TechnoКом

GLONASS GPS

DOCUMENT VERSION
1.37

AutoGRAPH·ST

CONTROL SMS AND SERVER COMMANDS

SMS

TABLE OF CONTENT

SOFTWARE COPYRIGHT NOTICE

Products of TechnoKom referred to in this Manual may incorporate software stored in semiconductor memory or other media, copyrights to which belong to TechnoKom or third parties. Laws of the Russian Federation and other countries secure certain exclusive rights of TechnoKom and third parties to the software, which is subjected to copyright, for example, exclusive rights for distribution or reproduction.

Therefore, any alteration, reverse engineering, distribution or reproduction of any software incorporated in TechnoKom products, is prohibited to the extent provided by law.

Furthermore, purchase of TechnoKom products does not imply direct, indirect or other granting of any licenses related to copyrights, patents and patent applications of TechnoKom or any third party, except for an ordinary, nonexclusive free license for use, which is granted in virtue of law upon each sale of the product.

INTRODUCTION

This User Manual applies to AutoGRAPH-ST thief-alert tracking device and contains description of SMS and server commands, intended for the device remote configuration, control and settings request.

SMS commands are intended to be send to the device SIM card. Server commands are intended to be send via data server which the device transfers data.

Besides remote control commands, AutoGRAPH-ST devices can be set up by means of the AGSTConf program intended for configuration via USB.

All information contained in this User Manual is based on current data (at time of writing) and is deemed to be valid as of the date of publication. Technokom reserves the right to modify the information or specifications without prior notice or commitment.

CONFIGURATION USING CONTROL COMMANDS

Control commands are intended for remote configuration of AutoGRAPH-ST devices via SMS or data server without connection to a PC.

CONFIGURATION VIA SMS

SMS with a control command must be sent to phone number of the SIM-card inserted in the AutoGRAPH device. The reply on command is sent to that number from which the control command was sent.
When inserting SIM-card to the device, all SMS are automatically deleted from it. The device saves only those SMS which haven't been sent for any reason.

SMS commands can be delivered to AutoGRAPH-ST only when the device is online. According to the specific operation algorithm of AutoGRAPH-ST devices, the online state is provided only during the device operating mode – when the device turns on to send data to a customer.

All SMS commands, besides the short commands, have the following format:

```
password[space]COMMAND=parameters;
```

where
- **password** – the 4-digit settings protection password of AutoGRAPH-ST.
- **COMMAND** – control command supported by the AutoGRAPH-ST device.
- **parameters** – configurable parameters of the control command.

Format of requesting commands:

```
password[space]COMMAND=?;
```

where
- **password** – the 4-digit settings protection password of AutoGRAPH-ST.
- **COMMAND** – control command supported by the AutoGRAPH-ST device.

Reply on SMS commands of configuring and requesting:

```
#COMMAND=parameters;
```

where
- **COMMAND** – control command which has been sent to the device;
- **parameters** – current state of parameters. If the incoming command is a setting command, the reply will contain new values of parameters which have been specified with incoming command. If the incoming command is a request command the reply will contain a current value of parameters.

Control command must be typed using only the uppercase letters of Latin alphabet. The reply on the command will be sent only if the correct password is specified in the SMS and the command format matches with the required format of the control commands. Otherwise, the device won't processed the command and return the reply "ERR_ PARAM".

SMS delivery time depends on operation of Mobile operator of device SIM card. That's why the manufacture of AutoGRAPH-ST can not be responsible for delivery of SMS in time, including its delivery at next period of device operation mode.

CONFIGURATION VIA SERVER

AutoGRAPH-ST devices with a firmware of version AGST-1.21 and higher support receiving of control commands via AutoGRAPH data server. To receive commands from data server, it is required for AutoGRAPH-ST to connect to the server. The connection is established only when the device transfers data to the server.

To send a command via data server follow the next:

- Create a new folder in the \Conf folder on the server. Rename the new folder as serial number of the device.
- Create a text file in this folder and change it format to .atc. Add commands that should be sent to the device to this ATC file. Every command should be entered in a new line.
- Save the file.
- All commands specified in this file will be sent to the device.

The server commands of remote configuring must match the following format:

```
COMMAND=parameters;
```

where

- **COMMAND** – control command which will be sent to the device;
- **parameters** – configurable parameters of control command.

The server commands of requesting must match the following format:

```
COMMAND=?;
```

where

- **COMMAND** – control command which will be sent to the device;

Sample log:

```
>|10:28:30|GSMAPNUSER=mts;
<|10:28:32|GSMAPNUSER=mts;
!|10:28:32|CONF ACCEPTED
-----------
>|10:28:32|DELAYOFF=10;
<|10:28:34|DELAYOFF=10;
!|10:28:34|CONF ACCEPTED
-----------
```

The first line of the log consists of the command sent to the device (prefix «>»). The second line consists of the reply on the command received from the device (prefix «<»). The third line consists of result of checking the reply on matching the command (prefix «!»).

A command with empty parameters deletes device settings . For example, the next command deletes a telephone number 3 specified for sending SMS with coordinates:
1234 SMSNUMBER3=;

AutoGRAPH-ST is designed this way that the settings are valid either till the device restart or till an integrated GSM modem restart. In order not to reset settings after the restart, it is necessary to save them with the command "SAVECONFIG" after configuration. If the settings aren't saved, they will be reset to previous saved values after the restart. The "SAVECONFIG" command can be applied one time after settings all other parameter.
For more information about SAVECONFIG command see "SAVECONFIG" chapter of the document.

DATA REQUEST COMMANDS

VERSION – firmware version request

Command	VERSION
Description	Firmware version request
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to request the device firmware version.

COMMAND FORMAT

password VERSION=?;

REPLY FORMAT

#VERSION=version;

parameters:

- **version** – firmware version.

SAMPLE COMMAND

- via SMS:

```
5672 VERSION=?;
```

- via server:

```
VERSION=?;
```

SAMPLE REPLY

- on SMS command:

```
#VERSION=AGST-1.32;
```

- on command via server:

```
VERSION=AGST-1.32;
```

Device firmware version is AGST-1.32.

GETIMEI – IMEI request

Command	GETIMEI
Description	GSM modem IMEI request
Supported with firmware	AGST-1.52 and higher
Setting	Available via server and SMS
Comment	The command is intended to request IMEI of device GSM modem.

COMMAND FORMAT

password GETIMEI=?;

SAMPLE COMMAND

• via SMS:

```
5672 GETIMEI=?;
```

• via server:

```
GETIMEI=?;
```

SAMPLE REPLY

• on SMS command:

```
#IMEI=353469041718511;
```

• on command via server:

```
IMEI=353469041718511;
```

IMEI of device GSM modem is 353469041718511.

NUMBER – serial number request

Command	NUMBER
Description	Device serial number request
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to request device serial number. The serial number is assigned by the manufacture and won't be changed.

COMMAND FORMAT

password NUMBER=?;

SAMPLE COMMAND

• via SMS:

```
5672 NUMBER=?;
```

• via server:

```
NUMBER=?;
```

SAMPLE REPLY

• on SMS command:

```
#NUMBER=5000004;
```

• on command via server:

```
NUMBER=5000004;
```

Serial number of the device is – 5000004.

GSM / GPRS SETTINGS

GSMPIN – SIM PIN

Command	GSMPIN
Description	Device SIM PIN
Request command	GSMPIN=?
Supported with firmware	AGST-0.75 and higher.
Setting	Available via server and SMS
Comment	The command is intended to set up PIN code of the device SIM card.

COMMAND FORMAT

password GSMPIN=pin;

parameters:

- **pin** – a PIN of the SIM card, which will be specified after processing the command. If PIN request is switched off on the SIM card you should setup PIN code "0000" in the device.

