SECURITY CONTROL SYSTEM

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Е

CONTENTS

COUPE	COMMON ITEM	
BASIC INSPECTION8	COMMON ITEM : Diagnosis Description	.28
DIA ONOGIO AND DEDAID WORKELOW	COMMON ITEM)	.28
DIAGNOSIS AND REPAIR WORKFLOW8 Work Flow8	INTELLIGENT KEY	29
WOIR Flow	INTELLIGENT KEY: CONSULT Function (BCM -	.23
PRE-INSPECTION FOR DIAGNOSTIC11	INTELLIGENT KEY)	.29
Pre-Inspection for Multi-System Diagnostic11	THEFT ALM	31
Vehicle Security Operation Check11	THEFT ALM: CONSULT Function (BCM - THEFT	.51
INSPECTION AND ADJUSTMENT13	ALM)	.32
ECM RE-COMMUNICATING FUNCTION13	IMMU	.32
ECM RE-COMMUNICATING FUNCTION : De-	IMMU : CONSULT Function (BCM - IMMU)	
scription13	DTC/CIRCUIT DIAGNOSIS	
ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement	DIC/CIRCUIT DIAGNOSIS	.34
·	U1000 CAN COMM CIRCUIT	.34 S
SYSTEM DESCRIPTION14	Description	
INTELLIGENT KEY SYSTEM/ENGINE	DTC Logic	
START FUNCTION14	Diagnosis Procedure	.34
System Diagram14	U1010 CONTROL UNIT (CAN)	.35
System Description14	DTC Logic	
Component Parts Location18	Diagnosis Procedure	.35
Component Description19	B2013 ID DISCORD, IMMU-STRG	.36
NVIS (NISSAN VEHICLE IMMOBILIZER SYS-	Description	
TEM-NATS)20	DTC Logic	
System Diagram20	Diagnosis Procedure	.36
System Description	B2014 CHAIN OF STRG-IMMU	.37
Component Parts Location	Description	.37
Component Description23	DTC Logic	
VEHICLE SECURITY SYSTEM24	Diagnosis Procedure	.37
System Diagram24	B2108 STEERING LOCK RELAY	.41
System Description	Description	
Component Parts Location	DTC Logic	
	Diagnosis Procedure	.41
DIAGNOSIS SYSTEM (BCM)28	B2109 STEERING LOCK RELAY	.42

Description	42	DTC Logic	71
DTC Logic		Diagnosis Procedure	71
Diagnosis Procedure	42	B2195 ANTI-SCANNING	70
B210A STEERING LOCK CONDITION		Description	
SWITCH	12	DTC Logic	
Description		Diagnosis Procedure	
DTC Logic		•	
Diagnosis Procedure		B2555 STOP LAMP	73
•		Description	73
B210B STARTER CONTROL RELAY	48	DTC Logic	
Description		Diagnosis Procedure (With CVT)	
DTC Logic		Diagnosis Procedure (With M/T)	
Diagnosis Procedure	48	Component Inspection	76
B210C STARTER CONTROL RELAY	49	B2556 PUSH-BUTTON IGNITION SWITCH.	78
Description		Description	
DTC Logic		DTC Logic	
Diagnosis Procedure		Diagnosis Procedure	
•		Component Inspection	
B210D STARTER RELAY		DOLLE VELICIE OPER	
Description		B2557 VEHICLE SPEED	
DTC Logic		Description	
Diagnosis Procedure	50	DTC Logic	
B210E STARTER RELAY	52	Diagnosis Procedure	80
Description		B2560 STARTER CONTROL RELAY	81
DTC Logic		Description	81
Diagnosis Procedure		DTC Logic	81
-		Diagnosis Procedure	81
B210F TRANSMISSION RANGE SWITCH/		DOCAL CHIET DOCITION	
CLUTCH INTERLOCK SWITCH		B2601 SHIFT POSITION	
Description		Description DTC Logic	
DTC Logic		Diagnosis Procedure	
Diagnosis Procedure		Component Inspection	
Component Inspection	59		
B2110 TRANSMISSION RANGE SWITCH/		B2602 SHIFT POSITION	86
CLUTCH INTERLOCK SWITCH	60	Description	86
Description	60	DTC Logic	
DTC Logic	60	Diagnosis Procedure	86
Diagnosis Procedure	60	B2603 SHIFT POSITION STATUS	80
Component Inspection	64	Description	
P2400 D4640 NATS ANTENNA AMD	C.E.	DTC Logic	
B2190, P1610 NATS ANTENNA AMP Description		Diagnosis Procedure	
DTC Logic		•	
Diagnosis Procedure		B2604 PNP SWITCH	
		Description	
B2191, P1615 DIFFERENCE OF KEY	69	DTC Logic	
Description	69	Diagnosis Procedure	92
DTC Logic		B2605 PNP SWITCH	94
Diagnosis Procedure	69	Description	
B2192, P1611 ID DISCORD, IMMU-ECM	70	DTC Logic	
Description		Diagnosis Procedure	
DTC Logic		•	
Diagnosis Procedure		B2606 STEERING LOCK RELAY	
		Description	
B2193, P1612 CHAIN OF ECM-IMMU		DTC Logic	
Description	71	Diagnosis Procedure	96

B2607 STEERING LOCK RELAY97	Diagnosis Procedure121	
Description97	B26E1 NO RECEPTION OF ENGINE STA-	/
DTC Logic97	THE CIONAL	
Diagnosis Procedure97	TUS SIGNAL122	
B2608 STARTER RELAY99	Description	Е
Description	5	
DTC Logic99		
Diagnosis Procedure99		(
Diagnosis i locedule99	Description123	
B2609 STEERING STATUS 101	DTC Logic123	
Description101		Г
DTC Logic101	Component Inspection124	
Diagnosis Procedure101		
DOOD ELECTRONIC OTEERING COLUMN	B26E9 STEERING STATUS125	
B260B ELECTRONIC STEERING COLUMN	Description	E
LOCK106		
Description		
DTC Logic	DOCENTED DECICED ATION AND AND	F
Diagnosis Procedure106	Description	
B260C ELECTRONIC STEERING COLUMN	DTC Logic126	
LOCK107		
Description		
DTC Logic107	DOWER SIDDLY AND GROUND CIRCUIT 197	
Diagnosis Procedure		-
•		
B260D ELECTRONIC STEERING COLUMN	BCM : Diagnosis Procedure	
LOCK108	BCM : Special Repair Requirement127	
Description108	IPDM E/R (INTELLIGENT POWER DISTRIBU-	
DTC Logic108	TION MODULE ENGINE ROOM)128	
Diagnosis Procedure108	IPDM E/R (INTELLIGENT POWER DISTRIBU-	
DOGGE ENCINE STATUS	TION MODULE ENGINE ROOM): Diagnosis Pro-	
B260F ENGINE STATUS109	CEUUIE	
Description		
DTC Logic		SI
Diagnosis Procedure109	Diagnosis Procedure129	
B2612 STEERING STATUS110	KEY SLOT ILLUMINATION131	
Description110		
DTC Logic110	·	
Diagnosis Procedure110		
	· ·	1
B2617 STARTER RELAY CIRCUIT115		- 1
Description115	•	
DTC Logic115	•	N
Diagnosis Procedure115	· · · · · · · · · · · · · · · · · · ·	1
B2619 BCM117	Component Inspection136	
Description		
DTC Logic117		
Diagnosis Procedure117	·	
•	Diagnosis Procedure 137	
B261A PUSH-BUTTON IGNITION SWITCH 118		F
Description118	HEADLAMP139	
DTC Logic118		
Diagnosis Procedure118		
•	Diagnosis Procedure 139	
B261E VEHICLE TYPE121		
Description		
DTC Logic121	Description140	

Component Function Check		Special Service Tools	. 219
Diagnosis Procedure	140	REMOVAL AND INSTALLATION	. 220
VEHICLE SECURITY INDICATOR	141		
Description		KEY SLOT	
Component Function Check		Removal and Installation	. 220
Diagnosis Procedure	141	PUSH BUTTON IGNITION SWITCH	. 221
ECU DIAGNOSIS INFORMATION	142	Removal and Installation	
BCM (BODY CONTROL MODULE)	142	SEDAN	
Reference Value		BASIC INSPECTION	. 222
Terminal Layout	146	DIA CNICCIO AND DEDAID WORKELOW	
Physical Values		DIAGNOSIS AND REPAIR WORKFLOW	
Fail Safe		Work Flow	. 222
DTC Inspection Priority Chart		PRE-INSPECTION FOR DIAGNOSTIC	225
DTC Index	168	Pre-Inspection for Multi-System Diagnostic	. 225
IPDM E/R (INTELLIGENT POWER DISTR	RI-	Vehicle Security Operation Check	. 225
BUTION MODULE ENGINE ROOM)		INSPECTION AND ADJUSTMENT	227
Reference Value		INSPECTION AND ADJUSTMENT	227
Fail Safe	178	ECM RE-COMMUNICATING FUNCTION	. 227
DTC Index	179	ECM RE-COMMUNICATING FUNCTION : De-	
WIRING DIAGRAM	181	scription ECM RE-COMMUNICATING FUNCTION : Spe-	. 227
INTELLIGENT KEY SYSTEM/ENGINE		cial Repair Requirement	. 227
START FUNCTION	181	SVSTEM DESCRIPTION	
Wiring Diagram		SYSTEM DESCRIPTION	. 228
		INTELLIGENT KEY SYSTEM/ENGINE	
VEHICLE SECURITY SYSTEM	194	START FUNCTION	228
Wiring Diagram	194	System Diagram	
NVIS	204	System Description	
Wiring Diagram		Component Parts Location	. 232
		Component Description	. 233
SYMPTOM DIAGNOSIS	214	NVIS (NISSAN VEHICLE IMMOBILIZER SYS	_
INTELLICENT KEY CYCTEM/ENGINE		TEM-NATS)	
INTELLIGENT KEY SYSTEM/ENGINE	04.4	System Diagram	
START FUNCTION SYMPTOMS		System Description	
Symptom Table	214	Component Parts Location	
VEHICLE SECURITY SYSTEM SYMPTOI	MS . 215	Component Description	
Symptom Table	215	\/	
NICCAN VEHICLE IMMODILIZED OVCTE	· N.#	VEHICLE SECURITY SYSTEM	
NISSAN VEHICLE IMMOBILIZER SYSTE		System Diagram	
NATS SYMPTOMS		System Description Component Parts Location	
Symptom Table	216	Component Description	
PRECAUTION	217	Component Description	. 441
		DIAGNOSIS SYSTEM (BCM)	242
PRECAUTIONS		COMMONITEM	040
Precaution for Supplemental Restraint Syste		COMMON ITEM : Diagnosis Description	
(SRS) "AIR BAG" and "SEAT BELT PRE-TE		COMMON ITEM: Diagnosis Description	. 242
SIONER"		COMMON ITEM)	242
Precautions Necessary for Steering Wheel R		,	
tion After Battery Disconnect Precaution for Work		INTELLIGENT KEY	
i recaution for your	∠10	INTELLIGENT KEY : CONSULT Function (BCM -	
PREPARATION	219	INTELLIGENT KEY)	. 243
		THEFT ALM	. 245
PREPARATION	219	··· · / ·=··· ························	

0	U

M

Ν

0

Р

Α

В

С

 D

Е

F

G

Н

ALM)	246	CLUTCH INTERLOCK SWITCH	
IMMU	246	Description	
IMMU : CONSULT Function (BCM - IMMU)		DTC Logic	
iwiwo . Gortober i unouon (Bow iiwiwo)	240	Diagnosis Procedure	
DTC/CIRCUIT DIAGNOSIS	248	Component Inspection	273
LIAGOO CAN COMM CIDCUIT	2.10	B2110 TRANSMISSION RANGE SWITCH/	
U1000 CAN COMM CIRCUIT		CLUTCH INTERLOCK SWITCH	275
Description		Description	
DTC Logic		DTC Logic	
Diagnosis Procedure	248	Diagnosis Procedure	
U1010 CONTROL UNIT (CAN)	249	Component Inspection	
DTC Logic		·	
Diagnosis Procedure		B2190, P1610 NATS ANTENNA AMP	281
•		Description	
B2013 ID DISCORD, IMMU-STRG		DTC Logic	
Description		Diagnosis Procedure	281
DTC Logic		P2404 D4646 DIEEEDENCE OF KEV	205
Diagnosis Procedure	250	B2191, P1615 DIFFERENCE OF KEY	
B2014 CHAIN OF STRG-IMMU	254	Description	
Description	_	DTC Logic Diagnosis Procedure	
DTC Logic		Diagnosis Frocedure	205
Diagnosis Procedure		B2192, P1611 ID DISCORD, IMMU-ECM	286
Diagnosis i rocedure	201	Description	
B2108 STEERING LOCK RELAY	255	DTC Logic	
Description	255	Diagnosis Procedure	
DTC Logic	255		
Diagnosis Procedure	255	B2193, P1612 CHAIN OF ECM-IMMU	
DOLOG OTEEDING LOOK BELAY		Description	
B2109 STEERING LOCK RELAY		DTC Logic	
Description		Diagnosis Procedure	287
DTC Logic		B2195 ANTI-SCANNING	288 -
Diagnosis Procedure	256	Description	
B210A STEERING LOCK CONDITION		DTC Logic	
SWITCH	257	Diagnosis Procedure	
Description		-	
DTC Logic		B2555 STOP LAMP	
Diagnosis Procedure		Description	289
•		DTC Logic	
B210B STARTER CONTROL RELAY	262	Diagnosis Procedure (With CVT)	
Description	262	Diagnosis Procedure (With M/T)	
DTC Logic		Component Inspection	292
Diagnosis Procedure	262	B2556 PUSH-BUTTON IGNITION SWITCH .	204
B210C STARTER CONTROL RELAY	262	Description	
		DTC Logic	
Description		Diagnosis Procedure	
DTC Logic Diagnosis Procedure		Component Inspection	
Diagnosis i locedure	203	Component inopeodori	200
B210D STARTER RELAY	264	B2557 VEHICLE SPEED	296
Description	264	Description	
DTC Logic	264	DTC Logic	
Diagnosis Procedure	264	Diagnosis Procedure	296
DOAGE STARTED DELAY		B2560 STARTER CONTROL RELAY	207
B210E STARTER RELAY			
Description		Description	
DTC Logic		DTC Logic Diagnosis Procedure	
Diagnosis Procedure	∠00	Diagnosis Flocedule	291

B210F TRANSMISSION RANGE SWITCH/

THEFT ALM: CONSULT Function (BCM - THEFT

B2601 SHIFT POSITION	298	DTC Logic	324
Description		Diagnosis Procedure	
DTC Logic		BOOKE ENGINE OTATUO	
Diagnosis Procedure	298	B260F ENGINE STATUS	
Component Inspection		Description	
Dacaa Cluet Docition		DTC Logic	
B2602 SHIFT POSITION		Diagnosis Procedure	325
Description		B26E1 NO RECEPTION OF ENGINE STA-	
DTC Logic Diagnosis Procedure		TUS SIGNAL	326
Diagnosis Procedure	302	Description	
B2603 SHIFT POSITION STATUS	305	DTC Logic	
Description		Diagnosis Procedure	
DTC Logic			
Diagnosis Procedure	305	B26E8 CLUTCH INTERLOCK SWITCH	
DOCO 4 DND OMITOU		Description	
B2604 PNP SWITCH		DTC Logic	
Description		Diagnosis Procedure	
DTC Logic		Component Inspection	328
Diagnosis Procedure	308	B26E9 STEERING STATUS	329
B2605 PNP SWITCH	310	Description	
Description		DTC Logic	
DTC Logic		Diagnosis Procedure	
Diagnosis Procedure		-	
		B26EA KEY REGISTRATION	
B2606 STEERING LOCK RELAY		Description	
Description		DTC Logic	
DTC Logic		Diagnosis Procedure	330
Diagnosis Procedure	312	B2612 STEERING STATUS	331
B2607 STEERING LOCK RELAY	313	Description	
Description		DTC Logic	
DTC Logic		Diagnosis Procedure	
Diagnosis Procedure			
		B2617 STARTER RELAY CIRCUIT	
B2608 STARTER RELAY		Description	
Description		DTC Logic	
DTC Logic		Diagnosis Procedure	336
Diagnosis Procedure	315	B2619 BCM	338
B2609 STEERING STATUS	317	Description	
Description		DTC Logic	
DTC Logic		Diagnosis Procedure	
Diagnosis Procedure			
		B261A PUSH-BUTTON IGNITION SWITCH.	
B260B ELECTRONIC STEERING COLUMN		Description	
LOCK		DTC Logic	
Description		Diagnosis Procedure	339
DTC Logic		B261E VEHICLE TYPE	3/12
Diagnosis Procedure	322	Description	
B260C ELECTRONIC STEERING COLUMN		DTC Logic	
LOCK	323	Diagnosis Procedure	
Description		-	
DTC Logic		POWER SUPPLY AND GROUND CIRCUIT .	343
Diagnosis Procedure		DOM	
Diagnosis i roccaule	20	BCM - Diagnosis Drasadura	
B260D ELECTRONIC STEERING COLUMN		BCM : Special Papeir Paguirement	
LOCK	324	BCM : Special Repair Requirement	343
Description			

Reference Value	
DTC Index	
WIRING DIAGRAM39	9
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION	
VEHICLE SECURITY SYSTEM41 Wiring Diagram41	
NVIS	
SYMPTOM DIAGNOSIS43	7 _F
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS	
VEHICLE SECURITY SYSTEM SYMPTOMS . 43 Symptom Table43	
NISSAN VEHICLE IMMOBILIZER SYSTEM- NATS SYMPTOMS43 Symptom Table43	
PRECAUTION44	0
PRECAUTIONS	
SIONER"	0
PREPARATION44	_
PREPARATION	
REMOVAL AND INSTALLATION44	3 _N
KEY SLOT44 Removal and Installation44	3
PUSH BUTTON IGNITION SWITCH 44 Removal and Installation44	
	Р

IPDM E/R (INTELLIGENT POWER DISTRI-

BUTION MODULE ENGINE ROOM)389

Α

IPDM E/R (INTELLIGENT POWER DISTRIBU-

TION MODULE ENGINE ROOM)343

KEY SLOT345
Diagnosis Procedure345

KEY SLOT ILLUMINATION347Description347Component Function Check347Diagnosis Procedure347

KEY CYLINDER SWITCH350Description350Component Function Check350Diagnosis Procedure (With LH and RH Anti-Pinch)

 HORN
 355

 Description
 355

 Component Function Check
 355

 Diagnosis Procedure
 355

 HEADLAMP
 357

 Description
 357

 Component Function Check
 357

 Diagnosis Procedure
 357

 WARNING LAMP
 358

 Description
 358

 Component Function Check
 358

 Diagnosis Procedure
 358

 VEHICLE SECURITY INDICATOR
 359

 Description
 359

 Component Function Check
 359

 Diagnosis Procedure
 359

 ECU DIAGNOSIS INFORMATION
 360

 BCM (BODY CONTROL MODULE)
 360

 Reference Value
 360

 Terminal Layout
 364

 Physical Values
 364

 Fail Safe
 382

 DTC Inspection Priority Chart
 384

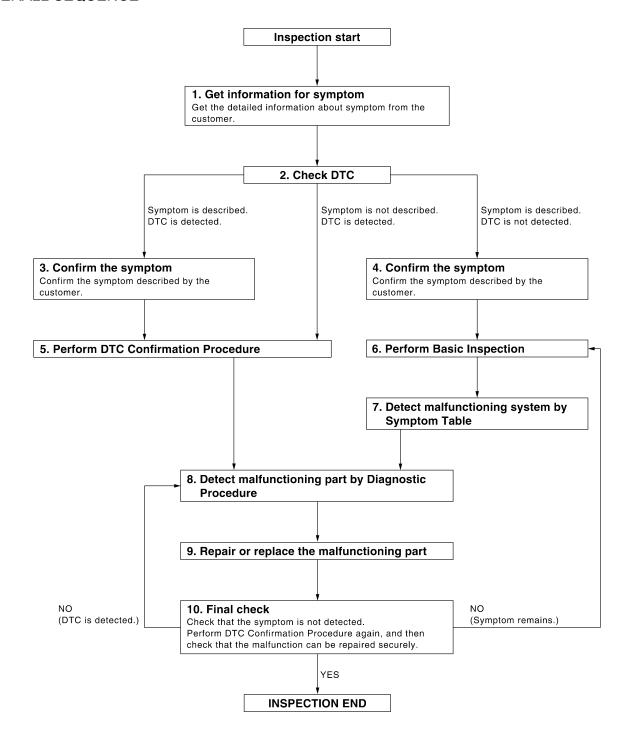
 DTC Index
 386

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

[COUPE] < BASIC INSPECTION >

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).

>> GO TO 2.

2.CHECK DTC WITH BCM AND IPDM E/R

- Check "Self Diagnostic Result" with CONSULT.
- Perform the following procedure if DTC is displayed.
- Record DTC and freeze frame data (Print them out with CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- 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" mode and check real time diagnosis results.

Verify relationship 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" mode and check real time diagnosis results.

Verify relationship 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. At this time, always keep CONSULT connected to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to BCS-65, "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 in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check. If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.

Is DTC detected?

YES >> GO TO 8.

NO >> Refer to GI-42, "Intermittent Incident".

6.PERFORM BASIC INSPECTION

Perform PCS-48, "Pre-Inspection for Multi-System Diagnostic".

Inspection End>>GO TO 7.

/.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

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

- Intelligent Key system/engine start function: <u>SEC-214, "Symptom Table"</u>.
- Vehicle security system: <u>SEC-215, "Symptom Table"</u>.

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SEC-9 Revision: June 2012 2011 Altima GCC Р

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [COUPE]

Nissan vehicle immobilizer system-NATS: <u>SEC-216</u>, "Symptom Table".

>> GO TO 8.

8. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

NOTE:

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

<u>Is malfunctioning part detected?</u>

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT.

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

- 1. Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair or replacement.
- 3. Check DTC. If DTC is displayed, erase it.

>> GO TO 10.

10. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been fully repaired.

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

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8.

NO (Symptom remains)>>GO TO 6.

YES >> Inspection End.

[COUPE] < BASIC INSPECTION > PRE-INSPECTION FOR DIAGNOSTIC Α Pre-Inspection for Multi-System Diagnostic INFOID:0000000006928497 The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS are closely related to each other. Narrow down the system in question by performing this inspection to identify which system is malfunctioning. For example, the vehicle security system can operate only when the door lock and power distribution system are operating normally. 1. CHECK DOOR LOCK OPERATION Check the door lock for normal operation with the Intelligent Key and door request switch. Successful door lock operation with the Intelligent Key and request switch indicates that the remote keyless entry receiver and inside key antenna required for engine start are functioning normally. Can the door be locked with the Intelligent Key and door request switch? YES >> GO TO 2. Е NO >> Refer to DLK-186, "Symptom Table" (coupe) or DLK-420, "Symptom Table" (sedan). CHECK ENGINE STARTING Check that the engine starts when the Intelligent Key is inserted into the key slot. Does the engine start? YES >> GO TO 3. NO >> Refer to SEC-214, "Symptom Table" (coupe) or SEC-437, "Symptom Table" (sedan). 3.CHECK STEERING LOCK OPERATION Check that the steering locks when operating the door switch after switching the power supply from ON position (or ACC position) to LOCK position. If the door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, electronic steering column lock is normal. Does steering lock? >> GO TO 4. YES "Component Function Check" NO >> Refer **DLK-64** (coupe) DLK-286, to or "Component Function Check" (sedan). 4. CHECK POWER SUPPLY INDICATOR SWITCHING SEC Press push-button ignition switch and check that the position indicator switches from LOCK, through ACC to ON when steering is locked. Is each position indicator illuminating? YES >> GO TO 5. NO >> Refer to PCS-79, "Component Function Check". ${f 5}.$ CHECK VEHICLE SECURITY SYSTEM Refer to SEC-11. "Vehicle Security Operation Check" (coupe) or SEC-225. "Vehicle Security Operation Check" (sedan). Are the inspection results normal? N YES >> Inspection End. >> Repair vehicle security system as necessary. Vehicle Security Operation Check INFOID:0000000006389411 1.INSPECTION START Turn ignition switch "OFF" and pull out Intelligent Key from key slot. NOTE: Before starting operation check, open front windows. >> GO TO 2.

Revision: June 2012 SEC-11 2011 Altima GCC

2 .CHECK SECURITY INDICATOR LAMP

Lock doors using Intelligent Key or mechanical key.

PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION > [COUPE]

2. Check that security indicator lamp illuminates for 30 seconds.

Does security indicator lamp illuminate?

YES >> GO TO 3.

NO >> Perform diagnosis and repair. Refer to <u>SEC-141, "Component Function Check"</u>.

3.CHECK ALARM FUNCTION

- 1. After 30 seconds, security indicator lamp will start to blink.
- 2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

Does alarm function properly?

YES >> GO TO 4.

NO >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to <u>SEC-215, "Symptom Table"</u>.
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to <u>SEC-215, "Symptom Table"</u>.

4. CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using Intelligent Key or mechanical key.

Does alarm (horn, headlamp and hazard lamp) stop.

YES >> Inspection End.

NO >> Check door lock function. Refer to <u>DLK-17</u>, "<u>DOOR REQUEST SWITCH</u>: <u>System Description</u>".

INSPECTION AND ADJUSTMENT

[COUPE] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α ECM RE-COMMUNICATING FUNCTION ECM RE-COMMUNICATING FUNCTION: Description INFOID:0000000006389412 В 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. (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 Opera-D tion Manual. If multiple keys are attached to the key holder, separate them before work. Distinguish keys with unregistered key ID from those with registered ID. Е ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement INFOID:0000000006389413 ${f 1}$.PERFORM ECM RE-COMMUNICATING FUNCTION Install ECM. Insert the registered Intelligent 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? Н YES >> Procedure is completed. NO >> Initialize control unit.Refer to CONSULT Operation Manual. SEC Ν

SEC-13 Revision: June 2012 2011 Altima GCC Р

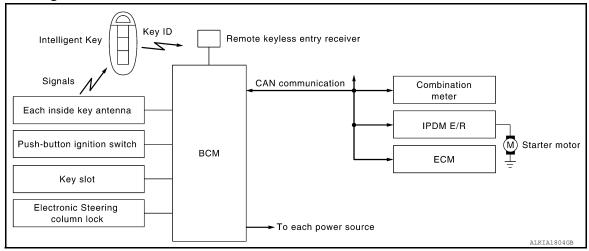
[COUPE]

SYSTEM DESCRIPTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram

INFOID:0000000006389414



System Description

INFOID:0000000006389415

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator	
Push-button ignition switch	Push switch	Engine start function		
CVT shift selector (CVT models)	P range			
Transmission range switch (CVT models)	N, P range		Steering lock relay Electronic steering column lock Starter relay (IPDM E/R) Starter control relay (IPDM E/	
Clutch interlock switch (M/T models)	Clutch ON/OFF			
Stop lamp switch	Brake ON/OFF		R)	
Each inside key antenna	Request signal		Starter motorKEY warning lamp	
Remote keyless entry receiver	Key ID		The Francisco	
Each door switch	Door open/close			
ECM	Engine status signal			

SYSTEM DESCRIPTION

The engine start function of Intelligent Key system is a system that makes it possible to start and stop the
engine without removing the key. It verifies the electronic ID using two-way communications when pressing
the push-button ignition switch while carrying the Intelligent Key, which operates based on the results of
electronic ID verification for Intelligent Key using two-way communications between the Intelligent Key and
the vehicle.

NOTE:

The driver should carry the Intelligent Key at all times.

- Intelligent Key has 2 IDs [for Intelligent Key and for NVIS (NATS)]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When the Intelligent Key battery is discharged, it can be used as emergency back-up by inserting the Intelligent Key to the key slot. At that time, perform the NVIS (NATS) ID verification. If it is used when the Intelligent Key is carried, perform the Intelligent Key ID verification.
- If the ID is successfully verified, and when push-button ignition switch is pressed, electronic steering column
 lock will be released and initiating the engine will be possible.
- If the door lock/unlock operation is performed when the Intelligent Key battery is discharged, all doors lock/ unlock can be performed by operating the driver door key cylinder using the mechanical key set in the Intelligent Key.

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Intelligent Key can be registered up to 4 keys (Including the standard Intelligent Key) on request from the owner.

NOTE:

 Refer to <u>SEC-14</u>, "System <u>Description"</u> for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

 In the Intelligent Key system of model L32, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, the mechanical key cannot perform the ID verification, and thus it cannot start the engine. Instead, the NVIS (NATS) ID verification can be performed by inserting the Intelligent Key into the key slot, and then it can start the engine.

OPERATION WHEN INTELLIGENT KEY IS CARRIED

- 1. When the push-button ignition switch is pressed and brake pedal is depressed, the BCM signals the inside key antenna and transmits the request signal to the Intelligent Key.
- The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- BCM transmits the steering column lock unlock signal to electronic steering column lock and IPDM E/R if the verification results are OK.
- 5. IPDM E/R turns the steering lock relay ON and supplies power to the electronic steering column lock.
- Release of the steering column lock.
- BCM transmits the power supply stop signal to IPDM E/R when it confirms that the electronic steering column lock is in the unlock condition.
- 8. IPDM E/R turns the steering column lock relay OFF and stops power supply to the electronic steering column lock.
- 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.
- 11. BCM confirms that the shift position is P or N (CVT models).
- 12. BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition is satisfied.
- IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- 14. Battery power is supplied through the starter relay and the starter control relay to operate the starter motor and to start the cranking.

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.

15. When BCM received feedback signal from ECM acknowledging the engine has been initiated, the BCM transmits a stop signal to IPDM E/R and stops the cranking by turning OFF the starter motor relay. (If the engine initiating has failed, the cranking will stop automatically within 5 seconds.) CAUTION:

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

*: For the engine start condition, refer to "PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE".

OPERATION RANGE

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

OPERATION WHEN KEY SLOT IS USED

When the Intelligent Key battery is discharged, it performs the NVIS (NATS) ID verification between the integrated transponder and BCM by inserting the Intelligent Key into the key slot, and then the engine can be

For details relating to starting the engine using key slot, refer to <a>SEC-14. "System Description".

BATTERY SAVER SYSTEM

Revision: June 2012

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< SYSTEM DESCRIPTION >

[COUPE]

When all the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position
- All doors are closed
- CVT selector lever is in the P position
- No Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

CVT models

In order to prevent the battery from discharging, the battery saver system will cut off the power supply when all doors are closed, the selector lever is on P position and the ignition switch is left on ACC position for 1 hour. If any of the following conditions are met the battery saver system is released and the steering will change automatically to lock position from OFF position.

- Opening any door
- Operating with request switch on door lock
- Operating with Intelligent Key on door lock

Press push-button ignition switch and ignition switch will change to ACC position from OFF position.

M/T models

If any of the conditions above is met the battery saver system is released but the steering will not lock. In this case, the steering operation OFF to LOCK is prohibited.

ELECTRONIC STEERING COLUMN LOCK OPERATION

Steering is locked by electronic steering column lock when ignition switch is in the OFF position, CVT selector lever is in the P position and any of the following conditions are met.

- Opening door
- · Closing door
- · Door is locked with request switch
- · Door is locked with Intelligent Key

PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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 or when it is inserted to the key slot, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions,
- Brake pedal operating condition (CVT models)
- CVT selector lever position (CVT models)
- Clutch pedal operating condition (M/T models)
- Vehicle speed
- Electronic steering column lock condition
- Engine status
- Unless each start condition is fulfilled, the engine will not respond regardless of how many times the engine switch is pressed. At that time, illumination repeats the position in the order of LOCK→ACC→ON→OFF.

	Engine start	Push-button ignition switch op-	
Power supply position	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	eration frequency
LOCK → ACC	Not depressed	Any position	1
$LOCK \to ACC \to ON$	Not depressed	Any position	2
$\begin{array}{c} LOCK \to ACC \to ON \to \\ OFF \end{array}$	Not depressed	Any position	3
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	I [If the switch is pressed once, the engine starts from any pow- er supply position (LOCK, ACC, and ON)]
Engine is running → OFF (Engine stop)	_	Any position Vehicle speed < 4 km/h (2 MPH)	1

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	Engine start/stop condition		Push-button ignition switch op-
Power supply position	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	eration frequency
Engine is running → ACC (Engine stop)	_	Any position other than P (*2)	1
Engine stall return operation while driving	_	P position	1

^{*1:} When the CVT selector lever position is N position, the engine start condition is different according to the vehicle speed.

- · At vehicle speed of 4 km/h (2 MPH) or less, the engine can start only when the brake pedal is depressed.
- At vehicle speed of 4 km/h (2 MPH) or more, the engine can start even if the brake pedal is not depressed. (It is the same as "Engine stall return operation while driving".)
- *2: When the CVT selector lever position is in any position other than P position and when the vehicle speed is 5 km/h (3 MPH) or more, the engine stop condition is different.
- Press and hold the push-button ignition switch for 2 seconds or more. (When the push-button ignition switch is pressed for too short a time, the operation may be invalid, so properly press and hold to prevent an incorrect operation.)
- Press the push-button ignition switch 3 times or more within 1.5 seconds. (Emergency stop operation)

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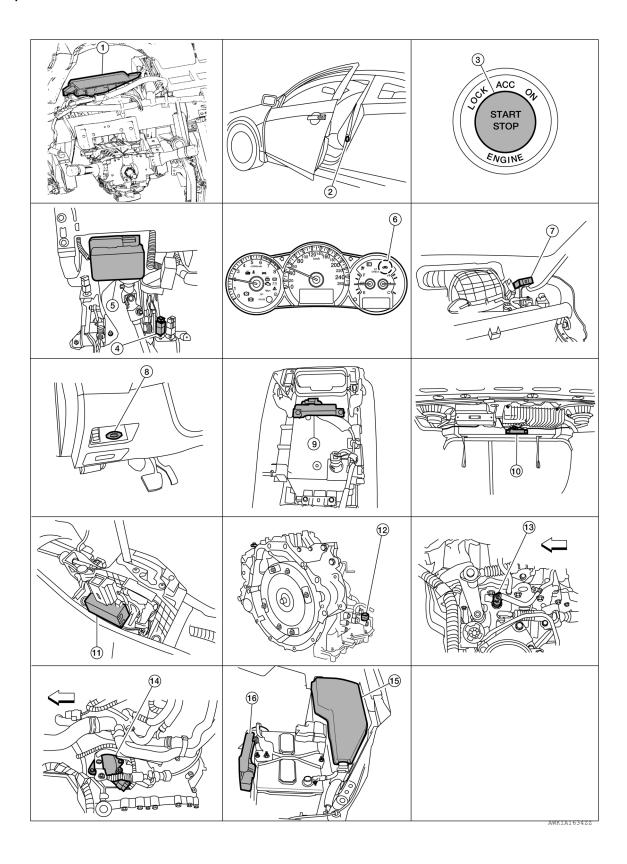
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Revision: June 2012 SEC-17 2011 Altima GCC

[COUPE]

Component Parts Location

INFOID:0000000006389416



[COUPE] < SYSTEM DESCRIPTION >

1.	Body control module M16, M17, M18,
	M19, M21
	(view with instrument panel removed)

- Stop lamp switch E38 (view with lower driver instrument panel removed)
- Remote keyless entry receiver M27 (view with instrument panel removed)
- 10. Rear parcel shelf antenna B29
- 13. Park neutral position switch F32 (with M/T)

- 2. Door switch LH B8 **RH B108**
- Electronic steering column lock M32
- (steering column)
- 8. Key slot M40
- 11. CVT shift selector (park position switch) M23 (with CVT)
- 14. Transmission range switch (TCM con- 15. IPDM E/R E17, E18, F10 nector) F25 (with QR25DE CVT)

- Push button ignition switch M38
- Security indicator lamp
- Front console antenna M203 (bottom view of console)
- 12. Transmission range switch (TCM connector) F16 (with VQ35DE CVT)

16. ECM E10

Component Description

INFOID:0000000006389417

Component	Reference
BCM	<u>SEC-117</u>
Electronic steering column lock	<u>SEC-106</u>
Push-button ignition switch	SEC-118
Door switch	DLK-64
CVT shift selector (park position switch)	SEC-82
Inside key antenna	DLK-57
Remote keyless entry receiver	DLK-114
Stop lamp switch	<u>SEC-73</u>
Transmission range switch	SEC-92
Clutch interlock switch	<u>SEC-55</u>
Steering lock relay	<u>SEC-96</u>
Starter relay	SEC-99
Starter control relay	SEC-81
Security indicator	<u>SEC-141</u>
Key warning lamp	<u>SEC-140</u>

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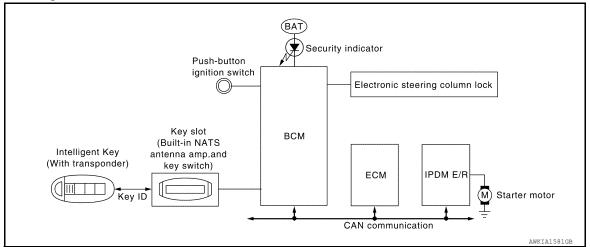
SEC-19 Revision: June 2012 2011 Altima GCC

[COUPE]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram

INFOID:0000000006389418



System Description

INFOID:0000000006389419

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch		
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range		Steering lock relay Electronic steering column lock Starter relay (IPDM E/R)
Clutch interlock switch (M/T models)	Clutch ON/OFF	,	00 (00 00 00 00 00 00 00 00 00 00 00 00
Stop lamp switch	Brake ON/OFF		Starter motorKEY warning lamp
Key slot	Key ID		Security indicator lamp
Each door switch	Door open/close		
ECM	Engine status signal		

SYSTEM DESCRIPTION

- The NVIS (NATS) is an anti-theft system by registering an Intelligent Key ID in to the vehicle and prevents the engine being started by an unregistered Intelligent Key. It has a higher protection against auto thefts that duplicate mechanical key.
- It performs the ID verification when starting the engine in the same way as the Intelligent Key system. But, it performs the NVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The Intelligent Key system of L32 is not the same as the conventional models. The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with Intelligent Key is performed by inserting the Intelligent Key into the key slot. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator and apply the anti-theft system equipment sticker, forewarn that the NVIS (NATS) is onboard with the model.
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the power supply position is in LOCK position.
- Intelligent Key can be registered up to 4 keys (Including the standard ignition key) on request from the owner.
- The specified registration is required when replacing ECM, BCM or Intelligent Key. The registrations procedure for NVIS (NATS) and registration procedure for Intelligent Key when installing the BCM, refer to CONSULT Operation Manual.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

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- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started
 with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to "Work Flow",
 Refer to <u>SEC-8</u>, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to SEC-13, "ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement".

PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS (NATS) ID once, and then re-registers a new ID operation. Therefore the registered Intelligent Key is necessary for this procedure. Before starting the registration operation collect all registered Intelligent Keys from the customer
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS "NATS" ID registration and Intelligent Key ID registration).
- The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in Intelligent Key) to BCM.
- The Intelligent Key ID registration is the procedure that registers the ID to BCM.
- When performing the Intelligent Key system registration only, the engine cannot be started by inserting the key into the key slot. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

SECURITY INDICATOR

- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the ignition switch is in LOCK position.

NOTE:

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

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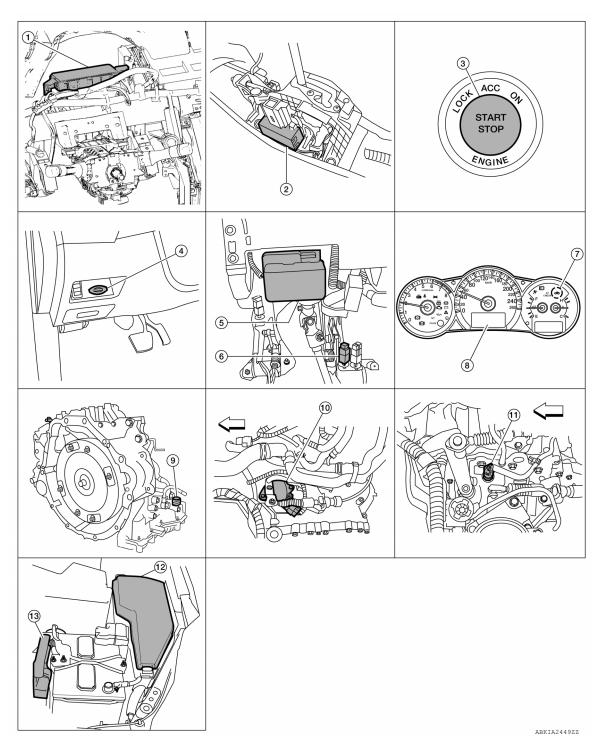
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Revision: June 2012 SEC-21 2011 Altima GCC

Component Parts Location

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- 1. Body control module M16, M17, M18, M19, M21 2. (view with instrument panel removed)
- 4. Key slot M40
- 7. Security indicator lamp

- CVT shift selector (park position 3. switch) M23 (with CVT)
- 5. Electronic steering column lock M32 (steering column)
- 8. Information display

- B. Push button ignition switch M38
- Stop lamp switch E38
 (view with lower LH instrument panel removed)
- Transmission range switch connector (TCM connector) F16
 (with VQ35DE CVT)

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[COUPE]

Transmission range switch connector (TCM connector) F25

 (with QR25DE CVT)

11. Park neutral position switch F32 12. IPDM E/R E17, E18, F10 (with M/T)

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13. ECM E10

Component Description

INFOID:0000000006389421

Component	Reference
BCM	<u>SEC-117</u>
Electronic steering column lock	<u>SEC-106</u>
Push-button ignition switch	<u>SEC-118</u>
Door switch	DLK-64
CVT shift selector (park position switch)	<u>SEC-82</u>
Inside key antenna	DLK-57
Remote keyless entry receiver	<u>DLK-114</u>
Stop lamp switch	<u>SEC-73</u>
Transmission range switch	<u>SEC-92</u>
Clutch switch	<u>SEC-55</u>
Steering lock relay	<u>SEC-96</u>
Starter relay	<u>SEC-99</u>
Starter control relay	<u>SEC-81</u>
Security indicator	<u>SEC-141</u>
Key warning lamp	<u>SEC-140</u>

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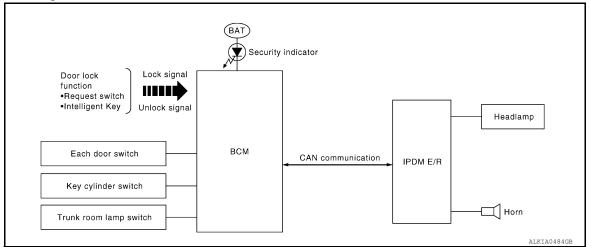
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[COUPE]

VEHICLE SECURITY SYSTEM

System Diagram

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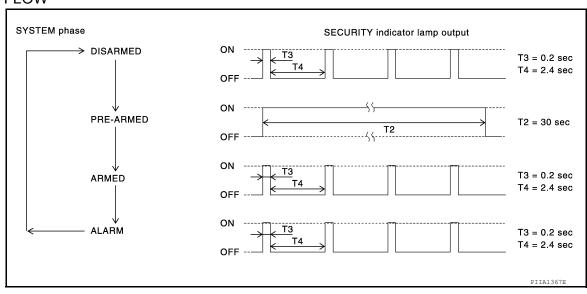
System Description

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INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator
All door switch	Open or close		
Trunk room lamp switch	— Open of close		
Door key cylinder switch		Vehicle security system	IPDM E/RHeadlampHorn
Door lock and unlock switch	Lock or unlock		
Door request switch			Security indicator lamp
Intelligent Koy	Lock or unlock		
Intelligent Key	Panic alarm		

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

· Ignition switch is in OFF position.

Disarmed Phase

VEHICLE SECURITY SYSTEM

[COUPE] < SYSTEM DESCRIPTION > · When doors or trunk is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle. · When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 sec-

Pre-armed Phase and Armed Phase

onds.

When the following operation 1 or 2 is performed, the vehicle security system turns into the "pre-armed" phase. (The security indicator lamp illuminates.)

- BCM receives LOCK signal from front door key cylinder switch or Intelligent Key, after trunk and all doors are closed.
- Trunk and all doors are closed after front doors are locked by key or door lock and unlock switch. The security indicator lamp illuminates for 30 seconds. Then, the system automatically shifts into the "armed" phase.

CANCELING THE SET VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

- Unlock the doors with the key or Intelligent Key.
- 2. Turn ignition switch "ON" or "ACC" position.

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM When unlocking the door with the key or Intelligent Key the alarm operation is canceled.

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (The security indicator lamp blinks every 2.4 seconds.) When the following operation 1 or 2 is performed, the system sounds the horns and flashes the headlamps for about 50 seconds.

- Trunk or any door is opened during armed phase.
- Disconnecting and connecting the battery connector before canceling armed phase. 2.

PANIC ALARM OPERATION

Intelligent Key system will not operate horn and headlamps if the ignition switch is in the ACC or ON position. When the Intelligent Key system is triggered, ground is supplied intermittently to both headlamp relay and horn relav.

When headlamp relay and horn relay are energized, then power is supplied to headlamps (LH and RH) and horns (HIGH and LOW).

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 30 seconds or when BCM receives any signal from Intelligent Key.

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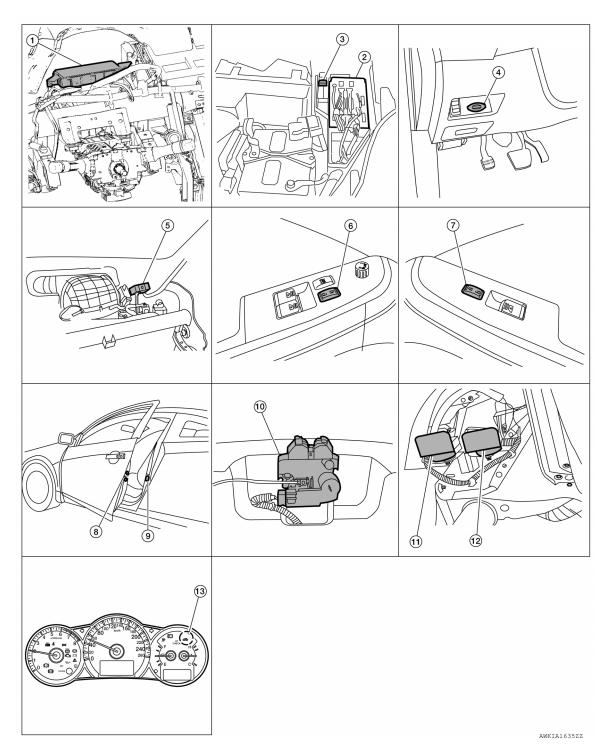
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SEC-25 Revision: June 2012 2011 Altima GCC

Component Parts Location

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- Body control module M16, M17, M18, M19, M21 2. (view with instrument panel removed)
- 4. Key slot M40
- Power window and door lock/unlock switch RH 8. D105
- IPDM E/R E17, E18
- Remote keyless entry receiver M27 6. (view with instrument panel removed)
 - Door lock assembly LH (key cylinder switch) D10
- 3. Horn relay H-1
 - Main power window and door lock/unlock switch D7, D8
 - Door switch LH B8 RH B108

VEHICLE SECURITY SYSTEM

< SYSTEM DESCRIPTION >

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10. Trunk lamp switch and trunk release solenoid T4 11. Horn (high) E216 12. Horn (low) E215 (view with front fender protector LH

(view with front fender protector LH removed)

13. Security indicator lamp (part of combination meter) M24

Component Description

INFOID:0000000006389425

Component	Reference
BCM	SEC-24
Horn relay	<u>SEC-137</u>
Security indicator	<u>SEC-141</u>
Door switch	DLK-64
Door lock actuator	<u>DLK-101</u>
Trunk lid lock assembly	<u>DLK-104</u>
Door key cylinder switch	DLK-75
Door lock and unlock switch	DLK-67

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[COUPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: Diagnosis Description

INFOID:0000000006949978

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

System	Sub system selection item	Diagnosis mode		
Gystem		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP		×	×
Remote keyless entry system	MULTI REMOTE ENT		×	
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	
Trunk open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT

Refer to BCS-67, "DTC Index".

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION > [COUPE]

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)

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WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec.
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

SELF-DIAG RESULT

Refer to BCS-67, "DTC Index".

DATA MONITOR

Monitor Item	Condition
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY-F/B	Indicates [ON/OFF] condition of accessory relay.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (UNLOCK).
S/L RELAY-F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
	Indicates [ON/OFF] condition of ENGINE START signal from Intelligent Key.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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Monitor Item	Condition
RKE OPE COUN2	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
REVERSE SW	Indicates [ON/OFF] condition of R position.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY" on CONSULT screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT screen is touched.
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning display when "OUTKEY" on CONSULT screen is touched. • OFF position warning display when "LK WN" on CONSULT screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT screen is touched.
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk opener actuator open operation. This actuator opens when "OPEN" on CONSULT screen is touched.

THEFT ALM

Revision: June 2012 SEC-31 2011 Altima GCC

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THEFT ALM: CONSULT Function (BCM - THEFT ALM)

INFOID:0000000006928503

WORK SUPPORT

Test Item	Description	
SECURITY ALARM SET	This mode is able to confirm and change security alarm ON-OFF setting.	
THEFT ALM TRG	The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching "CLEAR" on CONSULT screen.	

DATA MONITOR

Monitored Item	Description	
REQ SW -DR	Indicates [ON/OFF] condition of front door request switch (driver side).	
REQ SW -AS	Indicates [ON/OFF] condition of front door request switch (passenger side).	
REQ SW -BD/TR	Indicates [ON/OFF] condition of trunk request switch.	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch	
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.	
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.	
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.	
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.	
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.	
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.	
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.	
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.	

ACTIVE TEST

Test item	Operation	Description	
THEFT IND		This test is able to check security indicator lamp operation. The lamp will be turned when "ON" on CONSULT screen is touched.	
VEHICLE SECURITY HORN		This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.	
HEAD LAMP(HI)		This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.	
RH Outputs the voltage to blink the right side turn signa		Outputs the voltage to blink the right side turn signal lamps.	
FLASHER	LH	Outputs the voltage to blink the left side turn signal lamps.	
	Off	Stops the voltage to turn the turn signal lamps OFF.	

IMMU

IMMU: CONSULT Function (BCM - IMMU)

INFOID:0000000006928504

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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Monitor item	Content	
CONFRM ID ALL		
CONFIRM ID4		
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.	
CONFIRM ID2		
CONFIRM ID1		
TP 4	Indicates the number of ID which has been registered.	
TP 3		
TP 2		
TP 1		
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	

ACTIVE TEST

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

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U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000006389431

Refer to LAN-6, "System Description".

DTC Logic

DTC DETECTION LOGIC

CONSULT dis- play description	DTC Detection Condition	Possible cause
CAN COMM CIR- CUIT [U1000]	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000006389433

1.PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 second or more.
- 2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-7, "CAN Communication Control Circuit".

NO >> Refer to GI-42, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

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U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	ВСМ

Diagnosis Procedure

INFOID:0000000006389435

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-92, "Removal and Installation".

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B2013 ID DISCORD, IMMU-STRG

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2013 ID DISCORD, IMMU-STRG

Description INFOID:000000006389436

BCM performs the ID verification with the electronic steering column lock and releases the steering lock if both BCM and electronic steering column lock ID are same. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2013	ID DISCORD, IMMU- STRG	The ID verification results between BCM and electronic steering column lock are NG. The registration is necessary.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Lock steering.
- 2. Press the push-button ignition switch
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-36, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389438

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

Can the system be initialized and can steering lock be released with re-registered Intelligent Key?

YES >> Electronic steering column lock was unregistered.

NO >> Replace electronic steering column lock.

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INFOID:0000000006389441

B2014 CHAIN OF STRG-IMMU

Description

BCM performs the ID verification with the electronic steering column lock to release the steering. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2014	CHAIN OF STRG- IMMU	Inactive communication between electronic steering column lock and BCM	Harness or connectors (electronic steering column lock circuit is open or shorted) Electronic steering column lock BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Lock steering.
- 2. Press the push-button ignition switch.
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-37, "Diagnosis Procedure".

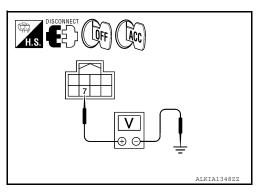
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

$1. {\sf CHECK\ ELECTRONIC\ STEERING\ COLUMN\ LOCK\ POWER\ SUPPLY}$

- Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector.
- Check voltage between electronic steering column lock harness connector and ground while turning ignition switch from OFF to ACC.



Electronic steering column lock		Ground	Ignition switch position	Voltago [V/]	
Connector	Terminal		ignition switch position	Voltage [V]	
M32	7	Ground	$OFF \to ACC$	Battery voltage	
10132		Ground	OFF or ON	0	

Is the inspection normal?

Revision: June 2012 SEC-37 2011 Altima GCC

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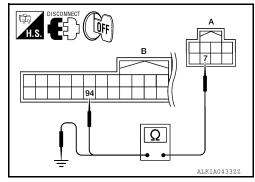
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< DTC/CIRCUIT DIAGNOSIS >

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

$2. \mathsf{CHECK}$ ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- 3. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.



Electronic steering column lock		ВСМ		Continuity
Connector	Terminal	connector	Terminal	Continuity
A: M32	7	B: M19	94	Yes

4. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and ground.

Electronic stee	ring column lock	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: M32	7	Ground	No	

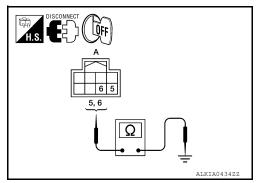
Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3.check electronic steering column lock ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between electronic steering column lock and ground.



Electronic stee	ring column lock	Ground	Continuity	
Connector	Terminal	Giouna	Continuity	
M32	5	Ground	Yes	
IVIOZ	6	Giouna	165	

Is the inspection normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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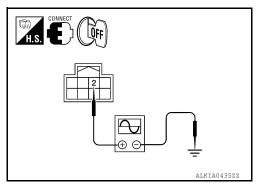
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4. CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION SIGNAL

- 1. Connect electronic steering column lock harness connector.
- 2. Using an oscilloscope, read voltage signal between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Electronic steering col-	Value	
Connector	Terminal	Ground	umn lock condition	value	
			Lock	Battery voltage	
M32	2	Ground	Lock or unlock	(V) 15 10 5 0 MKIA0066GB	
			For 15 seconds after unlock	Battery voltage	
		15 seconds or later after unlock.	0 V		

Steering is locked : Opening the door when ignition switch is ON to OFF.

Steering is unlocked : Ignition switch is OFF to ACC.

Is the inspection normal?

YES >> Replace electronic steering column lock.

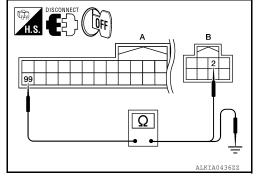
NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM harness connector.

3. Check continuity between BCM harness connector M19 (A) terminal 99 and electronic steering column lock harness connector M32 (B) terminal 2.



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Revision: June 2012 SEC-39 2011 Altima GCC

B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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В	BCM Electronic steering column		ring column lock	Continuity
Connector	Terminal	connector	Terminal	Continuity
A: M19	99	B: M32	2	Yes

4. Check continuity between BCM harness connector M19 (A) terminal 99 and ground.

В	CM	Ground	Continuity
Connector	Connector Terminal		Continuity
A: M19	99	Ground	No

Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2108 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

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B2108 STEERING LOCK RELAY

Description INFOID:0000000006389442

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

DTC Logic INFOID:0000000006389443

DTC DETECTION LOGIC

NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2108	STRG LCK RELAY ON	IPDM E/R detects that the relay is stuck at ON position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-41, "Diagnosis Procedure". YES

>> Inspection End.

Diagnosis Procedure

CHECK FUSE

Turn ignition switch OFF.

Check 10A fuse (No. 40, located in IPDM E/R). 2.

Is the inspection normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO Check the following.

Harness for open or short between IPDM E/R and battery

Fuse

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SEC-41 Revision: June 2012 2011 Altima GCC

B2109 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2109 STEERING LOCK RELAY

Description INFOID:000000006389448

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2109	STRG LCK RELAY OFF	IPDM E/R detects that the relay is stuck at OFF position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	Harness or connector (power supply circuit) IPDM E/R Battery

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-42, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389447

1. CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to PCS-20, "Diagnosis Procedure".

Is the inspection normal?

YES >> GO TO 2.

