



# Captair 1634 Smart

Ductless filtering chemical storage cabinets

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## Instructions & User's Manual

Hinged doors



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## General

**By choosing Captair Smart 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 Smart 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 Smart 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.

## Organisation of your storage

Prior to handling or storing a chemical product, it is mandatory to consult your label; this label provides information on the dangerousness of chemical substances as well as on the basic principles of protection during handling and storage.

This information includes pictograms, some special instructions are reproduced below:



### EXPLOSIVE

Contact with an energy source (flame) or an incompatible product may cause an explosion.  
Example: Ammonium Nitrate (responsible for the nitrogen fertilizer explosion in Toulouse in 2001)



### COMBUSTIBLE

Substance which will cause a fire on contact with a combustible product  
Example: Peroxyde d'hydrogène



### CORROSIVE

Product which may attack tissues or certain materials (glass, metal, etc.)  
Example: Acids (Hydrochloric Acid) or Concentrated Bases (Soda)



### SENSITIZING

Substance dangerous for health  
Example: Formaldehyde, Benzène



### DANGEROUS FOR THE ENVIRONMENT

Substance which when it is dispersed into the environment may cause damage to the fauna or flora.  
Exemple: Hydrocarbons



### TOXIC / IRRITANT

Substance wich may cause a health risk.  
Example: Citric Acid



### GAS BOTTLE UNDER PRESSURE

Product which can cause an explosion or burns  
Example: Hydrogen



### TOXIC

Substance presenting serious health risks (Carcinogenic, Mutagenic or Toxic for reproduction)  
Example: HCN Acide cyanhydrique



### FLAMMABLE

Contact with an energy source (flame) or an incompatible product (combustive) may cause a fire.  
Example: Methanol

Before inserting any new product into the cabinet, the user must check its chemical compatibility with the products it already contains. For example, in the category of corrosive products, it is necessary to distinguish between Acids and Bases. In every case, Acids and Bases must be separated: the reaction of a strong acid with a strong base is highly exothermic (releases heat), which may cause serious accidents (projection).

We give a non-exhaustive list below of some examples of known chemical incompatibilities:

- Do not store acids and bases together.
- Do not store oxidants and reductants together.
- Do not store combustible products and flammable products together.
- Do not store corrosive products and flammable products together.

In a cabinet, glass bottles containing liquids should be stored as low as possible so as to limit the height of a spill if they are accidentally turned over

The storage cabinets are intended to contain small quantities of products necessary for daily work.

Inventories must be stored in stock rooms provided for this purpose outside of the laboratory.

## **IMPORTANT :**

Captair Smart cabinets are not capable of resisting consequences of a fire in the laboratory.

Therefore, any storage of flammable products in this type of cabinet is under the sole responsibility of the user.

The Captair Smart cabinet must be used indoors, at a vertical position on its carrying feet.

Use or storage temperature: 15 to 30° C

Maximum rate of humidity: 75 %

Storage: noxious and odorous chemical products.

## The Erlab guarantee



### Product registration

Take full advantage of the device's connectivity to enhance your safety

### Get up to 10 years warranty on your connected Erlab unit

Register your product online: the registration of the product will automatically give you one extra year of warranty (in addition to the warranty mentioned in the Erlab' general terms and conditions of sale).

Connect your unit: Once the device is connected to the Internet and configured to exchange usage data, the warranty is extended for up to 10 years. Warranty will be successively renewed at each filters replacement and for the life time indicated on the Vali-pass® and/or or at the end of filter usage time.

