


Thank you for choosing the

StarLine
i95LUX, i95, i95ECO

immobilizer.

We wish you safe
and enjoyable riding!

	StarLine's Federal Support Service. Toll free
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Table of contents

Please, read carefully!.....	4
Table of available indication types.....	6
Package contents.....	7
Plastic card.....	8
Main advantages.....	9
Immobilizer features.....	10
Setup recommendations.....	12
Specifications.....	14
Components description.....	15
Locking module.....	15
Label.....	16
Audible alarm unit (i95, i95 ECO).....	18
Indication module (i95 LUX).....	18
Principle of operation.....	20
Locking algorithm.....	21
Operation modes.....	23
Protection modes.....	25
Additional modes.....	26
Door lock control.....	28
Hood lock control.....	30
Starting to move.....	32
Engine locking expected alert.....	32
Label battery low alarm.....	33
Connection check and operation mode selection.....	34
Operation mode and connection check.....	34
Protection mode selection.....	35
Handling in vehicle for maintenance.....	37
Switching to Service Mode.....	37
Emergency unlock.....	39
Unlocking using indication module for i95 LUX.....	40
Unlocking using ignition key for i95 and i95 ECO.....	41
Unlock code change.....	42
To change the unlock code you need to enter the programming mode.....	42

Entering programming mode using unlock code for i95 and i95 ECO.....	44
Changing the unlock code with a label.....	46
Device registration.....	48
Entering the device registration mode on i95 LUX.....	48
Entering the device registration mode on i95 or i95 ECO....	50
Label registration.....	52
Indication module registration (i95 and i95 ECO).....	53
Extra indication.....	54
Connection monitoring.....	54
Checking operation mode.....	55
Checking registered label number.....	55

Please, read carefully!



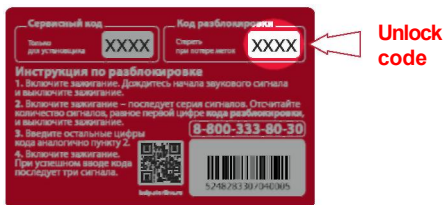
Read these instructions with special attention to sections marked with the **CAUTION!** label

There are few requirements to be met in order to ensure safe operation of the immobilizer.

1) Using a vehicle with an immobilizer installed requires you to:

- Have a label at hand
- Know the unlock code









If all labels and the unlock code are not available, vehicle operation is impossible.



We recommend carrying your plastic card around or writing down the unlock code so it's always at hand (i.e., on your mobile phone).

- 2) **If, while driving, you hear the engine locking expected alert, immediately take necessary action for an accident-free stop.** When the engine becomes locked, the tension required to turn the steering wheel and press the brake pedal may increase. **This is highly dangerous, especially when moving at high speeds.**
- 3) **If you hear a label battery low alarm, replace the battery in time.** We recommend having a spare battery in the vehicle stored in its original package.
- 4) **The immobilizer may only be installed by a qualified expert.** The immobilizer is connected to the vehicle's circuits related to the engine operation. The system uses a radio link for data exchange which is why the correct layout of the immobilizer components critical for stable recognition of a label.

Table of available indication types

Event	Label (LED)	Sound alarm	Note
Engine locking expected		Intermittent audible signals	Stop the vehicle
Label battery low		 3 audible signals	Replace the battery
Normal protection mode			If after pressing the button the LED blinks once, the label is out of coverage Protection functions are off in the service mode
Anti-theft mode			
Service mode			
Label successfully recognized		 1 audible signal	
Label not available. Enter unlock code prompt		 Long audible signal	Only for i95, i95 ECO
Normal mode, label recognition off		1 audible signals per 2 minutes	If the label is lost after pulling out (while in the normal protection mode)
Lock control circuit failure		 2 audible signals	Correct the failure

Package contents

No.	Component	i95 LUX	i95	i95 ECO
1	Installation Guide	✓	✓	✓
2	Operation Guide	✓	✓	✓
3	Plastic card	✓	✓	✓
4	Label with battery, 2 pcs	✓	✓	✓
5	Locking module	✓	✓	✓
6	Indication module	✓	-	-
7	Audible alarm unit	-	✓	✓
Function		i95 LUX	i95	i95 ECO
Central lock control (Hands-Free mode)		✓	✓	-
Label presence output (status output)		✓	✓	-



Plastic card



Delivery package of the immobilizer includes a plastic card which provides:

- **Service code.** Dedicated for the immobilizer parameters setup and programming. The service code is given in an open format.
- **Unlock code.** Allows using the vehicle in case the battery discharges or all labels are lost. The unlock code is hidden under a scratch off strip.



CAUTION! *Don't tell your unlock code to anyone! Remember, that a thief only needs your personal code to turn off the immobilizer protection functions. If you think the unlock code may have become known to a third party – change it as soon as possible (see page 42).*

Main advantages

Protection against theft and hijacking

The **StarLine** immobilizers are dedicated to protect your vehicle from being stolen or hijacked. The protection system locks the vehicle's engine.

Automatic owner recognition

Turning off protection functions doesn't require any action at your side – you only need to have a label with you.