NO >> Repair the malfunctioning parts

2.CHECK FUSE

- 1. Turn ignition switch OFF.
- Check 10A fuse (No. 40, located in IPDM E/R).

Is the inspection normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check the following.

- Harness for open or short between IPDM E/R and battery
- Fuse

< DTC/CIRCUIT DIAGNOSIS >

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B210A STEERING LOCK CONDITION SWITCH

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210A	STRG LCK STATE SW	BCM detects the mismatch between the following for 1 second • Steering lock or unlock • Feedback of steering lock status from IPDM E/R (CAN)	Harness or connectors [Electronic steering column lock circuit (BCM side) is open or short- ed] Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-43, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389450

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

In which case is DTC detected?

Case1 >> GO TO 2.

Case2 >> GO TO 7.

2. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

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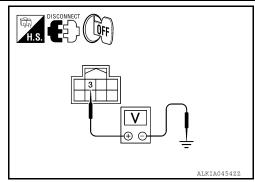
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Revision: June 2012 SEC-43 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

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3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]
Connector	Connector Terminal		voltage [v]
M32	3	Ground	Battery voltage

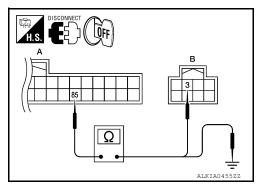
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



В	ВСМ		Electronic steering column lock	
Connector	Terminal	Connector	Terminal	Continuity
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

< DTC/CIRCUIT DIAGNOSIS >

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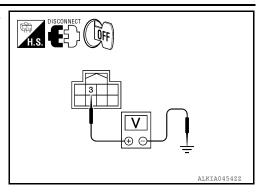
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Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M32	3	Ground	Battery voltage

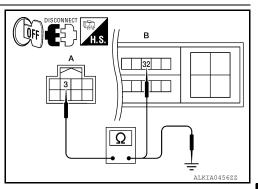
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steel	ring column lock	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	3	B: E18	32	Yes

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Orouna	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.

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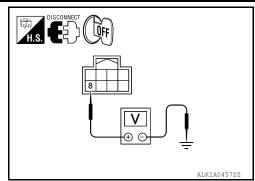
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Revision: June 2012 SEC-45 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M32	8	Ground	Battery voltage

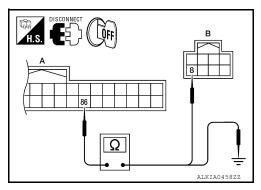
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

8. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector M122.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



В	CM	Electronic steering column lock		VI Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
A: M19	86	B: M32	8	Yes		

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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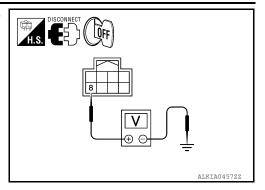
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 Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voitage [v]
M32	8	Ground	Battery voltage

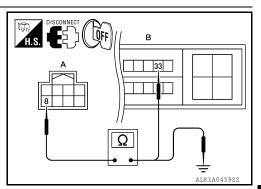
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steel	ring column lock	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-47 2011 Altima GCC

B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B210B STARTER CONTROL RELAY

Description INFOID:000000006389451

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210B	START CONT RLY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or transmission range switch input signal	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-48, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389453

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-29, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer PCS-45, "Removal and Installation".

NO >> Inspection End.

B210C STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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B210C STARTER CONTROL RELAY

Description INFOID:0000000000389454

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210C	START CONT RLY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input signal	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-49, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-29, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Inspection End.

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Revision: June 2012 SEC-49 2011 Altima GCC

[COUPE]

INFOID:0000000006389459

B210D STARTER RELAY

Description INFOID:000000006389457

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to <u>SEC-115</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210D	STARTER RELAY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-50, "Diagnosis Procedure".

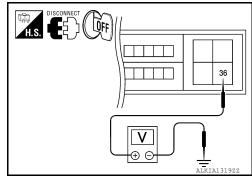
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to <a>SEC-204, "Wiring Diagram".

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.



B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

IPDI	M E/R	Ground	Voltage (V)	
Connector	Connector Terminal		voltage (v)	
E18	36	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check harness for open or short between IPDM E/R and battery.

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[COUPE]

INFOID:0000000006389462

B210E STARTER RELAY

Description INFOID.000000006389460

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210E	STARTER RELAY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-52, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2. M/T >> GO TO 3.

2.CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

- 1. Turn ignition switch OFF.
- Disconnect BCM harness connector.

B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

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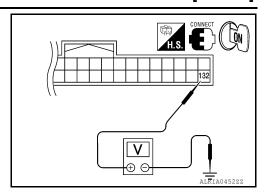
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3. Check voltage between BCM harness connector and ground.



BCM connector			Condition				
Connector	Terminal	Ground	Ignition switch Brake pedal		CVT selector lever	Voltage (V)	
				P or N	Battery voltage		
M21	132	Ground	ON	Depressed	Other than above	0	

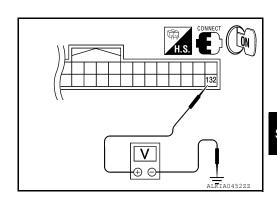
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

$3.\mathsf{CHECK}$ STARTER RELAY OUTPUT SIGNAL / M/T MODELS

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



BCM connector		Ground		ondition	Voltage (V)
Connector	Terminal	Ground	Ignition switch	Clutch pedal	vollage (v)
M21	132	Ground	OFF	Not depressed	0
IVIZ I	132	Ground	OFF	Depressed	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

Revision: June 2012

4. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R harness connector.

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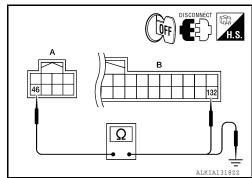
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[COUPE]

Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDI	M E/R	В	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
A: E17	46	B: M21	132	Yes	

3. Check continuity between BCM harness connector and ground.

IPDI	M E/R	Ground	Continuity	
Connector	Terminal	Glound		
A: E17	46	Ground	No	

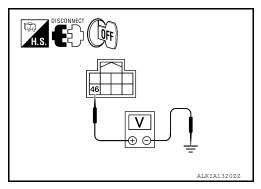
Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness connector.

5. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Check voltage between IPDM E/R harness connector and ground.



IPDN	M E/R	Ground	Voltage (V)	
Connector	Terminal	Ground		
E17	46	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check harness for open or short between IPDM E/R and battery.

< DTC/CIRCUIT DIAGNOSIS >

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389463

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch interlock switch (M/T models)
- · Shift position signal from BCM (CAN)

DTC Logic INFOID:0000000006389464

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Loaic"
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-34, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANS- MISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models) • Shift position signal from BCM (CAN)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch interlock switch (M/T models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-55, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2.

M/T >> GO TO 5.

2 .CHECK DTC WITH BCM

Refer to BCS-67, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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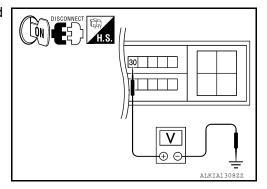
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< DTC/CIRCUIT DIAGNOSIS > [COUPE]

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between IPDM E/R harness connector and ground under following condition.



IPDM E/R		Ground	C	Condition		
Connector	Terminal	Giouna	Condition		Voltage (V)	
E18	E18 30 Ground C		CVT selector lever	P or N	0	
E10	30	Ground	CV i selector lever	Other than above	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 4.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TO	CM	IPDI	Continuity	
Connector	Connector Terminal		Terminal	Continuity
F16 (VQ35DE)	20	E18	72	Yes
F25 (QR25DE)	2	LIO	12	165

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F16 (VQ35DE)	20	Ground	No	
F25 (QR25DE)	2	Ground	140	

Is the inspection result normal?

YES >> GO TO 10.

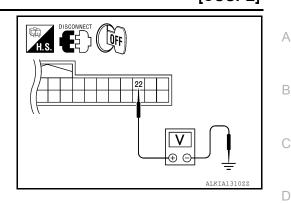
NO >> Repair harness or connector.

$5.\mathsf{check}$ clutch interlock switch input signal (BCM)

- Turn ignition switch OFF.
- Disconnect BCM harness connector.

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between BCM harness connector and ground.



ВСМ		Ground		Condition	Voltage (V)
Connector	Terminal	Glound	Condition		
M18 2	22	Ground	Clutch pedal	Not depressed	0
IVI IO	22	Ground	Ciulcii pedai	Depressed	Battery voltage

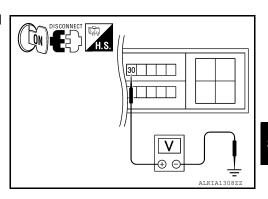
Is the inspection result normal?

>> GO TO 6. YES

NO >> GO TO 7.

6.check clutch interlock switch input signal

- 1. Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.
- Check voltage between IPDM E/R harness connector and ground.



IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
E18	30	Ground	Clutch pedal	Not depressed	0
E10	E18 30	Ground	Ciutori pedai	Depressed	Battery voltage

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check harness for open between clutch interlock switch and IPDM E/R.

7.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

Disconnect clutch interlock switch harness connector.

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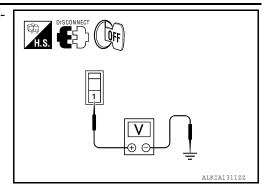
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< DTC/CIRCUIT DIAGNOSIS >

Check voltage between clutch interlock switch harness connector and ground.



Clutch inte	rlock switch	Ground	Voltage (V)	
Connector	Terminal	Ground	voltage (v)	
E36	1	Ground	Battery voltage	

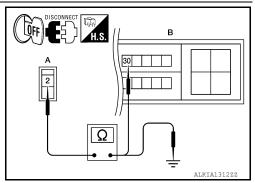
Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch inte	Clutch interlock switch		IPDM E/R		
Connector	Terminal	Connector Terminal		Continuity	
A: E36	2	B: E18	30	Yes	

Check continuity between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch	Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: E36	2	Ground	No	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

9.check clutch interlock switch

Refer to SEC-59, "Component Inspection".

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Replace clutch interlock switch.

10. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

< DTC/CIRCUIT DIAGNOSIS >

>> Inspection End.

Component Inspection

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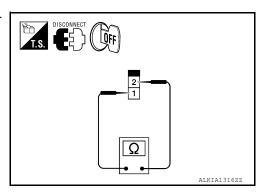
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1.check clutch interlock switch

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch harness connector.
- Check continuity between clutch interlock switch under the following conditions.



Clutch interlock switch		С	ondition	Continuity	
Terminal					
1	2	Clutch pedal	Not depressed	No	
ı	2	Ciulcii peuai	Depressed	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

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SEC-59 Revision: June 2012 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389467

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch inter lock switch (M/T models)
- Shift position signal from BCM (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch inter lock switch (M/T models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-60, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389469

Regarding Wiring Diagrams information, refer to <a>SEC-204, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2.

M/T >> GO TO 5.

2. CHECK DTC WITH BCM

Refer to BCS-67, "DTC Index".

Is the inspection result normal?

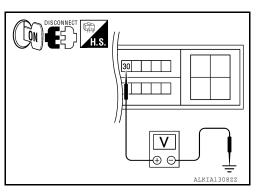
YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

${f 3.}$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

< DTC/CIRCUIT DIAGNOSIS > [COUPE]

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between IPDM E/R harness connector and ground under following condition.



IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal	Ground	Condition		voilage (v)
E10 20		Cround	CVT selector lever	P or N	0
E10	E18 30 Ground		CV i selector lever	Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 4.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

T	TCM		IPDM E/R	
Connector	Terminal	Connector	Terminal	Continuity
F16	20	E18	72	Yes
F25	2	LIO	12	165

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F16	20	Ground	No	
F25	2	Ground	140	

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair harness or connector.

5. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.

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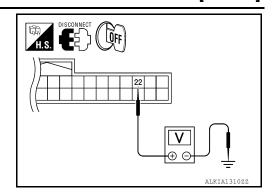
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Revision: June 2012 SEC-61 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between BCM harness connector and ground.



BCM		Ground	Condition		Voltage (V)
Connector	Terminal	Glound	Condition		voltage (v)
M10	22	22 Ground	Clutch pedal	Not depressed	0
IVI TO	M18 22 0		Ciulcii pedai	Depressed	Battery voltage

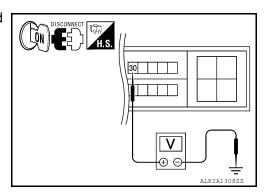
Is the inspection result normal?

>> GO TO 6. YES

NO >> GO TO 7.

6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.
- Check voltage between IPDM E/R harness connector and ground.



IPD	IPDM E/R Groun		Condition		Voltage (V)	
Connector	Terminal	Ground	Condition		voltage (v)	
E18	30	Ground	Clutch pedal	Not depressed	0	
⊏10	30	Ground	Ciulcii pedai	Depressed	Battery voltage	

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

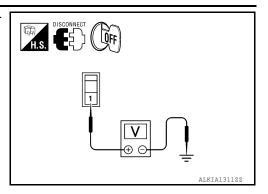
NO >> Check harness for open between clutch interlock switch and IPDM E/R.

7.check clutch interlock switch power supply

Disconnect clutch interlock switch harness connector.

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between clutch interlock switch harness connector and ground.



Clutch interlock switch		Ground	Voltage (V)
Connector	Terminal	Giodila	voltage (v)
E36	1	Ground	Battery voltage

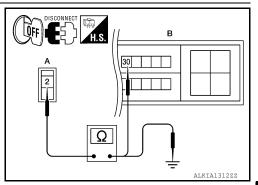
Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

8.check clutch interlock switch circuit

Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch inte	Clutch interlock switch		IPDM E/R	
Connector	Terminal	Connector	Terminal	Continuity
A: E36	2	B: E18	30	Yes

Check continuity between clutch interlock switch harness connector and ground.

Clutch interlock switch		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: E36	2	Ground	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-64, "Component Inspection".

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Replace clutch interlock switch.

10. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

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< DTC/CIRCUIT DIAGNOSIS >

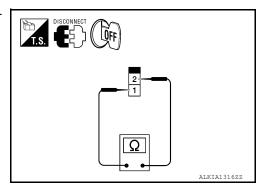
>> Inspection End.

Component Inspection

INFOID:0000000006389470

1.check clutch interlock switch

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch harness connector.
- Check continuity between clutch interlock switch under the following conditions.



	interlock vitch	Condition		Continuity
Teri	minal			
1	2	Clutch pedal Not depressed		No
'		Ciulcii peuai	Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

B2190, P1610 NATS ANTENNA AMP [COUPE] < DTC/CIRCUIT DIAGNOSIS > B2190, P1610 NATS ANTENNA AMP Α Description INFOID:0000000006389471 Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. В Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used. DTC Logic INFOID:0000000006389472 DTC DETECTION LOGIC Trouble diagnosis D DTC No. DTC detecting condition Possible cause name B2190 · Harness or connectors (The key slot circuit is open or Е NATS ANTENNA Inactive communication between key slot and shorted) **AMP** BCM. P1610 · Key slot • BCM DTC CONFIRMATION PROCEDURE ${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE Insert Intelligent Key into the key slot. Check "Self diagnostic result" with CONSULT. Is DTC detected? Н YES >> Go to SEC-65, "Diagnosis Procedure". NO >> GO TO 2. 2.perform dtc confirmation procedure Press the push-button ignition switch. Check "Self diagnostic result" with CONSULT. Is DTC detected? YES >> Go to SEC-65, "Diagnosis Procedure". NO >> Inspection End. **SEC** Diagnosis Procedure INFOID:0000000006389473 Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram". 1. INSPECTION START M Check the case in which DTC is detected. Case1: It is detected when Intelligent Key is inserted into key slot. Case2: It is detected after Intelligent Key is inserted into key slot and push-button ignition switch is pressed. Ν In which case is DTC detected? Case1. >> GO TO 2. Case2. >> GO TO 4. 2.CHECK KEY SLOT INPUT SIGNAL

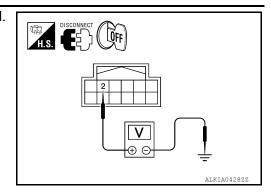
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Turn ignition switch OFF.

Disconnect key slot harness connector.

[COUPE]

3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Voltage [V]	
Connector	Terminal	Oround	(approx.)	
M40	2	Ground	Battery voltage	

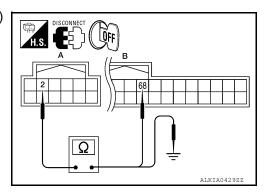
Is the inspection result normal?

YES >> Replace key slot.

NO >> GO TO 3.

3. CHECK KEY SLOT CIRCUIT

- 1. Disconnect BCM harness connector.
- 2. Check continuity between key slot harness connector M40 (A) terminal 2 and BCM harness connector M19 (B) terminal 68.



Key	Key slot		ВСМ	
Connector	Terminal	Connector	Terminal	Continuity
A: M40	2	B: M19	68	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 2 and ground.

Key	/ slot	Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M40	2	Ground	No

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

4. CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

Press push-button ignition switch and check if it turns ON.

Does ignition switch turn to ON?

YES >> GO TO 5. NO >> GO TO 7.

5. CHECK KEY SLOT COMMUNICATION SIGNAL

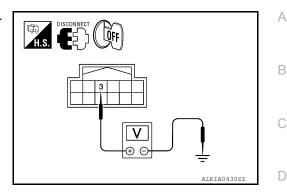
1. Turn ignition switch OFF.

B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

- Disconnect key slot harness connector.
- 3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal	Ground	Continuity
M40	3	Ground	Yes

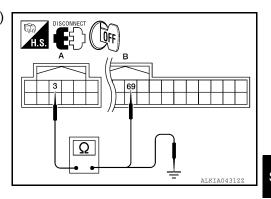
Is the inspection result normal?

YES >> Replace key slot.

NO >> GO TO 6.

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

- 1. Disconnect BCM harness connector.
- 2. Check continuity between key slot harness connector M40 (A) terminal 3 and BCM harness connector M19 (B) terminal 69.



Key	Key slot BCM		ВСМ	
Connector	Terminal	Connector	Terminal	Continuity
A: M40	3	B: M19	69	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 3 and ground.

Key slot		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M40	3	Ground	No

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

.CHECK KEY SLOT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot harness connector.

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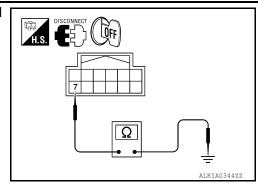
Revision: June 2012 SEC-67 2011 Altima GCC

B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check continuity between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal	Oround	Continuity
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2191, P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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INFOID:0000000006389476

B2191, P1615 DIFFERENCE OF KEY

Description (INFOID:0000000006389474)

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF	The ID verification results between BCM and Intel-	Intelligent Key
P1615	KEY	ligent Key are NG. The registration is necessary.	• Intelligent Key

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Insert the Intelligent Key in the key slot. Press the push-button ignition switch.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-69, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual.

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

YES >> Intelligent Key was unregistered.

NO

- BCM is malfunctioning.
- Replace BCM
- · Perform initialization again

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Revision: June 2012 SEC-69 2011 Altima GCC

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B2192, P1611 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2192, P1611 ID DISCORD, IMMU-ECM

Description INFOID:0000000006389477

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

DTC Logic INFOID:0000000006389478

DTC DETECTION LOGIC

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-	The ID verification results between BCM and ECM	• BCM
P1611	ECM	are NG. The registration is necessary.	• ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-70, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389479

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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

YES >> ID was unregistered.

NO

- >> BCM is malfunctioning.
 - Replace BCM
 - · Perform initialization again
 - Replace ECM

B2193, P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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B2193, P1612 CHAIN OF ECM-IMMU

Description INFOID:0000000006389480

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

DTC Logic INFOID:0000000006389481

DTC DETECTION LOGIC

NOTE:

 If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".

 If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193			Harness or connectors
P1612	CHAIN OF ECM- IMMU	Inactive communication between ECM and BCM	(The CAN communication line is open or shorted)BCMECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

NO >> Inspection End.

Diagnosis Procedure

1.REPLACE BCM

- Replace BCM.
- Perform initialization with CONSULT. For initialization, refer to "CONSULT Operation Manual".

Does the engine start?

YES >> BCM is malfunctioning.

- Replace BCM.
- · Perform initialization again.
- NO >> ECM is malfunctioning.
 - · Replace ECM.
 - · Perform ECM re-communicating function.

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INFOID:0000000006389482

SEC-71 Revision: June 2012 2011 Altima GCC

[COUPE]

B2195 ANTI-SCANNING

Description INFOID:000000006389483

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2195	ANTI-SCANNING	ID verification between BCM and ECM that is out of the specified specification is detected	ID verification request out of the specified specification

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

Turn ignition switch ON under the following conditions.

CVT models

- Selector lever is in the P or N position
- Do not depress brake pedal

M/T models

- Do not depress clutch pedal
- 2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Refer to SEC-72, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389485

1. CHECK SELF-DIAGNOSTIC RESULT-1

- 1. Perform "Self-diagnostic result" of BCM using CONSULT.
- Erase DTC.
- 3. Perform DTC Confirmation Procedure. Refer to SEC-72, "DTC Logic".

Is DTC B2195 detected?

YES >> GO TO 2.

NO >> Inspection End

2.CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-92, "Removal and Installation".

3. CHECK SELF-DIAGNOSTIC RESULT-2

- Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
- Perform "Self-diagnostic result" of BCM using CONSULT.
- Erase DTC.
- Perform DTC Confirmation Procedure. Refer to <u>SEC-72</u>, "DTC Logic".

Is DTC B2195 detected?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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INFOID:0000000006928531

B2555 STOP LAMP

Description INFOID:0000000006928529

BCM detects the stop lamp status and confirms the stop lamp switch ON/OFF status. BCM confirms the engine start condition according to the stop lamp switch ON/OFF status.

DTC Logic INFOID:0000000006928530

DTC DETECTION LOGIC

DTC	CONSULT	DTC detecting condition	Possible cause	D
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. The BCM then judges from their values to detect the malfunctioning circuit.	FuseStop lamp switchStop lamp relay-1 (with CVT)Harness or connectors	Е

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- Depress the brake pedal and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Refer to SEC-73, "Diagnosis Procedure (With CVT)" or SEC-75, "Diagnosis Procedure (With M/ YES

NO >> Inspection End.

Diagnosis Procedure (With CVT)

Regarding Wiring Diagram information, refer to SEC-181, "Wiring Diagram".

1.CHECK FUSE

Check 10A fuse [No.7, located in fuse block (J/B)].

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- Check voltage between BCM harness connector M18 terminal 26 and ground.

В	BCM		Stop lamp	Voltage [V]
Connector	Connector Terminal		switch position	voltage [v]
M18	26	Ground	Depressed	Battery voltage
IVITO	20	Giouna	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> GO TO 3.

3.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

Check voltage between stop lamp harness connector E38 terminal 2 and ground.

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Stop lan	Stop lamp switch		Stop lamp	Voltage [V]
Connector	Terminal	Ground	switch position	voitage [v]
E38	2	Ground	Depressed	Battery volt- age
			Released	0

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 9.

4. CHECK STOP LAMP RELAY-1 SIGNAL CIRCUIT

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 1 and ground.

Stop lamp relay-1		Ground	Stop lamp	Voltage [V]
Connector	Connector Terminal		switch position	voitage [v]
E57	1	Ground	Depressed	Battery voltage
LJI		Ground	Released	0

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check harness for open or short between stop lamp relay-1 connector and stop lamp switch. Repair or replace necessary parts.

5. CHECK STOP LAMP RELAY-1 POWER SUPPLY

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 5 and ground.

Stop lam	np relay-1	Ground	Voltage
Connector	Connector Terminal		voltage
E57	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 6.

NO >> Check pin terminals and connection of stop lamp relay-1 harness connector and harness for abnormal conditions. Repair or replace necessary parts.

6.CHECK STOP LAMP RELAY-1 GROUND CIRCUIT

- 1. Disconnect stop lamp relay-1 E-57 connector.
- 2. Check continuity between stop lamp relay-1 harness connector E57 terminal 2 and ground.

Stop lam	np relay-1	Ground	Continuity
Connector	Connector Terminal		Continuity
E57	E57 2		Yes

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair harness or connector.

7.CHECK STOP LAMP RELAY-1 OUTPUT CIRCUIT

- 1. Connect stop lamp relay-1 E-57 connector.
- 2. Check voltage between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Stop lamp	Voltage [V]
Connector	Terminal	Ground	switch position	voltage [v]
E57	3	Ground	Depressed	Battery voltage
	E57 3		Released	0

B2555 STOP LAMP

) TO 8.) TO 10.				
CHECK STO	OP LAMP S	WITCH C	CIRCUIT		
. Check cont tor M18 ter		een stop	lamp relay-1 ha	rness connecto	or E57 terminal 3 and BCM harness connec-
Stop lamp	relay-1		BCM		_
Connector	Terminal	Connec	ctor Terminal	Continuity	
E57	3	M18	3 26	Yes	_
. Check conf	tinuity betwe	een stop	lamp relay-1 ha	rness connecto	or E57 terminal 3 and ground.
Stop la	amp relay-1				_
Connector	Termi	nal	Ground	Continuity	
E57	3		Ground	No	_
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efer to SEC-7 the inspection YES >> Re NO >> Re O.CHECK S Refer to SEC-7 the inspection YES >> GO YES >> Ins Oiagnosis P	DP LAMP S 6, "Compor n result nor pair or repla place stop I TOP LAMP 6, "Compor n result nor) TO 11. place stop I ITERMITTE "Intermitter pection End rocedure	WITCH nent Inspendent Inspendent Inspendent Inspendent Inspendent Incident	ection". ess between storch. 1 ection". y-1. DENT tt". M/T) ion, refer to SEC		INFOID:0000000006928532
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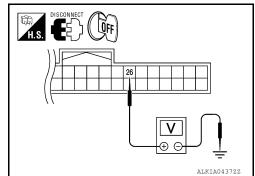
Revision: June 2012 SEC-75 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check voltage between BCM harness connector and ground.

В	BCM		Stop lamp	Voltage [V]
Connector	Terminal	Ground	switch position	voitage [v]
M18	26 Ground		Depressed	Battery volt- age
			Released	0



Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-92</u>, "Removal and Installation"

NO >> GO TO 2

2.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- 1. Disconnect stop lamp switch harness connector.
- Check voltage between stop lamp harness connector and ground.

Stop lan	np switch	Ground	Voltage [V]
Connector	Connector Terminal		voitage [v]
E38	E38 1		Battery voltage

Is the inspection result normal?

YES >> GO TO 3

NO >> Check harness for open or short between stop lamp switch and fuse.

3. CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between stop lamp switch harness connector E38 terminal 2 and BCM harness connector M18 terminal 26.

Stop lamp	Stop lamp switch		BCM		
Connector	Terminal	Connector Terminal		Continuity	
E38	2	M18	26	Yes	

2. Check continuity between stop lamp switch harness connector E38 terminal 2 and ground.

Stop lan	np switch	Ground	Continuity
Connector	Connector Terminal		Continuity
E38	E38 2		No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STOP LAMP SWITCH

Refer to SEC-76, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:00000000006928533

STOP LAMP SWITCH

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

1. CHECK STOP LAMP SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect stop lamp switch harness connector E38.
- Check continuity between stop lamp switch terminals 1 and 2 under the following conditions.

Stop lamp switch		Condition		Continuity	
Terminal			Condition		
1	2	2 Brake pedal	Released	No	
1 2		Brake pedal	Depressed	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp switch.

STOP LAMP RELAY-1

1. CHECK STOP LAMP RELAY-1

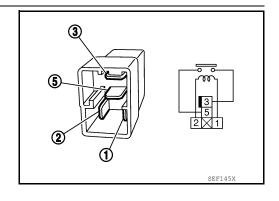
Check continuity between stop lamp relay-1 terminals 3 and 5.

Condition	Continuity
Apply battery voltage between terminals 1 and 2	Yes
No voltage supplied	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp relay-1.



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SEC-77 Revision: June 2012 2011 Altima GCC В

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INFOID:0000000006389492

B2556 PUSH-BUTTON IGNITION SWITCH

Description INFOID:0000000006389490

The switch that changes the power supply position. BCM maintains the power supply position status. BCM changes the power supply position with the operation of the push-button ignition switch.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IG- NITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more	Harness or connectors (Push-button ignition switch circuit is shorted.) Push-button ignition switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine and wait for at least 100 seconds.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-78, "Diagnosis Procedure".

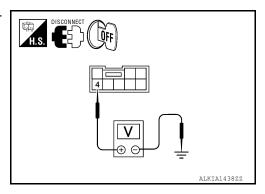
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to <u>SEC-204, "Wiring Diagram"</u>.

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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



Push-button	ignition switch	Ground	Voltage [V]	
Connector	Terminal		voitage [v]	
M38	4	Ground	Battery voltage	

Is the inspection normal?

YES >> GO TO 2.

NO >> GO TO 4.

2. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-79, "Component Inspection".

B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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Is the inspection normal?

YES >> GO TO 3.

NO >> Replace push-button ignition switch. Refer to <u>SEC-221, "Removal and Installation"</u>.

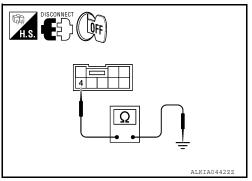
3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

4. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

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



Push-button	ignition switch	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M38	4	Ground	No	

Is the inspection normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

Component Inspection

INFOID:0000000006389493

1. CHECK PUSH-BUTTON IGNITION SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch harness connector.
- Check continuity between push-button ignition switch terminals under the following conditions.

Push-button	ignition switch	Condition	Continuity
Terminal		Condition	Continuity
1	4	Pressed	Yes
		Not pressed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to <u>SEC-221, "Removal and Installation"</u>.

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B2557 VEHICLE SPEED

Description INFOID:000000006389494

BCM receives the 2 vehicle speed signals via CAN communication. 1 signal is transmitted by the "unified meter" Another signal is transmitted by "ABS actuator and electric unit (control unit)". BCM compares both signals to detect the 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 SEC-34, "DTC Logic".
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2557	VEHICLE SPEED	BCM detects the following difference between the vehicle speed from "unified meter" and the one from "ABS actuator and electric unit" for 10 seconds continuously One is 10km/h or more and the other is 4km/h or less.	Wheel sensor Unified meter ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Drive the vehicle at the vehicle speed of 10 km/h or more and wait for at least 10 seconds.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-80, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389496

$1.\mathsf{check}$ dtc with "abs actuator and electric unit (control unit)"

Check "Self diagnostic result" with CONSULT. Refer to BRC-115, "DTC No. Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK UNIFIED METER.

Check unified meter. Refer to MWI-4, "Work Flow".

>> Inspection End.

B2560 STARTER CONTROL RELAY [COUPE] < DTC/CIRCUIT DIAGNOSIS > **B2560 STARTER CONTROL RELAY** Α Description INFOID:0000000006389497 Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay. DTC Logic INFOID:0000000006389498 DTC DETECTION LOGIC NOTE: If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to D SEC-34, "DTC Logic". If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic". Е DTC Self-diagnosis name DTC detecting condition Possible causes BCM detects a mismatch between the OFF re-STARTER CONTROL B2560 quest of starter control relay to IPDM E/R and the IPDM E/R **RELAY** feedback. (The feedback is ON instead of OFF.) DTC CONFIRMATION PROCEDURE 1. PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON under the following conditions and wait for at least 2 seconds. Н CVT selector lever is in the P position Depress the brake pedal Check "Self diagnostic result" with CONSULT. Is DTC detected? YES >> Go to SEC-81, "Diagnosis Procedure". >> Inspection End. Diagnosis Procedure INFOID:0000000006389499 1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC_Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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SEC-81 Revision: June 2012 2011 Altima GCC

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2601 SHIFT POSITION

Description INFOID:000000006389500

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P position signal from IPDM E/R (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to <u>SEC-94, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2601	SHIFT POSITION	BCM detects when a difference between the shift P input signal and the shift position signal received from IPDM E/R via CAN communication continues for 2 seconds or more	Harness or connectors (CVT shift selector circuit is open or shorted.) CVT shift selector (park position switch)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.
- 3. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
- CVT selector lever is in other than P position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-82</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389502

Regarding Wiring Diagrams information, refer to <a>SEC-204, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

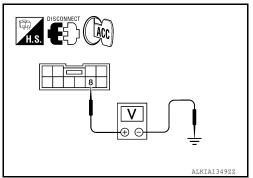
- Turn ignition switch to ACC.
- Disconnect CVT shift selector (park position switch) harness connector.

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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



CVT shift selector (park position switch)	Ground	Voltage [V]
Connector Terminal		Ordana	voitage [v]
M23	8	Ground	Battery voltage

Is the inspection result normal?

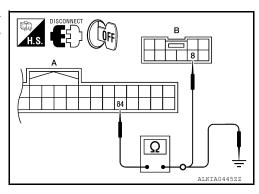
YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.

Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



В	CM	CVT shift selector (Continuity	
Connector	Terminal	Terminal Connector		Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

В	CM	Ground	Continuity	
Connector	Terminal			
A: M19	84	Ground	No	

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair harness or connector.

3.check cvt shift selector circuit (BCM)

1. Disconnect BCM harness connector and IPDM E/R harness connector.

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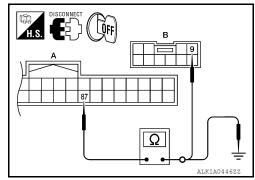
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Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



ВСМ		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ordana		
A: M19	87	Ground	No	

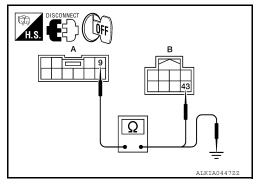
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT (IPDM E/R)

- Disconnect BCM harness connector.
- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and IPDM E/R harness connector E17 (B) terminal 43.



CVT shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		
A: M23	9	B: E17	43	Yes

Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and ground.

	CVT shift selector (park position switch)		Continuity	
Connector	Terminal			
A: M23	9	Ground	No	

Is the inspection result normal?

YES >> GO TO 5.

B2601 SHIFT POSITION [COUPE] < DTC/CIRCUIT DIAGNOSIS > NO >> Repair harness or connector. CHECK CVT SHIFT SELECTOR Α Refer to SEC-85, "Component Inspection". Is the inspection result normal? В YES >> GO TO 6. NO >> Replace CVT shift selector. Refer to TM-240, "Removal and Installation". 6. CHECK INTERMITTENT INCIDENT Refer to GI-42, "Intermittent Incident". D >> Inspection End. Component Inspection INFOID:0000000006389503 Е 1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH) Turn ignition switch OFF. Disconnect CVT shift selector (park position switch) harness connector. F Check continuity between CVT shift selector (park position switch) terminals as follows.

	or (park position itch)	Condition		Continuity
Terr	minal			
8	9	CVT selector lever	P position	No
	9	CVI Selector level	Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to <u>TM-240</u>, "Removal and Installation".

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Revision: June 2012 SEC-85 2011 Altima GCC

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

INFOID:0000000006389506

B2602 SHIFT POSITION

Description INFOID:000000006389504

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Shift position is in P position • Vehicle speed is 4km/h (2 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CVT drive circuit is open or shorted) CVT shift selector (park position switch) Combination meter

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 10 seconds.
- CVT selector lever is in the P or N position
- Depress the brake pedal.
- Drive the vehicle for at least 10 seconds at a speed greater than 4 km/h (2 MPH).
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-86, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to <a>SEC-204, "Wiring Diagram".

$1.\mathsf{check}$ dtc with "combination meter"

Check "Self diagnostic result" with CONSULT. Refer to MWI-47, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

- Turn ignition switch to ACC.
- Disconnect CVT shift selector (park position switch) harness connector.

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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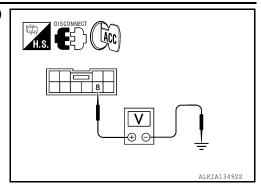
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3. Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M23	8	Ground	Battery voltage

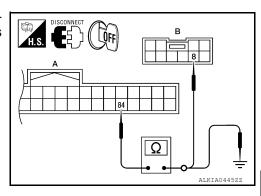
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3.}$ CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



В	ВСМ		CVT shift selector (park position switch)	
Connector	Terminal	Connector	Terminal	Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: M19	84	Ground	No	

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

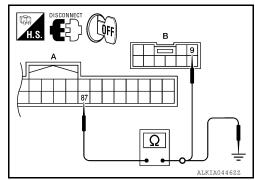
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Revision: June 2012 SEC-87 2011 Altima GCC

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



В	ВСМ		CVT shift selector (park position switch)	
Connector	Terminal	Connector Terminal		Continuity
A: M19	87	B: M23	9	Yes

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

BCM		Ground	Continuity	
Connector	Terminal	Ordana		
A: M19	87	Ground	No	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-85, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to TM-240, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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B2603 SHIFT POSITION STATUS

Description INFOID:0000000006389507

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Transmission range switch

DTC Logic INFOID:0000000006389508

DTC DETECTION LOGIC

NOTE:

 If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".

 If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2603	SHIFT POSITION STATUS	BCM detects the followings status for 500 ms or more when shift is in P position and, ignition switch is in ON position. • Transmission range switch: approx. 0V • CVT shift selector (park position switch): approx 0V	Harness or connector (CVT shift selector circuit is open or shorted.) Harness or connectors [Transmission range) switch circuit is open or shorted.] CVT shift selector (park position switch) Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

Start the engine under the following conditions and wait for at least 1 second.

- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- Shift to N and wait for at least 1 second.
- Shift to any gear other than P or N and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-89, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector. 2.
- 3. Check continuity between TCM harness connector terminal and BCM harness connector M18 terminal

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B2603 SHIFT POSITION STATUS

DIAGNOSIS > [COUPE]

TO	CM	BCM Connector Terminal		Continuity
Connector	Terminal			Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	IVITO	40	165

4. Check continuity between TCM harness connector terminal and ground.

TCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2	Giouna	INU

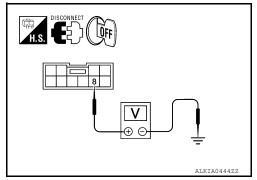
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- Disconnect CVT shift selector (park position switch) harness connector.
- 3. Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal	Ground	vollage [v]
M23	8	Ground	Battery voltage

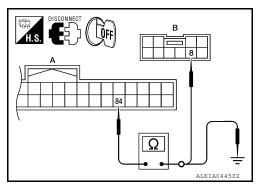
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- 1. Disconnect BCM harness connector.
- 2. Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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В	BCM CVT shift selector (park position switch) Continu		CVT shift selector (park position switch)	
Connector	Terminal	Connector	Terminal	Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	84	Ground	No

Is the inspection result normal?

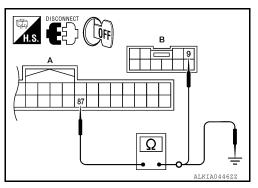
YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

2. Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



В	ВСМ		ft selector tion switch)	Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

ВСМ		Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK CVT SHIFT SELECTOR

Refer to SEC-85, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace CVT shift selector. Refer to TM-240, "Removal and Installation".

7.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-91 2011 Altima GCC

B2604 PNP SWITCH

Description INFOID:0000000006389510

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- Transmission range position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	PNP SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear. Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch TCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 1 seconds.
- CVT selector lever is in the P position
- Do not depress the brake pedal
- 2. Use CVT selector lever to select each gear one at a time. Wait at each gear for at least 1 second.
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-92, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389512

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT. Refer to TM-196, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect TCM harness connector and BCM harness connector.
- Check continuity between TCM harness connector and BCM harness connector.

B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

TC	CM	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	- IVI IO	40	165

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4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2	Ground	NO

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2605 PNP SWITCH

Description INFOID:000000006389513

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	PNP SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in ON position N position input signal exists. Shift position signal from IPDM E/R does not exist. N position input signal does not exist. Shift position signal from IPDM E/R exists. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions and wait for at least 1 seconds.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-94, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389515

Regarding Wiring Diagrams information, refer to <u>SEC-181, "Wiring Diagram"</u>.

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

TC	CM	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	- WHO	40	105

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal	Giodila	Continuity
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2	Giouna	INO

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2606 STEERING LOCK RELAY

Description INFOID:0000000006389516

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2606	STEERING LOCK RELAY	BCM detects that there is a mismatch between the following statuses. Electronic steering column lock ON signal transmitted by IPDM E/R The electronic steering column lock status feedback	Steering lock relay (in IPDM E/R)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress the brake pedal.
- 2. Steering is locked.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389518

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2607 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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B2607 STEERING LOCK RELAY

Description INFOID:0000000006389519

BCM requests to IPDM E/R to supply power to electronic steering column lock. IPDM E/R sends status of electronic steering column lock back to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	BCM detects that there is a difference between the following statuses. BCM request for electronic steering column lock power supply (ON/OFF) IPDM E/R status of electronic steering column lock power supply (ON/OFF)	Harness or connectors (electronic steering column lock power supply circuit is open or shorted) Steering lock relay (in IPDM E/R)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P position
- Do not depress brake pedal
- 2. Steering lock is locked.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-97, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC_Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector.

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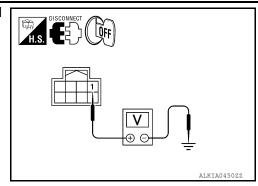
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Revision: June 2012 SEC-97 2011 Altima GCC

3. Check voltage between electronic steering column lock and ground under the following conditions.



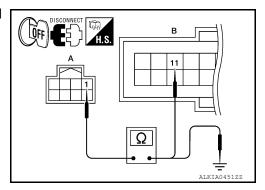
Electronic stee	Electronic steering column lock		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition	vollage (v)	
M32	1	Ground	Press push-button ignition switch when steering lock is in lock condition.	Battery voltage	

Is the inspection result normal?

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

3.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Check continuity between electronic steering column lock and IPDM E/R harness connector.



Electronic steel	Electronic steering column lock		M E/R	Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M32	1	B: E18	11	Yes

4. Check continuity between electronic steering column lock and ground.

Electronic stee	ring column lock	Ground	Continuity	
Connector Terminal		Oround	Continuity	
A: M32	1	Ground	No	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2608 STARTER RELAY

Description INFOID:0000000006389522

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM receives starter relay ON signal (CAN) from IPDM E/R even if BCM turns the starter relay OFF	Harness or connectors (starter relay circuit is open or shorted.) IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P or N position.
- Depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-99, "Diagnosis Procedure".

NO >> Inspection End.

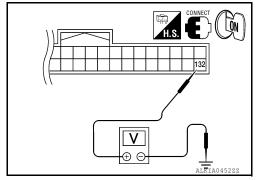
Diagnosis Procedure

INFOID:0000000006389524

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK STARTER RELAY

- 1. Turn ignition switch ON.
- 2. Check voltage between BCM harness connector and ground under the following condition.



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Revision: June 2012 SEC-99 2011 Altima GCC

ВСМ		Ground		Condition	Voltage (V)	
Connector	Terminal	Giodila	Condition		voltage (v)	
	132 Gro		CVT selector lever	N or P position	Battery voltage	
M21		Ground		Other than above	0	
IVIZ I			Not depressed	0		
			Clutch pedal	Depressed	Battery voltage	

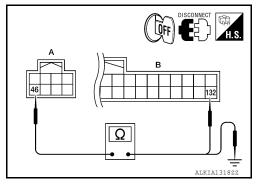
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
- 3. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	46	B: M21	132	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDI	M E/R	Ground	Continuity	
Connector	Terminal	Giodila		
A: E17	46	Ground	No	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

< DTC/CIRCUIT DIAGNOSIS >

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B2609 STEERING STATUS

Description INFOID:0000000006389525

There are 2 switches in the electronic steering column lock (steering column lock/unlock switch 1 and 2). BCM compares those two switches conditions to judge the present steering status.

DTC Logic INFOID:0000000006389526

DTC DETECTION LOGIC

NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2609	STEERING STATUS	BCM detects the malfunction of electronic steering column lock switches for 1 second.	Harness or connectors [Electronic steering column lock circuit (BCM side) is open or short- ed] Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE 1

- Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position.
- Do not depress brake pedal
- Steering is locked
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

- 1. Turn ignition switch ON.
- Turn ignition switch OFF.
- Press door switch.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to <u>SEC-181, "Wiring Diagram"</u>.

1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

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SEC-101 Revision: June 2012 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

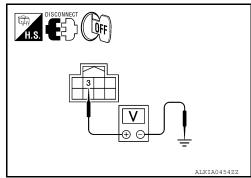
In which case is DTC detected?

Case1 >> GO TO 2.

Case2 >> GO TO 7.

2.CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.
- 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]
Connector Terminal		Giodila	voltage [v]
M32	3	Ground	Battery voltage

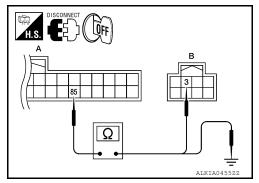
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



В	СМ	Electronic steering column lock		Electronic steering column lock Continuity		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
A: M19	85	B: M32	3	Yes		

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

ВСМ		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

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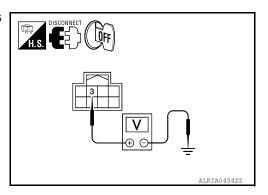
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- 1. Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.
- 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Oround	voitage [v]
M32	3	Ground	Battery voltage

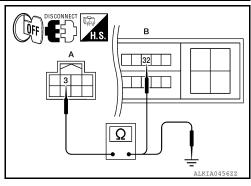
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steel	ring column lock	IPDI	M E/R	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	3	B: E18	32	Yes

2. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

Revision: June 2012 SEC-103 2011 Altima GCC

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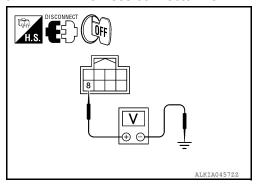
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< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.
- 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltago [V/]
Connector	Terminal	Ground	Voltage [V]
M32	8	Ground	Battery voltage

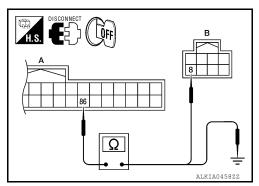
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

8. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector M19.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



В	CM	Electronic stee	ring column lock	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

всм		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- 1. Connect IPDM E/R harness connector.
- Disconnect BCM harness connector M19.

B2609 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

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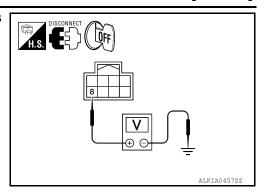
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Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M32	8	Ground	Battery voltage

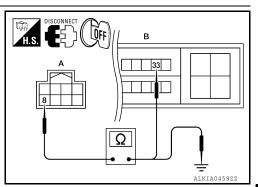
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-105 2011 Altima GCC

B260B ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B260B ELECTRONIC STEERING COLUMN LOCK

Description INFOID:000000006389528

The electronic steering column lock performs the check by itself according to the steering status.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	ELECTRONIC STEERING COL- UMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering unlocking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch, when steering is locked.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-106, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389530

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. **Perform DTC Confirmation Procedure.** See <u>SEC-106, "DTC Logic"</u>.

Is the DTC B260B displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

B260C ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

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INFOID:0000000006389533

B260C ELECTRONIC STEERING COLUMN LOCK

Description

The electronic steering column lock performs the check by itself according to the steering status.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering locking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Turn ignition switch OFF.
- 3. Press door switch.
- 4. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-107, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-107, "DTC Logic".

Is the DTC B260C displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

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Revision: June 2012 SEC-107 2011 Altima GCC

B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B260D ELECTRONIC STEERING COLUMN LOCK

Description INFOID:000000006389534

The electronic steering column lock performs the check by itself according to the steering lock status (before lock, after lock and unlock).

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock after steering locking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- 3. Press door switch.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-108</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389536

1. INSPECTION START

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-108, "DTC Logic".

Is the DTC B260D displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

B260F ENGINE STATUS

		DZOUF ENGINE STATUS			
	CUIT DIAGNOSIS >		[COUPE]		
B260F E	NGINE STATU	JS		А	
Description INFOID:0000000006389537					
BCM receive	es the engine status	signal from ECM via CAN communication.		В	
DTC Logic	C		INFOID:000000006389538		
DTC DETE	CTION LOGIC			C	
NOTE: • If DTC B26	60F is displaved wit	th DTC U1000, first perform the trouble di	iagnosis for DTC U1000. Refer to		
SEC-34, "[OTC Logic".	th DTC U1010, first perform the trouble di	-		
SEC-35, "E		in Dic Ototo, ilist perioriti the trouble di	lagilosis for DTC 01010. Refer to		
DTC No.	Trouble diagnosis	DTC detecting condition	Possible cause	Е	
	name INTERRUPTION OF	-			
B260F	ENGINE STATUS SIGNAL	BCM is not yet received the engine status signal from ECM when ignition switch is in ON position	• ECM	F	
DTC CONF	IRMATION PROC	EDURE	_		
1.PERFOR	M DTC CONFIRMA	TION PROCEDURE			
	ition switch ON unde ector lever is in the I	er the following conditions.		-	
 Do not d 	lepress the brake pe Self diagnostic resul	edal.			
2. Check "S Is DTC detect	-	t with CONSOLT.			
	Go to <u>SEC-109, "Dia</u> Inspection End.	agnosis Procedure".			
	Procedure		INFOID:000000006389539		
4	TON START		1147-012-0000000000000000000000000000000000		
	ition switch ON.			SI	
2. Check "S	Self diagnostic resul	t" with CONSULT.			
	DTC Confirmation	n Procedure.		L	
	C-109, "DTC Logic". 3260F displayed aga	in?			
YES >> 0	GO TO 2.			1	
NO >> I 2.REPLACE	Inspection End.				
1. Replace				1	
2. Go to E	C-15, "BASIC INS	PECTION: Special Repair Requirement air Requirement" (VQ35DE).	" (QR25DE) or <u>EC-331, "BASIC</u>		
INSPEC	ттом, орестат Кера	an requirement (vQ35DE).		(
>>	Inspection End.				
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[COUPE]

B2612 STEERING STATUS

Description INFOID.000000006389540

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35, "DTC Logic"</u>.

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2612	STEERING STA- TUS	BCM detects the mismatch between the following status for 1 second • Steering column lock or unlock • Feedback of steering column lock status from IPDM E/R (CAN)	Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted] Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Do not depress brake pedal.
- Steering is locked.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-110, "Diagnosis Procedure".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

- Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- 3. Press door switch.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-110, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389542

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed.
- Case2: It is detected after ignition switch is changed from ON to OFF

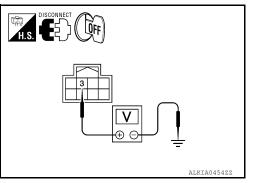
In which case is DTC detected?

< DTC/CIRCUIT DIAGNOSIS >

Case1 >> GO TO 2. Case2 >> GO TO 7.

2.CHECK BCM OUTPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.
- Check voltage between electronic steering column lock harness connector and ground.



[COUPE]

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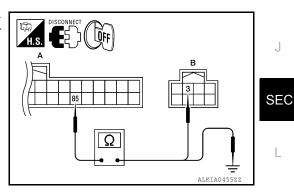
Electronic stee	ring column lock	Ground	Voltago IV/I
Connector	Connector Terminal		Voltage [V]
M32	3	Ground	Battery voltage

Is the inspection result normal?

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

${f 3.}$ CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector.
- 2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

В	CM	Ground	Continuity
Connector	Connector Terminal		Continuity
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

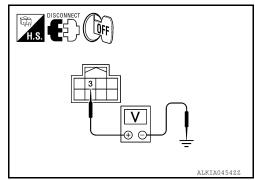
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

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SEC-111 Revision: June 2012 2011 Altima GCC 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steel	ring column lock	Ground	Voltage [V]
Connector Terminal		Ground	vollage [v]
M32	3	Ground	Battery voltage

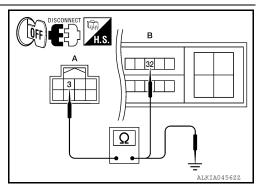
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steel	ring column lock	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	3	B: E18	32	Yes

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic stee	ring column lock	Ground	Continuity
Connector Terminal		Orbana	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-42. "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

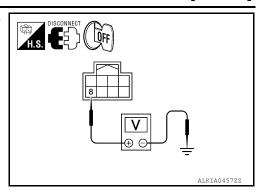
- 1. Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check voltage between electronic steering column lock harness connector and ground.



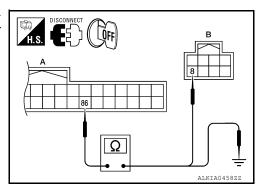
Electronic stee	ring column lock	Ground	Voltage [V]
Connector Terminal		Ground	voltage [v]
M32	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 9. NO >> GO TO 8.

8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



В	CM	Electronic steering column lock				Continuity
Connector	Terminal	Connector	Terminal	Continuity		
A: M19	86	B: M32	8	Yes		

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

В	CM	Ground	Continuity
Connector Terminal		Ground	Continuity
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- 1. Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

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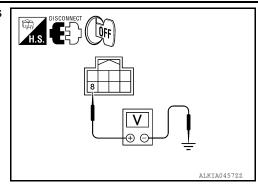
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[COUPE]

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]
Connector Terminal		Ground	vollage [v]
M32	8	Ground	Battery voltage

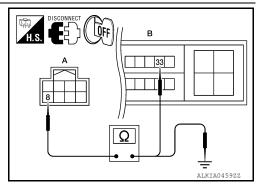
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic stee	Electronic steering column lock		IPDM E/R	
Connector	Terminal	Connector Terminal		Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity	
Connector	Connector Terminal		Continuity	
A: M32	8	Ground	No	

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

[COUPE]

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B2617 STARTER RELAY CIRCUIT

Description INFOID.00000000006389543

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to <u>PCS-62, "DTC Logic"</u>.
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to <u>SEC-115, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	 An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second BCM is not commanding starter relay activation, but BCM detects starter relay output is active 	Harness or connectors (Starter relay circuit is open or shorted.) IPDM E/R

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-115</u>, "Diagnosis Procedure".

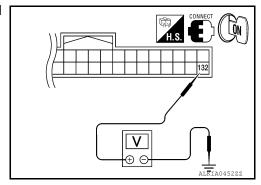
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK STARTER RELAY

- 1. Turn ignition switch ON.
- 2. Check voltage between BCM harness connector and ground under the following condition.



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Revision: June 2012 SEC-115 2011 Altima GCC

B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM		Ground Transmission type		Condition	Voltage (V)
Connector	Terminal	Ground	Transmission type	Condition	voitage (v)
M21 132	CVT: Select lever in	Ignition switch cranking or request to start	Battery voltage		
	122	Ground	Faik	Other than above	0
	132	Ground	M/T: Clutch pedal depressed Ignition switch cranking or request to start	•	Battery voltage
				0	

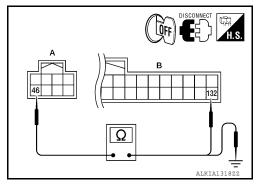
Is the measurement value within the specification.

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

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



IPDI	/I E/R	BCM		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: E17	46	B: M21	132	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Connector Terminal		Continuity
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2619 BCM

< DTC/CIRCUIT DIAGNOSIS > [COUPE]

B2619 BCM

Description

BCM requests IPDM E/R to supply power to electronic steering column lock. After receiving the power, the electronic steering column lock transmits an ON signal to BCM.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2619	ВСМ	BCM detects a mismatch between the power supplied to the electronic steering column lock and the feedback for one second or more.	• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress brake pedal
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-117, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-117, "DTC Logic".

Is the DTC B2619 displayed again?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

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Revision: June 2012 SEC-117 2011 Altima GCC

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B261A PUSH-BUTTON IGNITION SWITCH

Description INFOID:0000000006389549

IPDM E/R transmits the push-button ignition switch status via CAN communication to BCM. BCM receives push-button ignition switch status by hardwire input. BCM compares the 2 signals for mismatch.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-34, "DTC Logic".
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261A	PUSH-BUTTON IGNITION SWITCH	BCM detects the mismatch between the following for 1 second or more • Push-button ignition switch status • Push-button ignition switch status from IPDM E/R (CAN)	Harness or connectors (Push-button ignition switch circuit is open or shorted) Between BCM and push-button ignition switch Between IPDM E/R and push-button ignition switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-118, "Diagnosis Procedure".

NO >> Inspection End.

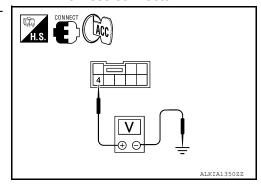
Diagnosis Procedure

INFOID:0000000006389551

Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch harness connector and IPDM E/R harness connector.
- 3. Check voltage between push-button ignition switch harness connector and ground.



