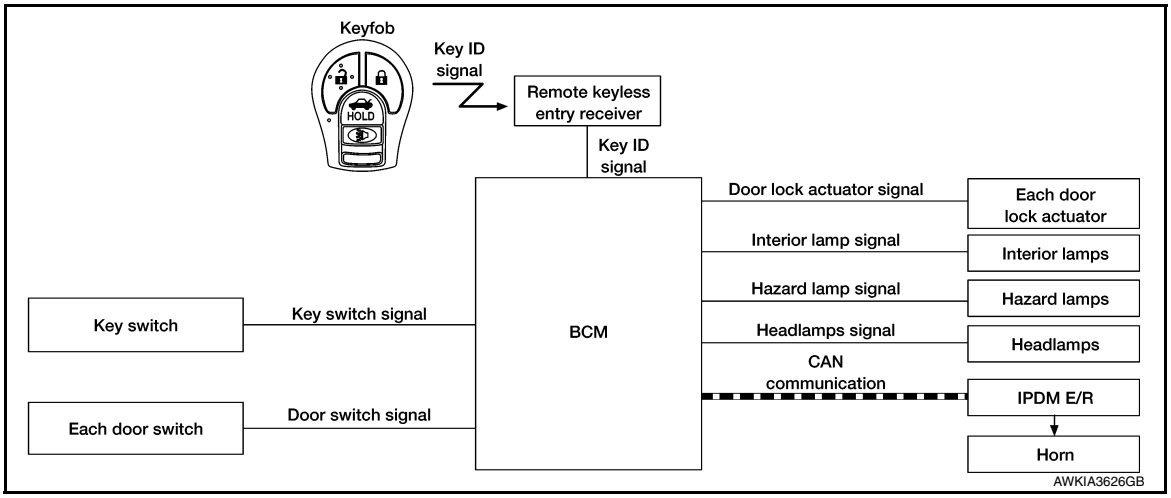
- When door key cylinder is unlocked, door lock actuator driver side is unlocked.
- When door key cylinder is unlocked for the second time within 5 seconds after the first operation, door lock actuators on all doors are unlocked.

Select unlock operation mode can be changed using DOOR LOCK-UNLOCK SET mode in “WORK SUPPORT”. Refer to BCS-93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

REMOTE KEYLESS ENTRY SYSTEM

REMOTE KEYLESS ENTRY SYSTEM : System Diagram

INFOID:0000000012783258



REMOTE KEYLESS ENTRY SYSTEM : System Description

INFOID:0000000012783259

The remote keyless entry system can be locked and unlocked by pressing door lock and unlock button of keyfob.

DOOR LOCK AND UNLOCK OPERATION

- When door lock and unlock button of keyfob is pressed, door lock and unlock signal transmits from keyfob to BCM via remote keyless entry receiver.
- When BCM receives the door lock and unlock signal, it operates door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 1 time) as a reminder.

OPERATION CONDITION

Remote controller operation	Operation condition
Lock/unlock	Key switch is OFF. Mechanical key is removed from the ignition cylinder.

OPERATION AREA

To ensure that the keyfob works effectively, use within 10 m (33ft) range of the vehicle, however the operable range may differ according to surroundings.

SELECTIVE UNLOCK OPERATION

When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock all doors.

HAZARD AND HORN REMINDER

When the doors are locked or unlocked by keyfob, power is supplied to sound horn and flash hazard warning lamps as a reminder

The hazard and horn reminder has C mode (horn chirp mode) and S mode (non-horn chirp mode).

How to Change Hazard and Horn Reminder Modes

With CONSULT

Hazard and horn reminders can be changed using "WORK SUPPORT" mode in "MULTI REMOTE ENT".

Hazard reminder setting	Mode 1		Mode 2		Mode 3		Mode 4	
Keyfob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp blink	—	—	—	Once	Twice	—	Twice	Once

Horn reminder setting	ON		OFF	
Keyfob operation	Lock	Unlock	Lock	Unlock
Horns sound	Once	—	—	—

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN).
Hazard reminder can be changed using “HAZARD LAMP SET” mode in “WORK SUPPORT”.
Horn reminder can be changed using “HORN CHIRP SET” mode in “WORK SUPPORT”.
Refer to BCS-95, "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)".

Without CONSULT
Refer to Owner’s Manual for instructions.

AUTO DOOR LOCK OPERATION

When all doors are locked, ignition switch is OFF and key switch is OFF (mechanical key is removed from the ignition cylinder), doors are unlocked with keyfob button. When BCM does not receive the following signals within 1 minute, all doors are locked.
- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON
- Key switch is ON (mechanical key is inserted in the ignition cylinder)

Auto door lock mode can be changed by “AUTO LOCK SET” mode in “WORK SUPPORT”. Refer to BCS-95, "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)".

PANIC ALARM OPERATION

When key switch is OFF (mechanical key is removed from the ignition cylinder), BCM turns ON and OFF horn and headlamp intermittently with input of PANIC ALARM signal from keyfob.
BCM outputs to headlamps and IPDM E/R for panic alarm signal (horn signal) via CAN communication lines.
The alarm automatically turns OFF after 25 seconds or when BCM receives any signal from keyfob.
Panic alarm operation mode can be changed using “PANIC ALARM SET” mode in “WORK SUPPORT”.
Refer to BCS-95, "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)".

INTERIOR LAMP TIMER OPERATION

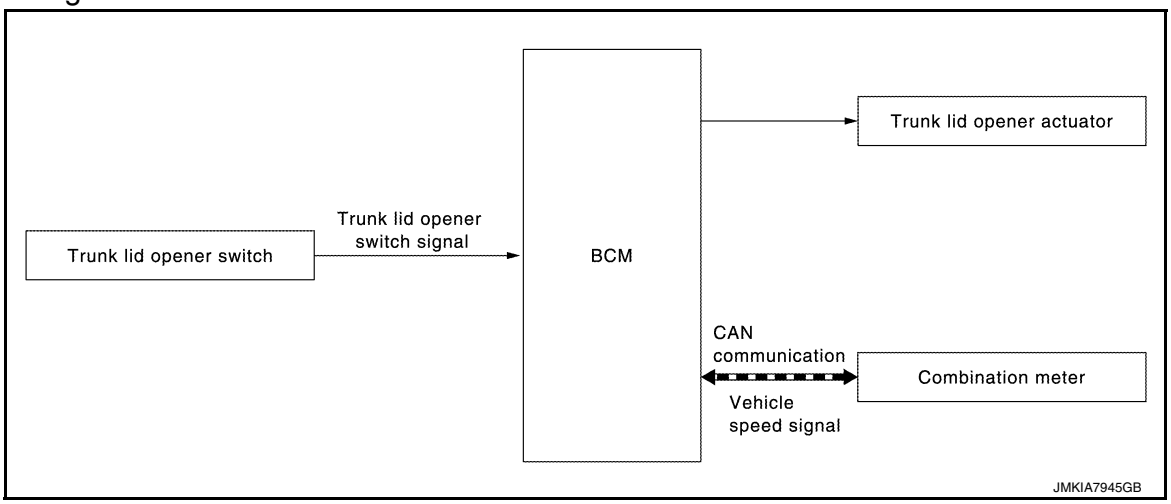
When the following conditions occur, remote keyless entry system turns on interior lamp for 15 seconds with input of UNLOCK signal from keyfob. For detailed description, refer to DLK-210, "POWER DOOR LOCK SYSTEM : System Description".
- Interior room lamp switch is in the DOOR position
- Door switch OFF (when all the doors are closed).

SYSTEM (TRUNK LID OPENER SYSTEM)

System Description

INFOID:0000000012783260

System Diagram



TRUNK LID OPENER OPERATION

When trunk lid opener switch is ON, BCM operates trunk lid opener actuator.

OPERATION CONDITION

If the following conditions are satisfied, trunk open operation is performed.

Trunk lid opener switch operation	Operation condition
Trunk lid open	• Trunk lid opener switch is ON • Vehicle speed is less than 5 km/h (3 MPH)

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000013374008

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION
BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK			×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
RAP system	RETAINED PWR			×		×		
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000013374013

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
KEY ON SW [On/Off]	Indicates condition of key switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
ACC ON SW [On/Off]	Indicates condition of ignition switch ACC position.
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.
KEYLESS UNLOCK [On/Off]	Indicates condition of unlock signal from keyfob.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [OTR ULK/DR UNLK/ALL UNLK/ALL LCK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTOMATIC DOOR LOCK SELECT	P RANGE	Doors lock automatically when shifted out of Park (P).
	VH SPD*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
AUTOMATIC DOOR UNLOCK SELECT	MODE6*	Drivers door unlocks automatically when key is removed.
	MODE5	Drivers door unlocks automatically when shifted into Park (P).
	MODE4	Drivers door unlocks automatically when ignition is switched from ON to OFF.
	MODE3	Doors unlock automatically when key is removed.
	MODE2	Doors unlock automatically when shifted into Park (P).
	MODE1	Doors unlock automatically when ignition is switched from ON to OFF.
AUTOMATIC LOCK/UNLOCK SELECT	Lock/Unlock*	Automatic door locks function operates in lock and unlock.
	Lock Only	Automatic door locks function operates in lock only.
	Unlock Only	Automatic door locks function operates in unlock only.
	Off	Automatic door locks function OFF.

* : Initial setting

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000013374014

DATA MONITOR

Monitor Item [Unit]	Description
KEY ON SW [On/Off]	Indicates condition of key switch.
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:0000000012783264

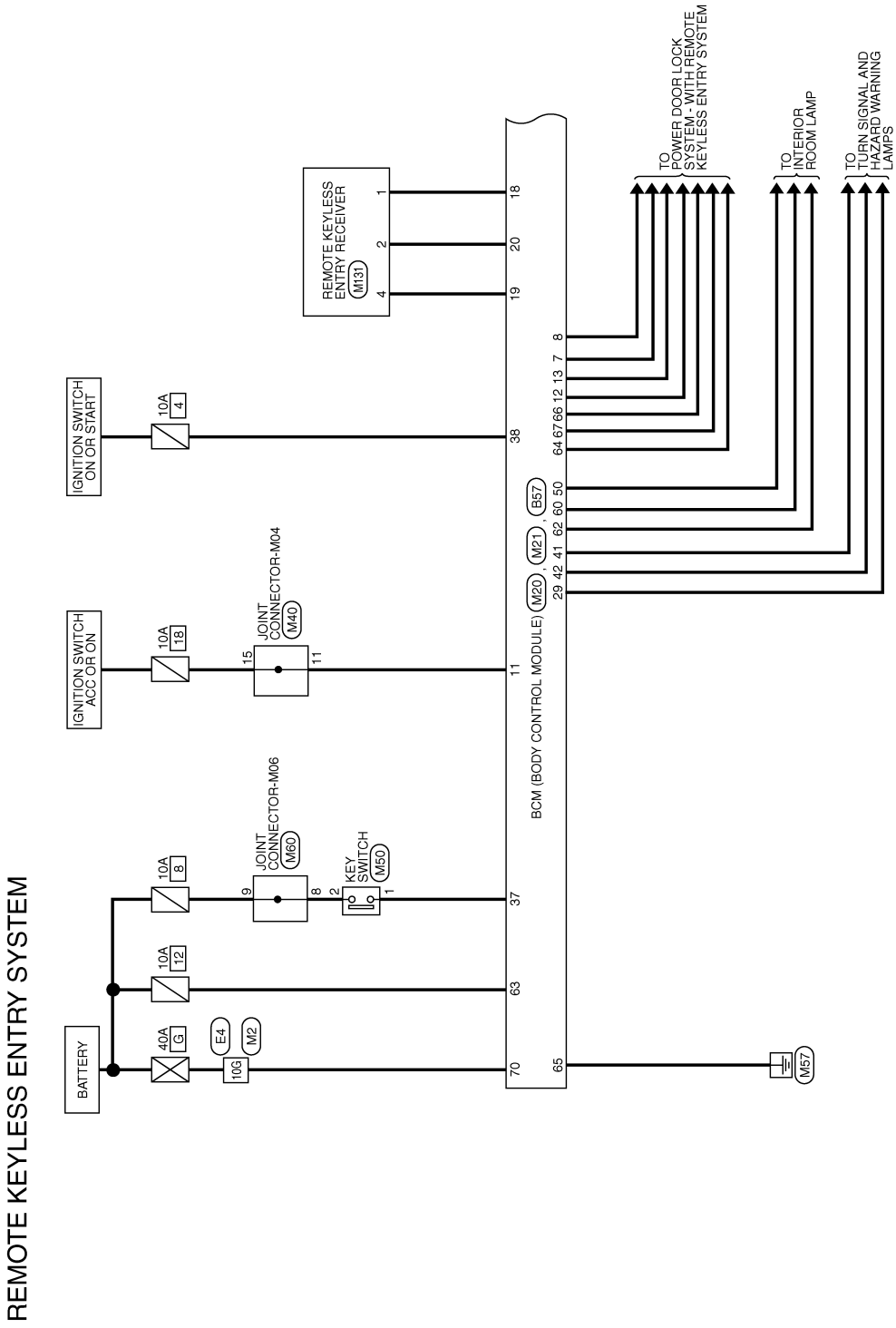
ECU	Reference
BCM	BCS-103, "Reference Value"
	BCS-114, "Fail-safe"
	BCS-115, "DTC Inspection Priority Chart"
	BCS-115, "DTC Index"

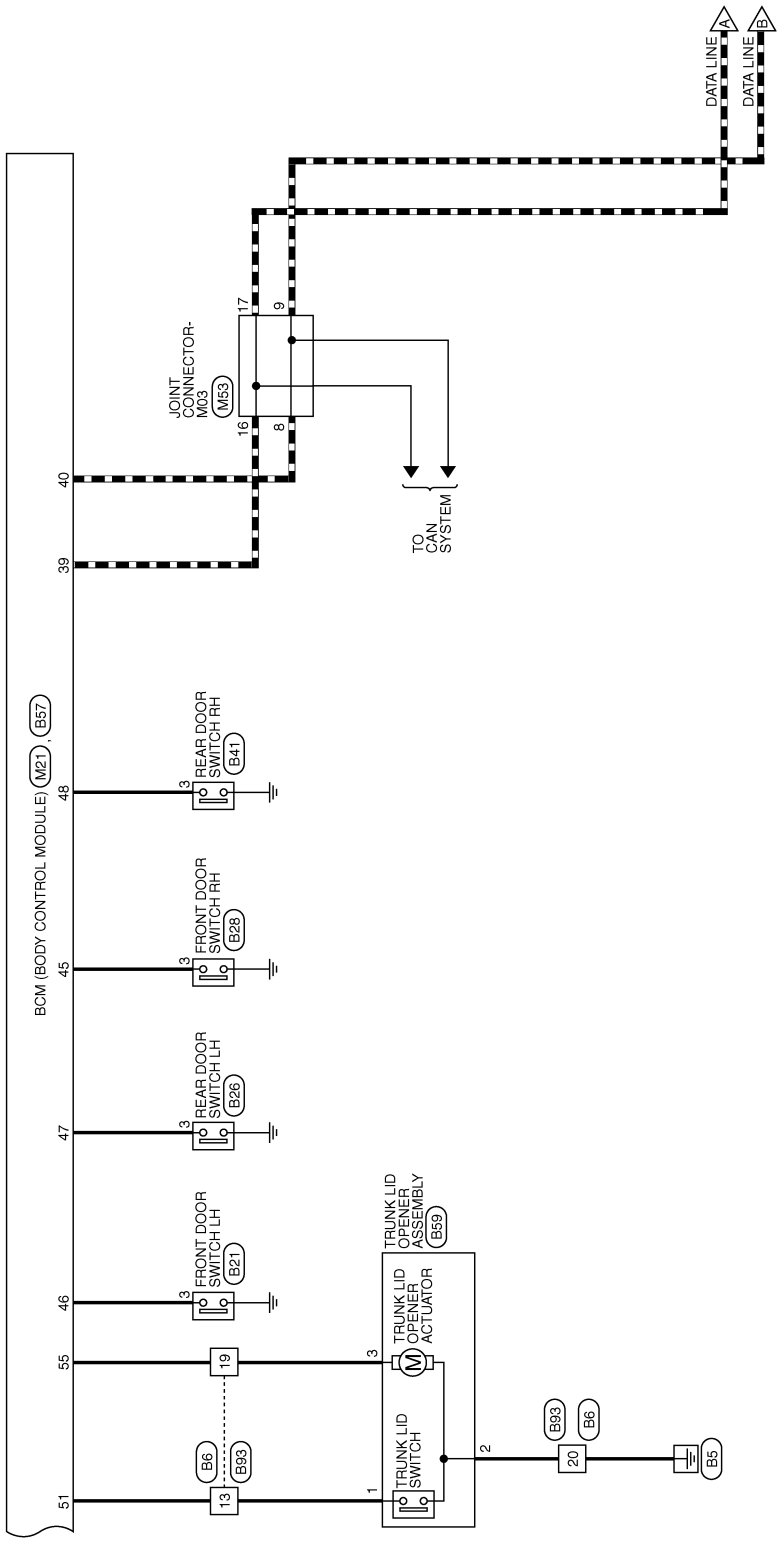
WIRING DIAGRAM

REMOTE KEYLESS ENTRY SYSTEM

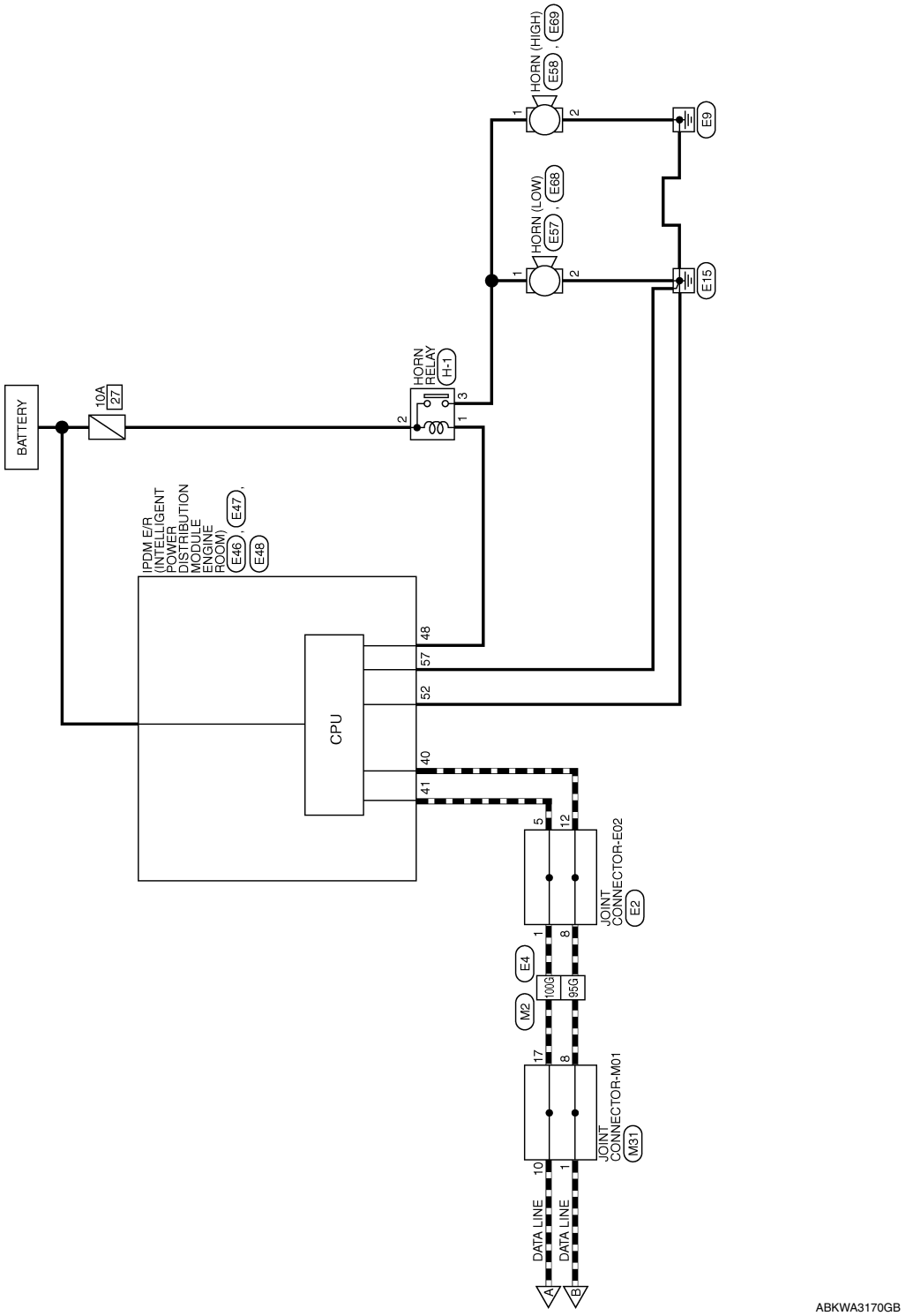
Wiring Diagram

INFOID:0000000012783265





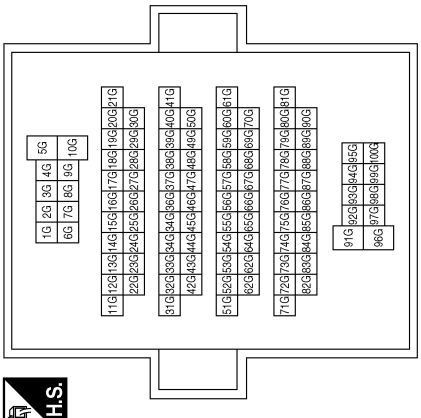
ABKWA3169GB


HORN (HIGH)
E69
E58
1
2
E9
HORN (LOW)
E68
E57
1
2
E15
HORN RELAY
H-1
3
2
1
BATTERY
10A
27
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E46
E47
E48
CPU
48
57
52
40
41
5
12
JOINT CONNECTOR-E02
E2
1
8
E4
100G
95G
M2
17
8
JOINT CONNECTOR-M01
M31
10
1
DATA LINE
DATA LINE
A
B
ABKWA3170GB

REMOTE KEYLESS ENTRY SYSTEM CONNECTORS

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
10G	Y	–
95G	P	–
100G	L	–

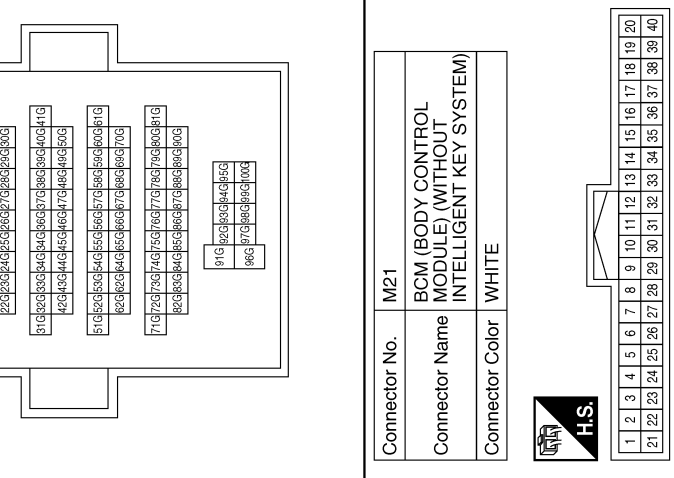
Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
60	BR	ROOM LAMP OUTPUT
62	P	BATTERY SAVER OUTPUT
63	BG	BATTERY (FUSE)
64	SB	DOOR UNLOCK OUTPUT (DR)
65	B	GND
66	O	DOOR LOCK OUTPUT
67	SB	DOOR UNLOCK OUTPUT (AS,RR,RL)
70	Y	BATTERY (F/L)

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

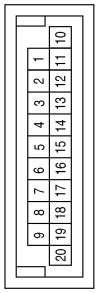
H.S.



Terminal No.	Color of Wire	Signal Name
7	L	KEY CYLINDER UNLOCK SW
8	V	KEY CYLINDER LOCK SW
11	L	ACC SW
12	GR	CENTRAL DOOR LOCK SW
13	BR	CENTRAL DOOR UNLOCK SW
18	V	KEYLESS & AUTO LIGHT SENSOR GND
19	BR	KEYLESS TUNER POWER SUPPLY
20	LG	KEYLESS TUNER SIGNAL
29	SB	HAZARD SW
37	GR	KEY SW
38	R	IGN SW
39	L	CAN-H
40	P	CAN-L

Connector No.	M31
Connector Name	JOINT CONNECTOR-M01
Connector Color	BLUE

H.S.



Terminal No.	Color of Wire	Signal Name
1	P	–
8	P	–
10	L	–
17	L	–

ABKIA7278GB

Connector No.	M40
Connector Name	JOINT CONNECTOR-M064
Connector Color	WHITE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
11	L	–
15	L	–

Connector No.	M50
Connector Name	KEY SWITCH
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
1	GR	–
2	BR	–

Connector No.	M53
Connector Name	JOINT CONNECTOR-M03
Connector Color	BLUE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
8	P	–
9	P	–
16	L	–
17	L	–

Connector No.	M60
Connector Name	JOINT CONNECTOR-M06
Connector Color	WHITE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
8	BR	–
9	W	–

Connector No.	M131
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	V	–
2	LG	–
4	BR	–

Connector No.	E2
Connector Name	JOINT CONNECTOR-E02
Connector Color	BLUE

H.S.

12	11	10	9	8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	L	–
5	L	–
8	P	–
12	P	–

ABKIA7279GB

Connector No.	E46
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
40	P	CAN-L
41	L	CAN-H
48	L	HORN RLY CONT

Connector No.	E57
Connector Name	HORN (LOW)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–

Connector No.	E4
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10G	G	–
95G	P	–
100G	L	–

Connector No.	E48
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
57	B/Y	POWER GND

Connector No.	E47
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
52	B/Y	SIGNAL GND

ABKIA7405GB

Connector No.	E58
Connector Name	HORN (HIGH)
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–

Connector No.	E68
Connector Name	HORN (LOW)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
2	BR	–

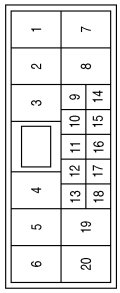
Connector No.	E69
Connector Name	HORN (HIGH)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
2	B/W	–

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

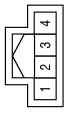
H.S.



Terminal No.	Color of Wire	Signal Name
13	V	–
19	GR	–
20	B	–

Connector No.	B21
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

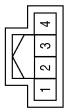
H.S.



