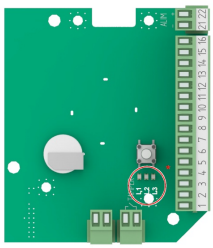
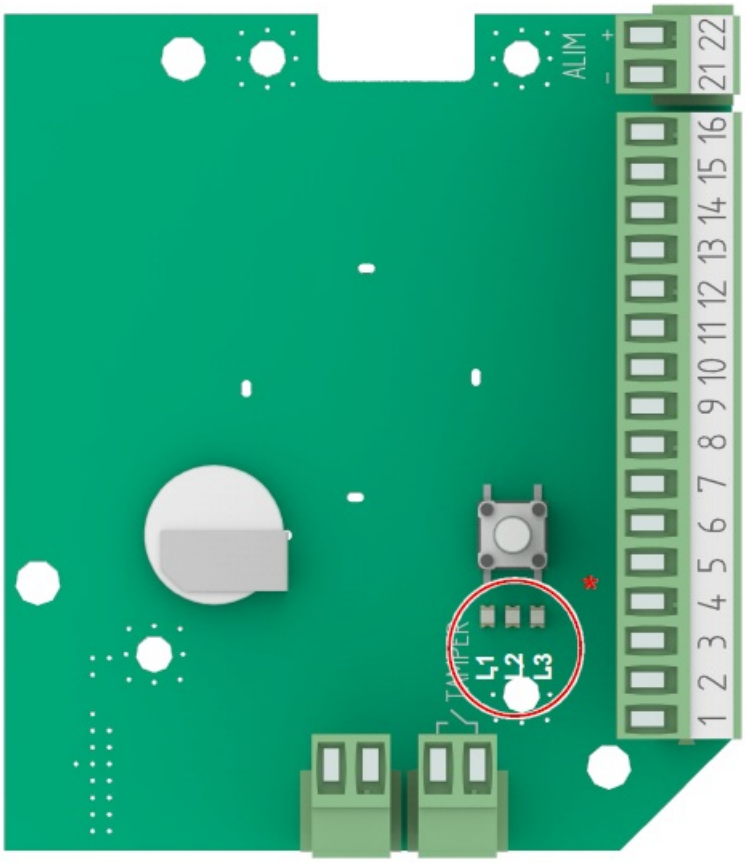


ProTech SORADIO Connect Radio Module Instruction Manual

Contents

ProTech SORADIO Connect Radio Module

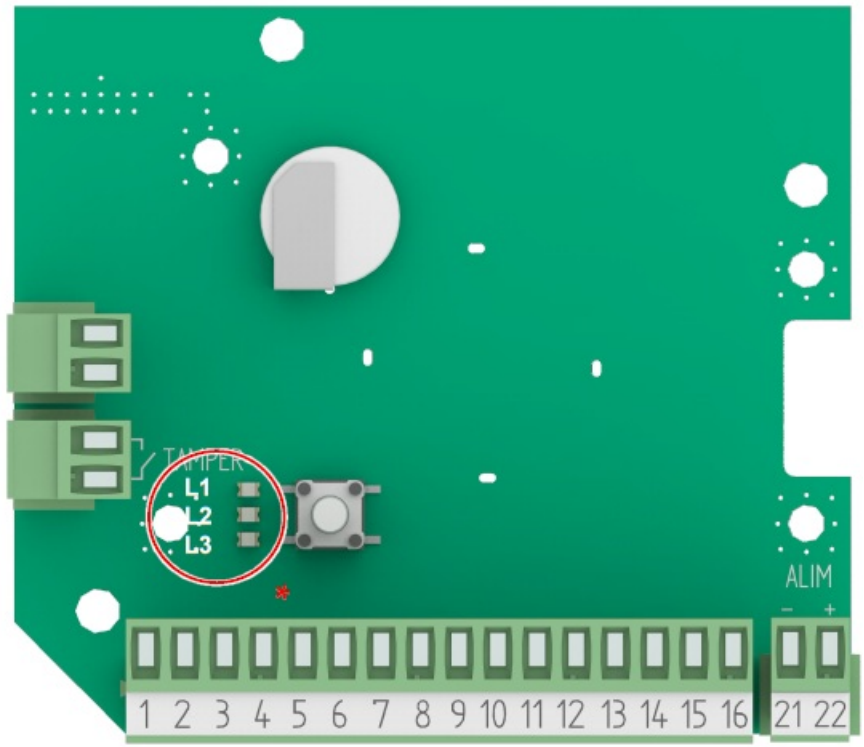


529 VISTA BLVD 89434 SPARKS, NV – USA

Toll Free: 1-800-498-9662 / **Phone:** (775) 856-7333 / **Fax:** (775) 856-7658
Website: www.protechusa.com

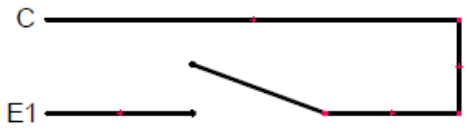
E-mail: sales@protechusa.com

WIRING


TAMPER
L1
L2
L3
ALIM
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
21 22

N° Terminals	Description
1	Input 1
2	Common
3	Input 2
4	Common
5	Input 3
6	Common
7	Input 4
8	Common
9	Input 5
10	Common
11	Input 6
12	Common
13	Input 7
14	Common
15	Input 8
16	Common
17	X
18	X
19	X
20	X
21	0V Power supply
22	+12V DC Power supply

Note: All common inputs are connected together.
Example of input wiring:



The inputs are seen out of alarm when they are closed. They are seen in alarm when they are open (Positive security).
* **LEDs status L1, L2 et L3:**

L1: green	**Operating mode**	OFF: Radio Mode ON: RS485 Mode (unused in SORADIO)	**LEDs active only if BLE is activated after a short pre ss on the tamper**
L2: orange	Radio configuration status	Blinking: Radio mode not configured ON: Radio mode configured	
L3: red	BLE status	OFF: BLE deactivated Blinking: BLE active waiting for connection ON: BLE active connected to t he application	

Maximum length of 12V DC power supply cables: (cable type SYT1 shielded)

Wire		**Wire section**		**Maximum length of cables**	
0.6 mm	0.02 in	0.3 mm²	23 AWG	500 m	0.31 mi
0.9 mm	0.04 in	0.6 mm²	20 AWG	1124 m	0.7 mi
1.4 mm	0.06 in	1.5 mm²	16 AWG	2506 m	1.56 mi

Note: When using the same cable to supply power to several components, the indicated distances should be divided by the number of connected components. When using several wires with the same section in parallel by polarity, the indicated distances should be multiplied by the number of connected wires.

