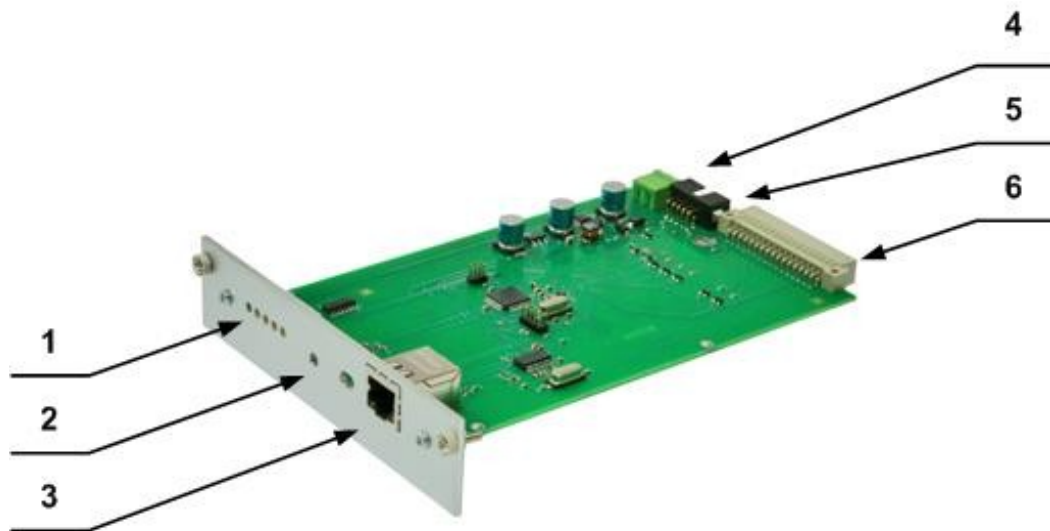INTERNET CONNECTION
RECEPTION MODULE RE2

Internet connection reception module RE2

Reception module is used as a constituent part of multi-channel receiver RI-4010M and is meant for the reception of the data, transferred through internet connection channel. Data exchange is implemented using TCP/IP protocol. Contact ID message reception format is used.

1 – light indicators;
2 – RESET button of the device;
3 – external connector of the device connection;
4 – power connector;
5 – device programming connector;
6 – router connection connector.

Description of the operation and the main characteristics

TCP/IP reception module RE2 is the device which ensures the transfer of the data, transferred using internet connection channels, into centralised observation program using multi-channel receiver. The information is processed (connection in accordance with the determined protocol is ensured) and transferred into the router of multi-channel receiver.

Processing of the signals is performed by the microcontroller. It recognizes and decodes the transferred data as well as forms the messages of pre-determined form and structure, which are transferred into the router of multi-channel receiver.

Reception module RE2 has no any additional programming filters.

Technical parameters

1. Reception module RE2 ensures data exchange through internet connection channel.

2. Reception module RE2 transfers data in accordance with Contact ID format.

3. Reception module RE2 is supplied by permanent voltage of 12.6 V. Allowable voltage variations limits are from 11 to 15 V. the used voltage does not exceed 50 mA.

4. Reception module operates at the temperature range from -10º C to +55º C under relative humidity equal to 90 % at +20º C.

5. Size dimensions of the reception module do not exceed 190 x 130 x 30 mm.

Light indication

Reception module RE2 has five light indicators.
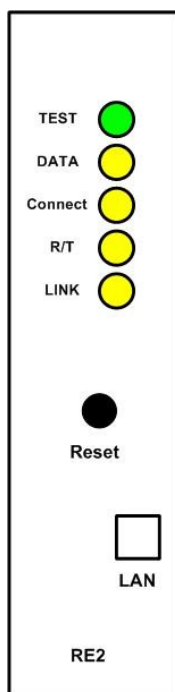
Green light indicator TEST indicates the operation of the processor and gleams in short flashes

Yellow DATA light indicator shines constantly when the data from the subscriber's device is received

Yellow TCP Con light indicator shines constantly when there is internet connection with the subscriber's device

Yellow R/T light indicator flashes when data exchange takes place

Yellow LINK light indicator shines constantly when the external connection of the device is connected

Preparation for work

Reception module RE2 is provided by the manufacturer to the subscriber when it is tuned for the reception of Contact ID information.

