IPR-5000

Internet-based SIA DC-09

monitoring receiver

User manual v1.0

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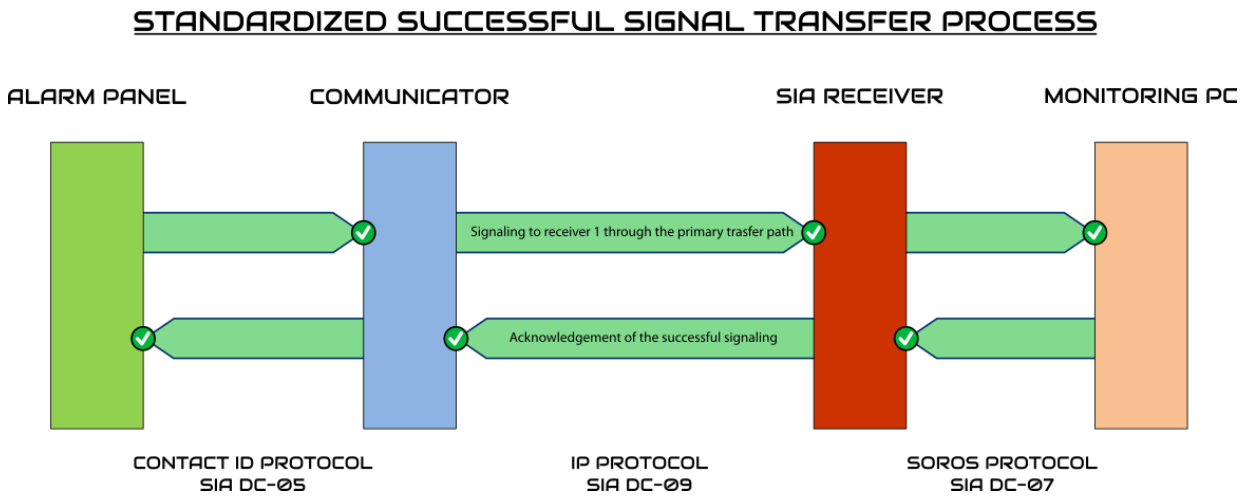
1 Basic information

The IP-based monitoring receiver uses one of the most widely-used standardized protocol, SIA DC-09. It translates signals received from the alarm system (with the exception of test signals) into serial line SIA DC-07 data and forwards it to the monitoring PC. It also sends back the monitoring PC's acknowledgement (called "kiss-off") to the alarm. Connection is made possible through USB, so even though a serial protocol is used, there is no need for a serial line card in the monitoring PC.

1.1 Main features

- Monitoring and signal reception from up to 5000 endpoints (through TCP or UDP connection)
- Shutting down IP connections after signal transfer finishes
- Continuous monitoring of Internet/network connections
- Monitoring test signals
- Incdication of devices and their status (ONLINE if they are active/OFFLINE if they lost connection)
- Blocking individual end devices to filter out unwanted communication
- Encryption (AES-128 or AES-256)
- Configuration at the spot or through network by a web browser
- Static or dynamic (DHCP-based) IP addressing
- USB port / USB connector for PC connection
- SECURECOM IP communicators' signal receiver