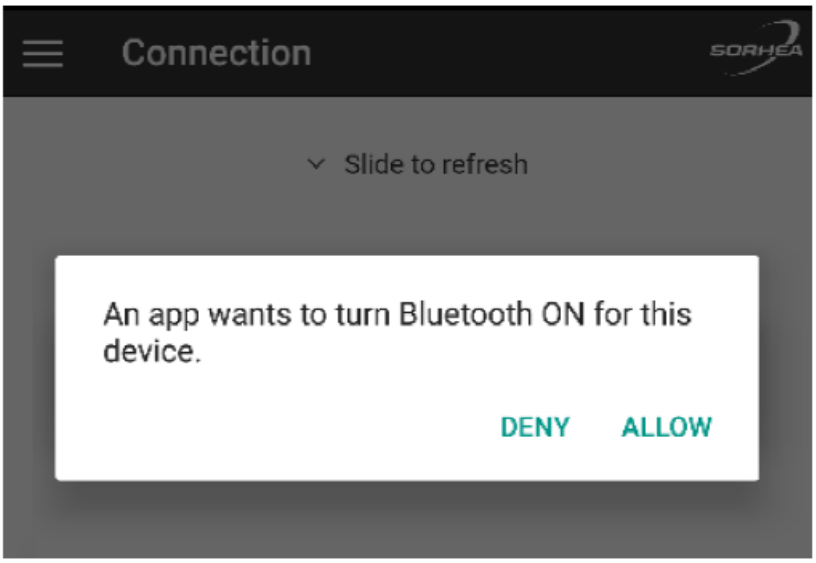
SMARTPHONE APPLICATION

Note: The smartphone application is compatible from Android 4.1 or higher.

