



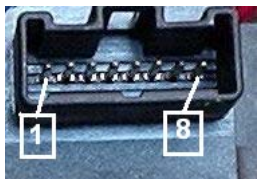
NATS-5

This module for Orange-5(O5) programmer will work with the following Nissan NATS-5 and STEP5/5.6 immobilizer systems, built around TMS and ST processors:

- 5WK4 8041 AG with ST processor;
- 5WK4 8042 AG with ST processor;
- 5WK4 8042 AR with ST processor;
- 5WK4 8643 AG with TMS processors;
- 5WK4 8643 BG with TMS processors;
- 5WK4 8644 with TMS processors;
- 5WK4 8644 with TMS processors;
- 5WK4 8644 CR with TMS processors.

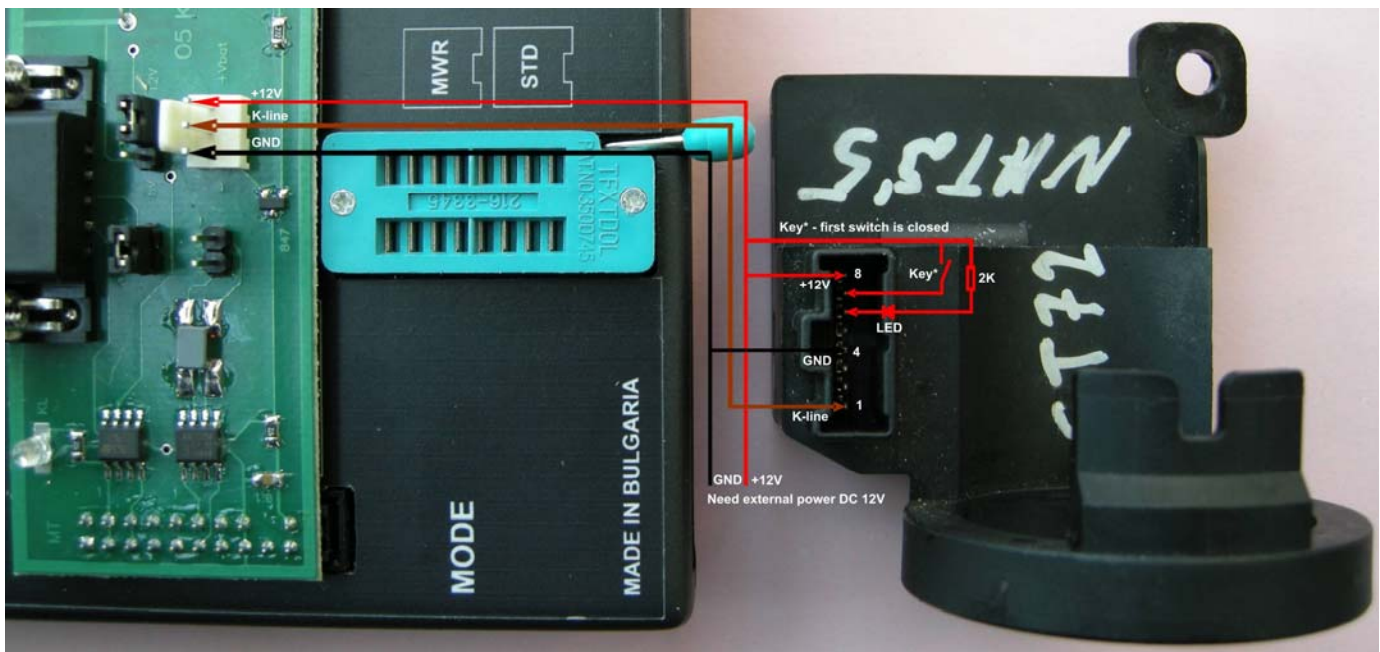
The module **WILL NOT** work with 5WK4 8645AG immobilizer system with TMS processor, as this immobilizer is a hybrid version using a different data exchange protocol.

Immobilizer pin out:

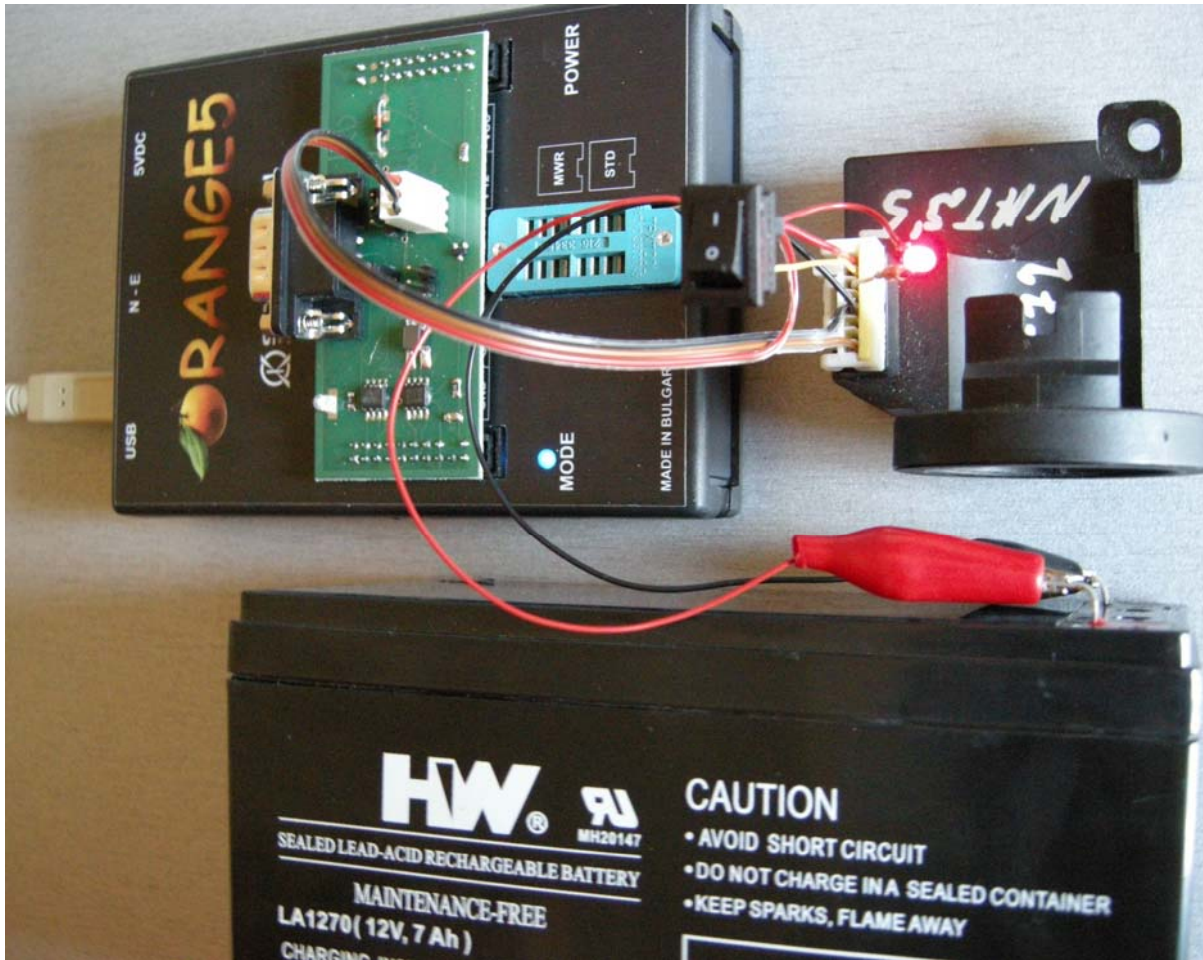


- 1 – K-Line;
- 4 – GND;
- 6 – Indication LED;
- 7 – +12V (Ign);
- 8 – +12V (Batt).

Never attempt to run this application on a car using OBDII plug. This application is able to act only with dismantled immobilizer. Connect an immobilizer as shown on the picture using the O5 KL-CAN adapter.



View of the assembled application:



The device provides advanced features as well as basic mode. The basic mode intended for keys producing and described below. The advanced mode is for engineer purposes and isn't described in this document.

The basic mode allows to erase and add keys, read login and version, manual and automatic changing of eeprom content.

How to make a key.

1. Assemble the device as shown on the picture above.
2. Supply an external power to the immobilizer +12V as shown above.
3. Push the "KEY" button in ON position. This button emulates ignition.
4. Run Orange.exe.
5. Click the "Select Type" and choose "O5 immo".
6. In the left window select "Nissan"
7. In the right window choose NATS-5(TMS) or NATS-5(ST) depending on the label with marking "5WK4..." as described above.
8. Click the "R" (Read) button.
9. After success reading save the dump.
10. Apply the saved dump on Tango to make a key. Tango will generate a new dump. Save the new dump.
11. Open the new dump with O5 end write it to the immobilizer clicking on the "W"(Write) button.

Review of the module additional features.

It's strongly suggested to begin the work by reading and saving an EEPROM dump. Only after that, continue your work as needed. The EEPROM dump contains synchronization code with the engine ECU and if its content is damaged, immobilizer will not unlock the ECU.

“Immo Version” – will provide immobilizer software version. The answer will be “NII4B6” for the immobilizer with a TMS processor, or “NII511” for the one with ST processor.

“Read Login” – will read four digit system login code. To get a proper code, Omega should be set to read processor EEPROM area.

“Get Key Status” – determines the status of a key, which is found in an immobilizer antenna coil. To properly use this function, cycle the ignition switch OFF and back ON, then click <OK>. There are three possible key states:

- Not key into immobilizer coil (there is no key in the antenna coil);
- Strange key (unknown key, not registered in a system);
- Key already learned into system (known key, registered and recognized by a system).

“Add Key” – registers new keys to the system (maximum of five). This function should be started after the new key is placed in an immobilizer antenna coil. To properly use this function, ignition switch must be cycled to OFF and back ON as requested by program and only then click <OK>. If more than one key has to be registered, place the next key into the antenna coil and cycle the ignition as program requests. If there are no more keys to register, select <Cancel>. At the end of the new key registering procedure the program will request to cycle the ignition switch once again.

“Delete All Key” – will delete all the key information from the EEPROM. If some of the keys previously registered in the system need to be reused, “Add Key” procedure must be executed after erasing all the key information from the EEPROM.