1.2 The IPR-5000 receiver's role in the signal transfer process

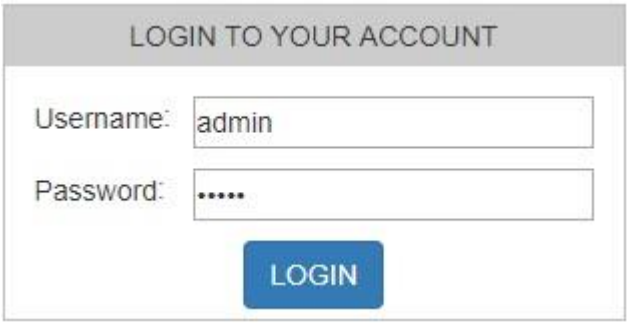


2 Installation manual

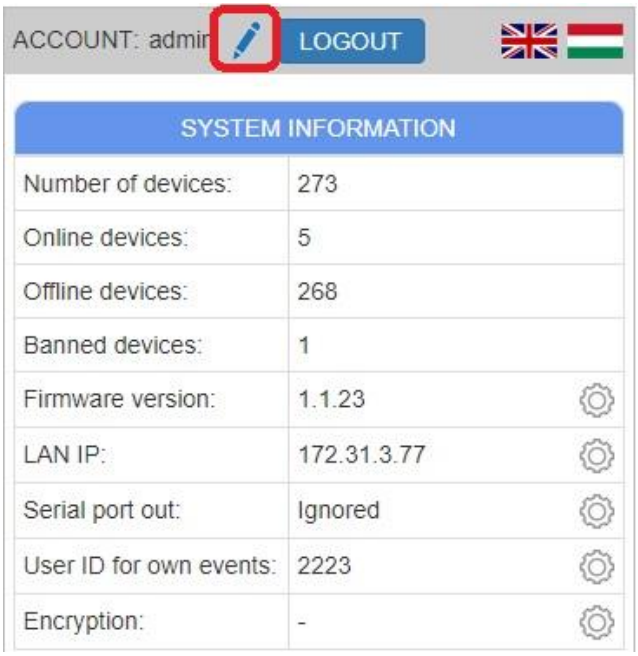
2.1 Startup

Requierements for successful startup:
- PC monitor with HDMI port and cable
- USB keyboard
- USB mouse
- UTP cable with RJ-45 connectors for local network access

The receiver is a small computer, so peripherals must be connected to it for configuration. After the initial configuration, when the receiver becomes accessable from the local network, peripherals are no longer necessary.
The power supply and the USB cable in the package are also needed for configuration. Startup is possible after all cables are connected.
Important: The device has a Linux-based operating system and therefore needs to be shut down properly everytime to avoid permanent damage in the software! It is highly advised to connect the device to an uninterruptable power supply.
After startup, the following login screen appears:

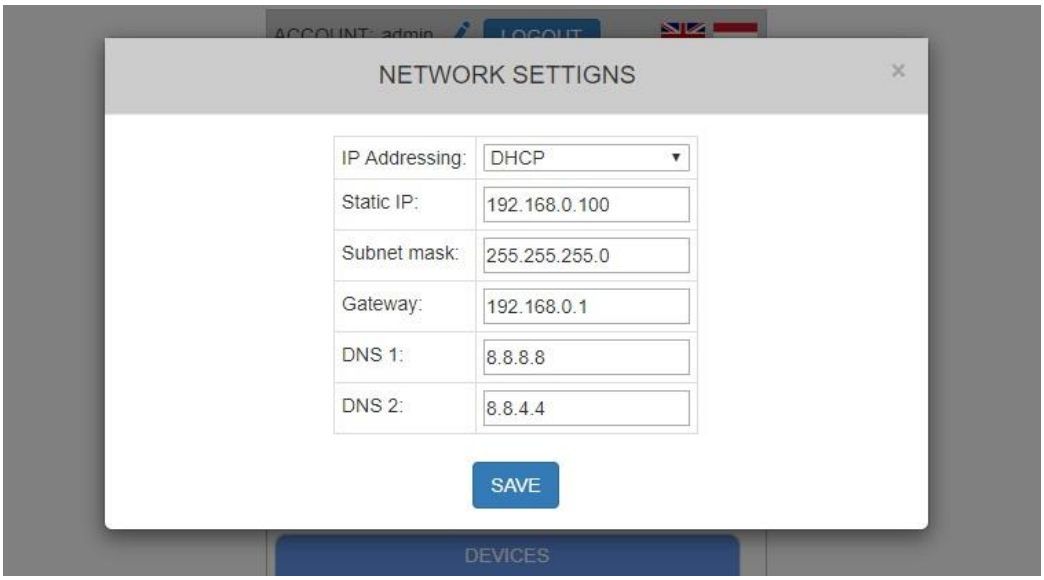


The factory settings are the following:
Username: admin
Password: admin
These settings can be changed after login.



2.2 Internal network settings

The installation process of the receiver is conducted on remote management's private network (usually by using an IP address from the 192.168.x.x address pool). Configuration varies on networks with static or dinamic IP address allocation schemes. Static IP addressing requires the IP address to be specified manually for the device. Dynamic IP addressing uses a DHCP server to allocate IP addresses.
IP address configuration is possible through the ***LAN IP*** menu item on the main screen.



