



AutoFon Alfa-Mayak

Autonomous search device

- determination of GLONASS/GPS coordinates
- information transfer via GSM network
- long-term autonomous operation



FULL OPERATING GUIDE

APPEAL TO THE CUSTOMER

Dear Customer!

Thank you for choosing and purchasing our device **AutoFon Alfa-Mayak!** We hope it meets your expectations and will serve you for a long time. It is important for us to know your opinion about the operation of the device. You can find out our contacts for feedback on the website autofon.ru

If in the process of setting up the device you have any questions, the answers to which you did not find in this manual, please contact the **AutoFon technical** support service by phone:

8 (495) 544-57-97 or 8-800-555-79-77 (free call from any region of the Russian Federation), from 9:00 to 21:00 in Moscow.

If your car or device property equipped with an «**AutoFon Mayak**» is stolen, please, notify the police as soon as possible and call the Dispatch Center

«**AutoFon-Responding**» by calling the round-the-clock hotline **8-800-555-93-77** (free call from all regions of Russia). Our experts will provide practical assistance in the optimal control of the device in a difficult situation. Also, our Dispatch Center can provide a prompt response and a complex of search measures with the involvement of the forces of the Ministry of Internal Affairs of Russia. The «Basic» service provision rules are posted on the manufacturer's website autofon.ru.

Warning: the manufacturer reserves the right, without prior notice, to make changes to the design and software of the **AutoFon Alfa-Mayak** device, which does not impair its consumer qualities and parameters.

TABLE OF

APPEAL TO THE CUSTOMER	2
PURPOSE	4
SWITCHING ON AND INSTALLATION	4
PRINCIPLE OF DEVICE OPERATION	5
SPECIFICATIONS	7
COMPOSITION OF THE DEVICE	8
DELIVERY SET	8
BUTTON CONTROL	9
BASIC OPERATING MODES	10
DEVICE CONTROL COMMANDS	11
BLOCK COMMANDS	16
SYSTEM COMMANDS	17
REPLACING BATTERIES	18
SYSTEM SETTING OF TASKS	19
CHANGE OF GENERAL PARAMETERS AND FINE ADJUSTMENT	20
BASIC COMMAND TABLE	25
LED INDICATION	26
COMMON FAILURES AND WAYS OF THEIR ELIMINATION	27
WARRANTY OBLIGATIONS	29

DESIGNATION

The **AutoFon Alfa-Mayak** device is intended for determining the exact location of the protected object using GLONASS/GPS satellites. The coordinates of the object are transmitted to the owner via the GSM network.

AutoFon Alfa-Mayak can be used for the following purposes:

- Anti-theft protection and stolen vehicle detection.
- Monitoring of personal, official and special vehicles.
- Locating stolen motorcycles, ATVs, scooters, bicycles and other equipment.
- Monitoring of those in need of care (children, elderly and sick people) and their detection.
- Control of the location of domestic animals: dogs, cats and cattle.
- Monitoring the movements of valuable goods and searching for them in case of loss.
- Creation of a wearable (mobile) panic button: for calling security or police.

SWITCHING ON AND INSTALLATION

To turn on the «**AutoFon Alfa-Mayak**» for the first time, press the “SOS” button 5 times quickly, the LED will blink 5 green flashes. The beacon will automatically set the time via the GSM network or navigation data from satellites. By default, the 1st owner number is the number of the AutoFon control and monitoring server. Hide the device in a guarded object.


Determination of accurate GLONASS/GPS coordinates is guaranteed only in conditions of direct visibility of the sky, although in most cases, determination is possible even by weak (re-reflected) signals outside the line of sight of the sky.

It is advisable to place the body of the device with the logo towards the sky, not obscuring it with solid metal objects.

PRINCIPLE OF DEVICE OPERATION

The **AutoFon Alfa-Mayak** device consists of a GSM/GPRS modem, a GLONASS/GPS receiver, a programmable microprocessor and an autonomous power supply.

The autonomy and miniature dimensions of «**AutoFon Alfa-Mayak**» allow the owner to discreetly install it in the most difficult-to-find place. Since the device is in sleep mode most of the time, it is extremely difficult to determine its location with air scanners and GSM signal detectors. If a system of jamming or suppression of GSM frequencies is used by attackers, the long-term autonomy of «**AutoFon Alfa-Mayak**» will allow waiting for the suppression means to be disabled and contact the owner.

The operating mode «**AutoFon Alfa-Mayak**» is set by the owner from your personal account on the server: control.autofon.ru, or via the Autofon KSA mobile application for Android and iOS. Direct control via SMS is also possible.  «**AutoFon Alfa-Mayak**» determines its coordinates using the satellites of the GLONASS/GPS navigation systems and can transmit them to the cell phone number programmed by the owner IN THE form of SMS-messages or as part of information packets via GPRS-protocol to the monitoring server selected in the settings. The packets [may indicate the current speed, from which the protected object moves. As service information, the message can include data on the date and time of coordinate measurement, battery life, temperature inside the device, set operating modes, the number of navigation satellites found, the level of GSM signal strength, the number of SMS messages sent on a given set of batteries.

«**AutoFon Alfa-Mayak**» can determine the approximate location of a stolen object even in the absence of a signal from satellites, for example: in a garage, in an underground parking lot, in a container, or when the GPS signal is deliberately jammed by radio equipment. In this case, the location will be determined by LBS, the information will be transmitted with the indication of identifiers of the GSM network base stations closest to the location of the device.

«**AutoFon Alfa-Mayak**» is equipped with a microphone, which allows the user to listen to the sound environment when calling the device from the owner's number. This function will allow, in the absence of exact coordinates, to draw conclusions regarding the location of the stolen vehicle or other property (car service, construction site, proximity to the airport, etc.).

«**AutoFon Alfa-Mayak**» can operate in two main modes. Continuous "ACTIVE" and interval "SLEEP".

In continuous mode, the device is constantly in touch and is ready to receive a command from the owner at any time.

The maximum operating time in continuous mode is 6 days, in the "SLEEP" mode up to 3 years. In the interval mode "Sleep" the device is in a "sleep" state and accepts commands only at the moment of activity, which comes at the time programmed in the alarms. AutoFon Alfa-Mayak has two alarms T1 and T2 wakes up at a specified time interval to perform the following actions:

«**SE**» - determination of only approximate coordinates and their transmission to the monitoring server via GPRS.

«**GE**»- determination of the exact GLONASS/GPS coordinates and their transmission to the monitoring server via GPRS.

«**S1/S2**» - determination of only approximate coordinates and transferring them to the owner via SMS.

«**G1/G2**» - determination of precise GLONASS/GPS coordinates and transmission of them to the owner via SMS.

«**F**» - waiting for the owner's commands.

«**A**» - audio control. After waking up, the device will call the owner and turn on the built-in microphone for 5 minutes.

«**AutoFon Alfa-Mayak**» monitors the condition of its batteries and, if necessary, informs the owner about their discharge.

The device is controlled via SMS from any mobile phone that supports sending SMS messages, if the correct access password is specified (it can be set in the PA).

Control from your personal account on the server: control.autofon.ru, or via the Autofon KSA mobile application for Android and iOS.