1. Download the smartphone application “Sorhea Connect”.

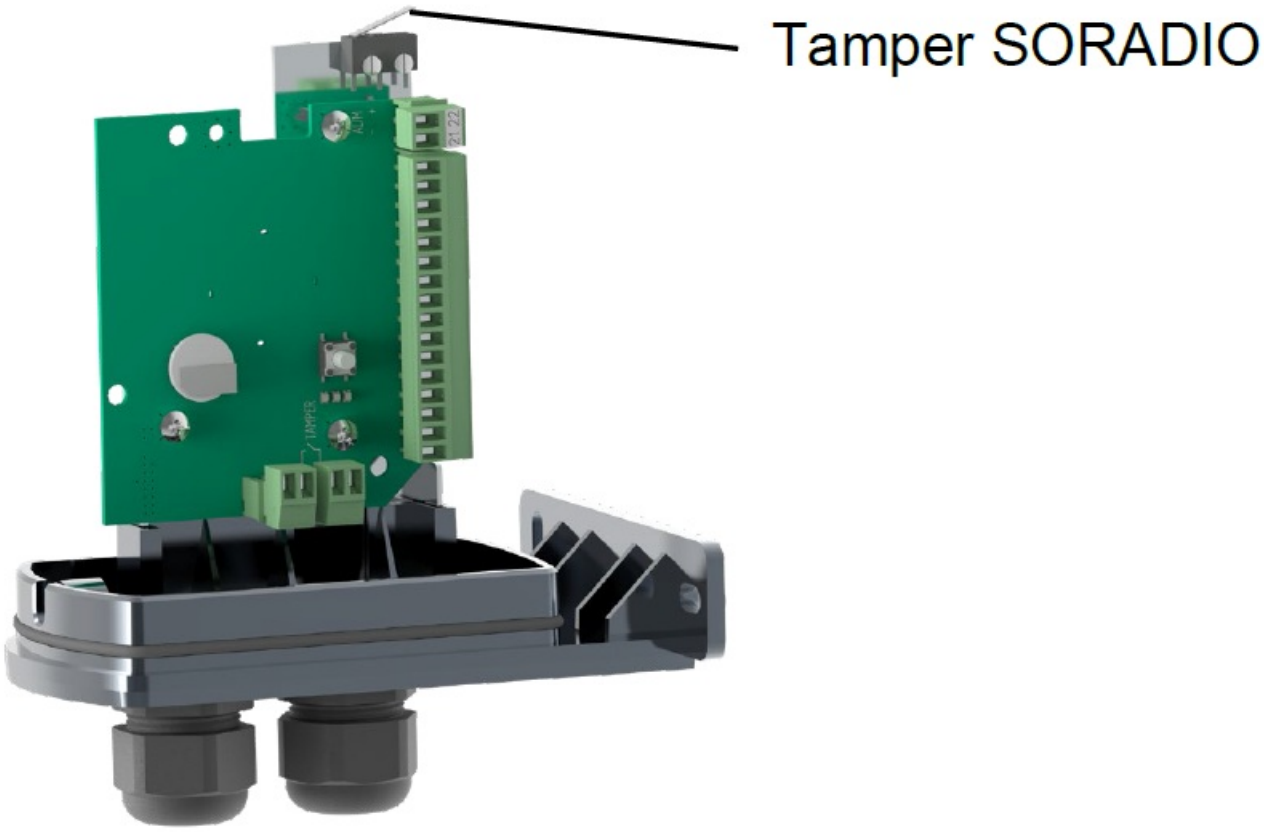
Sorhea Connect

2. Launch application “Sorhea Connect”. Authorize activation of Bluetooth if requested to do so by the application.

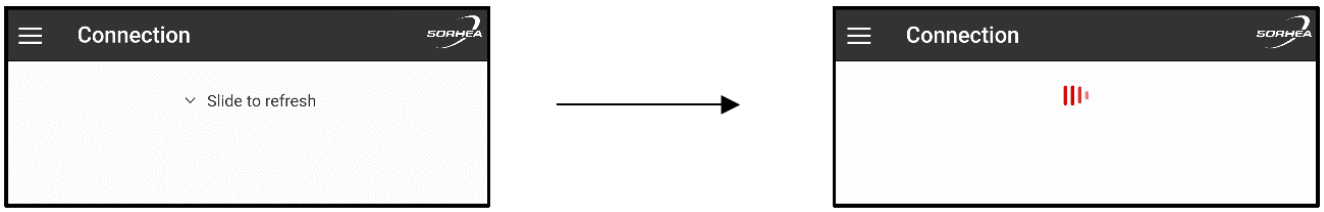


3. Press the tamper switch very briefly (1s) to activate the BLE connection of the SORADIO.

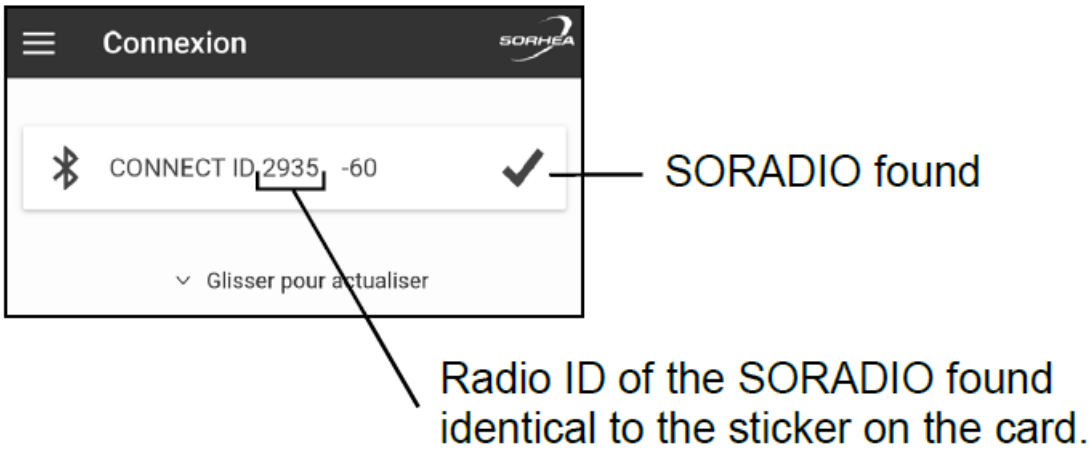
   Note: the connection remains active as long as the SORADIO is connected to the smartphone application. It is deactivated when the cover is closed (tamper closed) or after 1 minute of inactivity (application closed).



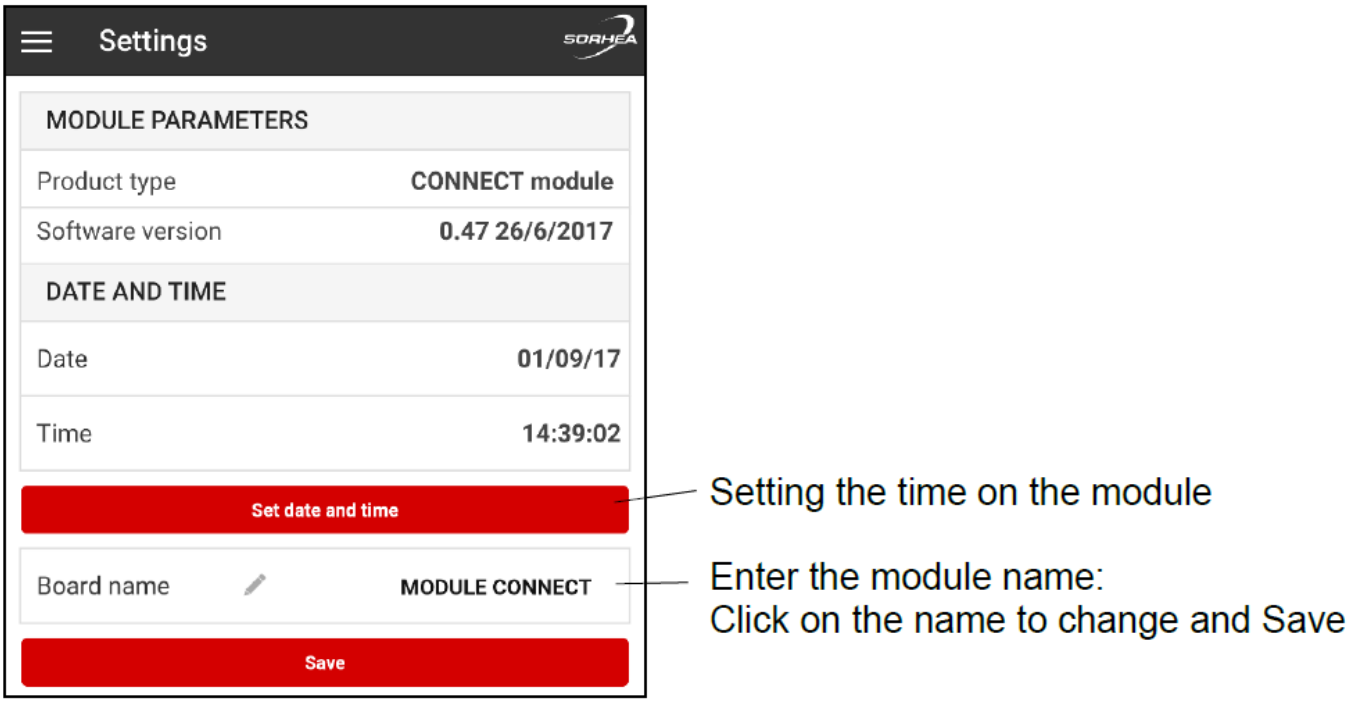
4. Launch the search.
5.



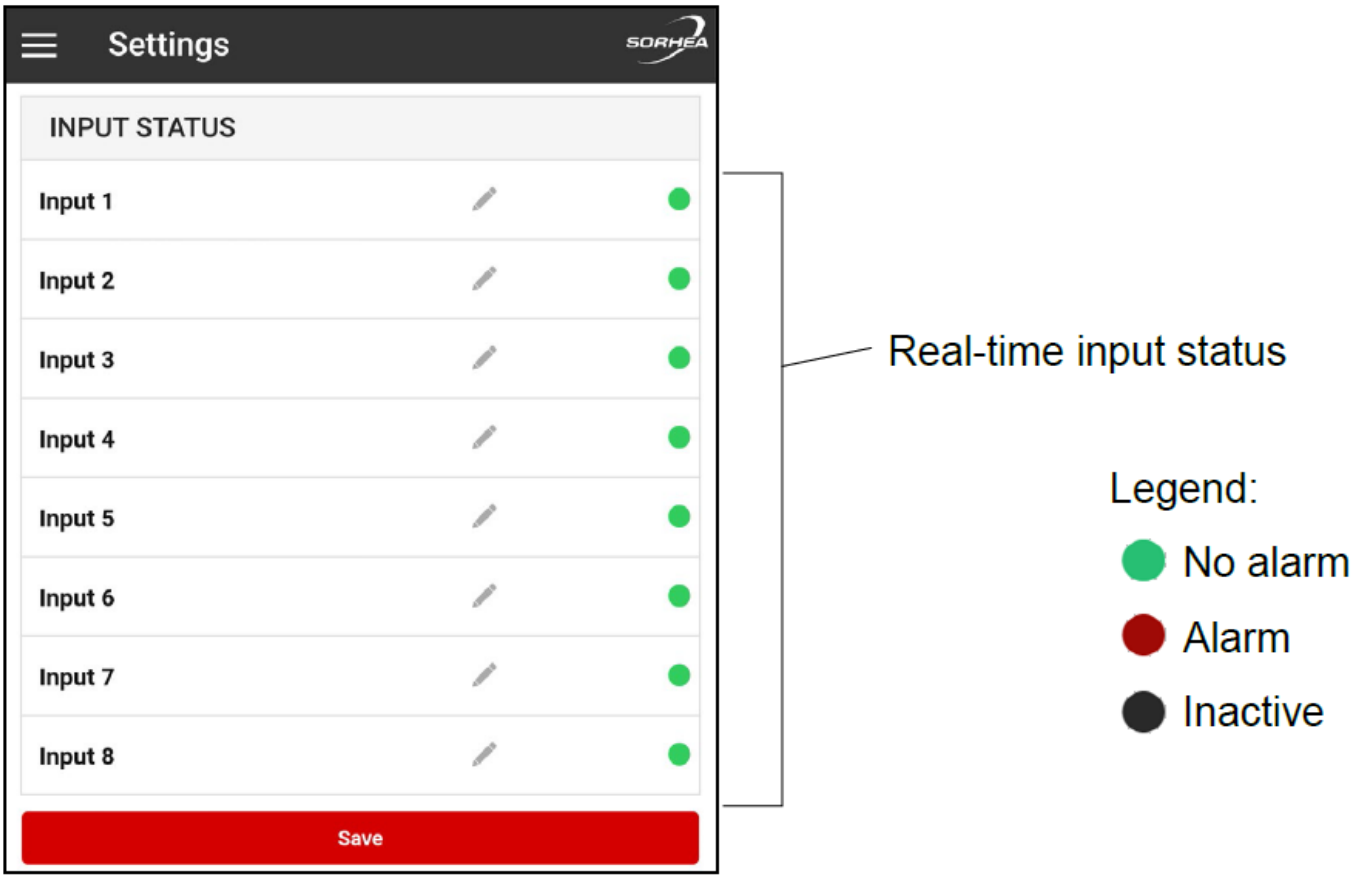
Click on the product found.



