SECURITY CONTROL SYSTEM

 D

Е

CONTENTS

WITH INTELLIGENT KEY SYSTEM	COMMON ITEM19
PRECAUTION5	COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)19
PRECAUTIONS	INTELLIGENT KEY
PREPARATION6	THEFT ALM23
PREPARATION	THEFT ALM: CONSULT Function (BCM - THEFT ALM)23
SYSTEM DESCRIPTION7	DIAGNOSIS SYSTEM (IPDM E/R) 24 CONSULT Function (IPDM E/R)
COMPONENT PARTS	ECU DIAGNOSIS INFORMATION30 S
SYSTEM10	ECM, IPDM E/R, BCM30 List of ECU Reference30
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION	WIRING DIAGRAM31 ENGINE START FUNCTION31 Wiring Diagram31
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description10	NISSAN VEHICLE IMMOBILIZER SYSTEM- NATS44
NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS12 NISSAN VEHICLE IMMOBILIZER SYSTEM- NATS: System Diagram	Wiring Diagram
NATS : System Description13	BASIC INSPECTION66
VEHICLE SECURITY SYSTEM15 VEHICLE SECURITY SYSTEM : System Diagram	DIAGNOSIS AND REPAIR WORK FLOW66 Work Flow66
VEHICLE SECURITY SYSTEM : System Description	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT69
DIAGNOSIS SYSTEM (BCM)19	ECM69

ECM : Description		Diagnosis Procedure	
ECM : Work Procedure	69	Component Inspection	88
BCM	69	B2557 VEHICLE SPEED	89
BCM : Description	69	DTC Logic	89
BCM : Work Procedure	69	Diagnosis Procedure	
DTC/CIRCUIT DIAGNOSIS	71	B2602 SHIFT POSITION	90
DACAG LOCK MODE		DTC Logic	
P1610 LOCK MODE		Diagnosis Procedure	
Description		Component Inspection	92
DTC Logic		B2604 SHIFT POSITION	00
Diagnosis Procedure	/ 1	DTC Logic	
P1611 ID DISCORD, IMMU-ECM	72	Diagnosis Procedure	
DTC Logic		Component Inspection	
Diagnosis Procedure			
DAGAG GUAIN OF FOM IMMU		B2608 STARTER RELAY	96
P1612 CHAIN OF ECM-IMMU		DTC Logic	
DTC Logic		Diagnosis Procedure	96
Diagnosis Procedure	/3	B260F ENGINE STATUS	07
P161D IMMOBILIZER	74	Description	
DTC Logic		DTC Description	
Diagnosis Procedure		Diagnosis Procedure	
•		Diagnosis i roccadio	51
P161E IMMOBILIZER		B261E VEHICLE TYPE	99
DTC Logic		Description	
Diagnosis Procedure	75	DTC Logic	
P161F IMMOBILIZER	76	Diagnosis Procedure	99
DTC Logic		B26FC KEY REGISTRATION	404
Diagnosis Procedure		DTC Logic	
		Diagnosis Procedure	
B2190 NATS ANTENNA AMP		Diagnosis Frocedure	. 101
Description		B27D1 START CUT RELAY OFF	102
DTC Logic		DTC Logic	. 102
Diagnosis Procedure	77	Diagnosis Procedure	. 102
B2191 DIFFERENCE OF KEY	80	Component Inspection	. 104
DTC Logic		B27D2 START CUT RELAY ON	405
Diagnosis Procedure			
•		DTC Logic Diagnosis Procedure	
B2192 ID DISCORD, IMMU-ECM		Component Inspection	
DTC Logic		Component inspection	. 107
Diagnosis Procedure	81	HEADLAMP FUNCTION	108
B2193 CHAIN OF ECM-IMMU	92	Component Function Check	. 108
DTC Logic		Diagnosis Procedure	. 108
Diagnosis Procedure		HORN FUNCTION	400
Diagnosis i roccadio	02		
B2196 DONGLE UNIT	83	Component Function Check	
Description	83	Component Inspection	. 109
DTC Logic		SECURITY INDICATOR LAMP	110
Diagnosis Procedure	83	Component Function Check	
B2198 NATS ANTENNA AMP	0.5	Diagnosis Procedure	
DTC Logic		OVMETOM DIA ONICCIO	
Diagnosis Procedure		SYMPTOM DIAGNOSIS	.112
Diagnosis i roccaule	00	ENGINE DOES NOT START WHEN INTELLI	_
B2556 PUSH-BUTTON IGNITION SWITCH	87	GENT KEY IS INSIDE OF VEHICLE	
DTC Logic	87	Description	. 112 . 112
		LANCOURT HAT IN THE TOTAL CONTROL OF THE TOTAL CONT	/

Diagnosis Procedure112	Component Parts Location124
	NATS Antenna Amp125 A
SECURITY INDICATOR LAMP DOES NOT	0./07714
TURN ON OR BLINK113	SYSTEM126
Description113	NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS.126
Diagnosis Procedure113	NISSAN VEHICLE IMMOBILIZER SYSTEM-
VEHICLE SECURITY SYSTEM CANNOT BE	NATS : System Diagram126
SET114	NISSANI VEHICI E IMMORII IZED SYSTEM
JE1114	NATS : System Description126
INTELLIGENT KEY114	·
INTELLIGENT KEY: Description114	VEHICLE SECURITY SYSTEM127
INTELLIGENT KEY: Diagnosis Procedure 114	VEHICLE SECURITY SYSTEM : System Dia-
DOOD DECUEST OWNTON	gram127
DOOR REQUEST SWITCH	VEHICLE SECURITY SYSTEM : System Descrip-
DOOR REQUEST SWITCH: Description 114	tion127 E
DOOR REQUEST SWITCH : Diagnosis Proce-	DIAGNOSIS SYSTEM (BCM)130
dure114	DIAGROOM OTOTEM (DOM)
DOOR KEY CYLINDER114	COMMON ITEM 130 F
DOOR KEY CYLINDER: Description115	COMMON ITEM: CONSULT Function (BCM -
DOOR KEY CYLINDER : Diagnosis Procedure 115	COMMON ITEM)130
VEHICLE OF OUR ITY ALARM BOTO NOT	IMMU130 G
VEHICLE SECURITY ALARM DOES NOT	IMMU : CONSULT Function (BCM - IMMU)130
ACTIVATE116	INNING: CONSOLT Function (BOW - INNING) 130
Description	THEFT ALM131
Diagnosis Procedure116	THEFT ALM: CONSULT Function (BCM - THEFT
PANIC ALARM FUNCTION DOES NOT OP-	ALM)131
ERATE117	DIA ONOGIO OVOTEM (IDDM E/D)
Description117	DIAGNOSIS SYSTEM (IPDM E/R)
Diagnosis Procedure117	CONSULT Function (IPDM E/R)132
Diagnosis i roccadio	ECU DIAGNOSIS INFORMATION 138
REMOVAL AND INSTALLATION118	
	ECM, IPDM E/R, BCM138
NATS ANTENNA AMP118	List of ECU Reference138
Exploded View118	SE(
Removal and Installation118	WIRING DIAGRAM139
PUSH-BUTTON IGNITION SWITCH120	NVIS
Removal and Installation120	Wiring Diagram139
TOTAL AND MICHAELON	Willing Diagram139
DONGLE UNIT121	VEHICLE SECURITY SYSTEM149
Removal and Installation121	Wiring Diagram149
WITHOUT INTELLIGENT KEY SYSTEM	
	BASIC INSPECTION162
PRECAUTION 122	DIAGNOSIS AND REPAIR WORKFLOW 162
PRECAUTIONS122	Work Flow162
Precaution for Supplemental Restraint System	WOIRTIOW102
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	INSPECTION AND ADJUSTMENT165
SIONER"122	0
Precaution for Work	ADDITIONAL SERVICE WHEN REPLACING
1 Tedation for Work122	CONTROL UNIT165
PREPARATION123	ADDITIONAL SERVICE WHEN REPLACING
	CONTROL UNIT : Special Repair Requirement165
PREPARATION123	ECM RE-COMMUNICATING FUNCTION165
Special Service Tool123	ECM RE-COMMUNICATING FUNCTION : De-
SYSTEM DESCRIPTION124	scription165
3131 LIVI DESCRIF HON124	ECM RE-COMMUNICATING FUNCTION : Spe-
COMPONENT PARTS124	cial Repair Requirement165

KEYFOB ID REGISTRATION 166	-	181
Description166	B2608 STARTER RELAY	184
DTC/CIRCUIT DIAGNOSIS167	DTC Logic	
DAMA LOOK MODE	Diagnosis Procedure	184
P1610 LOCK MODE	B260F ENGINE STATUS	105
Description		
DTC Logic167 Diagnosis Procedure167	'	
Diagnosis Procedure107	Diagnosis Procedure	
P1611 ID DISCORD, IMMU-ECM 168		
DTC Logic168		
Diagnosis Procedure168	Description	
P1612 CHAIN OF ECM-IMMU 169	DTC Logic Diagnosis Procedure	
DTC Logic	•	
Diagnosis Procedure169	B27D1 START CUT RELAY OFF	189
•	DTC Logic	
P161D IMMOBILIZER 170	g	
DTC Logic	Component Inspection	191
Diagnosis Procedure170	B27D2 START CUT RELAY ON	192
P161E IMMOBILIZER 171	DTC Logic	
DTC Logic171	Diagnosis Procedure	
Diagnosis Procedure171	Component Inspection	194
P161F IMMOBILIZER 172	HEADLAMP FUNCTION	405
DTC Logic	Component Function Check	
Diagnosis Procedure172	Diagnosis Procedure	
B2190 NATS ANTENNA AMP173	HORN FUNCTION	196
Description173	Component Function Check	
DTC Logic173	Component Inspection	
Diagnosis Procedure173		
B2191 DIFFERENCE OF KEY 176	SECURITY INDICATOR LAMP	
DTC Logic	Component Function Check Diagnosis Procedure	
Diagnosis Procedure176	Diagnosis i rocedure	191
_	SYMPTOM DIAGNOSIS	199
B2192 ID DISCORD, IMMU-ECM	NICCAN VEHICLE IMMODILIZED CVCTE	= N //
DTC Logic177 Diagnosis Procedure177	NISSAN VEHICLE IMMOBILIZER SYSTE NATS SYMPTOMS	
Diagnosis Procedure177	Symptom Table	
B2193 CHAIN OF ECM-IMMU 178	• •	
DTC Logic178	VEHICLE SECURITY SYSTEM	200
Diagnosis Procedure178	Symptom Table	200
B2196 DONGLE UNIT	REMOVAL AND INSTALLATION	201
Description	NATS ANTENNA AMP	201
DTC Logic179 Diagnosis Procedure179	Removal and Installation	
B2198 NATS ANTENNA AMP. 181	DONGLE UNIT	
DTC Logic181	Removal and Installation	202

PRECAUTIONS

< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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 Airbag Diagnosis Sensor Unit or other Airbag 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 and wait at least three minutes before performing any service.

Precaution for Work

- 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.

SEC

J

INFOID:0000000012423929

Α

В

D

Е

IVI

N

0

PREPARATION

< PREPARATION >

[WITH INTELLIGENT KEY SYSTEM]

PREPARATION

PREPARATION

Special Service Tool

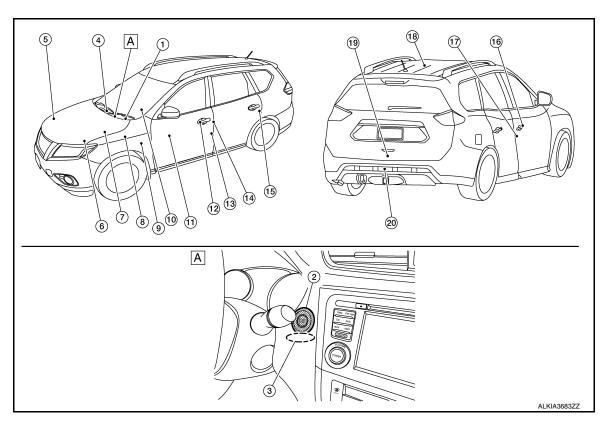
INFOID:0000000012423930

The actual shape of the tools may dif Tool number (TechMate No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location



A. View right of steering column.

Revision: September 2015

No.	Component	Function
1.	Combination meter	Combination meter transmits the vehicle speed signal to BCM via CAN communication. BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed. Security indicator lamp is located on combination meter. Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. Refer to MWI-6. "METER SYSTEM: Component Parts Location".
2.	Push-button ignition switch	Push-button ignition switch has push switch inside which detects that push-button ignition switch is pressed, and then transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of push-button ignition switch. BCM maintains the ignition switch position status while push-button ignition switch is not operated.
3.	NATS antenna amp.	Refer to SEC-9, "NATS Antenna Amp.".
4.	Inside key antenna (instrument center)	Inside key antenna (instrument center) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to DLK-24, "Inside Key Antenna (Instrument Center)".
5.	Horn	Horn is operated when the panic button on the Intelligent Key is pressed or the alarm is activated.
6.	Transmission range switch	Refer to TM-14, "CVT CONTROL SYSTEM : Transmission Range Switch".

2016 Rogue NAM

SEC-7

В

Α

С

INFOID:0000000012423931

D

Е

F

G

Н

ı

. 1

SEC

L

M

Ν

0

COMPONENT PARTS

[WITH INTELLIGENT KEY SYSTEM]

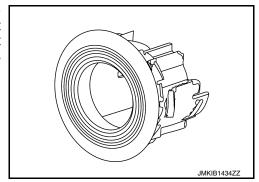
No.	Component	Function
7.	IPDM E/R	Refer to PCS-6, "Component Parts Location".
8.	Stop lamp switch	Refer to BRC-12, "Stop Lamp Switch".
9.	ВСМ	BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM. BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna, and push-button ignition switch is pressed. If the ID verification result is OK, ignition switch operation is available. Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. Refer to BCS-7, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
10.	CVT shift selector	Refer to TM-20, "SHIFT LOCK SYSTEM: Component Parts Location".
11.	Main power window and door lock/unlock switch (Front power window and door lock/ unlock switch RH similar)	Door lock and unlock switch is integrated into the main power window and door lock/unlock switch. Door lock and unlock switch transmits door lock/unlock operation signal to BCM. Refer to PWC-7, "Main Power Window And Door Lock/Unlock Switch".
12.	Outside key antenna LH	Outside key antenna (LH) detects whether Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM. Refer to <u>DLK-24</u> , "Outside Key Antenna (LH)".
13.	Front door lock assembly LH	Door key cylinder switch is integrated into front door lock assembly (driver side). Door key cylinder switch detects door LOCK/UNLOCK operation using mechanical key, and then transmits the operation signal to BCM. Refer to DLK-26, "Front Door Lock Assembly (LH)".
14.	Front door switch LH	Door switch detects door open/close condition and then transmits ON/ OFF signal to BCM.
15.	Rear door switch LH (rear door switch RH similar)	Door switch detects door open/close condition and then transmits ON/ OFF signal to BCM.
16.	Outside key antenna RH	Outside key antenna (RH) detects whether Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM. Refer to DLK-25, "Outside Key Antenna (RH)".
17.	Front door switch RH	Door switch detects door open/close condition and then transmits ON/ OFF signal to BCM.
18.	Inside key antenna (console)	Inside key antenna (console) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to DLK-24, "Inside Key Antenna (Console)".
19.	Back door lock assembly	Back door lock actuator locks/unlocks the back door latch assembly.
20.	Outside key antenna (rear bumper)	Outside key antenna (Rear bumper) detects whether Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM. Refer to DLK-24, "Outside Key Antenna (Rear Bumper)".

COMPONENT PARTS

[WITH INTELLIGENT KEY SYSTEM]

NATS Antenna Amp.

The ID verification is performed between BCM and transponder integrated into Intelligent Key via NATS antenna amp. when Intelligent Key backside is contacted to push-button ignition switch in case that Intelligent Key battery is discharged. If the ID verification result is OK, the operation of ignition switch is available.



Α

INFOID:0000000012423932

В

D

Е

F

G

Н

J

SEC

M

Ν

0

SYSTEM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Diagram

INFOID:0000000012423933 Kev ID **CAN** communication IPDM E/R Intelligent Key Signals Inside kev Starter Motor antenna signal Each inside key antenna Push-buttor ECM ignition switch signal Push-button ignition BCM TCM Door switch signal Each door switch ABS actuator and electric Stop lamp unit (control unit) switch signal Stop lamp switch Combination meter Park position switch signal CVT shift selector (park position switch) Transmission range switch Transmission range signal switch

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description

INFOID:0000000012423934

ALKIA3671GB

SYSTEM DESCRIPTION

• The engine start function of Intelligent Key system makes it possible to start and stop the engine without using the key, based on the electronic ID verification. The electronic ID verification is performed between BCM and Intelligent Key when the push-button ignition switch is pressed while the Intelligent Key is within the detection area of inside key antenna.

NOTE:

The driver should carry the Intelligent Key at all times.

- Intelligent Key has 2 IDs [Intelligent Key ID and NVIS (NATS) ID]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When Intelligent Key battery is discharged, engine can be started by operating push-button ignition switch after contacting Intelligent Key backside to push-button ignition switch. At that time, the NVIS (NATS) ID verification is performed.
- If the ID is successfully verified, when push-button ignition switch is pressed, the engine can be started.
- Up to 4 Intelligent Keys can be registered (Including the standard Intelligent Key) upon request from the customer.

NOTE:

Refer to <u>SEC-13</u>, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS: System Description" for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

The transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. In that case, the NVIS (NATS) ID verification can be performed when Intelligent Key backside is contacted to push-button ignition switch. If verification result is OK, engine can be started.

OPERATION WHEN INTELLIGENT KEY IS CARRIED

- 1. When the push-button ignition switch is pressed, the BCM activates the inside key antenna and transmits the request signal to the Intelligent Key.
- 2. The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM.
- 3. BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- 4. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
- IPDM E/R turns the ignition relay ON and starts the ignition power supply.
- 6. BCM detects that the selector lever position and brake pedal operating condition.
- 7. BCM transmits the starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition* is satisfied.
- 8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- 9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor. **CAUTION:**

If a malfunction is detected in the Intelligent Key system, the "KEY" warning lamp in the combination meter illuminates. At that time, the engine cannot be started.

10. When BCM receives feedback signal from ECM indicating that the engine is started, the BCM transmits a stop signal to IPDM E/R and stops cranking by turning OFF the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)

When the Intelligent Key is carried outside of the vehicle (inside key antenna detection area) while the power supply is in the ACC or ON position, even if the engine start condition* is satisfied, the engine cannot be started.

*: For the engine start condition, refer to the table below "POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION".

OPERATION RANGE

Engine can be started when Intelligent Key is inside the vehicle. However, sometimes engine may not start when Intelligent Key is on instrument panel or in glove box.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH

When Intelligent Key battery is discharged, the NVIS (NATS) ID verification between transponder in Intelligent Key and BCM is performed when Intelligent Key backside is contacted to push-button ignition switch. If the verification result is OK, engine can be started.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERA-TION

The power supply position changing operation can be performed with the following operations.

NOTE:

- When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside
 is contacted to push-button ignition switch, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions:
- Brake pedal operating condition
- Selector lever position
- Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

SEC

Α

В

D

Е

IVI

N

[WITH INTELLIGENT KEY SYSTEM]

Power supply position	Engine start/stop condition		Push-button ignition switch
	Selector lever	Brake pedal operation condition	operation frequency
LOCK → ACC	_	Not depressed	1
$LOCK \to ACC \to ON$	_	Not depressed	2
$LOCK \to ACC \to ON \to OFF$	_	Not depressed	3
$\begin{array}{c} LOCK \to START \\ ACC \to START \\ ON \to START \end{array}$	P or N position	Depressed	1
Engine is running → OFF	_	_	1

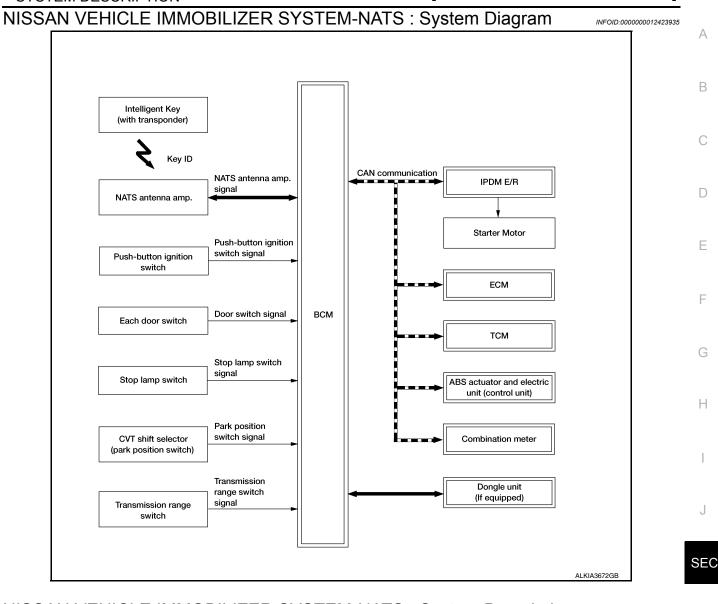
Vehicle speed: 4 km/h (2.5 MPH) or more

	Engine start/stop condition		Push-button ignition switch
Power supply position	Selector lever	Brake pedal operation condition	operation frequency
Engine is running → ACC	_	_	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	1

Emergency stop operation

- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS



NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS: System Description

INFOID:0000000012423936

Ν

SYSTEM DESCRIPTION

- The NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] prevents the engine from being started by Intelligent Key whose ID is not registered to the vehicle (BCM). It has higher protection against auto theft involving the duplication of mechanical keys.
- The ignition key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is
 discharged, the NVIS (NATS) ID verification is performed between the transponder integrated with Intelligent
 Key and BCM via NATS antenna amp. when the Intelligent Key backside is contacted to push-button ignition
 switch. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator lamp and apply the anti-theft system equipment sticker that warns that the NVIS (NATS) is on-board the model.
- Security indicator lamp always blinks when the power supply position is any position other than ON.
- Up to 4 Intelligent Keys can be registered (including the standard ignition key) upon request from the owner.
- Specified registration is required when replacing ECM, BCM or Intelligent Key.
- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". The engine can not be started because of other than NVIS (NATS) malfunction, so start the trouble diagnosis according to SEC-66, "Work Flow".
- If ECM other than genuine part is installed, the engine cannot be started. For ECM replacement procedure, refer to EC-503, "Removal and Installation".

PRECAUTIONS FOR KEY REGISTRATION

- The ID registration is a procedure that erases the current NVIS (NATS) ID once, and then reregisters a new ID. Therefore before starting the registration operation, collect all registered Intelligent Keys from the customer.
- When registering the Intelligent Key, perform only one procedure to simultaneously register both ID [NVIS (NATS) ID and Intelligent Key ID].

SECURITY INDICATOR LAMP

- Warns that the vehicle is equipped with NVIS (NATS).
- Security indicator lamp always blinks when the power supply position is any position other than ON.
 NOTE:

Because security indicator lamp is highly efficient, the battery is barely affected.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH

- 1. When brake pedal is depressed while selector lever is in the P (Park) position, BCM activates NATS antenna amp. that is located behind push-button ignition switch.
- When Intelligent Key (transponder built-in) backside is contacted to push-button ignition switch, BCM starts NVIS (NATS) ID verification between BCM and Intelligent Key (transponder built-in) via NATS antenna amp.
- When the NVIS (NATS) ID verification result is OK, buzzer in combination meter sounds and BCM transmits the result to ECM.
- BCM turns ACC relay ON and transmits ignition power supply ON signal to IPDM E/R.
- 5. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
- 6. BCM detects that the selector lever position is P (Park) or N (Neutral).
- 7. BCM transmits starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition* is satisfied.
- 8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- 9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor.
- 10. When BCM receives feedback signal from ECM indicating that the engine is started, BCM transmits a stop signal to IPDM E/R and stops cranking by turning off the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)
- *: For the engine start condition, refer to the table "POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION" below.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The power supply position changing operation can be performed with the following operations.

NOTE:

- When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions:
- Brake pedal operating condition
- Selector lever position
- Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

	Engine start/stop condition		Push-button ignition switch
Power supply position	Selector lever	Brake pedal operation condition	operation frequency
LOCK → ACC	_	Not depressed	1
$LOCK \rightarrow ACC \rightarrow ON$	_	Not depressed	2
$LOCK \to ACC \to ON \to OFF$	_	Not depressed	3

[WITH INTELLIGENT KEY SYSTEM]

Α

В

D

Е

Н

SEC

Ν

Р

	Engine start/stop condition		Push-button ignition switch
Power supply position	Selector lever	Brake pedal operation condition	operation frequency
LOCK → START ACC → START ON → START	P (Park) or N (Neutral) position	Depressed	1
Engine is running → OFF	_	_	1

Vehicle speed: 4 km/h (2.5 MPH) or more

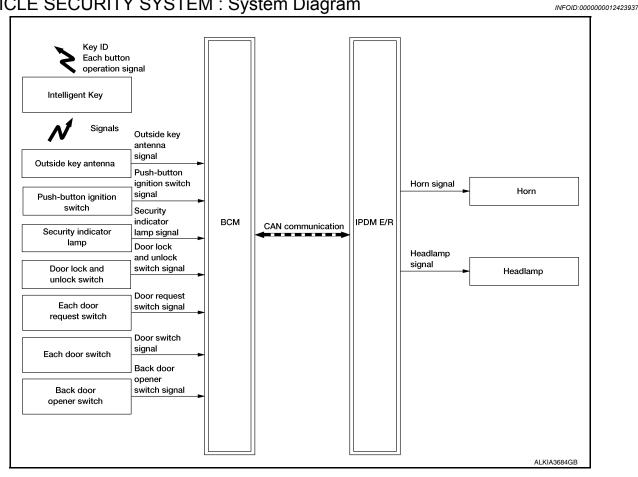
	Engine start/stop condition		Push-button ignition switch	
Power supply position	Selector lever	Brake pedal operation condition	operation frequency	
Engine is running → ACC	_	_	Emergency stop operation	
Engine stall return operation while driving	N (Neutral) position	Not depressed	1	

Emergency stop operation

- · Press and hold the push-button ignition switch for 2 seconds or more.
- · Press the push-button ignition switch 3 times or more within 1.5 seconds.

VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM: System Diagram



VEHICLE SECURITY SYSTEM: System Description

INFOID:0000000012423938

 The vehicle security system has two alarm functions (theft warning alarm and panic alarm) and reduces the possibility of a theft or mischief by activating horns and headlamps intermittently.

• The panic alarm does not start when the theft warning alarm is activating and the panic alarm stops when the theft warning alarm is activated.

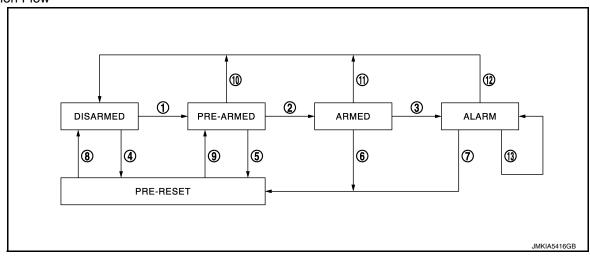
The priority of the functions are as per the following:

Priority	Function
1	Theft warning alarm
2	Panic alarm

THEFT WARNING ALARM

- The theft warning alarm function activates horns and headlamps intermittently when BCM detects that any door is opened by unauthorized means while the system is in the ARMED state.
- Security indicator lamp on combination meter always blinks when power supply position is any position other than ON. Security indicator lamp blinking warns that the vehicle is equipped with a vehicle security system.

Operation Flow



No.	System state		Switching condition	
1	DISARMED to PRE-ARMED	When all conditions of A and one condition of B is satisfied.	A • Power supply position: OFF/LOCK • All doors: Closed	B All doors are locked by: Door key cylinder LOCK switch LOCK button of Intelligent Key Door request switch
2	PRE-ARMED to ARMED	When all of the following conditions are satisfied for 30 seconds.	Power supply position: OFF/LOCK All doors: Locked	
3	ARMED to ALARM	When one condition of A and one condition of B are satisfied.	A Intelligent Key: Not used	Any door: Open
4	DISARMED to PRE-RESET	When all conditions of A and one condition of B is satisfied.	A • Power supply position: OFF/LOCK • All doors: Closed	B All doors are locked by: Door key cylinder LOCK switch LOCK button of Intelligent Key Door request switch
5	PRE-ARMED to PRE-RESET	No conditions.		
6	ARMED to PRE-RESET	No conditions.		
7	ALARM to PRE-RESET			

[WITH INTELLIGENT KEY SYSTEM]

No.	System state		Switching condition
8	PRE-RESET to DISARMED	When one of the following conditions is satisfied.	Power supply position: ACC/ON/CRANKING/RUN Door key cylinder UNLOCK switch: ON UNLOCK button of Intelligent Key: ON Door request switch: ON Back door opener switch: ON UNLOCK switch of door lock and unlock switch: ON Any door: Open
9	PRE-RESET to PRE-ARMED	When all of the following conditions are satisfied.	Power supply position: OFF/LOCK All doors: Closed
10	PRE-ARMED to DISARMED	When one of the following conditions is satisfied.	Power supply position: ACC/ON/CRANKING/RUN Door key cylinder UNLOCK switch: ON UNLOCK button of Intelligent Key: ON AUTO BACK DOOR button of Intelligent Key: ON Door request switch: ON Back door opener switch: ON Any door: Open
11	ARMED to DISARMED	When one of the following conditions is satisfied.	Power supply position: ACC/ON/CRANKING/RUN Door key cylinder UNLOCK switch: ON
12	ALARM to DISARMED		 UNLOCK button of Intelligent Key: ON AUTO BACK DOOR button of Intelligent Key: ON Door request switch: ON Back door opener switch: ON
13	RE-ALARM	When one of the following conditions is satisfied after the ALARM operation is finished.	Any door: Open

NOTE:

- · BCM ignores the door key cylinder UNLOCK switch signal input for 1 second after the door key cylinder LOCK switch signal input.
- To lock/unlock all doors by operating remote controller button of Intelligent Key or door request switch, Intelligent Key must be within
 the detection area of outside key antenna. For details, refer to SEC-10, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION:
 System Description".
- To open back door by operating back door opener switch, Intelligent Key must be within the detection area of outside key antenna. For details, refer to SEC-10, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description".

DISARMED Phase

The vehicle security system is not set in the DISARMED phase. The vehicle security system stays in this phase while any door is open because it is assumed that the owner is inside or nearby the vehicle. Security indicator lamp blinks every 2.4 seconds.

When the vehicle security system is reset, each phase switches to the DISARMED phase directly.

PRE-ARMED Phase

The PRE-ARMED phase is the transient state between the DISARMED phase and the ARMED phase. This phase is maintained for 30 seconds so that the owner can reset the setting due to a mis-operation. This phase switches to the ARMED phase when vehicle conditions are not changed for 30 seconds. Security indicator lamp illuminates while being in this phase.

To reset the PRE-ARMED phase, refer to the switching condition of No. 10 in the table above.

