

**Thank you for your decision to purchase
StarLine 2CAN 30, 2CAN 35,
and let us wish you safe driving!**



Revision 2

Table of Contents

Introduction.....	3
Owner authorization.....	4
"Immobilizer" mode.....	5
"Anti-theft" mode.....	6
PIN-code changing mode.....	8
Service mode control.....	12
Connecting the code relay StarLine R3.....	13
List of equipment.....	14
Sound alarm.....	14
Code sequence.....	15
PIN1 and PIN2.....	15

Introduction

2CAN 30, 2CAN 35 module (hereinafter – module) will protect your car from theft from the parking place and holdup by means of engine interlock using the security protection modes "Immobilizer" and "Anti-theft" (see page 5).

In the mode "Immobilizer" the module will interlock the engine in the event if no authorization (procedure of the owner identification by the module) has been made, and the start of car moving has been registered.

The additional mode "Anti-theft" allows to protect not only the car, but also its owner from armed assault on the way. For example, if when stopping at the traffic light you were forced to leave the interior, and the car was captured, the module will allow malefactor to leave to the safe for you distance, then it will interlock the engine.



Ask the installation specialist at configuring the module to activate the security protection modes according to your choice

Owner authorization

Every time before driving always pass authorization using PIN-code to avoid engine interlock. **PIN-code** input is performed using the **standard buttons** of the car (for example, multimedia control button on the steering wheel, window regulator buttons, etc.) **with the switched-on ignition**.

The module provisions two PIN-codes (PIN1 and PIN2) which are created by the installation specialist after programming the module. If you forgot PIN-code or one of standard buttons used in a code sequence, is inoperable, you can use the second PIN-code. **PIN-codes are completely interchangeable at authorization**. Each PIN-code consists of a code sequence containing from 3 up to 30 pressings of standard buttons. To check up the list of supported standard buttons for your car check the web-site can.starline.ru.



The code sequences are given on page 14. The given section is filled by the installation specialist

By your request the installation specialist can activate the sound notification reminding to you on the necessity to be authorized.



CAUTION! *Never disclose to anybody your PIN-codes! Remember, that knowing PIN-codes, malefactor can disable the interlock mode of the module*

"Immobilizer" mode

The module is set to interlock mode at placement under the security protection of the standard alarm system ("close" button on standard pendant). If you have switched-off ignition, and then have opened and closed a driver's door, within 30 seconds the module also will be set to this mode.

After setting to this mode the module will be waiting for owner authorization. If PIN-code will not be entered, the module will interlock the engine (by event of interlock).

According to your choice the installation specialist will program at configuring the module one of interlock events (see page 14):

- **Interlock by the motion start** — the engine is interlocked at increase of speed or engine spinning-up;
- **interlock by any position of automatic transmission, except for "Parking"** - engine is interlocked at shifting the automatic transmission from the position "Parking".



By default the interlock is set by the motion start

If the engine has been interlocked, the interlock can be removed by PIN1 or PIN2 code input.



The module has the service mode temporarily disabling the security protection modes (see page 12)

"Anti-theft" mode

The use of additional mode "Anti-theft" is possible only together with the mode "Immobilizer". Therefore perform authorization every time at placement under the security protection of the standard alarm system (or if you have switched-off ignition, and then have opened and closed the driver's door).



Ask the installation specialist at configuring the module to enable the additional mode "Anti-theft", if necessary

The module is set in the interlock mode, if with the switched-on ignition the driver's door was open. Setting in the interlock mode can be avoided, if during opening the driver's door the break pedal has been completely pressed.

After activation of the mode the module interlocks the engine in several stages:

- the car is allowed to travel some distance (depending on selected interlock event), that the malefactor has left to safe distance from the owner;
- activates long audio signals, warning on expected interlock;
- 10 seconds after enabling of the sound notification activates the light alarm for the warning of other traffic participants
- Determines the moment for safe* interlock and stops the engine. The light alarm will be active more 15 seconds.

Owner authorization is possible at any stage after opening the driver's door with the switched-on ignition.