Protected radio link

The system components exchange data via a radio link (within the 2.4 GHz range) featuring a smart-hack-resistant encryption.

Built-in motion sensor

The immobilizer's built-in motion sensor allows for simultaneous reliable protection of a parked vehicle and a remote start of its engine.

Door and hood locks control

The immobilizer is provided with an automatic hood/door locks control function (**i95 LUX, i95**) and has power outputs for their activators (i.e., it doesn't require external power modules).

Waterproof label

The case waterproof design frees you from having to worry about a label being damaged due to coming in contact with water.

Universal connection channel

An extra universal channel may be used to receive signals coming from limit switches, the brake pedal, and touch sensor, or as either a status or a low-current negative output (400 mA).

PC setup

Fast and easy setup and update of the immobilizer software using the StarLine Master application. Useful for protection systems setup.

Immobilizer features

Anti-theft features

- **Two protection modes:**
 - **Normal mode** – the label presence check performed once upon starting the ignition;
 - **Anti-theft mode** — the label presence check is continuously performed throughout the ride.
- **Turning on the engine locking only upon pulling out** allows using the immobilizer in combination with remote and automatic start systems.
- **The small size and specific locking module design** allow it to be installed under the hood in the standard wire bundle.
- **Anti-detection protection of locking circuit.** The locking switches on for a short time enough to stop the engine. At all other times, the locking circuit is closed.

Service features

- Current operation mode indication on a label and/or the indication module • Changing the operation mode using a label
- The service mode in which the immobilizer's protection features are off (used when handling in the vehicle for maintenance)
- The programming mode used for changing the unlock code and adjusting the immobilizer parameters

- The connection test. On-the-spot check of whether there is stable connection between the immobilizer components
- Registration of the immobilizer components
- Automatic control of door/hood locks (i95 LUX, i95)

Data link protection

- Original dialog authorization method. The dialog between the system components utilizes a hardware random number generator and block encryption of messages.
- Protection from message forwarding by applying time synchronization between data packets.
- Unique private encryption key for each set.

Setup recommendations

When applying for mounting and setup of the immobilizer in the installation center, we recommend directing the installation specialist's attention to the programmed options dedicated to providing extra comfort and safety while using the device.

The main immobilizer parameters available for adjustment are listed below:

- **Hands-Free mode (i95 LUX, i95).** Used for automatic opening/locking of the door locks when the owner carrying a label gets closer to/further from the parked vehicle
- **Universal channel connection method.** Determines the operation mode of the universal channel dedicated for utilizing one of the following options:
 - Engine locking in case a label is lost and the anti-theft mode is enabled
 - Door/hood limit switch status detection
 - Central lock opening upon a door handle touch sensor signal in the Hands-Free mode (i95 LUX, i95)
 - The stop lights turning on to notify of the vehicle's expected stop before the locking algorithm is started
 - Indication of opening/closing of the doors in the mode using the marker lights

- **Delay before locking upon pulling out.** Sets the duration of the delay imposed before locking performed after the vehicle pulls out in case there is no label signal:
 - No delay
 - 5 sec
 - 10 sec
- **Intermittent locking algorithm.** Allows for imitation of the engine failure during locking
- **Audible indication.** Allows or restricts audible signals performed by the indication module in the following cases:
 - Detection of a label upon turning on the ignition
 - The label is lost while in the normal mode
 - Locking expected notification
 - Label battery low indication
- **Light indication (i95 LUX).** Allows or restricts light signals performed by the indication module in the following cases:
 - Detection of a label upon turning on the ignition
 - Locking expected notification
 - Current operation mode indication
 - Label battery low indication

For more information on setting up the immobilizer see appropriate sections of Installation Guide and Operation Guide.

Specifications

Parameter	Locking module	Indication module	Label
Frequency range of radio control signals, MHz	2405...2480		
Type of control code	Dialog		
Maximum operating radius of immobilizer components, m	10*		
Power voltage, V	9...16		2.0...3.3
Current consumption when ignition is OFF, mA	6.6 (i95 LUX, i95) 2.4 (i95 ECO)	-	
Current consumption when ignition is ON, mA	6.8**	0.2	-
Permissible switching current via relay contacts, A	10	-	
Permissible switching current at lock control outputs, A	20	-	
Operating temperature range, °C	-40...+125	-40...+85	-20...+70
Battery type	-		CR2025, CR2032
Battery lifetime, months			12
Dimensions, mm	94 × 24 ×	13 41 × 28 × 9	53 × 26 × 7

* – depends on the immobilizer components layout

** – when the locking is OFF

Label coverage may be reduced depending on the installation location of the system components

Components description

Locking module



This module is designed for locking the engine by means of opening the electrical circuit using the contacts of the built-in electromechanical relay.

The locking module features a built-in three-axis accelerometer (acceleration sensor) dedicated to determine if the vehicle has started moving. The sensor has three levels of sensitivity. The sensitivity threshold is individually set by user, which allows to eliminate the possibility of false tripping when using remote and automatic engine start systems.

The locking module is the key component of the system and is responsible for authorizing other devices during the radio data exchange. New devices (i.e., a label) may be added to the system. For that they need to be registered within the locking module.