Settings



Input status



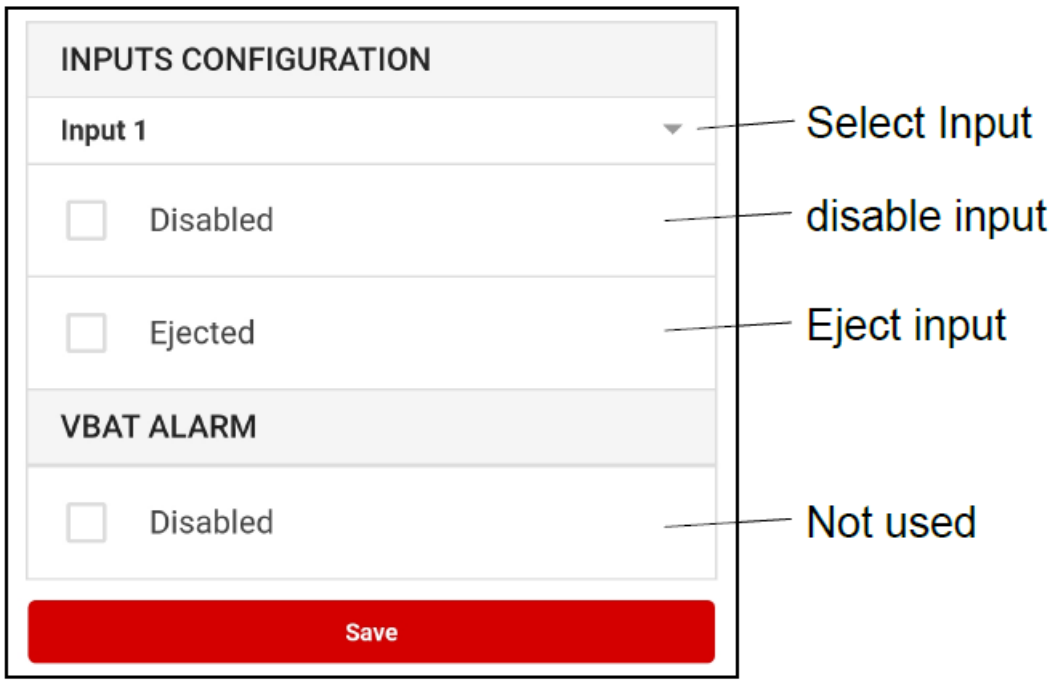
Note: It is possible to customize the name of an input. Click on the name to change and Save.

Input settings

Each input can be:

- Enable / disable input.
- Eject input.

To apply the changes, click Save.

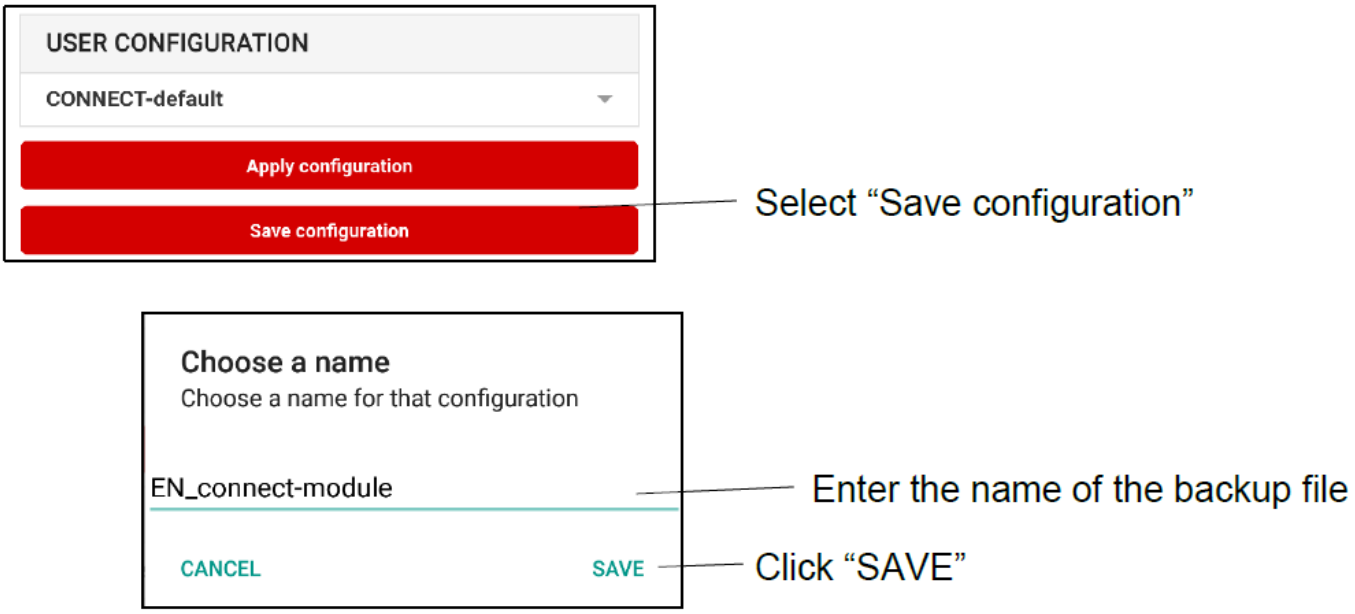


Enable input	☐ Input disabled	☑ Input enabled
Eject input	☐ Input not ejected	☑ Input ejected

Note: It is only possible to eject an input if it is enable.