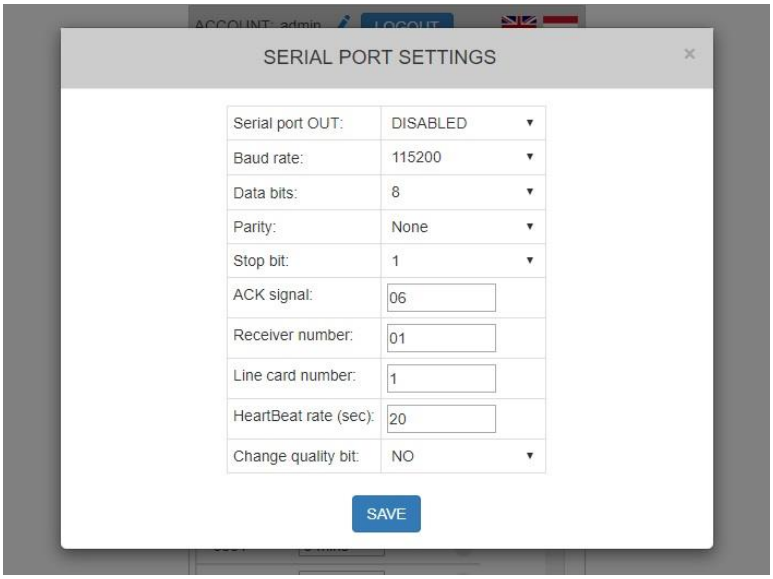
2.3 External network settings

External access to the IPR-5000 receiver is possible through port forwarding. Port forwarding must be enabled and configured for the port used by the receiver on remote management's router. Practically this means that requests received from the end devices are directed towards the receiver's private IP address through specified ports.
(Example: 52.28.118.208:7777 -> 192.168.1.100:9999)

The IPR-5000 receiver uses the following ports:
TCP: 9999 or 19999
UDP: 9998 or 19998
Important: redirection uses either TCP or UDP protocol and its respective ports. Using both at the same time is not possible.

2.4 Connection setup with a monitoring PC

A USB cable is enclosed for making communication possible between the IPR-5000 receiver and the monitoring PC. The cable is a USB-SERIAL-USB converter made for this specific purpose. After the connection is established, the PC's operating system creates a COM port, which needs to be configured by the monitoring software in order to be able to access the receiver. Communication will be conducted through this connection. The connection must also be enabled on the IPR-5000 receiver's interface in the „Serial port output" menu item.

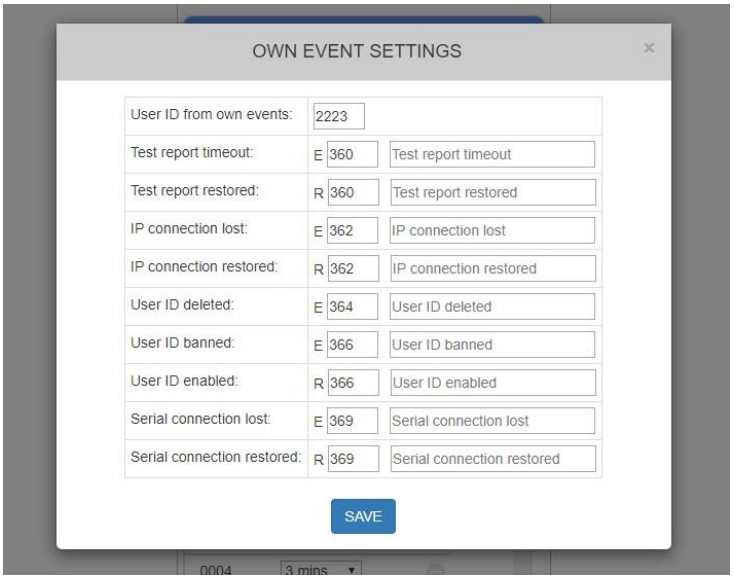


Transfer speed can be set between 1200 and 230400 baud.

In case the serial output is disabled, the computer acknowledges each endpoint as an individual receiver. Test signals are acknowledged by the IPR-5000 receiver, so under normal circumstances, they are not forwarded through the serial line. When the receiver doesn't receive a test signal from an end device, it sends an error message from connection loss containing the endpoint's client ID to the monitoring PC through the serial line. It does the same when connection is restored.