New labels are added to the system in the device registration mode. During the registration, the new device receives a unique encryption key, that is later used to exchange data with the locking module.



The immobilizer allows for registration of up to 4 labels and 1 indication module.

The locking module also performs the door central lock/hood lock automatic control functions.

Label



A label is an electronic key. Whenever you want to drive a vehicle fit with an immobilizer, you need **to have it at hand**. The codes exchanged via a radio link between a label and the locking module during the trip prevent locking of the engine. All attempts to drive a vehicle without a label will result in nothing as the engine remains locked.



We recommend not attaching a label to your main key ring, carrying it separately. Do not leave a label inside the vehicle; this way the protective functions of the immobilizer are off.

Each label has a button and a three-color LED used for the following:

- Current operation mode indication
- Monitoring of connection availability between a label and the locking module
- Switching over the protection modes
- Switching to the service mode



The immobilizer allows registering up to 4 labels, all of which can be simultaneously located within the passenger compartment.

Each label uses a single battery of either the CR2025 or CR2032 type. The average lifetime of a battery is 12 months. The actual lifetime depends on the manufacture quality of the battery. In order to replace the battery, carefully open the label case with a plain metal or plastic tool (metal ruler, thin plastic) and place the battery into the compartment while observing the polarity (see picture). Before closing the label case, fit a waterproof packing between its parts. After the battery has been installed, the immobilizer is ready for operation.





CAUTION! Labels included in the immobilizer delivery package were initially set to the transport mode, which means they are off! If the label button is pressed while in this mode, green and red flashes of the built-in LED will appear.

To commission a label, press its button several times so that the flashes color changes to green.

Audible alarm unit (i95, i95 ECO)



The audible alarm unit is installed inside the passenger compartment and is used for notifying of an expected locking, as well as producing audible signals during the setup of the immobilizer operating parameters.

Indication module (i95 LUX)



The indication module is installed within the passenger compartment. The module is primarily dedicated to timely warn passengers about an expected engine locking, which may happen in absence of a label or a full discharge of the battery.

Besides that, the indication module does the following:

- Indicates the current operation mode
- Shows the number of labels, registered in the locking module
- Indicates the label battery charge
- Allows entering the unlock code
- Allows entering the programming mode or the device registration mode



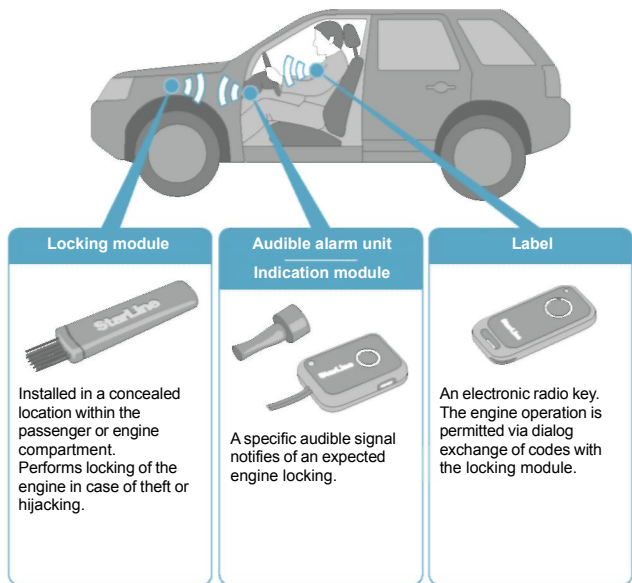
The system allows registration of only one indication module.



A radio link is used to exchange data with the system components, which is why an installed indication module doesn't unmask the locking circuit. The indication module is not a mandatory system device. However, we recommend installing this module in an easily accessible location of the passenger compartment in order to increase the driving safety and comfort.

Principle of operation

The immobilizer is basically an access system to the engine start assembly featuring functions of protection and service.



Whenever you want to drive a vehicle fit with an immobilizer, you need to have it at hand. After a label arrives within the locking module coverage area, they begin an automatic exchange of codes via the radio link. Protection of the vehicle is performed by locking its engine should a driving attempt be made in absence of communication.

The engine locking is only engaged when the vehicle performs a movement with its engine (ignition) on. If a label is not present within the reception area, the engine is on and the vehicle doesn't move, then **the locking is not performed**. This allows using the immobilizer together with other systems of automatic and remote engine start.

Locking algorithm

If, by the moment the vehicle begins moving, there still has been no communication session (label not available/label battery discharged), the system produces audible warnings of an expected locking (depending on the selected protection mode (see page 23) and settings), and the engine locking is started.

The engine locking is turned on for 20 seconds. If the vehicle begins moving after the locking cycle has finished, the locking turns on for another 20 seconds. If the locking is consequently performed 3 times, the engine is locked until a label is brought within the reception range.