Terminal No.	Color of Wire	Signal Name
3	Y	–

Connector No.	B26
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
3	GR	–

ABKIA7280GB

Connector No.	B28
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	R	–

Connector No.	B41
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
3	P	–

Connector No.	B57
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
41	LG	FLASHER OUTPUT (LEFT)
42	BG	FLASHER OUTPUT (RIGHT)
45	R	DOOR SW (AS)
46	Y	DOOR SW (DR)
47	GR	DOOR SW (RL)
48	P	DOOR SW (RR)
50	LG	LUGGAGE LAMP OUTPUT
51	V	TRUNK SW
55	GR	TRUNK OPEN OUTPUT

Connector No.	B59
Connector Name	TRUNK LID OPENER ASSEMBLY
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–
3	GR	–

Connector No.	B93
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
13	R	–
19	GR	–
20	B	–

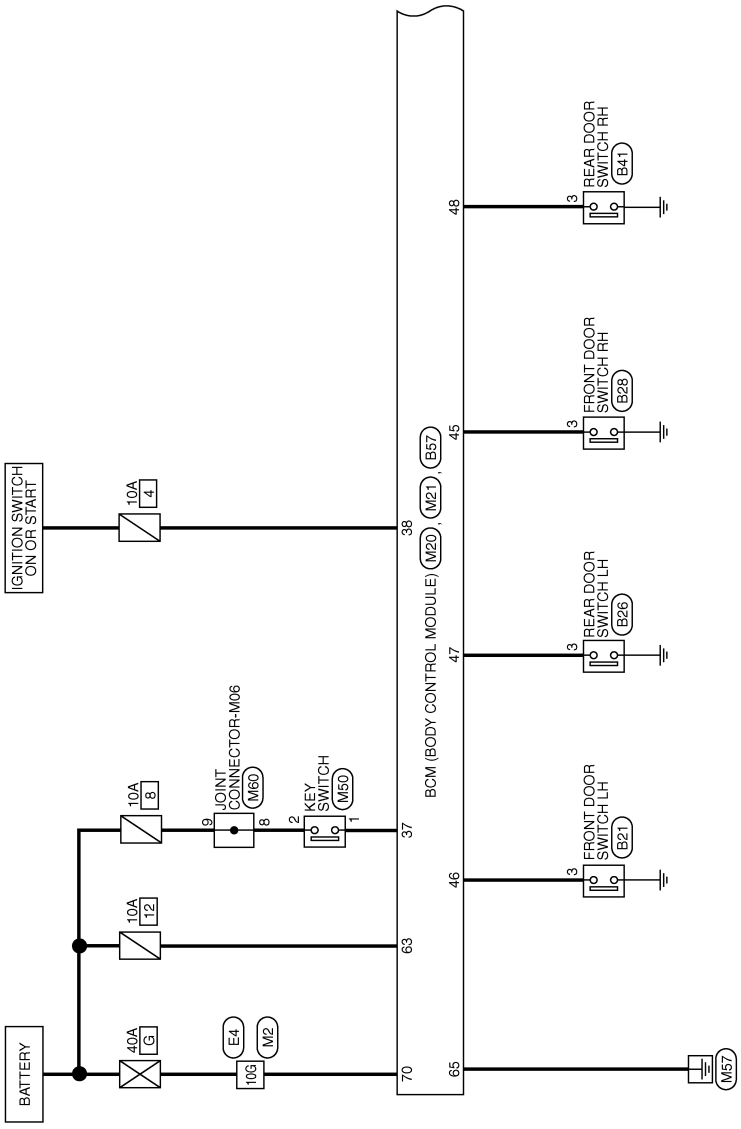
ABKIA7281GB

POWER DOOR LOCK SYSTEM

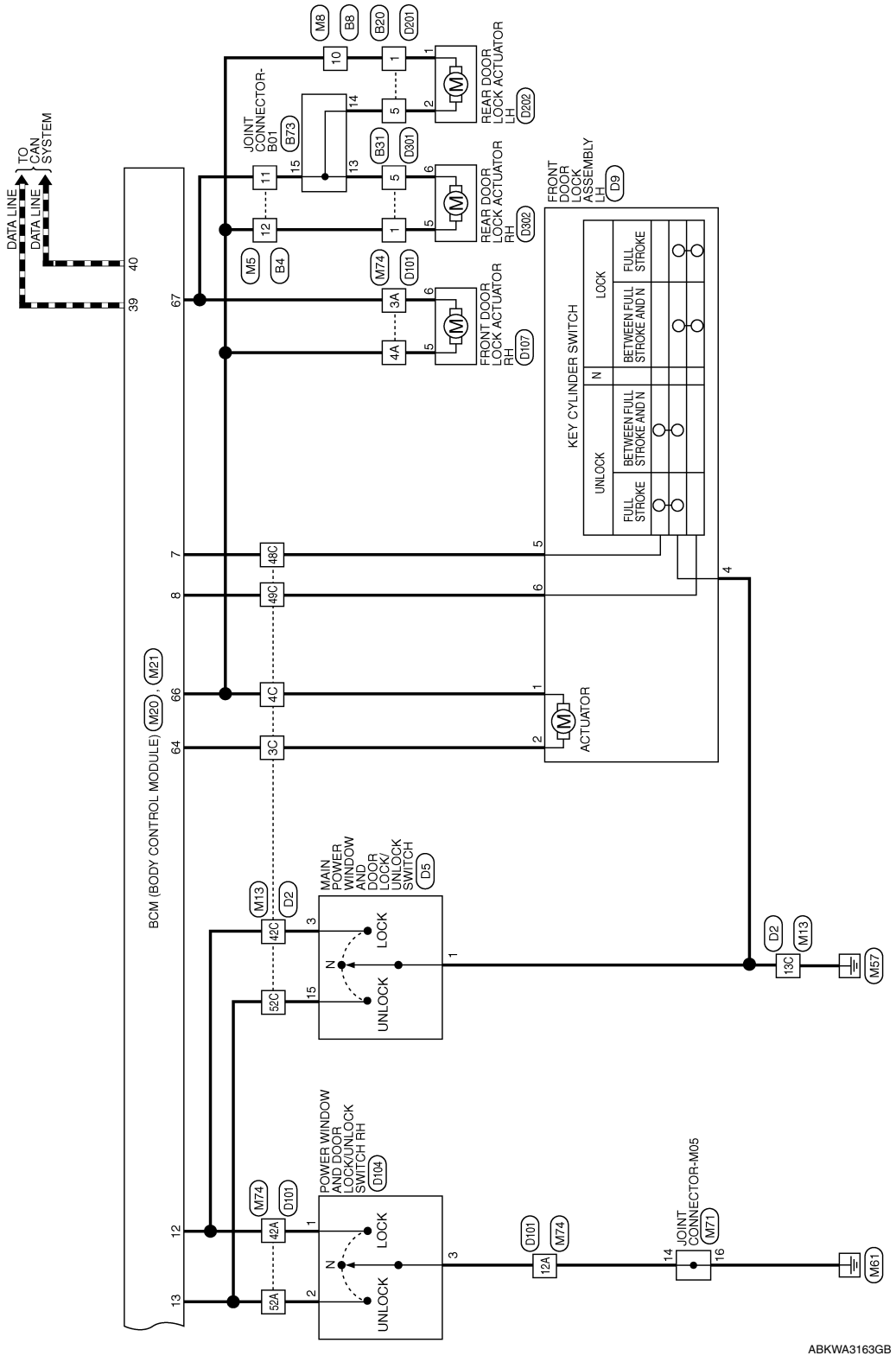
Wiring Diagram

INFOID:0000000012783266

POWER DOOR LOCK SYSTEM - WITH REMOTE KEYLESS ENTRY SYSTEM



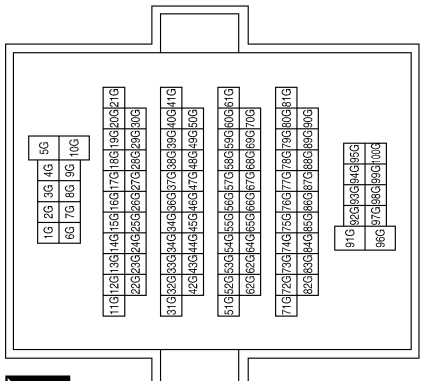
ABKWA3186GB


DATA LINE
DATA LINE
TO CAN SYSTEM
BCM (BODY CONTROL MODULE)
JOINT CONNECTOR-B01
REAR DOOR LOCK ACTUATOR LH
REAR DOOR LOCK ACTUATOR RH
FRONT DOOR LOCK ACTUATOR RH
FRONT DOOR LOCK ASSEMBLY LH
KEY CYLINDER SWITCH
UNLOCK
LOCK
FULL STROKE
BETWEEN FULL STROKE AND N
ACTUATOR
MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
JOINT CONNECTOR-M05
ABKWA3163GB

POWER DOOR LOCK SYSTEM CONNECTORS - WITH REMOTE KEYLESS ENTRY SYSTEM

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

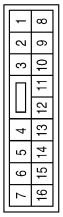
H.S.



Terminal No.	Color of Wire	Signal Name
10G	Y	–

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
11	SB	–
12	O	–

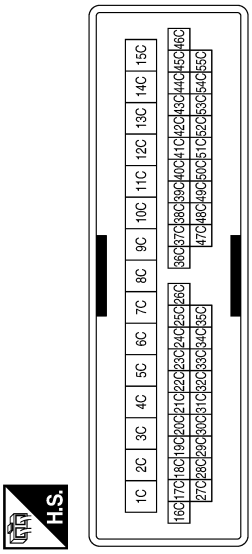
Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10	O	–

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
3C	SB	–
4C	O	–
13C	B	–
42C	GR	–
48C	L	–
49C	V	–
52C	BR	–

ABKIA5378GB

Connector No.	M50
Connector Name	KEY SWITCH
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
1	GR	–
2	BR	–

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
7	L	KEY CYLINDER UNLOCK SW
8	V	KEY CYLINDER LOCK SW
12	GR	CENTRAL DOOR LOCK SW
13	BR	CENTRAL DOOR UNLOCK SW
37	GR	KEY SW
38	R	IGN SW
39	L	CAN-H
40	P	CAN-L

Connector No.	M71
Connector Name	JOINT CONNECTOR-M05
Connector Color	BLUE

H.S.

9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
14	B	–
16	B	–

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

64	63	62	61	60	59	58	57	56
70	69	68	67	66	65

Terminal No.	Color of Wire	Signal Name
63	BG	BATTERY (FUSE)
64	SB	DOOR UNLOCK OUTPUT (DR)
65	B	GND
66	O	DOOR LOCK OUTPUT
67	SB	DOOR UNLOCK OUTPUT (AS,RR,RL)
70	Y	BATTERY (F/L)

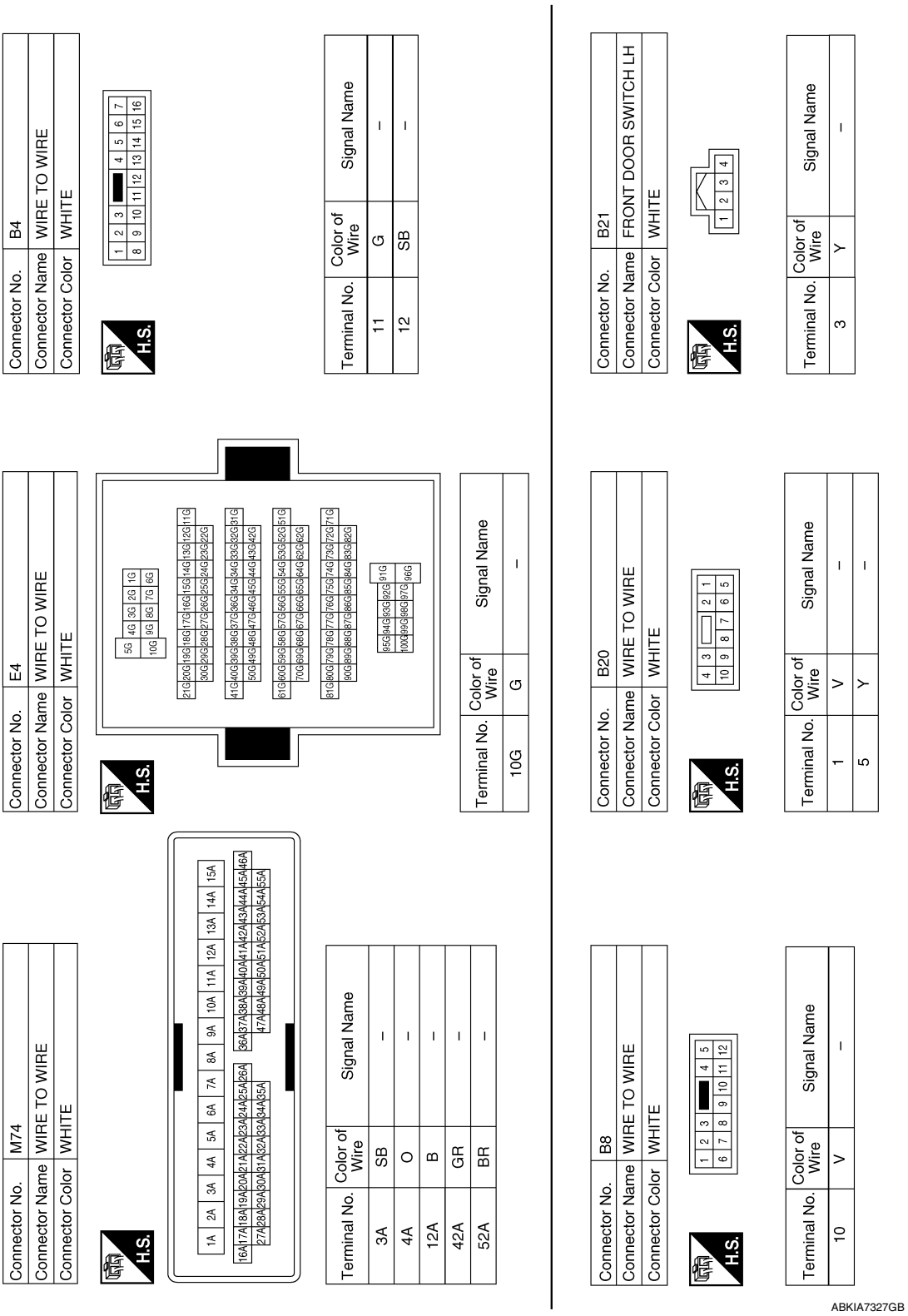
Connector No.	M60
Connector Name	JOINT CONNECTOR-M06
Connector Color	WHITE

H.S.

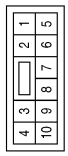
9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name
8	BR	–
9	W	–

ABKIA7266GB

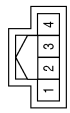

Connector No. B4
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
11 G –
12 SB –
Connector No. E4
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
10G G –
Connector No. B21
Connector Name FRONT DOOR SWITCH LH
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
3 Y –
Connector No. B20
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
1 V –
5 Y –
Connector No. M74
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
3A SB –
4A O –
12A B –
42A GR –
52A BR –
Connector No. B8
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
Terminal No. Color of Wire Signal Name
10 V –
ABKIA7327GB

Connector No.	B31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



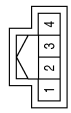
Terminal No.	Color of Wire	Signal Name
1	SB	–
5	P	–

Connector No.	B28
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



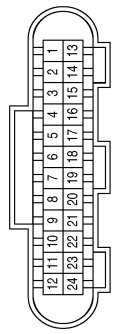
Terminal No.	Color of Wire	Signal Name
3	R	–

Connector No.	B26
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



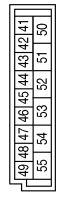
Terminal No.	Color of Wire	Signal Name
3	GR	–

Connector No.	B73
Connector Name	JOINT CONNECTOR-B01
Connector Color	BLACK



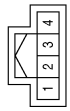
Terminal No.	Color of Wire	Signal Name
13	P	–
14	Y	–
15	G	–

Connector No.	B57
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
45	R	DOOR SW (AS)
46	Y	DOOR SW (DR)
47	GR	DOOR SW (RL)
48	P	DOOR SW (RR)

Connector No.	B41
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	–

ABKIA7328GB

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

15C	14C	13C	12C	11C	10C	9C	8C	7C	6C	5C	4C	3C	2C	1C
46C	45C	44C	43C	42C	41C	40C	39C	38C	37C	36C	26C	25C	24C	23C	22C	21C	20C	19C	18C	17C	16C
55C	54C	53C	52C	51C	50C	49C	48C	47C			35C	34C	33C	32C	31C	30C	29C	28C	27C		

Terminal No.	Color of Wire	Signal Name
3C	L	–
4C	BR	–
13C	B	–
42C	L	–
48C	Y	–
49C	R	–
52C	BR	–

Connector No.	D5
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Color	WHITE

H.S.

7	6	5	4		3	2	1
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	L	LOCK SW
15	BR	UNLOCK SW

Connector No.	D9
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY

H.S.

1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name
1	BR	–
2	L	–
4	B	–
5	Y	–
6	R	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
46A	45A	44A	43A	42A	41A	40A	39A	38A	37A	36A	26A	25A	24A	23A	22A	21A	20A	19A	18A	17A	16A
55A	54A	53A	52A	51A	50A	49A	48A	47A			35A	34A	33A	32A	31A	30A	29A	28A	27A		

Terminal No.	Color of Wire	Signal Name
3A	Y	–
4A	V	–
12A	B	–
42A	Y	–
52A	BR	–

Connector No.	D104
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE

H.S.

1	2		3	4	5
6	7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–

ABKIA7329GB

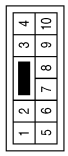
Connector No.	D107
Connector Name	FRONT DOOR LOCK ACTUATOR RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
5	V	–
6	Y	–

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE

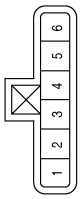
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	–
5	G	–

Connector No.	D202
Connector Name	REAR DOOR LOCK ACTUATOR LH
Connector Color	GRAY

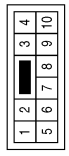
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	–
2	G	–

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE

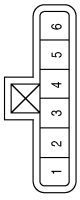
H.S.



Terminal No.	Color of Wire	Signal Name
1	V	–
5	G	–

Connector No.	D302
Connector Name	REAR DOOR LOCK ACTUATOR RH
Connector Color	GRAY

H.S.



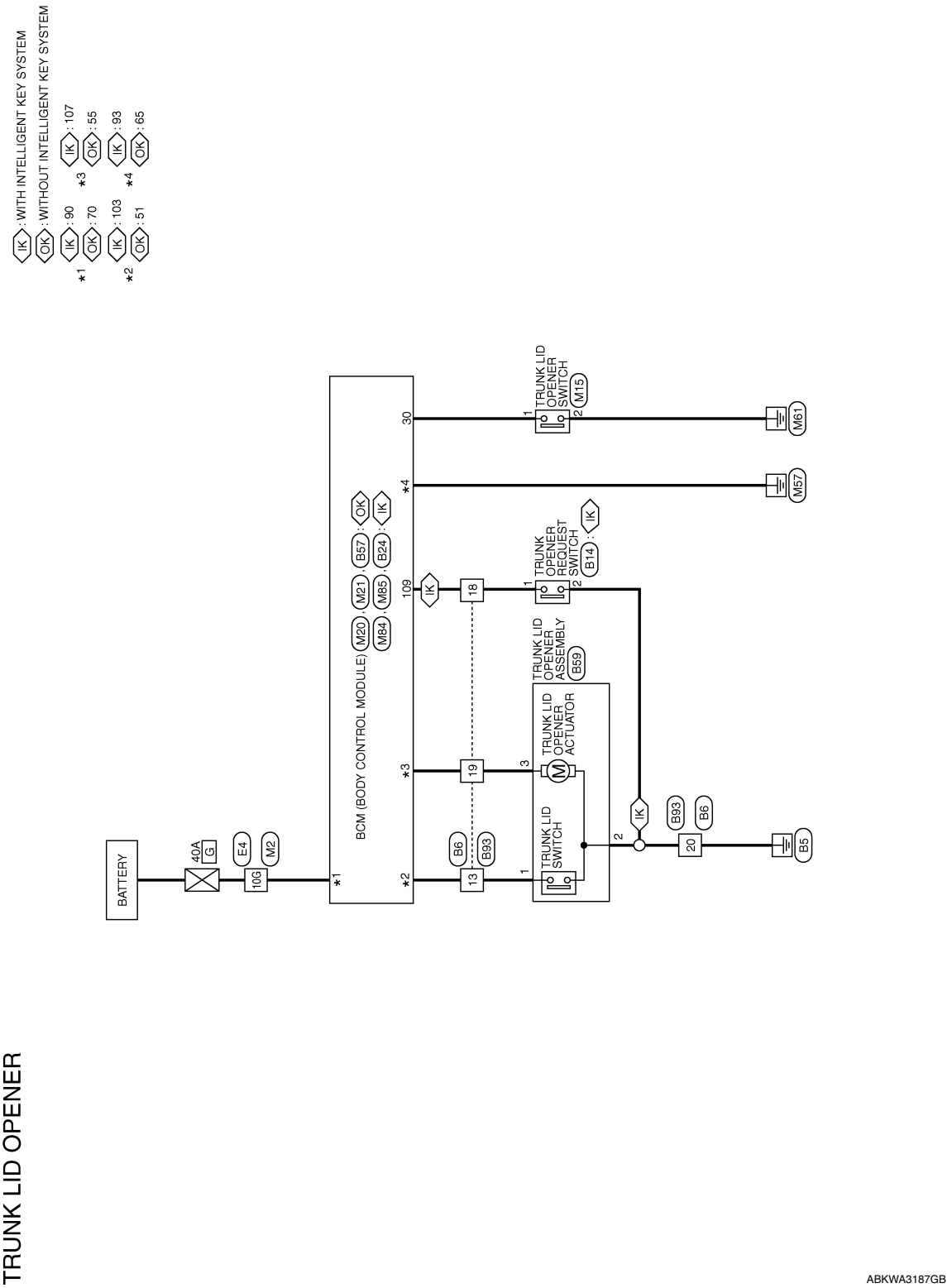
Terminal No.	Color of Wire	Signal Name
5	V	–
6	G	–

ABKIA7330GB

TRUNK LID OPENER

Wiring Diagram

INFOID:0000000012783267



ABKWA3187GB

TRUNK LID OPENER CONNECTORS

Connector No.	M2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1G	2G	3G	4G	5G
6G	7G	8G	9G	10G

11G	12G	13G	14G	15G	16G	17G	18G	19G	20G	21G
22G	23G	24G	25G	26G	27G	28G	29G	30G		

31G	32G	33G	34G	35G	36G	37G	38G	39G	40G	41G
42G	43G	44G	45G	46G	47G	48G	49G	50G		

51G	52G	53G	54G	55G	56G	57G	58G	59G	60G	61G
62G	63G	64G	65G	66G	67G	68G	69G	70G		

71G	72G	73G	74G	75G	76G	77G	78G	79G	80G	81G
82G	83G	84G	85G	86G	87G	88G	89G	90G		

91G	92G	93G	94G	95G
96G	97G	98G	99G	100G

Terminal No.	Color of Wire	Signal Name
10G	Y	–

Connector No.	M15
Connector Name	TRUNK LID OPENER SWITCH
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	L	–
2	B	–

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

64	63	62	61	60	59	58	57	56
70	69	68	67	66	65			

Terminal No.	Color of Wire	Signal Name
65	B	GND
70	Y	BATTERY (F/L)

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
30	L	TRUNK OPENER SW

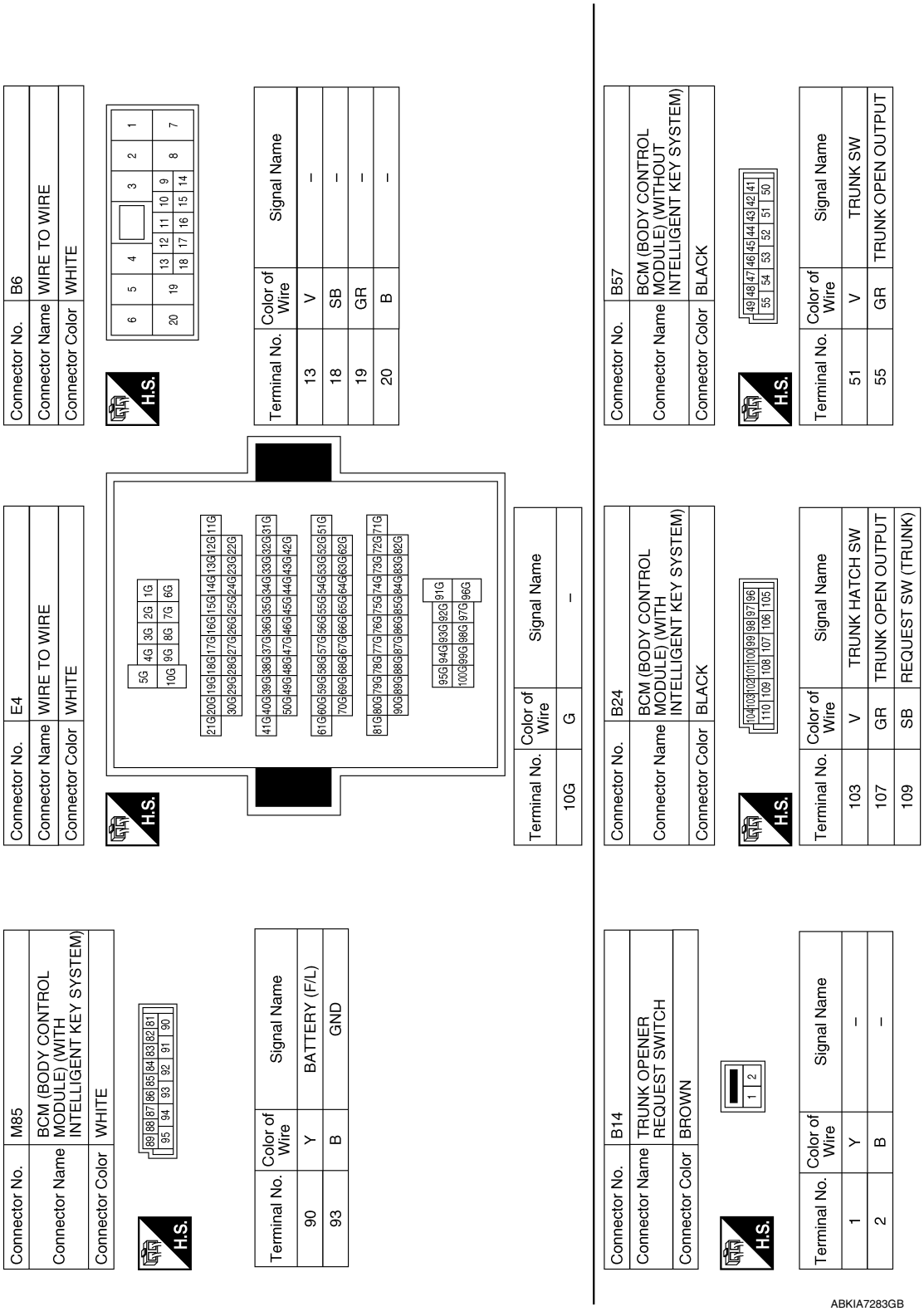
Connector No.	M84
Connector Name	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)
Connector Color	BLACK

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

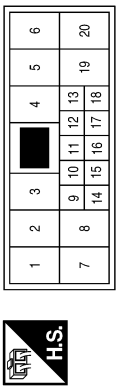
Terminal No.	Color of Wire	Signal Name
30	L	TRUNK OPENER SW

ABKIA7282GB



ABKIA7283GB

Connector No.	B93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	R	–
18	Y	–
19	GR	–
20	B	–

Connector No.	B59
Connector Name	TRUNK LID OPENER ASSEMBLY
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–
3	GR	–

AAKIA1010GB

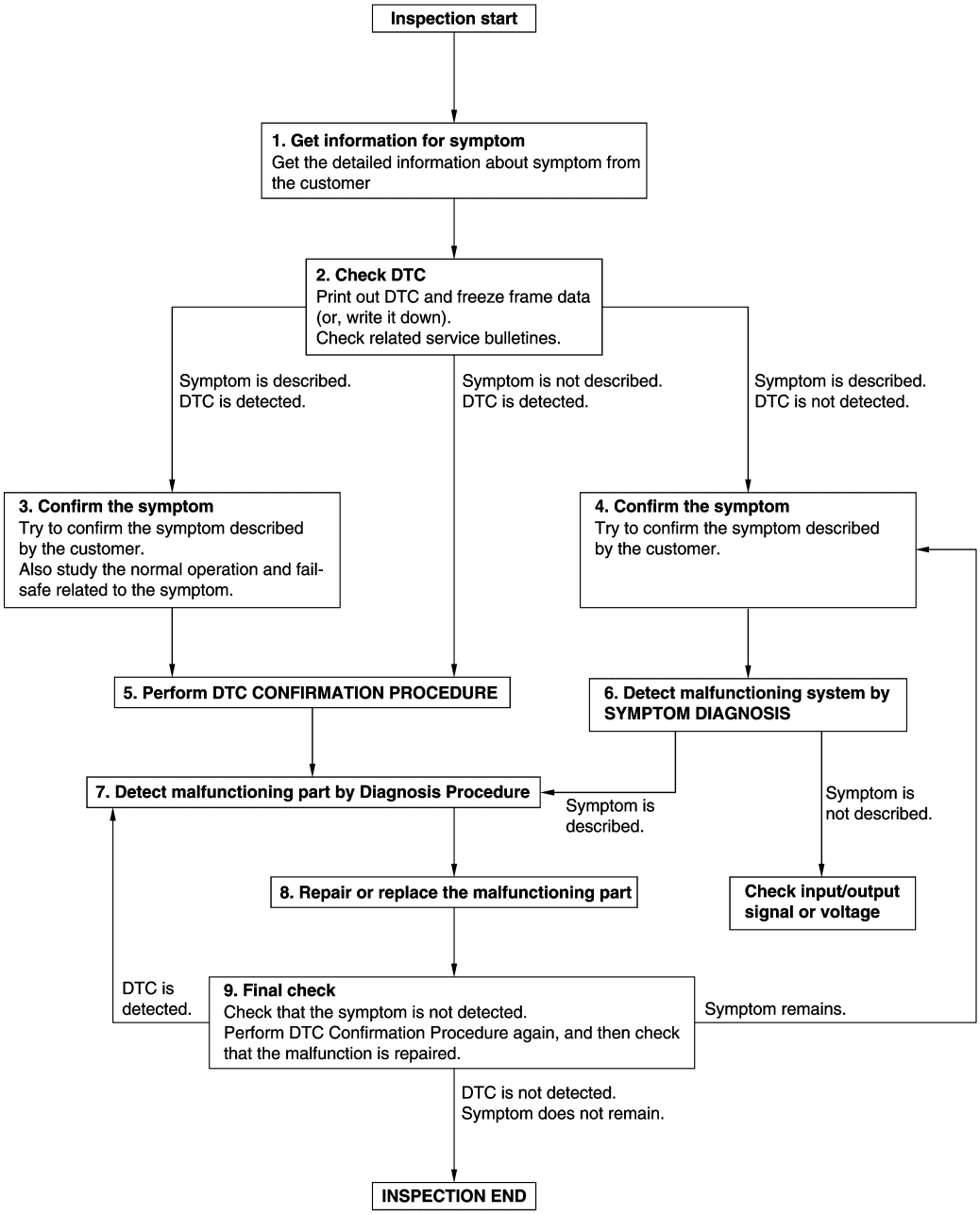
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012783268

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.

- Record DTC and freeze frame data (Print them out using CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.

3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.
Symptom is described, DTC is not detected>>GO TO 4.
Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Also study the normal operation and fail-safe related to the symptom.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-115, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.
NO >> Check according to GI-41, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check according to GI-41, "Intermittent Incident".

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

KEYFOB ID REGISTRATION

Description

INFOID:0000000012783269

Perform the following procedure after BCM is replaced or when new keyfob ID is registered

NOTE:

When registering the keyfob ID, perform only one procedure to simultaneously register both ID (IMMOBILIZER ID and keyfob ID).

Work Procedure

INFOID:0000000012783270

1.STEP 1

Close all doors.

>> GO TO 2.

2.STEP 2

Perform lock operation by door lock and unlock switch.

>> GO TO 3.

3.STEP 3

1. Remove and insert the key into the ignition key cylinder 6 times within 10 seconds (turning the key switch from OFF to ON counts as 1 time).
2. All doors unlock automatically.

NOTE:

On the sixth key insertion, keep the key in the ignition key cylinder with the key switch ON.

Do all unlock automatically?

YES >> GO TO 4.
NO >> GO TO 1.

4.STEP 4

Turn ignition switch to ACC within 3 seconds after all doors unlock and perform lock operation by door lock and unlock switch.

>> GO TO 5.