The course of preparation for work:

1. Order static IP address from your internet provider as well as open internet service.
2. Unpack the module.
3. Check and set the necessary exploitation parameters of the module.
4. Unscrew decorative cover on the back wall of the multi-channel receiver and insert reception module.
5. Press reception module button RESET.
6. Connect the external connection connector.

Reception module formulates official messages indicated in Annex A.

The received messages are rendered in the indicator of multi-channel receiver and transferred into centralised observation program.

Indication of received message

Reception module official messages are rendered in the indicator of multi-channel receiver RI-4010M. Official message of transferred reception module RE2 is shown bellow.

06-1 12:38:15 7678 E130 01 001

Where:

06 – reception module type (RE2 type 06);
1 – channel (line) number;
12:38:15 – reception time;
7678 – subscriber's number;
E130 – code of the event;
01 – panel subgroup number;
001 – location of the event or subscriber's code number.

This message is decoded and shown as text in the indicator of multi-channel receiver.

Setting operational parameters

Operational parameters of reception module RE2 are set using programmer SPROG-1 and program for setting operational parameters GProg.

Join the ports of reception module RE2 programming and programmer SPROG-1 using the programming cable and switch on the program GProg.
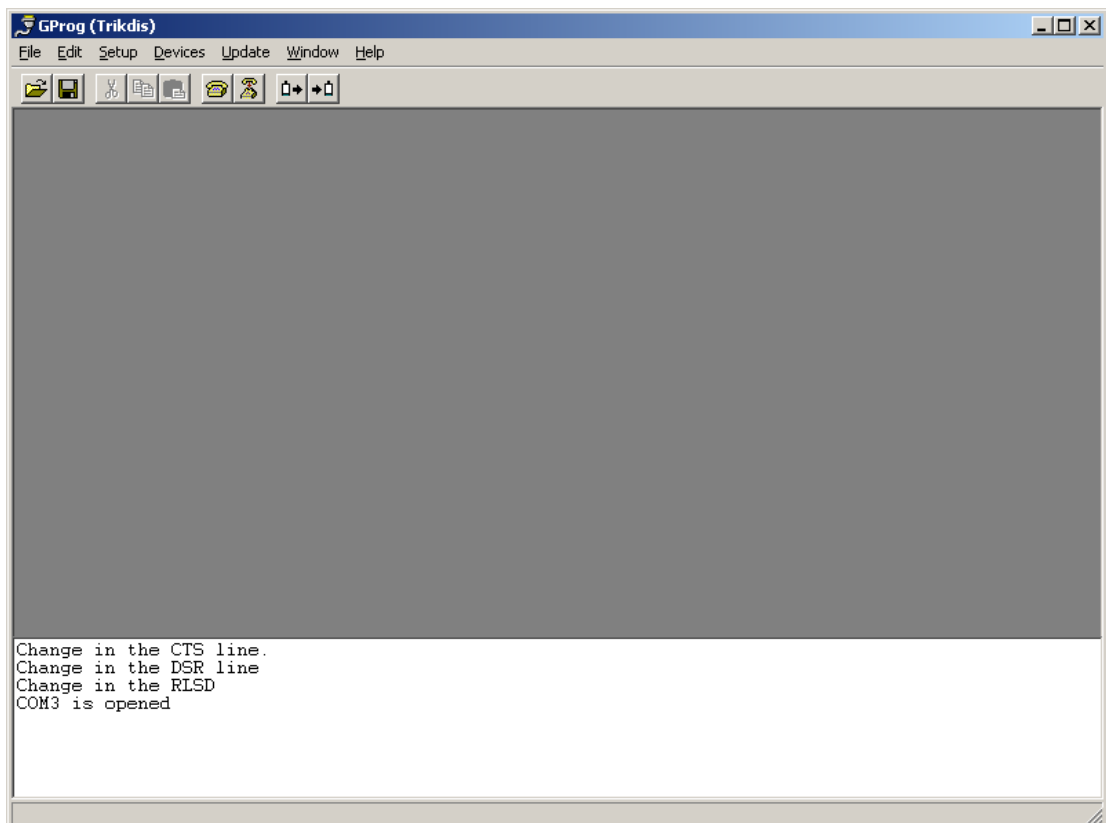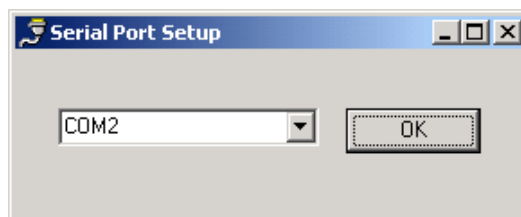