If the intermittent locking algorithm was selected in the settings (see Installation Guide), an engine failure is simulated by intermittently opening and closing back the locked circuit according to the following algorithm:

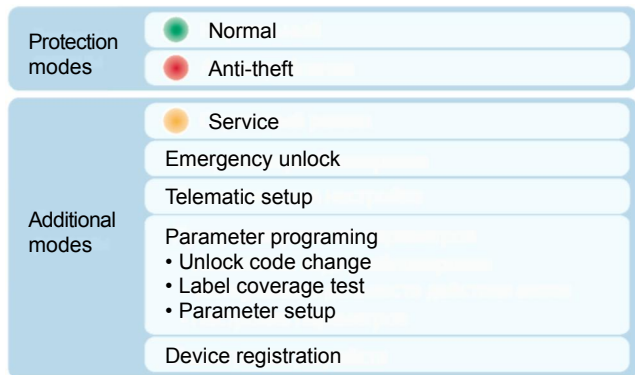
Locking stages	LOCK	Pause	LOCK	Pause	LOCK	Pause	LOCK
Duration, sec	2	2	3	2	5	2	20

Riding the vehicle will become possible after:

- A label is brought to the reception area of the locking module
- An emergency unlock is carried out using the unlock code

Operation modes



The immobilizer has the following structure of operation modes:




Protection modes (see page 23) protect the vehicle from being stolen (normal mode) or hijacked (anti-theft mode).

Additional modes (see page 26) are used for servicing and setting up the immobilizer (service mode, telematic setup mode, parameter programming mode), turning off protection functions when either the battery discharges, or a label is lost (emergency unlock mode), and registering new components within the system (device registration mode).

Key differences between the modes are shown in the table below:

Parameter	Protection modes	
	Normal	Anti-theft
Indicator color (label, indication module)		
Setting mode	Using label	
Quitting mode	Using label	
Turning on locking	Possible	

Parameter	Additional modes				
	Service	Telematic setup	Emergency unlock	Parameter programing	Device registration
Indicator color (label, indication module)		-	-	-	-
Setting mode	Using label	Using PC	Using ignition key (i95, i95 ECO) Using button on indication module (i95 LUX)		
Quitting mode	Using label	Using PC	Upon label appearance	Upon switching off ignition	
Turning on locking	N/A			Possible N/A	

Protection modes

There are two protection modes: the **normal** and **anti-theft modes**. You can choose the protection mode on-the-fly by using the label button. The current chosen mode is indicated by the label LED upon pressing the button.

The automatic data exchange between a label and the immobilizer restricts the engine locking within a set period of time after the label has been identified that depends on the current mode:

- For the **normal mode** – until the next ignition start
- For the **anti-theft mode** – for 40, 60, or 120 seconds depending on the configuration selected.

In reality this means the following:

- While in the **normal mode**, after the ignition is started, and up until the first successful data exchange, a label has to be located inside the passenger compartment. From then on, the presence or absence of the label does not affect the immobilizer operation – engine locking will not be engaged until the next ignition start. Meanwhile, the presence of the label is tracked in the background: if the connection with it is lost (i.e., the label was left in the garage), ever and again you will hear audible signals notifying you of its absence.
- While in the **anti-theft mode**, the immobilizer constantly checks for the presence of a label in the passenger compartment. If the label suddenly disappears from the coverage area for longer than the set interval, a sound alarm will be produced notifying of an expected locking, and, in another 20 seconds, the engine will be locked. If the label has been absent since the ignition was turned on, the locking would be engaged when a driving attempt is performed.



CAUTION! *To allow the anti-theft mode, you need to enable the on-the-go locking (see Installation Guide).*

If the system polls the brake pedal, and the label is lost while in the anti-theft mode, the engine locking will start after pressing the brake pedal. If the brake pedal has not been pressed, the locking would be engaged after twice the set time interval.

Additional modes

There are following additional modes:

- The **service mode** is used for temporary turning off the protection, i.e., during maintenance. The engine is not locked in this mode irrespectively to presence or absence of labels. The lock control is also turned off in the service mode.

It is **impossible** to switch to the registration mode from the service mode. This prevents unauthorized registration of third party devices. Turning on or off the service mode can only be done using a label.



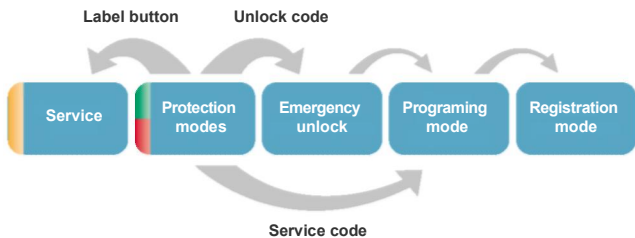
CAUTION! *The immobilizer protection functions are off in the service mode. Only use this mode when handling in the vehicle for maintenance.*

- **The emergency unlock mode** (see page 39) is a special mode which can only be entered using the secret unlock code given under an opaque covering on the plastic card included in the delivery package. The emergency unlock mode allows using the vehicle in case the battery discharges or all labels are lost. Protection functions of the system are all turned off while in this mode until a label presence is detected within the radio link coverage.



CAUTION! *The immobilizer protection functions are off in the emergency unlock mode. Only use this mode in case the battery discharges or the label is lost.*

- The telematic setup mode is used for a quick and easy setup of the immobilizer using a PC.
- The parameter programming mode is used for changing the unlock code, checking the connection stability between a label and the locking module, and setting up operating parameters of the immobilizer using a label. The programming mode can be entered either using the unlock code, or the service code. In the latter case, the change unlock code option is unavailable.
- The device registration mode is used for registering new components of the immobilizer (labels, indication module).



