

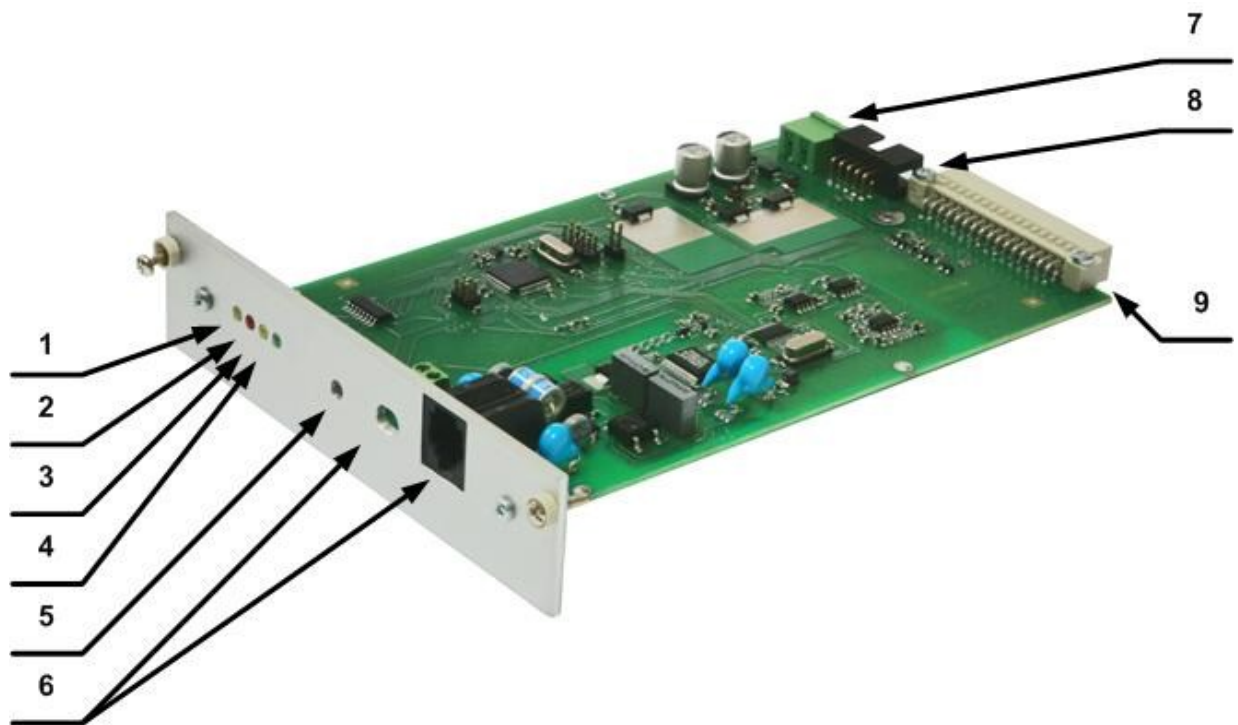
TELEPHONE LINE RECEIVING MODULE RT2

Telephone line Receiving module RT2

Receiving module is used as component of multi-channel receiver RM10 and RD10 and is designed for receiving of data being sent via telephonic lines.

Data exchange is being carried out via following protocols:

- Contact ID;
- Ademco Express 4+2;
- SIA FSK;
- Pulse 3/1, 4/1, 4/2 protocols;



- 1 – Yellow LED for line control;
- 2 – Red LED for handset lift;
- 3 – Yellow LED for data reception;
- 4 – Green LED for power supply and operation;
- 5 – RESET button of the device;
- 6 – Connector for peripheral device;
- 7 – Power supply connector;
- 8 – Programming connector;
- 9 – Connector for concentrator;

Description of operation principles and key features

Receiving module RT2 is a device, providing receiving of reports from telephonic communicator of security control panel. Information is being processed (provided communication according to selected protocols) and transferred to concentrator of multi-channel receiver.

Microcontroller performs processing of signals. It recognizes data being transferred and generates messages of set structure, which via serial port are being transferred to concentrator of multi-channel receiver either RD10 or RM10.

Receiving module RT2 has no any programming filters.

Specifications

1. Receiving module RT2 provides data reception from security control panel to centralized monitoring station via telephonic lines. Type of telephone line is tonal or pulse.

2. Receiving module RT2 operates with lines with operating voltage up to 65V and maintains alternating call voltage up to 250V.

3. Receiving module RT2 receives messages being transferred via telephone lines by using following protocols:

- Contact ID according to standard SIA DC-05-1999.09;
- Ademco Express 4+2;
- SIA Format according to standard SIA DC-03-1990.01 1st. and partially 2nd. levels;
- Pulse 3/1, 4/1, 4/2 protocols, operating at the speed of 10... 40 bauds and by using 1400 Hz or 2300 Hz HSK and kissoff signals.

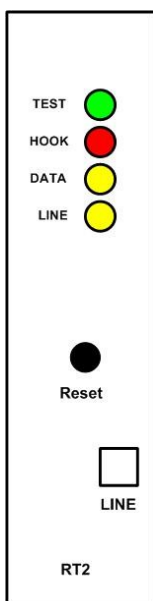
4. Receiving module RT2 should be mounted either into multi-channel receiver RM10 or receiver RD10 and is powered with its 12,6 V voltage. Permissible voltage variation is from 11 to 15 V. Current not exceeding 150 mA.

5. Receiving module operates at the temperature range from -10 C to +55°C under relative humidity up to 90% near +20°C.

6. Overall dimensions of the module do not exceed 190 x 130 x 30 mm.

Light indication

Receiving module RT2 has four LEDs.



Yellow (1) lights constantly under properly functioning telephone line

Red (2) lights constantly if handset is lifted.

Yellow (3) flashes during data reception from peripheral device.

Green (4) flashes in short periods under power supply voltage on and under operation of processor.

Preparation for operating

Receiving module RT2 should be delivered to the user regularized to receive report from communicator of security control panel:

- first, via SIA Protocol format;
- second, via Contact ID or Ademco Express formats;
- third, pulse protocols 3/1, 4/1, 4/2, which use 2300 Hz HSK signals;
- fourth, pulse protocols 3/1, 4/1, 4/2, which use 1400 Hz HSK signals;

Exploitation parameters of the module are available in table 1.

Preparation for operating:

1. Unpack the module;
2. Specify and if necessary set necessary exploitation parameters of the module;
3. Unscrew decorative lid from the rear panel of the multi-channel receiver and put the reception module.
4. Press RESET button;
5. Connect peripheral device;

The receiving module generates service messages, indicated in annex A

Received messages are displayed on the monitor of multi-channel receiver and transferred to the centralized monitoring program.

1 Table

Exploitation parameters of the receiving module RT2		
Title	Permissible range	Set value
number of calls while handset of the module will be lifted	1 - 8	2
telephonic line control on/off	enable / disable	enable
time from handset lift till start of HSK signal	500 ms – 4000 ms	2000
duration Kissoff (and confirmation) signals	500 ms – 8000 ms	900
time period between HSK signals	1 s – 16 s	4
permissible duration of message reception	2 s – 16 s	2
SIA HSK duration	500 ms – 2000 ms	900
common time limit for a single communication session	15 s – 255 s	60 s
Time limit for reception of SIA blocks	1 – 32 s	8 s
HSK order (priority of reception protocols)	SIA FSK HSK	SIA FSK HSK
	Dual tone HSK (1400+2300 Hz)	Dual tone HSK (1400+2300 Hz)
	3/1, 4/1, 4/2	2300 Hz
	3/1, 4/1, 4/2	1400 Hz

Indication of received message

View of the message, generated by the module RT2 and displayed on the LCD monitor of multi-channel receiver RD10 (or RM10) is presented below:

40-5 MODULE RESET

Herein:

- 40 - Type of reception module (RT2 type 40);
 - 5 - Channel (line) number;
- MODULE RESET – service message;

The content of the message, generated by the module RT2 and displayed on the LCD monitor of multi-channel receiver RD10 (or RM10) is presented below:

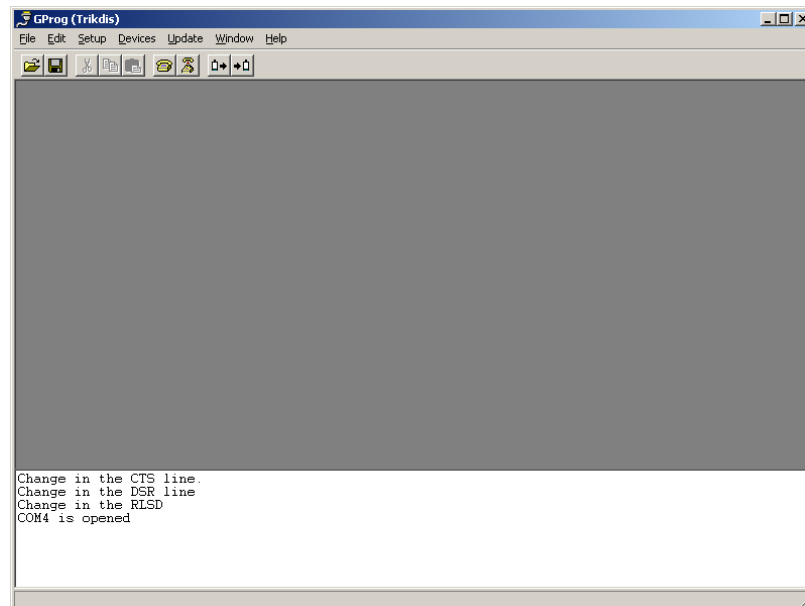
Herein:

- 40 - Type of reception module (RT2 type 40);
- 1 - Channel (line) number;
- 12:38:15 - Reception time;
- 7678 – Account number;
- E130 – Event code;
- 01 – Subgroup number;
- 001 – Event place or number of user's code

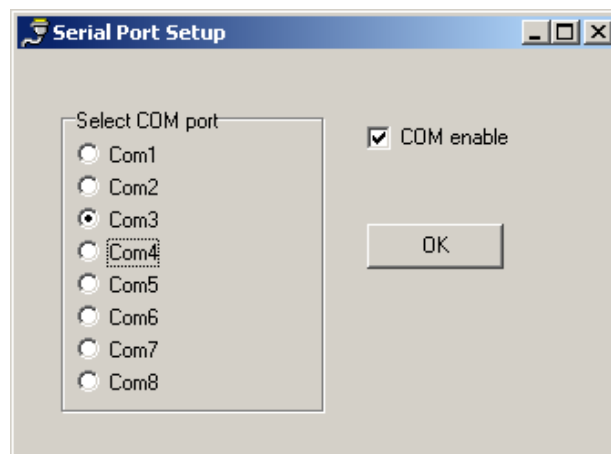
Setting of exploitation parameters

Exploitation parameters of the module RT2 should be set by using programming device SPROG-1 and application of exploitation parameters setting GProg.

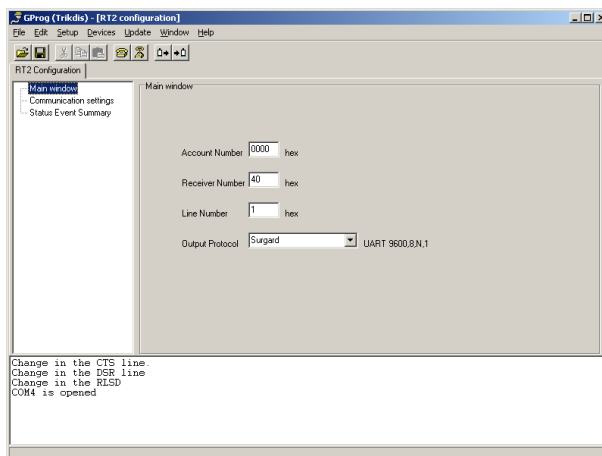
By using programming cable couple programming port of the RT2 module with the programming device SPROG—1 and activate application GProg.



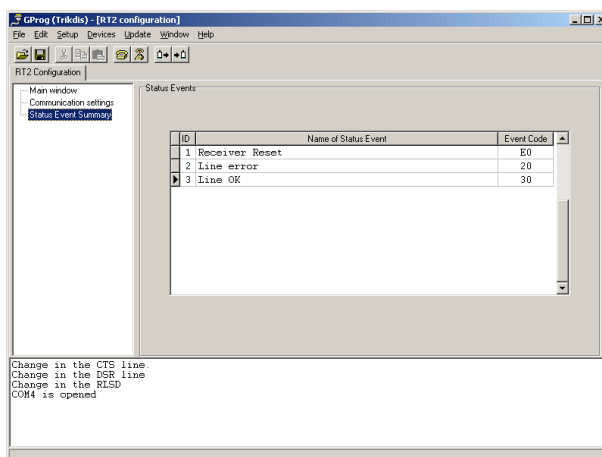
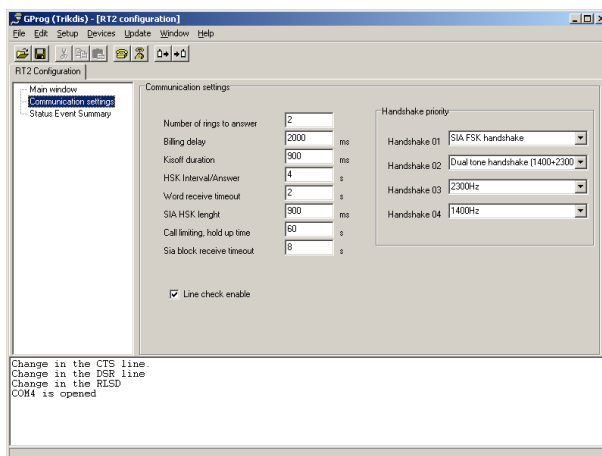
Go to *Setup*→*Serial port*; window of serial port will be displayed. Set number of communication port, the device is connected to.



Select programmable device *Devices*→*RI4010*→*RT2* and read its exploitation parameters by pressing button [Read].



When the module operates as components of multi-channel receiver, set Surgard protocol.



Under necessity, parameters may be changed. Enter changed parameters by pressing button [Write].

A Annex

Service messages of telephonic communication reception module RT2		
Message	Code	Description
COM TROUBLE	05	communication failure between the device and concentrator
COM RESTORE	06	Communication with the concentrator restored
TEL LINE ERROR	20	Telephone line failure or disconnection
TEL LINE OK	30	Telephone line restored
MODULE DISCONNECT	C0	Device disconnected
MODULE CONNECT	C1	Device connected
RT2 RESET	D0	RESET button of RT2 module is pressed