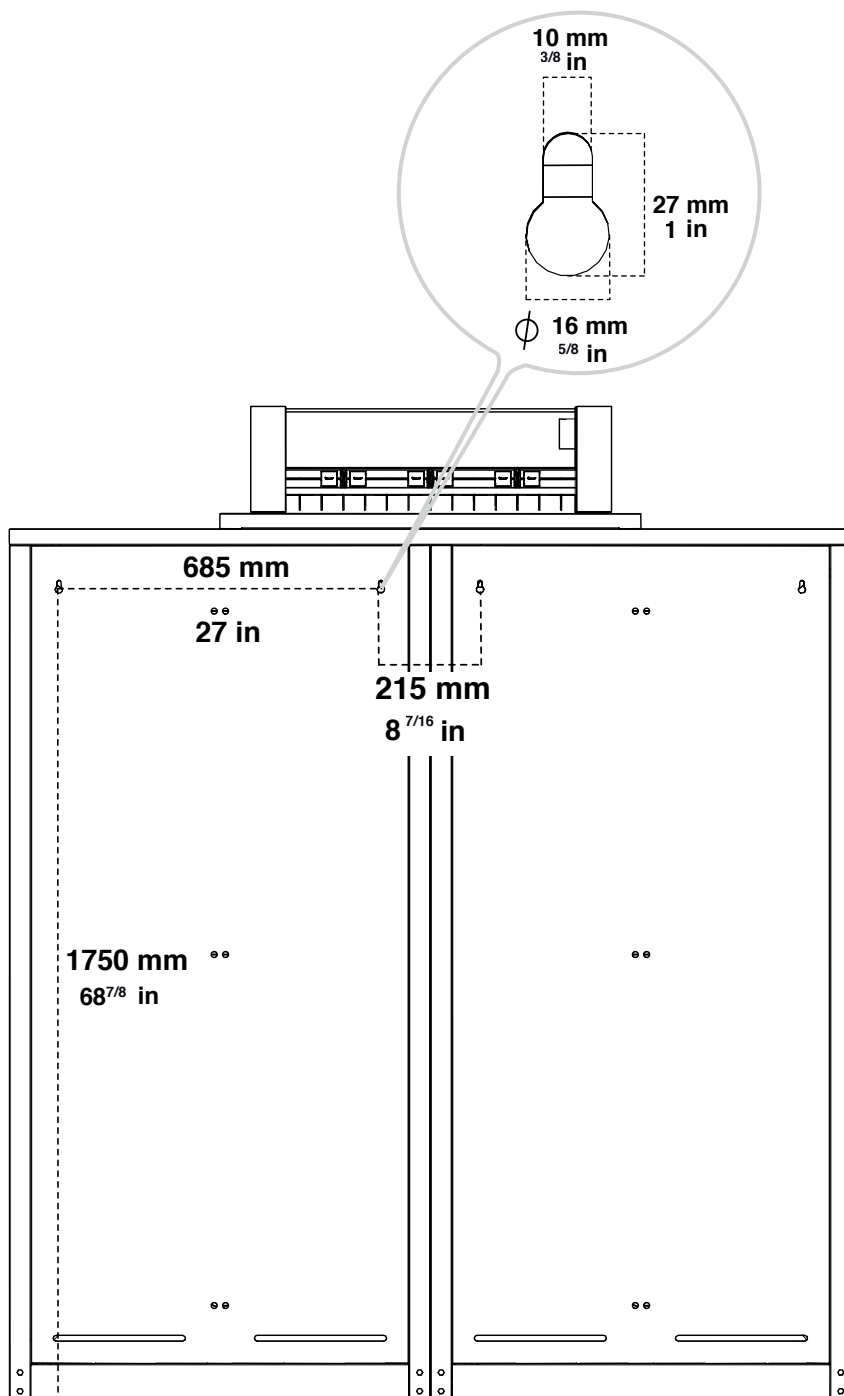
In order to benefit from Erlab extension of warranty offer, the following conditions shall be respected:

- The registration and/or the connection of the product shall be performed within the twelve months from the purchase date ;
- Filters replacement must be performed following eValiQuest® service recommendations or at the end of filter usage time ;  
The filter's serial number, used as an identification key, validates this condition, regardless of your device's supplier (and/or the replacement filter's supplier for the following years);
- The device's replacement filters must be manufactured by Erlab, as must all other spare parts.


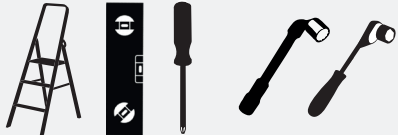
Consumables such as filters and filter failure sensors are not covered by the warranty.





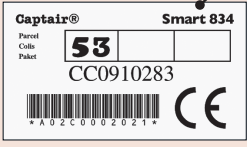
**The storage cabinet must be fixed to the wall**



