RAPTOR 151

OPERATING MANUAL

AUTHOR ALARM

Dear car owner!

Please note that the AUTHOR Alarm's anti-theft devices are not intended for self-installation.

We strongly recommend to install and configure the purchased equipment only in certified installation centers.

version 807.1
nRF51/52

TABLE OF CONTENTS

General information

RAPTOR is unique device developed to protect your car from theft. The device has an innovative mechanism of engine locking that uses standard wiring of the car so there is no additional wiring that can be easily found. The locking is deactivated with the key fob or with the secret code.

The device can not be found by any known means. RAPTOR does not show itself until the engine is started. Moreover, due to its small size the device can be installed almost anywhere in the car.

RAPTOR is a new smart way to protect your car!

Benefits of the system

- Digital locking of the engine without intervention into the car control units and circuits.
- Smart locking of the engine based on the readings data from car sensors and car status analysis.
- The device does not show itself until the engine lock is activated.
- For unlocking use the key fob or the secret code that can be entered with standard car pedals.
- Service mode provides safety of the car while it is in maintenance.

OPERATION CONCEPT

Security deactivation

In order to start driving you should log into the system via one of the following ways:

- use the key fob;
- enter the Emergency code specified under the protection layer of the plastic card.

If the key fob is detected (Emergency code is entered correctly), the system will signal with indication, the engine will not be locked and you can start driving. If the key fob was not detected (Emergency code incorrect or was not entered at all), RAPTOR will lock the engine.

In some car models the system switches to the engine start inhibit mode after the engine is shut off. In order to unlock the engine you should switch on the ignition without starting the engine (without pressing the brake pedal), enter Emergency code and start the engine.

The locking method (engine start inhibit and/or running engine stall) depends of the RAPTOR system settings and the car brand/model.

The security system is activated in 10 seconds after the ignition is off.

Authorization via key fob

It is enough to have the key fob to authorize in the system.

ATTENTION! Do not leave the key fob inside the car when the ride is over. Otherwise the anti-theft functions of the system will be deactivated.

Get into the car, switch ON the ignition. When the key fob is detected, the system will give out two verification signals (see the annex), after that you can start driving.

ATTENTION! If the battery charge in the key fob is low, the indication will signal 6 times after the ignition is switched ON.

If the key fob is not detected, there will be no verification signals and if one attempts to start driving or switch ON the ignition, the engine will be locked (see p.9).

In order to unlock the engine reset the power of the key fob (take out and insert the battery) or enter the Emergency code specified under the protection layer on the plastic card. The Emergency code can be entered in 5 seconds after the failed attempt to authorize in the system or after switching off the ignition for 3 seconds and starting the ignition again.

ATTENTION! Do not leave the plastic card with the Emergency code inside the car! Otherwise the anti-theft functions of the system will be deactivated.

Authorization via PIN-code

Get into the car, switch on the ignition and using accelerator and brake pedals enter the Emergency code specified on the plastic card under the protection layer:

1. Switch on the ignition without starting the engine.
2. Press the brake pedal and while keeping it pressed press the accelerator* pedal a certain number of times as far as it can go where the number is equal to the first digit in the Emergency code. Release the brake pedal. The first digit of the code will be accepted.
3. Input the rest digits of the Emergency code in the same way (see item 2).

When the Emergency code is correct, the system will signal twice (see the annex), after that you can start driving.

If the Emergency code is not correct, there will be no verification signals and if one attempts to start driving or start the engine, the engine will be locked (see p.9). The second attempt to enter the secret code is available in 5 seconds after the failed attempt to log in or after switching off the ignition for 3 seconds and starting the ignition again.

It is recommended to enter the Emergency code right before the ride.

* For some car models other controls are used instead of accelerator pedal (see the annex).

Service mode

The service mode is used for temporary deactivation of the anti-theft device when you give your car for the maintenance (without giving away the code and saying about the device).

In order to switch on the service mode after the authorization (the key fob was detected or the Emergency code is entered) press the accelerator as far as it can go 5 times*. The interval shall not be more than 2 seconds. When you press the accelerator last time keep it pressed until the confirmation signal appear. The activation of the service mode will be confirmed by 5 indication signals*.

The service mode will be switched off when you enter the Emergency code. The double indication signal will show that the service mode is deactivated.

If the key fob is within RAPTOR detection range, press the accelerator 4 times as far as it can go* to switch off the service mode. When you press the accelerator last time keep it pressed until the confirmation signal appear.

After the deactivation of the service mode next time the ignition is switched on or the engine is started you will have to use the key fob or enter the Emergency code.

* For some car models other controls are used instead of accelerator pedal (see the annex).

Engine locking

The anti-theft system IGLA prevents the car theft by stall of the running engine the engine start inhibit.

The method of locking is set **automatically** when the device is connected to the car:

- for some car models only the engine start inhibit is available;
- for some car models it is only possible to stall the running engine;
- for others both methods are available.

In order to deactivate the engine start inhibit see the item «Locking method selection», page 12.

Additional locking circuit is activated at the attempt of driving without authorization, if there is no data on in the CAN-bus that needed for the RAPTOR system or the digital locking has failed. In other cases the activation of the additional circuit is impossible.

The locking is deactivated:

- when the key fob is within RAPTOR detection range;
- when the Emergency code is entered after the ignition was switched off for 3 seconds.

Device number check

This check is necessary to confirm the connection between the plastic card with Emergency code and the installed device. If the open code card number does not match with the device, the Emergency code can not be used to unlock the system.

It is recommended to do this check right after you get the car with the installed anti-theft system RAPTOR from the service centre.

1. Switch ON the ignition without starting the engine.
2. Press the pedal brake and while keeping it pressed press the accelerator* pedal as far as it can go the number of times where the number is equal to the first digit in the open card number (indicated on the plastic card). Release the brake pedal. The first digit of the open code will be entered.
3. Input all of the rest digits in the same way (see item 2).

If the code number is correct, the system will signal with 2 flashes. If nothing happens, that means the code number was entered incorrectly or it does not match with the device number.

* For some car models other controls are used instead of an accelerator pedal (see the annex).

REFERENCE INFORMATION

Options of the anti-theft system RAPTOR

The state of option set in the system by default («Switch ON», «Switch OFF») is marked with grey color in the table. The figures in the table show how many times the service button shall be pressed to choose a particular option state.

Option	Switch ON	Switch OFF
Service mode	5	4 or emergency code
Engine start inhibit*	18	19
Firmware update	23	-
Adding and deleting key fobs	25	-

* Initial status of an option depends on car brand/model (see the section System compatibility on the web-site author-alarm.com). When this option is switched OFF the RAPTOR system stalls the running engine via the CAN-bus or additional circuit (depending on RAPTOR system installation and contents of the set).

In order to change the option state do the following:

1. Switch ON the ignition without starting the engine, then enter the Emergency code for authorization (or use the key fob).
2. Press the accelerator as far as it can go* the number of times needed to reach the particular state – «Switch ON» or «Switch OFF» (see the figures in the corresponding column in the table). For example, 18 times to switch ON the Engine start inhibit mode or press 19 times to switch it OFF. When you press the accelerator last time keep it pressed until the confirmation signals will appear. The option state will be changed.

Locking method selection

By default the system is set so that the mode for Engine start inhibit is ON. Initial status of an option depends on car brand/model (see the section System compatibility on the web-site author-alarm.com).

In order to switch ON or OFF the Engine start inhibit mode do the following:

1. Switch ON the ignition without starting the engine, then enter the Emergency code for authorization (or use the key fob).
2. Press the accelerator as far as it can go 18 times in order to switch ON the mode or press 19 times in order to switch it OFF. When you press the accelerator last time keep it pressed until the confirmation signals will appear. The option state will be changed.

Firmware update

The system has an option for Firmware update. In this mode not only the firmware can be updated but also it is possible to connect CONTOUR (the hood lock control module) with TOR digital CAN-relay.

Follow the next steps in order to switch on the Firmware update mode:

1. Switch ON the ignition without starting the engine, then enter the Emergency code for authorization (or use the key fob).

* For some car models other controls are used instead of accelerator pedal (see the annex).

2. Press the accelerator pedal as far as it can go 23 times. When you press the accelerator last time keep it pressed until the confirmation signals will appear. The indication signals will confirm the action. The system will be in the Firmware update mode.

ATTENTION! This opportunity is not supported by all types of firmware and car models. Learn more about versions suitable for firmware update mode on our website.

Adding or deleting Key fobs

In order to add the new Key fob do the following:

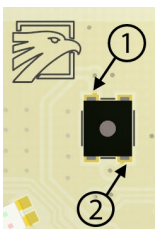
1. Make sure the key fob can be used for connection with the device:
   - insert the battery in the new key fob;
   - make sure the LED is flashing with green.
2. Take out the batteries from all key fobs including those connected to the system.
3. Delete all key fobs from the system memory. Follow the steps described on page 11:
   - Switch ON the ignition without starting the engine;
   - Press the accelerator* as far as it can go 25 times (when you press for the last time keep the accelerator press until the confirmation signals will appear);
   - Release the accelerator pedal.

* For some car models other controls are used instead of accelerator pedal (see the annex).

All key fobs saved in memory of the RAPTOR device will be deleted. The system will be in the mode of saving new key fobs.

4. **For M52 key fobs (see marks on electronics board):**
   Insert the battery into the new key fob. The LED on key fob will start flashing continuously with green light. It is recommended to put the key fob closer to the IGLA system during the procedure of connection. (The interaction radius during connection procedure is limited). After the successful connection the LED will blink once with red light. If the connection failed, the flashing stops in 30 seconds after the battery is inserted.