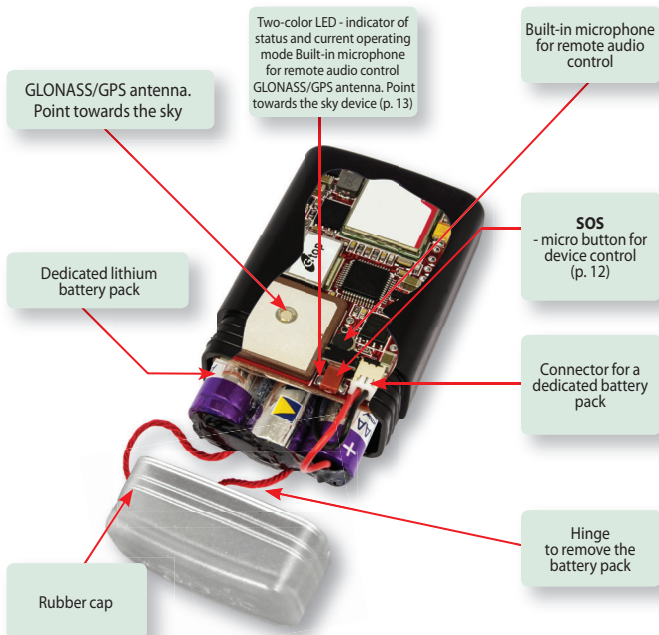
TECHNICAL CHARACTERISTICS

- Dimensions 59 x 38 x 20 mm, weight 51 grams (with battery pack).
- Degree of protection IP - 54
- Battery - lithium (Li/FeS₂) specialized battery pack 4.5 V 1100 mA.
- Consumption current when powered from the battery pack in the (SLEEP) mode, no more than 20 μ A.
- Current consumption from the battery pack in GPRS data transmission mode is not more than 500 mA.
- SIM card of a GSM mobile operator with a prepaid balance (works throughout the Russian Federation and in international roaming).
- Communication frequency 800/900/1800/1900 MHz.
- Maximum radiated power in GPRS/SMS transmission mode, no more than 2 W.
- Determination of coordinates by navigation satellites GLONASS/GPS (chipset MTK3333).
- Determination of GSM coordinates using multi-LBS technology.
- Duration of work in sleep mode up to 3 years.
- Work in continuous active mode up to 6 days powered from the battery pack (in standby mode).
- Operation in GLONASS/GPS monitoring mode up to 24 hours on one battery pack.
- Configurable activation interval from 15 minutes up to 30 days.
- **Operation temperature:**
from - 25 °C to + 85 °C (in interval mode), from -40 °C to + 85 °C (in continuous mode).

IMPORTANT! The built-in SIM-chip of the GSM operator of cellular communication is registered with AutoFon LLC. Renewal is not possible! Can be operated in international roaming.

The tariff plan is presented on the autofon.ru website. The amount of consumed battery energy is displayed on the AutoFon KSA server, tab - "Last state".

DEVICE COMPOSITION



SCOPE OF DELIVERY

• AutoFon Alfa-Mayak device	1 pc.
• Lithium battery pack (Li/FeS2) installed, connected	1 pc.
• Quick Start Guide	1 pc.
• Card with registration data of the device	1 pc.
• Packing box	1 pc.
• Double-sided adhesive tape	1 pc.
• Rubber cap	1 pc.

BUTTON CONTROL



5 sos Turn on - turn off the Beacon

(quick) **pressing of the SOS button** - activation of the Beacon after connecting the batteries.

Switching on - the LED will blink for 3 seconds with a series of flashes of green color.

Shutdown - LED will blink for 3 sec. with a series of flashes of **red color**.

4 sos Switching between modes «SLEEP», «ACTIVE»

4 times (quick) **pressing of the SOS button** - switch between the «ACTIVE-SLEEP» operating modes, the LED will light up on 5 seconds: «**SLEEP**» - **in red**, «**ACTIVE**» - **in green**.

3 sos Checking the operating mode

3 times (quick) **pressing of the SOS button** - checking the «ACTIVE - SLEEP» mode. The LED will light up for 5 seconds: «**SLEEP**» - **in red**, «**ACTIVE**» - **in green**.

1 sos Вызов тревоги

1-time **pressing of the SOS button** - an alarm signal to the programmed phone number.

sos Resetting the password to the factory «1234»

To reset the password on the factory 1234 - while the «SOS» button is pressed, connect the batteries, the LED will turn **red** for 2 seconds. Release the button while it is glowing. If the reset procedure is correct, the LED will give a series of short red flashes.

BASIC OPERATING MODES

The device can operate both in one mode and in their combination, up to 4 modes in each «alarm clock».

G - mode for determining GLONASS/GPS coordinates After waking up according to the T1/T2 alarm clock, the device determines its position using navigation satellites and sends them to the owner via SMS in the form of numerical data, or in the format of a ready-made hyperlink. It is also possible to transfer data with the coordinates to the monitoring server via GPRS. If GLONASS/GPS coordinates cannot be determined, approximate LBS coordinates will be sent to the owner.

S - mode for determining only GSM coordinates

After waking up according to the T1/T2 alarm clock, the device sends the owner an SMS (or GPRS packet to the server) with identifiers of up to 4 GSM base stations. This mode is used when the owner does not need to accurately determine the location of the protected object.

F - standby mode for waiting SMS commands

The most economical mode of operation, when the device wakes up by the T1/T2 alarm clock, turns on the GSM module and waits for an SMS message with a command. If there is no command, the device switches to sleep mode for the time set in the alarm clock. In this mode, the SMS messages at each activation are not sent to the owner, only the receipt of new commands is checked.

A - audio control mode

After waking up according to the T1/T2 alarm clock, the device will call the owner's number and turn on the built-in microphone for remote listening to the protected object.

The maximum audio monitoring time is 5 minutes. After the end of the communication session, the device remains active for the time specified in the settings.

«**SE**» - determination of only approximate coordinates and their transmission to the monitoring server via GPRS.

«**GE**» - determination of the exact GLONASS/GE coordinates and their transmission to the monitoring server via GPRS.

DEVICE CONTROL COMMANDS

«AutoFon Alfa-Mayak» is controlled by sending commands in the form of SMS messages to the device's mobile number, or via a server via GPRS, as well as the AutoFon KSA mobile application on iOS and Android platforms. 📱

You can control the device from any abundant phone. At the beginning of each SMS command there must be a password - 4 digits (indicated in P.A.) and a separator - "comma".

If several SMS commands were sent to AutoFon Alfa-Mayak in the "Sleep" mode, then the next time it is activated, only the last one will be executed.

If you need to send several commands, do it sequentially, one by one, waiting for SMS confirmation of the execution of each command, or use the block command. In GPRS control, queued commands are executed sequentially. Having received the command from the owner and after executing it, the device remains active for the programmed time, waiting for the next command.

RECORDING OWNER'S NUMBER.

Example: **XXXX, PHONE1=+79037676045**

Where:

XXXX - the password specified in the P.A.

PHONE1 - serial number (up to two numbers). Acceptable command spelling: "ТЕЛЕФОН", "ТЕЛ", "TELEPHONE", "PHONE", "TEL".

+79037676045 - owner's phone number, substitute yours. The number must be specified in international format, start with a "+" sign and consist of 10-13 digits.

