erlab
You can breathe.

Captair ChemTrap V201

Standalone filtration system for fire proof and chemical storage cabinets

Instructions & User's Manual

Contents

General

By choosing Captair ductless filtration chemical storage cabinets you have chosen an efficient and responsible way to ensure safety.

Erlab's 50 years of expertise in the field of laboratory fume hoods provide unparalleled filtration quality to ensure your users are properly protected when handling chemicals in the laboratory. The new Captair range uses an innovative and straightforward mode of communication called: **Smart technology**. This powerful interface uses light to intuitively and effortlessly communicate with users and leave them free to focus all their attention on the main task: **your work.**

Your Captair is the ideal organising cabinet to accommodate respiratory protection of users and environmental protection with a unique filtered air recycling system in the laboratory. This is made possible by the use of very highly-effective molecular and HEPA H14 filters which trap molecules and toxic particles. This filtering process makes it possible to blow purified air out of the filter, free from chemical pollution. The Erlab exclusive filtration technology can be adapted according to the stored chemicals.

The system's connectivity allows for real-time safety alerts and individual device usage reports to be sent via the eGuard.

Safety notices

The effectiveness of your device is directly dependent upon it being used correctly and monitored by its users. Your laboratory may also benefit from ergonomic, economic and ecological advantages provided by the Captair Smart chemical storage cabinet throughout its life cycle.

The Erlab Services was set up to guarantee your safety. We would remind you that it is important to have the safety parameters validated before using the device for the first time and whenever it is used for a different application.

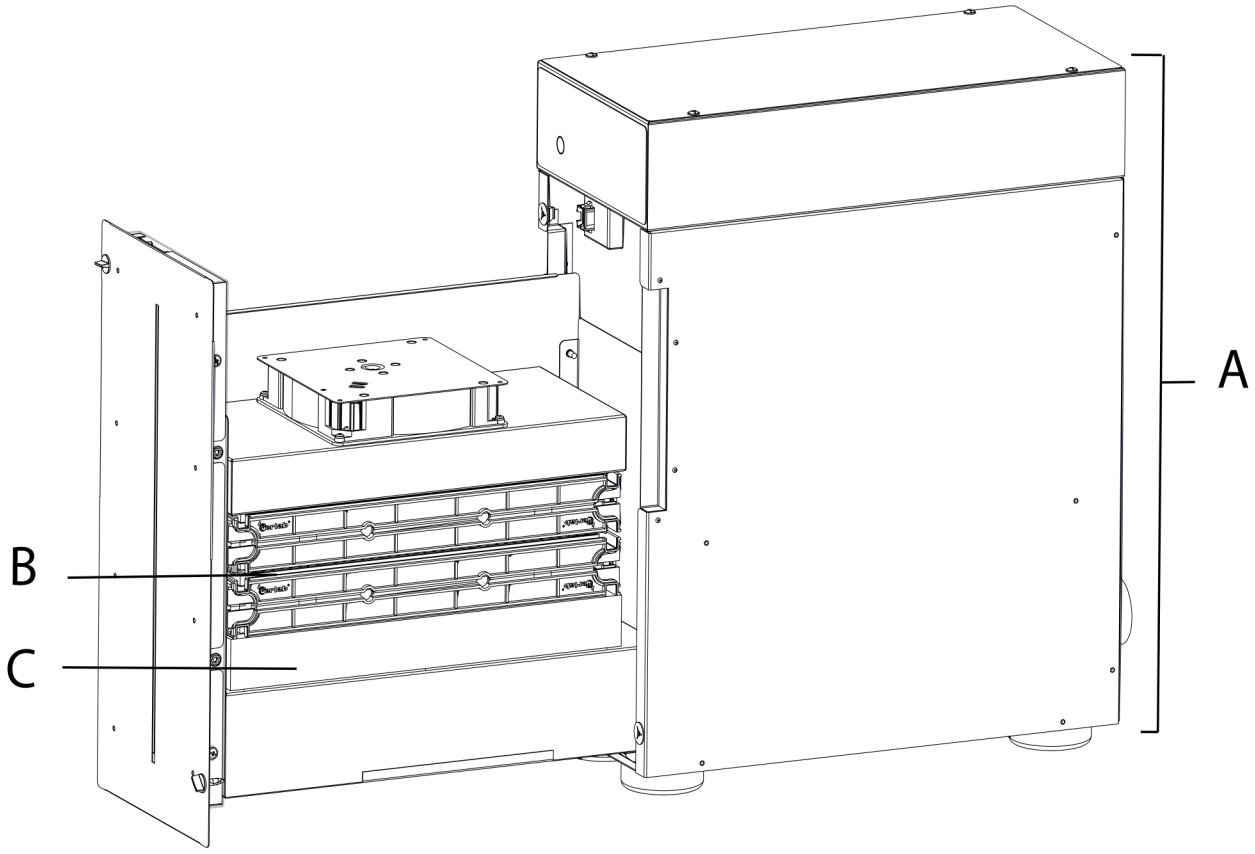
The equipment provided is not intended to be used in an explosive atmosphere.

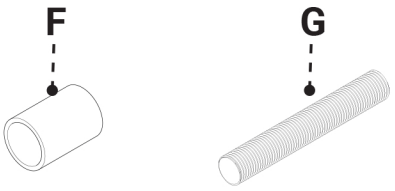
The filters delivered with this device must be removed from their packaging and positioned correctly; they must also be suitable for the type of chemicals being handled in order to guarantee user safety.

Erlab recommends that filter breakthrough tests are regularly carried out.

New filters must be stored in their packaging, kept in a dry location and laid flat. (see recommendations for storing and using the filters).

Erlab recommends keeping a logbook which is specific to the device and shows the chemical agents handled, how often they are used and the maintenance operations carried out on it.


A
B
C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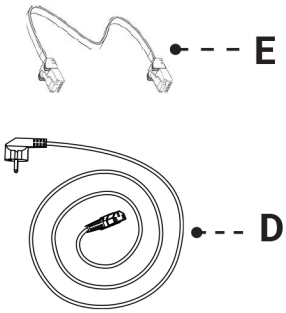
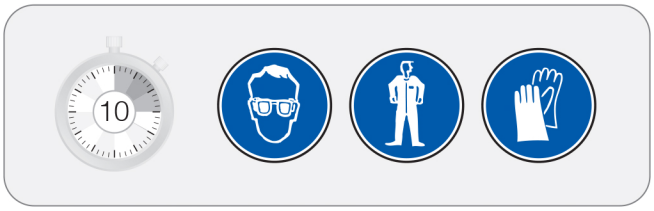
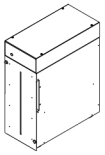
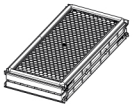
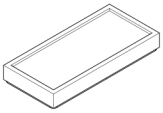
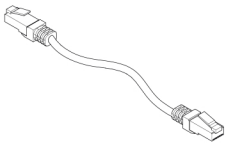
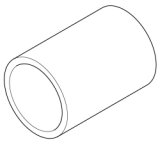

E
D

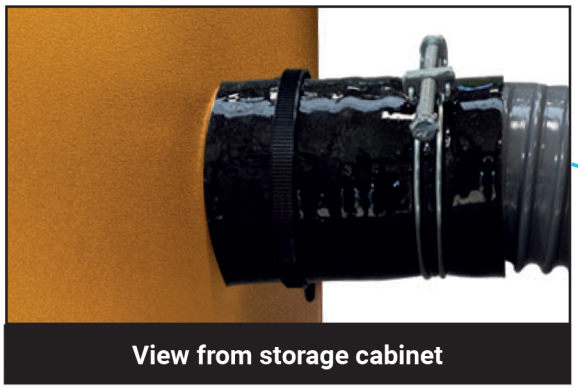

10

1 Parts list

A	Chemtrap		x1	G22 VSMART G32 VMIDCAP
B	Carbon filter		1C	H12011101 (AS) H12011201 (BE+) H12011401 (F) H12011301 (K)
			1P1C	H11011101 (AS) H11011201 (BE+) H11011401 (F) H11011301 (K)
C	Particulate filter		*	H11011021 (HEPA H14)
D	Power cable		x1	EU = PIDEL076 GB = PIDEL090 CH = PIDEL106
E	RJ45 cable		x1	WEL8603
F	PVC fitting		x2	WMS4100
G	Flexible PVC hose		x1	WDI4100
H	Hose clamp		x2	WEL8540
I	Hose clamp		x3	WDI058