ARMED Phase

The vehicle security system is set and BCM monitors all necessary inputs. If any door is opened without using Intelligent Key, vehicle security system switches to the ALARM phase. Security indicator lamp blinks every 2.4 seconds.

To reset the ARMED phase, refer to the switching condition of No. 11 in the table above.

ALARM Phase

BCM transmits "Theft Warning Horn Request" signal and "High Beam Request" signal intermittently to IPDM E/R via CAN communication. In this phase, horns and headlamps are activated intermittently for approximately 50 seconds to warn that the vehicle is accessed by unauthorized means. ON/OFF timing of horns and headlamps are synchronized. After 50 seconds, the vehicle security system returns to the ARMED phase. At this time, if BCM still detects unauthorized access to the vehicle, the system is switched to the ALARM phase again. This RE-ALARM operation is carried out a maximum of 2 times.

To cancel the ALARM operation, refer to the switching condition of No. 12 in the table above.

SEC

Α

В

Е

Н

L

M

N

IA

0

[WITH INTELLIGENT KEY SYSTEM]

NOTE:

If a battery terminal is disconnected during the ALARM phase, theft warning alarm stops. But when the battery terminal is reconnected, theft warning alarm is activated again.

PANIC ALARM

- The panic alarm function activates horns and headlamps intermittently when the owner presses the PANIC ALARM button of Intelligent Key outside the vehicle while the power supply position is OFF or LOCK.
- When BCM receives panic alarm signal from Intelligent Key, BCM transmits "Theft Warning Horn Request" signal and "High Beam Request" signal intermittently to IPDM E/R via CAN communication. To prevent the activation due to mis-operation of Intelligent Key by owner, the panic alarm function is activated when BCM receives the signal for 0.4 0.6 seconds.
- Panic alarm operation is maintained for 25 seconds.
- Panic alarm operation is cancelled when BCM receives one of the following signals:
- LOCK button of Intelligent Key: ON
- UNLOCK button of Intelligent Key: ON
- PANIC ALARM button of Intelligent Key: Long pressed
- Any door request switch: ON

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012567349

Α

В

C

D

Е

F

Н

J

SEC

L

Ν

0

Р

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.

				Direct D	Diagnosti	c Mode		
System	Sub System	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	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
Air conditioner	AIR CONDITIONER				×			

INTELLIGENT KEY

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)

NFOID:0000000012567350

SELF DIAGNOSTIC RESULT Refer to <u>BCS-48</u>, "<u>DTC Index</u>".

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 back door request switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake pedal position switch.
BRAKE SW 2 [On/Off]		Indicates condition of stop lamp switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of park position switch.
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.
NEUTRAL SW -IPDM [On/Off]		Indicates condition of transmission range switch received from IPDM E/R on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
STARTER RELAY -IPDM [On/Off]		Indicates condition of starter relay received 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.
ST/INH RELAY - IPDM [On/Off]		Indicates condition of starter relay and starter control relay status signal from IPDM E/R.
REVERSE SIGNAL -IPDM [On/Off]		Indicates condition of transmission range switch received from IPDM E/R on CAN communication line.
CRANKING PERMIT -ECM [PERMIT]		Indicates condition of engine start possibility from ECM on CAN communication line.
IS STATUS -ECM [On/Off]		Indicates IS status from ECM on CAN communication line.
STARTER CUT RELAY -ECM [On/Off]		Indicates condition of starter cut relay 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.
IGN REQ -IPDM [On/Off]		Indicates condition of ignition request from IPDM E/R on CAN communication line.
STARTER REQ -IPDM [On/Off]		Indicates condition of starter request received from IPDM E/R 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.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
BK DOOR STATE [LOCK/READY/UNLK]	×	Indicates condition of back door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Main	Description
I-KEY OK FLAG [Key ON/Key OFF]	×	Indicates condition of Intelligent Key OK flag.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start prohibit.
ID AUTHENT CANCEL TIMER [STOP]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [STOP]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRNK PRBT TME [sec]		Indicates condition of engine crank prohibit time.
AUTO CRNK TME [sec]		Indicates condition of automatic engine crank time from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.
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.
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 back door 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.
RKE PBD [On/Off]		Indicates condition of automatic back door signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/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 flasher operation [On/Off].
HORN	This test is able to check horn operation [On/Off].
IGN CONT2	This test is able to check ignition relay-2 control operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
ENGINE START REQUEST	This test is able to check BCM starter request switch signal to IPDM E/R via CAN communication [MODE 1/MODE 2/MODE 3/OFF].
IGNITION RELAY	This test is able to check ignition relay operation [On/Off].
STARTER CUT RELAY	This test is able to check the starter control relay [On/Off].
AUTO ACC 2	This test is able to check BCM sends power supply to audio unit or NAVI control unit [On/Off].
AUTOMATIC BACK DOOR	This test is able to check automatic back door operation [On/Off].
AUTO ACC 1	This test is able to check BCM sends power supply to ACC relay [MODE 1/MODE 2/MODE 3/OFF].
TRUNK LUGGAGE LAMP TEST	This test is able to check luggage room lamp test operation [On/Off].

WORK SUPPORT

Support Item	Setting		Description
SHORT CRANKING OUTPUT		70 msec	
	Start	100 msec	Starter motor operation duration times.
		200 msec	
	End		_

Revision: September 2015 SEC-21 2016 Rogue NAM

SEC

Α

В

 D

Е

F

G

Н

M

Ν

0

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Support Item	Setting		Description
INSIDE ANT DIAGNOSIS	_		This function allows inside key antenna self-diagnosis.
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock by I-Key ON.
LOCK/UNLOCK BY I-REY	Off		Door lock/unlock by I-Key OFF.
	Mode 1	OFF	
	Mode 2	30 sec.	
	Mode 3*	1 min.	
AUTO LOCK SET	Mode 4	2 min.	Auto door lock operation time can be changed in this mode.
	Mode 5	3 min.	
	Mode 6	4 min.	
	Mode 7	5 min.	
IONI/A CO DATTEDY CAVED	On*		Battery saver system ON.
IGN/ACC BATTERY SAVER	Off		Battery saver system OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
ENGINE START BY I-REY	Off		Engine start function from Intelligent Key OFF.
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function by back door request switch ON.
TRUNNGLASS HATCH OPEN	Off		Buzzer reminder function by back door request switch OFF.
ANSWER BACK	On		Horn chirp reminder when doors are locked with Intelligent Key.
ANSWER BACK	Off*		No horn chirp reminder when doors are locked with Intelligent Key.
	BUZZER*		Buzzer reminder function by door lock/unlock request switch ON.
ANSWER BACK I-KEY LOCK UN-	HORN		Horn chirp reminder function by door lock request switch ON.
LOCK	Off		No reminder function by door lock/unlock request switch.
	INVALID		This mode is not used.
ANSWERBACK KEYLESS LOCK UN-	On*		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
LOCK	Off		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.

IMMU

IMMU: CONSULT Function (BCM - IMMU)

INFOID:0000000012567351

SELF DIAGNOSTIC RESULT Refer to <u>BCS-48</u>, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
CONFIRM DONGLE ID	_	Dongle ID can be checked.

THEFT ALM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

THEFT ALM: CONSULT Function (BCM - THEFT ALM)

INFOID:0000000012567352

Α

В

C

 D

Е

F

G

Н

DATA MONITOR

Monitored Item	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 back door request switch.
PUSH SW [On/Off]	Indicates condition of push-button ignition 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 back door 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.
KEY CYL SW-TR	Indicates condition of key cylinder switch back door.
SEN CANCEL SW	Indicates condition of sensor cancel 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 back door open signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation [On].
HEAD LAMP	This test is able to check vehicle security lamp operation [MODE 1/MODE 2/MODE 3/OFF].

WORK SUPPORT

Support Item	Setting	Description
SECURITY ALARM SET	On*	Security alarm ON.
SECONTT ALANWISET	Off	Security alarm OFF.

SEC

M

L

Ν

0

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

DIAGNOSIS SYSTEM (IPDM E/R)

CONSULT Function (IPDM E/R)

INFOID:0000000012567353

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with IPDM E/R.

Direct Diagnostic Mode	Description
ECU Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-26, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
REVERSE SIGNAL [Open/Close]	Indicates condition of transmission range switch R (Reverse) position.
IGN RELAY [Open/Close]	Indicates condition of ignition relay-1.
PUSH SW [Open/Close]	Indicates condition of push-button ignition switch.
INTERLOCK/PNP SW [Open/Close]	Indicates condition of transmission range switch P (Park) and N (Neutral) positions.
OIL PRESSURE SW [Open/Close]	Indicates condition of oil pressure switch.
HOOD SW [Open/Close]	Indicates condition of hood switch.
COMPRESSOR [OFF/ON]	Indicates condition of A/C compressor.
HORN RELAY [OFF/ ON]	Indicates condition of horn relay.
COOLING FAN [OFF/ON]	Indicates condition of cooling fan relay-1.
FRONT WIPER HI/LO RELAY [OFF/ON]	Indicates condition of front wiper high relay.
FRONT WIPER RELAY [OFF/ON]	Indicates condition of front wiper relay.
IGN RELAY OFF STATUS [OFF/ON]	Indicates condition of ignition relay-1 OFF status.
IGN RELAY ON STATUS [OFF/ON]	Indicates condition of ignition relay-1 ON status.
COOLING FAN RELAY 1 [OFF/ON]	Indicates condition of cooling fan relay-1.
STARTER RELAY [OFF/ON]	Indicates condition of starter relay.
COMP ECV DUTY [%]	Indicates condition of A/C compressor.
COOLING FAN RELAY 2 [%]	Indicates condition of cooling fan relay-2.
FR FOG LAMP LH [%]	Indicates condition of front fog lamp LH.
FR FOG LAMP RH [%]	Indicates condition of front fog lamp RH.
PARKING LAMP [%]	Indicates condition of parking lamp.
TAIL LAMP LH [%]	Indicates condition of tail lamp LH.
TAIL LAMP RH [%]	Indicates condition of tail lamp RH.
DAYTIME RUNNING LIGHT LH [%]	Indicates condition of daytime running light LH.
DAYTIME RUNNING LIGHT RH [%]	Indicates condition of daytime running light RH.
HEADLAMP (HI) LH [%]	Indicates condition of headlamp high beam LH.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description	Л
HEADLAMP (HI) RH [%]	Indicates condition of headlamp high beam RH.	
HEADLAMP (LO) LH [%]	Indicates condition of headlamp low beam LH.	
HEADLAMP (LO) RH [%]	Indicates condition of headlamp low beam RH.	Е
A/C RELAY STUCK [NG/OK]	Indicates condition of A/C relay.	
A/C RELAY [Off/On]	Indicates condition of A/C relay.	
COMP ECV STATUS [NG/OK]	Indicates condition of A/C compressor.	C
VEHICLE SECURITY HORN [Off/On]	Indicates condition of horn relay.	
BATTERY CURRENT SENSOR [NG/OK]	Indicates condition of battery current sensor.	Г
FRONT FOG LAMP [Off/On]	Indicates condition of front fog lamps.	
COMP ECV CURRENT [A]	Indicates condition of A/C compressor current.	
BATTERY VOLTAGE [V]	Indicates condition of battery voltage.	Е
COOLING FAN DUTY [%]	Indicates condition of cooling fans.	
HOOD SW (CAN) [OPEN/CLOSE]	Indicates condition of hood switch.	_
FRONT WIPER [STOP/LOW/HIGH]	Indicates condition of front wiper motor.	-
FR WIPER STOP POSITION [STOP P/ACTIVE P]	Indicates condition of front wiper motor stop.	
HEADLAMP (HI) [Off/On]	Indicates condition of headlamp high beams.	(
HEADLAMP (LO) [Off/On]	Indicates condition of headlamp low beams.	
IGNITION RELAY STATUS [Off/On]	Indicates condition of ignition relay-1.	
IGN RELAY MONITOR [Off/On]	Indicates condition of ignition relay-1 feedback.	-
IGNITION POWER SUPPLY [Off/On]	Indicates condition of ignition relay-1.	
INTERLOCK/PNP SW (CAN) [Off/On]	Indicates condition of transmission range switch P (Park) and N (Neutral) positions.	
PUSH-BUTTON IGN SW (CAN) [Off/On]	Indicates condition of push-button ignition switch.	
TAIL LAMP [Off/On]	Indicates condition of tail lamps.	J
REVERSE SIGNAL (CAN) [Off/On]	Indicates condition of transmission range switch R (Reverse) position.	
ST&ST CONT RELAY STATUS [Off/ST R On]	Indicates condition of starter cut and starter relays.	SE
STARTER MOTOR STATUS [Off/On]	Indicates condition of starter motor.	
STARTER RELAY (CAN) [LOW/HIGH]	Indicates condition of starter relay.	ı
IPDM NOT SLEEP [NO RDY/RDY]	Indicates condition of IPDM E/R sleep status.	-
AFTER COOLING TIME [No request/Request]	Indicates condition of cooling fan request.	
AFTER COOLING SPEED [%]	Indicates condition of cooling fans.	1
COOLING FAN TYPE [NISSAN/RENAULT]	Indicates cooling fan type.	
COMPRESSOR REQ1 [Off/On]	Indicates condition of A/C compressor request.	
VHCL SECURITY HORN REQ [Off/On]	Indicates condition of horn relay request.	Ν
DTRL REQ [Off/On]	Indicates condition of daytime running light request.	
SLEEP/WAKE UP [WAKEUP/SLEEP]	Indicates condition of IPDM E/R sleep/wake.	
CRANKING ENABLE-TCM [NG/OK]	Indicates condition of crank enable from TCM.	
CRANKING ENABLE-ECM [NG/OK]	Indicates condition of crank enable from ECM.	
CAN DIAGNOSIS [NG/OK]	Indicates condition of CAN diagnosis.	F
FRONT FOG LAMP REQ [Off/On]	Indicates condition of front fog lamp request.	
HIGH BEAM REQ [Off/On]	Indicates condition of headlamp high beam request.	
HORN CHIRP [Off/On]	Indicates condition of horn relay request.	
COOLING FAN REQ [%]	Indicates condition of cooling fan request.	
ENGINE STATUS [STOP/RUN/IDLING]	Indicates condition of engine status.	

SEC-25 Revision: September 2015 2016 Rogue NAM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
TURN SIGNAL REQ [Off/LH/RH]	Indicates condition of turn signal request.
FR WIPER REQ [RETURN/LOW/HIGH]	Indicates condition of front wiper motor request.
SHIFT POSITION [P/R/N/D/L]	Indicates condition of transmission range switch positions.
LOW BEAM REQ [Off/On]	Indicates condition of headlamp low beam request.
POSITION LIGHT REQ [Off/On]	Indicates condition of parking lamp request.
COMPRESSOR REQ2 [Off/On]	Indicates condition of A/C compressor request.
IGNITION SW [Off/On]	Indicates condition of ignition switch.
VEHICLE SPEED (METER) [mph/km/h]	Indicates vehicle speed.
STARTER OPERATION COUNT	Displays the number of times the starter motor is turned ON.
H/P F/PUMP OPERATN COUNT	Displays the number of times the high pressure fuel pump is turned ON.
BAT DISCHARGE COUNT [—]	Monitor the cumulative discharge value of the battery. NOTE: When 65,000 or more is counted, replace the battery.
P LAMP CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the parking lamp circuit. NOTE: When the number of parking lamp circuit retries count is 20, this item counts 1.
NMB P LAMP CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the parking lamp circuit. NOTE: When the number of short circuits in the parking lamp circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB P LAMP CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the parking lamp circuit.
DTRL LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (left) circuit. NOTE: When the number of daytime running light (left) circuit retries count is 20, this item counts 1.
NMB DTRL LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (left) circuit. NOTE: When the number of short circuits in the daytime running light (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (left) circuit.
DTRL RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (right) circuit. NOTE: When the number of daytime running light (right) circuit retries count is 20, this item counts 1.
NMB DTRL RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (right) circuit. NOTE: When the number of short circuits in the daytime running light (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (right) circuit.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
F FOG LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (left) circuit. NOTE: When the number of front fog lamp (left) circuit retries count is 20, this item counts 1.
NMB F FOG LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (left) circuit. NOTE: When the number of short circuits in the front fog lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (left) circuit.
F FOG RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (right) circuit. NOTE: When the number of front fog lamp (right) circuit retries count is 20, this item counts 1.
NMB F FOG RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (right) circuit. NOTE: When the number of short circuits in the front fog lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (right) circuit.
HL (HI) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (left) circuit. NOTE: When the number of headlamp (HI) (left) circuit retries count is 20, this item counts 1.
NMB HL (HI) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (left) circuit. NOTE: When the number of short circuits in the headlamp (HI) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (left) circuit.
HL (HI) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (right) circuit. NOTE: When the number of headlamp (HI) (right) circuit retries count is 20, this item counts 1.
NMB HL (HI) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (right) circuit. NOTE: When the number of short circuits in the headlamp (HI) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (right) circuit.
HL (LO) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (left) circuit. NOTE: When the number of headlamp (LO) (left) circuit retries count is 20, this item counts 1.

Revision: September 2015 SEC-27 2016 Rogue NAM

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
NMB HL (LO) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (left) circuit. NOTE: When the number of short circuits in the headlamp (LO) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (left) circuit.
HL (LO) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (right) circuit. NOTE: When the number of headlamp (LO) (right) circuit retries count is 20, this item counts 1.
NMB HL (LO) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (right) circuit. NOTE: When the number of short circuits in the headlamp (LO) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (right) circuit.
T LAMP LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (left) circuit. NOTE: When the number of tail lamp (left) circuit retries count is 20, this item counts 1.
NMB T LAMP LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (left) circuit. NOTE: When the number of short circuits in the tail lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP LH CIRC SHORT [0 - 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (left) circuit.
T LAMP RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (right) circuit. NOTE: When the number of tail lamp (right) circuit retries count is 20, this item counts 1.
NMB T LAMP RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (right) circuit. NOTE: When the number of short circuits in the tail lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (right) circuit.
BATTERY STATUS [OK/NG]	Monitor the battery status from the battery output.
BAT DISCHARGE COUNT [0-100]	Indicates condition of battery discharge.
BATTERY STATUS [NG/OK]	Indicates battery status.

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [Off/On].
FRONT WIPER	This test is able to check wiper motor operation [Off/Low/High].

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Description
COMPRESSOR	This test is able to check A/C compressor operation [Off/On].
COOLING FAN (DUAL)	This test is able to check cooling fan operation [Off/LO/HI].
HEADLAMP (HI)	This test is able to check headlamp high beam operation [Off/3/5].
HEADLAMP (LO)	This test is able to check headlamp low beam operation [Off/3/5].
FRONT FOG LAMP	This test is able to check front fog lamp operation [Off/3/5].
DAYTIME RUNNING LAMP	This test is able to check daytime running lamp operation [Off/3/5].
PARKING LAMP	This test is able to check parking lamp operation [Off/3/5].
TAIL LAMP	This test is able to check tail lamp operation [Off/3/5].

CAN DIAG SUPPORT MNTR

Refer to LAN-17, "CAN Diagnostic Support Monitor".

WORK SUPPORT

Work item	Description
CML B/DCHRG CRNT CLEAR	In this mode, cumulative battery discharge current is cleared.

SEC

Α

В

С

 D

Е

F

G

Н

L

M

Ν

0

Р

Revision: September 2015 SEC-29 2016 Rogue NAM

ECU DIAGNOSIS INFORMATION

ECM, IPDM E/R, BCM

List of ECU Reference

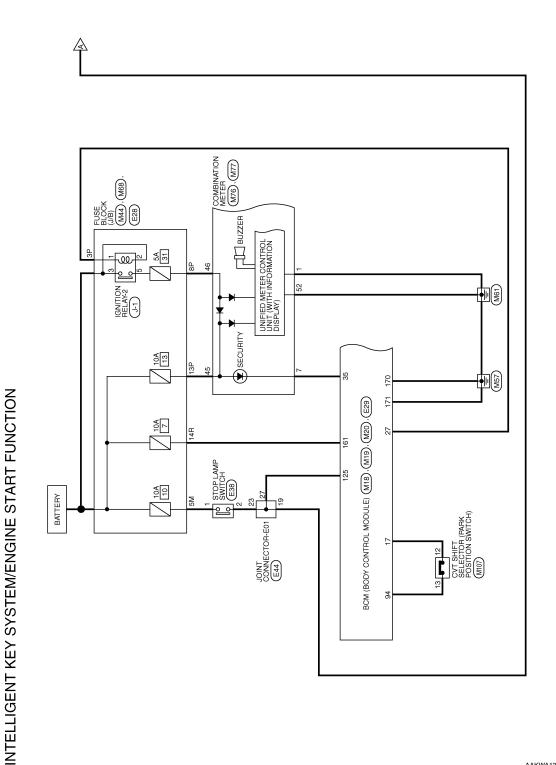
INFOID:0000000012423944

ECU	Reference
	EC-80, "Reference Value"
ECM	EC-92, "Fail Safe"
LOW	EC-95, "DTC Inspection Priority Chart"
	EC-96, "DTC Index"
	PCS-17, "Reference Value"
IPDM E/R	PCS-25. "Fail-safe"
	PCS-26, "DTC Index"
	BCS-29, "Reference Value"
BCM	BCS-47, "Fail Safe"
DCIVI	BCS-47, "DTC Inspection Priority Chart"
	BCS-48, "DTC Index"

WIRING DIAGRAM

ENGINE START FUNCTION

Wiring Diagram INFOID:0000000012423945 В



SEC

J

Α

С

D

Е

F

Н

L

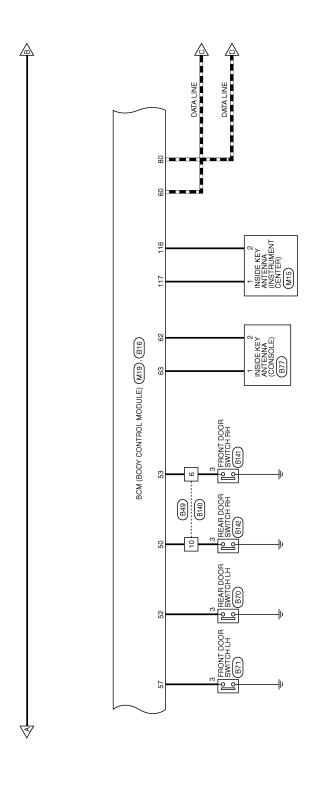
M

Ν

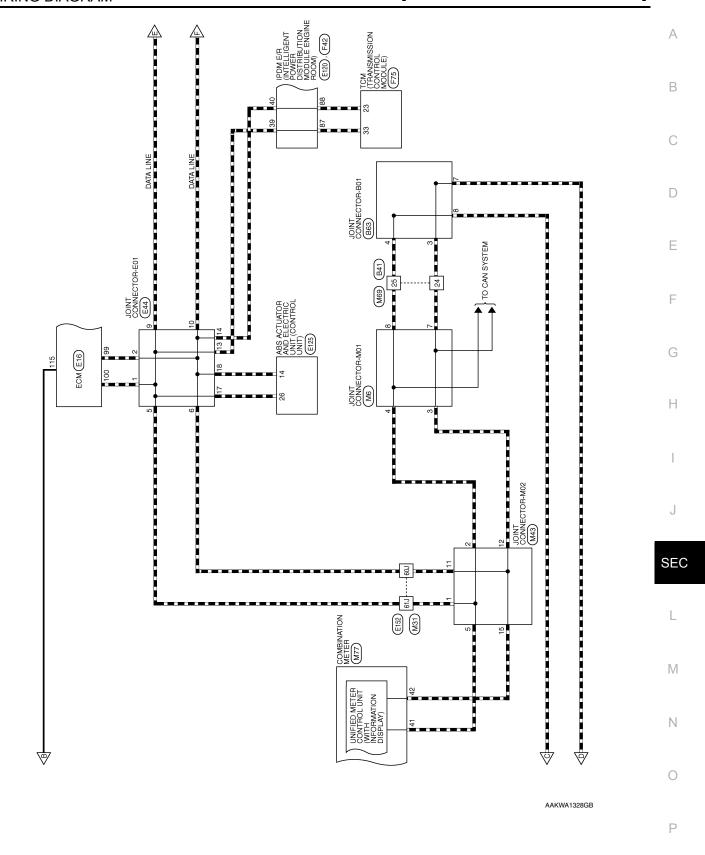
0

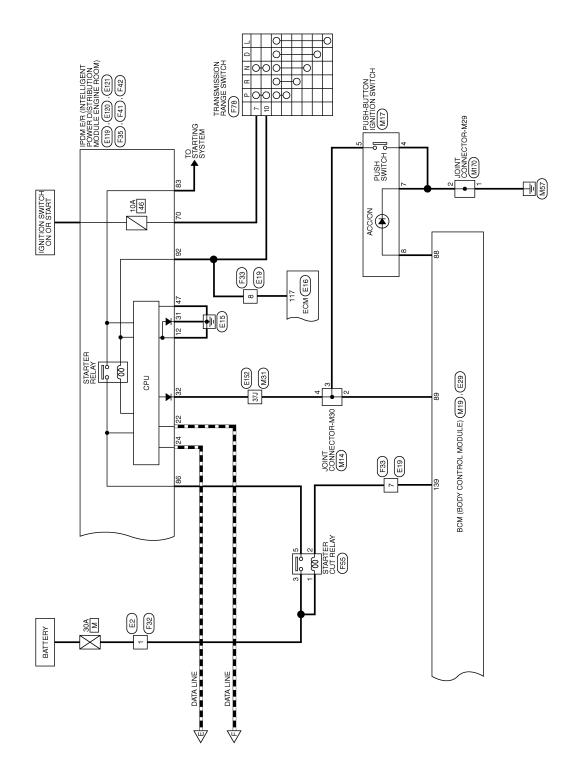
Р

AAKWA1326GB



AAKWA1327GB





AAKWA1329GB

Α

В

С

 D

Е

F

G

Н

J

SEC

L

 \mathbb{N}

Ν

0

Connector No. M15 Connector Name INSIDE KEY ANTENNA (INSTRUMENT CENTER) Connector Color GRAY H.S.	Signal Name Terminal No. Color of Wire Signal Name - 1 GR - - 2 BG -	E) CONTROL E) (1) (2) (3) (4) (3) (2) (1) (4) (5) (4) (5) (4) (5) (4) (5) (4) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	Signal Name O PWR ATDVC O IGN1 RL O SECURITY LED
Connector No. Connector Color WHITE H.S.	Terminal No. Color of Wire 2 Y 3 Y 4 Y	Connector No. M18 Connector Name BCM (BODY CONTROL MODULE) Connector Color GRAY H.S. 20 19 17 16 14 13 12 11 10 9 8 7 6 5 20 19 18 17 16 14 13 12 11 10 9 8 7 6 5 20 20 30 30 30 30 30 30	Terminal No. Color of Wire 17 L 27 Y 35 BG C
T CONNECTOR-M01 Y 1	Signal Name	H BUTTON IGNITION TCH	Signal Name
Connector No. M6 Connector Name JOINT CONNECTOR-M01 Connector Color GRAY H.S. 4 2 1 1 1 1 1 1 1 1 1	Terminal No. Color of Wire 3 P L L T P P R R L L R R R L L R R R R R R R R R	Connector No. M17 Connector Name PUSH BUTTON IGNI SWITCH Connector Color WHITE	Terminal No. Color of Wire 4 B B 7 7 B W W

AAKIA3208GB

Connector No. M20 Connector Name RCM RODY CONTROL	Connector Color BROWN	[167][66][65][64] [[63][62][61]	H.S.	I No. Wire	161 W IPWR ECU 170 B I GND1 171 B I GND2	Connector No. M43	Connector Name JOINT CONNECTOR-M02	Connector Color BLUE	_	H.S. 20 19 18 17 16 15 14 13 12 11 10		Terminal No. Color of Wire Signal Name	1	2 L –	5 L	11 P	12 P –	15 P –	
Signal Name	I START WO ESCL SW (WITH INTELLIGENT KEY SYSTEM)	I AT LOCKED IN PARK SW	SES INT FRONT ANTENNA B (WITH INTELLIGENT KEY SYSTEM)	SES INT FRONT ANTENNA A (WITH INTELLIGENT KEY SYSTEM)		S. C.	olgilal Name	ı	1	1									
Terminal No. Wire	≻ 68	94	116 BG	117 GR		\sqcup	Wire Wire	37J Y	60J P	61J L									
	MODULE) BLACK	色	(16) 99 98 97 96 95 94 95 92 91 90 89 88 87 86 85 84 83 82 81 120111911911911911911911911911911911911911	Terminal No. Color of Signal Name	88 W BACKLIGHT LED (WITH INTELLIGENT KEY SYSTEM)	Connector No. M31	ae WIRE TO WIRE	Connector Color WHITE		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	7114611451	23 221		50J 49J 48J 47J 46J 45J 44J 43J 42J	613 600 590 580 570 560 553 540 530 520 513	70 69 68 67 66 65 64 63 62	81.1 80.1 75.1 75.1 75.1 75.1 75.1 75.1 75.1		95. 94. 93. 91. 91.

Α

В

С

 D

Е

F

G

Н

J

SEC

L

 \mathbb{N}

Ν

0

Р

AAKIA2311GB

No. M69 MARE TO WIRE MHITE MHI	32 33 39 29 28 27 26 24 23 21 30 19 18 17 Terminal No. Color of Signal Name 24 P - 25 L -	Connector No. M107 Connector Name CVT SHIFT SELECTOR Connector Color WHITE MIST	Terminal No. Color of Signal Name 12 L 13 G
me FUSE BLOCK (J/B) for BROWN Ref	r of Signal Name	Connector No. M77 Connector Name COMBINATION METER Connector Color WHITE ### ### ### ### ####################	r of Signal Name CAN-H CAN-L G BAT GG BAT GG1
Connector No. Connector Color Connector Color TRI GR	Terminal No. Color of Wire 14R W	Connector No. M Connector Name Connector Color V H.S.	Terminal No. Color of Wire 41 L 42 P 45 LA/G 45 LA/G 52 B
ame FUSE BLOCK (J/B) lolor WHITE The SP 4P The SP The The SP 4P The The	r of Signal Name re BR (G)	Connector No. M76 Connector Name COMBINATION METER Connector Color WHITE ##S ##S ##S ##S ##S ##S ##S #	r of Signal Name re GND SECURITY
Connector No. M44 Connector Name FUSE B Connector Color WHITE The SE SE AP INTERIENTALISPIZE THE SE A	Terminal No. Color of Wire 3P Y 8P LA/BR 13P LA/BR	Connector No. No. Connector Name Connector Color V. Connector V. Connecto	Terminal No. Color of Wire 1 B B 7 BG

Revision: September 2015 SEC-37 2016 Rogue NAM

Name BCM (BODY CONTROL MODULE)

Color BLACK

BRAKE SW2 Signal Name

O STCUT RL

Connector Name JOINT CONNECTOR-M29

Connector No. M170

Connector Color WHITE

	1111111	L	•		
Connector Color WHITE	lor WHI	<u> </u>	Connector Color	lor BLACK	Š
所 H.S.			H.S.	97 101 105 98 102 106 99 103 107 100 104 108	97 hori loo5 kooj 113 l17 121 125 88 hoz) hoof 110 l14 118 122 126 99 hos) hoz) hori l14 118 122 127 100 hos) hos 112 l16 120 124 128
Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Color of Wire	Color of Wire	Signal Name
-	_	ı	66	۵	CAN-L
			100	7	CAN-H
			115	>	STOP LAMP SWITCH
			117	×	PNP SIGNAL

Signal Name

Color of Wire В В

Terminal No.