Door lock control



The lock control feature is only available on the i95 and i95 LUX models.

If the Hands-Free mode is **on** (see Installation Guide), the immobilizer performs remote control of the door lock according to the following algorithm:

The **'Open' pulse** is sent when:

- A label is carried past the proximity threshold of the parked vehicle
- The ignition is turned off while the Open if ignition off option is on
- Switching over to the emergency unlock mode (after entering the unlock code)
- Switching to the service mode

The **'Close' pulse** is sent when:

- A label is carried behind the away threshold of the parked vehicle. The away threshold is automatically calculated upon the proximity threshold entered in the actuation range settings of the door lock control system.
- Upon pulling out, if the Extra locking upon pulling out option is enabled

When the **EXT** universal channel is used (see Installation Guide) and connected to the door handle touch sensor, the immobilizer performs its door control functions according to the following algorithm:

The **'Open' pulse** is sent when:

- The door handle touch sensor is triggered while a label is present
- The ignition is turned off while the Open if ignition off option is on
- Switching over to the emergency unlock mode (after entering the unlock code)
- Switching to the service mode

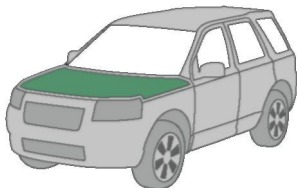
The **'Close' pulse** is sent when:

- The door handle touch sensor is triggered for longer than 3 seconds while a label is present, or when a label is being carried away from the vehicle
- Upon pulling out, if the Extra locking upon pulling out option is enabled



The door lock control is turned off in the service mode.

Hood lock control



If the Hands-Free mode is **off** (see Installation Guide), the immobilizer performs remote control of the hood lock according to one of the selected algorithms:

Hood lock control by ignition status

The '**Open hood**' pulse is sent when:

- Turning off the ignition while a label is present
- Switching over to the **emergency unlock mode** (after entering the unlock code)
- Switching to the **service mode**

The '**Close hood**' pulse is sent when:

- A label is carried away from the vehicle
- Audible signals notifying of an expected engine locking are produced

Hood lock control by label presence

The '**Open hood**' pulse is sent when:

- A label is carried past the proximity threshold of the parked vehicle
- Switching over to the **emergency unlock mode** (after entering the unlock code)
- Switching to the **service mode**

The '**Close hood**' pulse is sent when:

- A label is carried behind the away threshold of the parked vehicle
- Audible signals notifying of an expected engine locking are produced



The hood lock control is turned off in the service mode.

Starting to move

Make sure there is a label inside the vehicle before pulling out. Get into the driver's seat and turn on the ignition. Wait for a short audible signal notifying you of a successful identification of the label. The vehicle is ready to move.

While in the **anti-theft mode**, a label has to remain inside the passenger compartment until the vehicle stops. In the **normal mode**, however, it is only necessary to have the label in the passenger compartment at the moment of turning on the ignition, while its further presence or absence will have no effect on the engine operation.

Engine locking expected alert

All attempts to drive a vehicle without a label will result in nothing as the engine remains locked.

The engine locking is always accompanied by intermittent audible signals.



CAUTION! *If you hear an audible alert of an expected locking, immediately take necessary action for an accident-free stop!*



If there is no label inside at the moment the vehicle starts moving, the engine will be locked, and an audible alarm will be produced simultaneously

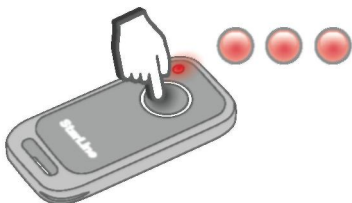
Label battery low alarm

In order to prevent the engine from being locked in case the label battery discharges, the immobilizer controls its charge level.



*If the label battery is low, **three short consecutive audible signals** are produced when the ignition is turned on.*

The low status of the label battery is also indicated by three red flashes shown upon pressing the label button.

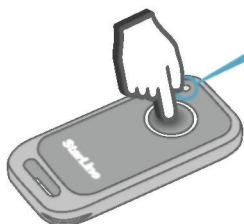





CAUTION! *Full discharge of the battery de-energizes the label. This, in turn, locks the engine. When you notice a battery low signal, replace the battery as soon as you can.*

Connection check and operation mode selection

Operation mode and connection check

- 1) Quickly press the label button.
- 2) The label LED will flash once or twice. The flash color indicates the current immobilizer's operation mode:







Flash color	Operation mode
	Normal mode
	Anti-theft mode
	Service mode

- 3) The **second flash** indicates the **presence of a stable connection** between the label and the locking module.



If you see no second flash, there is a connection problem between the label and the locking module. This may happen due to the label being carried away from the vehicle for more than 10 m or in presence of high noise.