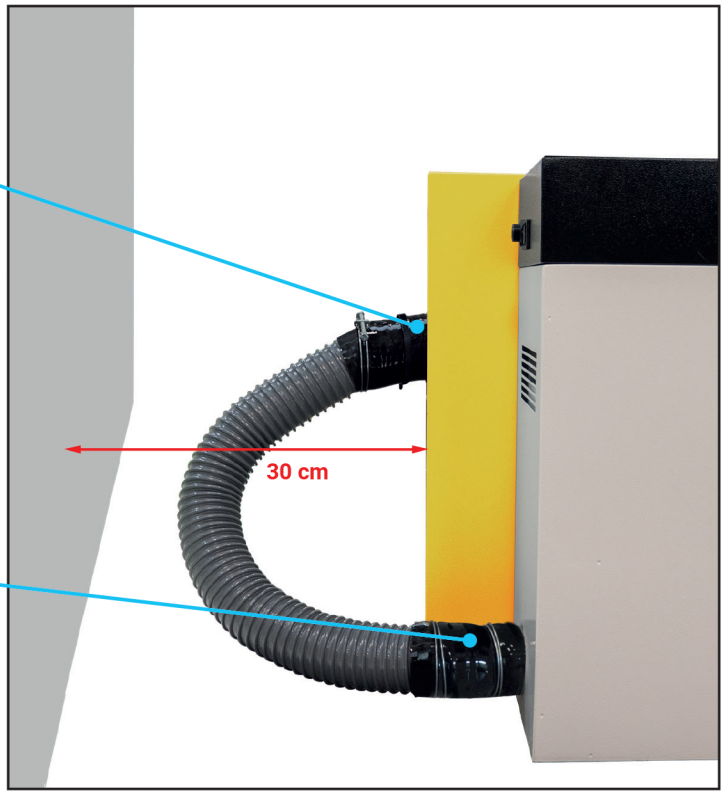
* Filters types vary according to your chosen configuration

2 Connection to the storage cabinet



View from storage cabinet

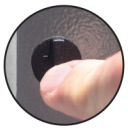
View from Chemtrap



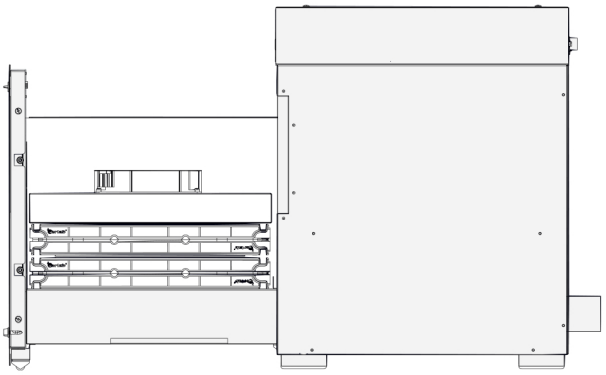
Hose clamps must be tighten firmly

3 Filters installation

1. Open by making a quarter turn.
2. Unplug the fan.
3. Please place the two F1 filters* horizontally under the fan in the unit.
4. Reconnect the fan.
5. Close the drawer by locking the quarter-turn screws: put the quarter turn vertically and press until you hear the «click».

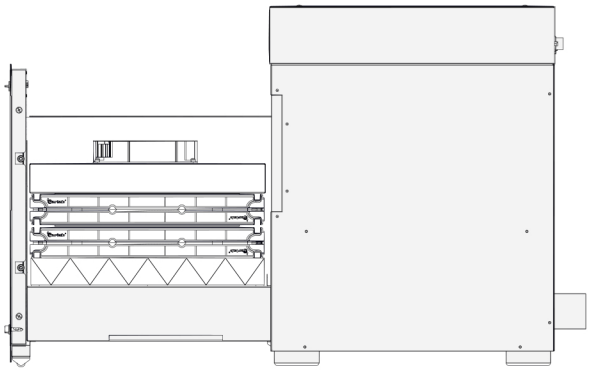


1C



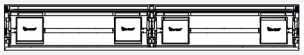
* *a batch of 2 F1 filters*

1P1C

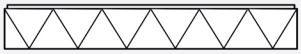


* *a batch of 2 F1 filters*

Carbon filter



Particulate filter



Start-up

Having carefully followed the steps described in the installation guide, your Captair Smart chemical storage cabinets is now ready to use.

The power switch is located at the back of the control panel.

LED light system should come on.

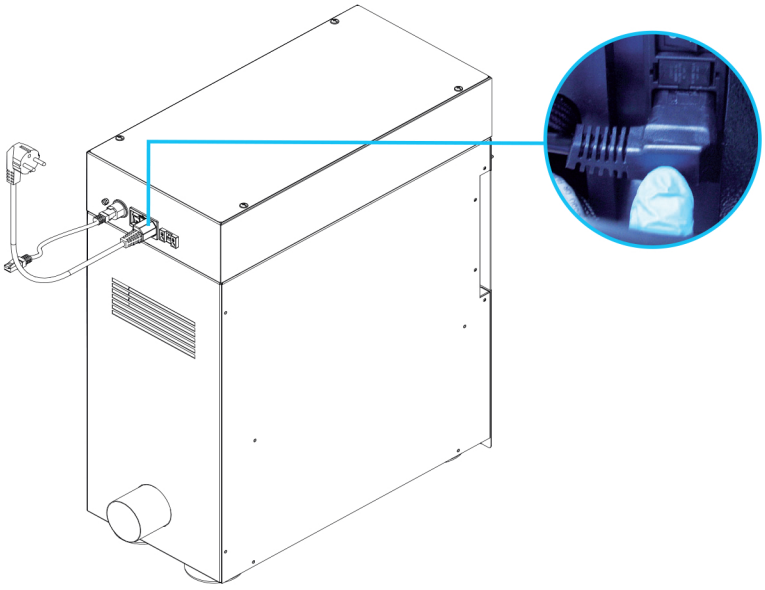
A filtered storage cabinet works 24/7. We only recommend to swich off the unit for maintenance

We also recommend verifying the operating parameters before each new use.

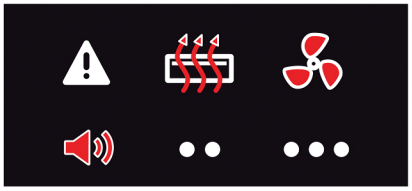
Filter breakthrough sensor (Molecode option) :
Default settings when the sensor has not been set in our factory:

- Solvents (S type): medium
- Acids (A type): medium
- Formaldehyde (F type): medium

To change the settings of your device, access the onboard service or eGuard.



Description of the alarms (not available for Midcap version)



