Thank you for your choice

StarLine security-telematic complex

and wish you safe travels!

The information presented in this manual, refers to car alarms StarLine A63 eco, A63, A93 eco, A93, A93 GSM, A93 2CAN+2LIN

Software GK74-P3

Federal StarLine Technical Support. Free call

Russia	Kazakhstan	Ukraine	Belarus
8-800-333-80-30	**8-800-070-80-30**	**0-800-502-308**	**8-10-8000-333-80-30**

EAC

Edition №5
March 2017 r.

Please read carefully!

Before embarked on the exploitation the car alarm, read this manual carefully, pay attention to all sections marked with  , and decide if this car alarm is the right for your car, for which follow the requirements of the car's manufacturer and car's service manual.

If you couldn't identify if this car alarm the right to be installed on the car, return it to the seller within 14 days from the date of purchase.

Car alarm is a complex technical device, involving the connection to the vehicle's circuits related to the engine.

Installation should be performed only by specially trained qualified specialists.

It is forbidden to carry out installation, programming, maintenance, repair and disassembly-assembly of the car alarm and remote controls from persons who are not qualified and not trained and tested knowledge on safety.

In programming car's alarm parameters, fitted parameters must not contradict requirements of the service manual of the car.

The user is fully responsible for damage caused to persons, animals or property as a result of the use of the car alarm for its unintended purpose or in violation of the safety requirements set out in this manual.

The manufacturer is not responsible for losses or accidents caused by failure to follow safety rules and requirements set out in this manual.

In order to avoid possible misunderstandings, please keep documents attached to the car alarm in the sale. Check the filling in the warranty card, including availability of the date of the sale and stamp of the seller. In the absence of the date of the sale (purchase) the warranty period starts since the date of manufacture of the car alarm.

Do not take remote control from your car alarm, with same bunch of keys. Don't place car alarm remote controls in places accessible to children and animals. Don't allow liquid on the remote control.

If the display icon warning of the low battery of the remote control  , please, in advance take steps to replace the battery.

Recommended to keep a spare battery in the vehicle while maintaining in its original packaging.

Compulsory security measures when using remote start engine

It is necessary to remember that the car is a source of danger. Section 12.8. the rules of the road states: «Driver may leave his place or leave the vehicle if it had taken the necessary measures to avoid inadvertent movement of the vehicle or use it in the absence of the driver.»

Before embarked on the exploitation the car alarm, carefully read the precautions of the safe use of remote or automatic engine starting set out below:

1. Always park out the car on an open, well-ventilated site;
2. Always set the parking brake, that must be presented in good mechanical condition and rule out the possibility of vehicle movement;
3. Leaving the car, always secure the control lever of the automatic transmission to «PARK» and the shift lever manual transmission in a neutral position;
4. If your vehicle has a manual transmission, before you enable remote or automatic start engine be sure to follow the procedure for the preparation to start engine «Software neutral»;
5. Never give remote controls manage of the car alarm to children, and other persons without their preliminary familiarization with the service manual;
6. Before you enable remote or automatic engine start:
- make sure good mechanical condition of the car,
- make sure you have enough fuel, oil, coolant, etc.,
- set the required operating parameters for the heater (air conditioning), windows heating and other accessories,
- install the salon's defog flow control in position «Air circulation», allowing you to more effectively heat or cool the air in the car.

Mandatory safety measures during charging car's battery

Remember that any process of battery charge associated with the supply on the battery and, accordingly, in the onboard network of the vehicle electrical voltage greater than the nominal 12V, which will damage the equipment of the vehicle and equipment additionally installed on your car.

Do not use the charging and starting-charging devices for charging the battery directly on the car without disconnecting the battery terminals from the onboard network in the following modes:

- fast charging high amperage (modes «boost» or similar);

- different modes of START which intended to start the engine;

- in the charge mode 24V batteries.

Do not use starting-charging devices for engine start, connected battery or with connected defective batteries (short circuit in banks, the destruction of plates etc.)

Never use damaged charger devices, 24V battery charges and devices which not intended for charging battery, for example, welding inverters.

All of the above devices and modes can cause an uncontrolled flow of high voltage more than 25V and up to 60V on the car's onboard network and result in electronic components of the car alarm and car equipments to failure.

It is not recommended to use the «jump-starting» mode for charging the battery. Even the described «safe» ways for jump-starting is only secure to the car «donor».

Connection and disconnection completely discharged or faulty battery on your car while engine is running can destroy electronic devices of your car and car alarm due short circuit or surge overvoltage occurring when connecting/disconnecting the battery.

In the case of using the above devices and modes, the responsibility for damage the electronic equipments rests with the car's owner.

Keep the safe charging battery technology

Before charging the battery terminal must be disconnected from the onboard network of the car. After that you can start the process of charging the battery. After charging, connect the battery to an onboard network of the car.
This need has been reasoned that without measuring devices you can't determine the serviceability, battery status, and the reason for its discharge (availability of internal short circuits or breaks). Any charger device connection to the unserviceable battery causes the risk of damage the car's electronic equipments and car alarm with a high voltage.

The contents

Technical specification 10
Security and service functions of car alarm 11
How to control car alarm
Car alarm remote controls 14
Duration of buttons pressing of remote controls 14
Remote control commands 16
LCD display 20
Active modes and functions 20
Car alarm status indication 21
LCD remote main functions menu 22
Working modes setting by cursor method 26
List of modes, possible to set by cursor method 28
Security functions
ARM with sound confirmation 29
ARM without sound confirmation 30
Silent arm mode 31
Passive arming 32
ARM mode with engine running 33
Remote engine shut down with keeping ARM mode 35
ARM without remote control 36
Auto rearming 37
Auto door bypass sensors activation delay 37
Self-diagnostic during arming 38
DISARM with audio confirmation signals 39
DISARM without audio confirmation signals 40
Two-step unlock engine 41
Disarm without remote control 42
Disarm with engine running 43
Self-diagnostic during disarming 44
Alarm signals interrupted without disarming 45
Alarm signals 46
LCD display of alarm reasons 48
Protection against power disconnection 49
Additional wireless lock radio relays StarLine R2 49
Additional code relays StarLine R3 and StarLine R4 50
Connection of GSM modules 50
Anti-hijack mode 50

Activation of anti-hijack mode by remote 51
How to switch anti-hijack off 53
PANIC function 54

Service functions

Car status check, car battery voltage,
passenger compartment and engine temperatures 55
Automatic door lock control 56
Car finder 57
Temporarily shock sensor bypass 58
Temporarily tilt sensor bypass 59
Tilt sensor sensitivity adjustment 60
Shock sensor sensitivity adjustment 61
Additional CH 1 control 63
Additional CH 2 control 65
Additional CH 3 control 67
Additional CH 4 control 68
Additional CH 5 control 69
Additional CH 6 control 70
Additional CH 7 control (locking relay, connector X1) 71
Additional CH 8 control (unlocking relay, connector X1) 72
Additional CH 9 control 73
Turbotimer mode 74
Serviceability control of limit switches 79
LCD remote battery charge check 80
Call from car 80
Alarm memory 81
Out of range check 83
Buttons block from pressing 84
Engine heater control 85
Remote controls learning 86
Check the quantity of learned remote controls 87
PIN code emergency disarm 87
PIN code input — version 1 (emergency disarm) 88
PIN code input — version 2 (emergency disarm) 89
Service mode 90

Remote engine start

Particular features of remote engine start 91
Prepare for remote engine start for cars with manual transmission 92
Procedure «sofware neutral» 92
Remote engine start by remote control 96
Remote engine shut down 97
Remote prolongation of engine running time 98
Automatic engine start 99
Alarmatic engine start by alarm 99
Periodical automatic engine start 100
Automatic engine start by temperature 102
Deactivation of the automatic engine start 104
Indication of engine running after engine started 105

SLAVE mode

Main terms and definitions 107
Car alarm control in SLAVE mode 108
Immobilizer with validator
(PIN-code identification by using car factory keys-buttons) 113
Anti-hijack mode 114

Functions programming

Programming protection and service functions (table №1) 116
Programming engine start parameters (table №2) 120
Remote controls battery exchange 123

Technical specification

RF carrying frequency ..... from 433,05 to 434,79 MHz
RF channels 128
LCD remote range:
Control commands ..... 800 m*
Alarm trigger reception ..... 2000 m*
LED remote range ..... 15 m*
Shock/tilt sensor type ..... 3 axis digital accelerometer
Working temp range ..... from –50 up to +85 °C
Power supply DC ..... 9 – 18 V
Current consumption in armed mode ..... less then 17 mA
Average current consumption with GSM ..... 25 mA**

Max output loads:

- siren ..... 2 A
- light control ..... 2x7,5 A
- central lock motors ..... 15 A
- ignition circuit ..... 25 A
- ACC circuit ..... 25 A
- Starter circuit ..... 25 A
- engine kill (black red wire , connector X3) ..... 200 mA
- engine kill (by external relay) ..... 30 A
- additional control channels (except CH7 and CH8) ..... 200 mA

Security and service functions of car alarm

Protected areas of the car and how to control them

- Engine – a blocking relay, code relay StarLine R3 (optional), and StarLine R4 (optional), digital radio relay StarLine R2 (optional).
- The doors, hood, trunk, hand brake, the brake pedal – limit switches.
- Ignition – Ignition circuit monitoring input.
- Body – a two-level shock sensor, tilt sensor.

Car alarm protection

- Dialoge control code with individual keys encryption excludes intelligent electronic hacking.
- Patented multi-channel narrowband transceiver It provides reliable operation in conditions of urban noise.
- Remembering the initial state when power is turned off and return to the same state when power is restored.
- Interrupting the alarm without disarming.
- Limit the number of alarm cycles from the sensors.
- Automatic control of the communication channel.

Security and anti-hijack function of the car alarm

- Arming with sound and light confirmation.
- Warning signals transmitted to your LCD remote control.
- Silent arming on / off.
- Silent mode protection.
- Armed mode with the engine running.
- Arm/disarm without the use of remote control.
- Automatic return to arm mode in case of accidental disarming
- The immobilizer mode.
- Anti-hijack mode.
- «PANIC» function.
- Programmed PIN code of an emergency disarm

- Engine blocking preserved even after HW removal
- Programmable 2 steps engine unblock.

Self-diagnosis and indication of operating modes

- Indication of a faulty zone when arming.
- Display the reason of car alarm trigger, for 11 zones of protection.
- LED display of car alarm status and LCD remote control status indication.
- Indication of the fact triggering of car alarm by sound signals.
- Automatic control of security sensors and auto bypass faulty sensors from protection field.
- LED indication of serviceability of limit switches
- Remote control with user friendly display.
- Comfortable display backlight.
- 3 different sound mode and vibrate work of remote control.

Car alarm service functions

- Bypass the door zone and sensor activation delay because of dome light fade out.
- Selecting the volume of confirmation signals arming / disarming.
- Shock and tilt sensors bypass separately by levels in armed mode.
- Remote control central locking.
- Central lock control by ignition.
- Two-step door unlocks (driver door first).
- Double-pulse lock control for doors
- 8 additional control channels.

- Check the vehicle's battery voltage.
- Separate indication of cabin temperature and under the hood
- «Comfort» function.
- Call from the car.
- Light warning about opened door.
- Turbo timer mode.
- Remote programming of functions and remote controls.
- Service mode.
- Dome light control.
- Call mode from car.
- Protection against accidental pressing remote control buttons.
- Learn new remote controls and removal of the lost remote controls from car alarm memory.
- Display of the current time, alarm, reverse timer.
- Indication of remote control battery discharge.
- Support external GSM modules StarLine M20, M30 and StarLine M21, M22, M31, M32 or installation of built-in GSM module

Remote engine start functions

- Remote start / expanding time of engine run / engine shut down.
- Automatic engine start by temperature, alarm clock periodic timer start for every 2, 4, 6, 8 ..... 24 hours.
- Support of remote engine start in cars with PST.
- Selecting the type of engine: petrol / diesel.
- Selecting the transmission type: Auto / Manual.
- Detection of engine running by TACH signals, generator or voltage.
- Protection against starter overcranking when starting the engine.
- Remaining engine run time on LCD display of remote control.

How to control Car alarm

Remotes for control

Car alarm has the following remotes included in kit*:

LCD remote control:

4-buttons remote control with 2 -way control and LCD display.

LED remote control:

3-buttons remote control without display

** depending on model and specification list*

In order to take car alarm advantage as much as possible, and provide maximum security, we recommend to use LCD remote control.
LED remote control we recommend to use only if no opportunities to work with LCD remote. Feed back features in LED remote is not implemented, it is intended only for basic commands.

Duration of buttons pressing of remote controls

Here and further in text we use the following terminology of duration and sequence of remote control pressing:

- **Short press —** one time button press (or 2 buttons together) duration is less 0,5 s;
- **Long press** — press and hold button (or 2 buttons together) until melody starts ;
- **Double press** — two times press of the button within 1s;
- **Sequential press** — two press of one or different buttons First press is long (until sound appears), second press — is short (First button should be released before pressing second button).

Remote control commands

COMMAND	PRESS BUTTONS		CONDITION		
	LCD remote	LED remote	Ignition	Icons	ARM
Security functions					
ARM with sound	1 short		OFF	Any except 	OFF
DISARM with sound	2 short		OFF	Any except 	ON
ARM without sound	1 + 1 in sequence	1 double	OFF	Any except 	OFF
DISARM without sound	2 +2 in sequence	2 double	OFF	Any except 	ON
Alarm mode without sound	1 +2 in sequence	–	OFF	Any except 	OFF
Interrupt alarm signals	1 short		OFF	Any except 	ON
Hi-Jack mode ON *	1 + 3 long until ♫	1 + 2 long until ♫	ON	Any except 	OFF

COMMAND	PRESS BUTTONS		CONDITION		
	LCD remote	LED remote	Ignition	Icons	ARM
Hi-Jack mode OFF *	**2 short**		No matter	Any except 	No matter
Shock sensor Levels ON/OFF	**1 double**	**2 + 1 In sequence**	OFF	Any except 	ON
Tilt sensor Levels ON/OFF	**3 double**	**–**	OFF	No matter	ON
PANIC mode ON	**1 + 3 Long until** 	**1 + 2 Long until** 	OFF	Any except 	No matter
Engine control					
Engine start and 5 min prolong	**1 long**	**1 long**	OFF	Any except 	No matter
Engine shut down	**1 + 4 In sequence**	**1 + 2 In sequence**	OFF	Any except 	No matter

Additional equipment control					
CH 1 activation	**2 + 1 In sequence**	**3 double**	No matter	No matter	No matter
CH 2 activation	**3 + 1 In sequence**	**3 + 2 In sequence**	No matter	No matter	No matter
CH 4 activation	**2 + 3 In sequence**	**–**	No matter	No matter	No matter
CH 5 activation	**3 + 2 In sequence**	**–**	No matter	No matter	No matter
CH 6 activation	**4 + 2 In sequence**	**–**	No matter	No matter	No matter
Running a stand-alone heater	**1 + 3 In sequence**	**1 + 3 In sequence**	No matter	No matter	No matter
Shock sensor adjustment	**3 + 3 In sequence**	**–**	No matter	No matter	OFF
Tilt sensor adjustment	**4 + 4 In sequence**	**–**	No matter	No matter	OFF

Service functions					
Car alarm status request car battery voltage, engine and passenger compartment temp	**3 short**	–	No matter	No matter	No matter
Car find	**4 double**	**3 short**	No matter	No matter	No matter
Activation of cursor menu	**2 or 3 Long until second sound appear**	–	No matter	No matter	No matter
Remote control prog menu entry	**4 Long until second sound appear**	–	No matter	No matter	No matter
Buttons block ON	**2 + 4 together**	**1 + 3 together**	No matter	No matter	No matter
Buttons block OFF	**1 + 4 together**	**2 + 3 together**	No matter	No matter	No matter

LCD display

Active modes and functions

- Turbotimer mode*.
- Timer engine start mode.*
- Alarm clock engine start mode.*
- Temperature engine start mode*.
- Service mode.
- Keychain silent mode.
- Buttons press block.

**engine start modules should be installed (check with your installer)*

Car alarm status indication

ARM mode with siren alarm signals ON

Silence alarm mode ON

Ignition ON.

Door opend, hood, trunk

(P) Hand brake is not tighten (or pedal brake is pressed).

Engine is running

Battery discharged

T1 Car interior temperature

T2 Engine temperature

any StarLine GSM is connected

The stand-alone heater is on.

Tilt sensor trigger.

Shock sensor light trigger

Shock sensor heavy trigger

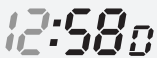
LCD remote main functions menu

Remote control main menu:

- set current time;
- set alarm clock time;
- alarm clock ON/OFF;
- set timer time;
- switch timer ON/OFF;
- select volume of alarm trigger signal or scilent mode ;
- select type of alarm trigger signal.

To enter menu of remote control press And hold button 4 until first melody, and later 2 short beeps:

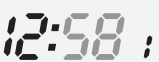
remote



Current time flash:
button 2 — increase settings,
button 3 — decrease settings.

1 Short press button 4 to set Minutes of current time:

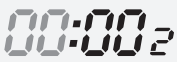
remote



Minutes are flashing:
button 2 — increase settings,
button 3 — decrease settings.

2 Short press button 4 to start setting Hours of alarm clock:

remote



Alarm clock hours flashing;
button 2 —increase setting,
button 3 —decrease setting.

3 Short press button 4 to start setting Minutes of alarm clock:

remote

Alarm clock minutes flashing;
button 2 —increase setting,
button 3 —decrease setting

4 Short press button 4 to start setting Alarm clock switching ON/OFF:

remote

button 2 — alarm clock (ON),

button 3 — alarm clock (OFF).

5 Short press button 4 to start setting Timer hours:

remote

Timer hours are flashing:
button 2 - increase setting,
button 3 - decrease setting

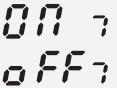
6 Short press button 4 to start setting Timer minutes :

remote

Timer minutes are flashing:
button 2 —increase setting,
button 3 —decrease setting

7 Short press button 4 to start setting Timer ON/OFF:

remote



button 2 — Timer mode (ON),

button 3 — Timer mode (OFF).

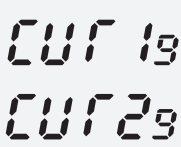
8 Short press button 4 to start setting volume of alarm trigger signals or switch ON silent mode

remote

Siren icon flash:
button 2 — select volume of remote control signals:
ГРУБВ — high volume,
СПАБВ — low volume
button 3 — switch ON silent mode:
ВИБРВ — remote signals are switched off, only vibro

9 To start setting alarm signal type short press button 4

remote



icon «1» or «2 » flashing:
button 3:
СИГ 19 — signal of SIREN type,
button 2:
СИГ29 — signal of melody type

If buttons are not pressed within 8 seconds, remote control automatically exit menu programming mode

Working modes setting by cursor method

Some car alarm modes possible to switch on by using cursor method. ON status of any mode is confirmed by backlight of corresponding icon.

This programming available during armed or disarmed status.

1 Press and hold button 3 until you hear 2 signals (first melody, and then short beep):

remote

After you will hear 2 signals, at bottom of LCD screen first left icon start to flash:

2 Short press of buttons 2 (to the left) *или* 3, 4 (to the right) move flashing cursor to icon

3a To switch ON selected mode press button 1:

car

- 1 light flash

remote

- 1 melody and 2 short beeps;
- After exit setting mode selected icon will be highlighted constantly (mode is ON).

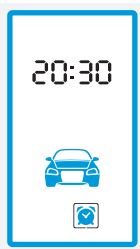
3б To switch selected mode OFF Press button 1:

car

- 2 light flashes

remote

- 1 melody and 2 short beeps;
- After exit settin mode selected icon hightligt will be OFF (mode is OFF).



To exit setting mode by cursor long press button 1 (until sound appear) If during 5 sec it will no buttons pressings remote control will exit setting mode automatically

List of modes, possible to set by cursor method

Alarm clock engine start.
One time engine start corresponding alarm clock
Set time (see page 94)

Timer engine start.
Auto engine start every 2 to 24 hours, step 2hours
See page 95)

Temperature engine start.
Auto engine start when temperature falls below selected
Value (see page 69)

Turbotimer mode.
(see page 73).

**engine start modules should be installed (check with your installer)*

Security functions

ARM with sound confirmation

Before arming, be sure that:

- ignition is OFF;
- hand brake ON;
- door, hood, trunk are closed.

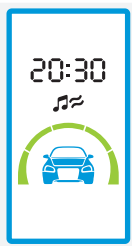
Press button 1:

car

- 1 siren signal;
- 1 light flash;
- Doors locked;
- LED start flashing

remote

- 1 beep;
- LCD panel appear Indication of armed mode.



In case of trunk, hood,doors are not properly closed or one of the limit switches of door, trunk, hood failed (constantly closed), car alarm will inform by **4 siren signals and 4 light flashes** (see. «Self diagnostic during arming», page. 36).

ARM without sound confirmation

Before arming, be sure that:
- ignition is OFF;
- hand brake ON;
- door, hood, trunk are closed.

Press button 1 at first long (until sound appear), then short:

car

- 1 light flash;
- Doors locked;
- LED start flashing

remote

- 1 beep;
- LCD panel appear indication of armed mode.

In case of trunk, hood,doors are not properly closed or one of the limit switches of door, trunk, hood failed (constantly closed), car alarm will inform by **4 light flashes**
(see. «Self diagnostic during arming», page. 36).

Silent arm mode

In silent arm mode if any alarm trigger happens siren signals will be absent.
Alarm trigger condition is confirmed only by light flashing.

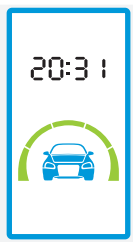
Press button 1 at first long (until sound appear), then button 2 short:

car

- 1 light flash;
- Doors locked;
- LED start flashing

remote

- 1 beep;
- LCD panel appear Indication of silent armed mode.



In case of trunk, hood,doors are not properly closed or one of the limit switches of door, trunk, hood failed (constantly closed), car alarm will inform by **4 light flashes**
(see. «Self diagnostic during arming», page. 36).

Passive arming

The mode is programmed. We recommend that you contact the car alarm installers. Default mode is OFF.

Switch ignition OFF, leave the car and close all doors

car

- 1 siren signal; 1 light flash.

10 seconds later after all doors close arm mode will be activated automatically:

car

- 1 siren signal;
- 1 light flash;
- Doors locked;
- LED start flashing

remote

- 1 beep;
- LCD panel appear Indication of armed mode.

In case of door's limit switch is failed (constantly closed) Passive arming is not available (see page 78)
If trunk, hood is not properly closed after passive arming car alarm will inform by **4 siren signals and 4 light flashes**

ARM mode with engine running*

Before arming please be sure:
- car transmission is in neutral position (or in PARK position for auto transmission);
- hood closed, engine is running.

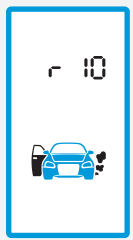
1 Tight hand brake, open Door and press button 2:

car

- 1 light flash.

remote

- Melody plays,
- Appear indication of engine running.



2 Remove ignition key, Leave the car, close all Doors and press button 1:

car

- 1 siren signal;
- 1 light flash;
- Shock sensor and ignition detection will be bypassed;
- Doors locked;
- Armed mode ON.

remote

- 1 beep;
- Appear indication of engine running and armed mode

If hand brake not enabled or hood is opened, then implementation step 1 the indication of engine running and the remaining time of engine (r10 or r20, r30, r99) on the remote control display will not appear.

After the set time of engine running, (function 2, tab. No2) the engine will be stopped without disarming the system.

If you want to extend the engine running, press and hold button 1 (until two melodic signals appear), then release the button. Followed by 3 light signal of the car. Time of engine running will increase each time for 5 minutes.

For StarLine A63 and StarLine A63 ECO must be connected support relay plugs (see instructions manual). Refer to the car alarms installers.

Remote engine shut down
With keeping ARM mode

Press button 1 long (untill Melody appear), then press 4 short

car

- 3 light flashes
- Ignition and shock sensor detection will be ON;
- LED start flashing
- Engine will be shut down.

remote

- Melody plays;
- Indication of engine run will dissapear;
- Indication of armed mode kept ON

Arm without remote control

Before arming be sure that:
- ignition is OFF,
- hand brake is activated.

1 Open any door and switch ignition ON
Press service button 3 times and switch ignition OFF:

car

- 1 siren signal, 1 light flash;

2 Leave the car and close all doors

car

- 20 s after ignition is switched off armed mode will be switched on automatically

In case of door, hood or trunk, stil opened or any limit switch failed (constantly closed) during arming triggered input will be bypassed. This will be confirme by **4 siren signals and 4 light flashes.**

Auto rearming

If auto rearming is programmed (function 5, table №1) and during 30 sec doors are not opened System will be armed automatically.

Attention! Doors will be locked in case, of rearmed function is programmed with option to lock doors (function 5, table №1).
Rearm will be confirmed by 1 siren signal and 1 light flash. 1 beep on remote will sound.
Engine will be blocked. LED start to flash, indicating the car is under protection.
If any limit switch of hood or trunk is still closed, after rearming appear **4 siren signals and 4 light flashes.**
Remote produce 1 beep.

Auto door bypass
Sensors activation delay

Door bypass or delay with sensor activation is needed to prevent false triggering
For example with dome light fade out or in case of «comfort» function is activated (when windows roll up). Depending on programming options could be selected 5- , 30- or 60-s delay (see function 3, table. №1).

Self diagnostic during arming

During arming system automatically checks all input zones.

car

- Door, hood or trunk are not properly closed;
- Any limit switch failed (constantly closed) of door, hood or trunk.

ARM by pressing button 1:

car

- 4 siren signals;
- 4 light flashes;
- Appropriate zone will be will be temporarily bypassed.

remote

- 1 beep;
- Appear indication of bypassed zone.

Close doors, hood, trunk, switch hand brake ON:

car

- Zone will return to protection;
- After doors closed doors will be locked again.

remote

- 1 beep;
- Indication of bypassed zone will dissapear

In case of failed situation will be restored automatically protection zone will be returned in active status

DISARM
with audio confirmation signals

Press button 2:

car

- 2 siren signals;
- 2 light flashes
- LED is OFF
- Doors unlocked

remote

- 2 beeps;
- Indication of disarmed mode will appear.

In case of 2 step disarm is switched OFF (function 11, table №1), engine will be unblocked together with disarming.
If 2 step disarm is switched ON, please do the following **Open door, switch ignition ON and input Pin-code (see page 82). If PIN-code is correct, will follow 2 siren signals and 2 light flashes.**
Engine will be unblocked.

If after disarming follow 3 siren signals and 3 light flashes, that means that there was some alarm triggering in armed mode (see. «self diagnostics during disarming», page. 44).

DISARM
without audio confirmation signals

Press button 2 at first
long (until melody appear)
and then short:

car

- 2 light flashes
- LED is OFF
- Doors unlocked

remote

- 2 beeps;
- Indication of disarmed mode will appear.

In case of 2 step disarm is switched OFF (function 11, table №1), engine will be unblocked together with disarming.
If 2 step disarm is switched ON, please do the following **Open door, switch ignition ON and input Pin-code (see page 82). If PIN-code is correct, Will follow 2 siren signals and 2 light flashes. Engine will be unblocked.**

If after disarming follow 3 siren signals and 3 light flashes, that means that there was some alarm triggering in armed mode (see. «self diagnostics during disarming», page. 44).

Two-step unlock engine

The function is programmed (Default mode is OFF). If this function is enabled, the engine will remain locked after each deactivation of the alarm.

To unblock engine after disarming please enter PIN-code (see page 82).

car

- After entering the last digit of PIN-code and switching ignition OFF engine will be unblocked.
- Engine unblocking will be confirmed by 2 siren signals and 2 light flashing.

To activate two-step unlock engine mode, function 10 tab. №1 must be programmed for option 2, 3 or 4. In this case, after disarming the engine blocking will remain enabled.

Disarm without remote control

1 Open car door by key:

car

- Alarm trigger signals start
  (in case when it was armed by remote control);
- Follow 4 light flashes
  (in case when it was armed without remote control).

2 Within 20 s switch ignition ON
and input PIN-code (see page 82):

car

- **After the last digits of PIN-code:**
  System will be disarmed

If after disarming follow 3 siren signals and 3 light flashes, that means that there was some alarm triggering in armed mode (see. «self diagnostics during disarming», page. 42).

Disarm with engine running

1 Disarm by pressing button 2.

2 Enter the car and switch ignition ON by key:

car

- Engine continue to run

remote

- Appear indication of engine running and disarmed mode.

3 Release hand brake off:

car

- 4 light flashes
- Engine continue to run.

remote

- 4 beeps
- Appear indication of hand brake off and ignition switched ON

Car ready for driving

Selfdiagnostic during disarming

During disarming system will inform you about missed alarm events.

Disarm by pressing button 2

- If alarm signals **were interrupted by remote:**

car

- 2 siren signals
- 2 light flashes

remote

- 2 beeps;
- If the reason of triggering is not removed, this will be shown on LCD

- If alarm signals **were NOT interrupted by remote:**

car

- 3 siren signals
- 3 light flashes

remote

- 1 beep;
- LCD will show triggered zone.

Alarm signals interrupt without disarming

car

- Alarm signals

remote

- Alarm melody plays;
- LCD shows the reason of alarm.

Press button 1:

car

- Alarm signals will stop;
- Corresponding zone will be temporarily bypassed

remote

- Alarm melody stops;
- LCD shows the reason of alarm;
- Armed mode continues

remote

After reason of alarm removed:

- LCD stop indicating triggered zone;
- Follows 1 beep.

Alarm signals

If triggered automatically appears alarm signals. Alarm signals – signals of siren and light flashes. Remote control also start to produce alarm melody, LCD will show the reason of alarm
During alarm melody icons depending on reason of alarm will start to flash.
Alarm signals performed by cycles. Duration of one alarm cycle and quantity of cycles are shown in below table.

Alarm reason	LCD indication	Duration of 1 alarm cycle	Number of cycles when input trigger constantly	Number of cycles when repeating trigger
Light shock sensor		3 siren signals 6 light flashes	1	8
Heavy shock sensor		30 s of sound and light signals	1	8
Tilt sensor		30 s of sound and light signals	1	8
Doors		30 s of sound and light signals	1	no limit
Hood		30 s of sound and light signals	1	no limit
Trunk		30 s of sound and light signals	1	no limit

Ignition		30 s of sound and light signals	no limit	no limit
Brakes		30 s of sound and light signals	1	no limit

1) During car light flashing, car head light on LCD picture also will flash.

2) In case when reason of alarm is not removed (for example, doors continued to be opened) corresponding input is temporarily bypassed until the reason of alarm dissapeared (for example, door closed) LCD continue to show the reason of alarm

3) If alarm signals are interrupted by remote control, the count of alarm signals is resetted, and count start from the begining.

LCD display of alarm reasons

- Light level of shock sensor

- Heavy level of shock sensor

- Tilt sensor

- Hand brake off

- Ignition was ON

- Door opened

- Hood opened

- Trunk opened

Protection against power disconnection

Temporarily power disconnection do not cause disarming. Car alarm memorise status and after power is restored. Status or mode is kept the same like before power disconnection (see table below),

If you use back-up siren, siren sound starts immediatelly after power disconnection

Status before power disconnection	Status after power restoredя
Disarmed	Disarmed
Armed	Armed
Alarm mode, reason removed	Armed
Alarm mode, reason continue	Alarm mode
Service mode ON	Service mode ON

Additional wireless lock radio relays StarLine R2

Using the digital radio relay for engine blocking StarLine R2 can significantly increase the anti-hijack function of the car alarm due to hidden installation of the relay in the staff wiring of the car and the absence of any wired connections between the central unit of the car alarm and blocking radio relay.

Additional code relays StarLine R3 and StarLine R4

Code relay StarLine R3 and StarLine R4 are intended for intelligently control of the hood block and engine block.

Relays connected to the car alarm and controlled by coded signal on a single-line. This eliminates unauthorized access to the lock of the hood and engine block.

Connection of GSM modules

If necessary, you can connect to your car alarm one of the additional GSM modules StarLine M20, M30, M21, M22, M31, M32 or built-in GSM. The use of GSM module enables you to manage car alarm, receive messages the invasion of the car to determine location car with virtually no range limit - wherever there GSM network.

Information and control command transmission occurs through the channel Communication GSM. Alarm information (triggered alarm sensors) may be provided to the owner of the phone as SMS-messages or calls with voice message. Determination of the location the vehicle is carried out by a base station identifier (M20, M21, M22) or GPS + GLONASS coordinates (M30, M31, M32) sent in SMS messages. It is also possible to receive SMS with a hyperlink to go to the map section with indication the location of the vehicle.

Anti-hijack mode

Function 8 table 1
Should be programmed to option 1 or 2
(see page 111).

Hidden method of switching anti-hijack on

Hidden anti-hijack switch mode can be applied in a situation where other methods difficult or impossible.
Enabling occurs when you open the door (for example, if the owner is forced to leave the car), after which the car alarm operates automatically on a certain algorithm, consisting of several steps.

Step 1: Close car door. While engine is running or ignition is ON
Press and hold Valet button more than 2s

After pressing valet button system turns in standby, in which the car alarm is waiting for open the door.
Any indication of Standby mode is not available.
Standby mode may continue indefinitely.
While all doors remain closed, it has no influence on the car's function. When one of the doors is opened, automatically activates the second step of anti-hijack algorithm.

Step 2: Open one of the door

Any alarm signals are absent at this step, engine is not blocked. Since opening the door starts 60 second countdown interval after which alarm signals are enabled. Pressing remote control button 3 can make sure you are in the second step of anti-hijack mode. The icon of anti-hijack mode flashes on the LCD.

Step 3: 60 s after door opened

car

- Starts intermittent siren signals and light flashes that will last for 30 s.

Step 4: 30 s after intermittent alarm signal appear

car

- Constant alarm signals start;
- Intermittent engine blocking will start immediatelly or after pressing pedal brake
  (depending on function 8 settings , table. №1);
- Light flashes continue.

Step 5: 45 s after Intermittent engine blocking starts:

car

- Constant siren and light flashes signals continue;
- Constant engine blocking starts.

Warning!!! If you need to drop off passengers, and anti-hijack mode is enabled, before opening doors, turn anti-hijack mode off (press remote control button 2).
Otherwise 1 minute later after opening any door alarm signals will start. Even if you forget to do this, turn off anti-hijack mode using a remote control is possible on steps 1, 2 or 3 (until intermittent engine blocking blocking starts).

How to switch anti-hijack off

Open car door
and input PIN-code (see page. 82).

After last digit input and ignition is switched ON

car

- 2 siren signals;
- 2 light flashes;
- Doors unlocked;
- Disarmed.

remote

- 2 beeps

Warning!!! In case of anti-hijack mode was switched ON by valet button, during steps 1, 2 and 3 (until intermittent engine blocking starts) car jack mode possible to switch off by remote control:

Press button 2while
Ignition is ON.

After intermittent engine blocking starts
Anti-hijack mode could be switched off only by PIN-code (see page 82).

PANIC function

When the panic mode is activated, light and audible alarms are activated for 15 seconds. If the guard was turned off, the armed mode is activated.

While ignition is ON press and hold buttons 1 and 3 :

car

- Audible and light alarms for 15 seconds;
- Doors locked (if they were unlocked);
- System will be armed (if was disarmed)

remote

- 1 short beep;
- Appear indication armed mode.

After 15 seconds, the light and sound alarms will stop, the armed mode will remain on.

To interrupt alarms in Panic mode, press button 2. The alarms will stop.

The armed mode remains active.

Service functions

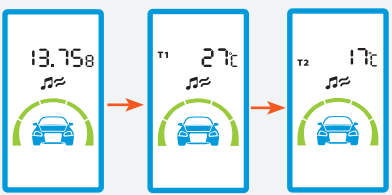
Car status check, Car battery voltage, passenger compartment and engine temperatures*

This command could be used in any mode for car status check, car battery voltage check temperature in passenger compartment and engine temperatures.

Press button 3 short:

remote

- Melody plays,
- For short time will be indicated at first car battery voltage, then passenger compartment temperature **T1** , and then engine temperature **T2** .



Interior temperature sensor is located in a car alarm main unit. Therefore, the temperature displayed on the remote LCD can differ from the actual temperature in the cabin as this depending on the unit installation place. The displayed temperature of engine on remote LCD, may differ from the actual engine temperature, as it depends on the installation location of temperature sensor. Temperature measurement range: from - 40C to + 99C. If the temperature goes out of this range, the display will be the following

Out of range value of temperature:

Temperature below **- 40° C**

Temp. sensor is short circuit

Temperature higher **+ 99° C**

Automatic door lock control

As an additional comfort functions and security you can select 4 options of automatic door locking control by ignition on / off switching.

Control options are defined by programmable function 2 (see. table №1 on page 110).

Version 1: – auto lock control is disabled.

Version 2: doors
– locked 10 s after
ignition is turned ON;
– unlocked after ignition turned off.

Version 3: doors
– locked 10 s after ignition is turned ON.

Version 4: doors
– locked after hand brake ON or pedal
brake press during ignition is switched ON;
– unlocked after ignition turned off

Car finder

This command is used to find car on parking place.

Press button 4 two times short: 

car

- 6 light flashes
- 6 siren signals

Temporarily shock sensor bypass

1 In armed mode press two times shortly button 1 брелка. Light level of shock sensor, will be bypassed:

car

- 2 light flash
- Light level of shock sensor is bypassed.

remote

- Melody plays
- Appear indication of light level of shock sensor bypassed.

2 In armed mode press two times shortly button 1 . Both levels of shock sensor will be bypassed:

car

- 3 light flash
- Both levels of shock sensor bypassed

remote

- 3 short beeps
- Appear indication of both levels of shock sensor bypassed

3 In armed mode press two times Shortly button 1.
Shock sensor will enabled again.

Within one cycle of armed mode shock sensor bypass can be made unlimited number of times

Temporarily tilt sensor bypass

1 In armed mode press two times shortly press button 3. Tilt sensor will be disabled:

car

- 3 light flashes.

remote

- 3 beeps;
- Appear indication of tilt sensor bypassed

2 In armed mode press two times shortly press button 3. Tilt sensor will be enabled:

car

- 1 light flash

remote

- 1 beep
- Appear indication of tilt sensor bypassed

Within one cycle of armed mode tilt sensor bypass can be made unlimited number of times

Tilt sensor sensitivity adjustment

The maximum sensitivity of the tilt sensor corresponds to value of 14, the minimum is 01. When you select the value 0, the sensor is deactivated (factory setting - 10).

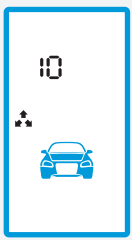
1 In disarmed mode and ignition is off press button 4 at first long (until melody appear), then short:

car

- Follow 3 light flashes;
- Follow 2 siren signals.

remote

- Melody plays
- Appear indication of tilt sensor adjustment mode.



2 By short press of buttons 2 and 3 set disired sensitivity level.

3 To exit adjustment mode press button 4 at first long (until melody appear),then short:

If after entering the sensitivity adjustment mode of tilt sensor any button is not pressed on the remote control within 15 seconds car alarm will automatically exit from adjustment without saving changes. Followed by 4 audio remote control beeps and 4 light flashes.

Shock sensor sensitivity adjustment

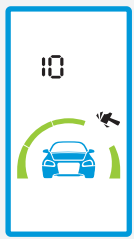
1 In disarmed mode and ignition is off press button 3 at first long (until melody appear), then short:

car

- 3 light flashes;
- 2 siren signals.

remote

- Melody plays;
- Appear indication of sensitivity level for light level of shock sensor (10- is default)



2 By short press of buttons 2 and 3 set disired sensitivity.

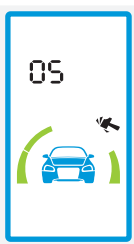
3 To turn to heavy level adjustment press button 3 at first long (until melody appear), then short:

car

- 1 light flash

remote

- Melody plays;
- Appear indication of sensitivity level of heavy level of shock sensor (05- is default)



4 By short press of buttons 2 and 3 set desired sensitivity.

5 To exit sensitivity adjustment mode press button 3 at first long (until melody appear), then short:

car	remote
• 3 light flashes • 2 siren signals	• Melody plays.

If after entering the sensitivity adjustment mode of shock sensor any button is not pressed on the remote control within 15 seconds car alarm will automatically exit from adjustment without saving changes. Followed by 4 audio remote control beeps and 4 light flashes.

Warning! The sensitivity of the heavy level of shock sensor can not be set higher than the sensitivity oflight level.

Additional CH 1 control

Versions of CH activation are defined by function 13 table №1 (see page 112). Command by remote is following:

Press button 2 long, Then button 1 short:

car	remote
• 3 light flashes.	• 3 beeps.

Version 1: Trunk release

- In case of disarmed:

car	remote
• 3 light flashes; • Trunk is released.	• 3 beeps.

- In case of armed:

car	remote
• 3 light flashes; • Trunk released shock sensor is bypassed.	• 3 beeps; • Indicstion of opened trunk and shock sensor bypassed

After luggage put/taken out close the trunk

- In case of armed:

car

- Trunk and shock sensor will be enabled after 5 s.

remote

- 1 beep
- Indication of opened trunk will dissapear Shock sensor bypass indication dissapear

If after channel activation trunk does not open, then open LCD do not show opened trunk. After 20 seconds, the trunk will again be taken for protection.

version 2: FLEX programming

Conditions are specially programmed. See installation manual

version 3: relay StarLine R3/R4 control (see installation manual).

version 4: «latch» mode.

In the «latch» mode channel output is controled by remote Control. The output status is changed to opposite after every activation.

Type of additional equipment connected to the channel №1, is specified during the installation of car alarm.

Additional CH 2 control

Versions of CH activation are defined by function 14 table №1 (see page 112).
Command by remote is following:

version 1: 2 step door unlock.

Disarm by pressing button 2 :

car	remote
• 2 siren signals • 2 light flashes, • LED will turn off • **Only driver door unlocks**	• 2 beeps • Appear indication of disarmed mode

To unlock other doors press again button 2.

In order to implement the two-step unlocking, door activator of the driver's door and other doors activators should be connected in accordance with the scheme two-step unlocking. See installation instructions.

Version 2: FLEX programming.

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation instruction.

Version 3: relay StarLine R3/R4 control (see installation manual).

Version 4: Ignition support (this version is selected when in table №2 function №1 «Remote engine starts» is OFF)

Version 4 is intended for ignition support in turbo timer mode, or when armed with engine running. Activation happens automatically when the hand brake is ON during ignition is also ON.

To activate CH №2 by remote (for version 2) press button 3 long (until melody appear), Then press button 1 short:

car	remote
• 3 light flashes	• 3 beeps.

Type of additional equipment connected to the channel №1, is specified during the installation of car alarm.

Additional CH 3 control

Versions of CH 3 activation are defined by function 15 table №1 (see page 112). Activation happens automatically. For details see installation manual.

Additional CH 4 control

Versions of CH 4 activation are defined by programmable functions table №1 (see page 111).

Version 1:	channel activates automatically for 20 sec after armed.
Version 2:	FLEX programming.

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual. To activate additional channel 4 by remote control press button 2 for a long time (until the beep sounds), then button 3 shortly.

Version 3:	Central lock control «lock» (see installation manual).
Version 4:	channel activates automatically for 20 sec after disarmed

Type of additional equipment connected to the channels №3, is specified during the installation of car alarm.

Additional CH 5 control

Versions of CH 5 activation are defined by function 19 table №1 (see page 112)

Version 1: Starter blocking

This option is intended for starter blocking while the engine is running, started remotely or automatically.
Detailed information see installation instructions.

Version 2: FLEX programming

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual.

Version 3: Central lock control «unlock» (see installation manual).

Version 4: «latch» mode.

In the «latch» mode channel output is controled by remote control. The output status is changed to opposite after every activation.

To activate CH №2 by remote press button 3 long (until melody appear), then press button 2 shortly:

car	remote
• 3 light flashes.	• 3 beeps

Additional CH 6 control

Versions of CH 6 activation are defined by function 20 table №1 (see page 112)

Version 1: Eberspacher control via digital bus.

Version 2: FLEX programming

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual.

To activate additional channel press button 4 on the remote control long (until melody appear), then press button 2 shortly:

car	remote
• 3 light flashes	• 3 beeps.

Version 3: relay StarLine R3/R4 control (see installation manual).

Version 4: Webasto control via digital bus.

For information on setting up and connecting a stand-alone heater to the StarLine system, see the installation instructions on **www.starline.ru.**

Type of additional equipment connected to the channels №6, is specified during the installation of car alarm.

Additional CH 7 control (locking relay, connector X1)

Versions of CH 7 activation are defined by function 24 table №1 (see page 113)
Channel activates automatically

Version 1: Central lock control «LOCK»

This version is intended for power central lock control. Schematic see installation manual.

Version 2: FLEX programming

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual.

Version 3: imitation of pressing the brake pedal or the clutch.

Version 4: Duplication of the signal on the black-yellow wire of the power module

Variants 3 and 4 are necessary for the implementation of the engine start-up functions, for details, see the installation instructions at **www.starline.ru**

Type of additional equipment connected to the channels №7, is specified during the installation of car alarm.

Additional CH 8 control (unlocking relay, connector X1)

Versions of CH8 activation are defined by function 25 table №1 (see page 113)
Channel activates automatically

Version 1: Central lock control «UNLOCK»

This version is intended for power central lock control. Schematic see installation manual.

Version 2: FLEX programming

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual.

Version 3: imitation of pressing the brake pedal or the clutch.

Version 4: Duplication of the signal on the pink wire of the X3 connector

Variants 3 and 4 are necessary for the implementation of the engine start-up functions, for details, see the installation instructions at **www.starline.ru**

Type of additional equipment connected to the channels №8, is specified during the installation of car alarm.

Additional CH 9 control (light signals control relay, connector X2)

Versions of CH 9 activation are defined by function 24 table №1 (see page 113)
Channel activates automatically

Version 1: light signals control

This version is intended for power control of light signals. Schematic see installation manual.

Version 2: FLEX programming

For this version, an activation method (by remote control or automatically upon event happens) duration and the delay of the output signal can be programmed. For more information about flexible programming see installation manual. Activation of the channel occurs **only** automatically.

Version 3: imitation of pressing the brake pedal or the clutch.

Version 4: DVR management

For details about using version 4 see the installation instructions at **www.starline.ru**

Type of additional equipment connected to the channels №9, is specified during the installation of car alarm.

Turbotimer mode*

For cars with turbocharged special mode – turbotimer mode, which allows you to support the work the engine after turning off the ignition key for a the time required for reducing the turbine speed.

To use this function in the complex should be realized the connection of the engine start-up circuit (refer a car alarm installers), and function 12 table №2 (see the installation instructions at **www.starline.ru**) must be programmed for one of the versions of ignition support.

Activation of turbotimer mode and setting duration time

1 To activate turbotimer mode Place cursor on icon and press button 1:

car	remote
• 1 light flash	• 1 melody play, • During 4 s. LCD shows TT duration time

2 By short press button 1 select TT duration time

remote

Every press increase duration for 1 min

3 Press button 1 long (until sound appear). Or wait for auto exit (after 4 s.) and save of selected duration time:

remote

- 2 short beeps,
- icon displays constantly.

Activation of turbotimer

Be sure that:
- gear is in neutral position (or in «PARK» position for auto transmission);
- Doors and hood are closed;
- engine is running.

1 Depending on ignition support version (that is selected by installer) turbotimer could be activated in the following way:

BY BREAK ACTIVATION :
- put hand brake in ON:;

AUTOMATICALLY :
- put hand brake in ON, switch ignition OFF;

BY REMOTE CONTROL COMMAND :
- put hand brake in ON, press button 2 short;

- If you have auto transmission and it is selected by programming:

car

- LED is constanly lit ON

remote

- 1 melody play;
- LCD shows time, remaining for engine running (**r01** .... **r06**).

- If you have manual transmission selected by programming:

car

- LED constantly ON

remote

- 1 melody play;
- LCD will show r06 - time, after it engine will be shut down, if no arming earlier

If manual transmission is selected, after turbo timer is activated remote control LCD start display remaining time counting since r06, regardless of programmed time of the turbo timer.
If it will be no arming, car alarm will shut down engine after 6 minutes.
If arming happens, LCD start to show the remaining time of the engine running of previously setted turbo timer duration.
Remaining engine operating time upgrading every minute (r04, r03, ...).

2 If you need to arm, remove ignition key get out of car, lock all the doors and arm system by one of mentioned methods (see page 29-31):

car

- 1 siren signal
- 1 light flash
- Shock sensor and tilt sensor will be bypassed;
- Doors locked.

remote

- 1 beep;
- Appear indication of engine running and armed mode

At the end of the set time for turbotimer engine will be shut down. If armed, ignition and shock sensor will again under protection

Serviceability control of limit switches

StarLine A93, A63 provides the ability to control serviceability of doors, hood and trunk limit switches when the system is disarmed. Opening doors, hood and trunk while ignition is ON must be accompanied by periodic flashes the LED. If no flashing happens it means that the corresponding pin-switch is faulty (or not connected to the car alarm).

Serviceability of limit switches, as well as the correctness of ignition circuit can be checked by using the LCD of remote control.

Open door, hood, trunk, release hand brake OFF And switch ignition ON. Press button 3:

remote

- LCD will show the status of mentioned above inputs

Recommended to check all zones step by step:
- close doors, press button 3,
- close hood, press button 3,
- close trunk, press button 3,
- switch hand brake ON, press button 3,
- switch ignition off, press button 3.

After every press of button3 coresponding icons should dissapear from LCD display.

LCD remote battery charge check

Check of battery charge is made
at every any button been pressed

remote

- When battery is discharge LCD will show icon ;
- Please replace the battery

CALL from car

To call from car to remote control press and hold more than 3s button of transciever plastic case:

car

- 3 light flashes

remote

- Call melody will continue for 20 s

To interrupt call press any button on remote control.

Alarm memory

In case of an alarm trigger happens, information about sensor, the date and time is kept in memory of car alarm. Up to 8 last events can be stored in the memory of the car alarm. View is as follows:

1 Activate buttons block (see page 77) by short pressing buttons 2 and 4 together;

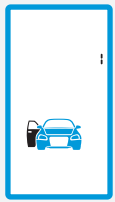
2 Long press button 4 until the last record of alarm appear (alarm № 1);

3 By short press of button 4, you could scroll through alarms;

4 By short press of button 3, you could see date and time of alarm:

- alarm №1 (door open):

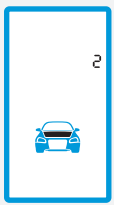
press button 4:



press button 3:

- alarm №2: (hood open):

press button 4:



press button 3:

- alarm №8: (shock sensor):

press button 4:

press button 3:

Out of range check

If auto range check is selected every 3, 5 or 7 minutes communication between car and remote control will be checked.

remote

- If you are out of range remote control will beep once and flash lower part of the sphere

Range check is available only in armed mode. Period of check Is selected by function 11 (see table №1 page 112).

Buttons block from pressing

Shortly press both buttons 2 and 4 :

remote

- 1 short beep;
- Appear icon 6N OK ;
- Buttons are blocked.

To release buttons blocking, shortly press both buttons 1 and 4

remote

- Melody plays;
- Icon 6N OK **dissapear;**
- Buttons block turns off.

Engine heater control

If engine heater is connected to your car alarm (for example Webasto), you could control it by remote control.

Press button 1 long (until melody appear), then press button 3 shortly:

remote

- Appear icon ;
- Depending on programmed algorithm:
  - Engine will start,
  - Heater will be activated,
  - Heater will be activated, and after end of its work, engine will start.

There are possible modes when autonomous heater is activated to warm the engine before engine starting.

Time of work and algorithm of heater activation are programmed. To connect and program the settings, we recommend contacting the car alarm installers.

Remote controls learning

Learning remote controls should be made in disarmed mode in the following way:

1 Press valet button 7 times and switch ignition ON:

car

- Follow 7 siren signals, confirming entry in learning mode;

2 Press shortly both buttons 1 and 2 :

car

- 1 siren signal;

remote

- 1 beep;

Repeat step 2 for all remote controls. To learn LED remote control press same combination of buttons 1 and 2. Interval between learning must not exceed 5 s. Successful learn of the next remote is confirmed by appropriate amount of siren signals and remote control beeps.

3 Switch ignition OFF:

car

- 3 light flashes.

Attention! When learning remote controls all previously learned remotes are deleted from memory, so all the desired remote controls should be learned again in the same cycle of programming (see item 2). Totaly you could learn up to 4 remote controls.

If R2 relay is written in, after learning remote controls must be restored link of radio relay R2 for this:

- Turn on/off ignition 7 times;
- Press valet button 7 times and switch ignition on. Follow 7 siren signals and wait for 3 light flashes and melodic remote control signal;
- Switch off the ignition.

Check the quantity of learned remote controls

With the ignition ON and doors closed, press button 3 of remote control. Number of LED flashes will correspond to the number of remote controls, stored in the memory of car alarm.

PIN code emergency disarm

Personal code for emergency disarm or anti-hijack mode disable may consist of 1, 2 or 3 digits, each of which can take the value from 1 to 6. The procedure for programming personal code is described in the installation manual.

Default value (or after reset to factory defaults) personal code is set to «3» (see function 9, table №1 page 111).

PIN code input - version 1 (emergency disarm)

Open the door and keep opened:

- Start alarm signals (if was armed by remote control),
- 4 light flashes (if was armed without remote control),

1 INPUT **1** DIGIT. Switch ignition ON. Press service button same time like first PIN code digit switch ignition OFF:

- If PIN code is 1-digit and input is correct , car alarm will be disarmed and follow 2 light flashes
- If PINcode is more 2 or 3 digital, input next digit.

2 INPUT **2** DIGIT. Switch ignition ON. Press service button same time like second PIN code digit switch ignition OFF:

- If PIN code is 2-digit and input is correct , car alarm will be disarmed and follow 2 light flashes
- If PINcode is more 3 digital, input next digit.

3 INPUT **3** DIGIT. Switch ignition ON. Press service button same time like third PIN code digit switch ignition OFF:

- If PIN code is 3-digit and input is correct , car alarm will be disarmed and follow 2 light flashes.

Important!!! during PIN code input duration between press of service button and ignition on/offs should be not less than 1 s and not more than 5 s.

PIN code input - version 2 (emergency disarm)

This version is more convinient for cars with start/stop push buttons.

Open the door and keep opened:

- Start alarm signals or 4 light flashes (depending on arm)

1 INPUT **1** DIGIT. **Switch ignition ON.** Press service button same time like first PIN code digit Press and release pedal brake (or activate and release hand brake):

- If PIN code is 1-digit and input is correct , car alarm will be disarmed, If PINcode is 3 digital, input next digit.

2 INPUT **2** DIGIT. Press service button same time like second PIN code digit. Press and release pedal brake (or activate and release hand brake):

- If PIN code is 2-digit and input is correct , car alarm will be disarmed, If PINcode is 3 digital, input next digit.

3 INPUT **3** DIGIT. Press service button same time like third PIN code digit. Press and release pedal brake (or activate and release hand brake). Switch ignition OFF:

- If PIN code is 3-digit and input is correct , car alarm will be disarmed.

Important!!! during PIN code input duration between press of service button and pedal press should be not less than 1 s and not more than 5 s.

Valet mode

To temporarily disable the anti-theft and security functions, such as a vehicle service, it is recommended to switch ON service mode.

1 To **enable** valet mode press and hold 4 seconds button 2 (icon will appear):

car

- 1 light flash.

remote

- Melody plays;
- icon will appear.

2 To **disable** service mode press and hold 4 seconds button 2 (icon will disappear).

Service mode can not be activated when the system is armed.

Remote engine start*

To make remote engine start you need:
– function 1 table. №2 should be set to option 2, 3 or 4;
– hardware circuits for remote engine start shou ld be made (consult installation center).

Before performing remote engine start be remote control or automaticaly activated, in mandatory order read features of remote engine start.

Particular features of remote engine start

Remote engine start is restricted in following cases:
• ignition is ON or hood opened;
• hand brake is released or pedal brake is pressed ;
• manual gear reservation is not made for cars with manual gear transmission

1. In one set of start cycle can be made 4 crank attempts. If after the fourth attempt the engine does not start, LCD remote control (provided that it is in reception area) will show «OCT» icon and remote will give 4 beeps, that means the end of remote engine start attempts. Followed by 4 light signal of the car.

2. If remotely started engine will shut down before the end of programmed warm-up time new engine start-up cycle will be performed.

3. The automatic temperature start-up function of the engine can be activated regardless of the state of the alarm triggering functions or periodic start-up.

** Except StarLine A63 ECO and StarLine A63 models.*

Prepear for remote engine start for cars with manual transmission

To make remote engine start on cars with manual transmission it is necessarily to perform manual gear reservation. Manual gear reservation is specific sequence of operations by car owner, that garantee, that before remote engine start attempt car will have gear in neutral position.

Manual gear reservation

To make manual gear reservation:
• function 12 (table №2) should be set to one of ignition support methods;
• function 15 (table №2)shpould be set on one of final operation in manual gear reserve sequence ;
• engine should run.

1 Depending of function 12 (table №2) settings make the 1 following step operations

function 12 – **AUTOMATICALLY** :
- activate hand brake, switch ignition off;

function 12 – **BY REMOTE CONTROL** :
- activate hand brake,
- while door are closed press button 2 of remote;

function 12 – **BY BRAKE ACTIVATION**:
- activate hand brake;

car

- 1 light flash
- LED start to glow constantly
- **Engine is running**

remote

- LCD shows **r99**.

- If TT is set ON LCD will show **r06**.

It should be take in account that if brake pedal is depressed, after performing step 1, that would lead to cancel of manual gear reservation. Ignition support will be off.

2 Remove ignition key. Engine continue to run. Leave the car close all doors. Depending on manual gear reservation mode engine will shut down immediatelly or continue to run.

3 Arm car alarm:

- in case of turbotimer is set OFF :

car

- 1 siren signal;
- 1 light flash;
- Doors locked;
- **Engine shut down**

remote

- 1 beep;
- Indication of armed mode

engine is ready for remote starts.

- In case of turbotimer is set ON:

car

- 1 siren signal
- 1 light flash
- Doors locked
- **Engine continue to run**

remote

- Indication of engine running continues with value of TT remaining time;
- Appear indication of armed mode

- after TT count down finishes engine will be shut down with armed mode kept.
- engine is ready for remote starts.

When armed mode with the engine running is used vanual gear reservation is also performed. After the engine run time finishes, it can be started by remote control or automatically.

Remote engine start by remote control

Before remote engine start be sure:
- hood closed, hand brake is activated;
- for cars with manual transmission – manual gear reservation is done;
- for cars with auto transmission – selector is in «PARK» position.

Press and hold button 1 (until appear 2 melody signals), Then release button:

car

- 1 siren signal
- 1 light flash
- Doors locked
- Engine start will be done..

remote

- 1 melody signal;
- LCD for 1 s will show indication "**ЗПУС**" – means start of starter cycle:

- later — appear indication of engine running, armed mode and remaining time for engine warm-up (r10, r20, r30, r99):

If the engine does not start at the first attempt, then car alarm will take another 3 attempts to start. If after 4 attempts the engine will not start, LCD remote control (provided that it is located in the reception area) will display 0[7 . Remote control will produce 4 beeps informing about the end of engine start procedure. There will be 4 light flashes.

Remaining engine runtime is updated every minute (for example: r10, r09, r08, r07 ...). 1 minute before the end of the engine warm-up LCD shows r01 label and remote will make a 2 series of 4 beeps. After the warm-up time finishes engine will be automatically shut down and 4 lights flashes will follow. Remote control briefly display r00, and give 4 beeps..

Remote engine shut down

Engine that was started remotely could be shut down by remote control

Press button 1 long
and then button 4 short:

car

- 4 light flashes
- Engine will be shut down

remote

- Melody plays
- Indication of engine running dissapear

Remote prolongation of engine running time

When neccessary , you could prolong time of engine running by remote control command:

car

- engine running;

remote

- LCD indicate remaining time for engine run

Press and hold button 1 (untill 2 melody signals appear), then release button 1:

car

- 1 light flash
- Engine is running.

remote

- Melody plays;
- Remaining time will increase on 5 min

Engine run time can be extended unlimited number of times. The maximum time that can be set after several attempts to extension - 30 minutes.

Auto engine start*

To make auto engine start possible:
– function 1 table №2 should be programmed to option 2, 3 or 4;
– HW circuits should be connected to car alarm (consult installation center).

Auto engine start is restricted if:
• ignition is ON, hood opened, hand brake released, pedal brake pressed;
• on cars with manual transmission «manual gear reservation» is not made.

Alarm clock engine start

Before turning on the automatic engine start function by remote control alarm clock, be sure to:
• the current time on LCD is installed correctly;
• alarm clock is programmed to the desired start time;
• alarm clock is on (confirmed according to the icon).