Figure 1. Window of parameter setting program GProg.

In the section *Setup/ Serial port* choose consistent computer port, to which you have chosen the programmed module.

In the section *Devices/ RI4010* choose module *RE2*. Press the button for retrieving information from the connected module (or choose *File/ Read Device*) and in the opened window you will see the image shown in Figure 2.

In this window it I possible to see the following:
- Subscriber number of the device (*Account Number* recommended 0000);
- Type of the reception module (*Receiver Number* recommended within the range 60 – 6F);
- Channel (line) number (*Line Number* recommended 1);
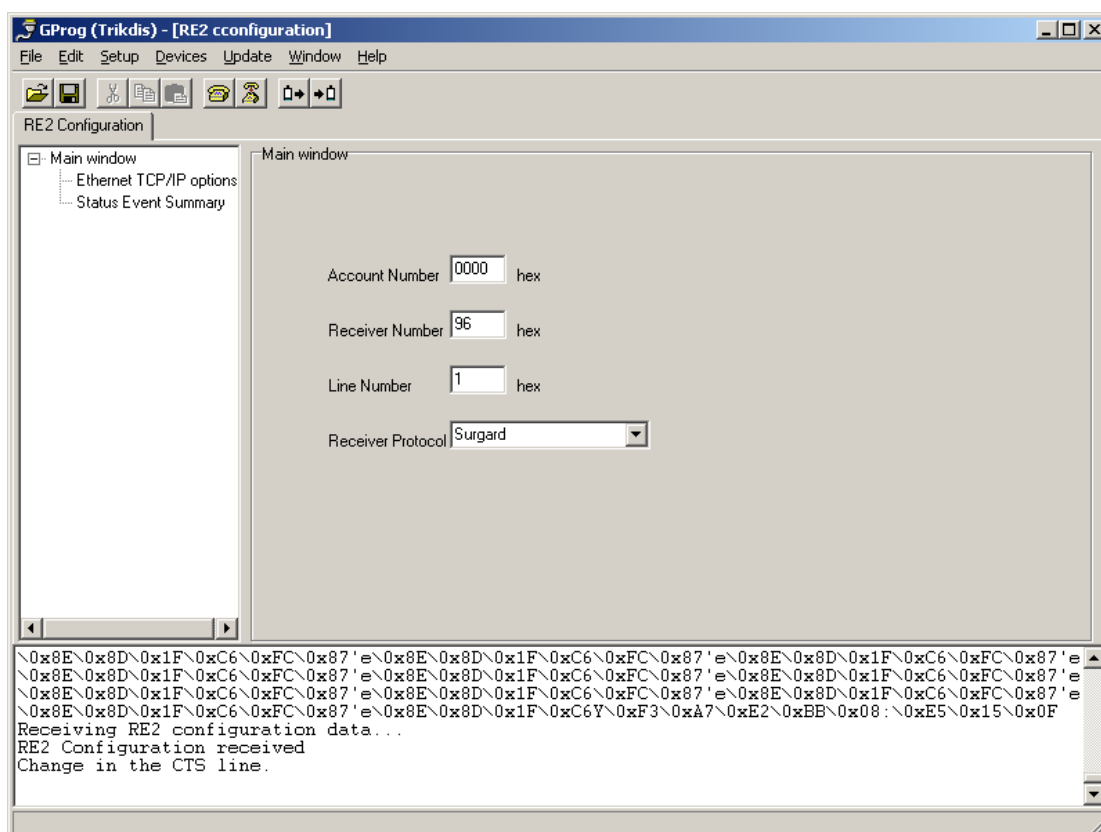- Protocol of the connection with the hub (*Receiver protocol* – must be Surgard);

Figure 2. RE2 programming window.

Choose *Ethernet TCP/IP options* and set the necessary addresses in the opened window (Figure 3).
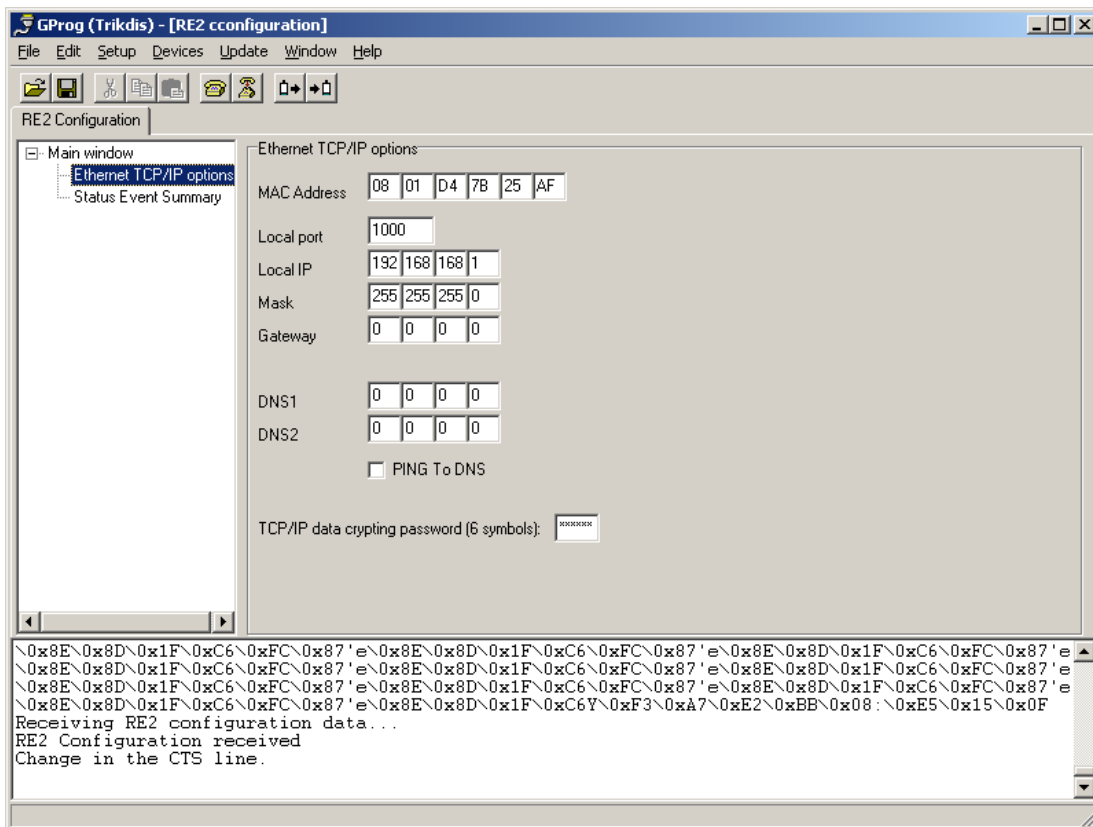

Figure 3. Settings of the addresses of reception module RE2.