Ø

E29	BCM (MOD	BLAC	132 33 130 129 128 144 143 142 141 140	or of re	LG	
No.	Name		Color	132 31 15	o. Colc		5
Connector No.	Connector Name BCM		Connector Color BLAC	H.S.	Terminal No. Wire	125	139
8	Connector Name FUSE BLOCK (J/B)	IITE			Signal Name	ı	
E28	ne FU	or W		4M 3M 10M 9M	Solor of Wire	>	
Connector No.	Connector Nar	Connector Color WHITE		原面 H.S.	Terminal No. Wire	5M	
			_				
	IE TO WIRE	NMC		11 12 13 14 15 16	Signal Name	I	ı
E19	ne WIF	or BRC		8 9 10 3	Solor of Wire	В	Μ
Connector No.	Connector Name WIRE TO WIRE	Connector Color BROWN		H.S.	Terminal No. Wire	7	8

AAKIA2312GB

ENGINE START FUNCTION

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

Signal Name	ı	1	ı	ı	1	ı	ı	ı	I	ı	ı	ı	ı
Color of Wire	٦	۵	_	Ь	_	۵	٦	۵	٦	Ь	>	LG	LG
Terminal No. Wire	-	2	5	9	6	10	13	14	17	18	19	23	27

	Connector No.	. E121	_
	Connector Name	l	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
	Connector Color	lor RED	0
	所 H.S.	45 44 48 47	44 43 48 47 46
	Terminal No.	Color of Wire	Signal Name
_	4.7		

E44	JOINT CONNECTOR-E01	WHITE	2 1 1 1 0 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Connector No.	Connector Name J	Connector Color M	H.S.

Connector No.	No.		ш	E120	0								
Connector Name POWER DISTRIBUTION MODULE ENGINE ROOI	Nan	ЭС	ਜੁਕੁਣ	509	ME S	889		5,59	교유론	355	照은 Q	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	
Connector Color GRAY	Colc	ır	G	ΡĀ	≻								
£					$ \rangle$			l 17	l ,—				
-	8	30 29 28 27 26 25 24 23 22 21 20 19	88	27	26	25	24	23	8	21	8	19	
ė.	42	42 41 40 39 38 37 36 35 34 33 32 31	8	88	88	37	98	35	34	33	32	8	

Signal Name	CAN-L	CAN-H	2ND SIGNAL GRC	LI PUSH SW	CAN-H	CAN-L
Color of Wire	Ъ	٦	В	GR	Т	Ь
Terminal No.	22	24	31	32	39	40

Connector No.). E38	8
Connector Name	ame ST	STOP LAMP SWITCH
Connector Color WHITE	olor WF	ITE
H.S.		(0 F)
Terminal No. Wire	Color of Wire	Signal Name

> 2

2

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color GRAY	GRAY
原列 9 8 18 17 H.S.	9 8 7 6 6 5 4 3 18 17 16 15 14 13 12 11 10

Signal Name	SIGNAL GROUN	
Color of Wire	В	
Terminal No.	12	

AAKIA3209GB

Α

В

С

D

Е

F

G

Н

J

SEC

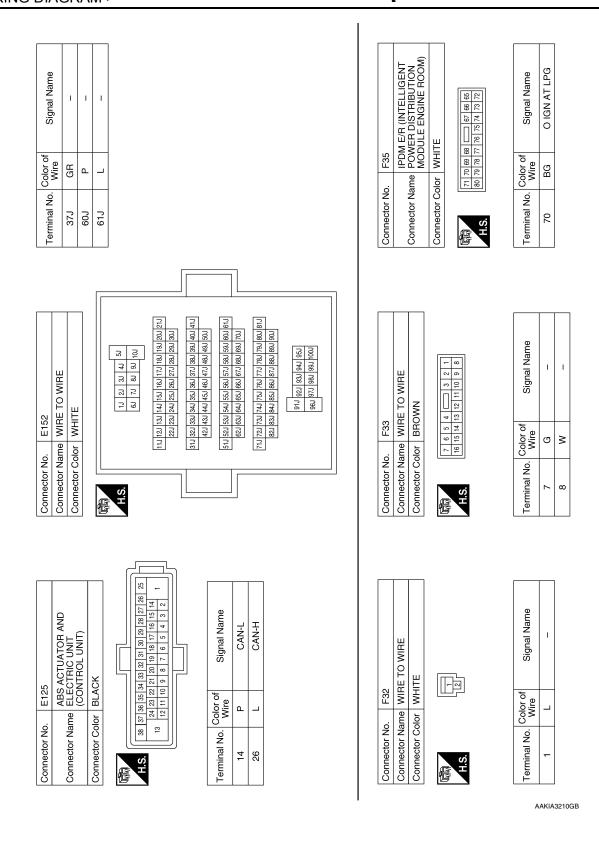
L

M

Ν

0

Р



Α

В

С

 D

Е

F

G

Н

J

SEC

L

M

Ν

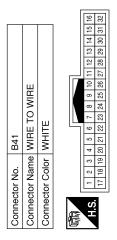
0

Р

AAKIA3211GB

FOWER DISTRIBUTION Connector Name POWER DISTRIBUTION Connector Name POWER DISTRIBUTION Connector Color POWER DISTRIBUTION Connector Color POWER DISTRIBUTION Connector Color POWER DISTRIBUTION Connector Color POWER DISTRIBUTION Connector Name POWER DISTRIBUTION Connector Color POWER DISTRIBUTION Connector Name POWER DISTRIBUTION POWER DISTRIBUTION Connector Name POWER DISTRIBUTION POWER DISTRIBUT	PESTARTER CUT RELAY BLUE 2 1	Color of Signal Name Wire SB -	GR - GR			
POWE PIGNET	Connector Name Connector Color H.S.		ω ω ω			
F41 Connector No. IPDM E/R (INTELLIGENT POWER DISTRIBUTION) Connector Name Ris	E/R (INTELLIGENT ER DISTRIBUTION ULE ENGINE ROOM) :K	Signal Name CAN-H	CAN-L LI NP SW	VSMISSION RANGE CH :X		Signal Name
PPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) GRAY Or of Signal Name Signal Name CONTROL MODULE) BLACK BB 83 84 84 84 84 84 84 84 84 84 84 84 84 84	nector Name				Q,	$\overline{}$
Connector No. Connector Name 1 No. Connector Name 1 No. Connector Name 1 No. Connector Name 1 No. Connector Colcustration 1 N	Z'R (INTELLIGENT R DISTRIBUTION LE ENGINE ROOM) R R R R R R R R R R R R R R R R R R R	of Signal Name O STARTER		F75 TCM (TRANSMISSION CONTROL MODULE) or BLACK	34 55 56 57 58 59 40 47 48 5 16 17 18 19 20 43 44 44 45 6 7 7 8 9 10 41 42	e Signal Name CAN-L CAN-H

Revision: September 2015 SEC-41 2016 Rogue NAM



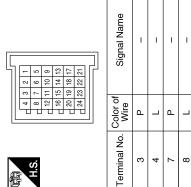
Signal Name	ı	ı
Color of Wire	۵	Г
Terminal No.	24	25

Signal Name	ı	ı	
Color of Wire	۵	_	
Terminal No.	24	25	

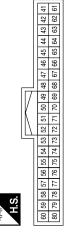
	REAR DOOR SWITCH LH	ПЕ	2 3 4	Signal Name	_
. B70		lor WHITE		Color of Wire	α
Connector No.	Connector Name	Connector Color	明.S.	Terminal No.	۲

Signal Name	CAN-H	SES INT MIDDLE ANTENNA B (WITH INTELLIGENT KEY SYSTEM)	SES INT MIDDLE ANTENNA A (WITH INTELLIGENT KEY SYSTEM)	CAN-L
Color of Wire	٦	>	Τ	Ь
Terminal No.	09	62	63	80

B63	Connector Name JOINT CONNECTOR-B01	GRAY
Connector No.	Connector Name	Connector Color GRAY

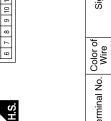


Connector No.	B16
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GREEN	GREEN



Signal Name	I RR DOOR SW	I RL DOOR SW	I AS DOOR2 SW	I DR DOOR2 SW
Color of Wire	8	н	SB	SB
Terminal No. Wire	20	52	53	25

MINECTO WIRE TO WIRE MINECTOR WHITE	Connector No. B49 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. B49	3E					<u> </u>	ector No.
--------------------------------------	---	-------------------	----	--	--	--	--	----------	-----------



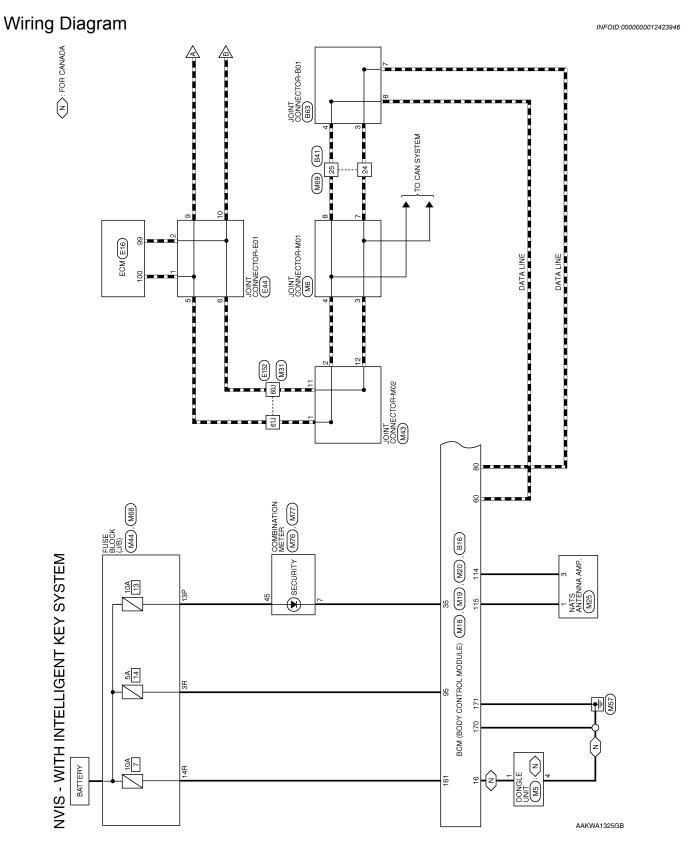
Signal Name SB ∧ Terminal No. 10 9

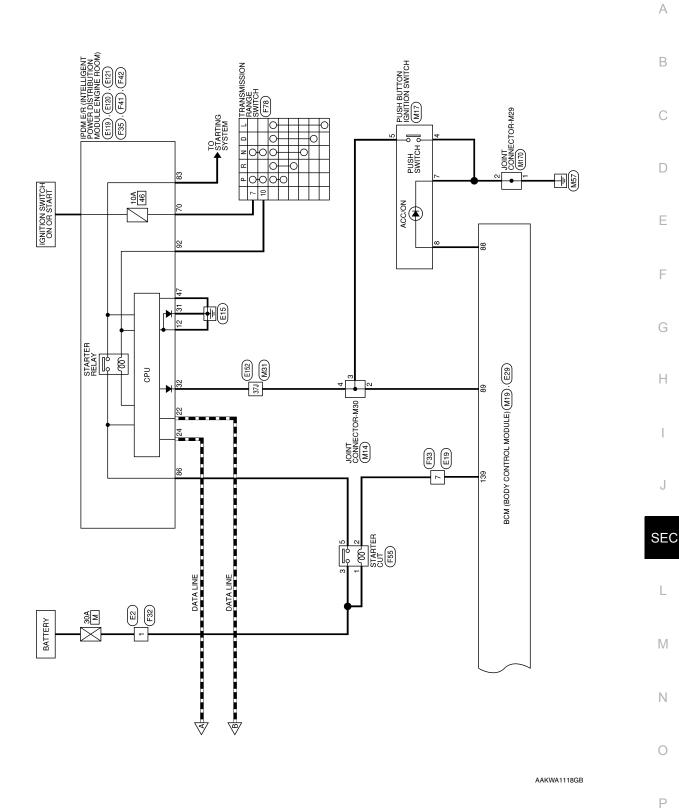
AAKIA3212GB

			А
WIRE 7 6	Signal Name		В
0	Wire Wire Wire Wind		С
No. Color			D
Connector Name WIRE T Connector Color WHITE S 4	Terminal No. 6		E
			F
Connector No. B77 Connector Name INSIDE KEY ANTENNA (CONSOLE) Connector Color GRAY H.S.	Signal Name	Connector No. B142 Connector Name REAR DOOR SWITCH RH Connector Color WHITE	Signal Name
DE KEY NSOLE)		2 3 4 TE	H
Connector No. B77 Connector Name INSIDE (CONS) Connector Color GRAY H.S.	Color of Wire L	Connector No. B142 Connector Name REAR Connector Color WHITE	Color of Wire
Connector No. Connector Col	N NO NO	Connector No. Connector Narr Connector Colc	a No.
Connec	Terminal No.	Connec Connec H.S.	Terminal No.
			SEC
		量	
SWITCI	Signal Name	SWITCI	Signal Name
D000R	Sign	1 DOOR	N Sign
FRONT WHITE	Color of Wire SB	WHITE	Color of Wire GR
r No. r Name	0 0 0 8	r No.	Ö S O
Connector Name FRONT DOOR SWITCH LH Connector Color WHITE	Terminal No.	Connector No. B141 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE	Terminal No.
	<u> </u>		AAKIA3213GB

Revision: September 2015 SEC-43 2016 Rogue NAM

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS



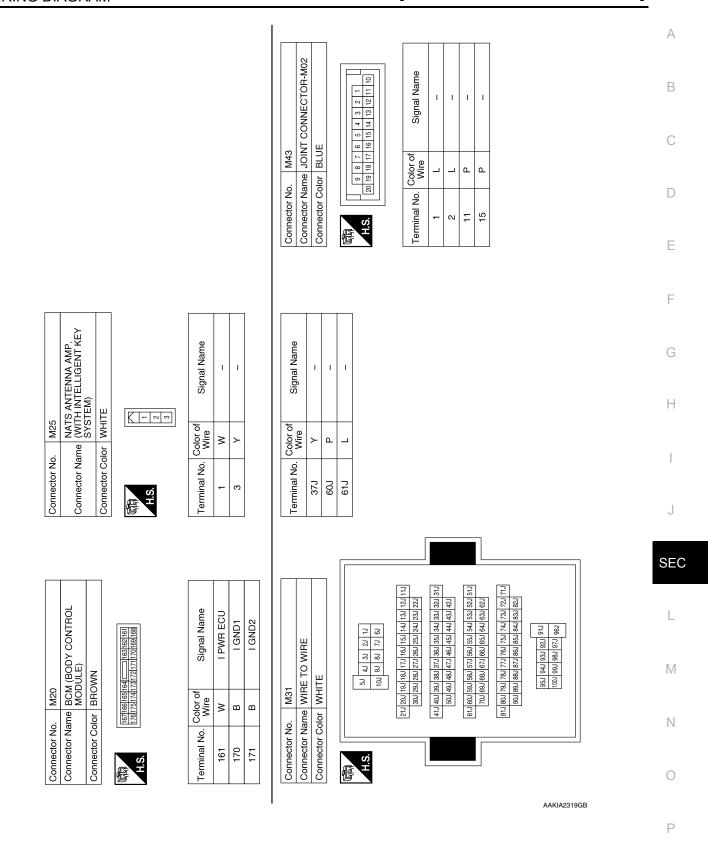


Revision: September 2015 SEC-45 2016 Rogue NAM

START WO ESCL SW O IMMOBILIZER KAZASHI B (WITH INTELLIGENT KEY SYSTEM) O IMMOBILIZER KAZASHI A (WITH INTELLIGENT KEY SYSTEM) O START SW BACKLIGHT LED (WITH INTELLIGENT KEY SYSTEM) Connector Name | JOINT CONNECTOR-M30 I SHORTING PIN Connector Name | BCM (BODY CONTROL MODULE) Signal Name Signal Name 1 Connector Color | WHITE BLACK M14 M19 Color of Wire Color of Wire > ≥ ≥ > > > Connector Color Connector No. Connector No. Terminal No. Terminal No. 114 က 4 88 88 89 N H.S. Œ 7 6 5 4 3 2 1 27 26 25 24 23 22 21 O SECURITY LED Connector Name JOINT CONNECTOR-M01 12 11 10 9 8 32 31 30 29 28 3 DONGLE UART Connector Name | BCM (BODY CONTROL | MODULE) Signal Name Signal Name NVIS CONNECTORS - WITH INTELLIGENT KEY SYSTEM 4 3 2 1 8 7 6 5 12 11 10 9 16 15 14 13 20 19 18 17 24 23 22 21 20 19 18 17 16 15 14 13 40 39 38 37 36 35 34 33 Connector Color | GRAY Connector Color GRAY M18 Color of Wire Color of Wire <u>W</u> BG Ф Д Connector No. Connector No. Terminal No. Terminal No. ω 16 35 ო 4 E Connector Name PUSH BUTTON IGNITION SWITCH Signal Name Signal Name ī 1 Connector Name DONGLE UNIT WHITE Connector Color | WHITE M17 Color of Wire M5 Color of Wire ≥ ݐ Ш Ш ш Connector Color Connector No. Connector No. Terminal No. Terminal No. ω 4 4 2 / AAKIA3206GB

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

[WITH INTELLIGENT KEY SYSTEM]



Revision: September 2015 SEC-47 2016 Rogue NAM

Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire LA/G

Ferminal No.

Signal Name

Color of Wire

Terminal No.

SECURITY

BG

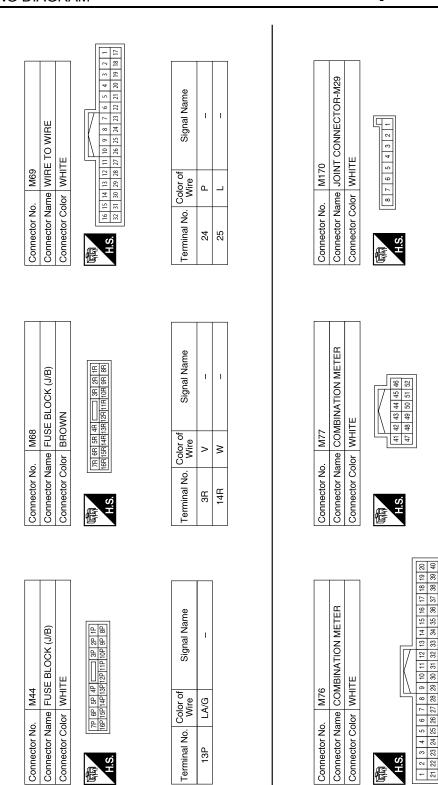
/

45

BAT

m m

Ŋ



AAKIA2320GB

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

		Α
O WIRE 4 5 6 7 13 14 15 16 Signal Name	E119 PDM E/R (INTELLIGENT POW/READISTRIBUTION MODULE ENGINE ROOM) GRAY Signal Name Mire Signal Name B SIGNAL GROUND SIGNAL GROUND B SIGNAL GROUND	В
2. E19 ame WIRE TO WIRE lor BROWN 2 3	PDM E/ P	С
Connector No. Connector Name Connector Color H.S. H.S. 7 Cole		D
Connector No. Connector Cold Connector Cold H.S. Terminal No. C	Connector Nar Connector Col	E
		F
## E16 ## ECM ## BLACK ## ## ## ## ## ## ## ## ## ## ## ## ##	E44 JOINT CONNECTOR-E01 WHITE # 1 2 11 10 9 18 17 10	G H
Solor of Wire P		
ctor No.	ctor No.	I
Conne Conne Lemin	Conne	J
		SEC
		020
WIRE Signal Name	Signal Name O STCUT RL	L
		M
Connector No. E2 Connector Name WIRE T Connector Color WHITE H.S. H.S. Terminal No. Color of Wire	1	
Connector No. Connector Col. Connector Col. L.S. H.S.		N
Conne Conne Termir	Conne Conne Termir 13	0
	AAKIA3207GB	Р

Revision: September 2015 SEC-49 2016 Rogue NAM

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector Name Connector Color

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector Name Connector Color

E120

Connector No.

GRAY

RED

E121

Connector No.

H.S. F

偃

POWER GROUND Signal Name

В

47

Color of Wire

Terminal No.

Signal Name

Color of Wire

Terminal No.

CAN-L

血

22 22 31 32

Signal Name Connector Name | WIRE TO WIRE WHITE Color of Wire Connector Color Connector No. Terminal No. 偃 Signal Name 1 Color of Wire GR Ф Terminal No. 60J 61J 37J 2ND SIGNAL GROUND 22J 23J 24J 25J 26J 27J 28J 29J 30J 51J 52J 53J 54J 55J 56J 57J 58J 59J 60J 61J 62J 63J 64J 65J 66J 67J 68J 69J 70J 31.J 32.J 33.J 34.J 35.J 36.J 37.J 38.J 39.J 40.J 41.J 42.J 43.J 44.J 45.J 46.J 47.J 48.J 48.J 48.J 50.J 71.J 72.J 73.J 74.J 75.J 76.J 77.J 78.J 79.J 80.J 81.J 82.J 83.J 84.J 85.J 88.J 87.J 88.J 89.J 90.J LI PUSH SW 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 91J 92J 93J 94J 95J 96J 97J 98J 99J 100J CAN-H Connector Name | WIRE TO WIRE Connector Color WHITE E152 GR В Connector No.

AAKIA2322GB

偃

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

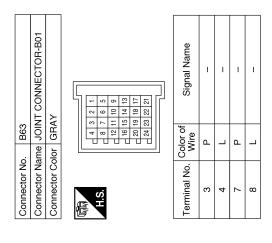
< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

AAKIA2323GB

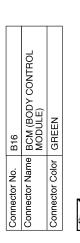
		А
F41 IPDM E/R (INTELLIGENT MODULE ENGINE ROOM) GRAY SEE SE	F78 TRANSMISSION RANGE SWITCH BLACK 10 9 8 7 10 9 8 7 1	В
Module Englishment (IP Mere (II Module Englishment (II Mere (II Me		С
Connector No Connector Name Connector Color H.S. H.S. R83 (Color Service S		D
Connector Nar Connector Col Terminal No. 83 83 86	Connector N Connector C Connector C T Terminal No.	Е
		F
F35 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE IS TO SIGNAL TO SIGNAL PG CO IGNAT LPG CO IGNAT LPG CO IGNAT LPG	STARTER CUT RELAY BLUE SIGNAI Name re	G
No Page 18 19 19 19 19 19 19 19 19 19 19 19 19 19	1 1 1 1 1 1 1 1 0 1 1 2 1	Н
Connector No. Connector Name Connector Color H.S. Terminal No. Color 70 B		I
Connector Nar Connector Col	Connector N. Connector N. Connector N. Connector O. Terminal No.	J
		SEC
TO WIRE // N	PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) POWER DISTRIBUTION POWER DI	L
F33 NHE TC BHOWN S H S H T T T T T T T T T	F F F E POWER MODULE BLACK F F F F F F F F F F F F F F F F F F F	M
	Connector No. F42 Connector Name PO. MOI Connector Color BLA Terminal No. Color of Wire 92 GR	N
Connector Na. Connector Col. Connector Col. H.S. Terminal No. C	Connector No. Connector Col. Terminal No. 92	0

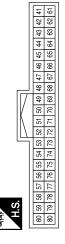
Revision: September 2015 SEC-51 2016 Rogue NAM



29 13) WIRE			7 8 9 10 11 12 13 14 15 16	23 24 25 26 27 28 29 30 31 32
					12	88
12 28					Ξ	27
11 12 27 28					10	56
10 11 12 26 27 28		쁘			6	52
3E		₹			8	24
MIRE 8 9 10 11 12 24 25 26 27 28		6			2	23
O WIRE 7 8 9 10 11 12 23 24 25 28 27 28		Ŀ	Щ	_	9	22
E TO WIRE E 6 7 8 9 10 11 12 22 23 24 25 26 27 28	-	ᇤ	∓		2	21
HE TO WIRE HITE 5 6 7 8 9 10 11 12 21 22 23 24 25 26 27 28	B4	I≅	∣≶		4	20
WIRE TO WIRE WHITE 1		Ф			က	19
B41 	ا ا	띭	응		2	18
2. B41 ame WIRE TO WIRE blor WHITE 2 3 4 5 6 7 8 9 10 11 12 18 19 20 21 22 23 24 25 28 27 28	ž	ž	ŏ		-	17
B41 NIRE T NI WHITE A 5 6 19 20 21 22	Connector No.	Connector	Connector		SI	

Signal Name	1	I
Color of Wire	۵	٦
Terminal No.	24	25





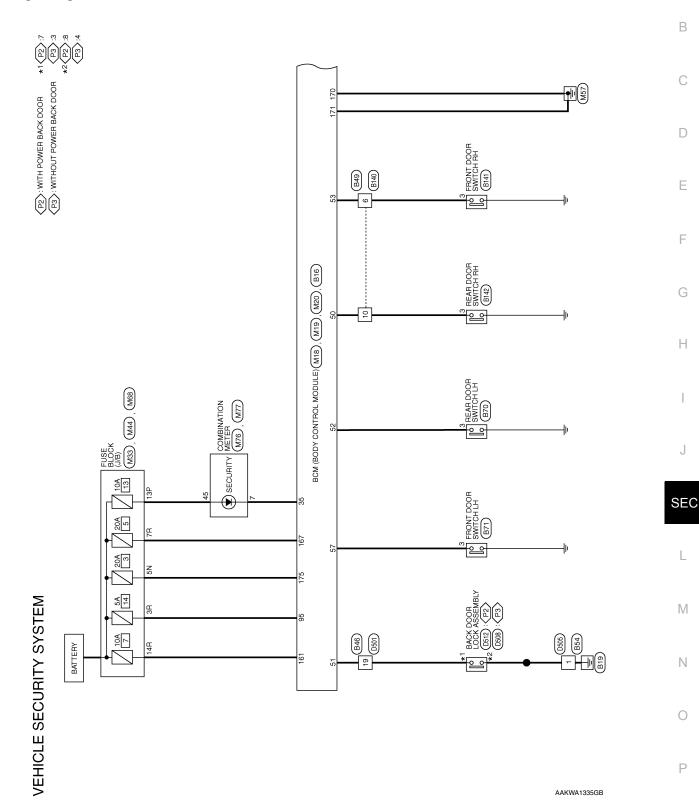
Signal Name	CAN-H	CAN-L
Color of Wire	Т	Ь
Terminal No.	09	80

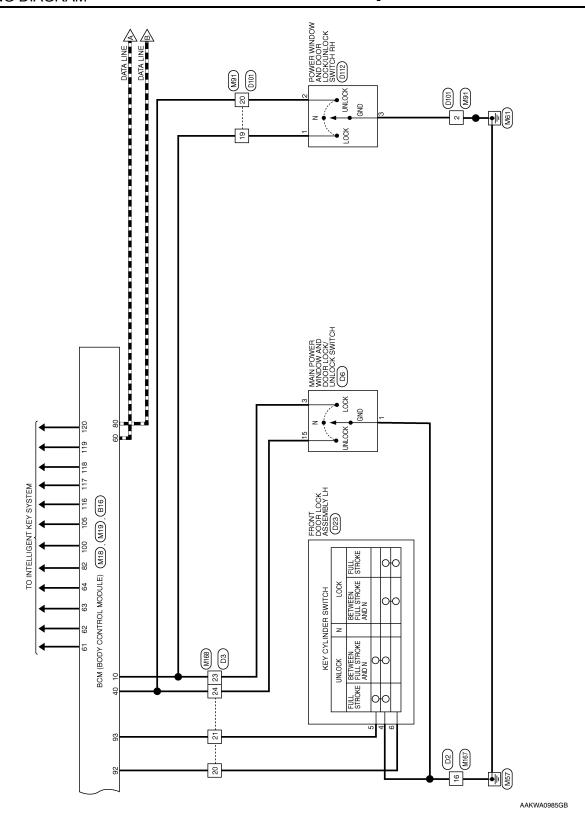
AAKIA2324GB

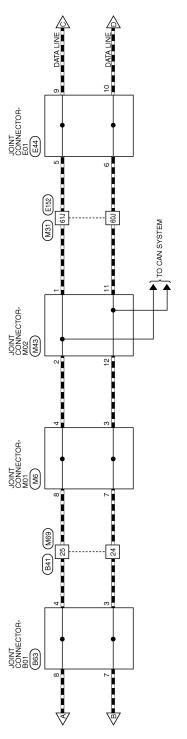
Α

VEHICLE SECURITY SYSTEM

Wiring Diagram







В

Α

С

 D

Е

F

G

Н

J

SEC

L

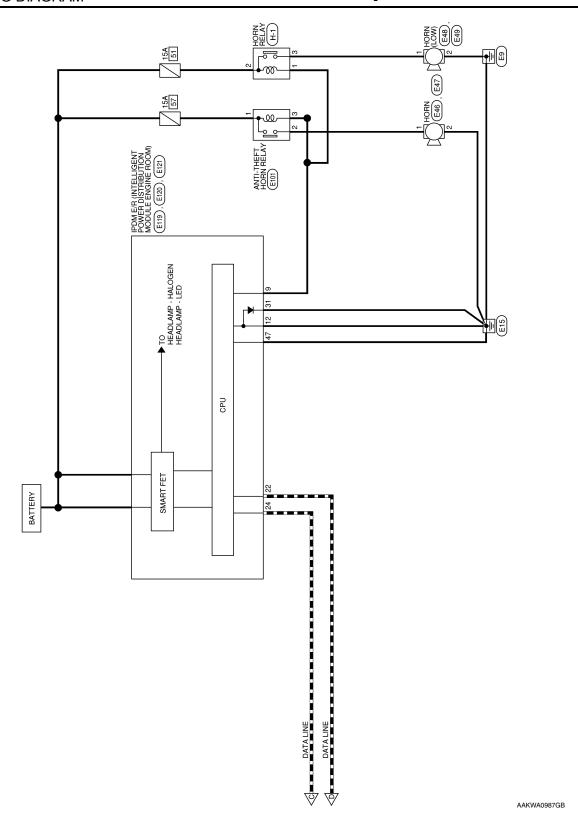
 \mathbb{N}

Ν

0

AAKWA0986GB

Р



Α

В

С

 D

Е

F

G

Н

J

SEC

L

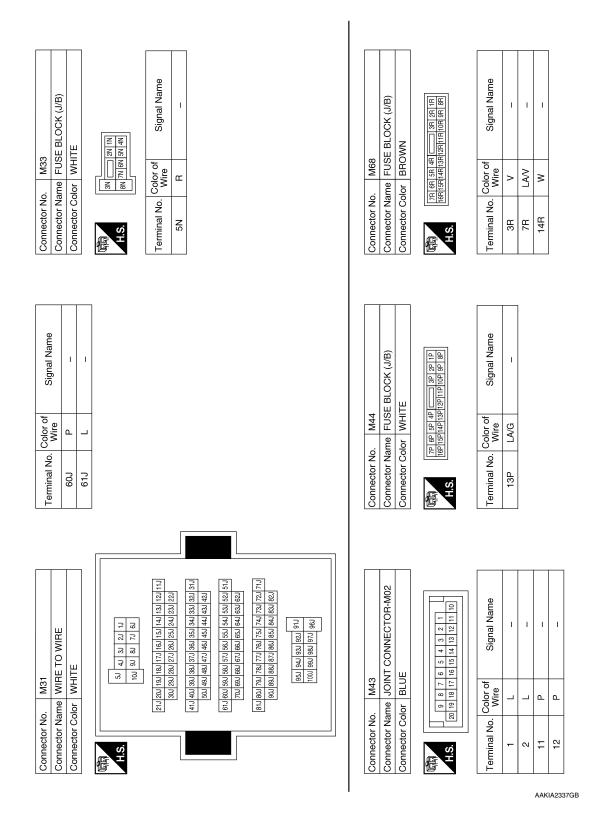
 \mathbb{N}

Ν

0

Р

											Connector No. M20	Connector Name BCM (BODY CONTROL	MODULE) Connector Color BROWN		[新] [167]168[168]168[16] [178]178[174]178[178]178[178]188[168] [178]178[178]178[178]188[168] [178]178[178]178[178]188[168]	Terminal No. Color of Signal Name	161 W I PWR ECU	LA/V I PWR	m		175 R I PWR DOORLOCK2				
	8	BCM (BODY CONTROL MODULE)	AY		12 11 10 9 8 7 6 5 4 3 2 1 1 3 2 2 1 3 2 2 2 1 3 3 3 3 3 3 3	Signal Name		O SECURITY LED	I DOORUNLOCK SW		Signal Name	Olginal Maille	I SES FL HANDLE BUTTON (WITH INTELLIGENT KEY	SYSTEM)	SES INT FRONT ANTENNA B (WITH INTELLIGENT KEY SYSTEM)	SES INT FRONT ANTENNA A (WITH	INTELLIGENT KEY SYSTEM)	SES EXT RIGHT	INTELLIGENT KEY	SYSTEM)	SES EXT RIGHT ANTENNA A (WITH	INTELLIGENŤ KEY SYSTEM)	SES EXT LEFT ANTENNA B (WITH	SYSTEM)	
). M18		olor GRAY		15 14 13 35 34 33	Color of	BG	BG	SB		Color of	Wire	>		BG	GR			SB		c	r	BB		
ORS	Connector No.	Connector Name	Connector Color	H.S.	20 19 18 17 16 40 39 38 37 36	Terminal No.		35	40		Torminal No	dilliai 140.	105		116	117			118		(6 -	120		
M CONNECTORS			_													82 81 102 101									
VEHICLE SECURITY SYSTEM COI		Connector Name JOINT CONNECTOR-M01		3 2 1 1 10 9	15 14 13 19 18 17 23 22 21	Signal Name		ı	ı	ı		BCM (BODY CONTROL	DULE)			100 99 96 97 96 99 88 87 86 84 83 82 91 90 89 88 87 86 84 83 82 81 81 82 81 82 81 82		Signal Name		BUTTON SW	(WITH INTELLIGENT KEY SYSTEM)	I-KEY CYLINDER LOCK SW	I-KEY CYLINDER UNLOCK SW	I SHORTING PIN	SES EXT DR ANTENNA A
CURI	o. M6	ame JOINT	_	4 3 2 8 7 8 11 10 11 10 9 1	24 2	Color of		_	۵). M19		_			95 94 93 1		Color of Wire		×	^	88	Ь	>	>
HICLE SE	Connector No.	Connector Name		品.		Terminal No.	က	4	7	8	Connector No.	Connector Name	Connector Color		H.S.	100 99 98 97 96 120119118117116		Terminal No.		80	70	92	93	95	100
V臣																							AAŀ	(IA32	03GB



Α

Р

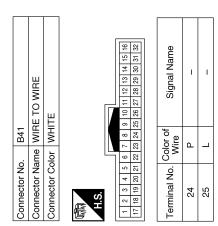
				Α
N METER	Signal Name BAT		Signal Name	В
// MBINATIO		8 E TO WIR	Sigr.	С
No. M77 Name COMBINA' Color WHITE 41 42 48 49 50 51 51 51 51 51 51 51 51 51 51 51 51 51	o. Color of Wire LA/G	No. M168 Name WIRE	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20 21 22 23 24 18 19 20 21 22 23 24 24 24 24 24 24	D
Connector No. M77 Connector Name COMBINATION METER Connector Color WHITE (41 42 43 44 45 48 48 50 51 52)	Terminal No. 45	Connector No. M168 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No. 20 21 23 24 24	Е
19 (50 (50 (50 (50 (50 (50 (50 (50 (50 (50				F
ON METER 13 14 15 16 17 18 19 20 33 34 35 36 37 38 39 40	Signal Name SECURITY		Signal Name	G
10 11 12 13 13 13 13 13 13 13 13 13 13 13 13 13	Signa	7 E TO WIRE	4 61	Н
No. M76 Name COMBIN Color WHITE Color WHITE 5 6 7 8 9 10 25 25 25 28 29 30	Color of Wire BG	Vo. M167 Name WIRE	8 1 1 1 1 1 1 1 1 1	I
Connector No. M76 Connector Name COMBINATION METER Connector Color WHITE H.S. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 12 12 12 12 12 12 12 12 12 12 12 12 12	Terminal No.	Connector No. M167 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No.	J
				SEC
Z3 Z2 Z1 Z0 19 18 Z	Signal Name - -		8 9 10 11 12 20 21 22 23 24 Signal Name	L
Connector No. M69 Connector Name WIRE TO WIRE Connector Color WHITE WHITE WH.S. R. S.		Connector No. M91 Connector Name WIRE TO WIRE Connector Color WHITE	9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M
or No. M69 or Name WIRE To or Color WHITE 16 14 13 12 11 1 12 11 1 12 11 1	No. Color of Wire P	Connector No. M91 Connector Name WIRE T Connector Color WHITE	Color o Wire LG BR BR	Ν
Connector No. Connector Color Connector Color In 15 14 H.S.	Terminal No. 24 25	Connector No. Connector Nam Connector Colo	Terminal No. 2 19 20 20	0
			AAKIA1807GB	

SEC-59 Revision: September 2015 2016 Rogue NAM

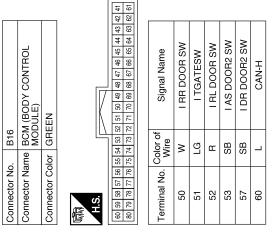
Connector No. E47 Connector Name HORN Connector Color BROWN H.S. Terminal No. Color of Signal Name 1 R -		Connector No. E101 Connector Name ANTI-THEFT HORN RELAY Connector Color WHITE	Terminal No. Color of Signal Name 1 L
Connector No. E46 Connector Name HORN Connector Color BLACK H.S.	Terminal No. Color of Wire Signal Name	Connector No. E49 Connector Name HORN (LOW) Connector Color BROWN	Terminal No. Color of Wire 1 R –
Connector No. E44 Connector Name JOINT CONNECTOR-E01 Connector Color WHITE MIS.	Terminal No. Color of Wire Signal Name 5 L - 6 P - 9 L - 10 P -	Connector No. E48 Connector Name HORN (LOW) Connector Color BLACK H.S.	Terminal No. Color of Signal Name 2 B -

AAKIA2448GB

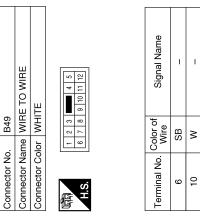
IPDM E/R (INTELLIGENT	ENGINE ROOM)				Signal Name	POWER GROUND																		
Consocior Name POWER			45 44 43 48 47 46		Terminal No. Color of Wire	47 B P(
			(正) H.S.		Term			DND																
IPDM E/R (INTELLIGENT	DULE ENGINE ROOM		6 25 24 23 22 21 20 19 8 37 36 35 34 33 32 31		Signal Name	CAN-L	CAN-H	ZND SIGNAL GROUND	:	Signal Name	-	ı												
_	.	<u>[</u> 	30 29 28 27 26 41 40 39 38		Color of Wire	۵	٦	В	Color		Ь	_												
Collifector No.	Connector Color	Ą	H.S.		Terminal No.	22	24	31		l erminal No.	P09	617				ſī			1					
		7		_								,			[]	<u> </u>		[2	<u> </u>	[2]				
IPDM E/R (INTELLIGENT	ULE ENGINE ROOM)		7 6 5 4 3 16 15 14 13 12 11 10		Signal Name	LO HRN RLY	SIGNAL GROUND			TO WIRE	- L		1, 2, 3, 4, 5,	W 100	11.3 [12.3] [13.3] [14.3] [15.		31J 32J 33J 34J 35J 36J 37J 38J 39J 40J 41J 42J 43J 44J 45J 46J 47J 48J 49J 50J	3 54 55 56 57 58 59 60 60	62, 63, 64, 65, 66, 67, 68, 69, 70,	71.3 72.3 73.3 74.3 75.3 76.3 77.3 78.3 79.3 80.3 81.3	KJ 84J 85J 86J 87J 88J 89J 90J	917 921 931 941 951	196 Jag L79 Jag]
		- II	9 8 7 6 1		Color of Wire	_	В		1450	WIRE	or WHITE				11.0 12.0 15	9 022	31.) 32.) 3;	51J 52J 56	62.1 63	71.0 72.0 75	827 8			
omely retooded	Connector Color		H.S.		Terminal No.	6	12		ON rotoerdo.	Connector Name WIBE TO WIBE	Connector Color		H.S.											



Signal Name	SES EXT REAR ANTENNA B	SES INT MIDDLE ANTENNA B (WITH INTELLIGENT KEY SYSTEM)	SES INT MIDDLE ANTENNA A (WITH INTELLIGENT KEY SYSTEM)	SES EXT REAR ANTENNA A (WITH INTELLIGENT KEY SYSTEM)	CAN-L
Color of Wire	BR	>	7	ß	Ъ
Terminal No. Wire	61	62	63	64	80



Connector No.		B54
Connector Na	me M	Connector Name WIRE TO WIRE
Connector Color WHITE	N	ИНТЕ
H.S.		
Terminal No.	Color of Wire	of Signal Name
-	m	1



	16	32			
	9 10 11 12 13 14 15 16	30 31 32			
	4	30			
	13	53		_ m	
	12	28		Ĕ	
	ΙĘ	27		l e	١.
\square	9	18 19 20 21 22 23 24 25 26 27 28		Signal Name	1
И	6	25		.jg	
N	∞	24		ေ	
I١	7	23			
Ξ	9	22			
	2	21		g d	
	4	20		l P iii	LG
	က	19		丙 <	_
	2	18			
	Œ	17		≥	
		į.	J	Terminal No. Wire	19
恒	Ť	•		_ "	

AAKIA3204GB

Connector Name WIRE TO WIRE

B46

Connector No.

Connector Color WHITE

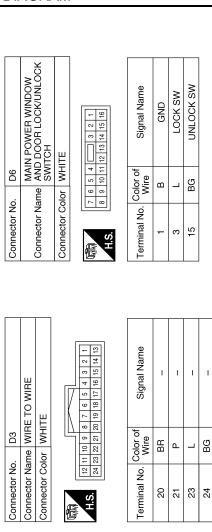
	А
Aame lame	В
Connector No. B71 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE 3 SB Connector Name REAR DOOR SWITCH RH Connector Name REAR DOOR SWITCH RH Connector Color WHITE Terminal No. Color of Signal Name 3 NW Connector Name Rear Door SWITCH RH Signal Name 3 NW	С
Connector No. B71 Connector Name FRONT Connector Name FRONT 3 SB	D
Connector No. 3 Terminal No. A.S. Terminal No. 3	Е
	F
Signal Name Signal Name Signal Name	G
	Н
Connector No. B70 Connector Name REAR I Connector Color WHITE 3 R R Connector Name FRONT Connector Color of H.S. Terminal No. Color of H.S. 3 GR	I
Connector No. Connector Name Connector No. Connector No. Connector No. Connector No. Connector No. 3 H.S. H.S. Terminal No. Color Terminal No. 3 Gold Terminal No. 3 Gold Terminal No. 3 Gold Terminal No. Color Terminal No. Terminal N	J
	SEC
Signal Name Signal Name Signal Name Signal Name Signal Name Signal Name	L
B63 JOINT CONN GRAY GR	M
ctor No. Ctor Name ctor Color Name ctor No. Ctor Name ctor No. Ctor No	N
AAKIA2450GB	0
	Р

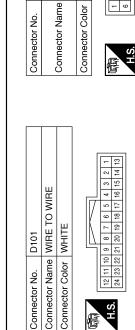
Revision: September 2015 SEC-63 2016 Rogue NAM

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

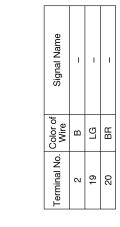
D112

WHITE





BG



Signal Name

Color of Wire

Terminal No.

Ī I

B 16 Ш

> N က

Connector No.). D2	
Connector Name WIRE TO WIRE	ıme WIF	E TO WIRE
Connector Color WHITE	olor WHI	TE
H.S.	7 6 5 4 16 15 14 13	12 11 10 9 8
Terminal No. Wire	Color of Wire	Signal Name
16	В	ı

Connector No.	D23
Connector Name	Connector Name FRONT DOOR LOCK ASSEMBLY LH
Connector Color GRAY	GRAY
H.S.	2 3 4 5 6

Signal Name	ı	1	-
Color of Wire	В	۵	BR
Terminal No. Wire	4	5	9

AAKIA3205GB

												T
809	CK DOOR LOCK	Connector Name AUTOMATIC BACK	OOR SYSTEM)	НТЕ			J.,	4 3 2 1		f Signal Name	ı	
<u>~</u>	B/	me At	<u> </u>	or			_			Color o Wire	≥	
Connector No. D508		Connector Na		Connector Color WHITE		E C	立す	H.S.		Terminal No. Color of Wire	ဇ	
										Φ		
505	Sonnector Name WIRE TO WIRE	HITE								of Signal Name	1	
<u> </u>	me W	N								Color	ω	
Connector No. D505	Connector Na	Connector Color WHITE		僵	SH					Terminal No. Color of Wire	-	
				F	2 1	18 17						
	TO WIRE	ш			9 8 7 6 5 4 3	28 27 26 25 24 23 22 21 20 19 1				Signal Name	I	
D501	ne WIRE	v WHIT			14 13	30 29				Solor of Wire	3	
Connector No. D501	Connector Name WIRE TO WIRE	Connector Color WHITE		管		32 31				Terminal No. Color of Wire	19	_

Connector No.	o. D512	12
Connector Name		BACK DOOR LOCK ASSEMBLY (WITH AUTOMATIC BACK DOOR SYSTEM)
Connector Color WHITE	olor WH	IITE
原到 H.S.	1 4	S S C C C C C C C C
Terminal No.	Color of Wire	Signal Name
7	*	I
8	8	ı

В

Α

 D

Е

F

G

Н

J

SEC

L

 \mathbb{N}

Ν

0

Р

AAKIA3218GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

OVERALL SEQUENCE



ALAIA0158GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

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).
- 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-47. "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 CONFIR-MATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to GI-45, "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 CON-SULT.

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

SEC

Α

В

D

Е

Н

L

I\ /1

N

 \circ

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to GI-45, "Intermittent Incident".

8.REPAIR OR REPLACE THE MALFUNCTIONING PART

- 1. Repair or replace the malfunctioning part.
- 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.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT **ECM**

ECM: Description

INFOID:0000000012423949

Α

D

Е

Performing the following procedure can automatically activate recommunication of ECM and BCM, but only when the ECM is replaced with a new one*.

*: New one means an ECM that has never been energized on-board.

(In this step, initialization procedure by CONSULT is not necessary)

NOTE:

- If multiple keys are attached to the key holder, separate them before beginning work.
- Distinguish keys with unregistered key IDs from those with registered IDs.

ECM: Work Procedure

INFOID:0000000012423950

1.PERFORM ECM RECOMMUNICATING FUNCTION

- Install ECM.
- 2. Contact backside of registered Intelligent Key* to push-button ignition switch, then turn ignition switch to ON.
 - *: To perform this step, use the key that is used before performing ECM replacement.
- 3. Maintain ignition switch in the ON position for at least 5 seconds.
- Turn ignition switch to OFF.
- Check that the engine starts.

Н

>> GO TO 2.

 $oldsymbol{2}$ PERFORM ADDITIONAL SERVICE WHEN REPLACING ECM

Perform EC-139, "Work Procedure".

>> Inspection End.

BCM

INFOID:0000000012423951

BCM : Description

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement.

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

When replacing BCM, always perform "WRITE CONFIGURATION" with CONSULT. Or not doing so, BCM control function does not operate normally.

- Complete the procedure of "WRITE CONFIGURATION" in order.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.

NOTE:

When replacing BCM, perform the system initialization (NATS). Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

BCM: Work Procedure

INFOID:0000000012423952

1. SAVING VEHICLE SPECIFICATION

(P)CONSULT Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-62, "CONFIG-URATION (BCM): Description".

SEC-69 Revision: September 2015 2016 Rogue NAM SEC

M

N

0

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT [WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2.

2.REPLACE BCM

Replace BCM. Refer to BCS-76, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

©CONSULT Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to BCS-62, "CONFIGURATION (BCM): Work Procedure".

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS) Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

>> Inspection End.

P1610 LOCK MODE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DTC/CIRCUIT DIAGNOSIS

P1610 LOCK MODE

Description INFOID:0000000012423953

ECM forcibly switches to the mode that inhibits engine start, when engine start operation is performed 5 times or more while communication between ECM and BCM is not normal.

DTC Logic INFOID:0000000012423954

DTC DETECTION LOGIC

NOTE:

- If DTC B1610 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic"
- If DTC B1610 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1610	LOCK MODE	When ECM detects a communication malfunction between ECM and BCM 5 times or more.	_

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Go to SEC-71, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. CHECK ENGINE START FUNCTION

- Check that there are no DTC's except for DTC P1610 detected. If detected, erase the DTC after fixing.
- 2. Turn ignition switch OFF.
- Contact the registered Intelligent Key backside to push-button ignition switch and wait 5 seconds.
- 4. Turn ignition switch ON.
- 5. Turn ignition switch OFF and wait 5 seconds.
- 6. Repeat steps 3 and 5 twice (a total of 3 times).
- Check that engine can start.

>> Inspection End.

SEC

INFOID:0000000012423955

Α

В

D

Е

F

Ν

Р

[WITH INTELLIGENT KEY SYSTEM]

P1611 ID DISCORD, IMMU-ECM

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1611	ID DISCORD, IMMU-ECM	The ID verification results between BCM and ECM are NG.	Harness or connectors (The CAN communication line is open or shorted.) BCM ECM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-72</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423957

1. PERFORM INITIALIZATION

Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 2.

2. CHECK SELF DIAGNOSTIC RESULT

- 1. Select "Self Diagnostic Result" of "ENGINE" using CONSULT.
- Erase DTC.
- Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to <u>SEC-72, "DTC Logic"</u>.

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.REPLACE BCM

- Replace BCM. Refer to <u>BCS-76</u>, "Removal and Installation".
- 2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with registered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 4.

4.REPLACE ECM

- 1. Replace ECM. Refer to EC-503, "Removal and Installation".
- 2. Perform "ADDITIONAL SERVICE WHEN REPLACING ECM". Refer to EC-139, "Work Procedure".

>> Inspection End.

P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1612 CHAIN OF ECM-IMMU

DTC Logic INFOID:0000000012423958

DTC DETECTION LOGIC

NOTE:

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1612	CHAIN OF BCM-ECM	Inactive communication between BCM and ECM	Harness or connectors (The CAN communication line is open or shorted.) ECM BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-73, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

NOTE:

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

${f 1}$.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT.

Check BCM power supply and ground circuit. Refer to BCS-69, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the harness.

2.CHECK ECM POWER SUPPLY AND GROUND CIRCUIT.

Check ECM power supply and ground circuit. Refer to EC-168, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the harness.

$oldsymbol{3}$.PERFORM DTC CONFIRMATION PROCEDURE.

Perform the DTC confirmation procedure. Refer to SEC-73, "DTC Logic".

Does the DTC return?

YES >> Replace BCM. Refer to BCS-76, "Removal and Installation"

NO >> Inspection End. SEC

Α

В

D

Е

F

Н

INFOID:0000000012423959

M

N

0

P161D IMMOBILIZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P161D IMMOBILIZER

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P161D	IMMOBILIZER	When immobilizer detects a malfunction, and prohibits the engine start.	ВСМ

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-76</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423961

1.REPLACE BCM

Replace BCM. Refer to BCS-76, "Removal and Installation".

>> Inspection End.

P161E IMMOBILIZER

_	\neg		\sim 11	201		CNIC	2010	_
<	U	I (./	ווכטי	てしょ	 ΙЛΑ	ורווענ	SISC	_

[WITH INTELLIGENT KEY SYSTEM]

P161E IMMOBILIZER

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P161E	IMMOBILIZER	After replacing the ECM, when the ECM is not registered to the vehicle by using the CONSULT.	• BCM • ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-76</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.PERFORM REGISTRATION OF ECM

Perform registration of ECM using CONSULT.

Is DTC detected?

YES >> Inspection End.

NO >> GO TO 2.

2.REPLACE BCM

Replace BCM. Refer to BCS-76, "Removal and Installation".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.REPLACE ECM

Replace ECM. Refer to EC-503, "Removal and Installation".

>> Inspection End.

INFOID:0000000012423963

Н

Α

В

D

Е

F

·

J

SEC

SEC

M

Ν

0

P161F IMMOBILIZER

[WITH INTELLIGENT KEY SYSTEM]

P161F IMMOBILIZER

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P161F	IMMOBILIZER	When immobilizer detects a malfunction, and prohibits the engine start.	ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-76</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423965

1.REPLACE ECM

Replace ECM. Refer to EC-503, "Removal and Installation".

>> Inspection End.

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2190 NATS ANTENNA AMP.

Description INFOID:0000000012423966

Performs ID verification through BCM and NATS antenna amplifier when ignition switch turned ON. Prohibits the start of engine when an unregistered ID of ignition key is used.

DTC Logic INFOID:0000000012423967

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190	NATS ANTENNA AMP	 Inactive communication between NATS antenna amp. and BCM. Ignition key is malfunctioning. 	Harness or connectors (The NATS antenna amp. circuit is open or shorted) Ignition key NATS antenna amp. BCM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON.

Check "Self Diagnostic Result" using CONSULT.

Is DTC detected?

YES >> Refer to SEC-77, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.INTELLIGENT KEY REGISTRATION Using CONSULT, register all Intelligent Keys again.

>> GO TO 2.

2.CHECK SELF DIAGNOSTIC RESULT

- Select "Self Diagnostic Result" of "BCM" using CONSULT.
- Erase DTC.
- Perform DTC CONFIRMATION PROCEDURE for B2190. Refer to SEC-77, "Description".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.CHECK NATS ANTENNA COMMUNICATION SIGNAL

Check voltage signal between NATS antenna amp. harness connector and ground using an oscilloscope.

SEC

Α

В

D

Е

Н

INFOID:0000000012423968

M

Ν

0

(+) NATS antenna amp.		(-)	Con	dition	Voltage (Approx.)
Connector	Terminal				
	1			Other than above.	(V) 15 10 1 s JMMIA1651GB
M25		Ground	Intelligent Key bat- tery is removed and	When a registered Intelligent Key backside is contacted to push-button ignition switch.	0 V
5	3	Sissing	brake pedal is de- pressed.	Other than above.	(V) 150 100 50 0
				When a registered Intelligent Key backside is contacted to push-button ignition switch.	0 V

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to <u>SEC-118, "Removal and Installation"</u>.

NO >> GO TO 4.

4. CHECK NATS ANTENNA COMMUNICATION SIGNAL CIRCUIT

- 1. Disconnect BCM connector and NATS antenna connector.
- 2. Check continuity between NATS antenna amp. harness connector and BCM harness connector.

NATS antenna amp.		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M25	1	M19	115	Yes
IVIZO	3	IVITS	114	res

3. Check continuity between NATS antenna amp. connector and ground.

NATS ant	enna amp.		Continuity
Connector	Terminal	Ground	Continuity
M25	1	Ground	No
IVIZS	3		INU

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. REPLACE BCM

Replace BCM. Refer to BCS-76, "Removal and Installation".

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	11 01/10110
>> Ins	pection End.

Α

В

С

D

Е

F

G

Н

J

SEC

L

M

Ν

0

B2191 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2191 DIFFERENCE OF KEY

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF KEY	The ID verification results between BCM and Intelligent Key are NG. The registration is necessary.	Intelligent Key

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-80, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423970

1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 2.

2. REPLACE INTELLIGENT KEY

- 1. Prepare Intelligent Key that matches the vehicle.
- 2. Registration of all Intelligent Key using CONSULT.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 3.

3.check intermittent incident

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

B2192 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2192 ID DISCORD, IMMU-ECM

DTC Logic INFOID:0000000012423971

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD BCM-ECM	The ID verification results between BCM and ECM are NG.	Harness or connectors (The CAN communication line is open or shorted.) BCM ECM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-81, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.PERFORM INITIALIZATION

Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with reregistered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK SELF-DIAGNOSTIC RESULT

- Select "Self Diagnostic Result" of "BCM" using CONSULT.
- Erase DTC.
- Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-81, "DTC Logic".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.REPLACE BCM

- Replace BCM. Refer to BCS-76, "Removal and Installation".
- Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with registered Intelligent Key?

YES >> Inspection End.

NO >> GO TO 4.

4.REPLACE ECM

- Replace ECM. Refer to EC-503, "Removal and Installation".
- Perform "ADDITIONAL SERVICE WHEN REPLACING ECM". Refer to EC-139, "Work Procedure".

>> Inspection End.

SEC

Α

В

D

Е

Н

INFOID:0000000012423972

Ν

0

[WITH INTELLIGENT KEY SYSTEM]

B2193 CHAIN OF ECM-IMMU

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193	CHAIN OF BCM-ECM	Inactive communication between BCM and ECM	Harness or connectors (The CAN communication line is open or shorted.) ECM BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO <u>SEC-82</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423974

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT.

Check BCM power supply and ground circuit. Refer to BCS-69, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the harness.

2.CHECK ECM POWER SUPPLY AND GROUND CIRCUIT.

Check ECM power supply and ground circuit. Refer to EC-168, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace ECM. Refer to EC-503, "Removal and Installation". GO TO 3.

NO >> Repair or replace the harness.

3.PERFORM DTC CONFIRMATION PROCEDURE.

Perform the DTC confirmation procedure. Refer to SEC-82, "DTC Logic".

Does the DTC return?

YES >> Replace BCM. Refer to BCS-76, "Removal and Installation"

NO >> Inspection End.

B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2196 DONGLE UNIT

Description INFOID:0000000012423975

BCM performs ID verification between BCM and dongle unit.

When verification result is OK, BCM permits cranking.

DTC Logic INFOID:0000000012423976

DTC DETECTION LOGIC

NOTE:

- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2196	DONGLE NG	The ID verification results between BCM and dongle unit is NG.	 Harness or connectors (Dongle unit circuit is open or shorted.) Dongle unit

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- Turn ignition switch ON.
- Check "Self Diagnostic Result" of "BCM" using CONSULT.

Is the DTC detected?

YES >> Refer to <u>SEC-83</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-44, "Wiring Diagram".

1.PERFORM INITIALIZATION

- Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.
- Start the engine.

Dose the engine start?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK DONGLE UNIT CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and dongle unit connector.
- Check continuity between BCM harness connector and dongle unit harness connector.

В	BCM Dongle unit			Continuity
Connector	Terminal	Connector Terminal		Continuity
M18	16	M5	1	Yes

Check continuity between BCM harness connector and ground.

SEC

INFOID:0000000012423977

Α

В

D

Е

F

Н

M

N

B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

В	CM		Continuity
Connector	Connector Terminal		Continuity
M18	16		No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check dongle unit ground circuit

Check continuity between dongle unit harness connector and ground.

Dong	le unit		Continuity
Connector Terminal		Ground	Continuity
M5	4		Yes

Is the inspection result normal?

YES >> Replace dongle unit.

NO >> Repair or replace harness.

B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2198 NATS ANTENNA AMP.

DTC Logic INFOID:0000000012423978

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2198	NATS ANTENNA AMP	Inactive communication between NATS antenna amp. and BCM.	Harness or connectors (The NATS antenna amp. circuit is open or shorted) NATS antenna amp. BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

- Contact Intelligent Key back side to push-button ignition switch.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-85, "Diagnosis Procedure".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

- Press the push-button ignition switch.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-85, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-44, "Wiring Diagram".

1. CONNECTOR INSPECTION

- Disconnect BCM and NATS antenna amp.
- Check connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace as necessary.

2.CHECK NATS ANTENNA AMP. CIRCUIT

- Disconnect BCM connector and NATS antenna amp. connector.
- Check continuity between BCM harness connector and NATS antenna amp. harness connector.

BCM		NATS antenna amp.		Continuity
Connector	Terminal	Connector Terminal		Continuity
M19	114	M25	3	Yes
IVI 19	115	IVIZO	1	165

Check continuity between BCM harness connector and ground.

INFOID:0000000012423979

Α

В

D

Е

Н

M

Ν

Р

SEC-85 Revision: September 2015 2016 Rogue NAM

B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

В	СМ		Continuity	
Connector	Connector Terminal		Continuity	
M19	114	Ground	No	
IVITS	115		INO	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK NATS ANTENNA AMP INPUT SIGNAL 1

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

(+) BCM		(-)	Condition	Signal (Reference value)
Connector	Terminal			,
M19	114, 115	Ground	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA3839GB
WITS	114, 115	Ground	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76</u>, "Removal and Installation".

NO >> Replace NATS antenna amp. Refer to <u>SEC-118</u>, "Removal and Installation".

B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2556 PUSH-BUTTON IGNITION SWITCH

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BTN IGN SW	BCM detects the push-button ignition switch stuck at ON for 100 seconds or more.	Harness or connectors (Push-button ignition switch circuit is shorted.) Push-button ignition switch BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press push-button ignition switch under the following condition:
- Brake pedal: Not depressed
- 2. Release push-button ignition switch and wait 100 seconds or more.
- 3. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-87, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-31, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect push-button ignition switch connector.
- 3. Check voltage between push-button ignition switch harness connector and ground.

(+) Push-button ignition switch		(-)	Voltage (V) (Approx.)
Connector	Terminal		(.pp. •/)
M17	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.check push-button ignition switch circuit

- 1. Disconnect BCM connector and IPDM E/R connector.
- 2. Check continuity between push-button ignition switch harness connector and BCM harness connector.

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector Terminal		Continuity
M17	5	M19	89	Yes

3. Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch			Continuity
Connector	Terminal	Ground	Continuity
M17	5		No

Revision: September 2015 SEC-87 2016 Rogue NAM

SEC

Α

В

D

Е

INFOID:0000000012423981

M

Ν

B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.REPLACE BCM

- 1. Replace BCM. Refer to BCS-76, "Removal and Installation".
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.
 - >> Inspection End.

4. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-88, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace push-button ignition switch. Refer to <u>SEC-120, "Removal and Installation"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012423982

1.check push-button ignition switch

- 1. Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch connector.
- 3. Check continuity between push-button ignition switch terminals.

Push-button ignition switch		Condition		Continuity
Terminal				
4	5	Push-button ignition	Pressed	Yes
	3	switch	Not pressed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to <u>SEC-120, "Removal and Installation"</u>.

B2557 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2557 VEHICLE SPEED

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible causes
B2557	VEHICLE SPEED	 BCM detects one of the following conditions for 10 seconds continuously. Vehicle speed signal from combination meter is 10 km/h (6.2 MPH) or more, and vehicle speed signal from ABS actuator and electric unit (control unit) is 4 km/h (2.5 MPH) or less. Vehicle speed signal from combination meter is 4 km/h (2.5 MPH) or less, and vehicle speed signal from ABS actuator and electric unit (control unit) is 10 km/h (6.2 MPH) or more. 	Harness or connectors (The CAN communication line is open or shorted.) Combination meter ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start engine and wait 10 seconds or more.
- 2. Drive the vehicle at a vehicle speed of 10 km/h (6.2 MPH) or more for 10 seconds or more.
- 3. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-89, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

· ·

1. CHECK DTC OF "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check DTC in "Self Diagnostic Result" of "ABS" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 2.

2.CHECK DTC OF "COMBINATION METER"

Check DTC in "Self Diagnostic Result" of "METER/M&A" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-31, "DTC Index".

NO >> GO TO 3.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

250

Α

В

D

Е

SEC

.

M

Ν

INFOID:0000000012423984

SEC-89 2016 Rogue NAM

B2602 SHIFT POSITION

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Selector lever is in the P (Park) position • Vehicle speed is 4 km/h (2.5 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CAN communication line is open or shorted.) Harness or connectors [CVT shift selector (park position switch) circuit is open or shorted.] CVT shift selector (park position switch) Combination meter BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start engine.
- 2. Drive vehicle at a speed of 4 km/h (2.5 MPH) or more for 10 seconds or more.
- 3. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-90</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423986

Regarding Wiring Diagram information, refer to SEC-31, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

- Turn ignition switch ON.
- Select "DETE/CANCEL SW" and "VEH SPEED 1" in "Data Monitor" with CONSULT.
- 3. Check "DETE/CANCEL SW" and "VEH SPEED 1" indication under the following conditions:

Monitor item	Condition		Indication
DETE/CANCEL SW	CVT Shift selector	In any position other than P (Park)	OFF
DETERMINATE SW	CV I Still Selector	P (Park)	ON
VEH SPEED 1	Vehicle not moving		0
VEH SFEED I	Vehicle moving		Varies

Is the inspection result normal?

YES >> Refer to GI-45, "Intermittent Incident".

NO-1 >> If "DETE/CANCEL SW" is incorrect. GO TO 4.

NO-2 >> If "VEH SPEED 1" is incorrect. GO TO 2.

2.CHECK DTC OF COMBINATION METER

Check DTC in "Self Diagnostic Result" of "METER/M&A" using CONSULT.

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-31, "DTC Index".

NO >> GO TO 3.

 $3. {\sf CHECK}$ DTC OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Check DTC in "Self Diagnostic Result" of "ABS" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 6.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

- 1. Disconnect BCM connector and CVT shift selector connector.
- 2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

CVT shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M107	13	M19	94	Yes

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

CVT shift selector (p	park position switch)		Continuity
Connector	Connector Terminal		Continuity
M107	13		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

${f 5}$.CHECK CVT SHIFT SELECTOR CIRCUIT

- Disconnect BCM connector and CVT shift selector connector.
- Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

CVT shift selector (park position switch)		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M107	12	M18	17	Yes

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

CVT shift selector (park position switch)		Continuity
 Connector	Terminal	Ground	Continuity
M107	12		No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

Refer to SEC-92, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace CVT shift selector. Refer to TM-193, "Removal and Installation".

.CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

SEC

Α

D

Е

F

. .

Ν

0

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Component Inspection

INFOID:0000000012423987

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

- 1. Turn ignition switch OFF.
- 2. Disconnect CVT shift selector connector.
- 3. Check continuity between CVT shift selector (park position switch) terminals.

CVT shift selector (CVT shift selector (park position switch)		Condition	
Ter	minal	Con	Condition	
12	12 13		P (Park) position	No
12	15	Selector lever	Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to TM-193, "Removal and Installation".

B2604 SHIFT POSITION

DTC Logic INFOID:0000000012423988

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	SHIFT PN DIAG CAN	 The following states are detected for 5 seconds while ignition switch is ON: P/N position signal is sent from transmission range switch but shift position signal input (CAN) from TCM is other than P and N. P/N position signal is not sent from transmission range switch but shift position signal input (CAN) from TCM is P or N. 	Harness or connectors (The CAN communication line is open or shorted.) Harness or connectors (Transmission range switch circuit is open or shorted.) TCM BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Shift the selector lever to the P position.
- Turn ignition switch ON and wait 5 seconds or more.
- Shift the selector lever to the N position and wait 5 seconds or more.
- Shift the selector lever to any position other than P and N, and wait 5 seconds or more.
- 5. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-93, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-44, "Wiring Diagram".

1. CHECK DTC OF TCM

Check DTC in "Self Diagnostic Result" of "TCM" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to TM-63, "DTC Index".

NO >> GO TO 2.

2.CHECK FUSE

Turn power switch OFF.

Check that the following fuse in IPDM E/R is not blown.

Signal name	Fuse No.	
Ignition power supply	46 (10 A)	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the blown fuse after repairing the cause of blowing.

${f 3.}$ CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY

- Disconnect transmission range switch connector.
- Turn ignition switch ON.

SEC

Α

В

D

Е

Н

INFOID:0000000012423989

Ν

SEC-93 Revision: September 2015 2016 Rogue NAM

B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

3. Check voltage between transmission range switch harness connector and ground.

(+) Transmission range switch		(-)	Voltage (V) (Approx.)
Connector	Terminal		(
F78	7	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5. NO >> GO TO 4.

4. CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- Check continuity between transmission range switch harness connector and IPDM E/R harness connector.

Transmission	Transmission range switch		IPDM E/R	
Connector	Terminal	Connector	Terminal	Continuity
F78	7	F35	70	Yes

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-44, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK BCM INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Reconnect transmission range switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between BCM harness connector and ground.

(+) BCM		(–) Cond		dition	Voltage (V) (Approx.)
Connector	Terminal				() ,
M19	89	Ground	Ground Selector lever		Battery voltage
10119	09	Giodila	Selector level	Other than above	0

Is the inspection result normal?

YES >> GO TO 9. NO >> GO TO 6.

6.CHECK BCM INPUT SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect transmission range switch connector.
- Disconnect BCM connector.
- Check continuity between transmission range switch harness connector and BCM harness connector.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
F78	10	M19	89	Yes

5. Check continuity between transmission range switch harness connector and ground.

Transmission range switch			Continuity
Connector	Terminal	Ground	
F78	10		No

Is the inspection result normal?

B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 7.

NO >> Repair or replace harness.

7. CHECK TRANSMISSION RANGE SWITCH

Refer to SEC-95, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace transmission range switch.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

9. REPLACE BCM

- 1. Replace BCM. Refer to BCS-76, "Removal and Installation".
- 2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

Component Inspection

1. CHECK TRANSMISSION RANGE SWITCH

- Turn ignition switch OFF.
- 2. Disconnect transmission range switch connector.
- 3. Check continuity between transmission range switch terminals.

Transmission range switch Terminal		Condition	Continuity
		Condition	Continuity
7	10	P or N position	Yes
1	10	Other than above	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace transmission range switch.

SEC

J

Α

В

D

Е

F

Н

INFOID:0000000012423990

M

Ν

B2608 STARTER RELAY

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".
- If DTC B2608 is displayed with other DTC (BCM), first perform the trouble diagnosis for other DTC detected.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM outputs starter relay OFF signal but BCM receives starter relay ON signal from IPDM E/R (CAN).	Harness or connectors (The CAN communication line is open or shorted.) Harness or connectors (Starter relay circuit is open or shorted.) IPDM E/R Starter relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press push-button ignition switch under the following conditions to start engine:
- Selector lever: In the P position
- Brake pedal: Depressed
- 2. Wait 1 second after engine started.
- 3. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-96</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423992

1. CHECK DTC OF IPDM E/R

Select "Self Diagnostic Result" of "IPDM E/R" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to PCS-26, "DTC Index".

NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace BCM. Refer to BCS-76, "Removal and Installation".

B260F ENGINE STATUS

Description INFOID:0000000012423993

BCM receives the engine status signal from ECM via CAN communication.

DTC Description INFOID:0000000012423994

DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B260F	ENG STATE SIG LOST (Engine state signal lost)	BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position.

POSSIBLE CAUSE

Harness or connectors

(The CAN communication line is open or shorted.)

ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

>> Perform diagnosis of applicable, U1000: Refer to BCS-65, "DTC Logic", U1010: Refer to BCS-66, YES "DTC Logic".

NO >> GO TO 2.

${f 2}$.PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON and wait 2 seconds or more.

Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-97</u>, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".

NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

 CHECK DTC PRIORITY If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-65, "DTC Logic". U1010: Refer to BCS-66, "DTC Logic".

NO >> GO TO 2.

2.INSPECTION START

- Turn ignition switch ON.
- Select "Self Diagnostic Result" of "BCM" using CONSULT.
- Touch "ERASE".
- Perform DTC CONFIRMATION PROCEDURE for DTC B260F. Refer to SEC-97, "DTC Description".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

SEC-97 Revision: September 2015 2016 Rogue NAM SEC

Α

В

D

Е

INFOID:0000000012423995

Ν

B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

3.REPLACE ECM

Replace ECM. Refer EC-503, "Removal and Installation".

>> Inspection End

B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B261E VEHICLE TYPE

Description INFOID:0000000012423996

There are two types of vehicles.

- HEV
- Conventional

DTC Logic INFOID:0000000012423997

DTC DETECTION LOGIC

NOTE:

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM mis-configuration Wrong ECM installed

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- Shift selector lever is in the P (Park) or N (Neutral) position
- Do not depress brake pedal
- Check "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-99, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012423998

1.INSPECTION START

- Turn ignition switch ON.
- Check "Self Diagnostic Result" of "BCM" using CONSULT. 2.
- Touch "ERASE".
- Perform DTC Confirmation Procedure. Refer to SEC-99, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 2.

NO >> Inspection End.

2.PERFORM BCM CONFIGURATION.

Perform the BCM configuration. Refer to BCS-62, "CONFIGURATION (BCM): Work Procedure".

>> GO TO 3.

3.INSPECTION START

- Turn ignition switch ON.
- Check "Self Diagnostic Result" of "BCM" using CONSULT.
- Touch "ERASE".
- Perform DTC Confirmation Procedure.

Refer to <u>SEC-99</u>, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 4.

NO >> Inspection End. SEC

Α

В

D

Е

F

Н

M

Ν

B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

4. CONFIRM ECM PART NUMBER.

Confirm the part number of the installed ECM is correct.

Is the ECM part number correct?

YES >> Replace BCM. Refer to BCS-76, "Removal and Installation".

NO >> Replace ECM. Refer to EC-503, "Removal and Installation".

B26FC KEY REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B26FC KEY REGISTRATION

DTC Logic INFOID:0000000012423999

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26FC	KEY REGISTRATION	Intelligent Key that does not match the vehicle is registered.	Improper registration operationIntelligent KeyBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

>> Go to SEC-101, "Diagnosis Procedure" YES

>> Inspection End. NO

Diagnosis Procedure

1. REPLACE INTELLIGENT KEY

- Prepare Intelligent Key that matches the vehicle.
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YFS >> GO TO 2.

NO >> Inspection End.

2.REPLACE BCM

- Replace BCM. Refer to BCS-76, "Removal and Installation".
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CON-SULT Immobilizer mode and follow the on-screen instructions.

>> Inspection End.

L

Ν

Р

SEC-101 Revision: September 2015 2016 Rogue NAM **SEC**

Α

В

D

F

INFOID:0000000012424000

B27D1 START CUT RELAY OFF

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B27D1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".
- If DTC B27D1 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to BCS-66, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B27D1	STARTER CUT RELAY OFF	When comparing the starter cut relay signal (CAN) from IPDM E/R, BCM detects that starter cut relay is stuck in the OFF position for 1 second or more.	Harness or connectors (The CAN communication line is open or shorted.) Harness or connector (Starter cut relay circuit is open or shorted.) IPDM E/R BCM Starter cut relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press push-button ignition switch under the following conditions to start engine, and wait 1 second or more.
- Selector lever: In the P position
- Brake pedal: Depressed
- 2. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-102, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424002

Regarding Wiring Diagram information, refer to SEC-31, "Wiring Diagram".

1. CHECK STARTER CUT RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect starter cut relay.
- 3. Check voltage between starter cut relay harness connector and ground.

(+) Starter cut relay		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,	
F55	1	Ground	Battery voltage	
	3		, c	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 30 A fusible link [M, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between starter cut relay and fusible link.

2. CHECK STARTER CUT RELAY CONTROL

1. Reconnect starter cut relay.

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check voltage between BCM harness connector and ground.

	+) CM	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
E29	120	Cround	CVT shift selector lever N or P position Other than above		Battery voltage
E29	139	Ground			0

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK STARTER CUT RELAY CONTROL CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector. 2.
- 3. Disconnect starter cut relay.
- 4. Check continuity between BCM harness connector and starter cut relay harness connector.

В	CM	Starter	Continuity	
Connector	Connector Terminal		Terminal	Continuity
E29	139	F55	2	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK STARTER CUT RELAY CIRCUIT

- Turn ignition switch OFF.
- Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and starter cut relay harness connector.

	Starter	Continuity		
Connector	Connector	Terminal	Continuity	
F41	86	F55	5	Yes

Check continuity between BCM harness connector and ground.

	IPDM E/R		Continuity
Connector	Terminal	Ground	Continuity
F41	86		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

CHECK STARTER CUT RELAY

Refer to SEC-104, "Component Inspection",

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace starter cut relay.

6.REPLACE BCM

- Replace BCM. Refer to BCS-76, "Removal and Installation".
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.
- Perform DTC CONFIRMATION PROCEDURE for DTC B27D1. Refer to <u>SEC-102, "DTC Logic"</u>.

Is the inspection result normal?

YES >> Inspection End.

>> Replace IPDM E/R. Refer to PCS-44, "Removal and Installation". NO

SEC-103 Revision: September 2015 2016 Rogue NAM SEC

Α

В

D

Е

Н

Ν

0

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Component Inspection

INFOID:0000000012424003

1. CHECK STARTER CUT RELAY

- Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- 3. Check continuity between starter cut relay terminals.

Starter cut relay Terminal		Condition	Continuity
		Condition	Continuity
3	5	12 V direct current supply between terminals 1 and 2	Yes
3	3	No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace starter cut relay.

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B27D2 START CUT RELAY ON

DTC Logic INFOID:0000000012424004

DTC DETECTION LOGIC

NOTE:

 If DTC B27D2 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-65, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B27D2	STARTER CUT RELAY ON	When comparing the starter cut relay signal (CAN) from IPDM E/R, BCM detects that starter cut relay is stuck in the ON position for 1 second or more.	Harness or connectors (The CAN communication line is open or shorted.) Harness or connector (Starter cut relay circuit is open or shorted.) IPDM E/R BCM Starter cut relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press push-button ignition switch under the following conditions to start engine, and wait 1 second or more.
- Selector lever: In the P position
- Brake pedal: Depressed
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-105, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-31, "Wiring Diagram".

${f 1}.$ CHECK STARTER CUT RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- Check voltage between starter cut relay harness connector and ground.

	(+)	(–)	Voltage (V)	
Starter	cut relay		Voltage (V) (Approx.)	
Connector	Terminal			
F55	1	Ground	Battery voltage	
F33	3	Giouna	ballery vollage	

Is the inspection result normal?

>> GO TO 2.

>> Check 30 A fusible link [M, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between starter cut relay and fusible link.

2.CHECK STARTER CUT RELAY CONTROL

- Reconnect starter cut relay.
- Check voltage between BCM harness connector and ground.

SEC

INFOID:0000000012424005

Α

В

D

Е

Н

Ν

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	+) CM	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				(
E29	120	Cround	CVT shift selector lever N or P position Other than above		Battery voltage
E29	139 Grou	Ground			0

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 3.

3.CHECK STARTER CUT RELAY CONTROL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Disconnect starter cut relay.
- 4. Check continuity between BCM harness connector and starter cut relay harness connector.

ВСМ		Starter	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
E29	139	F55	2	Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK STARTER CUT RELAY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and starter cut relay harness connector.

	Starter	Continuity		
Connector	Connector Terminal		Terminal	Continuity
F41	86	F55	5	Yes

4. Check continuity between BCM harness connector and ground.

	IPDM E/R		Continuity
Connector	Terminal	Ground	Continuity
F41	86		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

${f 5}$.CHECK STARTER CUT RELAY

Refer to SEC-107, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace starter cut relay.

6.REPLACE BCM

- Replace BCM. Refer to <u>BCS-76</u>, "Removal and Installation".
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.
- Perform DTC CONFIRMATION PROCEDURE for DTC B27D2. Refer to <u>SEC-105, "DTC Logic"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace IPDM E/R. Refer to PCS-44, "Removal and Installation".

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Component Inspection

INFOID:0000000012424006

1. CHECK STARTER CUT RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- 3. Check continuity between starter cut relay terminals.

Starter cut relay Terminal		Condition	Continuity
		Condition	Continuity
3	5	12 V direct current supply between terminals 1 and 2	Yes
3 5		No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace starter cut relay.

Е

 D

Α

В

C

F

G

Н

J

SEC

M

N

0

HEADLAMP FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HEADLAMP FUNCTION

Component Function Check

INFOID:0000000012424007

1. CHECK FUNCTION

- 1. Perform "HEAD LAMP(HI)" in "Active Test" of "THEFT ALM" of "BCM" using CONSULT.
- 2. Check headlamps operation.

Test item		Description	
HEAD LAMP (HI)	ON	Headlamps (Hi)	Light
	OFF		Does not light

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-108</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012424008

1. CHECK HEADLAMP FUNCTION

Refer to SEC-108, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HORN FUNCTION

Component Function Check

INFOID:0000000012424009

Α

В

C

D

Е

Н

1. CHECK FUNCTION 1

- 1. Perform "VEHICLE SECURITY HORN" in "Active Test" of "THEFT ALM" of "BCM" using CONSULT.
- 2. Check the horn operation.

Test item		Description	
VEHICLE SECURITY HORN	ON	Horn	Sounds (for 0.5 sec)

Is the operation normal?

YES >> Inspection End.

NO >> Go to SEC-53, "Wiring Diagram".

Component Inspection

INFOID:0000000012424010

1. CHECK ANTI-THEFT HORN RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect anti-theft horn relay.
- 3. Check voltage between anti-theft horn relay connector E101 terminal 3 and ground under the following conditions:

(+) Anti-theft horn relay	(-)	Condition	Voltage (V) (Approx.)
Terminal			,
2	Ground	12 V direct current supply between terminals 1 and 3	12
3	Ground	No current supply	0

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace anti-theft horn relay.

SEC

Ν

0

SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SECURITY INDICATOR LAMP

Component Function Check

1. CHECK FUNCTION

1. Perform "THEFT IND" in "Active Test" of "IMMU" of "BCM" using CONSULT.

2. Check security indicator lamp operation.

Test item		Description	
THEFT IND	ON	Security indicator lamp	Illuminates
	OFF	Gecunty indicator lamp	Does not illuminate

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-110, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012424012

INFOID:0000000012424011

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

1. CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter connector.
- 3. Check voltage between combination meter harness connector and ground.

(+)			Valtaria (V.)
Combination meter		(–)	Voltage (V) (Approx.)
Connector	Terminal		
M77	45	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 13, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between combination meter and fuse.

2.CHECK SECURITY INDICATOR LAMP SIGNAL

- Connect combination meter connector.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM harness connector and ground.

(+) BCM		(-)	Voltage (V) (Approx.)
Connector	Terminal		(* pp. 5/11)
M18	35	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

3.REPLACE BCM

- Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.
- 2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

4. CHECK SECURITY INDICATOR LAMP CIRCUIT

- Disconnect combination meter connector.
- 2. Check continuity between combination meter harness connector and BCM harness connector.

Combination meter		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M76	7	M18	35	Yes

3. Check continuity between combination meter harness connector and ground.

Combination meter			Continuity
Connector	Terminal	Ground	Continuity
M76	7		No

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84, "Removal and Installation".

NO >> Repair or replace harness.

SEC

SEC-111 Revision: September 2015 2016 Rogue NAM В

Α

D

Е

F

Н

Ν

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VE-**HICLE**

Description INFOID:0000000012424013

Engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- The engine start function, door lock function, power distribution system, and NATS-NVIS in the Intelligent Key system are closely related to each other regarding control. The vehicle security function can operate only when the door lock and power distribution system are operating normally.

Conditions of Vehicle (Operating Conditions)

- "ENGINE START BY I-KEY" in "Work support" is "ON" when setting on CONSULT.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

Diagnosis Procedure

INFOID:0000000012424014

1.PERFORM WORK SUPPORT

Perform "INSIDE ANT DIAGNOSIS" on "Work support" in "INTELLIGENT KEY". Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

>> GO TO 2.

2.PERFORM SELF-DIAGNOSTIC RESULT

Perform "Self Diagnostic Result" in "BCM", and check whether or not DTC of inside key antenna is detected.

Is DTC detected?

YES >> Refer to BCS-48, "DTC Index".

NO >> GO TO 3.

3.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to SEC-88, "Component Inspection".

Is the operation normal?

YES >> GO TO 4.

NO >> Repair or replace malfunctioning parts.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

Description INFOID:0000000012424015

Security indicator lamp does not blink when ignition switch is in a position other than ON NOTE:

- Before performing the diagnosis, check "Work Flow". Refer to <u>SEC-66, "Work Flow".</u>
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Ignition switch is not in the ON position.

Diagnosis Procedure

1. CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.

Refer to SEC-110, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

M

0

Р

SEC-113 Revision: September 2015 2016 Rogue NAM SEC

Α

В

D

Е

F

Н

INFOID:0000000012424016

Ν

VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM CANNOT BE SET

INTELLIGENT KEY

INTELLIGENT KEY: Description

INFOID:0000000012424017

ARMED phase is not activated when door is locked using Intelligent Key.

NOTE:

Check that vehicle is under the condition shown in Conditions of vehicle before starting diagnosis and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of "SECURITY ALARM SET" is "ON" in "Work support" of "THEFT ALM" of "BCM" using CONSULT.

INTELLIGENT KEY: Diagnosis Procedure

INFOID:0000000012424018

1. CHECK INTELLIGENT KEY SYSTEM (REMOTE KEYLESS ENTRY FUNCTION)

Lock/unlock door with Intelligent Key.

Refer to SEC-10, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (remote keyless entry function).

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

DOOR REQUEST SWITCH

DOOR REQUEST SWITCH: Description

INFOID:0000000012424019

ARMED phase is not activated when door is locked using door request switch.

NOTE:

Check that vehicle is under the condition shown in Conditions of vehicle before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of "SECURITY ALARM SET" is "ON" in "Work support" of "THEFT ALM" of "BCM" using CONSULT.

DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000012424020

1. CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.

Refer to SEC-10, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (door lock function).

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

DOOR KEY CYLINDER

VEHICLE SECURITY SYSTEM CANNOT BE SET

VEHICLE SECURITY SYSTEM CA	
SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
DOOR KEY CYLINDER : Description	INFOID:000000012424021
ARMED phase is not activated when door is locked using mechan	ical key.
Check that vehicle is under the condition shown in Conditions of vach symptom.	vehicle before starting diagnosis, and check
CONDITION OF VEHICLE (OPERATING CONDITION) Confirm the setting of "SECURITY ALARM SET" is "ON" in "Work CONSULT.	k support" of "THEFT ALM" of "BCM" using
OOOR KEY CYLINDER : Diagnosis Procedure	INFOID:0000000012424022
.CHECK POWER DOOR LOCK SYSTEM	
ock/unlock door with mechanical key. Refer to <u>SEC-15, "VEHICLE SECURITY SYSTEM : System Desc</u> i	ription".
s the inspection result normal? YES >> GO TO 2.	
NO >> Check power door lock system.	
CONFIRM THE OPERATION	
onfirm the operation again.	
s the result normal? YES >> Check intermittent incident. Refer to GI-45, "Intermitte NO >> GO TO 1.	nt Incident".

Revision: September 2015 SEC-115 2016 Rogue NAM

 \bigcirc

VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY ALARM DOES NOT ACTIVATE

Description INFOID:000000012424023

Alarm does not operate when alarm operating condition is satisfied.

NOTE:

Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

Confirm the setting of "SECURITY ALARM SET" is "ON" in "Work support" of "THEFT ALM" of "BCM" using CONSULT.

Diagnosis Procedure

INFOID:0000000012424024

1. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-160, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the malfunctioning door switch.

2. CHECK HORN FUNCTION

Check horn function.

Refer to SEC-109, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK HEADLAMP FUNCTION

Check headlamp function.

Refer to SEC-108, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

f 4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45. "Intermittent Incident".

NO >> GO TO 1.

PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

PANIC ALARM FUNCTION DOES NOT OPERATE

Description INFOID:0000000012424025

NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>SEC-66, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis and check each symptom.

CONDITIONS OF VEHICLE (OPERATION CONDITIONS)

- · Ignition switch is in OFF or LOCK position.
- · Intelligent Key is removed.

Diagnosis Procedure

INFOID:0000000012424026

Α

В

D

Е

Н

1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Go to <u>DLK-187</u>, "<u>Diagnosis Procedure</u>".

2.CHECK VEHICLE SECURITY ALARM OPERATION

Check vehicle security alarm operation.

Does alarm (headlamps and horns) active?

YES >> GO TO 3.

NO >> Go to SEC-15, "VEHICLE SECURITY SYSTEM: System Description".

3.CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"

Check "PANIC ALARM SET" setting in "Work support".

Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PANIC ALARM SET" setting in "Work support".

4.CONFIRM THE OPERATION

SEC

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> GO TO 1.

_

N

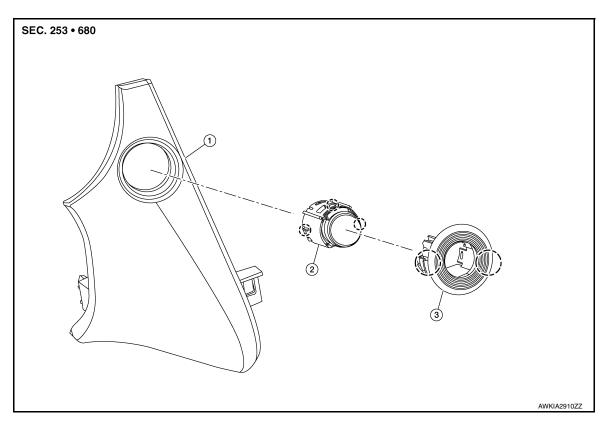
M

0

REMOVAL AND INSTALLATION

NATS ANTENNA AMP.

Exploded View



- Instrument finisher B
- 2. Push button ignition switch
- 3. NATS antenna amp.

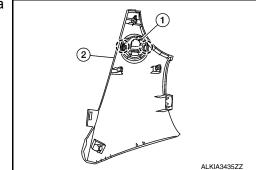
Removal and Installation

(Pawl

INFOID:0000000012424028

REMOVAL

- Remove the instrument finisher B. Refer to <u>IP-16, "INSTRUMENT FINISHER B: Removal and Installation"</u>.
- Release pawls using suitable tool and remove NATS antenna amp. (1) from instrument finisher B (2).
 Pawl

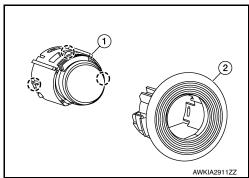


NATS ANTENNA AMP.

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

 Release pawls using suitable tool and remove NATS antenna amp. (2) from push button ignition switch (1).
 Pawl



INSTALLATION

Installation is in the reverse order of removal.

SEC

J

Α

В

D

Е

F

G

Н

L

M

Ν

0

PUSH-BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

PUSH-BUTTON IGNITION SWITCH

Removal and Installation

INFOID:0000000012424030

For the removal and installation procedures for the push-button ignition switch, refer to PCS-92, "Exploded <a href="View".

DONGLE UNIT

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

DONGLE UNIT

Removal and Installation

INFOID:0000000012424031

Α

В

С

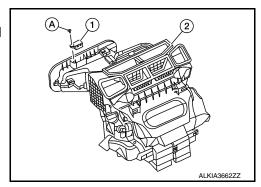
D

Е

F

REMOVAL

- 1. Remove instrument panel assembly. Refer to <u>IP-14, "INSTRUMENT PANEL ASSEMBLY: Removal and Installation".</u>
- 2. Disconnect the harness connector from the dongle unit (1).
- 3. Remove screw (A) and dongle unit (1) from the heating and cooling unit assembly (2).



INSTALLATION

Installation is in the reverse order of removal.

Н

J

SEC

M

L

Ν

0

PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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 Airbag Diagnosis Sensor Unit or other Airbag 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 and wait at least three minutes before performing any service.

Precaution for Work

- 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 >

[WITHOUT INTELLIGENT KEY SYSTEM]

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000012424034

Tool number (TechMate No.) Tool name		Description
 (J-46534) Trim Tool Set	AWIIAAA8377	Removing trim components

G

Α

В

С

 D

Е

Н

-

J

SEC

L

M

Ν

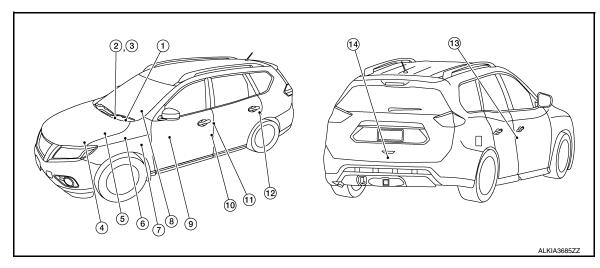
0

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012424035



No.	Component	Function
1.	Combination meter	Combination meter transmits the vehicle speed signal to BCM via CAN communication. BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed. Security indicator lamp is located on combination meter. Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. Refer to MWI-6, "METER SYSTEM: Component Parts Location".
2.	Ignition switch	Ignition switch transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of ignition switch.
3.	NATS antenna amp.	Refer to SEC-125, "NATS Antenna Amp.".
4.	Transmission range switch	Refer to TM-14, "CVT CONTROL SYSTEM: Transmission Range Switch".
5.	IPDM E/R	Refer to PCS-6, "Component Parts Location".
6.	Stop lamp switch	Refer to BRC-12, "Stop Lamp Switch".
7.	ВСМ	BCM controls NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM. Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. Refer to BCS-80. "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
8.	CVT shift selector	Refer to TM-20, "SHIFT LOCK SYSTEM: Component Parts Location".
9.	Main power window and door lock/unlock switch	Door lock and unlock switch is integrated into the main power window and door lock/unlock switch. Door lock and unlock switch transmits door lock/unlock operation signal to BCM. Refer to PWC-7, "Main Power Window And Door Lock/Unlock Switch".
10.	Front door lock assembly LH	Door key cylinder switch is integrated into front door lock assembly (driver side). Door key cylinder switch detects door LOCK/UNLOCK operation using mechanical key, and then transmits the operation signal to BCM. Refer to DLK-296, "Front Door Lock Assembly (Driver Side)".

COMPONENT PARTS

< SYSTEM DESCRIPTION >

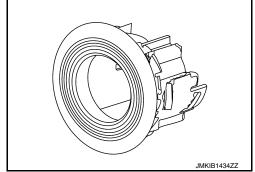
[WITHOUT INTELLIGENT KEY SYSTEM]

No.	Component	Function
11.	Front door switch LH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
12.	Rear door switch LH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
13.	Front door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
14.	Back door lock assembly	Back door lock actuator locks/unlocks the back door latch assembly.

NATS Antenna Amp.

INFOID:0000000012424036

The ID verification is performed between BCM and transponder integrated into key via NATS antenna amp. when key backside is contacted to ignition switch in case that key battery is discharged. If the ID verification result is OK, the operation of ignition switch is available.



Н

Α

В

D

Е

SEC

1 V I

Ν

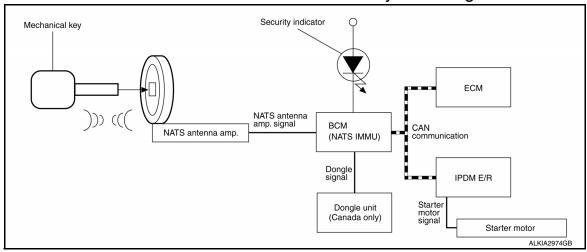
0

SYSTEM

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS: System Diagram

INFOID:0000000012424037



NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS: System Description

INFOID:0000000012424038

INPUT/OUTPUT SIGNAL CHART

BCM

Switch/Input signal	Input signal to BCM	BCM function	Actuator/Output signal	
NATS antenna amp.	Key ID	NATS	Security indicator lamp	
ECM	Engine status signal	IVAIO	Starter request	

SYSTEM DESCRIPTION

NATS (Nissan Anti-Theft System) has the following immobilizer functions:

- Engine immobilizer shows high anti-theft performance to prevent engine from starting by anyone other than the owner.
- Only a key with key ID registered in BCM and ECM can start engine, and shows high anti-theft performance to prevent key from being copied or stolen.
- Security indicator always flashes with mechanical key removed condition (key switch: OFF) and ignition knob released condition on LOCK position (ignition knob switch: OFF).
- Therefore, NATS warns outsiders that the vehicle is equipped with the anti-theft system.
- If system detects malfunction, security indicator illuminates when ignition switch is turned to ON position.
- If the owner requires, ignition key ID or mechanical key ID can be registered for up to 4 keys.
- During trouble diagnosis or when the following parts have been replaced, and if ignition key is added, registration*1 is required:
 - *1: All keys kept by the owner of the vehicle should be registered with mechanical key.
- ECM
- BCM
- Ignition key
- Remote keyless entry receiver
- NATS trouble diagnosis, system initialization and additional registration of other mechanical key IDs must be carried out using CONSULT.
 - When NATS initialization has been completed, the ID of the inserted mechanical key or mechanical key IDs can be carried out.
- Possible symptom of NATS malfunction is "Engine cannot start". Identify the possible causes according to "Work Flow", Refer to <u>SEC-162</u>, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to SEC-165, "ECM RE-COMMUNICATING FUNCTION: Description".

Α

В

D

Е

Н

SEC

N

P

PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NATS ID once, and then re-registers a new ID. Therefore the registered key is necessary for this procedure. Before starting the registration procedure, collect all registered Keys from the customer.
- The NATS ID registration is the procedure that registers the ID stored into the transponder (integrated in mechanical key) to BCM.
 - The key ID registration is the procedure that registers the ID to the BCM.
- When performing the key system registration only, the engine cannot be started by inserting the key into the key cylinder. When performing the NATS registration only, the engine cannot be started by using the ignition

SECURITY INDICATOR

Always flashes with ignition key in the OFF position.

MAINTENANCE INFORMATION

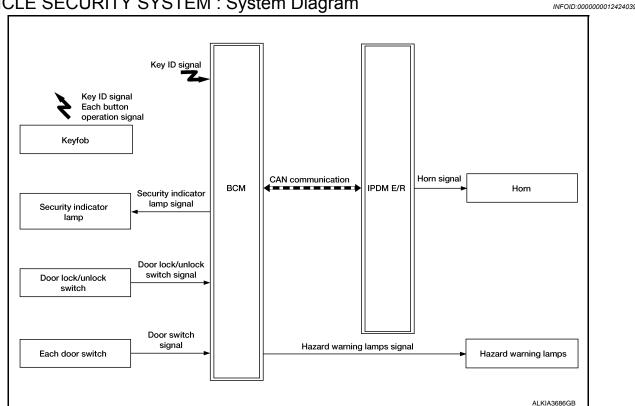
CAUTION:

It is necessary to perform NATS ID registration when replacing any of the following parts: If ID registration is not performed, the electrical system may not operate properly.

- BCM
- ECM
- IPDM E/R
- Ignition key
- NATS antenna amp.
- Combination meter

VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM: System Diagram



VEHICLE SECURITY SYSTEM: System Description

 The vehicle security system has two alarm functions (theft warning alarm and panic alarm), and reduces the possibility of a theft or mischief by activating horns (and hazard warning lamps) intermittently.

The panic alarm does not start when the theft warning alarm is activating, and the panic alarm stops when the theft warning alarm is activated.

INFOID:0000000012424040

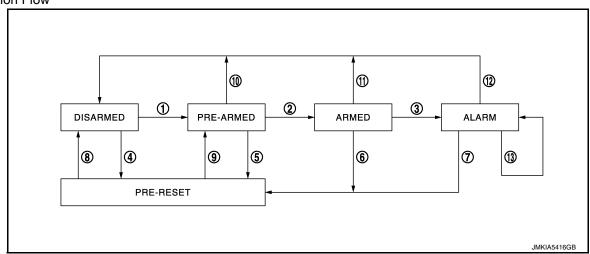
The priority of the functions are as per the following.

Priority	Function
1	Theft warning alarm
2	Panic alarm

THEFT WARNING ALARM

- The theft warning alarm function activates horns and hazard warning lamps intermittently when BCM detects that any door is opened by unauthorized means, while the system is in the ARMED state.
- Security indicator lamp on combination meter always blinks when ignition switch is in any position other than ON. Security indicator lamp blinking warns that the vehicle is equipped with a vehicle security system.

Operation Flow



No.	System state		Switching condition		
1	DISARMED to PRE-ARMED	When all conditions of A and one condition of B are satisfied.	Ignition switch: OFF All doors: Closed	B All doors are locked by: Door lock and unlock switch	
2	PRE-ARMED to ARMED	When all of the following conditions are satisfied for 30 seconds.	Ignition switch: OFF All doors: Locked	LOCK button of Keyfob	
3	ARMED to	When condition of A and one	A	В	
	ALARM condition of B are satisfied.		Keyfob: Not used	Any door: Open	
4	DISARMED to		A	В	
	PRE-RESET one condition of B are satisfied.	Ignition switch: OFF All doors: Closed	All doors are locked by: Door lock and unlock switch LOCK button of Keyfob		
5	PRE-ARMED to PRE-RESET	No conditions.			
6	ARMED to PRE-RESET	No conditions.			
7	ALARM to PRE-RESET				
8	PRE-RESET to DISARMED	When one of the following conditions is satisfied.	 Ignition switch: ACC/ON UNLOCK button of Keyfob: ON UNLOCK switch of door lock and unlock switch: ON Any door: Open 		
9	PRE-RESET to PRE-ARMED	When all of the following conditions are satisfied.	Ignition switch: OFF All doors: Locked		

[WITHOUT INTELLIGENT KEY SYSTEM]

No.	System state		Switching condition
10	PRE-ARMED to DISARMED	When one of the following conditions is satisfied.	Ignition switch: ACC/ON UNLOCK button of Keyfob: ON UNLOCK switch of door lock and unlock switch: ON Any door: Open
11	ARMED to DISARMED	When the following condition is satisfied.	UNLOCK button of Keyfob: ON
12	ALARM to DISARMED		
13	RE-ALARM	When one of the following condition is satisfied after the ALARM operation is finished.	Any door: Open

NOTE:

• To lock/unlock all doors by operating remote controller button of keyfob, the keyfob must be within the detection area of BCM. For details, refer to <a href="https://docs.pys.org/linearing-newfow-

DISARMED Phase

The vehicle security system is not set in the DISARMED phase. The vehicle security system stays in this phase while any door is open, because it is assumed that the owner is inside or nearby the vehicle. Security indicator lamp blinks every 2.4 seconds.

When the vehicle security system is reset, each phase switches to the DISARMED phase directly.

PRE-ARMED Phase

The PRE-ARMED phase is the transient state between the DISARMED phase and the ARMED phase. This phase is maintained for 30 seconds, so that the owner can reset the setting due to a mis-operation. This phase switches to the ARMED phase when vehicle conditions are not changed for 30 seconds. Security indicator lamp illuminates while being in this phase.

To reset the PRE-ARMED phase, refer to the switching condition of No. 10 in the table above.

ARMED Phase

The vehicle security system is set, and BCM monitors all necessary inputs. If any door or hood is opened without using Keyfob, vehicle security system switches to the ALARM phase. Security indicator lamp blinks every 2.4 seconds.

To reset the ARMED phase, refer to the switching condition of No. 11 in the table above.

ALARM Phase

BCM transmits "Theft Warning Horn Request" signal intermittently to IPDM E/R via CAN communication, and blinks hazard warning lamps. In this phase, horns and hazard warning lamps are activated intermittently for approximately 27.5 seconds to warn that the vehicle is accessed by unauthorized means. After 27.5 seconds, the vehicle security system returns to the ARMED phase. At this time, if BCM still detects unauthorized access to the vehicle, the system is switched to the ALARM phase again. This RE-ALARM operation is carried out a maximum of 3 times.

To cancel the ALARM operation, refer to the switching condition of No. 12 in the table above.

NOTE:

If a battery terminal is disconnected during the ALARM phase, theft warning alarm stops. But when the battery terminal is reconnected, theft warning alarm is activated again.

PANIC ALARM

The panic alarm function activates horns intermittently when the owner presses PANIC ALARM button of Keyfob outside the vehicle while ignition switch is OFF.

For details, refer to <u>SEC-127</u>, "VEHICLE SECURITY SYSTEM: System Description".

SEC

J

Н

Α

В

D

M

N

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012567359

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.

		Direct Diagnostic Mode						
System	Sub System	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	HEADLAMP			×	×			
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

IMMU

IMMU: CONSULT Function (BCM - IMMU)

INFOID:0000000012567360

SELF DIAGNOSTIC RESULT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Refer to BCS-109, "DTC Index".

$\Lambda \cap I$	ГΙ\		TE	c
AC ⁻	ı١١	ѵ⊏		ST

Test Item	Description
THEFT IND	This test is able to check security indicator operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
CONFIRM DONGLE ID —		Dongle ID can be checked.

THEFT ALM

THEFT ALM: CONSULT Function (BCM - THEFT ALM)

INFOID:0000000012567361

Α

В

 D

Е

F

Н

SEC

M

Ν

DATA MONITOR

Monitored Item	Description
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 back door 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.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [LH/RH/Off].
THEFT IND	This test is able to check security indicator lamp operation [On/Off].
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation [On].
HEADLAMP(HI)	This test is able to check vehicle security lamp operation [On].

WORK SUPPORT

Support Item	Setting	Description
SECURITY ALARM SET	On*	Security alarm ON.
SECONT FALANWISET	Off	Security alarm OFF.

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

DIAGNOSIS SYSTEM (IPDM E/R)

CONSULT Function (IPDM E/R)

INFOID:0000000012567362

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with IPDM E/R.

Direct Diagnostic Mode	Description
ECU Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-26, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
REVERSE SIGNAL [Open/Close]	Indicates condition of transmission range switch R (Reverse) position.
IGN RELAY [Open/Close]	Indicates condition of ignition relay-1.
PUSH SW [Open/Close]	Indicates condition of push-button ignition switch.
INTERLOCK/PNP SW [Open/Close]	Indicates condition of transmission range switch P (Park) and N (Neutral) positions.
OIL PRESSURE SW [Open/Close]	Indicates condition of oil pressure switch.
HOOD SW [Open/Close]	Indicates condition of hood switch.
COMPRESSOR [OFF/ON]	Indicates condition of A/C compressor.
HORN RELAY [OFF/ ON]	Indicates condition of horn relay.
COOLING FAN [OFF/ON]	Indicates condition of cooling fan relay-1.
FRONT WIPER HI/LO RELAY [OFF/ON]	Indicates condition of front wiper high relay.
FRONT WIPER RELAY [OFF/ON]	Indicates condition of front wiper relay.
IGN RELAY OFF STATUS [OFF/ON]	Indicates condition of ignition relay-1 OFF status.
IGN RELAY ON STATUS [OFF/ON]	Indicates condition of ignition relay-1 ON status.
COOLING FAN RELAY 1 [OFF/ON]	Indicates condition of cooling fan relay-1.
STARTER RELAY [OFF/ON]	Indicates condition of starter relay.
COMP ECV DUTY [%]	Indicates condition of A/C compressor.
COOLING FAN RELAY 2 [%]	Indicates condition of cooling fan relay-2.
FR FOG LAMP LH [%]	Indicates condition of front fog lamp LH.
FR FOG LAMP RH [%]	Indicates condition of front fog lamp RH.
PARKING LAMP [%]	Indicates condition of parking lamp.
TAIL LAMP LH [%]	Indicates condition of tail lamp LH.
TAIL LAMP RH [%]	Indicates condition of tail lamp RH.
DAYTIME RUNNING LIGHT LH [%]	Indicates condition of daytime running light LH.
DAYTIME RUNNING LIGHT RH [%]	Indicates condition of daytime running light RH.
HEADLAMP (HI) LH [%]	Indicates condition of headlamp high beam LH.

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
HEADLAMP (HI) RH [%]	Indicates condition of headlamp high beam RH.
HEADLAMP (LO) LH [%]	Indicates condition of headlamp low beam LH.
HEADLAMP (LO) RH [%]	Indicates condition of headlamp low beam RH.
A/C RELAY STUCK [NG/OK]	Indicates condition of A/C relay.
A/C RELAY [Off/On]	Indicates condition of A/C relay.
COMP ECV STATUS [NG/OK]	Indicates condition of A/C compressor.
VEHICLE SECURITY HORN [Off/On]	Indicates condition of horn relay.
BATTERY CURRENT SENSOR [NG/OK]	Indicates condition of battery current sensor.
FRONT FOG LAMP [Off/On]	Indicates condition of front fog lamps.
COMP ECV CURRENT [A]	Indicates condition of A/C compressor current.
BATTERY VOLTAGE [V]	Indicates condition of battery voltage.
COOLING FAN DUTY [%]	Indicates condition of cooling fans.
HOOD SW (CAN) [OPEN/CLOSE]	Indicates condition of hood switch.
FRONT WIPER [STOP/LOW/HIGH]	Indicates condition of front wiper motor.
FR WIPER STOP POSITION [STOP P/ACTIVE P]	Indicates condition of front wiper motor stop.
HEADLAMP (HI) [Off/On]	Indicates condition of headlamp high beams.
HEADLAMP (LO) [Off/On]	Indicates condition of headlamp low beams.
GNITION RELAY STATUS [Off/On]	Indicates condition of ignition relay-1.
GN RELAY MONITOR [Off/On]	Indicates condition of ignition relay-1 feedback.
GNITION POWER SUPPLY [Off/On]	Indicates condition of ignition relay-1.
NTERLOCK/PNP SW (CAN) [Off/On]	Indicates condition of transmission range switch P (Park) and N (Neutral) positions.
PUSH-BUTTON IGN SW (CAN) [Off/On]	Indicates condition of push-button ignition switch.
FAIL LAMP [Off/On]	Indicates condition of tail lamps.
REVERSE SIGNAL (CAN) [Off/On]	Indicates condition of transmission range switch R (Reverse) position.
ST&ST CONT RELAY STATUS [Off/ST R On]	Indicates condition of starter cut and starter relays.
STARTER MOTOR STATUS [Off/On]	Indicates condition of starter motor.
STARTER RELAY (CAN) [LOW/HIGH]	Indicates condition of starter relay.
PDM NOT SLEEP [NO RDY/RDY]	Indicates condition of IPDM E/R sleep status.
AFTER COOLING TIME [No request/Request]	Indicates condition of cooling fan request.
AFTER COOLING SPEED [%]	Indicates condition of cooling fans.
COOLING FAN TYPE [NISSAN/RENAULT]	Indicates cooling fan type.
COMPRESSOR REQ1 [Off/On]	Indicates condition of A/C compressor request.
VHCL SECURITY HORN REQ [Off/On]	Indicates condition of horn relay request.
OTRL REQ [Off/On]	Indicates condition of daytime running light request.
SLEEP/WAKE UP [WAKEUP/SLEEP]	Indicates condition of IPDM E/R sleep/wake.
CRANKING ENABLE-TCM [NG/OK]	Indicates condition of crank enable from TCM.
CRANKING ENABLE-ECM [NG/OK]	Indicates condition of crank enable from ECM.
CAN DIAGNOSIS [NG/OK]	Indicates condition of CAN diagnosis.
FRONT FOG LAMP REQ [Off/On]	Indicates condition of front fog lamp request.
HIGH BEAM REQ [Off/On]	Indicates condition of headlamp high beam request.
HORN CHIRP [Off/On]	Indicates condition of horn relay request.
COOLING FAN REQ [%]	Indicates condition of cooling fan request.
ENGINE STATUS [STOP/RUN/IDLING]	Indicates condition of engine status.

SEC-133 Revision: September 2015 2016 Rogue NAM

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
TURN SIGNAL REQ [Off/LH/RH]	Indicates condition of turn signal request.
FR WIPER REQ [RETURN/LOW/HIGH]	Indicates condition of front wiper motor request.
SHIFT POSITION [P/R/N/D/L]	Indicates condition of transmission range switch positions.
LOW BEAM REQ [Off/On]	Indicates condition of headlamp low beam request.
POSITION LIGHT REQ [Off/On]	Indicates condition of parking lamp request.
COMPRESSOR REQ2 [Off/On]	Indicates condition of A/C compressor request.
IGNITION SW [Off/On]	Indicates condition of ignition switch.
VEHICLE SPEED (METER) [mph/km/h]	Indicates vehicle speed.
STARTER OPERATION COUNT	Displays the number of times the starter motor is turned ON.
H/P F/PUMP OPERATN COUNT	Displays the number of times the high pressure fuel pump is turned ON.
BAT DISCHARGE COUNT [—]	Monitor the cumulative discharge value of the battery. NOTE: When 65,000 or more is counted, replace the battery.
P LAMP CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the parking lamp circuit. NOTE: When the number of parking lamp circuit retries count is 20, this item counts 1.
NMB P LAMP CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the parking lamp circuit. NOTE: When the number of short circuits in the parking lamp circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB P LAMP CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the parking lamp circuit.
DTRL LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (left) circuit. NOTE: When the number of daytime running light (left) circuit retries count is 20, this item counts 1.
NMB DTRL LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (left) circuit. NOTE: When the number of short circuits in the daytime running light (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (left) circuit.
DTRL RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (right) circuit. NOTE: When the number of daytime running light (right) circuit retries count is 20, this item counts 1.
NMB DTRL RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (right) circuit. NOTE: When the number of short circuits in the daytime running light (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (right) circuit.

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description						
F FOG LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (left) circuit. NOTE: When the number of front fog lamp (left) circuit retries count is 20, this item counts 1.						
NMB F FOG LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (left) circuit. NOTE: When the number of short circuits in the front fog lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.						
NMB F FOG LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (left) circuit.						
F FOG RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (right) circuit. NOTE: When the number of front fog lamp (right) circuit retries count is 20, this item counts 1.						
NMB F FOG RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (right) circuit. NOTE: When the number of short circuits in the front fog lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.						
NMB F FOG RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (right) circuit.						
HL (HI) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (left) circuit. NOTE: When the number of headlamp (HI) (left) circuit retries count is 20, this item counts 1.						
NMB HL (HI) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (left) circuit. NOTE: When the number of short circuits in the headlamp (HI) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.						
NMB HL (HI) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (left) circuit.						
HL (HI) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (right) circuit. NOTE: When the number of headlamp (HI) (right) circuit retries count is 20, this item counts 1.						
NMB HL (HI) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (right) circuit. NOTE: When the number of short circuits in the headlamp (HI) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.						
NMB HL (HI) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (right) circuit.						
HL (LO) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (left) circuit. NOTE: When the number of headlamp (LO) (left) circuit retries count is 20, this item counts 1.						

Revision: September 2015 SEC-135 2016 Rogue NAM

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
NMB HL (LO) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (left) circuit. NOTE: When the number of short circuits in the headlamp (LO) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (left) circuit.
HL (LO) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (right) circuit. NOTE: When the number of headlamp (LO) (right) circuit retries count is 20, this item counts 1.
NMB HL (LO) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (right) circuit. NOTE: When the number of short circuits in the headlamp (LO) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (right) circuit.
T LAMP LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (left) circuit. NOTE: When the number of tail lamp (left) circuit retries count is 20, this item counts 1.
NMB T LAMP LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (left) circuit. NOTE: When the number of short circuits in the tail lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (left) circuit.
T LAMP RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (right) circuit. NOTE: When the number of tail lamp (right) circuit retries count is 20, this item counts 1.
NMB T LAMP RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (right) circuit. NOTE: When the number of short circuits in the tail lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (right) circuit.
BATTERY STATUS [OK/NG]	Monitor the battery status from the battery output.
BAT DISCHARGE COUNT [0-100]	Indicates condition of battery discharge.
BATTERY STATUS [NG/OK]	Indicates battery status.

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [Off/On].
FRONT WIPER	This test is able to check wiper motor operation [Off/Low/High].

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Test item	Description
COMPRESSOR	This test is able to check A/C compressor operation [Off/On].
COOLING FAN (DUAL)	This test is able to check cooling fan operation [Off/LO/HI].
HEADLAMP (HI)	This test is able to check headlamp high beam operation [Off/3/5].
HEADLAMP (LO)	This test is able to check headlamp low beam operation [Off/3/5].
FRONT FOG LAMP	This test is able to check front fog lamp operation [Off/3/5].
DAYTIME RUNNING LAMP	This test is able to check daytime running lamp operation [Off/3/5].
PARKING LAMP	This test is able to check parking lamp operation [Off/3/5].
TAIL LAMP	This test is able to check tail lamp operation [Off/3/5].

CAN DIAG SUPPORT MNTR

Refer to LAN-17, "CAN Diagnostic Support Monitor".

WORK SUPPORT

Work item	Description
CML B/DCHRG CRNT CLEAR	In this mode, cumulative battery discharge current is cleared.

SEC

Α

В

С

 D

Е

F

G

Н

L

M

Ν

0

ECU DIAGNOSIS INFORMATION

ECM, IPDM E/R, BCM

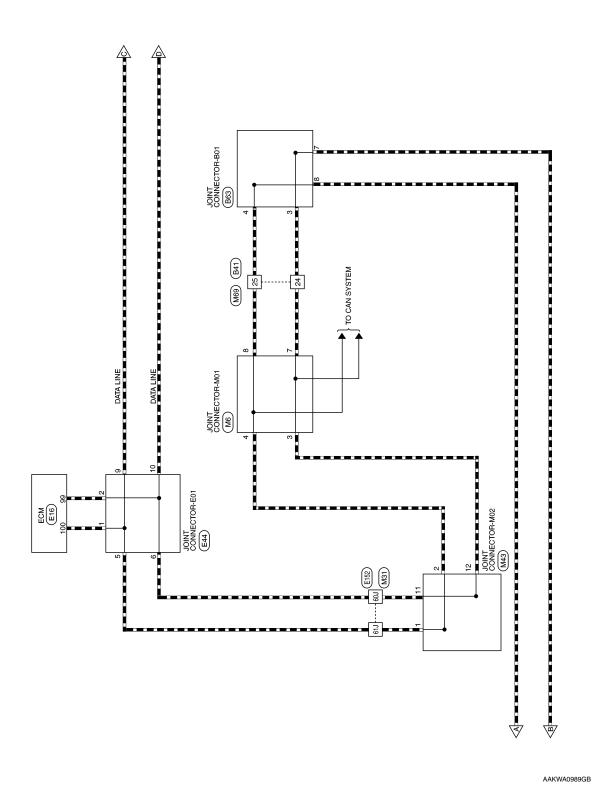
List of ECU Reference

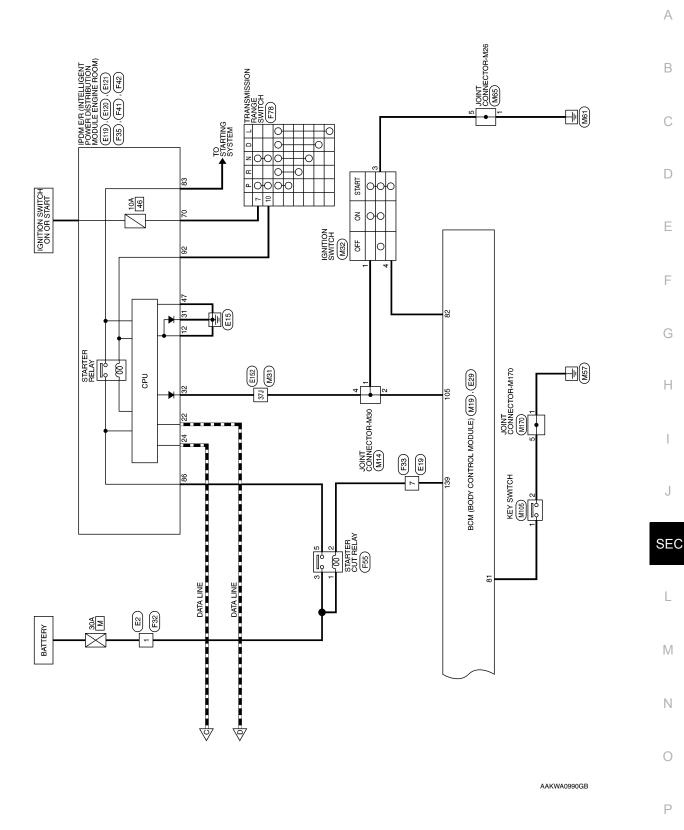
INFOID:0000000012424045

ECU	Reference
	EC-80, "Reference Value"
ECM	EC-92, "Fail Safe"
LOW	EC-95, "DTC Inspection Priority Chart"
	EC-96, "DTC Index"
	PCS-17, "Reference Value"
IPDM E/R	PCS-25, "Fail-safe"
	PCS-26, "DTC Index"
	BCS-97, "Reference Value"
BCM	BCS-108, "Fail Safe"
DOM	BCS-109, "DTC Inspection Priority Chart"
	BCS-109, "DTC Index"

[WITHOUT INTELLIGENT KEY SYSTEM] < WIRING DIAGRAM > **WIRING DIAGRAM** Α **NVIS** Wiring Diagram INFOID:0000000012424046 В $\begin{array}{l} \langle \mathbf{N} \rangle \text{: FOR CANADA} \\ \langle \mathbf{OK} \rangle \text{: WITHOUT INTELLIGENT KEY SYSTEM} \end{array}$ С D Е F G Н M76), (M77) SECURITY B16 32 J M20), NATS ANTENNA AMP (M19) SEC M18 9 NVIS - WITHOUT INTELLIGENT KEY SYSTEM L BCM (BODY CONTROL MODULE) BATTERY M Ν 0 Ρ

AAKWA1324GB

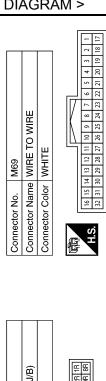




Revision: September 2015 SEC-141 2016 Rogue NAM

Connector No. M6 Connector Name JOINT CONNECTOR-M01 Connector Color GRAY	H.S.	Terminal No. Color of Signal Name	3 Р	4 L –	7 P –	8 L –	Connector No. M19	Connector Name BCM (BODY CONTROL MODULE)	Connector Color BLACK	色	H.S.	100 99 98 97 96 95 94 93 92 91 90 98 87 86 85 94 83 82 81 120 119 118 117 116 115 114 113 112 111 110 109 108 107 108 105 104 105 102 101	Terminal No. Color of Signal Name Wire	-	81 L INTELLIGENI KEY SYSTEM)	82 LA/R (WITHOUT INTELLIGENT KEY SYSTEM)	95 V I SHORTING PIN	105 Y (WITHOUT INTELLIGENT KEY SYSTEM)	109 P O CLK IMMOBILIZER	113 LG O DATA IMMOBILIZER
TELLIGENT KEY SYSTEM Connector No. M5 Connector Name DONGLE UNIT Connector Color WHITE	H.S.	Terminal No. Color of Signal Name	1 P	4 B -			Connector No. M18	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY		H.S.	20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 40 39 38 37 36 53 33 32 31 30 29 28 27 26 25 24 23 22 21	Terminal No. Color of Wire Signal Name	16 P DONGLE UART	35 BG O SECURITY LED					
NVIS CONNECTORS - WITHOUT INTELLIGENT KEY SYSTEM Connector No. M4 Connector Name (WITHOUT INTELLIGENT KEY SYSTEM) Connector Name (WITHOUT INTELLIGENT KEY SYSTEM)	Connector Color WHITE H.S.	Terminal No. Color of Signal Name	- В	2 GR –	3 BR –	4 LG –	Connector No. M14		Connector Color WHITE	(4 3 2 1) H.S.			Terminal No. Color of Signal Name	\ \ \		Y		AAKIA3	201G	BB.

C D
F
G -
J
SE
L
N



ı	_
۵	Τ
24	25
	d

M105	KEY SWITCH	WHITE	
Connector No.	Connector Name KEY SWITCH	Connector Color WHITE	
		•	•

~ -

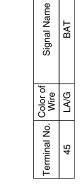
Signal Name	1	1
Color of Wire	٦	В
Terminal No. Wire	1	2

or No. M68	Connector Name FUSE BLOCK (J/B)	Sonnector Color BROWN	
Connector No.	Connector Name	Connector Color	



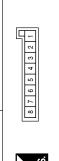
Signal Name	1	-	-	
Color of Wire	>	BR	Μ	
Terminal No.	3R	12R	14R	

ATION METER	COMBINAT WHITE 41 42 43 44 45	COM WHI	<u> </u>	Connector No. M77 Connector Name COMBINATION METER Connector Color WHITE
\rightarrow	44	4.7	4	E.S.
-	3	,	Ŀ	
		_	٦	
	ľ		_	·····································
	ш	¥	-	Connector Colo
ATION METER	BIN/	SON	6	Connector Nam
		177	_	Connector No.
			I	



Connector No.	Σ	M65					
Connector Name JOINT CONNECTOR-M26	3	Ĭ≅	2	lδ	쀻	Š	OR-M26
Connector Color WHITE	<u> </u>	둗	ш				
						5	
NATION AND ADDRESS OF THE PARTY	8 7 6 5 4 3 2	9	2	4	3 2	-	

Connector No.