5.STEP 5

1. Press the lock or unlock button of the keyfob to be added.
2. All doors unlock simultaneously.
3. Key ID is registered.

Is key ID registered?

YES-1 >> When adding a keyfob: GO TO 6.
YES-2 >> When ending registration: GO TO 8.
NO >> GO TO 1.

6.STEP 6

Perform lock operation by door lock and unlock switch.

>> GO TO 7.

7.STEP 7

1. Press the lock or unlock button of the keyfob to be added.
2. All doors unlock simultaneously.
3. Key ID is registered.

Is key ID registered?

YES-1 >> When adding a keyfob: GO TO 6.

YES-2 >> When ending registration: GO TO 8.
NO >> GO TO 6.

8.STEP 8

Open the driver door.

>> REGISTRATION END

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:0000000012783271

Refer to LAN-26, "CAN COMMUNICATION SYSTEM : System Description".

DTC Logic

INFOID:0000000012783272

DTC DETECTION LOGIC

NOTE:
U1000 can be set if a module harness was disconnected and reconnected, perhaps during a repair. Confirm that there are actual CAN diagnostic symptoms and a present DTC by performing the Self Diagnostic Result procedure.

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	When any listed module cannot communicate with CAN communication signal continuously for 2 seconds or more with ignition switch ON	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000012783273

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 second or more.
2. Check “SELF- DIAG RESULTS”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT operation manual.
NO >> Refer to GI-41, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000012783274

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000012783275

1.REPLACE BCM

When DTC “U1010” is detected, replace BCM.

>> Replace BCM. Refer to BCS-135, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000013374463

Regarding Wiring Diagram information, refer to BCS-117, "Wiring Diagram".

1.CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
63	Battery power supply	12 (10A)
70		G (40A)
11	Ignition switch ACC or ON	18 (10A)
38	Ignition switch ON or START	4 (10A)

Is the fuse blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM connector and ground.

BCM		Ground	Ignition switch position		
Connector	Terminal		OFF	ACC	ON
M20	63	—	Battery voltage	Battery voltage	Battery voltage
	70				
M21	11		0 V		
	38			0 V	

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	65	—	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair harness or connector.

DOOR SWITCH

Description

INFOID:0000000012783277

Detects door open/close condition.

Component Function Check

INFOID:0000000012783278

1.CHECK FUNCTION

With CONSULT

Check door switches DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, DOOR SW-RR in Data Monitor mode with CONSULT.

Monitor item	Condition
DOOR SW-DR	CLOSE → OPEN: OFF → ON
DOOR SW-AS	
DOOR SW-RL	
DOOR SW-RR	

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to DLK-246, "Diagnosis Procedure".

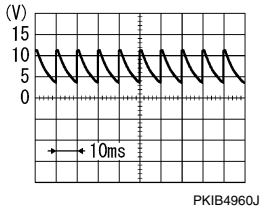
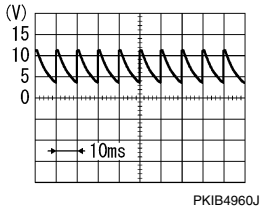
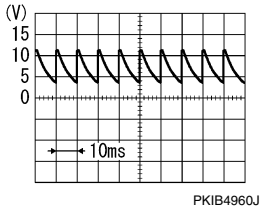
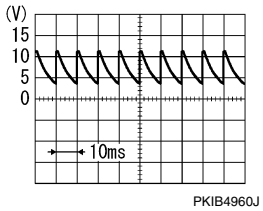
Diagnosis Procedure

INFOID:0000000012783279

Regarding Wiring Diagram information, refer to DLK-218, "Wiring Diagram".

1.CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check signal between BCM connector and ground with oscilloscope.

Terminals			Door condition		Voltage (V) (Approx.)
(+)		(–)			
BCM connector	Terminal				
B57	45	Ground	Front RH	OPEN	0
				CLOSE	 PKIB4960J 7.0 - 8.0V
	48		Rear RH	OPEN	0
				CLOSE	 PKIB4960J 7.0 - 8.0V
	46		Front LH	OPEN	0
				CLOSE	 PKIB4960J 7.0 - 8.0V
	47		Rear LH	OPEN	0
				CLOSE	 PKIB4960J 7.0 - 8.0V

Is the inspection result normal?

YES >> GO TO 4
NO >> GO TO 2

2.CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and door switch connector.
2. Check continuity between BCM connector and door switch connector.

BCM connector	Terminal	Door switch connector	Terminal	Continuity
B57	45	B28 (Front RH)	3	Yes
	48	B41 (Rear RH)		
	46	B21 (Front LH)		
	47	B26 (Rear LH)		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
B57	45	Ground	No
	48		
	46		
	47		

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness between BCM and door switch.

3.CHECK DOOR SWITCH

Refer to DLK-248, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4
NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783280

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

Terminal		Door switch condition	Continuity
Door switch			
3	Ground part of door switch	Pressed	No
		Released	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunctioning door switch.

DOOR LOCK AND UNLOCK SWITCH
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012783281

Transmits door lock/unlock operation to BCM.

DRIVER SIDE : Component Function Check

INFOID:0000000012783282

1.CHECK FUNCTION

With CONSULT
Check CDL LOCK SW, CDL UNLOCK SW in Data Monitor mode with CONSULT.

Monitor item	Condition	
CDL LOCK SW	LOCK	: ON
	UNLOCK	: OFF
CDL UNLOCK SW	LOCK	: OFF
	UNLOCK	: ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.
NO >> Refer to DLK-249, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012783283

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage at the main power window and door lock/unlock switch connector when the switch (driver side) is turned to “LOCK” or “UNLOCK”.

Connector	Main power window and door lock/unlock switch state	Terminal		Voltage
D5	Neutral → Unlock	15	Ground	Battery voltage → 0
	Neutral → Lock	3		

Is the inspection result normal?

YES >> GO TO 5
NO >> GO TO 2

2.CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch connector.
3. Check continuity between main power window and door lock/unlock switch connector and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D5	1	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness.

3.CHECK POWER WINDOW SWITCH

Check continuity between main power window and door lock/unlock switch terminals.

Main power window and door lock/unlock switch state	Terminals	Continuity
Lock	1 - 3	Yes
Unlock	15 - 1	
Neutral/Lock	15 - 1	No
Neutral/Unlock	1 - 3	

Is the inspection result normal?

YES >> GO TO 4
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-69, "Removal and Installation".

4.CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.
2. Check continuity between BCM connector and main power window and door lock/unlock switch connector.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M21	12	D5	3	Yes
	13		15	

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M21	12	Ground	No
	13		

Is the inspection result normal?

YES >> GO TO 5
NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012783284

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE : Component Function Check

INFOID:0000000012783285

1.CHECK FUNCTION

With CONSULT

Check CDL LOCK SW, CDL UNLOCK SW in Data Monitor mode with CONSULT.

Monitor item	Condition	
CDL LOCK SW	LOCK	: ON
	UNLOCK	: OFF
CDL UNLOCK SW	LOCK	: OFF
	UNLOCK	: ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.
NO >> Refer to DLK-251, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012783286

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage at the power window and door lock/unlock switch RH connector when the switch (passenger side) is turned to “LOCK” or “UNLOCK”.

Connector	Power window and door lock/unlock switch RH state	Terminal		Voltage
D104	Neutral → Lock	1	Ground	Battery voltage → 0
	Neutral → Unlock	2		

Is the inspection result normal?

YES >> GO TO 5
NO >> GO TO 2

2.CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH connector.
3. Check continuity between power window and door lock/unlock switch RH connector and ground.

Power window and door lock/unlock switch RH connector	Terminal		Continuity
D104	3	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness.

3.CHECK POWER WINDOW SWITCH

Check continuity between power window and door lock/unlock switch RH terminals.

Power window and door lock/unlock switch RH state	Terminals	Continuity
Lock	1 - 3	Yes
Unlock	2 - 3	
Neutral/Unlock	1 - 3	No
Neutral/Lock	2 - 3	

Is the inspection result normal?

YES >> GO TO 4
NO >> Replace power window and door lock/unlock switch RH.

4.CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.
2. Check continuity between BCM connector and power window and door lock/unlock switch RH connector.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M21	12	D104	1	Yes
	13		2	

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M21	12	Ground	No
	13		

Is the inspection result normal?

YES >> GO TO 5
NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEY CYLINDER SWITCH

Description

INFOID:0000000012783287

When the mechanical key is inserted and turned into the front door lock key cylinder switch LH, the switch transmits the LOCK or UNLOCK signal directly to the BCM.

Component Function Check

INFOID:0000000012783288

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer to DLK-215, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Monitor item	Condition	
KEY CYL LK-SW	Lock	: ON
	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Refer to DLK-253, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783289

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM connector and ground.

Terminals			Key position	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M21	8	Ground	Lock	0
			Neutral / Unlock	7.0 - 8.0 V
	7		Unlock	0
			Neutral / Lock	7.0 - 8.0 V

Is the inspection result normal?

YES >> Front door lock key cylinder switch LH is OK.
NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front door lock key cylinder switch LH connector.
3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M21.
2. Check continuity between front door lock key cylinder switch LH connector and BCM connector M21.

Front door lock key cylinder switch LH connector	Terminal	BCM connector	Terminal	Continuity
D9	6	M21	8	Yes
	5		7	

3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	6		No
	5		

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.
Refer to DLK-254, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace front door lock key cylinder switch LH.

Component Inspection

INFOID:0000000012783290

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

Terminal		Key position	Continuity
Front door lock key cylinder switch LH connector			
6	4	Lock	Yes
		Neutral / Unlock	No
5		Unlock	Yes
		Neutral / Lock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Replace front door lock key cylinder switch LH.

KEY SWITCH (BCM INPUT)

Diagnosis Procedure

INFOID:0000000012783291

Regarding Wiring Diagram information, refer to DLK-218, "Wiring Diagram".

1.CHECK KEY SWITCH INPUT SIGNAL

With CONSULT

Check key switch "KEY ON SW" in DATA MONITOR mode with CONSULT. Refer to DLK-215, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

- When key is inserted to ignition key cylinder:

KEY ON SW : ON

- When key is removed from ignition key cylinder:

KEY ON SW : OFF

Without CONSULT

Check voltage between BCM connector M21 terminal 37 and ground.

Connector	Terminal		Condition	Voltage (V)
	(+)	(–)		
M21	37	Ground	Key is inserted.	Battery voltage
			Key is removed.	0

Is the inspection result normal?

YES >> Key switch (insert) circuit is OK.
NO >> GO TO 2

2.CHECK KEY SWITCH (INSERT)

1. Turn ignition switch OFF.
2. Disconnect key switch connector.
3. Check continuity between key switch terminals.

Terminals	Condition	Continuity
1 – 2	Key is inserted.	Yes
	Key is removed.	No

Is the inspection result normal?

YES >> Repair or replace harness or fuse.
NO >> Replace key switch.

DOOR LOCK ACTUATOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012783292

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

INFOID:0000000012783293

1.CHECK FUNCTION

1. Use CONSULT to perform Active Test (“DOOR LOCK”).
2. Touch “ALL LOCK” or “ALL UNLOCK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-256, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012783294

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition of door lock and unlock switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M20	64	Ground	Unlock	0 → Battery voltage → 0
	66		Lock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 2
NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and front door lock actuator driver side connector.
3. Check continuity between BCM connector and front door lock actuator driver side connector.

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M20	64	D9	2	Yes
	66		1	

Is the inspection result normal?

YES >> Replace front door lock actuator LH.
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Turn ignition switch OFF.
2. Disconnect BCM and front door lock actuator driver side connector.
3. Check continuity between BCM connector M20 terminals 64, 66 and ground.

Connector	Terminals		Continuity
M20	64	Ground	No
	66		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012783295

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE : Component Function Check

INFOID:0000000012783296

1.CHECK FUNCTION

1. Use CONSULT to perform Active Test (“DOOR LOCK”).
2. Touch “ALL LOCK” or “ALL UNLOCK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-257, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012783297

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition of door lock and unlock switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M20	66	Ground	Lock	0 → Battery voltage → 0
	67		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 2
NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and front door lock actuator RH connectors.
3. Check continuity between BCM connector and front door lock actuator RH.

BCM connector	Terminal	Front door lock actuator RH connector	Terminal	Continuity
M20	66	D107	5	Yes
	67		6	

Is the inspection result normal?

YES >> Replace front door lock actuator RH.

NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Turn ignition switch OFF.
2. Disconnect BCM and front door lock actuator RH.
3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

Terminals		Continuity
66	Ground	No
67		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

REAR LH

REAR LH : Description

INFOID:0000000012783298

Locks/unlocks the door with the signal from BCM.

REAR LH : Component Function Check

INFOID:0000000012783299

1.CHECK FUNCTION

1. Use CONSULT to perform Active Test (“DOOR LOCK”).
2. Touch “ALL LOCK” or “ALL UNLOCK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-258, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000012783300

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition of door lock and unlock switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M20	66	Ground	Lock	0 → Battery voltage → 0
	67		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 2
NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and rear door lock actuator LH connectors.
3. Check continuity between BCM connector and rear door lock actuator LH connectors.

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M20	66	D202	1	Yes
	67		2	

Is the inspection result normal?

YES >> Replace rear door lock actuator LH.
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Turn ignition switch OFF.
2. Disconnect BCM and rear door lock actuator LH connectors.
3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

Terminals		Continuity
66	Ground	No
67		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

REAR RH : Description

INFOID:0000000012783301

Locks/unlocks the door with the signal from BCM.

REAR RH : Component Function Check

INFOID:0000000012783302

1.CHECK FUNCTION

1. Use CONSULT to perform Active Test (“DOOR LOCK”).
2. Touch “ALL LOCK” or “ALL UNLOCK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-259, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012783303

Regarding Wiring Diagram information, refer to DLK-226, "Wiring Diagram".

1.CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition of door lock and unlock switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M20	66	Ground	Lock	0 → Battery voltage → 0
	67		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 2
NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and rear door lock actuator RH connectors.
3. Check continuity between BCM connector and rear door lock actuator RH connectors.

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M20	66	D302	5	Yes
	67		6	

Is the inspection result normal?

YES >> Replace rear door lock actuator RH.
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Turn ignition switch OFF.
2. Disconnect BCM and rear door lock actuator RH.
3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

Terminals		Continuity
66	Ground	No
67		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

REMOTE KEYLESS ENTRY RECEIVER

Description

INFOID:0000000012783304

Receives keyfob operation and transmits to BCM.

Component Function Check

INFOID:0000000012783305

1.CHECK FUNCTION

With CONSULT

Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

Monitor item	Condition
KEYLESS LOCK	Checks whether value changes from "Off" to "On" when operating keyfob lock button.
KEYLESS UNLOCK	Checks whether value changes from "Off" to "On" when operating keyfob unlock button.
KEYLESS PANIC	Checks whether value changes from "Off" to "On" when operating keyfob panic button.

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.
NO >> Refer to DLK-261, "Diagnosis Procedure".

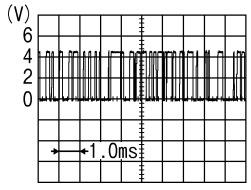
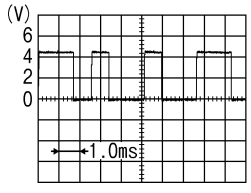
Diagnosis Procedure

INFOID:0000000012783306

Regarding Wiring Diagram information, refer to DLK-218, "Wiring Diagram".

1.CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check signal between remote keyless entry receiver connector and ground with oscilloscope.

Terminals			Condition	Signal (Reference value)
(+)		(–)		
Remote keyless entry receiver connector	Terminal			
M131	2	Ground	Key inserted into ignition key cylinder	0 V
			Waiting	 PIIB7728J
			When signal is received	 PIIB7729J

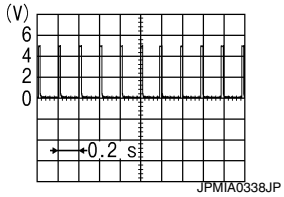
Is the inspection result normal?

YES >> GO TO 7

NO >> GO TO 2

2.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

1. Disconnect remote keyless entry receiver connector.
2. Check signal between remote keyless entry receiver connector and ground with oscilloscope.

Terminals			Condition	Signal (Reference value)
(+)		(–)		
Remote keyless entry receiver connector	Terminal			
M131	4	Ground	Key inserted into ignition key cylinder	0 V
			Key removed from ignition key cylinder (Any door open)	5 V
			Key removed from ignition key cylinder (Any door closed)	

Is the inspection result normal?

YES >> GO TO 4
NO >> GO TO 3

3.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

1. Disconnect BCM connector.
2. Check continuity between BCM connector and remote keyless entry receiver connector.

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	19	M131	4	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M21	19		No

Is the inspection result normal?

YES >> Reconnect BCM, GO TO 4
NO >> Repair or replace harness between BCM and remote keyless entry receiver.

4.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver connector and ground.

Remote keyless entry receiver connector	Terminal	Ground	Continuity
M131	1		Yes

Is the inspection result normal?

YES >> GO TO 6
NO >> GO TO 5

5.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

Check continuity between BCM connector and remote keyless entry receiver connector.

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	18	M131	1	Yes

Is the inspection result normal?

YES >> GO TO 7
NO >> Repair or replace harness between BCM and remote keyless entry receiver.

6. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 3

1. Check continuity between BCM connector and remote keyless entry receiver connector.

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	20	M131	2	Yes

2. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M21	20		No

Is the inspection result normal?

YES >> GO TO 7
NO >> Repair or replace harness between BCM and remote keyless entry.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEYFOB BATTERY AND FUNCTION

Description

INFOID:0000000012783307

The following functions are available when having and carrying the keyfob.
- Door lock/unlock
- Panic mode (horn and headlamp operation)

Remote control entry function and panic alarm function are available when operating the remote buttons.

Component Function Check

INFOID:0000000012783308

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check keyfob relative signal strength
- Confirm vehicle antenna signal strength

1.CHECK FUNCTION

With CONSULT
Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

Monitor item	Condition
KEYLESS LOCK	Checks whether value changes from "Off" to "On" when operating keyfob lock button.
KEYLESS UNLOCK	Checks whether value changes from "Off" to "On" when operating keyfob unlock button.
KEYLESS PANIC	Checks whether value changes from "Off" to "On" when operating keyfob panic button.

Is the inspection result normal?

YES >> Keyfob is OK.
NO >> Refer to DLK-264, "Diagnosis Procedure".

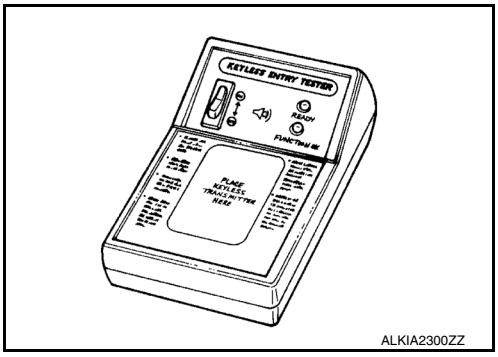
Diagnosis Procedure

INFOID:0000000012783309

NOTE:
The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Check keyfob relative signal strength
- Confirm vehicle antenna signal strength

1.CHECK KEYFOB FUNCTION

Check keyfob function using Signal Tech II Tool [– (J-50190)] or Remote Keyless Entry Tester [– (J-43241)] (shown).

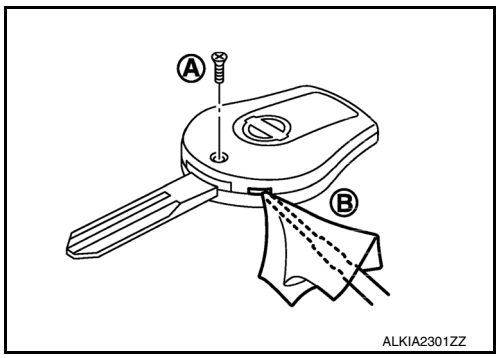


Does the test pass?

YES >> Keyfob is OK.
NO >> GO TO 2

2. CHECK KEYFOB COMPONENTS

1. Remove the screw (A).
2. Insert a small screwdriver into the slit of the corner (B) and twist it to separate the upper part from the power part. Use a cloth to protect the casing.
   CAUTION:
   - **Do not touch the circuit board or battery terminal.**
   - **The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.**
3. Remove the keyfob battery.
   CAUTION:
   - **Keep dirt, grease, and other foreign materials off the electrode contact area.**
4. Visually inspect keyfob internal components.



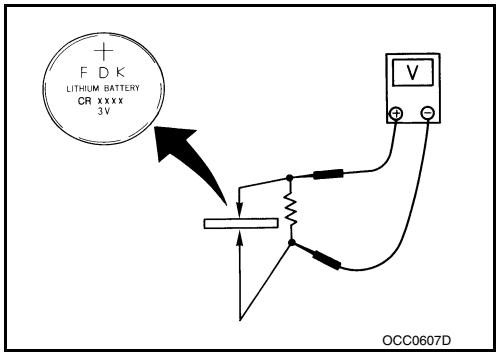
Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace malfunctioning parts.

3. CHECK KEYFOB BATTERY

Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA.

Standard : Approx. 2.5 - 3.0V

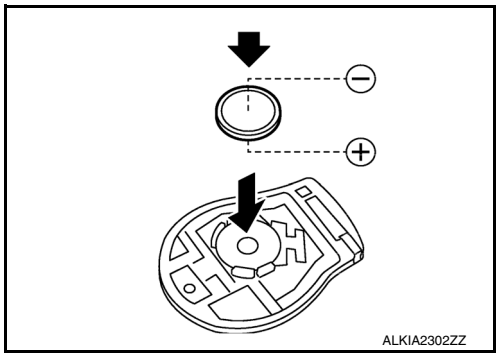


Is the measurement value within specification?

YES >> Keyfob battery is OK. Check remote keyless entry receiver. Refer to DLK-261, "Component Function Check".
NO >> GO TO 4

4. REPLACE KEYFOB BATTERY

1. Replace the keyfob battery with a new one (CR1620 or equivalent).
   CAUTION:
   - **When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.**
   - **Make sure that the + side faces the bottom of the case.**
2. Align the tips of the upper and lower parts, and then push them together until it is securely closed.
3. After replacing the battery, check that all keyfob functions work properly.



Is the inspection result normal?

YES >> Keyfob is OK.
NO >> Check remote keyless entry receiver. Refer to DLK-261, "Component Function Check".

HORN FUNCTION

Description

INFOID:0000000012783310

Perform answer-back for each operation with horn.

Component Function Check

INFOID:0000000012783311

1.CHECK FUNCTION

1. Select HORN in “ACTIVE TEST” mode with CONSULT.
2. Check the horn operation.

Test item		Description	
HORN	ON	Horn relay	ON (for 20 ms)

Is the operation normal?

YES >> Inspection End.
NO >> Refer to DLK-266, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783312

Regarding Wiring Diagram information, refer to DLK-218, "Wiring Diagram".

1.CHECK HORN FUNCTION

Check horn function with horn switch.

Does the horn sound?

YES >> GO TO 2
NO >> Refer to HRN-3, "Wiring Diagram".

2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform “ACTIVE TEST” (“HORN”) with CONSULT.
3. Using an oscilloscope or analog voltmeter to check voltage between IPDM E/R connector and ground.

IPDM E/R		Ground	Test item		Voltage (V) (Approx.)
Connector	Terminal				
E46	48	Ground	HORN	ON	Battery voltage → 0 → Battery voltage
				Other than above	Battery voltage

Is the inspection result normal?

YES >> GO TO 3
NO >> Replace IPDM E/R. Refer to PCS-60, "Removal and Installation".

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.
3. Check continuity between IPDM E/R harness connector and horn relay harness connector.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E46	48	H-1	1	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E46	48	Ground	No

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-60, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

TRUNK LID OPENER ACTUATOR

Component Function Check

INFOID:0000000012783313

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of BCM using CONSULT.
2. Select TRUNK/GLASS HATCH in ACTIVE TEST mode.
3. Touch OPEN to check that it works normally.

Is the inspection result normal?

YES >> Trunk lid opener actuator is OK.
NO >> Refer to DLK-268, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783314

Regarding Wiring Diagram information, refer to DLK-234, "Wiring Diagram".

1.CHECK TRUNK LID OPENER INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener assembly connector.
3. Check voltage between trunk lid opener assembly harness connector and ground.

(+)		(–)	Condition	Voltage (Approx.)
Trunk lid opener assembly				
Connector	Terminal			
B59	3	Ground	Trunk lid opener switch is ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and trunk lid opener assembly harness connector.

BCM		Trunk lid opener assembly		Continuity
Connector	Terminal	Connector	Terminal	
B57	55	B59	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
B57	55		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

Check continuity between trunk lid opener assembly harness connector and ground.

Trunk lid opener assembly		Ground	Continuity
Connector	Terminal		
B59	2		Yes

Is the inspection normal?

YES >> Replace trunk lid opener assembly.
NO >> Repair or replace harness.

TRUNK LID OPENER SWITCH

Component Function Check

INFOID:0000000012783315

1.CHECK FUNCTION

1. Select TRUNK of BCM using CONSULT.
2. Select TR/BD OPEN SW in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
TR/BD OPEN SW	Trunk lid opener switch	Pressed	On
		Released	Off

Is the inspection result normal?

YES >> Trunk lid opener switch is OK.
NO >> Refer to DLK-270, "Diagnosis Procedure".

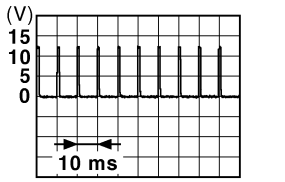
Diagnosis Procedure

INFOID:0000000012783316

Regarding Wiring Diagram information, refer to DLK-234, "Wiring Diagram".

1.CHECK TRUNK LID OPENER INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener switch connector.
3. Check signal between trunk lid opener switch harness connector and ground using oscilloscope.

(+)		(–)	Signal (Reference value)
Trunk lid opener switch			
Connector	Terminal		
M15	1	Ground	

JPMIA0012GB

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and trunk lid opener switch harness connector.

BCM		Trunk lid opener switch		Continuity
Connector	Terminal	Connector	Terminal	
M21	30	M15	1	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M21	30		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch harness connector and ground.

Trunk lid opener switch		Ground	Continuity
Connector	Terminal		
M15	2		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK TRUNK LID OPENER SWITCH

Refer to DLK-271, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace trunk lid opener switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783317

1.CHECK TRUNK LID OPENER SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener switch connector.
3. Check continuity between trunk lid opener switch terminals.

Trunk lid opener switch		Condition		Continuity
Terminal				
1	2	Trunk lid opener switch	Pressed	Yes
			Release	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk lid opener switch.

TRUNK LAMP SWITCH

Description

INFOID:0000000012783318

Detects trunk open/close condition.

Component Function Check

INFOID:0000000012783319

1.CHECK FUNCTION

With CONSULT

Check TRNK/HAT MNTR in Data Monitor mode with CONSULT.

Monitor item	Condition	
TRNK/HAT MNTR	OPEN	: ON
	CLOSE	: OFF

Is the inspection result normal?

YES >> Trunk lid switch is OK.
NO >> Refer to DLK-272, "Diagnosis Procedure".

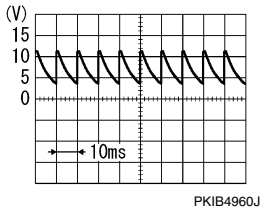
Diagnosis Procedure

INFOID:0000000012783320

Regarding Wiring Diagram information, refer to DLK-234, "Wiring Diagram".

1.CHECK TRUNK LID SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between BCM connector and ground.

Terminals			Trunk condition	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
B57	51	Ground	OPEN	0
			CLOSE	 PKIB4960J 7.0 - 8.0V

Is the inspection result normal?

YES >> GO TO 6
NO >> GO TO 2

2.CHECK TRUNK LID SWITCH CIRCUIT

1. Disconnect BCM and trunk lid opener assembly connector.
2. Check continuity between BCM connector and trunk lid opener assembly connector.

BCM connector	Terminal	Trunk lid opener assembly connector	Terminal	Continuity
B57	51	B59	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
B57	51		No

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace harness between BCM and trunk lid opener assembly.

3.CHECK TRUNK LID SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener assembly connector and ground.

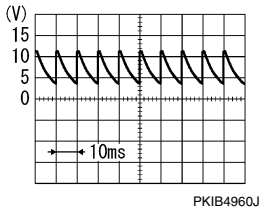
Trunk lid opener assembly connector	Terminal	Ground	Continuity
B59	2		Yes

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace trunk lid opener assembly ground circuit.

4.CHECK BCM OUTPUT SIGNAL

1. Ensure trunk lid remains closed during this step.
2. Connect BCM connector.
3. Check voltage between BCM connector and ground.

Terminals			Voltage (V) (Approx.)
(+)		(–)	
BCM connector	Terminal		
B57	51	Ground	 PKIB4960J 7.0 - 8.0V

Is the inspection result normal?

YES >> GO TO 5
NO >> Replace BCM. Refer to BCS-135, "Removal and Installation".

5.CHECK TRUNK LID SWITCH

Refer to DLK-273, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6
NO >> Replace trunk lid opener assembly.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012783321

1.CHECK TRUNK LID SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk lid opener assembly connector.
3. Check trunk lid switch.

Terminal		Trunk condition	Continuity
Trunk lid switch			
1	2	OPEN	Yes
		CLOSE	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk lid opener assembly.

WARNING CHIME FUNCTION

Description

INFOID:0000000012783322

Performs operation method guide and warning with buzzer.

Component Function Check

INFOID:0000000012783323

1.CHECK FUNCTION

With CONSULT

1. Check the operation with “BUZZER” in the Active Test.
2. Touch “IGN KEY WARN ALM”, “SEAT BELT WARN TEST”or “LIGHT WARN ALM”on screen.