SAMPLE COMMAND

- via SMS:

```
5672 GSMPIN=4562;
```

- via server:

```
GSMPIN=4562;
```

SAMPLE REPLY

- on SMS command:

```
#GSMPIN=4562;
```

- on command via server:

```
GSMPIN=4562;
```

PIN code of the device SIM card is changed to code "4562".

GSMAPN – APN setup

Command	GSMAPN
Description	APN setup
Request command	GSMAPN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	Command is intended to set a name of GPRS access point.

COMMAND FORMAT

password GSMAPN=apnname;

parameters:

- **apnname** – APN domain name. To enquire APN settings contact your mobile operator or get the information from operator's official web site.

SAMPLE COMMAND

- via SMS:

```
5672 GSMAPN=internet.usi.ru;
```

- via server:

```
GSMAPN=internet.usi.ru;
```

SAMPLE REPLY

- on SMS command:

```
#GSMAPN=internet.usi.ru;
```

- on command via server:

```
GSMAPN=internet.usi.ru;
```

Following APN settings are changed in the device: APN name – internet.usi.ru;

GSMAPNUSER – APN user setup

Command	GSMAPNUSER
Description	APN user setup
Request command	GSMAPNUSER=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	Command is intended to set a user name of APN.

COMMAND FORMAT

password GSMAPNUSER=user;

parameters:

- **user** – a user name of the APN. To enquire APN settings contact with your mobile operator or get it from the operator's official web site.

SAMPLE COMMAND

- via SMS:

```
5672 GSMAPNUSER=utel;
```

- via server:

```
GSMAPNUSER=utel;
```

SAMPLE REPLY

- on SMS command:

```
#GSMAPNUSER=utel;
```

- on command via server:

```
GSMAPNUSER=utel;
```

APN user name is changed to – utel.

GSMAPNPASS – APN password setup

Command	GSMAPNPASS
Description	APN password setup
Request command	GSMAPNPASS=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	Command is intended to set a password of APN.

COMMAND FORMAT

password GSMAPNPASS=password;

parameters:

- **password** – a password of APN. To enquire APN settings contact with your mobile operator or get it from the operator's official web site.

SAMPLE COMMAND

- via SMS:

```
5672 GSMAPNPASS=utel;
```

- via server:

```
GSMAPNPASS=utel;
```

SAMPLE REPLY

- on SMS command:

```
#GSMAPNPASS=utel;
```

- on command via server:

```
GSMAPNPASS=utel;
```

APN password is changed to – utel.

SERVER SETTINGS

SERVER – server address

Command	SERVER
Description	Data server address
Request command	SERVER=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up address of data server which device transfers data to.

COMMAND FORMAT

password SERVER=server;

parameters:

• **server** – IP address or a domain name of data server. IP address must be real and static.

SAMPLE COMMAND

• via SMS:

```
5672 SERVER=office.tk-chel.ru;
```

• via server:

```
SERVER=office.tk-chel.ru;
```

SAMPLE REPLY

• on SMS command:

```
#SERVER=office.tk-chel.ru;
```

• on command via server:

```
SERVER=office.tk-chel.ru;
```

The device is configured to transfer data to server office.tk-chel.ru.

SERVERPORT – server port

Command	SERVERPORT
Description	Server port
Request command	SERVERPORT=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set a port number of data server which the device sends data to. Before specifying, ensure that the port is enabled in the server firewall settings.

COMMAND FORMAT

password SERVERPORT=port;

parameters:

• **port** – a port number for transferring data.

SAMPLE COMMAND

• via SMS:

```
5672 SERVERPORT=2225;
```

• via server:

```
SERVERPORT=2225;
```

SAMPLE REPLY

• on SMS command:

```
#SERVERPORT=2225;
```

• on command via server:

```
SERVERPORT=2225;
```

The device sends data to the port "2225" of data server.

SERVERPASS – server password

Command	SERVERPASS
Description	Server password
Request command	SERVERPASS=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to setup a password to access to the data stored on the server. Password can contain up to 32 characters. To connect to AutoGRAPH server exactly 8 characters long password is required.

COMMAND FORMAT

password SERVERPASS=pass;

parameters:

- **pass** – a password for access to the server;

SAMPLE COMMAND

- via SMS:

```
5672 SERVERPASS=zxcv1234;
```

- via server:

```
SERVERPASS=zxcv1234;
```

SAMPLE REPLY

- on SMS command:

```
#SERVERPASS=zxcv1234;
```

- on command via server:

```
SERVERPASS=zxcv1234;
```

The device uses password "zxcv1234" for access to data on server.

SMTP SETTINGS

SMTPSERVER – SMTP server address

Command	SMTPSERVER
Description	SMTP server address
Request command	SMTPSERVER=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set SMTP server address which will be used to send E-mail with coordinates.

COMMAND FORMAT

password SMTPSERVER=server;

parameters:

- **server** – an address of SMTP server.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPSERVER=smtp.mail.ru;
```

- via server:

```
SMTPSERVER=smtp.mail.ru;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPSERVER=smtp.mail.ru;
```

- on command via server:

```
SMTPSERVER=smtp.mail.ru;
```

The device is set up to send Email via following SMTP server – smtp.mail.ru.

SMTPPORT – SMTP server port

Command	SMTPPORT
Description	SMTP server port
Request command	SMTPPORT=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set SMTP server port used to send E-mail with current coordinates.

COMMAND FORMAT

password SMTPPORT=port;

parameters:

- **port** – a port number of SMTP server.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPPORT=25;
```

- via server:

```
SMTPPORT=25;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPPORT=25;
```

- on command via server:

```
SMTPPORT=25;
```

The device uses the port "25" to send E-mail.

SMTPLOGIN – SMTP login

Command	SMTPLOGIN
Description	SMTP server login
Request command	SMTPLOGIN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a login used to send E-mail via specified SMTP server. To enquire your login, contact Administrator of the SMTP server.

COMMAND FORMAT

password SMTPLOGIN=login;

parameters:

- **login** – login used to access the SMTP server in order to send Email.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPLOGIN=user;
```

- via server:

```
SMTPLOGIN=user;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPLOGIN=user;
```

- on command via server:

```
SMTPLOGIN=user;
```

The device uses login "user" to send E-mail.

SMTPPASS – SMTP password

Command	SMTPPASS
Description	Password for access to SMTP server
Request command	SMTPPASS=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a password used to access to SMTP server. To set a login, use "SMTPLOGIN" command.

COMMAND FORMAT

password SMTPPASS=password;

parameters:

- **password** – password used to access to SMTP server.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPPASS=12345678;
```

- via server:

```
SMTPPASS=12345678;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPPASS=12345678;
```

- on command via server:

```
SMTPPASS=12345678;
```

The device uses following password to access to SMTP server – 12345678.

SMTPFROM – mail account of device

Command	SMTPFROM
Description	Mail account of the device
Request command	SMTPFROM=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set a full mail address which the device uses to send E-mail to customers.