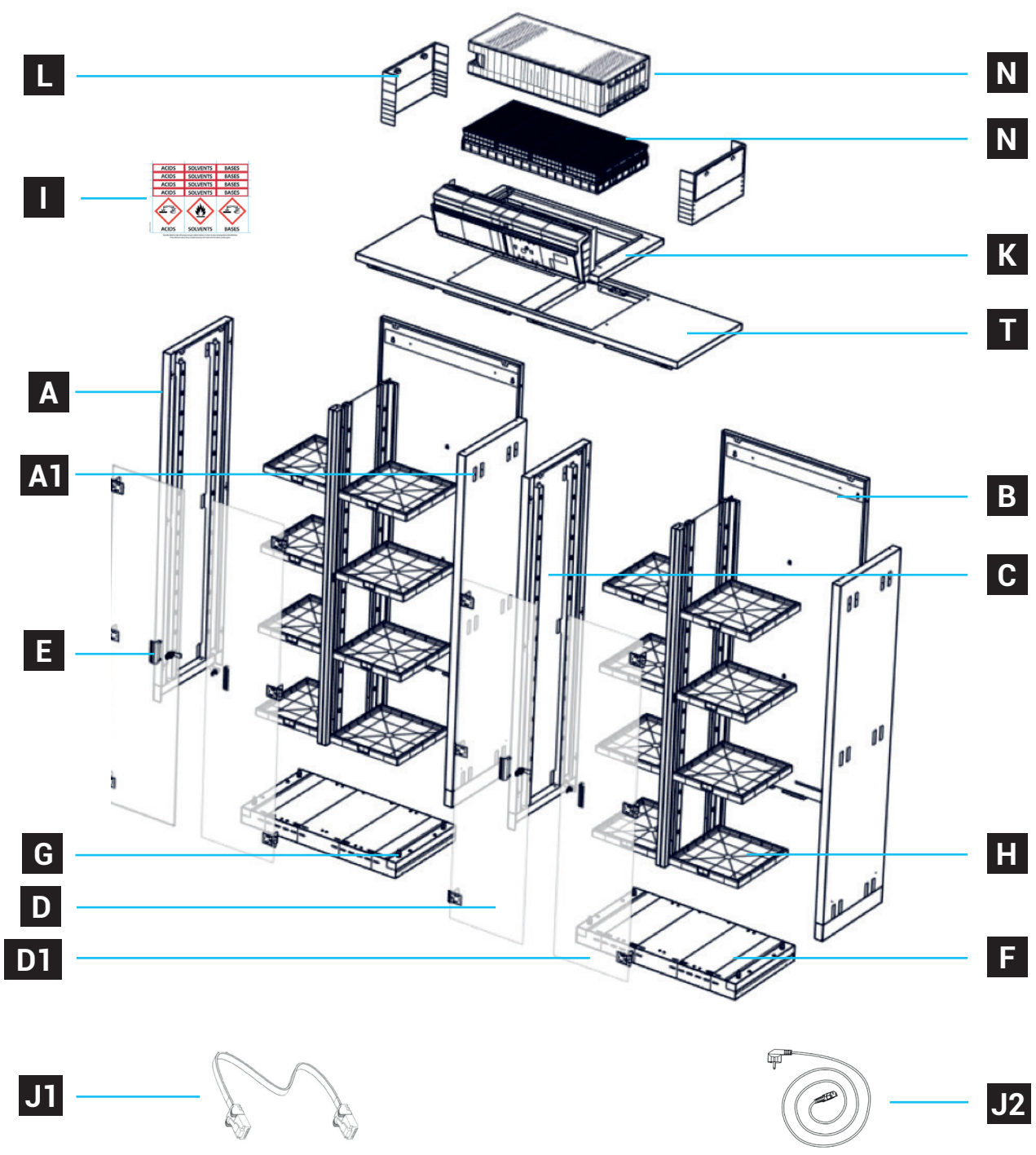
**1634**

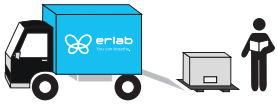
Ø 7-8-19

Captair® Smart 834  
 Parcel 53  
 Coils CC0910283  
 Pallet  
 \*A02C0002021\*

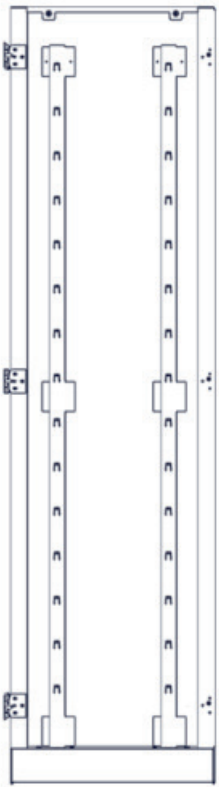






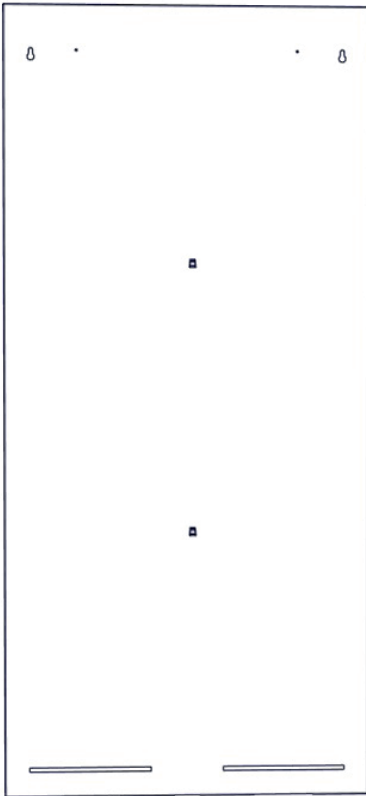
**A** x2

PIDREB03P3054



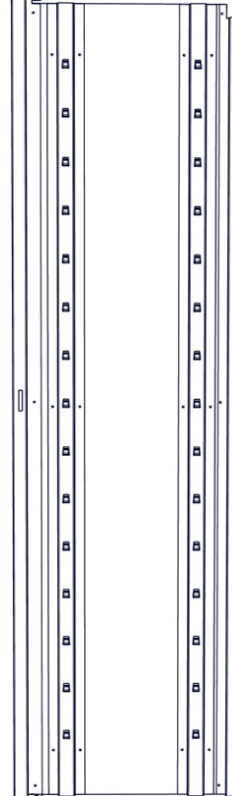
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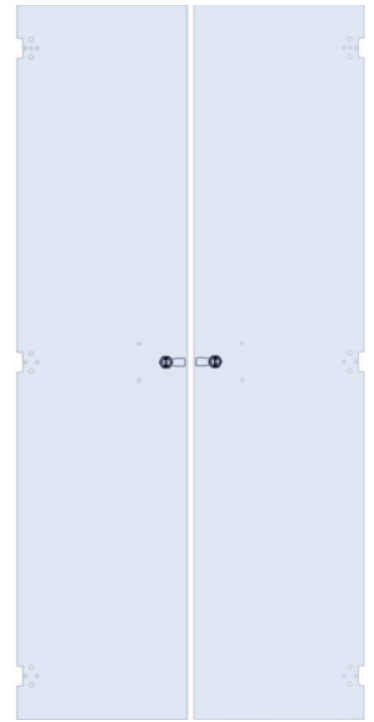
**C** x2

PIDREB03P3053



**D** x2

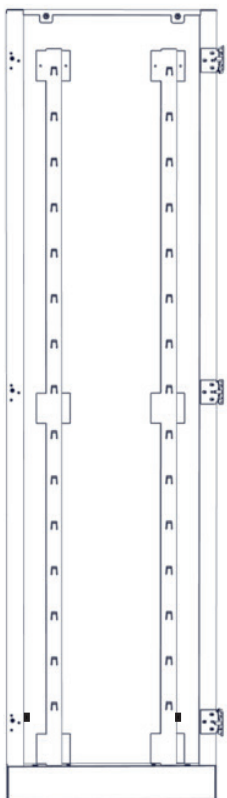
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**D1** x2

PIDVIB03P3014-1

**A1** x2 PIDREB03P3054-1



**E** x4

PIDDI8563