DELETING THE NUMBER.

XXXX, PHONE1=0 Or XXXX, PHONE2=0

Acceptable command spelling: "ТЕЛЕФОН", "ТЕЛ", "TELEPHONE", "PHONE", "TEL".

CHECKING THE NUMBERS STORED IN THE MEMORY OF THE DEVICE.

XXXX, PHONE

Acceptable command spelling:

"ТЕЛЕФОН", "ТЕЛ", "TELEPHONE", "PHONE", "TEL".

The report on the recorded numbers will come in a reply SMS message.

SETTING THE CURRENT DATE AND TIME.

When you first log on to the network, the time and date are set automatically. To install it manually, send the following command: Example:

1234,TIME=ddmmyyyy, hhmmss

Where:

XXXX - password specified in P.A.;

TIME is a command. Acceptable command spelling: "ВРЕМЯ", "ДАТА", "TIME", "DATA", "DATE", "RTC".

dd (day) within 01...31;

mm (month) within 01...12; yyyy (year) within 2010...2100;

hh (hour) within 00...23;

mm (minutes) within 00...59;

ss (seconds) within 00...59.

The application of values is the moment the device reads the given SMS.

SETTING THE LANGUAGE OF SMS MESSAGES FROM THE MAYAK.

Example: **1234,RUS**

Where:

XXXX - password specified in P.A.;

RUS - command for choosing the language of text in SMS from Mayak.

Acceptable command spelling:

"РУС", "АИГ", "RUS", "ENG".

SETTING THE CONTINUOUS OPERATING MODE.

Example: **Example: XXXX,ACTIVE**

Where:

XXXX - password specified in P.A.;

ACTIVE - command to switch to continuous operation; Acceptable command spelling: «**ACTIVE**», «**онлайн**», «**Online**»;

With this setting, SMS commands received by the Mayak will be executed in real time.

SETTING THE INTERVAL MODE OF THE MAYAK.

Example: **XXXX,SLEEP**

Where:

XXXX - password specified in P.A.;

SLEEP - command. Acceptable command spelling: "**СОН**", "**СЛИП**", "**SLEEP**". By this SMS command, the device switches to the interval operation mode, in which it is activated by preset alarms or by pressing the SOS button, the rest of the time **AutoFon Alfa-Mayakis** in "sleep" mode.

SETTING OPERATING MODES VIA ALARM CLOCK.**Example: XXXX,ALARM1=31 1400,01D,G2**

Where:

XXXX - password specified in P.A.;**ALARM1** - alarm number (two alarms in total). Acceptable command spelling "БУДИЛЬНИК", "БУД", "ALARM CLOCK";**31** - day of the month when the alarm clock is activated; **1400** - alarm activation time;**01D** - interval. **Options:****15M** - minutes from 15 to 43200;**01H** - (hours) from 01 to 720. "h", "ч";**01D** - (days) from 01 to 30. "d", "д";**0** - setting an interval of 1 month. With this setting, the beacon will be activated by an alarm clock on the specified day of the month (31). In a month with 30 days, the beacon will not perform the alarm action.**G2** - operating mode. **Options:****F** - waiting for a command;**G1** - SMS with coordinates (GLONASS/GPS) to the first number;**G2** - SMS with coordinates (GLONASS/GPS) to the second number;**GE** - transfer of (GLONASS/GPS) data to the monitoring server via GPRS;**S1** - SMS with coordinates (LBS) to the first number;**S2** - SMS with coordinates (LBS) to the second number;**SE** - transfer of (LBS) data to the monitoring server via GPRS;**A1** - call to the first number;**A2** - call to the second number;

One alarm clock can be configured for 4 modes;

Example: G1G2GEA1.**REQUEST FOR ONE TIME DETERMINATION.**

of GLONASS/GPS-coordinates

Example: XXXX,NAVI

Where: those

XXXX - password specified in P.A.;**NAVI** is a command for requesting coordinates. Acceptable command spelling

"NAVI", "GPS", "Нави";

When a command is received, the device will send a notification that the command was successfully accepted and start searching for satellites.

Upon receipt of the command "**XXXX, NAVI**-" the device will start searching for satellites without confirmation of command acceptance. The device sends a message with GLONASS/GPS coordinates in the format specified

in the SETUP19 parameter to the number from which the request was made. If GLONASS/GPS coordinates could not be determined, the SMS format is changed and the device's location according to GSM base stations (LBS location method) is sent.

REQUEST FOR ONE TIME DETERMINATION.

GSM coordinates (Multi LBS) Example: XXXX,LBS

Where:

XXXX - password specified in P.A.;

LBS - a command. Acceptable command spelling "LBS", "ЛБС" The device will send an SMS message with the identifiers of the current and three nearest GSM base stations to the phone from which the request was made. The received data can be converted on the website www.autofon.ru or in the mobile application "AutoFon Commander".

EDITING DEVICE NAME.

Example: **XXXX,ИМЯ="РЕНО-Логан"**

XXXX,NAME="RENAULT-Logan"

Where:

XXXX - password specified in P.A.;

ИМЯ = - command to write the name in Russian.;

NAME= - command to write the name in English.;

"РЕНО-Логан" is the name of the Mayak in Russian.;

"RENAULT-Logan" is the name of the Mayak in English.;

This name will be displayed in the first line of reply SMS without quotes. Maximum amount of characters is 24.

REQUEST FOR ONE-TIME STARTING OF AUDIO CONTROL.

Example: **XXXX,MICROPHONE**

Where:

XXXX - password specified in P.A.;

MICROPHONE - command. Acceptable command spelling "МИКРОФОН", "АУДИО", "ЗВОНОК", "AUDIO", "CALL".

Upon receipt of the command "XXXX, MICROPHONE"; the device will send a confirmation of its acceptance and after that it will call the number from which the request was made to enable listening.

Upon receipt of the command "XXXX,MICROPHONE-" confirmation of the command acceptance is not sent.

You can also use the audio control mode by calling the device from the owner's phone when AutoFon Alfa-Mayak is in active mode.

* Warning! With some SIM cards, outgoing voice communication may not be available.

PASSWORD CHANGE. Example: XXXX,PASSWORD=5678

Where:

XXXX - password specified in P.A.;

PASSWORD is a command. Acceptable command spelling: "ПАРОЛЬ", "PASSWORD", "PASS";

5678 is the new password.

CHECKING THE SETTINGS.

Example: XXXX,INFO

Where:

XXXX - password specified in P.A.;

INFO is a command. Acceptable command spelling "ИНФО", "INFO". After reception of this command, the device will send an SMS message with a report on the set parameters. Allows you to get comprehensive information about the current settings. Also, with this command, you can find out the IMEI number of the device and the current owner numbers.

CHECKING THE SETTINGS.

Example: XXXX,SETTINGS

Where:

XXXX - password specified in P.A.;

SETTINGS - command. Acceptable command spelling "УСТАНОВКИ", "SETTING". The device will respond to this command with an SMS message with settings.

BALANCE ENQUIRY.

Example: XXXX,balance

Where:

XXXX - password specified in P.A.;

balance - a command to contact the GSM network operator with a balance enquiry. Acceptable spellings: "БАЛАНС", "USSD", "CUSD".

CHANGING "IP" ADDRESS OF THE SERVER.