COMMAND FORMAT

password SMTPFROM=username;

parameters:

- **username** – full mail address which will be used by the device to send Email. Full mail address includes a user login, "@" symbol and domain name of mail server.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPFROM=user@mail.ru;
```

- via server:

```
SMTPFROM=user@mail.ru;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPFROM=user@mail.ru;
```

- on command via server:

```
SMTPFROM=user@mail.ru;
```

The device uses following mail address to send Email – user@mail.ru.

SMTPTOx – addresses to send E-mail

Command	SMTPTOx
Description	Mail addresses for sending Email
Request command	SMTPTOx=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set mail addresses which the device will send E-mail to.

COMMAND FORMAT

password SMTPTOx=address;

parameters:

- **address** – full mail address for sending E-mail. Full mail address includes a user login, "@" symbol and domain name of mail server.
- **x** – an index number of mail address, from 1 to 4. The device can send E-mail with current coordinates to up to 4 addresses at a time.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPTO1=recipient1@mail.ru;
5672 SMTPTO2=recipient2@mail.ru;
```

- via server:

```
SMTPTO1=recipient1@mail.ru;
SMTPTO2=recipient2@mail.ru;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPTO1=recipient1@mail.ru;
#SMTPTO2=recipient2@mail.ru;
```

- on command via server:

```
SMTPTO1=recipient1@mail.ru;
SMTPTO2=recipient2@mail.ru;
```

The device is set up to send E-mail to following addresses – recipient1@mail.ru, recipient2@mail.ru.

SMS SETTINGS

SMSNUMBERx – phone number for sending SMS

Command	SMSNUMBERx
Description	Phone numbers for sending SMS
Request command	SMSNUMBERx=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set phone numbers which the device will send SMS to. Up to 3 different numbers can be set up

COMMAND FORMAT

password SMSNUMBERx=number;

parameters:

- **number** – phone number for sending SMS with current position data. A phone number should be specified in international format with prefix "+".
- **x** – an index number of the specified phone number, from 1 to 3. The device supports transmission of SMS to 3 different phone numbers at a period.

SAMPLE COMMAND

- via SMS:

```
5672 SMSNUMBER1=+79001112233;
5672 SMSNUMBER2=+79001112244;
```

- via server:

```
SMSNUMBER1=+79001112233;
SMSNUMBER2=+79001112244;
```

SAMPLE REPLY

- on SMS command:

```
#SMSNUMBER1=+79001112233;
#SMSNUMBER2=+79001112244;
```

- on command via server:

```
SMSNUMBER1=+79001112233;
SMSNUMBER2=+79001112244;
```

The device is set up to send SMS with position data to following phone numbers – +79001112233, +79001112244.

TRUSTNUMBER – remote configuration without password from phone number 1

Command	TRUSTNUMBER
Description	Remote configuration without password from phone number 1
Request command	TRUSTNUMBER=?
Supported with firmware	AGST-1.22 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable the device remote configuration by SMS commands without password from phone number 1 specified in the device

COMMAND FORMAT

password TRUSTNUMBER=status;

parameters:

- **status** – specify following value:
  0 – to disable device remote configuration without password from phone number 1;
  1 – to enable device remote configuration without password from phone number 1.

SAMPLE COMMAND

- via SMS:

```
5672 TRUSTNUMBER=1;
```

- via server:

```
TRUSTNUMBER=1;
```

SAMPLE REPLY

- on SMS command:

```
#TRUSTNUMBER=1;
```

- on command via server:

```
TRUSTNUMBER=1;
```

The device is set up to process remote SMS commands from phone number 1 without password request.

SMSGATE – phone number for sending SMS

Command	SMSGATE
Description	SMS gateway number
Request command	SMSGATE=?
Supported with firmware	AGST-1.11 and higher
Setting	Available via server and SMS
Comment	The command is intended to set a number of SMS gateway which will be used for sending current position data to data server by means of SMS.

COMMAND FORMAT

password SMSGATE=number;

parameters:

- **number** – a number of SMS gateway. The number should be specified in international format with prefix "+".

SAMPLE COMMAND

- via SMS:

```
5672 SMSGATE=+79508881234;
```

- via server:

```
SMSGATE=+79508881234;
```

SAMPLE REPLY

- on SMS command:

```
#SMSGATE=+79508881234;
```

- on command via server:

```
SMSGATE=+79508881234;
```

The number +79508881234 of SMS gateway is specified in the device.

PROFILE SETTINGS

Settings of some profiles are uneditable.
Fully customizable profiles are USER1 and USER2

SERVEREN – data transmission to server

Command	SERVEREN
Description	Data transmission to server
Request command	SERVEREN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	Command enables or disables data transmission to server. If the option is enabled, the device will switch to operation mode and transfer data to the specified server with preset period or at scheduled time.

COMMAND FORMAT

password SERVEREN=status;

parameters:

- **status** – specify following value:
  0 – to disable data transferring to the server;
  1 – to enable data transferring to the server.

SAMPLE COMMAND

- via SMS:

```
5672 SERVEREN=1;
```

- via server:

```
SERVEREN=1;
```

SAMPLE REPLY

- on SMS command:

```
#SERVEREN=1;
```

- on command via server:

```
SERVEREN=1;
```

Data transmission to server is enabled in the device.

SERVERPERIOD – period of data transmission to server

Command	SERVERPERIOD
Description	Period of data transmission to server
Request command	SERVERPERIOD=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to specify a period or time of data transmission to server. This command is used to specify both the period and the exact time of data transmission. In last case the device won't transfer data periodically, but every day at scheduled time.

COMMAND FORMAT

password SERVERPERIOD=hours,minutes,type;

parameters:

- **hours,minutes** – a period or exact time of data transmission to server (depending on a value of the second parameter). Minimum value is 10 minutes, maximum – 168 hours (1 week).
- **type** – mode of data transmission:
  0 – enables periodical data transmission with the specified period;
  1 – enables everyday data transmission at the scheduled time.

SAMPLE COMMAND

- via SMS:

```
5672 SERVERPERIOD=15,30,1;
```

- via server:

```
SERVERPERIOD=15,30,1;
```

SAMPLE REPLY

- on SMS command:

```
#SERVERPERIOD=15,30,1;
```

- on command via server:

```
SERVERPERIOD=15,30,1;
```

The device is set up to send data to server every day at 15:30.

SMTPEN – E-mail with coordinates

Command	SMTPEN
Description	Sending E-mail with current device coordinates
Request command	SMTPEN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable transmission of E-mail with current device coordinates to specified addresses.

COMMAND FORMAT

password SMTPEN=status;

parameters:

- **status** – specify following value:
  0 – to disable E-mail sending;
  1 – to enable E-mail sending.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPEN=0;
```

- via server:

```
SMTPEN=0;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPEN=0;
```

- on command via server:

```
SMTPEN=0;
```

Sending Email with current position is disabled in the device.

SMTPPERIOD – period of sending E-mail

Command	SMTPPERIOD
Description	Period of sending E-mail
Request command	SMTPPERIOD=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up period or time of sending Email with current position to preset addresses. This command is used to specify both the period and exact time of sending E-mail. In last case the device won't send data periodically, but every day at scheduled time.

COMMAND FORMAT

password SMTPPERIOD=hours,minutes,type;

parameters:

- **hours,minutes** – a period or exact time of sending Email with current position data (depending on a value of the second parameter). Minimum value is 10 minutes, maximum – 168 hours (1 week).
- **type** – mode of data transmission:
  0 – enables periodical Email sending with the specified period;
  1 – enables everyday Email sending at the scheduled time.

SAMPLE COMMAND

- via SMS:

```
5672 SMTPPERIOD=48,30,0;
```

- via server:

```
SMTPPERIOD=48,30,0;
```

SAMPLE REPLY

- on SMS command:

```
#SMTPPERIOD=48,30,0;
```

- on command via server:

```
SMTPPERIOD=48,30,0;
```

The device is set up to send Email with period of 48 hours 30 min.

SMSEN – SMS with coordinates

Command	SMSEN
Description	Sending SMS with current coordinates
Request command	SMSEN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable sending of SMS with current device coordinates to specified phone numbers.

COMMAND FORMAT

password SMSEN=sms,sms_gate;

parameters:

- **sms** – specify following value:
  0 – to disable sending SMS to specified phone numbers;
  1 – to enable sending SMS to specified phone numbers.
- **sms_gate** – specify following value:
  0 – to disable sending SMS to SMS gate;
  1 – to enable sending SMS to SMS gate.

SAMPLE COMMAND

- via SMS:

```
5672 SMSEN=1,0;
```

- via server:

```
SMSEN=1,0;
```

SAMPLE REPLY

- on SMS command:

```
#SMSEN=1,0;
```

- on command via server:

```
SMSEN=1,0;
```

Sending SMS with current position to specified phone numbers is enabled in the device, and sending SMS with current position to SMS gate is disabled in the device.

SMSPERIOD – period of sending SMS

Command	SMSPERIOD
Description	Period of sending SMS
Request command	SMSPERIOD=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up period or time of sending SMS with current position to preset phone numbers and SMS gate. This command is used to specify both the period and the exact time of sending SMS . In last case the device won't send the data periodically, but every day at scheduled time.

COMMAND FORMAT

password SMSPERIOD=hours,minutes,type;

parameters:

- **hours,minutes** – a period or exact time of sending SMS with current position data (depending on a value of the second parameter). Minimum value is 10 minutes, maximum – 168 hours (1 week).
- **type** – mode of data transmission:
  0 – enables periodical SMS sending with the specified period;
  1 – enables everyday SMS sending at the scheduled time.

SAMPLE COMMAND

- via SMS:

```
5672 SMSPERIOD=0,30,0;
```

- via server:

```
SMSPERIOD=0,30,0;
```

SAMPLE REPLY

- on SMS command:

```
#SMSPERIOD=0,30,0;
```

- on command via server:

```
SMSPERIOD=0,30,0;
```

The device is set up to send SMS every 30 minutes. This period is same for both SMS to phone numbers and SMS to SMS gate number.

GPSEN – Waiting mode

Command	GPSEN
Description	Waiting mode
Request command	GPSEN=?
Supported with firmware	AGST-1.11 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable the Waiting mode. In the Waiting mode, device switches to operation mode to collect GPS data and receive SMS commands without data transmission to user.

COMMAND FORMAT

password GPSEN=status;

parameters:

- **status** – specify following value:
  0 – to disable Waiting mode;
  1 – to enable Waiting mode.

SAMPLE COMMAND

- via SMS:

```
5672 GPSEN=1;
```

- via server:

```
GPSEN=1;
```

SAMPLE REPLY

- on SMS command:

```
#GPSEN=1;
```

- on command via server:

```
GPSEN=1;
```

Waiting mode is enabled in the device.

GPSPERIOD – Waiting mode period

Command	GPSPERIOD
Description	Waiting mode period
Request command	GPSPERIOD=?
Supported with firmware	AGST-1.11 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up period of Waiting mode.

COMMAND FORMAT

password GPSPERIOD=hour,min;

parameters:

- **hours,minutes** – period of Waiting mode. The period must be specified in the following format hour,minute. Minimum value is 10 minutes (0,10).

SAMPLE COMMAND

- via SMS:

```
5672 GPSPERIOD=2,0;
```

- via server:

```
GPSPERIOD=2,0;
```

SAMPLE REPLY

- on SMS command:

```
#GPSPERIOD=2,0;
```

- on command via server:

```
GPSPERIOD=2,0;
```

The Waiting mode period is 2 hours.

WAITMODEGPSEN – GPS in Wainting mode

Command	WAITMODEGPSEN
Description	Turn on GPS in Waiting mode
Request command	WAITMODEGPSEN=?
Supported with firmware	AGST-1.55 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable position acquisition in Waiting mode. If the option is enabled the device will acquired the position and record 5 coordinate points in internal memory. The collected data will be transferred to data server at next period of device communication with server. Also data can be read via USB in the AutoGRAPH 5 PRO Dispatch software.

COMMAND FORMAT

password WAITMODEGPSEN=status;

parameters:

- **status** – specify following value:
  0 – to disable position data recording in Waiting mode;
  1 – to enable position data recording in Waiting mode.

SAMPLE COMMAND

- via SMS:

```
5672 WAITMODEGPSEN=1;
```

- via server:

```
WAITMODEGPSEN=1;
```

SAMPLE REPLY

- on SMS command:

```
#WAITMODEGPSEN=1;
```

- on command via server:

```
WAITMODEGPSEN=1;
```

The position data recording in Waiting mode is enabled in the device.

WAITMODEGSMEN – GSM connection in Wainting mode

Command	WAITMODEGSMEN
Description	Connection to GSM network in Waiting mode
Request command	WAITMODEGSMEN=?
Supported with firmware	AGST-1.55 and higher
Setting	Available via server and SMS
Comment	Command is intended to enable or disable registration in GSM network in Waiting mode. If the option is enabled, the device will be online during Waiting mode and be able to receive SMS commands which were sent when the device was offline. Reception of server commands is not available in this mode. Connection to GSM network in Waiting mode is available only in profiles User 1 and User 2.

COMMAND FORMAT

password WAITMODEGSMEN=status;

parameters:

- **status** – specify following value:
  0 – to disable connection to GSM network in Waiting mode;
  1 – to enable connection to GSM network in Waiting mode;

SAMPLE COMMAND

- via SMS:

```
5672 WAITMODEGSMEN=1;
```

- via server:

```
WAITMODEGSMEN=1;
```

SAMPLE REPLY

- on SMS command:

```
#WAITMODEGSMEN=1;
```

- on command via server:

```
WAITMODEGSMEN=1;
```

Connection to GSM network in Waiting mode is enabled in the device.

DELAYOFFWAITMODE – online time in Wainting mode

Command	DELAYOFFWAITMODE
Description	Online time in Waiting mode
Request command	DELAYOFFWAITMODE=?
Supported with firmware	AGST-1.55 and higher
Setting	Available via server and SMS
Comment	Command is intended to set up duration of Waiting mode when the device connection to GSM network in this mode is enabled. If that option is not enabled, the device will switch to Sleep mode immediately after position data recording (5 points) in Waiting mode. The delay is added for the device to receive SMS messages which could be sent to the device.

COMMAND FORMAT

password DELAYOFFWAITMODE=delay;

parameters:

- **delay** – Waiting mode duration. The duration must be specified in minutes. The delay ranges from 3 to 10 minute.

SAMPLE COMMAND

- via SMS:

```
5672 DELAYOFFWAITMODE=6;
```

- via server:

```
DELAYOFFWAITMODE=6;
```

SAMPLE REPLY

- on SMS command:

```
#DELAYOFFWAITMODE=6;
```

- on command via server:

```
DELAYOFFWAITMODE=6;
```

The device is set up to stay online in Wainting mode for 6 minutes.

CHANGEPROFILEONCALL – change profile by a call

Command	CHANGEPROFILEONCALL
Description	Change profile by a call
Request command	CHANGEPROFILEONCALL=?
Supported with firmware	AGST-1.47 and higher
Setting	Available via server and SMS
Comment	Command is intended to enable or disable the device profile changing by a call from phone number 1 specified in the device settings. The profile that is switched on after the call must be preset in the device. If call is sent from other number (not from phone number 1), the call is declined.

COMMAND FORMAT

password CHANGEPROFILEONCALL=status,profile;

parameters:

- **status** – specify following value:
  0 – to disable profile changing by a call;
  1 – to enable profile changing by a call.
- **profile** – a code of the profile, which will be set in the device after call from the phone number 1:
  0 – Sleep profile (SLP);
  1 – Car profile (CAR);
  2 – Cargo profile (CRG);
  3 – Tracker profile (TKR);
  4 – Search profile (SRH);
  5 – User 1 profile (USR1);
  6 – User 2 profile (USR2);

SAMPLE COMMAND

- via SMS:

```
5672 CHANGEPROFILEONCALL=1,4;
```

- via server:

```
#CHANGEPROFILEONCALL=1,4;
```

SAMPLE REPLY

- on SMS command:

```
#CHANGEPROFILEONCALL=1,4;
```

- on command via server:

```
CHANGEPROFILEONCALL=1,4;
```

The device is set up to change the profile to Search profile by a call from phone number 1 specified in the device.

GENERAL SETTINGS

DEVNAME – device name

Command	DEVNAME
Description	Device alias
Request command	DEVNAME=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set device name (alias) in order for identification of SMS and E-mail which AutoGRAPH-ST can send to a customer. By default the device name is its serial number.

COMMAND FORMAT

password DEVNAME=alias;

parameters:

• **alias** – device name.

SAMPLE COMMAND

• via SMS:

```
5672 DEVNAME=AutoGRAPH-ST;
```

• via server:

```
DEVNAME=AutoGRAPH-ST;
```

SAMPLE REPLY

• on SMS command:

```
#DEVNAME=AutoGRAPH-ST;
```

• on command via server:

```
DEVNAME=AutoGRAPH-ST;
```

The device alias is "AutoGRAPH-ST".

MAPFORMAT – coordinate format in SMS and E-mail

Command	MAPFORMAT
Description	Coordinate format in SMS and Email
Request command	MAPFORMAT=?
Supported with firmware	AGST-1.11 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a format of coordinates which are sent in SMS and Email. The device can send coordinates as a link to one of the map services. This feature is convenient to monitor the asset with installed AutoGRAPH-ST on it using different mobile devices.

COMMAND FORMAT

password MAPFORMAT=format;

parameters:

- **format** – format of coordinates in messages:
  0 – Yandex – coordinates as a link to Yandex Maps Service;
  1 – Google – coordinates as a link to Google Maps;
  2 – Coordinates – coordinates in standard format – longitude and latitude values.

SAMPLE COMMAND

- via SMS:

```
5672 MAPFORMAT=1;
```

- via server:

```
MAPFORMAT=1;
```

SAMPLE REPLY

- on SMS command:

```
#MAPFORMAT=1;
```

- on command via server:

```
MAPFORMAT=1;
```

The device is set up to send coordinates as a link to Google Maps.

DELAYOFF – Sleep mode delay

Command	DELAYOFF
Description	Sleep mode delay
Request command	DELAYOFF=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a delay of the device switching to sleep mode after sending SMS. If the delay is enabled, the device will stay online during the delay after sending SMS with position data. This delay can be used to send a new configuration to the device by means of SMS commands. During the delay server commands are not received.

COMMAND FORMAT

password DELAYOFF=status,time;

parameters:

- **status** – specify following value:
  0 – to disable delay;
  1 – to enable delay.
- **time** – delay time, in minutes. Minimum value is 0, maximum value is 10.

SAMPLE COMMAND

- via SMS:

```
5672 DELAYOFF=1,10;
```

- via server:

```
DELAYOFF=1,10;
```

SAMPLE REPLY

- on SMS command:

```
#DELAYOFF=1,10;
```

- on command via server:

```
DELAYOFF=1,10;
```

The device is set up to stay online during 10 minutes after sending SMS.

INDOFF – indication turning off

Command	INDOFF
Description	Indication turning off
Request command	INDOFF=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to turn off LED indication of the device. It can be used to save battery life in case of critical low voltage level the battery.

COMMAND FORMAT

password INDOFF=status;

parameters:

- **status** – specify following value:
  0 – to turn on LED indication;
  1 – to turn off LED indication;

SAMPLE COMMAND

- via SMS:

```
5672 INDOFF=1;
```

- via server:

```
INDOFF=1;
```

SAMPLE REPLY

- on SMS command:

```
#INDOFF=1;
```

- on command via server:

```
INDOFF=1;
```

LED indication of the device is turned off.

ALARM – Alarm mode

Command	ALARM
Description	Alarm mode setting
Request command	ALARM=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to turn on the Alarm mode. This mode enables data sending via GPRS (to data server), SMS and E-mail every 10 minutes. The device will send data via all channels independent from profile settings, i.e. even if some data transmission channels are disabled.

COMMAND FORMAT

password ALARM=status;

parameters:

- **status** – specify following value:
  0 – to turn off Alarm mode;
  1 – to turn on Alarm mode;

SAMPLE COMMAND

- via SMS:

```
5672 ALARM=1;
```

- via server:

```
ALARM=1;
```

SAMPLE REPLY

- on SMS command:

```
#ALARM=1;
```

- on command via server:

```
ALARM=1;
```

Alarm mode is enabled in the device.

LBSDISABLE – disable LBS

Command	LBSDISABLE
Description	Disable automatic LBS using for position acquisition
Request command	LBSDISABLE=?
Supported with firmware	AGST-1.44 and higher
Setting	Available via server and SMS
Comment	The command is intended disable or enable automatic positioning using LBS when position determination using GPS/GLONASS is not available.

COMMAND FORMAT

password LBSDISABLE=status;

parameters:

- **status** – specify following value:
  0 – to enable automatic positioning using LBS;
  1 – to disable automatic positioning using LBS;

SAMPLE COMMAND

- via SMS:

```
5672 LBSDISABLE=1;
```

- via server:

```
LBSDISABLE=1;
```

SAMPLE REPLY

- on SMS command:

```
#LBSDISABLE=1;
```

- on command via server:

```
LBSDISABLE=1;
```

Automatic positioning using LBS is disabled in the device.

ACCELEROMETER SETTINGS

Generally the accelerometer is used to detect motion starts

ACCLEN – motion detection using accelerometer

Command	ACCLEN
Description	Use accelerometer to detect motion start
Request command	ACCLEN=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable the device internal accelerometer which allows motion detection and detection of any affects on the device.

COMMAND FORMAT

password ACCLEN=status;

parameters:

- **status** – specify following value:
  0 – to disable accelerometer;
  1 – to enable accelerometer;

SAMPLE COMMAND

- via SMS:

```
5672 ACCLEN=1;
```

- via server:

```
ACCLEN=1;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLEN=1;
```

- on command via server:

```
ACCLEN=1;
```

The device accelerometer is enabled.

The AutoGRAPH-ST device is equipped with an internal accelerometer optionally. So the configuration commands intended for the device accelerometer are applicable only for AutoGRAPH-ST devices equipped with accelerometer.
To check if the device is equipped with internal accelerometer, read its configuration using the AGSTConf application or send SMS request «ACCLEN=?;».

If the device is equipped with accelerometer, the accelerometer configuration option will be available in the AGSTConf application. When sending SMS request, the following reply will be returned if the device is equipped with internal accelerometer:

#ACCLEN=status,exist;
where:
- **status** – current state of accelerometer: 0 – disabled, 1 – enabled.
- **exist** – accelerometer availability: 0 – device is not equipped with accelerometer, 1 – device is equipped with accelerometer.

For example, the reply "#ACCLEN=0,1;" means that the device is equipped with internal accelerometer, but it is disabled.

ACCLSENSELEV – accelerometer sensitivity

Command	ACCLSENSELEV
Description	Accelerometer sensitivity
Request command	ACCLSENSELEV=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up sensitivity of the device accelerometer. The sensitivity allows filtration of unimportant affects.

COMMAND FORMAT

password ACCLSENSELEV=sense_level;

parameters:

- **sense_level** – accelerometer sensitivity:
  0 – very low;
  1 – low;
  2 – normal;
  3 – high;
  4 – very high.

SAMPLE COMMAND

- via SMS:

```
5672 ACCLSENSELEV=2;
```

- via server:

```
ACCLSENSELEV=2;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLSENSELEV=2;
```

- on command via server:

```
ACCLSENSELEV=2;
```

The sensitivity of the device accelerometer is normal.

ACCLACTIVTIME – accelerometer active time

Command	ACCLACTIVTIME
Description	Period of accelerometer activity
Request command	ACCLACTIVTIME=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a period of time during that motions detection is allowed. At other time motion is not detected.

COMMAND FORMAT

password ACCLACTIVTIME=from_time,to_time;

parameters:

- **from_time** – start time of the accelerometer active period. The start time must be specified in the 24-hour format and as comma separated values of hours and minutes, e.g. start time 9:30 am must be specified as 9,30.
- **to_time** – end time of the accelerometer active period. The end period must be specified in the 24-hour format and as comma separated values of hours and minutes, .g. end time 20:45 must be specified as 20,45.

SAMPLE COMMAND

- via SMS:

```
5672 ACCLACTIVTIME=9,30,20,45;
```

- via server:

```
ACCLACTIVTIME=9,30,20,45;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLACTIVTIME=9,30,20,45;
```

- on command via server:

```
ACCLACTIVTIME=9,30,20,45;
```

The device is set up to detect motion from 9:30 to 20:45.

To set twenty-four-hour active period of the accelerometer, send the command ACCLACTIVETIME=0,0,0,0;

ACCLSENSETIMEOUT – timeout of accelerometer triggering

Command	ACCLSENSETIMEOUT
Description	Timeout of accelerometer triggering
Request command	ACCLSENSETIMEOUT=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up a minimal timeout after the accelerometer triggering, when next acceleration (motion start) is detected. During the timeout any triggering is skipped. The timeout is intended to exclude frequent triggering of the accelerometer, e.g. on the move.

COMMAND FORMAT

password ACCLSENSETIMEOUT=timeout;

parameters:

- **timeout** – timeout duration in minutes. Minimal timeout is 5 min.

SAMPLE COMMAND

- via SMS:

```
5672 ACCLSENSETIMEOUT=10;
```

- via server:

```
ACCLSENSETIMEOUT=10;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLSENSETIMEOUT=10;
```

- on command via server:

```
ACCLSENSETIMEOUT=10;
```

The accelerometer triggering timeout is 10 minutes.

ACCLSETUPSEND – accelerometer notifications

Command	ACCLSETUPSEND
Description	Accelerometer notifications
Request command	ACCLSETUPSEND=?
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable notifications which the device sends when internal accelerometer triggers. The notifications to SMS and E-mail contain the notification text and current coordinates of the device. Notification to server includes transmission of all data from the device memory which has not been transferred earlier.

COMMAND FORMAT

password ACCLSETUPSEND=sms, data,email;

parameters:

- **sms** – specify following value:
  0 – to disable notification by SMS;
  1 – to enable notification by SMS.
- **data** – specify following value:
  0 – to disable data transmission to server when accelerometer triggers;
  1 – to enable data transmission to server when accelerometer triggers.
- **email** – specify following value:
  0 – to disable notification by E-mail;
  1 – to enable notification by E-mail.

SAMPLE COMMAND

- via SMS:

```
5672 ACCLSETUPSEND=1,1,0;
```

- via server:

```
ACCLSETUPSEND=1,1,0;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLSETUPSEND=1,1,0;
```

- on command via server:

```
ACCLSETUPSEND=1,1,0;
```

The device is set up to send SMS notification and data to server when accelerometer triggers.

ACCLALARMCALL – accelerometer notification by voice call

Command	ACCLALARMCALL
Description	Accelerometer notification by a call
Request command	ACCLALARMCALL=?
Supported with firmware	AGST-1.47 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable or disable dial-up to the phone number 1 (in the device settings) when internal accelerometer triggers. This function provides only dialling, but not full two-way communication. The subscriber is called until the call is not declined by the subscriber or the timeout (40 sec) passes.

COMMAND FORMAT

password ACCLALARMCALL= status;

parameters:

- **status** – specify following value:
  0 – to disable voice call notification;
  1 – to enable voice call notification.

SAMPLE COMMAND

- via SMS:

```
5672 ACCLALARMCALL=1;
```

- via server:

```
ACCLALARMCALL=1;
```

SAMPLE REPLY

- on SMS command:

```
#ACCLALARMCALL=1;
```

- on command via server:

```
ACCLALARMCALL=1;
```

The device is set up to call the phone number 1 specified in the device when accelerometer triggers.

FASTMOVEDETECT – quick accelerometer notification

Command	FASTMOVEDETECT
Description	Quick accelerometer notification
Request command	FASTMOVEDETECT=?
Supported with firmware	AGST-1.32 and higher
Setting	Available via server and SMS
Comment	The command is intended to enable quick SMS notification when accelerometer detects motion start or other affects. When this option is enabled, the device will send SMS without position data immediately after the motion detection. When the position data becomes available, it sends second SMS with device current position coordinates. This function provides on-time delivery of notification to a customer.

COMMAND FORMAT

password FASTMOVEDETECT= status;

parameters:

- **status** – specify following value:
  0 – to disable quick SMS notification. In this case the device will send 1 notification about motion detection, only after the position acquisition;
  1 – to enable quick SMS notification.

SAMPLE COMMAND

- via SMS:

```
5672 FASTMOVEDETECT=1;
```

- via server:

```
FASTMOVEDETECT=1;
```

SAMPLE REPLY

- on SMS command:

```
#FASTMOVEDETECT=1;
```

- on command via server:

```
FASTMOVEDETECT=1;
```

The device is set up to send quick notification when accelerometer triggers.

GEOFENCING SETTINGS

SETCP – geofencing

Command	SETCP
Description	Geofencing
Request command	SETCP=?
Supported with firmware	AGST-1.16 and higher
Setting	Available via server and SMS
Comment	The command is intended to set up geofence settings and enable it control. AutoGRAPH-ST supports only circle geofence.

COMMAND FORMAT

password SETCP=status,lat,lon,radius,flags;

parameters:

- **status** – specify following value:
  0 – to disable geofence control;
  1 – to enable geofence control;

- **lat** – latitude of the geofence midpoint. It must be specified decimally in degrees from -90 to 90;
- **lon** – longitude of the geofence midpoint. It must be specified decimally in degrees from -90 to 90;
- **radius** – radius of the geofence in meters. Minimum value is 200 m, maximum – 1000 km.
- **flags** – geofence settings. The flag must be a decimal number computed from binary number. Every bit of binary number is matched to one of the following setting in order as listed (from left to right):
  srv – transfer data to the server when entering to/exiting geofence: 0 – disables the transmission, 1 – enables the transmission.
  smtp – send E-mail when entering to/ exiting geofence: 0 – disables E-mail notification, 1 – enables E-mail notification.
  sms – send SMS when entering to/ exiting geofence: 0 – disables SMS notification, 1 – enables SMS notification.
  in – control of entering to the geofence: 0 – disables control, 1 – enables control;
  out – control of exiting the geofence: 0 – disables control, 1 – enables control;

For example, "00110" string enables SMS sending when entering to the geofence. Decimal value of the "00110" is number 6.

SAMPLE COMMAND

• via SMS:

```
5672 SETCP=1,55.173328,61.383743,300,6;
```

• via server:

```
SETCP=1,55.173328,61.383743,300,6;
```

SAMPLE REPLY

• on SMS command:

```
#SETCP=1,55.173328,61.383743,300,6;
```

• on command via server:

```
SETCP=1,55.173328,61.383743,300,6;
```

Control of the geofence with a center in 55.173328°, 61.383743° point is enabled in the device. When entering to this geofence, the device will send SMS with the current position data.

This command is intended for advanced users. So it is recommended to use AGSTConf software to set up geofence settings.

SETTINGS PROTECTION

SECURESETUP – settings protection

Command	SECURESETUP
Description	Device settings protection
Request command	SECURESETUP=? (returns protection state)
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to disable the device settings protection. If the protection is enabled it will be unavailable to change the settings by means of the AGSTConf Software without entering the device password. The configuration via SMS always requires the device password independent from the protection status.

COMMAND FORMAT

password SECURESETUP=status,password;

parameters:

- **status** – specify following value:
  0 – to disable the protection;
  1 – to enable the protection;
- **status** – protection password which will be set in the device. The password can be exactly four characters long and contain only digits from 0 to 9.

COMMAND FORMAT

#SECURESETUP=protection,status;

parameters:

- **protection** – current state of the device settings protection after processing the command "SECURESETUP=":
  0 – protection is disabled;
  1 – protection is enabled.
- **status** – the command processing state:
  0 – failed to process the command. It is recommended to check the command format and password specified in the command.
  1 – the command is processed successfully.

SAMPLE COMMAND

• via SMS:

```
5672 SECURESETUP=1,5672;
```

• via server:

```
SECURESETUP=1,5672;
```

SAMPLE REPLY

• on SMS command:

```
#SECURESETUP=1,1;
```

• on command via server:

```
SECURESETUP=1,1;
```

The settings protection is enabled in the device. So the device configuring using AGSTConf program is available only after entering the password.

SETTINGS SAVING

SAVECONFIG – configuration saving

Command	SAVECONFIG
Description	Configuration saving
Request command	---
Supported with firmware	AGST-0.75 and higher
Setting	Available via server and SMS
Comment	The command is intended to save all new settings which are sent remotely to the device after the last restart. If the settings haven't been saved by this command they are valid till the device next restart (or restart of GSM modem). After the restart, all unsaved settings will be reset to last saved values.

COMMAND FORMAT

password SAVECONFIG=1;

SAMPLE COMMAND

• via SMS:

```
5672 SAVECONFIG=1;
```

• via server:

```
SAVECONFIG=1;
```

SAMPLE REPLY

• on SMS command:

```
#SAVECONFIG=1;
```

• on command via server:

```
SAVECONFIG=1;
```

Device settings are successfully saved.

SHORT SMS COMMANDS

Short SMS commands are intended for quick switching of the device profiles and configuring parameters of that profiles via SMS.

FORMAT OF SHORT COMMAND

```
password[space]SHORT_COMMAND[space]parameters
```

where

- **password** – the 4-digit settings protection password of AutoGRAPH-ST.
- **SHORT_COMMAND** – short control command supported by the AutoGRAPH-ST device.
- **parameters** – configurable parameters of short control command.

Short SMS commands are not intended to send from data server.

Short SMS commands can't be used to request device settings.

Short SMS commands are supported by AutoGRAPH-ST devices with firmware of version AGST-1.12 or higher.

SLP – Sleep profile turning on

Command	SLP
Description	Sleep profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable Sleep profile. If this profile is enabled, the device acquires coordinates with specified period and records it into the internal memory. After that the devices switches to sleep mode – turns off GPS receiver and GSM modem. In this profile the data isn't sent to a customer. When acquiring coordinates the device is able to receive SMS control commands.

COMMAND FORMAT

password SLP PeriodUnit

parameters:

- **Period** – period of the coordinates recording.
- **Unit** – units of **Period**:
  H – period in hours.
  D – period in days.

The command SLP without parameters turns on Sleep profile with preset settings.

SAMPLE COMMAND

- via SMS

```
5672 SLP 24H
```

SAMPLE REPLY

- on SMS:

```
#SLP 24H
```

The Sleep profile is activated in the device. Period of coordinates recording is 24 hours.

SRH – Search profile turning on

Command	SRH
Description	Search profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable Search profile. If the profile is enabled, the device acquires coordinates with specified period and sends them to data server and preset phone numbers via SMS.

COMMAND FORMAT

password SRH PeriodUnit

parameters:

- **Period** – period of data transferring to the server and sending SMS with the data.
- **Unit** – units of **Period**:
  H – period in hours.
  M – period in minutes.

The command SRH without parameters turns on Search profile with preset settings.

SAMPLE COMMAND

- via SMS

```
5672 SRH 15M
```

SAMPLE REPLY

- on SMS:

```
#SRH 15M
```

Search profile is activated in the device. Period of acquiring the coordinates and sending the data to a customer is 15 minutes.

CAR – Car profile turning on

Command	CAR
Description	Car profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable Car profile. If the profile is enabled, the device acquires coordinates every day at scheduled time and sends SMS with the current position data to preset phone numbers.

COMMAND FORMAT

password CAR hour:min

parameters:

- **hour:min** – time of sending SMS. To set up time of sending SMS, specify it in the following format hour:minutes.

The command CAR without parameters turns on Car profile with preset settings.

SAMPLE COMMAND

- via SMS

```
5672 CAR 8:30
```

SAMPLE REPLY

- on SMS:

```
#CAR 08:30
```

Car profile is activated in the device. It will send SMS with current position data every day at 8:30.

TKR – Tracker profile turning on

Command	TKR
Description	Tracker profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable Tracker profile. If the profile is enabled, the device acquires coordinates with specified period and records the data into internal memory. With another period the device send the collected data to the server. Default data transfer period is 24 hours.

COMMAND FORMAT

password TKR PeriodUnit

parameters:

- **Period** – period of recording the data.
- **Unit** – units of **Period**:
  H – period in hours, from 1 to 24 hours.
  M – period in minutes, from 10 to 1440 minutes.

The command TKR without parameters turns on Tracker profile with preset settings.

SAMPLE COMMAND

- via SMS

```
5672 TKR 90M
```

SAMPLE REPLY

- on SMS:

```
#TKR 90M
```

Tracker profile is activated in the device. In this profile, the device will switch to operating mode, acquire the coordinates and record the data with period of 90 minutes. After that the device will switch to sleep mode. By default the device will send collected data to the data server every 24 hours.

CRG – Cargo profile turning on

Command	CRG
Description	Cargo profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable Cargo profile. If the profile is enabled, the device acquires coordinates with specified period and sends them to the data server and to telephone numbers via SMS. If this profile is enabled, the device fixes position with default period (about 5 sec) and records the data into the memory. The collected data will be transferred to the server with the period of data transferring.

COMMAND FORMAT

password CRG PeriodUnit

parameters:

- **Period** – period of data transferring to the server and sending SMS with the data.
- **Unit** – units of **Period**:
  H – period in hours, from 1 to 24 hours.
  M – period in minutes, from 10 to 1440 minutes.

The command CRG without parameters turns on Cargo profile with preset settings.

SAMPLE COMMAND

- via SMS

```
5672 CRG 80M
```

SAMPLE REPLY

- on SMS:

```
#TKR 80M
```

Cargo profile is activated in the device: every 80 minutes (1 h 20 min) the device will switch to operation mode, fix position and send collected data to server and by means of SMS. After that the device will switch to sleep mode.

USRx – User profile turning on

Command	USRx
Description	User profile turning on
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to enable User profile. Two user profiles are available. A customer can specify User profiles by means of AGSTConf software in user-defined way and activate profiles by short command when it is necessary. If the profile is not set up in advance, the device will set the default settings when enabling User profile.

COMMAND FORMAT

password USRx

parameters:

- **x** – user profile number: 1 or 2.

SAMPLE COMMAND

- via SMS

```
5672 USR1
```

SAMPLE REPLY

- on SMS:

```
#USR1
```

User1 profile is activated in the device with preset settings.

TLx – phone numbers for SMS

Command	TLx
Description	Phone number for SMS
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to set up phone numbers which the device sends SMS to.

COMMAND FORMAT

password TLx tel_number

parameters:

- **tel_number** – a phone number for sending SMS with current position data. All phone numbers must be specified in international format with prefix "+". Empty parameter deletes the number specified previously, e.g. the command *"5672 TL2"* deletes phone number 2, specified in the device.
- **x** – an index number of the phone number (1..3). The device is able to send SMS to up to three different numbers.

SAMPLE COMMAND

- via SMS

```
5672 TL1 +79514567890
```

SAMPLE REPLY

- on SMS:

```
#TL1 +79514567890
```

Phone number 1 for SMS is +79514567890.

INF – device settings request

Command	INF
Description	Device settings request
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to request device main settings.

COMMAND FORMAT

password INF

REPLY FORMAT

#INF
PRF=profile
SMS=H:M,type
SMTP=H:M,type
SRV=H:M,type
GPS=H:M,PR

parameters:

- **profile** – active profile.
- **H:M** – a period or a time of data sending by a certain channel: SMS/SMTP/Server.
- **type** – mode of data sending: TM – transmission at scheduled time, PR – transmisson with specified period.

SAMPLE COMMAND

- via SMS

```
5672 INF
```

SAMPLE REPLY

- on SMS:

```
#INF
PRF=Car
SMS=12:00,TM
```

The following settings are installed in the device.

- **Active profile** – Car.
- **SMS transmission** is enabled. The device sends SMS every day at 12:00.
- Data transmission to the server, recording coordinates into memory without transmission, sending Email are disabled.

SMS – SMS transmission settings

Command	SMS
Description	SMS transmission settings
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to set up parameters of SMS transmission.

COMMAND FORMAT

password SMS SRV TEL
or
password SMS TEL SRV

parameters:

- **SRV** – enables SMS sending via SMS gateway.
- **TEL** – enables SMS sending to preset phone numbers.

To disable one of the options, send the command without that option, e.g "5672 SMS SRV" command disables SMS sending to phone numbers.
To disable both options, send "SMS" command with password only, e.g. "SMS".
Parameters of the command can be specified in any sequence – «SMS SRV TEL» or «SMS TEL SRV»

SAMPLE COMMAND

- via SMS

```
5672 SMS SRV
```

SAMPLE REPLY

- on SMS:

```
#SMS TEL=0 SRV=1
```

The device has the following settings: SMS sending via SMS gateway is enabled; SMS sending to phone numbers is disabled.

DTS – device date and time

Command	DTS
Description	Date and Time setup
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to set up date and time in the device.

COMMAND FORMAT

password DTS hour:min day.month.year time_zone

parameters:

All parameters of the command must be specified in the next order. An empty parameter is not allowed.

- **hour** – the current hour from 0 to 23;
- **min** – the current minute from 0 to 59;
- **day** – the current day from 1 to 31;
- **month** – the current month from 1 to 12;
- **year** – the current year from 0 to 9999;
- **time_zone** – the current time zone from -12 to 12.

SAMPLE COMMAND

- via SMS

```
5672 DTS 17:48 10.10.2013 +6
```

SAMPLE REPLY

- on SMS:

```
#DTS 17:48 10.10.2013 +6
```

The current time is 17:48, the current date is 10.10.2013, the current time zone +6.00.

PSW – protection password changing

Command	PSW
Description	Protection password changing
Request	---
Supported with firmware	AGST-1.12 and higher
Setting	Available via SMS
Comment	The command is intended to change the device protection password.

COMMAND FORMAT

password PSW new_password

parameters:

- **new_password** – a new security password. The password must be 4 characters long and consist of only figures from 0 to 9.

SAMPLE COMMAND

- via SMS

```
5672 PSW 2442
```

SAMPLE REPLY

- on SMS:

```
#PSW 2442
```

Security password was changed to 2442.

AutoGRAPH-ST MESSAGES

If the device is set up to send SMS with coordinates, it will send an SMS with current position to all preset phone numbers.
SMS with coordinates has the following format (there are two cases)

- **if location is acquired location by means of GPS/GLONASS satellites:**

Alias Profile
Date and Time (time zone)
Position
Speed,Battery,Temp,GSM state,Sat,SMS num
New: next wake-up time
Bal: SIM balance

parameters:
- **Alias** – device's identifier specified in its settings;
- **Profile** – current active profile;
- **Date and Time (time zone)** – date and time of SMS transmission, time zone is given in parentheses.
- **Position** – current location of asset in the form of a link to an online map or latitude and longitude values.
- **Speed** – asset speed at the time of SMS sending (km/h).
- **Battery** – voltage level of device's battery, V.
- **Temp** – ambient temperature, C.
- **GSM state** – GSM signal level, dBm.
- **Sat** – number of visible satellites at the time of location acquisition.
- **SMS num** – number of SMS sent by the device since last switch on.
- **Next wake-up time** – time of next data transmission.
- **SIM balance** – current balance of device's SIM card. To get the balance in the SMS, the proper option must be enabled and the code for balance check must be preset in the device.

SAMPLE

```
AutoGRAPH-ST USR
11:11:2013 09:56 (6)
http://maps.google.com/maps?near=54.891343+61.393755&t=h
4km/h,6.7V,22C,-69dBm,s5,#5
NEW:11.11 10:10
BAL:5$.
```

- **If it is not possible to acquire location with satellites, the device sends approximate location determined using LBS.**

Alias Profile
Date and Time (time zone)
Approximate position
PRC: accuracy
Battery,GSM,Sat,SMSNum
NEW: next wake-up time
BAL: SIM balance

parameters:

- **Alias** – device's identifier specified in its settings;
- **Profile** – current active profile;
- **Date and Time (time zone)** – date and time of SMS transmission, time zone is given in parentheses.
- **Approximate position** – approximate location of asset in relation to GSM base stations.
- **PRC** – position accuracy.
- **Speed** – asset speed at the time of sending SMS (km/h).
- **Battery** – voltage level of device's battery, V.
- **Temp** – ambient temperature, C.
- **GSM state** – GSM signal level, dBm.
- **Sat** – number of visible satellites at the time of location acquisition. The device sends 's0' if the position is fixed in relation to GSM base stations.
- **SMS num** – number of SMS sent by the device since last switch on.
- **Next wake-up time** – time of next data transmission.
- **SIM balance** – current balance of device's SIM card. To get the balance in the SMS, the proper option must be enabled and the code for balance check must be preset in the device.

SAMPLE

```
AutoGRAPH-ST USR
11:11:2013 10:11 (6)
http://maps.google.com/maps?near=54.891343+61.393755&t=h
PRC: 1000m
6.7V,25C,-65dBm,s0,#6
NEW:11.11 10:25
BAL:5$.
```

If it is not available to acquire asset location using both GPS/GLONASS satellites and LBS (in case of unavailability of GPRS or Yandex.Locator service) the device will send parameters of base station to which it is connected, along with parameters of the six nearest base stations.

Different notifications can be sent by SMS with the coordinates:

- **LOW BATTERY** – a notification about low battery voltage level.
- **LOW BALANCE** – a notification about low balance of the device's SIM card. To receive a notification about low balance, it is necessary to enable the option in the device's settings and to specify the threshold of notification.
- **CP IN** – special SMS which notifies that the asset has entered to the geofenced area
- **CP OUT** – special SMS which notifies that the asset has exited the geofenced area.

The format of email messages is the same to format of SMS messages.

TechnoKom ltd.

Copyright © Chelyabinsk, 2016
All Rights Reserved.

www.tk-nav.com
info@tk-nav.com