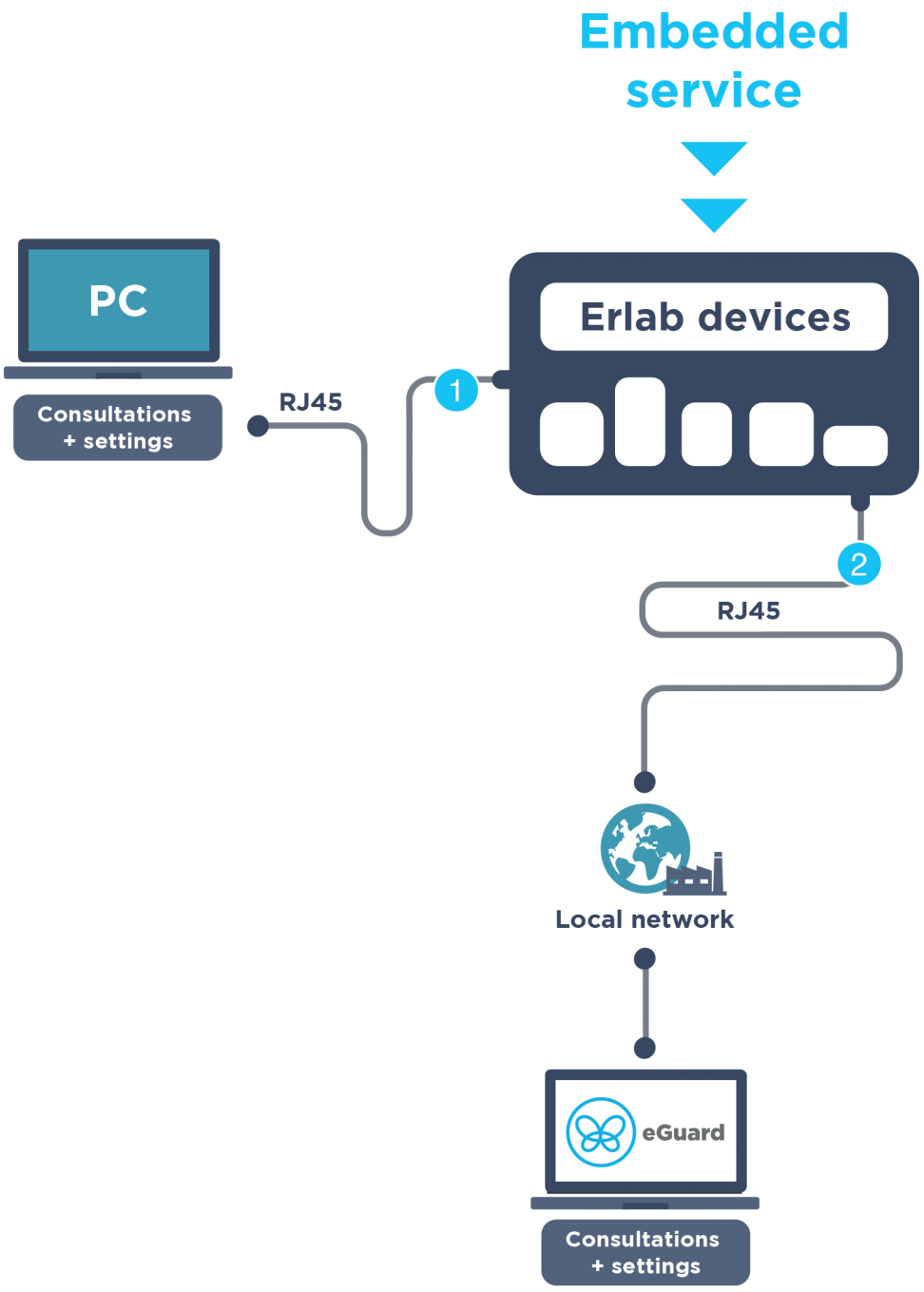
Smart Technology gives you an easily identifiable method of communication about the filter efficiency and fan performances of your device, using LED light and sound. If normal operation is disrupted, the reassuring LED Smart light simply pulses, drawing the attention of the operator only when necessary.

When using the Mute key to silence the alarm, please note the alarm can be triggered again if the event condition has not been fixed.
Resetting alarms via the Mute key will consequently modify usage settings.
Please access the administrator interface to precisely check user settings.

Alarm type		Light signal	Events	Details	Silence the alarm	Reset the alarm
Filtration						
	2 beeps 5 seconds apart	Pulses	Filter breakthrough (Molecode S/A/F option)	The Molecode detection value is > the sensitivity setting for a period of 40s.	Press Mute key	Note: filter has to be replaced. Please get in touch with Erlab or your usual maintenance contact.
			Replace filter	The filter(s) has/ have reached the end of their service life/lives.		
Ventilation						
	3 beeps 5 seconds apart	Pulses	Fan fault	The rotation speed (RPM) is +/- 10% of the fan setpoint.	Press Mute key	
			Fan Unservi-ceable	The rotation speed (RPM) is < 700 RPM		
Filter breakthrough sensor replacement (Molecode)						
	4 beeps 5 seconds apart	Pulses	Filter breakthrough sensor replacement (Molecode S/A/F option)	The sensor has reached the end of its service life.		Please get in touch with Erlab or your usual maintenance contact.

The connectivity principle

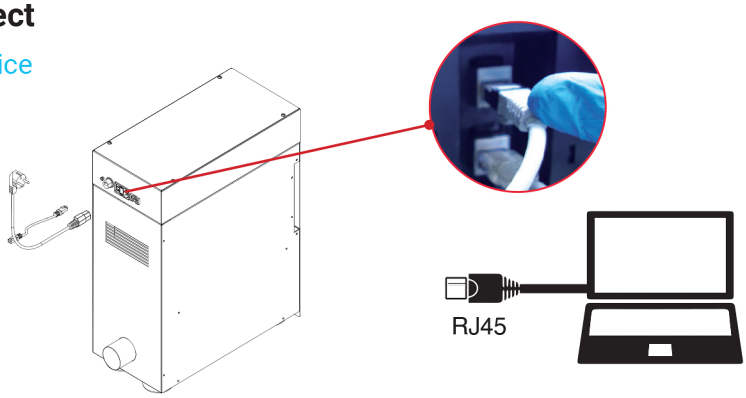
An ecosystem designed for simpler use and safer protection



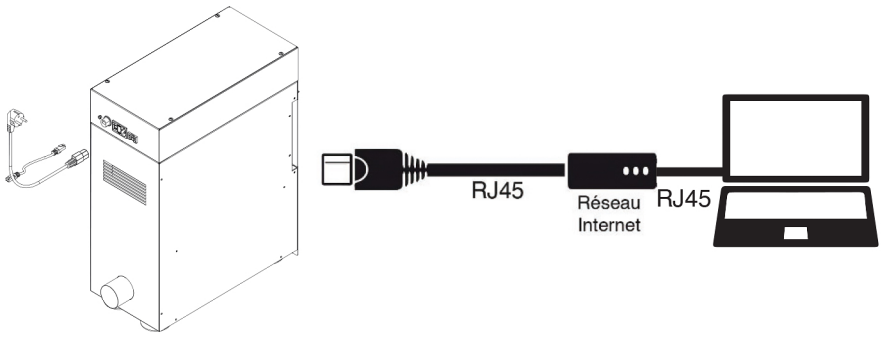
2 ways to connect your device	1 Embedded service	2 eGuard PC
Conditions of use	Direct connection on PC with data cable (RJ45)	Connected to the local network
Hardware requirements	1 PC + 1 cable	1 PC connected to the local network
Parameters	Monitoring + Controlling	Monitoring + Controlling
Data access	One unit	Multiple units
Historical data access	✓	✓
Historical data download	✓	
Alerts, Notifications		✓
Multiple units monitoring		✓
Multiple user accounts		✓
Automatized status report		✓
Download		Download for Windows (except if local connection)

How to connect

Embedded service



eGuard PC



Embedded Service: Ethernet - RJ 45

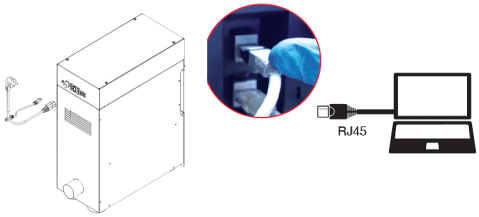
View the settings and reach your device settings via the embedded service.

In order to connect:

- Use a computer equipped with an Ethernet
- WIFI of the computer must be **switched off**
- Web browser (Internet Explorer, Edge, Chrome, Mozilla Firefox, Safari, …) must be installed on the computer

Note: RJ45 cable used to plug the unit to the computer is RJ45 cable is provided.

1 Connecting the device to the PC

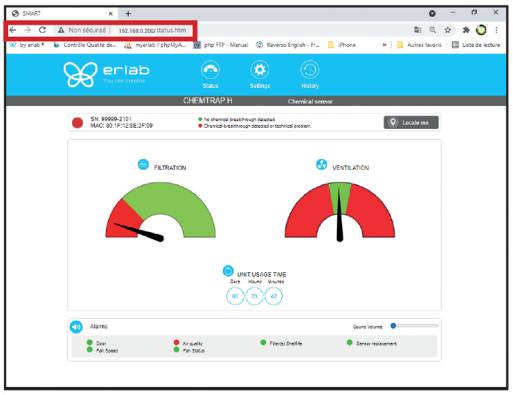


- Take RJ45 cable (black) already connected on the unit and rolled at the back of the control panel.