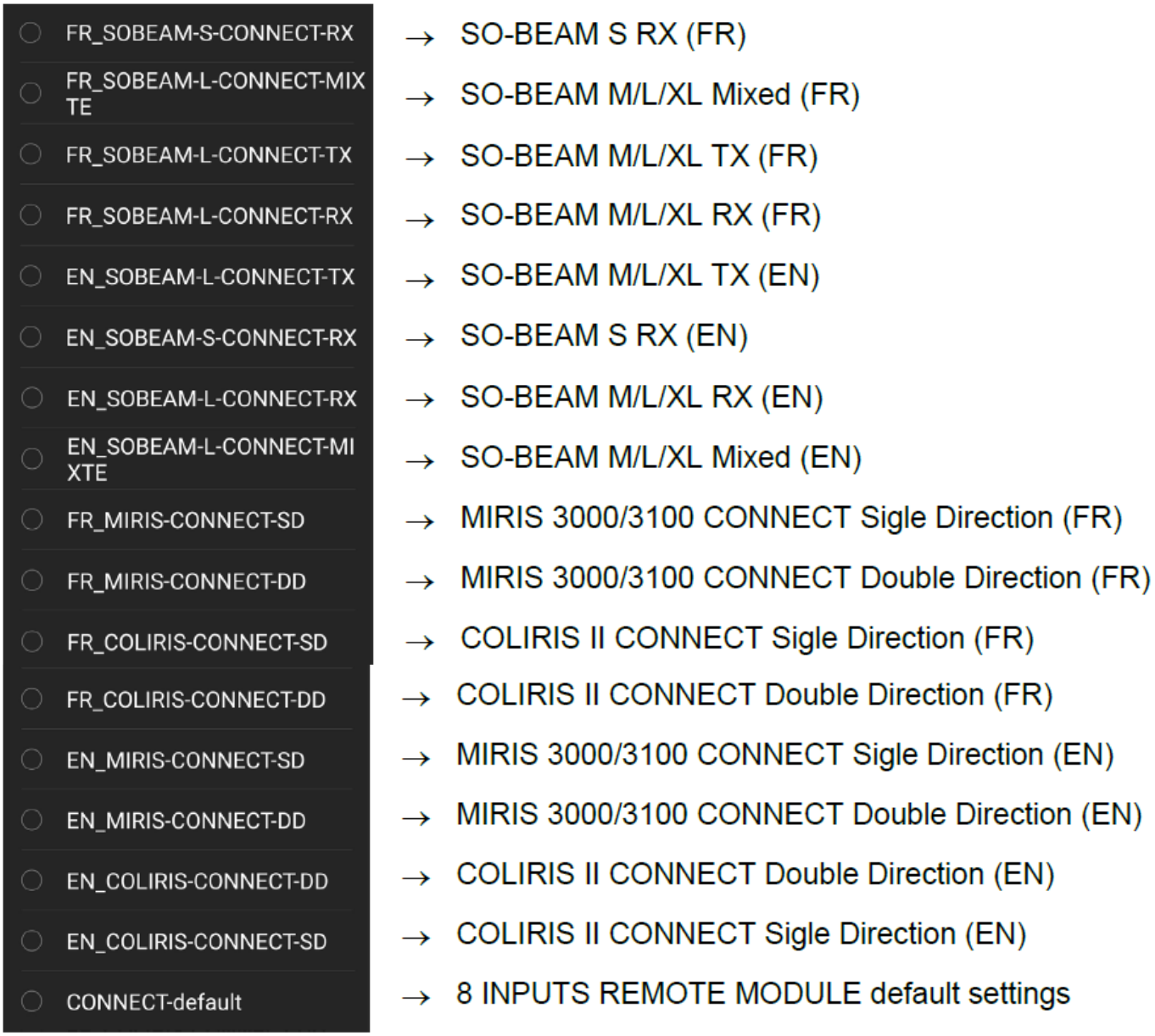
- Input disable = Relay associated forced in alarm
- Input ejected = Relay associated forced out alarm.

User settings
Managing user settings allows saving settings or applying settings to inputs: name and status of inputs (activated, ejected).
Saving user configuration



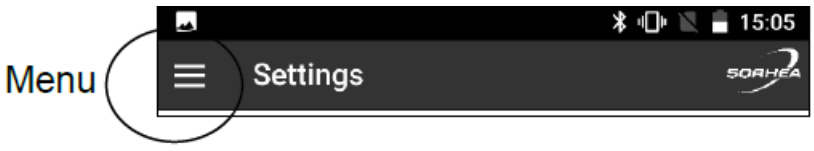
Applying an existing user setting

By default, the application offers the following setting options:

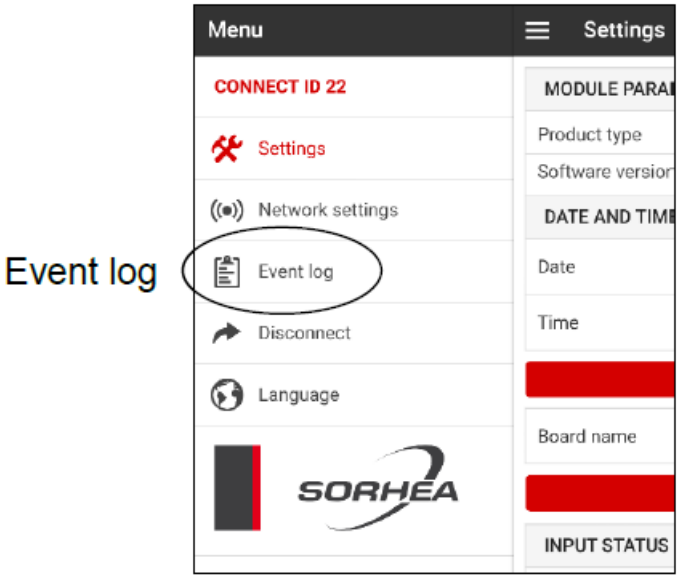


Event log

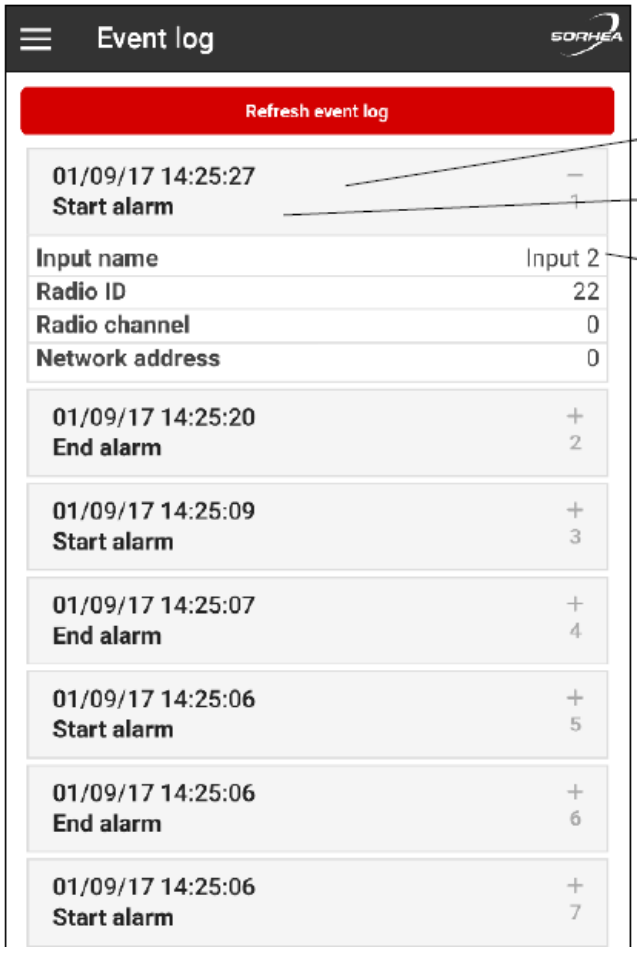
1. Click on Menu



2. Click on Event log



View event log



Date/Time of the event

Type of events

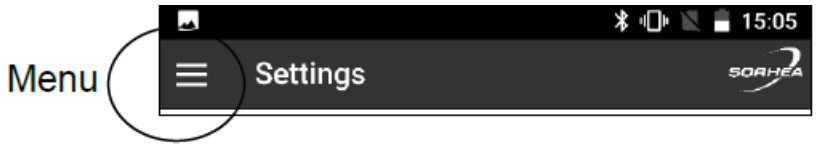
Input name

List of events:
– Alarm
– End Alarm
– Eject
– End eject
– BLE Connection
– Configuration
– Time setting
– Reset log event
– Power on

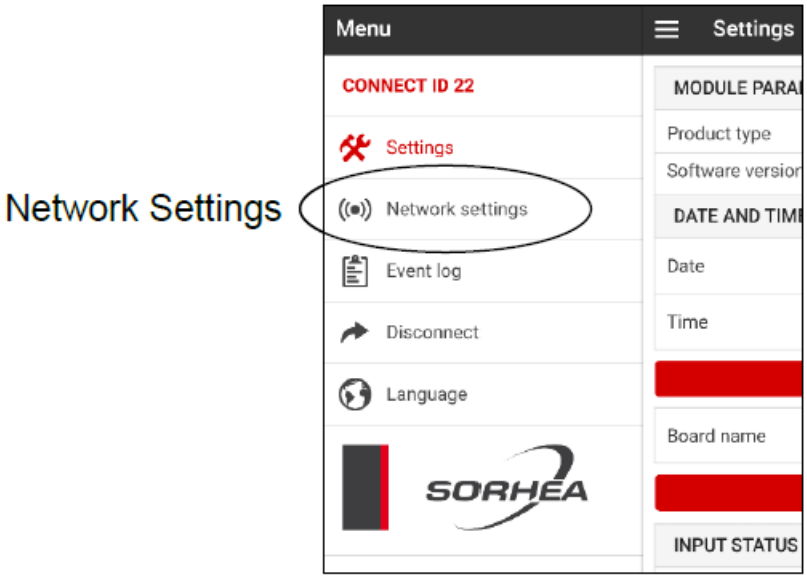
List of events:
– Alarm
– End Alarm
– Eject
– End eject
– BLE Connection
– Configuration
– Time setting
– Reset log event
– Power on