To activate alarm clock engine start set cursor on icon and shortly press button 1:

car

- 1 light flash

remote

- During 5 s it will be indication of time remaining before start;
- LCD shows constantly icons confirming alarm clock engine start is on;

Timer auto engine start

In automatic timer start mode, car alarm perform engine start and engine warm according with a specified period of time programmed.
Startup period may be set in the range from 2 to 24 hours in increments of 2 hours, and warm-up time is determined by function 2 (see table №2 page 113)

1 To activate timer auto engine start set cursor on icon and press button 1 shortly:

car

- 1 light flash.

remote

- Melody plays;
- During 4 s it will be indication of current periodical timer value (for example) 2H - start every 2 hours).

2 By short press of button 1 set the period of engine start:

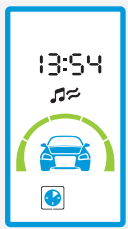
remote

Every press increase value of timer start for 2 hours

3 Press button 1 long (untill sound appear) or wait for auto exit (after 4 s.) to memory period of engine start:

remote

- 2 beeps;
- LCD start to show icon , confirming timer engine start mode is active;



- After some seconds start the first auto engine start and warm-up. Duration of warming time is defined by function 2 (see table №2 page 113). Factory default - 10 minutes.

Temperature auto engine start

In an auto temperature engine start engine will be started when external temperature sensor attached to the engine, will detect temperature below set level. Temperature start can be set within -3 °C to -27 °C step 3 °C and warming time is determined by function 2 (table №2 page 113).
Car alarm monitors sensor readings since temperature auto engine start function is activated. Minimum interval between repeated starts, excluding warm-up time - 1 hour. After activating temperature auto engine start number of engine startup is not limited.

1 To activate temperature engine Engine start set cursor on icon ❄ and press button 1 short:

car

- 1 light flash

remote

- Melody plays,
- During 5s will be indication of current setting of temperature level.

2 By short press of button 1 set level of temperature of engine start:

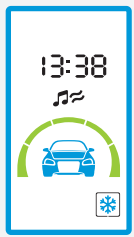
remote

Every press change temperature settings for 3°C .

3 Press button 1 long (untill sound appear) or wait for auto exit (after 4 s.) to memory Temperature value for engine start:

remote

- 2 beeps;
- LCD start constantly show icon ❄, confirming temperature engine start is active.



Auto engine starts disable

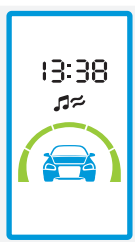
To switch off alarm clock, timer and temperature starts, set cursor on icons , , or ❄ and press button 1:

car

- 2 light flashes

remote

- Melody plays
- Corresponding icon will dissapear



Note:
1) the presence of a remote control in the transceiver range during the auto engine start is not required;
2) actual engine start time may vary with programmed value within 3 minutes;
3) alarm clock engine start is switched on for one start-up cycle. For a new start-up, you need to activate (turn on) correspondin icon on LCD;
4) if the function 2 (Table №2 page 113) is set to «No time limit», then for any automatic engine start warming time is limited to 30 min;
5) if function 4 (Table №2) is set to 2, 3 or 4, the engine warm-up will be automatically stopped when engine temperature exceed +50 ° C;
6) the auto temperature engine start can be turned ON regardless of the state of functions alarm clock or timer periodical engine starts.

Indication of engine running after engine started

Temperature engine start can be enabled simultaneously with alarm clock or timer periodic engine starts. For ease of determination what mode is really set, after warming time appear index 1-3 corresponding to start mode:

car

- Alarm clock engine start (1).
- Timer periodical engine start (2)
- Temperature engine start (3)

SLAVE mode*

In SLAVE mode, all security and service functions of car alarm are reserved. Tag function could be used on any LCD or LED remotes. After turning into SLAVE mode (tag mode) remotes retains all car alarm control functions. Remote control could arm, disarm, remote engine start, etc. Additionaly to usual functions remote control in SLAVE mode work as a identification tag.

StarLine car alarm control

- by factory key or remote control or any other method, used for specific car).
- by mobile phone.
- by StarLine mobile APP.
- via WEB application - **www.starline-online.ru**

Car owner identification modes

- without identification.
- identificationby tag (using dialoge code).
- by valet button (input of PIN-code).
- by factory car buttons (input of PIN-code

Protection against car thiefs and jackers

- engine blocking.
- engine blocking and alarm trigger in case of identification failed.
- tag search start only after programmed event (set in programm functions).
- anti-hijack mode. In case of anti-hijacking user should not make any actions. Car alarm will automatically block engine in case tag is not found withing communication range.

* *For StarLine car alarms with installed 2CAN+2LIN, 2CAN or CAN+LIN module.*

Advantages of SLAVE mode

- help to decrease the quantity of control devices for car security.
- all service functions from factory key are kept including keyless entry.

Main terms and defenitions

Factory remote – remote control for central locking or standard car security system (installed by the vehicle manufacturer).

Tag – stand alone transceiver, which can be detected within a short distance. In StarLine A93, A63 both LCD and LED remotes could be used as a tags. Here and after by «tag» should be understood remote control working in SLAVE mode. For information of switching to tag mode, see installation manuals.

User identification – process of user identification after disarming by factory key. The most frequently used method is based on owner ID by tag. For successful user identification tag should be within communication range. If StarLine car alarm will not find host tag it will switch on engine blocking and alarm trigger signals

Identification event – event (user action)
That cause initiation of tag search process. It is possible to programm 3 different events:
- disarming;
- door open;
- switching ignition ON.

Car alarm control in SLAVE mode

StarLine A93, A63 in SLAVE mode works automatically and does not require any actions or devices, except factory devices for car control. When arming the security system StarLine car alarm automatically follow into «armed mode»

Arm

Before arming be sure that:
- ignition is off;
- hand break activated;
- door, hood, trunk closed.

Using factory key (or by other method) switch factory security system into «**armed mode**».

car

- Doors locked;
- Siren and light signals, corresponding to arming procedure will follow;*
- Car alarm LED of StarLine car alarm will start to flash

In case of trunk, hood,doors are not properly closed or one of the limit switch of door, trunk, hood failed (constantly closed), car alarm will inform by **4 siren signals and 4 light flashes** (see. «Self diagnostic during arming», page. 36).

**Sound and light confirmation signals depend on car design and StarLine car alarm programming settings.*

Disarm

Using factory key (or by other method) switch factory security system into «**disarmed mode**».

car

- doors unlocked;
- sound and light signals will follow, corresponding to disarm procedure;*
- StarLine car alarm will arm and engine will be unblocked
- **User should pass identification.**

If StarLine car alarm will produce 3 siren signals and 3 light flashes, that confirms that in armed mode there was alarm trigger.

If identification is failed, StarLine car alarm will again block engine and alarm trigger signals start.

User identification

Method of engine unblocking (user identification) is defined by function №11 (see page 111).

User identification method, and selection of tag search event are defind during car alarm installation.
We recommend to consult installation center.

Version 1: identification disabled

Engine unblocking will be done automatically after disarming. Any additional operations and actions are not required.

**Sound and light confirmat6ion signals depend on car design and StarLine car alarm programming settings.*

Version 2: identification by tag

After disarming the central unit of StarLine car alarm need to find host tag, which should be within communication range. Search tags occurs only on specific events:

disarming — search is started after factory security disarmed;
door open — after car security system disarmed by factory remote control, search starts after car door opened;
ignition switched ON — after car security disarmed by factory remote control, search starts after ignition was switched ON;

Start tag search event is defined by function №23, see page 113.

When tag is found main unit and tag communicate using dialoge code.

If within 20 s tag is not found, search will be stopped sound and light alarm signals will start, engine will be blocked. car owner will be notified by SMS or phone call in case car alarm has GSM module installed), consult installation center

If identification fails, the attempt can be repeated. To do this, after the alarm signals finished start identification procedure again: arm and disarm again, close and open the door, turn off and turn on the ignition. signals You can interrupt alarm signals by pressing any button on StarLine car alarm remote control.

** tag search duration time is defined by function №22, see page 112.*

Version 3: identification by service button

After disarming it is necessary to input PIN-code by valet button (see page 82).

Search tags occurs only on specific events:

disarming — identification started after factory security disarmed;

door open — after car secuirty system disarmed by factory remote control, identification starts after door opened;

ignition switched ON — after car security disarmed by factory remote control, identification starts after ignition is switched ON;

Identification start event is defined by function №23 table №1, see page 113.

Version 4: PIN code identification (pin-code is input by car factory buttons).

This method refers to the authorization when owner input code sequence. The code sequence — is the sequence of pressing buttons of standard car (strictly order).

The code sequence PIN1 or PIN2 allows to authorize owner of the vehicle using standard buttons, possible to detect via CAN bus, with the possibility of repeatedly pressing each button. The list of your car available buttons is specified in **can.starline.ru**

There are two PIN1 and PIN2, which completely replace each other when authorization needed (in case of owner forgets one of the codes). It is preferable to use different car keys for PIN1 and PIN2.
For example, if any button used in the PIN1 will break, then it will be possible to log in using PIN2 code sequence.
If the fault happens with more than one button and authorization via PIN1 and PIN2 impossible, then you could login and turn off the engine blocking by using the valet button. How to turn off the engine blocking and disarm by valet button see. page 82.

The code sequence PIN1 and PIN2 can be from 3 to 30 press and created by the car alarms installer. Learn more about creating PIN1 PIN2 code sequence and see in the installation manual.

Immobilizer with validator (PIN-code identification by using car factory keys-buttons)

Below is description how to identify your self – inputing code sequence. SLAVE mode is on, function №11 table №1 should be set for option 4

Shutdown and Authorization Algorithm

1 Using a factory key (or by other method) turn factory security sysytem into «**disarmed mode**»

car

- doors locked;
- sound and light signals follow, corresponding to disarm procedure;
- engine will be unblocked.

2 To identify yourself input code sequence PIN1 or PIN2.

Code sequence input:

1. Start identification procedure by start event (function №23 table №1);

2. Swith ON ignition;

3. Input PIN1 or PIN2 using car factory buttons to identify your self (function №21 table №1;

car

- If code is correct, 1 light flash follow and you could start driving;
- If code sequence is failed, engine will be blocked and alarm trigger signals start.

If the car starts moving before entering the pin code or at the time of entry, the engine lock will turn on and alarms will follow.