B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Push-button	Push-button ignition switch		Voltage (V)
Connector	Connector Terminal		vollage (v)
M38	4	Ground	Battery voltage

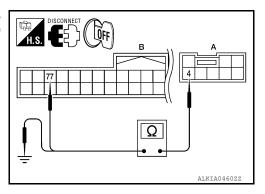
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.check push-button ignition switch circuit

- 1. Disconnect BCM harness connector.
- Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M19 (B) terminal 77.



[COUPE]

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Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M38	4	B: M19	77	Yes

3. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and ground.

Push-button ignition switch		Ground	Continuity	
Connector Terminal		Ordana	Continuity	
A: M38	4	Ground	No	

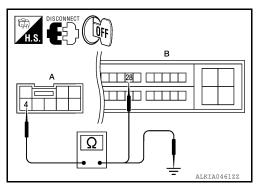
Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3.check push-button ignition switch

- 1. Disconnect IPDM E/R harness connector.
- 2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and IPDM E/R harness connector E18 (B) terminal 28.



Push-button ignition switch		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M38	4	B: E18	28	Yes

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

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B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

Push-button	Push-button ignition switch		Continuity	
Connector	Terminal	Ground	Continuity	
A: M38	4	Ground	No	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

	B261E V	EHICLE TYPE	
< DTC/CIRCUIT DIAGN	NOSIS >		[COUPE]
B261E VEHICLE	TYPE		
Description			INFOID:000000006389552
There are two types of v • HEV • Conventional DTC Logic	ehicles.		INFOID:000000006389553
DTC DETECTION LOC NOTE: • If DTC B261E is displ SEC-34, "DTC Logic".	ayed with DTC U1000, firs	t perform the trouble diagnosi	is for DTC U1000. Refer to
DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM
CVT models - Selector lever is in the Do not depress brake M/T models - Do not depress clute 2. Check "Self-diagnostis DTC detected?	te pedal ch pedal stic result" using CONSULT. 121. "Diagnosis Procedure" and		INFOID:000000006389554
1.INSPECTION START	-		
 Touch "ERASE". Perform DTC Confir See <u>SEC-121</u>, "DTC 	tic result" using CONSULT. mation Procedure. Clogic".		
Is the 1st trip DTC B261 YES >> Replace BC NO >> Inspection E	M. Refer to BCS-92, "Remo	oval and Installation".	

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description INFOID:0000000063895555

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to <u>SEC-34, "DTC Logic"</u>.
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-35</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	NO RECEPTION OF ENGINE STATUS SIGNAL	BCM does not receive the engine status signal from ECM when ignition switch is in the ON position	• ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-122, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389557

1.INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-122, "DTC Logic".

Is the DTC B26E1 displayed again?

YES >> GO TO 2.

NO >> Inspection End.

2.REPLACE ECM

- Replace ECM.
- 2. Go to <u>EC-15</u>, "BASIC INSPECTION: Special Repair Requirement" (QR25DE) or <u>EC-331</u>, "BASIC INSPECTION: Special Repair Requirement" (VQ35DE).

>> Inspection End.

B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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B26E8 CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389558

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

DTC Logic INFOID:0000000006389559

NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to SEC-123, "DTC Logic".

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
- Shift lever is in the neutral position.
- Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

>> Go to SEC-123, "Diagnosis Procedure". YES

NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-204, "Wiring Diagram".

${f 1}.$ check clutch interlock switch power supply

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch connector.
- Check voltage between clutch interlock switch harness connector and ground.

(+) Clutch interlock switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(дрргох.)	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 31, located in the fuse and fusible link box]

NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- 2. Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

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SEC-123 Revision: June 2012 2011 Altima GCC

B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

	(+) BCM		Condition		Voltage (V) (Approx.)
Connector	Terminal				(
M18	22	Ground	Clutch pedal	Depressed	Battery voltage
IVITO	22	ZZ Ground N	Ciutcii pedai	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> GO TO 3.

${f 3.}$ check clutch interlock switch signal circuit

- Disconnect clutch interlock switch connector.
- Check continuity between clutch interlock switch harness connector and BCM harness connector.

Clutch inte	rlock switch	BCM		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
E36	2	M18	22	Yes	

3. Check continuity between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch		Continuity
Connector	Connector Terminal		Continuity
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-124, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to <u>CL-9</u>, "<u>Exploded View</u>".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End

Component Inspection

INFOID:0000000006389561

1. CHECK CLUTCH INTERLOCK SWITCH

- 1. Turn ignition switch OFF.
- Disconnect clutch interlock switch connector.
- Check continuity between clutch interlock switch terminals.

Clutch interlock switch		Condition		Continuity
Terminal				Continuity
1	1 2 Clutch pedal		Depressed	Yes
ı	2	Clutch pedal	Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

< DTC/CIRC	:UIT DIAGNOSIS	B26E9 STEERING STATUS	[COUPE]
B26E9 S	TEERING ST	ATUS	
Description	n		INFOID:000000006389562
		ctronic steering column lock (steering lock/ujudge the present steering status.	unlock switch 1 and 2). BCM com-
DTC Logic			INFOID:000000006389563
NOTE:		DTC B2609, first perform the trouble diagno	osis for DTC B2609. Refer to SEC-
DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26E9	S/L STATUS	BCM requests lock to electronic steering column lock, then electronic steering column lock transmits a recognition signal to BCM, but electronic steering column lock remains unlocked.	Electronic steering column lock
4. Turn igni 5. Check "S Is DTC detect YES >> F	ition switch ON. Self-diagnostic resu <u>cted?</u>	h and wait 1 second or more. It" using CONSULT. 'Diagnosis Procedure".	
	Procedure		INFOID:000000006389564
1.INSPECT			
2. Check "S 3. Touch "E 4. Perform			
	26E9 displayed aga		
	GO TO 2. GO TO 3.		
2.REPLACE	E ELECTRONIC ST	EERING COLUMN LOCK	
2. Perform Is the DTC B	26E9 displayed aga	procedure. Refer to <u>SEC-125, "DTC Logic"</u> .	
	GO TO 3. nspection End		

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End

SEC-125 2011 Altima GCC Revision: June 2012

B26EA KEY REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B26EA KEY REGISTRATION

Description INFOID:000000006389568

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRA- TION	Intelligent Key is not registered successfully.	Improper registration operationIntelligent KeyBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform initialization using CONSULT. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to "CONSULT Operation Manual NATS-IVIS/NVIS".
- 2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-123</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000006389567

1. PERFORM INITIALIZATION

- Perform initialization using CONSULT. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to "CONSULT Operation Manual NATS-IVIS/NVIS".
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End

2.REPLACE INTELLIGENT KEY

- Replace Intelligent Key. Reregister all Intelligent Keys.
- 2. Perform initialization using CONSULT. For initialization, refer to "CONSULT Operation Manual NATS-IVIS/
- 3. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000006928538

Regarding Wiring Diagram information, refer to <u>BCS-70, "Wiring Diagram - Coupe"</u> or <u>BCS-79, "Wiring Diagram - Sedan"</u>.

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuse or fusible link are blown.

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	Н
11	battery power supply	10

Is the fuse or fusible link blown?

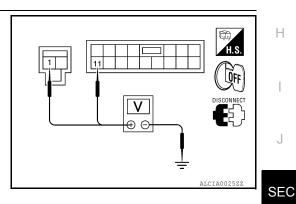
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

	Terminals			
(-	+)	(-)	Voltage	
ВС	CM		(Approx.)	
Connector	Terminal	Ground		
M16	1	Ground	Battery voltage	
M17	11		ballery vollage	



Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

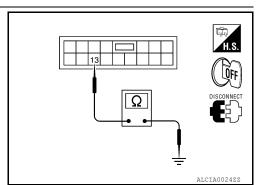
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



INFOID:0000000006928539

BCM : Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Revision: June 2012 SEC-127 2011 Altima GCC

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>> Work End.

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

Regarding Wiring Diagram information, refer to <u>PCS-31, "Wiring Diagram - Coupe"</u> or <u>PCS-37, "Wiring Diagram - Sedan"</u>.

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2		B, D
	Battery power supply	42
_		43

Is the fuse blown?

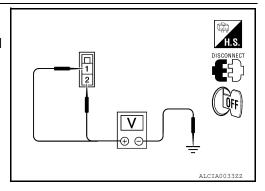
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connectors.
- Check voltage between IPDM E/R harness connector and ground.

	Terminals		
(+)	(-)	Voltage (V)
IPDI	IPDM E/R		(Approx.)
Connector	Terminal		
E16	1 Ground		Battery voltage
E10	2		Dattery Voltage



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

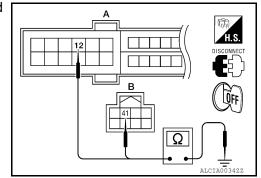
Check continuity between IPDM E/R harness connectors and ground.

IPDM I	E/R		Continuity
Connector	Terminal	Ground	Continuity
A: E18	12	Giodila	Yes
B: E17	41		165

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



[COUPE]

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KEY SLOT

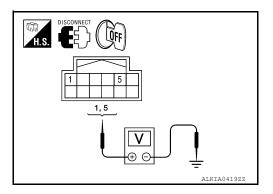
Diagnosis Procedure

INFOID:0000000006389571

Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram".

1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check voltage between slot connector and ground.



Key	Key slot		Voltage (V)	
Connector	Terminal	Ground	(Approx.)	
M40	1	Ground	Rattery voltage	
WHO	5	Giodila	Battery voltage	

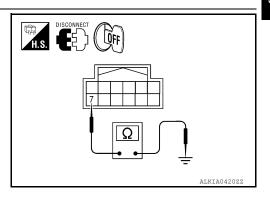
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace key slot power supply circuit.

2.CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M40	7	Ground	Yes	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot ground circuit.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Revision: June 2012 SEC-129 2011 Altima GCC

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>> Inspection End.

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

KEY SLOT ILLUMINATION

Description INFOID:0000000006389572

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:0000000006389573

INFOID:0000000006389574

1. CHECK FUNCTION

(P)With CONSULT

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

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Is the inspection result normal?

YES >> Key slot function is OK.

>> Refer to SEC-131, "Diagnosis Procedure". NO

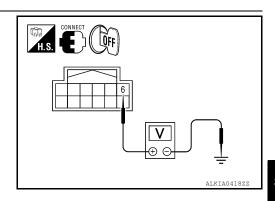
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Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-204, "Wiring Diagram".

1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



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	Terminals	als			
((+)		Condition	Key slot	Voltage (V) (Approx.)
Key slot connector	Terminal	(-)		illumination	
M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage
10140	O	Ground	Intelligent Key removed	ON	0

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect key slot connector.

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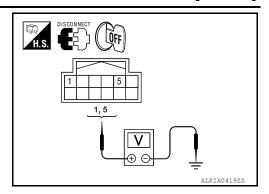
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SEC-131 Revision: June 2012 2011 Altima GCC

[COUPE]

3. Check voltage between slot connector and ground.



	Terminals			
(+)	()	Voltage (V) (Approx.)	
Key slot connector	Terminal	(-)	(
M40	1	Cround	Pattonyvoltago	
WHO	5	Ground	Battery voltage	

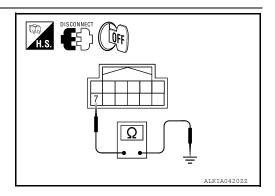
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

3. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot connector	Terminal	Ground	Continuity
M40	7	Oround	Yes

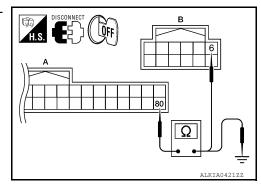
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

4. CHECK KEY SLOT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and key slot connector.
- 3. Check continuity between BCM connector and key slot connector.



KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

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BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80	Oround	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness between BCM and key slot.

5. CHECK KEY SLOT

Refer to SEC-131, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace key slot. Refer to <u>SEC-220, "Removal and Installation"</u>.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-133 2011 Altima GCC

KEY CYLINDER SWITCH

Description INFOID:0000000006389575

The main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

Component Function Check

INFOID:0000000006389576

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to <u>BCS-17</u>, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>SEC-134</u>, "<u>Diagnosis Procedure</u>".

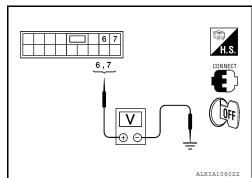
Diagnosis Procedure

INFOID:0000000006389577

Regarding Wiring Diagrams information, refer to SEC-194. "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector and ground.



	Terminals				
(+)			Key position	Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(-)		(Approx.)	
	Terminal 6		Lock	0	
D7	0	Ground	Neutral / Unlock	5	
D/	7	Ground	Unlock	0	
	,		Neutral / Lock	5	

Is the inspection result normal?

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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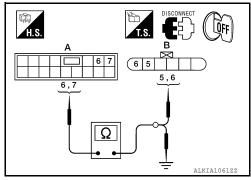
Н

YES >> Replace main power window and door lock/unlock switch. Refer to <u>DLK-220, "FRONT DOOR LOCK: Removal and Installation"</u>. After that, Refer to <u>DLK-11, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement"</u>.

NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector and door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/ unlock switch connector and door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/ unlock switch connector	Terminal	Door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	6	B: D10	6	Yes
۸. ۵۱	7	5.010	5	163

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

Power window main switch connector	Terminal		Continuity	
A: D7	6	Ground	No	
A. DI	7		INO	

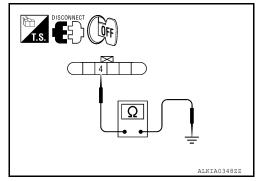
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between door lock assembly LH connector and ground.



Door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Ordana	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

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KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to SEC-136, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

>> Replace door lock assembly LH (key cylinder switch). Refer to <u>DLK-220, "FRONT DOOR LOCK:</u> <u>Removal and Installation"</u>.

Component Inspection

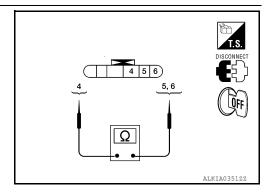
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INFOID:0000000006389578

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH (key cylinder switch).



Terminal				
Front door lock assembly conne		Key position	Continuity	
5		Unlock	Yes	
5	4	Neutral / Lock	No	
6	4	Lock	Yes	
		Neutral / Unlock	No	

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-457</u>, "<u>FRONT DOOR LOCK</u>: Removal and Installation".

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HORN

Description

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

Component Function Check

1. CHECK FUNCTION

- Select HORN in "ACTIVE TEST" mode with CONSULT.
- 2. Check the horn (high/low) operation.

	Test item		Desc	ription
HORN	ON	Horn relay		ON (for 20 ms)

Is the operation normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-137</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

Regarding Wiring Diagrams information, refer to SEC-181, "Wiring Diagram".

1. CHECK HORN FUNCTION

Check horn function with horn switch

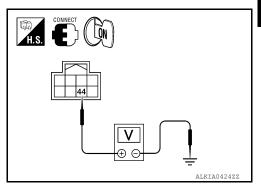
Do the horns sound?

YES >> GO TO 2.

NO >> Refer to <u>HRN-4, "Wiring Diagram"</u>.

2.CHECK HORN RELAY POWER SUPPLY

- Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT.
- 3. Using an analog voltmeter or an oscilloscope, check voltage between IPDM E/R connector E17 terminal 44 and ground.



IPD	M E/R	Ground		Test item	Voltage (V)
Connector	Terminal	Ground HORN	rest item	(Approx.)	
E17	44	Ground	HORN	ON	Battery voltage →0 → Battery voltage
L17	74	Ground	HOIN	Other than above	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.

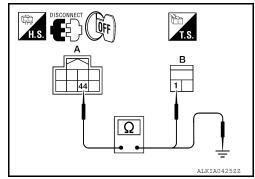
Revision: June 2012 SEC-137 2011 Altima GCC

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- 2. Disconnect IPDM E/R and horn relay connector.
- 3. Check continuity between IPDM E/R harness connector and horn relay harness connector.



IPD	M E/R	Horn	Horn relay	
Connector	Terminal	Connector	Terminal	Continuity
A: E17	44	B: H-1	1	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPD	M E/R	Ground	Continuity
Connector	Terminal	Giouna	Continuity
A: E17	44	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-45. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

HEADLAMP		
< DTC/CIRCUIT DIAGNOSIS >	[COUPE]	
HEADLAMP		
Description	INFOID:0000000006389582	
Headlamp lighting when theft warning system is alarm phase.		
Component Function Check	INFOID:0000000006389583	
1. CHECK HEADLAMP OPERATION		
Check if headlamp operate by lighting switch. Does headlamp come on when turning switch "ON"? YES >> Headlamp circuit is OK. NO >> Check headlamp system. Refer to SEC-139, "Diagnosis Procedure".		
Diagnosis Procedure	INFOID:000000006389584	
1. CHECK HEADLAMP OPERATION		
Refer to EXL-4, "Work Flow".		
Is the inspection result normal? YES >> GO TO 2.		
NO >> Repair or replace.		
2.CHECK INTERMITTENT INCIDENT		
Refer to GI-42, "Intermittent Incident". Is the inspection result normal?		
>> Inspection End.		
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WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

WARNING LAMP

Description

- Warning lamp is built in combination meter.
- Intelligent Key system malfunction is reported to the driver by the warning lamp illumination.

Component Function Check

INFOID:0000000006389586

1. CHECK FUNCTION

- 1. Perform "INDICATOR" in the "Active Test" mode with CONSULT.
- Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
INDICATOR	OFF		OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-140, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006389587

1. CHECK "COMBINATION METER."

Check combination meter function. Refer to MWI-4, "Work Flow".

Is the inspection result is normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

VEHICLE SECURITY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

VEHICLE SECURITY INDICATOR

Description

· Vehicle security indicator is built in combination meter.

 NVIS (Infinity Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

Component Function Check

1. CHECK FUNCTION

- 1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT.
- 2. Check vehicle security indicator operation.

Test item		Description	
THEFT IND	ON	Vehicle security indicator	ON
THEFT IND	OFF		OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-141, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK COMBINATION METER

Check combination meter. Refer to MWI-4, "Work Flow".

Is the inspection result is normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-141 2011 Altima GCC

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	OFF
FK WIPEK HI	Front wiper switch HI	ON
FR WIPER LOW	Other than front wiper switch LO	OFF
	Front wiper switch LO	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
	Front wiper switch INT	ON
ED WIDED STOD	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 6	Wiper intermittent dial position
	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
TURN SIGNAL L	Other than turn signal switch LH	OFF
TURN SIGNAL L	Turn signal switch LH	ON
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	OFF
TAIL LAWP 5W	Lighting switch 1ST or 2ND	ON
HI BEAM SW	Other than lighting switch HI	OFF
HI BEAIN SW	Lighting switch HI	ON
HEAD LAMP SW 1	Other than lighting switch 2ND	OFF
HEAD LAWF SW 1	Lighting switch 2ND	ON
HEAD LAMP SW 2	Other than lighting switch 2ND	OFF
FILAD LAWF SW 2	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
FASSING SW	Lighting switch PASS	ON
AUTO LIGHT SW	Other than lighting switch AUTO	OFF
AOTO LIGITI SW	Lighting switch AUTO	ON
FR FOG SW	Front fog lamp switch OFF	OFF
11(100 0W	Front fog lamp switch ON	ON
	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
DOOR SW-AS	Passenger door closed	OFF
	Passenger door opened	ON
DOOR SW-RR	Rear RH door closed	OFF
	Rear RH door opened	ON
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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Monitor Item	Condition	Value/Status
CDL LOCK SW	Other than power door lock switch LOCK	OFF
CDL LOCK SW	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
AN ON SIG	When AUTO switch or fan switch is pressed	ON
AIR COND SW	When A/C switch is pressed	ON
ED CANCEL OV	Trunk lid opener cancel switch OFF	OFF
ΓR CANCEL SW	Trunk lid opener cancel switch ON	ON
ED/DD ODEN CVA	Trunk lid opener switch OFF	OFF
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON
EDAUGULAT AANTD	Trunk lid closed	OFF
TRNK/HAT MNTR	Trunk lid opened	ON
	When LOCK button of Intelligent Key is not pressed	OFF
RKE-LOCK	When LOCK button of Intelligent Key is pressed	ON
	When UNLOCK button of Intelligent Key is not pressed	OFF
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON
DIVE DANIO	When PANIC button of Intelligent Key is not pressed	OFF
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON
	When UNLOCK button of Intelligent Key is not pressed and held	OFF
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
J. HONE CENTON	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
INEW SVV-DK	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY -F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON

Revision: June 2012 SEC-143 2011 Altima GCC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition	Value/Status
ACC DIV E/D	Ignition switch OFF	OFF
ACC RLY -F/B	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
0/1 1 0 0 1 /	Electronic steering column lock LOCK status	OFF
S/L -LOCK	Electronic steering column lock UNLOCK status	ON
S/L -UNLOCK	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
O/L DELAY/E/D	Ignition switch OFF or ACC	OFF
S/L RELAY-F/B	Ignition switch ON	ON
LINII K OENI DD	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
DUOLLOW IDDM	When engine switch (push switch) is not pressed	OFF
PUSH SW -IPDM	When engine switch (push switch) is pressed	ON
ION DIVA E/D	Ignition switch OFF or ACC	OFF
IGN RLY1 F/B	Ignition switch ON	ON
DETE OW IDDM	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
OFT DAL IDDA	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
OFT D. MET	When selector lever is in any position other than P	OFF
SFT P -MET	When selector lever is in P position	ON
0FT N. MET	When selector lever is in any position other than N	OFF
SFT N -MET	When selector lever is in N position	ON
	Engine stopped	STOP
	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
	Electronic steering column lock LOCK status	OFF
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON
S/L UNLCK-IPDM	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
S/L RELAY-REQ	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition	Value/Status	
	Driver door LOCK status	LOCK	A
DR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door UNLOCK status	UNLK	Е
	Passenger door LOCK status	LOCK	
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	(
D OK EL AO	Ignition switch ACC or ON	RESET	
D OK FLAG	Ignition switch OFF	SET	Γ
DDMT ENG STAT	When the engine start is prohibited	RESET	
PRMT ENG STAT	When the engine start is permitted	SET	
KEY OM OLOT	When Intelligent Key is not inserted into key slot	OFF	
KEY SW -SLOT	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	(
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID DECOT EL 4	When ID of front LH tire transmitter is registered	DONE	
D REGST FL1	When ID of front LH tire transmitter is not registered	YET	
ID DECOT ED4	When ID of front RH tire transmitter is registered	DONE	
ID REGST FR1	When ID of front RH tire transmitter is not registered	YET	
ID DECOT DD4	When ID of rear RH tire transmitter is registered	DONE	
D REGST RR1	When ID of rear RH tire transmitter is not registered	YET	0
ID DECCT DI 4	When ID of rear LH tire transmitter is registered	DONE	S
D REGST RL1	When ID of rear LH tire transmitter is not registered	YET	
AVA DAUNO / AAAD	Tire pressure indicator OFF	OFF	
WARNING LAMP	Tire pressure indicator ON	ON	

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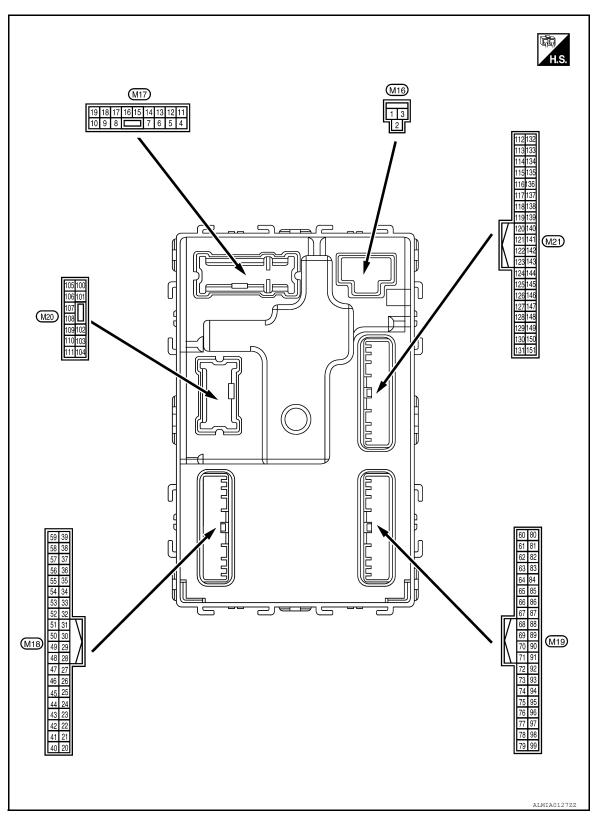
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Terminal Layout

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Physical Values

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			0 1111	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON	I	Battery voltage
4	Ground	Interior room lamp	Output	After passing the in er operation time	nterior room lamp battery sav-	0V
(P/W)	Giouna	power supply	Output	Any other time after lamp battery save	er passing the interior room roperation time	Battery voltage
5	Cravind	Front door RH UN-	Outout	Front door DII	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	0V
7	Cround	Ston Jama	Outout	Stop Jama	ON	0V
(R/W)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	Cravind	All deers LOCK	Outout	All doors	LOCK (actuator is activated)	Battery voltage
(V)	Ground	All doors LOCK	Output All doors	Other than LOCK (actuator is not activated)	0V	
9	O	Front door LH UN-		UNLOCK (actuator is activated)	Battery voltage	
(G)	Ground	LOCK	Output	Front door LH	Other than UNLOCK (actuator is not activated)	0V
10 ¹	Cround	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	and rear door LH	Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON	I	0V
					OFF	0V
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 2 ms

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
14 ⁸ (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y/L)	0.000		o anpan	- ige	ACC	0V
					Turn signal switch OFF	0V
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
-					Turn signal switch OFF	0V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
19		Room lamp timer		Interior room	OFF	Battery voltage
(Y)	Ground	control	Output	lamp	ON	0V
21	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(P/B)	Cround	Option School Signal	Прис	ON	When outside of the vehi- cle is dark	Close to 0V
22 ²	Ground	Clutch interlock	rlock Input Clutch interlock		OFF (clutch pedal is not depressed)	0V
(R/Y)	Ciouna	switch	mpat	switch	ON (clutch pedal is depressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage
26 (O/L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed) ON (brake pedal is de-	0V
					pressed)	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
27 (G/W)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					UNLOCK status	0V
29	0	Marralat arritala	1	When Intelligent K	Cey is inserted into key slot	Battery voltage
(Y)	Ground	Key slot switch	Input	When Intelligent K	ey is not inserted into key slot	0V
30	Granad	ACC feedback signal	Innut	lanition switch	OFF	0
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage
31	Ground	Rear window defog-	Input	Rear window de-	OFF	0V
(G)	Cround	ger feedback signal	mput	fogger switch	ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 10 10 ms JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	9V - 12V
(SB)		nal			ON	0V
34 ³	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	Battery voltage
(L/R)	Cround	der switch) (unlock)	put	cylinder switch)	ON (unlock)	0V
36 ³	Ground	Lock switch signal	Input	Door lock/unlock	Lock	Battery voltage
(GR)	Giound	LOCK SWITCH SIGNAL	Input	switch	Unlock	0V
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 10 ms JPMIA0012GB 1.1V
					ON	0V
38		Rear window defog-		Rear window de-	OFF	Battery voltage
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	OV
39 ³	_			Door lock/unlock	Unlock	Battery voltage
(GR/	Ground	Unlock switch signal	Input	switch	Lock	0V

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
40 ⁴ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms 10 ms JPMIA0013GB
				Ignition switch OF	F or ACC	0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illu- mination	ON OFF	5.5V 0V
42	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0V
(R)	Ground		Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	0V
(V/W)		power supply output		3 11 1 11	ACC or ON	5.0V
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 *** 0.2s
(G/O)		er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/G)	Ground	position signal	input	Selector level	Except P and N positions	0V
					ON	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 JPMIA0014GB
					OFF	11.3V Battery voltage
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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
50 (LG/	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit-	All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND	0V	
B)		0011013		tent dial 4)	Turn signal switch RH	2 ms JPMIA0031GB	
					All switch OFF (Wiper intermittent dial 4) Front wiper switch HI	ov	
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	(Wiper intermittent dial 4) Any of the conditions below with all switch OFF	15 10 5	
					 Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6 Wiper intermittent dial 7 	2 ms	
					Wiper intermittent dial 7 All switch OFF (Wiper intermittent dial 4)	10.7V 0V	
52		Combination switch		Combination	Front washer switch ON (Wiper intermittent dial 4)	(V)	
52 (G/B)	Ground	OUTPUT 2	Output	Combination switch	switch Any of the conditions belowith all switch OFF Wiper intermittent dial Wiper intermittent dial	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	10 5 0 JPMIA0033GB
					All switch OFF	10.7V	
=0				Combination	Front wiper switch INT Front wiper switch LO	(V) 15	
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0	
					All switch OFF	10.7V	
				Combination	Front fog lamp switch ON Lighting switch 2ND	(V) 15	
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit- tent dial 4)	Lighting switch flash-to- pass	10 5 0	
					Turn signal switch LH	2 ms JPMIA0035GB	
55 (DD)	On-side	Front blower	laa 1	Front blower mo-	ON	Battery voltage	
(BR/ W)	Ground	Front blower monitor	Input	tor switch	OFF	0V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
56 ³		Front door lock as-	_	Front door lock	OFF (neutral)	Battery voltage
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input		_	Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59	Ground	Rear window defog-	Output	Rear window de-	Active	Battery voltage
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V
60	Ground	Front console anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(B/R)		na 2 (-) OFF	OFF	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB
61	Ground	Center console an-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(W/R)		tenna 2 (+)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
62	Constant	Front outside handle	Outer	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(B/Y)	Ground	RH antenna (-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
63	Constitution	Front outside handle	Outside	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(LG)	Ground	RH antenna (+)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
64	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(V)	Ciounu	LH antenna (-)	Cutput	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
65	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(P)	Clound	LH antenna (+)	Cutput	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V Battery voltage
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(L/O)	Ground	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB

< ECU DIAGNOSIS INFORMATION >

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inal No.	Description				Value	,
e color)	Signal name	Input/ Output		Condition	(Approx.)	A
				All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V)
Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	E
					1.3V	
				Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB	F
	e color)	(-) Signal name Cround Combination switch	(-) Signal name Input/Output Cround Combination switch Input/	Signal name Input/ Output Cround Combination switch Input/ Cround Combination	Ground Combination switch Input Inpu	Ground Combination switch Input Combination switch INPUT 5 Combination switch Input Combination switch INPUT 5 Combination switch Input Combination switch INPUT 5 All switch OFF (Wiper intermittent dial 4) Front fog lamp switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7

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< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
76 (D(O)	Ground	Combination switch	Input	Combination	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
(R/G)	/G) Ground INPUT 3	switch	switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3V
77 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed	OV
78	Ground	CAN-L	Input/	(pusir switch)	Not pressed	Battery voltage
(P) 79	Ground	CAN-H	Output Input/			
(L)			Output		OFF	0V
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1
					ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[COUPE]

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON OFF	0V 0V
83 (L)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage
84 ⁵ (Y/R)	Ground	CVT shift selector	Output		<u> </u>	Battery voltage
85		Electronic steering		Electronic steer-	Lock status	0V
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage
86	Cround	Electronic steering column lock condition	Input	Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	No. 2	Input	ing column lock	Unlock status	0V
87 ⁵	Ground	Selector lever P posi-	Input	Selector lever	P position	0V
(G/B)	Giodila	tion switch	mput	Selector level	Any position other than P	Battery voltage
88 (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 10 ms JPMIA0016GB
					ON (pressed)	0V
89 (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 10 ms JPMIA0016GB
90 (Y)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC ON	0V Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
94	Ground	Electronic steering column lock power	Output	Ignition switch	OFF or ACC	Battery voltage

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description		0 1111		Value
(+)	e color) (-)	Signal name	Input/ Output	Condition	Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Turn signal switch LH	(V) 15 10 0 2 ms JPMIA0037GB
95 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3V

< ECU DIAGNOSIS INFORMATION >

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	inal No. e color)	Description Input/			0 1111	Value
(+)	(-)	Signal name		Condition		(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
96	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0038GB 1.3V
(P/B)		INPUT 4		switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 2 ms JPMIA0039GB

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(+)	e color)	Signal name	nal name Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 JPMIA0041GB 1.4V
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 10 10 ms JPMIA0012GB 1.1V

< ECU DIAGNOSIS INFORMATION >

[COUPE]

	inal No.	Description				Value	٨
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					LOCK status	Battery voltage	В
99 (L/Y)	Ground	Electronic steering column lock unit communication	Input/ Output	Electronic steer-ing column lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB	C
					For 15 seconds after UN- LOCK	Battery voltage	Е
					15 seconds or later after UNLOCK	0V	_
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage	F
(V)	Giouna	Trunk ild opening	Output	Trunk iid	Close (trunk lid opener actuator is not activated)	0V	G
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	_
(V/W)	Oround	Trank room lamp	Output	Trunk room lamp	OFF	Battery voltage	Н
114		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	J
(B)	Ground	1 (-)	Output	OFF		(V)	SEC
					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0	L
						JMKIA0063GB	M

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< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
115	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(W) Ground 1 (+)	1 (+)	Cutput	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s		
118	Ground	Rear bumper anten-		When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(L/O)	Glodina	na (-)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB	
119	Cround	Rear bumper anten-	Qutout	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1	
(BR/ W)	Ground	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
127 (BR/	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage 0V	
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V	
					ON (trunk is open)	0V	
				Ignition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage	
				cle)	When the clutch pedal is not depressed	0V	
132 (R)	Ground	Starter motor relay control	Output	Ignition switch ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is depressed	Battery voltage	
					When selector lever is in P or N position and the brake is not depressed	0V	
					ON (pressed)	0V	
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 JPMIA0016GB 1.0V	
144	Ground	Request switch buzz-	Output	Request switch	Sounding	0V	
(GR)	2.34.14	er	- Lipat	buzzer	Not sounding	Battery voltage	
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V	
(L/R)		switch	•	switch	Not pressed	Battery voltage	
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms 11.8V	
					ON (when rear door RH opens)	ov	

< ECU DIAGNOSIS INFORMATION >

[COUPE]

	inal No.	Description				Value
(Wire color)		Signal name	Input/		Condition	(Approx.)
(+)	(-)	Output				
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 JPMIA0011GB 11.8V
					ON (when rear door LH opens)	0V

- 1: Sedan only
- 2: M/T only
- 3: With LH front window anti-pinch
- 4: With LH and RH front window anti-pinch.
- 5: CVT only
- 6: With auto lights
- 7: With low tire pressure warning system
- 8: Coupe only

Fail Safe

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking Inhibit electronic steering column lock	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit electronic steering column lock	5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is ful- filled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
32605: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is ful- filled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/transmission switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - transmission switch signal (CAN): ON
32606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal)
32607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal)
32608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
32609: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When the following electronic steering column lock conditions agree BCM electronic steering column lock control status Electronic steering column lock condition No. 1 signal status Electronic steering column lock condition No. 2 signal status
3260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
3260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
32612: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When any of the following conditions is fulfilled Electronic steering column lock unit status signal (CAN) is received normally The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal

Revision: June 2012 SEC-165 2011 Altima GCC

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation	
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal	
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power supply output control inside BCM becomes normal	
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization	
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)	
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: OFF (Battery voltage)	
B26E9: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No 1 signal: LOCK (0V) • Steering condition No 2 signal: LOCK (Battery voltage)	

DTC Inspection Priority Chart

INFOID:0000000006931297

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	B2013: ID DISCORD BCM-S/L	
	B2014: CHAIN OF S/L-BCM	
	B2553: IGNITION RELAY	
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW B2557 VSH B015 BD558 B2558: PUSH-BTN IGN SW B25	
	B2557: VEHICLE SPEED B2560: STARTER CONT. BELAY	
	B2560: STARTER CONT RELAY B2604: SUIET ROSITION	
	B2601: SHIFT POSITION B2602: SHIFT POSITION	
	B2603: SHIFT POSITION	
	• B2604: PNP SW	
	• B2605: PNP SW	
	• B2606: S/L RELAY	
	• B2607: S/L RELAY	
	B2608: STARTER RELAY	
	B2609: S/L STATUS	
	B260A: IGNITION RELAY	
	B260B: STEERING LOCK UNIT	
4	B260C: STEERING LOCK UNIT	
	B260D: STEERING LOCK UNIT B2605 SNO STATE OLD LOCK	
	B260F: ENG STATE SIG LOST B2644: ACC BELAY B2645: ACC BELAY B265: ACC BELAY	
	B2611: ACC RELAY B2612: S/L STATUS	
	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	B2616: IGN RELAY CIRC	
	B2617: STARTER RELAY CIRC	
	• B2618: BCM	
	• B2619: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E1: ENG STATE NO RECIV	
	B26E8: CLUTCH SW	
	B26E9: S/L STATUS	
	B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	-
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR	
	C1705. LOW PRESSURE PR C1706: LOW PRESSURE RR	-
	C1700: LOW PRESSURE RL	
	C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR C1710: [PRESSDATA ERR] PI	
	C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL	
	• C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR C1722: [CODE ERR] RR	
	C1722: [CODE ERR] RR C1723: [CODE ERR] RL	
	C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL	
	C1724: [BATT VOLT LOW] FE C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
	* C1734. CONTROL ONT	
6	B2622: INSIDE ANTENNA	

< ECU DIAGNOSIS INFORMATION >

DTC Index

[COUPE]

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-32
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-33
U0415: VEHICLE SPEED SIG	_	_	_	BCS-34
B2013: ID DISCORD BCM-S/L	×	_	_	SEC-36 (Coupe), SEC-250 (Sedan)
B2014: CHAIN OF S/L-BCM	×	_	_	SEC-37 (Coupe), SEC-251 (Sedan)
B2190: NATS ANTENNA AMP	×	_	_	SEC-65 (Coupe), SEC-281 (Sedan)
B2191: DIFFERENCE OF KEY	×	_	_	SEC-69 (Coupe), SEC-285 (Sedan)
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-70 (Coupe), SEC-286 (Sedan)
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-71 (Coupe), SEC-287 (Sedan)
B2195: ANTI-SCANNING	_	_	_	<u>SEC-72</u>
B2553: IGNITION RELAY	_	_	_	PCS-59
B2555: STOP LAMP	_	_	_	SEC-73 (Coupe), SEC-289 (Sedan)
B2556: PUSH-BTN IGN SW	_	×	_	SEC-78 (Coupe), SEC-294 (Sedan)
B2557: VEHICLE SPEED	×	×	_	SEC-80 (Coupe), SEC-296 (Sedan)
B2560: STARTER CONT RELAY	×	×	_	SEC-81 (Coupe), SEC-297 (Sedan)
B2562: LOW VOLTAGE	_	_	_	BCS-35
B2601: SHIFT POSITION	×	×	_	SEC-82 (Coupe), SEC-298 (Sedan)
B2602: SHIFT POSITION	×	×	_	SEC-86 (Coupe), SEC-302 (Sedan)
B2603: SHIFT POSI STATUS	×	×	_	SEC-89 (Coupe), SEC-305 (Sedan)
B2604: PNP SW	×	×	_	SEC-92 (Coupe), SEC-308 (Sedan)
B2605: PNP SW	×	×	_	SEC-94 (Coupe), SEC-310 (Sedan)
B2606: S/L RELAY	×	×	_	SEC-96 (Coupe), SEC-312 (Sedan)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	
B2607: S/L RELAY	×	×	_	SEC-97 (Coupe), SEC-313 (Sedan	
B2608: STARTER RELAY	×	×	_	SEC-99 (Coupe), SEC-315 (Sedan	
B2609: S/L STATUS	×	×	_	SEC-101 (Coupe) SEC-317 (Sedan)	
B260A: IGNITION RELAY	×	×	_	PCS-61	
B260B: STEERING LOCK UNIT	_	×	_	SEC-106 (Coupe) SEC-322 (Sedan	
B260C: STEERING LOCK UNIT	_	×	_	SEC-107 (Coupe) SEC-323 (Sedan)	
B260D: STEERING LOCK UNIT	_	×	_	SEC-108 (Coupe) SEC-324 (Sedan	
B260F: ENG STATE SIG LOST	×	×	_	SEC-109 (Coupe) SEC-325 (Sedan)	
B2611: ACC RELAY	_	_	_	PCS-62	
B2612: S/L STATUS	×	×	_	SEC-110 (Coupe) SEC-331 (Sedan	
B2614: ACC RELAY CIRC	_	×	_	PCS-64	
B2615: BLOWER RELAY CIRC	_	×		PCS-67	
B2616: IGN RELAY CIRC	_	×	_	PCS-70	
B2617: STARTER RELAY CIRC	×	×	_	SEC-115 (Coupe SEC-336 (Sedan	
B2618: BCM	×	×	_	PCS-73	
B2619: BCM	×	×	_	SEC-117 (Coupe SEC-338 (Sedan	
B261A: PUSH-BTN IGN SW	_	×	_	SEC-118 (Coupe SEC-339 (Sedan	
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-121	
B2622: INSIDE ANTENNA	_	_	_	DLK-279	
B2623: INSIDE ANTENNA	_	_	_	DLK-282	
B26E1: ENG STATE NO RES	×	×	_	SEC-326	
B26E8: CLUTCH SW	×	×		SEC-123	
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)		SEC-125	
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-126	
C1704: LOW PRESSURE FL		_	×	<u>WT-8</u>	
C1705: LOW PRESSURE FR			×	<u>WT-8</u>	
C1706: LOW PRESSURE RR		_	×	<u>WT-8</u>	
C1707: LOW PRESSURE RL	_	_	×	<u>WT-8</u>	
C1708: [NO DATA] FL	_	_	×	<u>WT-13</u>	
C1709: [NO DATA] FR	_	_	×	<u>WT-13</u>	
C1710: [NO DATA] RR		_	×	<u>WT-13</u>	
C1711: [NO DATA] RL	_	_	×	<u>WT-13</u>	
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-15</u>	

Revision: June 2012 SEC-169 2011 Altima GCC

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	_	_	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	_	_	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	_	_	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	_	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	_	×	<u>WT-17</u>
C1720: [CODE ERR] FL	_	_	×	<u>WT-15</u>
C1721: [CODE ERR] FR	_	_	×	<u>WT-15</u>
C1722: [CODE ERR] RR	_	_	×	<u>WT-15</u>
C1723: [CODE ERR] RL	_	_	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	_	_	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	_	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	_	_	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	_	_	×	<u>WT-18</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-19</u>

< ECU DIAGNOSIS INFORMATION >

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

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Reference Value INFOID:0000000006931273

VALUES ON THE DIAGNOSIS TOOL

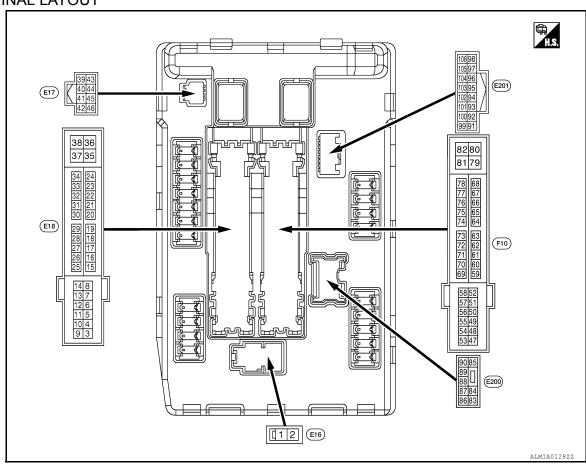
Monitor Item		Value/Status				
RADFAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %			
		A/C switch OFF	Off			
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On			
TAIL GOLD DEO	Lighting switch OFF	,	Off			
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On			
III I O DEO	Lighting switch OFF		Off			
HL LO REQ	Lighting switch 2ND HI or AUTC	(Light is illuminated)	On			
DEO	Lighting switch OFF		Off			
HL HI REQ	Lighting switch HI		On			
ED 500 D50	Lighting switch 2ND or	Front fog lamp switch OFF	Off			
FR FOG REQ	AUTO (Light is illuminated)	Front fog lamp switch ON	On			
		Front wiper switch OFF	STOP			
FR WIP REQ	Ignition switch ON	Front wiper switch INT	1LOW			
		Front wiper switch LO	Low			
		Front wiper switch HI	Hi			
	Ignition switch ON	Front wiper stop position	STOP P			
WIP AUTO STOP		Any position other than front wiper stop position	ACT P			
		Front wiper operates normally	Off			
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK			
ION BLV4 BEO	Ignition switch OFF or ACC		Off			
IGN RLY1 -REQ	Ignition switch ON		On			
	Ignition switch OFF or ACC		Off			
IGN RLY	Ignition switch ON		On			
DUOU OW	Release the push-button ignition	switch	Off			
PUSH SW	Press the push-button ignition s	Press the push-button ignition switch				
	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off			
INTED/ND OW		Release clutch pedal (M/T models)				
INTER/NP SW	Ignition switch ON	CVT selector lever in P or N position (CVT models)	On			
	Depress clutch pedal (M/T me					
ST DLV CONT	Ignition switch ON	,	Off			
ST RLY CONT	At engine cranking		On			
IUDT DLV DEO	Ignition switch ON		Off			
IHBT RLY -REQ	At engine cranking		On			

SEC-171 Revision: June 2012 2011 Altima GCC

Monitor Item	Con	ndition	Value/Status	
	Ignition switch ON		Off	
	At engine cranking		ST →INHI	
ST/INHI RLY	•	control relay cannot be recognized by . when the starter relay is ON and the	UNKWN	
DETENT SW	Ignition switch ON	 Press the selector button with CVT selector lever in P position CVT selector lever in any position other than P 	Off	
	Release the CVT selector button win NOTE: The lever is fixed ON for M/T	On		
	None of the conditions below are pr	Off		
S/L RLY -REQ	 Open the driver door after the ign seconds) Press the push-button ignition sw ed Depress the clutch pedal when the 	On		
	Steering lock is activated		LOCK	
S/L STATE	Steering lock is deactivated		UNLK	
	[DTC B210A] is detected	UNKWN		
OIL P SW	Ignition switch OFF, ACC or engine	running	Open	
ALT OW	Ignition switch ON		Close	
	Not operated		Off	
HFT HRN REQ	 Panic alarm is activated Horn is activated with VEHICLE S TEM 	Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYS-		
IODN CHIDD	Not operated		Off	
IORN CHIRP	Door locking with Intelligent Key (ho	orn chirp mode)	On	

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

Termina		Description		Value									
(Wire co	olor) _	Signal name	Input/ Output		Condition	(Approx.)	SE						
1 (R)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage							
2 (L)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage	L						
4	Cround	Frant winer I O	Outnut	Ignition	Front wiper switch OFF	0 V	_						
(LG)	Ground	Front wiper LO	Output	Output	Output	Output	Output	Output	Output	switch ON	Front wiper switch LO	Battery voltage	M
5	Cround	Front win or III	Outnut	Ignition	Front wiper switch OFF	0 V							
(Y)	Ground	Front wiper HI	Output	Output	Output	Output	switch ON	Front wiper switch HI	Battery voltage	N			
7	Ground	Tail, license plate lamps &	Output	Ignition	Lighting switch OFF	0 V							
(GR)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage							
10				Ignition swi (For a few s switch OFF	seconds after turning ignition	0 V	0						
10 (BR)	Ground	ECM relay power supply	Output	 Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF) 		Battery voltage	Р						

SEC-173 Revision: June 2012 2011 Altima GCC Α

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< ECU DIAGNOSIS INFORMATION >

Terminal	-	Description				Value
(Wire co	— — — — — — — — — — — — — — — — — — —	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch OFF	A few seconds after opening the driver door	Battery voltage
11 (O)	Ground	Electronic steering column lock power supply	Output	Ignition switch LOCK	Press the push-button ig- nition switch	Battery voltage
				Ignition sw	itch ACC or ON	0 V
12 (B)	Ground	Ground	_	Ignition sw	itch ON	0 V
13					tely 1 second or more after ignition switch ON	0 V
(SB)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage
15	Ground	Ignition relay-1 power sup-	Output	Ignition sw	itch OFF	0 V
(W)	Ground	ply	σαιραι	Ignition sw	itch ON	Battery voltage
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position Any position other than front wiper stop position	0 V Battery voltage
19		Ignition relay-1 power sup-		Ignition sw	itch OFF	0 V
(Y)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
20 (L)	Ground	Ambient sensor ground	_	Ignition sw	itch ON	0V
21 (LG)	Ground	Ambient sensor	_	Ignition sw	itch ON	5V
22 (W/R)	Ground	Refrigerant pressure sensor ground	_	Ignition sw	itch ON	0V
23 (B/R)	Ground	Refrigerant pressure sensor	_	Both A/C	switch ON (READY) C switch and blower motor N (electric compressor oper-	1.0 - 4.0V
24 (BR/W)	Ground	Refrigerant pressure sensor power supply	_	Ignition sw	itch ON	5V
25	Ground	Ignition relay-1 power sup-	Output	Ignition sw	itch OFF	0 V
(GR)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
27	Ground	Ignition relay monitor	Input	Ignition sw	itch OFF or ACC	Battery voltage
(W)	Signia	.gon	put	Ignition sw		0 V
28	Ground	Push-button ignition	Input		oush-button ignition switch	0 V
(SB)		switch		Release th	e push-button ignition switch	Battery voltage
30 (R)		Ground Starter relay control		CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
(with M/T) 30 (BR) (with CVT)	Ground		Input	GIO	CVT selector lever P or N (ignition switch ON)	Battery voltage
(WILLI OVI)			· I	M/T mod-	Release the clutch pedal	0 V
				els	Depress the clutch pedal	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)		0		Value		
+		Signal name	Input/ Output		Condition	(Approx.)	
32	Ground	Electronic steering column	Electronic s vated		steering column lock is acti-	0 V	_
(O/L)	Ciduid	lock unit condition-1	put	Electronic s tivated	steering column lock is deac-	Battery voltage	
33	Ground	Electronic steering column	Input	Electronic s	steering column lock is acti-	Battery voltage	_
(G)	Ground	lock unit condition-2	iliput	Electronic s tivated	steering column lock is deac-	0 V	_
34	Ground	Cooling fan relay-3 control	Input	Ignition swi	tch OFF or ACC	0 V	
(O)	Giound	Cooling lan relay-3 contion	Input	Ignition swi	tch ON	0.7 V	_
35	Ground	Cooling fan motor control	Output	Ignition swi	tch OFF or ACC	0 V	_
(P)	Ground	Cooling fan motor control	Output	Ignition swi	tch ON	0.7 V	_
36 (G)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage	_
38	Ground	Cooling fan motor control	Output	Ignition swi	tch OFF or ACC	0 V	
(R/W)	Ground	Cooming fair motor control	Output	Ignition swi	tch ON	0.7 V	_
39 (P)	_	CAN - L	Input/ Output		_		_
40 (L)	_	CAN - H	Input/ Output		_	_	_
41 (B)	Ground	Ground	_	Ignition switch ON		0 V	
42	Ground	Cooling fan relay-2 control	Input	Ignition swi	tch OFF or ACC	0 V	
(SB)	Ground	Cooming fair rolay 2 control	mpat	Ignition swi	tch ON	0.7 V	
					Press the CVT selector button (CVT selector lever P)	Battery voltage	_
43 (G/B)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	CVT selector lever in any position other than P Release the CVT selector button (CVT selector lever P)	0 V	
44	Cround	Horn rolay control	Innut	The horn is	deactivated	Battery voltage	_
G/W) coupe (W) sedan	Ground	Horn relay control	Input	The horn is activated		0 V	
45	_			The horn is	deactivated	Battery voltage	_
(L/O)	Ground	Anti theft horn relay control	Input	The horn is	activated	0 V	_
				CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	0 V	<u> </u>
46 (BR)	Ground	Starter relay control	Input	CIS	CVT selector lever P or N (ignition switch ON)	Battery voltage	_
				M/T mod-	Release the clutch pedal	0 V	_
				els	Depress the clutch pedal	Battery voltage	_
					A/C switch OFF	0 V	_
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage	_

SEC-175 2011 Altima GCC Revision: June 2012

< ECU DIAGNOSIS INFORMATION >

Terminal I	-	Description				Value		
(Wire cole	or) _	Signal name	Input/ Output		Condition	(Approx.)		
			<u> </u>	switch OFF	seconds after turning ignition -)	0 V		
49 (V)	Ground	ECM relay power supply	Output	(More th	switch ON switch OFF an a few seconds after turn- on switch OFF)	Battery voltage		
51	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V		
(SB)	Ground	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage		
52	Cround	lanition roley newer euroly	Output	Ignition sw	itch OFF	0 V		
(Y)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage		
53 (V) (with QR25DE)				Ignition sw (For a few s switch OFF	seconds after turning ignition	0 V		
53 (G) (with VQ35DE)	Ground	ECM relay power supply	Output			Battery voltage		
						Ignition sw (For a few s switch OFF	seconds after turning ignition	0 V
54 (GR)	Ground	Throttle control motor re- lay power supply	Output	(More th	switch ON switch OFF an a few seconds after turn- on switch OFF)	Battery voltage		
55 (LG)	Ground	ECM power supply	Output	Ignition sw	itch OFF	Battery voltage		
56	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V		
(R)	Orodria	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage		
57	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V		
(O)	Orodria	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage		
58			0	Ignition switch OFF		0 V		
(BR) (with CVT)	Ground	Ignition relay power supply	Output	Ignition switch ON		Battery voltage		
69				Ignition sw (For a few s switch OFF	seconds after turning ignition	Battery voltage		
(SB)	Ground	ECM relay control	Output	Ignition s (More th	switch ON switch OFF an a few seconds after turn- on switch OFF)	0 - 1.5 V		
						0 -1.0 V		
70 (G)	Ground	Throttle control motor re- lay control	Output	Ignition sw	itch ON $ ightarrow$ OFF	↓ Battery voltage ↓ 0 V		
				Ignition sw	itch ON	0 - 1.0 V		
72 (W) (with QR25DE)		Transmission range switch		Ignition	CVT selector lever in P or N position	Battery voltage		
72 (BR) (with VQ35DE)	Ground	signal	Input	switch ON	CVT selector lever in any position other than P or N position	0 V		

< ECU DIAGNOSIS INFORMATION >

Termina (Wire co		Description			On a dition	Value								
+	-	Signal name	Input/ Output		Condition	(Approx.)								
74	Ground	Ignition relay power supply	Output	Ignition swi	tch OFF	0 V								
(L)	Ground	ignition relay power supply	Output	Ignition swi	tch ON	Battery voltage								
75	Cround	Oil processrs assitab	lant	Ignition	Engine stopped	0 V								
(LG)	Ground	Oil pressure switch	Input	switch ON	Engine running	Battery voltage								
				Ignition swi	tch ON	(V) 6 4 2 0 • 2ms JPMIA0001GI								
76 (Y)	Ground	Power generation command signal	Output	Output	Output	Output	Output	Output	Output	Output	40% is set on "Active test", "ALTERNA- TOR DUTY" of "ENGINE"			(V) 6 4 2 0
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		3.8 V (V) 6 4 2 0 JPMIA0003GI								
					nately 1 second after turning on switch ON	0 - 1.0 V								
77 (GR)	Ground	Fuel pump relay control	Output	Engine re										
					ignition switch ON	Battery voltage								
80 (R)	Ground	Starter motor	Output	At engine of	ranking	Battery voltage								
83	Ground	Headlamp LO (RH)	Output	Ignition	Lighting switch OFF	0 V								
(R/Y)	Signia		Japai	switch ON	Lighting switch 2ND	Battery voltage								
84	Ground	Headlamp LO (LH)	Output	Ignition	Lighting switch OFF	0 V								
(L)	Sidana		Juipui	switch ON	Lighting switch 2ND	Battery voltage								
86	0	Front fog lamp (RH)	0.4.	Lighting	Front fog lamp switch ON	Battery voltage								
W/R)	Ground	(If equipped)	Output	switch 2ND	Front fog lamp switch OFF	0 V								
87		Front fog lamp (LH)	<u> </u>	Lighting	Front fog lamp switch ON	Battery voltage								
(L/Y)	Ground	(If equipped)	Output	switch 2ND	Front fog lamp switch OFF	0 V								
88	Ground	Washer pump power sup-	Output	Ignition switch ON		Battery voltage								

< ECU DIAGNOSIS INFORMATION >

Terminal	-	Description				Value	
(Wire col	or) _	Signal name	Input/ Output		Condition	(Approx.)	
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch HI lighting switch PASS	Battery voltage	
(L/VV)				SWILCH ON	Lighting switch OFF	0 V	
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage	
(G)				SWILCH ON	Lighting switch OFF	0 V	
91	Ground	Parking lamp (RH)	Output	Ignition	Lighting switch 1ST	Battery voltage	
(LG/R)	Ground	Parking lamp (RH)	Output	switch ON	Lighting switch OFF	0 V	
92	Ground	Darking James (LU)	Output	Ignition	Lighting switch 1ST	Battery voltage	
(LG/B)	Ground	Parking lamp (LH)	Output	switch ON	Lighting switch OFF	0 V	
99 (BR/W)	Ground	Ambient sensor ground	_	Ignition sw	itch ON	ov	
100 (SB)	Ground	Ambient sensor	_	Ignition sw	itch ON	5V	
101 (O/L)	Ground	Refrigerant pressure sensor ground	_	Ignition switch ON		0V	
102 (R/B)	Ground	Refrigerant pressure sensor	_	Ignition switch ON (READY) Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V	
103 (P)	Ground	Refrigerant pressure sensor power supply	_	Ignition sw	itch ON	5V	

Fail Safe

CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

Control part	Fail-safe in operation
Cooling fan	 Signals cooling fans ON when the ignition switch is turned ON Signals cooling fans OFF when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Generator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe in operation			
Headlamp	Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF			
Parking lampsLicense plate lampsIlluminationTail lamps	Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF			
Front wiper	 The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. 			