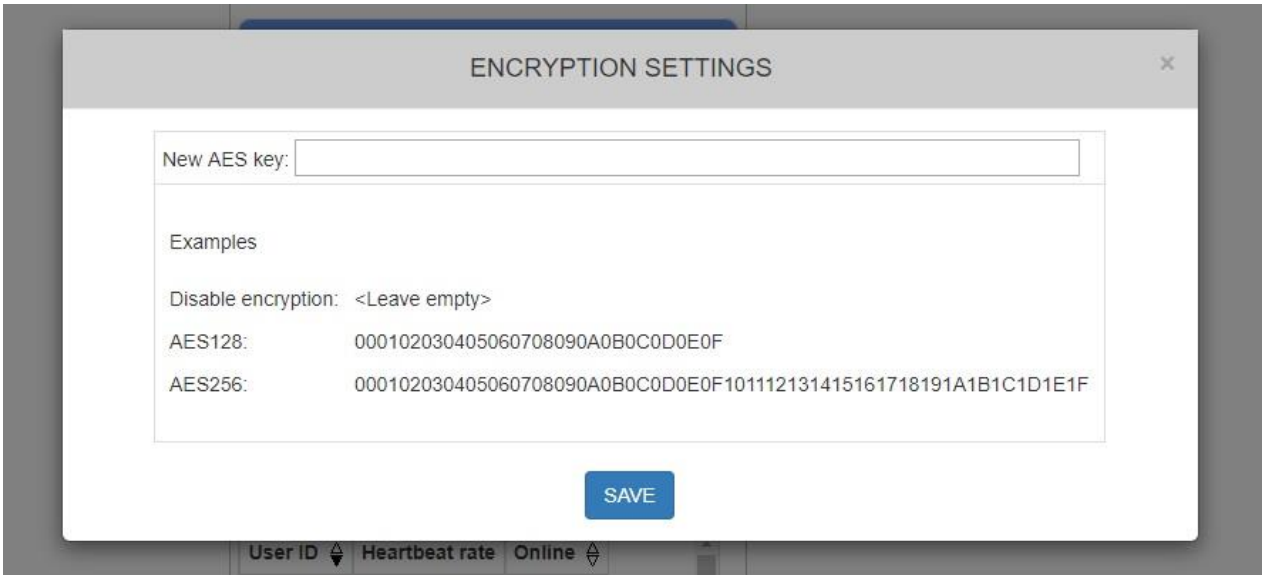
2.5 Own events

In the „User ID from own events” menu, signals generated by the receiver and sent to the monitoring PC can be edited. A client ID (similar to the end points') must be assigned to the receiver. Reports coming with the receiver's client ID contain the receiver's own events (usually reports come in pairs: the first one is from an error, the second one is from restoration).



2.6 Communication encryption

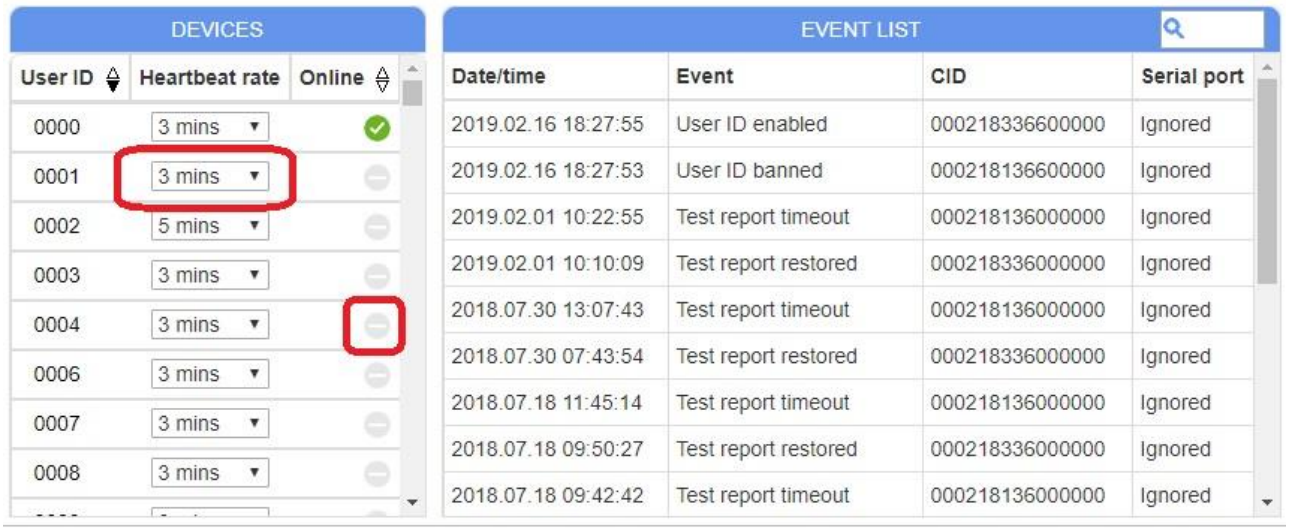
In the „Encryption” menu, AES-128 and AES-256 options are available to make communication safer.



When an encrypted message is received, the acknowledgement will also be encrypted if encryption is active. Non-encrypted messages will be acknowledged according to the SIA protocol.

2.7 Account settings

The end devices' test signals can be individually monitored or blocked using the graphical menu next to the devices' client IDs.



3 Contents of the package

- IPR-5000 receiver
- Power supply
- USB-SERIAL converter cable
- User manual

Additional information and services:

http://puloware.com

http://siatest.securecom.eu