Example: XXXX,IP1=176.9.114.139.20102

Where:

XXXX - password specified in P.A.;

IP1 - address of the first monitoring server (up to two servers);

176.9.114.139.20102 - monitoring server address and port number.

DELETING THE "IP" ADDRESS OF THE SERVER.

Example: **XXXX,IP2 = 0.0.0.0**

AutoFon Alfa-Mayak can work with two monitoring servers (not simultaneously). If it is impossible to communicate with the first server, the beacon switches to work with the second. The return to work with the first server will occur when the connection is broken, or at the next connection to the server.

Supported monitoring servers on the site <http://www.autofon.ru/> monitoring.

RECORD USSD balance request command Example:

1234,AUTOBALANCE ="#100#

Where:

1234 is the initial password.

AUTOBALANCE - a command to write a balance request line to the device.

Acceptable spellings: AUTOBALANCE, АВТОБАЛАНС.

#100# is a line for requesting operator balance.

This (one-time) command can be used if it is impossible to automatically detect the operator of the SIM-chip installed in the device.

BALANCE ENQUIRY.

Example: **XXXX,balance**

Where:

XXXX - password specified in P.A.;

balance - a command to contact the GSM network operator with a balance enquiry. Acceptable spellings: "БАЛАНС", "USSD",

"CUSD". It is possible to set several parameters in one SMS message. Length of block SMS in Cyrillic up to 70 characters, in Latin up to 160.

An example of a block SMS command:

XXXX,PHONE1=+79261112233,ALARM2=15,1200,7D,G1

BLOCK COMMANDS

To reduce the programming time when configuring the device, it is possible to control it using block SMS commands, in which several operation parameters can be set in one SMS message. The length of a block SMS in Cyrillic should not exceed 70 characters, in Latin - 160.

An example of a block SMS command:

XXXX,PHONE1=+79261112233,ALARM2=15,1200,7D,G1

SYSTEM COMMANDS

RESET TO FACTORY SETTINGS.

(except for password and phone numbers).

Example: XXXX,RESET

Where:

XXXX - password specified in P.A.;

RESET - command. Acceptable command spelling "СБРОС", "DEFAULT", "RESET"

RESET ALL SETTINGS, OWNER NUMBERS AND PASSWORD.

Example: XXXX,HARDRESET

Where:

XXXX - password specified in P.A.;

HARDRESET is a hard reset command.

REBOOTING THE "GSM" MODULE. **Example: XXXX,GSMRESTART**

Where:

XXXX - password specified in P.A.;

GSMRESTART - command to reboot the GSM module.

REBOOTING THE "GLONASS/GPS" MODULE.

Example: XXXX,NAVIRESTART

Where:

XXXX - password specified in P.A.;

NAVIRESTART - command to reboot the GLONASS GPS module.

RESTARTING THE SYSTEM.

Example: XXXX,SYSTEMRESTART

Where:

XXXX - password specified in P.A.;

SYSTEMRESTART - microcontroller restart command.

CHECKING THE AVAILABILITY OF THE NEW VERSION OF THE MAYAK SOFTWARE.

Example: **XXXX,RELEASE**

Where:

XXXX - password specified in P.A.;

RELEASE - a command to check for updates of the Mayak software.

REMOTE FIRMWARE UPDATE.

Example: **XXXX,UPDATE**

Where:

XXXX - password specified in P.A.;

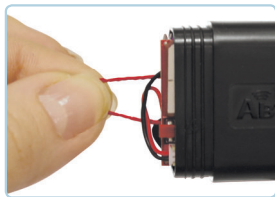
UPDATE - command for remote updating of the Mayak software.

Upon receiving this command, the Mayak sends an SMS to the owner's number confirming its receipt and establishes connection with the server.

Upon successful connection to the **AutoFon Alpha- Mayak** server, it accepts new software, breaks the connection and performs self-programming, after which the device starts up as if it was powered. The readings of the real time clock remain correct. An informational SMS will be sent to the owner's number, confirming the successful software update. If the connection to the server could not be established or a response was received about the absence of new firmware, the Mayak sends a warning SMS and returns to the current operating mode.

Attention! The software update takes a few minutes. During this time, **AutoFon Alfa-Mayak** does not perform any functions other than updating.

PLACEMENT



To replace the battery, disconnect the connector from the board. Pull the hinge AND remove the battery. Insert a new battery, connect the connector. Activate the beacon with the button (p. 9)

Replace the battery pack in time!

SYSTEM SETTING OF TASKS

When working via alarms, **AutoFon Alfa-Mayak** performs tasks programmed in the settings.
The task execution algorithm is programmed according to the table.

	Number of attempts From 1 to 9 with an interval of 10 minutes.	Wait time in seconds after successful completion of the task 10 - 600	Waiting time in seconds after FAILED task execution 10 - 600	Note
Example of SMS command (Factory setting)				
Registration in the GSM network. Mode «F» 1234,taskwait=1,120,0	1	120	-	For this task there is no parameter «Waiting time after FAILED task execution.»
Call 1234,taskcall=2,300,120	2	300	120	Applies to all numbers.
SMS 1234,tasksms=2,300,120	2	300	120	Applies to all types of SMS: alarm, coordinates or informational message.
Sending a GPRS packet to the server 1234,taskserver=2,30,120	2	30	120	Applies to any type of packet and applies to all ip-addresses programmed in the settings.

CHANGE OF GENERAL PARAMETERS AND FINE

Example:

XXXX,SETUP19=4

Where:

XXXX - password specified in P.A.;

SETUP is a command for setting up the work of the beacon.

Acceptable spellings are «CETAП», «SETUP»;

19 - number of the parameter being changed;

4 - parameter value;

Use the block command to change multiple parameters.

Example:

XXXX,SETUP19=4,SETUP15=1,SETUP12=0,SETUP10=3

The length of a block SMS in Cyrillic should not exceed 70 characters, in Latin - 160.

Parameter	Description	Value	Factory setting
SETUP 1	operating mode (interval/continuous).	0 - interval mode of device operation (sleep) 1 - continuous (online)	0
SETUP 2	Monitoring	0 - monitoring disabled 1 - LBS monitoring 2- GPS monitoring 3- GPS + LBS monitoring	0
SETUP 3	Russian/English text of reply SMS):	0- Russian 1- English	1
SETUP 4	Correction of time relative to the time zone of the Mayak location according to the network data.	0 - adjustment 1 - no adjustment	1
SETUP 5	Built-in clock time zone	-12 to +12	3
SETUP 6	GPRS packet sending interval for monitoring	1 - 255 seconds 0 - GPRS session closed	30