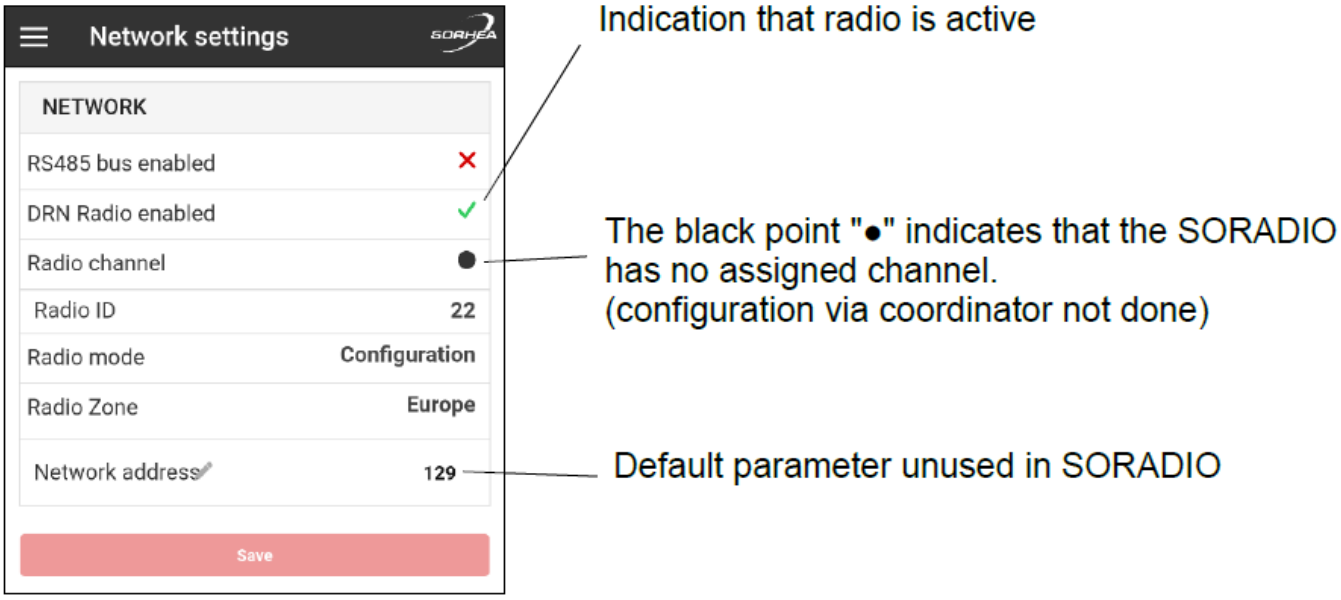
Network settings

1. Click on Menu



2. Click Network settings



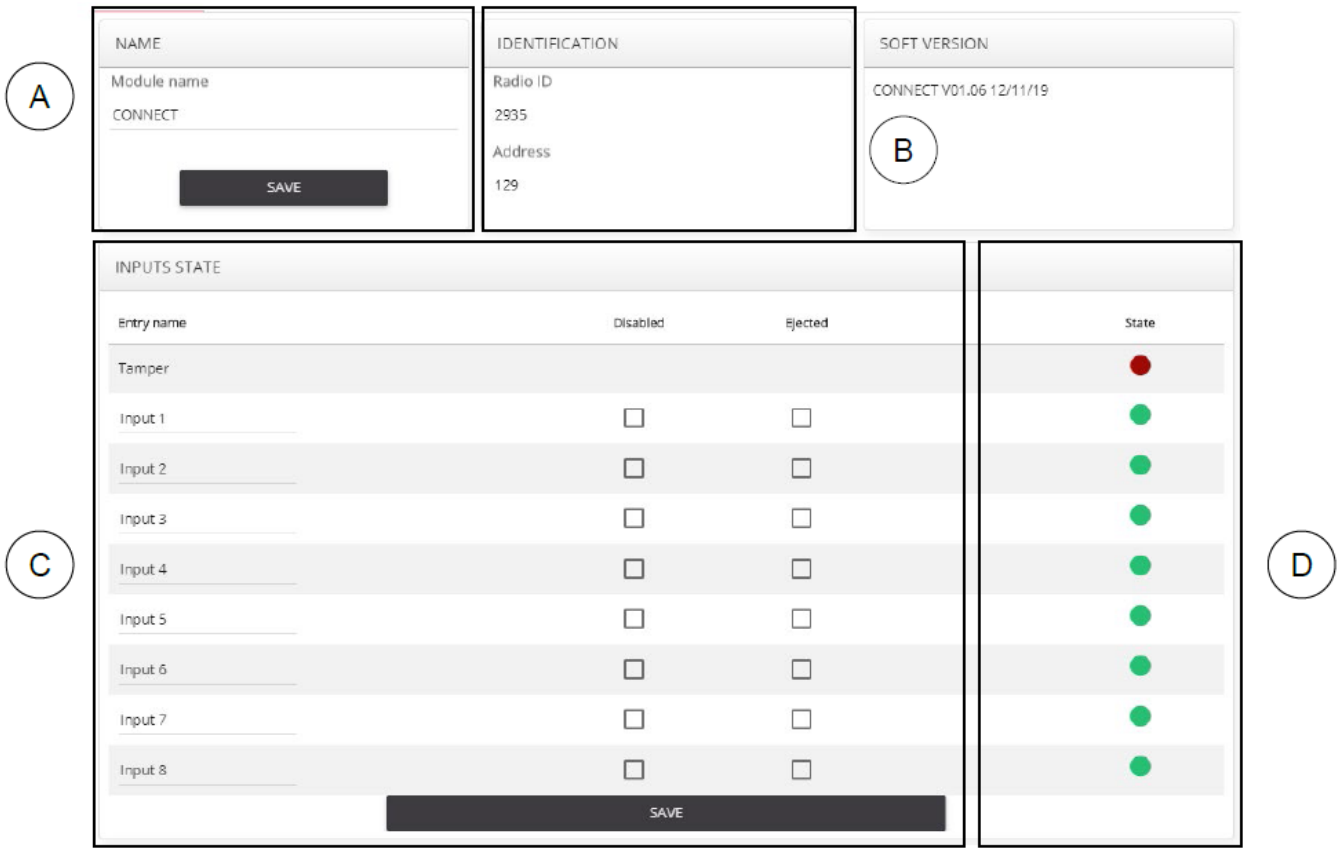


RADIO CONFIGURATION

Configuration using the CONNECT RADIO COORDINATOR

1. Enable radio, see §3.2.Activate the radio on the SORADIO.

   Note: By default, the radio is disabled.
2. Refer to manual CONNECT RADIO COORDINATOR NT400 to start radio search.
3. SORADIO settings and status from UNIVERSAL MAXIBUS



A. Product Name: Possibility to customize the name of the connected product. Change the name and click SAVE.
B. Reading network address RS485 (unused in SORADIO).

C. Input management:
For each input, it is possible to:

- Customize the name of the input.
- Enable / disable input.
- Input ejection.

  To apply changes, click on SAVE.

Enable input	☐ Input enabled	☑ Input disabled
Eject input	☐ Input not ejected	☑ Input ejected

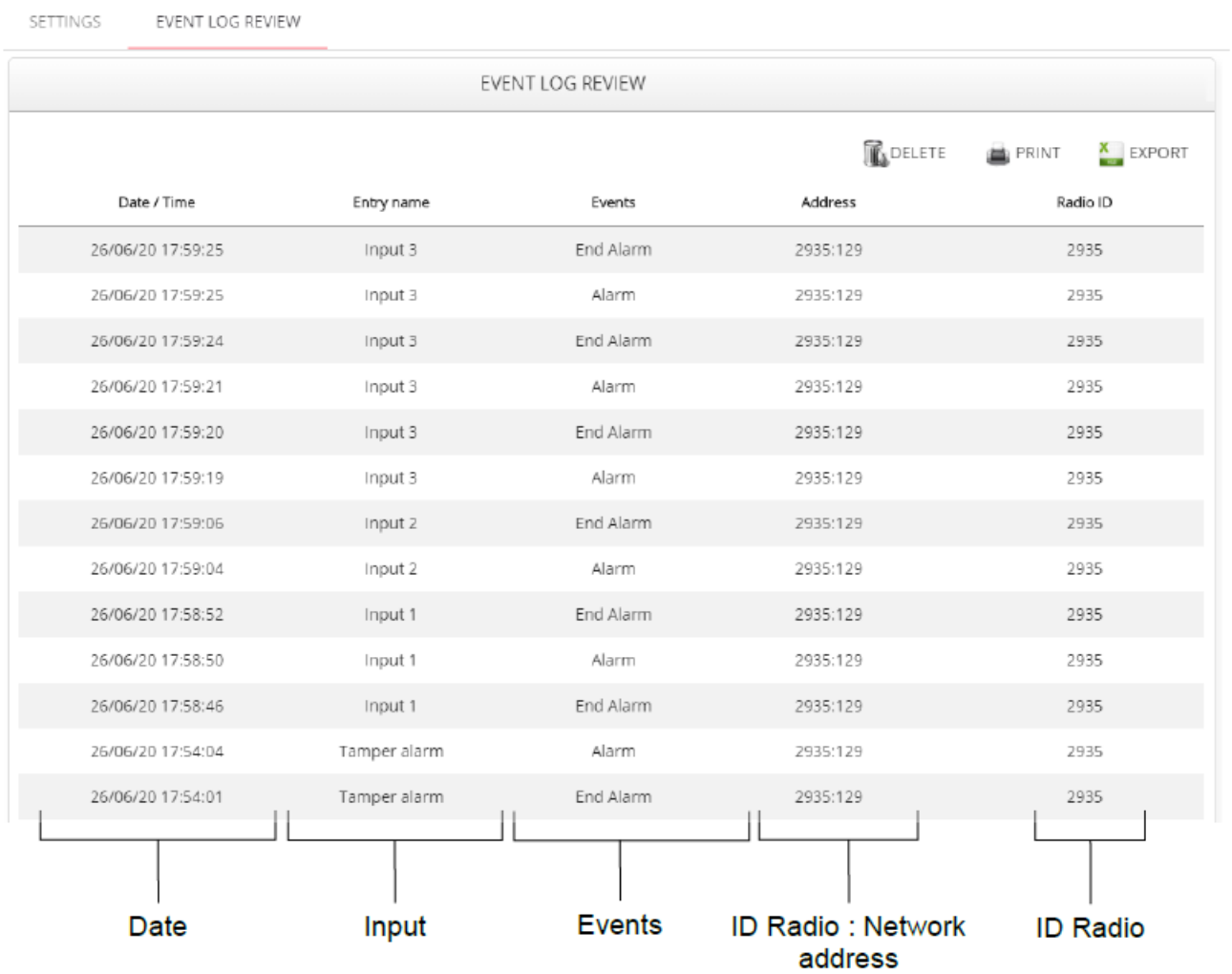
D. Note: It is only possible to eject an input if it is enable.