Anti-hijack mode

Anti-hijack mode is designed to protect the vehicle from theft in the case of a robbery in disarmed mode. If the SLAVE mode, authentication is not used in this case anti-hijack mode is switch on in standard way – by pressing the remote control buttons or service button, see page 49. If the tag authorization is used, car alarm regularly checks the tag is in the cabin. If tag is absent car alarm automatically block engine. To activate anti-hijack mode function 8 table №1 should be programmed to option 1 or 2.

Activation of anti-hijack function in SLAVE mode (user is identified by tag)

While engine is running open (or open and close) any car door. After this moment car alarm start to perform specific algorithm

step 1: after door open starts 60 s count down to start tag search.

step 2: tag search (60 s.).

- After 60 since door opened car alarm start to detect tag presence in car cabin, status LED start to glow constantly. Detection of tag presence will continue during 60 s.
- If during the first 30 s tag will not be found, intermittent (warning) siren and light signals will start.
- If the tag is still not found during next 30 s, engine will be blocked (see next page).

step 3: engine block

car

- After 120 since door was opened tag search will be stopped doors will be locked, siren signals become constant
- Engine will be blocked immidiatelly or after pedal brake pressed (see function 8 table №1). During 45 s engine will be blocked intermittent and then constantly.

On any step of anti-hijack mode it could be disabled by inputing pin-code using car alarm valet button. On second step tag is searched. If car alarm will found host tag, anti-highjack mode will be disabled. Alarm signals will stop, status LED will be switched off.

Programming protection and service functions (table №1)

Security and service functions, as well as the parameters of the the car alarm can be modified by valet button and remote control. The list of features is shown in the programming tables. The procedure for programming details is described in the installation instructions (could find in **can.starline.ru**). We do not recommend do it yourself programming. If the need arises, consult expert installers. Change of programming settings or reset to the factory default conditions can cause engine blocking, as well as incorrect operation of car electrical equipment and car alarm itself.

Table №1

Alarm function RF program table	Variant 1	Variant 2	Variant 3	Variant 4
№01 - Door unlock/ lock output current	0,8 / 0,8 sec.	3,6 / 3,6 sec.	twice 0,8 / 0,8 sec.	comfort 30 / 0,8 sec.
№02 - Door lock/ unlock upon ignition on/off	Brake pedal lock / Ignition open	Ignition ON (10 sec)/ unlock OFF	Ignition ON (10 sec)	off
№03 – Into arm system's door zoom detect car's dome light or director door pin switch	Smart bypass for dome light	for Pin switch	Pin switch delay 30 sec	Pin switch delay 5 sec
№04 - Auto arm or lock upon last door close	off	On with lock	On w/o lock	On w/o lock
№05 - Auto rearm On /Off	On with lock	On w/o lock	off	off

Alarm function RF program table		Variant 1	Variant 2	Variant 3	Variant 4
№06 - Siren volume selection		Siren	Siren	Horn	Horn
№07 – Slave TAG search to unlock the door during remote engine start		Detection after running	Detection after disarm but without unlock	Detection after disarm	Detection after disarm
№08 - Anti-hijack mode select		Safe mode	Auto mode	Off	Off
№09 - Manual disarm with or w/o pin code		With 1 digital pin code **= 3** (factory default)	With 1 digital pin code	With 2 digital pin code	With 3 digital pin code
№10 - Black/Red wire for engine kill output		N/C	N/O	Wireless relay with N/C	Wireless relay with N/O
№11	2-step disarm (Normal mode)	Off	On (Valet button)	On (Valet button)	On (Valet button)
	2-step disarm (Slave mode)	Off	On (Remote TAG)	On (Valet button)	On (CAN PIN CODE)
№12 - CH # 4 (Blue wire output)		After Arm (20 sec)	Flexy CH	Lock(MCU)	After Disarm (20 sec)
№13 - CH # 1 output pulse time (yellow-black wire)		trunk release 0.8 sec	Flexy CH	HoodLock	Start killer

Alarm function RF program table	Variant 1	Variant 2	Variant 3	Variant 4
№14 - CH # 2 output pulse time (yellow-red wire)	2-step unlock 0.8 sec	Flexy CH	HoodLock	Engine run under arm & Turbo(Follow SF#1)
№15 - CH # 3 output pulse time (yellow-white wire)	Engine stop delay 1 sec then output 1 sec (bypass door)	Flexy CH	Disable light relay Parking light flash	Disable light relay Impulse control light signals
№16 - Range check timer	Off	3 min	5 min	7 min
№17 - Door input selection	Door (-)	Door (+)	Door (+)	Door (+)
№18 - GSM protocol selection	V1.0	V2.0	V2.0	V2.0
№19 - CH # 5 output pulse time (black-white wire)	Start killer	Flexy CH	Unlock(MCU)	On/Off
№20 - CH # 6 output pulse time (yellow-orange wire)	Eberspacher (Digital)	Flexy CH	HoodLock	Webasto(Digital)
№21 -GSM OUT command selection	CH1	CH2	CH6	CH5
№22 - Car Alarm Mode function	Normal	Slave (15 sec)	Slave (20 sec)	Slave (30 sec)
№23 - Event for search Tag or CAN PINCODE function for Slave mode	Lockout pin	Door trigger	IGN trigger OR transfer to KEY	IGN trigger OR transfer to KEY

Alarm function RF program table	Variant 1	Variant 2	Variant 3	Variant 4
№24 - CH # 7 output pulse time (Lock Out)	Lock Output	Flexy CH	Pedal Brake	Duplication of the starter
№25 - CH # 8 output pulse time (UnLock Out)	UnLock Output	Flexy CH	Pedal Brake	Duplication of the IGN3
№26 - Locking pulse after trunk closing during armed mode	Off	On	On	On
№27 - CH # 9 output pulse time (Light control power Out)	Light control power output	Flexy CH	Pedal Brake	DVR control output
№28 - Locking pulse in SLAVE mode during armed mode with a running engine or active turbo timer	Off	On	On	On

The orange color indicates the settings of the SLAVE function,
The factory settings are highlighted in gray in the table.

Programming engine start functions (table №2)

Function:		Variant 1	Variant 2	Variant 3	Variant 4
№1	Engine Start Function	Off	On Normal car with key	On PTS mode	Off
	TT support (on CH2)	For normal car with key	For normal car with key	For PTS cars	For PTS cars
№2 – Each time remote engine running time		10 min	20 min	30 min	without time limitation
№3 – Shock sensor or additional sensor work during en		Off	Shock on, Tilt on/ Add Off	Shock off, Tilt off / Add on	Shock on, Tilt on/ Add on
№4 – Auto shut engine when temperature higher than +50°C (Remote start)		Off	On	On	On
№5 – Remote start with or without lock/arm		On	Off	Off	Off
№6 – Remote start park light active.		flash	Off	Off	Off
№7 – Locking management during remote engine start		Off	Start successful	Locking impulse after attempt to start (2 sec later IGN OFF)	Start successful & Locking impulse after attempt to start (2 sec later IGN OFF)

Function:	Variant 1	Variant 2	Variant 3	Variant 4
№8 – Blue wire output select	ACC (out before IGN 2 sec)	Ignition	Pedal Brake	START
№9 – Cranking time Gray /black wire detect engine running by voltage oil/RPM	0,8 sec.	1,2 sec.	2,0 sec.	6,0 sec.
№10 – Gasoline or Diesel select	Gasoline (2 sec)	Diesel 5 sec	Diesel 10 sec	Diesel 20 sec / Event input (60 sec)
№11 – Select engine running detect mode	Voltage	Generator (+)	Generator (-)	RPM
№12 – Manual gear select and Turbo timer active function	Auto mode	Safe mode	Brake mode (CAN I2C)	OFF
№13 – IGN3 Bypass wire (Pink wire) (It ouput 2 sec before IGN)	Full time (Without turbo time)	30 sec (Without turbo time)	Full time with turbo time	Steering shaft unlock function
№14 – Start mode for SF #1=3	PTS mode 1 (SF 1=3)	PTS mode 3 (SF 1=3)	PTS mode 4 (SF 1=3)	Push start (SF 1=3) (pulse 6 sec until start)
№15 – Auto/Manual Gear Selection	Manual/after Arm	Manual/Door Close	Manual/Door Close 20 sec	Auto

Function:	Variant 1	Variant 2	Variant 3	Variant 4
№16 – Choice of ignition 2 wire output upon cranking	IGN	ACC	IGN*	START
№17 – Disarm with engine status	Continue	Shutdown engine	Shutdown engine	Shutdown engine
№18 – The duration of the Webasto working	20 min	30 min	40 min	50 min
№19 – The (1L+3) engine starting algorithm	Webasto start OFF	Only Webasto starting	First - Webasto heating, then engine starting	First - Webasto heating, then engine starting (Webasto still ON)

The factory settings are highlighted in gray in the table.

Attention! Resetting to the factory default settings of an already installed and working complex can lead to the impossibility of remote and automatic starting of the engine!

Remote controls battery exchange

In remote controls are used different batteries:
- in the LCD remote control – 1 battery «AAA» 1.5 V
- in remote control without display – 1 battery «CR2450» 3.0 V

Because of the remote controls are always in the standby mode of the radio signals from the central unit, the energy consumption of the battery happens all the time.

Service life of batteries depends on the mode of operation of the remote control and installed battery type. The capacity of batteries available on the market may differ in several times.

Average service life of batteries is around:
- for LCD remote control - 2 to 6 months
- for remote control without LCD display - from 1 to 12 months.

When the battery discharges of the main remote control on the display icon will appear - this means that you need to replace the battery. If pressing buttons of the supplementary remote control the series of short beeps, replace the battery.

Replacing the battery in the main remote control is performed in the following order:

1. Open the battery compartment of the remote control by sliding it to the side and remove old battery;
2. Install the new battery, observing polarity. The correct position of the battery is indicated on the enclosure of the remote control under the cover. Close the cover of the remote control;
3. After replacing the battery, adjust the current time

Replacing the battery in the supplementary remote control is performed in the following order:

1. Slide the battery compartment cover by sliding it to the side;
2. Remove the old battery and install new one, observing polarity. The correct position of the battery is indicated on the contact holder;
3. close the cover of remote control.

The manufacturer reserves the right to make changes in design and items without prior notice.

Manufacturer:
Limited Liability Company
«Scientific-Production Association «StarLine»
(LLC «SPA "StarLine»)
194044, Russia, Saint–Petersburg,
9 Comissara Smirnova St.