Parameter	Description	Value	Factory setting
SETUP 7	Time setting at power on	0 - disabled 1 - by cellular network data 2 - by GNSS (GPS or Glonass) data 3 - by any available data (GNSS or cellular network)	3
SETUP 8	Forwarding unrecognized incoming SMS - messages with or without an incorrect password.	0 - no forwarding 1 - (to the 1st number) 2 - (to the 2nd number) 3 - To both numbers	0
SETUP 9	Frequency of sending SMS notifications to the first number «Battery low».	1 - 99 hours 0 - disabled	0
SETUP 10	Correction interval of the internal clock according to the data of the cellular operator.	0 - disabled 1 - every 23 hours 2- 30 days - days	1
SETUP 11	Correction interval of the internal clock according to navigation data.	0 - disabled 1 - every 23 hours 2- 30 days - days	1
SETUP 12	Input of DTMF (tone) signal when the Mayak is calling to turn on the microphone. When you receive a call from the Mayak, you must press any button on the phone within 5 seconds.	0 - disabled 1 - enabled	1
SETUP 13	Send a notification «Your number has been deleted» when changing the owner's number.	0 - not send 1 - send	1
SETUP 14	Forced restart of the GSM module if it is inactive every:	1 - 9 hours 0 - no restart	2
SETUP 15	The number of dialing attempts on unsuccessful connection IN THE «A» mode.	1 - 9 attempts	2
SETUP 16	The number of attempts to send SMS in one cycle.	1 - 9 attempts	3
SETUP 17	The difference in time at which the clock will be corrected	1 - 60 minutes	3
SETUP 18	Maximum time for sending SMS messages in one communication cycle.	10 - 255 seconds	60

Parameter	Description	Value	Factory setting
SETUP 19	Type of SMS message with navigation data.	0 - 9 Explanation at the end of the table (p. 23)	0
SETUP 20	Power supply of the navigation receiver memory in the «SLEEP» mode to save energy.	0 - disabled 1 - enabled	0
SETUP 21	Notification on pressing SOS button to the 1st number of owner.	0- No response 1- SMS about pressing. 2- SMS with coordinates. 3 - call. 4- SMS about pressing and SMS with coordinates. 5- SMS about pressing and call. 6 - call and SMS with coordinates. 7 - SMS about pressing, call and SMS with coordinates.	0
SETUP 22	Notification on pressing SOS button to the 2nd number of owner.	0 - No response 1 - SMS about pressing. 2 - SMS with coordinates. 3 - call. 4 - SMS about pressing and SMS with coordinates. 5 - SMS about pressing and call. 6 - call and SMS with coordinates. 7 - SMS about pressing, call and SMS with coordinates.	0
SETUP 23	Sending additional location points when moving along a radius. For monitoring (smoothing, rounding of track).	0 - disabled 1 - enabled	1
SETUP 24	Sending a gprs packet when pressing the SOS button	0 - none 1 - Packet with LBS data 2 - Packet with GLONASS/ GPS data	1
SETUP 25	Maximum satellite search time for a single gprs packet.	1 to 9 minutes	3
SETUP 26	Delay in response to repeated pressing of the SOS button.	0 to 99 seconds	5
SETUP 27	Maximum satellites searching time for SMS - messages	1 to 9 minutes	6

Parameter	Description	Value	Factory setting		
SETUP 28	sending SMS messages S1/S2 and G1/G2 in case of failure of SE and GE gprs-tasks	0 - disabled 1 - enabled	0		
SETUP 29	Automatic balance enquiry every 7 days.	Notification for the amount below (RUB) 0 - Disabled 10 - 255	0		
SETUP 30	Limit of SMS sent by Mayak per day	0 - Unlimited from 1 to 255 pcs	0		
SETUP 31	SOS button functions (for description refer to p.9)			3	
	Turning on the beacon 5 presses	Turning off the beacon 5 presses	Mode change and check (SLEEP-ACTIVE) 3 and 4 presses		Value
	yes	yes	yes		0
	yes	yes	no		1
	yes	no	yes		2
	yes	no	no		3
	no	no	yes		4
	no	no	no		5
SETUP 32	Mayak settings change notification: By GPRS - all changes By SMS - to the first number, only when auto-adjusting alarms.	0 – SMS и GPRS 1 – GPRS 2 – SMS to the first number 3 – not send	1		

Parameter 19

Type of SMS message with navigation data 0 to 9 options
(0 is the factory setting.)

0 - basic information + GPS data in digital form in the format «degrees.degree fractions» + hyperlink to Yandex.Maps

1 - basic information + GPS-data in digital form in the format «degrees.degree fractions» + hyperlink to Google Maps;

2 - basic information + GPS data in digital form «degrees - minutes - seconds» without hyperlinks;

3 - basic information + coordinates in the form of hyperlink to Yandex.Maps + hyperlink to map.autofon.ru with extended information about the state of the device and the ability to automatically determine the location by GSM base stations, in the case when the satellite coordinates could not be established;

4 - hyperlink to Yandex.Maps + minimum information about the state of the device. With this setting, SMS is always in English and is charged by the operator as 1 SMS. If the GPS coordinates are not determined, a hyperlink to map.autofon.ru will be sent, upon clicking on which the coordinates will be automatically determined by the LBS method and the complete information about the device state will be decoded;

5 - basic information + link to google maps. If the GPS coordinates are not determined, a link to map.autofon.ru will be sent, upon clicking on which the coordinates will be automatically determined by the LBS method and the complete information about the device state will be decoded. In most modern smartphones, this type of link opens in the built-in Maps application, which improves the viewing experience and download speed;

6 - coordinates in digital form “degrees.degree fractions” + additional LBS data + current settings and device status. Additional parameters “height above sea level” and “indicators of accuracy of certain coordinates HDOP and VDOP” are displayed;

7 - basic information + abbreviated information about coordinates in digital form «degrees.degree fractions» + information about speed, course, position accuracy, number of satellites found and time of position determination, as well as level information LBS; about battery charge and SMS serial number. It is adjusted to fit 1 SMS according to the operator's tariffication in English mode. If the GPS coordinates are

not determined, the ID of the nearest GSM base station is displayed to establish coordinates by the LBS method;












8 - link to Yandex.Maps and link to Google.Maps, without any additional information. If the GPS coordinates are not determined, a link to map.autofon.ru will be sent;

9 - a short link to map.autofon.ru with full information about the state of the device and current coordinates (always fits into 1 SMS).

BASIC COMMAND TABLE

Control SMS	Command action	Description (p.)
XXXX,ТЕЛЕФОН1=+79037676045	Recording owner's number.	11
XXXX,ТЕЛЕФОН	Checking the recorded numbers	11
XXXX,ТЕЛЕФОН1=0	Deleting the number.	11
XXXX,время=21052015,153423	Setting of date and time.	12
XXXX,РУС	Setting the Russian language.	12
XXXX,АКТИВ	Continuous operation.	12
XXXX,СОИ	Intermittent operation.	13
XXXX,БУДИЛЬНИК1=081400,30М,G2	Setting the alarm clock mode.	13
XXXX,PASSWORD=5678	Password change.	14
XXXX,NAVI	Request for a one-time determination of GLONASS/GPS coordinates with a report on the start of execution.	14
XXXX,NAVI-	Request for a single determination of GLONASS/GPS coordinates.	14
XXXX,LBS	Request for single determination of GSM coordinates (Multi LBS)	14
XXXX,МИКРОФОН	Request for one-time starting of audio control.	15
XXXX,ИНФО	Checking settings and operating mode.	15
XXXX,ИМЯ="РЕНО-Логан" XXXX,NAME="RENAULT-Logan"	Editing device name.	15
XXXX,ИНФО	Condition check	15
XXXX,УСТАНОВКИ	Link to the Mayak settings.	15
XXXX,USSD	Balance enquiry	15
XXXX,баланс	Balance enquiry.	16
XXXX,IP2=176.9.114.139.20102	Setting the server IP address.	16
XXXX,СБРОС	Factory reset (except password and phone numbers).	17
XXXX,HARDRESET	Reset all settings, including owner numbers and password.	17
XXXX,GSMRESTART	Rebooting the "GSM" module.	17
XXXX,NAVIRESTART	Rebooting the "GLONASS/GPS" module.	17
XXXX,SYSTEMRESTART	Restarting the system.	17
XXXX,RELEASE	Request for new software for Mayak.	17
XXXX,UPDATE	Remote update of the Mayak software.	18