- Check that main switch (at the back of the control panel on fume hoods and storage cabinets) of the device is ON

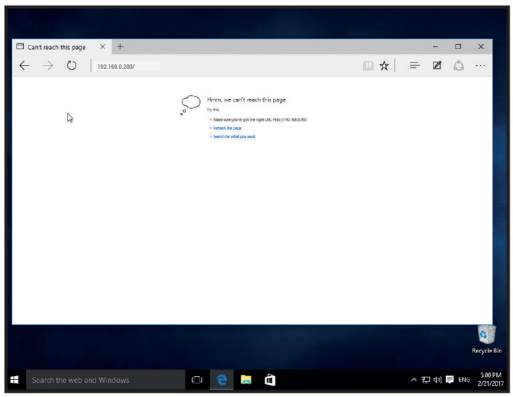
2 Parameters settings (not available for Midcap version)

Open your web browser, type the following IP address 192.169.0.200 into the address bar and validate



OK

You are connected to the embedded software
You enter the « Status » page and you can have access to the « Settings » using the following credentials:
Login : **erlab** / Password : **smart**



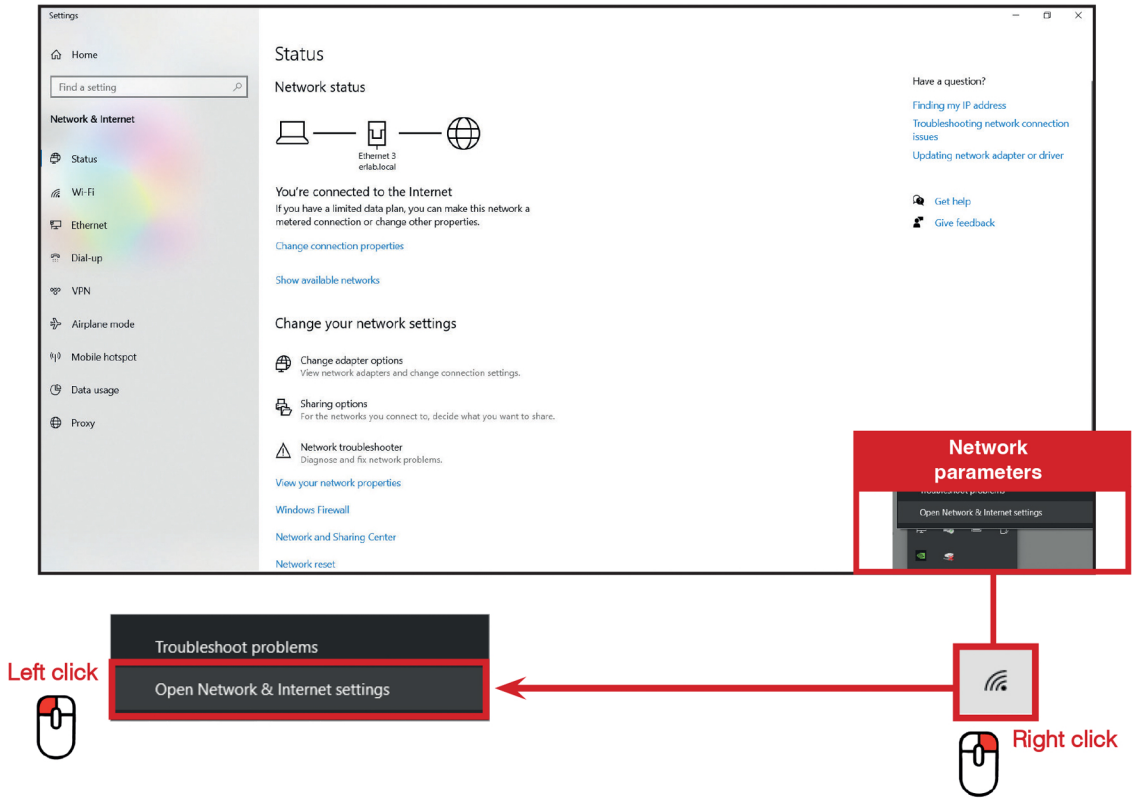
Page is not accessible

Computer network parameters are not allowing the access to the embedded software.

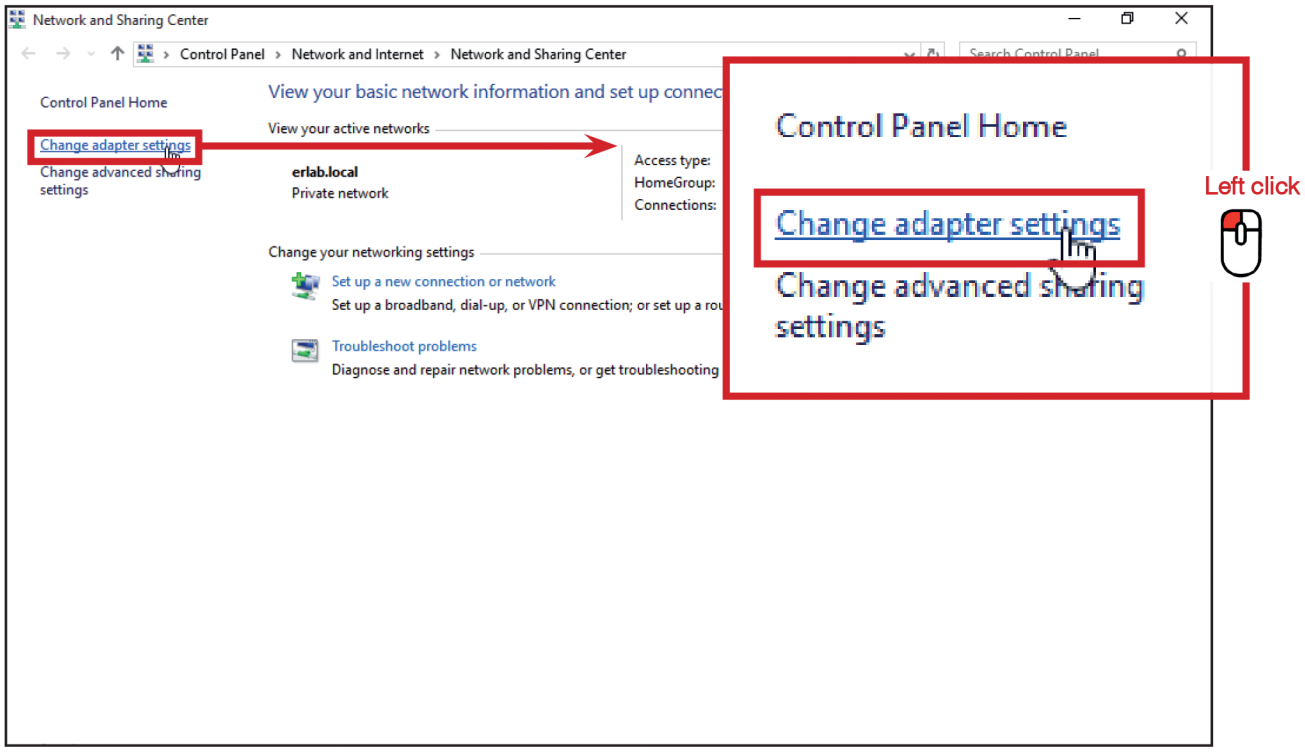
Apply the following procedure

Page is not accessible

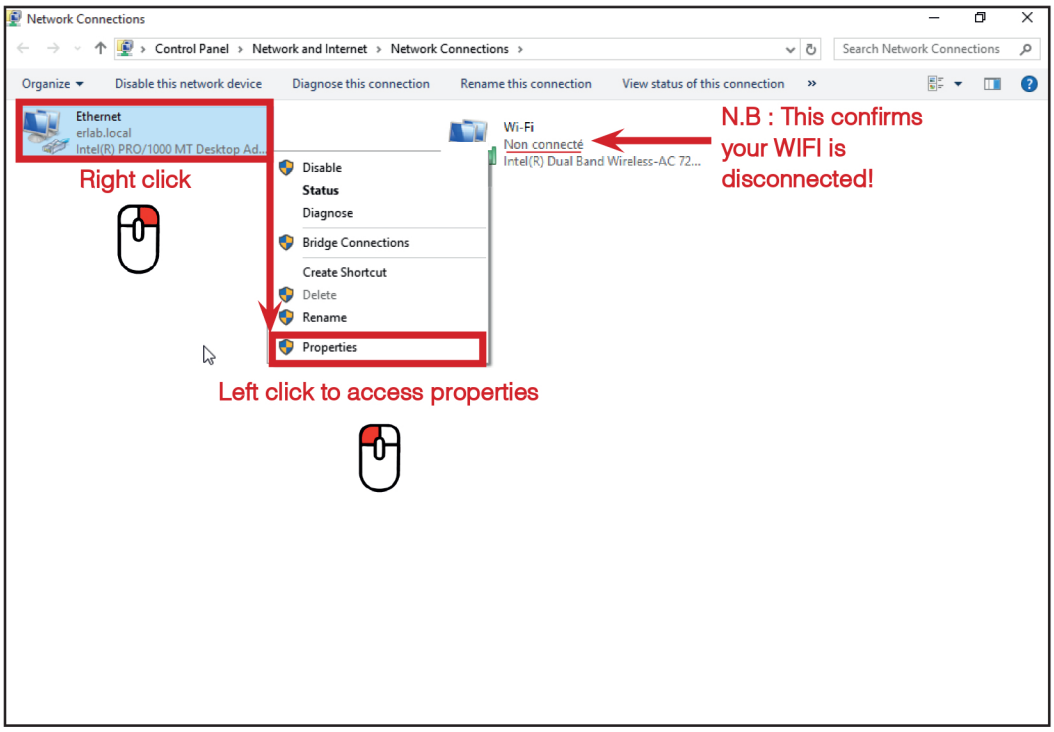
1 Modify computer network parameters (windows 10)