Signal Name	ı	I	
Color of Wire	В	В	
Terminal No.	-	5	

					10 11 12 13 14 15 16 17 18 19 20	39 40		
					18	æ		
					17			
	E.				16	36 37	ē	,
	E				15	34 35	an	Ĺ
	Connector Name COMBINATION METER				14	8	Signal Name	SECURITY
	z				13	ಜ	ına	$\ddot{\Box}$
	\mathbb{R}			-117	12	32	Sig	SE
	ַ			ΙV	Ξ	30 31		
	묾	ш		- 11				
ဖွ	₹	누			6	29	-	
M76	8	≶			∞	82	Color of Wire	'n
	Ф	_			2	27	olor c Wire	BG
·	띭	읝			9	26		
ž	ž	ŏ			5	52	ō.	
₫	호	to			4	54	<u>~</u>	
<u>e</u>	<u>9</u>	ec		ιń	က	22 23	ine	7
Connector No.	ř	Connector Color WHITE	(F)	H.S.	2	22	Terminal No.	
ŏ	ပ	ŏ	F	7	ᄕ	21	Te	

AAKIA2343GB

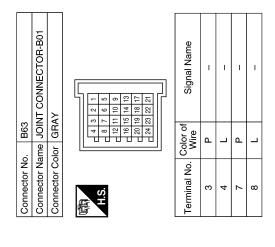
## E16	Signal Name CAN-L CAN-H	E44 JOINT CONNECTOR-E01 WHITE 4 3 2 1 12 11 19 11 12 11 19 11 12 12 22 22 28 27 28 25 28 27 28 25	Signal Name	В
Connector Name ECM Connector Color BLACK H.S. (Strict 1005 100	Terminal No. Color of Wire 99 P	Connector No. E44 Connector Name JOINT CON Connector Color WHITE H.S. 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Terminal No. Color of Wire 2 P C C P C C C C C C C C C C C C C C C	C D
	Signal Name -	ONTROL	Signal Name O STCUT RL	F
Connector No. E2 Connector Name WIRE TO WIRE Connector Color WHITE H.S.	Terminal No. Color of Signa Wire	Connector No. E29 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	Terminal No. Color of Wire 139 G O ST	Н
		Conne		SEC
Connector No. M170 Connector Name JOINT CONNECTOR-M29 Connector Color WHITE RETERSTORES 18 2 1 1 1 1 1 1 1 1 1	Color of Signal Name Wire B - B	Connector No. E19 Connector Name WIRE TO WIRE Connector Color BROWN I 2 3	Color of Signal Name	M N
Connector No. Connector Name Connector Color H.S.	Terminal No.	Connector No. Connector Name Connector Color	AAKIA3202GB	O P

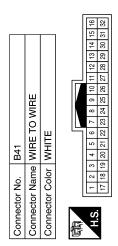
Connector No. E121 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color RED 16 44 45 45 45 45 45 45 4	Terminal No. Color of Signal Name Wire Signal Name 47 B POWER GROUND	Connector No. F32 Connector Name WIRE TO WIRE Connector Color WHITE H.S. Terminal No. Color of Signal Name 1 L
Connector No. E120 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color GRAY Mai Ma	Terminal No. Color of Wire Signal Name 22 P CAN-L 24 L CAN-H 31 B 2ND SIGNAL GROUND 32 GR LI PUSH SW	Terminal No. Color of Signal Name 37J GR
Connector No. E119 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color GRAY (18 77 16 15 14 13 12 11 10) H.S.	Terminal No. Color of Signal Name Wire SIGNAL GROUND	Connector No. E152

Р

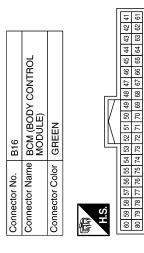
F41 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) GRAY RR	Color of Signal Name Wire G O STARTER GR FL STARTER	F78 SWITCH BLACK 6 5 4 3 2 1	Color of Signal Name Wire BG - GR - GR	В
Connector Name Connector Color	Terminal No. Co	Connector No. Connector Name Connector Color H.S.	Terminal No. Co	D E
				F
F35 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE	Signal Name O IGN AT LPG	F55 STARTER CUT RELAY BLUE	Signal Name	G
	No. Color of Wire BG	9 5	No. Color of Wire SB SB CG GB	I
Connector Name Connector Color	Terminal No. 70	Connector No. Connector Cold	Terminal No.	J
				SE
WIRE	Signal Name	F42 POWER DISTRIBUTION MODULE ENGINE ROOM) BLACK 8	Signal Name LI NP SW	L
F33 WIRE TO WIRE BROWN 7 6 5 4 3 2 2 16 15 14 13 12 11 10 9		in F42 POWER DISTRIBUTION MODULE ENGINE RIMODULE BACK BLACK BLACK BRACK BRA		M
ctor No.	Terminal No. Color of Wire 7 G	ctor No	Color of Wire 92 GR	N
Conne Conne H.S.	jr	Conne Conne H.S.	ermir 9	0

SEC-147 Revision: September 2015 2016 Rogue NAM





Signal Name	ı	-
Color of Wire	Ь	Γ
Terminal No.	54	25



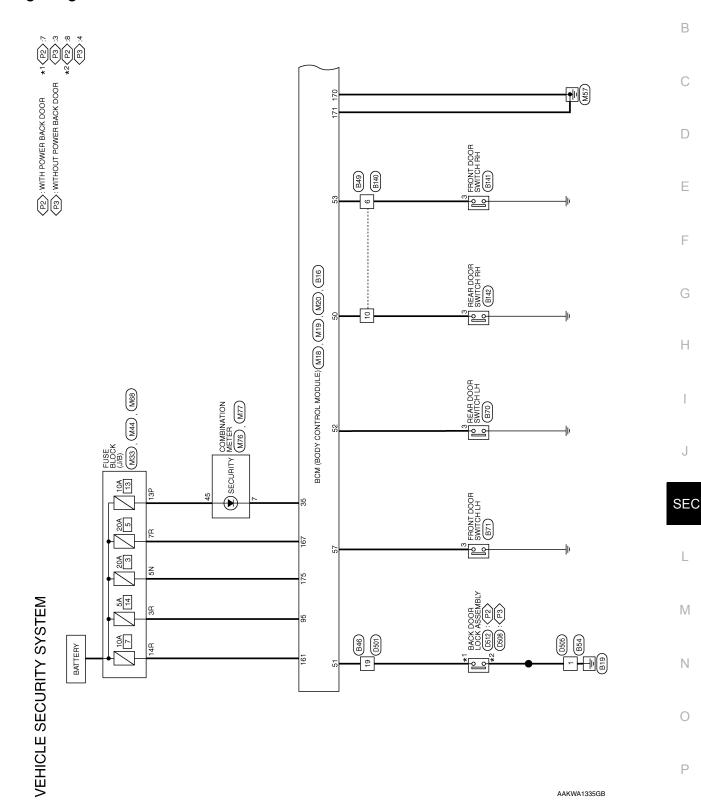
Signal Name	CAN-H	CAN-L
Color of Wire	٦	Ь
Terminal No.	09	80

AAKIA2347GB

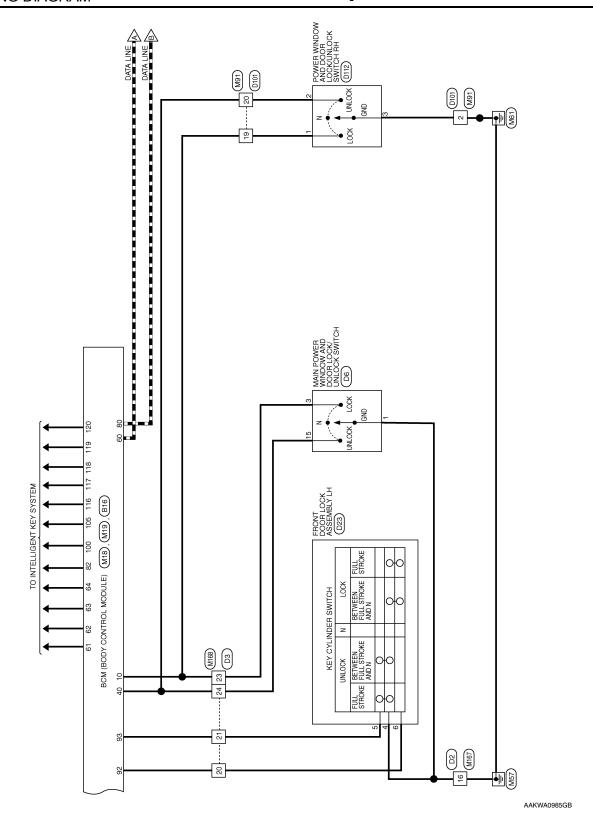
Α

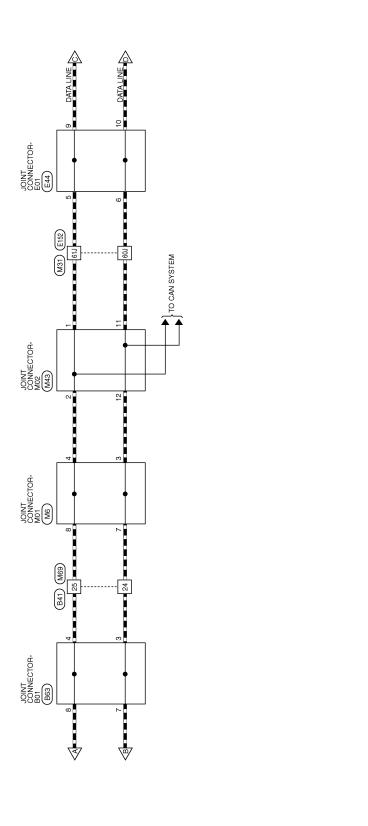
VEHICLE SECURITY SYSTEM

Wiring Diagram



[WITHOUT INTELLIGENT KEY SYSTEM]





В

Α

С

D

Е

F

G

Н

J

SEC

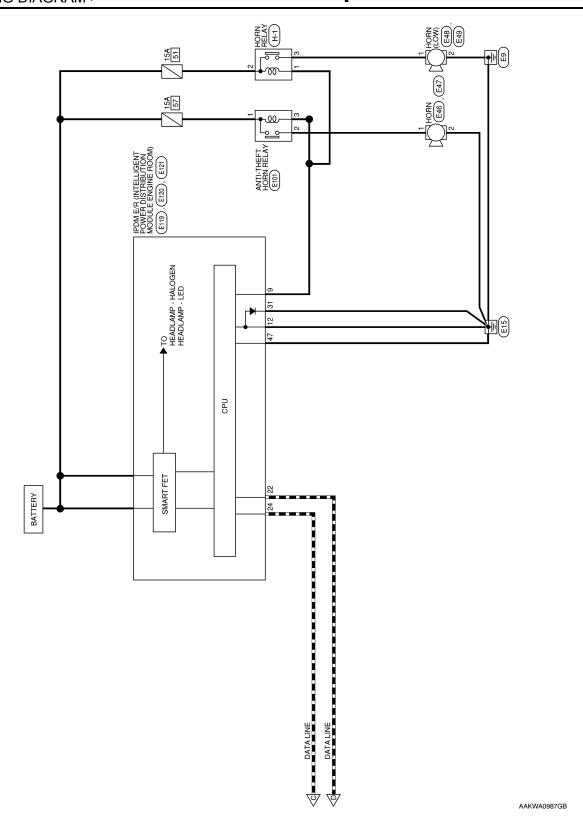
L

M

Ν

0

AAKWA0986GB



Α

В

С

 D

Е

F

G

Н

J

SEC

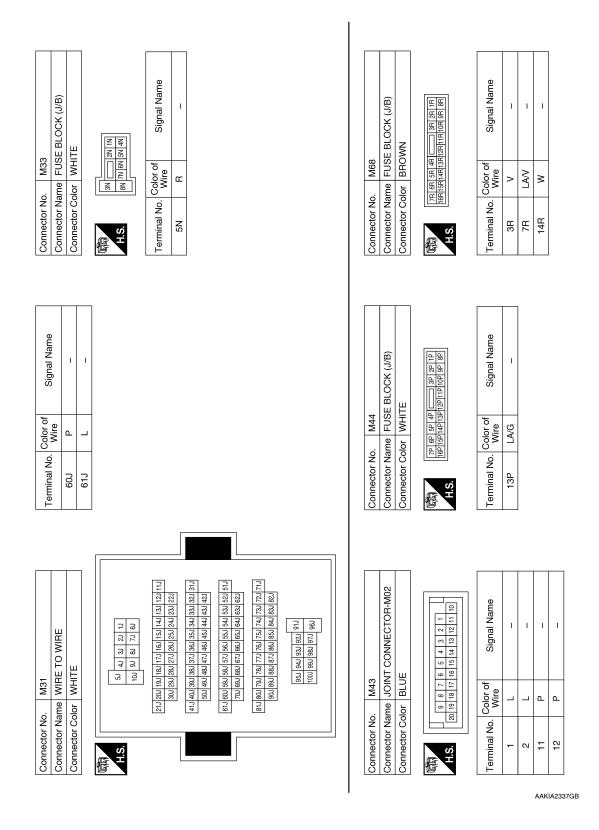
L

 \mathbb{N}

Ν

0

					21						Connector No. M20	Connector Name BCM (BODY CONTROL	Connector Color BROWN	[原列] [1761761766166166166169] [1761751741731726173173173173173169169] [1761751741731726169169]	Terminal No. Color of Signal Name	161 W I PWR ECU	167 LAW I PWR DOORLOCK1	В	ш	175 R I PWR DOORLOCK2				
	3	BCM (BODY CONTROL MODULE)	٩٧		12 11 10 9 8 7 6 5 4 3 2 32 31 30 29 28 27 26 25 24 23 22	Signal Name	I DOORLOCK SW	O SECURITY LED	I DOORUNLOCK SW		Signal Name		I SES FL HANDLE BUTTON (WITH INTELLIGENT KEY	SES INT FRONT ANTENNA B (WITH INTELLIGENT KEY	SES INT FRONT	INTELLIGENT KEY SYSTEM)	SES EXT RIGHT	AN I ENNA B (WITH	SYSTEM)	SES EXT RIGHT ANTENNA A (WITH	INTELLIGENT KEY SYSTEM)	SES EXT LEFT ANTENNA B (WITH	SYSTEM)	
	. M18		lor GRAY	<u>L</u>	15 14 13 11 35 34 33 3	Color of Wire	BG	BG	SB		Color of	Wire	>	BG		¥		SB		c	r	BB		
ORS	Connector No.	Connector Name	Connector Color	H.S.	20 19 18 17 16 40 39 38 37 36	Terminal No.	10	35	40		Terminal No.		105	116	!	117		118		7	<u></u>	120	ļ	
M CONNECTORS															82 81	10120								
VEHICLE SECURITY SYSTEM CON		JOINT CONNECTOR-M01	[2 9 2 1	16 15 14 13 20 19 18 17 24 23 22 21	Signal Name	1	1	ı	ı		BCM (BODY CONTROL	OULE)		100 99 98 97 96 95 94 98 92 91 90 89 88 87 86 85 94 88 82 81	าราทานปกษายายสาย/กายคายสายสุกยรา	Signal Name	I SES ED HANDI E	BUTTON SW	(WITH INTELLIGENT KEY SYSTEM)	I-KEY CYLINDER LOCK SW	I-KEY CYLINDER UNLOCK SW	I SHORTING PIN	SES EXT DR ANTENNA A
CURI-	. M6		-	12 11 11 11 11 11 11 11 11 11 11 11 11 1	20 19 18 1	Color of Wire	۵	_	۵	_	M19		_	L	95 94 93 92	11511411311	Color of		>		BB	А	>	>
HOLE SE	Connector No.	Connector Name		同 H.S.		Terminal No.	က	4	7	8	Connector No.	Connector Name	Connector Color	H.S.	100 99 98 97 96	911/118118111021	Terminal No.		85	}	92	93	92	100
VEP																						AAŀ	KIA32	03GB



VEHICLE SECURITY SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

Α

Р

< WIRING DIAGRAM >

						Α
NATION METER	Signal Name BAT		WIRE TO WIRE WHITE	6 7 8 9 10 11 12	Signal Name	В
Connector No. M77 Connector Name COMBINATION METER Connector Color WHITE A1 12 43 44 45 46 H.S. A1 42 49 50 51 52	al No. Color of Wire		Connector Name WIRE T	1 2 3 4 5 6 7 8 13 14 15 16 17 18 19 20	B B B B B B B B B B B B B B B B B B B	D
	Terminal No. 45	Connec	Connec	原 H.S.	Terminal No. 20 21 23 23 24	E F
METER 14 15 16 17 18 19 20 34 35 36 37 38 39 40	Signal Name SECURITY				Signal Name	G
Connector No. M76 Connector Name COMBINATION METER Connector Color WHITE H.S. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 15 12 12 12 12 12 12 12 12 12 12 12 12 12	Color of Signa Wire BG SEC	M167	Connector Name WIRE TO WIRE Connector Color WHITE	1 2 3 4 5 6 7 7 1 1 1 1 1 1 1 1	Color of Wire B	Н
Connector No. M76 Connector Name COMBI Connector Color WHITE H.S. 1 2 3 4 5 6 7 8 9 11 2 1 2 2 23 24 25 26 27 28 29 38	Terminal No. W	Connector No.	Connector Name Connector Color	所 H.S.	Terminal No. So	J
4 0 19 1 18 1 1 1 1 1						SE
22 5 6	Signal Name		WIRE TO WIRE WHITE	7 8 9 10 11 12 19 20 21 22 23 24	Signal Name	L M
Connector No. M69 Connector Name WIRE TO WIRE Connector Color WHITE	I No. Color of Wire P		Connector Name WIRE T	1 2 3 4 5 6 13 14 15 16 17 18	Color of Wire GR BR	N
Connector Nan Connector Col	Terminal No. 24 25	Connector No.	Connect	画 H.S.	AAKIA1807GB	0

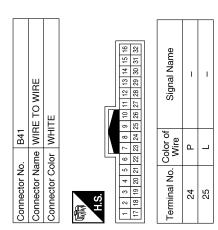
Revision: September 2015 SEC-155 2016 Rogue NAM

VEHICLE SECURITY SYSTEM

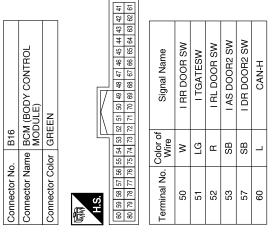
Connector No. E47 Connector Name HORN Connector Color BROWN H.S. Terminal No. Color of Signal Name 1 R -		Connector No. E101 Connector Name ANTI-THEFT HORN RELAY Connector Color WHITE	Terminal No. Color of Wire Signal Name
Connector No. E46 Connector Name HORN Connector Color BLACK H.S.	Terminal No. Color of Signal Name 2 B -	Connector No. E49 Connector Name HORN (LOW) Connector Color BROWN H.S.	Terminal No. Color of Signal Name
Connector No. E44 Connector Name JOINT CONNECTOR-E01 Connector Color WHITE H.S. 4 3 2 1 12 11 10 9 13 11 11 10 9 13 12 11 13 13 12 1 14 3 2 1 15 13 13 11 15 13 13 11 15 13 13 11 15 13 13 13 11 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 15 13 13 13 13 13 13 15 13 13 13 13 13 13 15 13 13 13 13 13 13 15 13 13 13 13 13 13 13 13 13 13 13 13 13	Terminal No. Color of Wire Signal Name 5 L - 6 P - 9 L - 10 P -	Connector No. E48 Connector Name HORN (LOW) Connector Color BLACK	Terminal No. Color of Signal Name 2 B -

AAKIA2448GB

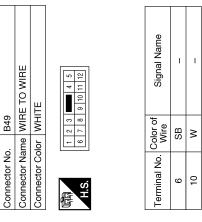
	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)			9	Signal Name	POWER GROUND															
		color RED	45 44 43	48 47	Color of Wire	В	_														
	Connector Name	Connector Color		E.S.	Terminal No.	47															
Τ				ſ																	
	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)		25 24 23 22 21 20 19	8	Signal Name	CAN-L	CAN-H 2ND SIGNAL GROUND		Signal Name	ı	ı										
		olor GRAY	29 28 27 26	42 41 40 39 38 37 36 35	Color of Wire	۵	В		Color of Wire	۵	_										
	Connector Name	Connector Color		N. P	Terminal No.	22	24		Terminal No.	600	61)										
																					—
	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)		5 4 3		Signal Name	LO HRN RLY	SIGNAL GROUND		L	WITH		23	7.1 8.1 9.1 10.1	12J 13J 14J 15J 16J 17J 18J 19J 20J 21J 22J 23J 24J 25J 26J 27J 28J 29J 30J	32.1 33.3 34.1 35.1 36.1 37.1 38.1 39.1 40.1 41.1 42.1 43.1 44.1 48.1 48.1 49.1 50.1	55J 56J 57J 58J 59J 60J 61J 65J 66J 67J 68J 69J 70J	750 760 777 780 800 813		921 931 941 951	196 ₁ 98 ₁ 98 ₂ 1000	
E119		GRAY	9 8 7 6 5 4 3 18 17 16 15 14 13 12 11 10		Color of Wire		SIC			WIRE IO WIRE] 	1	8	11.1 12.1 13.1 14.1 15.1 16.1 17.1 18.1 22.1 23.1 24.1 25.1 26.1 27.1 28.1	31.) 32.) 33.) 34.) 35.) 36.) 37.) 38.) 42.) 43.) 44.) 45.) 46.) 47.) 48.)	51.J 52.J 53.J 54.J 55.J 56.J 57.J 58.J 62.J 63.J 64.J 65.J 66.J 67.J 68.J	713 723 733 753 759 760 773 783	82, 83, 84,	910	96	
	Connector Name	Connector Color	9 8 2		al No. Col				tor No.	Connector Name	500]						_
COLLINGUINO.	Connec	Connec	E	N N	Terminal No.	6	12		Connector No.	Connec		H.S.H									
								l											AAKI	IA23380	GB



Signal Name	SES EXT REAR ANTENNA B	SES INT MIDDLE ANTENNA B (WITH INTELLIGENT KEY SYSTEM)	SES INT MIDDLE ANTENNA A (WITH INTELLIGENT KEY SYSTEM)	SES EXT REAR ANTENNA A (WITH INTELLIGENT KEY SYSTEM)	CAN-L
Color of Wire	BR	>	7	ß	Ъ
Terminal No. Wire	61	62	63	64	80



Connector No.). B54	
Connector Name	me WIR	WIRE TO WIRE
Connector Color	olor WHITE	TE
E,S.H.		
Terminal No. Color of Wire	Color of Wire	Signal Name
-	В	ı



	1 3 3 5 1 6 1 4 3 5 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 18 19 20 21 22 23 24 25 28 27 28 29 29 30 91	
	3 2	O O
	78 15	ਵ
	[2] = [2]	ž
	9 10 25 26	<u> </u>
	9 25	Signal Name
	8 42	S
	23 7	
	9 8	
물	21 2	₽ o
	4 02	S
_	e <u>⊕</u>	ऌ ≶
응	18 2	⊬.
2	- 4	≥
용		ا ا
Connector Color WHITE	o i	Terminal No. Color of
틸	E.S.	l E
ŭ		LĔ

Connector Name | WIRE TO WIRE

B46

Connector No.

AAKIA3204GB

19

VEHICLE SECURITY SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

	А
ITCH LH COH RH	В
Signal Name Signal Name Signal Name	С
Connector No. B71 Connector Color WHITE Connector Color WHITE 3 SB Terminal No. Color of Wire 3 SB Connector No. B142 Connector No. B142 Connector Color WHITE Connector Color WHITE Terminal No. Color of WHITE Signal Name 3 W Terminal No. Wire 3 W	D
Connector No. Connector Nam Connector Colo Terminal No. Connector No. Connector Nam Connector Nam Connector Colo Terminal No. 3 3 3	Е
	F
Signal Name Signal Name Signal Name	G
	Н
Connector No. B70 Connector Color WHITE Connector Color of Wire 3 R R Connector No. B141 Connector Name FRONT Connector Color WHITE Connector Name FRONT Connector Color WHITE 3 GR	I
Connector No. Connector No. Connector No. Connector No. Connector No. Connector No. San F. A.S. Terminal No. Connector Color Terminal No. San Garage	J
	SEC
Signal Name Signal Name Signal Name	L
B63 Sign S	М
	Ν
	0
·	aakia2450gb P

Revision: September 2015 SEC-159 2016 Rogue NAM

AAKIA3205GB

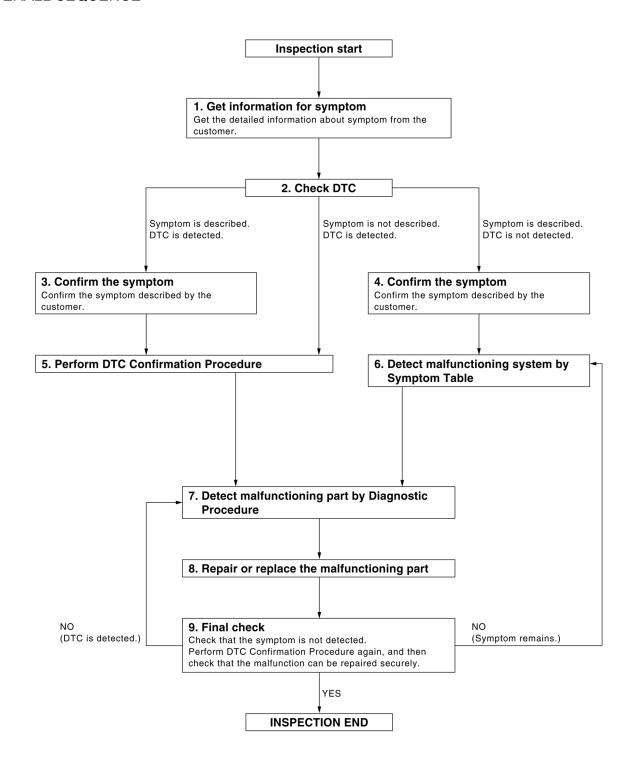
	А
OR LOCK Y (WITHOUT FIC BACK STEM)	В
SEX DO ON AS A SECOND AS A SEC	С
Vame ASSE Adame AUTO DSOB WITH MITH AUTO OF A WITH	D
Connector Name Connector Color Terminal No. Color 3 w w	Е
	F
Signal Name	G
Sign Sign	Н
WHIN WIRE	1
Connector No. Connector Color Terminal No. W	J
	SEC
WHITE WHE WHITE WHITE WHITE WHITE WHITE WHITE Signal Name WHITE Si	L
No. D501	М
Connector No. D50	N
Connector No. Connector Name Connector Color Terminal No. Color Connector Name Connector Name Connector Color Terminal No. Color Terminal No. Www. 7	0
l AA	KIA3218GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



ALKIA2308GB

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

В

D

Е

Α

>> GO TO 2.

2.CHECK DTC

- Check DTC for BCM.
- Perform the following procedure if DTC is displayed.
- 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.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.

Symptom is described, DTC is not displayed>>GO TO 4.

Symptom is not described, DTC is displayed>>GO TO 5.

3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT to the vehicle in "Data Monitor" and check real-time diagnosis results.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

f 4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT to the vehicle in "Data Monitor" and check real-time diagnosis results.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

${f 5}$.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. If two or more DTCs are detected, refer to BCS-109, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

Is DTC detected?

YES >> GO TO 7.

NO >> Refer to GI-45, "Intermittent Incident".

$\mathsf{6}.\mathsf{DETECT}$ MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to Symptom Table based on the confirmed symptom in step 4.

>> GO TO 7.

.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

NOTE:

The Diagnostic Procedure is described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

>> GO TO 8.

8.REPAIR OR REPLACE THE MALFUNCTIONING PART

- Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replace-

SEC

N

ment.

DIAGNOSIS AND REPAIR WORKFLOW [WITHOUT INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

Check DTC. If DTC is displayed, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC was detected in step 8, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunctions have been fully repaired.

When symptom was described by the customer, refer to the confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.

YES (Symptom remains)>>GO TO 6.

NO >> Inspection End.

INSPECTION AND ADJUSTMENT

[WITHOUT INTELLIGENT KEY SYSTEM] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Re-В quirement INFOID:0000000012424049 Refer to the CONSULT Immobilizer mode and follow the on-screen instructions. ECM RE-COMMUNICATING FUNCTION ECM RE-COMMUNICATING FUNCTION: Description INFOID:0000000012424050 D Performing following procedure can automatically perform re-communication of ECM and BCM, but only when the ECM has been replaced with a new one (*1). *1: New one means an ECM which has never been energized on-board. Е (In this step, initialization procedure by CONSULT is not necessary) NOTE: · When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT Immobilizer mode and follow the on-screen instructions. F If multiple keys are attached to the key holder, separate them before work. Distinguish keys with unregistered key ID from those with registered ID. ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement INFOID:0000000012424051 1.PERFORM ECM RE-COMMUNICATING FUNCTION Н Install ECM. Using a registered key (*2), turn ignition switch to "ON". 2. *2: To perform this step, use the key that has been used before performing ECM replacement. 3. Maintain ignition switch in "ON" position for at least 5 seconds. Turn ignition switch to "OFF". 5. Start engine. Can engine be started? YES >> Procedure is completed. >> Initialize control unit. Refer to CONSULT Immobilizer mode and follow the on-screen instructions. NO SEC

Revision: September 2015 SEC-165 2016 Rogue NAM

N

KEYFOB ID REGISTRATION

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

KEYFOB ID REGISTRATION

Description INFOID:000000012424052

Perform system initialization when replacing BCM, replacing keyfob or registering an additional keyfob. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

P1610 LOCK MODE

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

DTC/CIRCUIT DIAGNOSIS

P1610 LOCK MODE

Description INFOID:0000000012424053

ECM forcibly switches to the mode that inhibits engine start, when engine start operation is performed 5 times or more while communication between ECM and BCM is not normal.

DTC Logic INFOID:0000000012424054

DTC DETECTION LOGIC

NOTE:

- If DTC B1610 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic"
- If DTC B1610 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1610	LOCK MODE	When ECM detects a communication malfunction between ECM and BCM 5 times or more.	_

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Go to SEC-167, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. CHECK ENGINE START FUNCTION

- Check that there are no DTC's except for DTC P1610 detected. If detected, erase the DTC after fixing.
- 2. Turn ignition switch OFF.
- Insert the registered key into the ignition switch and wait 5 seconds.
- 4. Turn ignition switch ON.
- Turn ignition switch OFF and wait 5 seconds.
- 6. Repeat steps 3 and 5 twice (a total of 3 times).
- Check that engine can start.