LED INDICATIONS

LED Indications	Description of the Mayak operating mode
Fast blinking of red and green 	1. Getting started after power on 2. Incoming SMS
5 green flashes 	Turning on the Mayak (5 quick presses of the SOS button).
5 long red flashes 	Turning off the Mayak (5 quick presses of the SOS button).
Double red flashes 	Registration in the GSM network
Triple red flashes 	The GSM module is registered in the network.
Quadruple red flashes 	A GPRS connection has been established with the monitoring server.
One green flash (5 sec.) 	«ACTIVE» MODE 3 - pressing the SOS button x times (checking the operating mode setting) 4 - pressing the SOS button x times (change the operating mode)
Double green flashes 	Navigation satellites found.
 One green flash (5 sec.)	«ACTIVE» MODE 3-pressing the SOS button x times (checking the operating mode setting) 4-pressing the SOS button x times (change the operating mode)
 One red flash (5 sec.)	«SLEEP» MODE 3-pressing the SOS button x times (checking the operating mode setting) 4-pressing the SOS button x times (change the operating mode)
 One short red flash	Confirmation of pressing the SOS button.
No indication	The beacon is in sleep mode, off or de-energized.

POSSIBLE FAULTS AND WAYS OF THEIR ELIMINATION

Description of the problem	Possible cause	Potential solutions
Mayak does not go to sleep mode, although "SLEEP" mode is set	Mayak does not have time to go to sleep mode, because commands are being sent to it or the mode of switching to continuous mode by events.	Do not send commands to the Mayak for a while. Check the settings of the parameters of the command SETUP = 28 and whether SOS button is pressed
Mayak does not react to SMS command sent to it	<ol style="list-style-type: none"> 1. Batteries are depleted. 2. It is not yet time of activation. 3. Mayak is out service area of the mobile network operator. 4. Out of money on the SIM card account, outgoing communication is blocked. 5. Temperature is lower -40 °C. 6. The Mayak is out of order. 	<ol style="list-style-type: none"> 1. Check the voltage of batteries, if less than 4.0 V - replace with new ones. 2. Wait for the activation time. 3. Wait for registration of the device in mobile network. 4. Recharge your account. 5. Wait for the increase in temperature. 6. Contact the service center for repair.
Mayak does not detect GPS coordinates	<ol style="list-style-type: none"> 1. The device is shielded with metal objects or is out of visibility of the sky. 2. Near the device, there is a source of strong radio interference in GPS range. 3. The device's antenna is not directed to the sky. 	Move the device to a place with better GPS reception, or direct it more exactly to the sky.

Description of the problem	Possible cause	Potential solutions
<p>Batteries are discharged quickly.</p>	<ol style="list-style-type: none"> 1. The mode is set to constant online activities. 2. There is turned on the monitoring mode. 3. Multiple use of audio listening mode. 	<ol style="list-style-type: none"> 1. Set the device in the economy mode "SLEEP". 2. Turn off the monitoring mode. 3. Do not use audio control mode without extreme necessity.
<p>The GPS-coordinates are inaccurate for 50-500 meters.</p>	<p>The device only found 3 navigation satellites or catches the reflected signal from tall buildings.</p>	<p>Move the device to a place with more stable GPS reception or direct it more exactly to the sky.</p>

Decoding of informational SMS parameters

CHECKING THE SETTINGS. Example SMS: 1234,INFO

Device name, hardware and software version	→	Alfa-Mayak v7.1B
Device control password	→	Password:1234
GSM communication quality level: up to 85 dB - good; 85 -100 dB - normal; 100 -109 dB - bad	→	GSM:-81dB(норм)
Monitoring status and interval for sending packets with information to the server (3 and 4 settings parameter)	→	GPRS:OFF 240s 0(0)
Unique number of GSM - device modem	→	IMEI: 862950024777909
International subscriber identifier associated with each GSM mobile user	→	IMSI: 250016384106737
Individual number of the SIM-chip installed in the device	→	ICCID: 89701010063841067377
Date and time of the internal clock of the device at the time of the formation of the SMS message	→	Time>19-05-15 11:32:59
Setting alarms (p. 13)	→	Alarm1>19-12:00,14D(F) Alarm2>30-12:00,14D(G1)
Owner's phone numbers stored in the device's memory (p. 11)	→	Tel1:+79152120300 Tel2:Отсутствует
Primary, backup IP address and monitoring server port for sending data via GPRS (p. 16)	→	IP1:176.9.114.139.20102 IP2:Отсутствует
Settings of the mobile operator, access point name, login and password for connecting to the Internet	→	APN:"internet.mts.ru", "mts", "mts"
General device settings (p. 20)	→	Setup:1 0 0 240 +3 1 3 1 1 3 2 2 0 3 60 1 1 23 0 6 6 0 1 5 1 0 0 0 30 50 0 0 1
Operating mode (p. 12)	→	Mode: Online
Battery voltage, temperature	→	Bat:4.72V(min) T:+21C°
The amount of energy consumed on this set of batteries	→	Discharge:513.1mAh
Counter of SMS messages sent by the beacon, in brackets are the number of sent parts of which the messages consisted	→	SMS:15(40)

Decoding of informational SMS parameters

CHECKING TASK SETTINGS. Example SMS: 1234,TASKSMS

Device name, hardware and software version	→	Alfa-Mayak v7.1B
Date and time of the internal clock of the device at the time of the formation of the SMS message	→	Time>19-05-15 19:05:15
Explanation of task settings (p. 19)	→	Check the tasks: Waiting=1,120.0 Call=2,300,120 SMS=2,300,120 Server=2,30,120
Battery voltage, temperature	→	Bat:3.72V(min) T:~+20C
Counter of SMS messages sent by the beacon, in brackets are the number of sent parts of which the messages consisted	→	SMS:17(48)

REQUEST FOR ONE TIME DETERMINATION OF COORDINATES.