Input disable = Relay associated forced in alarm
Input ejected = Relay associated forced out alarm.

E. Input State
(Note: status not available in radio mode)

No alarm Alarm Disable

SORADIO Event log

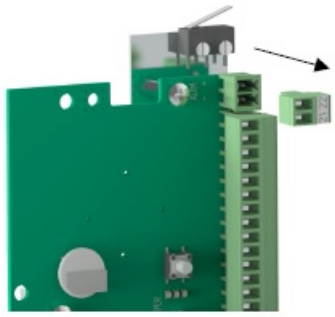
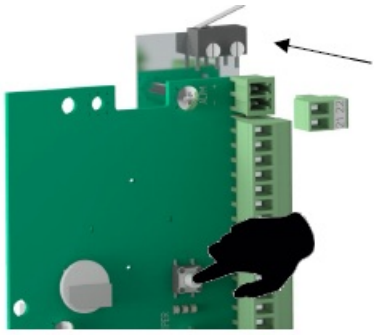
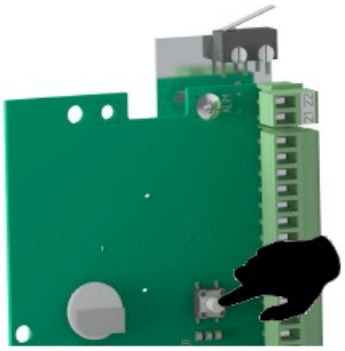


List of "Events" available in event log:

- Start alarm
- Power on
- End alarm
- time setting
- Eject
- Change configuration
- End eject
- Reset event log

Activate the radio on the SORADIO

Note: radio activation allows resetting the radio configuration on the SORADIO and switching to radio search (wait for pairing with the CONNECT RADIO COORDINATOR)

1. Disconnect the power supply on the SORADIO	
2. Press the button and switch on the SORADIO	
3. Hold the button until the orange LED L2 lights. (≈ 5s, The green led L1 lights up during the procedure). 	

MAINTENANCE

Failure	Probable causes	Solutions
Permanent alarm	– Input disabled – Non-wired entry	– Activate input. – Check wiring.
Never alarm	– Input ejected	– Remove ejection from input
The smartphone application d oes not detect the SORADIO	– The BLE connection of the 8 IN PUTS REMOTE MODULE is not activated.	– Press the tamper for at least 1 second. (see §3)

TECHNICAL SPECIFICATIONS

Power supply	4.5V to 30V DC
Consumption	10mA
Operating temperature	-35°C to +70°C / -31°F to 158°F
Relative humidity	95% max. non-condensing
Protection index	IP65
Weight	0.3Kg / 0.66 lb
Electromagnetic compatibility	Compliance with European standards (label **CE**)
Range	Mesh network allowing messages to be relayed from MI8 to MI8: 400m / 0.25 mile point to point and in free field

PRODUCT REFERENCES

- SORADIO

  Option:
- Pole mount bracket set Ø76
- Pole mount bracket set Ø101
- Bracket set for mounting on 100×50 pole or frame 3100 SF
- Bracket set for mounting on frame 3100 DF

r**ef**: 30790001
ref: 30793001
ref: 30793002
ref: 30793003
ref: 30793004

Changes or modifications not expressly approved by PROTECH / SORHEA could void the user's authority to operate the equipment.

FCC Part 15 compliance statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This module has been approved under FCC part 15C 15.247. This modular transmitter is only FCC authorized for this specific rule part. – The module is limited to PROTECH / SORHEA installation only.
The host product should be check for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. (For example, Part 15 Subpart B).

If testing of the host product with this transmitter installed and operating is necessary (to verify that the host product meets all the applicable FCC rules), a test mode for this specific module is available upon request to SORHEA.
Trace antenna design, list of antenna type approved and professional installation is not applicable to this modular certification.
ISED (Canada) License-Exempt Radio Apparatus

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Compliance of Radiocommunication for mobile Apparatus
To satisfy FCC and IC RF Exposure requirements for mobile devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Host Product Labeling:
FCC Certification:
The final end product must be labeled in visible area with the following:
"Contains Transmitter Module **FCC ID:** QVA-SORADIO"
ISED Certification:
The final end product must be labeled in visible area with the following:
"Contains IC: 11664A-SORADIO"

Host Product User's Manual:
The user manual for end users must include the following information in a prominent location
"IMPORTANT NOTE: To comply with FCC and ISED RF exposure compliance requirements, the antenna used for this transmitter must not be colocated or operating in conjunction with any other antenna or transmitter. The equipment should be installed and operated with a minimum distance of 20cm between the radiator and the body."

Documents / Resources

	ProTech SORADIO Connect Radio Module [pdf] Instruction Manual SORADIO, QVA-SORADIO, QVASORADIO, SORADIO Connect Radio Module, Connect Radio Module, Radio Module