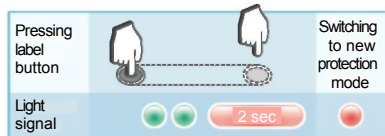
Protection mode selection

Normal 	Anti-theft 
<p>The label is only identified once, after turning on the ignition. From then on, the presence or absence of the label does not affect operation – the engine can't be locked.</p> <p> Convenient for owner</p>	<p>The label presence is constantly checked. If the label is absent for a specified time period, the engine is locked.</p> <p> Highest protection</p>

To change the protection mode, do the following:

- 1) Press and hold down the label button. Upon being pressed, the label will immediately indicate the current operation mode and the status of communication with the locking module. If the button is held for over 2 seconds, the LED will turn on for 2 seconds. The color of the flash will correspond to the next protection mode.
- 2) Release the label button during the 2 second indication period of the next protection mode.
- 3) If the mode change has been done successfully, it would be confirmed by a LED flash, and its color would correspond to the new operation mode.

An example of switching to the anti-theft mode:



Protection modes change in the following sequence: **normal** – **anti-theft** – **normal** – and so on.



The transition between different protection modes may even be performed outside the car. The selected operation mode will be set after the first successful code exchange between the label and the immobilizer.

Handling in vehicle for maintenance

There is a special mode dedicated to handling in the vehicle for maintenance, in which all of its protection functions are off. The engine is not locked and the lock control is off in this mode, irrespectively to presence or absence of labels.

Switching to Service Mode



Switching the immobilizer to the service mode can be done only when the vehicle is within the label coverage area.

- 1) Press and hold down the label button. Upon being pressed, the label will immediately indicate the current operation mode and the status of communication with the locking module. Then, a 2 second indication of the next protection mode will be shown. Hold the button over 7 seconds, until the LED turns yellow, indicating the possibility of changing to the service mode.
- 2) Release the label button during the 2 second yellow signal.
- 3) The transition to the service mode will be confirmed with a yellow flash.

An example of switching to the service mode:





CAUTION! *In case all labels registered within the immobilizer are lost, quitting the service mode becomes impossible.*



CAUTION! *Full discharge of the battery de-energizes the label. This, in turn, locks the engine. When you notice a battery low signal, replace the battery as soon as you can.*

Emergency unlock

In case all labels are lost, or the battery is discharged, the vehicle's engine will be locked. In order to continue driving you will need to switch your immobilizer to the **emergency unlock mode**.

The **switching over to the emergency unlock mode** is done by entering the unlock code. The unlock code is shown under the opaque covering on the plastic card, included in the delivery package, consists of three digits from 1 to 9 inclusive, and can be changed by the end user.



If the unlock code is entered incorrectly, you will hear a long signal. If, within the last 30 minutes, the code was consequently entered wrong 5 times, the code enter dialog would be locked for 15 minutes. The code enter lock is automatically released upon detection of a label.

When switching to the **emergency unlock mode**, the locking module sends a hood/door lock opening pulse.

The engine is never locked in the **emergency unlock mode**. The mode is automatically canceled after the first successful code exchange with a registered label. Turning off the ignition **doesn't result** in quitting the emergency unlock mode.

Unlocking using indication module for i95 LUX

Perform the following actions:

- 1) **Turn on the ignition.** Press the indication module button and hold it for over 3 seconds, until the LED blinks off. Release the button.



- 2) You will see yellow flashes accompanied by audible signals. Count down the number of flashes equal to the first **digit of the unlock code** and quickly press the indication module button. You have successfully entered the first digit.



- 3) Enter the rest of the digits of the unlock code according to 2).

- 4) If the service code is **entered correctly**, you will hear 3 short signals, and the system will switch into the programing mode.



Example. Entering the 1798 unlock code.

Pressing module button						
Light signal	up to 2 minutes		Once	7 times	9 times	8 times
Audible signal			Once	7 times	9 times	8 times
						3 times

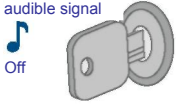
The immobilizer will switch to the **emergency unlock mode**.
The engine **WILL NOT** be unlocked.

Unlocking using ignition key for i95 and i95 ECO



Perform the following actions:

- 1) **Turn on the ignition.** Wait for an audible signal and turn off the ignition.
- 2) **Turn on the ignition.** You will hear a series of signals. Count down the number of signals equal to the first digit of the unlock code and turn off the ignition.























During the long audible signal


- 3) Enter the rest of the digits of the unlock code according to 2).

Number of audible signals equals to the digit of the code


- 4) **Turn on the ignition.** If the emergency unlock code has been entered incorrectly, three short audible signals are produced, and the system switches over to the emergency unlock code mode.
- 5) **Turn the ignition on.** If the service code is entered correctly, you will hear 5 short signals and the system will switch into the programming mode. The immobilizer will switch to the emergency unlock mode. The engine WILL NOT be unlocked.
 

Example. Entering the 1798 unlock code.

	On	Off	On	Off	On	Off	On	Off	On	Off	On
											
Ignition											
Audible signal	after 20 sec.	 10 sec.	 1 times	 7 times	 9 times	 8 times	 3 times				

Unlock code change



You need to know the current code to change it.

To change the unlock code you need to enter the programming mode.