EXAMPLE SMS: 1234,NAVI

Device name, hardware and software version	→	Alfa-Mayak v7.1B
Date and time of the internal clock of the device at the time of the formation of the SMS message	→	Time>20-05-15 10:12:36
Battery voltage, temperature	→	Bat:4.68В(норм) T:~+25C°
Counter of SMS messages sent by the beacon, in brackets are the number of sent parts of which the messages consisted	→	SMS:1(2)

Device name, hardware and software version	→	Alfa-Mayak v7.1B
Date and time of the clock of the device at the time of the	→	Time>20-05-15 10:13:51
GSM communication quality level: up to 85 dB - good; 85 -100 dB - normal; 100 -109 dB - bad	→	GSM:-69dB(макс)
The number of satellites found during the time in seconds. Coordinates.	→	Satellites:6 за 66сек E037.603018 N55.87830
Hyperlink to the map of the location of the protected object	→	http://m.maps.yandex.ru/maps&ll=037.603018,55.878730&pt=037.603018,55878730&z=130.0кмч
Coordinate determination accuracy and altitude above sea level	→	Accuracy:15m Height:173m
Setting alarms (p. 13)	→	Alarm1>20-12.00,1D(F) Alarm1>20-12.00,14D(GI)
Operating mode (p. 12)	→	Mode: Online
Battery voltage, temperature	→	Bat:4.65В(normal) T:~+27C°
Counter of SMS messages sent by the beacon, in brackets are the number of sent parts of which the messages consisted	→	SMS:2(4)

CURRENT SETTINGS SETUP Example SMS: [1234,УСТАНОВКИ](#)

	Parameter	Value
1	Mode of operation	1 - continuous
2	Response SMS language	0 - Russian
3	Monitoring	2 - NAVI + LBS monitoring
4	GPRS packet sending interval	240 seconds
5	Built-in clock time zone	+3 hours
6	Time adjustment relative to the time zone of the location of the beacon	1 - no adjustment
7	Setting the power-on time	3 - according to any data
8	The interval for adjusting the internal clock according to the cellular operator data	1 - every 23 hours
9	Correction interval of the internal clock according to navigation data	1 - every 23 hours
10	The difference in time at which the clock will be corrected	3 min
11	Forced restart of the GSM module in case of its inactivity	2 hours
12	Number of dialing attempts in case of unsuccessful connection in "A" mode	2 attempts
13	DTMF (tone) input when calling Mayak to turn on the microphone	0 - disabled
14	The number of attempts to send SMS in one cycle	3 attempts
15	Maximum waiting time for sending SMS in one cycle	60 seconds
16	Forwarding unidentified incoming SMS	1 - to the 1st owner's number
17	Sending a notification "Your number has been deleted"	1 - send
18	"Low battery" notification interval	23 hours
19	Type of SMS with navigation data	0 - basic information + GPS data in digital form in the format «degrees.degree fractions» + hyperlink to Yandex.Maps

20	Maximum satellite search time for SMS messages	6 minutes
21	Maximum satellite search time for a single GPRS packet	6 minutes
22	Power supply of the navigation receiver memory in the "SLEEP" mode	0 - disabled
23	Force sending of additional location points when moving along a radius	1 - enabled
24	Delay in response to repeated pressing of the SOS button	5 seconds
25	Reaction to pressing the SOS button for the 1st number of owner	1 - message about pressing
26	Reaction to pressing the SOS button for the 2nd number of owner	0 - no reaction
27	Sending a GPRS packet when pressing the SOS button	0 - none
28	Online while holding SOS button pressed	0 - disabled
29	Notification when the balance threshold is reached (every 7 days)	30 rub.
30	Limit of SMS sent by Mayak per day	50 pcs.
31	Reserve	0
32	Reserve	1

Current task settings

Operation	Attempts	Waiting time after successful completion of the task	Waiting time after failed task execution
Waiting time (F)	1 attempt	120 seconds	–
Dial	2 attempts	300 seconds	120 seconds
Sending SMS messages	2 attempts	300 seconds	120 seconds
Sending GPRS packet	2 attempts	30 seconds	120 seconds

Warranty obligations

The manufacturer establishes a warranty period for the device, which is 12 months from the date of its sale to the end consumer, but does not exceed 18 months from the date of manufacture of the device. If the moment of sale of the device cannot be determined, the warranty period starts from the date of manufacture of the device.

The manufacturer guarantees the correct operation of the device for 12 months from the date of its sale to the end consumer, only on condition that the device is used for the purposes for which it is intended by the Manufacturer, with proper observance of the operating rules, careful handling of the device, careful storage and proper installation, timely maintenance and diagnosis of possible malfunctions and the absence mechanical electrical and other damage to parts and mechanisms of the device. This guarantee is provided to the Consumer in addition to the constitutional and other rights of the Consumer, and in no way restricts them. The Consumer has the right to present claims against the Manufacturer in relation to the defects of the device if they are discovered during the warranty period and arose through the fault of the Manufacturer. The Manufacturer undertakes, during the warranty period, from the moment of sale to the end consumer, subject to the Consumer's compliance with all rules and operating conditions, to carry out a free warranty repair of the device, to eliminate any problems caused by the Manufacturer. The warranty does not cover batteries, accessories, parts and components that are subject to natural wear and tear during operation and are subject to periodic replacement, as well as other components that are subject to severe mechanical stress during the operation of the device.

The warranty does not apply to the software, nor to the information stored on SIM cards and other sources of information required when working with the device.

The manufacturer guarantees that the devices produced by him do not have any harmful effect on the health of the Consumer and are safe, provided that all operating rules described in the attached technical and other documentation for the device are observed. The requirements for the quality of the device functioning cannot exceed the technical characteristics declared by the Device Manufacturer.

The Manufacturer does not guarantee that the device will work in accordance with the Consumer's expectations, if it is used for specific purposes not provided for the intended purpose of the device and if the conditions specified in the operating instructions are not met.

The appearance of the device, equipment and specifications are subject to change by the Manufacturer without prior notice. The Consumer can find information about new types of the device on the official website of the Manufacturer www.autofon.ru.

Recommendations for the correct use of the device Dear Consumers!

Use the purchased device for its intended purpose only.

First of all, make sure that your device (the inside of the device) has not been exposed to moisture that corrodes the electronic circuits.

It is important to protect the device from shock, drops and impacts that can damage the device's casing or built-in circuit boards and electronic components.

High temperatures can shorten service life of the device, damage the batteries and deform the plastic parts of the device.

Exposure to a low temperature, followed by a sharp increase in it, leads to the formation of condensation on the internal parts of the device. This can affect the functionality of the electrical circuits of the device.

Do not attempt to disassemble or modify the device or its components.

Do not activate the device with old, discharged batteries, this may cause a decrease in the operating time of the device.

You could lose control of your device!

The Consumer is solely responsible for the safe operation of the device. During operation, you, dear Consumers, are responsible for your own safety and the safety of those around you.

Please, strictly follow the given recommendations!

Warranty coverage period

The warranty period is calculated from the date of sale of the device and is 12 months from the date of its sale to the final consumer. If it is impossible to determine the moment of sale/installation of the device, then the warranty period starts from the date of manufacture of the device.

1. General provisions on warranty service.

1.1. AutoFon LLC - (hereinafter referred to as the Manufacturer) guarantees to the Consumer within the specified period free elimination of defects in the device, defects found when using the device, admitted during the production process, provided that the Consumer observes all the conditions of transportation, unloading, storage, operation of the device recommended by the Manufacturer.

1.2. Warranty service is provided free of charge in the Manufacturer's service department - (hereinafter referred to as the service center).

In case of revealing the defects of the device during operation during the warranty period, if the requirements for operation were fulfilled correctly, the Consumer has the right to apply for warranty service of the device to the Manufacturer's service center.

For all questions regarding the implementation of warranty service for the device, the Manufacturer recommends contacting the Manufacturer's service center, the addresses and phone numbers that are indicated in the operating instructions, warranty card, and also on the official website of the Manufacturer: www.autofon.ru or find out by phone: **+7 (495) 544-57-97**.