* Safe interlock is actuated at speed decrease below 30 km/h



CAUTION! If the ignition will be switched-off at one of interlock stages, after ignition switching-on the authorization shall be performed to continue driving. Otherwise the engine will stop at attempt to start driving

By your request the installation specialist can program during configuring the module the following parameters (see page 14):

- enable / disable safe interlock *;
- select interlock event:
 - interlock by distance - module will initiate interlock after 500 meters;
 - interlock by time - the module will initiate interlock in 30 seconds;
 - interlock by pressing the break pedal - module will initiate interlock after 5 pressing the break pedal.



By default the interlock is set by the motion start

Example of operation logic of the function "Anti-theft"



User programming modes

You can yourself change the code sequences PIN1 and PIN2, and also enable/disable the service mode

PIN-code changing mode

PIN-code sequence can contain from 3 up to 30 pressings.



CAUTION! *Standard buttons used for PIN1 code chain input, shall not be used in PIN2 code sequence, and vice versa. To check up the list of supported standard buttons for your car check the web-site can.starline.ru.*



In case of inactivity in the mode of PIN-code changing the module automatically exits this mode within 30 seconds. To perform forced exit from the mode of PIN-code changing switch off ignition

PIN-code is saved in the module memory after repeated code input chain.

Procedure of changing the PIN1 code

1. Switch on the ignition.
2. Enter PIN1 or PIN2 code. At correct code input the module will generate sound pea whistle.
3. Within 5 seconds switch off ignition.
4. Within 3 seconds switch off ignition again. The module will notify on setting to the mode of changing the code by 4 long audio signals.
5. Start entering new PIN1 with the maximum pressing interval 3 seconds. Each pressing of the standard button will be accompanied by one-time audio signal.



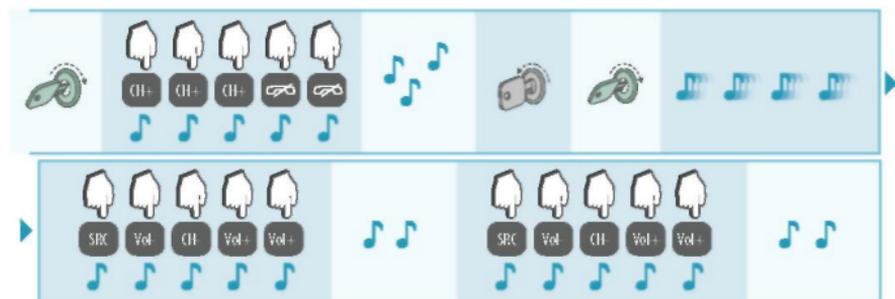
Multiple use of the standard button in the code sequence PIN1 is possible



If the module after pressing the standard button does not generate audio signal, the button is not supported in the given car, or is used in the code sequence PIN2

6. After completion of input of new code sequence PIN1 2 short audio signals confirming acceptance of PIN-code will sound.
7. No later than 5 seconds after audio signal enter repeatedly PIN1 to confirm the correctness of input. If the code is **entered correctly**, the module will generate **2 short audio signals**. If the code is entered not correctly, the module will generate 4 short audio signals and will wait for repeated PIN1 code input (in this case repeat items 5-7).

Example of PIN1 changing



Procedure of PIN2 code changing



CAUTION! *Standard buttons used for PIN1 code chain input, shall not be used in PIN2 code sequence, and vice versa.*

1. Switch on the ignition.
2. Enter PIN2 or PIN1 code. At correct code input the module will generate sound pea whistle.
3. Within 5 seconds switch off ignition.
4. Within 3 seconds switch on the ignition.
5. Repeat items 3, 4.
6. The module will notify on setting to the mode of changing the code by 4 long audio signals.
7. Start entering new PIN2 with the maximum pressing interval 3 seconds. Each pressing of the standard button will be accompanied by one-time audio signal.