Is the inspection result normal?

YES >> Warning buzzer into combination meter is OK.
NO >> Refer to DLK-275, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783324

1.CHECK METER BUZZER CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

YES >> GO TO 2
NO >> Replace combination meter. Refer to MWI-74, "Removal and Installation".

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

HAZARD FUNCTION

Description

INFOID:0000000012783325

Perform answer-back for each operation with number of blinks.

Component Function Check

INFOID:0000000012783326

1.CHECK FUNCTION

Check hazard warning lamp (“FLASHER”) in Active Test.

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.
NO >> Refer to DLK-276, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012783327

1.CHECK HAZARD SWITCH CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

YES >> GO TO 2
NO >> Repair or replace hazard warning switch circuit. Refer to EXL-138, "Removal and Installation".

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEYFOB ID SET UP WITH CONSULT

ID Code Entry Procedure

INFOID:0000000012783328

KEYFOB ID SET UP WITH CONSULT

NOTE:

- **If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.**
- **When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory when an additional code is registered, only the oldest code is erased. If less than five codes are stored in memory when an additional code is registered, the new ID code is added and no ID codes are erased.**
- **Entry of a maximum of five ID codes is allowed. When more than five codes are entered, the oldest ID code will be erased.**
- **Even if the same ID code that is already in memory is input, the same ID code can be entered. The code is counted as an additional code.**

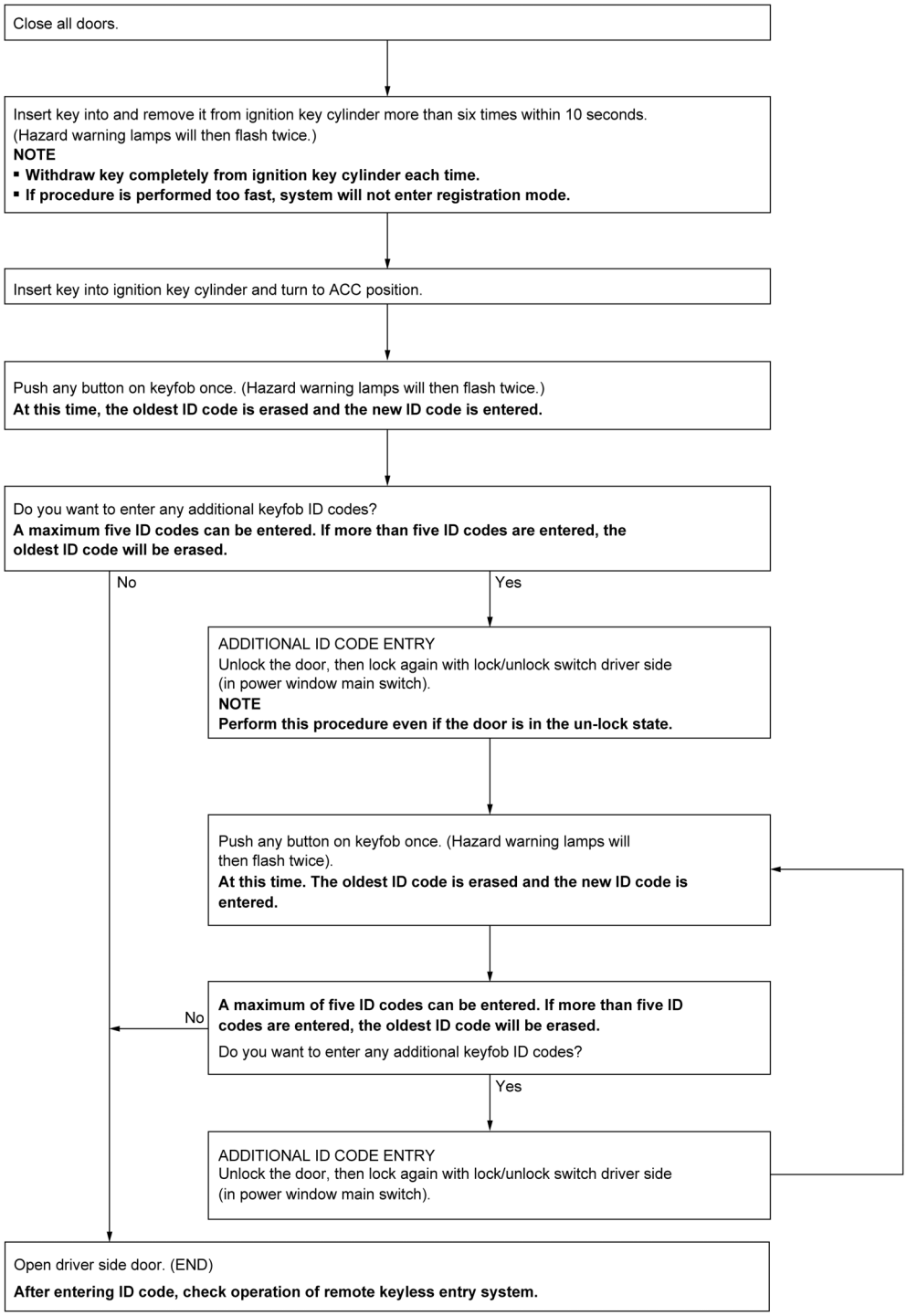
1. Turn ignition switch ON.
2. Select BCM.
3. Select MULTI REMOTE ENT.
4. Select WORK SUPPORT.
5. You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT instructions:
   - REMO CONT ID REGIST
     Use this mode to register a keyfob ID code.
     NOTE:
     Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.
   - REMO CONT ID ERASUR
     Use this mode to erase a keyfob ID code.
   - REMO CONT ID CONFIR
     Use this mode to confirm if a keyfob ID code is registered or not.

KEYFOB ID SET UP WITHOUT CONSULT

ID Code Entry Procedure

INFOID:0000000012783329

KEYFOB ID SET UP WITHOUT CONSULT



ALKIA2029GB

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller

ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
To erase all ID codes in memory, register one ID code (keyfob) five times. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.

- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- If you need to activate more than two additional new keyfobs, repeat the procedure “Additional ID code entry” for each new keyfob DLK-277, "ID Code Entry Procedure" (with CONSULT), DLK-278, "ID Code Entry Procedure" (without CONSULT).
- A maximum amount of five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

SYMPTOM DIAGNOSIS

POWER DOOR LOCK SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000012783330

DOOR LOCK/UNLOCK FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check “WORK FLOW”. Refer to DLK-238, "Work Flow".
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
- If the following symptoms are detected, check systems shown in the “Diagnosis/service procedure” column in this order.

Symptom	Diagnosis/service procedure		Reference page
Key reminder door function does not operate properly.	1. Check door switch.		DLK-246
	2. Check key switch.		DLK-255
	3. Check Intermittent Incident.		GI-41
Power door lock does not operate with door lock and unlock switch on main power window and door lock/unlock switch or power window and door lock/unlock switch RH.	1. Check BCM power supply and ground circuit.		BCS-128
	2. Check main power window and door lock and unlock switch.		DLK-249
	3. Check power window and door lock and unlock switch RH.		DLK-250
	4. Check Intermittent Incident.		GI-41
Specific door lock actuator does not operate.	1. Check door lock actuator.	Driver side	DLK-256
		Passenger side	DLK-257
		Rear LH	DLK-258
		Rear RH	DLK-259
	2. Check Intermittent Incident.		GI-41
Power door locks do not operate with front door lock key cylinder switch LH.	1. Check key cylinder switch.		DLK-253
	2. Replace BCM.		BCS-135
Vehicle speed sensing auto door LOCK operation does not operate.	1. Ensure automatic door lock/unlock function (lock operation) is enabled.		DLK-208
	2. Check combination meter vehicle speed signal.		MWI-48
	3. Check intermittent incident.		GI-41
Ignition OFF interlock auto door UNLOCK function does not operate.	1. Ensure automatic door lock/unlock function (unlock operation) is enabled.		DLK-208
	2. Check BCM for DTCs.		BCS-115
	3. Check intermittent incident.		GI-41

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000013374619

REMOTE KEYLESS ENTRY SYSTEM

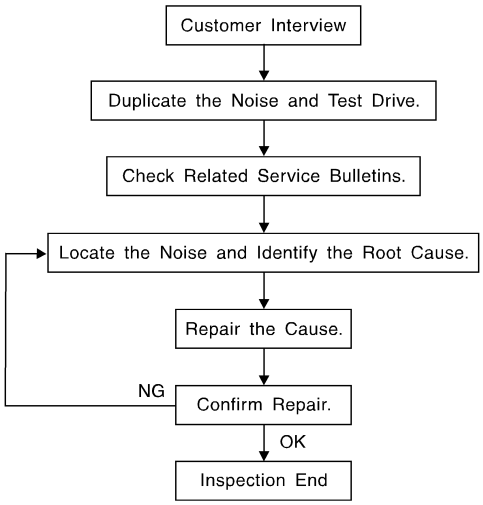
Symptom	Diagnoses/service procedure	Reference page
All functions of remote keyless entry system do not operate.	1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) **NOTE:** If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-264
	2. Check BCM and remote keyless entry receiver.	DLK-261
The new ID of keyfob cannot be entered.	1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) **NOTE:** If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-264
	2. Door switch check	DLK-246
	3. ACC power check	BCS-128
	4. Replace BCM.	BCS-135
Door lock or unlock does not function. (If the power door lock system does not operate manually, check power door lock system)	1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) **NOTE:** If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-264
	2. Replace BCM.	BCS-135
Hazard and horn reminder does not activate properly when pressing lock or unlock button of keyfob.	1. Check hazard and horn reminder mode with CONSULT **NOTE:** Hazard and horn reminder mode can be changed. First check the hazard and horn reminder mode setting.	DLK-211
	2. Door switch check	DLK-246
	3. Replace BCM.	BCS-135
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob. (Horn reminder OK)	1. Check hazard reminder mode with CONSULT **NOTE:** Hazard reminder mode can be changed. First check the hazard reminder mode setting.	DLK-211
	2. Check hazard function with hazard switch	—
	3. Replace BCM.	BCS-135
Horn reminder does not activate properly when pressing lock or unlock button of keyfob. (Hazard reminder OK)	1. Check horn reminder mode with CONSULT **NOTE:** Horn reminder mode can be changed. First check the horn reminder mode setting.	DLK-211
	2. Check horn function with horn switch	—
	3. IPDM E/R operation check	PCS-38
	4. Replace BCM.	BCS-135
Room lamp illumination does not operate properly.	1. Room lamp operation check	INL-8
	2. Door switch check	DLK-246
	3. Replace BCM.	BCS-135

Symptom	Diagnoses/service procedure	Reference page
Panic alarm (horn and headlamp) does not activate when panic alarm button is continuously pressed.	1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) **NOTE:** If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-264
	2. ACC power check	BCS-128
	3. Replace BCM.	BCS-135
Auto door lock operation does not activate properly. (All other remote keyless entry functions OK.)	1. Check auto door lock operation mode with CONSULT **NOTE:** Auto door lock operation mode can be changed. First check the auto door lock operation mode setting.	DLK-208
	2. Replace BCM.	BCS-135

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

INFOID:0000000012783332



SBT842

CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to DLK-287, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak —(Like tennis shoes on a clean floor)
  Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping.
- Creak—(Like walking on an old wooden floor)
  Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle)
  Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door)
  Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand)
  Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise)
  Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumble bee)
  Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

1) Close a door.
2) Tap or push/pull around the area where the noise appears to be coming from.
3) Rev the engine.
4) Use a floor jack to recreate vehicle “twist”.
5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on CVT and A/T models).
6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.

- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.
If a TSB relates to the symptom, follow the procedure to repair the noise.

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear: J-39565 and mechanic's stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
   - removing the components in the area that you suspect the noise is coming from.
     Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
   - tapping or pushing/pulling the component that you suspect is causing the noise.
     Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
   - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
   - placing a piece of paper between components that you suspect are causing the noise.
   - looking for loose components and contact marks.
     Refer to DLK-284, "Generic Squeak and Rattle Troubleshooting".

REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:

- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A NISSAN Squeak and Rattle Kit (J-50397) is available through your authorized NISSAN Parts Department.

CAUTION:
Do not use excessive force as many components are constructed of plastic and may be damaged.
NOTE:

- Always check with the Parts Department for the latest parts information.
- The materials contained in the NISSAN Squeak and Rattle Kit (J-50397) are listed on the inside cover of the kit; and can each be ordered separately as needed.
- The following materials not found in the kit can also be used to repair squeaks and rattles.

- SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months.
- SILICONE SPRAY: Use when grease cannot be applied.
- DUCT TAPE: Use to eliminate movement.

CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Generic Squeak and Rattle Troubleshooting

INFOID:0000000012783333

Refer to Table of Contents for specific component removal and installation information.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. Cluster lid A and the instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar finisher
4. Instrument panel to windshield
5. Instrument panel pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

CAUTION:

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

CENTER CONSOLE

Components to pay attention to include:

1. Shift selector assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

DOORS

Pay attention to the:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-50397) to repair the noise.

TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner.
In addition look for:

1. Trunk lid bumpers out of adjustment
2. Trunk lid striker out of adjustment
3. The trunk lid torsion bars knocking together
4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
2. Sun visor shaft shaking in the holder
3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage.
In addition look for:

1. Loose harness or harness connectors.
2. Front console map/reading lamp lens loose.

3. Loose screws at console attachment points.

SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

1. Headrest rods and holder
2. A squeak between the seat pad cushion and frame
3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

1. Any component installed to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator installation pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine rpm or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

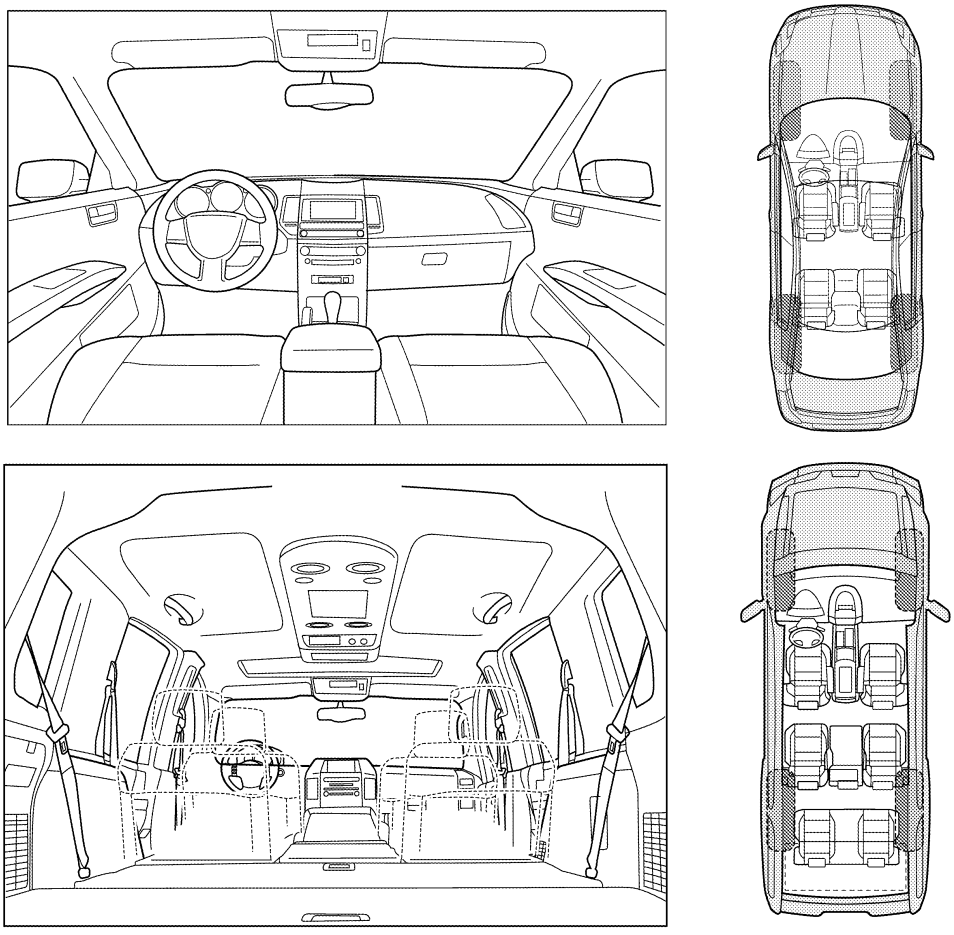
Diagnostic Worksheet

INFOID:0000000012783334

Dear Customer:
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)
The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

LAIA0072E

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

_____

_____

II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- ☐ Anytime
- ☐ 1st time in the morning
- ☐ Only when it is cold outside
- ☐ Only when it is hot outside
- ☐ After sitting out in the rain
- ☐ When it is raining or wet
- ☐ Dry or dusty conditions
- ☐ Other:

III. WHEN DRIVING:

- ☐ Through driveways
- ☐ Over rough roads
- ☐ Over speed bumps
- ☐ Only about ____ mph
- ☐ On acceleration
- ☐ Coming to a stop
- ☐ On turns: left, right or either (circle)
- ☐ With passengers or cargo
- ☐ Other: _____
- ☐ After driving _____ miles or _____ minutes

IV. WHAT TYPE OF NOISE

- ☐ Squeak (like tennis shoes on a clean floor)
- ☐ Creak (like walking on an old wooden floor)
- ☐ Rattle (like shaking a baby rattle)
- ☐ Knock (like a knock at the door)
- ☐ Tick (like a clock second hand)
- ☐ Thump (heavy muffled knock noise)
- ☐ Buzz (like a bumble bee)

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

_____

_____

_____

	YES	NO	Initials of person performing
Vehicle test driven with customer	☐	☐	_____
- Noise verified on test drive	☐	☐	_____
- Noise source located and repaired	☐	☐	_____
- Follow up test drive performed to confirm repair	☐	☐	_____

VIN: _____ Customer Name _____

W.O.# _____ Date: _____

This form must be attached to Work Order

LAIA0071E

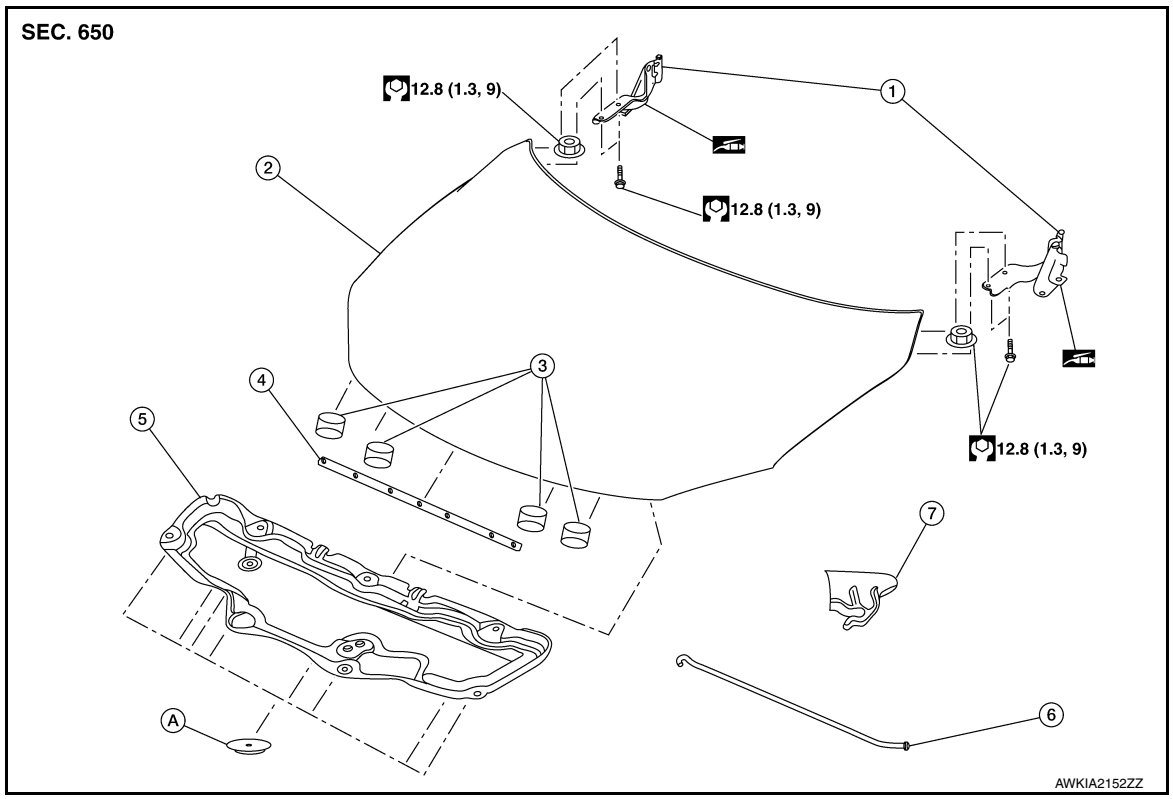
REMOVAL AND INSTALLATION

HOOD

HOOD ASSEMBLY

HOOD ASSEMBLY : Exploded View

INFOID:0000000012783335



1. Hood hinge (LH/RH)
2. Hood assembly
3. Hood bumper rubber
4. Hood seal
5. Hood insulator
6. Hood support rod
7. Hood support rod clamp
A. Clip

HOOD ASSEMBLY : Removal and Installation

INFOID:0000000012783336

CAUTION:

- **Use two people when removing or installing hood assembly due to its heavy weight.**
- **Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of hood assembly.**

REMOVAL

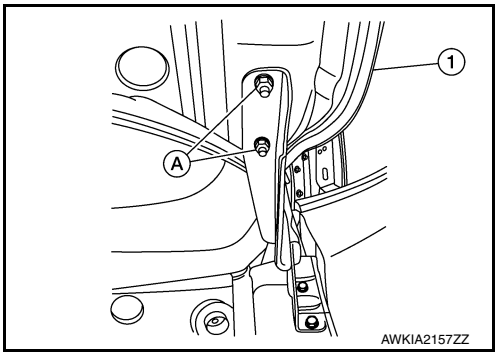
1. Support the hood assembly using a suitable tool.

   WARNING:

   Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

2. Disconnect front washer nozzle and tube.

3. Remove hood hinge to hood nuts (A) and then remove the hood assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

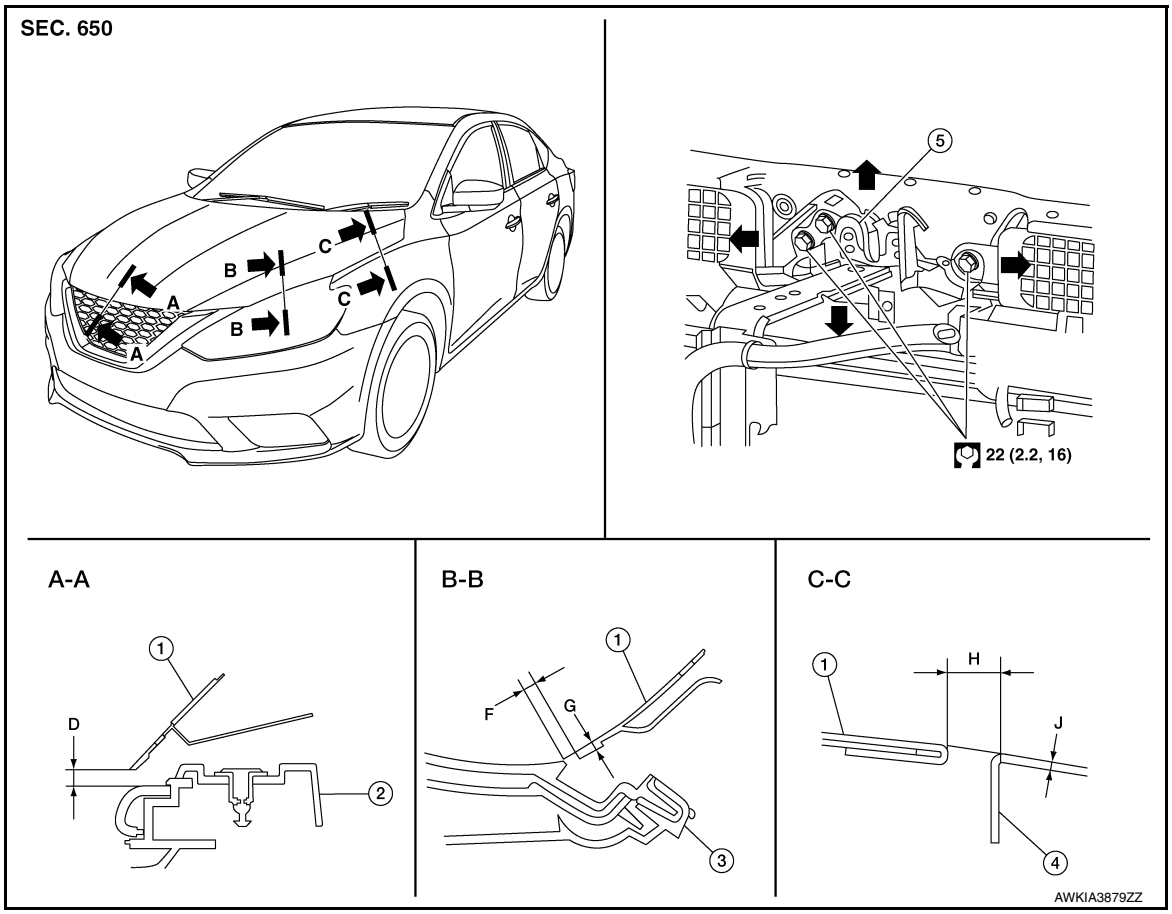
Tighten hood hinge to hood nuts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".

CAUTION:

- **Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.**
- **After installation, perform the hood assembly adjustment procedure. Refer to DLK-290, "HOOD ASSEMBLY : Adjustment".**

HOOD ASSEMBLY : Adjustment

INFOID:0000000012783337



1. Hood assembly
2. Front grille
3. Front combination lamp
4. Front fender
5. Hood lock assembly

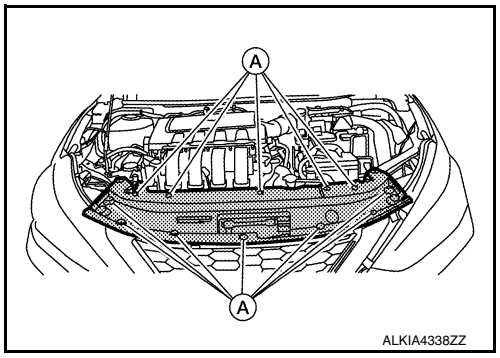
Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard	Parallelism	Equality
A – A	D	Clearance	6.2 ±2.3 (0.24 ±0.09)	<2.0	—
B – B	F	Clearance	3.5 ±2.4 (0.14 ±0.09)	<2.0	<3.0
	G	Surface height	0.7 ±2.0 (0.03 ±0.08)	<2.0	<2.0
C – C	H	Clearance	3.7 ±1.0 (0.15 ±0.04)	<2.0	<2.0
	J	Surface height	0.0 ±1.0 (0.00 ±0.04)	—	—

CLEARANCE ADJUSTMENT

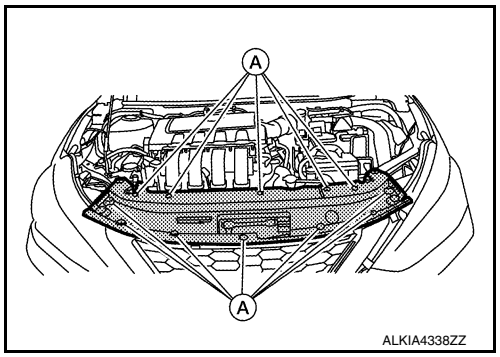
1. Loosen hood hinge (LH/RH) nuts and bolts.
   NOTE:
   The anticorrosive agent applied between the hoodledge and the hood hinges also acts as an adhesive. This seal must be broken before the hinges will move.
2. Remove the radiator core support upper cover clips (A) and remove.



3. Loosen the hood lock assembly bolts.
4. Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".
5. Tighten the hood lock assembly bolts to specified torque. Refer to DLK-149, "HOOD LOCK CONTROL : Exploded View".
6. Install the radiator core support upper cover.

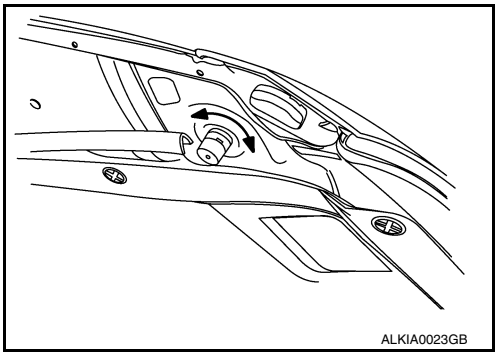
HEIGHT ADJUSTMENT

1. Remove the radiator core support upper cover clips (A) and remove.

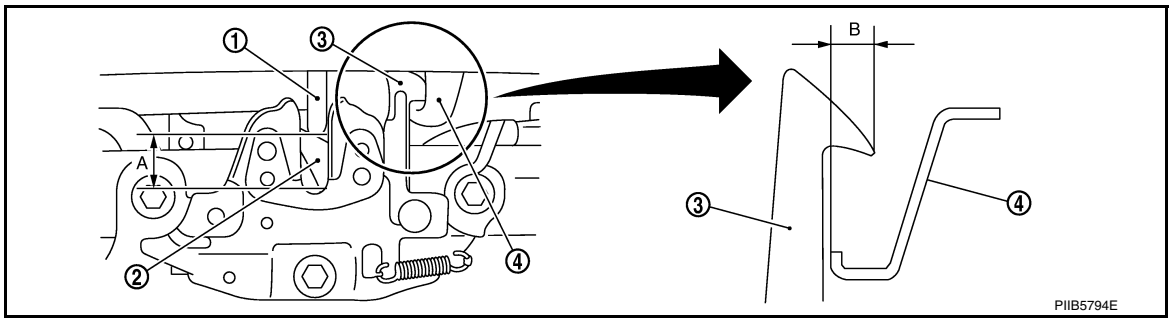


2. Loosen the hood lock assembly bolts.

3. Adjust the surface height of the hood assembly to front bumper fascia and front fender according to the specified values by rotating the hood bumper rubbers.
NOTE:
Only one hood bumper rubber shown for clarity.