< ECU DIAGNOSIS INFORMATION >

Control part	Fail-safe in operation
Front fog lamps (if equipped)	Front fog lamp relay OFF
Horn	Horn OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF
Electronic steering column lock unit	Steering lock relay OFF

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
_	ON	ON	_
_	OFF	OFF	_
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	_

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index

CONSULT display	Fail-safe	TIME ^{NOTE}		Refer to
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	PCS-17
B2098: IGN RELAY ON	×	CRNT	1 – 39	PCS-18
B2099: IGN RELAY OFF	_	CRNT	1 – 39	PCS-19
B2108: STRG LCK RELAY ON	_	CRNT	1 – 39	<u>SEC-255</u>
B2109: STRG LCK RELAY OFF	_	CRNT	1 – 39	<u>SEC-256</u>
B210A: STRG LCK STATE SW	_	CRNT	1 – 39	<u>SEC-257</u>
B210B: START CONT RLY ON	_	CRNT	1 – 39	SEC-262
B210C: START CONT RLY OFF	_	CRNT	1 – 39	SEC-263

Revision: June 2012 SEC-179 2011 Altima GCC

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< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	TIME ^{NOTE}		Refer to
B210D: STARTER RELAY ON	_	CRNT	1 – 39	SEC-264
B210E: STARTER RELAY OFF	_	CRNT	1 – 39	SEC-266
B210F: INTRLCK/TRANSMISSION RANGE SW ON	_	CRNT	1 – 39	SEC-269
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	_	CRNT	1 – 39	SEC-275

NOTE:

The details of TIME display are as follows.

- CRNT: The malfunctions that are detected now
- 1 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like 0 → 1 → 2 ··· 38 → 39 after returning to the normal condition whenever IGN OFF → ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.

< WIRING DIAGRAM > [COUPE]

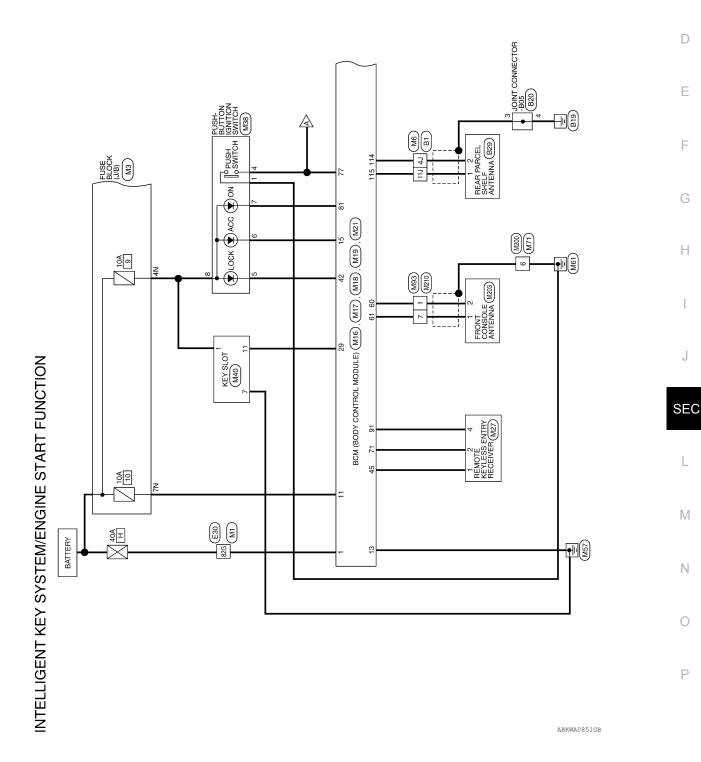
WIRING DIAGRAM

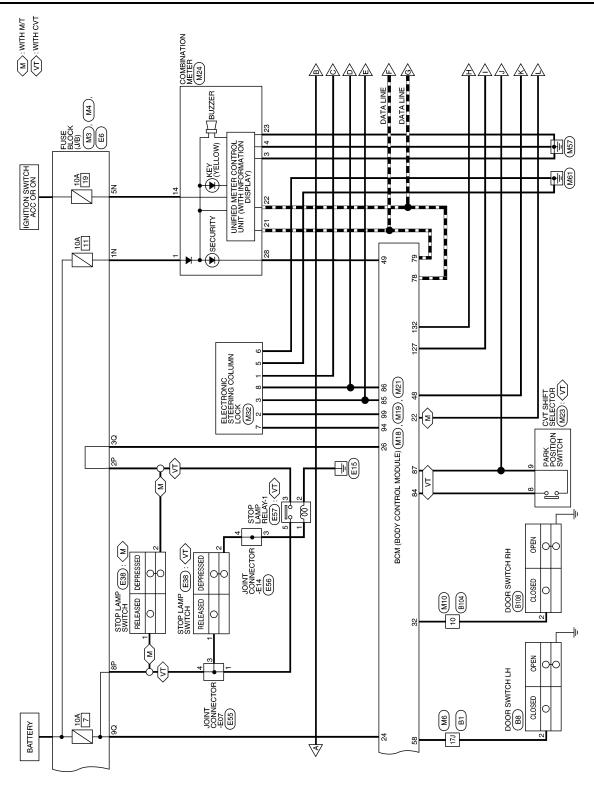
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram

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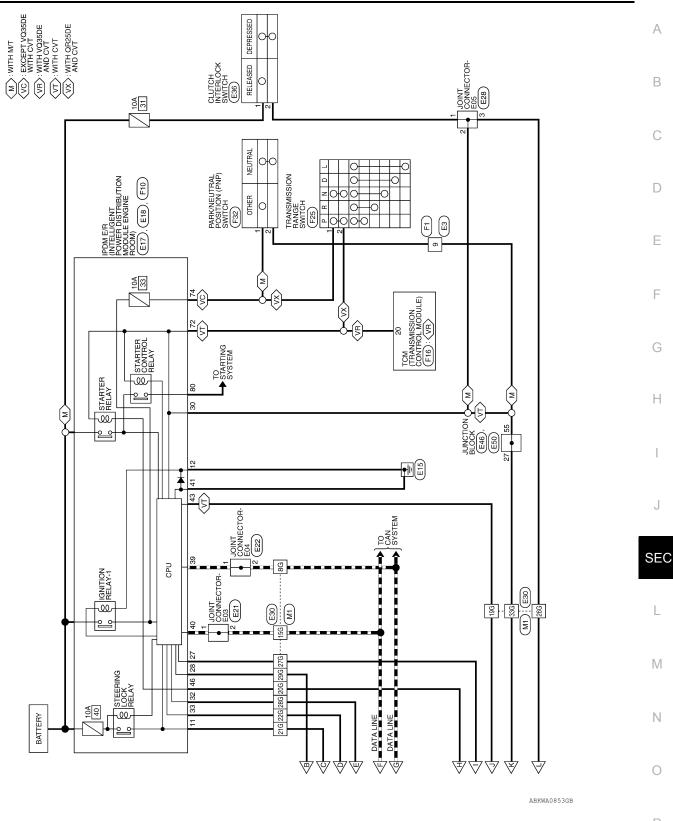
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[COUPE] < WIRING DIAGRAM >

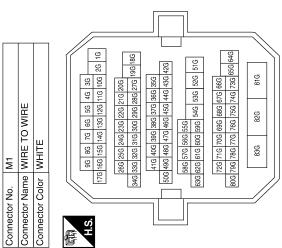


SEC-183 Revision: June 2012 2011 Altima GCC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M3	
Connector Name		FUSE BLOCK (J/B)
Connector Color WHITE	lor WHI	1
E	NS NS	2N 1N
Č.	N8 N2	N 6N 5N 4N
Terminal No.	Color of Wire	Signal Name
N.	M/L	1
N4	G/Y	I
2N	Λ/Λ	I
NZ.	Y/R	ı

Signal Name	ı	_	1	1	1	1	I	_	1	1	_	_	1	1
Color of Wire	۵	Т	G/B	æ	P/L	G/R	R/Υ	BR/W	0/1	BR	B/G	Т	Ь	M/B
Terminal No.	98	15G	19G	20G	21G	22G	26G	27G	28G	29G	33G	51G	52G	82G



Connector No.	M4
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE
H.S.	40 30 20 10 100 90 80 70 60 50

Connector Name FUSE BLOCK (J/B)	TE TE	100 90 80 70 60 50	Signal Name	-	_
me FUS	lor WH	40 30 100 90	Color of Wire	O/L	B/W
Connector Na	Connector Color WHITE	明.S.	Terminal No.	30	90

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< WIRING DIAGRAM > [COUPE]

Connector No. M10 Connector Name WIRE TO WIRE Connector Color BROWN 5 4		A B C D
Terminal No. Wire Signal Name 4J B - 11J W - 17J SB - 17J	Connector No. M17	F G H
Connector No. M6 Connector Name WIRE TO WIRE Connector Color WHITE Son Sol	Connector No. M16 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK Terminal No. Color of Signal Name 1 W/B BAT_POWER_F/L	SEC L M N

Revision: June 2012 SEC-185 2011 Altima GCC

					13 112 33 132					
	BCM (BODY CONTROL MODULE)	47		_	131 130 129 128 127 126 125 124 123 122 121 120 130 130 131 141 141 141 13 151 150 130 148 147 146 143 144 142 141 140 139 138 137 138 135 134 135 33	Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	IGN_USM_CONT1	ST_CONT_USM
M21		or GRAY	L		612512412	Color of Wire	В	M	BR/W	ш
Connector No.	Connector Name	Connector Color	H.S.		13113012912812712 15115014914814714	Terminal No.	114	115	127	132

_	BCM (BODY CONTROL MODULE)	AY			Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	IGN_USM_CONT1	ST CONT USM
M21		or GRAY		161451441	Color of Wire	<u>m</u>	>	BR/W	<u>~</u>
Connector No.	Connector Name	Connector Color	H.S.	131 130 129 128 127 12 151 150 149 148 147 14	Terminal No.	114	115	127	132
		•					•	•	

Connector No.	. M19		
Connector Name		BCM (BODY CONTROL MODULE)	
Connector Co	Color BLA	BLACK	
H.S.			
79 78 77 76 75 99 98 97 96 95	74 73 72 71 94 93 92 91	70 69 68 67 66 65 64 63 62 61 90 89 88 87 86 85 84 83 82 81	9 8
]
Terminal No.	Color of Wire	Signal Name	
09	B/R	ROOM_ANT_2_B	
61	W/R	ROOM_ANT_2_A	
71	Γ/0	RF1_TUNER_SIGNAL	
77	BR	ENG_START_SW	
78	Ь	CAN-L	
6/	٦	CAN-H	
81	рп	IGN_ON_LED	
84	Y/R	AT_DEVICE_OUT	
85	0/1	S/L_CONDITION_1	
98	G/R	S/L_CONDITION_2	
87	G/B	SHIFT_P	
91	L/R	RF1_POWER_SUPPLY	

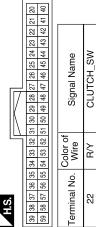
Signal Name	DETENT_KEY_SW	DETENT_KEY_SW	
Color of Wire	Y/R	G/B	
Terminal No.	8	6	

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Connector No.	M18
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GREEN	GREEN



Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW	AS_DOOR_SW	S/L_LOCK_LED	GND_RF2_A/L	SHIFT_N/P	IMMO_LED	DR_DOOR_SW
SiS	CLI	STOP_L	STOP_L	FC	AS	¬l/S	IN5	S	ΔI	DR
Color of Wire	R/Y	B/W	7/O	\	B/B	В	Ь	B/G	0/1	SB
Terminal No.	22	24	26	59	32	42	45	48	49	58

tor No.	or No. M23 or Name CVT SHIFT SELECTO or Color WHITE



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< WIRING DIAGRAM > [COUPE]

Connector No. Connector Name Connector Color		M24 COMBINATION METER WHITE	Connector No. Connector Name Connector Color	$\overline{}$	M27 REMOTE KEYLESS ENTRY RECEIVER BLACK	Connector No. Connector Name Connector Color		M32 ELECTRONIC STEERING COLUMN LOCK WHITE
H.S. 1 2 3 4 5 21 22 23 24 25	6 7 8	8 9 10 11 12 13 14 15 16 17 18 19 20 28 29 30 31 32 33 34 35 38 37 38 39 40	原动 H.S.		2 3 4	原动 H.S.	4 8	R R R R R R R R R R
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
-	M/L	BAT	-	۵	GND	-	/d	S/L_12V_MECHANICAL
ဧ	В	GND (POWER)	2	9	SIGNAL	-	-	(V1)
4	В	GND (ILL)	4	L'A	12V	2	5	
14	λ/\	ACC				က	Ρ/0	S/L_CONDITION_1
21	_	CAN-H				5	В	GND
22	۵	CAN-L				9	В	GND
23	В	GND (CIRCUIT)				7	G/Y	S/L_12V_CPU (V2)
28	9	SECURITY				8	G/R	S/L_CONDITION_2
Connector No.		æ	Connector No.	. M40		Connector No.	o. M71	,-
Connector Name		PUSH-BUTTON IGNITION SWITCH	Connector Name KEY SLOT	me KEY	SLOT	Connector N	ame WII	Connector Name WIRE TO WIRE
Connector Color	_	BROWN	Connector Color WHILE	ID NOI	ш	Cormector Color		
							1 2	3 4 5
H.S.	- 4	1 5 6 7 8	H.S.	7 8 2	3 4 5 6 9 10 11 12	H.S.		9 10 11
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name		Color of	
-	В	GND	-	G/Y	B+	l erminai No.		Signal Name
4	BR	START_SW	7	В	GND	9	В	I
2	В	LOCK	11	>	CARD_SW_1			
9	Y/L	ACC						
7	LG	NO						
8	G/≺	B+						

Revision: June 2012 SEC-187 2011 Altima GCC

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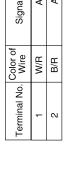
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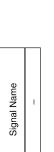
[COUPE] < WIRING DIAGRAM >

Connector No.	M203
Connector Name	Connector Name FRONT CONSOLE ANTENNA
Connector Color GRAY	GRAY

1 2	Signal Name	ANT+	ANT-
	Color of Wire	W/R	B/B
<u>vi</u>	rminal No.	1	2

i	<u>\</u>		Signal Name	ANT+	ANT-
	lor GRA		Color of Wire	W/R	B/R
	Connector Color GRAY	原 H.S.	Terminal No.	1	2









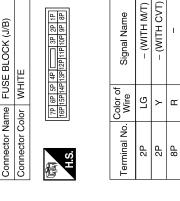


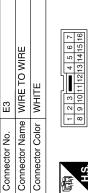
Connector No. M200 Connector Name WIRE TO WIRE

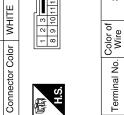
Connector Color WHITE

3	WIRE TO WIRE	WHITE	2 3 4 5 6 9 10 11 12 B	Signal Name	-	ı
. M93		_		Color of Wire	B/R	W/R
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	1	7









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- 11	4	9	
- \	2	Ξ	
	9	12	

WIRE TO WIRE	WHITE	6 5 4 4 3 2 2 1	ç
Connector Name WIRE TO WIRE	Connector Color		П.Э.

M210

Connector No.

Signal Name	I	-	
Color of Wire	B/R	W/R	
Terminal No.	1	7	

Signal Name

BB

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[COUPE] < WIRING DIAGRAM >

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Signal Name	ESCL	GND (POWER)	IGN_SIGNAL	PUSH_START_SW	CLUTCH_I/L_SW (WITH_M/T)	ECM (WITH CVT)	SL_CONDITION_1	SL_CONDITION_2				E28 JOINT CONNECTOR-E05 WHITE	2 1 0	Signal Name	1	1 1		[
No. Wire	0	В	M	SB	α	BR	а.	5					8	No. Wire	Œ	ш ш		[
Terminal No.	11	12	27	28	30	30	32	33	\square	35 36	⊣	Connector No. Connector Name	H.S.	Terminal No.	-	N ω		[
T		T	\neg							21 22 23 24								[
E/R (INTELLIGENT	POWER DISTRIBUTION									25 26 27 28 29 30 31 32 33 34 15 16 17 18 19 20 21 22 23 24		E22 JOINT CONNECTOR-E04 WHITE	3 2 1 🗍	Signal Name	1	1		(
		_	_							12 13 14 6 7 8			4 3	Color of Wire	Д	<u>a</u>		I
	or Na	1		Œ	H.S.					9 10 11 3 4 5		Connector No. Connector Name Connector Color	原 H.S.	Terminal No.	1	2		
	Connect		3	195											_			
	Connector Name	C	5															S
							ignal Name	CAN-L	CAN-H	GND (SIGNAL) RANGE SW	START CONT	INNECTOR-E03		ignal Name				S
	POWER DISTRIBUTION MODILIE ENGINE BOOM				42 41 40 39 46 45 44 43		rr of Rignal Name			<u> </u>		E21 JOINT CONNECTOR-E03 WHITE	043210	r of Signal Name				S
IPDM E/R (INTELLIGENT		MODOLE ENGINE HOOM)					Color of Signal Name Signal Name	P CAN-L		B GND (SIGNAL) Y RANGE SW	BR START CONT	Connector No. E21 Connector Name JOINT CONNECTOR-E03 Connector Color WHITE		Terminal No. Wire Signal Name				

SEC-189 Revision: June 2012 2011 Altima GCC

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Connector No. E36 Connector Name CLUTCH INTERLOCK	SWITCH	Connector Color BROWN			H.S.		ئى بەرادىل	Terminal No. Wire Signal Name	- M	2 R					Connector No. E46	-	Connector Color WHITE	31 30 29 28 5 3 5 28 28 3 5 3 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5	H.S.	Terminal No. Wire Signal Name	27 BR –	
Signal Name	ı	ı	ı	ı	ı	ı	ı	ı	-	1	1	1	1	ı		STOP LAMP SWITCH				Signal Name	ı	I
Terminal No. Wire	8G P	15G L	19G Y	20G BR	21G 0	22G G	26G R	27G W	28G P	29G BR	33G BR	51G L	52G P	82G LG	Connector No. E38	Connector Name STOP I	Connector Color BLACK		H.S.	Terminal No. Wire	т В	2 LG
Connector No. E30 Connector Name WIRE TO WIRE	Connector Color WHITE	_		36 46 56 66 76 86 96	16 26 106 116	200 200 200 200 200	186 196 276 286 396 316 329 3346	* I I S	35G 36G 37G 38G 40G 41G		55G 57G 58G	ספס ספס ספס ספס ספס	666 676 686 696 706 716 726	64G 65G 73G 74G 75G 76G 77G 78G 79G 80G	Connector No. E38	Connector Name STOP LAMP SWITCH (WITH CVT)			3 4 7 1 2 1	Terminal No. Wire Signal Name		2 LG -

[COUPE] < WIRING DIAGRAM >

Connector No. ES6	A B C D E
Connector No. E55	H I SEC
Connector No. E50 Connector Name JUNCTION BLOCK Connector Name JUNCTION BLOCK Connector Name Signal Name 55 BR — Connector Name STOP LAMP RELAY-1 Connector Color of Signal Name 1 LG — 1 LG — 2 B — 3 Y — 5 W —	L M
S S S S S AAKIAO612GB	0

SEC-191 Revision: June 2012 2011 Altima GCC

< WIRING DIAGRAM > [COUPE]

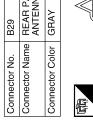
Connector No. F16	Connector No.). F25		Connector No.	F32	
Connector Name TCM (TRANSMISSION CONTROL MODULE)	Connector Name		TRANSMISSION RANGE SWITCH	Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH	
Connector Color BLACK	Connector Color	lor BLACK	X	Connector Color	BLACK	
34 35 36 37 38 39 40 47 24 25 26 27 28 29 30 45	H.S.	8 4 8	8 8 4	H.S.		
11 12 13 14 15 16 17 18 19 20 43 44 1 2 3 4 5 6 7 8 9 10 41 42	Terminal No.	Color of Wire	Signal Name	Terminal No. W	Color of Signal Name	
Terminal No. Wire Signal Name	- 0	}	IGN P N			
20 W ST_RLY	N	>		N		
Occasion No. D4		30			OL	
Connector Name WIRE TO WIRE	Terminal No.	Color of Wire	Signal Name	Connector Name	B8 DOOR SWITCH LH	
	4.3	В	ı	Connector Color		
_	117	8	ı			
	17.1	SB	ı			
H.S. 10 10 11 12 10 17 18 10 17 18 10 17 18 10 17 18 10 17 18 10 17 18 10 17 18 18 17 18 18 18 18				H.S.	2 2 -	
18 19J 20J 21J 23J 2						
31.) (22.) (32.) (32.) (35.) (35.) (37.) (37.) (38.) (39.) (30.) (41.) (42.) (42.) (43.) (44.) (45.) (45.)				Col Terminal No. W	Color of Wire Signal Name	
185 185 185 185 185 185 185 185 185 185				2	SB DOOR SW (DR)	
1 1 1 1 1 1 1 1 1 1						

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[COUPE] < WIRING DIAGRAM >

Connector No.). B104	14
Connector Name		WIRE TO WIRE
Connector Color		BROWN
赋 H.S.	1 0 7 7	3 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 12 8 9 10 11 11 12 8 9 10 11 11 12 8 9 10 11 11 11 12 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11
Terminal No.	Color of Wire	Signal Name
10	GR	1

B29	Connector Name REAR PARCEL SHELF ANTENNA	GRAY	
Connector No.	Sonnector Name	Connector Color GRAY	



	Œ	ATLAN .	SI

Signal Name ANT+

Terminal No.

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	JOINT CONNECTOR-B05	AY	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	I	1
, B20		lor GRAY		Color of Wire	В	В
Connector No.	Connector Name	Connector Color	^请 可	Terminal No.	3	4

Signal Name	I	I	
Color of Wire	В	В	
erminal No.	3	4	

Connector No.	B108
Connector Name	DOOR SWITCH RH
Connector Color	WHITE
H.S.	

WHITE	DOOR SW (AS)
	GR
al No.	2

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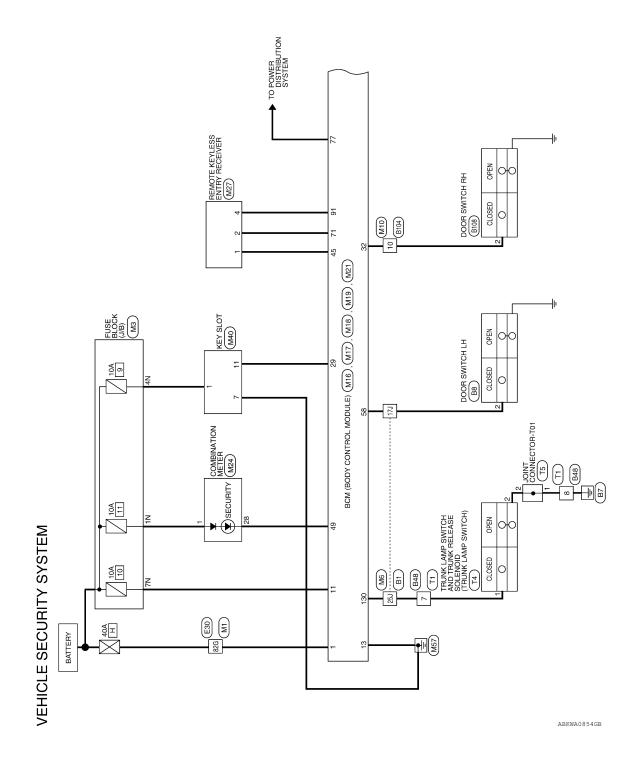
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SEC-193 2011 Altima GCC Revision: June 2012

VEHICLE SECURITY SYSTEM

Wiring Diagram



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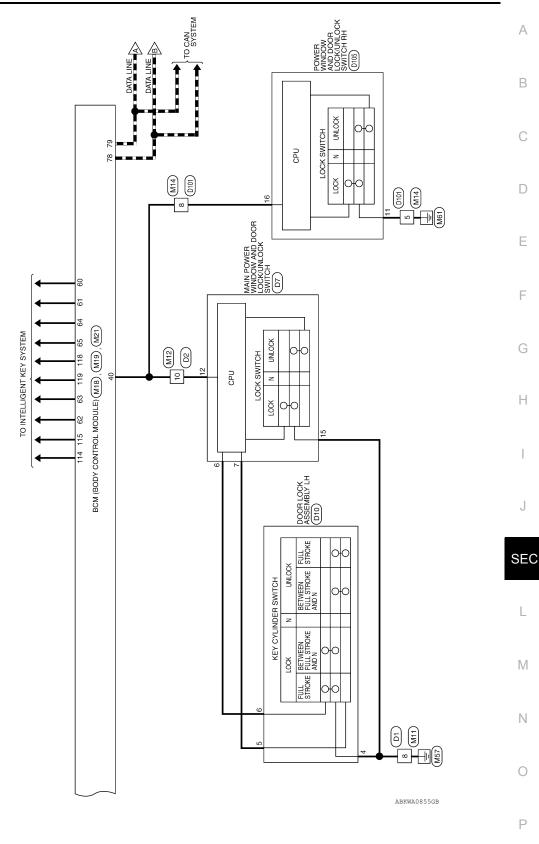
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SEC-195 2011 Altima GCC Revision: June 2012

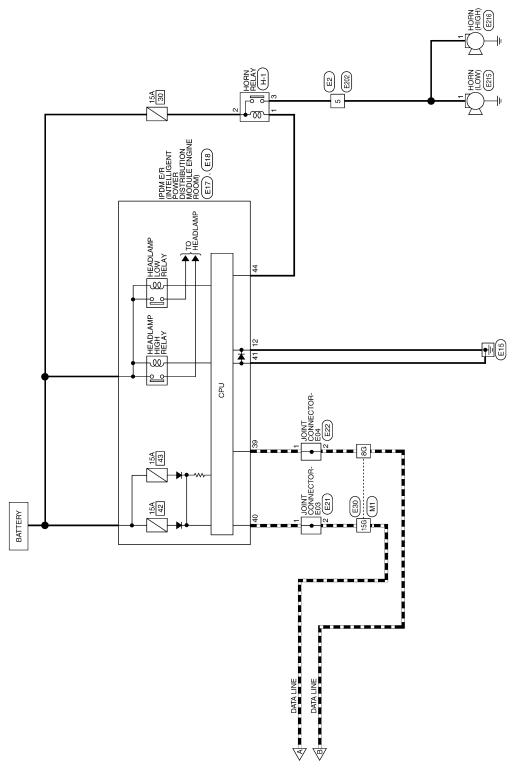
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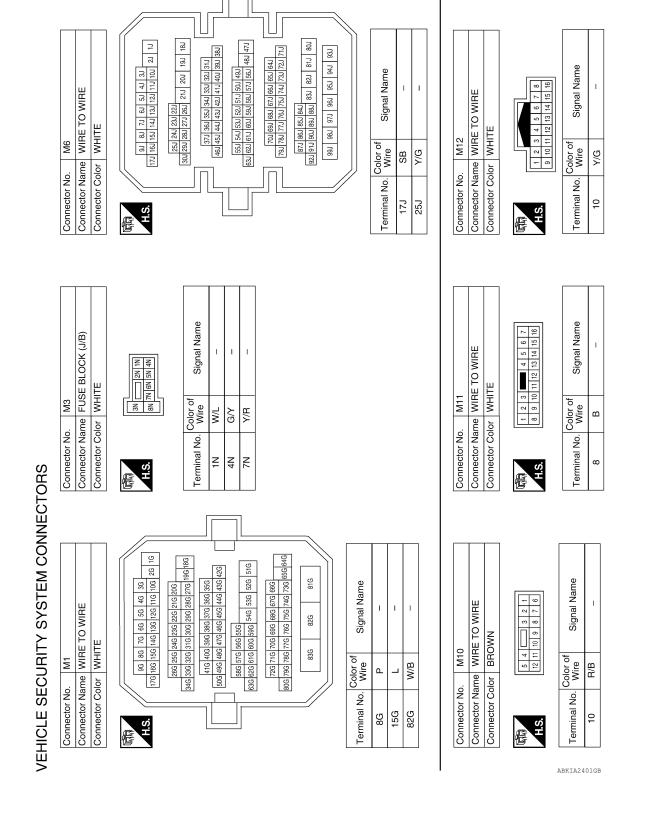
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No. M16	Signal Name BAT_POWER_F/L Signal Name BAT_POWER_F/L Signal Name Signal Name Signal Name AS_DOOR_ANT_2_B ROOM_ANT_2_B ROOM_ANT_3_B	Connector No. M17 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE	Terminal No. Color of Wire Signal Name 11 Y/R BAT_BCM_FUSE 13 B GND1	Terminal No. Color of Wire Signal Name 78 P CAN-L 79 L CAN-H 91 L/R RF1_POWER_SUPPLY
	NATROL Name Solution Solutio		Color of Wire W/B	M19

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Connector Name Connector Connector Color	-	BCM (BODY CONTROL MODULE) GRAY		Connector Name Connector Color		COMBINATION METER WHITE	ETER	Connector Nan	Connector Name Connector Color	-	REMOTE KEYLESS ENTRY RECEIVER BLACK	ENTRY
				H.S.					E.S.		2 3 4	
							- - - -	.				
131130129128127 151150149148147	712612512412	131 130 129 128 127 126 125 124 129 129 131 131 145 145 145 145 145 131 12 151 150 149 148 147 146 145 144 149 140 140 139 138 137 136 138 138 138	132	1 2 3 4 21 22 23 24	5 6 7 8 25 26 27 28	9 10 11 12 13 14 29 30 31 32 33 34	10 11 12 13 14 15 16 17 18 19 20 30 31 32 33 34 35 36 37 38 39 40		Terminal No.	Color of Wire	Signal Name	
					-				-	۵	GND	
Terminal No.	Color of Wire	Signal Name		Terminal No.	Color of Wire	Signal Name	ame		2	9/	SIGNAL	
114	В	TRUNK_ANT_1_B		-	M/L	BAT			4	L/R	12V	
115	>	TRUNK_ANT_1_A		28	97	SECURITY	RITY					
118	0/1	BACK_DOOR_ANT_B										
119	BR/W	BACK_DOOR_ANT_A										
130	Y/G	TRUNK_SW										
Connector No.		10.10		Connector No.				<u>, </u>	COLILIECTOI INO.	+	i i i i i i i i i i i i i i i i i i i	ļ
Connector Name KEY SLOT Connector Color WHITE	lame KEY SL	Y SLOT IITE		Connector Name Connector Color		WIRE TO WIRE WHITE			Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	L NO WO
Œ								<u> </u>	Connector Color	olor WHITE	ITE	
	1 -	3 4 5 6		国		2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3		ו ני				
i.	7 8	8 9 10 11 12		H.S.					E.S.H	4 42	42 41 40 39 45 44 43	
Terminal No.	Color of Wire	Signal Name		Terminal No.	Color of Wire	Signal Name	ne	L				
-	λβ	B+		5	0				Terminal No.	Color of Wire	Signal Name	
7	В	GND						1	39	۵	CAN-L	
Ξ	>	CARD SW 1							40	_	CAN-H	
									41	В	GND (SIGNAL)	L)
									44	*	HORN_RLY	
0	N	L	SE	J	I	Н	G	E	D		В	
)		1	C									

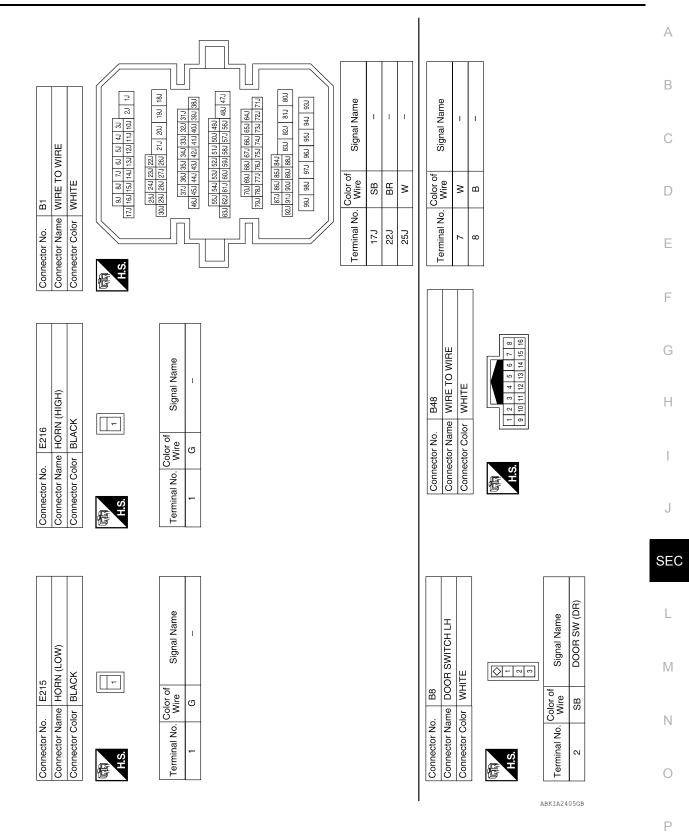
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Revision: June 2012 SEC-199 2011 Altima GCC

JOINT CONNECTOR-E04 WHITE	Signal Name	2 NE TO WIRE TE Signal Name
	Color of Wire P	E202
Connector No. Connector Name Connector Color	Terminal No.	Connector No. E202 Connector Name WIRE TO WIRE Connector Color WHITE Samal No. Signal Signal
E21 JOINT CONNECTOR-E03 WHITE	Signal Name -	Signal Name
E21 or WHITE	Color of Wire	Color of Wire LG
Connector No. Connector Color Connector Color	Terminal No.	8G 82G 82G
Connector No. E18 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE H.S.	1 1 1 1 1 1 1 1 1 1	Connector No. E30 Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE Connector Color WHITE 16 20 106 116 126 136 140 150 160 176 356 366 376 286 306 316 286 286 186 196 176 276 286 286 306 176 386 386 186 186 186 186 186 186 186 186 186 186
		ABKIA2404GB

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< WIRING DIAGRAM > [COUPE]



Revision: June 2012 SEC-201 2011 Altima GCC

_	IIRE TO WIRE	HITE	14 13 12 1 10 9		of Signal Name	1	ı
Connector No. T1	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S. 16 15		Terminal No. Wire	7 W	8 B/Y
Connector No. B108	Connector Name DOOR SWITCH RH	Connector Color WHITE	H.S.		Terminal No. Wire Signal Name	2 GR DOOR SW (AS)	
Connector No. B104	Connector Name WIRE TO WIRE	Connector Color BROWN	H.S. (1) (2) (4) (4) (5) (4) (1) (12)	Terminal No. Color of Signal Name	10 GR –		

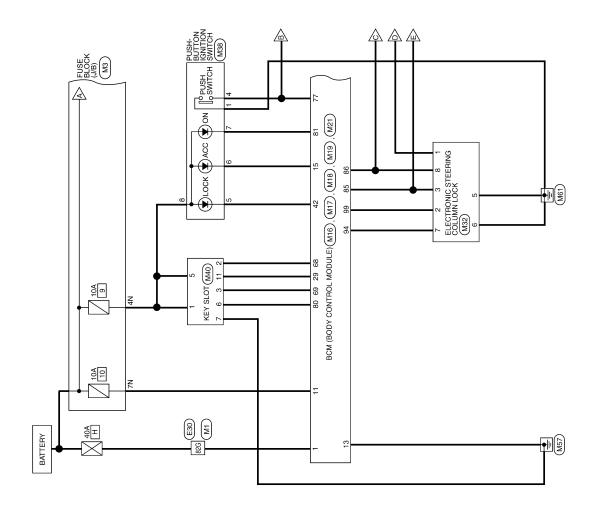
				ſ			
	Connector Name WIRE TO WIRE	IITE		1 1 1 1 1 1 1 1 1 1	Signal Name	ı	
	me WII	lor WF		16 15 14 15 14	Color of Wire	В	
Connector No. D1	Connector Na	Connector Color WHITE	Ø	H.S.	Terminal No. Wire	8	
	Connector Name JOINT CONNECTOR-T01	IITE		4 3 2 1 0	Signal Name	ı	1
T5	me JOI	lor	L		Color of Wire	B/Y	Β/Y
Connector No. T5	Connector Na	Connector Color WHITE		H.S.	Terminal No. Wire	-	2
	UNK LAMP SWITCH	Collifector Name AND I HONN RELEASE SOLENOID	IITE	<u>0</u> 4 0	Signal Name	I	-
T4	TRI	SO	lor WH		Color of Wire	W	В/У
Connector No. T4	3000	Colinector Na	Connector Color WHITE	H.S.	Terminal No. Wire	٦	2

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ttor No. D10 stor Name DOOR Let ASSEME stor Color GRAY al No. Color of B B L/R	K (HOR	1 3
Connector No. D7 MAIN POWER WINDOW	Connector No. D105 Connector Name DOOMER WINDOW AND SWITCH RH Connector Color WHITE T 2 3 4 1 5 6 7 R 9 10 11 12 13 14 15 16	Terminal No. Wire Signal Name 11 B GND 16 R COM
Connector No. D2 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE ### A T T T T T T T T T T T T T T T T T	L SEO ABKIA2407GB

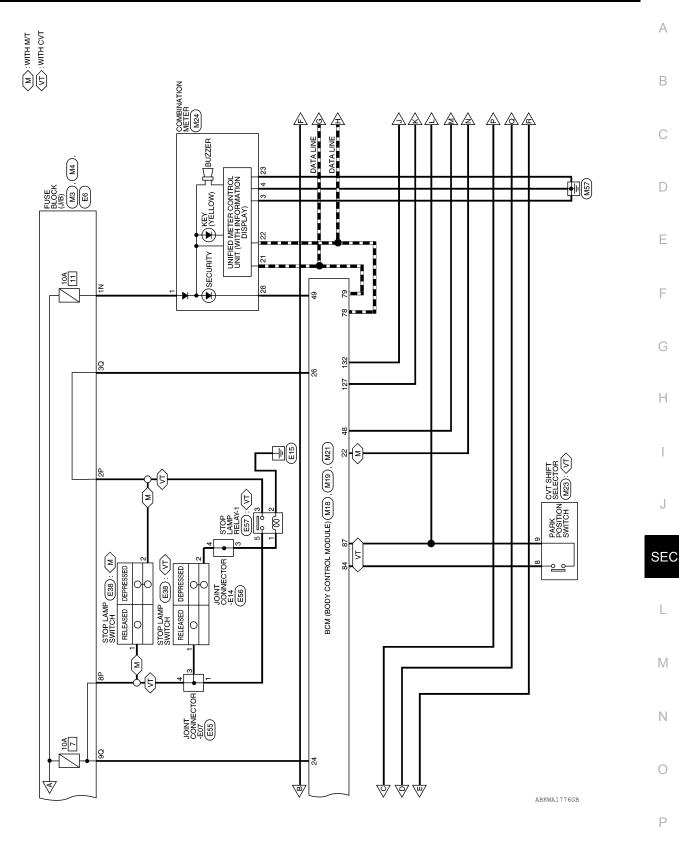
NVIS

Wiring Diagram



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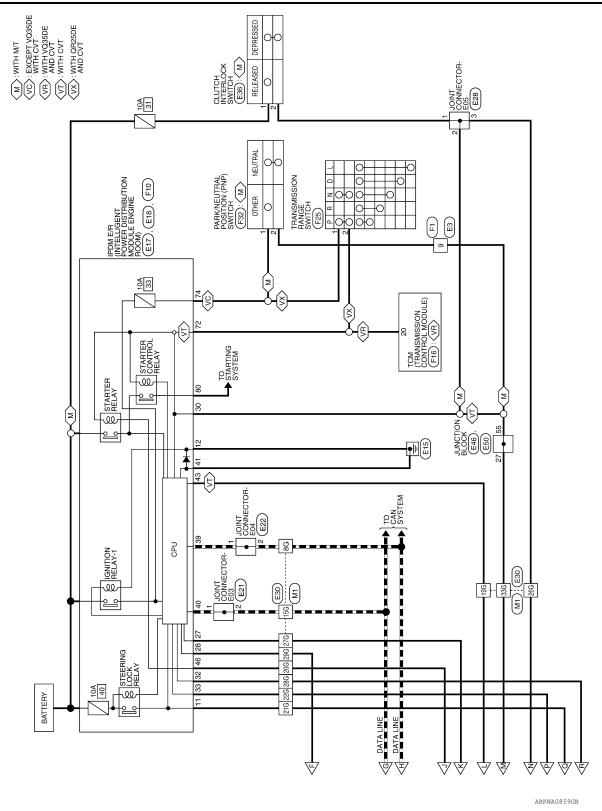
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	Connector No. M3 Connector Name FUSE BLOCK (J/B)	Connector Color WHITE			300 500 100 100 100 100 100 100 100 100 1	NS S		Color of	lerminal No. Wire Signal Name	1N W/L –	4N G/Y –	7N Y/R –				
	Terminal No. Wire Signal Name	- B8	15G L –	19G G/B –	20G R –	21G P/L –	22G G/R –	26G R/Y –	27G BR/W –	28G L/O -	29G BR –	33G R/G –	82G W/B –			
NVIS CONNECTORS	Connector No. M1 Connector Name WIRE TO WIRE	Connector Color WHITE		個	96 86 76 66 56 46 36	176 166 156 146 136 126 116 106 26 16	26G 25G 24G 23G 22G 21G 20G	346 336 326 316 306 296 286 276 196 186	746 406 386 386 386	50G 49G 48G 47G 46G 45G 44G 43G 42G	(1) (VI) (VI) (VI)	53C 62C 61G 60G 59G 54G 53G 52G 51G		80G 79G 77G 77G 77G 77G 77G 77G 77G 77G 77	836 826 816	

_			1				
	Connector Name BCM (BODY CONTROL MODULE)	ТЕ	1 1 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1 9 1 0	Signal Name	BAT_BCM_FUSE	GND1	ACC LED
. M17	me BCI	lor WH	11 12 13	Color of Wire	Y/R	В	Y/L
Connector No.	Connector Na	Connector Color WHITE	画 H.S.	Terminal No.	11	13	15

NVIS

	BCM (BODY CONTROL MODULE)	Š		Signal Name	BAT_POWER_F/L
. M16	me BCN MOI	lor BLA		Color of Wire	M/B
Connector No.	Connector Name	Connector Color BLACK	赋利 H.S.	Terminal No.	-

ector (M/B	Color of Wire		Color BLA	Name BCI MO	
Conne Conne H.S.	_	Terminal No.	H.S.	Connector Color	Connector Name	

Connector No.	4	
Connector Name		FUSE BLOCK (J/B)
Connector Color WHITE	or WHI	TE
南 H.S.	40 30 I	40 30 20 10 100 90 80 70 60 50
Terminal No.	Color of Wire	Signal Name
30	O/L	1
90	B/W	ı

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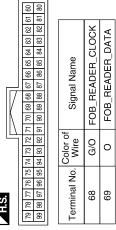
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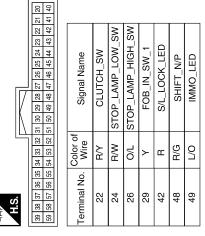
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Signal Name	ENG_START_SW	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	SHIFT_P	S/L_POWER_ SUPPLY_12V	S/L_K-LINE
Color of Wire	BR	Ь	٦	B/L	D D	Y/R	9	G/R	G/B	G/Y	₹
Terminal No.	77	78	79	80	81	84	82	98	87	94	66

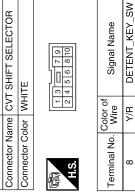
Connector No.	M19
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK









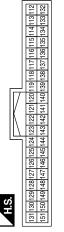


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G/B

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Connector No.	M21
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GRAY	GRAY



of Signal Name	IGN_USM_CONT1	ST_CONT_USM
Color of Wire	BR/W	ш
Terminal No. Wire	127	132

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NVIS [COUPE] < WIRING DIAGRAM >

Connector No. M32 Connector Name ELECTRONIC STEERING COLUMN LOCK COLUMN LOCK Connector Color WHITE		
Connector Name ELECTRONIC STEERING COLUMN LOCK Connector Color WHITE	Connector No.	M32
Connector Color WHITE	Connector Name	ELECTRONIC STEERING COLUMN LOCK
	Connector Color	WHITE

3 2 1	Signal Name	S/L_12V_MECHANICAL (V1)	S/L_COM	S/L_CONDITION_1	GND	GND	S/L_12V_CPU (V2)	S/L_CONDITION_2
4 🔊	Color of Wire	P/L	ζ	9	В	В	G/Y	G/R
H.S.	Terminal No.	-	2	ဂ	5	9	7	8

Signal Name	S/L_12V_MECHANICAL (V1)	S/L_COM	S/L_CONDITION_1	GND	GND	S/L_12V_CPU (V2)	S/L_CONDITION_2	
Color of Wire	P/L	Σ	9	В	В	G/Y	G/R	
Terminal No. Wire	-	2	က	5	9	7	8	

Signal Name	BAT	GND (POWER)	GND (ILL)	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
Color of Wire	M/L	В	В	_	Ь	В	0/1
Terminal No.	-	8	4	21	22	23	28

Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE H.S. 1 2 3 4 5 6 7 8 9 10 11 22 123 14 15 12 123 14 15 12 123 14 15 12 12 12 12 12 12 12							- 1	_	_
M24 ne COMBINATION METER or WHITE WHITE								20	
M24 ne COMBINATION METER or WHITE WHITE				1				19	39
Or WHIT	Ì							18	88
Or WHIT	Ì	_						17	37
Or WHIT		出						16	36
Or WHIT		ᆸ						15	35
Or WHIT	Ì	≥						4	8
Or WHIT	Ì						\Box	13	33
Or WHIT	Ì	Ĕ					17	12	32
Or WHIT	Ì	۱≱					V	Ξ	31
Or WHIT	Ì	B	ш				Λ	9	30
Connector No. Mi Connector Name CC Connector Color WI Connector Color WI LS. H.S. Connector Color WI Connector Color WI Connector Color WI Connector Color WI Connector No. Mi C	4	⋈	l₩				$\ \cdot\ $	6	29
Connector No. Connector Name Connector Color H.S. H.S. 1 2 3 4 5 6 7 7 12 22 23 24 25 26 27 27 27 27 27 27 27 27 27 27 27 27 27	ž	8	⋝					80	28
Connector No. Connector Color Connector Sam H.S. H.S. 1 2 3 4 5 6 6 21 22 23 24 25 26 28	_							7	27
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	WIRE TO WIRE	WHITE	1 2 3 4 5 6 7 8 9 10111213141516	Signal Name	1
. E3			1 8 9 1	Color of Wire	BR
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	6

				9	12	
			T	2	=	
			/	4	9	
	딠	ш	Λ	3	6	
>	<u>ک</u>	<u></u>		2	8	
2	KEY SLOT	WHITE		-	7	
	ıme	lor				

KEY SLOT	<u>H</u>	2 3 4 5 6 9 10 11 12	Signal Na	B+	CLOC	DAT/	LIGHT_B	LIGHT	GND	CARD_S
_	or WHITE		Color of Wire	G/Y	G/O	0	G/Y	R/L	В	\
Connector Name	Connector Color	南 H.S.	Terminal No.	1	2	3	5	9	7	11

M38	Connector Name PUSH-BUTTON IGNITION SWITCH	BROWN	4 1 5 6 7 8 8
Connector No.	Connector Name	Connector Color BROWN	赋 H.S.

2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Signal Name	GND	START_SW	LOCK	ACC	NO	B+
<u>- 4</u>	Color of Wire	В	BR	ш	Y/L	ГС	G/Y
原 H.S.	Terminal No.	1	4	5	9	7	8

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SEC-209 Revision: June 2012 2011 Altima GCC

	Connector Name JOINT CONNECTOR-E03	ITE	3 2 1	Signal Name	1	ı
. E21	me JOI	lor	4	Color of Wire	_	_
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No. Wire	-	2

Φ _	Sonnector No. E17
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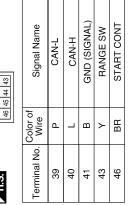
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Connector Name FUSE BLOCK (J/B)

9**3**

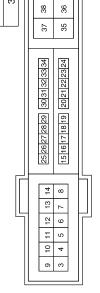
Connector No.

Connector Color WHITE





Signal Name		ESCL	GND (POWER)	IGN_SIGNAL	PUSH_START_SW	CLUTCH_I/L_SW (WITH M/T)	ECM (WITH CVT)	SL_CONDITION_1	SL_CONDITION_2
Color of	AIIA	0	В	8	SB	В	BB	۵	ŋ
Terminal No Miss		11	12	27	28	30	30	32	33
				<u> </u>				<u> </u>	
E18	IPDM E/R (INTELLIGENT	POWER DISTRIBUTION	MODULE ENGINE ROOM)	WHITE					



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Connector No.

Connector Name

Connector Color

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E36 CLUTCH INTERLOCK SWITCH BROWN rof Signal Name	С
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Revision: June 2012 SEC-211 2011 Altima GCC

Connector No. E46 Connector Name JUNCTION BLOCK Connector Color WHITE	Terminal No. Wire Signal Name	Connector No. E56 Connector Name JOINT CONNECTOR-E14 Connector Color WHITE I 1 3 2 1 1	Terminal No. Color of Wire Signal Name 3 LG - 4 LG -
Connector No. E38 Connector Name STOP LAMP SWITCH (WITH M/T) Connector Color BLACK #\$3.	Terminal No. Wire Signal Name 1 R	Connector No. E55 Connector Name JOINT CONNECTOR-E07 Connector Color WHITE [Terminal No. Color of Signal Name 1 W - 3 R - 4 R -
Connector No. E38 Connector Name STOP LAMP SWITCH (WITH CONNECTOR WHITE 3 4	Terminal No. Wire Signal Name 1 R 2 LG	Connector No. E50 Connector Name JUNCTION BLOCK Connector Color WHITE	Terminal No. Wire Signal Name 55 BR –

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PDM E/R (INTELLIGENT PDM E/R (INTELLIGENT PDM E/R (INTELLIGENT PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE Signal Name Talinal No. Wire Signal Name Talinal No. Wire Signal Name Talinal No. Wire Signal Name Talinal No. Notice Signal Name Talinal No. Notice Signal Name Talinal No. Notice Signal Name Talinal No. Signal Name Talinal Nam	Connector No. F32 Connector Name PARK/NEUTRAL POSITION (PNP) SWITCH Connector Color BLACK A.S. Terminal No. Wire Signal Name 1 L 2 W -
Connector No. F1	Connector No. F25 Connector Name TRANSMISSION RANGE SWITCH Connector Color BLACK Ref 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
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< SYMPTOM DIAGNOSIS > [COUPE]

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

Engine cannot be started with all Intelligent Keys.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-8, "Work Flow"</u>". Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis.
- Check systems shown in the "Diagnosis/service procedure" column in this order.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- · Engine start function is ON when setting on CONSULT.
- Use Intelligent Key with registered Intelligent Key ID.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the passenger compartment.

Diagnosis/service prod	Reference page		
Check power supply and ground circuit	BCM	BCS-36	
1. Check power supply and ground circuit	IPDM E/R	PCS-20	
2. Check push button ignition switch	<u>SEC-78</u>		
3. Check Intermittent Incident	<u>GI-42</u>		

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS > [COUPE]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

	Proced	dure	Diagnostic procedure	Pofor to page	
Symptom			- Diagnostic procedure	Refer to page	
		Door switch	Check door switch	<u>DLK-64</u>	
	Vehicle security system cannot be set by	Trunk	Check trunk room lamp switch	<u>DLK-89</u>	
		Door outside key	Check key cylinder switch	<u>DLK-75</u>	
1		Intelligent Key	Check Intelligent Key.	DLK-118	
		_	Check Intermittent Incident	<u>GI-42</u>	
=	Consults indicator do o	a not turn ON	Check vehicle security indicator	SEC-141	
	Security indicator does not turn ON.		Check Intermittent Incident	<u>GI-42</u>	
	* Vehicle security	Any door is opened.	Check door switch	<u>DLK-64</u>	
2	system does not sound alarm when ····		Check Intermittent Incident	<u>GI-42</u>	
		Horn alarm	Check horn	<u>SEC-137</u>	
3	Vehicle security alarm does not activate.		Check Intermittent Incident	<u>GI-42</u>	
		Head lamp alarm	Check head lamp alarm	SEC-139	
			Check Intermittent Incident	<u>GI-42</u>	
		Decree totals	Check key cylinder switch	<u>DLK-75</u>	
	Vehicle security sys-	Door outside key	Check Intermittent Incident	<u>GI-42</u>	
4	tem cannot be can- celed by ····	Intelligent Key	Check Intelligent Key	DLK-118	
	-		Check Intermittent Incident	<u>GI-42</u>	

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

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Revision: June 2012 SEC-215 2011 Altima GCC

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "SEC-8, "Work Flow"". Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis.
- Check systems shown in the "Action" column in this order.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- · Intelligent Key is not inserted into key slot.
- · Engine switch is not depressed.

Action	Reference page
Check vehicle security indicator	<u>SEC-141</u>
2. Check Intermittent Incident	<u>GI-42</u>

PRECAUTIONS

< PRECAUTION > [COUPE]

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. 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 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006934924

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.

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Revision: June 2012 SEC-217 2011 Altima GCC

PRECAUTIONS

< PRECAUTION > [COUPE]

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT.

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 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, and wring the water out of the cloth to wipe the dirty area.
 - Then rub with a soft and 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, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and 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 > [COUPE]

PREPARATION

PREPARATION

Special Service Tools

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

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[COUPE]

REMOVAL AND INSTALLATION

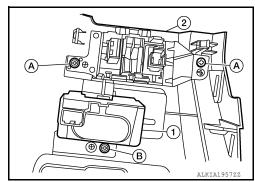
KEY SLOT

Removal and Installation

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REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-19, "Removal and Installation".
- 2. Remove the switch assembly screws (A), remove the key slot screw (B), and then remove key slot (1) from instrument lower panel LH (2).



INSTALLATION

Installation is in the reverse order of removal.

PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

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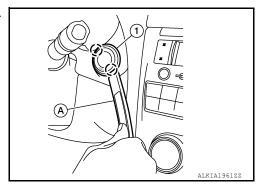
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:0000000006389611

REMOVAL

- 1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).
 - (): Pawl
- 2. Disconnect the electrical harness connector and remove the push button ignition switch.



INSTALLATION

Installation is in the reverse order of removal.

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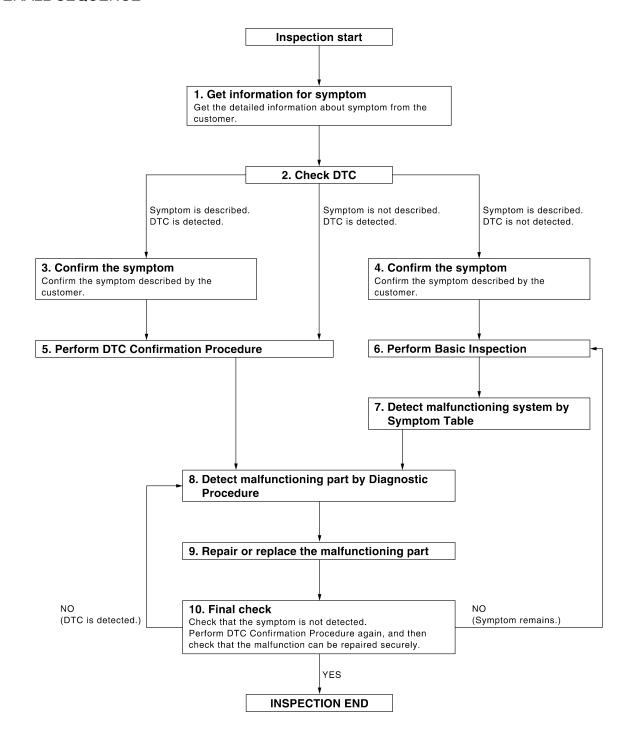
< BASIC INSPECTION > [SEDAN]

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [SEDAN]

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).

>> GO TO 2.

2.CHECK DTC WITH BCM AND IPDM E/R

- 1. Check "Self Diagnostic Result" with CONSULT.
- 2. Perform the following procedure if DTC is displayed.
- Record DTC and freeze frame data (Print them out with 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.

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" mode and check real time diagnosis results.

Verify relationship 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" mode and check real time diagnosis results.

Verify relationship 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 displayed DTC, and then check that DTC is detected again. At this time, always keep CONSULT connected to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to BCS-65. "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 in Service Manual. This
 simplified check procedure is an effective alternative though DTC cannot be detected during this check.
 If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.

Is DTC detected?

YES >> GO TO 8.

NO >> Refer to GI-42, "Intermittent Incident".

6 . PERFORM BASIC INSPECTION

Perform PCS-48, "Pre-Inspection for Multi-System Diagnostic".

Inspection End>>GO TO 7.

7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

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

- Intelligent Key system/engine start function: <u>SEC-437</u>, "Symptom Table".
- Vehicle security system: SEC-438, "Symptom Table".

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Revision: June 2012 SEC-223 2011 Altima GCC

DIAGNOSIS AND REPAIR WORKFLOW

[SEDAN]

< BASIC INSPECTION >

Nissan vehicle immobilizer system-NATS: <u>SEC-439</u>, "Symptom Table".

>> GO TO 8.

8. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

NOTE:

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

<u>Is malfunctioning part detected?</u>

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT.

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

- 1. Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair or replacement.
- 3. Check DTC. If DTC is displayed, erase it.

>> GO TO 10.

10. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been fully repaired.

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

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8.

NO (Symptom remains)>>GO TO 6.

YES >> Inspection End.

Revision: June 2012 SEC-224 2011 Altima GCC

[SEDAN] < BASIC INSPECTION > PRE-INSPECTION FOR DIAGNOSTIC Α Pre-Inspection for Multi-System Diagnostic INFOID:0000000006928498 The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS are closely related to each other. Narrow down the system in question by performing this inspection to identify which system is malfunctioning. For example, the vehicle security system can operate only when the door lock and power distribution system are operating normally. 1. CHECK DOOR LOCK OPERATION Check the door lock for normal operation with the Intelligent Key and door request switch. Successful door lock operation with the Intelligent Key and request switch indicates that the remote keyless entry receiver and inside key antenna required for engine start are functioning normally. Can the door be locked with the Intelligent Key and door request switch? YES >> GO TO 2. Е NO >> Refer to DLK-186, "Symptom Table" (coupe) or DLK-420, "Symptom Table" (sedan). CHECK ENGINE STARTING Check that the engine starts when the Intelligent Key is inserted into the key slot. Does the engine start? YES >> GO TO 3. NO >> Refer to <u>SEC-214, "Symptom Table"</u> (coupe) or <u>SEC-437, "Symptom Table"</u> (sedan). 3.CHECK STEERING LOCK OPERATION Check that the steering locks when operating the door switch after switching the power supply from ON position (or ACC position) to LOCK position. If the door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, electronic steering column lock is normal. Does steering lock? >> GO TO 4. YES "Component Function Check" NO >> Refer **DLK-64** (coupe) DLK-286, to or "Component Function Check" (sedan). 4. CHECK POWER SUPPLY INDICATOR SWITCHING SEC Press push-button ignition switch and check that the position indicator switches from LOCK, through ACC to ON when steering is locked. Is each position indicator illuminating? YES >> GO TO 5. NO >> Refer to PCS-79, "Component Function Check". ${f 5}.$ CHECK VEHICLE SECURITY SYSTEM Refer to SEC-11. "Vehicle Security Operation Check" (coupe) or SEC-225. "Vehicle Security Operation Check" (sedan). Are the inspection results normal? N YES >> Inspection End. >> Repair vehicle security system as necessary. Vehicle Security Operation Check INFOID:0000000006389614 1.INSPECTION START Turn ignition switch "OFF" and pull out Intelligent Key from key slot. NOTE: Before starting operation check, open front windows.

Revision: June 2012 SEC-225 2011 Altima GCC

>> GO TO 2.

2 .CHECK SECURITY INDICATOR LAMP

Lock doors using Intelligent Key or mechanical key.

PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION > [SEDAN]

2. Check that security indicator lamp illuminates for 30 seconds.

Does security indicator lamp illuminate?

YES >> GO TO 3.

NO >> Perform diagnosis and repair. Refer to <u>SEC-359</u>, "Component Function Check".

3.CHECK ALARM FUNCTION

- 1. After 30 seconds, security indicator lamp will start to blink.
- 2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

Does alarm function properly?

YES >> GO TO 4.

NO >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to SEC-438, "Symptom Table".
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to SEC-438, "Symptom Table".

4. CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using Intelligent Key or mechanical key.

Does alarm (horn, headlamp and hazard lamp) stop?

YES >> Inspection End.

NO >> Check door lock function. Refer to <u>DLK-242</u>, "INTELLIGENT KEY: System Description".

INSPECTION AND ADJUSTMENT

[SEDAN] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α ECM RE-COMMUNICATING FUNCTION ECM RE-COMMUNICATING FUNCTION: Description INFOID:0000000006389615 В 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. (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 Opera-D tion Manual. If multiple keys are attached to the key holder, separate them before work. Distinguish keys with unregistered key ID from those with registered ID. Е ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement INFOID:0000000006389616 ${f 1}$.PERFORM ECM RE-COMMUNICATING FUNCTION Install ECM. Insert the registered Intelligent 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? Н YES >> Procedure is completed. NO >> Initialize control unit.Refer to CONSULT Operation Manual. SEC Ν 0

SEC-227 Revision: June 2012 2011 Altima GCC

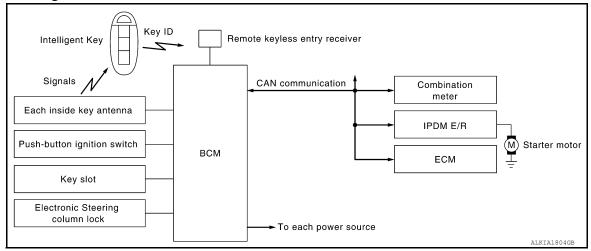
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SYSTEM DESCRIPTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram

INFOID:0000000006389617



System Description

INFOID:0000000006389618

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator		
Push-button ignition switch	Push switch				
CVT shift selector (CVT models)	P range				
Transmission range switch (CVT models)	N, P range	Electronic steering Starter relay (IPDM)	Steering lock relay		
Clutch interlock switch (M/T models)	Clutch ON/OFF		City to the disconing column look		
Stop lamp switch	Brake ON/OFF		R)		
Each inside key antenna	Request signal				
Remote keyless entry receiver	Key ID		NET Warning lamp		
Each door switch	Door open/close				
ECM	Engine status signal				

SYSTEM DESCRIPTION

The engine start function of Intelligent Key system is a system that makes it possible to start and stop the
engine without removing the key. It verifies the electronic ID using two-way communications when pressing
the push-button ignition switch while carrying the Intelligent Key, which operates based on the results of
electronic ID verification for Intelligent Key using two-way communications between the Intelligent Key and
the vehicle.

NOTE:

The driver should carry the Intelligent Key at all times.

- Intelligent Key has 2 IDs [for Intelligent Key and for NVIS (NATS)]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When the Intelligent Key battery is discharged, it can be used as emergency back-up by inserting the Intelligent Key to the key slot. At that time, perform the NVIS (NATS) ID verification. If it is used when the Intelligent Key is carried, perform the Intelligent Key ID verification.
- If the ID is successfully verified, and when push-button ignition switch is pressed, steering lock will be released and initiating the engine will be possible.
- If the door lock/unlock operation is performed when the Intelligent Key battery is discharged, all doors lock/ unlock can be performed by operating the driver door key cylinder using the mechanical key set in the Intelligent Key.

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Intelligent Key can be registered up to 4 keys (Including the standard Intelligent Key) on request from the owner.

NOTE:

 Refer to <u>SEC-228, "System Description"</u> for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

 In the Intelligent Key system of model L32, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, the mechanical key cannot perform the ID verification, and thus it cannot start the engine. Instead, the NVIS (NATS) ID verification can be performed by inserting the Intelligent Key into the key slot, and then it can start the engine.

OPERATION WHEN INTELLIGENT KEY IS CARRIED

- 1. When the push-button ignition switch is pressed and brake pedal is depressed, the BCM signals the inside key antenna and transmits the request signal to the Intelligent Key.
- The Intelligent Key sends the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- BCM transmits the steering lock unlock signal to electronic steering column lock and IPDM E/R if the verification results are OK.
- IPDM E/R turns the steering lock relay ON and supplies power to the electronic steering column lock.
- Release of the steering lock.
- BCM transmits the power supply stop signal to IPDM E/R when it confirms that the steering lock is in the unlock condition.
- 8. IPDM E/R turns the steering lock relay OFF and stops power supply to the electronic steering column lock.
- 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.
- 11. BCM confirms that the shift position is P or N (CVT models).
- 12. BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition is satisfied.
- IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- 14. Battery power is supplied through the starter relay and the starter control relay to operate the starter motor and to start the cranking.

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.

15. When BCM received feedback signal from ECM acknowledging the engine has been initiated, the BCM transmits a stop signal to IPDM E/R and stops the cranking by turning OFF the starter motor relay. (If the engine initiating has failed, the cranking will stop automatically within 5 seconds.) CAUTION:

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

*: For the engine start condition, refer to "PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE".

OPERATION RANGE

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

OPERATION WHEN KEY SLOT IS USED

When the Intelligent Key battery is discharged, it performs the NVIS (NATS) ID verification between the integrated transponder and BCM by inserting the Intelligent Key into the key slot, and then the engine can be

For details relating to starting the engine using key slot, refer to SEC-228, "System Description".

BATTERY SAVER SYSTEM

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< SYSTEM DESCRIPTION >

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When all the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position
- · All doors are closed
- CVT selector lever is in the P position
- No Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

CVT models

In order to prevent the battery from discharging, the battery saver system will cut off the power supply when all doors are closed, the selector lever is on P position and the ignition switch is left on ACC position for 1 hour. If any of the following conditions are met the battery saver system is released and the steering will change automatically to lock position from OFF position.

- Opening any door
- Operating with request switch on door lock
- Operating with Intelligent Key on door lock

Press push-button ignition switch and ignition switch will change to ACC position from OFF position.

M/T models

If any of the conditions above is met the battery saver system is released but the steering will not lock. In this case, the steering operation OFF to LOCK is prohibited.

STEERING LOCK OPERATION

Steering is locked by electronic steering column lock when ignition switch is in the OFF position, CVT selector lever is in the P position and any of the following conditions are met.

- Opening door
- · Closing door
- Door is locked with request switch
- · Door is locked with Intelligent Key

PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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 or when it is inserted to the key slot, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions,
- Brake pedal operating condition (CVT models)
- CVT selector lever position (CVT models)
- Clutch pedal operating condition (M/T models)
- Vehicle speed
- Steering lock condition
- Engine status
- Unless each start condition is fulfilled, the engine will not respond regardless of how many times the engine switch is pressed. At that time, illumination repeats the position in the order of LOCK→ACC→ON→OFF.

	Engine start/stop condition		Push-button ignition switch op-	
Power supply position	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	eration frequency	
LOCK → ACC	Not depressed	Any position	1	
$LOCK \to ACC \to ON$	Not depressed	Any position	2	
$\begin{array}{c} LOCK \to ACC \to ON \to \\ OFF \end{array}$	Not depressed	Any position	3	
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	I [If the switch is pressed once, the engine starts from any power supply position (LOCK, ACC, and ON)]	
Engine is running → OFF (Engine stop)		Any position Vehicle speed < 4 km/h (2 MPH)	1	

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	Engine start/	Push-button ignition switch op- eration frequency	
Power supply position Brake pedal (CVT) /clutch pedal (M/T)			
Engine is running → ACC (Engine stop)	_	Any position other than P (*2)	1
Engine stall return operation while driving	_	P position	1

^{*1:} When the CVT selector lever position is N position, the engine start condition is different according to the vehicle speed.

- · At vehicle speed of 4 km/h (2 MPH) or less, the engine can start only when the brake pedal is depressed.
- At vehicle speed of 4 km/h (2 MPH) or more, the engine can start even if the brake pedal is not depressed. (It is the same as "Engine stall return operation while driving".)
- *2: When the CVT selector lever position is in any position other than P position and when the vehicle speed is 5 km/h (3 MPH) or more, the engine stop condition is different.
- Press and hold the push-button ignition switch for 2 seconds or more. (When the push-button ignition switch is pressed for too short a time, the operation may be invalid, so properly press and hold to prevent an incorrect operation.)
- Press the push-button ignition switch 3 times or more within 1.5 seconds. (Emergency stop operation)

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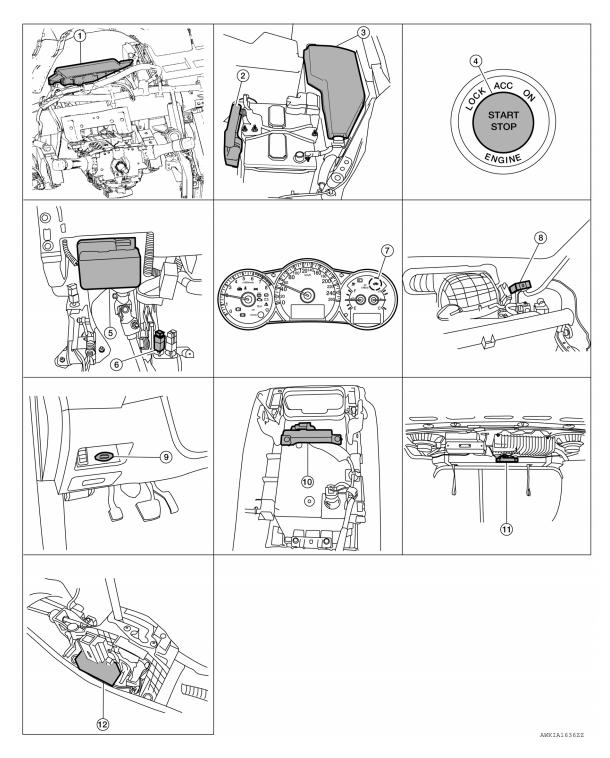
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Revision: June 2012 SEC-231 2011 Altima GCC

Component Parts Location

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- Body control module M16, M17, M18, M18, M21 (view with instrument panel removed)
- 4. Push-button ignition switch M38
- 7. Security indicator lamp
- 10. Front console antenna M203 (bottom view of console)

- ECM E10
- 5. Electronic steering column lock (steer- 6. ing column) M32
- 8. Remote keyless entry receiver M27 (view with instrument panel removed)
- 11. Rear parcel shelf antenna B29

- 3. IPDM E/R E17, E18, F10
- Stop lamp switch E38 (view with lower driver instrument panel removed)
- 9. Key slot M40
- 12. CVT shift selector (park position switch) M23

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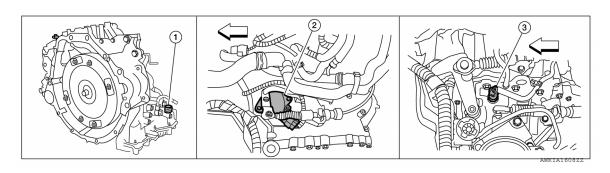
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- F16 (switch inside trans) (CVT/VQ)
- 1. Transmission range switch connector 2. Transmission range switch F25 (CVT/QR)
- Park neutral position switch F32 (M/T)

Component Description

INFOID:0000000006389620

Component	Reference
BCM	<u>SEC-338</u>
Electronic steering column lock	<u>SEC-322</u>
Push-button ignition switch	<u>SEC-294</u>
Door switch	<u>DLK-286</u>
CVT shift selector (park position switch)	<u>SEC-298</u>
Inside key antenna	DLK-279
Remote keyless entry receiver	<u>DLK-346</u>
Stop lamp switch	<u>SEC-289</u>
Transmission range switch	<u>SEC-308</u>
Clutch switch	<u>SEC-269</u>
Steering lock relay	<u>SEC-256</u>
Starter relay	<u>SEC-264</u>
Starter control relay	<u>SEC-262</u>
Security indicator	<u>SEC-359</u>
Key warning lamp	SEC-358

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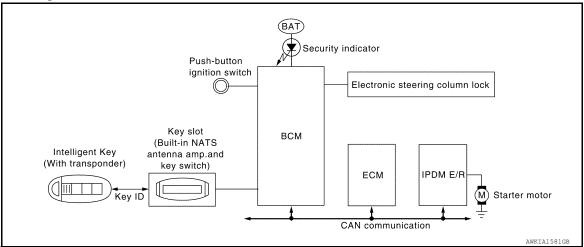
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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram

INFOID:0000000006389621



System Description

INFOID:0000000006389622

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator	
Push-button ignition switch	Push switch	range ch ON/OFF e ON/OFF ID Steering lock relay Electronic steering Starter relay (IPDM Starter control relay Starter motor KEY warning lamp Security indicator la		
CVT shift selector (CVT models)	P range			
Transmission range switch (CVT models)	N, P range		Electronic steering column lock	
Clutch interlock switch (M/T models)	Clutch ON/OFF		Starter control relay (IPDM E/R)	
Stop lamp switch	Brake ON/OFF			
Key slot	Key ID		Security indicator lamp	
Each door switch	Door open/close			
ECM	Engine status signal			

SYSTEM DESCRIPTION

- The NVIS (NATS) is an anti-theft system by registering an Intelligent Key ID in to the vehicle and prevents the engine being started by an unregistered Intelligent Key. It has a higher protection against auto thefts that duplicate mechanical key.
- It performs the ID verification when starting the engine in the same way as the Intelligent Key system. But, it performs the NVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The Intelligent Key system of L32 is not the same as the conventional models. The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with Intelligent Key is performed by inserting the Intelligent Key into the key slot. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator and apply the anti-theft system equipment sticker, forewarn that the NVIS (NATS) is onboard with the model.
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the power supply position is in LOCK position.
- Intelligent Key can be registered up to 4 keys (Including the standard ignition key) on request from the owner.
- The specified registration is required when replacing ECM, BCM or Intelligent Key. The registrations procedure for NVIS (NATS) and registration procedure for Intelligent Key when installing the BCM, refer to CONSULT Operation Manual.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

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- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started
 with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to "Work Flow",
 Refer to SEC-222, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to SEC-227, "ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement".

PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS (NATS) ID once, and then re-registers a new ID operation. Therefore the registered Intelligent Key is necessary for this procedure. Before starting the registration operation collect all registered Intelligent Keys from the customer
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS "NATS" ID registration and Intelligent Key ID registration).
- The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in Intelligent Key) to BCM.
- The Intelligent Key ID registration is the procedure that registers the ID to BCM.
- When performing the Intelligent Key system registration only, the engine cannot be started by inserting the key into the key slot. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

SECURITY INDICATOR

- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the ignition switch is in LOCK position.

NOTE:

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

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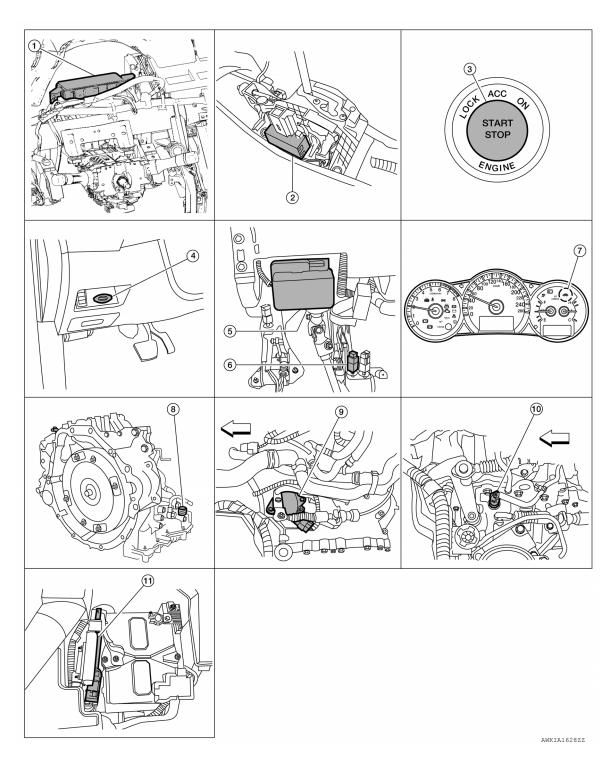
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Revision: June 2012 SEC-235 2011 Altima GCC

Component Parts Location

INFOID:0000000006389623



- Body control module M16, M17, M18, M19, M21 2. CVT shift selector (park position 3. (view with instrument panel removed)
- Key slot M40

- switch) M23 (with CVT)
- 5. Electronic steering column lock M32 (steering column)
- Push-button ignition switch M38
- Stop lamp switch E38 (view with lower LH instrument panel removed)

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

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Security indicator lamp

Transmission range switch con- 9. nector (TCM connector) F16 (with CVT/VQ)

Transmission range switch F25

(with CVT/QR)

10. Park neutral position switch F32 (with M/T)

11. ECM E10

 \Leftarrow : Front

Component Description

INFOID:0000000006389624

Component	Reference
BCM	<u>SEC-338</u>
Electronic steering column lock	<u>SEC-322</u>
Push-button ignition switch	<u>SEC-339</u>
Door switch	DLK-286
CVT shift selector (park position switch)	SEC-298
Inside key antenna	DLK-279
Remote keyless entry receiver	DLK-346
Stop lamp switch	<u>SEC-289</u>
Transmission range switch	SEC-308
Clutch switch	SEC-269
Steering lock relay	<u>SEC-255</u>
Starter relay	<u>SEC-315</u>
Starter control relay	<u>SEC-297</u>
Security indicator	<u>SEC-359</u>
Key warning lamp	<u>SEC-358</u>

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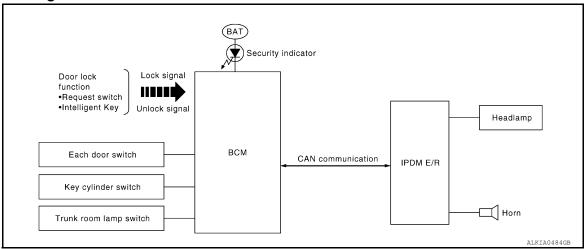
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VEHICLE SECURITY SYSTEM

System Diagram

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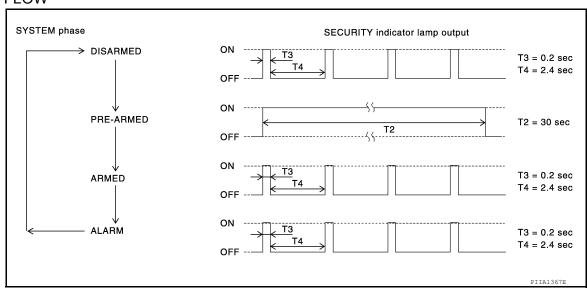
System Description

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INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator
All door switch	Open or close		
Trunk room lamp switch	Open of close		IPDM E/R Head lamp Horn
Door key cylinder switch			
Door lock and unlock switch	Lock or unlock	Vehicle security system	
Door request switch			Security indicator lamp
Intelligent Koy	Lock or unlock		
Intelligent Key	Panic alarm		

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

· Ignition switch is in OFF position.

Disarmed Phase

VEHICLE SECURITY SYSTEM

SYSTEM DESCRIPTION > [SEDAN] When doors or trunk is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle. When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds. Pre-armed Phase and Armed Phase When the following operation 1 or 2 is performed, the vehicle security system turns into the "pre-armed"

- phase. (The security indicator lamp illuminates.)BCM receives LOCK signal from front door key cylinder switch or Intelligent Key, after trunk and all doors are closed.
- Trunk and all doors are closed after front doors are locked by key or door lock and unlock switch.
 The security indicator lamp illuminates for 30 seconds. Then, the system automatically shifts into the "armed" phase.

CANCELING THE SET VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

- 1. Unlock the doors with the key or Intelligent Key.
- 2. Turn ignition switch "ON" or "ACC" position.

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM When unlocking the door with the key or Intelligent Key the alarm operation is canceled.

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (The security indicator lamp blinks every 2.4 seconds.) When the following operation 1 or 2 is performed, the system sounds the horns and flashes the headlamps for about 50 seconds.

- Trunk or any door is opened during armed phase.
- 2. Disconnecting and connecting the battery connector before canceling armed phase.

PANIC ALARM OPERATION

Intelligent Key system will not operate horn and headlamps if the ignition switch is in the ACC or ON position. When the Intelligent Key system is triggered, ground is supplied intermittently to both headlamp relay and horn relay.

When headlamp relay and horn relay are energized, then power is supplied to headlamps (LH and RH) and horns (HIGH and LOW).

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key.

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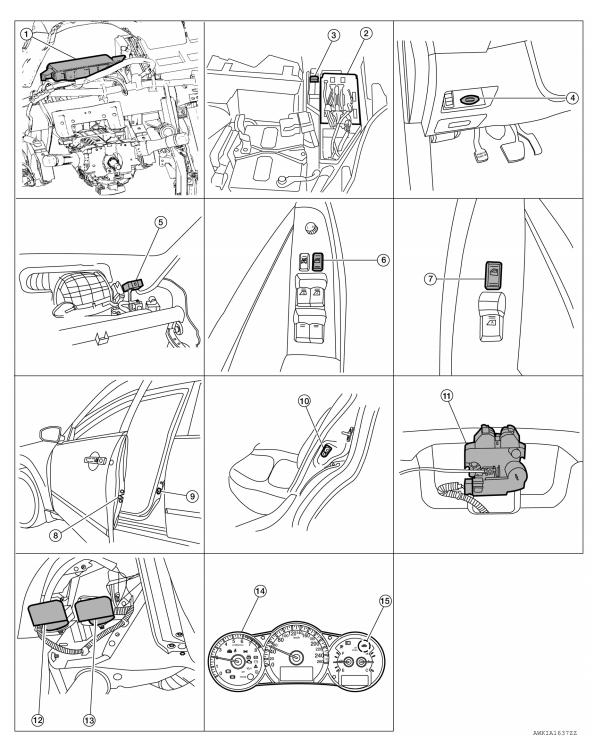
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Revision: June 2012 SEC-239 2011 Altima GCC

Component Parts Location

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- Body control module M16, M17, M18, M19, M21 (view with instrument panel removed)
- 4. Key slot M40
- Power window and door lock/unlock switch RH D105
- 2. IPDM E/R E17, E18
- 5. Remote keyless entry receiver M27 (view with instrument panel removed)
- 8. Front door lock assembly LH (key cyl- 9. inder switch) D10
- 3. Horn relay H-1
- Main power window and door lock/ unlock switch D7, D8
 - Pront door switch LH B8 RH B108

VEHICLE SECURITY SYSTEM

< SYSTEM DESCRIPTION > [SEDAN]

10. Rear door switch LH B18 RH B116

- 11. Trunk lamp switch and trunk release solenoid B28
- Horn (low) E215

 (view with front fender protector LH removed)

13. Horn (high) E216

- 14. Combination meter M24
- 15. Security indicator lamp

Component Description

Component	Reference
BCM	<u>SEC-238</u>
Horn relay	<u>SEC-355</u>
Security indicator	SEC-359
Door switch	DLK-286
Door lock actuator	DLK-330
Trunk lid lock assembly	DLK-336
Door key cylinder switch	DLK-303
Door lock and unlock switch	DLK-290

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Revision: June 2012 SEC-241 2011 Altima GCC

[SEDAN]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: Diagnosis Description

INFOID:0000000006928505

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP		×	×
Remote keyless entry system	MULTI REMOTE ENT		×	
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	
Trunk open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000006928506

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT

Refer to BCS-67, "DTC Index".

< SYSTEM DESCRIPTION > [SEDAN]

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)

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WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec.
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

SELF-DIAG RESULT

Refer to BCS-67, "DTC Index".

DATA MONITOR

Monitor Item	Condition	
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).	
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).	
REQ SW-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.	
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.	
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.	
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.	
ACC RLY-F/B	Indicates [ON/OFF] condition of accessory relay.	
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.	
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.	
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.	
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.	
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).	
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (UNLOCK).	
S/L RELAY-F/B	Indicates [ON/OFF] condition of ignition switch.	
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.	
PUSH SW -IPDM	Indicates [ON/OFF] condition of push button ignition switch.	
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.	
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.	
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.	
SFT P -MET	Indicates [ON/OFF] condition of P position.	
SFT N -MET	Indicates [ON/OFF] condition of N position.	
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.	
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.	
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.	
S/L RELAY-REQ	ndicates [ON/OFF] condition of steering lock relay.	
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].	
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].	
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.	
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.	
ID OK FLAG	Indicates [SET/RESET] condition of key ID.	
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.	
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.	
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.	
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.	
PRMT RKE STRT	Indicates [ON/OFF] condition of ENGINE START signal from Intelligent Key.	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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Monitor Item	Condition	
RKE OPE COUN2	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.	
REVERSE SW	Indicates [ON/OFF] condition of R position.	

ACTIVE TEST

Test item	Description	
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.	
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT screen is touched.	
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT screen is touched.	
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY" on CONSULT screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT screen is touched.	
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched.	
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.	
LCD	This test is able to check meter display information • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning display when "OUTKEY" on CONSULT screen is touched. • OFF position warning display when "LK WN" on CONSULT screen is touched.	
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT screen is touched.	
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT screen is touched.	
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT screen is touched.	
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.	
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched	
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched	
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.	
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.	
TRUNK/BACK DOOR	This test is able to check trunk opener actuator open operation. This actuator opens when "OPEN" on CONSULT screen is touched.	

THEFT ALM

Revision: June 2012 SEC-245 2011 Altima GCC

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THEFT ALM: CONSULT Function (BCM - THEFT ALM)

INFOID:0000000006928508

WORK SUPPORT

Test Item	Description	
SECURITY ALARM SET This mode is able to confirm and change security alarm ON-OFF setting.		
THEFT ALM TRG	The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching "CLEAR" on CONSULT screen.	

DATA MONITOR

Monitored Item	Description	
REQ SW -DR	Indicates [ON/OFF] condition of front door request switch (driver side).	
REQ SW -AS	Indicates [ON/OFF] condition of front door request switch (passenger side).	
REQ SW -BD/TR	Indicates [ON/OFF] condition of trunk request switch.	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch	
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.	
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.	
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.	
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.	
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.	
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.	
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.	
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.	

ACTIVE TEST

Test item	Operation	Description	
THEFT IND		This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT screen is touched.	
VEHICLE SECURITY HORN		This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.	
HEAD LAMP(HI)		This test is able to check vehicle security lamp operation. The headlamps will be accurated for 0.5 seconds after "ON" on CONSULT screen is touched.	
RH		Outputs the voltage to blink the right side turn signal lamps.	
FLASHER LH Off		Outputs the voltage to blink the left side turn signal lamps.	
		Stops the voltage to turn the turn signal lamps OFF.	

IMMU

IMMU: CONSULT Function (BCM - IMMU)

INFOID:0000000006928509

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

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Monitor item	Content	
CONFRM ID ALL		
CONFIRM ID4		
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.	
CONFIRM ID2	Omicin to [2011_] mish a regiotored intelligent resy to insorted into the key closs	
CONFIRM ID1		
TP 4		
TP 3	Indicates the number of ID which has been registered.	
TP 2		
TP 1		
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	

ACTIVE TEST

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

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U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:0000000006389634

Refer to LAN-6, "System Description".

DTC Logic

DTC DETECTION LOGIC

CONSULT dis- play description	DTC Detection Condition	Possible cause
CAN COMM CIR- CUIT [U1000]	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more	In CAN communication system, any item (or items) of the following listed below is malfunctioning. Transmission Receiving (ECM) Receiving (VDC/TCS/ABS) Receiving (METER/M&A) Receiving (TCM) Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000006389636

1.PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 second or more.
- 2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-7, "CAN Communication Control Circuit".

NO >> Refer to GI-42, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

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U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	ВСМ

Diagnosis Procedure

INFOID:0000000006389638

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-92, "Removal and Installation".

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Revision: June 2012 SEC-249 2011 Altima GCC

B2013 ID DISCORD, IMMU-STRG

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2013 ID DISCORD, IMMU-STRG

Description INFOID:0000000006389639

BCM performs the ID verification with the electronic steering column lock and releases the steering lock if both BCM and electronic steering column lock ID are same. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2013	ID DISCORD, IMMU- STRG	The ID verification results between BCM and steering control unit are NG. The registration is necessary.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Lock steering.
- 2. Press the push-button ignition switch
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-250, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389641

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

Can the system be initialized and can steering lock be released with re-registered Intelligent Key?

YES >> Electronic steering column lock was unregistered.

NO >> Replace electronic steering column lock.

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INFOID:0000000006389644

B2014 CHAIN OF STRG-IMMU

Description INFOID:0000000006389642

BCM performs the ID verification with the electronic steering column lock to release the steering. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2014	CHAIN OF STRG- IMMU	Inactive communication between electronic steering column lock and BCM	Harness or connectors (electronic steering column lock circuit is open or shorted) Electronic steering column lock BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Lock steering.
- 2. Press the push-button ignition switch.
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-251, "Diagnosis Procedure"</u>.

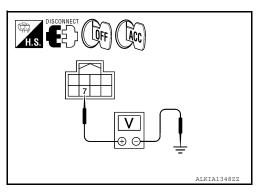
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

$1. {\sf CHECK\ ELECTRONIC\ STEERING\ COLUMN\ LOCK\ POWER\ SUPPLY}$

- Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector.
- Check voltage between electronic steering column lock harness connector and ground while turning ignition switch from OFF to ACC.



Electronic steering column lock		Ground	Ignition switch position	Voltage [V]
Connector	Terminal	Giodila	ignition switch position	voitage [v]
M32	7	Ground	$OFF \to ACC$	Battery voltage
			OFF or ON	0

Is the inspection normal?

Revision: June 2012 SEC-251 2011 Altima GCC

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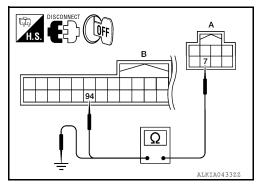
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< DTC/CIRCUIT DIAGNOSIS >

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

$2. \mathsf{CHECK}$ ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- 3. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.



Electronic steering column lock		BCM		Continuity
Connector	Terminal	connector	Terminal	Continuity
A: M32	7	B: M19	94	Yes

4. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M32	7	Ground	No

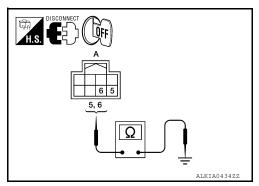
Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3.check electronic steering column lock ground circuit

- 1. Turn ignition switch OFF.
- 2. Check continuity between electronic steering column lock and ground.



Electronic steering column lock		Ground	Continuity
Connector	Terminal	Ground	Continuity
M32	5	Ground	Yes
	6	Giodila	165

Is the inspection normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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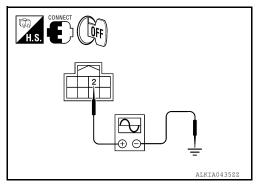
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4. CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION SIGNAL

- 1. Connect electronic steering column lock harness connector.
- 2. Using an oscilloscope, read voltage signal between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Electronic steering col-	Value	
Connector	Terminal	Ground	umn lock condition	value	
			Lock	Battery voltage	
M32	2	Ground	Lock or unlock	(V) 15 10 5 0 MKIA0066GB	
			For 15 seconds after unlock	Battery voltage	
			15 seconds or later after unlock.	0 V	

Steering is locked : Opening the door when ignition switch is ON to OFF.

Steering is unlocked : Ignition switch is OFF to ACC.

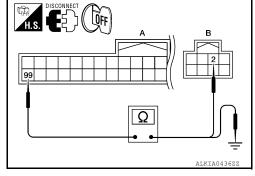
Is the inspection normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

${f 5.}$ CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 3. Check continuity between BCM harness connector M19 (A) terminal 99 and electronic steering column lock harness connector M32 (B) terminal 2.



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B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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В	CM	Electronic stee	ring column lock	Continuity
Connector	Terminal	connector	Terminal	Continuity
A: M19	99	B: M32	2	Yes

4. Check continuity between BCM harness connector M19 (A) terminal 99 and ground.

В	CM	Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	99	Ground	No

Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2108 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

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B2108 STEERING LOCK RELAY

Description INFOID:0000000006389645

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

INFOID:0000000006389646

DTC DETECTION LOGIC

NOTE:

DTC Logic

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2108	STRG LCK RELAY ON	IPDM E/R detects that the relay is stuck at ON position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-255, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000006389647

1.CHECK FUSE

- 1. Turn ignition switch OFF.
- 2. Check 10A fuse (No. 40, located in IPDM E/R).

Is the inspection normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check the following.

- Harness for open or short between IPDM E/R and battery
- Fuse

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Revision: June 2012 SEC-255 2011 Altima GCC

B2109 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2109 STEERING LOCK RELAY

Description INFOID:000000006389648

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2109	STRG LCK RELAY OFF	IPDM E/R detects that the relay is stuck at OFF position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	Harness or connector (power supply circuit) IPDM E/R Battery

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-256, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000006389650

1. CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to PCS-20, "Diagnosis Procedure".

Is the inspection normal?

YES >> GO TO 2.

NO >> Repair the malfunctioning parts

2.CHECK FUSE

- 1. Turn ignition switch OFF.
- Check 10A fuse (No. 40, located in IPDM E/R).

Is the inspection normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check the following.

- Harness for open or short between IPDM E/R and battery
- Fuse

< DTC/CIRCUIT DIAGNOSIS >

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B210A STEERING LOCK CONDITION SWITCH

Description INFOID:0000000000389651

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210A	STRG LCK STATE SW	BCM detects the mismatch between the following for 1 second • Steering lock or unlock • Feedback of steering lock status from IPDM E/R (CAN)	Harness or connectors [electronic steering column lock circuit (BCM side) is open or short- ed] Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-257, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

In which case is DTC detected?

Case1 >> GO TO 2.

Case2 >> GO TO 7.

2. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

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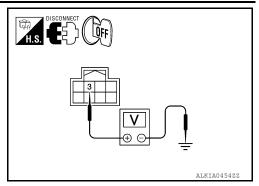
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Revision: June 2012 SEC-257 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

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3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]	
Connector Terminal		Ground	voltage [v]	
M32	3	Ground	Battery voltage	

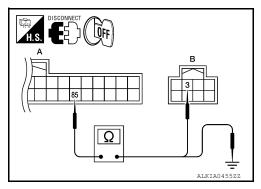
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.check electronic steering column lock circuit-i

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



ВСМ		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

В	CM	Ground	Continuity	
Connector	Terminal	Oround		
A: M19	85	Ground	No	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

- 1. Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

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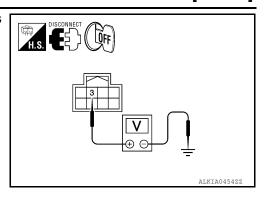
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Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]	
Connector Terminal		Orodria	voitage [v]	
M32	3	Ground	Battery voltage	

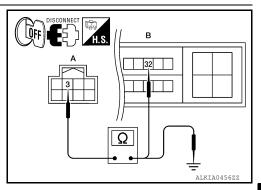
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steel	ring column lock	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	3	B: E18	32	Yes

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic stee	ring column lock	Ground	Continuity
Connector Terminal		Ground	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.

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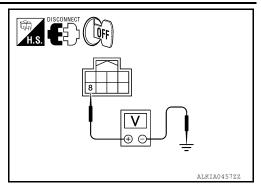
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Revision: June 2012 SEC-259 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

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3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]	
Connector	Terminal	Orouna	voltage [v]	
M32	8	Ground	Battery voltage	

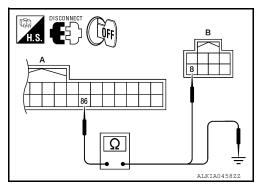
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector M122.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



В	ВСМ		Electronic steering column lock	
Connector	Terminal	Connector Terminal		Continuity
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

В	CM	Ground	Continuity	
Connector	Terminal	Oround		
A: M19	86	Ground	No	

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

< DTC/CIRCUIT DIAGNOSIS >

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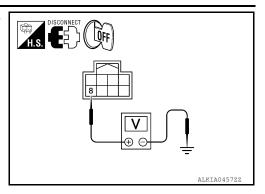
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 Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]	
Connector	Terminal	Ground	voitage [v]	
M32	8	Ground	Battery voltage	

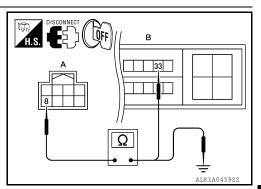
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steel	Electronic steering column lock		IPDM E/R	
Connector	Terminal	Connector Terminal		Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: M32 8		Ground	No	

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-261 2011 Altima GCC

B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B210B STARTER CONTROL RELAY

Description INFOID:000000006389654

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210B	START CONT RLY ON	 IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input signal 	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-262, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389656

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-29, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer PCS-45, "Removal and Installation".

NO >> Inspection End.

B210C STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

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B210C STARTER CONTROL RELAY

Description INFOID:0000000006389657

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC Logic INFOID:0000000006389658

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210C	START CONT RLY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input signal	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn the power supply position to start under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-263, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

1.INSPECTION START

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Touch "ERASE". 3.
- **Perform DTC Confirmation Procedure.**

See PCS-29, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Inspection End.

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INFOID:0000000006389662

B210D STARTER RELAY

Description INFOID:000000006389660

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to <u>SEC-336</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210D	STARTER RELAY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-264, "Diagnosis Procedure".

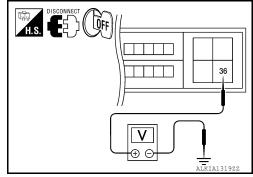
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to PCS-128, "Wiring Diagram - Sedan".

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.



B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

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IPDM E/R		Ground	Voltage (V)	
Connector	Connector Terminal		voltage (v)	
E18 36		Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check harness for open or short between IPDM E/R and battery.

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[SEDAN]

INFOID:0000000006389665

B210E STARTER RELAY

Description INFOID.000000006389663

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210E	STARTER RELAY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-266, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2. M/T >> GO TO 3.

2.CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

- 1. Turn ignition switch OFF.
- Disconnect BCM harness connector.

B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

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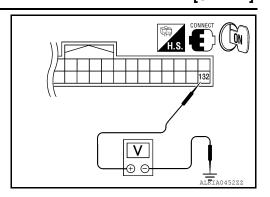
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Check voltage between BCM harness connector and ground.



BCM connector				Condition		
Connector	Terminal	Ground	Ignition switch	Brake pedal	CVT selector lever	Voltage (V)
					P or N	Battery voltage
M21	132	Ground	ON	Depressed	Other than above	0

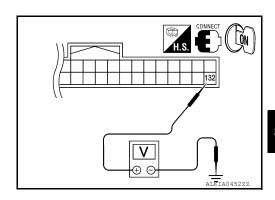
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

$3.\mathsf{CHECK}$ STARTER RELAY OUTPUT SIGNAL / M/T MODELS

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



ВСМ с	onnector	Ground		Voltage (V)	
Connector	Terminal	Ground	Ignition switch	Clutch pedal	vollage (v)
M21	122	Ground	OFF	Not depressed	0
IVIZ I	132	132 Ground		Depressed	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R harness connector.

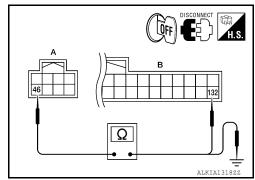
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2. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDI	IPDM E/R		BCM		
Connector	Terminal	Connector Terminal		Continuity	
A: E17	46	B: M21	132	Yes	

3. Check continuity between BCM harness connector and ground.

IPDI	M E/R	Ground	Continuity	
Connector	Terminal	Glound	Continuity	
A: E17	46	Ground	No	

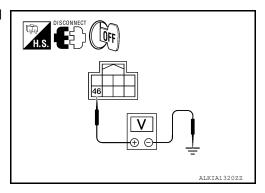
Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness connector.

5. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.



IPDN	M E/R	Ground	Voltage (V)	
Connector	Terminal	Ground		
E17	46	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Check harness for open or short between IPDM E/R and battery.

< DTC/CIRCUIT DIAGNOSIS >

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389666

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch interlock switch (M/T models)
- · Shift position signal from BCM (CAN)

DTC Logic INFOID:0000000006389667

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic"
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-248, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANS- MISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models) • Shift position signal from BCM (CAN)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch interlock switch (M/T models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-269, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2.

M/T >> GO TO 5.

2 .CHECK DTC WITH BCM

Refer to BCS-67, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.
- 4. Check voltage between IPDM E/R harness connector and ground under following condition.

IPDM E/R		Ground	0	condition	Voltage (V)	
Connector	Terminal	Glound	Condition		Voltage (V)	
E18	30	Ground	CVT selector lever	P or N	0	
£10	30	Ground	CV i selector level	Other than above	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 4 (VQ35DE). NO >> GO TO 10 (QR25DE).

4.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TO	CM	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	E18	72	Yes
F25 (QR25DE)	2	L 10	12	165

4. Check continuity between TCM harness connector and ground.

Т	CM	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F16 (VQ35DE)	20	Ground	No	
F25 (QR25E)	2	Ground	140	

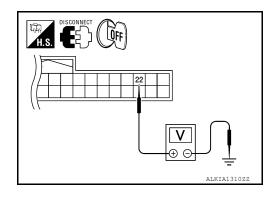
Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

5.check clutch interlock switch input signal (BCM)

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- Check voltage between BCM harness connector and ground.



< DTC/CIRCUIT DIAGNOSIS >

BCM		Ground		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition		vollage (v)	
M18	22	22 Ground CI		Not depressed	0	
WITO	22	Glound	Clutch pedal	Depressed	Battery voltage	

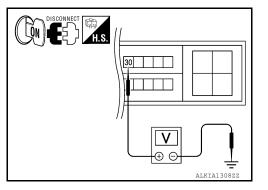
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 11.

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Turn ignition switch ON.
- Check voltage between IPDM E/R harness connector and ground.



IPDM E/R		Ground C		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition		voltage (v)	
E18 30 Ground		Ground	Ground Clutch pedal	Not depressed	0	
	30	Ground	Ciulcii pedai	Depressed	Battery voltage	

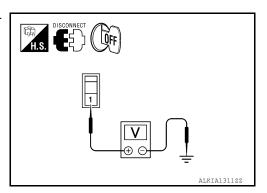
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 7.

7.check clutch interlock switch power supply

- Disconnect clutch interlock switch harness connector.
- Check voltage between clutch interlock switch harness connector and ground.



Clutch inte	rlock switch	Ground	Voltage (V)	
Connector	Connector Terminal		Voltage (V)	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

SEC-271 Revision: June 2012 2011 Altima GCC SEC

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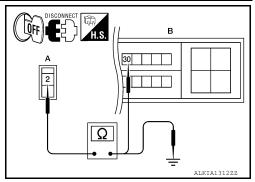
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< DTC/CIRCUIT DIAGNOSIS >

8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch inte	Clutch interlock switch		IPDM E/R		
Connector	Terminal	Connector	Terminal Cor		
A: E36	2	B: E18	30	Yes	

2. Check continuity between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch	Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: E36	2	Ground	No	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-273, "Component Inspection".

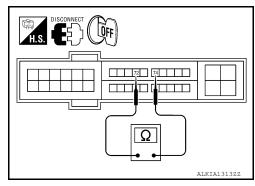
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Replace clutch interlock switch.

10. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

- Turn ignition switch OFF.
- Check continuity between IPDM E/R harness connector terminals 72 and 74.



	IPDM E/R		Condition		Continuity
Connector	Terminals				
F10	F10 72	74	Transmission range	P or N	Yes
1 10	12	74	switch position	Other	No

Is the inspection result normal?

YES >> GO TO 11. NO >> GO TO 12.

< DTC/CIRCUIT DIAGNOSIS >

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

IPDM E/R		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F10	72	Ground	No	
1 10	74	Ground	INU	

72 74 72,74 Ω

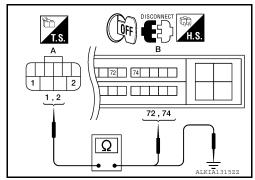
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- Disconnect transmission range switch harness connector.
- Check continuity between transmission range switch and IPDM E/R harness connectors.



Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F25	1	B: F10	74	Yes
A. F25	2	B.1 10	72	163

Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity	
Connector	Terminal	Giouna	Continuity	
A: F25	1	Ground	No	
A. F25	2	Giouria	INU	

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK CLUTCH INTERLOCK SWITCH

- Turn ignition switch OFF.
- Disconnect clutch interlock switch harness connector.

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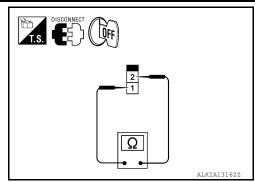
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< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

 Check continuity between clutch interlock switch under the following conditions.



	interlock vitch	C	endition Continuity		
Teri	minal				
1	2	Clutch pedal	Not depressed	No	
'	1 2	2 Clutch pedal		Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

< DTC/CIRCUIT DIAGNOSIS >

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389670

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch inter lock switch (M/T models)
- · Shift position signal from BCM (CAN)

DTC Logic INFOID:0000000006389671

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic",
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift NP switch input signal (CVT models)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch inter lock switch (M/T models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn the ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YFS >> Go to SEC-275, "Diagnosis Procedure".

>> Inspection End. NO

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2.

M/T >> GO TO 5.

2. CHECK DTC WITH BCM

Refer to BCS-67, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

 ${f 3.}$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF. Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.
- 4. Check voltage between IPDM E/R harness connector and ground under following condition.

IPDI	M E/R	Ground	0	condition	Voltage (V)	
Connector	Terminal	Glound	Condition		voltage (v)	
E18	30	Ground	CVT selector lever	P or N	0	
£10	30	Ground	Ground	CV i selector level	Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 4 (VQ35DE). NO >> GO TO 10 (QR25DE).

4.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	E18	72	Yes
F25 (QR25DE)	2	L 10	12	165

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2	Ground	NO

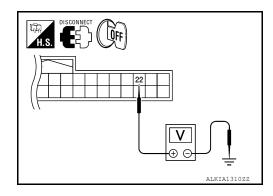
Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

5.check clutch interlock switch input signal (BCM)

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- Check voltage between BCM harness connector and ground.



< DTC/CIRCUIT DIAGNOSIS >

В	СМ	Ground	Condition		Voltage (V)
Connector	Terminal	Ground			voilage (v)
M18	22	Ground	Clutch pedal	Not depressed	0
IVI IO	22	Ground	Oluton pedal	Depressed	Battery voltage

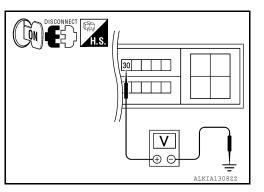
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 11.

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Turn ignition switch ON.
- Check voltage between IPDM E/R harness connector and ground.



IPD	M E/R	Ground		Condition	Voltage (V)
Connector	Terminal	Ground	Condition		voitage (v)
E18	E18 30 Ground	Clutch nedal	Not depressed	0	
	30	Ground	nd Clutch pedal	Depressed	Battery voltage

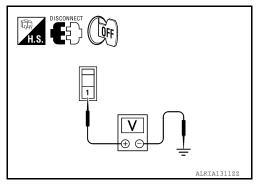
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> GO TO 7.

7.check clutch interlock switch power supply

- Disconnect clutch interlock switch harness connector.
- Check voltage between clutch interlock switch harness connector and ground.



Clutch interlock switch		Ground	Voltage (V)	
Connector	Terminal	Ground	voltage (v)	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

SEC-277 Revision: June 2012 2011 Altima GCC SEC

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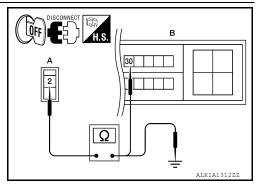
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< DTC/CIRCUIT DIAGNOSIS >

8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch inte	rlock switch	IPDI	M E/R	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E36	2	B: E18	30	Yes

2. Check continuity between clutch interlock switch harness connector and ground.

Clutch interlock switch		Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: E36	2	Ground	No	

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-279, "Component Inspection".

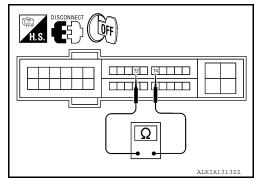
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Replace clutch interlock switch.

10. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

- Turn ignition switch OFF.
- Check continuity between IPDM E/R harness connector terminals 72 and 74.



IPDM E/R		Condition		Continuity		
Connector	Terr	ninals	Condition		Continuity	
F10	72	74	Transmission range	P or N	Yes	
1 10	12	74	switch position	Other	No	

Is the inspection result normal?

YES >> GO TO 11. NO >> GO TO 12.

< DTC/CIRCUIT DIAGNOSIS >

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

IPDM E/R		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F10	72	Ground	No	
1 10	74	Ground	Ground	140

72 74 72,74 Ω

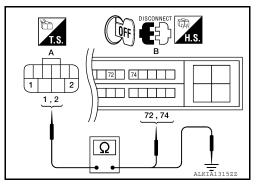
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- Disconnect transmission range switch harness connector.
- Check continuity between transmission range switch and IPDM E/R harness connectors.



Transmission	range switch	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F25	1	B: F10	74	Yes
A. F25	2	D.110	72	163

Check continuity between transmission range switch harness connector and ground.

Transmission range switch		Ground	Continuity	
Connector	Terminal	Giouna	Continuity	
A: F25	1	Ground	No	
	2	Giouria	INU	

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK CLUTCH INTERLOCK SWITCH

- Turn ignition switch OFF.
- Disconnect clutch interlock switch harness connector.

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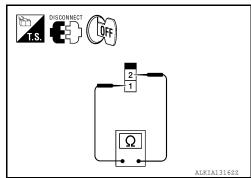
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INFOID:0000000006389673

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

 Check continuity between clutch interlock switch under the following conditions.



	interlock vitch	Condition		Condition Continuity		Continuity
Teri	minal					
1	2	Clutch pedal Not depressed		No		
'	1 2	Ciulcii pedai	Depressed	Yes		

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

B2190, P1610 NATS ANTENNA AMP [SEDAN] < DTC/CIRCUIT DIAGNOSIS > B2190, P1610 NATS ANTENNA AMP Α Description INFOID:0000000006389674 Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. В Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used. DTC Logic INFOID:0000000006389675 DTC DETECTION LOGIC Trouble diagnosis D DTC No. DTC detecting condition Possible cause name B2190 · Harness or connectors (The key slot circuit is open or Е NATS ANTENNA Inactive communication between key slot and shorted) **AMP** BCM. P1610 · Key slot • BCM DTC CONFIRMATION PROCEDURE ${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE Insert Intelligent Key into the key slot. Check "Self diagnostic result" with CONSULT. Is DTC detected? Н YES >> Go to SEC-281, "Diagnosis Procedure". NO >> GO TO 2. 2.perform dtc confirmation procedure Press the push-button ignition switch. Check "Self diagnostic result" with CONSULT. Is DTC detected? YES >> Go to SEC-281, "Diagnosis Procedure". >> Inspection End. NO **SEC** Diagnosis Procedure INFOID:0000000006389676 Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram". 1. INSPECTION START M Check the case in which DTC is detected. · Case1: It is detected when Intelligent Key is inserted into key slot. Case2: It is detected after Intelligent Key is inserted into key slot and push-button ignition switch is pressed. Ν In which case is DTC detected? Case1. >> GO TO 2. Case2. >> GO TO 4. 2.CHECK KEY SLOT INPUT SIGNAL

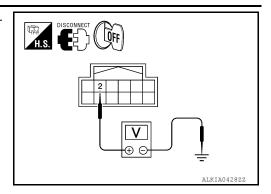
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Turn ignition switch OFF.

Disconnect key slot harness connector.

[SEDAN]

3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Voltage [V]	
Connector	Terminal	Oround	(approx.)	
M40	2	Ground	Battery voltage	

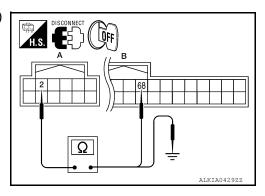
Is the inspection result normal?

YES >> Replace key slot.

NO >> GO TO 3.

3. CHECK KEY SLOT CIRCUIT

- 1. Disconnect BCM harness connector.
- 2. Check continuity between key slot harness connector M40 (A) terminal 2 and BCM harness connector M19 (B) terminal 68.



Key	y slot	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M40	2	B: M19	68	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 2 and ground.

Key slot		Ground	Continuity	
Connector	Terminal	Oround	Continuity	
A: M40	2	Ground	No	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

4. CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

Press push-button ignition switch and check if it turns ON.

Does ignition switch turn to ON?

YES >> GO TO 5. NO >> GO TO 7.

5. CHECK KEY SLOT COMMUNICATION SIGNAL

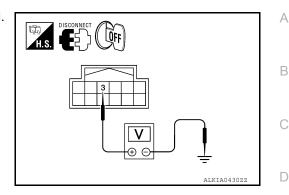
1. Turn ignition switch OFF.

B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

- Disconnect key slot harness connector.
- 3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal	Ordana	Continuity
M40	3	Ground	Yes

Is the inspection result normal?

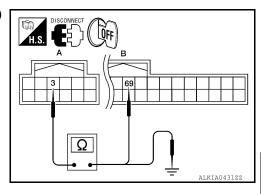
YES >> Replace key slot.

NO >> GO TO 6.

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

1. Disconnect BCM harness connector.

2. Check continuity between key slot harness connector M40 (A) terminal 3 and BCM harness connector M19 (B) terminal 69.



Key	slot	ВСМ		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
A: M40	3	B: M19	69	Yes	

3. Check continuity between key slot harness connector M40 (A) terminal 3 and ground.

Key slot		Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M40	3	Ground	No

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

.CHECK KEY SLOT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot harness connector.

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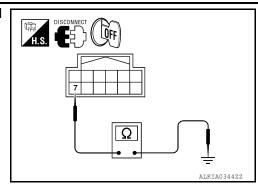
Revision: June 2012 SEC-283 2011 Altima GCC

B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check continuity between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal	Oround	Continuity
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2191, P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

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INFOID:0000000006389679

B2191, P1615 DIFFERENCE OF KEY

Description INFOID:0000000006389677

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

DTC Logic INFOID:0000000006389678

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF	The ID verification results between BCM and Intel-	Intelligent Key
P1615	KEY	ligent Key are NG. The registration is necessary.	- Intelligent Ney

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Insert the Intelligent Key in the key slot. Press the push-button ignition switch.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-285, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual.

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

>> Intelligent Key was unregistered. YES

NO

- BCM is malfunctioning.
- Replace BCM
- · Perform initialization again

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SEC-285 Revision: June 2012 2011 Altima GCC

B2192, P1611 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2192, P1611 ID DISCORD, IMMU-ECM

Description INFOID:0000000006389680

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

DTC Logic INFOID:0000000006389681

DTC DETECTION LOGIC

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-	The ID verification results between BCM and ECM	• BCM
P1611	ECM	are NG. The registration is necessary.	• ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Go to SEC-286, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389682

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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

YES >> ID was unregistered.

>> BCM is malfunctioning. NO

- - Replace BCM
 - · Perform initialization again
 - Replace ECM

B2193, P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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B2193, P1612 CHAIN OF ECM-IMMU

Description INFOID:0000000006389683

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

DTC Logic

DTC DETECTION LOGIC

NOTE:

 If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".

• If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193			Harness or connectors
P1612	CHAIN OF ECM- IMMU	Inactive communication between ECM and BCM	(The CAN communication line is open or shorted)BCMECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-287</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

1.REPLACE BCM

- 1. Replace BCM.
- Perform initialization with CONSULT. For initialization, refer to "CONSULT Operation Manual".

Does the engine start?

YES >> BCM is malfunctioning.

- Replace BCM.
- · Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

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INFOID:0000000006389685

Revision: June 2012 SEC-287 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2195 ANTI-SCANNING

Description INFOID.0000000006389686

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2195	ANTI-SCANNING	ID verification between BCM and ECM that is out of the specified specification is detected	ID verification request out of the specified specification

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions.
- CVT shift selector lever is in the P or N position
- Do not depress brake pedal
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-288</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389688

1. CHECK SELF-DIAGNOSTIC RESULT-1

- 1. Perform "Self-diagnostic result" of BCM using CONSULT.
- Erase DTC.
- Perform DTC Confirmation Procedure. Refer to SEC-288, "DTC Logic".

Is DTC B2195 detected?

YES >> GO TO 2.

NO >> Inspection End

2. CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3

NO >> Replace BCM. Refer to BCS-92, "Removal and Installation".

3.CHECK SELF-DIAGNOSTIC RESULT-2

- Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
- Perform "Self-diagnostic result" of BCM using CONSULT.
- 3. Erase DTC.
- Perform DTC Confirmation Procedure. Refer to SEC-288, "DTC Logic".

Is DTC B2195 detected?

YES >> Replace BCM, Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

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INFOID:0000000006931290

B2555 STOP LAMP

Description INFOID:0000000006931288

BCM detects the stop lamp status and confirms the stop lamp switch ON/OFF status. BCM confirms the engine start condition according to the stop lamp switch ON/OFF status.

DTC Logic INFOID:0000000006931289

DTC DETECTION LOGIC

DTC	CONSULT	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. The BCM then judges from their values to detect the malfunctioning circuit.	FuseStop lamp switchStop lamp relay-1 (with CVT)Harness or connectors

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- Depress the brake pedal and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

>> Refer to SEC-289, "Diagnosis Procedure (With CVT)" or SEC-291, "Diagnosis Procedure (With YES

NO >> Inspection End.

Diagnosis Procedure (With CVT)

Regarding Wiring Diagram information, refer to SEC-181, "Wiring Diagram".

1.CHECK FUSE

Check 10A fuse [No.7, located in fuse block (J/B)].

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect BCM harness connector.
- Check voltage between BCM harness connector M18 terminal 26 and ground.

В	BCM		Stop lamp	Voltage [V]
Connector	Terminal	Ground	switch position	voitage [v]
M18	26	Ground	Depressed	Battery voltage
IVITO	20	Giouna	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> GO TO 3.

3.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

Check voltage between stop lamp harness connector E38 terminal 2 and ground.

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Stop lamp switch		Ground	Stop lamp	Voltage [V]
Connector	Terminal	Giodila	switch position	voitage [v]
E38	2	Ground	Depressed	Battery volt- age
			Released	0

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 9.

4. CHECK STOP LAMP RELAY-1 SIGNAL CIRCUIT

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 1 and ground.

Stop lamp relay-1		Ground	Stop lamp	Voltage [V]
Connector	Terminal	Oround	switch position	voitage [v]
E57	1	Ground	Depressed	Battery voltage
LJI		Ground	Released	0

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check harness for open or short between stop lamp relay-1 connector and stop lamp switch. Repair or replace necessary parts.

5. CHECK STOP LAMP RELAY-1 POWER SUPPLY

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 5 and ground.

Stop lam	np relay-1	Ground	Voltage
Connector	Terminal	Giodila	voltage
E57	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 6.

NO >> Check pin terminals and connection of stop lamp relay-1 harness connector and harness for abnormal conditions. Repair or replace necessary parts.

6.CHECK STOP LAMP RELAY-1 GROUND CIRCUIT

- 1. Disconnect stop lamp relay-1 E-57 connector.
- 2. Check continuity between stop lamp relay-1 harness connector E57 terminal 2 and ground.

Stop lam	np relay-1	Ground	Continuity
Connector	Connector Terminal		Continuity
E57	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair harness or connector.

7.CHECK STOP LAMP RELAY-1 OUTPUT CIRCUIT

- Connect stop lamp relay-1 E-57 connector.
- 2. Check voltage between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Stop lamp	Voltage [V]
Connector	Terminal	Oround	switch position	voltage [v]
F57	3	Ground	Depressed	Battery voltage
	3	Giodila	Released	0

B2555 STOP LAMP

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the inspection		mal?			
) TO 8.) TO 10.				
3.CHECK STO		WITCH CIRC	'I IIT		
				naaa aannaata	TET terminal 2 and DOM horness connec
tor M18 ter		en stop lamp	relay-i nar	ness connecto	or E57 terminal 3 and BCM harness connec-
Stop lamp	relay-1	В	CM	Continuity	_
Connector	Terminal	Connector	Terminal	Continuity	
E57	3	M18	26	Yes	_
. Check cont	tinuity betwe	een stop lam	relay-1 har	ness connecto	or E57 terminal 3 and ground.
					_
	mp relay-1		Ground	Continuity	
Connector	Termi				_
E57	3		Ground	No	_
the inspection		mal?			
) TO 11.	o or oomest-			
	•	s or connecto	и.		
CHECK STO		WIICH			
N. C L. OEO O					
	•	onent Inspect	ion".		
s the inspection	n result nori	mal?			
s the inspection YES >> Rep	n result nori pair or repla	mal? ace harness b) lamp switch a	and fuse block J/B.
s the inspection YES >> Rep NO >> Rep	n result nor pair or repla place stop l	mal? ace harness b amp switch.		o lamp switch a	and fuse block J/B.
s the inspection YES >> Rep NO >> Rep 10.CHECK S	n result non pair or repla place stop la TOP LAMP	mal? ace harness b amp switch. RELAY-1	etween stop	o lamp switch a	and fuse block J/B.
s the inspection YES >> Rep NO >> Rep 10.CHECK S Refer to SEC-2	n result nom pair or repla place stop la TOP LAMP 92, "Compo	mal? ace harness b amp switch. RELAY-1 onent Inspect	etween stop	o lamp switch a	and fuse block J/B.
s the inspection YES >> Rep NO >> Rep 10.CHECK S Refer to SEC-2 s the inspection	n result nori pair or repla place stop la TOP LAMP 92, "Compo n result nori	mal? ace harness b amp switch. RELAY-1 onent Inspect	etween stop	o lamp switch a	and fuse block J/B.
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< DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between BCM harness connector and ground.

В	BCM		Stop lamp	Voltage [V]
Connector	Terminal	Ground	switch position	voitage [v]
M18	26	Ground	Depressed	Battery volt- age
			Released	0

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Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-92, "Removal and Installation"</u>

NO >> GO TO 2

2.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- 1. Disconnect stop lamp switch harness connector.
- 2. Check voltage between stop lamp harness connector and ground.

Stop lan	np switch	Ground	Voltage [V]
Connector	Connector Terminal		voitage [v]
E38	E38 1		Battery voltage

Is the inspection result normal?

YES >> GO TO 3

NO >> Check harness for open or short between stop lamp switch and fuse.

3.CHECK STOP LAMP SWITCH CIRCUIT

Check continuity between stop lamp switch harness connector E38 terminal 2 and BCM harness connector M18 terminal 26.

Stop lamp	Stop lamp switch		BCM		
Connector	Terminal	Connector	Terminal	Continuity	
E38	2	M18	26	Yes	

2. Check continuity between stop lamp switch harness connector E38 terminal 2 and ground.

Stop lan	np switch	Ground	Continuity
Connector	Connector Terminal		Continuity
E38	2	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STOP LAMP SWITCH

Refer to SEC-292, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000006931292

STOP LAMP SWITCH

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

1. CHECK STOP LAMP SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect stop lamp switch harness connector E38.
- Check continuity between stop lamp switch terminals 1 and 2 under the following conditions.

Stop lamp switch		Condition		Continuity	
Terminal			Condition		
1	2 Brake pedal –	Brake nedal	Released	No	
		Depressed	Yes		

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp switch.

STOP LAMP RELAY-1

1. CHECK STOP LAMP RELAY-1

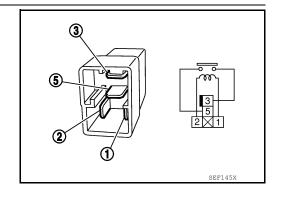
Check continuity between stop lamp relay-1 terminals 3 and 5.

Condition	Continuity
Apply battery voltage between terminals 1 and 2	Yes
No voltage supplied	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp relay-1.



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SEC-293 Revision: June 2012 2011 Altima GCC

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INFOID:0000000006389695

B2556 PUSH-BUTTON IGNITION SWITCH

Description INFOID.000000006389693

The switch that changes the power supply position. BCM maintains the power supply position status. BCM changes the power supply position with the operation of the push-button ignition switch.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IG- NITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more	 Harness or connectors (Push-button ignition switch circuit is shorted.) Push-button ignition switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine and wait for at least 100 seconds.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-294</u>, "<u>Diagnosis Procedure</u>".

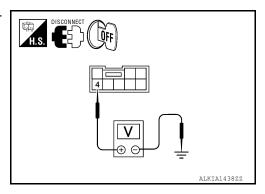
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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



Push-button	ignition switch	Ground	Voltage [V]
Connector Terminal		Ground	voltage [v]
M38	4	Ground	Battery voltage

Is the inspection normal?

YES >> GO TO 2.

NO >> GO TO 4.

2. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-339, "Diagnosis Procedure".

B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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Is the inspection normal?

YES >> GO TO 3.

NO >> Replace push-button ignition switch. Refer to <u>SEC-444, "Removal and Installation"</u>.

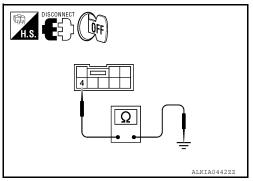
3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

4. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

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



Push-button	ignition switch	Ground	Continuity
Connector	Terminal		
M38	4	Ground	No

Is the inspection normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

Component Inspection

INFOID:0000000006389696

1. CHECK PUSH-BUTTON IGNITION SWITCH

- Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch harness connector.
- Check continuity between push-button ignition switch terminals under the following conditions.

Push-button	ignition switch	Condition	Continuity
Terminal		Condition	Continuity
1	1	Pressed	Yes
<u>'</u>	4	Not pressed	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to <u>SEC-444, "Removal and Installation"</u>.

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Revision: June 2012 SEC-295 2011 Altima GCC

B2557 VEHICLE SPEED

Description INFOID:000000006389697

BCM receives the 2 vehicle speed signals via CAN communication. 1 signal is transmitted by the "unified meter" Another signal is transmitted by "ABS actuator and electric unit (control unit)". BCM compares both signals to detect the 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 SEC-248, "DTC Logic".
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2557	VEHICLE SPEED	BCM detects the following difference between the vehicle speed from "unified meter" and the one from "ABS actuator and electric unit" for 10 seconds continuously One is 10km/h or more and the other is 4km/h or less.	Wheel sensor Unified meter ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Drive the vehicle at the vehicle speed of 10 km/h or more and wait for at least 10 seconds.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-296, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389699

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

Check "Self diagnostic result" with CONSULT. Refer to <u>BRC-45, "DTC No. Index"</u> (ABS), <u>BRC-115, "DTC No. Index"</u> (TCS/ABS) or <u>BRC-220, "DTC No. Index"</u> (VDC/TCS/ABS).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK COMBINATION METER.

Check combination meter. Refer to MWI-4, "Work Flow".

>> Inspection End.

B2560 STARTER CONTROL RELAY [SEDAN] < DTC/CIRCUIT DIAGNOSIS > **B2560 STARTER CONTROL RELAY** Α Description INFOID:0000000006389700 Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay. DTC Logic INFOID:0000000006389701 DTC DETECTION LOGIC NOTE: If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to D SEC-248, "DTC Logic". If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic". Е DTC Self-diagnosis name DTC detecting condition Possible causes BCM detects a mismatch between the OFF re-STARTER CONTROL B2560 quest of starter control relay to IPDM E/R and the IPDM E/R **RELAY** feedback. (The feedback is ON instead of OFF.) DTC CONFIRMATION PROCEDURE 1. PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON under the following conditions and wait for at least 2 seconds. Н CVT selector lever is in the P position Depress the brake pedal Check "Self diagnostic result" with CONSULT. Is DTC detected? YES >> Go to SEC-297, "Diagnosis Procedure". >> Inspection End. Diagnosis Procedure INFOID:0000000006389702 1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC_Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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SEC-297 Revision: June 2012 2011 Altima GCC

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B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2601 SHIFT POSITION

Description INFOID:000000006389703

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P position signal from IPDM E/R (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to <u>SEC-310, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2601	SHIFT POSITION	BCM detects when a difference between the shift P input signal and the shift position signal received from IPDM E/R via CAN communication continues for 2 seconds or more	Harness or connectors (CVT shift selector circuit is open or shorted.) CVT shift selector (park position switch)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.
- 3. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
- CVT selector lever is in other than P position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-298</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389705

Regarding Wiring Diagram information, refer to <a>SEC-427, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

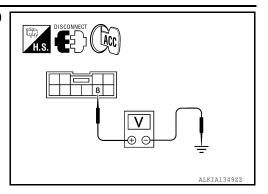
- Turn ignition switch to ACC.
- Disconnect CVT shift selector (park position switch) harness connector.

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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



CVT shift selector (park position switch)	Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

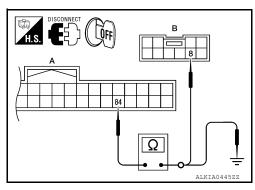
Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



В	BCM CVT shift selector (park position switch)			Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

В	CM	Ground	Continuity	
Connector Terminal		Ground	Continuity	
A: M19	84	Ground	No	

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair harness or connector.

3.check cvt shift selector circuit (BCM)

1. Disconnect BCM harness connector and IPDM E/R harness connector.

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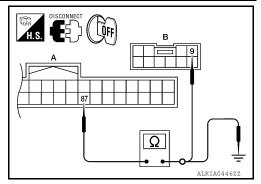
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< DTC/CIRCUIT DIAGNOSIS >

Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



В	ВСМ		CVT shift selector (park position switch)	
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

В	BCM		Continuity	
Connector	Terminal	Ground	Continuity	
A: M19	87	Ground	No	

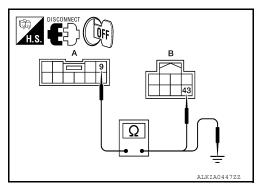
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT (IPDM E/R)

- 1. Disconnect BCM harness connector.
- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and IPDM E/R harness connector E17 (B) terminal 43.



CVT shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		
A: M23	9	B: E17	43	Yes

Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and ground.

	CVT shift selector (park position switch)		Continuity	
Connector	Terminal			
A: M23	9	Ground	No	

Is the inspection result normal?

YES >> GO TO 5.

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

INFOID:0000000006389706

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NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-301, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to <u>TM-240, "Removal and Installation"</u> (RE0F09B), or <u>TM-404, "Removal and Installation"</u> (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

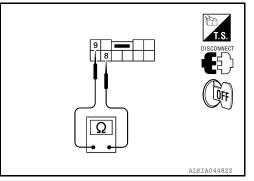
Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

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



	or (park position itch)	Condition		Continuity
Terr	minal			-
8	9	CVT selector lever		No
	9	OVI SCIECIOI IEVEI	Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to <u>TM-240, "Removal and Installation"</u> (RE0F09B), or <u>TM-404.</u> "Removal and Installation" (RE0F10A).

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Revision: June 2012 SEC-301 2011 Altima GCC

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

INFOID:0000000006389709

B2602 SHIFT POSITION

Description INFOID:000000006389707

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Shift position is in P position • Vehicle speed is 4km/h (2 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CVT drive circuit is open or shorted) CVT shift selector (park position switch) Combination meter

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 10 seconds.
- CVT selector lever is in the P or N position
- Depress the brake pedal.
- Drive the vehicle for at least 10 seconds at a speed greater than 4 km/h (2 MPH).
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-302, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-427, "Wiring Diagram".

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT. Refer to MWI-47, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2. CHECK CVT SHIFT SELECTOR POWER SUPPLY

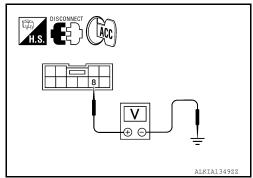
- Turn ignition switch to ACC.
- Disconnect CVT shift selector (park position switch) harness connector.

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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



CVT shift selector (park position switch)	Ground	Voltage [V]	
Connector	Terminal	Oround	voltage [v]	
M23	8	Ground	Battery voltage	

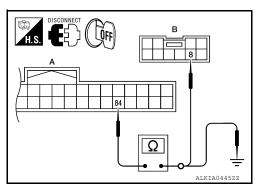
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3.}$ CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



В	ВСМ		CVT shift selector (park position switch)	
Connector	Terminal	Connector Terminal		Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: M19	84	Ground	No	

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

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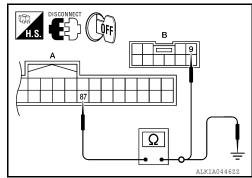
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2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.



В	BCM		CVT shift selector (park position switch)	
Connector	Terminal	Connector Terminal		Continuity
A: M19	87	B: M23	9	Yes

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

BCM		Ground	Continuity	
Connector	Terminal	Oround		
A: M19	87	Ground	No	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-301, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to <u>TM-240, "Removal and Installation"</u> (RE0F09B), or <u>TM-404, "Removal and Installation"</u> (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

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B2603 SHIFT POSITION STATUS

Description INFOID:0000000006389710

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic INFOID:0000000006389711

DTC DETECTION LOGIC

NOTE:

 If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic"

 If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2603	SHIFT POSITION STATUS	BCM detects the followings status for 500 ms or more when shift is in P position and, ignition switch is in ON position. • Transmission range switch: approx. 0V • CVT shift selector (park position switch): approx 0V	Harness or connector (CVT shift selector circuit is open or shorted.) Harness or connectors [Transmission range switch circuit is open or shorted.] CVT shift selector (park position switch) Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

Start the engine under the following conditions and wait for at least 1 second.

- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- Shift to N and wait for at least 1 second.
- Shift to any gear other than P or N and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-305, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

Revision: June 2012

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector. 2.
- 3. Check continuity between TCM harness connector terminal and BCM harness connector M18 terminal

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2011 Altima GCC

SEC-305

B2603 SHIFT POSITION STATUS

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TO	CM	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	- IVITO	40	165

4. Check continuity between TCM harness connector terminal and ground.

TCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
F16 (VQ35DE)	20	Ground	No	
F25 (QR25DE)	2	Giouna	INU	

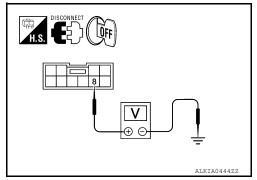
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect CVT shift selector (park position switch) harness connector.
- 3. Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M23	8	Ground	Battery voltage

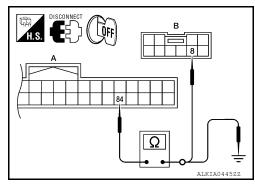
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- 1. Disconnect BCM harness connector.
- 2. Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



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В	СМ	CVT shift selector (park position switch)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal	Oround	
A: M19	84	Ground	No

Is the inspection result normal?

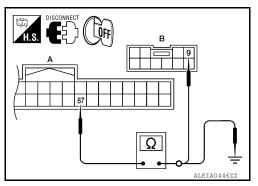
YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

CHECK CVT SHIFT SELECTOR CIRCUIT

Disconnect BCM harness connector.

Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



В	СМ		ft selector tion switch)	Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity
Connector	Terminal	Ordana	Continuity
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK CVT SHIFT SELECTOR

Refer to SEC-301, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace CVT shift selector. Refer to TM-240, "Removal and Installation" (RE0F09B), or TM-404, "Removal and Installation" (RE0F10A).

7.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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SEC-307 Revision: June 2012 2011 Altima GCC

B2604 PNP SWITCH

Description INFOID:000000006389713

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- · P/N position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	PNP SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. P/N switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear. P/N switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch TCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 1 seconds.
- CVT selector lever is in the P position
- Do not depress the brake pedal
- 2. Use CVT selector lever to select each gear one at a time. Wait at each gear for at least 1 second.
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-308, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389715

Regarding Wiring Diagram information, refer to <a>SEC-399, "Wiring Diagram".

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT. Refer to <u>TM-196, "DTC Index"</u> (RE0F09B) or <u>TM-359, "DTC Index"</u> (RE0F10A).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.check transmission range switch circuit

- Turn ignition switch OFF.
- 2. Disconnect TCM harness connector and BCM harness connector.
- 3. Check continuity between TCM harness connector and BCM harness connector.

B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

TC	М	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	WITO	40	163

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4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
F16 (VQ35DE)	20	Ground	No
F25 (QR25DF)	2	Ground	INO

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2605 PNP SWITCH

Description INFOID:000000006389716

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- P/N position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	PNP SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in ON position N position input signal exists. Shift position signal from IPDM E/R does not exist. N position input signal does not exist. Shift position signal from IPDM E/R exists. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 seconds.
- CVT selector lever is in the P or N position
- Do not depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-310, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389718

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.
- 3. Check continuity between TCM connector and BCM harness connector.

B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

TC	CM	ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2	- WHO	40	105

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity	
Connector	Terminal	Giodila		
F16 (VQ35DE)	20	Ground	No	
F25 (QR25DE)	2	Giouna	INO	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2606 STEERING LOCK RELAY

Description INFOID:000000006389715

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to <u>SEC-248, "DTC Logic"</u>.
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2606	STEERING LOCK RELAY	BCM detects that there is a mismatch between the following statuses. Electronic steering column lock ON signal transmitted by IPDM E/R The electronic steering column lock status feedback	Steering lock relay (in IPDM E/R)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress the brake pedal.
- 2. Steering is locked.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-312, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389721

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2607 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

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B2607 STEERING LOCK RELAY

Description INFOID:0000000006389722

BCM requests to IPDM E/R to supply power to electronic steering column lock. IPDM E/R sends status of electronic steering column lock back to BCM.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	BCM detects that there is a difference between the following statuses. BCM request for electronic steering column lock power supply (ON/OFF) IPDM E/R status of electronic steering column lock power supply (ON/OFF)	Harness or connectors (electronic steering column lock power supply circuit is open or shorted) Steering lock relay (in IPDM E/R)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P position
- Do not depress brake pedal
- 2. Steering lock is locked.
- 3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-313, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to PCS-29, "DTC_Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector.

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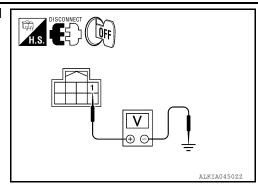
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Revision: June 2012 SEC-313 2011 Altima GCC

3. Check voltage between electronic steering column lock and ground under the following conditions.



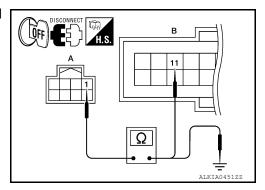
Electronic stee	Electronic steering column lock		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition	voitage (v)	
M32	1	Ground	Press push-button ignition switch when steering lock is in lock condition.	Battery voltage	

Is the inspection result normal?

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

3.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- 3. Check continuity between electronic steering column lock and IPDM E/R harness connector.



Electronic stee	Electronic steering column lock		M E/R	Continuity
Connector	Terminal	Connector Terminal		
A: M32	1	B: E18	11	Yes

4. Check continuity between electronic steering column lock and ground.

Electronic stee	ring column lock	Ground	Continuity	
Connector Terminal		Oround	Continuity	
A: M32	1	Ground	No	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2608 STARTER RELAY

Description INFOID:0000000006389725

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM receives starter relay ON signal (CAN) from IPDM E/R even if BCM turns the starter relay OFF	Harness or connectors (starter relay circuit is open or shorted.) IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions.
- CVT selector lever is in the P or N position.
- Depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-315, "Diagnosis Procedure".

NO >> Inspection End.

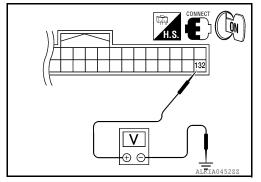
Diagnosis Procedure

INFOID:0000000006389727

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. CHECK STARTER RELAY

- 1. Turn ignition switch ON.
- 2. Check voltage between BCM harness connector and ground under the following condition.



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ВСМ		Ground		Condition	Voltage (V)
Connector	Terminal	Giodila	Condition		voltage (v)
	132 Groun		CVT selector lever	N or P position	Battery voltage
M21		Ground		Other than above	0
IVIZ I			Not depressed	0	
			Clutch pedal	Depressed	Battery voltage

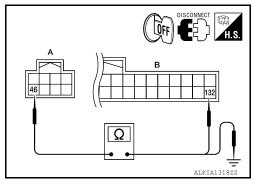
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
- 3. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDN	M E/R	всм		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	46	B: M21	132	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDI	M E/R	Ground	Continuity	
Connector	Connector Terminal		Continuity	
A: E17	46	Ground	No	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-45, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

< DTC/CIRCUIT DIAGNOSIS >

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B2609 STEERING STATUS

Description INFOID:0000000006389728

There are 2 switches in the electronic steering column lock (steering lock/unlock switch 1 and 2). BCM compares those two switches conditions to judge the present steering status.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2609	STEERING STATUS	BCM detects the malfunction of electronic steering column lock switches for 1 second.	Harness or connectors [electronic steering column lock circuit (BCM side) is open or short- ed] Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position.
- Do not depress brake pedal
- Steering is locked
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-317, "Diagnosis Procedure".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

- 1. Turn ignition switch ON.
- Turn ignition switch OFF.
- Press door switch.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-317, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399. "Wiring Diagram".

1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

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Revision: June 2012 SEC-317 2011 Altima GCC

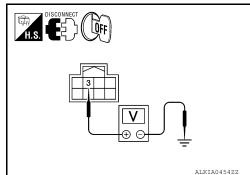
< DTC/CIRCUIT DIAGNOSIS >

In which case is DTC detected?

Case1 >> GO TO 2. Case2 >> GO TO 7.

2.CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.
- 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]
Connector Terminal		Giodila	voltage [v]
M32	3	Ground	Battery voltage

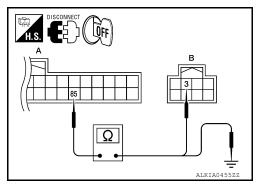
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



В	СМ	Electronic steering column lock		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
A: M19	85	B: M32	3	Yes	

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

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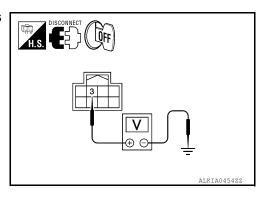
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- 1. Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.
- 3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voitage [v]
M32	3	Ground	Battery voltage

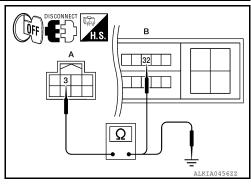
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic stee	ring column lock	IPDI	M E/R	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	3	B: E18	32	Yes

2. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

Revision: June 2012 SEC-319 2011 Altima GCC

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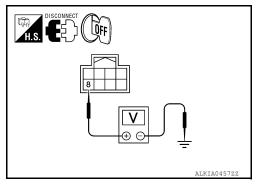
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< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.
- 3. Check voltage between electronic steering column lock harness connector and ground.



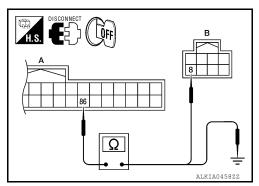
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M32	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 9. NO >> GO TO 8.

8. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector M19.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



В	CM	Electronic stee	ring column lock	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- 1. Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector M19.

B2609 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

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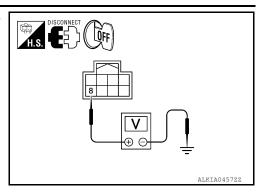
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Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
M32	8	Ground	Battery voltage

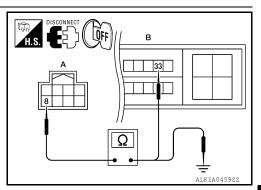
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-321 2011 Altima GCC

B260B ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B260B ELECTRONIC STEERING COLUMN LOCK

Description INFOID:000000006389731

The electronic steering column lock performs the check by itself according to the steering status.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering unlocking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch, when steering is locked.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-322, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389733

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-322, "DTC Logic".

Is the DTC B260B displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

B260C ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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INFOID:0000000006389736

B260C ELECTRONIC STEERING COLUMN LOCK

Description INFOID:0000000006389734

The electronic steering column lock performs the check by itself according to the steering status.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering locking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- Turn ignition switch OFF.
- 3. Press door switch.
- 4. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-323, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1.INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-323, "DTC Logic".

Is the DTC B260C displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

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Revision: June 2012 SEC-323 2011 Altima GCC

B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B260D ELECTRONIC STEERING COLUMN LOCK

Description INFOID:000000006389737

The electronic steering column lock performs the check by itself according to the steering lock status (before lock, after lock and unlock).

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock after steering locking.	Electronic steering column lock

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- 3. Press door switch.
- 4. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-324</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389739

1. INSPECTION START

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-324, "DTC Logic".

Is the DTC B260D displayed again?

YES >> Replace electronic steering column lock.

NO >> Inspection End.

B260F ENGINE STATUS

	CUIT DIAGNOSIS >		[SEDAN]
3260F EI	NGINE STATU	JS	
Descriptio	n		INFOID:000000006389740
3CM receive	s the engine status	signal from ECM via CAN communication.	
OTC Logic			INFOID:000000006389741
NOTE: If DTC B26 SEC-248." If DTC B26	<u>'DTC Logic"</u> .	h DTC U1000, first perform the trouble di	_
DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	INTERRUPTION OF ENGINE STATUS SIGNAL	BCM is not yet received the engine status signal from ECM when ignition switch is in ON position	• ECM
Turn igni CVT sele Do not d Check "S SDTC detect YES >> (NO >> I	ition switch ON unde ector lever is in the F epress the brake pe Self diagnostic result	dal. " with CONSULT.	INFOID:000000006389742
1.INSPECT			INFOID.0000000000358142
1. Turn igni 2. Check "S 3. Touch "E 4. Perform	ition switch ON. Self diagnostic result		
s the DTC B	<u>260F displayed aga</u> GO TO 2. nspection End.	in?	
Replace Go to EC	ECM. C-331, "BASIC INSP	ECTION : Special Repair Requirement" (Virement" (QR25DE).	Q35DE), <u>EC-15, "BASIC INSPEC-</u>
>>	nspection End.		

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description INFOID:000000006389743

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248. "DTC Logic".
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	NO RECEPTION OF ENGINE STATUS SIGNAL	BCM does not receive the engine status signal from ECM when ignition switch is in the ON position	• ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following conditions.
- CVT selector lever is in the P or N position.
- Do not depress the brake pedal.
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-326, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389745

1. INSPECTION START

- 1. Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-326, "DTC Logic".

Is the DTC B26E1 displayed again?

YES >> GO TO 2.

NO >> Inspection End.

2.REPLACE ECM

- Replace ECM.
- 2. Go to EC-331, "BASIC INSPECTION: Special Repair Requirement" (VQ35DE), EC-15, "BASIC INSPECTION: Special Repair Requirement" (QR25DE).

>> Inspection End.

B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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B26E8 CLUTCH INTERLOCK SWITCH

Description INFOID:0000000006389746

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

DTC Logic INFOID:0000000006389747

NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to SEC-327, "DTC Logic".

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
- Shift lever is in the neutral position.
- Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

>> Go to SEC-327, "Diagnosis Procedure". YES

NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

${f 1}.$ check clutch interlock switch power supply

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch connector.
- Check voltage between clutch interlock switch harness connector and ground.

(Clutch inte	+) rlock switch	(–)	Voltage (V) (Approx.)	
Connector Terminal			(
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 31, located in the fuse and fusible link box]

NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- 2. Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

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SEC-327 Revision: June 2012 2011 Altima GCC

B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

INFOID:0000000006389749

(+) BCM		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
M18	22	Ground	Clutch pedal	Depressed	Battery voltage
IVI IO	22	Ground	Ciutcii pedai	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> GO TO 3.

${f 3.}$ check clutch interlock switch signal circuit

- Disconnect clutch interlock switch connector.
- Check continuity between clutch interlock switch harness connector and BCM harness connector.

Clutch inte	rlock switch	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
E36	2	M18	22	Yes

3. Check continuity between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch		Continuity
Connector Terminal		Ground	Continuity
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-328, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to <u>CL-9</u>, "<u>Exploded View</u>".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End

Component Inspection

1. CHECK CLUTCH INTERLOCK SWITCH

- 1. Turn ignition switch OFF.
- Disconnect clutch interlock switch connector.
- 3. Check continuity between clutch interlock switch terminals.

Clutch inte	rlock switch	Condition		Continuity
Terminal		Condition		Continuity
1	2	Clutch pedal	Depressed	Yes
ı	2	Ciuton pedai	Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

B26E9 STEERING STATUS [SEDAN] < DTC/CIRCUIT DIAGNOSIS > **B26E9 STEERING STATUS** Α Description INFOID:0000000006389750 There are 2 switches in the electronic steering column lock (steering lock/unlock switch 1 and 2). BCM com-В pares the 2 switch conditions to judge the present steering status. **DTC Logic** INFOID:0000000006389751 DTC DETECTION LOGIC NOTE: If DTC B26E9 is displayed with DTC B2609, first perform the trouble diagnosis for DTC B2609. Refer to SEC-D 329, "DTC Logic". Trouble diagnosis Е DTC No. DTC detecting condition Possible cause name BCM requests lock to Electronic steering column lock, then electronic steering column lock transmits B26E9 S/L STATUS Electronic steering column lock F a recognition signal to BCM, but electronic steering column lock remains unlocked. DTC CONFIRMATION PROCEDURE ${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON. Н 2. Turn ignition switch OFF. 3. Press driver side door switch and wait 1 second or more. Turn ignition switch ON. Check "Self-diagnostic result" using CONSULT. Is DTC detected? >> Refer to SEC-329, "Diagnosis Procedure". YES NO >> Inspection End Diagnosis Procedure INFOID:0000000006389752 1.INSPECTION START **SEC** Turn ignition switch ON. Check "Self-diagnostic result" using CONSULT. 2. Touch "ERASE". Perform DTC Confirmation Procedure. Refer to SEC-329, "DTC Logic". Is the DTC B26E9 displayed again? YES >> GO TO 2. NO >> GO TO 3. 2.REPLACE ELECTRONIC STEERING COLUMN LOCK Ν Replace electronic steering column lock.

Perform DTC confirmation procedure. Refer to <u>SEC-329</u>, "DTC Logic".

Is the DTC B26E9 displayed again?

YES >> GO TO 3.

NO >> Inspection End

3.check intermittent incident

Refer to GI-42, "Intermittent Incident".

>> Inspection End

Revision: June 2012 SEC-329 2011 Altima GCC

B26EA KEY REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B26EA KEY REGISTRATION

Description INFOID:000000006389753

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRA- TION	Intelligent Key is not registered successfully.	Improper registration operationIntelligent KeyBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform initialization using CONSULT. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to CONSULT Operation Manual.
- 2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Go to SEC-330, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000006389755

1. PERFORM INITIALIZATION

- Perform initialization using CONSULT. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to CONSULT Operation Manual.
- 2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End

2.REPLACE INTELLIGENT KEY

- Replace Intelligent Key. Reregister all Intelligent Keys.
- Perform initialization using CONSULT. For initialization, refer to CONSULT Operation Manual.
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

< DTC/CIRCUIT DIAGNOSIS >

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B2612 STEERING STATUS

Description INFOID:0000000006389756

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249, "DTC Logic"</u>.

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2612	STEERING STA- TUS	BCM detects the mismatch between the following status for 1 second • Steering lock or unlock • Feedback of steering lock status from IPDM E/R (CAN)	Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted] Harness or connectors [electronic steering column lock circuit (IP-DM E/R side) is open or shorted.] Electronic steering column lock IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P or N position.
- Do not depress brake pedal.
- Steering is locked.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-331, "Diagnosis Procedure".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE 2

- 1. Turn ignition switch ON.
- 2. Turn ignition switch OFF.
- 3. Press door switch.
- 4. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-331, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-399, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed.
- Case2: It is detected after ignition switch is changed from ON to OFF

In which case is DTC detected?

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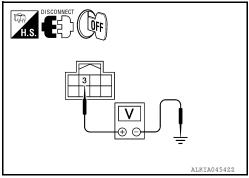
Revision: June 2012 SEC-331 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

Case1 >> GO TO 2. Case2 >> GO TO 7.

2. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.
- 3. Check voltage between electronic steering column lock harness connector and ground.



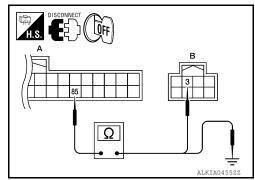
Electronic steel	ring column lock	Ground	Voltage [V]	
Connector	Connector Terminal		voltage [v]	
M32	3	Ground	Battery voltage	

Is the inspection result normal?

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

3.check electronic steering column lock circuit-i

- 1. Disconnect BCM harness connector.
- 2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



В	CM	Electronic stee	Continuity	
Connector	Terminal	Connector Terminal		Continuity
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

ВСМ		Ground	Continuity	
Connector	Terminal		Continuity	
A: M19	85	Ground	No	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

4. CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

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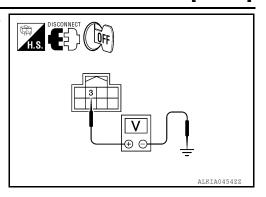
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Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]	
Connector	Terminal	Ground	voitage [v]	
M32	3	Ground	Battery voltage	

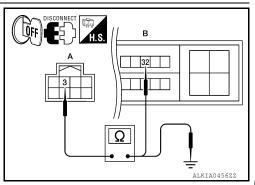
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M32	3	B: E18	32	Yes

Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

7. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

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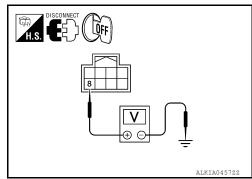
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Revision: June 2012 SEC-333 2011 Altima GCC

< DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]	
Connector	Terminal	Ground	voltage [v]	
M32	8	Ground	Battery voltage	

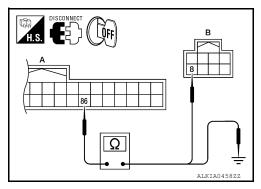
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- 1. Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



ВСМ		Electronic steering column lock		Continuity
Connector	Terminal	Connector Terminal		Continuity
 A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Oround	Continuity	
A: M19	86	Ground	No	

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

9. CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- 2. Disconnect BCM harness connector.

B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

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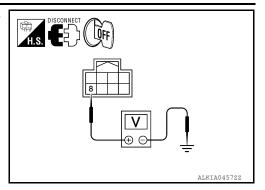
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3. Check voltage between electronic steering column lock harness connector and ground.



Electronic stee	ring column lock	Ground	Voltage [V]	
Connector	Terminal	Ground	voitage [v]	
M32	8	Ground	Battery voltage	

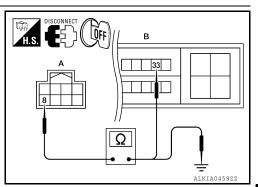
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: M32	8	Ground	No	

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2617 STARTER RELAY CIRCUIT

Description INFOID.000000006389759

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to PCS-62, "DTC Logic".
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to SEC-336, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	 An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second BCM is not commanding starter relay activation, but BCM detects starter relay output is active 	Harness or connectors (Starter relay circuit is open or shorted.) IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position.
- Do not depress the brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to <u>SEC-336</u>, "Diagnosis Procedure".

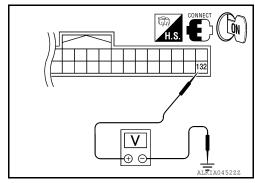
NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-399, "Wiring Diagram".

1. CHECK STARTER RELAY

- 1. Turn ignition switch ON.
- 2. Check voltage between BCM harness connector and ground under the following condition.



INFOID:0000000006389761

B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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ВСМ		Ground	Transmission type	Condition	Voltage (V)	
Connector	Terminal	Giodila	Transmission type	Condition	voitage (v)	
			Park	CVT: Select lever in	Ignition switch cranking or request to start	Battery voltage
M21	132			Ground	Other than above	0
IVIZ I	21 132 Glound	M/T: Clutch pedal	Ignition switch cranking or request to start	Battery voltage		
			depressed	Other than above	0	

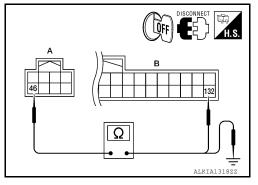
Is the measurement value within the specification.

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM harness connector and IPDM E/R harness connector.
- 3. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDI	M E/R	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	46	B: M21	132	Yes

4. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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B2619 BCM

Description INFOID:0000000006389762

BCM requests IPDM E/R to supply power to electronic steering column lock. After receiving the power, the electronic steering column lock transmits an ON signal to BCM.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2619	ВСМ	BCM detects a mismatch between the power supplied to the electronic steering column lock and the feedback for one second or more.	• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-338, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000006389764

1. INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-338, "DTC Logic".

Is the DTC B2619 displayed again?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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B261A PUSH-BUTTON IGNITION SWITCH

Description INFOID:0000000006389765

IPDM E/R transmits the push-button ignition switch status via CAN communication to BCM. BCM receives push-button ignition switch status by hardwire input. BCM compares the 2 signals for mismatch.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-248, "DTC Logic".
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-249, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261A	PUSH-BUTTON IGNITION SWITCH	BCM detects the mismatch between the following for 1 second or more • Push-button ignition switch status • Push-button ignition switch status from IPDM E/R (CAN)	 Harness or connectors (Push-button ignition switch circuit is open or shorted) Between BCM and push-button ignition switch Between IPDM E/R and push-button ignition switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
- CVT selector lever is in the P position
- Do not depress brake pedal.
- 2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to SEC-339, "Diagnosis Procedure".

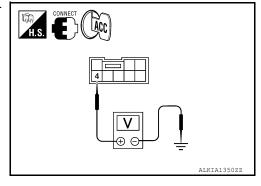
NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-427, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch harness connector and IPDM E/R harness connector.
- Check voltage between push-button ignition switch harness connector and ground.



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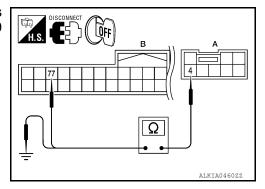
Push-button ignition switch		Ground	Voltage (V)
Connector	Terminal	Oround	voltage (v)
M38	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 2.

2.check push-button ignition switch circuit

- 1. Disconnect BCM harness connector.
- Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M19 (B) terminal 77.



Push-button	ignition switch	ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M38	4	B: M19	77	Yes

3. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal	Oround	Continuity
A: M38	4	Ground	No

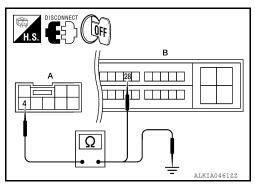
Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3.check push-button ignition switch

- 1. Disconnect IPDM E/R harness connector.
- 2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and IPDM E/R harness connector E18 (B) terminal 28.



Push-button	Push-button ignition switch		IPDM E/R	
Connector	Terminal	Connector	Terminal	Continuity
A: M38	4	B: E18	28	Yes

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

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

Push-button	Push-button ignition switch		Continuity
Connector	Terminal	Ground	Continuity
A: M38	4	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End

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B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B261E VEHICLE TYPE

Description INFOID:000000006389768

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 SEC-248, "DTC Logic".
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-249</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- CVT shift selector lever is in the P or N position
- Do not depress brake pedal
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

YES >> Go to SEC-342, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000006389770

1.INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self-diagnostic result" using CONSULT.
- 3. Touch "ERASE".
- Perform DTC Confirmation Procedure. See SEC-342, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> Replace BCM. Refer to BCS-92, "Removal and Installation".

NO >> Inspection End

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000006389771

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuse or fusible link are blown.

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	Н
11	Dattery power supply	10

Is the fuse or fusible link blown?

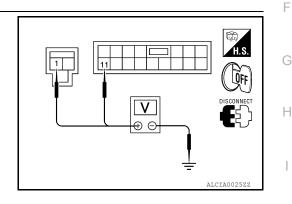
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

$oldsymbol{2}$. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM.
- 3. Check voltage between BCM harness connector and ground.

	Terminals				
((+) (-)				
В	СМ		(Approx.)		
Connector	Terminal	Ground			
M16	1	Giouna	Battery voltage		
M17	11		battery voltage		



Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.

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BCM: Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to <u>BCS-3</u>, "<u>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: <u>Special Repair Requirement</u>".

>> Work End.

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

Revision: June 2012 SEC-343 2011 Altima GCC

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INFOID:0000000006389772

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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agnosis Procedure

INFOID:0000000006389773

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2		B, D
	Battery power supply	42
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Is the fuse blown?

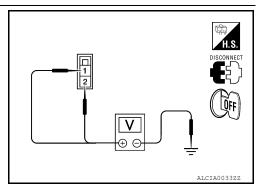
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connectors.
- 3. Check voltage between IPDM E/R harness connector and ground.

	Terminals				
(+)		(-)	Voltage (V) (Approx.)		
IPDI	IPDM E/R				
Connector	Terminal				
E16	1 Ground		Battery voltage		
E10	2		Ballery Vollage		



Is the measurement value normal?

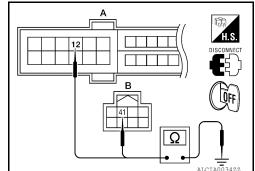
YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R			Continuity
Connector	Terminal	Ground	Continuity
A: E18	12		Yes
B: E17	41		162



Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.

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KEY SLOT

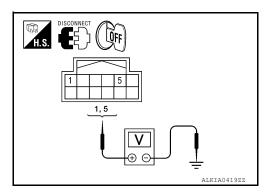
Diagnosis Procedure

INFOID:0000000006389774

Regarding Wiring Diagram information, refer to <a>SEC-427, "Wiring Diagram".

1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check voltage between slot connector and ground.



Key slot		Ground	Voltage (V)	
Connector	Terminal	Giodila	(Approx.)	
M40	1	Ground	Battery voltage	
IVITO	5	Giodila	Dattery Voltage	

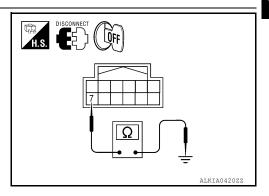
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace key slot power supply circuit.

2. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot		Ground	Continuity	
Connector	Terminal	Ordana	Continuity	
M40	7	Ground	Yes	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot ground circuit.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Battery voltage

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>> Inspection End

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

KEY SLOT ILLUMINATION

Description INFOID:0000000006389775

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:000000006389776

1. CHECK FUNCTION

(P)With CONSULT

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

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Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to <u>SEC-347, "Diagnosis Procedure"</u>.

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Diagnosis Procedure

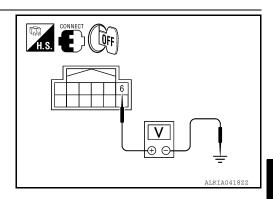
INFOID:0000000006389777

Regarding Wiring Diagram information, refer to <a>SEC-413, "Wiring Diagram".

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1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



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	Terminals					
(+)		Condition	Key slot	Voltage (V)	
Key slot connector	Terminal	(-)	22	illumination	(Approx.)	
M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage	
IVI4U	0	Ground	Intelligent Key removed	ON	0	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

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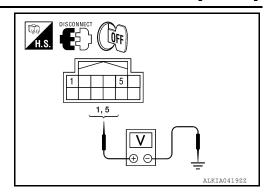
2. CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect key slot connector.

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Revision: June 2012 SEC-347 2011 Altima GCC

3. Check voltage between slot connector and ground.



	Terminals			
(+)		()	Voltage (V) (Approx.)	
Key slot connector	Terminal	(–)	(
M40	1	Cround	Pottony voltago	
WHO	5	Ground	Ground Battery voltage	

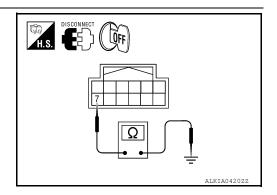
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

3. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot connector	Terminal	Ground	Continuity
M40	7	Oround	Yes

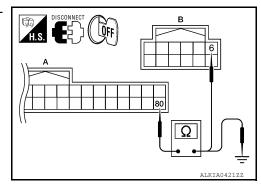
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

4. CHECK KEY SLOT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and key slot connector.
- 3. Check continuity between BCM connector and key slot connector.



KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80	Oround	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness between BCM and key slot.

5. CHECK KEY SLOT

Refer to SEC-347, "Description".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace key slot. Refer to SEC-443, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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SEC-349 Revision: June 2012 2011 Altima GCC Α

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KEY CYLINDER SWITCH

Description INFOID:000000006389778

For vehicles equipped with LH and RH anti-pinch system, the main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

For vehicles equipped with LH anti-pinch system only, the front door lock assembly LH (key cylinder switch) transmits the LOCK or UNLOCK signal directly to the BCM.

Component Function Check

INFOID:0000000006389779

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to <u>BCS-17</u>, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> With LH and RH anti-pinch, refer to <u>SEC-350</u>. "<u>Diagnosis Procedure (With LH and RH Anti-Pinch)</u>".

NO >> With LH anti-pinch only, refer to SEC-352, "Diagnosis Procedure (With LH Anti-Pinch Only)".

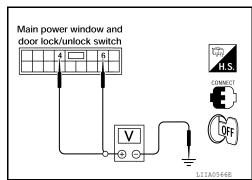
Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:0000000006389780

Regarding Wiring Diagram information, refer to SEC-413, "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector and ground.



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	Terminals				
(+)				Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(-)	Key position	(Approx.)	
	6	Ground	Lock	0	
D7			Neutral / Unlock	5	
			Unlock	0	
			Neutral / Lock	5	

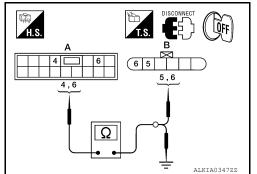
Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-295, "Removal and <a href="Installation". After that, Refer to PWC-195, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/ unlock switch connector and front door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/ unlock switch connector	Terminal	Front door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	4	B: D10	6	Yes
A. DI	6	B. 510	5	103

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

Power window main switch connector	Terminal		Continuity
A: D7	4	Ground	No
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Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3.check door key cylinder switch ground circuit

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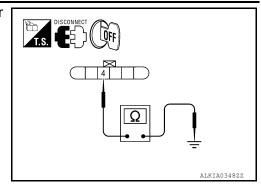
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KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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



Front door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to SEC-354, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-457</u>, "FRONT DOOR <u>LOCK</u>: Removal and Installation". After that, Refer to <u>DLK-230</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

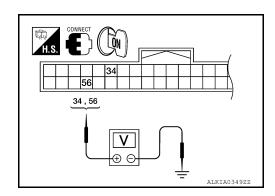
Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:0000000006389781

Regarding Wiring Diagram information, refer to <a>SEC-413, "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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



Terminals) / H
(+)		(_)	Key position	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		,
M18	56 34	Ground	Lock	0
			Neutral / Unlock	5
		Giouna	Unlock	0
			Neutral / Lock	5

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>DLK-457</u>, "FRONT DOOR <u>LOCK</u>: Removal and Installation". After that, Refer to <u>DLK-230</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT</u>: Special Repair Requirement".

NO >> GO TO 2

2.check door key cylinder switch ground circuit

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

Front door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Ground	Yes

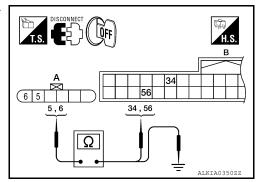
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Disconnect BCM connector M18.
- 2. Check continuity between front door lock assembly LH (key cylinder switch) connector and BCM connector M18.



Front door lock assembly LH connector	Terminal	BCM connector	Terminal	Continuity
A: D10	5	B: M18	34	Yes
A. D10	6	B: M18	56	

Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

Front door lock assembly LH connector	Terminal		Continuity
A: D10	5	Ground	No
	6		NO

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

Revision: June 2012 SEC-353 2011 Altima GCC

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KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to SEC-354, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

>> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-457</u>, "FRONT DOOR <u>LOCK</u>: Removal and Installation". After that, Refer to <u>DLK-230</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT</u>: Special Repair Requirement".

Component Inspection

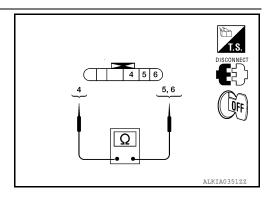
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INFOID:0000000006389782

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH (key cylinder switch).



