12:45

12:45

12:45

WEB Interface

Energy cost map

Energy cost weekly statistics

ELENOS

World Broadcast Experience

USER MANUAL

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WEB interface

Revision

No.	Date (dd/mm/yy)	Description
0	30/11/2017	First release

Contents

This volume collects information about Elenos' equipment web interfaces.

Whereas all product lines that allow remote control share a basic core of pages, it's subdivided in sections.

The first part includes common features, while the following ones show the specifications for each product line.

Naturally, some pages may look different or removed, depending on models, installed options or operating modes set.

In addition, their appearance may differ slightly due to updates after the date of issue of this manual.

Whereas the web interface acts on the same locally controllable parameters, please refer to the user manual for more details.
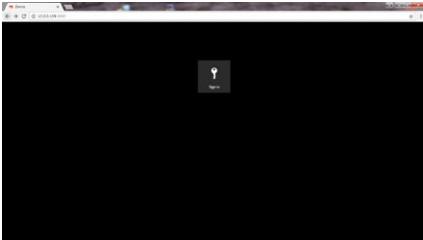
Index

CHANGEOVER

WEB interface

Index

COMMON FEATURES

POWER MANAGEMENT

EXCITERS LINE

CHANGEOVER

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WEB interface

1 Common Features

Fisrt connection via web

Account management

General parameters

SNMP

And more...

1.1 Remote control - first connection

Connect a PC to the LAN or to the equipment directly by an Ethernet cable, start a browser and enter the default IP address (see the label on the equipment).

Press the "Sign in" button to start the connection.

Fields marked with (*) are required.

Enter default Username and Password (see next page for details).

| **WEB interface**

The factory settings are:

Default Username: **admin**
Default Password: **adminadmin**

Note: the first connection must be performed by the administrator in order to define the user accounts and their respective levels of authorization.

Default Username and Password must be redefined by the administrator.

The length of Username must be (characters):   5 (min) to 15 (Max)
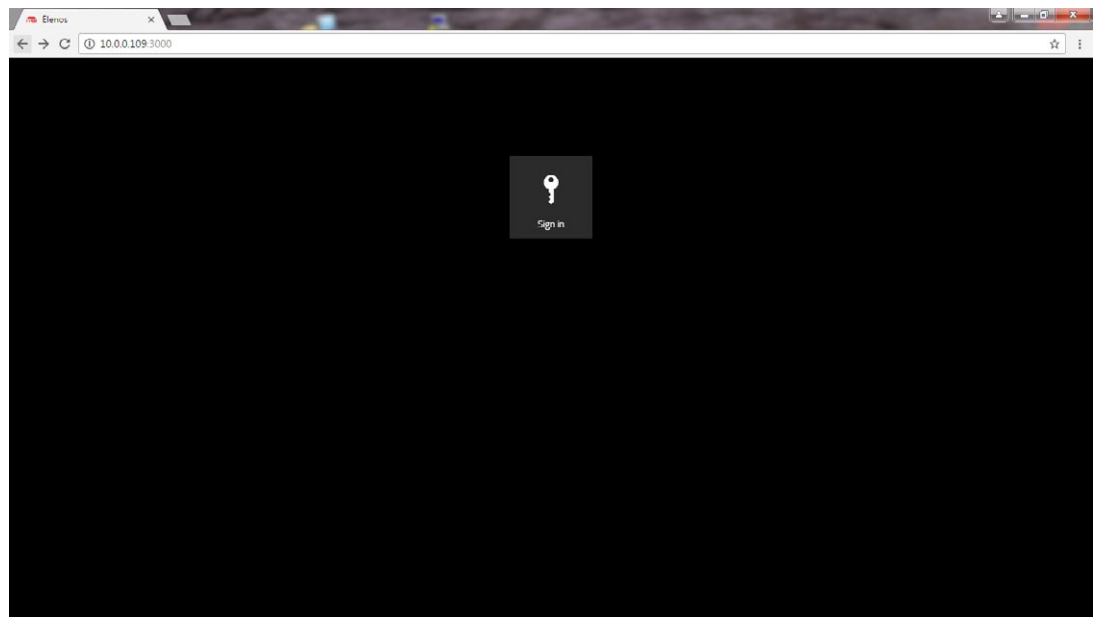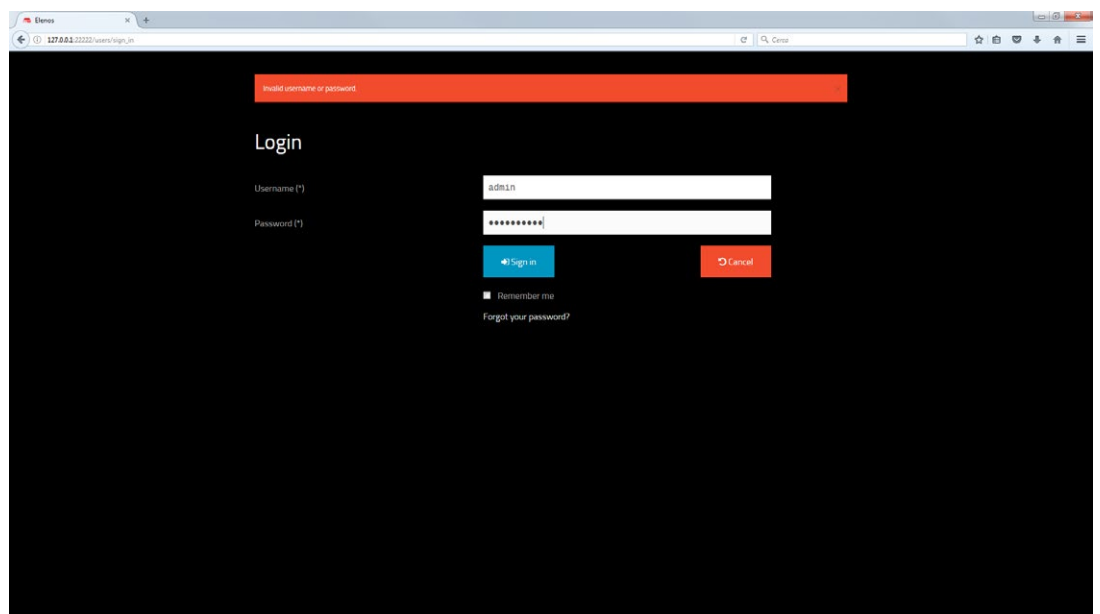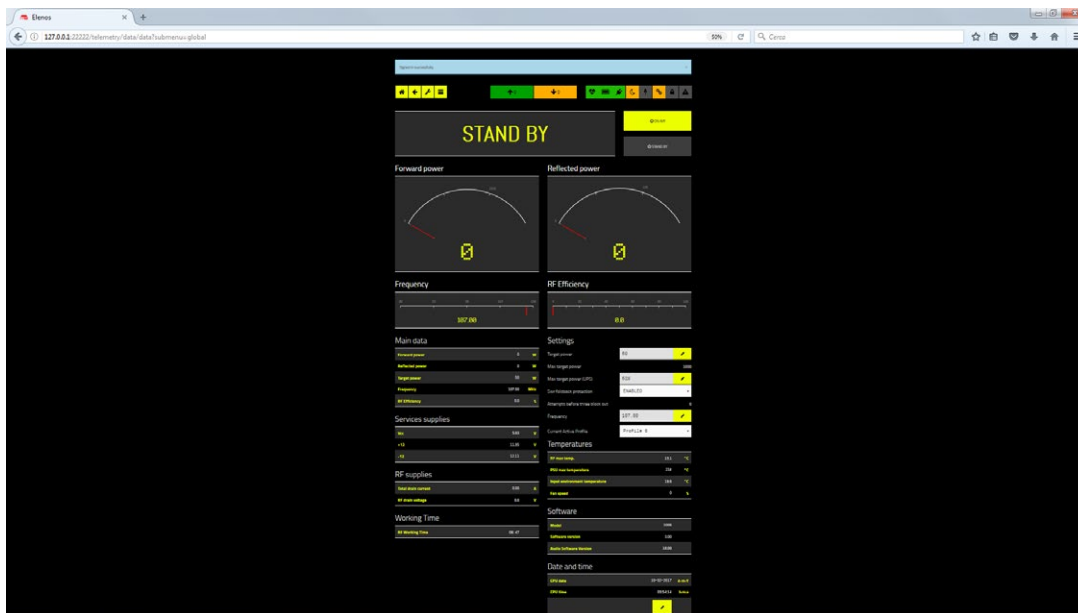The length of Password must be (characters):   5 (min) to 15 (Max)

**Only uppercase, lowercase, numbers and symbols "-" and "_" for Username.
Any character is valid for the password.**

NOTE: from this point on, the contents of some screens may show differently depending on the type of connected device.

In this first section are grouped the common functions for all the equipment. The main menu screen may appear similar to one of the above.

Main screen. Its contents may depend on the type of connected equipment (exciter, amplifier, combined transmitter, etc ...).
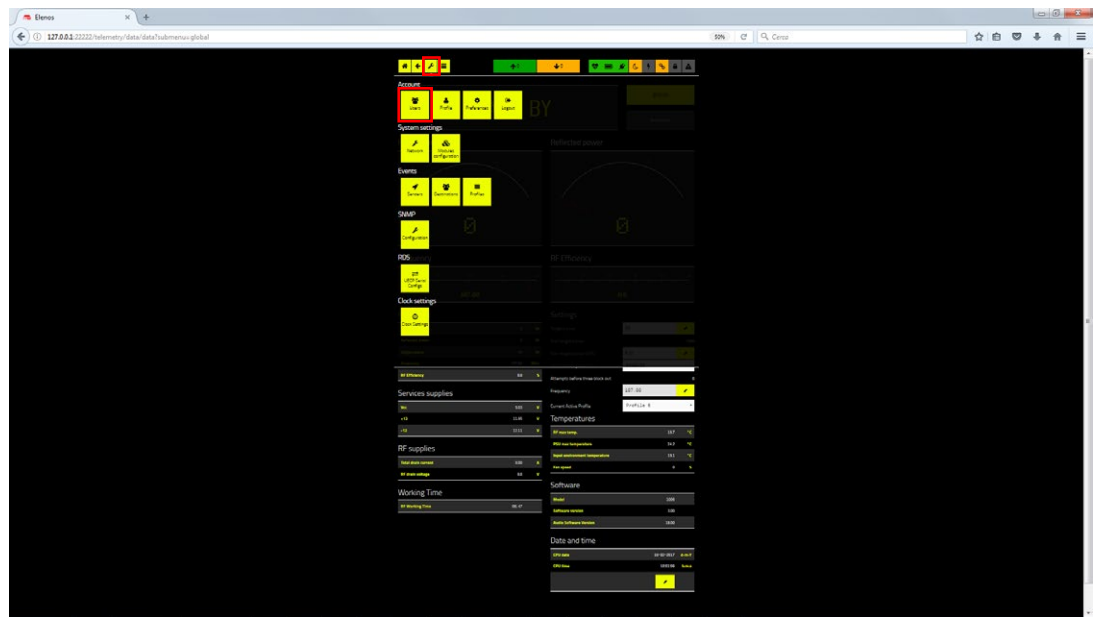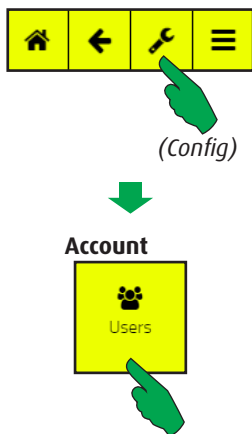Fields marked with the pen symbol are writable by pressing on their yellow button.
"On air" and "Stand by" functions are selectable by correspondig buttons when they are lit up yellow.
Most of the contents is common to all equipment. Layout may be a little bit different.

1.2 Browsing and configuring

1.2.1 Users management

(Config)

Account

Users

To create, delete or modify user accounts.
In the main screen, first select the "Config" button, then the "Users" button in the "Account" bar.

Add

(Add)

(Edit)

(Preferences)

(Delete)

Select "Add" to insert a new user/manager; "Edit" to modify an existing one, or "Preferences" to change the parameters. "Delete" button removes the current record from the list, after confirmation.
See next pages for more details.

WEB interface

1.2.1.1 Adding a new user/manager

After selecting the type of user to be added, as shown on the previous page, the following screen appears.

(Save)

(Cancel)

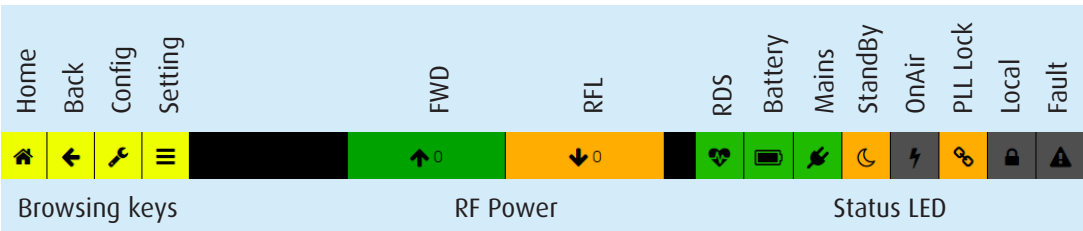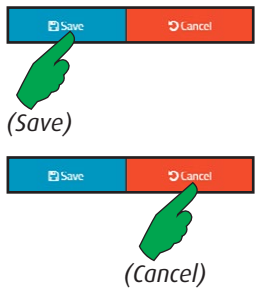
Home	Back	Config	Setting		FWD	RFL		RDS	Battery	Mains	StandBy	OnAir	PLL Lock	Local	Fault
🏠	←	🔧	≡		↑ 0	↓ 0		💗	🔋	🔌	🌙	⚡	🔗	🔒	⚠
Browsing keys					RF Power			Status LED							

Top status bar including browsing keys. The status LEDs may depending on the type of equipment.

For each new user/manager must be entered the following items:

- Username   (required)   ●●...● (5 min) to ●●...● (15 max)
- Email   (required)   Any valid e-mail address
- Role   (required)   Selectable via menu
- Phone number   (optional)   Any valid international phone number
- Password   (required)   ●●...● (5 min) to ●●...● (15 max)
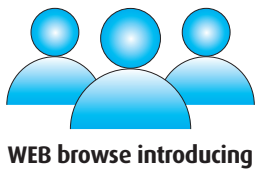- Password confirmation   (required)   Like above

Press the "Save" button to confirm or the "Cancel" button to abort the operation.

◆ HIERARCHICAL CRITERION

3 authorization levels are available:

- User, who can access the screens in read-only mode;
- Manager, who can access the screens also in write mode but only for the equipments assigned to him;
- Administrator, who can also create accounts; modify the Ethernet network parameters, the Hostlink and SNMP ones if present.
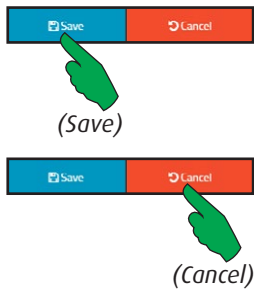
Users (accounts) can edit the their own password and preferences.
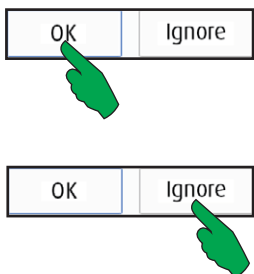

WEB browse introducing

1.2.1.2 Editing/deleting an existing account

All users, managers and administrators can change their own password. The rest of parameters can be edited only by members with higher levels of authorization.

(Save)

(Cancel)

The value of fields can be modified in according to a valid format.
To not changing the password, leave blank the field "Password".
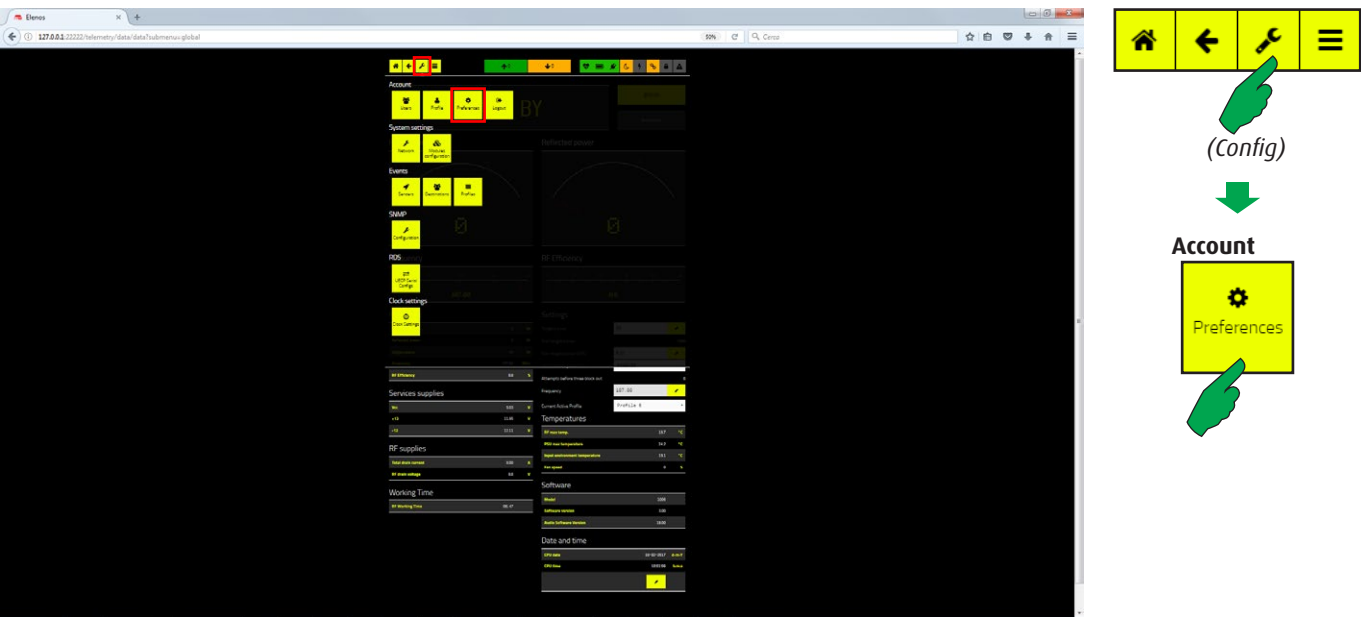Press the "Save" button to confirm or the "Cancel" button to abort the operation.

To delete an account, after selected "Delete" button, choose "Ok". To abort the operation, press the "Ignore" button.
WARNING: if you press the "Ok" button, the account will be permanently deleted!

WEB interface

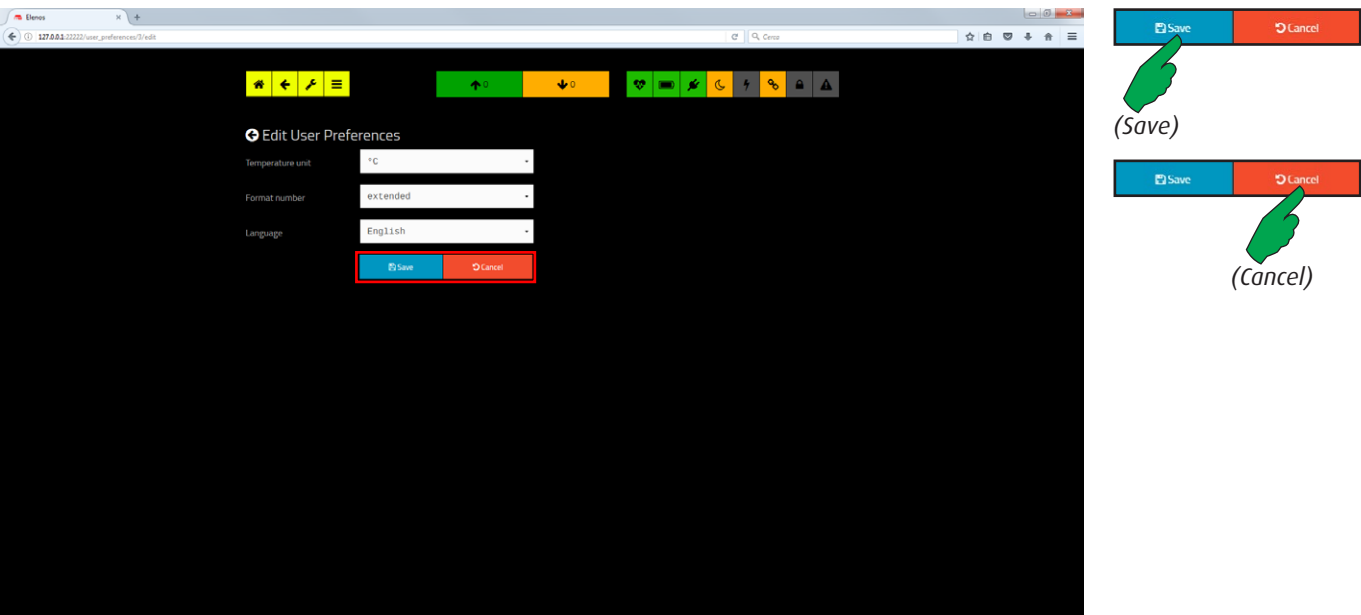## 1.2.2 Editing the user's preferences

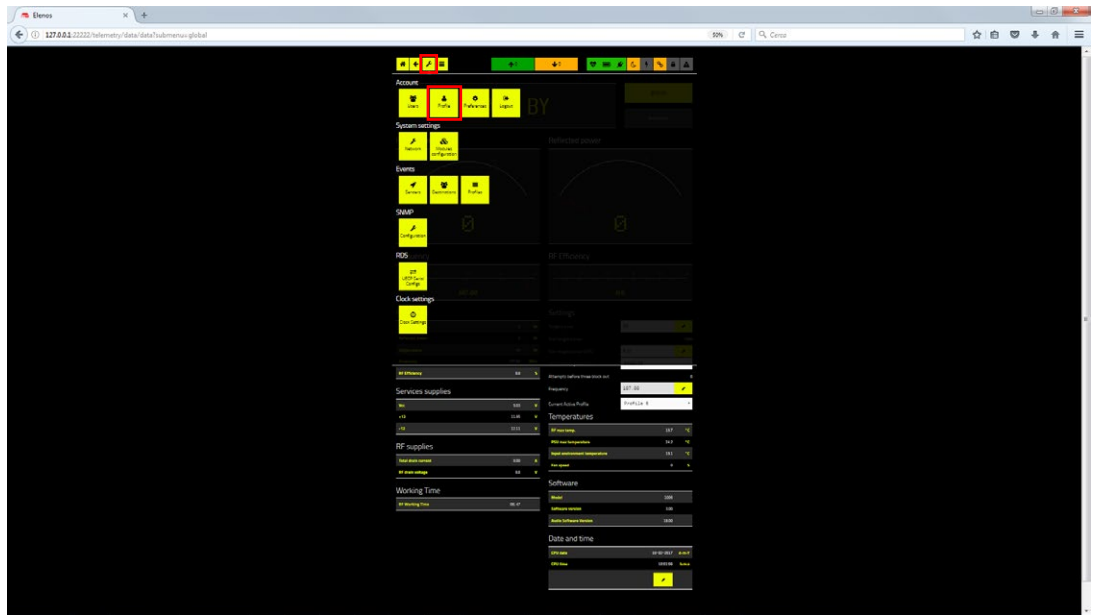Some parameters of the user's accounts are customizable.
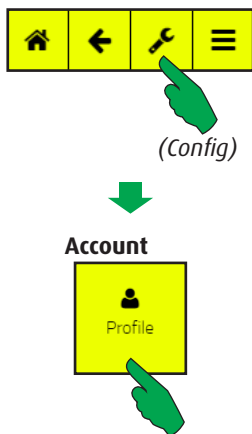

To change the user's preferences press the "Preferences" button in the "Account" bar of config menu.
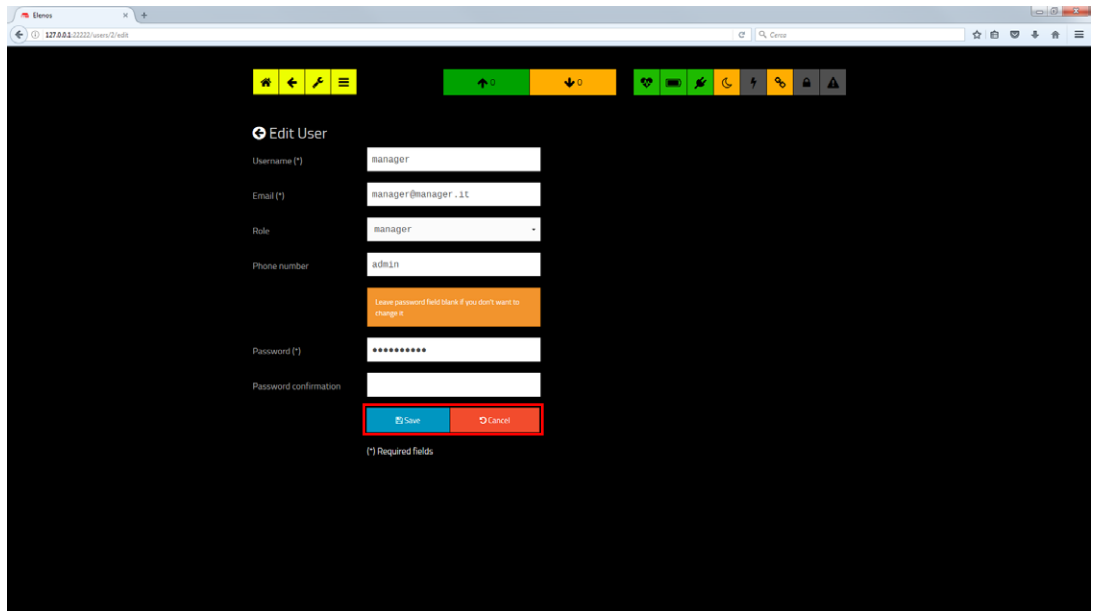

For each one it's possible to choose the scale of temperature, the format of telephone number and the language of messages.
Press the "Save" button to confirm or the "Cancel" button to abort the operation.

1.2.3 Reconfiguring the own account.

Editing own parameters.

(Config)

Account

(Profile button)

Each user is authorized to change parameters of the own account, such as Password or Username.

(Save)

(Cancel)

If you don't want change the password, leave blank its field. All the fields marked with an asterisk are required. The email address must be written in a valid format.
Press the "Save" button to confirm or the "Cancel" button to abort the operation.

WEB interface

1.2.4 Logout / System Settings

Stopping the connection

(Config)

Account

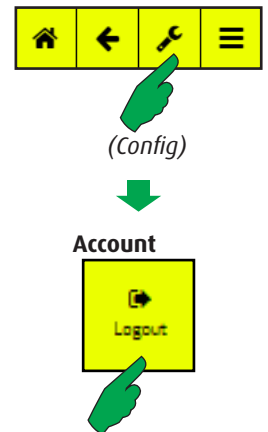To exit from the user account, press the "Logout" button in the "Account" bar of the Config menu.

(Config)

System settings

First select the "Config" button, then the "Network" button in the "System settings" bar. IP address, Netmask and Gateway are here editable.
Only the local network administrator is authorized to change this data.

1.2.5 Network Interface / RDS-Streaming Interface (OPTIONAL)

Network parameters and internal configuration of equipment (optional boards installed).
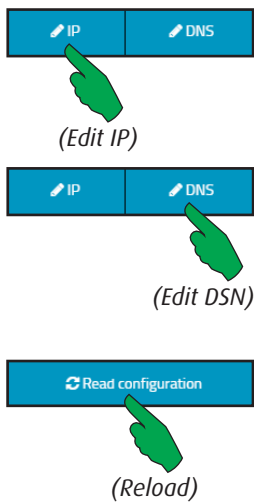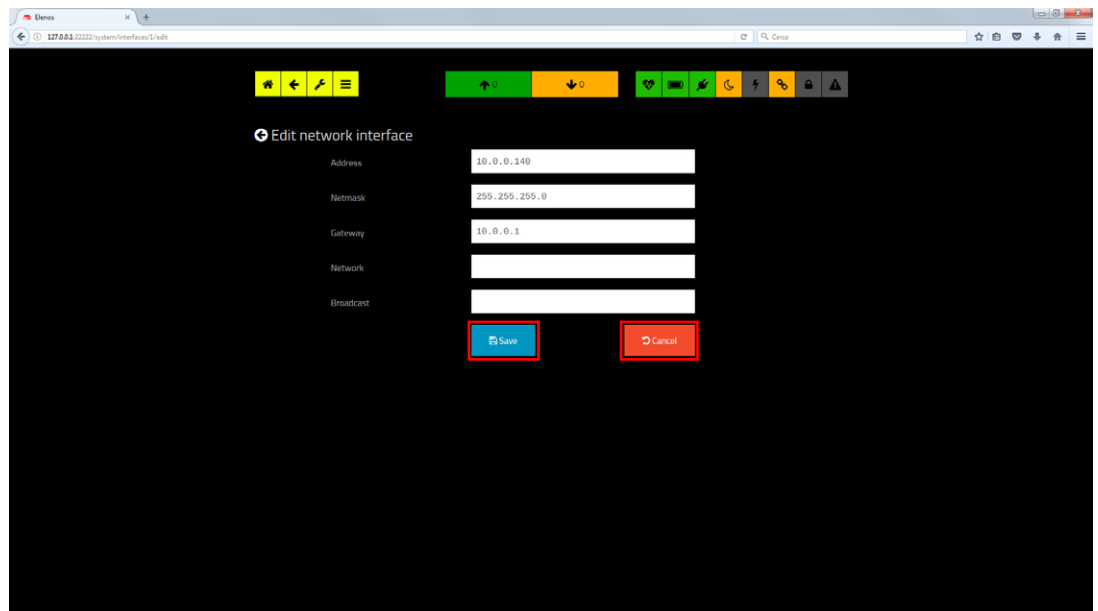

(Edit IP)

(Edit DSN)

(Reload)

By pressing the "network" button, you access the network configuration page and the streaming interface.

(Save)

(Cancel)

The factory default is: 10.0.0.138 - 255.255.255.0 - 10.0.0.1. In this screen it's also possible to enter additional non-mandatory information on the LAN (Network and Broadcast). Press the "Save" button to confirm or the "Cancel" button to abort the operation.
When the address is changed the connection must be restarted with the new one.

WEB interface

1.2.6 Modules configuration

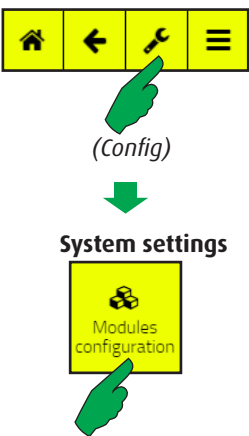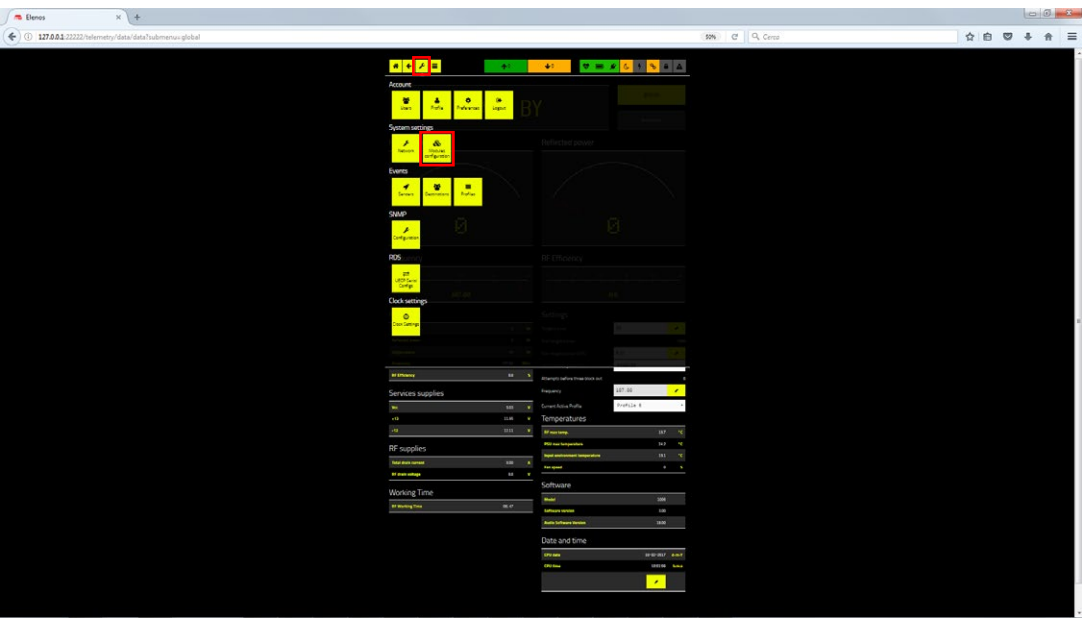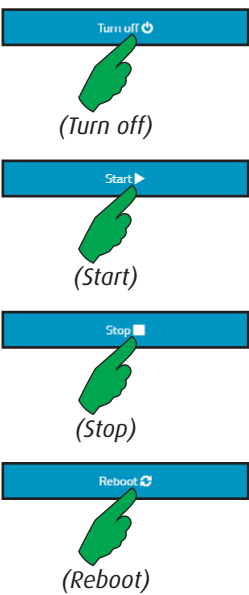The equipment may be provided in basic configuration or with optional modules.
The list of modules displayed depends on the specific configuration.

(Config)

System settings

Modules configuration

For their managing, first select the "Config" button, then the "Modules configuration" button in the "System settings" bar.

Turn off ⏻

(Turn off)

Start ▶

(Start)

Stop ■

(Stop)

Reboot ⟳

(Reboot)

NOTE: this mask may look different depending on models. Some of these buttons could not be present in device such as amplifiers. Also options installed may influence its look.
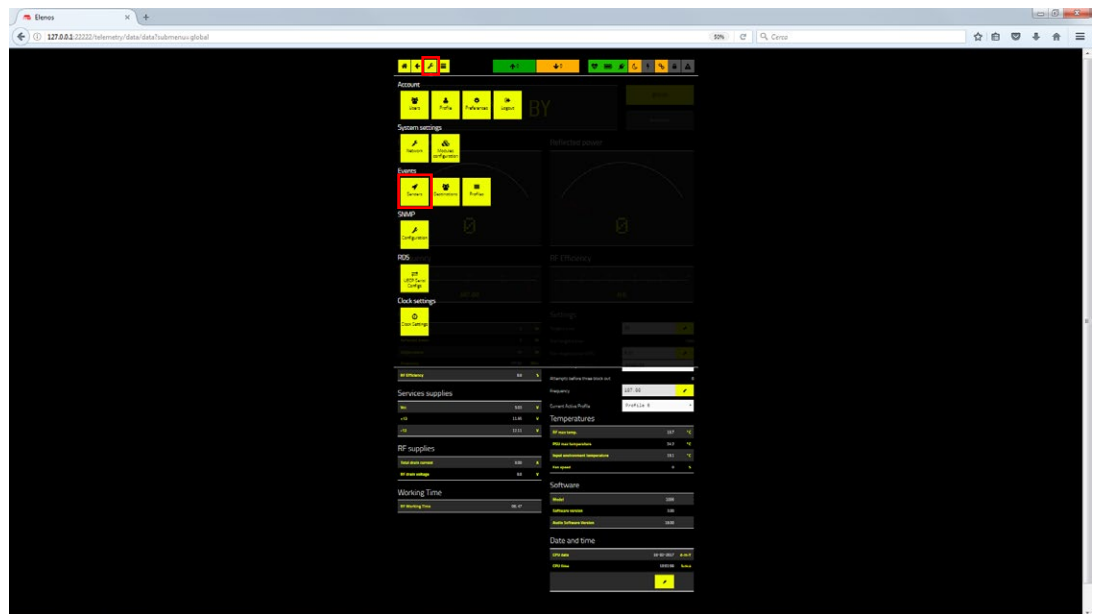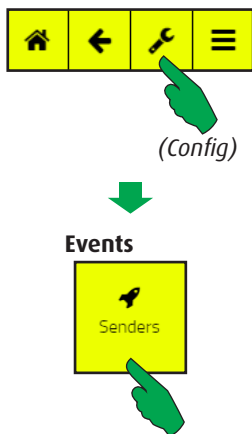
The first one is composed by hardware and firmware. Hardware can be rebooted and turned off; firmware (Telemetry agent) cab be started, stopped and rebooted.
The second one may only be rebooted.
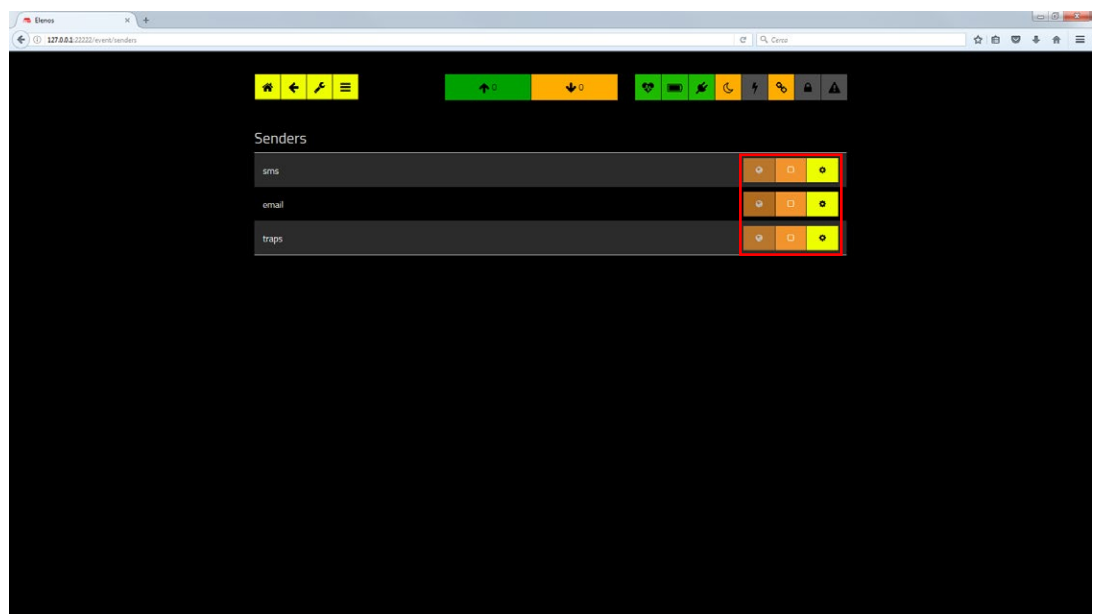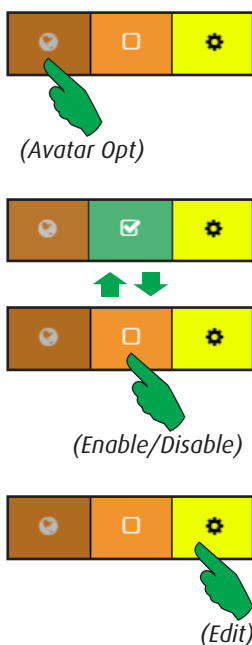**WARNING: by turning off the telemetry the website will stop working.**

1.2.7 Events

1.2.7.1 Senders management

(Config)

Events

Senders

The equipment can send/receive SMS and send traps.
In the main screen, first select the "Config" button, then the "Senders" button in the "Events" bar of the config menu.

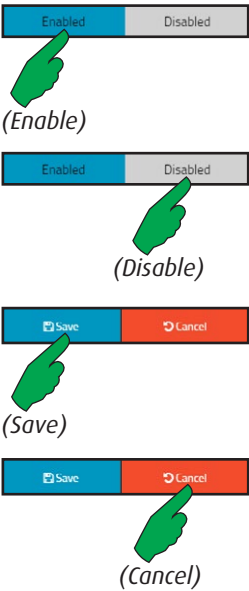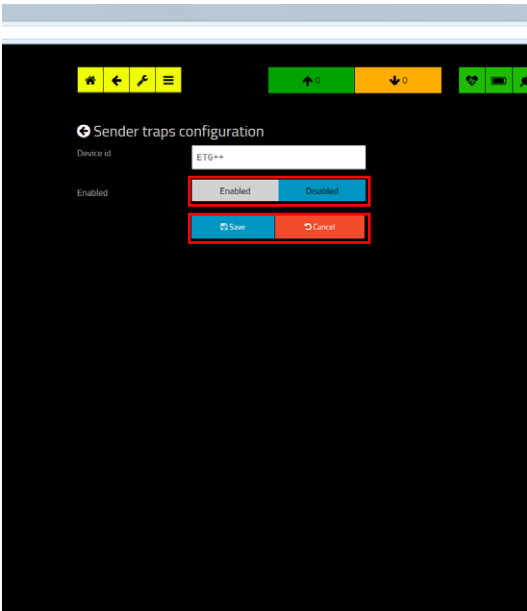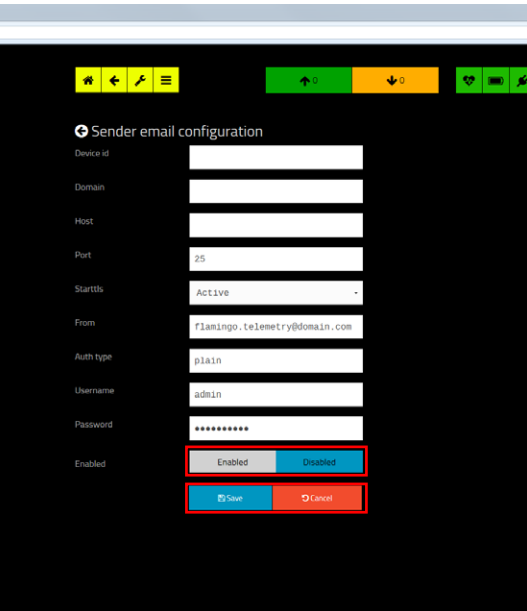*(Avatar Opt)*

(Enable/Disable)

(Edit)

This page lists the ways in which messages may be sent. They are: SMS, email and traps (SNMP).
Each sender may be enabled or disabled. To add or modify its parameters, access the edit mask by pressing the edit button.

WEB interface

1.2.7.2 Sender SMS/email/Traps configuration

If the equipment must send SMS, press the "Edit" button in the "SMS" bar. The following editing mask will appear.

(Enable)

(Disable)

(Save)

(Cancel)

In this screen, enter the international-format phone number of the modem.
"Device ID" is the identify name of apparatus that appears as an header in the message. SMS forwarding can be enabled or disabled. The new configuration must be saved by pressing the "Save" button. To ignore the changes, press the "Cancel" button.
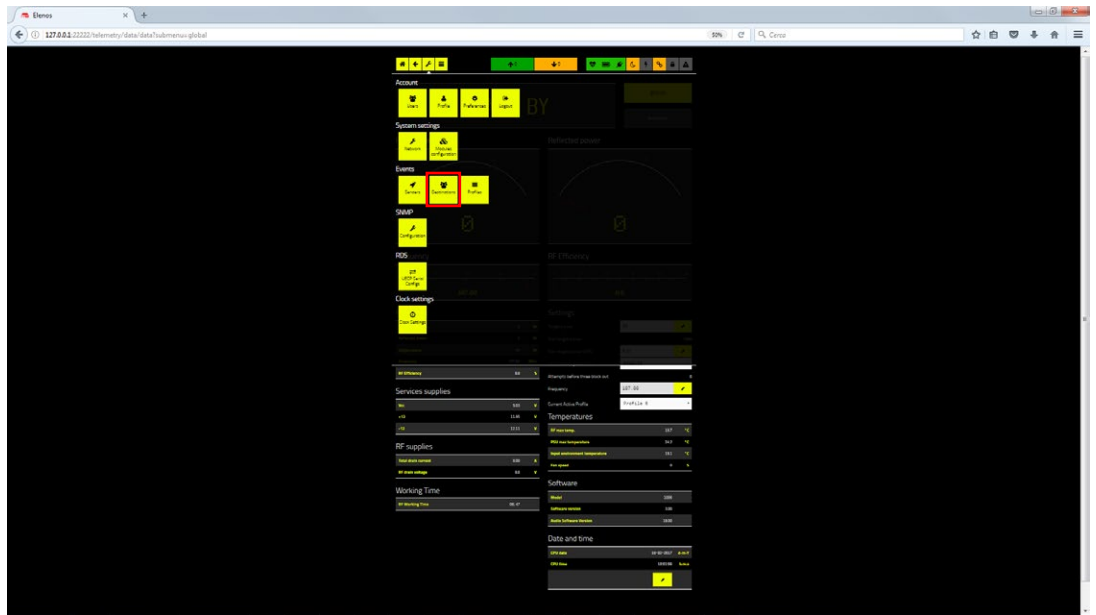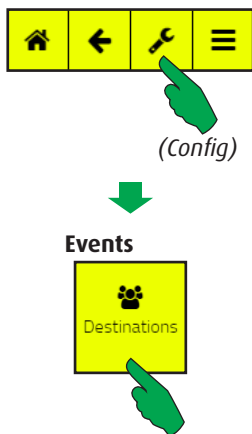

(Enable)

(Disable)

(Save)

(Cancel)

Email. Synoptic screen of all network parameters related to the equipment. "Device ID" is the identify name of apparatus that appears in the email text.

Traps. The device is able to send traps when it works with SNMP. "Device ID" is its identify name.
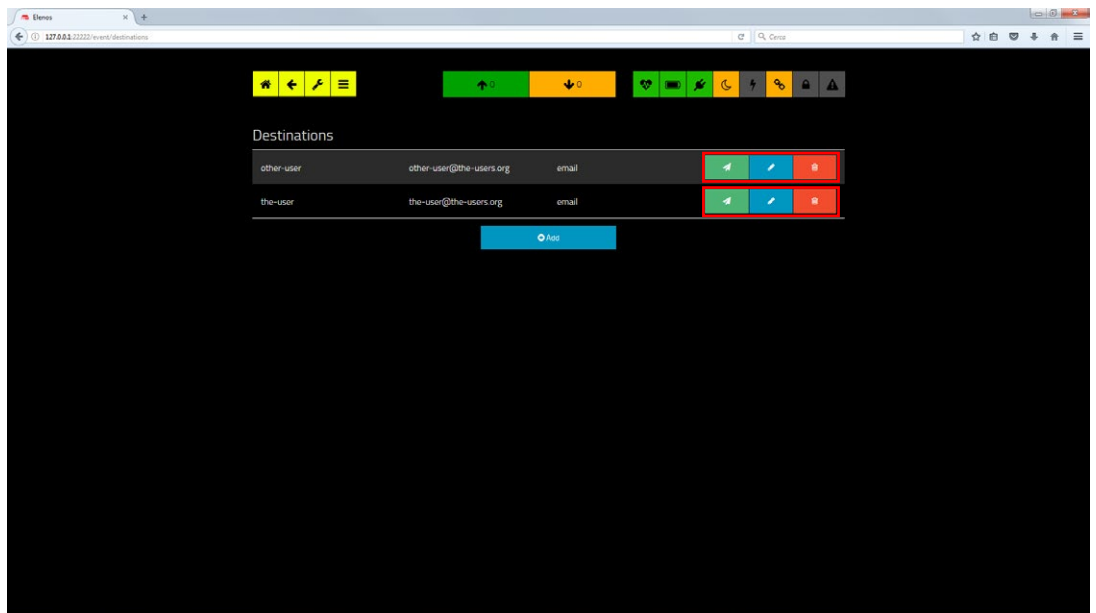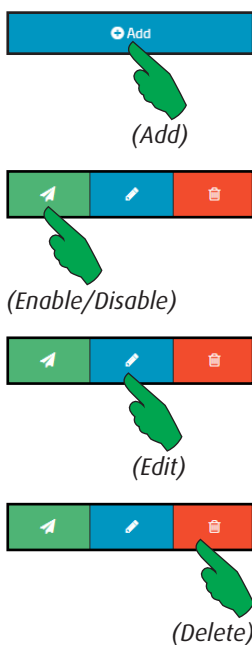
Data fields must be filled out by the system administrator.

1.2.8 Destinations management

Destinations are the receivers of SMS and/or email sent by the equipment.

(Config)

Events

Destinations

In the main screen, first select the "Config" button, then the "Destinations" button in the "Events" bar.

(Add)

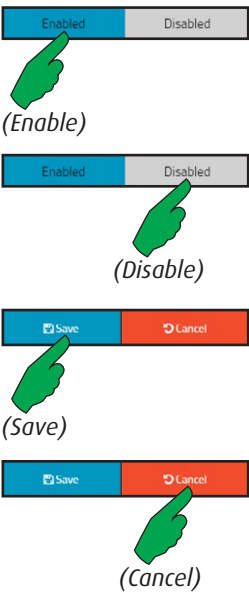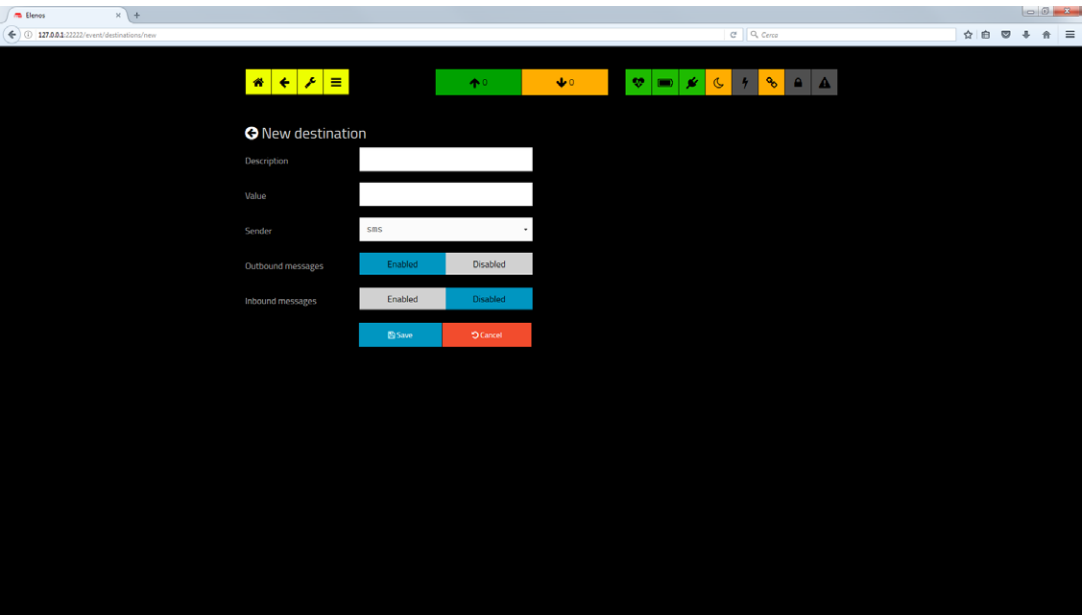*(Enable/Disable)*

(Edit)

(Delete)

This section allows to relate senders with receivers of SMS and/or email. Initially the list is void, but new records can be added by authorized users.
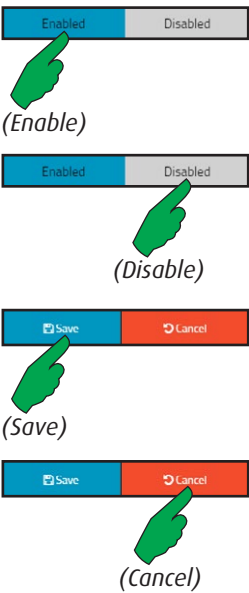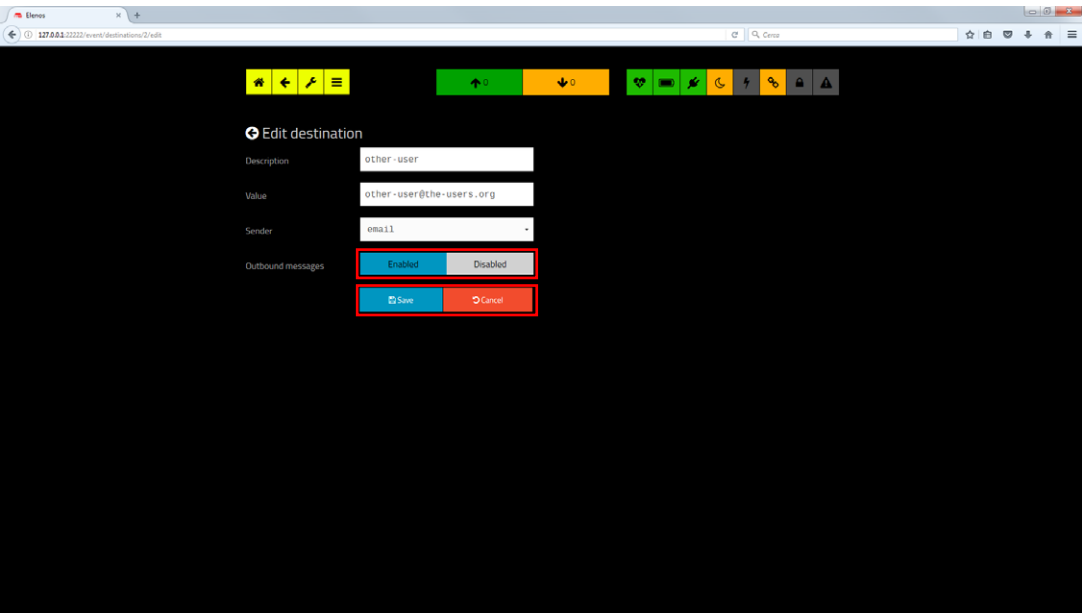Press "Add" button to get into the editing mask.
Each destination can be enabled / disabled, modified or deleted.

1.2.8.1 Adding a new destination

Editing destination mask. The contents may be different depending on the kind of sender selected.

(Enable)

(Disable)

(Save)

(Cancel)

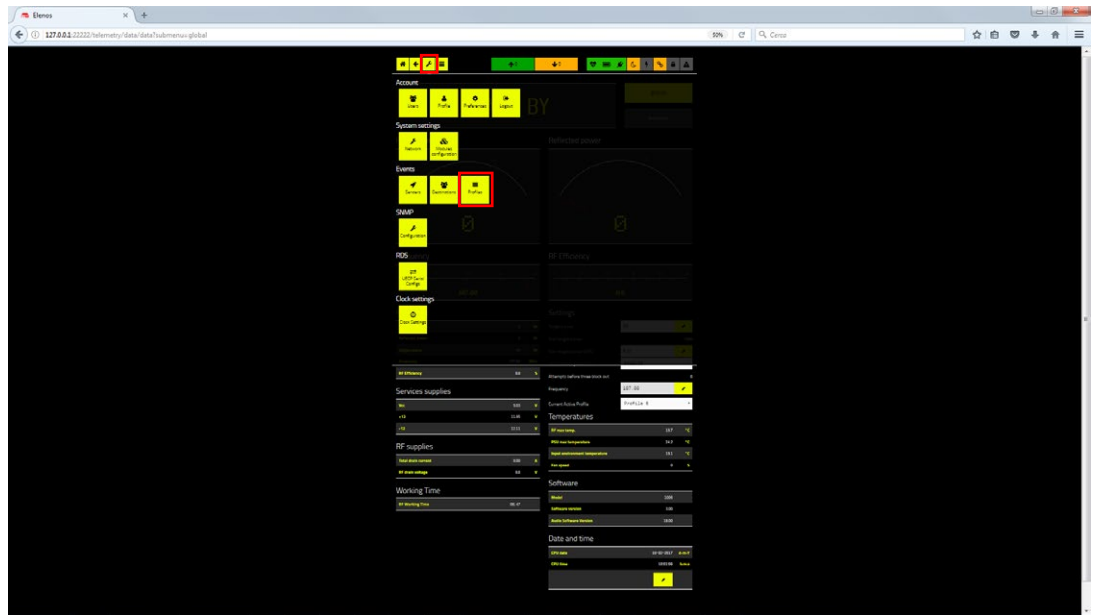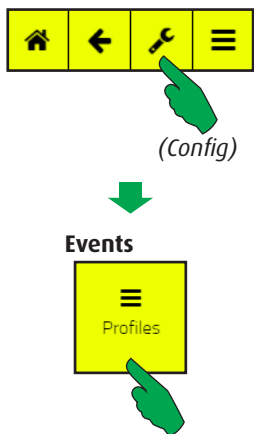A destination is a mobile number which receives the messages sent by the equipment.
In addition, the owner's name can be entered in the "Description" field.
Press the "Save" button to confirm or the "Cancel" button to abort the operation.
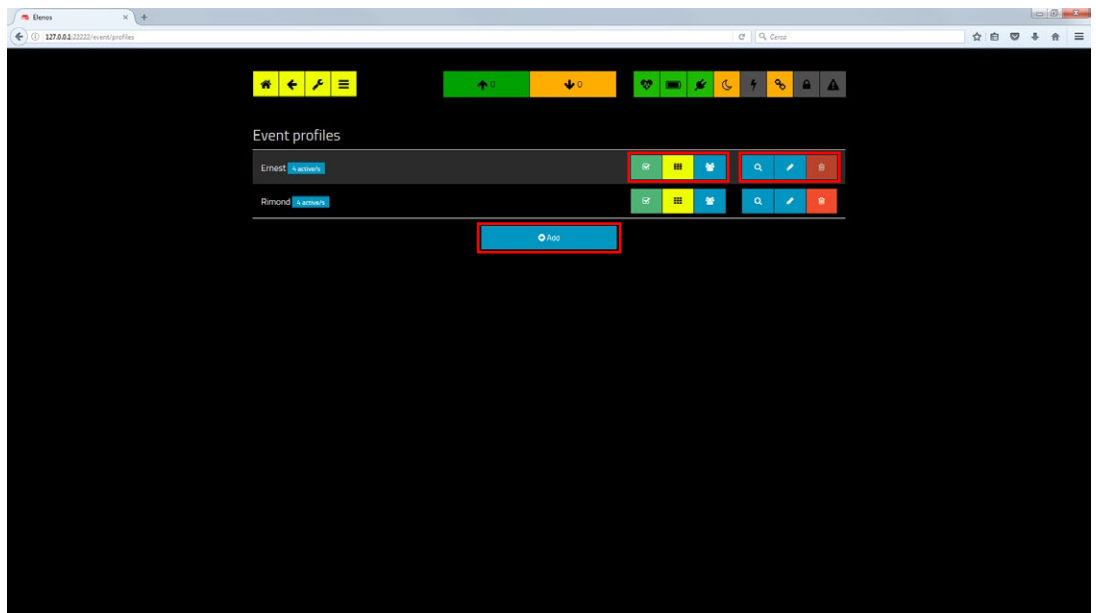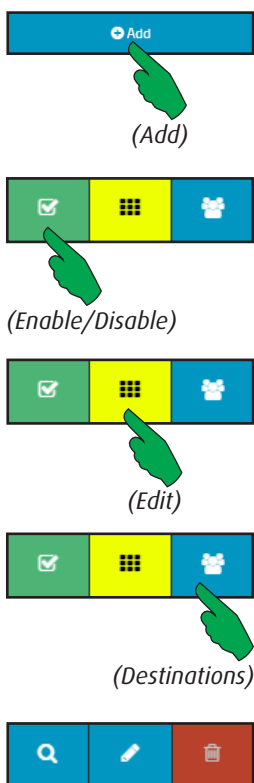

(Enable)

(Disable)

(Save)

(Cancel)

Case in which the destination is an email address.
Press the "Save" button to confirm or the "Cancel" button to abort the operation.

1.2.9 Profiles management

Profiles of event lists which will be sent to the destinations in case of occurrence.

(Config)

Events

Profiles

In the main screen, first select the "Config" button, then the "Profile" button in the "Events" bar.

(Add)

(Enable/Disable)

(Edit)

(Destinations)

Initially the list has only one profile named "Default" which contains all the possible events. This one can be customized and saved with the changes, however it's preferable to add new ones by giving them mnemonic names to identify their scope more quickly. See also next pages for further information.

1.2.9.1 Destinations profile management

To append a new profile, press the "Add" button. To modify the name of an existing one, press the "Edit" button.

(Enable)

(Disable)

(Save)

(Cancel)

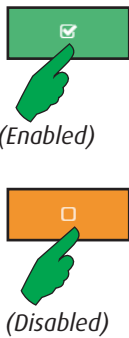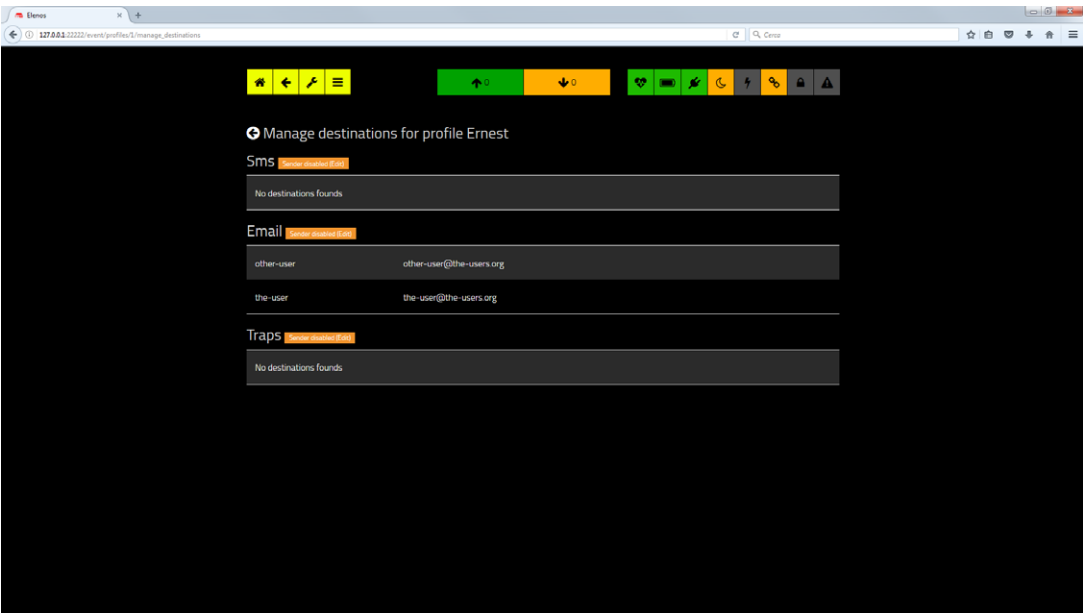To create or update the list of destinations related to a profile, press the "Destinations" button. Each profile may be associated to email, traps or SMS.
Press the "Save" button to confirm or the "Cancel" button to abort the operation.

(Enabled)

(Disabled)

A list of recipients matched to a profile is a set of email addresses, GSM network phone numbers, and traps for SNMP networks.
It remains to determine which events will trigger the forwarding of the notification associated with the current profile.

1.2.9.2 Selecting the events to add to profiles

Events ("Default" profile in the example).

Psu Current Derating

✔

(Selected)

Psu Low Power

✖

(Unselected)

(Undo)

(Select all)

(Clear selection)

(Save)

All events are grouped in four classes:

- **Alerts**   (critical errors or failures that may require repair);
- **Warnings**   (events that don't require repair immediately);
- **Defaults**   (equipment current status);
- **Successes**   (most important targets);

To customize the current profile (its name is shown at the top) select/unselect the events to combine to the destination.

By default all events are deselected. Press one time an event button to add it to the profile, press again to remove it.
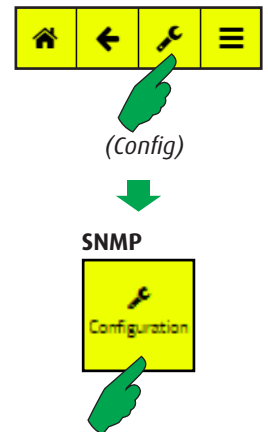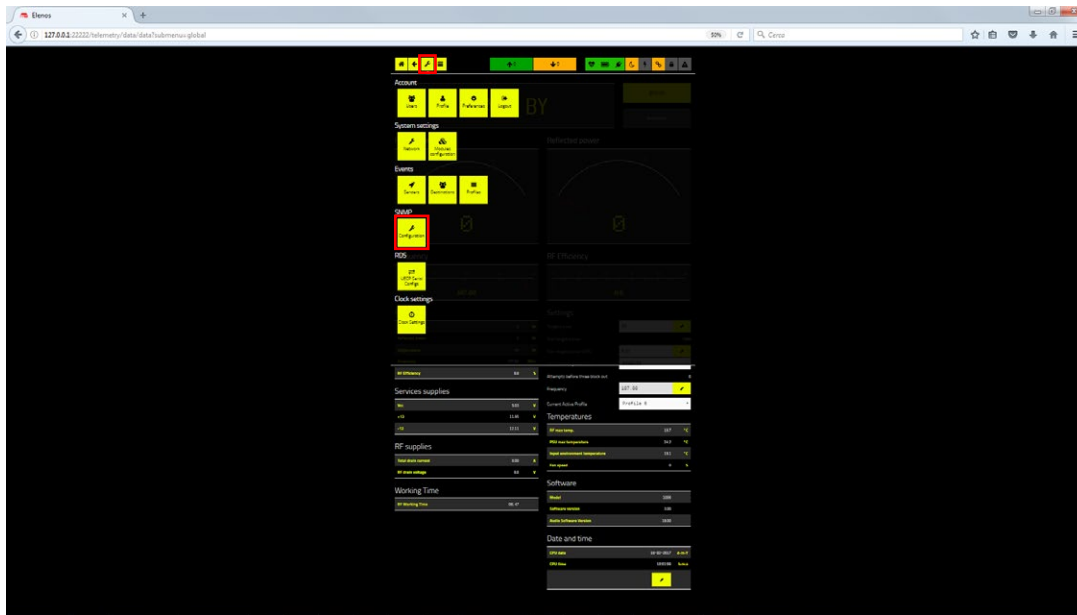
It's also possible select all events by pressing the "Select all" button, or deselect all by "Clear selection" one.

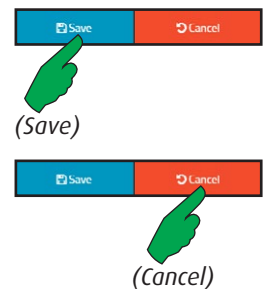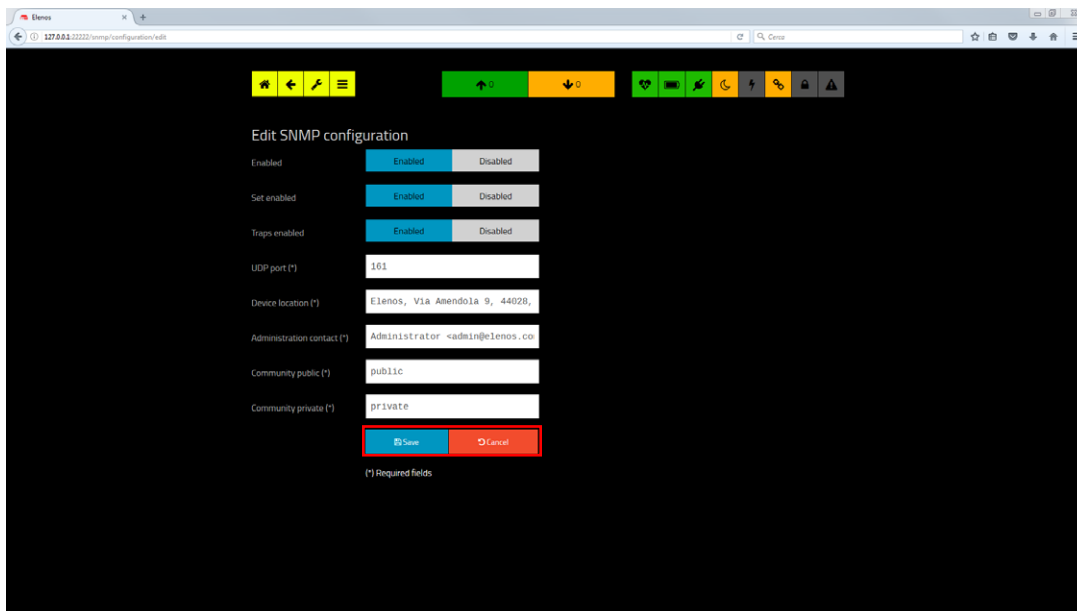"Undo" button restores the profile and "Save" confirms the changes.

WEB interface

1.2.10 SNMP (Simple Network Management Protocol)

Devices that can be connected to an SNMP network show this button in the "Config" menu screen.

(Config)

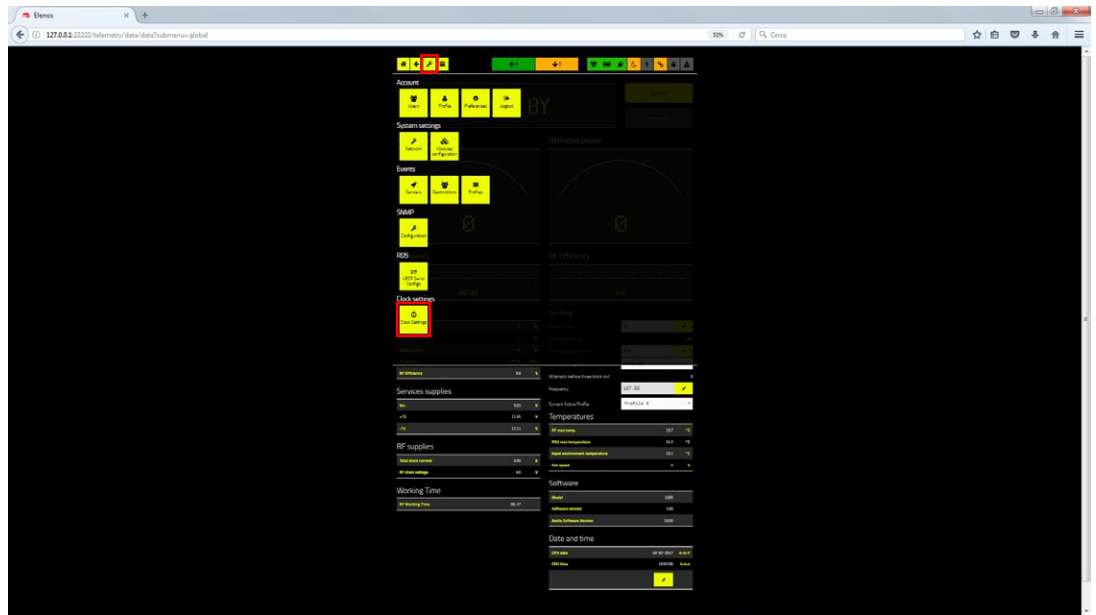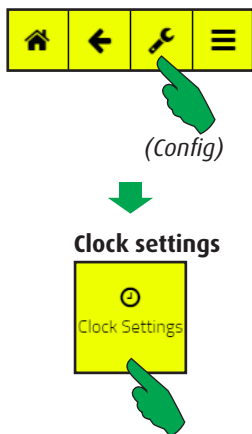**SNMP**

Push the "Configuration" button to enter in editing mask.

(Save)

(Cancel)

Configuring SNMP. It's possible activate/deactivate it, prevent parameters changes or sending of traps. System administrator is needed to enter all data.
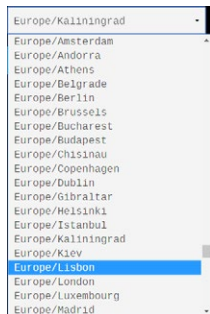
1.2.11 Clock Settings

Selecting the time reference

(Config)

Clock settings

Clock Settings

In the main screen, first select the "Config" button, then the "Clock Settings" button in the "Clock settings" bar.

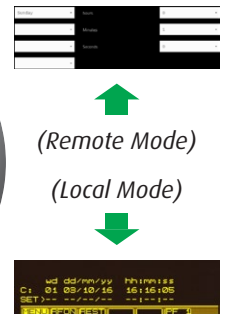NOTE

UTC (Coordinated Universal Time)
External RTC

(Remote Mode)

(Local Mode)

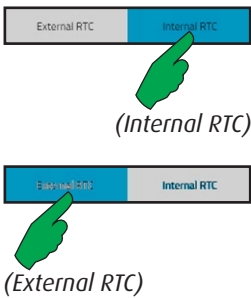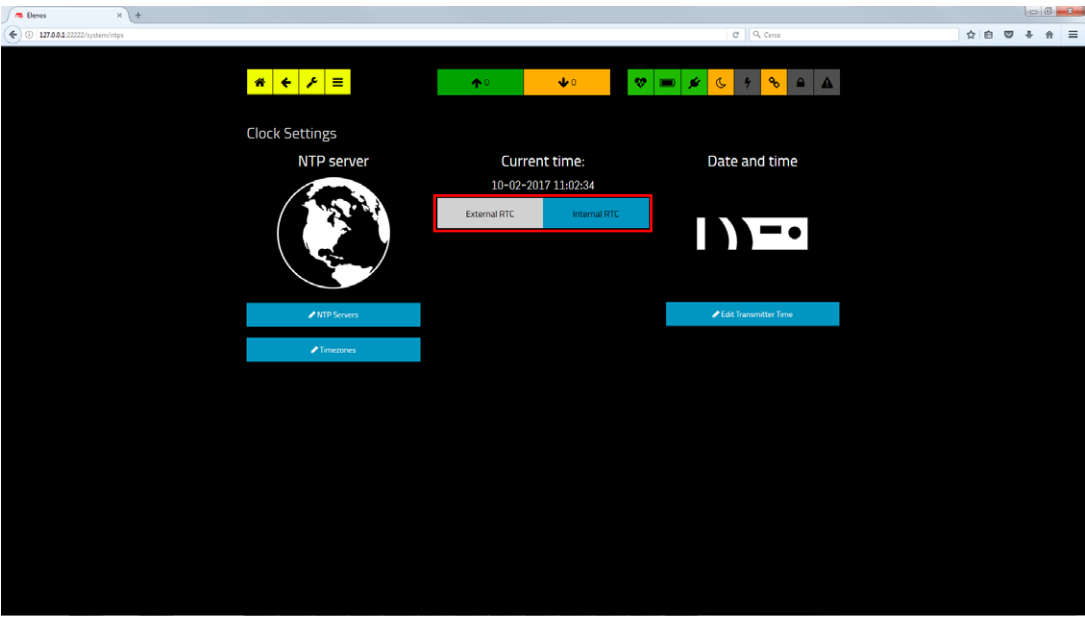RTC (Real Time Clock)
Internal Clock

It's possible to choose if using the internal clock or an external one as system time reference.
By the external clock the system receives the time from a preset list of public NTP server. To properly display date and time it's necessary to select the appropriate timezone from the list of those ones available. Obviously, an internet connection is required.
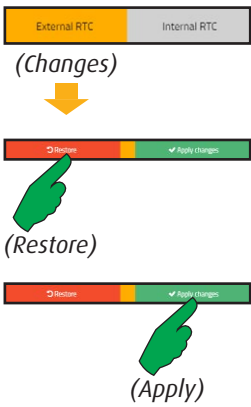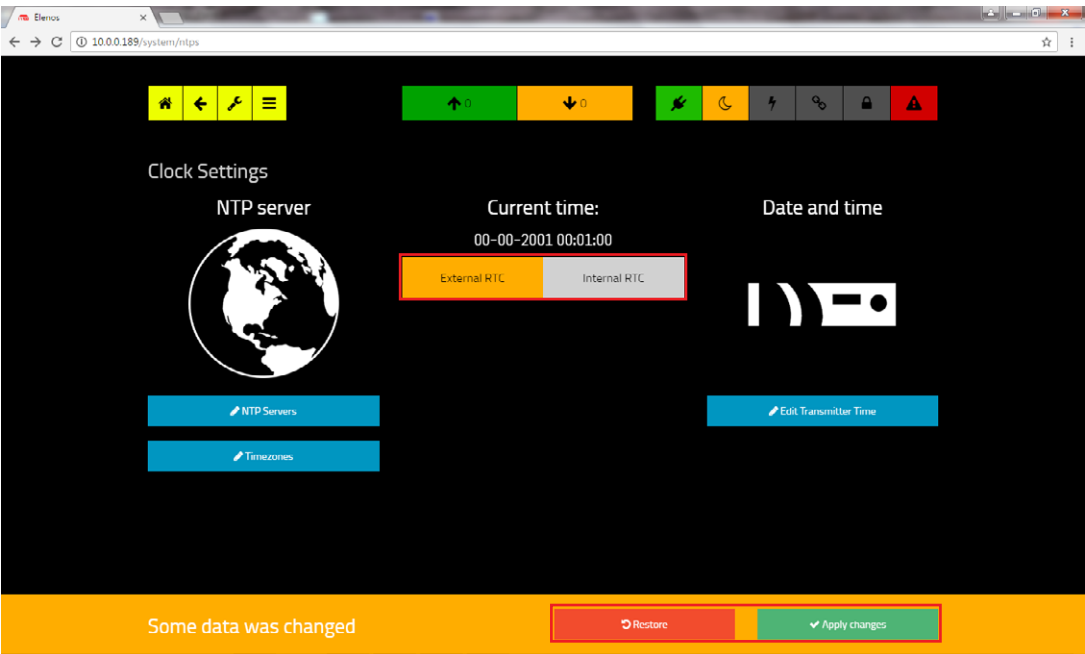For using the internal clock, it will must be manually adjusted, both in Local and in Remote mode (see the User Manual for the last one).

WEB interface

1.2.11.1 Choosing between external and internal RTC

Selectable buttons are highlighted in blue.

(Internal RTC)

(External RTC)

Press "External RTC" or "Internal RTC" button to toggle between the two modes.

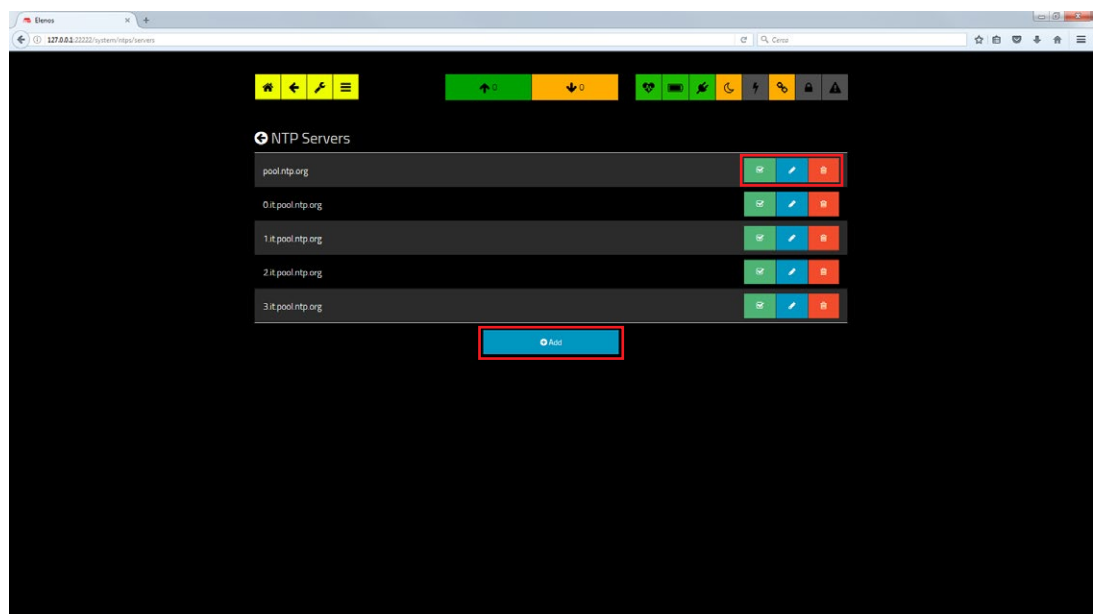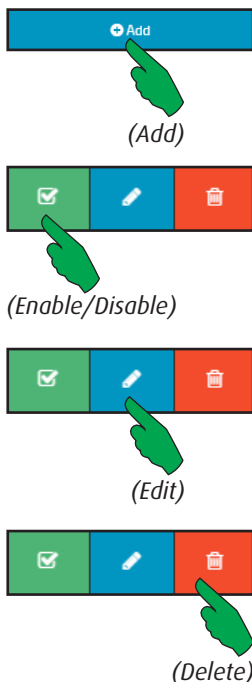
(Changes)

(Restore)

(Apply)

If the choice results in a change, the button turns orange and a confirmation is requested. "Restore" button allows to ignore the changes, while "Apply changes" confirms them.

1.2.11.2 Choosing a NTP server

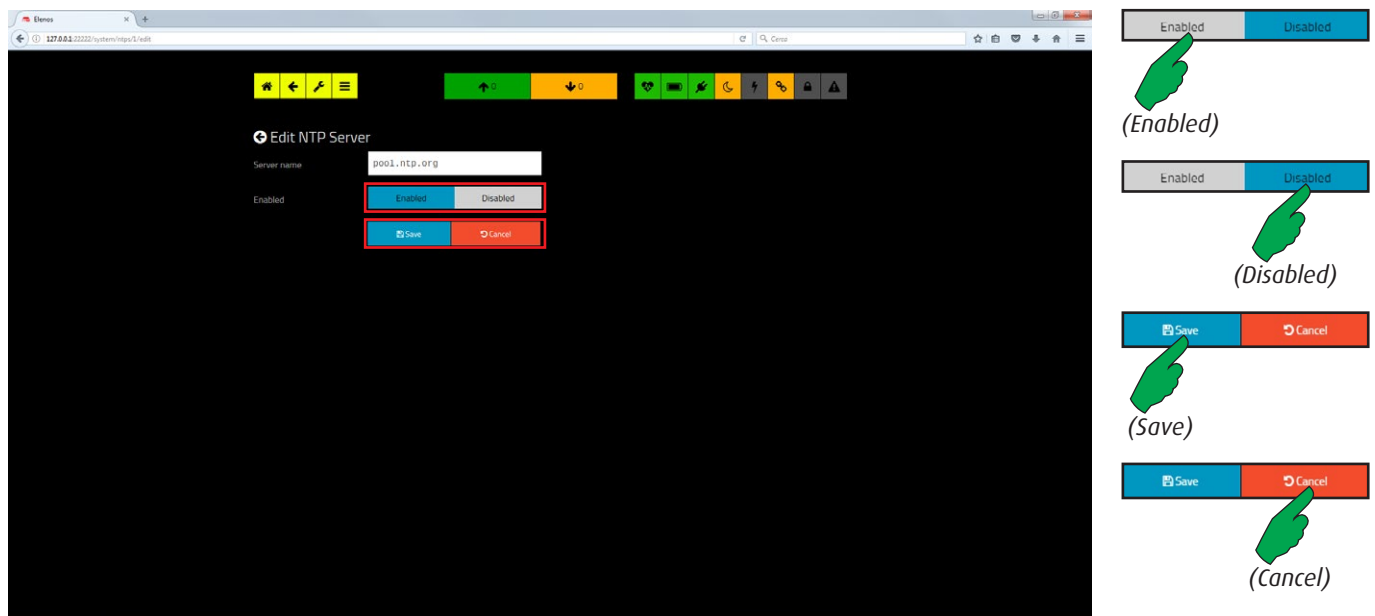A list of default NTP servers is stored in factory.

(NTP Servers)

Press the "NTP server" button to enter and scroll through the list.

(Add)

(Enable/Disable)

(Edit)

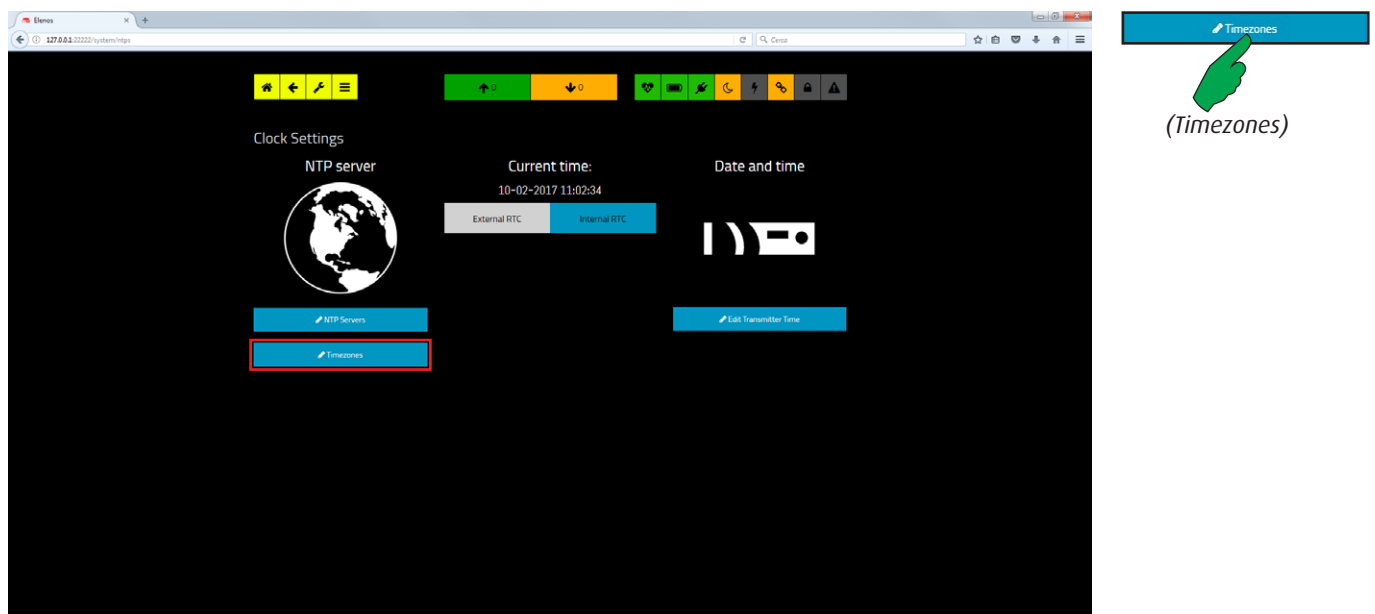*(Delete)*

The "Add" button allows to insert a new NTP server (see next page).
Press the "Enable/Disable" button to activate/deactivate the selected server (when the symbol "✓" is shown and the button is green the server is active).
The "Edit" button allows to modify the server parameters, while by pressing "Delete" button the current record will be removed after confirmation.

WEB interface

1.2.11.3 Adding (or edit) a new NTP server

A new NTP server can be added to the list.
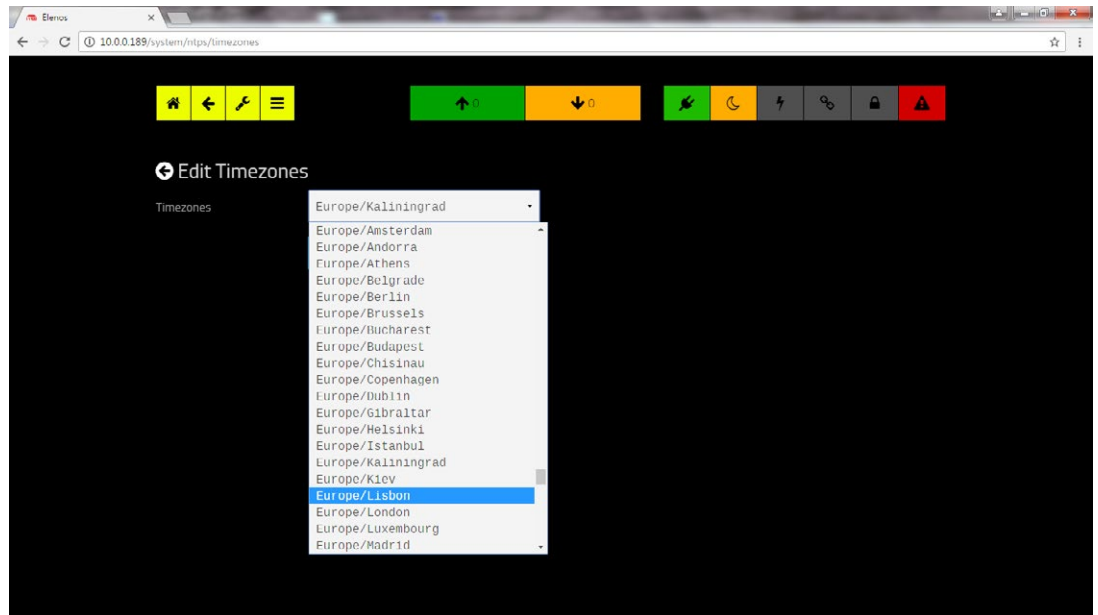

(Enabled)

(Disabled)

(Save)

(Cancel)

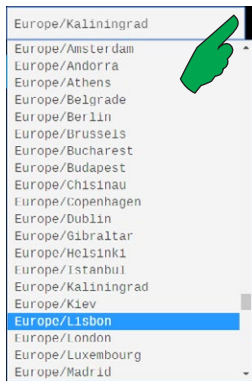To define a new server it's necessary enter its name ("Server name") correctly. It's also possible to enable/disable it. The "Save" button allows to store the new server, while by pressing the "Cancel" button the current operation is aborted.

(Timezones)

To complete the setting of the external RTC, it's necessary choosing a proper time zone. Press the "Timezones" button to enter and scroll through the list.

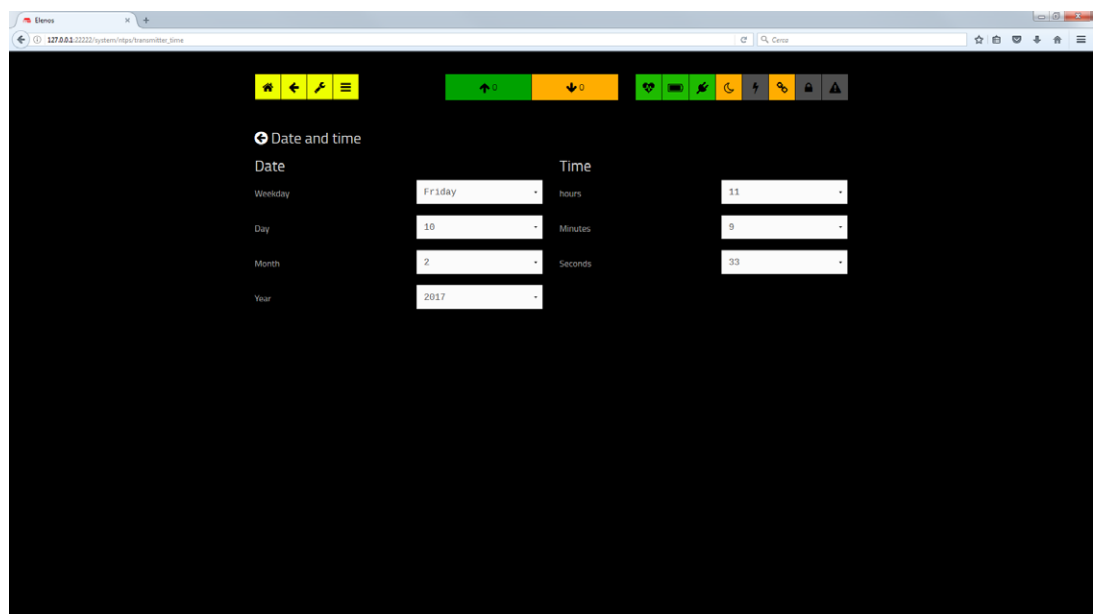## 1.2.11.4 Choosing the Timezone / Setting the internal Clock Reference

A timezones set is stored in factory.

A popup containing all the timezones is available after pressing the down arrow shown at the right side of the box. Press "Save" button to store the changes, "Cancel" to restore all values.

WARNING: in order to ensure that all automatisms will work correctly, choose the timezone of the country in which the equipment is installed.
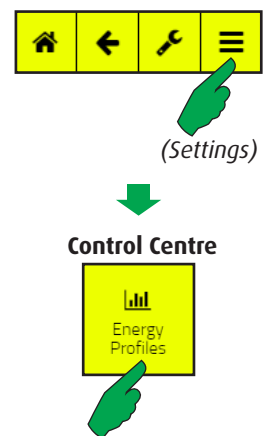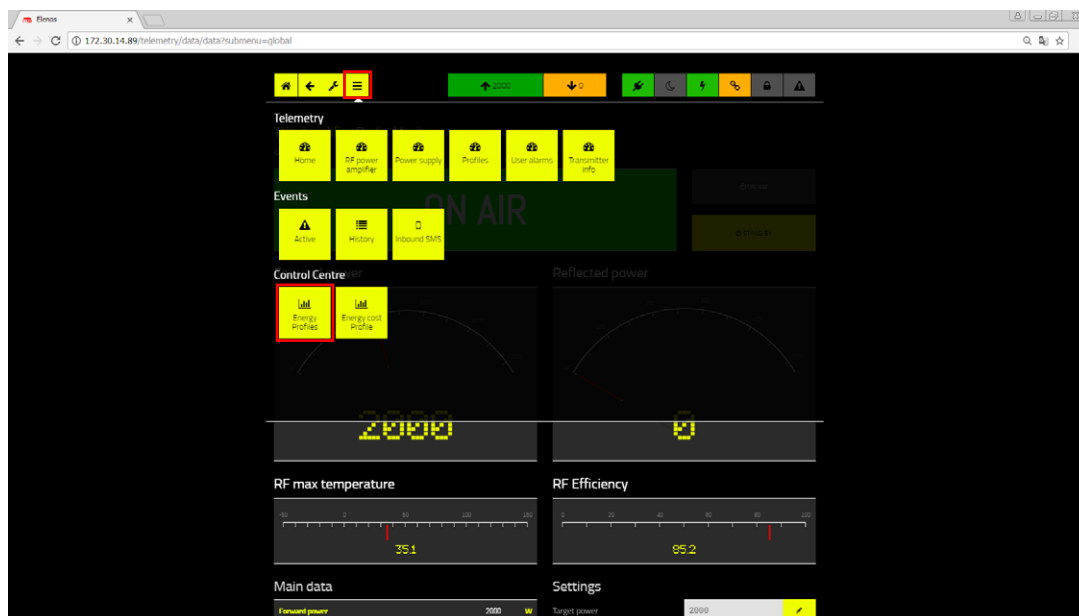

Internal RTC.
For editing the internal clock parameters, press the "Edit Transmitter Time" button. In addition, date, day and week info are required. They are effective when internal RTC mode is selected.
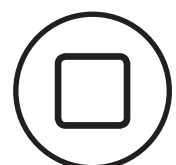
1.2.12 Control Centre

1.2.12.1 Energy Profiles.

NOTE: this mask may look different depending on models. A different set of buttons could be shown depending on kind of apparatus. Also options installed may influence its look.

In the main screen, first select the "Settings" button, then the "Energy profiles" button in the "Control Centre " bar.

(Settings)

Control Centre

This page intentionally blank

2 Power management

Tx control centre

Bands cost

Profiles

Consumption control

2.1.1 Control Centre

2.1.1.1 Energy Profiles.

(Settings)

Control Centre

NOTE: this mask may look different depending on models. A different set of buttons could be shown depending on kind of apparatus. Also options installed may influence its look.

In the main screen, first select the "Settings" button, then the "Energy profiles" button in the "Control Centre " bar.
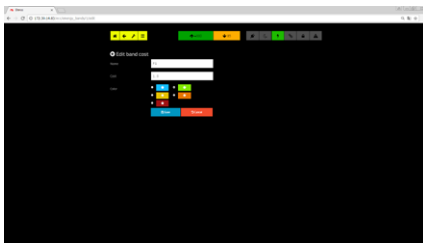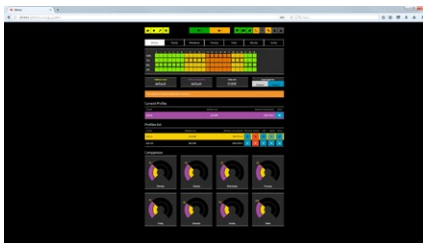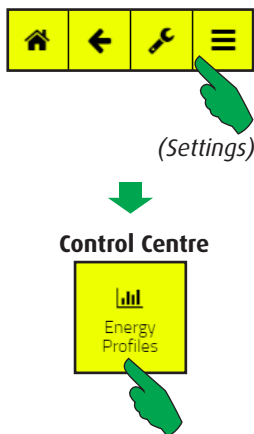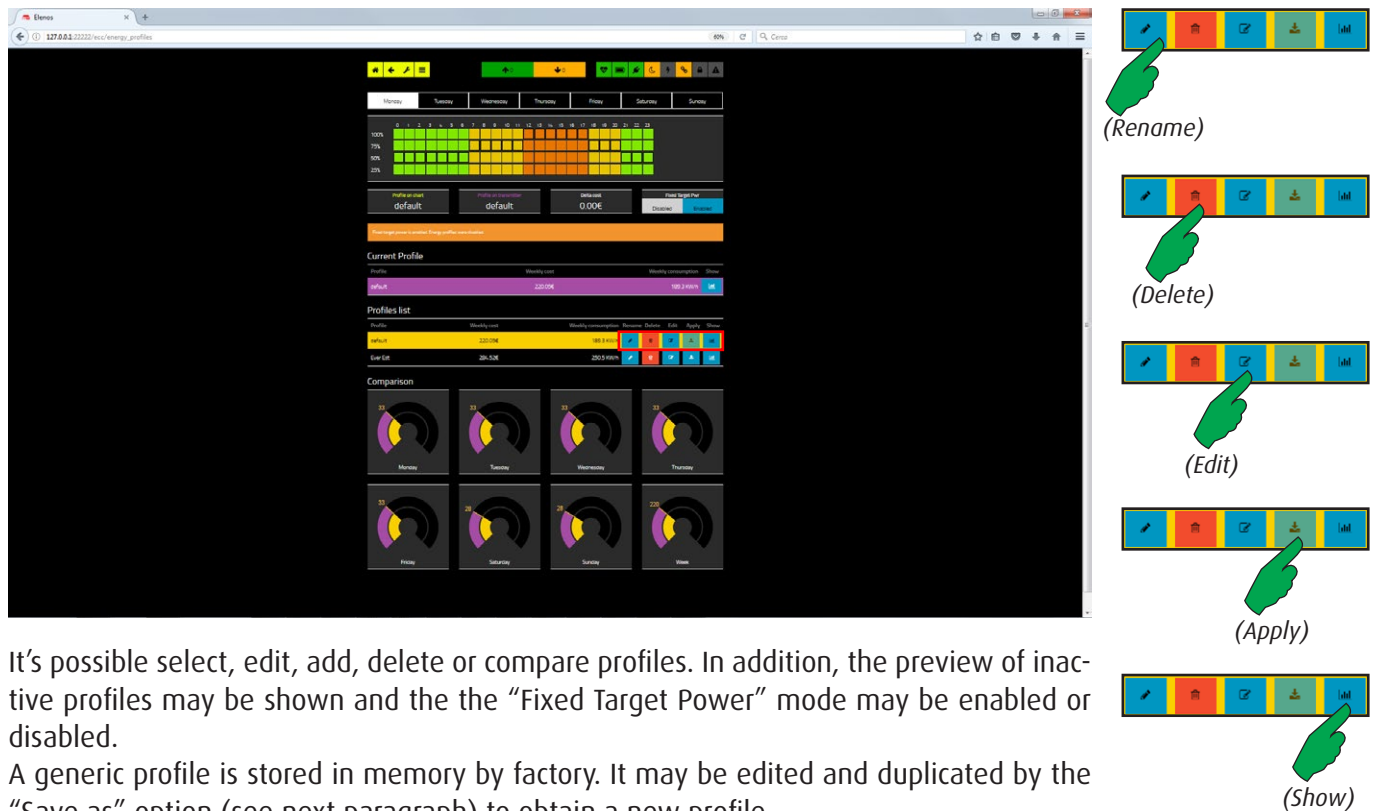
It's possible, where permitted by the national authorities, to apply a variable trend in the RF output power, in order to consume less energy (and spend less money) during the hours and the days when it's not helpful to trasmit at the maximum available power. The variabile value of the RF output powe with the hours as designed by the operator is called "Energy Profile".
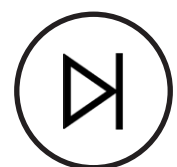

(Rename)

(Delete)

(Edit)

(Apply)

(Show)

It's possible select, edit, add, delete or compare profiles. In addition, the preview of inactive profiles may be shown and the the "Fixed Target Power" mode may be enabled or disabled.

A generic profile is stored in memory by factory. It may be edited and duplicated by the "Save as" option (see next paragraph) to obtain a new profile.
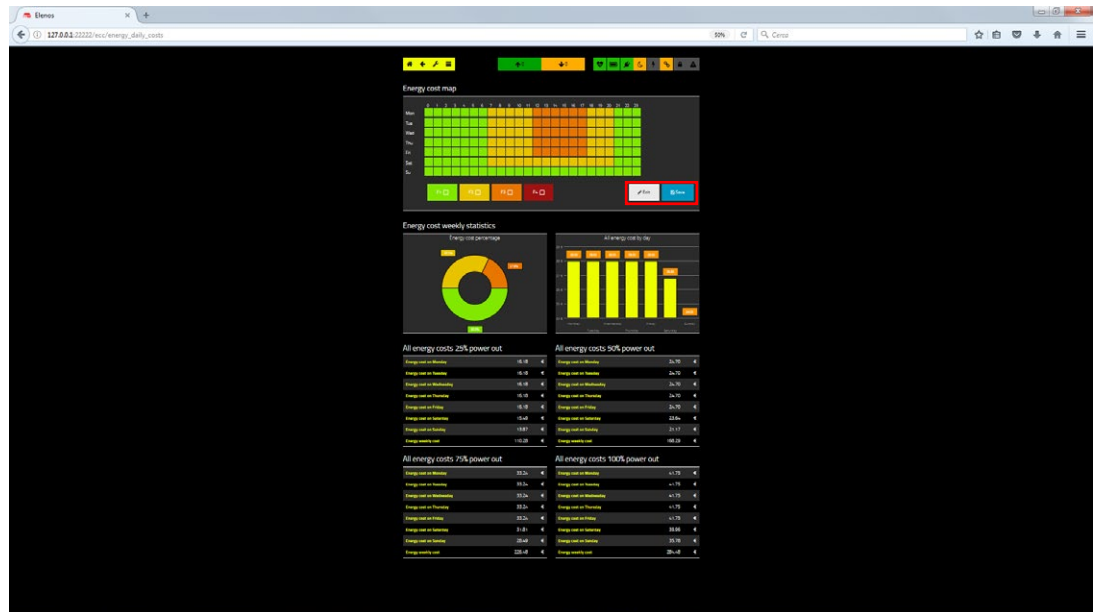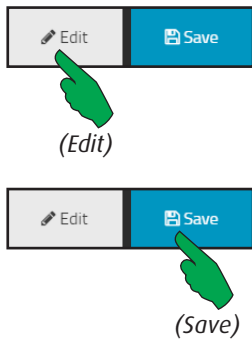
· By pressing the "Rename" button it's possible to give a new name to an existing profile, without any other changes. If it was the active one, it will remain active.
· By pressing the "Delete" button the selected profile will be permanently removed from memory. It's impossible to remove an active profile.
· The "Edit" button enters into the screen shown at next paragraph and allows to redefine an existing profile. Changes will be automatically applied.
· By pressing the "Apply" button the selected profile will be activated.
· The "Show" button allows to see an inactive profile overview on the top of the screen (green boxes matrix). To change the day of the week, press the corresponding button on the overlying bar.

Note that the value of "Delta cost" field changes automatically when a non-active profile is selected (but not activated by the "Apply" button). It allows to evaluate the difference of cost between the active profile and the selected one (see "Comparison" diagrams at the bottom of the screen).

2.1.1.2 Editing an Energy Cost Profile

Example of a complete Energy Cost Profile screen.

(Edit)

(Save)

Energy cost map.

The map is shown at the top of the screen. By factory default, the list of "Energy Bands Costs" includes only one item and all the squares of the map are painted by the same color of that band (green in the example). In this case, the band is named "F1".

To add new bands, press the "Edit" button (see also next paragraph).

Below the map, statistics about weekly costs are displayed.

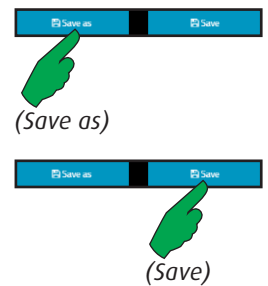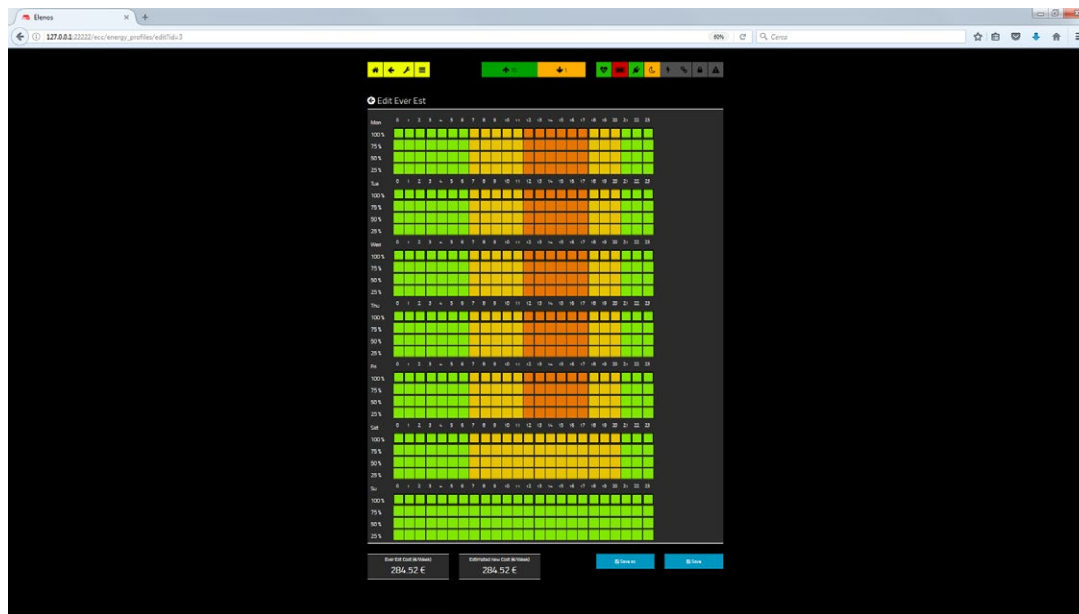To update the map, first select the band to apply, then press on the time slots to modify. The squares selected will be painted with the same color of the new band cost.

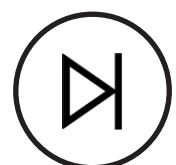In the next pages, an example with more bands costs is shown.

2.1.1.3 Editing an Energy Profile

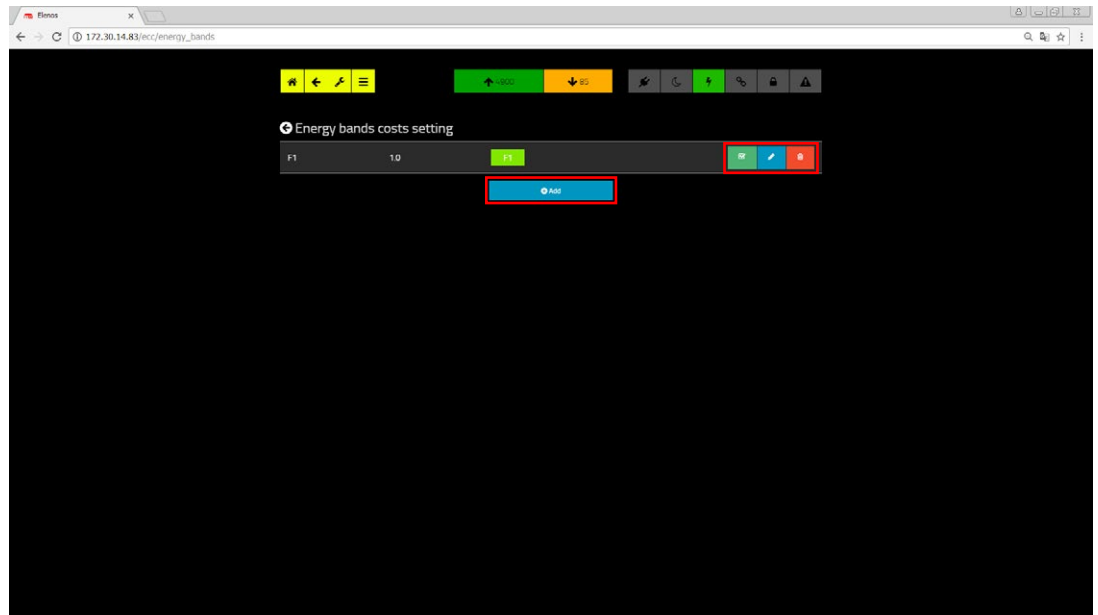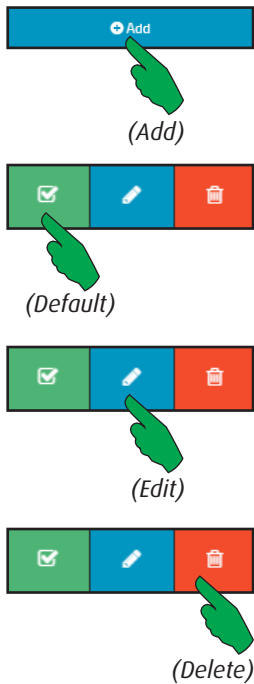Example of a complete weekly profile list.

(Save as)

(Save)

After pressing the "Edit" button, a sinoptik square containing the entire profile matrix appears. All days of the week are subdivided in time slots of an hour each one.
Four power levels are available: 100%, 75%, 50 and 25% of the target. They are selectable by pressing on the green squares. An active level is highlighted by a black border (in the screen shown above they are all set at 100%).

After changes, press the "Save" button to store the current profile, or "Save as" to memorize a new profile. In the second case, the new profile will maintain the changes and the old one will not be modifie.
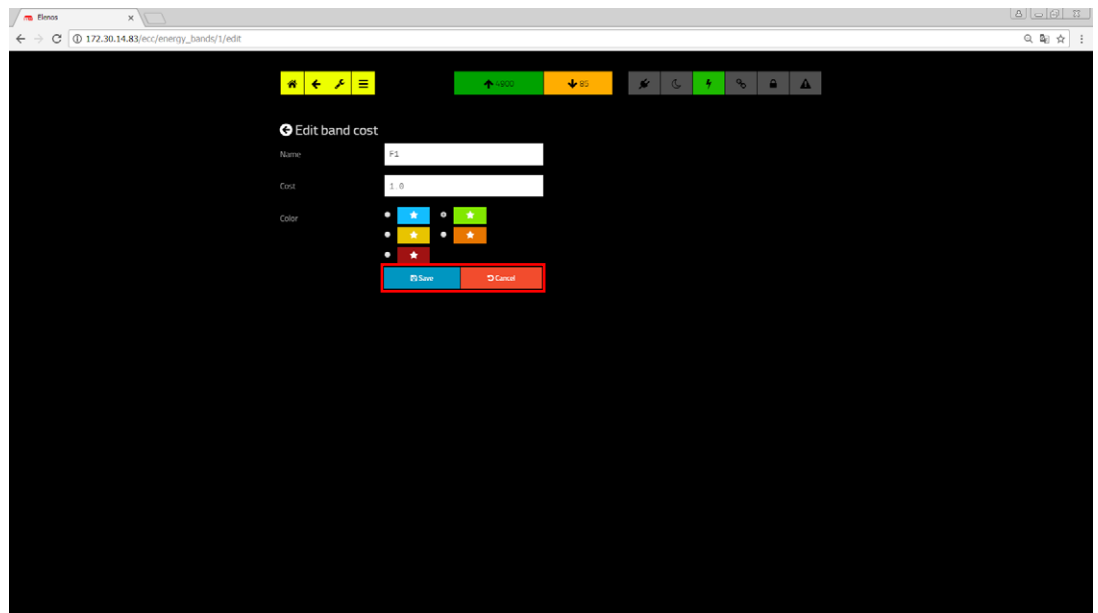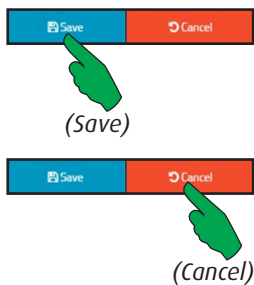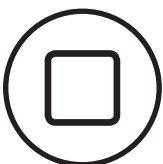
2.1.1.4 Editing an Energy Band Cost

List of Energy Bands Costs.

(Add)

(Default)

(Edit)

(Delete)

After pressing the "Edit" button, this screen appears. It's possible to add up to 4 bands. To make default a band cost, press its "Default" button. Costs will be calculated by it.

(Save)

(Cancel)

To change a band cost, press the "Edit" button. This screen appears.
"Name" is an arbitrary name chosen by the user and "Cost" the cost per hour.
For clarity, different colors may be assigned to the bands costs.
Press "Save" button to store the changes, "Cancel" to restore all values.

WEB interface

Main parameters

Digital section parameters

Profiles management
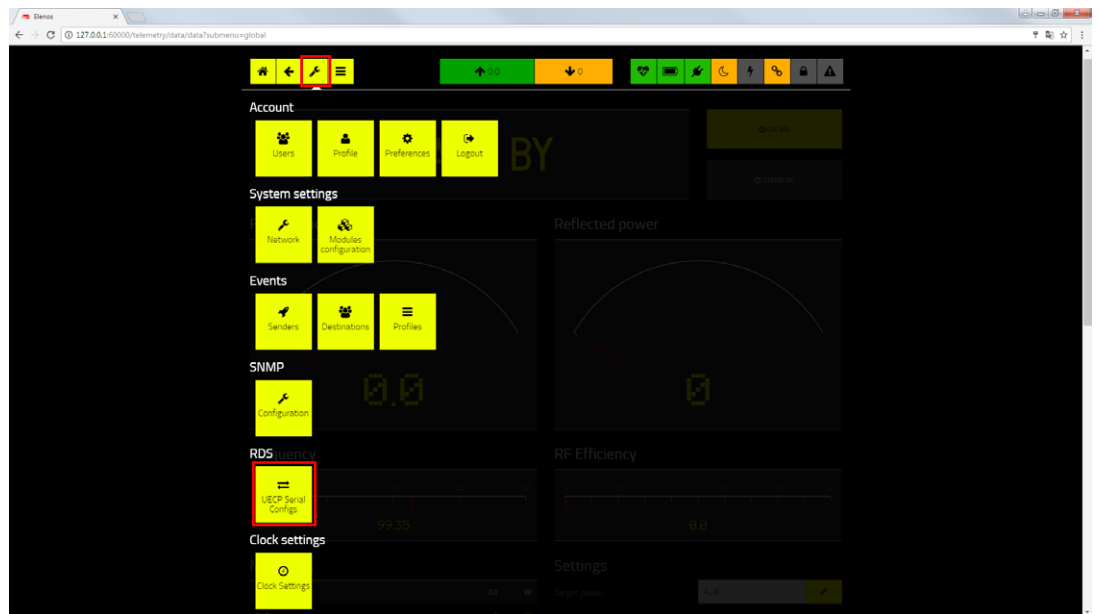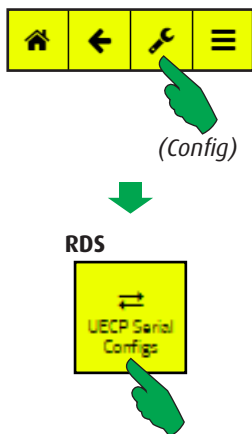

User's alarms management

And more...

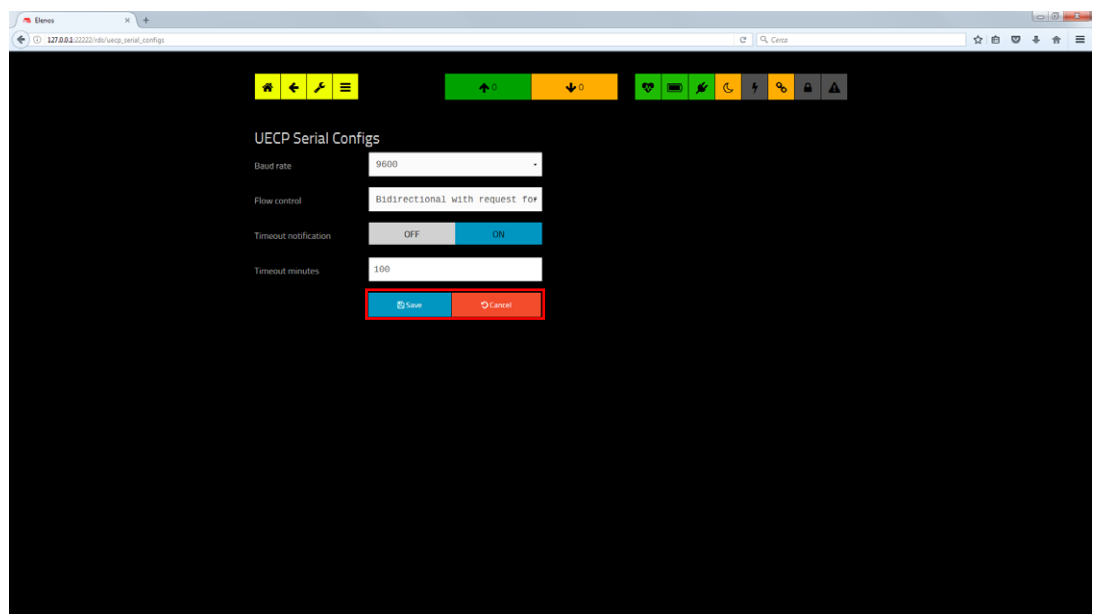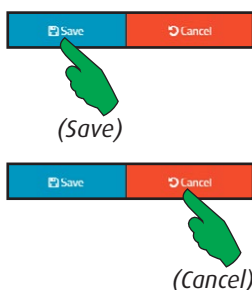### 3.1.1 RDS

When the equipment is an exciter or a system that include and controls it, in the config menu screen there is the "UECP Serial Config" button.

(Config)

RDS

(UECP Serial Configs)

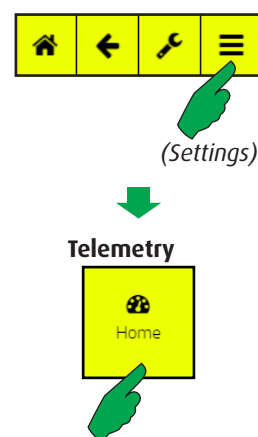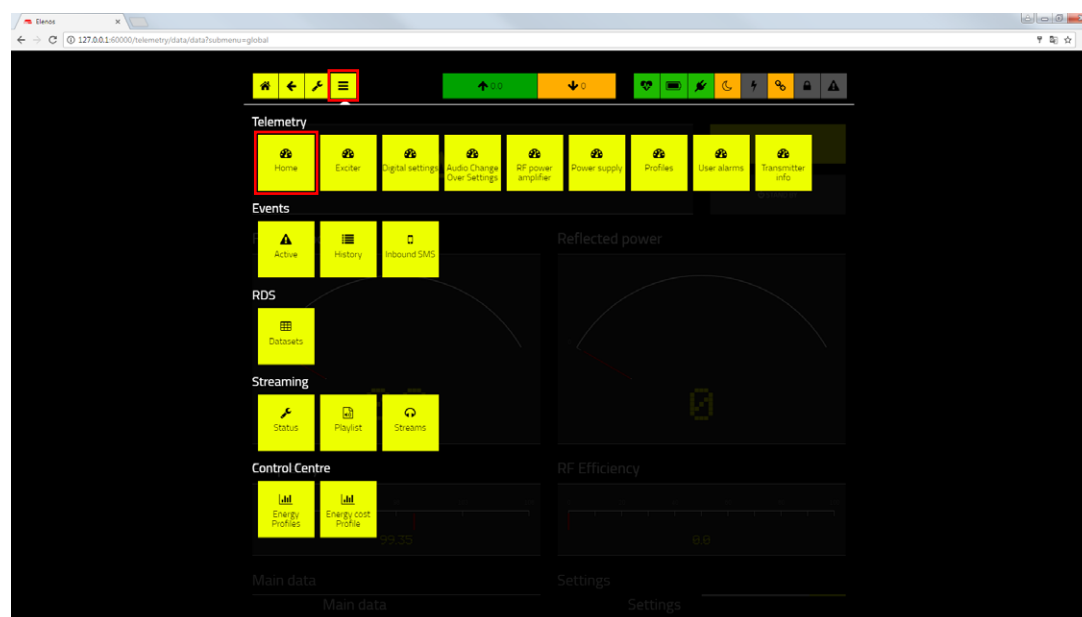Press this button to enter the parameters edit mask.

(Save)

(Cancel)

In this screen you can set the following parameters:
- Baud rate (serial communication speed), selectable between 9600, 19200, 38400, 57600 and 115200;
- Flow control, selectable between "one-way", "bidirectional with request for replay" and "bidirectionale with spontaneous response";
- Timeout (minutes).

Press "Save" button to store the changes or "Cancel" to ignore them.
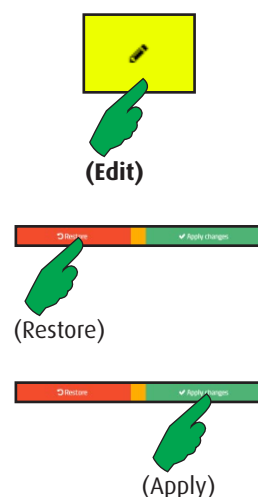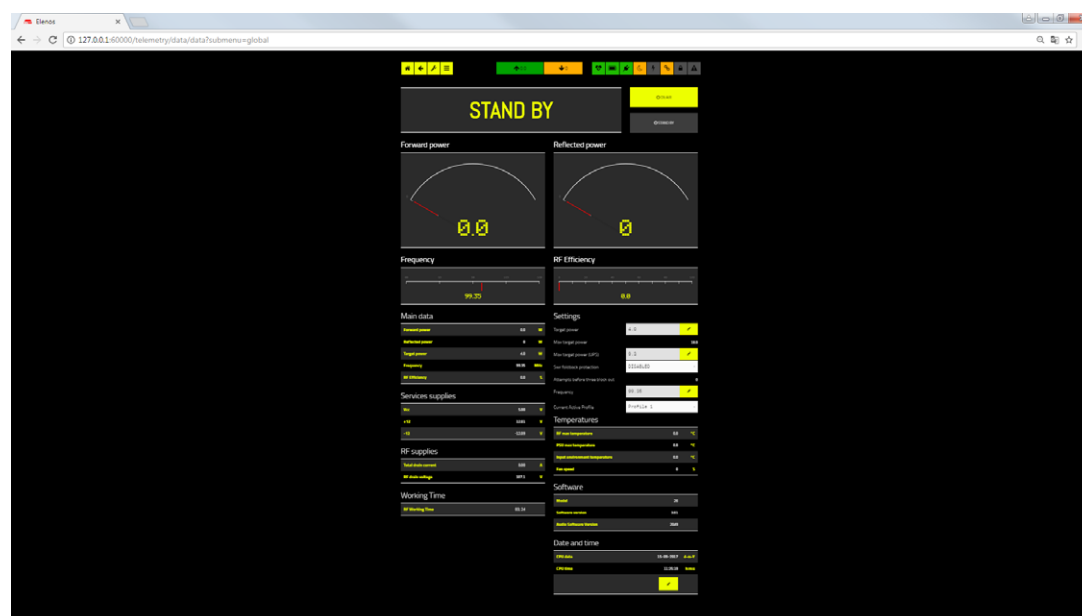
WEB interface

3.1.2 Main screen (settings)

To enter the homepage of the settings menu, first press the "settings" button, then the "Home" button in the "Telemetry" bar.

(Settings)

Telemetry

NOTE: this mask may look different depending on models. A different set of buttons could be shown depending on kind of apparatus. Also options installed may influence its look.
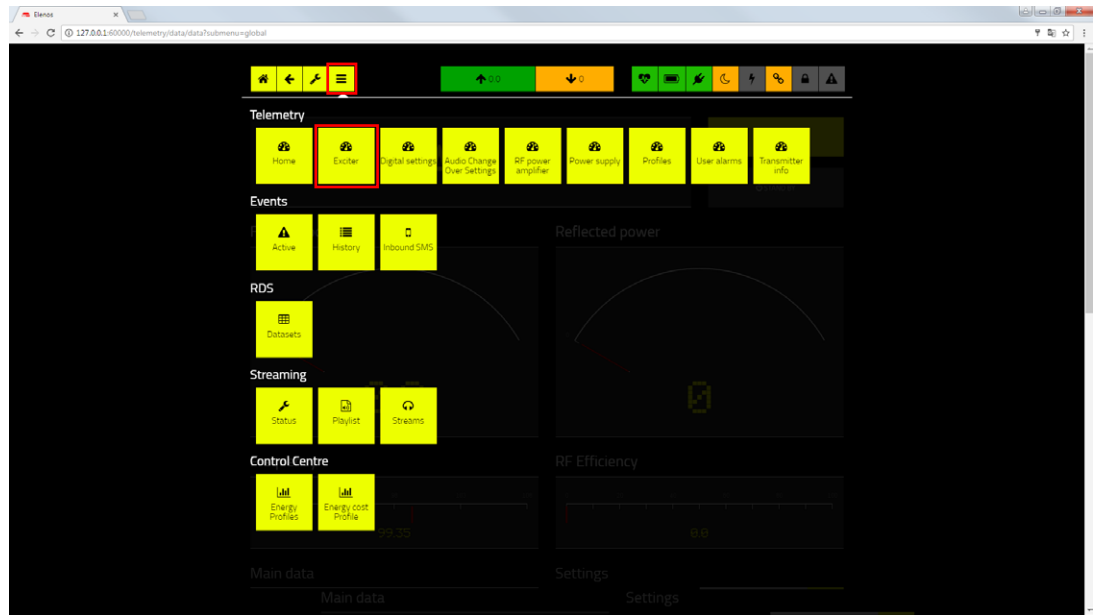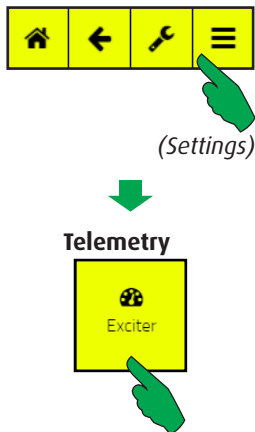
This screen shows the main data and allows to set the most important parameters, such as: target power, frequency, date, time and profiles.

(Edit)

(Restore)

(Apply)

All general data about power supplies, temperatures, software version are shown.
It's possible to choice to enable or disable the "Foldback" algorithm (see the user manual to learn more details about this feature).
When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.
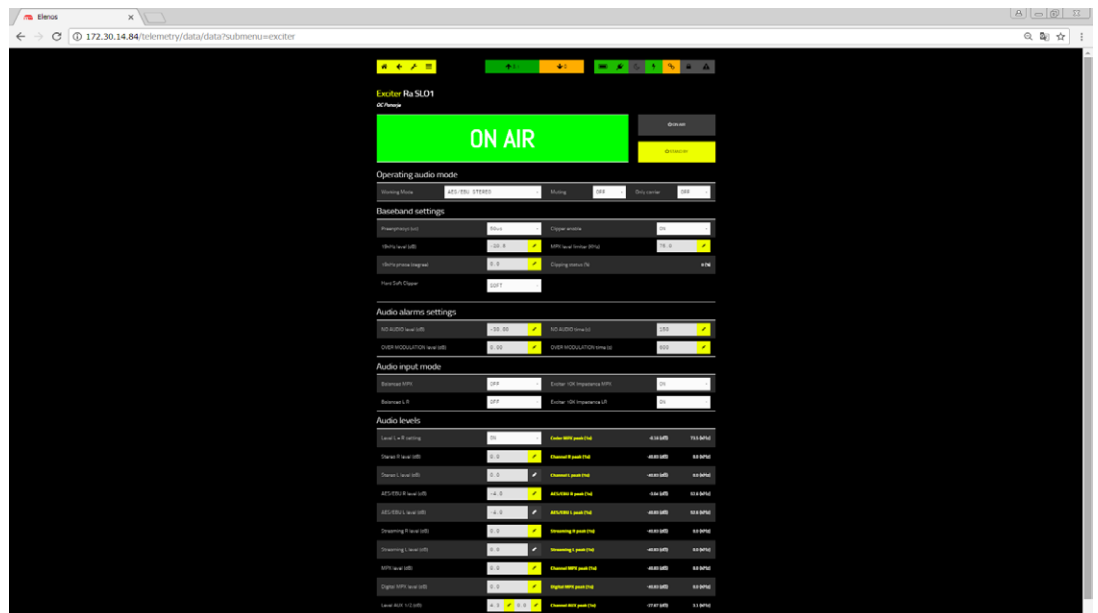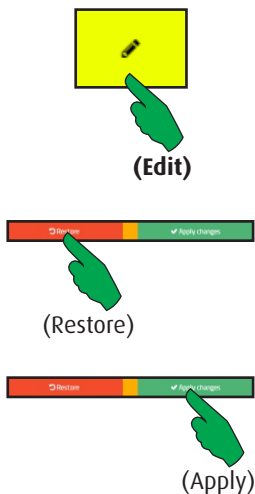
3.1.3 Exciter

General settings for the device modulator section.

(Settings)

Telemetry

(Exciter button)

> ⚠️ **NOTE: this mask may look different depending on models. A different set of buttons could be shown depending on kind of apparatus. Also options installed may influence its look.**
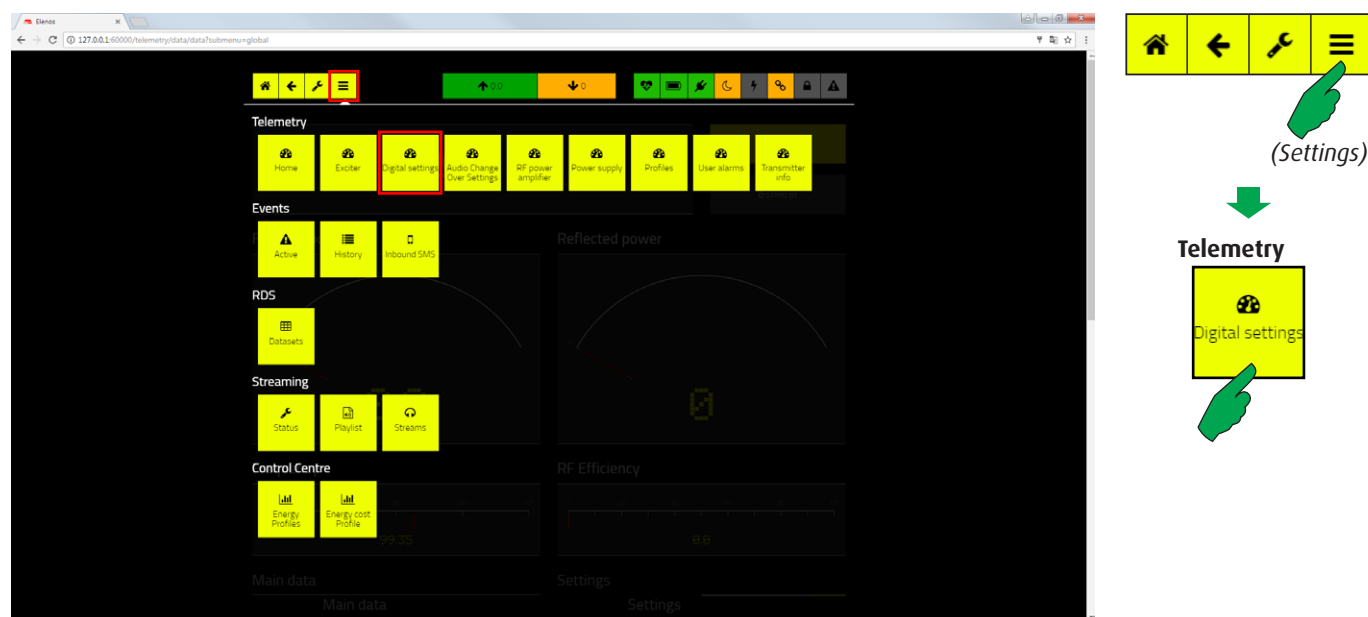
To enter the mask, first press the "Settings" button, then the "Exciter" one in the "Telemetry" bar.
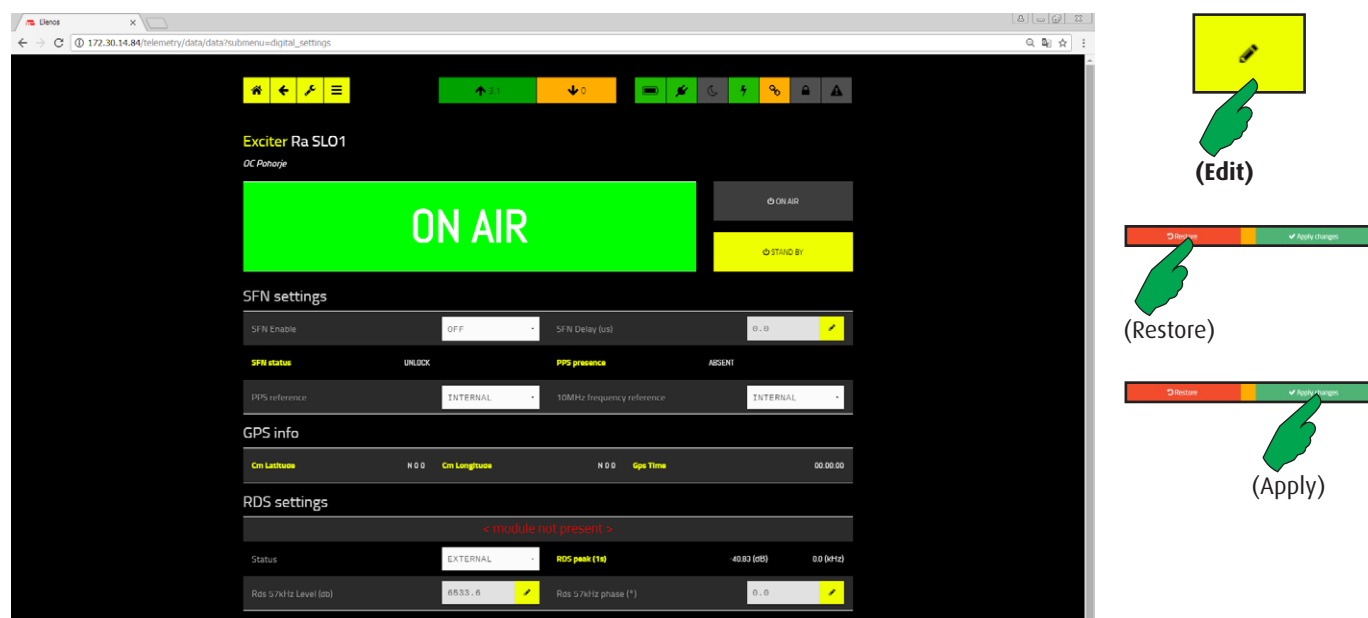

(Edit)

(Restore)

(Apply)

Settings about audio inputs, levels and alarms related to them. The pre-emphasis level may be selected between 0, 25, 50 and 75 μs. The clipper function may be enabled or disabled, and chosen between hard or soft intervention. Audio alarms work in according to the related delays.

To modify any values press the "Edit" button. When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.

WEB interface

3.1.4 Digital settings

Specific settings for digital exciters.
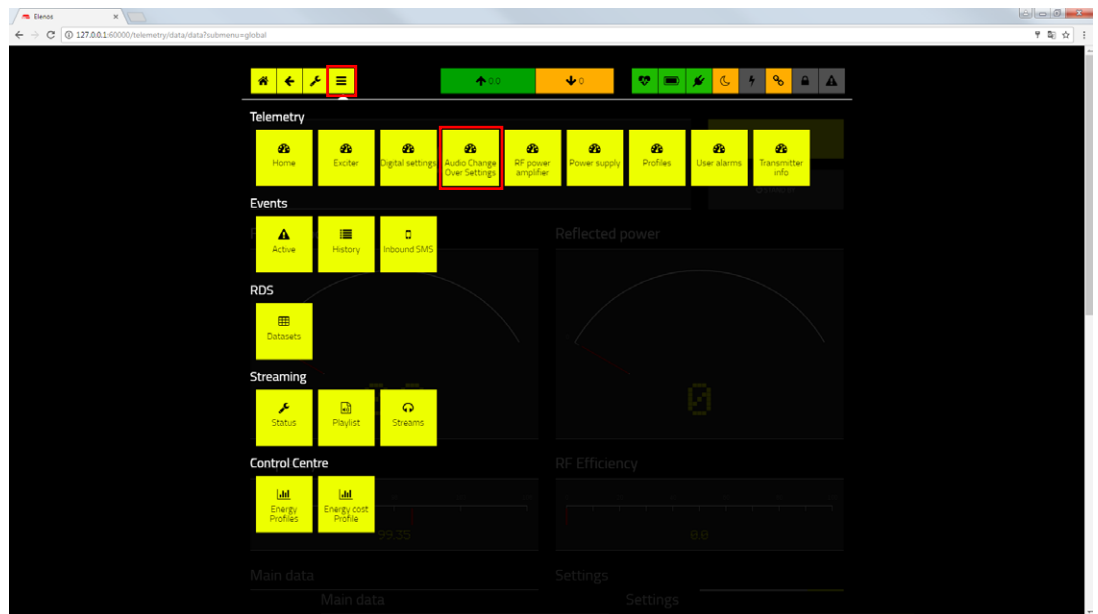

(Settings)

Telemetry

Digital settings

To enter the mask, first press the "Settings" button, then the "Digital settings" one in the "Telemetry" bar.

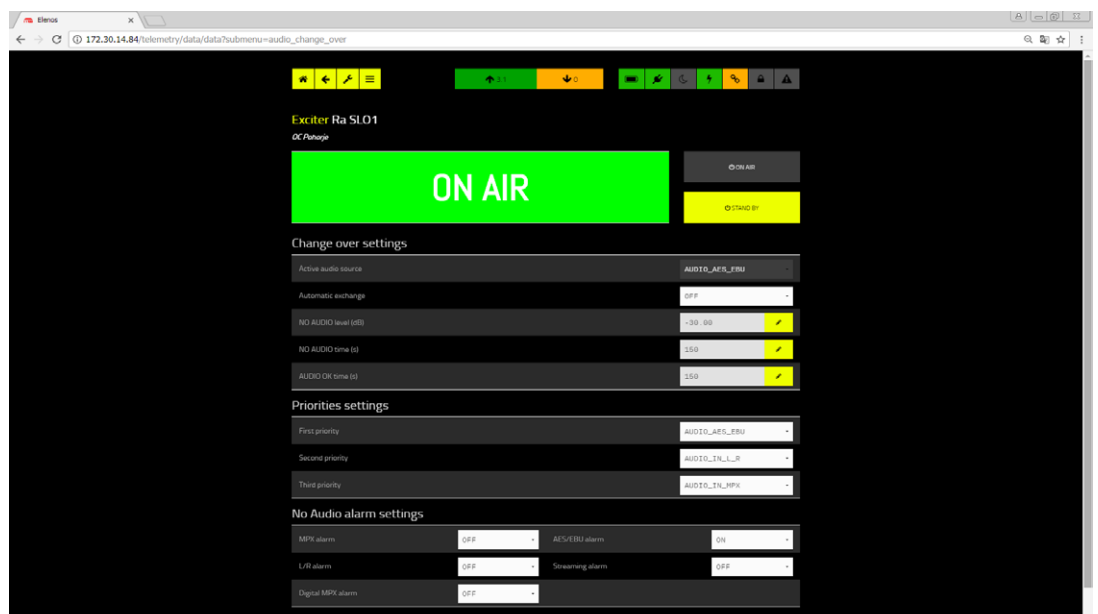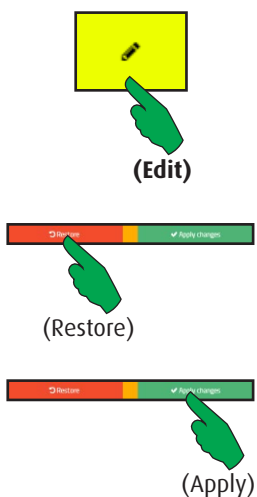**(Edit)**

(Restore)

(Apply)

In this screen, parameters related to the digital option are grouped.
SFN feature can be enabled or disabled and its delay set to a specific value.
Info about PPS, SFN and GPS status are displayed.
When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.

3.1.5 Audio changeover settings

The equipment could be equipped by the automatic audio changeover option. It means that the audio input lines will be automatically selected in according to priorities given.

(Settings)

Telemetry

Audio Change Over Settings

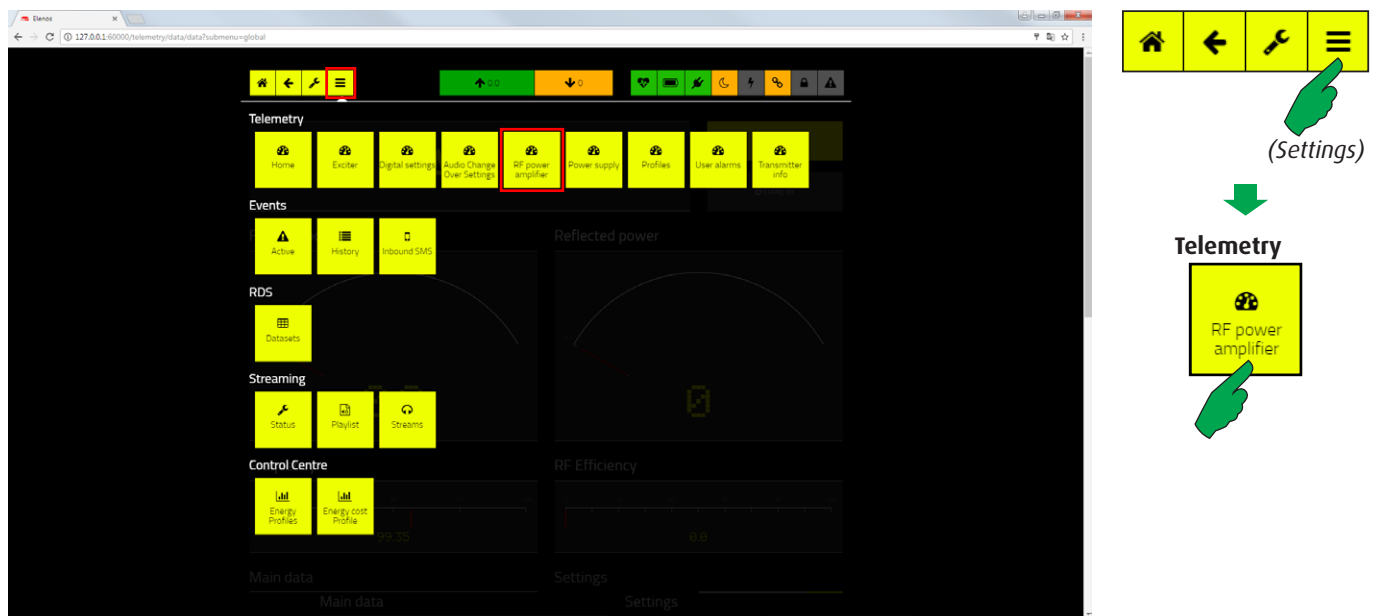To enter the mask, first press the "Settings" button, then the "Audio changeover settings" one in the "Telemetry" bar.

(Edit)

(Restore)

(Apply)

The audio input priorities are specificated by entering their source name in the three fields called "First priority", "Second priority" and "Third priority".

"No audio" and "Audio ok" alarms will be sent after the set timing (in seconds). A "No audio" alarm will be generated when the audio level remain lower than the value set in "No audio level (dB)" for the "No audio time (s)" delay.
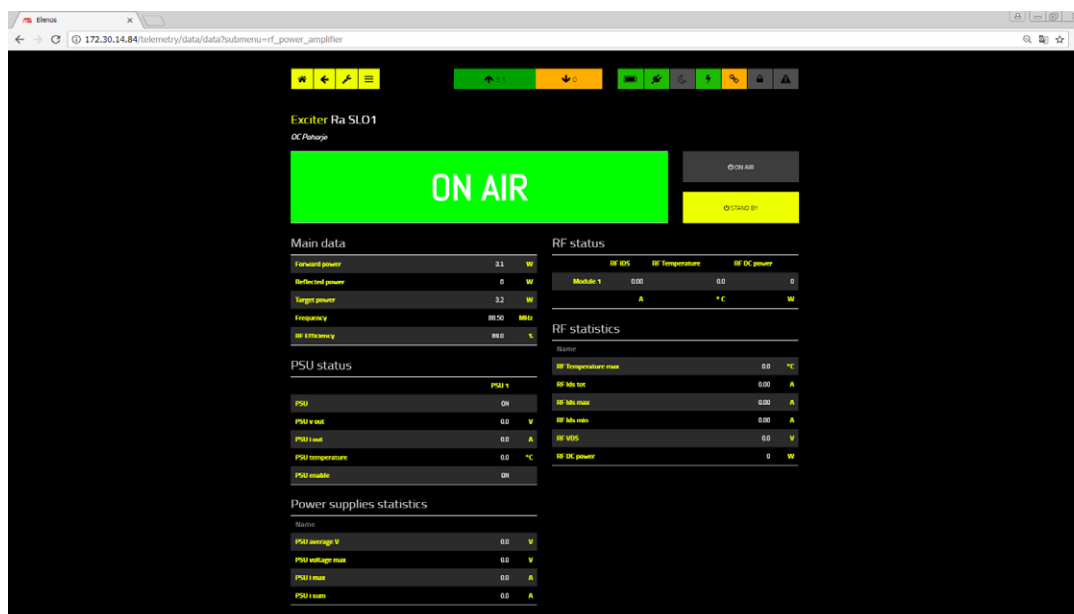
When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.

WEB interface

3.1.6 RF power amplifier

Read only screen. It shows the parameters and statistics of the RF power amplifiers.

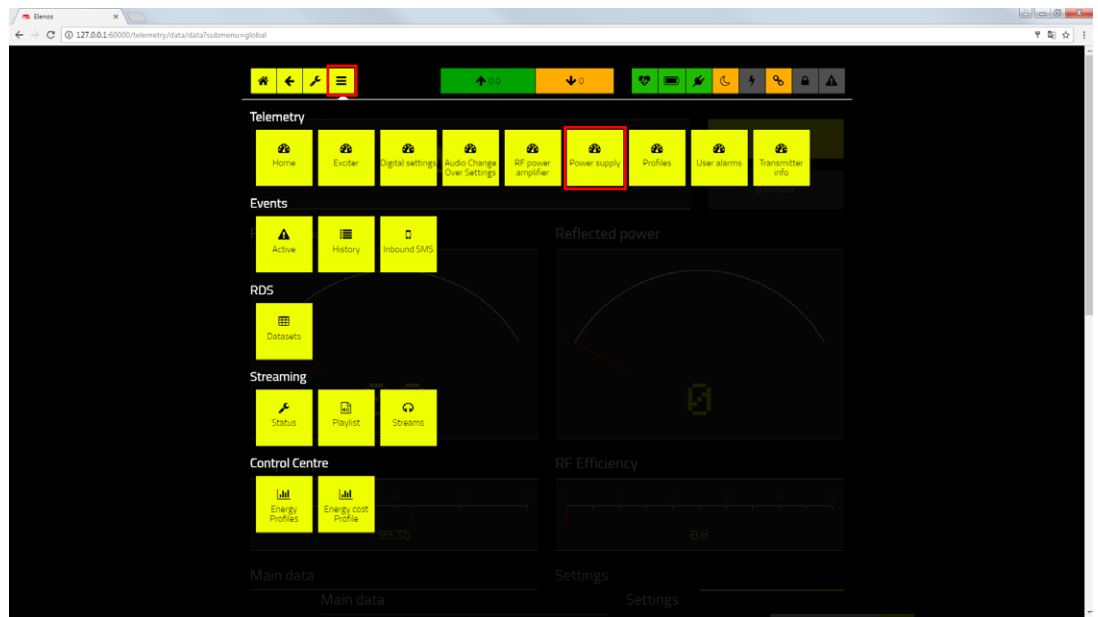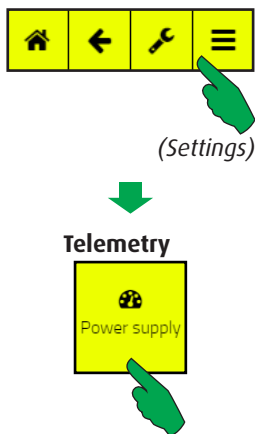*(Settings)*

Telemetry

To enter the mask, first press the "Settings" button, then the "RF power amplifier" one in the "Telemetry" bar.
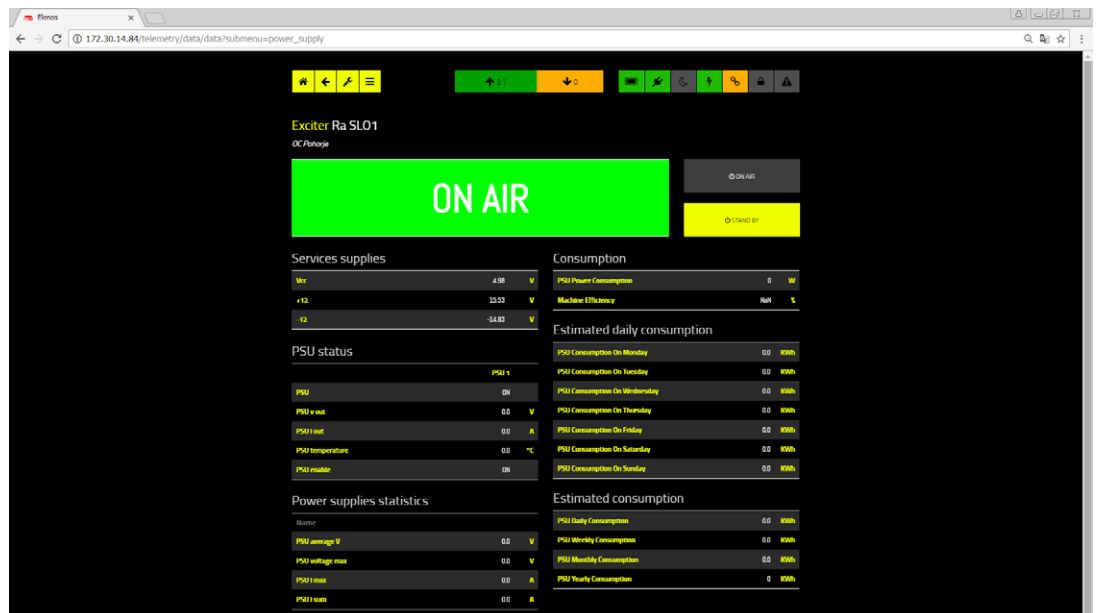

In addition, main data about RF section are displayed (frequency, forward power, reflected power and efficiency).

3.1.7 Power supply

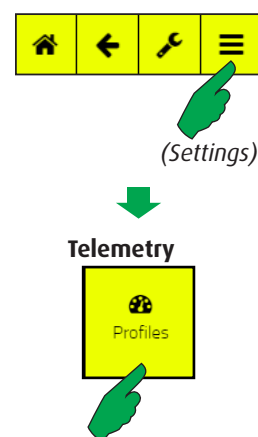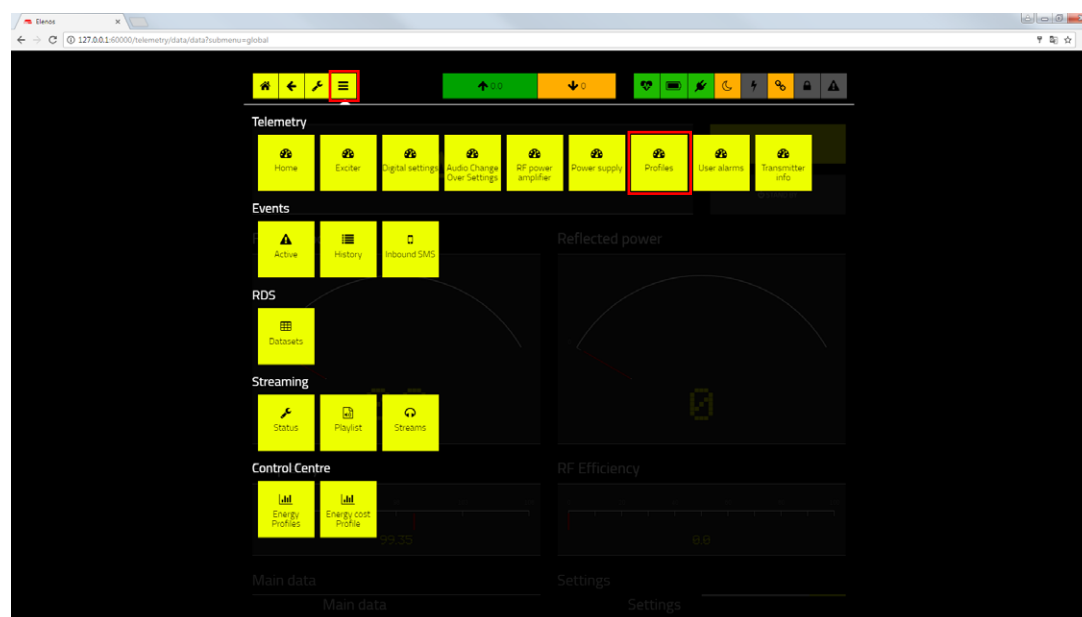Read only screen. It shows the parameters and statistics of the power supplies.

(Settings)

Telemetry

Power supply

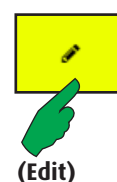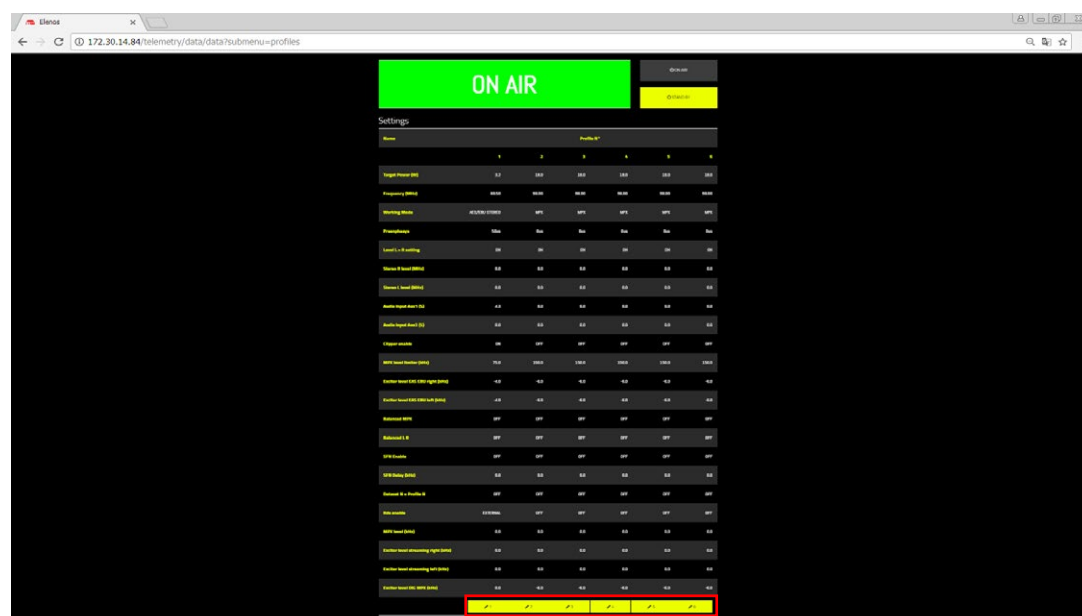To enter the mask, first press the "Settings" button, then the "Power supply" one in the "Telemetry" bar.

Contents of this mask may be different in according to the model of exciter. For example, the number of power supplies could be up to three units.

WEB interface

3.1.8 Profiles

Settings useful for functioning in n+1 transmitter systems.

(Settings)

Telemetry

Profiles

To enter the mask, first press the "Settings" button, then the "Profiles" one in the "Telemetry" bar.

(Edit)

Each equipment may works like a reserve in n+1 transmitter systems. It means that could be used by the control logic unit (Echos6) to replace any other transmitter. Settings of all transmitter installed in the system must be inserted in the profiles map via pressing the "Edit" button at the bottom. Each profile must be properly writed so that the reserve can work with the basic parameters of the replaced device.

Profiles contain main data (target power and frequency), operating mode (audio input and levels, preemphasis), digital audio settings (balanced or unbalanced inputs and digital MPX level), RDS mode (on/off), input levels (streaming, AES/EBU, aux), clipper options (on/off and limiter) and SFN option (on/off, delay).
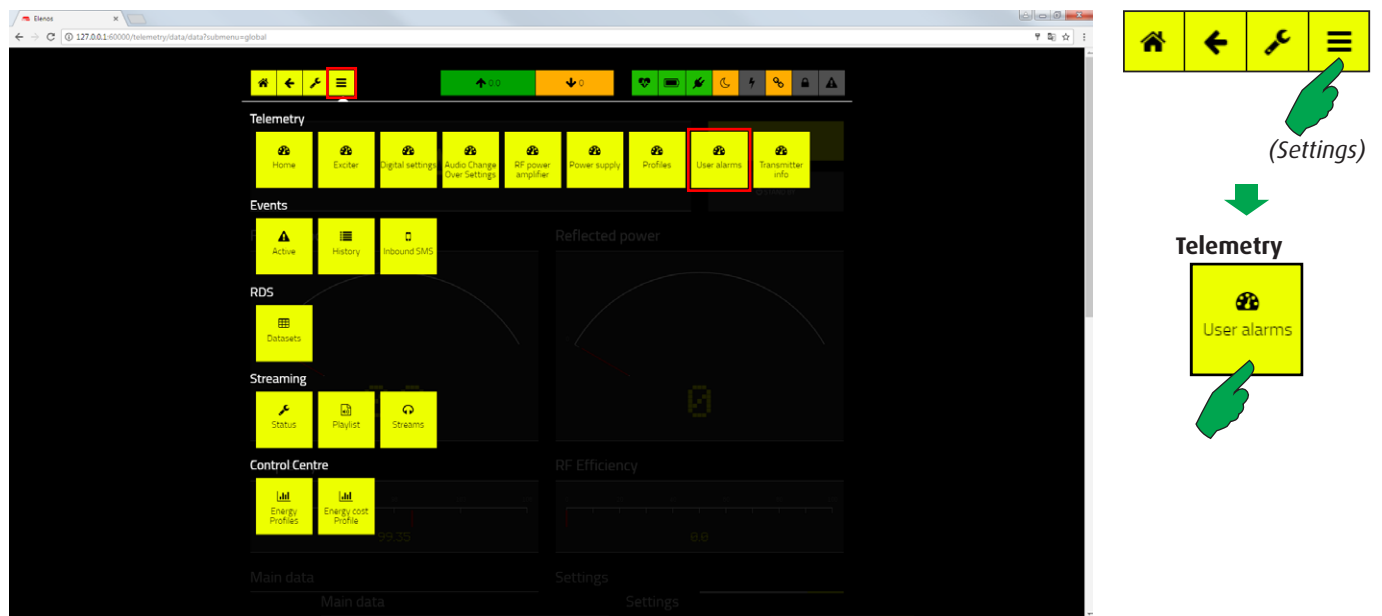

(Edit)

(Restore)

(Apply)

NOTE: this mask may look different depending on models. A different set of buttons could be shown depending on kind of apparatus. Also options installed may influence its look.

When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.

3.1.9 User alarms

Some alarms, related to temperatures, currents, and powers, can be customized by the user so they can trigger at certain levels.

(Settings)

Telemetry

To enter the mask, first press the "Settings" button, then the "User alarms" one in the "Telemetry" bar.
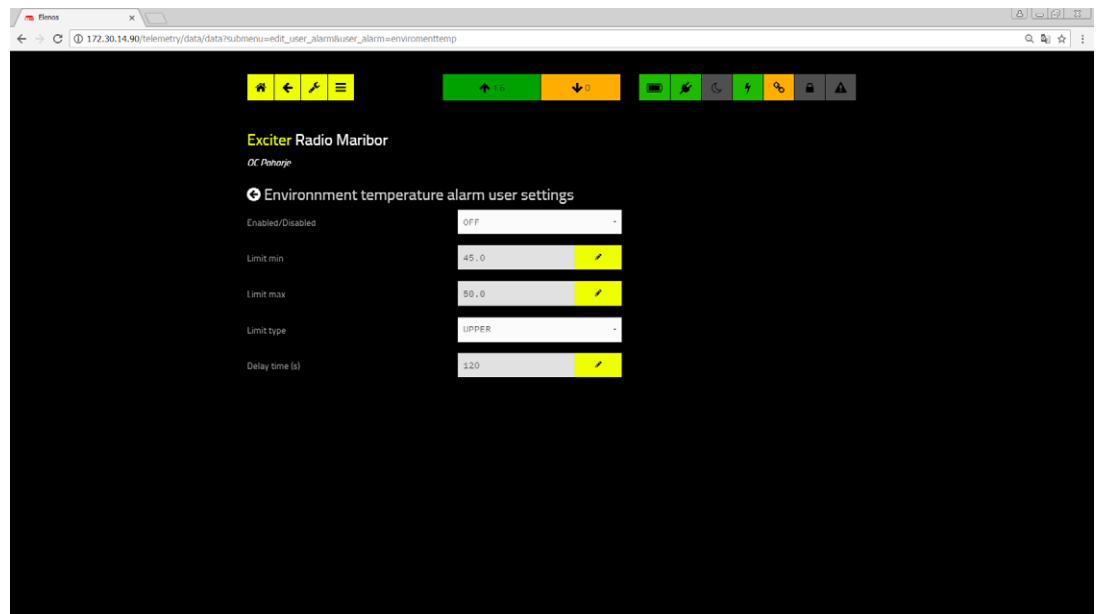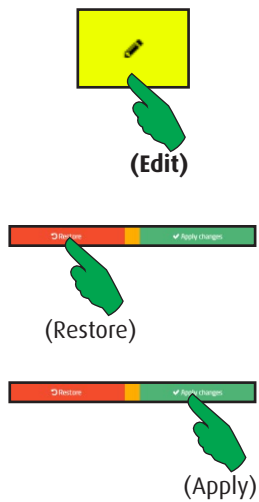

(Edit)

In general, for each alarm, the limits and the application criterion should be specified. For example, two temperature values (min=15°C and max=50°C) and the "Outside" criterion can be set. This will generate an alarm whenever the temperature detected will be out the range of 15-50°C. Other criteria are Inside, Upper and Lower. "Inside" works at the opposite of "Outside". "Upper" generates an alarm when the measurement exceeds the max limit, "Lower" when is under the minimum one. Each alarm can be enabled, disabled and delayed.

Note: the user-defined limits do not replace factory-set maximum limits.

3.1.9.1 Environment and RF Temperatures

It's the temperature provided by the equipment related to the air that flows from location into the it own front panel grid.

(Edit)

(Restore)

(Apply)

When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.
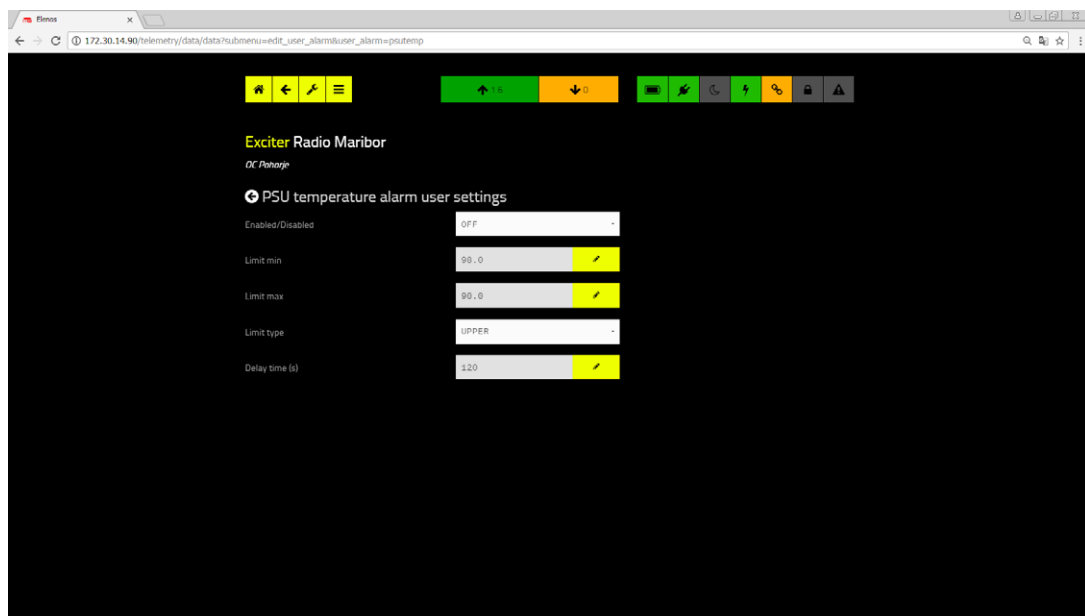

(Edit)

The temperatures of MOSFETs are monitored by one or more thermal probes depending on the number of installed RF amplifier modules.
The operating logic is the same as the previous mask.

WEB interface

3.1.9.2 PSUs Temperatures and Currents

Power supply units are monitored at both temperature and current.
In this mask you can customize the temperature values.

(Edit)

When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.

(Edit)

In this mask you can customize the currents values.
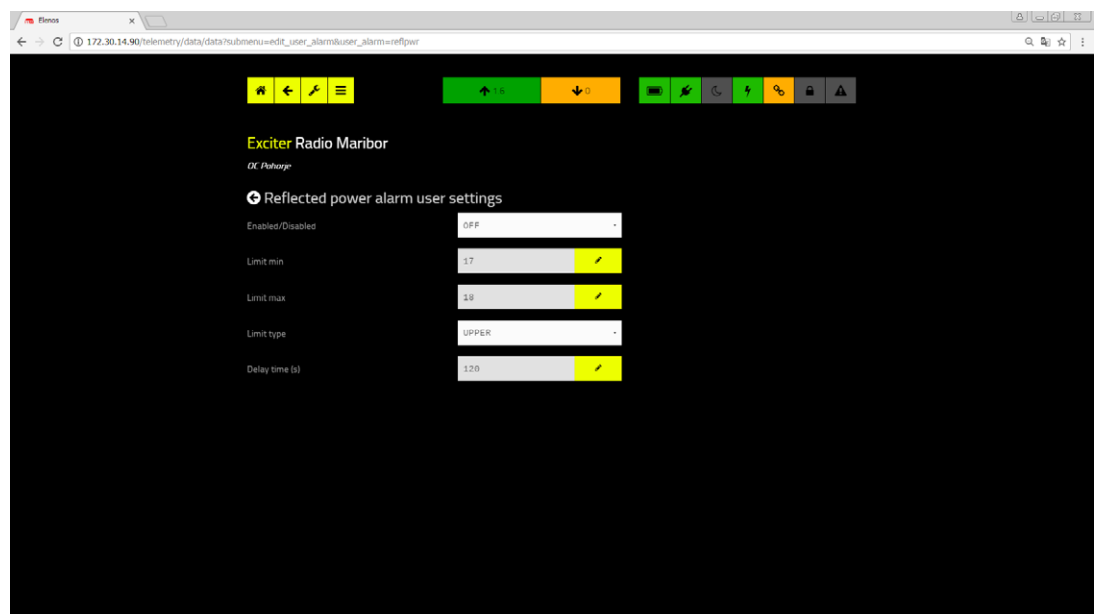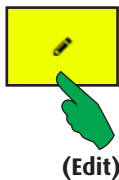The operating logic is the same as the previous masks.

3.1.9.3 Forward and Reflected Power

In addition to the factory-defined limits, algorithms can respect these user-defined values. It allows to have alarms for more restrictive working conditions.

(Edit)

It is advisable to see the user manual to know the factory-set values.
When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.
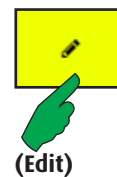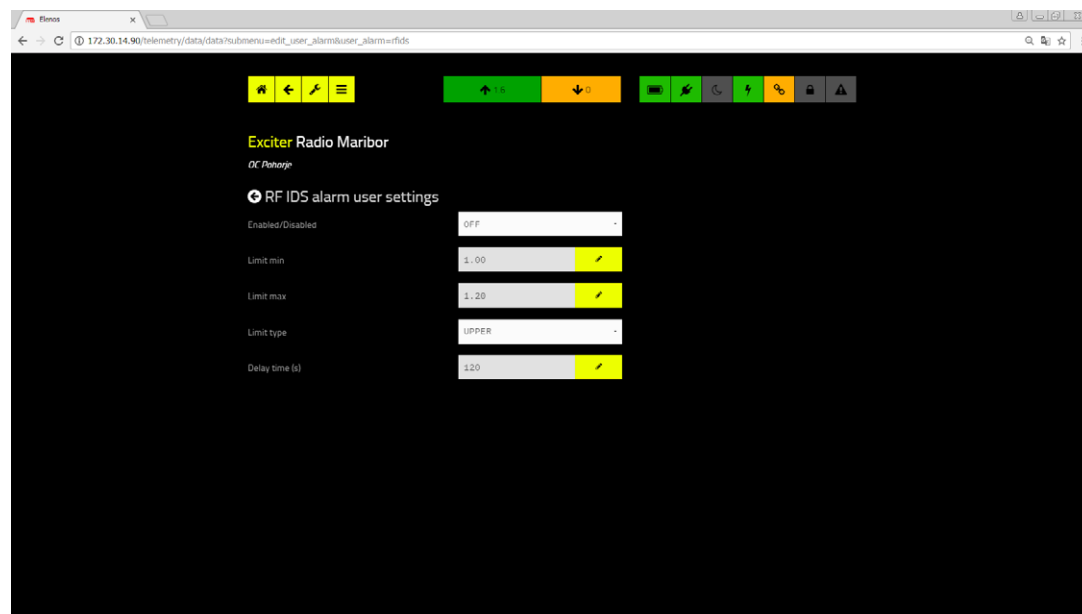
(Edit)

Typically, the maximum permissible reflected power is 10% of the maximum power that the apparatus can supply. Lower user-defined values will generate alarms for more restrictive work conditions.
The operating logic is the same as the previous masks.

3.1.9.4 IDS (RF Modules Current)

The last user-defined alarm is referred to the current consumption of the RF group.
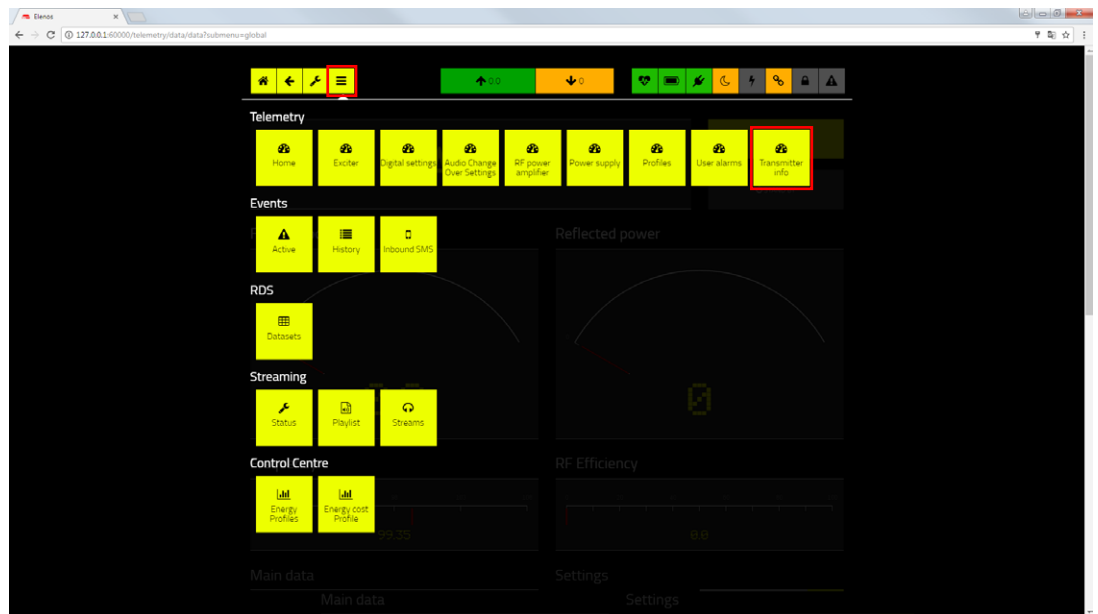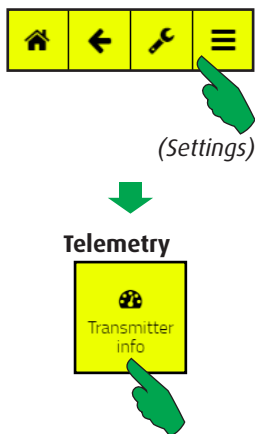If multiple amplifier modules are installed, the alarm is triggered by the higher value.

(Edit)

When some changes are introduced, press the "Apply changes" button to confirm, or "Restore" button to ignore them.
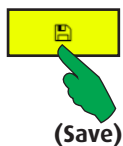
3.1.10 Transmitter info

Synoptic framework summarizing the installed hardware and software versions. It is also possible to enter the transmitter identifiers, including its location.
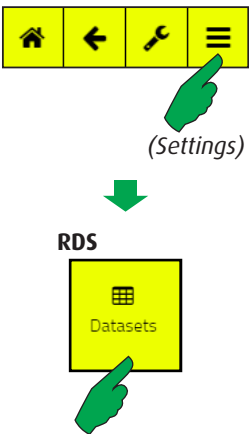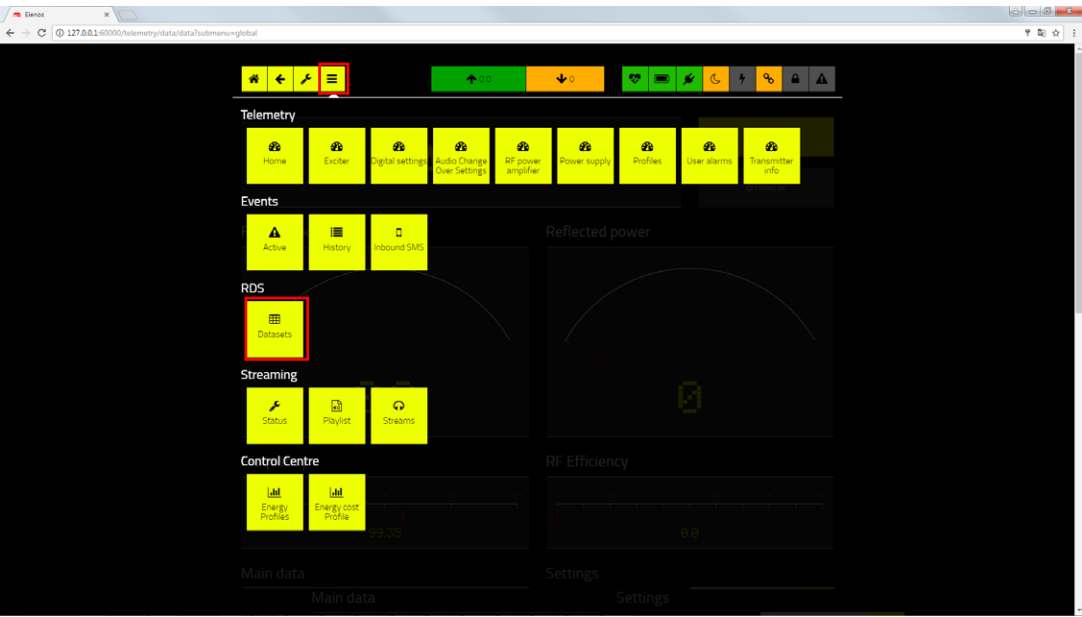

(Settings)

Telemetry

Transmitter info

To enter the mask, first press the "Settings" button, then the "Transmitter info" one in the "Telemetry" bar.
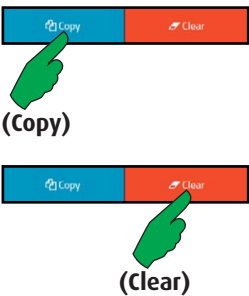

(Save)

After entering the device identifiers, press the "Save" button to store them. These data will then be sent along with the event reports (alarms, warnings and status) in order to uniquely identify the transmitter.

WEB interface

3.1.11 RDS

RDS encoder allows to transmit data such as frequency, broadcaster name, musical genre, and other features related to the program on air.
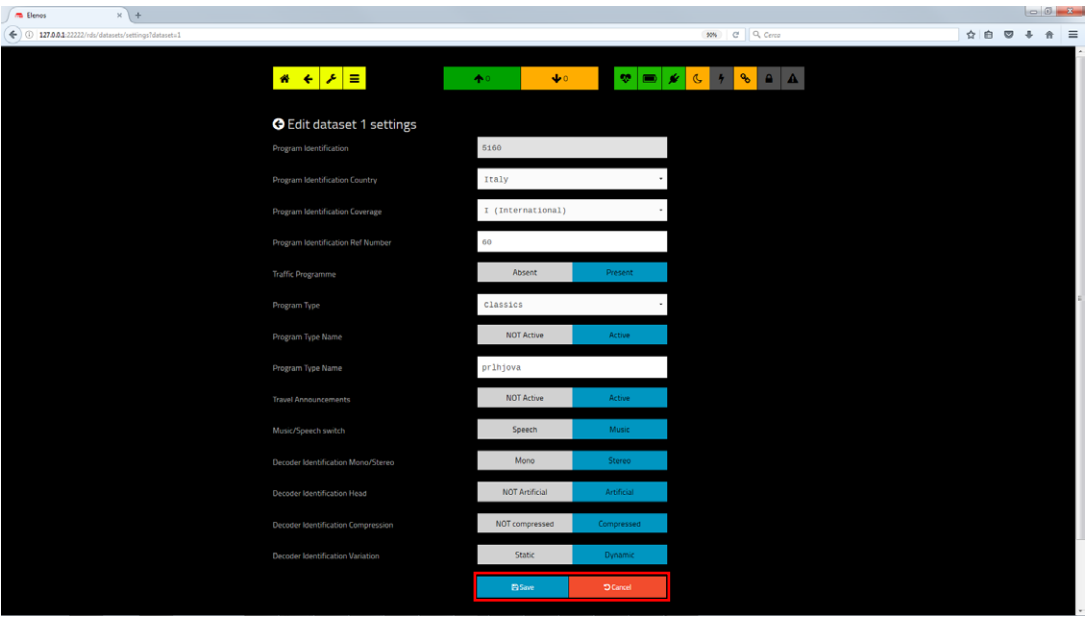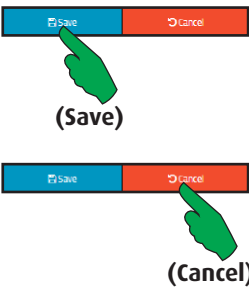

(Settings)

RDS

To enter the mask, first press the "Settings" button, then the "Datasets" one in the "RDS" bar.
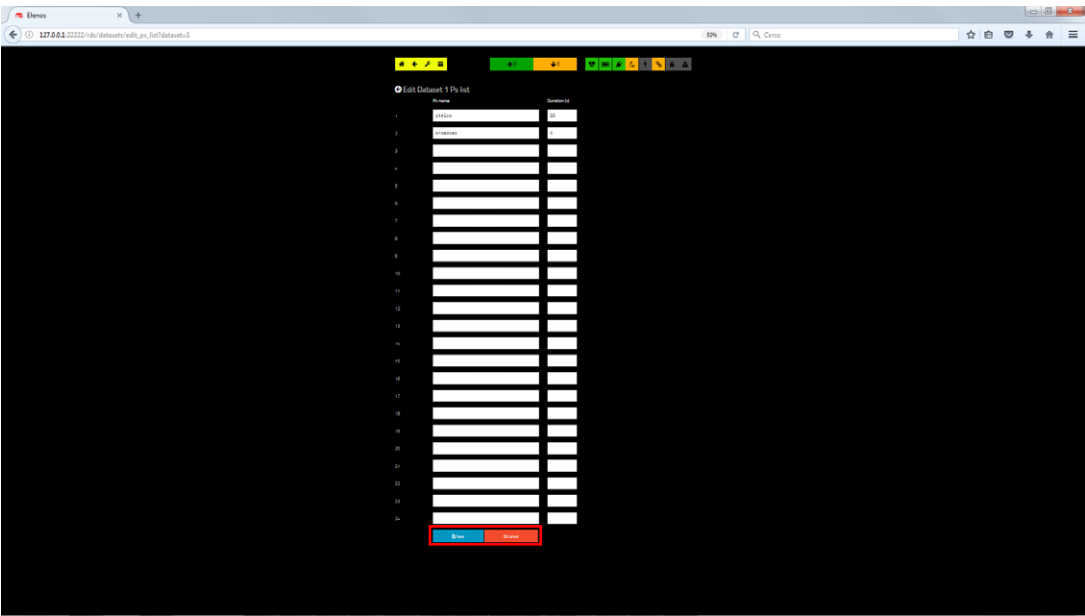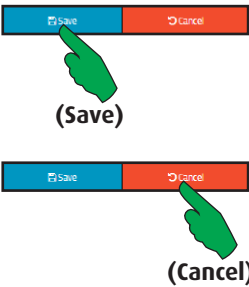

(Copy)

(Clear)

List of datasets related to the RDS function. The "Copy" command is used to get a duplicate of the selected record, and the "Clear" command deletes it. To edit a dataset, press the corresponding button with the pen symbol.
For more details on the RDS functions, see the Exciter user manual.

3.1.11.1 Settings and PS List

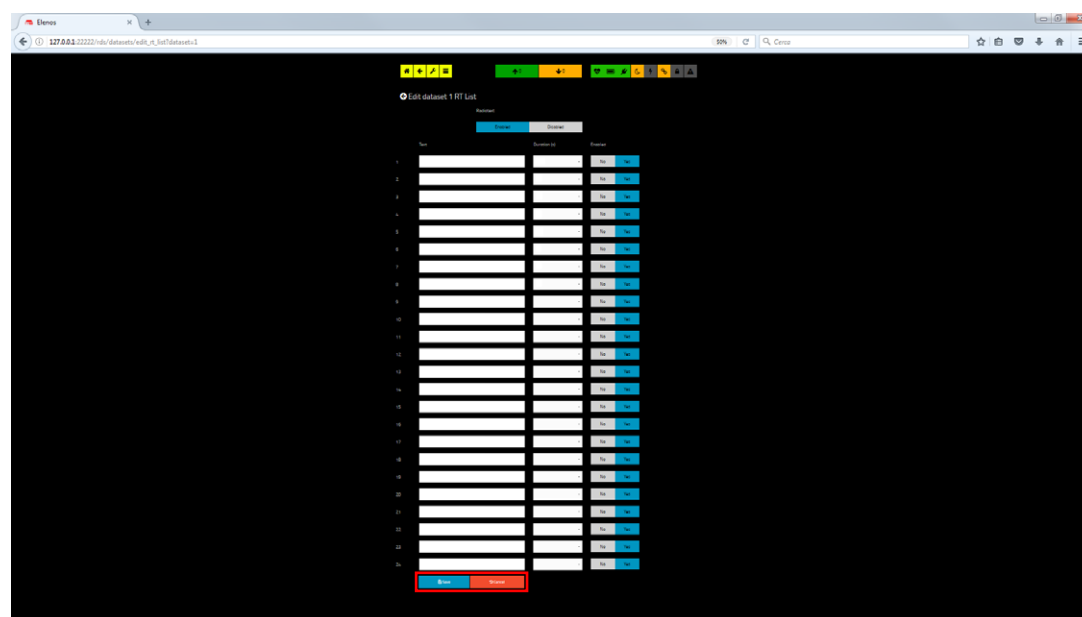This screen brings together the main functions supported by the RDS standard, related to one of the listed datasets.

(Save)

(Cancel)

Each setting can be modified by the authorized users. To confirm the changes press the "Save" button. To restore all the settings in the way they were before entering this mask, strike the "Cancel" button.

(Save)

(Cancel)

Mask dedicated to the "Program Service" function. It lists the 8-character words which can be sequentially and cyclically displayed, so that various types of messages can be shown.
The values stored in the "Duration" fields indicate for how many seconds each word will be displayed.

3.1.11.2 RT List and AF List

The RT function is very convenient to transmit voice traffic information. The AF list contains the alternative transmission frequencies.
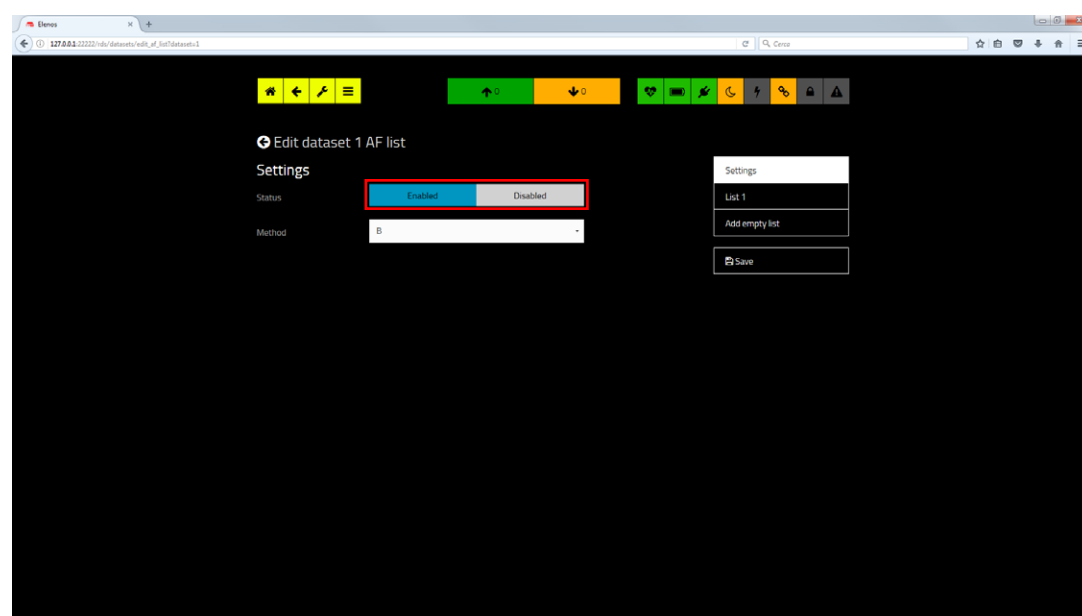

(Save)

(Cancel)

RT (Radio Text) is a function that allows to send short text messages (32 to 64 char) which will be read by a speech synthesizer directly in the language selected on the receiver. Each sentence can be enabled or disabled and it's possible to set the duration (seconds). These are conventional communications that do not involve language restrictions.

(Enable)

(Disable)

The list of alternative frequencies (AF) allows FM tuners, if this function is active, to receive the same network on other available frequencies.
First, select the method (A or B) in which will be entered the alternate frequencies.
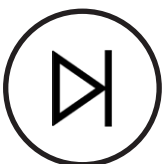
3.1.12 RDS EON

This advanced feature allows FM tuners, that support it, to receive traffic information even if they are not tuned to the broadcaster that is transmitting it.
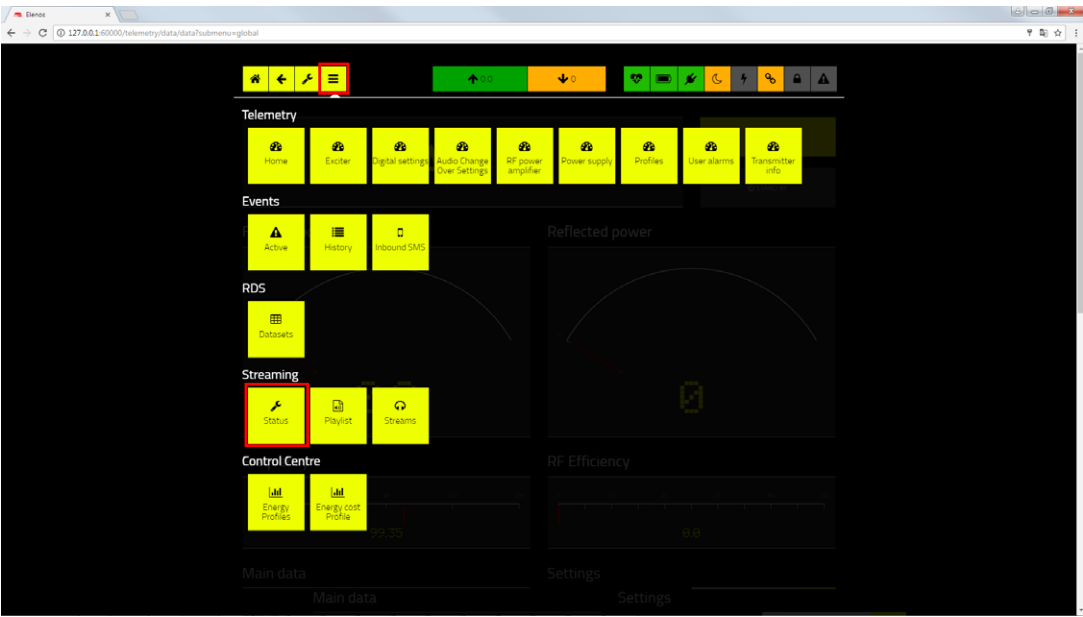

For each broadcaster you want to associate with this service, enter the name (PSN), the identifier (PI), and the list of broadcast frequencies.
Depending on the method chosen (A or B), the frequencies of the associated broadcasters should be matched to the coverage areas.
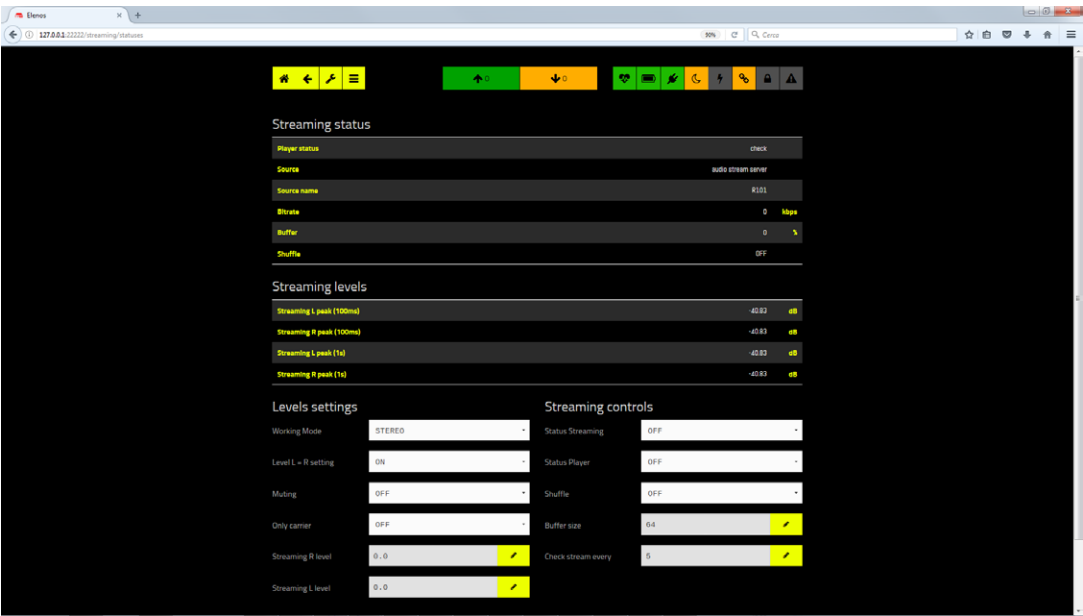
3.1.13 Streaming

The device can be equipped with the streaming option. It allows to select alternate audio inputs when the main one no longer provides audio.

(Settings)

Streaming

Streaming is an optional, so that may not be installed. In this case, related menu isn't available.

To manage basic functions and check its status, first press the "Settings" button, then the "Status" one in "Streaming" bar.
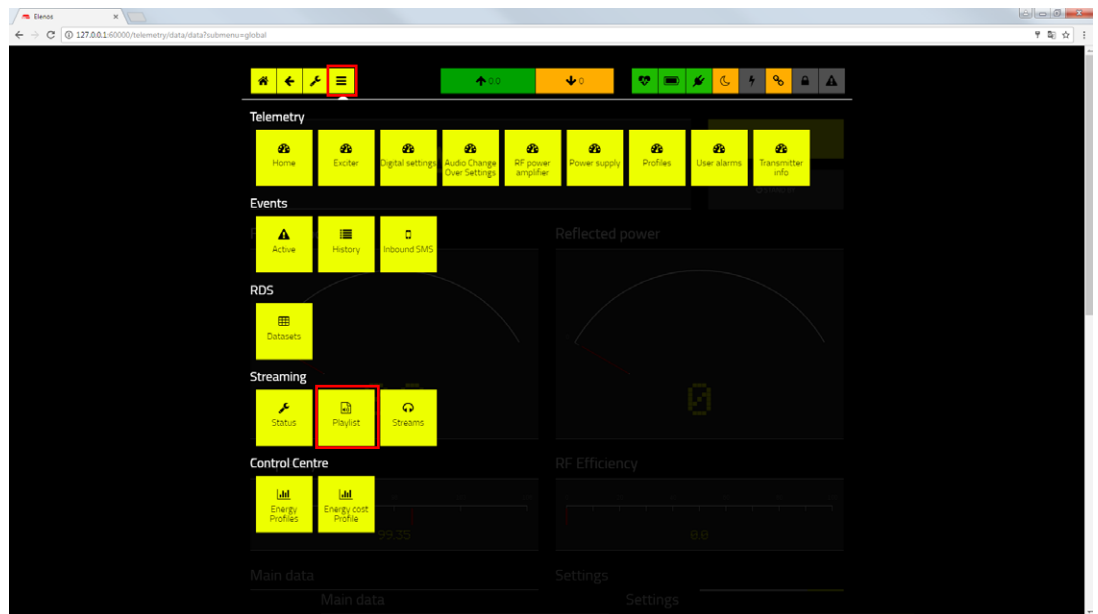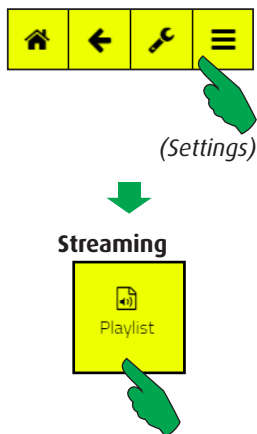

This screen displays the status and levels related to the broadcast mode in which streaming is selected as audio input, in accordance with the priority settings for the audio input autoselector.
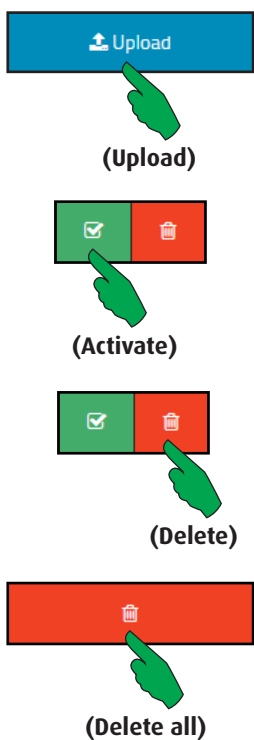
It's also possible to set the audio levels and modify the working mode of this option.

3.1.14 Playlist

The streaming function requires the compilation of one or more playlists (song sequences). The following steps show how to load songs and prepare playlists.
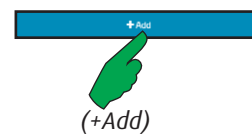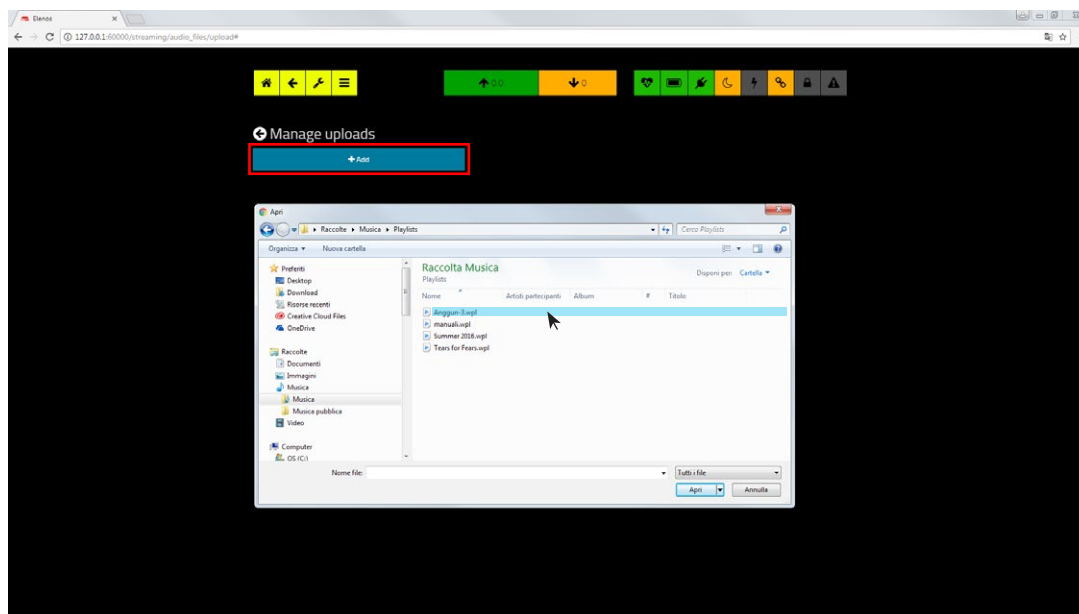
(Settings)

Streaming

To enter the related masks, first press the "Settings" button, then the "Playlist" one in the "Streaming" bar.

(Upload)

(Activate)

(Delete)

(Delete all)

Playlist management example. Songs can be added by pressing the "Upload" button. Each track can be activated or removed by pressing the button with the "Check" symbol or the one with the "Trash" symbol. To delete the entire playlist, use the "Trash" button at the top right.
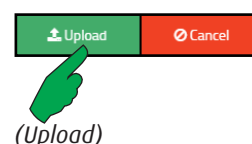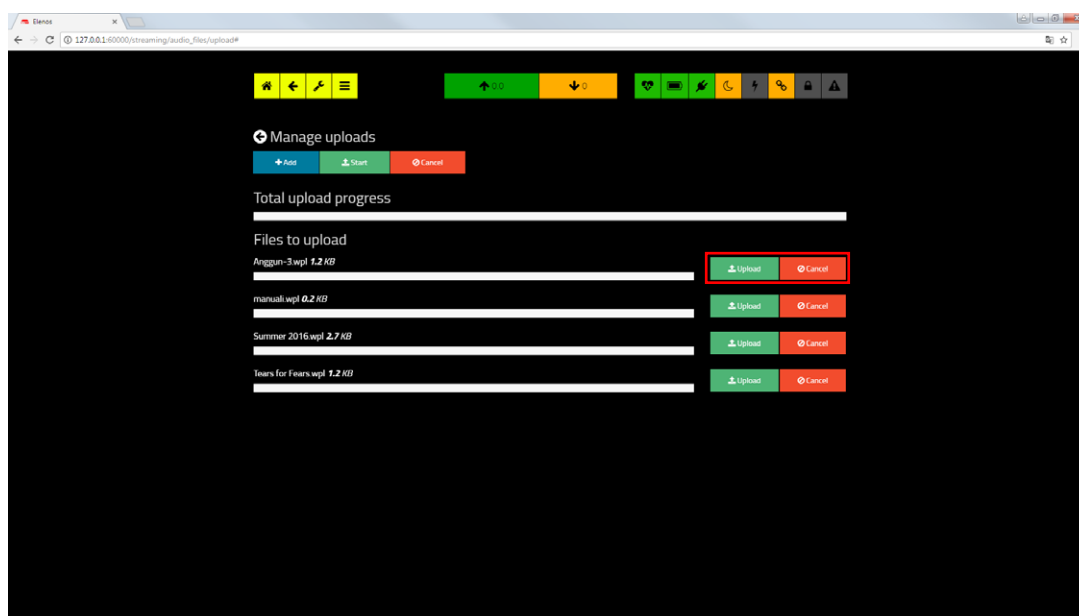
WEB interface

3.1.14.1 Manage Uploads

After pressing of the "Upload" button, select the "+Add" button to enter the mask for browsing.
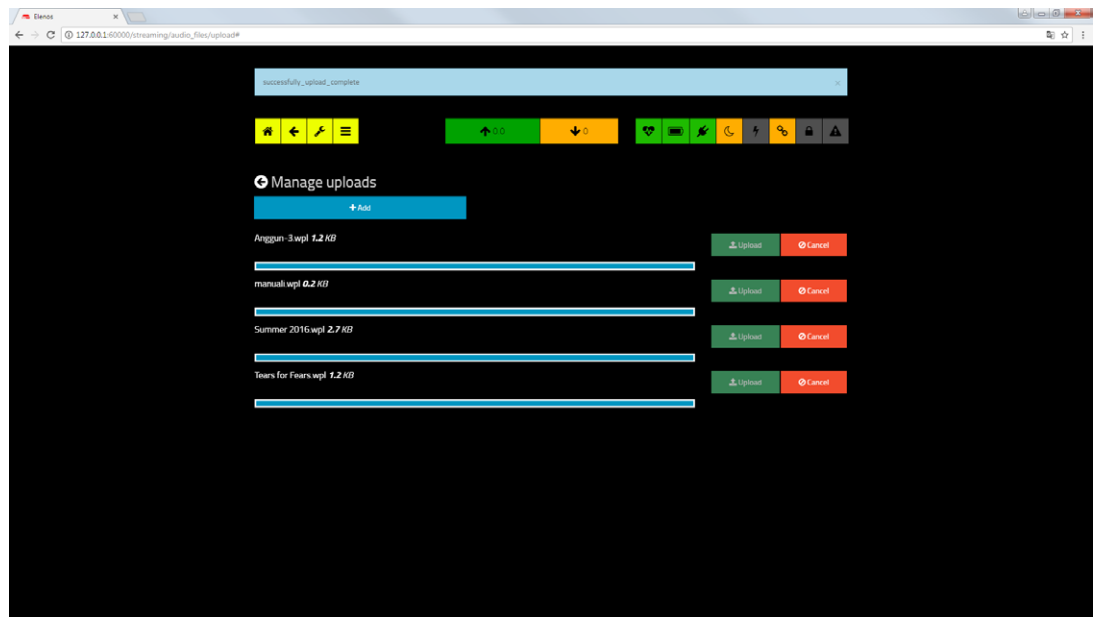

(+Add)

The way for selecting files to add to the playlist are those provided by the operating system. Usually, first must be pointed the file name and then, with a double click, the file is added to the list.
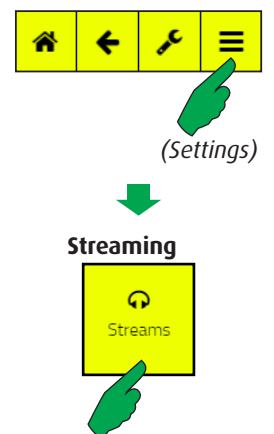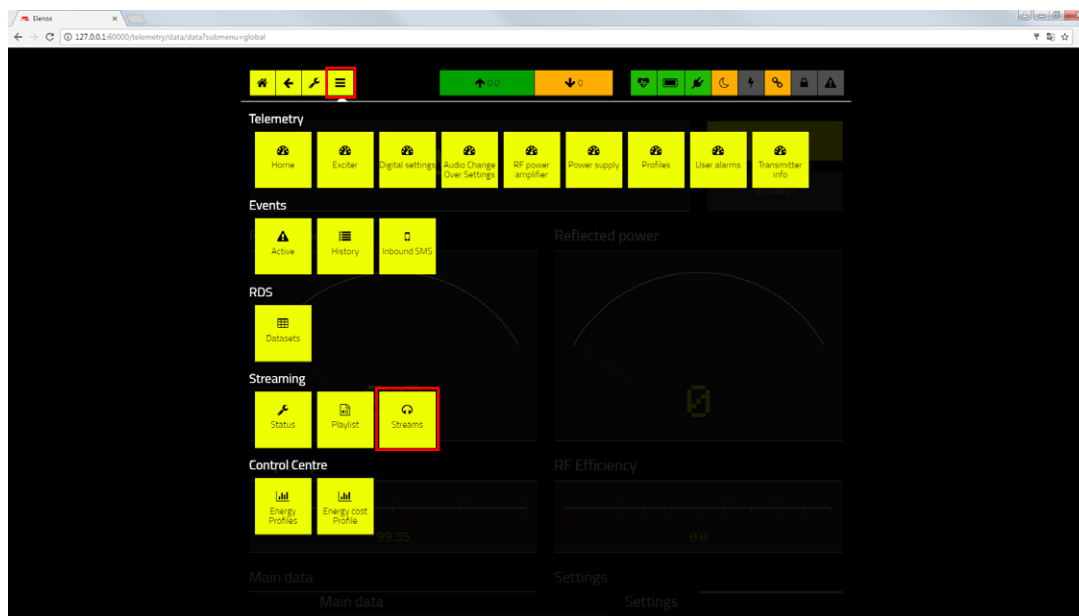Some of the ammissible audio formats are: MP3, AAC, OGG and WMA.

(Upload)

(Cancel)

Once the list is compiled, the files must be loaded in memory. By pressing the "Upload" button at the right of the file bar, the loading process starts.
To discard the file press the "Cancel" button.

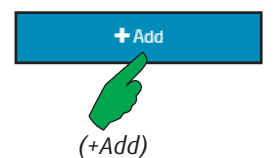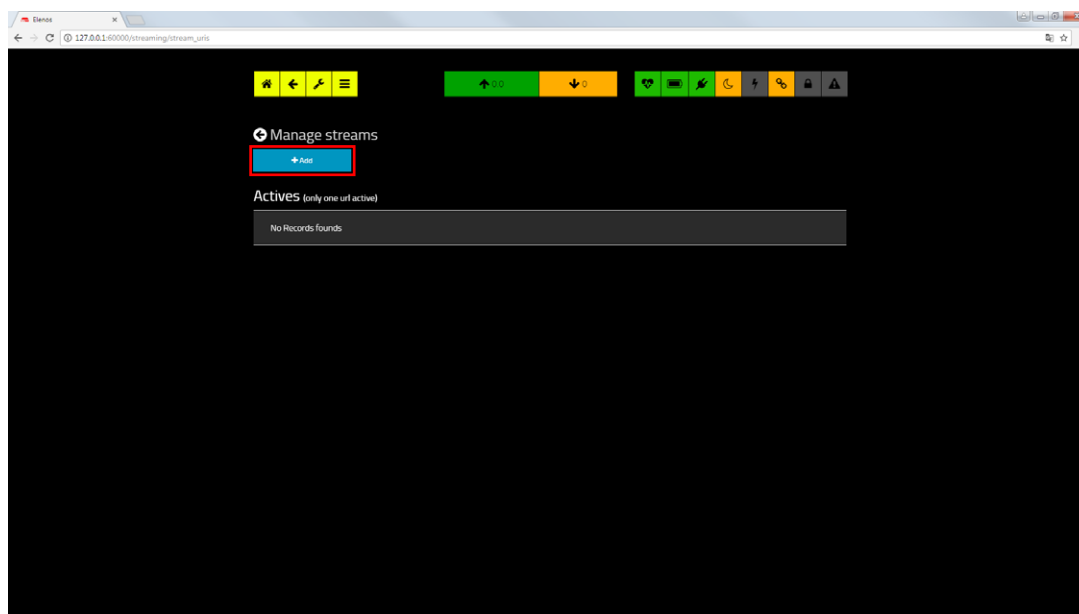A track has been loaded when its progress bar becomes completely blue.

WEB interface

3.1.15 Streaming

Selecting source for streaming.

(Settings)

Streaming

To enter the related masks, first press the "Settings" button, then the "Streaming" one in the "Streaming" bar.

(+Add)

The active source for streaming must be selected. The list can contain multiple URLs from which to take streaming files, but only one can be active at a time.
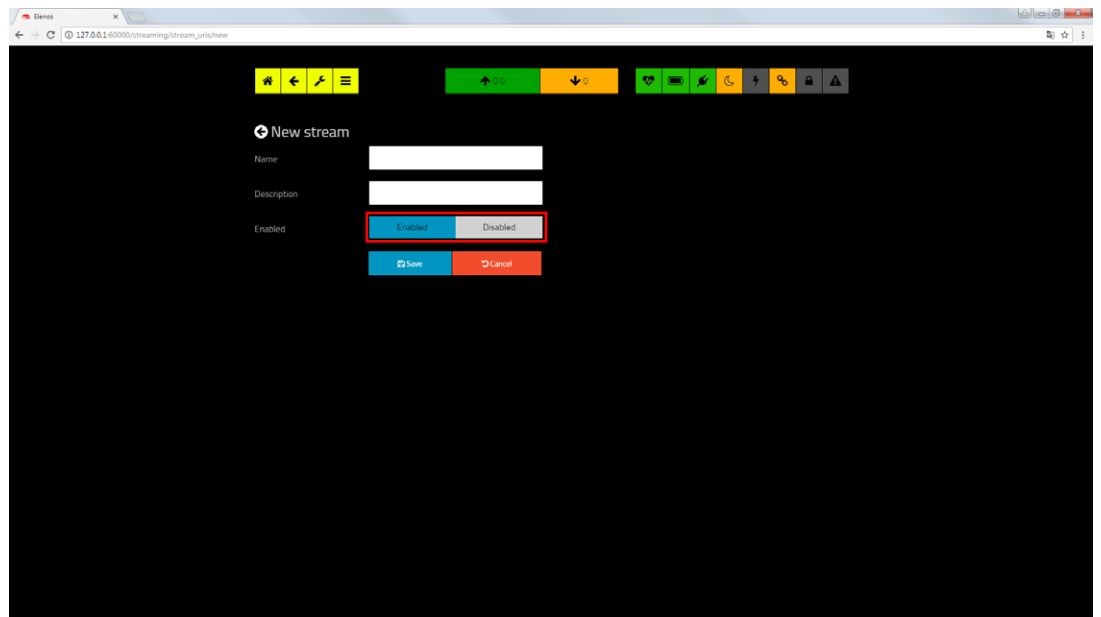
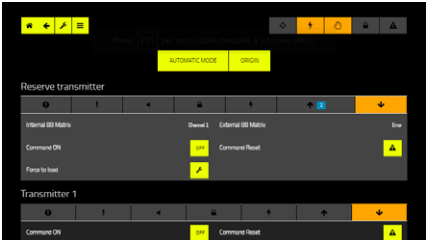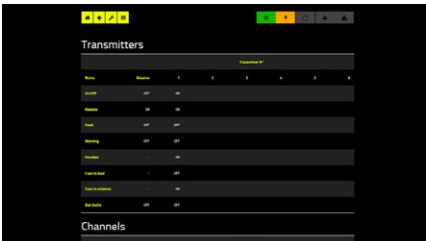Example of adding a source for streaming.

(Enable)

(Disable)

A source, once inserted, can be enabled or disabled. If disabled, even if it is in the list, it will be ignored.
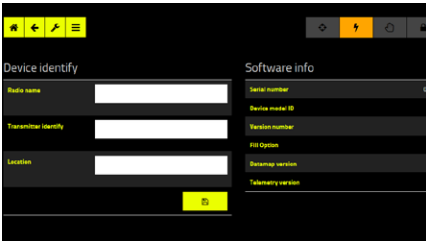
WEB interface

4 Changeover

Synoptic of transmitters

Profiles

System info

Events history

4.1.1 Main screen

This page includes all the installable transmitters, ie up to 6 plus the reserve. To view those not shown, scroll the page.

The user can choose Automatic or Manual Mode by pressing the large button on top of the list ("AUTOMATIC MODE" in picture).

In Manual Mode, each transmitter may be switched on/off, reset or connected to the dummy load.

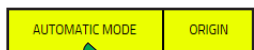Switching to the load can only be done if the main Tx and the reserve are in standby.

By choosing "Not handled" mode, each main Tx may be excluded from the automatic commutation.

By pressing the "ORIGIN" button, all the main Tx will be connected to the antennas and put On Air, while the reserve one will be put in standby and connected to the dummy load (correct working condition).
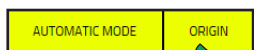
Returning the equipment to automatic mode, it will turn on all the main transmitters connected to the antennas.

Obviously, each transmitter can not be controlled if it is in Local Mode.
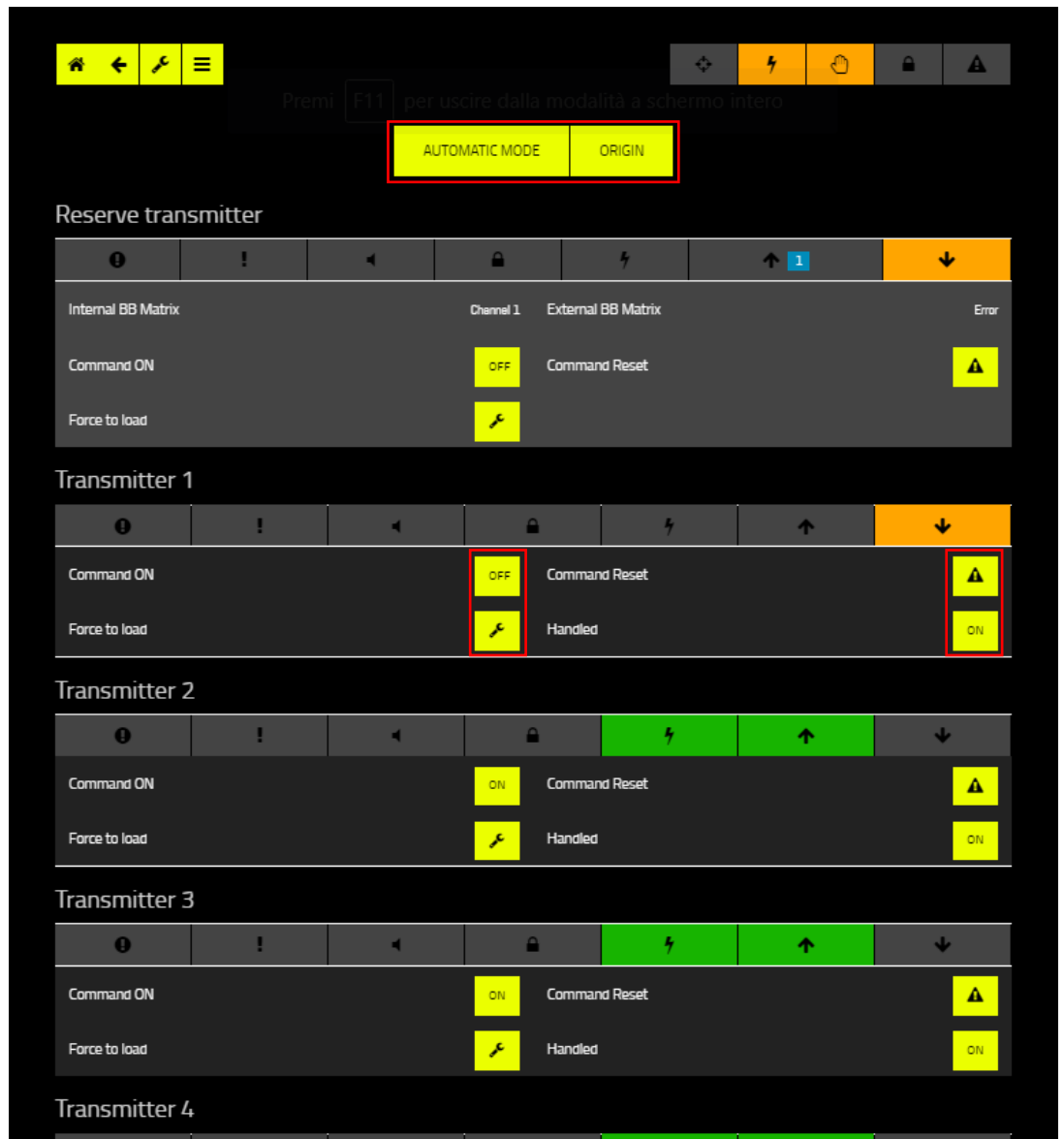
More info in the ECHOS6 user manual.

WEB interface

4.1.2 Transmitters status

The information displayed on this page are the following: the status of all channels' interlock and of the load; the connections of the baseband matrices; which channel is currently active on the reserve.

4.1.3 Timers

This page allows to view and modify all delays associated with events that can be managed by Echos6.
To change their values press the "Edit" button.

(Edit)

| WEB interface

4.1.4 System info

This page contains the equipment identification data that can be entered by user. They are: broadcaster's name, device's location and name. These info will be sent with the text of the messages to facilitate the identification of the apparatus.
Moreover, software info are shown.

4.1.5 Active alarms

Active events list. This list may be resetted by pressing the "Reset events" button.

(Reset events)

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WEB interface