1.3. When transferring a faulty device for warranty repair, the Consumer must present: the device itself and a document confirming the purchase of this device (invoice, receipt, warranty card, etc.), which clearly indicates the name and address of the seller, the date of purchase and the type of device, confirming the relevance of the warranty period for this device. Also, the Consumer must fill out an Application for diagnostics and repair of a device subject to warranty repair and a Complaint Statement (the form of the Complaint Statement and the Application form for diagnostics and repair of the device are given on the official website of the Manufacturer).

1.4. If the device received by the parcel or delivered personally to the Manufacturer's service center is received by the Manufacturer without fulfilling clause 1.3, as well as with an improperly completed Application for diagnostics and repair of the device, the Complaint Statement, the Manufacturer reserves the right not to accept for warranty repair a device that is returned to the Consumer at his expense.

1.5. After receiving the faulty device at the Manufacturer's service center, the center's specialists diagnose the device, determining the nature of the device malfunction - a factory defect or the result of improper operation by the Consumer. The device is checked for the presence of only those faults that are described in the Complaint Statement and the Application for diagnostics and repair of the device. After the diagnostics, the specialists of the service center draw up an expert opinion, on the basis of the expert opinion, warranty repair of the device with defects arising from the fault of the Manufacturer can be carried out. If it is impossible to repair the device, then upon presentation of an expert opinion by the Consumer, the Manufacturer replaces the device with a factory defect with a new device with the same technical characteristics, unused, of proper quality, or a similar one, as agreed with the Consumer, within the time frame established by law.

1.6. The Manufacturer reserves the right to refuse free warranty repair if, after diagnosing the device, damage is found caused by the following factors:

- The operating rules described in the operating instructions have been violated.
- The service took place outside the manufacturer's service center, the device was repaired by unauthorized persons in violation of the manufacturer's requirements and safety standards; there are traces of attempts to eliminate the defect on their own or to install non-intended parts.
- The device was used for other purposes, defects were caused by changes due to the use of the device for a purpose that does not correspond to the established scope of application of this device specified in the operating instructions; the service center specialists noticed the use of abnormal modes or operating parameters of the device or its components.
- The defect is the result of natural wear and tear.
- The malfunction has arisen as a result of mechanical, electrical, chemical, thermal and other types of influences, the parameters of which go beyond the maximum permissible operational characteristics, which entailed a malfunction of the device. The device is damaged or out of order due to violation of the rules and conditions for installation, connection, transportation, storage unloading.
- The Consumer violated the integrity of the device during the warranty period, damaged any protective marks of the Manufacturer and there are traces of the use of mechanical means.
- If the factory serial number is partially or completely missing, if the serial number on the device or their marking does not correspond to the information indicated in the warranty card.
- Deliberate or erroneous actions of the Consumer.
- The actions of force majeure circumstances (elements, hurricane, fire, lightning, etc.), accidents, etc.
- Ingress of foreign objects, water, liquids, insects inside the device (on the board or inside the device case) that do not correspond to the properties of the used device case.

1.7. If the device has been damaged by one of the above methods, the Manufacturer can, if there are technical characteristics that allow for repair, to repair the device, but in this case, the repair will be paid.

2. The order of delivery and acceptance of the device for warranty repair.

2.1. To eliminate defects in the operation of the device, the Consumer transfers, sends or delivers the defective device himself to the Manufac-

turer's service center.

2.2. When transferring the device for diagnostics and repair, the Consumer attaches a document to the device (invoice receipt, warranty card, etc.), confirming the purchase of the device and the relevance of the device's warranty period. Also, the Consumer fills out an Application for warranty repair (Application for diagnostics and repair of the device, filled in 2 copies, (the Application form for diagnostics and repair of the device is provided on the official website of the Manufacturer), in which he briefly indicates the description of the malfunction and fills in the Complaint Statement (the form of the Complaint Statement is provided on the official website of the Manufacturer).

2.3. In case of personal delivery of the defective device to the service center, the Application for diagnostics and repair of the device, and the Complaint Statement can be completed on the spot.

2.4. The defective device must be packed in the original packing or packing container to ensure safe transportation of the device.

2.5. In case of self-delivery to the Manufacturer's service center, the Consumer is issued a receipt for accepting the device for repair, provided that the Consumer observes the conditions of clause 2.2.

2.6. The Consumer is notified of the completion of the warranty repair in any way available for communication: a message sent by e-mail, by telephone (in accordance with the contact information specified in the Application for diagnostics and repair of the device).

Refunds for the purchase of a faulty device and other requirements of the Consumer (except for diagnostics, warranty repair and replacement of the device) are not carried out by the service center. For questions regarding the return of a defective device, the Consumer must contact the Seller in the sales department from which this device was purchased.

2.7. The repaired device is accompanied by the Manufacturer's Service List - a Certificate on the performance of work on the warranty repair of the device signed by an authorized specialist of the Manufacturer's service center. The service list confirms that the defects declared by the Consumer in the Application for diagnostics and repair of the device and in the Complaint Statement have been eliminated and the device operates in full compliance with the technical characteristics declared by the Manufacturer.

3. Terms of warranty repair of the device.

3.1. The term for performing warranty repairs after diagnosing a malfunction is established by a written agreement between the Manufacturer and the Consumer and is on average up to 10 working days, but does not exceed 45 days from the date of acceptance of the device to the service

center.

3.2. If it is impossible to carry out repairs on time, the device must be replaced with another, not used, with the same technical characteristics or, in agreement with the Consumer, for a similar one. (Upon presentation of the demand for the replacement of the device, the term for satisfying the consumer's demand is from 7 days to one month).

3.3. The warranty period is extended for the period of the warranty repair, during which the device was not used. The mentioned period shall be calculated as from the day of filing the claim by the Consumer on the elimination of defects in device up to the day of its return after repair.

3.4. The Consumer needs to keep all the repair documents to confirm that the device is being repaired.

3.5. The warranty for parts used to repair the device ends with the warranty for the device.

3.6. From the moment of purchase of the device, the Consumer fully assumes all responsibility for the proper, legal and safe operation of the device and for possible damage caused by this device to the property and/or health of third parties. The Manufacturer is not responsible for possible harm directly or indirectly caused by his device to people, pets, property, as a result of non-observance of the rules and conditions of use, as well as deliberate or other careless actions of the Consumer.

From the moment of purchase of the device complete with a SIM card, the Consumer fully assumes all responsibility for the proper use of the SIM card, which must be used for its intended purpose and be inside the device during the operation of the device. The Consumer is liable in accordance with applicable law for possible damage caused to third parties for improper use of the SIM card inside the device. The Manufacturer is not responsible for any harm caused to third parties as a result of the Consumer's failure to comply with the terms of use of the device, SIM card, as well as deliberate or other careless actions of the Consumer.

3.7. In cases of non-warranty service, the service center reserves the right to carry out paid repairs. The Consumer has the right to refuse paid repairs. In case of refusal from paid repair by the Consumer, the device is returned to the Consumer in its current form.



WARRANTY CERTIFICATE

Model: **AutoFon Alfa-Mayak**

Software Version:

Date of sale/installation:

Name of the trade enterprise (installation center)
and its seal:

Vendor Signature: