

NATS (NISSAN ANTI-THEFT SYSTEM)

Component Parts and Harness Connector Location

Component Parts and Harness Connector Location

NJEL0406

For details, refer to "ELECTRICAL UNIT LOCATION" (EL-319) and "HARNESS LAYOUT" (EL-324).

System Description

NJEL0407

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

- Since only NATS ignition keys, whose ID nos. have been registered into the ECM and IMMU of NATS, allow the engine to run, operation of a stolen vehicle without a NATS registered key is prevented by NATS. That is to say, NATS will immobilize the engine if someone tries to start it without the registered key of NATS.
- This version of NATS has dongle unit to improve its anti-theft performance (RHD models for Europe). Dongle unit has its own ID which is registered into NATS IMMU. So if dongle unit is replaced, initialization must be carried out.
- When malfunction of dongle unit is detected:
The security indicator lamp illuminates for about 15 minutes after ignition switch is turned to ON.
- When dongle unit has a malfunction and the indicator lamp is illuminated, engine can not be started. However engine can be started only one time when security indicator lamp turns off in about 15 minutes after ignition switch is turned to ON.
- All of the originally supplied ignition key IDs have been NATS registered.
If requested by the vehicle owner, a maximum of five key IDs can be registered into the NATS components.
- The security indicator blinks when the ignition switch is in "OFF" or "ACC" position. Therefore, NATS warns outsiders that the vehicle is equipped with the anti-theft system.
- When NATS detects trouble, the security indicator lamp lights up as follows.

Condition IGN ON and	With dongle		Without dongle	
	MIL	Security indicator	MIL	Security indicator
NATS malfunction (except dongle unit) is detected	—	1. 6 times blinking 2. Staying ON after ignition switch is turned ON	—	Staying ON
Only malfunction of dongle unit is detected.	—	Staying ON for about 15 minutes after ignition switch is turned ON	—	—
Malfunction of NATS and engine related parts are detected.	Staying ON	1. 6 times blinking 2. Staying ON after ignition switch is turned ON	Staying ON	Staying ON
Only engine related part malfunction is detected.	Staying ON	—	Staying ON	—
Just after initialization of NATS	—	6 times blinking	—	—

- NATS trouble diagnoses, system initialization and additional registration of other NATS ignition key IDs must be carried out using CONSULT-II hardware and CONSULT-II NATS software.
Regarding the procedures of NATS initialization and NATS ignition key ID registration, refer to CONSULT-II operation manual, NATS.
- **When servicing a malfunction of the NATS (indicated by lighting up of Security Indicator Lamp) or**

NATS (NISSAN ANTI-THEFT SYSTEM)

System Description (Cont'd)

registering another NATS ignition key ID no., it may be necessary to re-register original key identification. Therefore, be sure to receive ALL KEYS from vehicle owner.

NATS (NISSAN ANTI-THEFT SYSTEM)

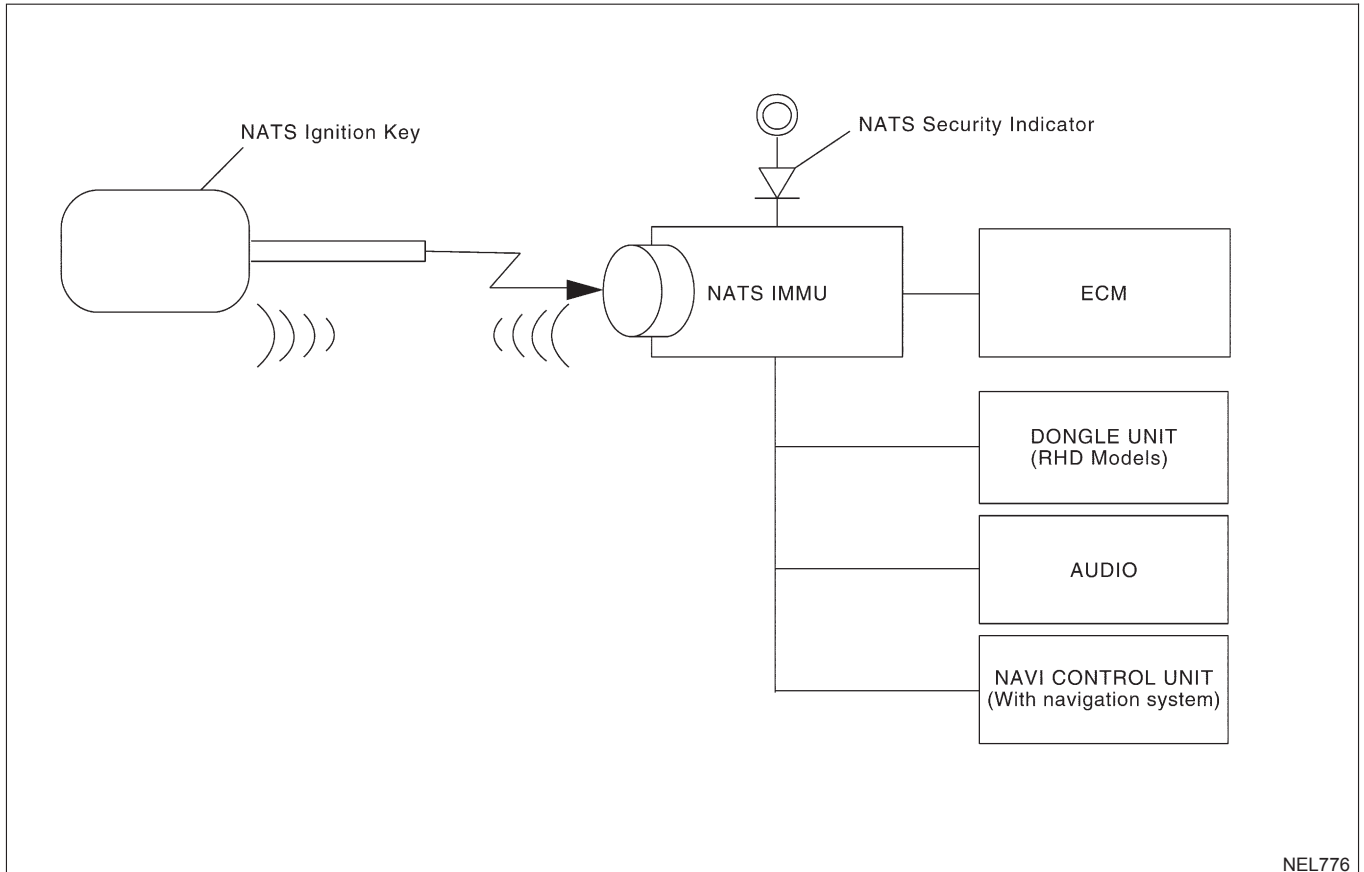
System Composition

System Composition

=NJEL0408

The immobilizer function of the NATS consists of the following:

- NATS ignition key
- NATS immobilizer control unit (IMMU) located in the ignition key cylinder
- Engine control module (ECM)
- Dongle unit (RHD models)
- Security indicator
- Navigation control unit (Models with Navigation system)



NEL776

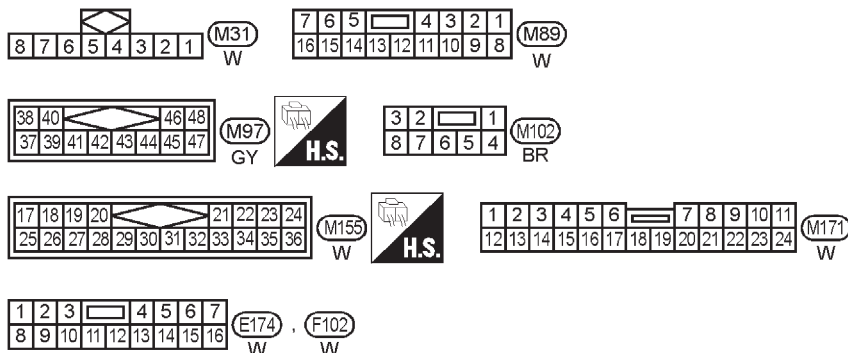
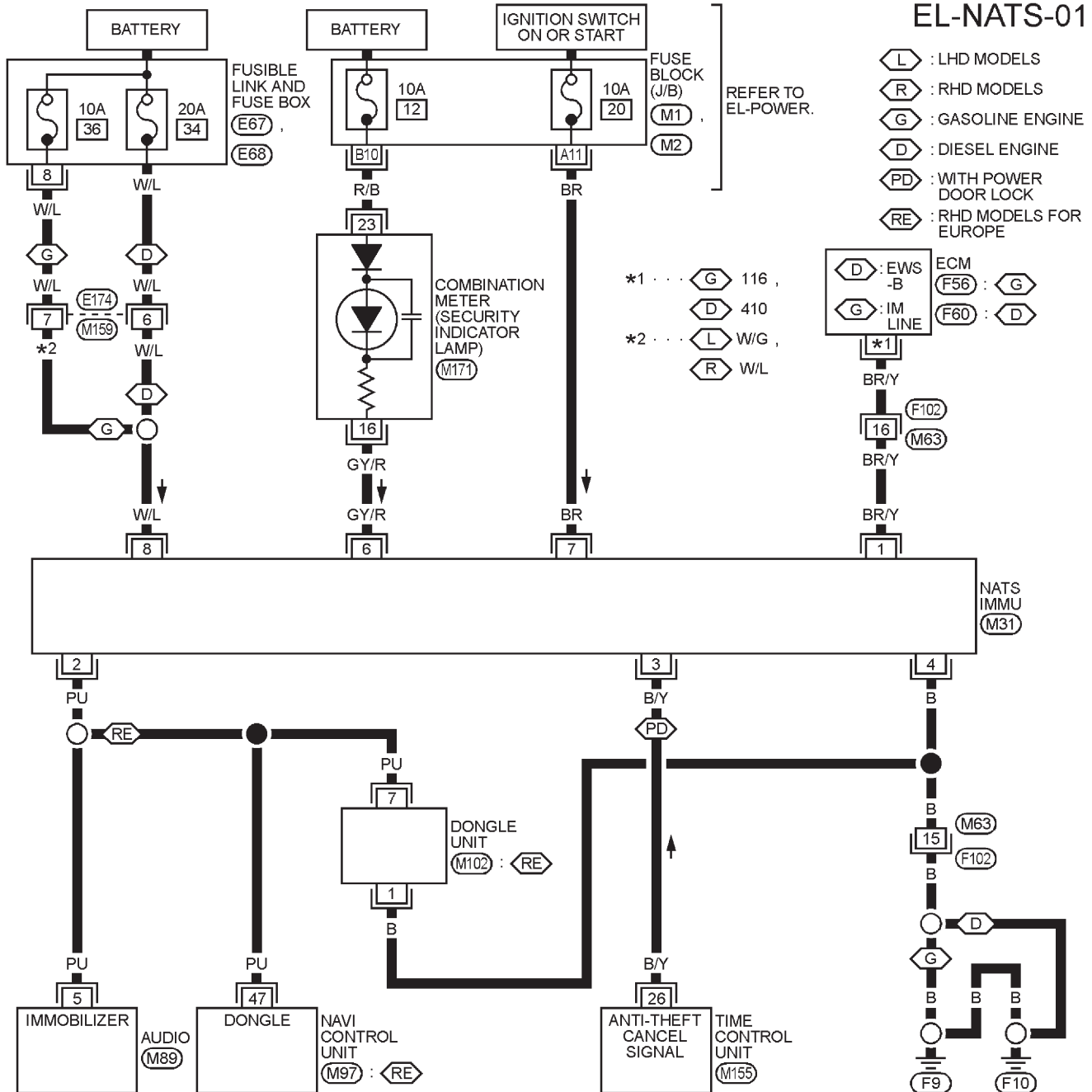
NATS (NISSAN ANTI-THEFT SYSTEM)

Wiring Diagram — NATS —

Wiring Diagram — NATS —

NJEL0487

EL-NATS-01



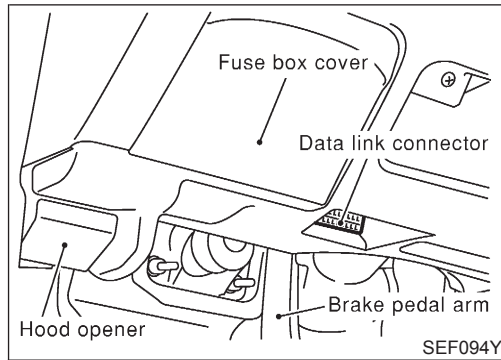
REFER TO THE FOLLOWING.

- (M1), (M2) - FUSE BLOCK-JUNCTION BOX (J/B)
- (E67), (E68) - FUSE AND FUSIBLE LINK BOX
- (F56), (F60) - ELECTRICAL UNITS

YEL712C

NATS (NISSAN ANTI-THEFT SYSTEM)

CONSULT-II



CONSULT-II

CONSULT-II INSPECTION PROCEDURE

NJEL0410

NJEL0410S01

1. Turn ignition switch OFF.

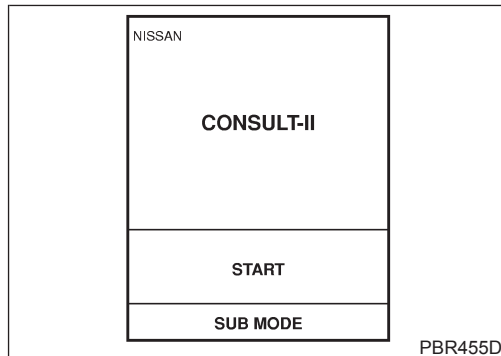
2. Insert NATS program card into CONSULT-II.

← : Program card
NATS-AEN00B

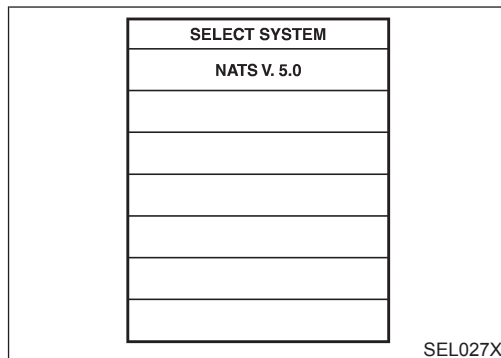
3. Connect CONSULT-II to data link connector.

4. Turn ignition switch ON.

5. Touch "START".

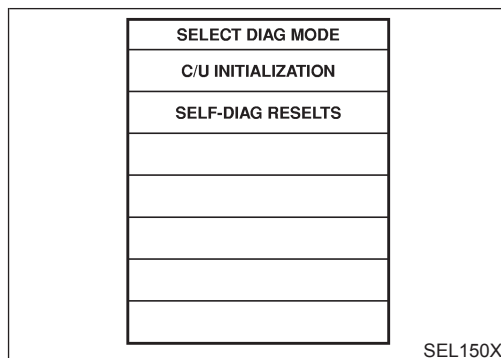


6. Select "NATS V.5.0".



7. Perform each diagnostic test mode according to each service procedure.

For further information, see the CONSULT-II Operation Manual, NATS.



CONSULT-II DIAGNOSTIC TEST MODE FUNCTION

= NJEL0410S02

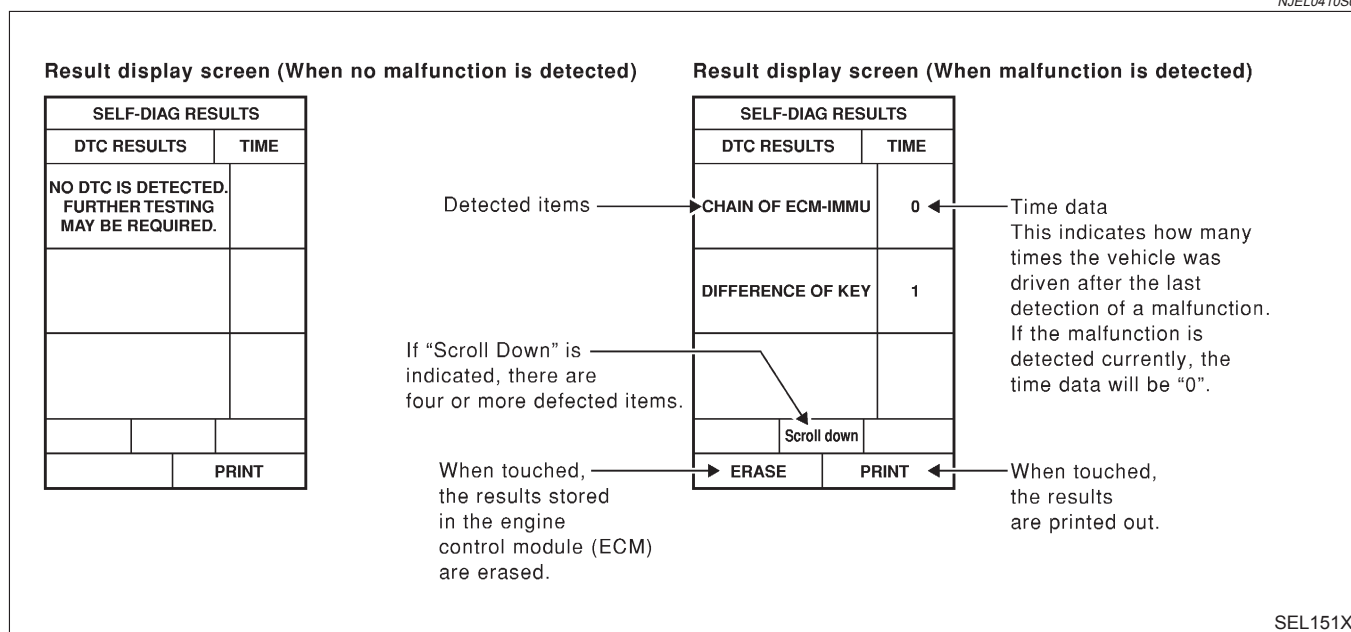
CONSULT-II DIAGNOSTIC TEST MODE	Description
C/U INITIALIZATION	When replacing any of the following components, C/U initialization and re-registration of all NATS ignition keys are necessary. [NATS ignition key/IMMU/ECM/Dongle unit]
SELF-DIAG RESULTS	Detected items (screen terms) are as shown in the chart EL-239.

NOTE:

- When any initialization is performed, all ID previously registered will be erased and all NATS ignition keys must be registered again.
- The engine cannot be started with an unregistered key. In this case, the system may show "DIFFERENCE OF KEY" or "LOCK MODE" as a self-diagnostic result on the CONSULT-II screen.
- When initialization is performed for RHD models for Europe, security indicator will flash six times to demonstrate recognition of the dongle unit ID.
- In rare case, "CHAIN OF ECM-IMMU" might be stored as a self-diagnostic result during key registration procedure, even if the system is not malfunctioning.

HOW TO READ SELF-DIAGNOSTIC RESULTS

= NJEL0410S03



NATS (NISSAN ANTI-THEFT SYSTEM)

CONSULT-II (Cont'd)

NATS SELF-DIAGNOSTIC RESULTS ITEM CHART

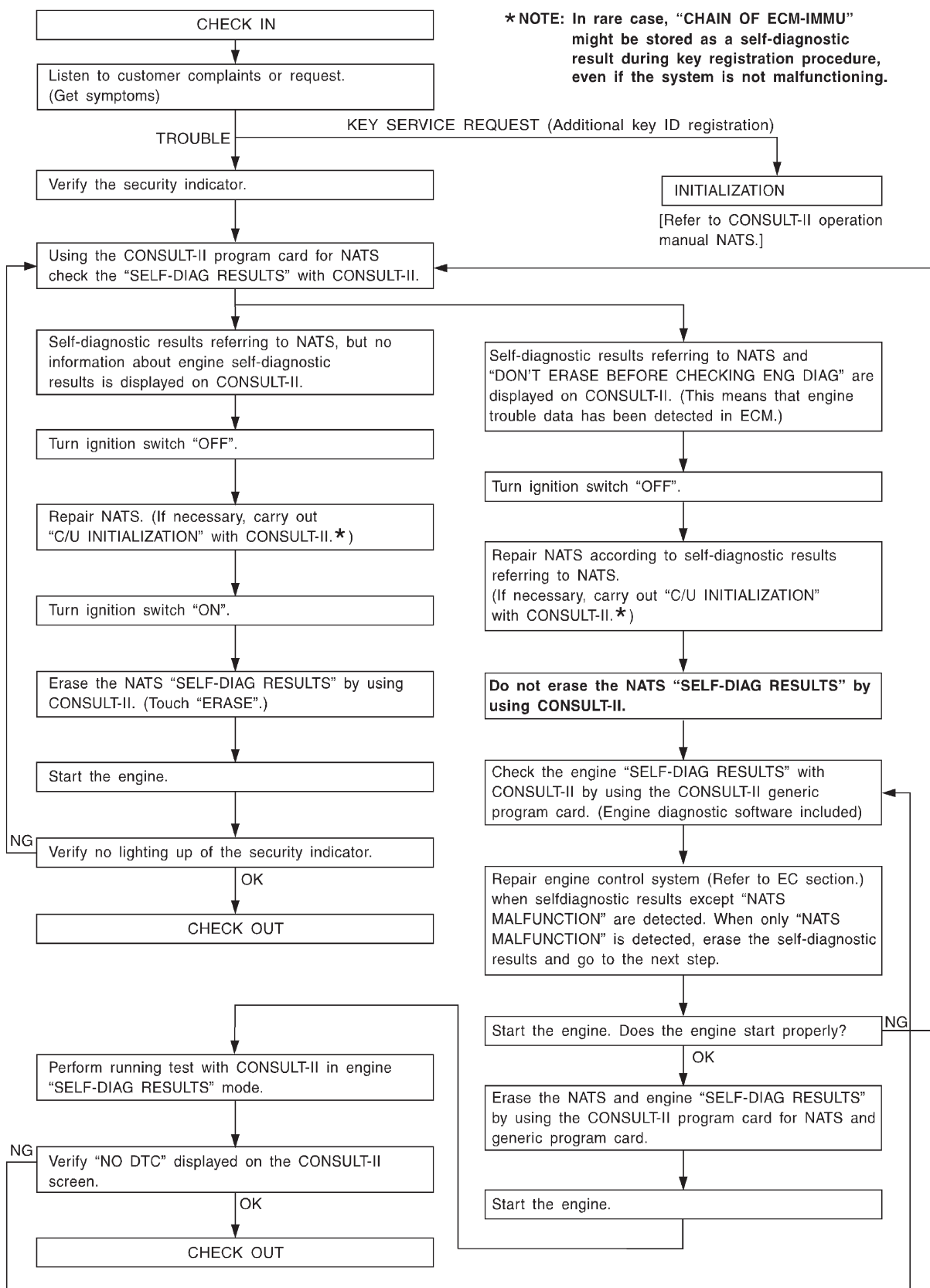
=NJEL0410S04

Detected items (NATS program card screen terms)	P No. Code (Self-diagnostic result of "ENGINE")	Malfunction is detected when	Reference page
ECM INT CIRC-IMMU	NATS MAL-FUNCTION P1613	The malfunction of ECM internal circuit of IMMU communication line is detected.	EL-244
CHAIN OF ECM-IMMU	NATS MAL-FUNCTION P1612	Communication impossible between ECM and IMMU (In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.)	EL-245
DIFFERENCE OF KEY	NATS MAL-FUNCTION P1615	IMMU can receive the key ID signal but the result of ID verification between key ID and IMMU is NG.	EL-249
CHAIN OF IMMU-KEY	NATS MAL-FUNCTION P1614	IMMU cannot receive the key ID signal.	EL-250
ID DISCORD, IMM-ECM	NATS MAL-FUNCTION P1611	The result of ID verification between IMMU and ECM is NG. System initialization is required.	EL-252
LOCK MODE	NATS MAL-FUNCTION P1610	When the starting operation is carried out five or more times consecutively under the following conditions, NATS will shift the mode to one which prevents the engine from being started. ● Unregistered ignition key is used. ● IMMU or ECM's malfunctioning.	EL-255
DON'T ERASE BEFORE CHECKING ENG DIAG	—	All engine trouble codes except NATS trouble code has been detected in ECM.	EL-241

Trouble Diagnoses WORK FLOW

NJEL0411

NJEL0411S01



SEL729WE

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

SYMPTOM MATRIX CHART 1 (Self-diagnosis related item)

NJEL0411S02

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
- Security indicator lighting up* - Engine cannot be started	ECM INT CIRC-IMMU	PROCEDURE 1 (EL-244)	ECM	B
	CHAIN OF ECM-IMMU	PROCEDURE 2 (EL-245)	In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.	—
			Open circuit in battery voltage line of IMMU circuit	C1
			Open circuit in ignition line of IMMU circuit	C2
			Open circuit in ground line of IMMU circuit	C3
			Open circuit in communication line between IMMU and ECM	C4
			Short circuit between IMMU and ECM communication line and battery voltage line	C4
			Short circuit between IMMU and ECM communication line and ground line	C4
			ECM	B
			IMMU	A
	DIFFERENCE OF KEY	PROCEDURE 3 (EL-249)	Unregistered key	D
			IMMU	A
	CHAIN OF IMMU-KEY	PROCEDURE 4 (EL-250)	Malfunction of key ID chip	E
			IMMU	A
			Open circuit in ground line of dongle unit circuit	C6
			Open or short circuit in line between IMMU and dongle unit	C5
			Dongle unit	G
	ID DISCORD, IMM-ECM	PROCEDURE 5 (EL-252)	System initialization has not yet been completed.	F
			ECM	B
	LOCK MODE	PROCEDURE 7 (EL-255)	LOCK MODE	D

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
- MIL staying ON - Security indicator lighting up*	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (EL-241)	Engine trouble data and NATS trouble data have been detected in ECM	—

*: When NATS detects trouble, the security indicator lights up while ignition key is in the "ON" position.

*: When the vehicle is equipped with a dongle unit (RHD models for Europe), the security indicator blinks 6 times just after the ignition switch is turned to ON. Then the security indicator lights up while the ignition key is in the "ON" position.

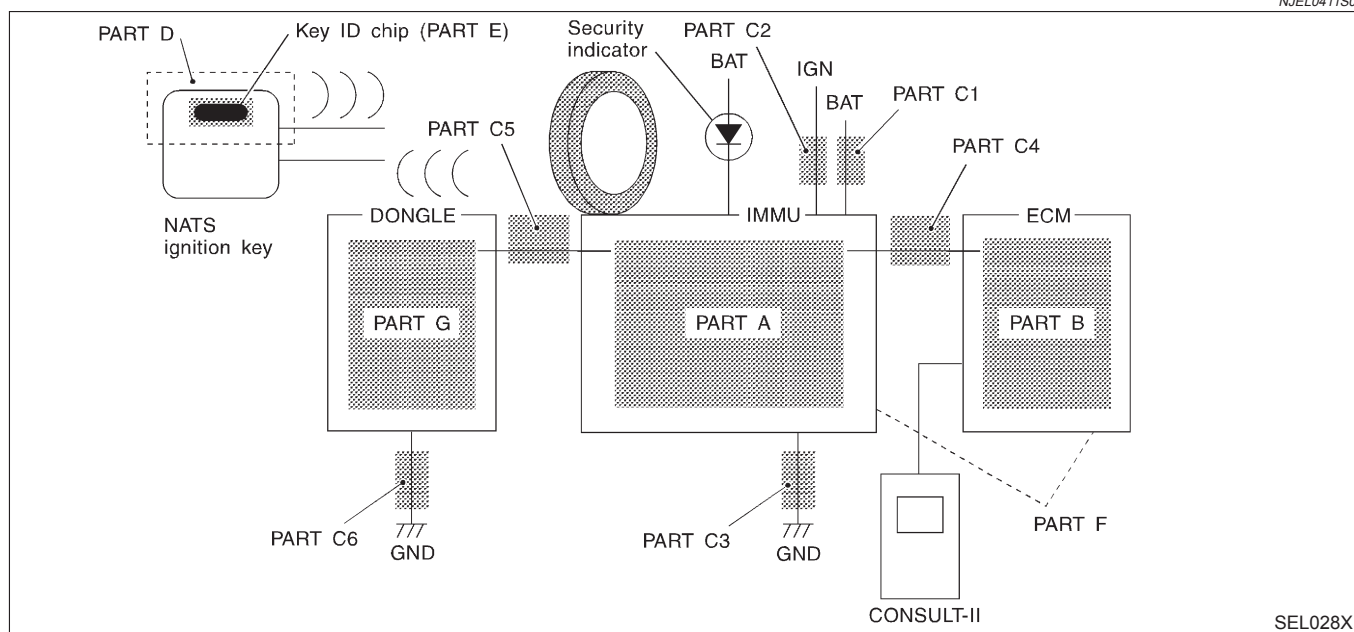
SYMPTOM MATRIX CHART 2 (Non self-diagnosis related item)

NJEL0411S03

SYMPTOM	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
Security ind. does not light up.	PROCEDURE 6 (EL-253)	Security ind.	—
		Open circuit between Fuse and IMMU	—
		Continuation of initialization mode	—
		IMMU	A
Security ind. does not blink just after initialization even if the vehicle is equipped with dongle unit.	PROCEDURE 8 (EL-257)	NATS might be initialized without connecting dongle unit properly.	—
Open circuit in ground line of dongle unit circuit		C6	
Security ind. does not blink just after ignition switch is turned to ON when some malfunction related to NATS is detected even if the vehicle is equipped with dongle unit.		Open or short circuit in communication line between IMMU and dongle unit	C5
Dongle unit		G	

DIAGNOSTIC SYSTEM DIAGRAM

NJEL0411S04



SEL028X

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

SELF-DIAG RESULTS	
DTC RESULTS	TIME
ECM INT CIRC-IMMU	0

SEL152X

DIAGNOSTIC PROCEDURE 1

NJEL0411S05

Self-diagnostic results:

"ECM INT CIRC-IMMU" displayed on CONSULT-II screen

1. Confirm SELF-DIAGNOSTIC RESULTS "ECM INT CIRC-IMMU" displayed on CONSULT-II screen. Ref. part No. B.
2. Replace ECM.
3. Perform initialization with CONSULT-II.
For initialization, refer to "CONSULT-II operation manual NATS".

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 2

=NJEL0411S06

Self-diagnostic results:

"CHAIN OF ECM-IMMU" displayed on CONSULT-II screen

1 CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF ECM-IMMU" displayed on CONSULT-II screen.

NOTE:

In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.

SELF DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF ECM-IMMU	0

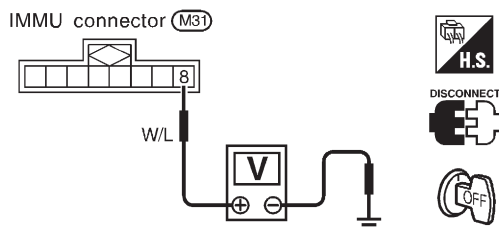
SEL366X

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2 CHECK POWER SUPPLY CIRCUIT FOR IMMU

1. Disconnect IMMU connector.
2. Check voltage between terminal 8 of IMMU and ground with CONSULT-II or tester.



Battery voltage should exist.

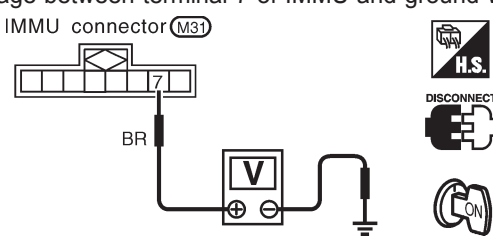
SEL302WB

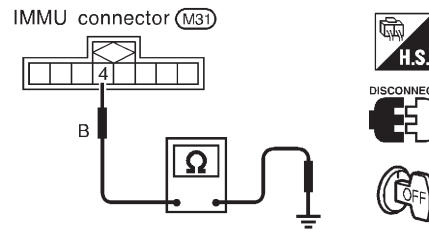
OK or NG

OK	▶	GO TO 3.
NG	▶	Check the following ● 10A fuse (No. 36, located in the fusible link and fuse box) — (Gasoline engine) ● 20A fuse (No. 34, located in the fusible link and fuse box) — (Diesel engine) ● Harness for open or short between fuse and IMMU connector Ref. Part No. C1

NATS (NISSAN ANTI-THEFT SYSTEM)

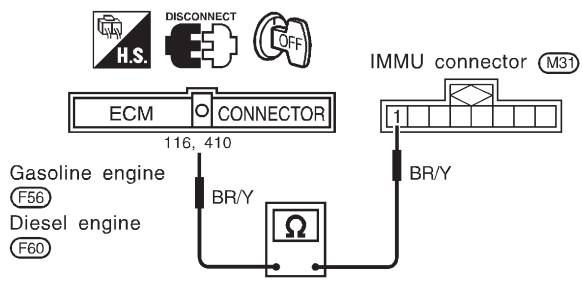
Trouble Diagnoses (Cont'd)

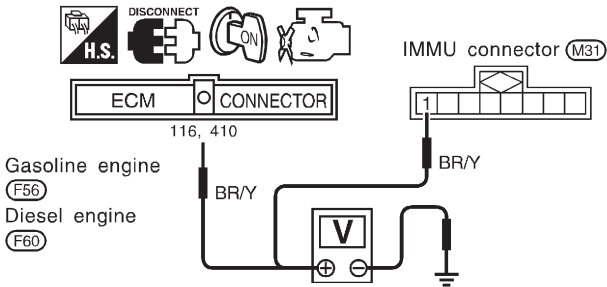
3	CHECK IGN SW. ON SIGNAL
1. Turn ignition switch ON. 2. Check voltage between terminal 7 of IMMU and ground with CONSULT-II or tester.  Battery voltage should exist. YEL808C OK or NG	
OK	▶ GO TO 4.
NG	▶ Check the following • 10A fuse [No. 20, located in the fuse block (J/B)] • Harness for open or short between fuse and IMMU connector Ref. part No. C2

4	CHECK GROUND CIRCUIT FOR IMMU
1. Turn ignition OFF. 2. Check harness continuity between IMMU terminal 4 and ground.  Continuity should exist. SEL304WB OK or NG	
OK	▶ GO TO 5.
NG	▶ Repair harness. Ref. part No. C3

NATS (NISSAN ANTI-THEFT SYSTEM)

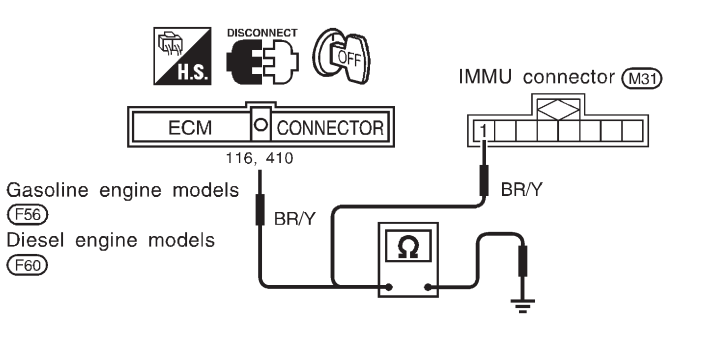
Trouble Diagnoses (Cont'd)

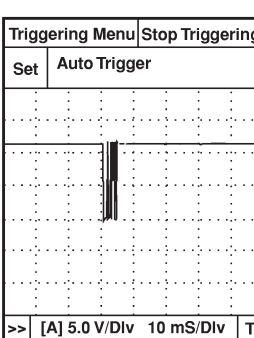
5 CHECK COMMUNICATION LINE OPEN CIRCUIT		
1. Disconnect ECM connector. 2. Check harness continuity between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) and IMMU terminal 1.		
 Continuity should exist.		SEL305WB
OK or NG		
OK	▶	GO TO 6.
NG	▶	Repair harness or connector. Ref. part No. C4

6 CHECK COMMUNICATION LINE BATTERY SHORT CIRCUIT		
1. Turn ignition ON. 2. Check voltage between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) or IMMU terminal 1 and ground.		
 Voltage: 0V		SEL306WB
OK or NG		
OK	▶	GO TO 7.
NG	▶	Communication line is short-circuited with battery voltage line or ignition switch ON line. Repair harness or connectors. Ref. part No. C4

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

7 CHECK COMMUNICATION LINE GROUND SHORT CIRCUIT	
1. Turn ignition switch OFF. 2. Check continuity between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) or IMMU terminal 1 and ground.	
 Continuity should not exist. SEL307WB	
OK or NG	
OK	▶ GO TO 8.
NG	▶ Communication line is short-circuited with ground line. Repair harness or connectors. Ref. part No. C4

8 SIGNAL FROM ECM TO IMMU CHECK	
1. Check the signal between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) and ground with CONSULT-II or oscilloscope when ignition switch is turned "ON". 2. Make sure signals which are shown in the figure below can be detected during 750 msec. just after ignition switch is turned "ON".	
	
OK or NG	
OK	▶ IMMU is malfunctioning. Replace IMMU. Ref. part No. A Perform initialization with CONSULT-II. For the operation of initialization, refer to "CONSULT-II Operation Manual NATS".
NG	▶ ECM is malfunctioning. Replace ECM. Ref. part No. B Perform initialization with CONSULT-II. For the operation of initialization, refer to "CONSULT-II Operation Manual NATS".

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 3

=NJEL0411S07

Self-diagnostic results:

“DIFFERENCE OF KEY” displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS											
Confirm SELF-DIAGNOSTIC RESULTS “DIFFERENCE OF KEY” displayed on CONSULT-II screen.												
<table><tr><th colspan="2">SELF DIAG RESULTS</th></tr><tr><th>DTC RESULTS</th><th>TIME</th></tr><tr><td>DIFFERENCE OF KEY</td><td>0</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>			SELF DIAG RESULTS		DTC RESULTS	TIME	DIFFERENCE OF KEY	0				
SELF DIAG RESULTS												
DTC RESULTS	TIME											
DIFFERENCE OF KEY	0											
SEL367X												
Is CONSULT-II screen displayed as above?												
Yes	▶	GO TO 2.										
No	▶	GO TO SYMPTOM MATRIX CHART 1.										

SEL367X

2	PERFORM INITIALIZATION WITH CONSULT-II							
Perform initialization with CONSULT-II. Re-register all NATS ignition key IDs. For initialization and registration of NATS ignition key IDs, refer to “CONSULT-II operation manual NATS”.								
<table><tr><th colspan="2">IMMU INITIALIZATION</th></tr><tr><td colspan="2">INITIALIZATION FAIL</td></tr><tr><td colspan="2">THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.</td></tr></table>			IMMU INITIALIZATION		INITIALIZATION FAIL		THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.	
IMMU INITIALIZATION								
INITIALIZATION FAIL								
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.								
NOTE: If the initialization is not completed or fails, CONSULT-II shows above message on the screen.								
Can the system be initialized and can the engine be started with re-registered NATS ignition key?								
Yes	▶	Ignition key ID was unregistered. Ref. part No. D						
No	▶	IMMU is malfunctioning. Replace IMMU. Ref. part No. A Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II operation manual NATS”.						

SEL297W

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 4

=NJEL0411S08

Self-diagnostic results:

“CHAIN OF IMMU-KEY” displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS											
Confirm SELF-DIAGNOSTIC RESULTS “CHAIN OF IMMU-KEY” displayed on CONSULT-II screen.												
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <th colspan="2" style="padding: 2px;">SELF DIAG RESULTS</th> </tr> <tr> <th style="padding: 2px;">DTC RESULTS</th> <th style="padding: 2px;">TIME</th> </tr> <tr> <td style="padding: 2px;">CHAIN OF IMMU-KEY</td> <td style="padding: 2px; text-align: center;">0</td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>			SELF DIAG RESULTS		DTC RESULTS	TIME	CHAIN OF IMMU-KEY	0				
SELF DIAG RESULTS												
DTC RESULTS	TIME											
CHAIN OF IMMU-KEY	0											
SEL368X												
Is CONSULT-II screen displayed as above?												
Yes	▶	GO TO 2.										
No	▶	GO TO SYMPTOM MATRIX CHART 1.										

2	CHECK NATS IGNITION KEY ID CHIP	
Start engine with another registered NATS ignition key.		
Does the engine start?		
Yes	▶	Ignition key ID chip is malfunctioning. Replace the ignition key. Ref. part No. E Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II Operation Manual NATS”.
No	▶	Models without dongle unit IMMU is malfunctioning. Replace IMMU. Ref. part No. A Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II Operation Manual NATS”. Models with dongle unit GO TO 3.

3	CHECK HARNESS CONNECTOR CONNECTION	
Check harness connector connection between M31 and M102.		
Does the engine start?		
Yes	▶	System is OK. (The malfunction is caused by improper connector connection.)
No	▶	GO TO 4.

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

4 CHECK GROUND CIRCUIT FOR DONGLE UNIT		
Check continuity between dongle unit terminal 1 and ground.    Dongle unit connector (M102) Continuity should exist. SEL029X Yes or No		
Yes	▶	GO TO 5.
No	▶	Repair harness.

5 CHECK INTERFACE CIRCUIT		
   IMMU connector (M31) SEL030X Yes or No		
Check continuity between IMMU terminal 2 and dongle unit terminal 7 (Open circuit check). Continuity should exist. Check continuity between IMMU terminal 2 and ground (Short circuit check). Continuity should not exist.		
Yes	▶	Dongle unit is malfunctioning. 1. Replace dongle unit. 2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS."
No	▶	Repair harness.

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 5

=NJEL0411S09

Self-diagnostic results:

"ID DISCORD, IMM-ECM" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS										
Confirm SELF-DIAGNOSTIC RESULTS "ID DISCORD, IMM-ECM" displayed on CONSULT-II screen.											
<table border="1" style="margin: auto;"> <thead> <tr> <th colspan="2">SELF DIAG RESULTS</th></tr> <tr> <th>DTC RESULTS</th><th>TIME</th></tr> </thead> <tbody> <tr> <td>ID DISCORD, IMM-ECM</td><td style="text-align: center;">0</td></tr> <tr> <td> </td><td> </td></tr> <tr> <td> </td><td> </td></tr> </tbody> </table>		SELF DIAG RESULTS		DTC RESULTS	TIME	ID DISCORD, IMM-ECM	0				
SELF DIAG RESULTS											
DTC RESULTS	TIME										
ID DISCORD, IMM-ECM	0										
NOTE: "ID DISCORD IMM-ECM": Registered ID of IMMU is in discord with that of ECM.											
SEL369X											
Is CONSULT-II screen displayed as above?											
Yes	▶ GO TO 2.										
No	▶ GO TO SYMPTOM MATRIX CHART 1.										

2	PERFORM INITIALIZATION WITH CONSULT-II				
Perform initialization with CONSULT-II. Re-register all NATS ignition key IDs. For initialization, refer to “CONSULT-II operation manual NATS”.					
<table><tr><td>IMMU INITIALIZATION</td></tr><tr><td>INITIALIZATION FAIL</td></tr><tr><td>THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.</td></tr></table>			IMMU INITIALIZATION	INITIALIZATION FAIL	THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.
IMMU INITIALIZATION					
INITIALIZATION FAIL					
THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.					
SEL297W					
NOTE:					
If the initialization is not completed or fails, CONSULT-II shows above message on the screen.					
Can the system be initialized?					
Yes	▶	Start engine. (END) (System initialization had not been completed. Ref. part No. B)			
No	▶	ECM is malfunctioning. Replace ECM. Ref. part No. B Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II operation manual NATS”.			

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

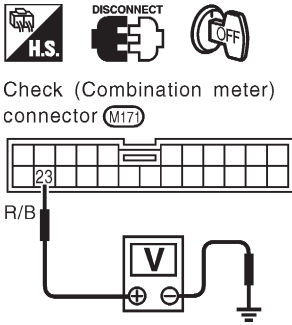
DIAGNOSTIC PROCEDURE 6

“SECURITY INDICATOR LAMP DOES NOT LIGHT UP”

=NJEL0411S10

1	CHECK FUSE
Check 10A fuse [No. 12, located in the fuse block (J/B)].	
Is 10A fuse OK?	
Yes	▶ GO TO 2.
No	▶ Replace fuse.

2	CHECK SECURITY INDICATOR LAMP
1. Install 10A fuse. 2. Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II Operation Manual NATS”. 3. Turn ignition switch OFF. 4. Start engine and turn ignition switch OFF. 5. Check the security indicator lamp lighting. Security indicator lamp should be light up.	
OK or NG	
OK	▶ INSPECTION END
NG	▶ GO TO 3.

3	CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT
1. Disconnect combination meter connector. 2. Check voltage between combination meter (security indicator lamp) connector terminal 23 and ground.	
 Check (Combination meter) connector (M17) Battery voltage should exist.	
OK or NG	
OK	▶ GO TO 4.
NG	▶ Check harness for open or short between fuse and combination meter.

YEL809C

4	CHECK SECURITY INDICATOR LAMP
Check security Indicator Lamp.	
Is security indicator lamp OK?	
Yes	▶ GO TO 5.
No	▶ Repair or replace combination meter.

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

5	CHECK IMMU FUNCTION	
	1. Connect IMMU connector. 2. Disconnect combination meter connector. 3. Check continuity between IMMU terminal 6 and ground. IMMU connector(M31) GY/R H.S. CONNECT OFF Continuity should exist intermittently. YEL810C OK or NG	
OK	▶	Check harness for open or short between security indicator lamp and IMMU.
NG	▶	IMMU is malfunctioning. Replace IMMU. Ref. part No. A Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II operation manual NATS".

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 7

=NJEL0411S11

Self-diagnostic results:

"LOCK MODE" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS										
Confirm SELF-DIAGNOSTIC RESULTS "LOCK MODE" is displayed on CONSULT-II screen.											
<table border="1"><thead><tr><th colspan="2">SELF DIAG RESULTS</th></tr><tr><th>DTC RESULTS</th><th>TIME</th></tr></thead><tbody><tr><td>LOCK MODE</td><td>0</td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>		SELF DIAG RESULTS		DTC RESULTS	TIME	LOCK MODE	0				
SELF DIAG RESULTS											
DTC RESULTS	TIME										
LOCK MODE	0										
Is CONSULT-II screen displayed as above?											
Yes	▶ GO TO 2.										
No	▶ GO TO SYMPTOM MATRIX CHART 1.										

SEL371X

2	ESCAPE FROM LOCK MODE
1. Turn ignition switch OFF. 2. Turn ignition switch ON with registered key. (Do not start engine.) Wait 5 seconds. 3. Return the key to OFF position. 4. Repeat steps 2 and 3 twice (total of three cycles). 5. Start the engine.	
Does engine start?	
Yes	▶ System is OK. (Now system is escaped from "LOCK MODE".)
No	▶ GO TO 3.

3	CHECK IMMU ILLUSTRATION
Check IMMU installation. Refer to "How to Replace IMMU" in EL-258.	
OK or NG	
OK	▶ GO TO 4.
NG	▶ Reinstall IMMU correctly.

NATS (NISSAN ANTI-THEFT SYSTEM)

Trouble Diagnoses (Cont'd)

4	PERFORM INITIALIZATION WITH CONSULT-II				
Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II operation manual NATS”.					
<table><tr><td>IMMU INITIALIZATION</td></tr><tr><td>INITIALIZATION FAIL</td></tr><tr><td>THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.</td></tr></table>			IMMU INITIALIZATION	INITIALIZATION FAIL	THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.
IMMU INITIALIZATION					
INITIALIZATION FAIL					
THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.					
NOTE: If the initialization is not completed or fails, CONSULT-II shows the above message on the screen.					
Can the system be initialized?					
Yes	▶	System is OK.			
No	▶	GO TO 5.			

SEL297W

5	PERFORM INITIALIZATION WITH CONSULT-II AGAIN	
1. Replace IMMU. 2. Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II operation manual NATS”.		
IMMU INITIALIZATION INITIALIZATION FAIL THEN IGN KEY SW ‘OFF’ AND ‘ON’, AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.		
NOTE: If the initialization is not completed or fails, CONSULT-II shows the above message on the screen.		
Can the system be initialized?		
Yes	▶	System is OK. (IMMU is malfunctioning. Ref. part No. A)
No	▶	ECM is malfunctioning. Replace ECM. Ref. part No. B Perform initialization with CONSULT-II. For initialization, refer to “CONSULT-II operation manual NATS”.

SEL297W

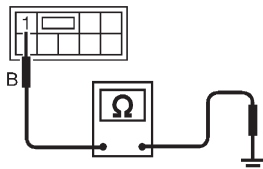
NATS (NISSAN ANTI-THEFT SYSTEM)

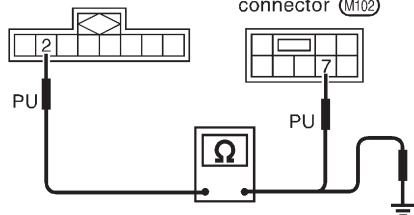
Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 8

=NJEL0411S14

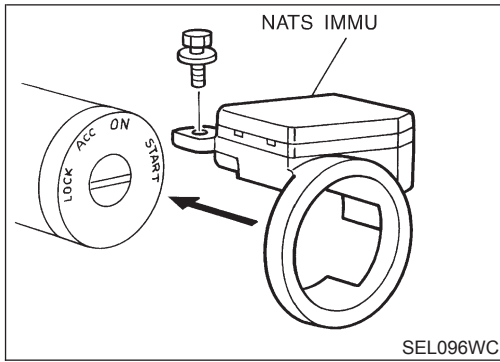
1	CHECK HARNESS CONNECTOR CONNECTION
Perform initialization with CONSULT-II. Check harness connector connection between M31 and M102. Then initialize NATS. For the initialization operation, refer to "CONSULT-II operation NATS".	
Does the security indicator blink just after initialization?	
Yes	▶ System is OK. (The malfunction is caused by improper connector connection.)
No	▶ GO TO 2.

2	CHECK GROUND CIRCUIT FOR DONGLE UNIT
Check continuity between dongle unit terminal 1 and ground.	
   Dongle unit connector (M102)  Continuity should exist. SEL029X Yes or No	
Yes	▶ GO TO 3.
No	▶ Repair harness.

3	CHECK INTERFACE CIRCUIT
   IMMU connector (M31) Dongle unit connector (M102)  Check continuity between IMMU terminal 2 and dongle unit terminal 7 (Open circuit check). Continuity should exist. Check continuity between IMMU terminal 2 and ground (Short circuit check). Continuity should not exist. SEL030X Yes or No	
Yes	▶ Dongle unit is malfunctioning. 1. Replace dongle unit. 2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II Operation Manual NATS".
No	▶ Repair harness.

NATS (NISSAN ANTI-THEFT SYSTEM)

How to Replace NATS IMMU



How to Replace NATS IMMU

NJEL0412

NOTE:

- If NATS IMMU is not installed correctly, NATS system will not operate properly and SELF-DIAG RESULTS on CONSULT-II screen will show "LOCK MODE".