4. Temporarily tighten the hood lock assembly bolts.
5. Adjust (A) and (B) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.9 in) height or by pressing hood lightly [approximately 29 Nm (3.0 kg-m, 21 ft-lb)].



1.	Hood striker	2.	Primary latch	3.	Secondary striker
4.	Secondary latch	A.	20 mm (0.8 in)	B.	6.8 mm (0.27 in)

6. After adjustment, tighten hood hinge nuts and bolts to the specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".
CAUTION:
- **Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.**
7. Tighten the hood lock assembly bolts to specified torque.
8. Install the radiator core support upper cover.
9. If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to DLK-155, "Adjustment".

HOOD HINGE

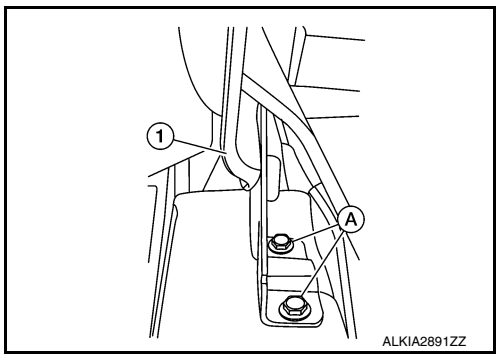
HOOD HINGE : Removal and Installation

INFOID:0000000012783338

REMOVAL

1. Remove the fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
2. Remove the core support upper cover. Refer to HA-39, "Exploded View".
3. Remove the front fascia. Refer to EXT-17, "Removal and Installation".
4. Remove the front combination lamp. Refer to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
5. Remove the front fender. Refer to DLK-154, "Removal and Installation".

6. Remove hood hinge bolts (A) and hood hinge (1).



INSTALLATION

Installation is in the reverse order of removal.

Tighten bolts to specified torque. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".

CAUTION:

- **Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.**
- **After installation, perform hood assembly adjustment procedure. Refer to DLK-290, "HOOD ASSEMBLY : Adjustment".**

HOOD SUPPORT ROD

HOOD SUPPORT ROD : Removal and Installation

INFOID:0000000012783339

REMOVAL

1. Support hood assembly using a suitable tool.

   WARNING:
   Bodily injury may occur if hood assembly is not supported properly when removing hood support rod.

2. Rotate and remove hood support rod from grommet.
3. Remove grommet from hood hinge using a suitable tool (if necessary).

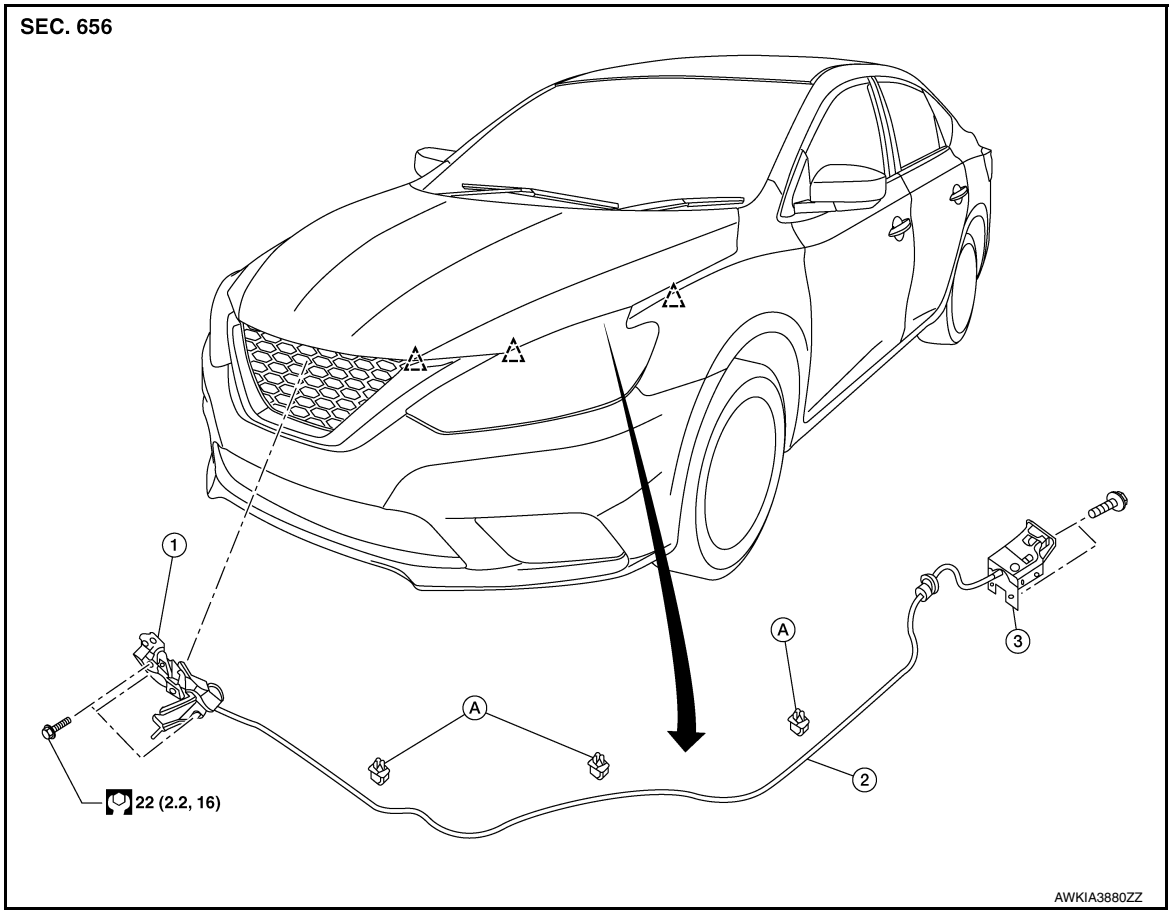
INSTALLATION

Installation is in the reverse order of removal.

HOOD LOCK CONTROL

HOOD LOCK CONTROL : Exploded View

INFOID:0000000012783340



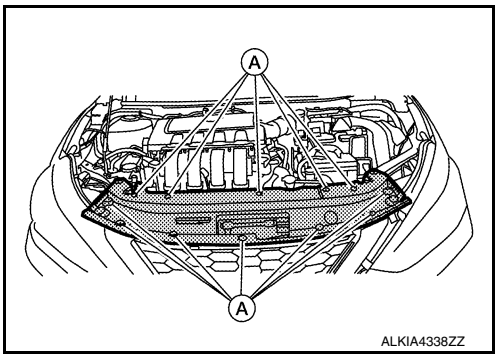
1. Hood lock assembly
2. Hood lock release cable
3. Hood lock/fuel filler door release handle assembly
A. Hood lock release cable clip
Clip

HOOD LOCK CONTROL : Removal and Installation

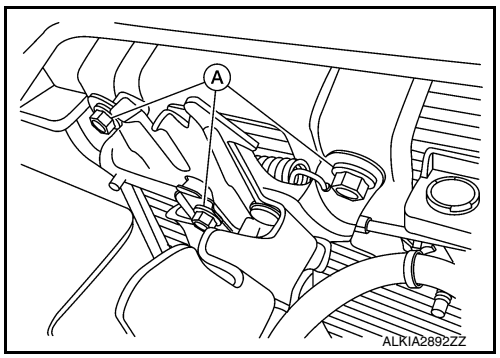
INFOID:0000000012783341

REMOVAL

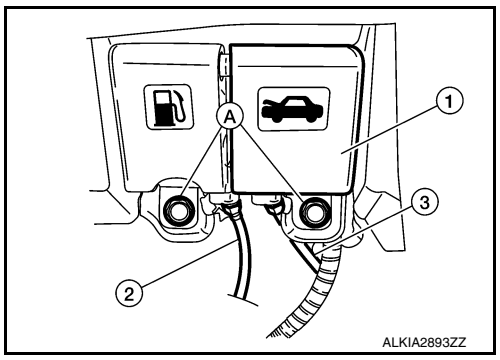
1. Remove the fender protector (LH). Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
2. Remove the radiator core support upper cover clips (A) and remove.



3. Remove the hood lock assembly bolts (A).



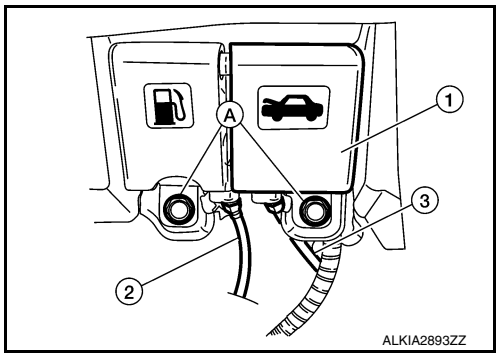
4. Disconnect the hood lock release cable from the hood lock assembly.
5. Remove the bolts (A), then separate the hood lock/fuel filler door release handle assembly (1) from the hood lock release cable (3) and fuel filler door release cable (2).



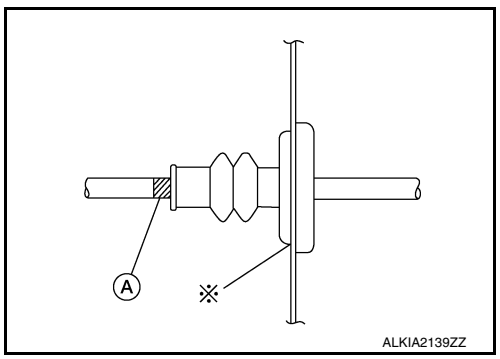
6. Remove the grommet from the dash assembly and pull the hood lock release cable into the passenger compartment.
CAUTION:
While pulling, be careful not to damage (peel) the outside of the hood lock release cable.

INSTALLATION

1. Pull the hood lock release cable through the dash assembly into the engine compartment.
CAUTION:
Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.
2. Attach the hood lock release cable (3) and the fuel filler door release cable (2) to the hood lock/fuel filler door release handle assembly (1).
3. Place hood lock/fuel filler door release handle assembly in position and retain with bolts (A).

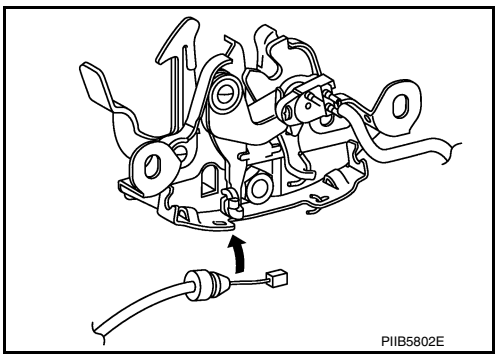


4. Check that the cable is not offset from the center of the grommet and seat the grommet into the dash hole.
NOTE:
Make sure that the marked area (A) of the cable is located as shown after mounting grommet to dash upper assembly.
Apply sealant around the grommet at * mark.



5. Position the hood lock release cable and clip it into place.

6. Connect the hood lock release cable to the hood lock assembly.

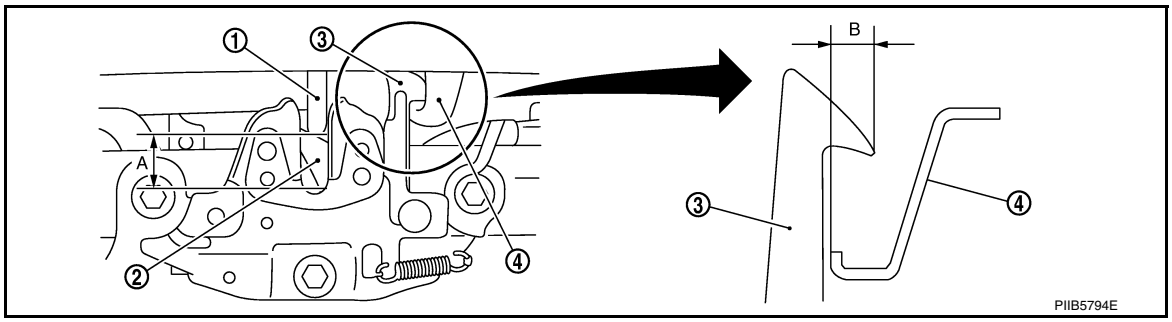


7. Perform hood fitting adjustment. Refer to DLK-290, "HOOD ASSEMBLY : Adjustment".
8. Perform the hood lock control inspection.

INSPECTION

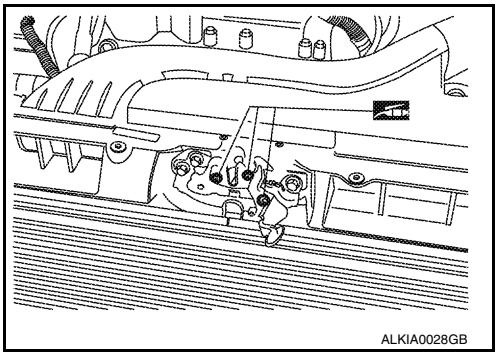
NOTE:
If the hood lock release cable is bent or deformed, replace it.

1. Check that the secondary latch is properly engaged with the secondary striker and meets specification provided (B) with hood's own weight.



1.	Hood striker	2.	Primary latch	3.	Secondary striker
4.	Secondary latch	A.	20 mm (0.8 in)	B.	6.8 mm (0.27 in)

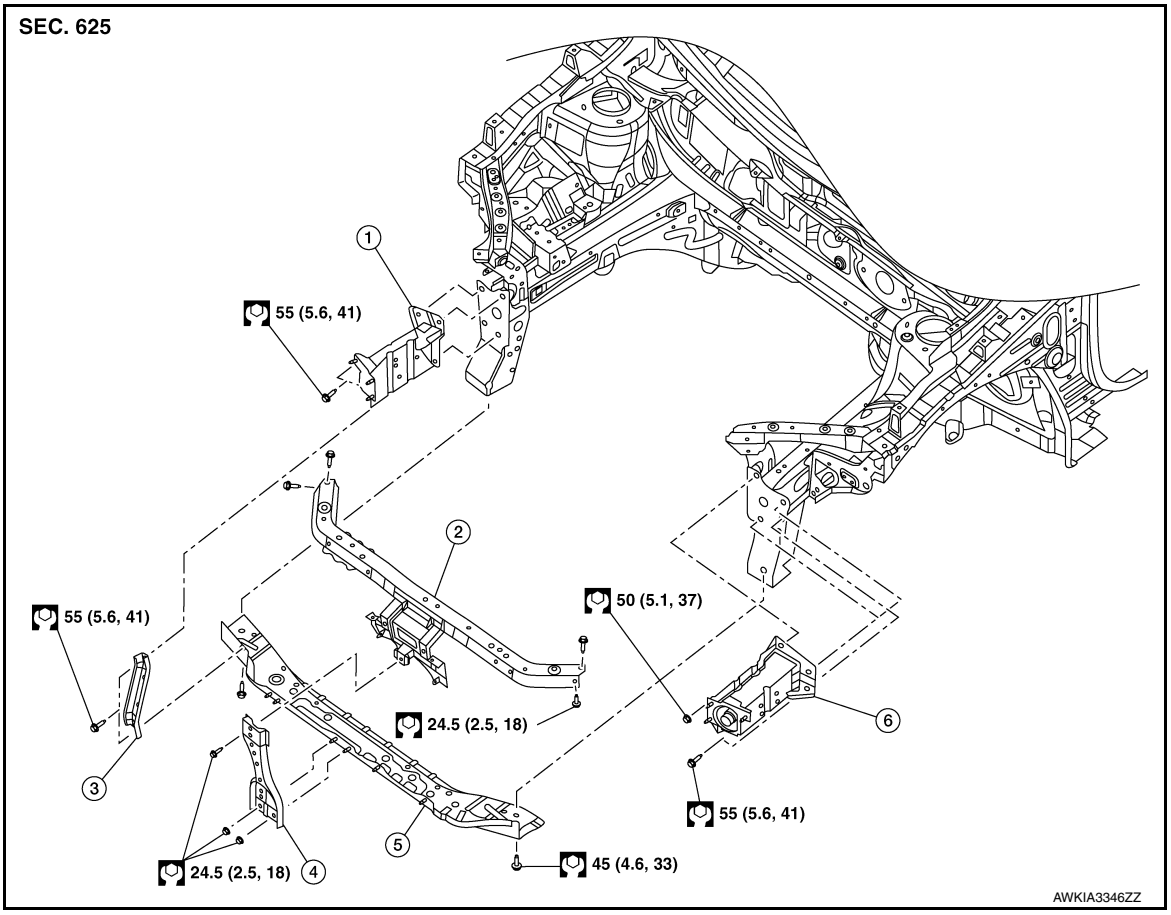
2. While operating the hood lock release handle, carefully check that the front end of the hood assembly is raised and meets the specification provided (A). Also check that the hood lock release handle returns to the original position.
3. Check that the hood lock release handle operating force is 49 N (5.0 kg, 11 lb) or less.
4. Install so the static closing force of the hood assembly is 49 – 490 N (5.0 – 50 kg-f, 36 - 110.2 lb-f).
5. Check the hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease as shown.



RADIATOR CORE SUPPORT

Exploded View

INFOID:0000000012783342



1. Core support side member (RH)
2. Core support upper
3. Core support lower stay
4. Hood lock support
5. Core support lower
6. Core support side member (LH)

Removal and Installation

INFOID:0000000012783343

REMOVAL

CAUTION:

Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

1. Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to PG-74, "Removal and Installation (Battery)".
2. Remove crash zone sensor. Refer to SR-27, "Removal and Installation".
3. Remove radiator. Refer to CO-15, "Removal and Installation".
4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
5. Remove the horns. Refer to HRN-6, "Removal and Installation".
6. Remove air guides (LH/RH).
7. Remove the hood lock support bolts and hood lock support.
8. Remove the core support lower stay bolts and core support lower stay.
9. Remove the core support lower bolts and core support lower.
10. Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

INSTALLATION

Installation is in the reverse order of removal.
Tighten bolts to specification. Refer to DLK-152, "Exploded View".

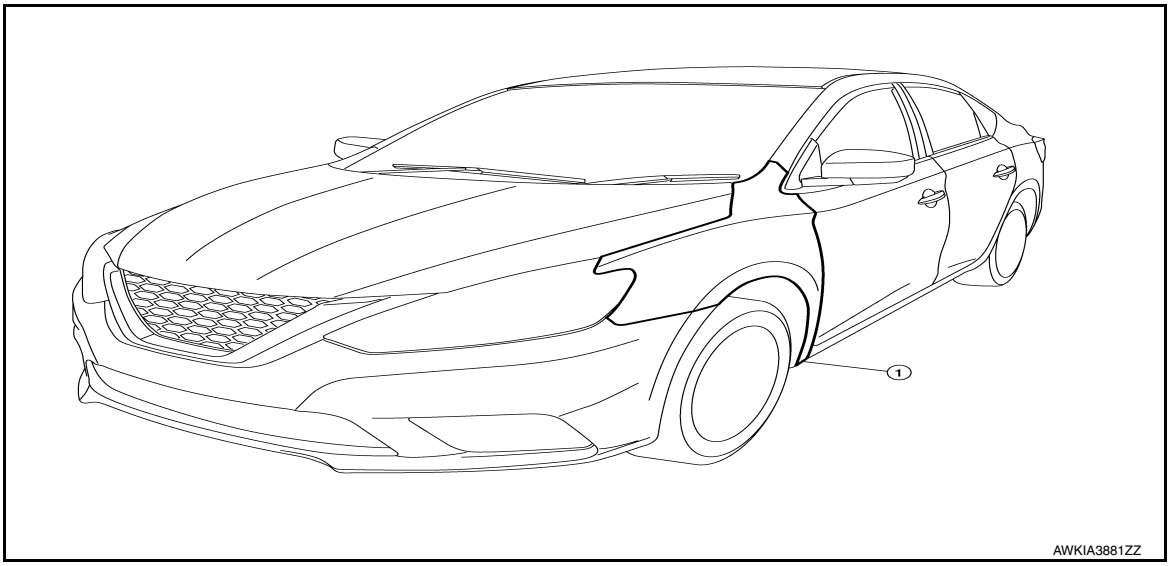
CAUTION:

After installation, perform hood fitting adjustment. Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".

FRONT FENDER

Exploded View

INFOID:0000000012783344



1. Front fender

Removal and Installation

INFOID:0000000012783345

REMOVAL

1. Remove the front combination lamp. Ref to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
2. Remove the front bumper fascia. Refer to EXT-17, "Removal and Installation".
3. Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".
4. Remove the front fender bolts and the front fender.
   CAUTION:
   Use shop cloths to protect the body from being damaged during removal and installation.

INSTALLATION

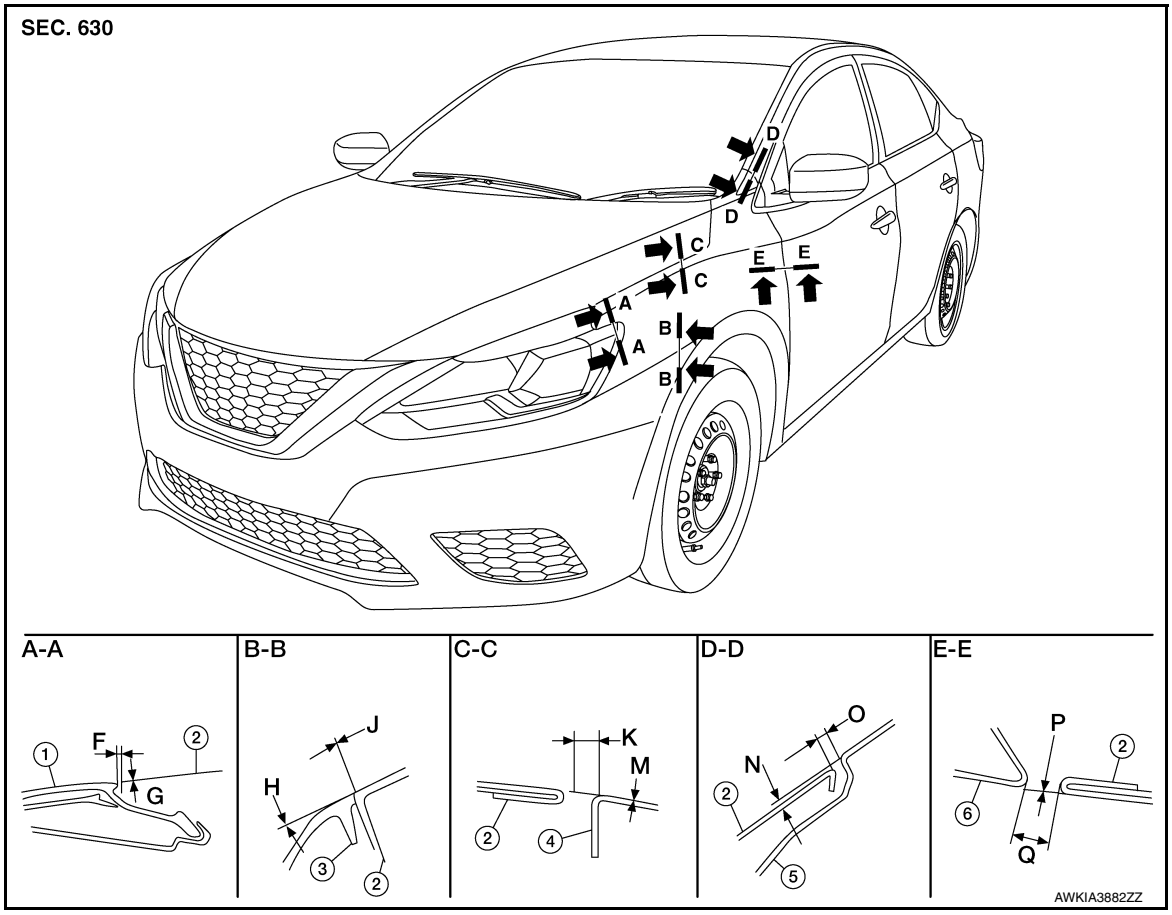
Installation is in the reverse order of removal.

CAUTION:

After installation, perform fender adjustment procedure. Refer to DLK-300, "Adjustment".

Adjustment

INFOID:0000000012783346



1. Front combination lamp assembly
2. Fender
3. Front bumper fascia
4. Hood assembly
5. Body side outer
6. Front door

Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	F	Clearance	1.5 ± 1.3 (0.06 ± 0.05)
	G	Surface height	0.7 ± 1.3 (0.03 ± 0.05)
B – B	H	Surface height	0.7 ± 1.0 (0.03 ± 0.04)
	J	Clearance	0.0 ± 1.0 (0.00 ± 0.04)
C – C	K	Clearance	3.7 ± 1.0 (0.15 ± 0.04)
	M	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
D – D	N	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
	O	Clearance	3.0 ± 1.0 (0.12 ± 0.04)
E – E	P	Surface height	—
	Q	Clearance	3.8 ± 1.0 (0.15 ± 0.04)

Adjustment

1. Remove front bumper fascia. Refer to EXT-17, "Removal and Installation".
2. Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".

3. Loosen the front fender bolts.
4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
5. Tighten the rear upper and lower front fender bolts.
6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
8. Tighten the inner front fender bolts.
9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
10. Tighten the front fender to front fascia and bracket screws.
11. Install front bumper fascia. Refer to EXT-17, "Removal and Installation".
12. Install front combination lamp.Refer to EXL-127, "Removal and Installation" (HALOGEN), EXL-257, "Removal and Installation" (LED).
13. Install the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation - Front Fender Protector".

CAUTION:

- **If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.**
- **Hood assembly: Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".**
- **Front door: Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**
- **After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.**

FRONT DOOR
DOOR ASSEMBLY
DOOR ASSEMBLY : Removal and Installation

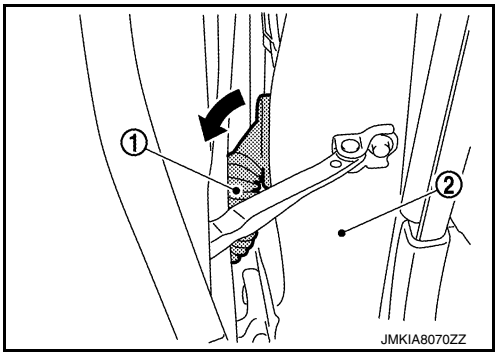
INFOID:0000000012783347

CAUTION:
- **Use two people when removing or installing the front door assembly due to its heavy weight.**
- **When removing and installing front door assembly, support front door using a suitable tool.**
- **Do not use air tools or electric tools for servicing.**
- **Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.**

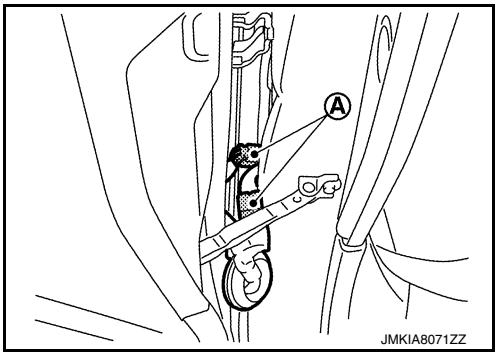
NOTE:
LH side shown; RH side similar.

REMOVAL

1. Disconnect the battery negative and positive terminals and wait at least three minutes, if equipped with the side air bag (satellite) sensor. Refer to PG-74, "Removal and Installation (Battery)".
2. Remove front door assembly harness grommet LH (1) then pull out door harness from body (2).

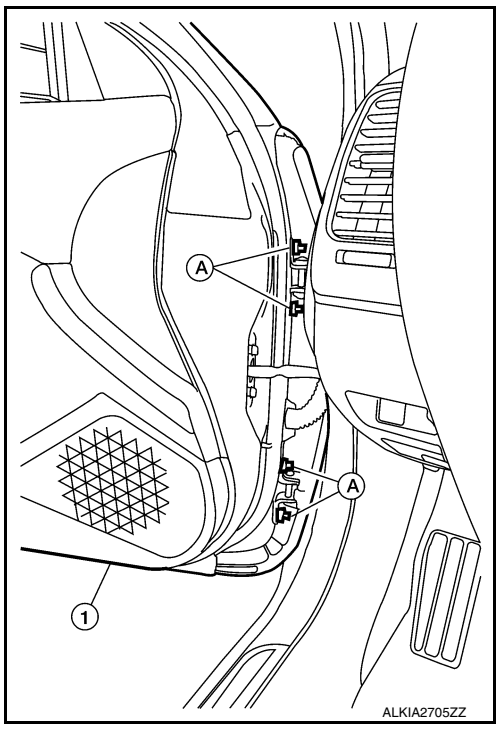


3. Disconnect the harness connectors (A) from the front door assembly harness.



4. Remove check link bolt (body side).

5. Remove front door assembly hinge nuts (A) (door side) and the door assembly (1).



INSTALLATION

Installation is in the reverse order of removal.
Tighten door hinge nuts to specified torque.