Terminal			
Front door lock assembly LH (key cylinder switch) connector		Key position	Continuity
-	5 ————————————————————————————————————	Unlock	Yes
5		Neutral / Lock	No
6		Lock	Yes
O		Neutral / Unlock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-457</u>, "<u>FRONT DOOR LOCK</u>: Removal and Installation". After that, refer to <u>SEC-354</u>, "<u>Special Repair Requirement</u>".

Special Repair Requirement

INFOID:0000000006389783

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>DLK-230</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

[SEDAN]

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HORN

Description INFOID:0000000006389784

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

Component Function Check

1. CHECK FUNCTION

- Select HORN in "ACTIVE TEST" mode with CONSULT.
- 2. Check the horn (high/low) operation.

	Test item		Description	
HORN	ON	Horn relay		ON (for 20 ms)

Is the operation normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-355</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-413, "Wiring Diagram".

1. CHECK HORN FUNCTION

Check horn function with horn switch

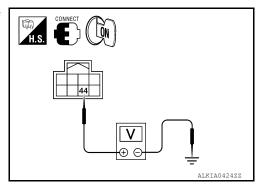
Do the horns sound?

YES >> GO TO 2.

NO >> Refer to <u>HRN-4</u>, "Wiring <u>Diagram"</u>.

2.CHECK HORN RELAY POWER SUPPLY

- Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT.
- Using an analog voltmeter or an oscilloscope, check voltage between IPDM E/R connector E17 terminal 44 and ground.



IPDI	M E/R	Ground	Test item		Voltage (V)
Connector	Terminal	Ground			(Approx.)
E17	44	Ground	HORN	ON	Battery voltage →0 → Battery voltage
LIT	77	Ground	TION	Other than above	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.

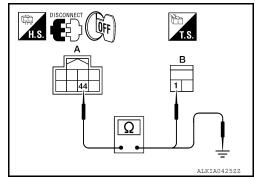
Revision: June 2012 SEC-355 2011 Altima GCC

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- 2. Disconnect IPDM E/R and horn relay connector.
- 3. Check continuity between IPDM E/R harness connector and horn relay harness connector.



IPD	IPDM E/R		Horn relay		
Connector	Terminal	Connector Terminal		Continuity	
A: E17	44	B: H-1	1	Yes	

4. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal	Ground	Continuity
A: E17	44	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-45. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

HEADLAMP	
< DTC/CIRCUIT DIAGNOSIS >	[SEDAN]
HEADLAMP	
Description	INFOID:000000006389787
Headlamp lighting when theft warning system is alarm phase.	
Component Function Check	INFOID:000000006389788
1. CHECK HEADLAMP OPERATION	
Check if headlamp operate by lighting switch.	
Does headlamp come on when turning switch "ON"?	
YES >> Headlamp circuit is OK. NO >> Check headlamp system. Refer to <u>SEC-357, "Diagnosis Procedure"</u> .	
Diagnosis Procedure	INFOID:000000006389789
1. CHECK HEADLAMP OPERATION	
Refer to EXL-4, "Work Flow".	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace.	
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-42, "Intermittent Incident".	
Is the inspection result normal?	
>> Inspection End.	

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WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

WARNING LAMP

Description

- Warning lamp is built in combination meter.
- Intelligent Key system malfunction is reported to the driver by the warning lamp illumination.

Component Function Check

INFOID:0000000006389791

1. CHECK FUNCTION

- 1. Perform "INDICATOR" in the "Active Test" mode with CONSULT.
- Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-358, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000006389792

1. CHECK "COMBINATION METER."

Check combination meter function. Refer to MWI-4, "Work Flow".

Is the inspection result is normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

VEHICLE SECURITY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

INFOID:0000000006389794

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VEHICLE SECURITY INDICATOR

Description

- · Vehicle security indicator is built in combination meter.
- NVIS (Infinity Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

Component Function Check

1. CHECK FUNCTION

- 1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT.
- 2. Check vehicle security indicator operation.

Test item		Description	
THEFT IND	ON	Vehicle security indicator	ON
	OFF		OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Go to SEC-359, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK COMBINATION METER

Check combination meter. Refer to MWI-4, "Work Flow".

Is the inspection result is normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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Revision: June 2012 SEC-359 2011 Altima GCC

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	OFF
	Front wiper switch HI	ON
FR WIPER LOW	Other than front wiper switch LO	OFF
	Front wiper switch LO	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
	Front wiper switch INT	ON
ED WIDED STOD	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 6	Wiper intermittent dial position
TUDNI CICNIAL D	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
TURN SIGNAL L	Other than turn signal switch LH	OFF
TURN SIGNAL L	Turn signal switch LH	ON
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	OFF
TAIL LAWP 5W	Lighting switch 1ST or 2ND	ON
HI BEAM SW	Other than lighting switch HI	OFF
HI BEAIN SW	Lighting switch HI	ON
HEAD LAMP SW 1	Other than lighting switch 2ND	OFF
HEAD LAWF SW 1	Lighting switch 2ND	ON
HEAD LAMP SW 2	Other than lighting switch 2ND	OFF
FILAD LAWF SW 2	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
FASSING SW	Lighting switch PASS	ON
AUTO LIGHT SW	Other than lighting switch AUTO	OFF
AUTO LIGHT SW	Lighting switch AUTO	ON
FR FOG SW	Front fog lamp switch OFF	OFF
11(100 0W	Front fog lamp switch ON	ON
	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
DOOP SW AS	Passenger door closed	OFF
DOOR SW-AS	Passenger door opened	ON
DOOR SW-RR	Rear RH door closed	OFF
	Rear RH door opened	ON
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Monitor Item	Condition	Value/Status	
CDL LOCK SW	Other than power door lock switch LOCK	OFF	
DL LOCK SW	Power door lock switch LOCK	ON	
DL UNLOCK SW	Other than power door lock switch UNLOCK	OFF	
DE UNLOCK SW	Power door lock switch UNLOCK	ON	
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF	
NET GTE EK-SW	Driver door key cylinder LOCK position	ON	
ZEV CVL LINLOW	Other than driver door key cylinder UNLOCK position	OFF	
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	ON	
HAZARD SW	When hazard switch is not pressed	OFF	
HAZARD SW	When hazard switch is pressed	ON	
REAR DEF SW	When rear window defogger switch is pressed	ON	
AN ON SIG	When AUTO switch or fan switch is pressed	ON	
AIR COND SW	When A/C switch is pressed	ON	
TD CANCEL CW	Trunk lid opener cancel switch OFF	OFF	
TR CANCEL SW	Trunk lid opener cancel switch ON	ON	
TD/DD ODEN CW	Trunk lid opener switch OFF	OFF	
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON	
	Trunk lid closed	OFF	
TRNK/HAT MNTR	Trunk lid opened	ON	
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF	
RNE-LOCK	When LOCK button of Intelligent Key is pressed	ON	
DKE TIMI OOK	When UNLOCK button of Intelligent Key is not pressed	OFF	
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON	
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF	
RNE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON	
DIZE DANIC	When PANIC button of Intelligent Key is not pressed	OFF	S
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON	
DICE DAM OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF	
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON	
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF	
INNE-WODE GIIG	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON	
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V	
OI HOAL SENSUR	When outside of the vehicle is dark	Close to 0 V	
REQ SW-DR	When driver door request switch is not pressed	OFF	
INEW OVV-DIX	When driver door request switch is pressed	ON	
REQ SW-AS	When passenger door request switch is not pressed	OFF	
NEW SVV-AS	When passenger door request switch is pressed	ON	
DEO SW DD/TD	When trunk request switch is not pressed	OFF	
REQ SW-BD/TR	When trunk request switch is pressed	ON	
	When engine switch (push switch) is not pressed	OFF	
PUSH SW	When engine switch (push switch) is pressed	ON	
10N DIX = 7	Ignition switch OFF or ACC	OFF	
IGN RLY -F/B	Ignition switch ON	ON	

SEC-361 Revision: June 2012 2011 Altima GCC

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
ACC RLY -F/B	Ignition switch OFF	OFF
AGO NET -17D	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
OLOTOTTOW	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
DIVARLE OW I	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
DETE/CANCE 3W	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
SFI FIVIN SW	When selector lever is in P or N position	ON
S/L -LOCK	Electronic steering column lock LOCK status	OFF
3/L -LOCK	Electronic steering column lock UNLOCK status	ON
S/L -UNLOCK	Electronic steering column lock UNLOCK status	OFF
3/L -UNLOCK	Electronic steering column lock LOCK status	ON
S/L RELAY-F/B	Ignition switch OFF or ACC	OFF
3/L RELAT-F/D	Ignition switch ON	ON
LINI Z SEN DD	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
DUCU CW IDDM	When engine switch (push switch) is not pressed	OFF
PUSH SW -IPDM	When engine switch (push switch) is pressed	ON
ION DI VA E/D	Ignition switch OFF or ACC	OFF
IGN RLY1 F/B	Ignition switch ON	ON
DETE CW. IDDM	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
CET DN IDDM	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
CET D. MET	When selector lever is in any position other than P	OFF
SFT P -MET	When selector lever is in P position	ON
CET N. MET	When selector lever is in any position other than N	OFF
SFT N -MET	When selector lever is in N position	ON
	Engine stopped	STOP
ENOINE OTATE	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
0// 1 00// IDDM	Electronic steering column lock LOCK status	OFF
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L UNLCK-IPDM	Electronic steering column lock LOCK status	ON
a	Ignition switch OFF or ACC	OFF
S/L RELAY-REQ	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Monitor Item	Condition	Value/Status	
	Driver door LOCK status	LOCK	
R DOOR STATE S DOOR STATE OOK FLAG RMT ENG STAT EY SW -SLOT KE OPE COUN1 IR PRESS FL IR PRESS FR	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door UNLOCK status	UNLK	
	Passenger door LOCK status	LOCK	
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	
ID OK ELAC	Ignition switch ACC or ON	RESET	
ID OK FLAG	Ignition switch OFF	SET	
DDMT ENC STAT	When the engine start is prohibited	RESET	
FRIVIT EING STAT	When the engine start is permitted	SET	
KEY SW. SLOT	When Intelligent Key is not inserted into key slot	OFF	
KET SW -SLUT	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID DECOT EL 4	When ID of front LH tire transmitter is registered	DONE	
ID KEGOT FLT	When ID of front LH tire transmitter is not registered	YET	
ID DECCT ED4	When ID of front RH tire transmitter is registered	DONE	
ID KEGST FKT	When ID of front RH tire transmitter is not registered	YET	
ID DECCT DD4	When ID of rear RH tire transmitter is registered	DONE	
ID KEGST KKT	When ID of rear RH tire transmitter is not registered	YET	
ID DECCT DI 4	When ID of rear LH tire transmitter is registered	DONE	
ID KEGOT KLT	When ID of rear LH tire transmitter is not registered	YET	
MAYA DAUNIO L'ARAD	Tire pressure indicator OFF	OFF	
WARNING LAMP	Tire pressure indicator ON	ON	

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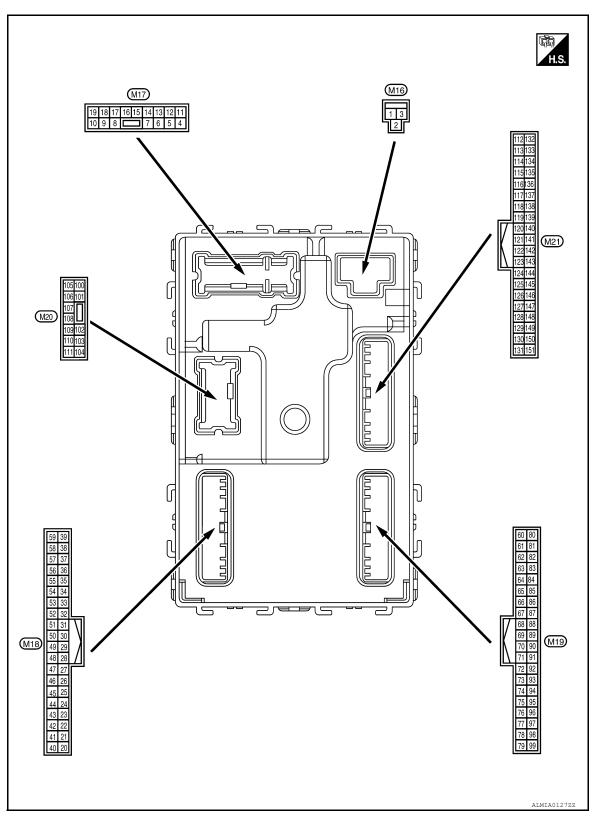
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[SEDAN]

Terminal Layout



Physical Values

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			0 199	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4		Interior room lamp	Outout	After passing the in er operation time	nterior room lamp battery sav-	0V
(P/W)	Ground	power supply	Output	Any other time after lamp battery save	er passing the interior room roperation time	Battery voltage
5	Cround	Front door RH UN-	Outout	Front door DII	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	0V
7	C=0:===	Stop lows	لد : صلاد . ٢	Stop James	ON	0V
(R/W)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	0	All doors I OCK	0.44	All de co	LOCK (actuator is activated)	Battery voltage
(V)	Ground	All doors LOCK	Output	Output All doors	Other than LOCK (actuator is not activated)	ov
9	One week	Front door LH UN-	O. day of	Frent decall	UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Output	Front door LH	Other than UNLOCK (actuator is not activated)	ov
10 ¹	Ground	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Giouna	LOCK	Output	and rear door LH	Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON	1	0V
					OFF	0V
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 2 ms

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
14 ⁸ (R/Y)	Ground	Engine switch (push switch) illumination	Input	Tail lamp	OFF	NOTE: When the illumination brightening/dimming level is in the neutral position
(101)		ground				10 0 2 ms JSNIA0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y/L)					ACC	0V
					Turn signal switch OFF	0V
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
					Turn signal switch OFF	0V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
19		Room lamp timer		Interior room	OFF	Battery voltage
(Y)	Ground	control	Output	lamp	ON	0V
21	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(P/B)	Oround	Optical scrisor signal	прис	ON	When outside of the vehi- cle is dark	Close to 0V
22 ²	Ground	Clutch interlock	Input	Clutch interlock	OFF (clutch pedal is not depressed)	0V
(R/Y)	Cidana	switch	mpat	switch	ON (clutch pedal is depressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input			Battery voltage
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
(O/L)	Ground	Stop lamp switch 2	прис	Ctop lamp switch	ON (brake pedal is depressed)	Battery voltage

< ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)				Value		
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
27 (G/W)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					UNLOCK status	0V
29				When Intelligent K	Ley is inserted into key slot	Battery voltage
(Y)	Ground	Key slot switch	Input	When Intelligent K	ey is not inserted into key slot	0V
30	C=====================================	ACC foodbast size -	lmm:-4	lanition assistati	OFF	0
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage
31	Ground	Rear window defog-	Innut	Rear window de-	OFF	0V
(G)	Giouna	ger feedback signal	Input	fogger switch	ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (when front door RH opens)	ov
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	9V - 12V
(SB)		nal			ON	0V
34 ³	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	Battery voltage
(L/R)	2.00110	der switch) (unlock)		cylinder switch)	ON (unlock)	0V
36 ³	Ground	Lock switch signal	Input	Door lock/unlock	Lock	Battery voltage
(GR)	Ciound	LOCK SWITCH SIGNAL	mput	switch	Unlock	0V
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 10 ms JPMIA0012GB 1.1V
					ON	0V
38		Rear window defog-		Rear window de-	OFF	Battery voltage
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	0V
39 ³				Door lock/unlock	Unlock	Battery voltage
(GR/	Ground	Unlock switch signal	Input	switch	Lock	0V

	inal No. e color)	Description	1 1/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
40 ⁴ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 JPMIA0013GB 10.2V
				Ignition switch OF	F or ACC	0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illu- mination	ON OFF	5.5V 0V
42	Craund	LOCK indicator laws	Outnut	LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	0V
(V/W)		power supply output			ACC or ON	5.0V
47	Ground	Tire pressure receiv-	Input/	t/ Ignition switch	Standby state	(V) 6 4 2 0 *** 0.2\$
(G/O)		er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position Except P and N positions	12.0V 0V
-					ON	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 JPMIA0014GB 11.3V
					OFF	Battery voltage
					OLI	Dattery Voltage

< ECU DIAGNOSIS INFORMATION >

Term	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND Turn signal switch RH	0V (V) 15 10 5 0 2 ms JPMIA0031GB	
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	10.7V OV (V) 15 10 5 0 2 ms JPMIA0032GB	E F
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	0V (V) 15 10 5 0 2 ms JPMIA0033GB 10.7V	J
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front wiper switch INT Front wiper switch LO Lighting switch AUTO	0V (V) 15 10 5 0 2 ms JPMIA0034GB 10.7V	L N
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front fog lamp switch ON Lighting switch 2ND Lighting switch flash-to- pass Turn signal switch LH	0V (V) 15 10 5 0 2 ms JPMIA0035GB	C
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON OFF	10.7V Battery voltage 0V	

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			O and the a	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
56 ³	Cround	Front door lock as-	Innut	Front door lock	OFF (neutral)	Battery voltage
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warning check switch	Input		_	Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB
					01/4 / 11/07510	11.8V
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	Battery voltage 0V
(0/11)		gerrelay		logger	Not activated	00
60		round Front console antenna 2 (-) Output Ignition switch OFF	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
(B/R)	Ground		Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
61	Ground	Center console antenna 2 (+) Output Ignition switch OFF		Ignition quitch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
61 (W/R)	Signific		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 1	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	^				
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	А				
62		Front outside handle	0.4-4	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	B C				
(B/Y)	Ground	RH antenna (-)	Output switch is operated with ignition switch OFF	switch is operat- ed with ignition		(V) 15 10 5 0 JMKIA0063GB	E F				
63	Ground	Ground Front outside handle Output door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 1 I I I I I I I I I	G H						
(LG)	Clound	RH antenna (+)	Cutput	switch is operated with ignition switch OFF	ed with ignition	ed with ignition	ed with ignition	ed with ignition switch OFF Winter	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	SE(
64	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	M				
(V)	Ciound	LH antenna (-)		ed with ignition	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 MKIA0063GB	O P				

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)
65	Ground	Front outside handle	Output	When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(P)	Clound	LH antenna (+)	Cutput		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V Battery voltage
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(L/O)	Ground	receiver signal	Output	When operating eit	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

inal No.	Description				Value	,		
e color)	Signal name	Input/ Output		Condition	(Approx.)	A		
				All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V)		
Ground	Combination switch INPUT 5	Input	Input	nput Combination switch	nniit	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	E
					1.3V			
	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB	F					
	e color)	(-) Signal name Cround Combination switch	(-) Signal name Input/Output Cround Combination switch Input/	Signal name Input/ Output Cround Combination switch Input/ Cround Combination	Ground Combination switch Input Inpu	Ground Combination switch Input Combination switch INPUT 5 Combination switch Input Combination switch INPUT 5 Combination switch Input Combination switch INPUT 5 All switch OFF (Wiper intermittent dial 4) Front fog lamp switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7		

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(*) (*) Signal name (*) Curbut (Approx.) All switch OFF (Wiper intermittent dial 4) Lighting switch high-beam (Wiper intermittent dial 4) Lighting switch high-beam (Wiper intermittent dial 4) Lighting switch 2ND (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 3) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Any of the conditions and all		inal No.	Description				Value
All switch OFF (Wiper intermittent dial 4) Lighting switch high-beam (Wiper intermittent dial 4) Lighting switch high-beam (Wiper intermittent dial 4) Lighting switch high-beam (Wiper intermittent dial 4) Lighting switch 2ND (Wiper intermittent dial 4) Any of the conditions below with all switch OFF (Wiper intermittent dial 1 + Wiper intermittent dial 1 + Wiper intermittent dial 1 + Wiper intermittent dial 2 + Wiper intermittent dial 2 + Wiper intermittent dial 3 + Wiper intermittent dial 4 + Wiper intermittent dial 3 + Wiper intermittent dial 3 + Wip			Signal name			Condition	
Combination switch Input							10 5 0 2 ms
Company Comp	76	Ground		Input			15 10 5 0 2 ms
with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 3 Jentano 4 does 1.3V To ground (Push switch) Regine switch	(R/G)	(R/G) INPUT3	INPUT 3	mpa.	switch		10 5 0 2 ms
(BR) Ground switch) Switch (push switch) (push switch) Not pressed Battery voltage 78 (P) Ground CAN-L Input/ Output — — — — — — — — — — — — — — — — — — —						with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2	10 5 0 2 ms
(BK) switch) (push switch) Not pressed Battery voltage 78 (P) Ground CAN-L Input/ Output — — — — — — — — — — — — — — — — — — —		Ground		Input			
(P) Ground CAN-L Output — — — — — — — — — — — — — — — — — — —					(push switch)	Not pressed	Battery voltage
(L) Ground CAN-H Output OFF OV 80 (R/L) Ground Key slot illumination Output Key slot illumination Output Is	(P)	Ground	CAN-L	Output		_	_
80 (R/L) Ground Key slot illumination Output Key slot illumination Blinking Something Compared to the state of the st		Ground	CAN-H			_	_
80 (R/L) Ground Key slot illumination Output Key slot illumination Blinking Blinking Blinking JPMIA0015GB 6.5V						OFF	0V
		Ground	I Key slot illumination Output		Blinking	15 10 5 0 1 s	
Dattory voltage						ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

	inal No. e color)	Description			Condition	Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage	
(LG)					ON	0V	
83 (L)	Ground	ACC relay control	Output	Ignition switch	OFF ACC or ON	0V Battery voltage	
84 ⁵ (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage	
85		Electronic steering		Electronic steer-	Lock status	0V	
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage	
86		Electronic steering		Electronic steer-	Lock status	Battery voltage	
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V	
87 ⁵	0	Selector lever P posi-	li 1	Caladada	P position	0V	
(G/B)	Ground	tion switch	Input	Selector lever	Any position other than P	Battery voltage	
					ON (pressed)	0V	
88 (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	
					ON (pressed)	0V	
89 (B/W)	Ground	Front door LH request switch		Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0V	
(Y)	Ground	lay control	Output	iginuon switch	ON	Battery voltage	
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFI	=	Battery voltage	
94	0	Electronic steering	0	Innition of 1995	OFF or ACC	Battery voltage	
(G/Y) Ground	column lock power supply	Output	Ignition switch	ON	0V		

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
	,,				All switch OFF	(V) 15 10 2 ms JPMIA0041GB 1.4V
		Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB			
95 (R/W)	Ground	Combination switch INPUT 1 Combination switch (Wiper intermittent dial 4)	Combination switch Input switch (Wiper i	switch (Wiper intermit-	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3V

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

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	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V
96	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB
(P/B)		INPUT 4		switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 2 ms JPMIA0036GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3V

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	inal No.	Description	ı		.	Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch INT	(V) 15 10 2 ms 1.3V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 JPMIA0012GB 1.1V

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color) Description			0 1111	Value	Δ	
(-)	Signal name	Input/ Output		Condition	(Approx.)	
				LOCK status	Battery voltage	Е
(I/X) Ground	Electronic steering column lock unit communication	Input/ Output	Electronic steer-ing column lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB	
				For 15 seconds after UN- LOCK	Battery voltage	Е
				15 seconds or later after UNLOCK	0V	_
0	To all this control	0 1 1		Open (trunk lid opener actuator is activated)	Battery voltage	F
Ground	ттинк на opening	Output	Trunk IIa	Close (trunk lid opener actuator is not activated)	OV	
One	Two plans are leaves	0	utput Trunk room lamp	ON	0V	
Ground	runk room lamp	Output		OFF	Battery voltage	-
	Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
Ground	Ground 1 (-)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	SE
	e color) (-) Ground Ground	Ground Electronic steering column lock unit communication Ground Trunk lid opening Ground Trunk room lamp Trunk room antenna	Ground Signal name Input/Output Electronic steering column lock unit communication Input/Output Ground Trunk lid opening Output Ground Trunk room lamp Output Trunk room antenna Output	Ground Trunk lid opening Output Trunk room lamp Ground Trunk room antenna Output Ignition switch	Ground Ground Trunk Iid opening Ground Trunk room lamp Output Trunk room lamp Output Trunk room lamp Output Trunk room lamp Output Trunk room lamp Ontput Ore Condition Clock status	Ground Flectronic steering column lock unit communication For 15 seconds after UNLOCK IS seather working column lock unit communication Trunk lid opening Output Trunk lid Output Trunk lid Organization Trunk room lamp Output Trunk room lamp Ground Trunk room antenna 1 (-) Ground Trunk room anten

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< ECU DIAGNOSIS INFORMATION >

	ninal No. e color)	Description	Input/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
115	115 Count Trunk room antenna Count I		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 1	
(W)	Ground	1 (+)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
118		When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB		
(L/O)	Ground	na (-)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
119 (BR/	Ground	Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
W)	Siound	na (+) Outpu	Cutput	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

Terminal No. Description		Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage 0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (trunk is open)	OV
				Ignition switch	When the clutch pedal is depressed	Battery voltage
				OFF (M/T vehi- cle)	When the clutch pedal is not depressed	0V
132 (R)	Ground	Starter motor relay control Output	Output	Ignition switch ON (other than M/	When selector lever is in P or N position and the brake is depressed	Battery voltage
				T vehicle)	When selector lever is in P or N position and the brake is not depressed	ov
					ON (pressed)	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 JPMIA0016GB 1.0V
144	Ground	Request switch buzz-	Output	Request switch	Sounding	0V
(GR)	2.34.14	er	Carpat	buzzer	Not sounding	Battery voltage
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V
(L/R)		switch	r	switch	Not pressed	Battery voltage
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
				ON (when rear door RH opens)	0V	

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

	inal No.	Description				Value
	e color)	Signal name	Input/		Condition	(Approx.)
(+)	(-)	ŭ	Output			
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes) ON (when rear door LH opens)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V

- 1: Sedan only
- 2: M/T only
- 3: With LH front window anti-pinch
- 4: With LH and RH front window anti-pinch.
- 5: CVT only
- 6: With auto lights
- 7: With low tire pressure warning system
- 8: Coupe only

Fail Safe

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking Inhibit electronic steering column lock	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit electronic steering column lock	5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
32603: SHIFT POSI STATUS	Inhibit electronic steering column lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
32604: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
32605: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is ful- filled • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/transmission switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - transmission switch signal (CAN): ON
32606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal)
32607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal)
2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
2609: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When the following electronic steering column lock conditions agree BCM electronic steering column lock control status Electronic steering column lock condition No. 1 signal status Electronic steering column lock condition No. 2 signal status
3260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
3260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
32612: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When any of the following conditions is fulfilled Electronic steering column lock unit status signal (CAN) is received normally The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal

Revision: June 2012 SEC-383 2011 Altima GCC

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: OFF (Battery voltage)
B26E9: S/L STATUS	Inhibit engine cranking Inhibit electronic steering column lock	When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No 1 signal: LOCK (0V) • Steering condition No 2 signal: LOCK (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000006931303

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	B2013: ID DISCORD BCM-S/L	
	B2014: CHAIN OF S/L-BCM	
	B2553: IGNITION RELAY	
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW BOSSE VISUAL FOR SERVICE BOSSE VISUAL FO	
	B2557: VEHICLE SPEED B2560: STARTER CONT. RELAY B25	
	B2560: STARTER CONT RELAY B3604: SUIET ROSITION	
	B2601: SHIFT POSITION B2602: SHIFT POSITION	
	B2603: SHIFT POSITION B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	• B2605: PNP SW	
	B2606: S/L RELAY	
	• B2607: S/L RELAY	
	B2608: STARTER RELAY	
	• B2609: S/L STATUS	
	B260A: IGNITION RELAY	
	B260B: STEERING LOCK UNIT	
4	B260C: STEERING LOCK UNIT	
	B260D: STEERING LOCK UNIT B2605 SNO STATE OLD LOCK B2605 SNO	
	B260F: ENG STATE SIG LOST B2644: ACC PELAY B2645: ACC PELAY B2655: ACC PELAY	
	B2611: ACC RELAY B2612: S/L STATUS	
	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	B2616: IGN RELAY CIRC	
	B2617: STARTER RELAY CIRC	
	• B2618: BCM	
	• B2619: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E1: ENG STATE NO RECIV	
	B26E8: CLUTCH SW	
	B26E9: S/L STATUS	
	B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	_
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR	
	C1705. LOW PRESSURE FR C1706: LOW PRESSURE RR	-
	C1700: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL C4720: [CODE_ERR] FL	
	• C1720: [CODE ERR] FL	
	• C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR C1723: [CODE ERR] RL	
	C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] TR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
6	B2622: INSIDE ANTENNA	

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

DTC Index

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-32
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-33
U0415: VEHICLE SPEED SIG	_	_	_	BCS-34
B2013: ID DISCORD BCM-S/L	×	_	_	SEC-36 (Coupe), SEC-250 (Sedan)
B2014: CHAIN OF S/L-BCM	×	_	_	SEC-37 (Coupe), SEC-251 (Sedan)
B2190: NATS ANTENNA AMP	×	_	_	SEC-65 (Coupe), SEC-281 (Sedan)
B2191: DIFFERENCE OF KEY	×	_	_	SEC-69 (Coupe), SEC-285 (Sedan)
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-70 (Coupe), SEC-286 (Sedan)
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-71 (Coupe), SEC-287 (Sedan)
B2195: ANTI-SCANNING	_	_	_	<u>SEC-72</u>
B2553: IGNITION RELAY	_	_	_	PCS-59
B2555: STOP LAMP	_	_	_	SEC-73 (Coupe), SEC-289 (Sedan)
B2556: PUSH-BTN IGN SW	_	×	_	SEC-78 (Coupe), SEC-294 (Sedan)
B2557: VEHICLE SPEED	×	×	_	SEC-80 (Coupe), SEC-296 (Sedan)
B2560: STARTER CONT RELAY	×	×	_	SEC-81 (Coupe), SEC-297 (Sedan)
B2562: LOW VOLTAGE	_	_	_	BCS-35
B2601: SHIFT POSITION	×	×		SEC-82 (Coupe), SEC-298 (Sedan)
B2602: SHIFT POSITION	×	×	_	SEC-86 (Coupe), SEC-302 (Sedan)
B2603: SHIFT POSI STATUS	×	×	_	SEC-89 (Coupe), SEC-305 (Sedan)
B2604: PNP SW	×	×	_	SEC-92 (Coupe), SEC-308 (Sedan)
B2605: PNP SW	×	×	_	SEC-94 (Coupe), SEC-310 (Sedan)
B2606: S/L RELAY	×	×	_	SEC-96 (Coupe), SEC-312 (Sedan)

< ECU DIAGNOSIS INFORMATION >

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2607: S/L RELAY	×	×	_	SEC-97 (Coupe), SEC-313 (Sedan)
B2608: STARTER RELAY	×	×	_	SEC-99 (Coupe), SEC-315 (Sedan)
B2609: S/L STATUS	×	×	-	SEC-101 (Coupe), SEC-317 (Sedan)
B260A: IGNITION RELAY	×	×	_	PCS-61
B260B: STEERING LOCK UNIT	_	×	_	SEC-106 (Coupe), SEC-322 (Sedan)
B260C: STEERING LOCK UNIT	_	×	_	SEC-107 (Coupe), SEC-323 (Sedan)
B260D: STEERING LOCK UNIT	_	×	_	<u>SEC-108</u> (Coupe), <u>SEC-324</u> (Sedan)
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-109</u> (Coupe), <u>SEC-325</u> (Sedan)
B2611: ACC RELAY	_	_	_	PCS-62
B2612: S/L STATUS	×	×	_	SEC-110 (Coupe), SEC-331 (Sedan)
B2614: ACC RELAY CIRC	_	×	_	PCS-64
B2615: BLOWER RELAY CIRC	_	×	_	PCS-67
B2616: IGN RELAY CIRC	_	×	_	PCS-70
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-115</u> (Coupe). <u>SEC-336</u> (Sedan)
B2618: BCM	×	×	_	PCS-73
B2619: BCM	×	×	_	SEC-117 (Coupe) SEC-338 (Sedan)
B261A: PUSH-BTN IGN SW	_	×	_	SEC-118 (Coupe) SEC-339 (Sedan)
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	<u>SEC-121</u>
B2622: INSIDE ANTENNA	_	_	_	DLK-279
B2623: INSIDE ANTENNA	_	_	_	DLK-282
B26E1: ENG STATE NO RES	×	×	_	SEC-326
B26E8: CLUTCH SW	×	×	_	SEC-123
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	_	SEC-125
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-126
C1704: LOW PRESSURE FL			×	<u>WT-8</u>
C1705: LOW PRESSURE FR	_	_	×	<u>WT-8</u>
C1706: LOW PRESSURE RR	_	_	×	<u>WT-8</u>
C1707: LOW PRESSURE RL	_	_	×	<u>WT-8</u>
C1708: [NO DATA] FL	_	_	×	<u>WT-13</u>
C1709: [NO DATA] FR	_	_	×	<u>WT-13</u>
C1710: [NO DATA] RR	_	_	×	<u>WT-13</u>
C1711: [NO DATA] RL	_	_	×	<u>WT-13</u>
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-15</u>

Revision: June 2012 SEC-387 2011 Altima GCC

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	_	_	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	_	_	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	_	_	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	_	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	_	×	<u>WT-17</u>
C1720: [CODE ERR] FL	_	_	×	<u>WT-15</u>
C1721: [CODE ERR] FR	_	_	×	<u>WT-15</u>
C1722: [CODE ERR] RR	_	_	×	<u>WT-15</u>
C1723: [CODE ERR] RL	_	_	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	_	_	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	_	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	_	_	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	_	_	×	<u>WT-18</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-19</u>

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< ECU DIAGNOSIS INFORMATION >

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

Reference Value INFOID:0000000006931277

VALUES ON THE DIAGNOSIS TOOL

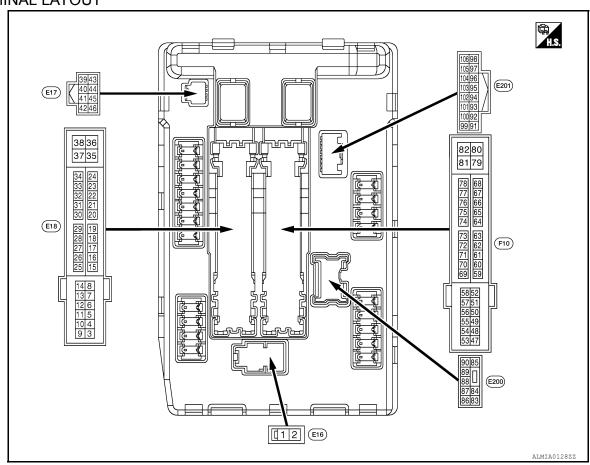
Monitor Item		Condition	Value/Status	
RADFAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %	
		A/C switch OFF	Off	
AC COMP REQ	Engine running	Engine running A/C switch ON (Compressor is operating)		
TAIL GOLD DEO	Lighting switch OFF	,	Off	
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On	
III I O DEO	Lighting switch OFF		Off	
HL LO REQ	Lighting switch 2ND HI or AUTC	(Light is illuminated)	On	
DEO	Lighting switch OFF		Off	
HL HI REQ	Lighting switch HI		On	
ED 500 D50	Lighting switch 2ND or	Front fog lamp switch OFF	Off	
FR FOG REQ	AUTO (Light is illuminated)	Front fog lamp switch ON	On	
		Front wiper switch OFF	STOP	
FR WIP REQ	Ignition switch ON	Front wiper switch INT	1LOW	
FR WIP REQ		Front wiper switch LO	Low	
		Front wiper switch HI	Hi	
	Ignition switch ON	Front wiper stop position	STOP P	
WIP AUTO STOP		Any position other than front wiper stop position	ACT P	
		Front wiper operates normally	Off	
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK	
ION BLV4 BEO	Ignition switch OFF or ACC	Off		
IGN RLY1 -REQ	Ignition switch ON	On		
	Ignition switch OFF or ACC	Off		
IGN RLY	Ignition switch ON		On	
DUOU OW	Release the push-button ignition	switch	Off	
PUSH SW	Press the push-button ignition s	On		
	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off	
INTED/ND OW		Release clutch pedal (M/T models)		
INTER/NP SW	Ignition switch ON	CVT selector lever in P or N position (CVT models)	On	
		Depress clutch pedal (M/T models)		
ST DLV CONT	Ignition switch ON	,	Off	
ST RLY CONT	At engine cranking		On	
IUDT DLV DEO	Ignition switch ON		Off	
IHBT RLY -REQ	At engine cranking		On	

SEC-389 Revision: June 2012 2011 Altima GCC

Monitor Item	Con	ndition	Value/Status			
	Ignition switch ON		Off			
	At engine cranking		ST →INHI			
ST/INHI RLY	•	control relay cannot be recognized by when the starter relay is ON and the	UNKWN			
DETENT SW	Ignition switch ON	 Press the selector button with CVT selector lever in P position CVT selector lever in any position other than P 	Off			
	Release the CVT selector button win NOTE: The lever is fixed ON for M/T	On				
	None of the conditions below are pr	Off				
S/L RLY -REQ	 Open the driver door after the ign seconds) Press the push-button ignition sw ed Depress the clutch pedal when the 	On				
	Steering lock is activated	LOCK				
S/L STATE	Steering lock is deactivated	UNLK				
	[DTC B210A] is detected	UNKWN				
DIL P SW	Ignition switch OFF, ACC or engine	running	Open			
JIL F 3VV	Ignition switch ON	Close				
	Not operated	Off				
HFT HRN REQ	 Panic alarm is activated Horn is activated with VEHICLE S TEM 	On				
IODNI CLUDD	Not operated		Off			
HORN CHIRP	Door locking with Intelligent Key (ho	Door locking with Intelligent Key (horn chirp mode)				

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

Termina		Description	Description		Description		Description		Description		Value	
(Wire co	olor) _	Signal name	Input/ Output		Condition	(Approx.)	SE					
1 (R)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage						
2 (L)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage	L					
4	Cround	Frant winer I O	Outnut	Ignition	Front wiper switch OFF	0 V	_					
(LG)	Ground	Front wiper LO	Output	switch ON	Front wiper switch LO	Battery voltage	M					
5	Cround	Front win or III	Outnut	Ignition	Front wiper switch OFF	0 V						
(Y)	Ground	Front wiper HI	Output	switch ON	Front wiper switch HI	Battery voltage	N					
7	Ground	Tail, license plate lamps &	Output	Ignition	Lighting switch OFF	0 V						
(GR)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage						
10				Ignition swi (For a few s switch OFF	seconds after turning ignition	0 V	0					
10 (BR)	Ground	ECM relay power supply	Output	Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage	Р					

SEC-391 Revision: June 2012 2011 Altima GCC

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< ECU DIAGNOSIS INFORMATION >

Terminal	-	Description				Value
(Wire co	— — — — — — — — — — — — — — — — — — —	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch OFF	A few seconds after opening the driver door	Battery voltage
11 (O)	Ground	Electronic steering column lock power supply	Output	Ignition switch LOCK	Press the push-button ig- nition switch	Battery voltage
				Ignition sw	itch ACC or ON	0 V
12 (B)	Ground	Ground	_	Ignition sw	itch ON	0 V
13					tely 1 second or more after ignition switch ON	0 V
(SB)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage
15	Ground	Ignition relay-1 power sup-	Output	Ignition sw	itch OFF	0 V
(W)	Ground	ply	σαιραι	Ignition sw	itch ON	Battery voltage
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position Any position other than front wiper stop position	0 V Battery voltage
19		Ignition relay-1 power sup-		Ignition sw	itch OFF	0 V
(Y)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
20 (L)	Ground	Ambient sensor ground	_	Ignition sw	itch ON	0V
21 (LG)	Ground	Ambient sensor	_	Ignition sw	itch ON	5V
22 (W/R)	Ground	Refrigerant pressure sensor ground	_	Ignition sw	itch ON	0V
23 (B/R)	Ground	Refrigerant pressure sensor	_	Both A/C	switch ON (READY) C switch and blower motor N (electric compressor oper-	1.0 - 4.0V
24 (BR/W)	Ground	Refrigerant pressure sensor power supply	_	Ignition sw	itch ON	5V
25	Ground	Ignition relay-1 power sup-	Output	Ignition sw	itch OFF	0 V
(GR)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
27	Ground	Ignition relay monitor	Input	Ignition sw	itch OFF or ACC	Battery voltage
(W)	Signia	.gon	put	Ignition switch ON		0 V
28	Ground	Push-button ignition	Input	Press the push-button ignition switch		0 V
(SB)		switch		Release th	e push-button ignition switch	Battery voltage
30 (R)		round Starter relay control		CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
(with M/T) 30 (BR) (with CVT)	Ground		Input	GIO	CVT selector lever P or N (ignition switch ON)	Battery voltage
(WILLI CVI)				M/T mod-	Release the clutch pedal	0 V
				els	Depress the clutch pedal	Battery voltage

< ECU DIAGNOSIS INFORMATION >

Terminal (Wire col		Description			Condition	Value
+	— —	Signal name	Input/ Output		Condition	(Approx.)
32	Ground	Electronic steering column	Input	Electronic s	steering column lock is acti-	0 V
(O/L)	Cround	lock unit condition-1	Прис	Electronic stivated	steering column lock is deac-	Battery voltage
33	Ground	Electronic steering column	lanut	Electronic s	steering column lock is acti-	Battery voltage
(G)	Ground	lock unit condition-2	Input	Electronic s	steering column lock is deac-	0 V
34	Ground	Cooling fan relay 3 control	Innut	Ignition sw	itch OFF or ACC	0 V
(O)	Ground	Cooling fan relay-3 control	Input	Ignition sw	itch ON	0.7 V
35	Ground	Cooling fan motor control	Output	Ignition sw	tch OFF or ACC	0 V
(P)	Ground	Cooling lan motor control	Output	Ignition sw	itch ON	0.7 V
36 (G)	Ground	Battery power supply	Input	Ignition sw	itch OFF	Battery voltage
38	Ground	Cooling fan motor control	Output	Ignition sw	tch OFF or ACC	0 V
(R/W)	Cround	Cooming fair motor control	Catput	Ignition sw	tch ON	0.7 V
39 (P)	_	CAN - L	Input/ Output		_	_
40 (L)	_	CAN - H	Input/ Output		_	_
41 (B)	Ground	Ground	_	Ignition sw	itch ON	0 V
42	Ground	Cooling fan relay-2 control	Input	Ignition sw	tch OFF or ACC	0 V
(SB)	Ground	Gooling lan relay 2 control	трис	Ignition sw	tch ON	0.7 V
					Press the CVT selector button (CVT selector lever P)	Battery voltage
43 (G/B)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	CVT selector lever in any position other than P Release the CVT selector button (CVT selector lever P)	0 V
44 (G/W) coupe	Ground	Horn relay control	Input	The horn is	deactivated	Battery voltage
(W) sedan	Ground	Tiom relay control	iliput	The horn is	activated	0 V
45	Carrie	Anti thaft have relevant to	المنتصما	The horn is	deactivated	Battery voltage
(L/O)	Ground	Anti theft horn relay control	Input	The horn is	activated	0 V
				CVT selector lever in any position other than P or N (ignition switch ON)		0 V
46 (BR)	Ground	Starter relay control	Input	els	CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T mod-	Release the clutch pedal	0 V
				els	Depress the clutch pedal	Battery voltage
					A/C switch OFF	0 V
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage

SEC-393 2011 Altima GCC Revision: June 2012

< ECU DIAGNOSIS INFORMATION >

Terminal I		Description				Value
(Wire cole	or) 	Signal name	Input/ Output		Condition	(Approx.)
				Ignition sw (For a few s switch OFF	seconds after turning ignition	0 V
49 (V)	Ground	ECM relay power supply	Output	Ignition s (More the	switch ON switch OFF an a few seconds after turn- on switch OFF)	Battery voltage
51	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V
(SB)	Cround	ignition roley power supply	Odipat	Ignition sw	itch ON	Battery voltage
52	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V
(Y)	Ground	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
53 (V) (with QR25DE)				Ignition sw (For a few s switch OFF	seconds after turning ignition	0 V
53 (G) (with VQ35DE)	Ground	ECM relay power supply	Output	,		Battery voltage
				Ignition sw (For a few s switch OFF	seconds after turning ignition	0 V
54 (GR)	Ground Throttle control motor relay power supply	Output	Ignition s (More the	switch ON switch OFF an a few seconds after turn- on switch OFF)	Battery voltage	
55 (LG)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56	Ground	lanitian ralau naucar aunahu	Outout	Ignition sw	itch OFF	0 V
(R)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
57	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0 V
(O)	Giodila	ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
58	0	La de la companya de	0 1: 1	Ignition sw	itch OFF	0 V
(BR) (with CVT)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
				Ignition sw (For a few s switch OFF	seconds after turning ignition	Battery voltage
69 (SB)	Ground	ECM relay control	Output	Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 - 1.5 V
						0 -1.0 V
70 (G)	Ground	Throttle control motor re- lay control	Output	Ignition switch $ON \to OFF$		↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 - 1.0 V
72 (W)		Transmission ray		-	CVT selector lever in P or N position	Battery voltage
(with QR25DE) 72 (BR) (with VQ35DE)	Ground	Transmission range switch signal	Input	Ignition switch ON	CVT selector lever in any position other than P or N position	0 V

< ECU DIAGNOSIS INFORMATION >

Termina (Wire co		Description			Condition	Value			
+	-	Signal name	Input/ Output		Condition	(Approx.)			
74	Cround	lanition relevance comple	Outout	Ignition switch OFF		0 V			
(L)	Ground	Ignition relay power supply	Output	Ignition swi	itch ON	Battery voltage			
75	0	Oil announce and take	lanat	Ignition	Engine stopped	0 V			
(LG)	Ground	Oil pressure switch	Input	switch ON	Engine running	Battery voltage			
				Ignition swi	itch ON	(V) 6 4 2 0 2ms JPMIA0001G 6.3 V			
76 (Y)	Ground	Power generation command signal	Output	Output	Output			on "Active test", "ALTERNA- " of "ENGINE"	(V) 66 4 2 0 *********************************
								on "Active test", "ALTERNA- " of "ENGINE"	3.8 V (V) 6 4 2 0 4 2ms
						1.4 V			
77 (GR)	Ground	Fuel pump relay control	Output		nately 1 second after turning on switch ON unning	0 - 1.0 V			
					tely 1 second or more after ignition switch ON	Battery voltage			
80 (R)	Ground	Starter motor	Output	At engine of	cranking	Battery voltage			
83	Ground	Headlamp LO (RH)	Output	Ignition	Lighting switch OFF	0 V			
(R/Y)	Jiodila	ricadianip LO (INT)	- Juipui	switch ON	Lighting switch 2ND	Battery voltage			
84	Ground	Headlamp LO (LH)	Output	Ignition	Lighting switch OFF	0 V			
(L)	Giodila	ricadianip LO (LIT)	Output	switch ON	Lighting switch 2ND	Battery voltage			
86		Front fog lamp (RH)		Lighting	Front fog lamp switch ON	Battery voltage			
(W/R)	Ground	(If equipped)	Output	switch 2ND	Front fog lamp switch OFF	0 V			
87		Front fog lamp (LH)		Lighting	Front fog lamp switch ON	Battery voltage			
67 (L/Y)	Ground	(If equipped)	Output	switch 2ND	Front fog lamp switch OFF	0 V			
88 (R/W)	Ground	Washer pump power supply	Output	Ignition swi	itch ON	Battery voltage			

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value
(Wire col	or) _	Signal name	Input/ Output	Condition		(Approx.)
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch HI lighting switch PASS	Battery voltage
(L/VV)					Lighting switch OFF	0 V
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage
					Lighting switch OFF	0 V
91	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
(LG/R)					Lighting switch OFF	0 V
92	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
(LG/B)					Lighting switch OFF	0 V
99 (BR/W)	Ground	Ambient sensor ground	_	Ignition switch ON		0V
100 (SB)	Ground	Ambient sensor	_	Ignition switch ON		5V
101 (O/L)	Ground	Refrigerant pressure sensor ground	_	Ignition switch ON 0V		0V
102 (R/B)	Ground	Refrigerant pressure sensor	_	Ignition switch ON (READY) Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V
103 (P)	Ground	Refrigerant pressure sensor power supply	_	Ignition switch ON		5V

Fail Safe INFOID:0000000006931279

CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

Control part	Fail-safe in operation
Cooling fan	 Signals cooling fans ON when the ignition switch is turned ON Signals cooling fans OFF when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Generator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe in operation			
Headlamp	 Turns ON the headlamp low relay when the ignition switch is turned ON Turns OFF the headlamp low relay when the ignition switch is turned OFF Headlamp high relay OFF 			
Parking lampsLicense plate lampsIlluminationTail lamps	 Turns ON the tail lamp relay when the ignition switch is turned ON Turns OFF the tail lamp relay when the ignition switch is turned OFF 			
Front wiper	 The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. 			

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

< ECU DIAGNOSIS INFORMATION >

Control part	Fail-safe in operation
Front fog lamps (if equipped)	Front fog lamp relay OFF
Horn	Horn OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF
Electronic steering column lock unit	Steering lock relay OFF

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- · If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
_	ON	ON	_
_	OFF	OFF	_
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	_

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index INFOID:0000000006931280

CONSULT display	Fail-safe	TIME	NOTE	Refer to
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	PCS-17
B2098: IGN RELAY ON	×	CRNT	1 – 39	PCS-18
B2099: IGN RELAY OFF	_	CRNT	1 – 39	PCS-19
B2108: STRG LCK RELAY ON	_	CRNT	1 – 39	<u>SEC-255</u>
B2109: STRG LCK RELAY OFF	_	CRNT	1 – 39	<u>SEC-256</u>
B210A: STRG LCK STATE SW	_	CRNT	1 – 39	<u>SEC-257</u>
B210B: START CONT RLY ON	_	CRNT	1 – 39	<u>SEC-262</u>
B210C: START CONT RLY OFF	_	CRNT	1 – 39	<u>SEC-263</u>

SEC-397 Revision: June 2012 2011 Altima GCC **SEC**

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

Fail-safe

< ECU DIAGNOSIS INFORMATION >

B210D: STARTER RELAY ON

B210E: STARTER RELAY OFF

CONSULT display

B210F: INTRLCK/TRANSMISSION RANGE SW ON

B2110: INTRLCK/TRANSMISSION RANGE SW OFF

=

SEC-269

SEC-275

 $\mathsf{TIME}^\mathsf{NOTE}$

1 - 39

1 - 39

1 - 39

1 - 39

CRNT

CRNT

CRNT

CRNT

NOTE:

The details of TIME display are as follows.

- CRNT: The malfunctions that are detected now
- 1 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like 0 → 1 → 2 ··· 38 → 39 after returning to the normal condition whenever IGN OFF → ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.

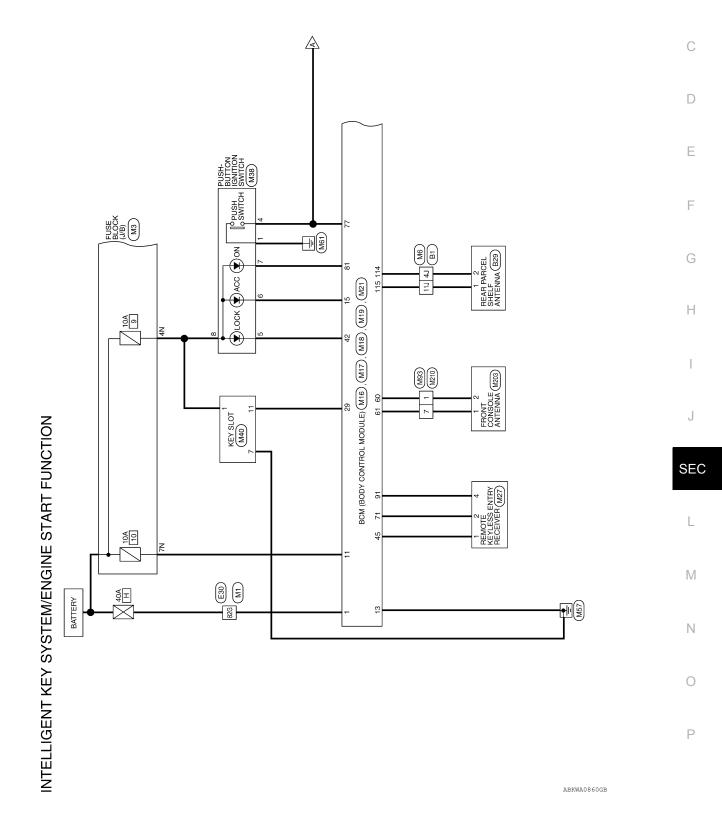
< WIRING DIAGRAM > [SEDAN]

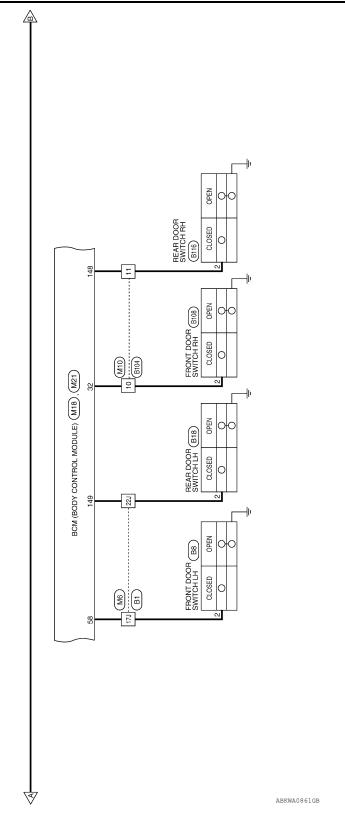
WIRING DIAGRAM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

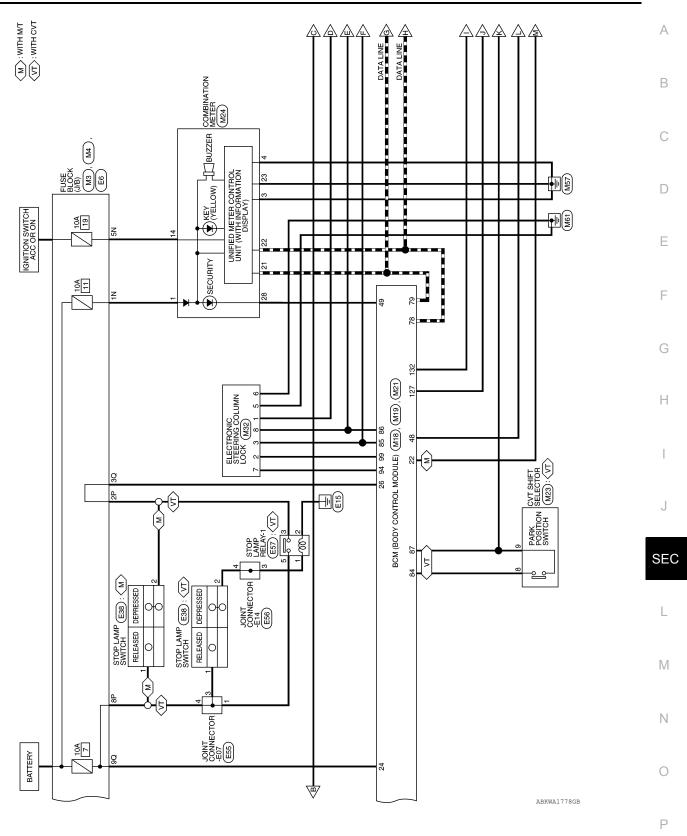
Wiring Diagram

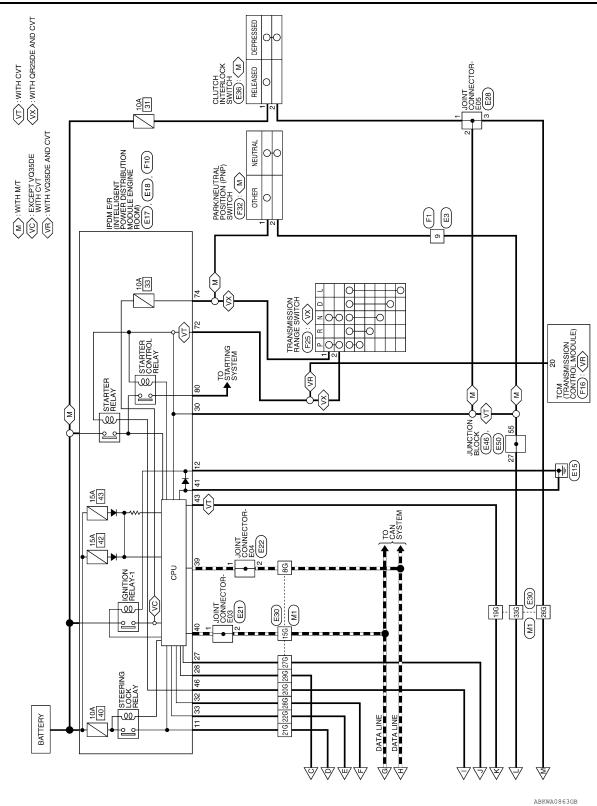
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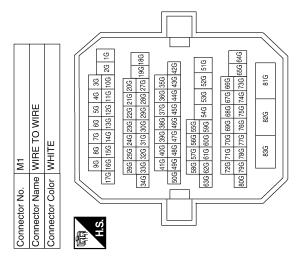




< WIRING DIAGRAM > [SEDAN]

			,						r	_
	FUSE BLOCK (J/B)	ITE		N. N.	7N 6N 5N 4N	Signal Name	ı	ı	1	I
. M3	me FU	lor WHITE		NE NE	-	Color of Wire	M/L	Z/G	λ/\	Y/R
Connector No.	Connector Name	Connector Color		匿	H.S.	Terminal No.	2	N4	2N	NZ.

Signal Name	ı	1	I	ı	1	1	ſ	ı	ı	-	ı	1
Color of Wire	۵	٦	G/B	Œ	P/L	G/R	R/Υ	BR/W	0/1	BR	R/G	W/B
Terminal No.	98	15G	19G	20G	21G	22G	26G	27G	28G	29G	33G	82G



M4 FUSE BLOCK (J/B) WHITE	40 30	Signal Name	I	ı	
9 2	40 100 0 0	Color of Wire	0/	B/W	
Connector No. Connector Name Connector Color	同 H.S.	Terminal No.	30	0 6	
				AB	sKIA2415GB

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Revision: June 2012 SEC-403 2011 Altima GCC

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Connector No. M10	
Signal Name	M17
Terminal No. Wife 4.1 B 11.1 W 17.1 SB 22.J R/B	Connector No. M17 Connector Name BCM Connector Color WHI H.S. 45 6 Terminal No. Wire 13 8 13 8 15 7/L
Connector No. M6 Connector Name WIRE TO WIRE Connector Color WHITE Soul 881 721 61 53 44 33 Tital 1621 163 163 173 163 173 173 173 173 173 173 173 173 173 17	Connector No. M16 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK Last Alast Ala

[SEDAN] < WIRING DIAGRAM >

Signal Name	RF1_TUNER_SIGNAL	ENG_START_SW	CAN-L	CAN-H	IGN_ON_LED	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	A_T7IHS	RF1_POWER_SUPPLY	S/L_POWER_ SUPPLY_12V	S/L_K-LINE
Color of Wire	9	BR	۵	_	LG	Y/R	0/7	G/R	G/B	L/R	G/Y	∖
Terminal No.	7.1	22	78	79	81	84	85	98	28	16	94	66

IIT-X ⁻ T/S	٨Л	66
¯kJddūS JMOd¯J/S	G/Y	94
_RF1_POWER_	Ы⁄Л	91
_TTIIHS	g/b	28
S/L_CONDIT	B/B	98
S/L_CONDIT	0/1	85
AI_DEVICE		40

Connector No.). M23	
Connector Na	ıme CVT	Connector Name CVT SHIFT SELECTOR
Connector Color WHITE	olor WHI	2
in H.S.	- 2	2 4 5 6 810
Terminal No.	Color of Wire	Signal Name
8	Y/R	DETENT_KEY_SW
6	G/B	DETENT KEY SW

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	62	90
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	64	,
П	65	

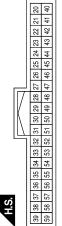
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				9	88	
_			1	61	81	
ı				62	82	
ı				63	83	
ı	<u>ō</u>			49	84	
ı	Ε.			65	85	
ı	Z			99	98	
ı	BCM (BODY CONTROL MODULE)			67	87	
ı	≿		l 17	89	88	
ı	ĎΨ		l <i>V</i>	69	88	
ı	@ <u>5</u>	쏫	I IN	0/	96	
ı	등	¥		7	91	
ı	ΜŽ	В		72	95	
+	O)	_		73	93	
	Ě	잉		74	94	
	ž	ŏ		75	95	
	Ď	ior		9/	96	
	ec	ec	16	78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61	97	
	L	ľ	H.S.	78	99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81	
	Connector Name	Connector Color BLACK	優王	62	66	
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4		_	ا ـ ا
1		ROOM_ANT_2_B	ROOM_ANT_2_A
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1	Signal Name	۱ŏ۱	ΙŏΙ
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1			
┨	Color of Wire		
┨	olor o Wire	B/R	W/R
4	ਰੋ≥	m	>
1	<u> </u>		
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1	<u> </u>	0	-
+	:≣	99	61
4	Terminal No.		
J	≝		
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Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	IGN_USM_CONT1	ST_CONT_USM	RR_DOOR_SW	RL_DOOR_SW
Color of Wire	В	Μ	BR/W	В	W/A	B/B
Terminal No. Wire	114	115	127	132	148	149

_

Connector No.	M18
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GREEN	GREEN



Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW	AS_DOOR_SW	S/L_LOCK_LED	GND_RF2_A/L	SHIFT_N/P	IMMO_LED	DR_DOOR_SW
Color of Wire	R/Y	B/W	O/L	>	R/B	В	Ь	R/G	0/1	SB
Terminal No.	22	24	26	29	32	42	45	48	49	58

M21	Connector Name BCM (BODY CONTROL MODULE)	GRAY	
Connector No.	Connector Name	Connector Color GRAY	H.S.

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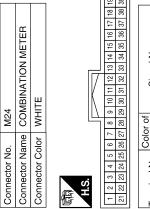
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	RING	
M32	ELECTRONIC STEE COLUMN LOCK	WHITE
Connector No.	Connector Name	Connector Color WHITE
	ENTRY	
	_	Connector Name

ELECTRONIC STEERING COLUMN LOCK	ПЕ	- 2 - 2 - 3 - 1 - 2	Signal Name	S/L_12V_MECHANICAL (V1)	S/L_COM	S/L_CONDITION_1	GND	GND	S/L_12V_CPU (V2)	S/L_CONDITION_2
	lor WHITE	48	Color of Wire	P/L	$\Gamma \lambda$	0/1	В	В	G/Y	G/R
Connector Name	Connector Color	画 H.S.	Terminal No.	-	2	3	5	9	7	80

REMOTE KEYLESS ENTRY RECEIVER	BLACK	2 3 4	Signal Name	GND	SIGNAL	12V
	_		Color of Wire	۵	0/7	LΉ
Connector Name	Connector Color	赋为 H.S.	Terminal No.	-	2	4



Signal Name	BAT	GND (POWER)	GND (ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY	
Color of Wire	M/L	В	В	٨/٨	_	۵	В	0/1	
Terminal No.	-	က	4	14	21	22	23	28	

	r	
Connector No.	o. M93	3
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	ITE
扇 H.S.	- 10	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Terminal No.	Color of Wire	Signal Name
-	B/R	ı
7	W/R	I

,	' SLOT	ITE	& 0 4 0 0 1 0 2 0 2	Signal Name	B+	GND	CARD SW 1
	me KE	lor WH	- 1 0 0	Color of Wire	G/Y	В	\
Collingate 140.	Connector Name KEY SLOT	Connector Color WHITE	H.S.	Terminal No.	1	7	11

			1							
m	PUSH-BUTTON IGNITION SWITCH	BROWN	56678	Signal Name	GND	START_SW	FOCK	ACC	NO	B+
. M38			<u> </u>	Color of Wire	В	BR	ш	Y/L	ГG	G/Y
connector No.	onnector Name	onnector Color	H.S.	erminal No.	1	4	5	9	7	8

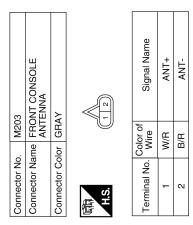
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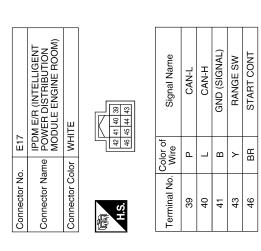
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onnector No onnector Na onnector Na onnector Co H.S.	. E3	me WIRE TO WIRE	lor WHITE	1 2 3 1 4 5 6 7 8 9 10 11 12 13 14 15 16	Color of Signal Name	0
	Connector No.	Connector Name	Connector Color	ψ.	Terminal No. Wire	

Connector No. E3 Connector Name WIRI Connector Color WHI E 9 10 Terminal No. Wire		WIRE TO WIRE	WHITE	8 9 10 11 12 13 14 15 16	Signal Name	1
Connector No Connector No Connector No Connector No Connector Co				8 9 2 1	Color of Wire	aa
	Connector No	Connector Na	Connector Co	向 H.S.	Terminal No.	6

0	WIRE TO WIRE	IE .	11 0 8 8 7 1 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name	-	ı
). M210	ıme WIF	olor WHITE	0 22	Color of Wire	B/R	W/R
Connector No.	Connector Name	Connector Color	(H.S.	Terminal No.	1	7





Connector No.	E6
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE
	7P 6P 5P 4P 3P 2P 1P 16P 15P 14P 16P 1P 8P 8P
Š	

FUSE BLOCK (J/B)	WHITE	7P (8F) (5P) (4P) (2P) (1P) (1P) (1P) (1P) (1P) (1P) (1P) (1	Signal Name	- (WITH M/T)	- (WITH CVT)	1
		7P 6P 5P 16P 15P 14P	Color of Wire	LG	Υ	В
Connector Name	Connector Color	雨 H.S.	Terminal No.	2P	2P	8P

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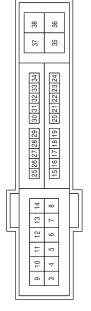
SEC-407 Revision: June 2012 2011 Altima GCC

Connector No.). E21	
Connector Na	ume JOII	Connector Name JOINT CONNECTOR-E03
Connector Color WHITE	olor WH	TE
原 H.S.	4	4 3 2 1
Terminal No.	Color of Wire	Signal Name
-	٦	1
2	_	ı

Signal Name	ESCL	GND (POWER)	IGN_SIGNAL	PUSH_START_SW	CLUTCH_I/L_SW (WITH M/T)	ECM (WITH CVT)	SL_CONDITION_1	SL_CONDITION_2
Color of Wire	0	В	Μ	SB	В	BR	Р	G
Terminal No.	11	12	27	28	30	30	32	33

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color WHITE	WHITE





Connector No.	. E28	8
Connector Name		JOINT CONNECTOR-E05
Connector Color		WHITE
南 H.S.	4	3 2 1 1
Terminal No.	Color of Wire	Signal Name
-	Œ	ı
7	œ	ī
ď	ď	_

-	JOINT CONNECTOR-E04	WHITE	8 3 2 1	Signal Name	-	_
. E22			4	Color of Wire	۵	Ь
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	1	2

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Connector Name CLU CH IN EHLOCK	SWITCH	Connector Color BROWN	4		Z	_		Terminal No. Color of Signal Name	D 3	s a	-				Connector No F46	e	- 1	_	(斯斯 40 39 38 37 38 38 34 33 32 H.S.	Color of	۳ No.	27 BR –		
	I	_	ı	1	1	1	1	1	1	1	1	1	1	1		AMP SWITCH	(WITH M/T)				Signal Name	1	1	
	<u> </u>		>	BB	0	5	æ	8	<u>م</u>	SB	BB	_	۵	re	E38			lor BLACK	2 1	Color of	Wire	œ	LG	
	8G	15G	19G	20G	21G	22G	26G	27G	28G	29G	33G	51G	52G	82G	N refrogue	Connector Name		Connector Color	H.S.		erminal No.	-	2	
				76 86 96	10G 11G 12G 13G 14G 15G 16G 17G	000	18G 19G 27G 28G 23G 24G 25G 26G 18G 19G 27G 28G 29G 30G 31G 32G 33G	20 20 20 20	39G 40G 41G	+/ a 49a 30a	536 546 550 550 550 550	000 010 050 000		a 77G 78G 79G 80G		/ITCH	5				Vame			
	ЩЩ	I I		3G 4G 5G 6G	0G 11G 12G 13G	000 000	20G 21G 22G 23G	200 200 200 200	35G 36G 37G 38G 39G 40G 41G	45G 45G 44G 45G 40G 47G 46G 48G 50G	536 546 556	380	66G 67G 68G 69G 70G	64G bod 73G 74G 75G 76G 77G		WS AMP I AC	(WITH CVT)	TE	8 1 2 4 2		Signal Name	I	1	
		_			16 26 1		18G 19G		8 8	450 4	516 596	<u> </u>	0	546 554	α Ε Ε	- 1		-		Color of	o. Wire	æ	LG	
20400	1				Ņ.										on stoamoo	Connector Name)	Connector Color	H.S.		l erminal No.	-	N	

Revision: June 2012 SEC-409 2011 Altima GCC

[SEDAN] < WIRING DIAGRAM >

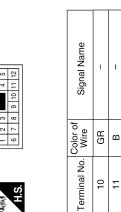
Connector No. E56 Connector Name JOINT CONNECTOR-E14 Connector Color WHITE I 4 3 2 1 3 1 1 3 1 1 3 1 1	Terminal No. Color of Signal Name 3 LG – 4 LG –	Connector No. F10 Connector Name POWER (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE H.S.	Si Si Si Si Si Si Si Si
E55 JOINT CONNECTOR-E07 WHITE	Color of Signal Name Wire W - R - R R - R	WIRE TO WIRE WHITE	Color of Signal Name Wire W
Connector No. Connector Color Connector Color	Terminal No. Co	Connector No. Connector Name Connector Color H.S.	Terminal No. Co
E50 JUNCTION BLOCK WHITE 56 55	Signal Name	E57 STOP LAMP RELAY-1 BLUE	Signal Name
Connector No. E50 Connector Name JUN Connector Color WHI	Terminal No. Wire 55 BR	Connector No. E57 Connector Color BLUE	Terminal No. Color of No. Color

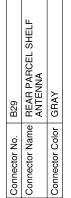
< WIRING DIAGRAM > [SEDAN]

																А
F32 PARKINEUTRAL POSITION (PNP) SWITCH			Signal Name	ı			SWITCH LH						lame	DOOR SW (DR)		В
2 RK/NEUTRA NP) SWITCH	BLACK	(2) 1					FRONT DOOR SWITCH LH	WHITE		\bigcirc	- 0	N 60	Signal Name	DOOR		С
	_		o. Wire	-	>	8		_					Color of Wire	SB		D
Connector No. Connector Name	Connector Color	मित्री H.S.	Terminal No.	-	N	ON rotogano	Connector Name	Connector Color		偃	H.S.		Terminal No.	2		Е
																F
ON RANGE			Signal Name	IGN P N	P N OUTPUT		Name	1	1	1	1					G
F25 TTANSMISSION RANGE SWITCH	ğ [8 4 3 7		10	2		Signal Name									Н
	olor BLACK	8 2	Color of Wire	_ :	>	-	Color of Wire	>	Χ	SB	BR					I
Connector No. Connector Name	Connector Color	(和)	Terminal No.	-	7		Terminal No.	4	11)	17.1	22J					J
										,	//) [F		SEC
MISSION DDULE)		39 40 47 48 29 30 45 46 19 20 43 44			Signal Name ST RLY		ž.	!				33 143 153 163 173	21 25 21 25 24 25 25 21 25 21 25 25 25 25 25 25 25 25 25 25 25 25 25	35.1 36.1 37.1		L
F16 TCM (TRANSMISSIOI CONTROL MODULE)	BLACK	22 33 34 55 36 37 38 39 40 47 22 23 24 25 26 27 28 29 30 45 12 13 14 15 16 17 18 19 20 43	4 5 6 7 8	7		à	BI WIRE TO WIRE	WHITE			3 4 51 6	20 100 1	19.1 20.1	31.) 32.) 33.) 34.) 35.) 36.) 37.)	385 380 400 471 422 432 441 485 486 471 481 562 572 582 583 544 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584 584	M
	Connector Color E		1 2 3		ial No. Wire		Connector No.		-			10	188		12 R 18 R	N
Connec	Connet	H.S.			Terminal No.		Conne	Conne			N I					0
						I									AAKIA0625GB	Р

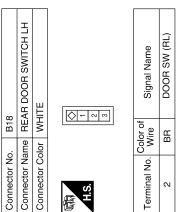
Revision: June 2012 SEC-411 2011 Altima GCC

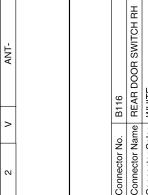
Connector Name WIRE TO WIRE Connector Color BROWN	Connector No.	B104
	Connector Name	WIRE TO WIRE
		BROWN













Connector Name Connector Color H.S.		WHITE WHITE Cimple Name Cimple Name
l erminal No.	Wire	Signal Name
2	В	DOOR SW (RR)

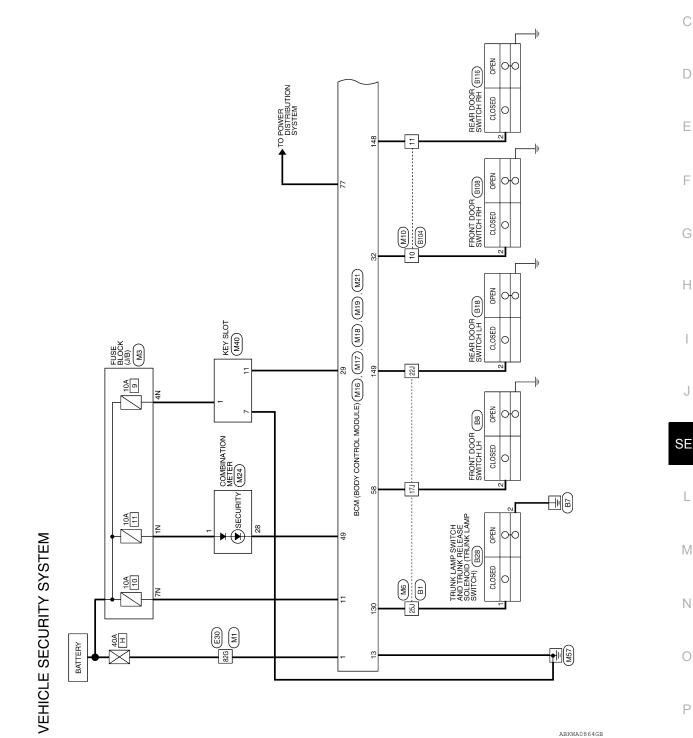
Connector No.). B108	18
Connector Name		FRONT DOOR SWITCH RH
Connector Color	olor WHITE	ПЕ
H.S.		
Terminal No.	Color of Wire	Signal Name
2	В	DOOR SW (AS)

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[SEDAN] < WIRING DIAGRAM >

VEHICLE SECURITY SYSTEM

Wiring Diagram INFOID:0000000006389807



SEC-413 2011 Altima GCC Revision: June 2012

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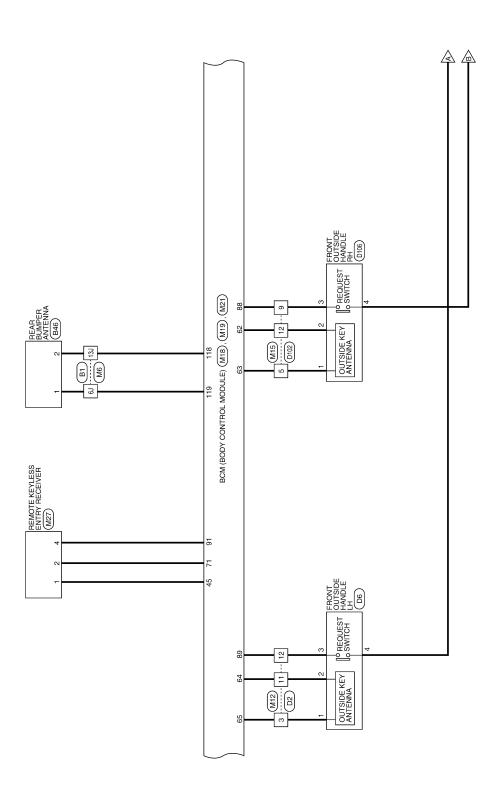
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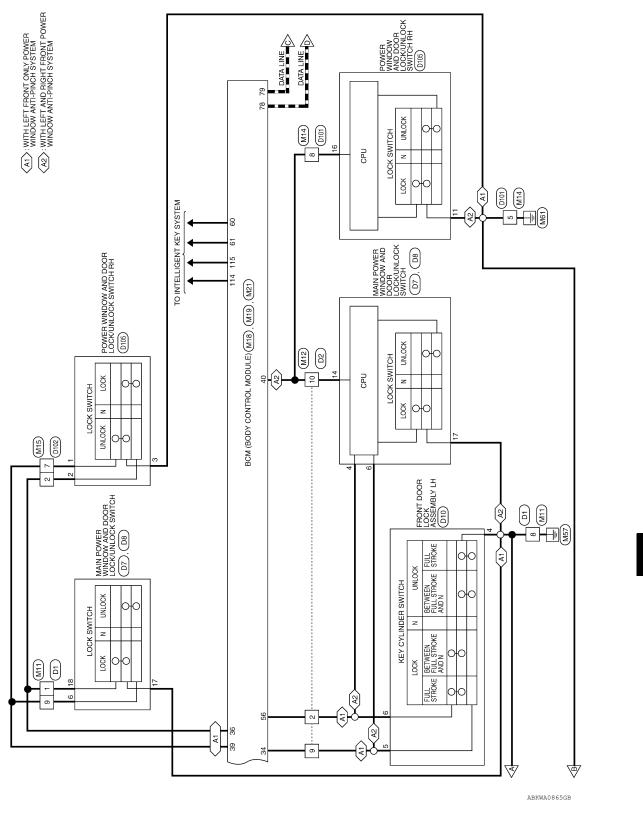
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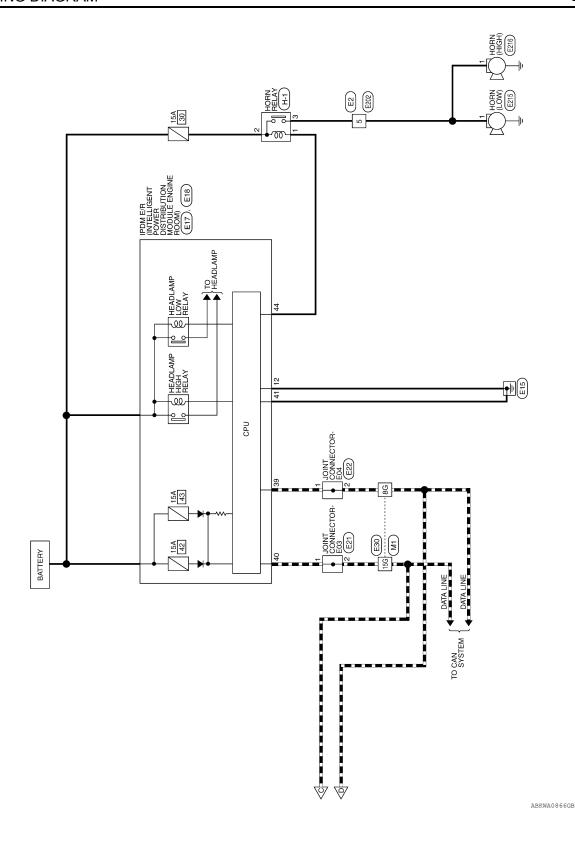
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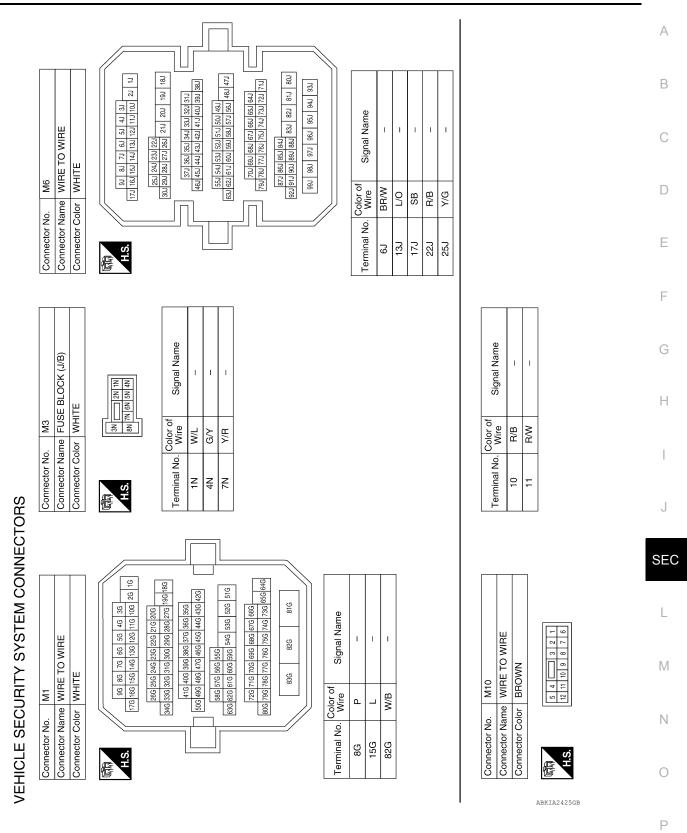
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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM > [SEDAN]



Revision: June 2012 SEC-417 2011 Altima GCC

Connector No. M11 Connector Name WIRE TO WIRE Connector Color WHITE	Vo. M11 Vame WIRE T	I RE TO WIRE ITE	Connector No. M12 Connector Name WIRE TO WIRE Connector Color WHITE	M12 ame WIRE T	E TO WIRE	Connector No. M14 Connector Name WIRE TO WIRE Connector Color WHITE	M14 mme WIRE Tolor WHITE	E TO WIRE	
H.S.	8 10 8	3	语 S.H	9 10 11	4 5 6 7 8 12 13 14 15 16	E.S.	- L 0 0	7 8 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
1	GR	ı	2	L/B	1	5	В	t	
8	В	ı	8	А	1	8	Y/G	-	
6	GR/R	1	б	L/R	1				ı
			10	Y/G	1				
			11	>	1				
			12	B/W	ı				
Connector No.	No. M15		Connector No.). M16		Connector No.	. M17		
Connector Name Connector Color	Vame WIRE T	Connector Name WIRE TO WIRE Connector Color WHITE	Connector Name		BCM (BODY CONTROL MODULE) BLACK	Connector Name		BCM (BODY CONTROL MODULE) WHITE	
原 H.S.	2 8	0 4 6 6 6 7 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	H.S.		13	原 H.S.	4 5 6	11 12 13 14 15 16 17 18 19	ı
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
2	G/R	1	-	M/B	BAT_POWER_F/L	11	Y/R	BAT_BCM_FUSE	
2	re	I				13	В	GND1	
7	GR/R	-							
6	P/L	I							
12	B/Y	1							

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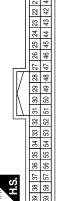
		BODY CONTROL JLE)			22 121 120 119 118 117 116 115 114 113 112 42 141 140 139 138 137 136 135 134 133 132	Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	BACK_DOOR_ANT_B	BACK DOOR ANT A
r	Connector No. MZ1	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY	哥 H.S.	131 30 28 22 12 12 12 12 12 12	Terminal No. Color of Signal Name	114 B TRUNK_ANT_1	115 W TRUNK_ANT_1	118 L/O BACK_DOOR_AI	119 BB/W BACK DOOR AL

Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	BACK_DOOR_ANT_B	BACK_DOOR_ANT_A	TRUNK_SW	RR_DOOR_SW	RL_DOOR_SW	
Color of Wire	В	Μ	9	BR/W	Y/G	W/A	R/B	
Terminal No. Wire	114	115	118	119	130	148	149	

Connector No.	M19
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK

51												
	Signal Name	ROOM_ANT_2_B	ROOM_ANT_2_A	AS_DOOR_ANT_B	AS_DOOR_ANT_A	DR_DOOR_ANT_B	DR_DOOR_ANT_A	RF1_TUNER_SIGNAL	ENG_START_SW	CAN-L	CAN-H	RF1_POWER_SUPPLY
,	Color of Wire	B/R	W/R	В/У	LG	>	۵	0/1	BR	Ь	Т	Ľ
20 20 20 20 20 20	Terminal No.	09	61	62	63	64	65	71	22	82	62	91

M18	Connector Name BCM (BODY CONTROL MODULE)	GREEN	
Connector No.	Connector Name	Connector Color GREEN	



Signal Name	FOB_IN_SW_1	AS_DOOR_SW	DOOR_KEY/C_ UNLOCK_SW	CENTRAL_LOCK_SW	CENTRAL_ UNLOCK_SW	PW_K-LINE	GND_RF2_A/L	IMMO_LED	DOOR_KEY/C_ LOCK_SW	DR_DOOR_SW
Color of Wire	Υ	R/B	L/R	GR	GR/R	Y/G	Ь	0/1	L/B	SB
Terminal No.	59	32	34	36	39	40	45	49	56	58

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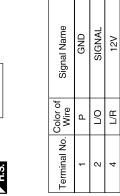
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Connector No.	M40
Connector Name KEY SLOT	KEY SLOT
Connector Color WHITE	WHITE
H.S.	1 1 1 1 1 1 1 1 1 1

Signal Name	B+	GND	CARD SW 1
Color of Wire	G/Y	В	X
Terminal No. Wire	1	2	11





Signal Name

Color of Wire

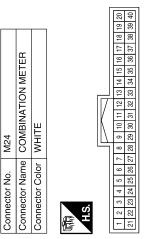
Terminal No.

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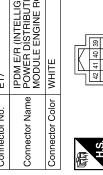
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E17	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	WHITE
Connector No.	Connector Name	Connector Color WHITE

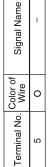


	Signal Name	CAN-L	CAN-H	GND (SIGNAL)	HORN_RLY
]]	Color of Wire	Ь	٦	В	Μ
	Terminal No. Wire	39	40	41	44

Connector Color WHITE	
H.S.	6 7







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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM > [SEDAN]

Signal Name Connector No. E21 Connector Name JOINT CONNECTOR-E03 Connector Color WHITE Connector Color Color	A B C D E
12 B	H J SEC
PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) WHITE	L
Connector No. E18 Connector Name POWEF MODUL Connector Color WHITE Connector No. E22 Connector Name JOINT Connector Color Whire 1 P P 1 1 1 1 1 1 1 1	N
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Connector No. E216 Connector Name HORN (HIGH) Connector Color BLACK H.S. Terminal No. Wire Signal Name 1 G -	Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE Terminal No. Wire Signal Name 2 SB DOOR SW (DR)
Connector No. E215 Connector Name HORN (LOW) Connector Color BLACK H.S. Terminal No. Wire Signal Name 1 G -	Terminal No. Color of Signal Name 6J L - 13J LG - 17J SB - 22J BR - 25J W -
Connector No. E202 Connector Name WIRE TO WIRE Connector Color WHITE Signal Name Signal N	Connector No. B1 Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE (1) 21 101 110 113 1141 1151 1151 1151 1171 11) 22 120 120 120 120 120 120 120 120 120

	REAR BUMPER ANTENNA			Signal Name	ANT+	ANT-
B46	l	GRAY	1 2 2	Color of Wire	_	
9	Vame	Color				_
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	5

Connector No.	B28
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
Connector Color WHITE	WHITE

	REAR DOOR SWITCH LH	WHITE		Signal Name	DOOR SW (RL)
. B18		_		Color of Wire	BB
Connector No.	Connector Name	Connector Color	品. H.S.	Terminal No.	2

	_			1	
Signal Name	ANT+	ANT-			
Color of Wire	_	ГG			B116
Terminal No. Wire	1	2			Connector No. B116
			1		0
Signal Name	ı	ı			8
Color of Wire	8	В			B108
Terminal No. Wire	-	2			Connector No. B108

	WITCH RH		
B116	REAR DOOR S	WHITE	
Connector No. B116	Connector Name REAR DOOR SWITCH RH	Connector Color WHITE	
B108	onnector Name FRONT DOOR SWITCH RH	WHITE	
Connector No. B108	Connector Name	Connector Color WHITE	

B104	WIRE TO WIRE	BROWN	6 7 8 9 10 11 12
Connector No.	Connector Name WIRE TO WIRE	Connector Color BROWN	赋 H.S.

Terminal No. Wire Signal Name 10 GR – 11 B – 12			
Color of Wire 10 GR 11 B		1	1
erminal No.	Color of Wire	GR	В
	Terminal No.	10	11

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Signal Name DOOR SW (RR)

Color of Wire

Terminal No.

Signal Name DOOR SW (AS)

GR

Terminal No. Wire

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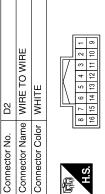
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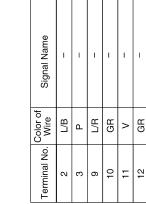
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Connector Name FRONT OUTSIDE HANDLE LH Connector Color BLACK	Connector No.	D6
	Connector Name	FRONT OUTSIDE HANDLE LH
		BLACK

Signal Name	ANT+	-INA	+MS	-MS
Color of Wire	Ь	۸	GR	В
erminal No. Wire	-	2	3	4







Signal Name	ı	I	-
Color of Wire	GR	В	GR/R
Terminal No.	-	8	6

Connector No.	D8
Connector Name	MAIN POWER WINDOW Connector Name AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	WHITE
画 H.S.	17 18 19

Signal Name GND LOCK

Color of Wire

Terminal No.

B GR

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Signal Name	LOCK	UNLOCK (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)	UNLOCK (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)	COM
Color of Wire	L/B	æ	GR/R	GR
erminal No. Wire	4	9	9	14

Connector No.	٦/
Connector Name	Connector Name AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	WHITE
	2 3 4 5 6 7
8	8 9 10 11 12 13 14 15 16
	_

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onnector No.	D101	Connector No. D102	D102
onnector Name	nnector Name WIRE TO WIRE	Connector Name	onnector Name WIRE TO WIRE
onnector Color WHITE	WHITE	Connector Color WHITE	WHITE

Connector No.	D10
Connector Name	Connector Name FRONT DOOR LOCK ASSEMBLY LH
Connector Color GRAY	GRAY
(南) H.S.	2 3 4 5 6

8 5 9	Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW_	DOOR KEVIC
1 2	Color of Wire	В	L/R	
H.S.	Terminal No. Wire	4	5	

Signal Name	1	ı	-	1	ı
Color of Wire	GR	Œ	GR/R	GR	Т
Terminal No. Wire	2	2	2	6	12

Signal Name	I	I	
Color of Wire	В	В	
Terminal No. Wire	5	8	

Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW_	DOOR_KEY/C_ LOCK_SW	
Color of Wire	В	L/R	L/B	
Terminal No. Wire	4	5	9	

Q	FRONT OUTSIDE HANDLE RH	OK	2 3 4	Signal Name	ANT+	ANT-	SW+	-MS
		lor BLACK		Color of Wire	В	٦	GR	В
COLLIGATION NO.	Connector Name	Connector Color	馬斯 H.S.	Terminal No.	-	2	ဇ	4

Connector No. D105	Connector Name FRONT ONLY POWER WINDOW AND BOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)	Connector Color WHITE	
Connec	Connec	Connec	

Connector Name		POWER WINDOW ANI DOOR LOCK/UNLOCK SWITCH RH (WITH LE FRONT ONLY POWEF WINDOW ANTI-PINCH SYSTEM)
Connector Color		WHITE
H.S.	9 1 2	3 4 5 1 1 1 2
Terminal No.	Color of Wire	Signal Name
1	GR	ГОСК
2	GR/R	NNFOCK

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH HR (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color WHITE	WHITE
H.S.	2 3 4

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT FRONT POWE WINDOW ANTI-PINCH SYSTEM)	ITE	3 4 6 7	Signal Name	GND	COM
SW S	olor WHITE	8 9 10	Color of Wire	В	н
Connector Name	Connector Color	H.S.	Terminal No. Color of Wire	11	16

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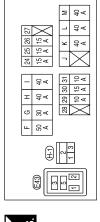
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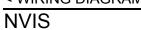
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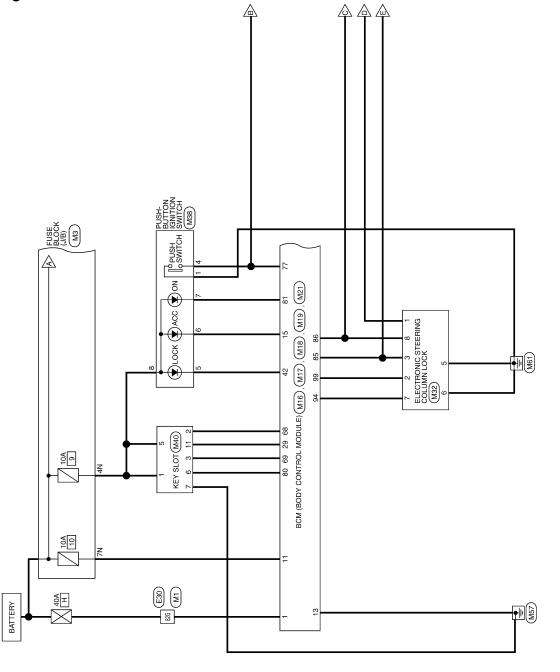


Signal Name	-	_	_
Color of Wire	M	SB	0
Terminal No.	-	2	3

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Wiring Diagram



NVIS

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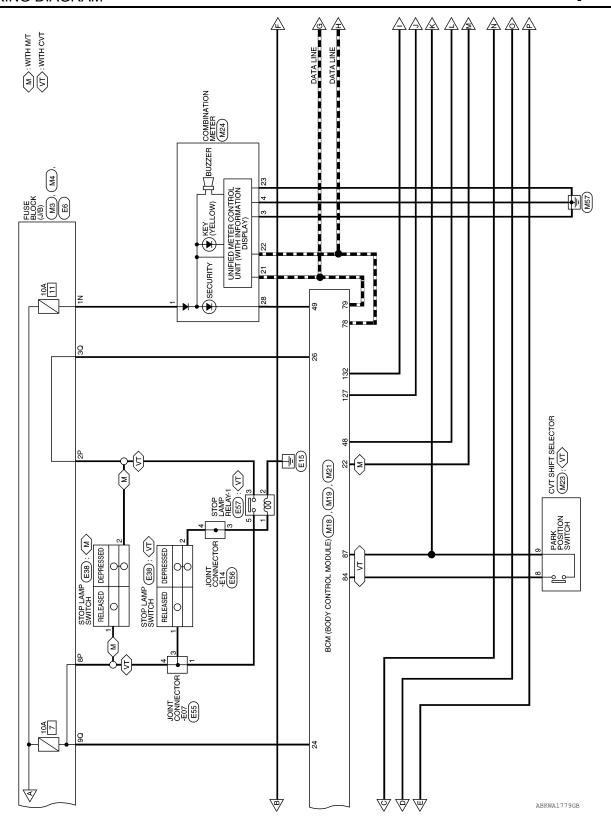
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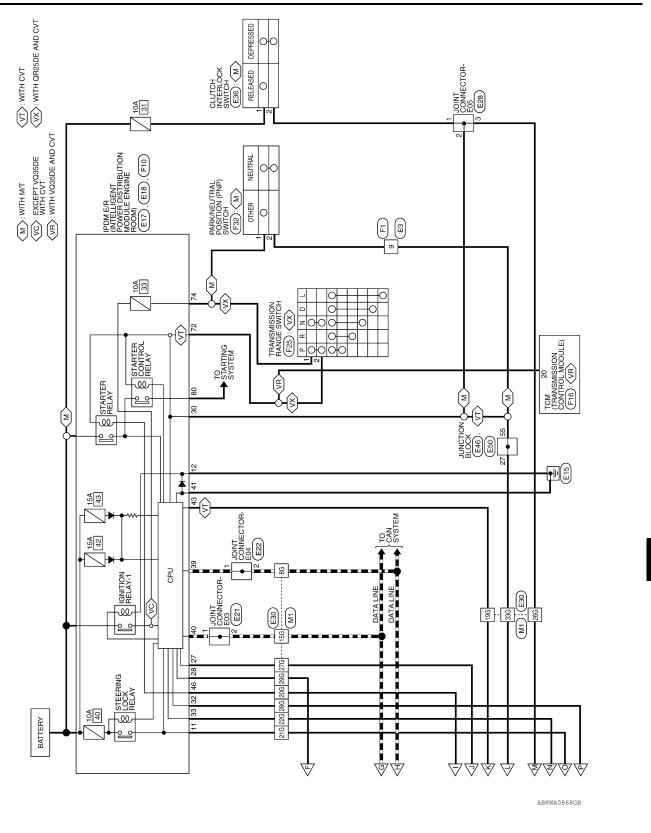
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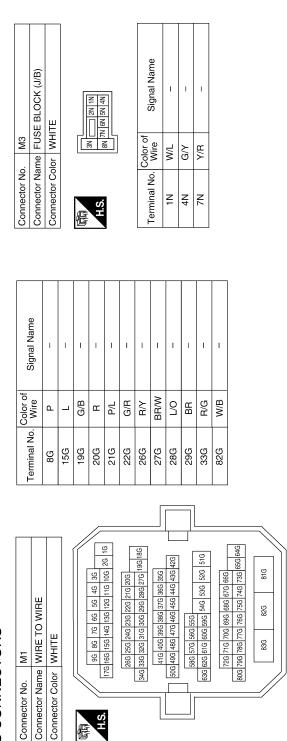
NVIS CONNECTORS

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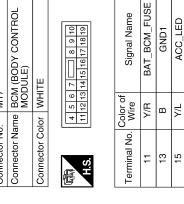
Connector No.

Connector Color WHITE

H.S.



	M17	Connector Name BCM (BODY CONTROL MODULE)	WHITE	
	Connector No.	Connector Name	Connector Color WHITE	



	BCM (BODY CONTRO MODULE)	CK	1 2 1	Signal Name
M16		BLACK		Color of Wire
_ ا	ıme	lo		
Ϊ́	r Na	Š		Š.
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.

Connector Name BCM (BODY CONTROL MODULE)	CK		Signal Name	BAT_POWER_F/L
me BCN MOI	or BLA		Color of Wire	M/B
Connector Na	Connector Color BLACK	崎 H.S.	Terminal No.	1

Connector No.). M4	
Connector Name		FUSE BLOCK (J/B)
Connector Color WHITE	lor WH	TE
原 H.S.	40 30 100 90	40 30 20 10 100 90 80 70 60 50
Terminal No.	Color of Wire	Signal Name
30	7/O	1
06	B/W	-

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	Signal Name	ENG_START_SW	CAN-L	CAN-H	FOB_SLOT ILLUMINATION	IGN_ON_LED	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	SHIFT_P	S/L_POWER_ SUPPLY_12V	S/L_K-LINE
Color of	Wire	BR	۵	_	B/L	2	Y/R	0/7	G/R	G/B	G/Y	≥
H	ı erminal No.	22	78	79	80	81	84	85	98	87	94	66

Connector No.	M19
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK

		150	∞		r —	
		78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61	82 81		X	⋖
		63	88 87 86 85 84 83		FOB_READER_CLOCK	FOB_READER_DATA
		94	8		딩	
		65	88) H	اسا	בין
		99	88	a	핃	ä
	\square	67	87	Signal Name	⋈	ĕ
	117	89	88	l g	置.	۳,
	W	69	88	N.	اھ	B.
	IN.	20	8		유	M
	Ш	11	98 97 96 95 94 93 92 91	4_		
		72	95	Color of Wire	G/O	0
		73	88	Solor o Wire	छ	١٥
		74	95	0		
		75	98	9		
		9/	96	=		
ιń		17	97	Terminal No.	89	69
H.S.			8	\		
4		6/	8	≝		
7		79	66	_ P		

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				20	4
			1	21	41
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	١.			23	\$
	ΙŌ			24	4
	性			22	45
	BCM (BODY CONTROL MODULE)			56	9
	ပြ			27	47
	l≿			28	8
	βŵ	_		83	6
	© ₫		I IN	8	20
M18	BCM (BOD MODULE)	牌		33	2
Σ	ĭĕĔ	ਹ		32	22
	Φ			33	23
	띭	응		34	24
ž	ž	ŏ		35	22
ξ	ģ	ğ		38	29
Connector No.	Connector Name	Connector Color GREEN	(6)	38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20	58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40
п	ű	Ĕ	H.S.	38	28
ပိ	ပိ	ပြ	優!	33	29

Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW_1	S/L_LOCK_LED	SHIFT_N/P	IMMO_LED
Color of Wire	R/Υ	B/W	O/L	>	ж	B/G	0/7
Terminal No.	22	24	56	59	42	48	49

Connector No.	. M23	
Connector Name	me CVT	CVT SHIFT SELECTOR
Connector Color WHITE	lor WHI	TE
原 H.S.	- 2	4 5 6 8 10
Terminal No.	Color of Wire	Signal Name
8	H/Y	DETENT_KEY_SW
6	G/B	DETENT_KEY_SW

r No.	M21
Name	r Name BCM (BODY CONTROL MODULE)
Color	r Color GRAY

M21	Connector Name BCM (BODY CONTRO MODULE)	GRAY	
Connector No.	Connector Name	Connector Color GRAY	

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	131 130 130 128 127 126 125 124 123 122 121 120 130 130 131 141 141 142 142 141 140 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130 130	Signal Name	IGN_USM_CONT1	ST_CONT_USM
	126 125 124 12	Color of Wire	BR/W	В
H.S.	131 130 129 128 127 151 150 149 148 147	Terminal No. Wire	127	132

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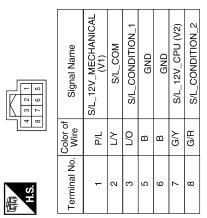
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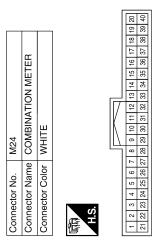
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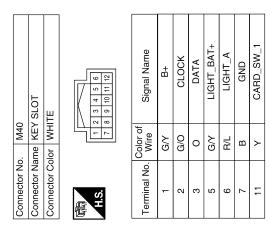
Connector No.	M32
Connector Name	Connector Name ELECTRONIC STEERING COLUMN LOCK
Connector Color WHITE	WHITE

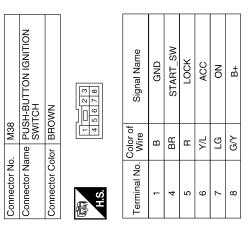


Signal Name	BAT	GND (POWER)	GND (ILL)	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
Color of Wire	M/L	В	В	٦	Ь	В	0/1
Terminal No.	1	3	4	21	22	23	28

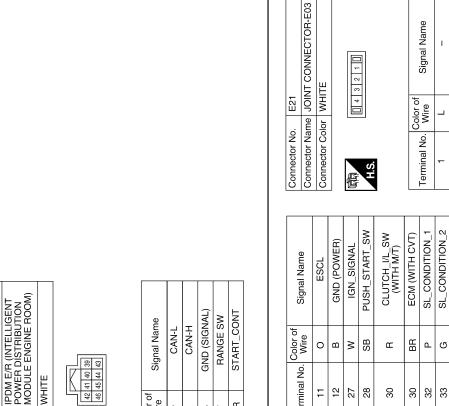


	E TO WIRE	Ш	2 3 4 5 6 7 9 1011 12 13 14 15 16	Signal Name	ı
E3	me WIR	lor WHITE	8 9 10	Color of Wire	BR
Connector No.	Connector Name WIRE TO WIRE	Connector Color	H.S.	Terminal No. Wire	6





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Terminal No.

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GND (SIGNAL) RANGE SW Signal Name CAN-L CAN-H Color of Wire BR ۵ В > Terminal No. 40 4₁ 46 33

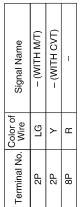


WHITE

E17

Connector No.

Connector Name Connector Color



				22324 35 36 22324 35 36
E18	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	WHITE		3 4
Connector No.	Connector Name	Connector Color	S.H.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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SEC-433 Revision: June 2012 2011 Altima GCC

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c	CLUTCH INTERLOCK SWITCH	BROWN	N-	Signal Name	ı	I
F36	le l			Color of Wire	>	Ж
Connector No.	Connector Name	Connector Color	崎 H.S.	Terminal No.	-	2
	•		·			

Connector Name JOINT CONNECTOR-E04
Connector Color WHITE

E22

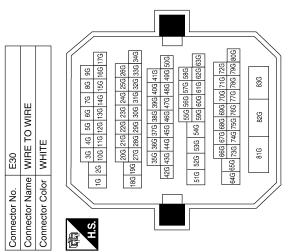
Connector No.

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Signal Name	I	_	1	
Color of Wire	ш	Я	ш	
Terminal No. Wire	-	2	3	
				•

	Signal Name	1	1
	Color of Wire	Ь	۵
H.S.	Terminal No. Wire	-	2

Signal Name	1	İ	ĺ	1	I	I	1	ı	-	I	_	_
Color of Wire	۵	٦	\	BR	0	១	В	M	Ь	SB	BR	LG
Terminal No.	8G	15G	19G	20G	21G	22G	26G	27G	28G	29G	33G	82G



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[SEDAN] < WIRING DIAGRAM >

							_		
E46	Connector Name JUNCTION BLOCK		31 30 29 28		Signal Name	ı			
Connector No.	tor Name		100 S		Terminal No. Wire	BB			
Connect	Connect	Dalilloo	H.S.		Termina	27			
8	Connector Name STOP LAMP SWITCH (WITH M/T)	ACK	2 1		Signal Name		ı	1	
D. E38	ame ST(olor BLA			Color of	wire	œ	ГС	
Connector No.	Connector Na	Connector Color BLACK	南 H.S.		Color of Terminal No Miss.	3	-	2	
	-								
8	Connector Name STOP LAMP SWITCH (WITH CVT)	ITE	N		Signal Name		1	ı	
. E38	Ime ST(lor Wh			Color of	wire	Œ	LG	
Connector No.	Connector Na	Connector Color WHITE	E.S.		Terminal No	2	-	2	

1				ı		
		Connector Name JOINT CONNECTOR-E14	ТЕ	4 3 2 1 1	Signal Name	I
). E56	IMe JOI	olor WH	4	Color of Wire	ГС
	Connector No.	Connector Na	Connector Color WHITE	所 H.S.	Terminal No. Color of Wire	ဇ
		Connector Name JOINT CONNECTOR-E07	ІТЕ	4 3 2 1 1	Signal Name	I
	. E55	ıme JOI	lor WH	4	Color of Wire	>
	Connector No.	Connector Na	Connector Color WHITE	京司 H.S.	Terminal No. Wire	-
!						
		ame JUNCTION BLOCK	IITE	96 55	Signal Name	1
	o. E50	ame JUN	olor WHITE		Color of Wire	BB

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	Connector Name JUNCTION BLOCK	WHITE	98	Signal Name	_
. = 50	ume JU			Color of Wire	BR
Connector No.	Connector Na	Connector Color	明.S.	Terminal No.	55

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SEC-435 2011 Altima GCC Revision: June 2012

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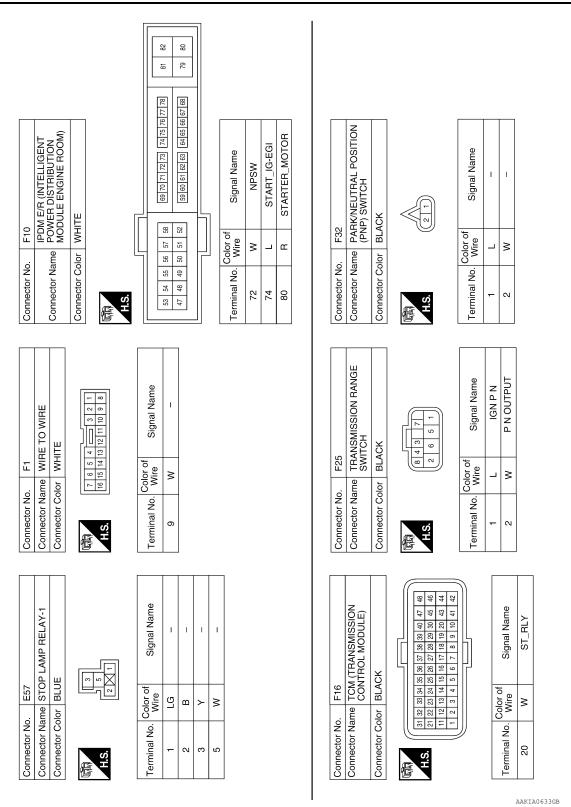
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NVIS [SEDAN] < WIRING DIAGRAM >



INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS > [SEDAN]

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

Engine cannot be started with all Intelligent Keys.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-222, "Work Flow"</u>". Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis
- Check systems shown in the "Diagnosis/service procedure" column in this order.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- · Engine start function is ON when setting on CONSULT.
- Use Intelligent Key with registered Intelligent Key ID.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the passenger compartment.

Diagnosis/service proced	Reference page	
1. Chook newer supply and ground circuit	ВСМ	BCS-36
Check power supply and ground circuit	IPDM E/R	PCS-20
2. Check push button ignition switch		SEC-339
3. Check Intermittent Incident	<u>GI-42</u>	

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Revision: June 2012 SEC-437 2011 Altima GCC

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000006389810

	Proced	dure	Diagnostic procedure	Refer to page
	Symptom		– Diagnostic procedure	Refer to page
		Door switch	Check door switch	DLK-286
	Vehicle security sys-	Trunk	Check trunk room lamp switch	DLK-318
	tem cannot be set by	Door outside key	Check key cylinder switch	DLK-303
1		Intelligent Key	Check Intelligent Key.	DLK-350
		_	Check Intermittent Incident	<u>GI-42</u>
	Consulty indicator door	a not turn ON	Check vehicle security indicator	SEC-359
	Security indicator does not turn ON.		Check Intermittent Incident	<u>GI-42</u>
	* Vehicle security		Check door switch	DLK-286
2	system does not sound alarm when ····	Any door is opened.	Check Intermittent Incident	<u>GI-42</u>
		Horn alarm	Check horn	<u>SEC-355</u>
2	Vehicle security	HOIII alailii	Check Intermittent Incident	<u>GI-42</u>
3	vate.	Headless aloss	Check head lamp alarm	SEC-357
		Head lamp alarm	Check Intermittent Incident	<u>GI-42</u>
		Door outoido kou	Check key cylinder switch	SEC-350
4	Vehicle security sys-	Door outside key	Check Intermittent Incident	<u>GI-42</u>
4	tem cannot be can- celed by ····	Intelligent Ver	Check Intelligent Key	DLK-350
	-	Intelligent Key	Check Intermittent Incident	<u>GI-42</u>

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

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

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NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-222, "Work Flow"</u>". Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis
- Check systems shown in the "Action" column in this order.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- · Intelligent Key is not inserted into key slot.
- · Engine switch is not depressed.

Action	Reference page
Check vehicle security indicator	<u>SEC-359</u>
2. Check Intermittent Incident	<u>GI-42</u>

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Revision: June 2012 SEC-439 2011 Altima GCC

PRECAUTIONS

< PRECAUTION > [SEDAN]

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. 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 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006934927

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- Perform the necessary repair operation.

PRECAUTIONS

< PRECAUTION > [SEDAN]

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

6. Perform self-diagnosis check of all control units using CONSULT.

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 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, and wring the water out of the cloth to wipe the dirty area.

Then rub with a soft and 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, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- · Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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Revision: June 2012 SEC-441 2011 Altima GCC

PREPARATION

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PREPARATION

PREPARATION

Special Service Tools

INFOID:0000000006389814

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

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REMOVAL AND INSTALLATION

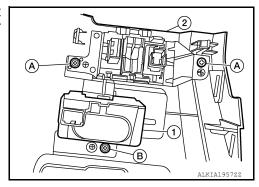
KEY SLOT

Removal and Installation

INFOID:0000000006389815

REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-19, "Removal and Installation".
- 2. Remove the switch assembly screws (A), remove the key slot screw (B), and then remove key slot (1) from instrument lower panel LH (2).



INSTALLATION

Installation is in the reverse order of removal.

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PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

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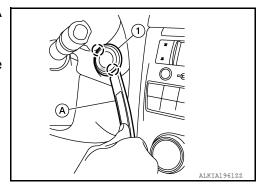
PUSH BUTTON IGNITION SWITCH

Removal and Installation

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REMOVAL

- 1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).
 - (_): Pawl
- 2. Disconnect the electrical harness connector and remove the push button ignition switch.



INSTALLATION

Installation is in the reverse order of removal.