Entering programming mode using unlock code for i95 LUX

Switch the immobilizer to the emergency unlock mode (see page 40). Leave the ignition on. Then, perform the following actions:

- 1) Quickly press the indication module button. The LED will begin flashing in yellow. **Quick press**



- 2) Within the next 2 minutes press the indication module button and hold it for over 3 seconds, until the LED blinks off. Release the button. **Holding over 3 sec**



- 3) There will be 5 short signals with the LED blinking in green. The system will switch to the programming mode. **5 times**



- 4) Insert the battery into the label. After a few seconds the label LED will start blinking in green (1 blink = 3 sec), expecting parameter input.



Switching to the emergency unlock mode.

Example. Entering the 1798 unlock code.

Pressing module button							
Light signal	up to 2 minutes	Once	7 times	9 times	8 times	3 times	
Audible signal		Once	7 times	9 times	8 times	3 times	

Switching to the programing mode.

Pressing module button			
Light signal	Blinking up to 2 minutes	5 times	
Audible signal		5 times	



The immobilizer will stay in the programing mode while the ignition remains on.

Entering programing mode using unlock code for i95 and i95 ECO

Switch the immobilizer to the emergency unlock mode (see page 41). Leave the ignition on. Then, perform the following actions:

- 1) After 20 seconds, you will hear a long (10 sec) signal. While the signal is on, turn off the ignition.



- 2) Turn on the ignition. You will hear 5 quick audible confirmation signals. The system will switch to the programing mode.




























- 3) Insert the battery into the label. After a few seconds the label LED will start blinking in green (1 blink = 3 sec), expecting parameter input.












Switching to the emergency unlock mode.

Example. Entering the 1798 unlock code.

	On 	Off 	On 	Off 	On 	Off 	On 	Off 	On 	Off 
Ignition										
Audible signal	after 20 sec.	10 sec. 	Once 	7 times 	9 times 	8 times 				

Switching to the programming mode.

	On 	Off 	On 	
Ignition				Insert battery into label
Audible signal	3 times 	after 20 sec. 10 sec. 	5 times 	






The immobilizer will stay in the programming mode while the ignition remains on.

Changing the unlock code with a label



CAUTION! Don't use obvious combinations for your new code, i.e. 1-1-1-1 or 3-3-3-3, your license plate number, etc. Remember, that a thief only needs your unlock code to turn off the immobilizer protection functions.

After switching to the programming mode, do the following:

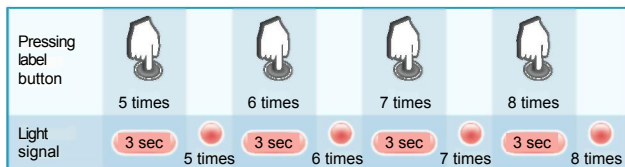
- 1) Make sure the label LED blinks in 3 second green flashes. 
- 2) Quickly press the label button when the LED is lit. Before the LED blinks off, you will see a short green flash. The LED will change its color to red.  Press once
- 3) While the LED is red, press the button N times, where N is the first digit (from 1 to 9) of the new unlock code. Before the LED blinks off, you will see a series of red flashes, equal to the number of times the button has been pressed. After a short pause, the LED will turn back on.  Press N times
- 4) Enter the rest of the digits of the new unlock code according to 3).

- 5) If the unlock code has been changed successfully, you will hear a series of signals corresponding to its new value: the first series will equal to the first digit, the second series – to the second digit, and so on.

Switching to the unlock code change mode.



Example. Entering the new 5678 unlock code.



Device registration

In order to register new components, the immobilizer needs to be switched to the device registration mode. If using an i95 LUX immobilizer, switching is done using the indication module. For i95 and i95 ECO immobilizers it is done using the ignition key.



*In order to prevent the unauthorized registration of labels, the unlock code (shown on the plastic card) is needed to enter the device registration mode. If you told the **unlock code** to the installation specialist, change it after the device registration procedure is finished.*



CAUTION! *The cipher codes' exchange during the registration is executed via a radio link **in a plain form**. We recommend performing the registration procedure while the vehicle is located outdoors and at a fair distance from any locations where the signal could possibly be intercepted.*



Switching to the programing mode from the service mode is impossible (yellow light).








Entering the device registration mode on i95 LUX

Using the **unlock code**, switch the system to the parameter programming mode (see page 42). Then, perform the following actions:




- 1) Quickly press the indication module button. The LED will begin flashing in yellow.
- 2) Within the next 2 minutes press the indication module button and hold it for over 3 seconds, until the LED blinks off. Release the button.




- 3) You will hear 7 short signals accompanied with a green blinking LED, and the system will switch to the device registration mode.

Example. Entering the 1798 unlock code.

Pressing module button								
Light signal	up to 2 minutes		Once	7 times	9 times	8 times	3 times	
Audible signal			Once	7 times	9 times	8 times	3 times	

Switching to the programing mode.

Pressing module button				
Light signal	Blinking up to 2 minutes		5 times	
Audible signal			5 times	

Pressing module button				
Light signal	Blinking up to 2 minutes		7 times	
Audible signal			7 times	



The immobilizer will stay in the device registration mode while the ignition remains on.

Entering the device registration mode on i95 or i95 ECO

Using the **unlock code**, switch the system to the parameter programming mode (see page 44). Leave the ignition on. Then, perform the following actions:

- 1) After 20 seconds, you will hear a long (10 sec) signal. While the signal is on, turn off the ignition.

During the long audible signal



Off



- 2) Turn on the ignition. You will hear 7 quick audible confirmation signals. The system will switch to the device registration mode.





























7 times




















The immobilizer will stay in the device registration mode while the ignition remains on.

Example. Entering the 1798 unlock code.

	 On	 Off	 On	 Off	 On	 Off	 On	 Off	 On	 Off
Ignition										
Audible signal	after 20 sec.	 10 sec. 	 Once	 7 times	 9 times	 8 times				

Switching to the device registration mode.

	 On	 Off	 On	 Off	 On
Ignition					
Audible signal	 3 times	after 20 sec.  10 sec. 	 5 times	 10 sec. 	 7 times

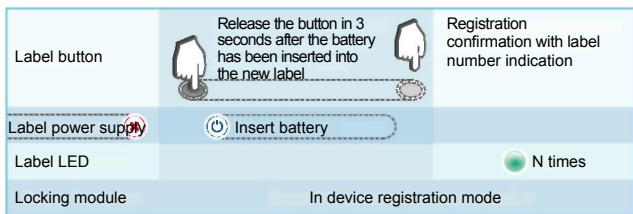
Label registration

Switch the immobilizer to the device registration mode (see page 48). Then, perform the following actions:

- 1) Press the button and, while holding it, place the battery inside. Hold the label button for at least 3 seconds, then release it.
- 2) If the label has been registered successfully, the LED produces several green flashes. Their number would then be equal to the overall quantity of the registered labels. In case of a registration error (i.e., if the ignition is turned off before the sequence is finished), the LED will flash in red.
- 3) To switch the label to the normal operation mode, remove and place back the battery.
- 4) Repeat 1) and 3) for all other labels being registered.
- 5) Turn off the ignition to exit the device registration mode.



CAUTION! All the required labels should be registered consequently and within one programming cycle. When the first label is registered, data on all previous labels is automatically removed. The immobilizer allows registration of up to 4 labels.



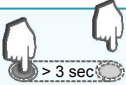






Indication module registration (i95 and i95 ECO)

You may register the indication module (sold separately) to make operation of the immobilizer more convenient. To do that, switch the immobilizer to the device registration mode. Then, perform the following actions:

- 1) Connect power to the indication module.
- 2) Wait until the connection monitoring is over (10 seconds before the LED stops blinking).
- 3) Press and hold the indication module button for at least 3 seconds, then release it.
- 4) If the indication module has been registered successfully, you will see the LED flash in green. In case of a registration error (i.e., if there is no locking module in the device registration mode), the LED will flash in red.
- 5) Turn off the ignition to exit the device registration mode.



The immobilizer only supports one indication module.


Module button			Registration confirmation
Module power supply	 	Re-energize the indication module	
Module LED	 Blinks for 10 sec	 Once	 Once
Audible signal			N times
Locking module	In device registration mode "		

Extra indication

The i95 LUX immobilizer package includes an indication module, dedicated for providing extra audible and visual event indication.

Connection monitoring

- 1) Turn on the ignition. The indication module will establish a connection with the locking module (within 10 seconds). This procedure will be indicated by the indication module LED flashing in green.
- 2) Having established the connection with the locking module, the LED will stay on for 2 minutes. During this period, the LED color will indicate the operation mode (see page 23).




Module power supply	 Power ON
Module LED	Up to 2 minutes



If, for some reason (i.e., due to high noise present), the connection with the locking module can't be established, the indication module will issue a notification by flashing its LED in red and producing an audible signal.







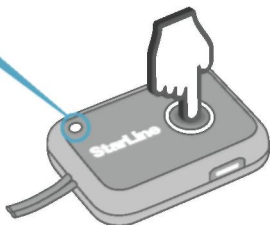
From then on, the indication module LED will flash in red once per minute until either the ignition is turned off, or a locking module shows up within the radio coverage area. If, following the ignition start, the connection to the locking module is lost, no alarm signals will be produced.

Module power supply	 Power ON
Module LED	 Blinks for 10 sec  Once
Audible signal	

Checking operation mode




Quickly press the indication module button. The module LED will light up for 2 minutes. The LED color indicates the current immobilizer's operation mode.

LED color	Operation mode
 Stays on for 2 minutes	Normal mode
 Stays on for 2 minutes	Anti-theft mode
 Stays on for 2 minutes	Stays on for 2 minutes
 Blinks for 2 minutes	Additional modes



Checking registered label number

- 1) Quickly press the indication module button. The module LED will light up for 2 minutes.
- 2) Quickly press the button again during the 2 minute indication. The LED will turn off for a while. Then it will start blinking in green, and the number of flashes will equal to the number of the registered labels.
- 3) 2 seconds after the green flash series you will red flashes – their number will be equivalent to the number of registered additional relays (if there are any in the system).

Pressing module button		Number of registered labels
Light signal	 Up to 2 minutes	 N times

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