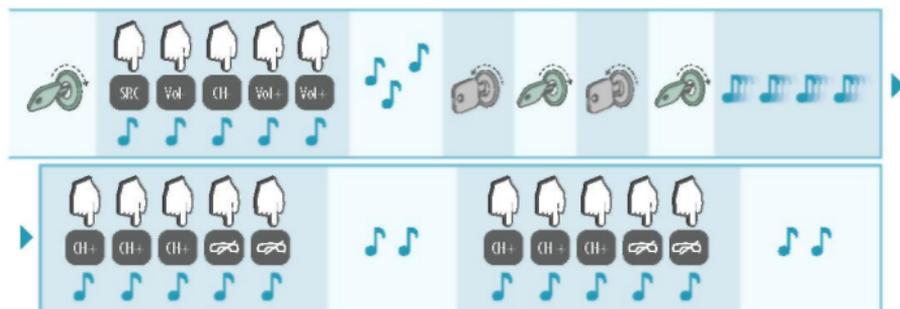
Multiple use of the standard button in the code sequence PIN2 is possible



If the module after pressing the standard button does not generate audio signal, the button is not supported in the given car, or is used in the code sequence PIN1

8. After completion of input of new code sequence PIN2 2 short audio signals confirming acceptance of PIN-code will sound.
9. No later than 5 seconds after audio signal enter repeatedly PIN2 to confirm the correctness of input. If the code **is entered correctly**, the module will generate **2 short audio signals**. If the code is entered not correctly, the module will generate 4 short audio signals and will wait for repeated PIN2 code input (in this case repeat items 7-9).

Example of PIN2 changing



Service mode control

Service mode temporarily disables security protection functions of the module. For example, this can be useful when the car is sent for maintenance.

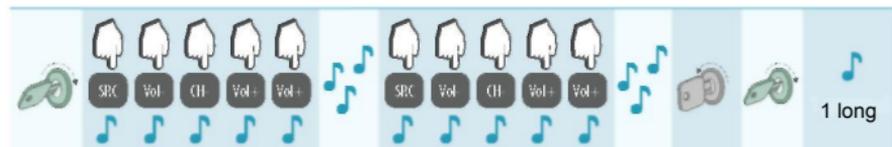
To enable/disable the service mode perform the following:

1. Switch on the ignition.
2. Enter PIN1 or PIN2 code. At correct code input the module will generate sound pea whistle.
3. Enter PIN1 or PIN2 again. Correct code input the module is confirmed by sound pea whistle.
4. Within 5 seconds switch off ignition.
5. Within 3 seconds switch on the ignition.
6. The module will generate sound indication: 1 long audio signal – service mode is enabled, 2 long signals – the mode is disabled.



The module automatically disables the service mode, if the car will pass the distance more than 10 kilometers in this mode

Example of enabling the service mode



Connecting the code relay StarLine R3

Advantages of the code relay StarLine R3:

- interlock control through the code channel
- protection of under-hood space of the car from unauthorized access to interlock circuits by means of hood lock smart control

The hood lock is unlocked:

- after owner authorization (PIN-code input)

The hood lock is locked:

- at setting the module in the interlock mode (see page 5)
- at activation of interlock in the mode "Immobilizer"
- at activating of audio signals, warning on engine interlock in the mode "Anti-theft"

List of equipment

Table 1 List of equipment

Name	Amount
2CAN 30 or 2CAN 35 module	1 pcs.
Signal cable	1 pcs.
Guarantee coupon	1 pcs.
Installation Manual	1 pcs.
Operating Manual of "Immobilizer" mode	1 pcs.
The brochure "Table of Cars: CAN Telematics"	1 pcs.
Packing	1 pcs.

Sound alarm

Table 2 Sound indication of the module

Sound indication	Event
Interlock mode	
Pea whistle	correct PIN-code input
Periodic short signals	reminder on the necessity to be authorized.
Periodic long signals	warning on expected engine interlock
User programming modes	
4 long signals	notification on setting to the user programming mode.
2 short signals;	acceptance and saving of PIN-code
1 long signal	service mode is enabled.
2 long signals	service mode is disabled.