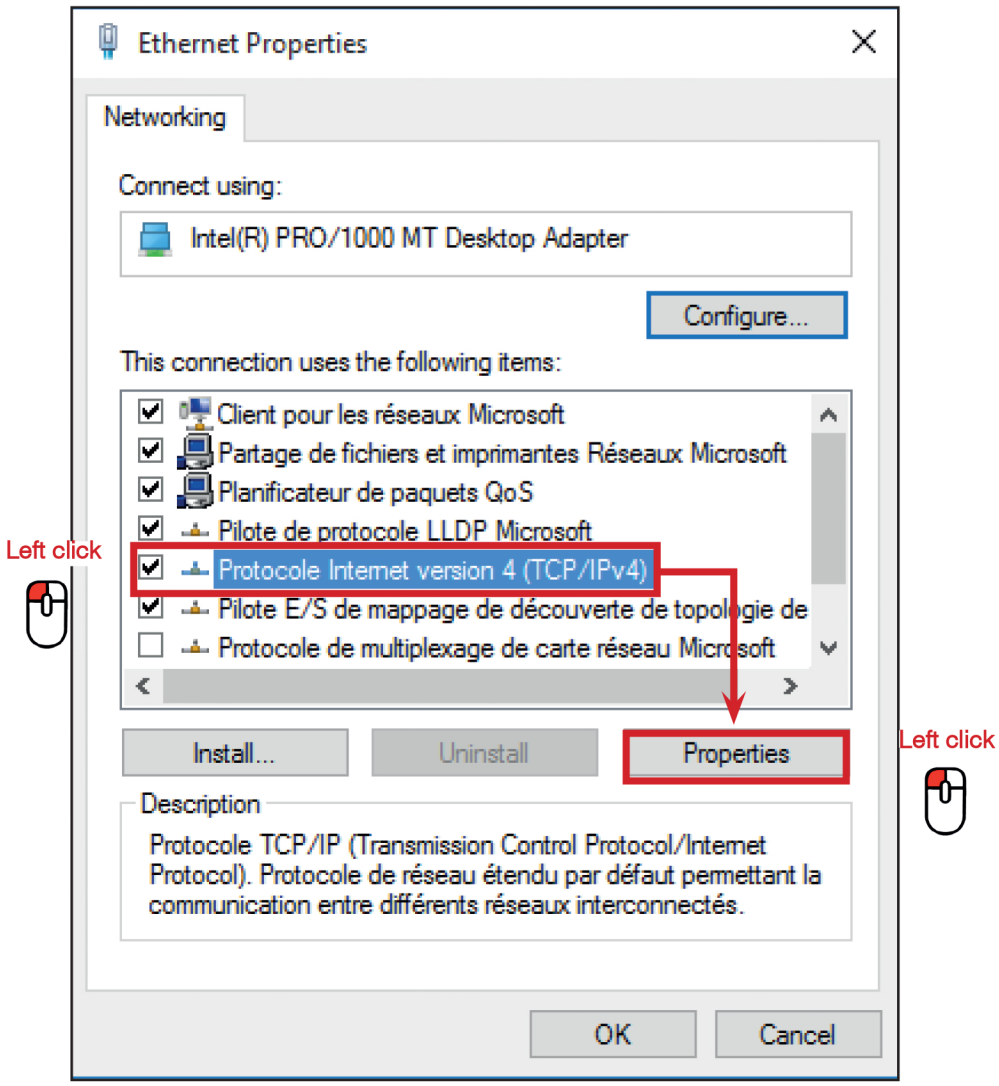
2 Access to the Network and sharing center (windows 10)



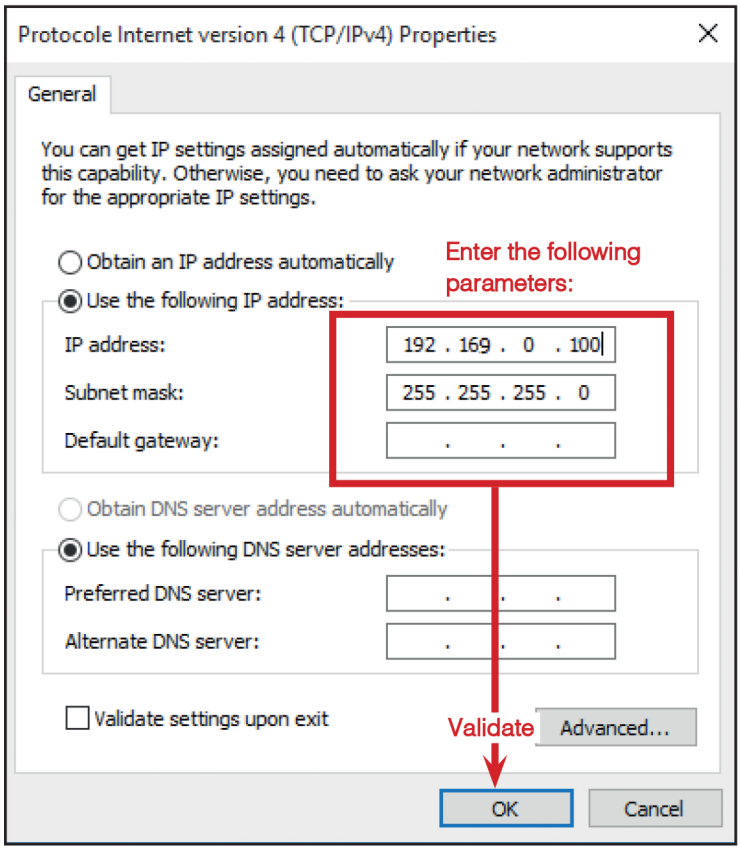
3 Access to the network connection (windows 10)



4 Enter compatible network parameters as indicated below (windows 10)

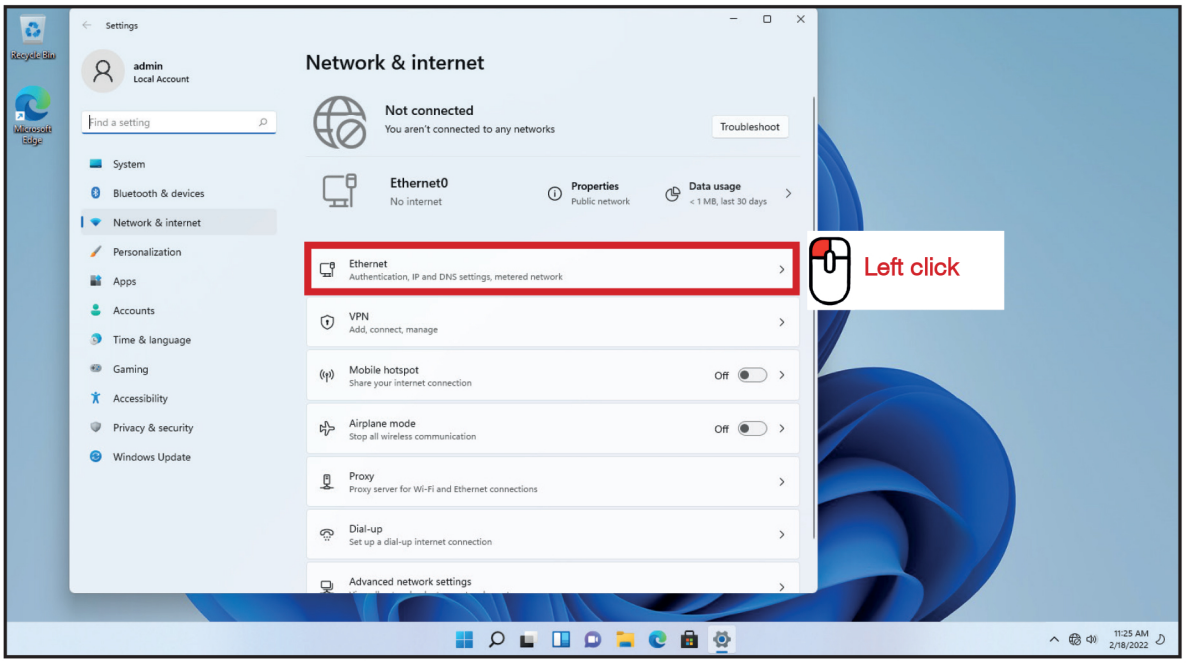


Write down your existing parameters before changing them in order to be able to set your initial parameters after the operation!

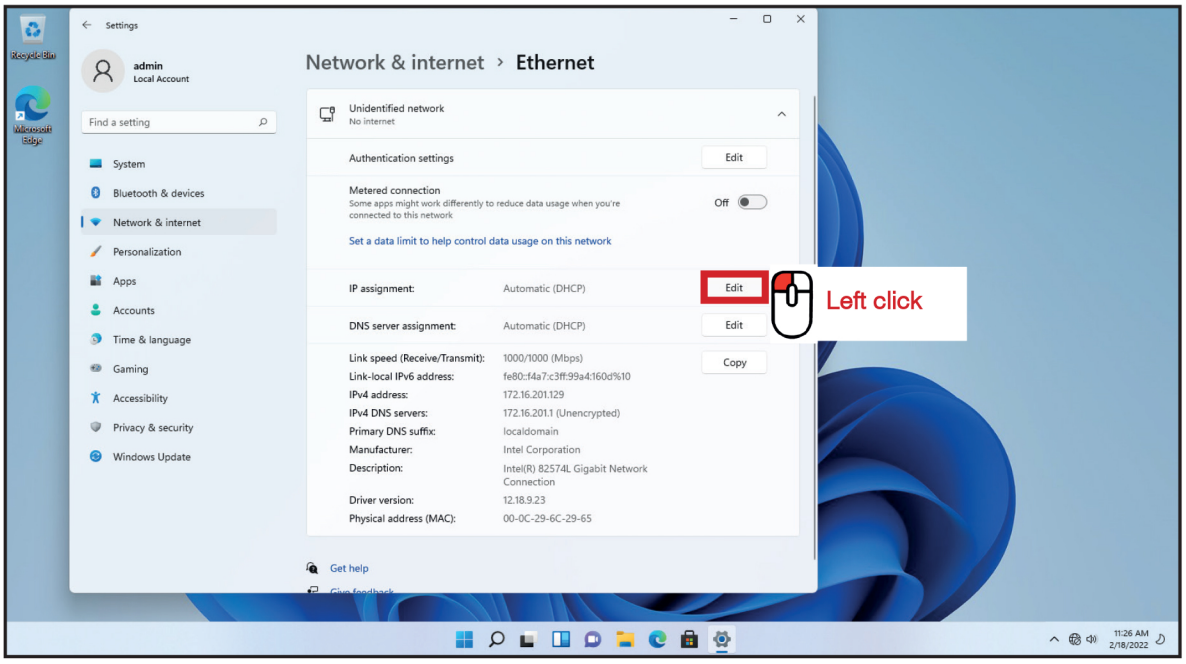


1 Modify computer network parameters (windows 11)

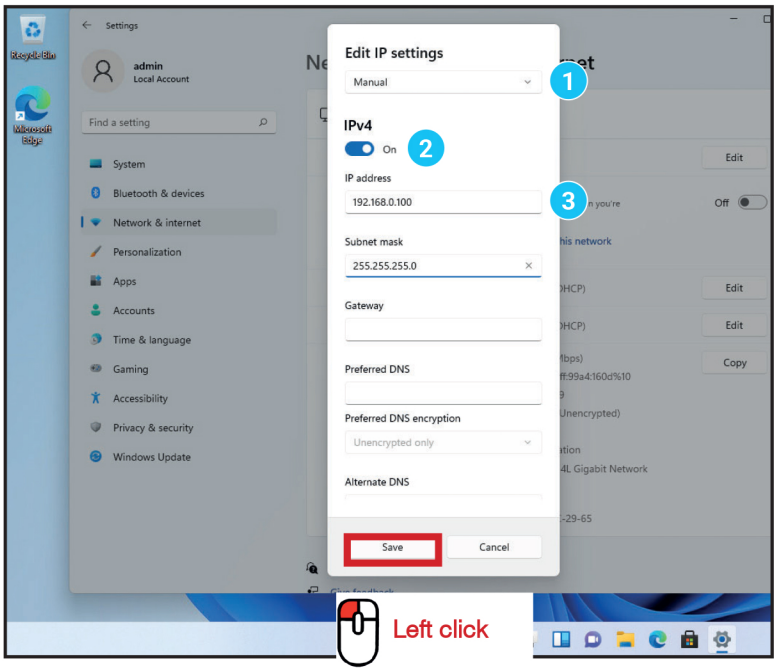
2 Access the network and sharing center (windows 11)



3 Access the network connection (windows 11)

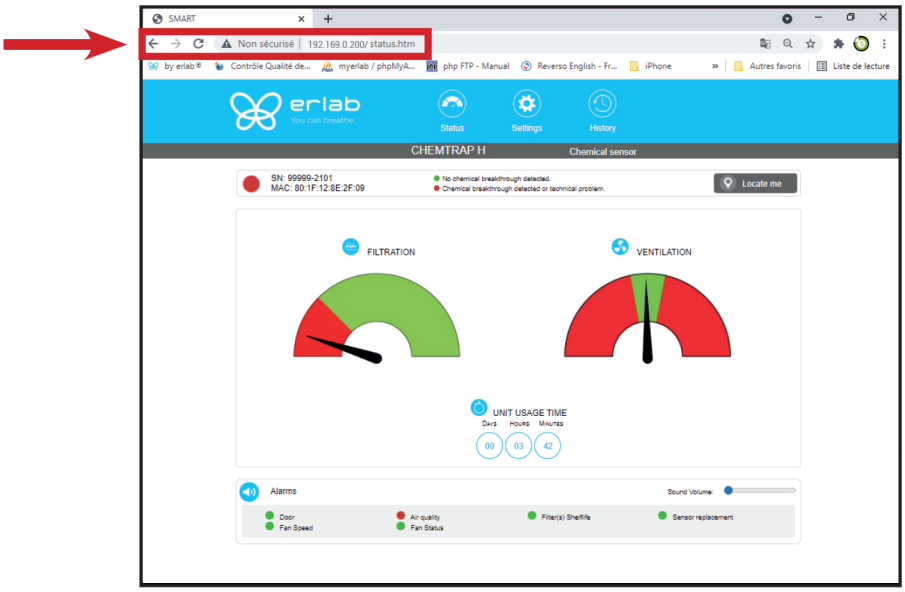


4 Enter compatible network parameters as indicated below (windows 11)



1. Select «manual»
2. Set «IPv4 to On»
3. Enter the IP address «192.168.0.100»

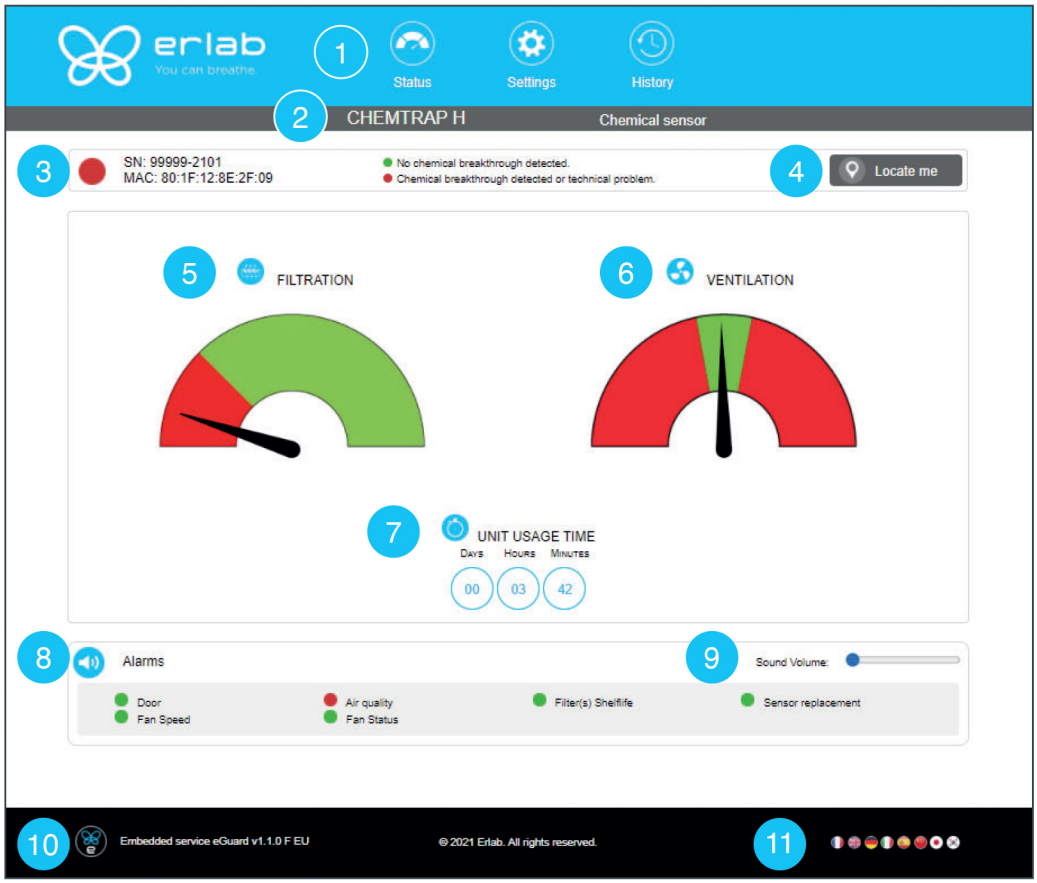
5 Open your web browser again, type again the following IP address 192.169.0.200 and validate



- **OK** : You are connected to the embedded software
  You enter the « Status » page and you can have access to the « Settings » using the following credentials:
  Login : erlab / Password : smart

6 Administrator interface description (not available for Midcap version)

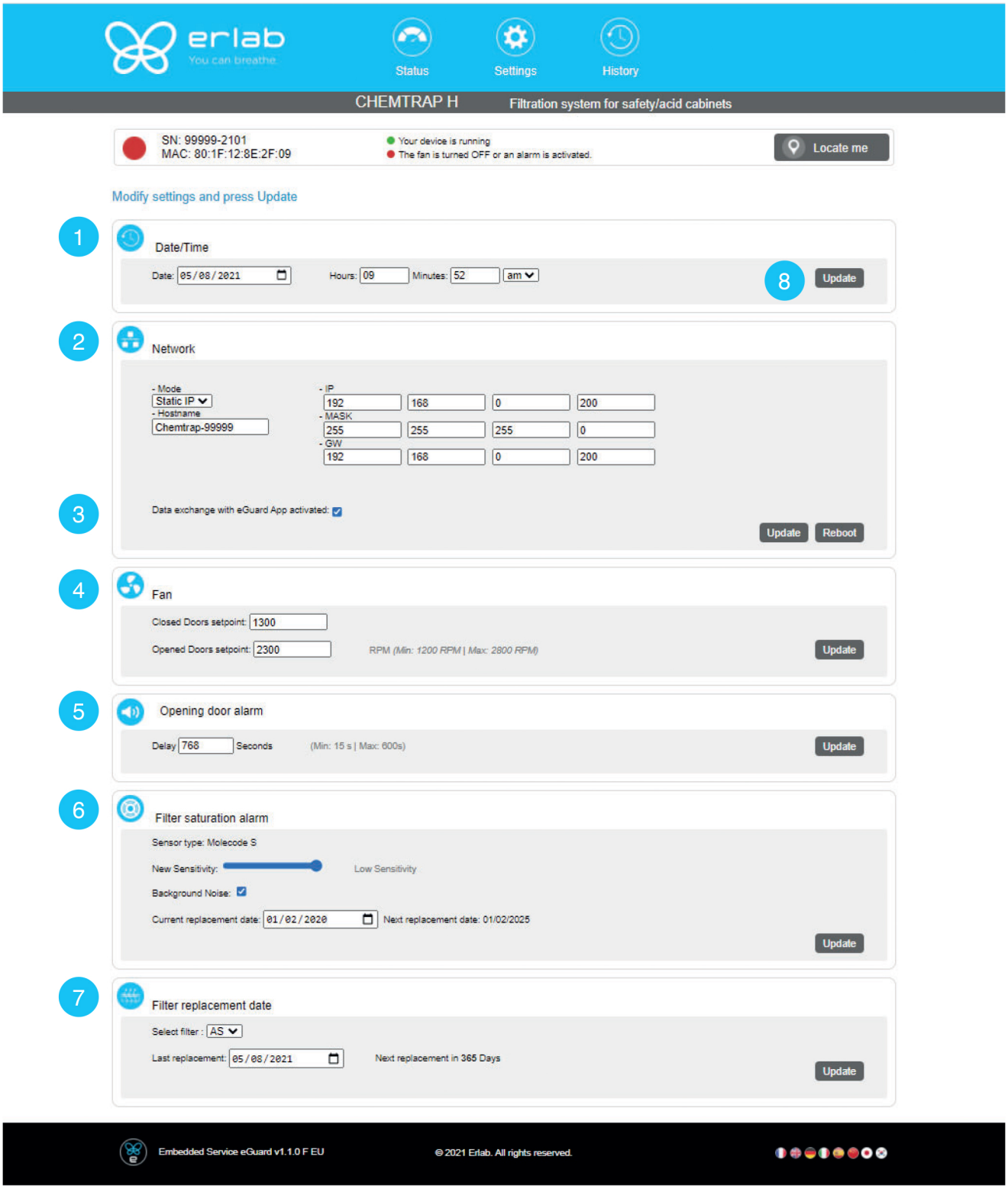
Open your web browser, type the IP address into the address bar and validate to access administration interface.



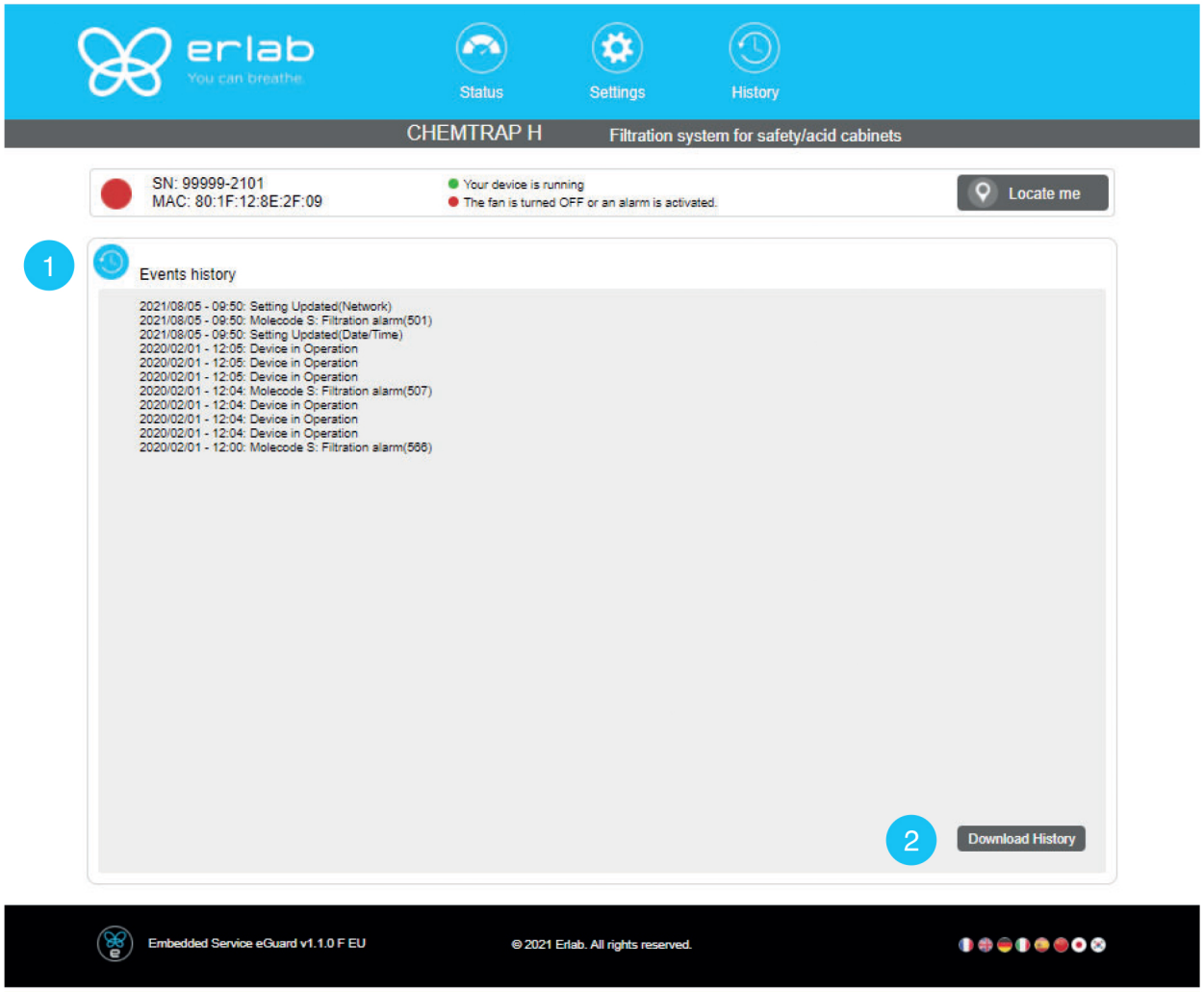
Status page description	
1	Choose active interface page
2	Device ID: Model
3	Device ID: serial number, MAC address, device status
4	Unit location
5	Option Molecode Gauge: indicates filter failure of the main carbon filter(s)
6	Fan gauge: indicates the fan status
7	Device usage time since fan was last started
8	Device alarms statuses (see alarms triggering conditions)
9	Volume setting
10	Embedded service version
11	Choose language

Access to the settings is protected by the following credentials:

User name: erlab
Password: smart



Settings page details	
1	Device time and date settings
2	Device network settings Mode: Selected IP protocol Hostname: Device name on network IP: IP address of the device MASK: network mask GW: Network gateway **Modify network settings :** Default mode : DHCP Each unit is identified with its hostname : ER-UNIT-S/N Hostname example for a chemtrap V Smart, S/N: 25698 Hosname will be: ER-V-25698 This hostname is displayed on the IP Adress label located on the back of the control panel If the unit is not connected to a DHCP servor, the unit will automatically switch to its defaut IP address: 192.168.0.200
3	Activate/Deactivate the exchange of information This allows the transmission of information from the device to the eGuard server for: - remote monitoring via eGuard App (mobile &PC) - receiving usage reports
4	Device fan setpoint settings
5	Door alarm
6	Filtration fault alarm (Molecode option) Sensor type indication (VOCs: volatile organic compounds/ A: Acids / F: Formaldehyde) Sensor sensitivity settings: VOCs sensor (5 settings) : High sensitivity, Medium/High Sensitivity, Medium Sensitivity, Medium/Low Sensitivity, Low Sensitivity A and F sensors (3 settings) : High sensitivity, Medium Sensitivity, Low Sensitivity Sensor replacement Enter replacement sensor date, display the next sensor replacement date
7	Filter replacement date: Indicates the filter type (AS: organics vapors / BE+:Acids, inorganics, organics, and solvents vapors / K : Ammonia vapors / F : Formaldehyde vapors / HP: powders) For units equipped with carbon and HEPA filters, please use the carbon filter indication Last replacement: Counter showing the number of days the filter(s) can be used relative to its/their service life expiry date
8	Confirm settings (please validate each setting separately)



History page details	
1	Displays the device's event log
2	Used for downloading the log in .csv format

Recommendations for the use of filters

ERLAB offers 3-point validation of your handling operations based on a scientific analysis carried out by its laboratory specialists via the global **Erlab Safety Program (E.S.P)** which includes the eValiQuest questionnaire:

- Feasibility of handling operations under a recirculating
- Type(s) of filter(s) to use and filtration column configuration
- Predicted service life of the activated carbon molecular filters

How does the E.S.P service work?

- The customer completes the eValiQuest questionnaire and sends it by email to Erlab
- The Erlab laboratory specialists analyze the questionnaire and issue a Valipass certificate

The Valipass certificate is affixed to the new devices at the factory. If the chemical processes in the hood change, a new eValiQuest is completed and is sent by email after revalidation.
The certificate contains the following: a list of the products handled in the fume hood, the type of filter required for these chemicals, the serial number, the life of the filter, the traceability information used to track the use of the device and the methods of detecting filter failure of the molecular filter.

To ensure their safety, we invite users who have not had their application validated via the **eValiQuest** questionnaire or whose device is not covered by a **Valipass** usage certificate, to contact **ERLAB** or their usual distributor to arrange a new usage validation for the device in question.

Failing that and/or in the absence of information regarding device usage:
ERLAB is unable to provide any guidance as to the predicted service life of the filter(s).

In such cases, we strongly recommend:
- **Replacement of molecular filters at least every 12 months and implementation of a regular filter fault monitoring protocol. (Please contact us for personal advice on this matter)**
- **That the HEPA or ULPA particulate filters are replaced at least every 36 months**

The Erlab Research and Development laboratory

About Erlab

Since 1968, **Erlab** has been a specialist, inventor and world leader in **ductless, zero-emission filtering fume hoods for laboratories** to provide total safety in chemical handling.

1 Erlab filtration

We provide technologies to protect laboratory staff from inhaling chemicals. This is made possible thanks to our Research and Development (R&D) department, which has continuously improved our filtration technology for more than 50 years. That's why, in 2009, we invented the ERLAB ABOVE label for tried and tested filtration technology.

2 The AFNOR NF X 15-211: 2009 standard

Erlab's filtration technology conforms to the NF X 15-211: 2009 standard, the industry's most demanding standard for molecular filtration, developed by a committee of independent scientists and specialized manufacturers.

This text imposes performance criteria linked to:

- Filtration efficiency
- Containment efficiency
- Air face velocity
- Documentation: chemical listing

3 The ESP program

A set of three services included with the purchase of each device designed to ensure your safety.

eValiQuest Risk analysis – Determination of protection needs – Determination of ergonomic needs.

ValiPass Certified installation – Total safety for handling.

ValiGuard Ongoing monitoring – Preventative and maintenance inspections – Device reconfiguration based on protection needs – Development of handling.

4 Flex technology

The combination of molecular and particulate filtration technologies allows a single device to meet laboratories' protection needs. This innovation from Erlab's R&D department offers unprecedented flexibility, versatility and value. A single device can be reconfigured over time and easily reassigned to other applications.

5 Smart technology

Smart technology is a simple and innovative means of communication that improves safety. This technology uses a light and sound signal to indicate the user's level of protection. The advantages of the technology are:

1/ Light pulsation: Real-time communication via LED light pulses intuitively alerts the user to the device's operating status.

2/ Simplicity: One-touch activation.

3/ Detection system: The exclusive detection system continuously monitors filtration performance.

4/ Built-in monitoring: This service provides direct access to the status, settings and history of your device.

France
+33 (0) 2 32 09 55 80 | ventes@erlab.net

Germany
0800 330 47 31 | export.north@erlab.net

United States
+1 800-964-4434 | info@erlab.com

United Kingdom
+44 (0) 1722 341 940 | export.north@erlab.net

China
+86 (0) 512 5781 4085 | sales.china@erlab.com.cn

Italy
+39 (0) 2 89 00 771 | export.south@erlab.net

Spain
+34 936 732 474 | export.south@erlab.net

erlab usa.erlab.com
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