Where:

MAC Address	MAC address of the device;
Local port	local port;
Local IP	local IP address;
Mask	mask parameters;
Gateway	address of the gate to open internet;
DNS1, DNS2	IP addresses of the servers;
TCP/IP password	data encoding password (initial 123456);

Also marking with a tick we can set an additional connection control into the nearest DNS server.

Choose *Status Event Summary* and in the opened window (Figure 4) you will see what official messages are sent by the reception module.
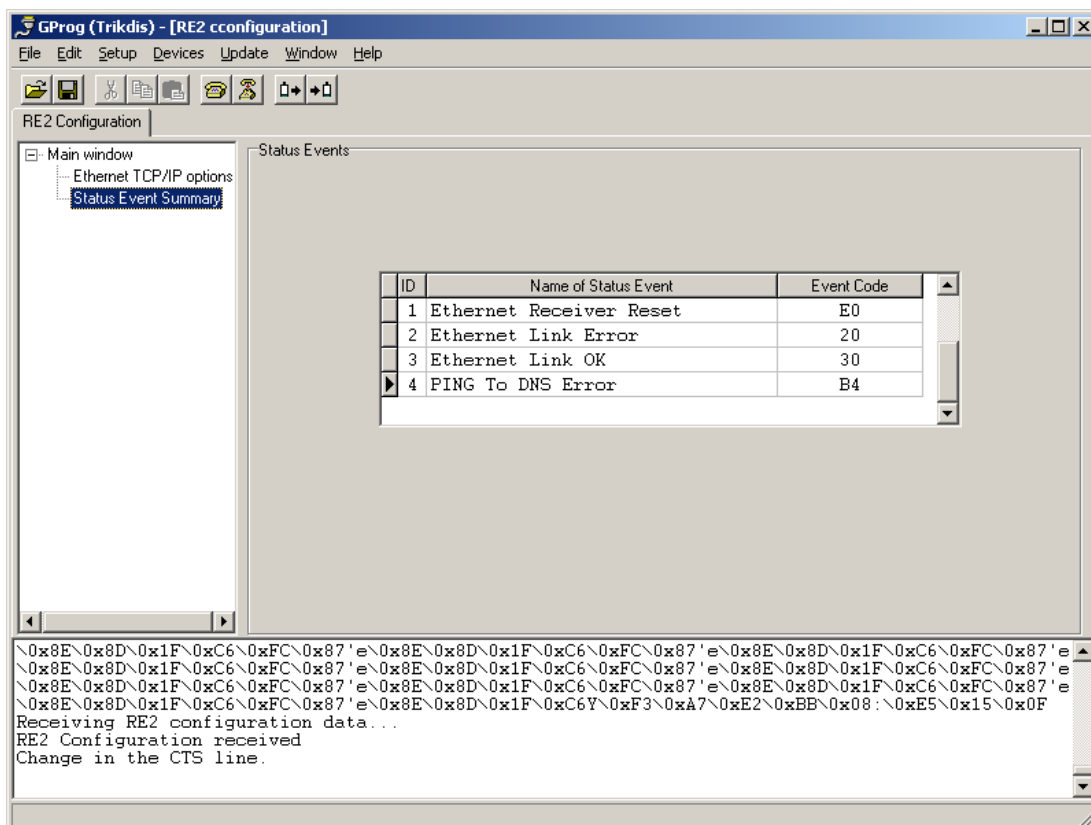

Figure 4. Official messages.

Insert the set parameters into the memory of reception module, pressing data recording button or by choosing *File/Write Device*.

Switch of the supply of the programmer and disconnect the programming cable. Insert reception module into multi-channel receiver and describe the data in centralised observation program.

ANNEX A		
Official TCP/IP messages of reception module RE2		
Message	**Code**	**Description**
COM TROUBLE	05	The communication of the device with the hub was disturbed
COM RESTORE	06	The communication of the device with the hub was restored
NET DISCONNECT	B4	Internet connection disappeared (only RE2)
MODULE DISCONNECT	C0	Device was disconnected
MODULE CONNECT	C1	Device was connected
MODULE RESET	E0	RESET button of the device was pressed