CAUTION:

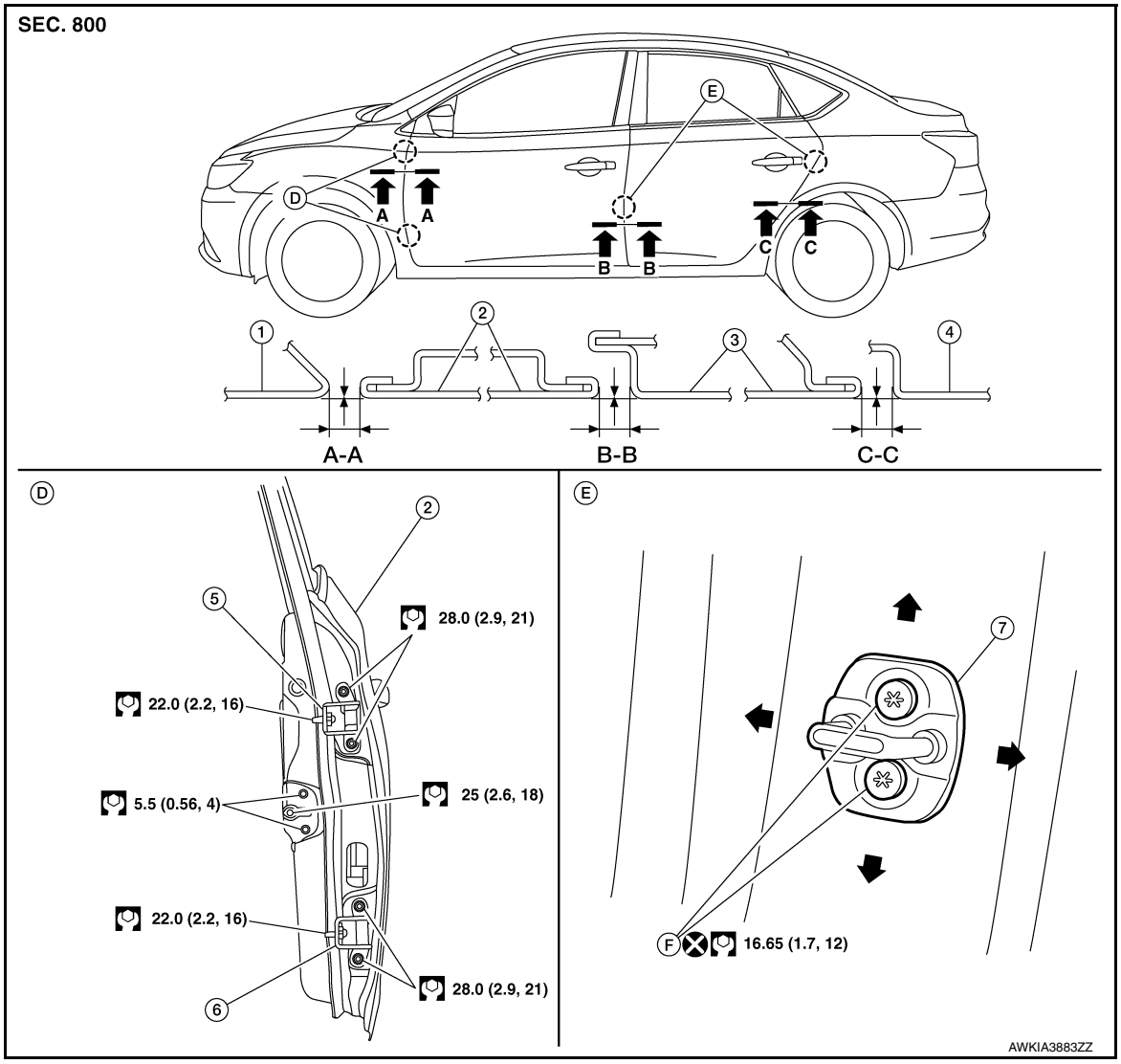
- **After installation, check front door open/close, lock/unlock operation.**
- **After installation, perform the front door adjustment procedure. Refer to DLK-304, "DOOR ASSEMBLY : Adjustment".**

NOTE:

When main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-28, "Description".

DOOR ASSEMBLY : Adjustment

INFOID:0000000012783348



1. Front fender
2. Front door assembly
3. Rear door assembly
4. Body side outer
5. Front door upper hinge
6. Front door lower hinge
7. Front door striker
F. Front door striker bolts

Check the clearance and surface height between front door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	G	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	H	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
B – B	H	Clearance	4.2 ± 1.0 (0.17 ± 0.04)
	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	K	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to DLK-154, "Removal and Installation".

2. Loosen the front door hinge to body bolts. Move the door forward or backward as necessary until within specifications provided.
3. Tighten the hinge to body bolts to specified torque.

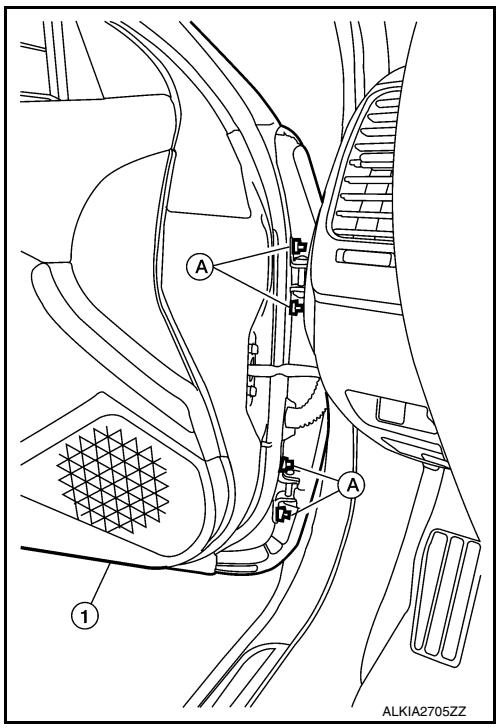
Front door hinge bolts	**22.0 N·m (2.2 kg-m, 16 ft-lb)**

4. Install the front fender. Refer to DLK-154, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the front door hinge nuts (A).
2. Move the top and/or bottom of the door (1) in or out as necessary until it is within specifications provided.
3. Tighten the front door hinge nuts to specified torque.

Front door hinge nuts	**28.0 N·m (2.9 kg-m, 21 ft-lb)**



CAUTION:
- **Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.**
- **If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.**
- **Front fender: Refer to DLK-155, "Adjustment".**
- **Rear door: Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".**

DOOR STRIKER ADJUSTMENT

Adjust front door assembly striker so that it becomes parallel with door lock insertion direction.

DOOR HINGE

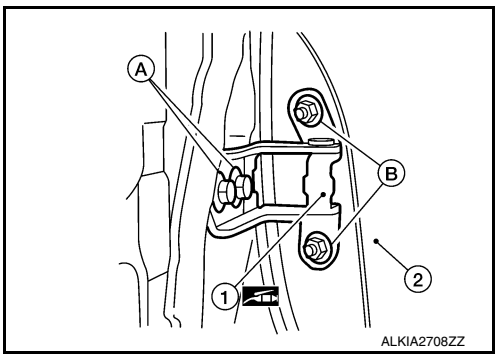
DOOR HINGE : Removal and Installation

INFOID:0000000012783349

REMOVAL

1. Remove front door fender. Refer to DLK-299, "Removal and Installation".
2. Remove front door assembly (2). Refer to DLK-302, "DOOR ASSEMBLY : Removal and Installation".
3. Remove bolt (A) and door hinge (1).

4. Remove door hinge bolts (B) and remove hinge (1).



INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.DLK-159, "DOOR ASSEMBLY : Adjustment"

CAUTION:

- **Apply anticorrosive agent onto the front door hinge mating surface.**
- **After installation, check front door open/close, lock/unlock operation.**
- **After installation, perform the front door adjustment procedure. Refer to DLK-304, "DOOR ASSEMBLY : Adjustment".**

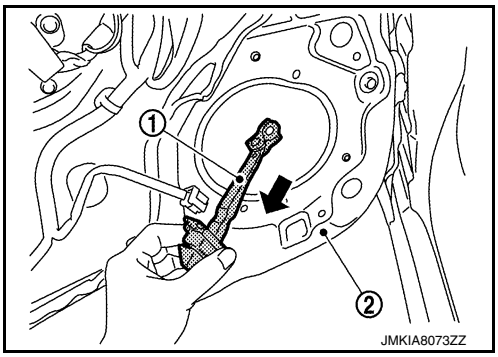
DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012783350

REMOVAL

1. Fully close the front door glass.
2. Remove front door speaker. Refer to AV-58, "Removal and Installation" (BASE AUDIO), AV-118, "Removal and Installation" (DISPLAY AUDIO SYSTEM) AV-323, "Removal and Installation" (NAVIGATION WITH BOSE) and AV-212, "Removal and Installation" (NAVIGATION WITHOUT BOSE).
3. Remove door check link bolt from body.
4. Remove door check link bolts on door panel.
5. Remove door check link (1) through the hole in door panel (2).



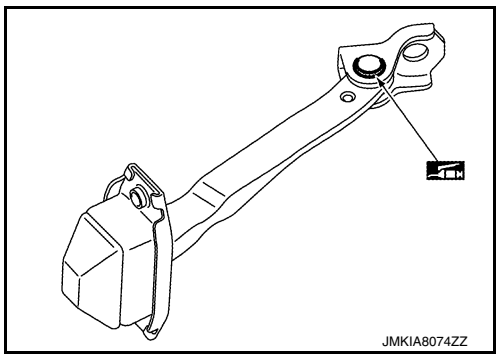
INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After installation, check front door open/close, lock/unlock operation.**
- **Check front door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**

: Grease



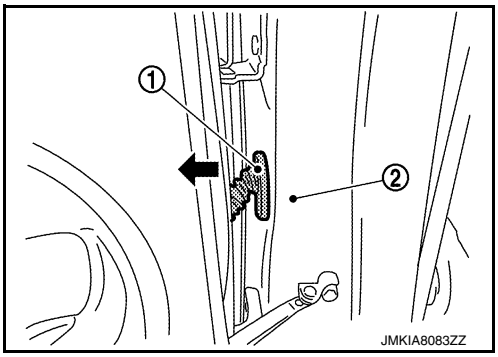
REAR DOOR
DOOR ASSEMBLY
DOOR ASSEMBLY : Removal and Installation

INFOID:0000000012783351

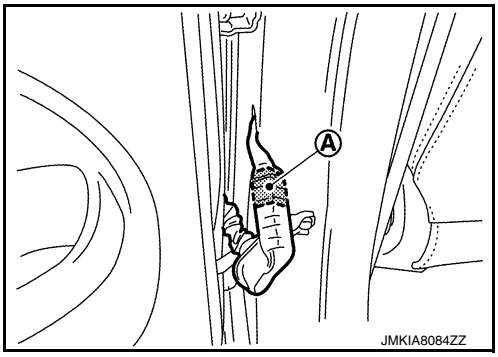
CAUTION:
- **Use two people when removing or installing the rear door assembly due to its heavy weight.**
- **When removing and installing rear door assembly, support rear door with a suitable tool.**

REMOVAL

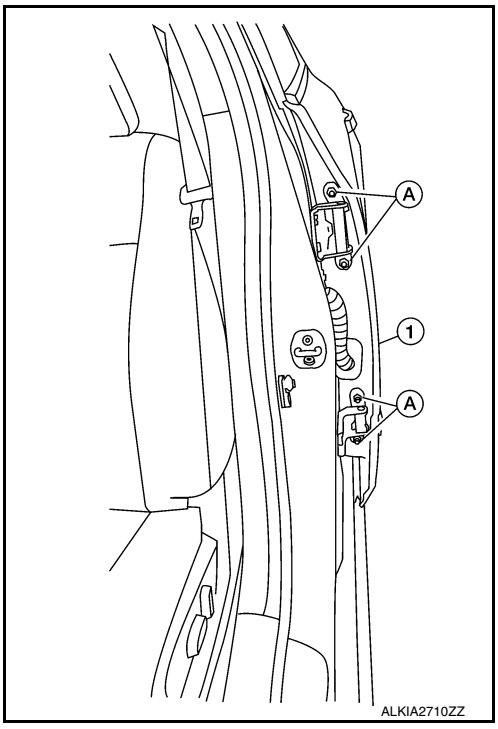
1. Remove rear door assembly harness grommet (LH) (1) then pull out door harness from body (2).



2. Disconnect the harness connector (A) from the door harness.



3. Remove the check link bolt from the body.
4. Remove rear door assembly hinge nuts (A) (door side) and the door assembly (1).



INSTALLATION

Installation is in the reverse order of removal.
Tighten rear door hinge nuts (door side) to specified torque.

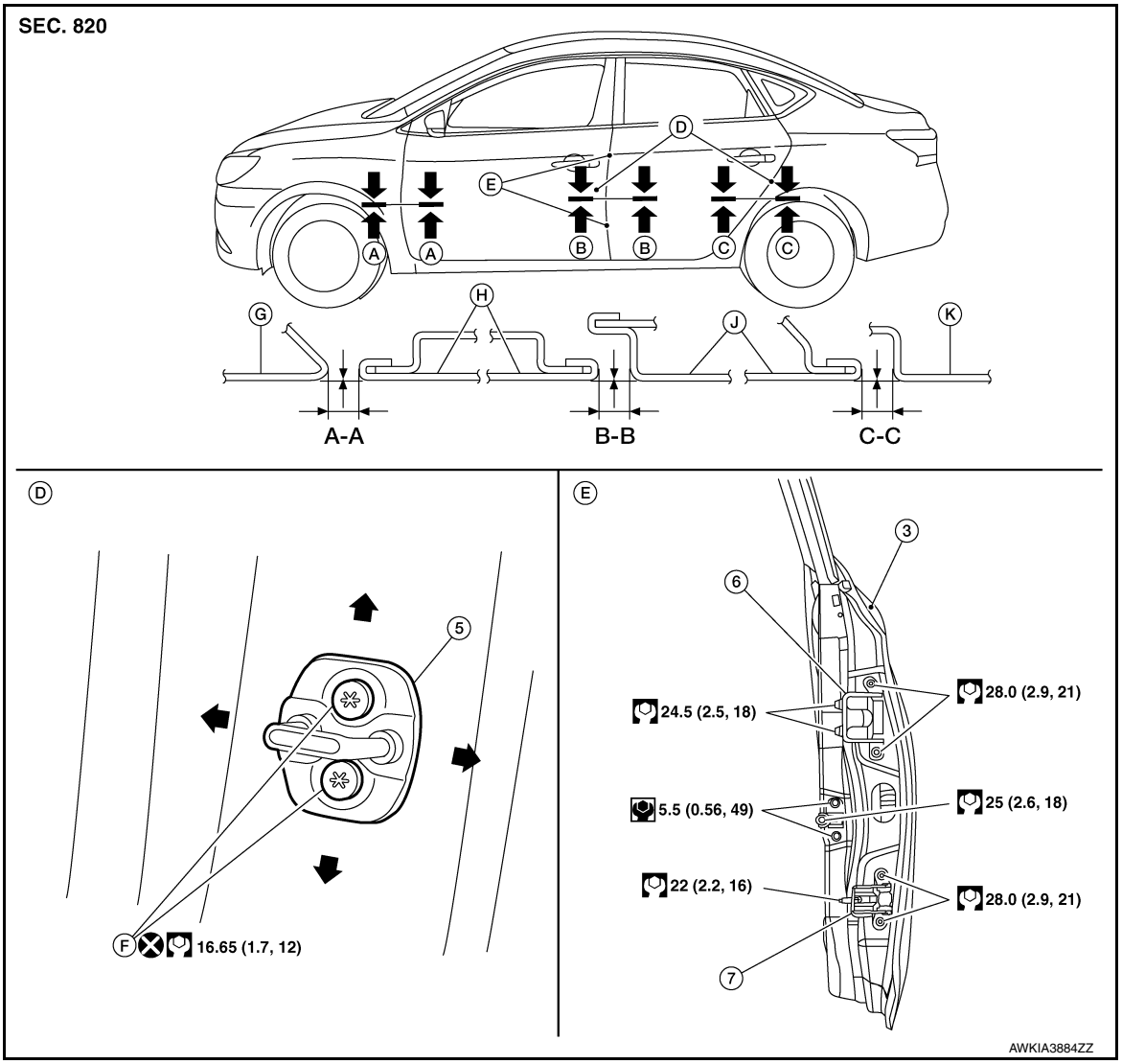
CAUTION:

- **After installation, check rear door open/close, lock/unlock operation.**
- **After installation, perform the rear door adjustment procedure. Refer to DLK-309, "DOOR ASSEMBLY : Adjustment".**

DOOR ASSEMBLY : Adjustment

INFOID:0000000012783352

ADJUSTMENT



1. Front fender
2. Door assembly
3. Rear door assembly
4. Body side outer
5. Rear door striker
6. Rear door upper hinge
7. Rear door lower hinge
F. Rear door striker screws

Check the clearance and surface height between rear door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

Section	Item	Measurement	Standard
A – A	G	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	H	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
B – B	H	Clearance	4.2 ± 1.0 (0.17 ± 0.04)
	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	K	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

LONGITUDINAL CLEARANCE

1. Remove the center pillar upper finisher. Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation".
2. Loosen the rear door upper hinge nuts.
3. Loosen the rear door lower hinge bolts.
4. Move the rear door forward or backward as necessary until within specifications provided.
5. Tighten the lower hinge bolts to specification.

Rear door lower hinge bolts **22 N·m (2.2 kg-m, 16 ft-lb)**

6. Tighten the upper hinge nuts to specification.

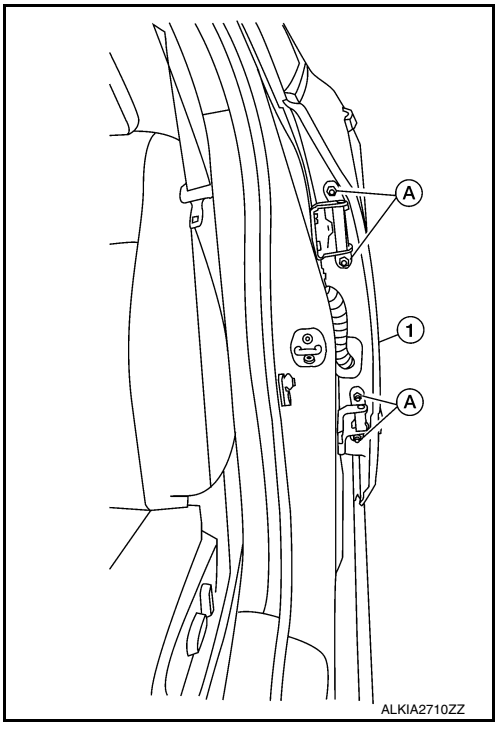
Rear door upper hinge nuts **24.5 N·m (2.5 kg-m, 18 ft-lb)**

7. Install the center pillar upper finisher. Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the rear door hinge nuts (door side) (A).
2. Move the top and/or the bottom of the rear door (1) in or out as necessary until it is within specifications provided.
3. Tighten the rear door hinge nuts (door side) (A) to specification.

Rear door nuts **28.0 N·m (2.9 kg-m, 21 ft-lb)**



CAUTION:

- **Check rear door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint (body color) to the head of rear door assembly hinge bolts and nuts.**

- **If the clearance measurements cannot be corrected by adjusting the rear door, adjust the front door. Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".**

DOOR STRIKER ADJUSTMENT

Adjust rear door assembly striker so that it becomes parallel with door lock insertion direction.

DOOR HINGE

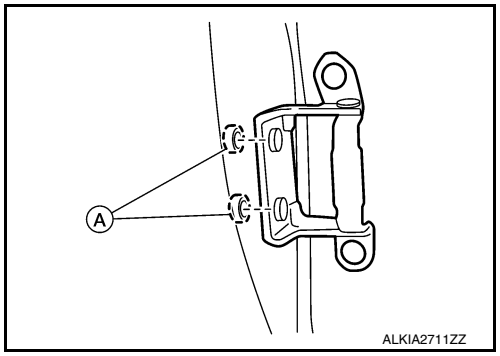
DOOR HINGE : Removal and Installation

INFOID:0000000012783353

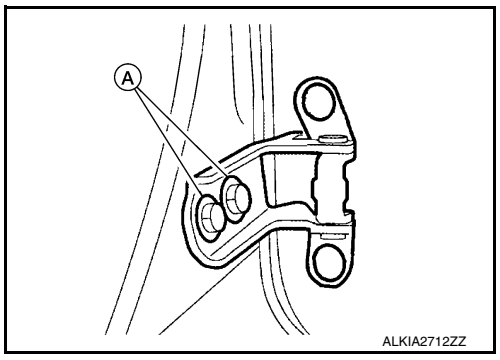
CAUTION:
- **Use two people when removing or installing rear door assembly due to its heavy weight.**
- **When removing and installing rear door assembly, support door using a suitable tool.**

REMOVAL

1. Remove rear door assembly. Refer to DLK-308, "DOOR ASSEMBLY : Removal and Installation".
2. Remove center pillar upper finisher (upper hinge only). Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal and Installation".
3. Remove rear door assembly upper hinge nuts (A) and remove.



4. Remove rear door assembly lower hinge bolts (A) and remove.



INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to DLK-164, "DOOR ASSEMBLY : Adjustment"

CAUTION:
- **Apply anticorrosive agent onto the hinge mating surface.**
- **After installation, check rear door open/close, lock/unlock operation.**
- **After installation, perform the rear door adjustment procedure. Refer to DLK-309, "DOOR ASSEMBLY : Adjustment".**

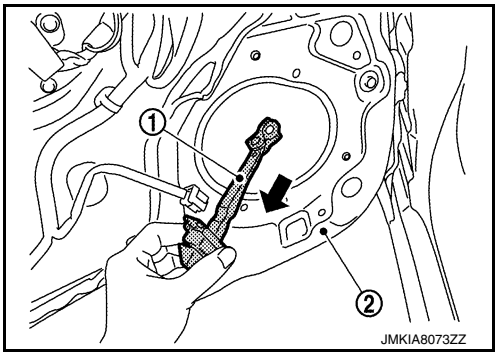
DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012783354

REMOVAL

1. Fully close the rear door glass.
2. Remove rear door speaker. Refer to AV-59, "Removal and Installation" (BASE AUDIO), AV-119, "Removal and Installation" (DISPLAY AUDIO SYSTEM) AV-213, "Removal and Installation" (NAVIGATION WITH BOSE) and AV-324, "Removal and Installation" (NAVIGATION WITHOUT BOSE).
3. Remove door check link bolt from body.
4. Remove door check link bolts on door panel.
5. Remove door check link (1) through the hole in door panel (2).

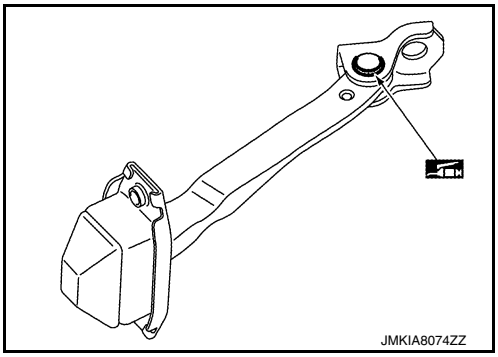


INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **After installation, check rear door open/close, lock/unlock operation.**
- **Check rear door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**

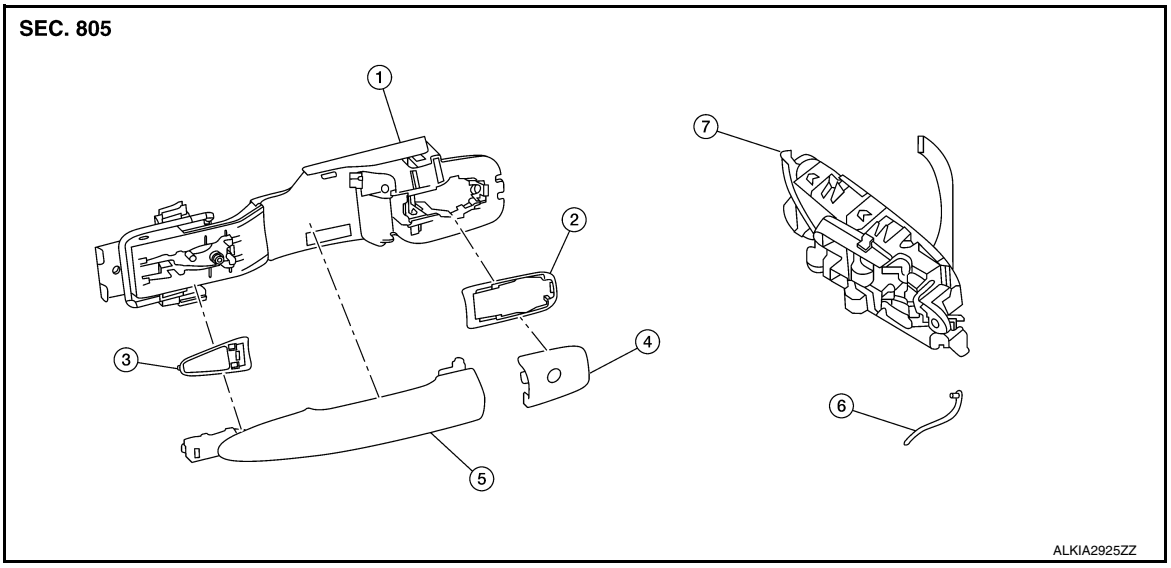


DOOR HANDLE

FRONT DOOR HANDLE

FRONT DOOR HANDLE : Exploded View

INFOID:0000000012783355



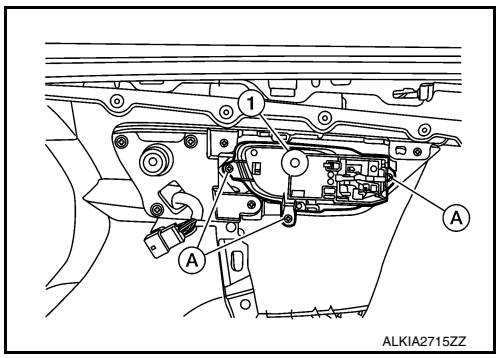
1. Outside handle bracket
2. Rear gasket
3. Front gasket
4. Outside handle escutcheon
5. Outside handle
6. Door key cylinder rod
7. Inside handle assembly

FRONT DOOR HANDLE : Removal and Installation - Inside Handle

INFOID:0000000012783356

REMOVAL

1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
2. Remove inside handle assembly screws (A) and the inside handle assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check front door lock cables are properly engaged to inside handle.**
- **After installation, check front door open/close, lock/unlock operation.**

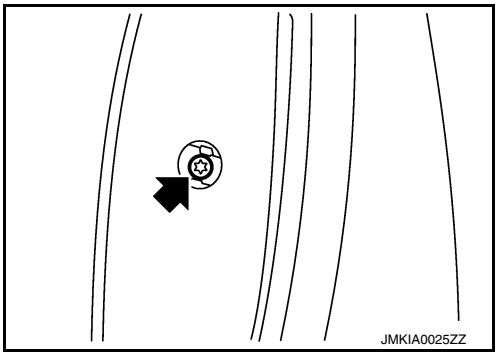
FRONT DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:0000000012783357

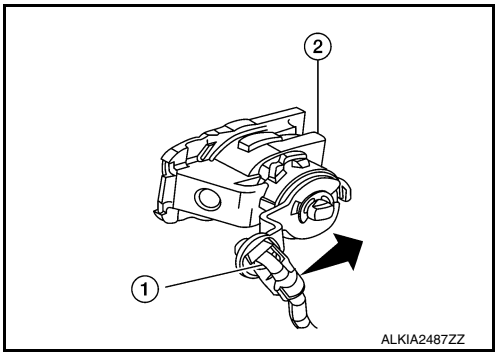
REMOVAL

1. Fully close front door glass.
2. Remove front door finisher. Refer to INT-15, "Removal and Installation".
3. Remove front door vapor barrier.

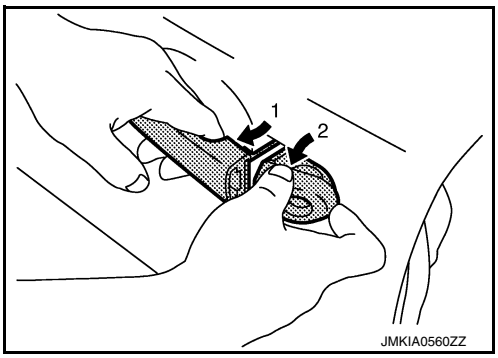
4. Remove front door glass channel rear.
5. Disconnect the harness connectors from the door antenna and door request switch and then remove harness clamp on outside handle bracket.
6. Remove door side grommet, and loosen screw ⬅ that retains the front door outside handle bracket.



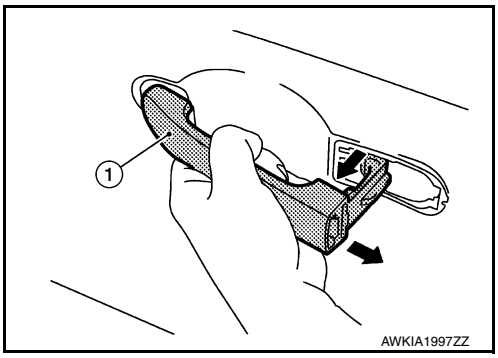
7. Reach in to separate door key cylinder rod (LH side) (1) from door key cylinder assembly (LH side) (2).



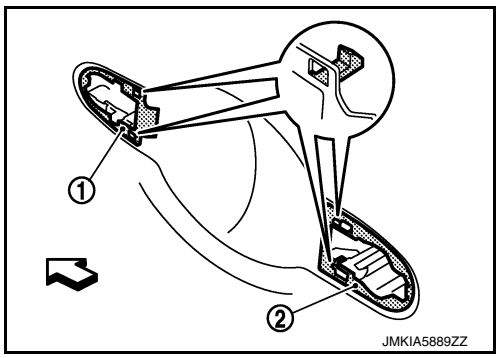
8. While pulling (1) outside handle, remove (2) door key cylinder assembly (LH side) or outside handle escutcheon (RH side).



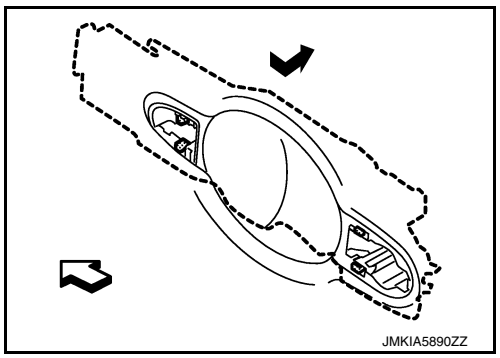
9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



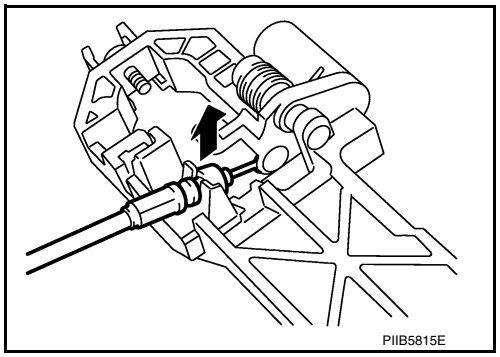
10. Remove front gasket (1) and rear gasket (2).
    ⇦: Front



11. Slide outside handle bracket toward rear of vehicle to remove.
    ⇦: Front



12. Disconnect the outside handle cable from the outside handle bracket connection.



INSTALLATION

Installation is in the reverse order of removal.

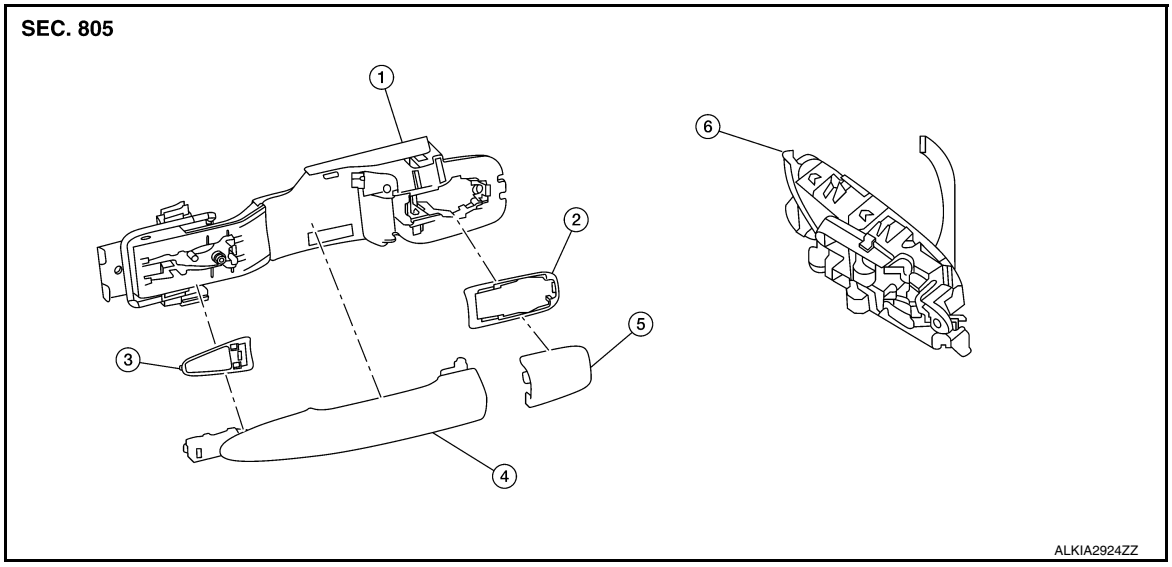
CAUTION:

- **When installing do not reuse front door outside handle bracket screw. Always replace screw with new ones when removed.**
- **When installing door key cylinder rod on the LH front door, be sure to rotate door key cylinder rod holder until a click is felt.**
- **Check front door lock cable is properly engaged to outside handle bracket.**
- **After installation, check front door open/close, lock/unlock operation.**

REAR DOOR HANDLE

REAR DOOR HANDLE : Exploded View

INFOID:0000000012783358



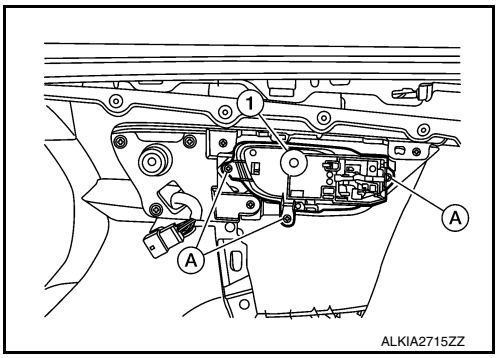
1. Outside handle bracket
2. Rear gasket
3. Front gasket
4. Outside door handle
5. Outside handle escutcheon
6. Inside handle assembly

REAR DOOR HANDLE : Removal and Installation - Inside Handle

INFOID:0000000012783359

REMOVAL

1. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
2. Remove inside handle assembly screws (A) and inside handle assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check rear door lock cables are properly engaged to inside handle.**
- **After installation, check rear door open/close, lock/unlock operation.**

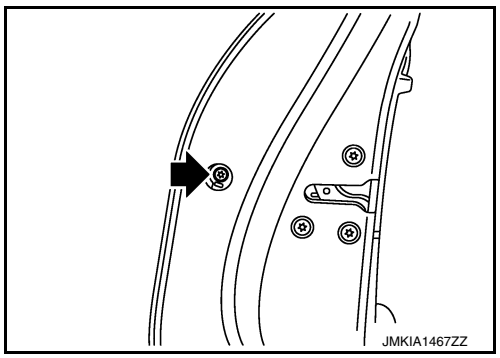
REAR DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:0000000012783360

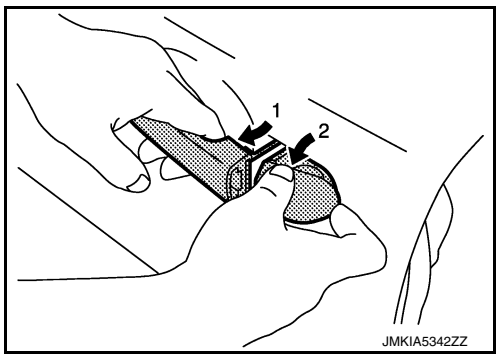
REMOVAL

1. Fully close rear door glass.
2. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
3. Remove rear door vapor barrier.

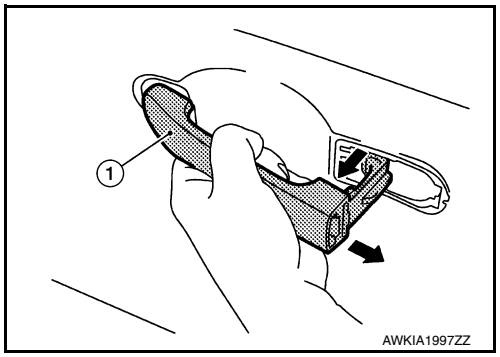
4. Remove door side grommet, and loosen screw ⬅ that retains the rear door outside handle bracket.



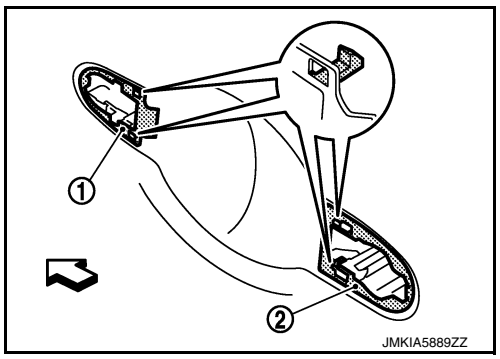
5. While pulling (1) outside handle, remove (2) outside handle escutcheon.



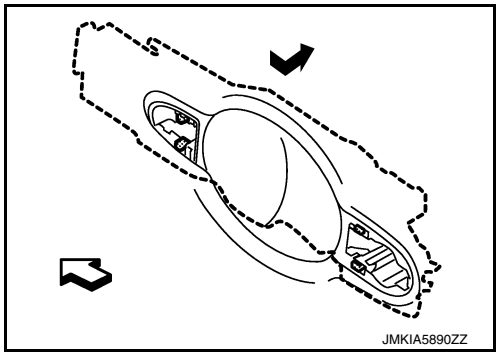
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



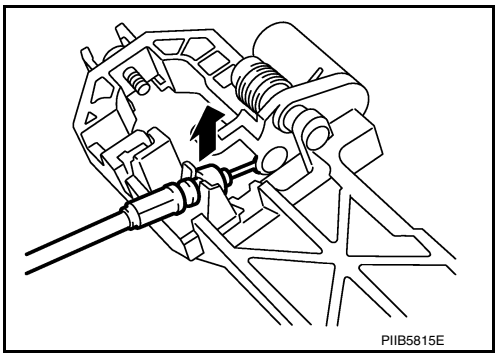
7. Remove front gasket (1) and rear gasket (2).
⇦: Front



8. Slide outside handle bracket toward rear of vehicle to remove.
⇦: Front



9. Remove clip and disconnect the outside handle cable from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

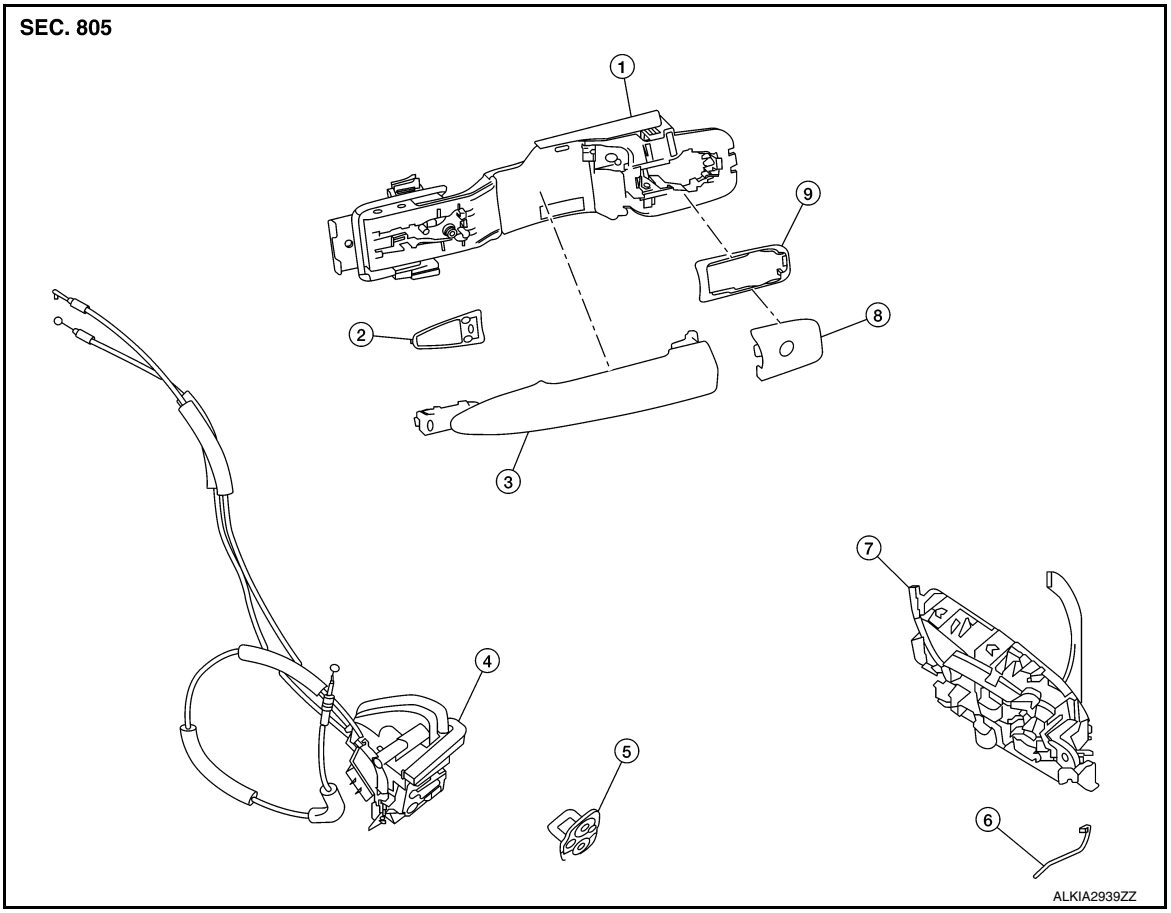
- **When installing do not reuse rear door outside handle bracket screw. Always replace screw with new ones when removed.**
- **Check rear door lock cable is properly engaged to outside handle bracket.**
- **After installation, check rear door open/close, lock/unlock operation.**

DOOR LOCK

FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

INFOID:0000000012783361



1. Outside handle bracket
2. Front gasket
3. Outside handle
4. Door lock assembly
5. Door striker
6. Door key cylinder rod
7. Inside handle assembly
8. Outside handle escutcheon
9. Rear gasket

FRONT DOOR LOCK : Removal and Installation

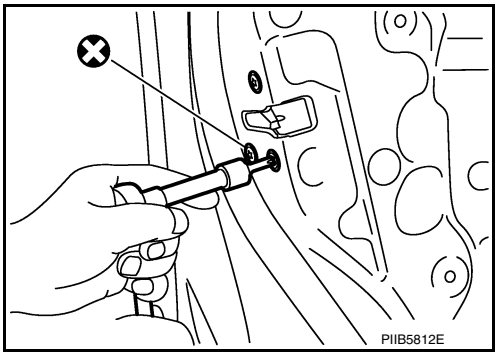
INFOID:0000000012783362

CAUTION:
Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

REMOVAL

1. Remove the front door outside handle. Refer to DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".
2. Remove the rear glass run.
3. Disconnect the harness connector from the front door lock actuator.

4. Remove screws, and the door lock assembly.



5. Disconnect door key cylinder rod (LH only) from door key cylinder (LH only).
6. Disconnect the door lock cables from inside handle.

INSTALLATION

Installation is in the reverse order of removal.
Tighten front door lock screws to specified torque.

Front door lock screws: 5.8 N·m (0.59 kg-m, 51 in-lb)

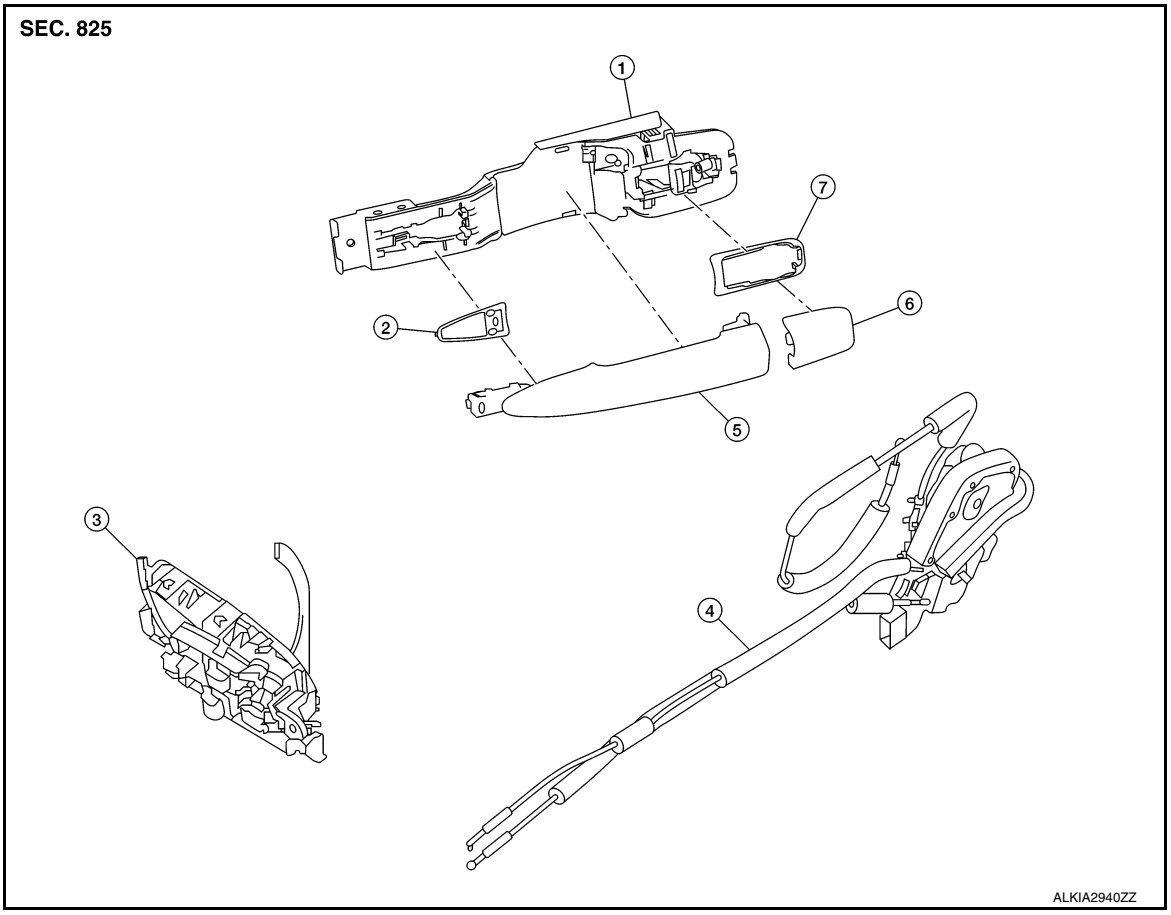
CAUTION:

- **Do not reuse front door lock assembly screws. Always replace screws with new ones when removed.**
- **Check front door lock cables are properly engaged to inside handle and outside handle bracket.**
- **When installing door key cylinder rod on the LH front door, be sure to rotate door key cylinder rod holder until a click is felt.**
- **After installation, check front door open/close, lock/unlock operation.**
- **Check front door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.**

REAR DOOR LOCK

REAR DOOR LOCK : Exploded View

INFOID:0000000012783363



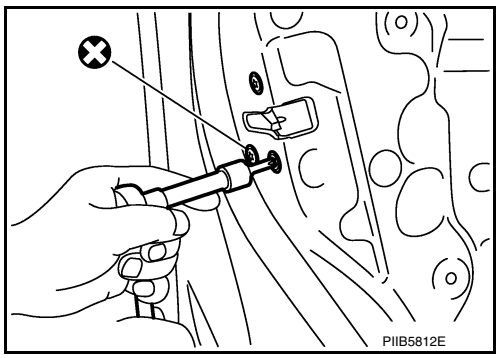
1. Outside handle bracket
2. Front gasket
3. Inside handle assembly
4. Door lock assembly
5. Outside handle
6. Outside handle escutcheon
7. Rear gasket

REAR DOOR LOCK : Removal and Installation

INFOID:0000000012783364

REMOVAL

1. Remove the rear door outside handle. Refer to DLK-171, "REAR DOOR HANDLE : Removal and Installation - Outside Handle".
2. Disconnect the harness connector from the rear door lock actuator.
3. Remove the screws, and the door lock assembly.



INSTALLATION

Installation is in the reverse order of removal.
Tighten rear door lock screws to specified torque.

Rear door lock screws: 5.8 N·m (0.59 kg-m, 51 in-lb)

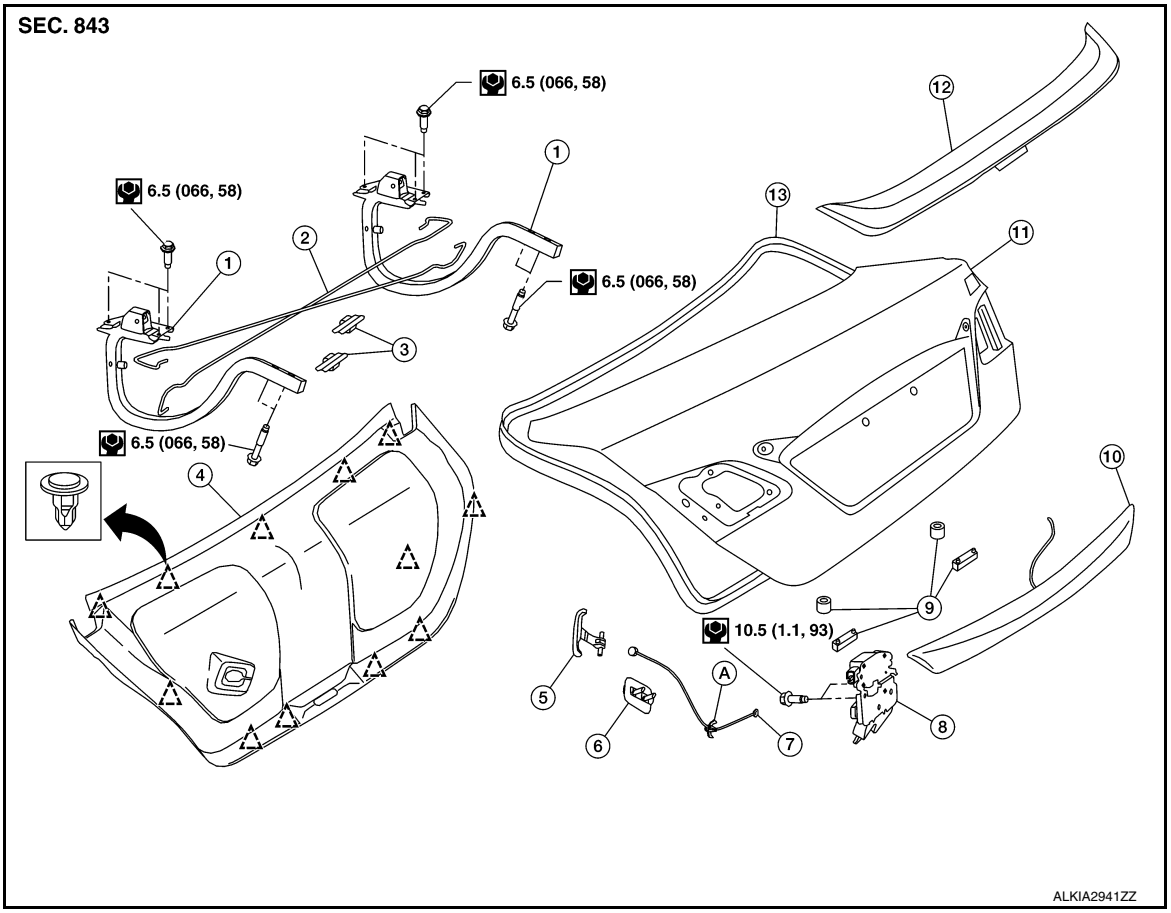
CAUTION:
- **Do not reuse rear door lock assembly screws. Always replace screws with new ones when removed.**
- **Check rear door lock cables are properly engaged to inside handle and outside handle bracket.**
- **After installation, check rear door open/close, lock/unlock operation.**
- **Check rear door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.**

TRUNK LID

TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

INFOID:0000000012783365



1.	Trunk lid hinge LH/RH	2.	Torsion bar LH/RH	3.	Torsion bar clips
4.	Trunk lid finisher (if equipped)	5.	Emergency release handle	6.	Emergency release handle clip
7.	Emergency release handle cable	8.	Trunk lid lock	9.	Trunk lid bumpers
10.	License lamp finisher	11.	Trunk lid	12.	Rear spoiler (if equipped)
13.	Weatherstrip	A.	Clip	△	Clip

TRUNK LID ASSEMBLY : Removal and Installation

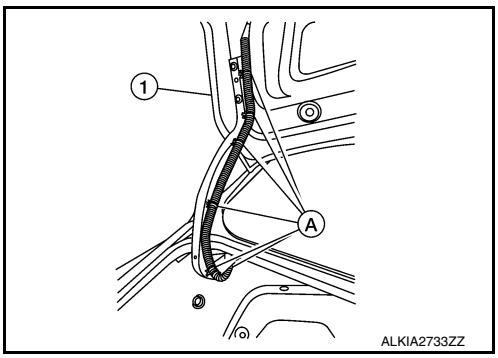
INFOID:0000000012783366

CAUTION:
- **Use two people when removing or installing trunk lid assembly due to its heavy weight.**
- **Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of trunk lid assembly.**

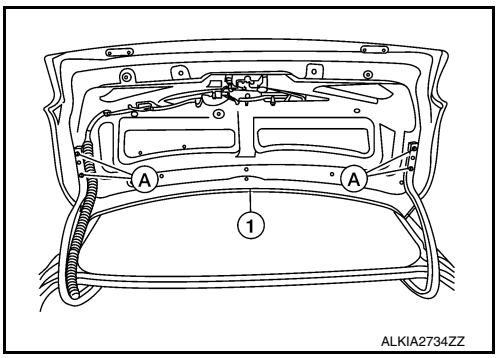
REMOVAL

1. Remove trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".

2. Disconnect the harness connectors in the trunk lid assembly (1) and remove the harness clips (A) then pull out harness from the trunk lid assembly (1).



3. Remove the bolts (A) and remove the trunk lid assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

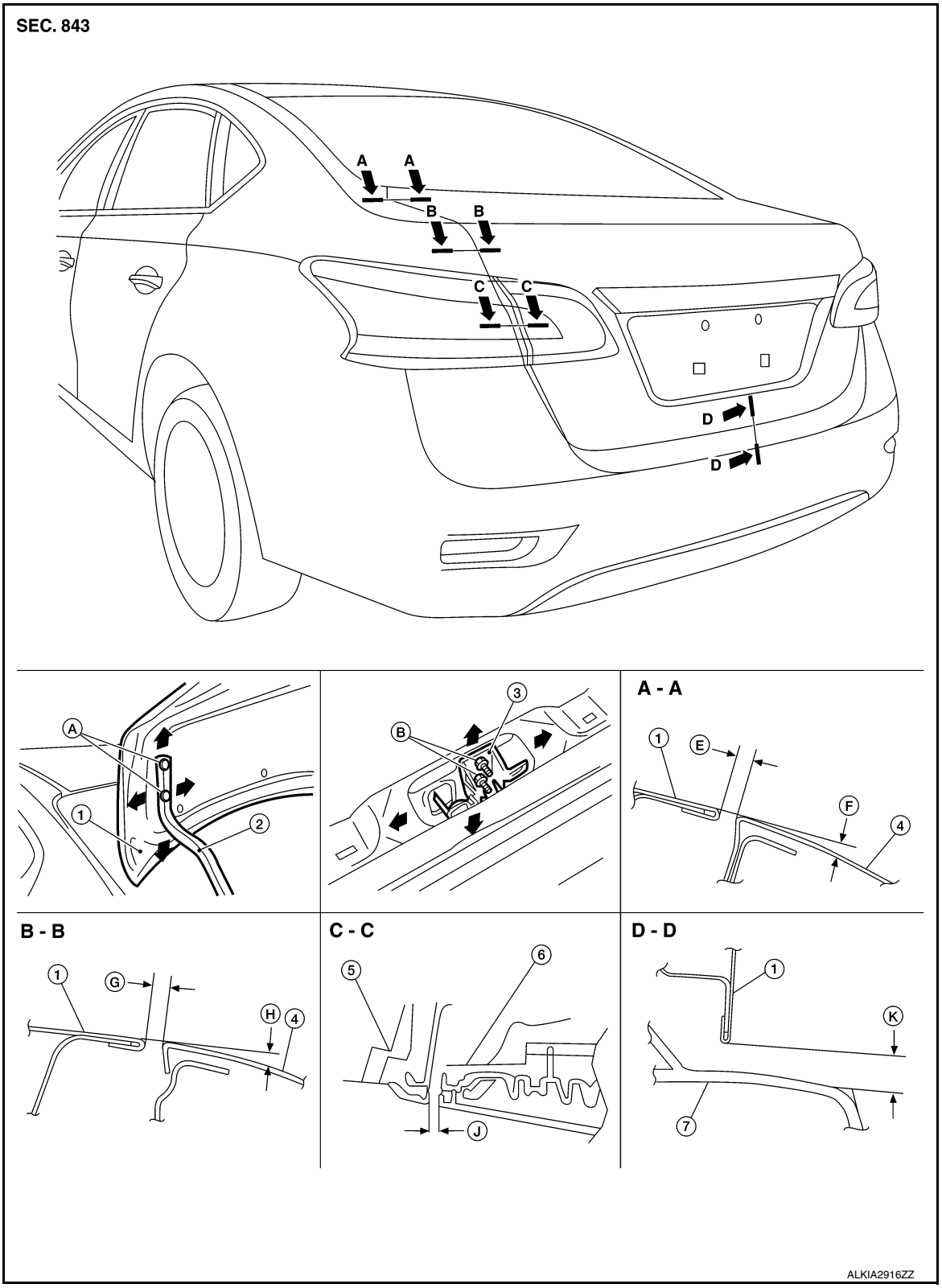
CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK LID ASSEMBLY : Adjustment".

TRUNK LID ASSEMBLY : Adjustment

INFOID:0000000012783367

SEC. 843



1. Trunk lid assembly
2. Trunk lid hinge
3. Trunk lid striker
4. Body side outer
5. Rear combination lamp
6. Reflector
7. Rear bumper fascia
A. Trunk lid bolts
B. Striker bolts

Check the clearance and the surface height between trunk lid and each part by visual inspection and tactile feel.
If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Unit: mm (in)

Section	Item	Measurement	Standard	Parallelism (MAX)	Right/Left Difference (MAX)
A – A	E	Clearance	3.5 ±1.0 (0.14 ±0.04)	2.5 (0.10)	2.0 (0.08)
	F	Surface height	0.0 ±1.0 (0.00 ±0.04)	1.5 (0.06)	1.5 (0.06)
B – B	G	Clearance	3.5 ±1.0 (0.14 ±0.04)	2.5 (0.10)	2.0 (0.08)
	H	Surface height	0.0 ±1.0 (0.00 ±0.04)	1.5 (0.06)	1.5 (0.06)
C – C	J	Clearance	4.5 ±1.9 (0.18 ±0.07)	2.0 (0.08)	3.0 (0.12)
D – D	K	Clearance	7.0 ±2.0 (0.28 ±0.08)	2.0 (0.08)	—

LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

1. Loosen the trunk lid to hinge bolts.
2. Move the trunk lid so that the clearance measurements are within specifications provided.
3. Tighten the trunk lid to hinge bolts.

Trunk Lid Hinge Removed From Vehicle

1. Remove the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
2. Loosen the hinge to parcel shelf bolts.
3. Move the trunk lid so that the clearance measurements are within specifications provided.
4. Tighten the hinge to parcel shelf bolts.
5. Install the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

1. Loosen the bumper rubber.
2. Loosen the striker bolts.
3. Lift up the trunk lid approx. 100 - 150 mm (3.94 - 5.91 in) height then close it lightly. Make sure it engages firmly with the trunk lid closed.
4. Tighten the trunk lid striker.

TRUNK LID HINGE

TRUNK LID HINGE : Removal and Installation

INFOID:0000000012783368

REMOVAL

1. Remove trunk lid assembly. Refer to DLK-323, "TRUNK LID ASSEMBLY : Removal and Installation".
2. Remove torsion bar. Refer to DLK-327, "TORSION BAR : Removal and Installation".
3. Remove rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
4. Remove trunk lid hinge bolts (body side) and remove.

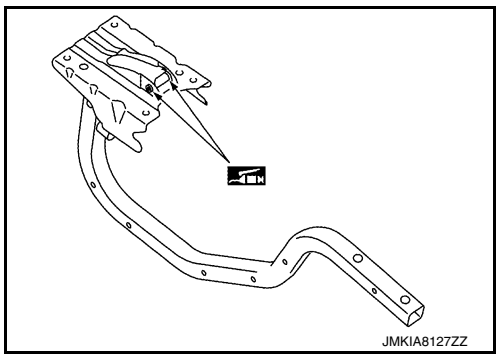
INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check trunk lid open/close, lock/unlock operation after installation.**
- **After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK LID ASSEMBLY : Adjustment".**

- **Check trunk lid hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**



TORSION BAR

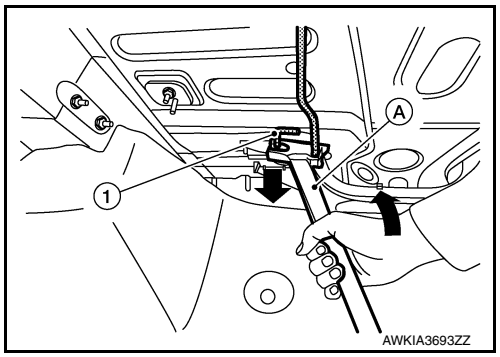
TORSION BAR : Removal and Installation

INFOID:0000000012783369

REMOVAL

1. Remove torsion bar clip.
2. Support the trunk lid assembly using a suitable tool.

   WARNING:
   Bodily injury may occur if hood assembly is not supported properly when removing the torsion bars.
3. Apply suitable tool (A) to torsion bar (1) and lift torsion bar to remove it.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
After installation check the trunk lid open/close, lock/unlock operation.

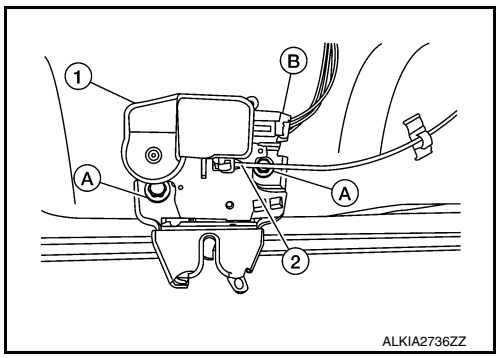
TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

INFOID:0000000012783370

REMOVAL

1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".
2. Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
3. Remove the trunk lid lock bolts (A) and remove.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK LID ASSEMBLY : Adjustment".

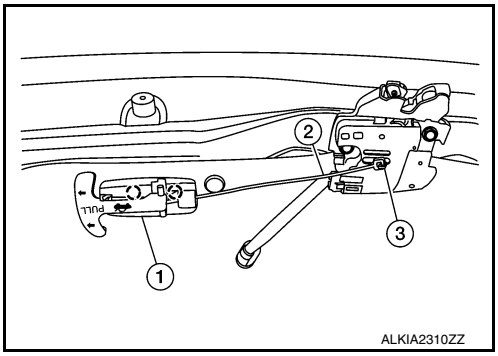
EMERGENCY LEVER

EMERGENCY LEVER : Removal and Installation

INFOID:0000000012783371

REMOVAL

1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".
2. Using a suitable tool release the pawls and remove emergency release handle (1) from trunk lid assembly.
   ( ): Pawl
3. Disconnect emergency release handle cable (2) from trunk lid lock assembly (3).



INSTALLATION

Installation is in the reverse order of removal.

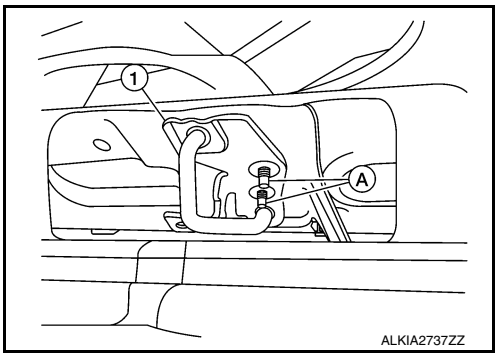
TRUNK LID STRIKER

TRUNK LID STRIKER : Removal and Installation

INFOID:0000000012783372

REMOVAL

1. Remove the trunk kicking plate. Refer to INT-42, "Exploded View".
2. Remove bolts (A) and striker (1).



INSTALLATION

Installation is in the reverse order of removal.

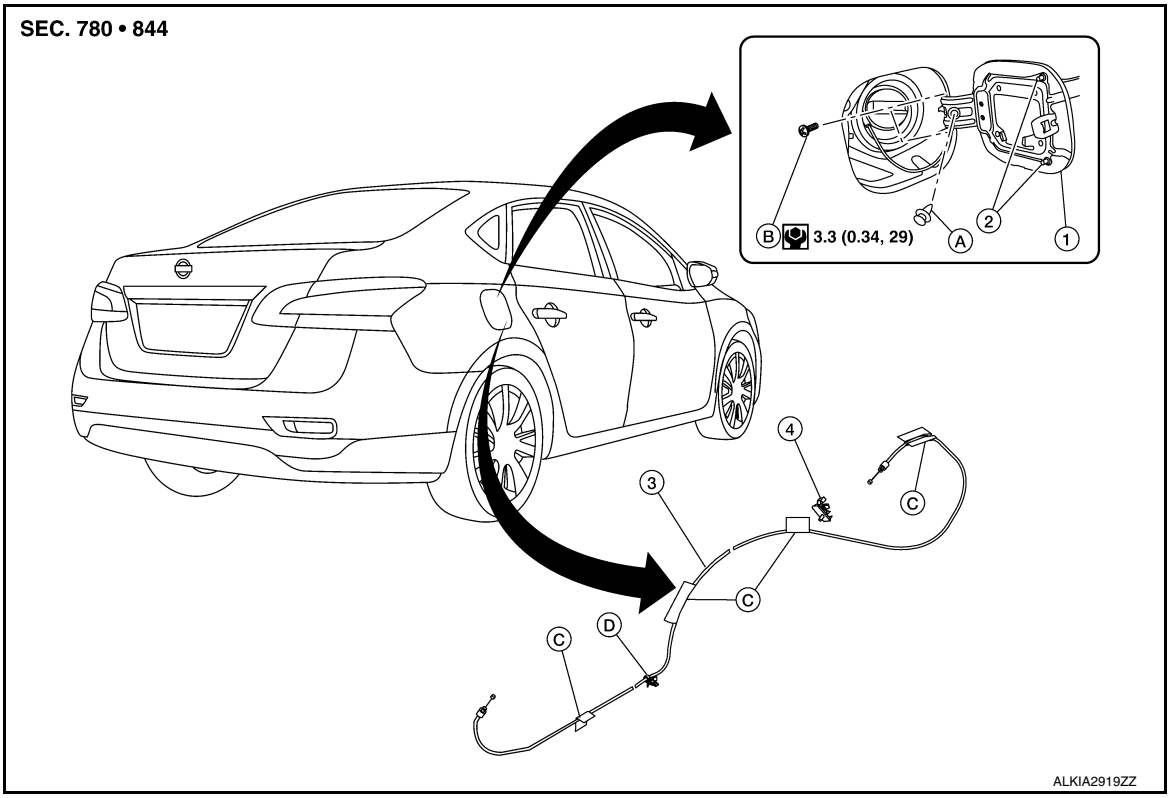
CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK LID ASSEMBLY : Adjustment".

FUEL FILLER LID OPENER

Exploded View

INFOID:0000000012783373



1. Fuel filler lid
2. Bumper rubber
3. Fuel filler lid opener cable
4. Fuel filler lid lock
A. Clip
B. Bolts
C. Cable protector

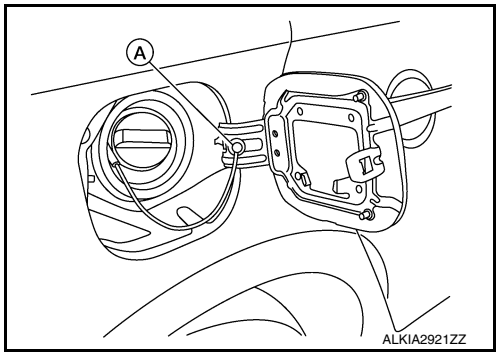
FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

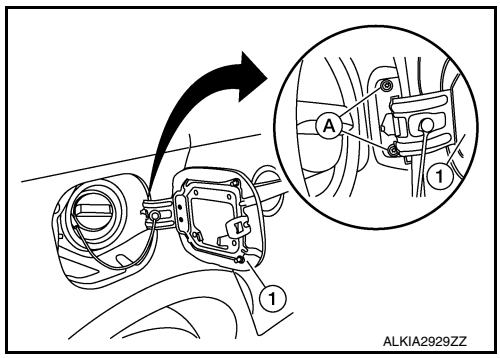
INFOID:0000000012783374

REMOVAL

1. Fully open fuel filler lid.
2. Remove fuel cap clip (A).



3. Remove fuel filler lid screws (A) and fuel filler lid (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid assembly open/close, lock/unlock operation.

NOTE:

- The following table shows the specifications for a correctly installed fuel filler lid.
- Fitting adjustment cannot be performed.

Unit: mm (in)

Portion	Measurement	Standard
Fuel filler lid – Body side outer	Clearance	5.1 ±1.0 (0.20 ±0.04)
Fuel filler lid – Body side outer	Surface height	0.0 ±1.0 (0.0 ±0.04)

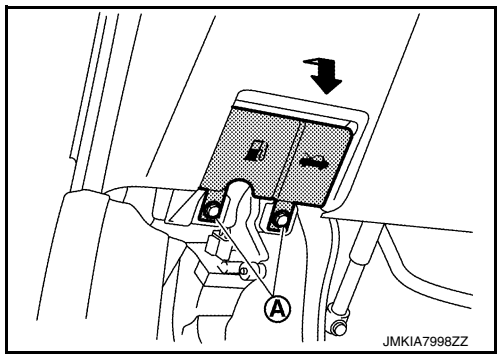
FUEL FILLER OPENER CABLE

FUEL FILLER OPENER CABLE : Removal and Installation

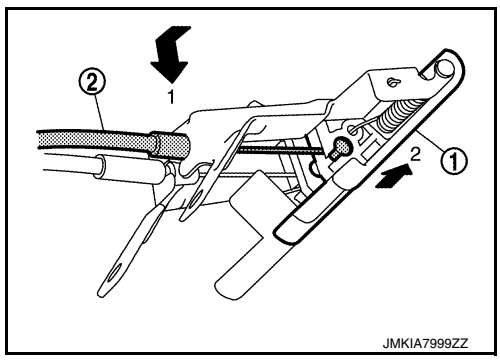
INFOID:0000000012783375

REMOVAL

1. Remove hood and fuel filler handle assembly bolts (A).

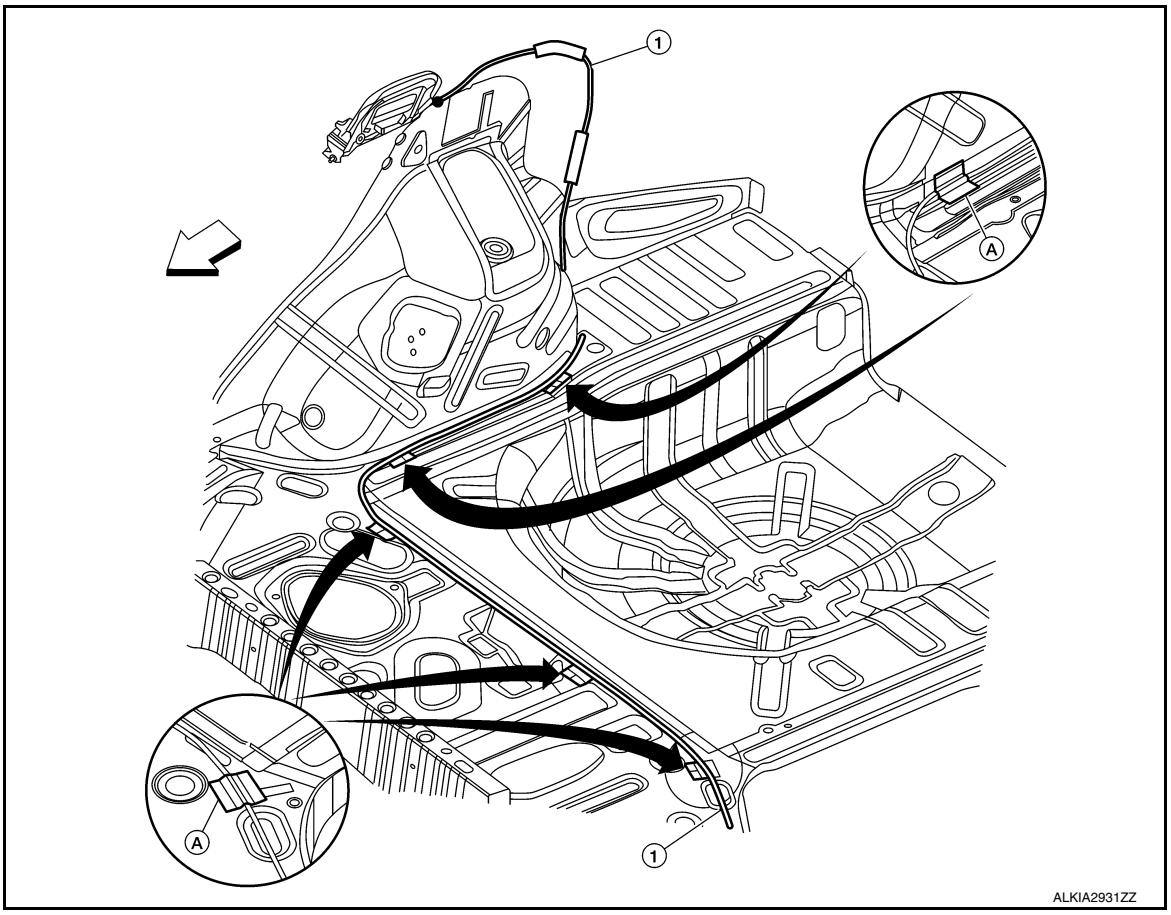


2. Release fuel filler lid opener cable (2) by pulling downward and then sliding cable end to the side to remove from hood and fuel filler handle assembly (1).



3. Remove dash side finisher (LH). Refer to INT-26, "DASH SIDE FINISHER : Removal and Installation".
4. Remove center pillar lower finisher (LH). Refer to INT-27, "CENTER PILLAR LOWER FINISHER : Removal and Installation".

5. Remove rear seat bolster (LH). Refer to SE-37, "Removal and Installation - Rear Seat Bolster".
6. Remove trunk side finisher (LH). Refer to INT-43, "TRUNK SIDE FINISHER : Removal and Installation".
7. Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to DLK-330, "FUEL FILLER OPENER CABLE : Removal and Installation".



⇦ Front

8. Remove each cable protector (A), then remove fuel filler lid opener cable (1).

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid assembly open/close, lock/unlock operation.

FUEL FILLER LID LOCK

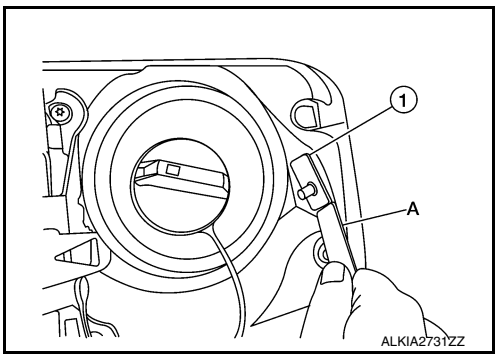
FUEL FILLER LID LOCK : Removal and Installation

INFOID:0000000012783376

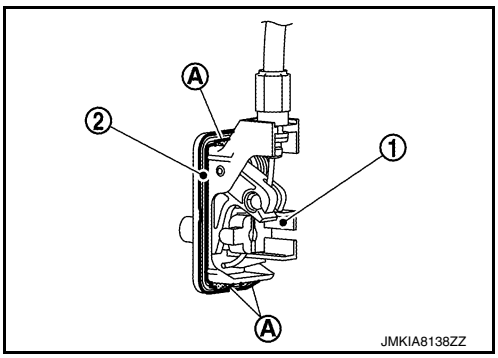
REMOVAL

1. Fully open fuel filler lid.

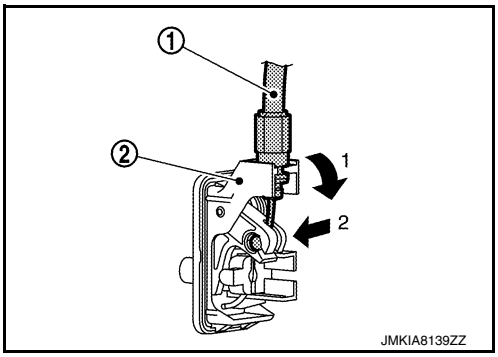
2. Insert a suitable tool (A) as shown into bottom of fuel filler lock assembly (1).



3. Release upper and lower pawls (A) using a suitable tool and remove fuel filler lid lock assembly (1).
CAUTION:
Be careful not to damage gasket (2) when removing.



4. Disconnect fuel filler lid opener cable (1) by pulling downward and then sliding cable end to the side to remove from fuel filler lid lock assembly (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
After installation, check fuel filler lid assembly open/close, lock/unlock operation.

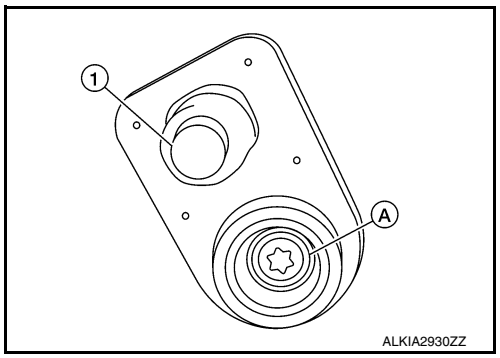
DOOR SWITCH

Removal and Installation

INFOID:0000000012783377

REMOVAL

1. Remove the door switch bolt (A).
2. Disconnect the harness connector from the door switch (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

INFOID:0000000012783378

REMOVAL

1. Remove glove box assembly. Refer to IP-22, "Removal and Installation".
2. Disconnect the harness connector from the remote keyless entry receiver.
3. Remove the screw and remote keyless entry receiver.

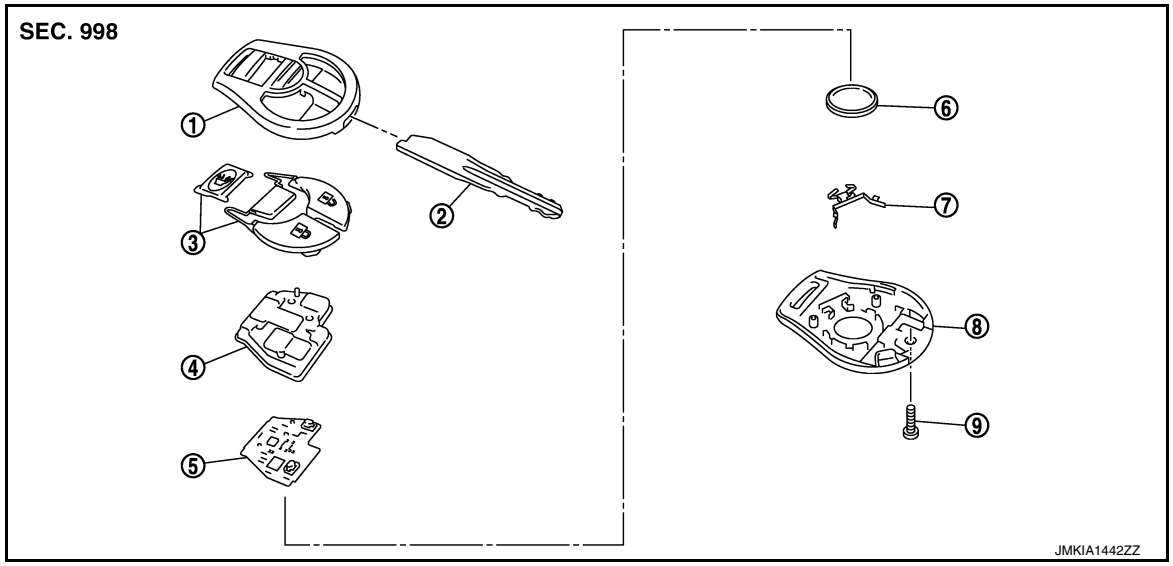
INSTALLATION

Installation is in the reverse order or removal.

KEYFOB BATTERY

Exploded View

INFOID:0000000012783379



1. Upper case
2. Key
3. Switch cover
4. Switch rubber
5. Board surface
6. Battery
7. Plate
8. Lower case
9. Screw

Removal and Installation

INFOID:0000000012783380

REMOVAL

1. Remove the keyfob screw.
2. Seperate the upper and lower case using a suitable tool.
   CAUTION:
   - **Do not touch the circuit board or battery terminal.**
   - **The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.**
3. Remove the circuit board from the upper case.
   CAUTION:
   Do not touch the printed circuits directly.
4. Remove the keyfob battery from the upper case.

   Battery replacement : Coin-type lithium battery (CR1620)

   CAUTION:
   - **When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.**
   - **After replacing the battery, Be sure to check that door locking operates normally using the key-fob.**

INSTALLATION

Installation is in the reverse order of removal.

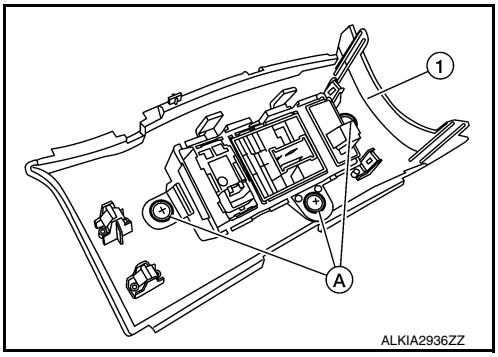
TRUNK LID OPENER SWITCH

Removal and Installation

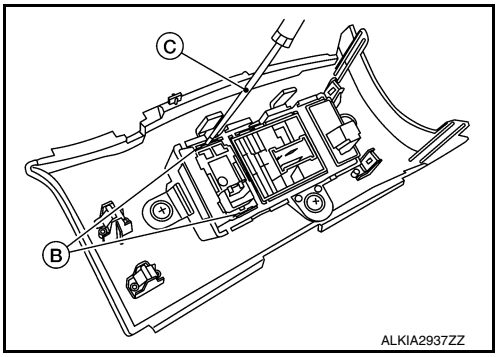
INFOID:0000000012783381

REMOVAL

1. Remove the instrument lower panel LH. Refer to IP-21, "Removal and Installation".
2. Remove to the instrument finisher D (1).
3. Remove the screws (A) that retain the instrument finisher D to the switch carrier.



4. Release upper tab and lower tab (B) using a suitable tool (C), then remove the trunk lid opener switch from the upper switch carrier.



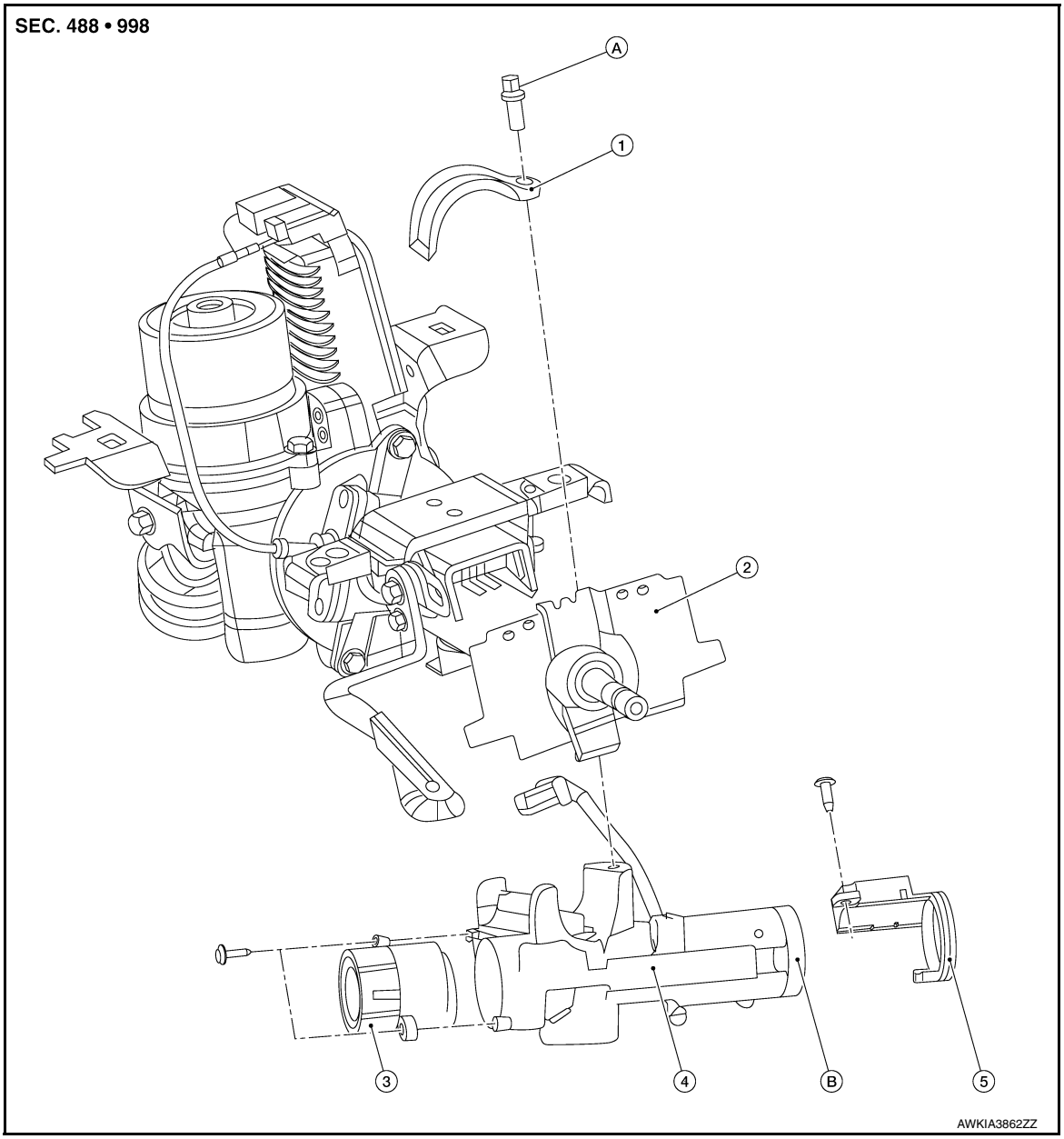
INSTALLATION

Installation is in the reverse order of removal.

STEERING LOCK UNIT

Exploded View

INFOID:0000000013445038



1. Steering lock bracket
2. Steering column
3. Ignition switch
4. Steering lock unit
5. NATS antenna amp.
A. Tamper resistant self-shear type screw
B. Key cylinder

NOTE:
Steering lock unit, ignition switch and key cylinder are serviced as an assembly. Ignition switch is also available separately.

Removal and Installation - Steering lock unit

INFOID:0000000013445039

REMOVAL

1. Disconnect battery cables. Refer to PG-74, "Removal and Installation (Battery)".
2. Remove steering column. Refer to ST-13, "Removal and Installation".
3. Using suitable tool, remove tamper resistant self-shear type screw.
   CAUTION:

Do not reuse screw. Replace with new tamper resistant self-shear type screw.

4. Remove steering lock bracket and steering lock unit.
5. Remove NATS antenna amp. (if necessary). Refer to SEC-197, "Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Do not reuse screw. Replace with new tamper resistant self-shear type screw.**
- **Tighten tamper resistant self-shear type screw until head breaks off.**
- For initialization and registration of mechanical keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Removal and Installation - Ignition switch

INFOID:0000000013445040

REMOVAL

1. Remove steering column cover. Refer to IP-16, "Removal and Installation".
2. Disconnect ignition switch harness connector.
3. Remove ignition switch screws and ignition switch.

INSTALLATION

Installation is in the reverse order of removal.