>> Inspection End.

SEC

INFOID:0000000012424055

Α

В

D

Е

F

Ν

P1611 ID DISCORD, IMMU-ECM

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1611	ID DISCORD, IMMU-ECM	The ID verification results between BCM and ECM are NG.	Harness or connectors (The CAN communication line is open or shorted.) BCM ECM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-168</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424057

1. PERFORM INITIALIZATION

Perform initialization of BCM and reregistration of all keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with reregistered key?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK SELF DIAGNOSTIC RESULT

- 1. Select "Self Diagnostic Result" of "ENGINE" using CONSULT.
- Erase DTC.
- 3. Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to SEC-168, "DTC Logic".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.REPLACE BCM

- Replace BCM. Refer to <u>BCS-137</u>, "Removal and Installation".
- 2. Perform initialization of BCM and registration of all keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with registered key?

YES >> Inspection End.

NO >> GO TO 4.

4.REPLACE ECM

- 1. Replace ECM. Refer to EC-503, "Removal and Installation"
- 2. Perform "ADDITIONAL SERVICE WHEN REPLACING ECM". Refer to EC-139, "Work Procedure".

>> Inspection End.

P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

P1612 CHAIN OF ECM-IMMU

DTC Logic INFOID:0000000012424058

DTC DETECTION LOGIC

NOTE:

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1612	CHAIN OF BCM-ECM	Inactive communication between BCM and ECM.	Harness or connectors (The CAN communication line is open or shorted.) ECM BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-169, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

NOTE:

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

${f 1}$.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT.

Check BCM power supply and ground circuit. Refer to BCS-130, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the harness.

2.CHECK ECM POWER SUPPLY AND GROUND CIRCUIT.

Check ECM power supply and ground circuit. Refer to EC-168, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the harness.

$oldsymbol{3}$.PERFORM DTC CONFIRMATION PROCEDURE.

Perform the DTC confirmation procedure. Refer to SEC-169, "DTC Logic".

Does the DTC return?

YES >> Replace BCM. Refer to BCS-137, "Removal and Installation"

NO >> Inspection End. SEC

Α

В

D

Е

F

Н

INFOID:0000000012424059

M

N

0

P161D IMMOBILIZER

[WITHOUT INTELLIGENT KEY SYSTEM]

P161D IMMOBILIZER

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P161D	IMMOBILIZER	When immobilizer detects a malfunction, and prohibits the engine start.	ВСМ

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-172</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424061

1.REPLACE BCM

Replace BCM. Refer to BCS-137, "Removal and Installation".

>> Inspection End.

		P161E IMMOBILIZER		
	UIT DIAGNOSIS >	[WITHOUT INTELLIG	GENT KEY SYSTEM]	
	MOBILIZER			Α
DTC Logic			INFOID:000000012424062	
DTC DETEC	CTION LOGIC			В
DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	
P161E	IMMOBILIZER	After replacing the ECM, when the ECM is not registered to the vehicle by using the CONSULT.	• BCM • ECM	С
	RMATION PROCEDU			D
		esult" of "ENGINE" using CONSULT.		Е
	Refer to <u>SEC-172, "Diag</u> ı nspection End.	nosis Procedure".		F
Diagnosis	Procedure		INFOID:000000012424063	
1.PERFORM	1.PERFORM REGISTRATION OF ECM			
Is DTC detection YES >> In	YES >> Inspection End.			Н
2.REPLACE BCM				
Is DTC detection YES >> 0	ted? GO TO 3.	emoval and Installation".		J
NO >> Ir 3.REPLACE	nspection End. EECM			SEC
	1. Refer to <u>EC-503, "Rer</u>	noval and Installation".		OL
>> lı	nspection End.			L
				M
				Ν

P161F IMMOBILIZER

[WITHOUT INTELLIGENT KEY SYSTEM]

P161F IMMOBILIZER

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P161F	IMMOBILIZER	When immobilizer detects a malfunction, and prohibits the engine start.	ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "ENGINE" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-172</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424065

1.REPLACE ECM

Replace ECM. Refer to EC-503, "Removal and Installation".

>> Inspection End.

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2190 NATS ANTENNA AMP.

Description INFOID:0000000012424066

Performs ID verification through BCM and NATS antenna amplifier when ignition switch turned ON. Prohibits the start of engine when an unregistered ID of ignition key is used.

DTC Logic INFOID:0000000012424067

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190	NATS ANTENNA AMP	Inactive communication between NATS antenna amp. and BCM. Ignition key is malfunctioning.	Harness or connectors (The NATS antenna amp. circuit is open or shorted) Ignition key NATS antenna amp. BCM

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON.

Check "Self Diagnostic Result" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-173</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

1. IGNITION KEY REGISTRATION

Using CONSULT, register all Ignition Keys again.

>> GO TO 2.

2.CHECK SELF DIAGNOSIS RESULT

- Select "Self Diagnosis Result" of "BCM" using CONSULT.
- Erase DTC.
- Perform DTC CONFIRMATION PROCEDURE for B2190. Refer to SEC-173, "Description".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.CHECK FUSE

- Turn ignition switch OFF.
- Check that the following fuse block (J/B) fuse is not blown.

Signal name	Fuse No.
Battery power supply	9 (5A)

Is the fuse fusing?

>> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 4.

4. CHECK NATS ANTENNA AMP. POWER SUPPLY

- Disconnect NATS antenna amp. connector.
- Check voltage between NATS antenna amp. harness connector and ground.

SEC

INFOID:0000000012424068

Α

В

D

Е

Ν

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

(-	(+)		Mallaca.	
NATS ante	enna amp.	(-) Voltage (Approx.)	(-) Volta	Voltage (Approx.)
Connector	Terminal		, , ,	
M4	3	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

${f 5.}$ CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

- 1. Disconnect fuse block (J/B) connector.
- Check continuity between NATS antenna amp. harness connector and fuse block (J/B) harness connector.

NATS ant	enna amp.	Fuse block (J/B)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M4	3	M68	12R	Yes	

3. Check continuity between NATS antenna amp. harness connector and ground.

NATS and	enna amp.		Continuity
Connector	Terminal	Ground	Continuity
M4	3		No

Is the inspection result normal?

YES >> Replace fuse block (J/B).

NO >> Repair or replace harness.

6. CHECK NATS ANTENNA AMP. GROUND CIRCUIT

Check continuity between NATS antenna amp. harness connector and ground.

NATS antenna amp.			Continuity
Connector	Terminal	Ground	Continuity
M4	2		Yes

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

7.CHECK NATS ANTENNA COMMUNICATION SIGNAL

Check voltage between NATS antenna amp. harness connector and ground.

	(+) NATS antenna amp.		Condition	Voltage (Approx.)
Connector	Terminal			(, , , , , , , , , , , , , , , , , , ,
	1 Ground 4	Cround	Just after inserting ignition key into key cylinder	Pointer of tester should move
NA			Other than above	0 V
IVI 4		Just after inserting ignition key into key cylinder	Pointer of tester should move	
			Other than above	0 V

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to <u>SEC-201, "Removal and Installation"</u>.

NO >> GO TO 8.

8.check nats antenna communication signal circuit

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 1. Disconnect BCM connector and NATS antenna connector.
- 2. Check continuity between NATS antenna amp. harness connector and BCM harness connector.

NATS an	tenna amp.	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
Ma	1	M19	109	Yes
M4	4	IVITS	113	105

3. Check continuity between BCM harness connector and ground.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M19	109	Ground	No	
	113		No	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

9. REPLACE BCM

Replace BCM. Refer to BCS-137, "Removal and Installation".

>> Inspection End.

SEC

Α

В

D

Е

F

Н

Ν

0

B2191 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2191 DIFFERENCE OF KEY

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF KEY	The ID verification results between BCM and mechanical key are NG. The registration is necessary.	Mechanical key

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-176</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424070

1.KEY REGISTRATION

Using CONSULT, register all keys again.

Can engine be started with the registered key?

YES >> Inspection End.

NO >> GO TO 2.

2.REPLACE KEY

- 1. Prepare key that matches the vehicle.
- 2. Registration of all keys using CONSULT.

Can engine be started with the registered keys?

YES >> Inspection End.

NO >> GO TO 3.

3.check intermittent incident

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

B2192 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2192 ID DISCORD, IMMU-ECM

DTC Logic INFOID:0000000012424071

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD BCM-ECM	The ID verification results between BCM and ECM are NG.	Harness or connectors (The CAN communication line is open or shorted.) BCM ECM

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO SEC-177, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.PERFORM INITIALIZATION

Perform initialization of BCM and reregistration of all keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with reregistered key?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK SELF-DIAGNOSTIC RESULT

- Select "Self Diagnostic Result" of "BCM" using CONSULT.
- Erase DTC.
- Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-177, "DTC Logic".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

3.REPLACE BCM

- Replace BCM. Refer to BCS-137, "Removal and Installation".
- Perform initialization of BCM and reregistration of all keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can the engine be started with registered key?

YES >> Inspection End.

NO >> GO TO 4.

4.REPLACE ECM

- Replace ECM. Refer to EC-503, "Removal and Installation".
- Perform "ADDITIONAL SERVICE WHEN REPLACING ECM". Refer to EC-139, "Work Procedure".

>> Inspection End.

SEC

Α

В

D

Е

Н

INFOID:0000000012424072

Ν

0

Р

SEC-177 Revision: September 2015 2016 Rogue NAM

B2193 CHAIN OF ECM-IMMU

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193	CHAIN OF BCM-ECM	Inactive communication between BCM and ECM.	Harness or connectors (The CAN communication line is open or shorted.) ECM BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO <u>SEC-178</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424074

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT.

Check BCM power supply and ground circuit. Refer to BCS-130, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the harness.

2.CHECK ECM POWER SUPPLY AND GROUND CIRCUIT.

Check ECM power supply and ground circuit. Refer to EC-168, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace ECM. Refer to EC-503, "Removal and Installation". GO TO 3.

NO >> Repair or replace the harness.

3.PERFORM DTC CONFIRMATION PROCEDURE.

Perform the DTC confirmation procedure. Refer to SEC-178, "DTC Logic".

Does the DTC return?

YES >> Replace BCM. Refer to BCS-137, "Removal and Installation"

NO >> Inspection End.

B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2196 DONGLE UNIT

Description INFOID:0000000012424075

BCM performs ID verification between BCM and dongle unit.

When verification result is OK, BCM permits cranking.

DTC Logic INFOID:0000000012424076

DTC DETECTION LOGIC

NOTE:

- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2196	DONGLE NG	The ID verification results between BCM and dongle unit is NG.	Harness or connectors (Dongle unit circuit is open or shorted.) Dongle unit

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- Turn ignition switch ON.
- Check "Self Diagnostic Result" of "BCM" using CONSULT.

Is the DTC detected?

YES >> Refer to <u>SEC-179</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-139, "Wiring Diagram".

1.PERFORM INITIALIZATION

- Perform initialization of BCM and reregistration of all keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.
- Start the engine.

Dose the engine start?

YES >> Inspection End.

NO >> GO TO 2.

2.CHECK DONGLE UNIT CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and dongle unit connector.
- Check continuity between BCM harness connector and dongle unit harness connector.

В	CM	Dongle unit		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M18	16	M5	1	Yes

Check continuity between BCM harness connector and ground.

SEC

INFOID:0000000012424077

Α

В

D

Е

F

Н

N

M

2016 Rogue NAM

B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

ВСМ			Continuity
Connector	Connector Terminal		Continuity
M18	16		No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check dongle unit ground circuit

Check continuity between dongle unit harness connector and ground.

Dongle unit			Continuity
Connector	Terminal	Ground	Continuity
M5	4		Yes

Is the inspection result normal?

YES >> Replace dongle unit.

NO >> Repair or replace harness.

B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2198 NATS ANTENNA AMP.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2198	NATS ANTENNA AMP	Inactive communication between NATS antenna amp. and BCM is detected when BCM enters in the low power consumption mode. (BCM sleep condition)	Harness or connectors (NATS antenna amp. circuit is open or shorted.) NATS antenna amp. BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition). Refer to BCS-85, "POWER CONSUMPTION CONTROL SYSTEM: System Description".
- 2. Turn ignition switch ON.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-181, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-139, "Wiring Diagram".

1.CHECK FUSE

- 1. Turn power switch OFF.
- Check that the following fuse in fuse block (J/B) is not blown.

Signal name	Fuse No.
Battery power supply	9 (5 A)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit.

2.CHECK NATS ANTENNA AMP. POWER SUPPLY

- 1. Disconnect NATS antenna amp. connector.
- Check voltage between NATS antenna amp. harness connector and ground.

NATS and	+) enna amp.	(–)	Voltage (V) (Approx.)	
Connector Terminal			(,	
M4	3	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3.}$ CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

- Disconnect fuse block (J/B) connector.
- 2. Check continuity between fuse block (J/B) harness connector and NATS antenna amp. connector.

SEC

Α

В

D

Е

INFOID:0000000012424079

L

D 4

M

Ν

B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Fuse bl	ock (J/B)	NATS ant	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M44	12 R	M4	3	Yes

Is the inspection result normal?

YES >> Replace fuse block (J/B).

NO >> Repair or replace harness.

4.CHECK NATS ANTENNA AMP. GROUND CIRCUIT

Check continuity between NATS antenna amp. harness connector and ground.

NATS ant	enna amp.		Continuity
Connector	Connector Terminal		Continuity
M4	2		Yes

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

${f 5.}$ CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL 1

Check voltage signal between NATS antenna amp. harness connector and ground using an oscilloscope.

(+) NATS antenna amp.		(–)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(Αρριοχ.)	
M4	1	Ground	Key: Key battery is re- moved	Brake pedal: Depressed NOTE: Waveform varies each time when brake pedal is depressed. Brake pedal: Not depressed	(V) 15 10 5 0 + 40ms JMKIA6232JP	

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 6.

6. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT 1

- 1. Disconnect BCM connector.
- 2. Check continuity between NATS antenna amp. harness connector and BCM connector.

NATS ant	enna amp.	ВСМ		Continuity
Connector	Terminal	Connector Terminal		Continuity
M4	1	M19	109	Yes

3. Check continuity between NATS antenna amp. harness connector and ground.

NATS ant	enna amp.		Continuity
Connector Terminal		Ground	Continuity
M4	1		No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

7.CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL 2

B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Check voltage signal between NATS antenna amp. harness connector and ground using an oscilloscope.

(+) NATS antenna amp. Connector Terminal		(–)	C	Condition	Voltage (V) (Approx.)
M4	4	Ground	Key: Key battery is re- moved	Brake pedal: Depressed NOTE: Waveform varies each time when brake pedal is de- pressed.	(V) 15 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				Brake pedal: Not depressed	Battery voltage

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to SEC-201, "Removal and Installation".

NO >> GO TO 8.

f 8.CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT 2

- 1. Disconnect BCM connector.
- 2. Check continuity between NATS antenna amp. harness connector and BCM connector.

NATS ant	enna amp.	В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M4	4	M19	113	Yes

3. Check continuity between NATS antenna amp. harness connector and ground.

NATS ant	enna amp.		Continuity
Connector Terminal		Ground	Continuity
M4	4		No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

9. REPLACE BCM

- 1. Replace BCM. Refer to BCS-137, "Removal and Installation".
- Perform initialization of BCM and registration of all keys using CONSULT.

>> Inspection End

SEC

Α

В

D

Е

F

Н

B /

Ν

C

B2608 STARTER RELAY

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".
- If DTC B2608 is displayed with other DTC (BCM), first perform the trouble diagnosis for other DTC detected.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM outputs starter relay OFF signal but BCM receives starter relay ON signal from IPDM E/R (CAN).	Harness or connectors (The CAN communication line is open or shorted.) Harness or connectors (Starter relay circuit is open or shorted.) IPDM E/R Starter relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press push-button ignition switch under the following conditions to start engine:
- Selector lever: In the P position
- Brake pedal: Depressed
- 2. Wait 1 second after engine started.
- 3. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to SEC-184, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424081

1. CHECK DTC OF IPDM E/R

Select "Self Diagnostic Result" of "IPDM E/R" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to PCS-26, "DTC Index".

NO >> GO TO 2.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace BCM. Refer to BCS-137, "Removal and Installation".

B260F ENGINE STATUS

Description INFOID:0000000012424082

BCM receives the engine status signal from ECM via CAN communication.

DTC Description INFOID:0000000012424083

DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B260F	ENG STATE SIG LOST (Engine state signal lost)	BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position.

POSSIBLE CAUSE

Harness or connectors

(The CAN communication line is open or shorted.)

ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

>> Perform diagnosis of applicable. U1000: Refer to BCS-126, "DTC Logic". U1010: Refer to BCS-YES 127, "DTC Logic".

NO >> GO TO 2.

${f 2}$.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON and wait 2 seconds or more.
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-185</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".

NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-126, "DTC Logic". U1010: Refer to BCS-127, "DTC Logic".

NO >> GO TO 2.

2.INSPECTION START

- Turn ignition switch ON.
- Select "Self Diagnostic Result" of "BCM" using CONSULT.
- Touch "ERASE".
- Perform DTC CONFIRMATION PROCEDURE for DTC B260F. Refer to <u>SEC-185</u>, "DTC Description".

Is DTC detected?

YES >> GO TO 3.

NO >> Inspection End.

SEC-185 Revision: September 2015 2016 Rogue NAM SEC

Α

В

D

Е

INFOID:0000000012424084

Ν

B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

3.REPLACE ECM

Replace ECM. Refer EC-503, "Removal and Installation".

>> Inspection End.

B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B261E VEHICLE TYPE

Description INFOID:0000000012424085

There are two types of vehicles.

- HEV
- Conventional

DTC Logic

DTC DETECTION LOGIC

NOTE:

• If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".

• If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

	DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
_	B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM mis-configuration Wrong ECM installed

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions.
- Shift selector lever is in the P (Park) or N (Neutral) position
- Do not depress brake pedal
- Check "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> GO TO <u>SEC-187</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424087

1. INSPECTION START

- Turn ignition switch ON.
- Check "Self Diagnostic Result" of "BCM" using CONSULT.
- Touch "ERASE".
- Perform DTC Confirmation Procedure. Refer to <u>SEC-187, "DTC Logic"</u>.

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 2.

NO >> Inspection End.

2.PERFORM BCM CONFIGURATION.

Perform the BCM configuration. Refer to BCS-123, "CONFIGURATION (BCM): Work Procedure".

>> GO TO 3.

3.INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" of "BCM" using CONSULT.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

Refer to <u>SEC-187</u>, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> GO TO 4.

NO >> Inspection End.

SEC

N

Α

В

D

Е

F

Н

B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

4. CONFIRM ECM PART NUMBER.

Confirm the part number of the installed ECM is correct.

Is the ECM part number correct?

YES >> Replace BCM. Refer to BCS-137, "Removal and Installation".

NO >> Replace ECM. Refer to EC-503, "Removal and Installation".

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B27D1 START CUT RELAY OFF

DTC Logic INFOID:0000000012424088

DTC DETECTION LOGIC

NOTE:

- If DTC B27D1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B27D1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B27D1	STARTER CUT RELAY OFF	When comparing the starter cut relay signal (CAN) from IPDM E/R, BCM detects that starter cut relay is stuck in the OFF position for 1 second or more.	Harness or connectors (The CAN communication line is open or shorted.) Harness or connector (Starter cut relay circuit is open or shorted.) IPDM E/R BCM Starter cut relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch under the following conditions to start engine, and wait 1 second or more.
- Selector lever: In the P position
- Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

>> Go to SEC-189, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-139, "Wiring Diagram".

1. CHECK STARTER CUT RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- Check voltage between starter cut relay harness connector and ground.

	(+)		Voltage (V) (Approx.)	
Starter	cut relay	(–)		
Connector	Terminal	Terminal		
F55	1	Ground	Battery voltage	
1-00	3	Giouna	Dattery Voltage	

Is the inspection result normal?

>> GO TO 2.

>> Check 30 A fusible link [M, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between starter cut relay and fusible link.

2.CHECK STARTER CUT RELAY CONTROL

- Reconnect starter cut relay.
- Check voltage between BCM harness connector and ground.

SEC

INFOID:0000000012424089

Α

В

D

Е

Р

Ν

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

	+) CM	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				, , ,
E29	139	Ground	CVT shift selector lever		Battery voltage
E29	139	Giouna	CVT Stillt Selector level	Other than above	0

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 3.

${f 3.}$ CHECK STARTER CUT RELAY CONTROL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Disconnect starter cut relay.
- 4. Check continuity between BCM harness connector and starter cut relay harness connector.

ВСМ		Starter	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
E29	139	F55	2	Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK STARTER CUT RELAY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and starter cut relay harness connector.

	Starter	Continuity		
Connector	Terminal	Connector Terminal		Continuity
F41	86	F55	5	Yes

4. Check continuity between BCM harness connector and ground.

	IPDM E/R		Continuity
Connector	Connector Terminal		Continuity
F41	86		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

${f 5}$.CHECK STARTER CUT RELAY

Refer to SEC-191, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace starter cut relay.

6.REPLACE BCM

- Replace BCM. Refer to <u>BCS-137</u>, "Removal and Installation".
- Perform initialization of BCM and registration of all keys using CONSULT.
- Perform DTC CONFIRMATION PROCEDURE for DTC B27D1. Refer to <u>SEC-189, "DTC Logic"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace IPDM E/R. Refer to PCS-44, "Removal and Installation".

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Component Inspection

nspection

1. CHECK STARTER CUT RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- 3. Check continuity between starter cut relay terminals.

Starter cut relay Terminal		Condition	Continuity
		Condition	Continuity
3	5	12 V direct current supply between terminals 1 and 2	Yes
3	5	No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace starter cut relay.

D

Α

В

С

INFOID:0000000012424090

Е

F

G

Н

J

SEC

M

Ν

0

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B27D2 START CUT RELAY ON

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B27D2 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-126, "DTC Logic".
- If DTC B27D2 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-127, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B27D2	STARTER CUT RELAY ON	When comparing the starter cut relay signal (CAN) from IPDM E/R, BCM detects that starter cut relay is stuck in the ON position for 1 second or more.	Harness or connectors (The CAN communication line is open or shorted.) Harness or connector (Starter cut relay circuit is open or shorted.) IPDM E/R BCM Starter cut relay

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch under the following conditions to start engine, and wait 1 second or more.
- Selector lever: In the P position
- 2. Check DTC in "Self Diagnostic Result" of "BCM" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-192</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000012424092

Regarding Wiring Diagram information, refer to SEC-139, "Wiring Diagram".

1. CHECK STARTER CUT RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- Check voltage between starter cut relay harness connector and ground.

(+) Starter cut relay		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(+ 1, 5, 1)	
F55	1	Ground	Battery voltage	
1 33	3	Giodila	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 30 A fusible link [M, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between starter cut relay and fusible link.

2. CHECK STARTER CUT RELAY CONTROL

- Reconnect starter cut relay.
- Check voltage between BCM harness connector and ground.

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

<u> </u>	+) CM	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				, , ,
E29	139	Ground	CVT shift selector lever		Battery voltage
E29	139	Giouna	CV I SIIII SEIECIOI IEVEI	Other than above	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3}.$ CHECK STARTER CUT RELAY CONTROL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Disconnect starter cut relay.
- 4. Check continuity between BCM harness connector and starter cut relay harness connector.

В	ВСМ		Starter cut relay	
Connector	Terminal	Connector	Terminal	Continuity
E29	139	F55	2	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK STARTER CUT RELAY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and starter cut relay harness connector.

	Starter cut relay		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
F41	86	F55	5	Yes

4. Check continuity between BCM harness connector and ground.

IPDM E/R			Continuity
Connector	Terminal	Ground	Continuity
F41	86		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

CHECK STARTER CUT RELAY

Refer to SEC-194, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace starter cut relay.

6.REPLACE BCM

- 1. Replace BCM. Refer to BCS-137, "Removal and Installation".
- Perform initialization of BCM and registration of all keys using CONSULT.
- Perform DTC CONFIRMATION PROCEDURE for DTC B27D2. Refer to <u>SEC-192, "DTC Logic"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace IPDM E/R. Refer to PCS-44, "Removal and Installation".

SEC

Α

В

D

Е

Н

M

Ν

0

B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Component Inspection

INFOID:0000000012424093

1. CHECK STARTER CUT RELAY

- Turn ignition switch OFF.
- 2. Disconnect starter cut relay.
- 3. Check continuity between starter cut relay terminals.

Starter cut relay		Condition	Continuity	
Terr	minal	Condition	Continuity	
3 5 12 V direct current supply No current supply		12 V direct current supply between terminals 1 and 2	Yes	
		No current supply	No	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace starter cut relay.

HEADLAMP FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HEADLAMP FUNCTION

Component Function Check

INFOID:0000000012424094

Α

В

D

Е

F

Н

1. CHECK FUNCTION

- 1. Perform "HEAD LAMP(HI)" in "Active Test" of "THEFT ALM" of "BCM" using CONSULT.
- Check headlamps operation.

Test item		Description	
HEAD LAMP (HI)	ON	Headlamps (Hi)	Light
	OFF	Headiamps (HI)	Does not light

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-195</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012424095

1. CHECK HEADLAMP FUNCTION

Refer to SEC-195, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> Inspection End.

SEC

J

M

N

 \cap

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HORN FUNCTION

Component Function Check

INFOID:0000000012424096

1. CHECK FUNCTION 1

- 1. Perform "VEHICLE SECURITY HORN" in "Active Test" of "THEFT ALM" of "BCM" using CONSULT.
- 2. Check the horn operation.

Test item		Description	
VEHICLE SECURITY HORN	ON	Horn	Sounds (for 0.5 sec)

Is the operation normal?

YES >> Inspection End.

NO >> Go to SEC-149, "Wiring Diagram".

Component Inspection

INFOID:0000000012424097

1. CHECK ANTI-THEFT HORN RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect anti-theft horn relay.
- 3. Check voltage between anti-theft horn relay connector E101 terminal 2 and ground under the following conditions.

(+) Anti-theft horn relay	(-)	Condition	Voltage (V) (Approx.)
Terminal			
2	Ground	12 V direct current supply between terminals 1 and 3	12
۷	Glound	No current supply	0

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace anti-theft horn relay.

SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

SECURITY INDICATOR LAMP

Component Function Check

INFOID:0000000012424098

1. CHECK FUNCTION

.....

Α

В

D

Е

Н

- 1. Perform "THEFT IND" in "Active Test" of "IMMU" of "BCM" using CONSULT.
- 2. Check security indicator lamp operation.

Test item		Description	
THEFT IND	ON	Security indicator lamp	Illuminates
	OFF	Security indicator famp	Does not illuminate

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-197, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012424099

Regarding Wiring Diagram information, refer to SEC-149. "Wiring Diagram".

1. CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter connector.
- 3. Check voltage between combination meter harness connector and ground.

(+) Combination meter		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(
M77	45	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 13, located in the fuse block (J/B)].

NO-2 >> Check harness for open or short between combination meter and fuse.

2.CHECK SECURITY INDICATOR LAMP SIGNAL

- Connect combination meter connector.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM harness connector and ground.

(+) BCM		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(44)	
M18	35	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

3.REPLACE BCM

- Replace BCM. Refer to <u>BCS-137</u>, "Removal and Installation".
- 2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT. Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

SEC-197

>> Inspection End.

Revision: September 2015

SEC

M

1 V I

N

0

SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

4. CHECK SECURITY INDICATOR LAMP CIRCUIT

- 1. Disconnect combination meter connector.
- 2. Check continuity between combination meter harness connector and BCM harness connector.

Combina	Combination meter		BCM	
Connector	Terminal	Connector	Terminal	Continuity
M76	7	M18	35	Yes

3. Check continuity between combination meter harness connector and ground.

Combination meter			Continuity
Connector	Terminal	Ground	Continuity
M76	7		No

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-84. "Removal and Installation".

NO >> Repair or replace harness.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS M DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

NOTE:

- Before performing the diagnosis in the following table, check "SEC-162, "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.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- · Mechanical key is not inserted into key cylinder.
- · Ignition knob switch is not depressed.

Symptom	Diagnosis/service procedure	Reference page
Security indicator does not turn ON or flash.	Check vehicle security indicator	SEC-197
decurity indicator does not turn on or hash.	2. Check Intermittent Incident	<u>GI-45</u>

SEC

J

Α

В

D

Е

F

Н

L

M

Ν

0

VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM

Symptom Table

INFOID:0000000012424101

	Procedure		Diagnostic procedure	Pofor to page
Symptom		tom	- Diagnostic procedure	Refer to page
1	Vehicle security system cannot be set by	Door switch	Check door switch (front door LH, front door RH, rear door LH, rear door RH).	DLK-335
		_	Check Intermittent Incident.	<u>GI-45</u>
	Security indicator does not turn ON.		Check vehicle security indicator.	SEC-197
			Check Intermittent Incident.	<u>GI-45</u>
2	* Vehicle security system does not sound alarm when ····	Any door is opened.	Check door switch (front door LH, front door RH, rear door LH, rear door RH).	DLK-335
		_	Check Intermittent Incident.	<u>GI-45</u>
3	Vehicle security alarm does not activate.	Horn alarm	Check horn switch.	DLK-351
			Check Intermittent Incident.	<u>GI-45</u>
		Headlamp flash	Check headlamp switch.	DLK-353
			Check Intermittent Incident.	<u>GI-45</u>

^{*:} Check the system is in the armed phase.

NATS ANTENNA AMP.

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOVAL AND INSTALLATION

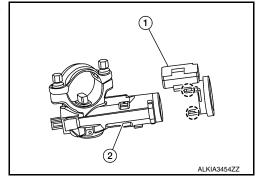
NATS ANTENNA AMP.

Removal and Installation

REMOVAL

- 1. Remove steering column covers. Refer to IP-18, "Removal and Installation".
- 2. Remove instrument lower panel LH. Refer to IP-23, "Removal and Installation".
- Remove knee protector. Refer to <u>IP-14, "Exploded View"</u>.
- 4. Disconnect the harness connector from the NATS antenna amp.
- 5. Release pawls using suitable tool and remove NATS antenna amp. (1) from the steering lock unit (2).





INSTALLATION

Installation is in the reverse order of removal.

SEC

J

Α

В

C

D

Е

F

Н

INFOID:0000000012424102

M

Ν

0

DONGLE UNIT

[WITHOUT INTELLIGENT KEY SYSTEM]

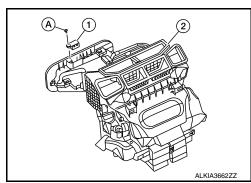
DONGLE UNIT

Removal and Installation

INFOID:0000000012424103

REMOVAL

- 1. Remove instrument panel assembly. Refer to <u>IP-14, "INSTRUMENT PANEL ASSEMBLY : Removal and Installation"</u>.
- 2. Disconnect the harness connector from the dongle unit (1).
- 3. Remove screw (A) and dongle unit (1) from the heating and cooling unit assembly (2).



INSTALLATION

Installation is in the reverse order of removal.