   For M24, M51 key fobs (see marks on electronics board):
   Close the key fob contacts shown on the right drawing and insert the battery. The LED indication will start flashing green every second and when the key fob is connected it will flash red once.



5. Switch OFF the ignition.

Be sure to check the key fob operation after connection it to the device.

ATTENTION! Save both key fobs into the system at one time. It is impossible to add another key fob to an existing one later. Do not use the key fobs from another RAPTOR set.

ATTENTION! The old key fob (that was installed once before) cannot be connected to the device. Use only new key fobs bought from the manufacturer.

Erase the key fob from the device memory in case of loss in order to prevent car theft. In order to delete the key fob follow the above mentioned steps 1-3 in order to delete the key fob.

ATTENTION! During this procedure all saved key fobs will be erased from the memory. Key fobs that were saved and then erased can not be added to the memory once again.

Additional modules for the standard functions of RAPTOR

CONTOUR

CONTOUR – is a control module for the hood locks, secures the under hood space when working together with the RAPTOR system. Apart from the hood lock control the system has an option for the control of the additionally installed normally closed locking relay.

The hood lock closes in the following cases:

- The car security is activated (the central lock is closed)
- In 10 seconds after the ignition is off

The hood lock can not be closed if the hood is open. The hood lock is unlocked after the authorization in the RAPTOR system.

OBD BLOCK

OBD BLOCK system is made to prevent the diagnostic outlet OBD-II from the unauthorized access. The system allows to prevent the tweaking of standard software aimed to bypass the anti-theft system in cases of unauthorized access to the diagnostic outlet.

TOR

TOR – digital CAN-bus relay aimed to provide complex protection of your car with the RAPTOR system installed.

TOR uses the additional locking circuit that is activated in case the connection with the engine control unit via CAN-bus is faulty or disrupted. Locking allows to activate the Running engine stall option for cars without digital locking of the running engine.

Specifications

Current consumption in standby mode (the ignition is off)	8 mA
Operating voltage	6-15 V
Radio-channel frequency	2,4 GHz
Battery life time	6 months
Key fob battery type	CR2032

Contents of the set

Anti-theft device RAPTOR	1 pcs.
Operating manual	1 pcs.
Plastic card «Emergency code and Instruction»	1 pcs.
Packing	1 pcs.
Locking relay*	1 pcs.
Key fob*	2 pcs.

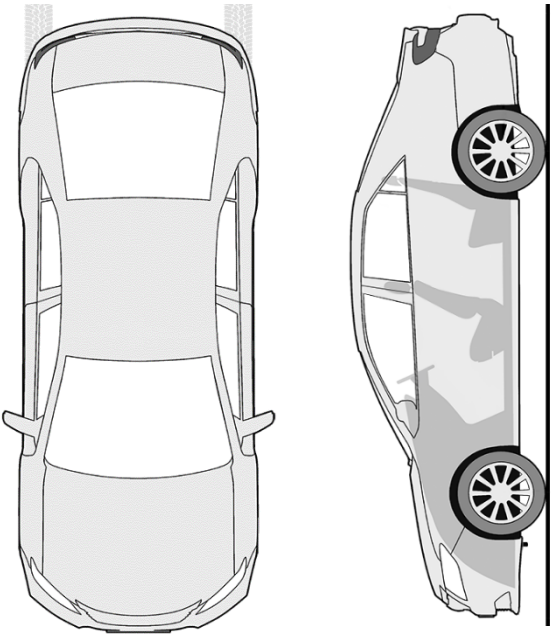
* optional (depends on the set configuration)

Made in Russia
Manufacturer: LLC «DMA Group»
C-RU.АЛ14.В.10097

The developer and the manufacturer retain the right to make technical updates not specified in this operating manual. To learn more visit our web-site:

http://author-alarm.com

Placement of the locking module



ATTENTION! Do not leave the plastic card with the code as well as this guide inside the car!

WARRANTY CERTIFICATE

Warranty is 12 months from the date of the purchase. During this period technical support and maintenance are guaranteed for free. The warranty does not apply to the items with:

- mechanical damage, burnt and char pieces, components, conductive tracks etc.;
- traces of an independent repair;
- damage caused by natural hazards, fire, social factors;
- violation of the tamper-evident seal, damage or absence of a factory/trade label.

Only items in complete set and with the original packing are taken for warranty repair.
Absence of packing is regarded as noncompliance with transportation rules. The warranty does not apply to the damage incurred to another equipment operating together with this device.

Item (model) _____

Sale date _____/____/_____

The contents of delivery ___, functioning ___, absence of mechanic damage ___ are checked.
I am acquainted and agree with the condition of warranty service:

Buyer _____

Seller _____ seal

Supported Cars List App.

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