PROGRAMMING AND DIAGNOSTICS OVER THE INTERNET

The system parameters may be changed and the system status may be observed by connecting over the internet. The data are transmitted according to TCP/IP protocol; the GSM module connects to the internet via a GPRS cannel. The connection is established by the GSM alarm configuration tool GAPROG. The application is downloadable from the website of the manufacturer at www.eltech.lt.

Two conditions are necessary for connection over the internet.

The first condition: GPRS service should be activated for the SIM card of the GSM module. Usually, GPRS service is activated automatically. You may contact your GSM service provider to inquire about activation of the GPRS service.

The second condition: The GSM module or the computer that is used for connection to the GSM module should have unique IP addresses. A unique IP address also is called a real address or an external address. An external IP address is accessible from any internet-connected computer. An IP address is automatically provided to the GSM module by the GSM network. Inquire your GSM service provider to find out, if your SIM card has a unique IP address. Inquire your ISP to find out, if your computer has a unique IP address.

Before connecting to the module, it is recommended to verify access point settings. Send the following SMS message to GsmAlarm-500:

AAAAAAAAA OF N or (if SMS password is APN deactivated)

The massage returned to the user by GsmAlarm-500 contains the access point name, the login name and the login password:

AAAAAAA APN:internet.tele2.lt, APLOG:wap, APPASS:wap,

Adjust the access point name, the login name and the login password as required. In Lithuanian networks OMNITEL and BITE GSM, all fields may be blank (comma after colon). The access point name of TELE2 network is *internet.tele2.lt*, other field may be blank. The SMS message with adjustments is sent back to the GsmAlarm-500 module.

There are two ways to connect to a GsmAlarm-500 module over the internet.

The first method: the user connects to the GSM module (the module operates as a server). This method is possible only if the GSM network has assigned an unique IP address to the module. The user sends an SMS message to the GSM module:

AAAAAAAA GETIPA or
GETIPA (if SMS password is deactivated)

The GETIPA command activates the GPRS interface of the GSM module and the "cerr

The GETIPA command activates the GPRS interface of the GSM module and the "server" mode. The GSM module sends connection data to the user: the IP address and the port number. The user should mark the option "Connect to GSM module" in the window "Connect over GPRS", enter the IP address and the port number, click the button "Connect", and wait for establishment of connection.

The second method: the GSM module connects to the computer of the user (the module operates as a client). This method is possible only if a real (unique) IP address has been assigned to the computer of the user. The user sends an SMS message to the GSM module, containing the command CONNECT and the IP address of the user computer:

A	A	A	A	A	A	A	A		C	О	N	N	Е	C	T		2	1	3		1	3	0	3	2	5	5	or
C	O	N	N	Ε	C	T		2	1	3		1	3	0		3	2		5	5				 				1

(if SMS password is deactivated).

The CONNECT command activates the GPRS interface of the GSM module and the "client" mode. The GSM module sends an SMS message to the user, containing the computer IP address and the connection port number. The user should mark the option "Wait for connection by GSM module" in the window "Connect over GPRS", enter the port number, click the button "Wait", and wait for the GSM module to connect to the computer. The GSM module retries connecting to the specified IP address every 30 seconds.

The computer IP address that was included in the SMS message from the user is automatically saved in the GsmAlarm-500 memory. Later, the command CONNECT is sufficient to make the GSM module to connect to the same IP address:

AAAAAAA CONNECT or CONNECT

(if SMS password is deactivated).

Important! GPRS parameters of the GSM module should be correctly set up for GPRS interface to operate. The GPRS parameters are configured via USB interface using GAPROG software. The setup procedure is described in the manual of GAPROG software