# Match the Keys to Immobilizer-equipped Nissan Vehicles

## I. Operation description

Insert the diagnostic CF card into X431 and turn on the power. Run the diagnostic program and select Nissan vehicle. After X431 reset and check the SMARTBOX, and download the diagnostic program from the CF card, a system menu will be displayed on the screen. Select "NISSAN ANTI-THEFT SYSTEM" to test.

*Note: The diagnostic program can be used to diagnose the Nissan anti-theft system of new protocol only, such as Cefiro A33, etc.*

## II. Main steps and precautions

PIN must be entered when you register the key. Some abbreviations are listed below:
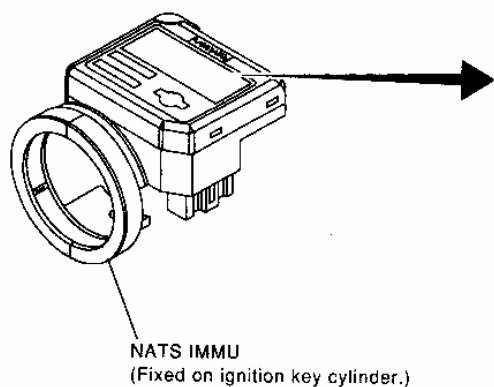
PIN personal identification number

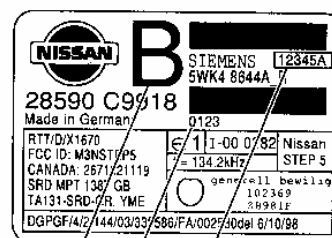NATS Nissan anti-theft system

IMMU immobilizer control unit

Each NATS IMMU has its own specific PIN. Enter the PIN when using X431 for diagnosis.

There are two types of PIN—"arbitrary" and "fixed". It can be recognized by the label on NATS IMMU. Letter "A" or no mark on the label stands for "fixed" while letter "B" stands for "arbitrary".

- After selecting corresponding function of X431, enter PIN "5523" for the "fixed" type.
- If the PIN is "arbitrary" type and car owner does not know the PIN, please check the label on NATS IMMU. There is a 6-digit number at the upper position and a 4-digit number at the lower position of the label. Refer to the figure below. Tell Nissan dealer the first 4 digits of the 6-digit number and the 4-digit number.



Production label (For example)

NATS IMMU
(Fixed on ignition key cylinder.)

Upper 6-digit numerals*1

Lower 4-digit numerals*2

A or Nothing: Fixed type PIN code
B: Random type PIN code

*1: This 6-digit numerals is not PIN code.
Last two-digit characters are not necessary to inform Nissan distributor.
*2: This 4-digit numerals is not PIN code.

The control unit must be initialized (matched) whenever any of the 3 parts shown below is replaced,

1 NATS ignition key

2 IMMU

3 ECM

Steps for initializing the control unit

1 Click "C/U initialization" and then select "C/U initialization mode".

2 Turn ON the ignition key.

3 Enter the PIN

4 Click [OK] button to run the initialization program of control unit.

5    When the initialization of IMMU and ECM is completed, the screen will display the message "Initialization completed".

   A   Turn OFF the ignition key and pull out the key (The first key can not be recognized in this step)

   B   Detailed steps for matching the key:

      a   Initialization

      After IMMU initialization is completed, turn OFF the ignition switch with the first key and pull out the key. Wait 5 seconds (the first key can not be recognized). Then match the keys.
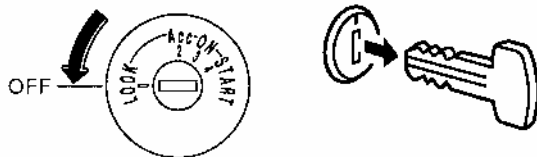
      b   Match the keys

      Step 1: Turn ON the ignition switch with the first key (do not start the engine) and keep it in place for at least 5 seconds. Then turn OFF the ignition switch and pull out the key. Wait 5 seconds.

      Step 2: Turn ON the ignition switch with the second key (do not start the engine) and keep it in place for at least 5 seconds. Then turn OFF the ignition switch and pull out the key. Wait 5 seconds.
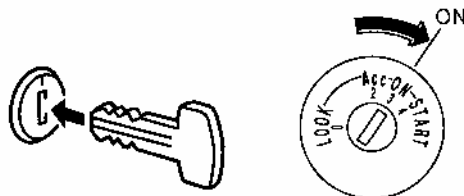
      Step 3: Turn ON the ignition switch with the third key (do not start the engine) and keep it in place for at least 5 seconds. Then turn OFF the ignition switch and pull out the key. Wait 5 seconds (if there is another key to match). Refer to the figure below.



**IGN OFF procedure:**

OFF

Wait at least 5 sec.

**IGN ON procedure:**

ON

Wait at least 5 sec.

**Do not "START" engine while KEY REGISTRATION.**

SOM332

      c   Make sure

   Check to see if the NATS safety indicator flickers. The indicator is going to flicker when the key matching and initialization of control unit are completed.

   For matching the key and verifying that all keys are able to start the engine, insert each of the initialized keys into the ignition switch so that the system will reset it when the safety indicator starts flickering (about 5 seconds).

   (d   If the screen displays the message that the initialization is stopped or failed, it indicates that X431 failed in completion of initialization.

Then it is necessary to perform the following procedure:

- Turn OFF the ignition switch and then turn it ON again to read trouble code.
- If "IMMU" is displayed, repeat the above mentioned steps.

*Note:*

*(1) Use each of the keys to turn ON the ignition switch and then turn it OFF. The procedure for each key must last at least 5 seconds to ensure successful matching of the key.*

*(2) Make sure that car owner has given all keys for matching.*

**III. Nissan diagnostic program can be used to test the immobilizer system of new protocol (KWP2000 protocol) in Nissan vehicle, such as Cefiro A33, March 2003, etc.**