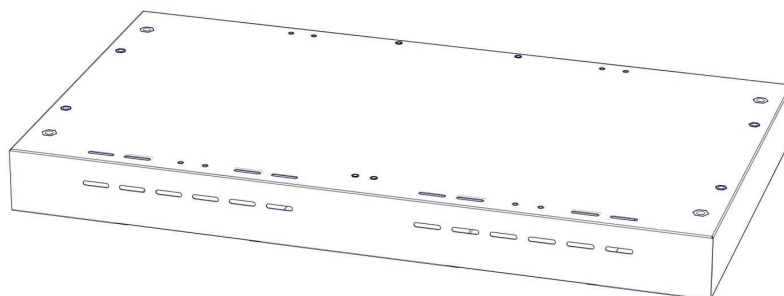


x4



**F** x2

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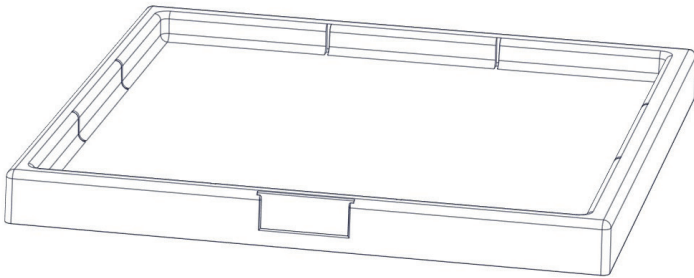


**G** x8

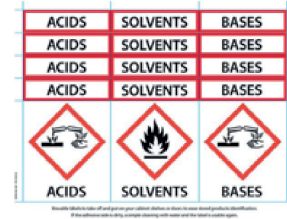
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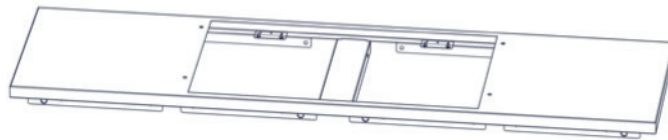
**H** x20  
 PIDMS106-1



**I** x1



**T** x1  
 PIDREB03Q2010



**S1** x20  
 PIDBOX037



**S2** x8  
 PIDB0070



**S3** x24  
 PIDMS032



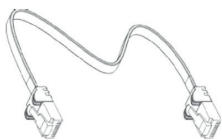
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 PIDB08549



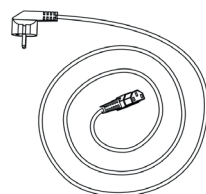
**S9**  
 PIDB08547 PIDB0072



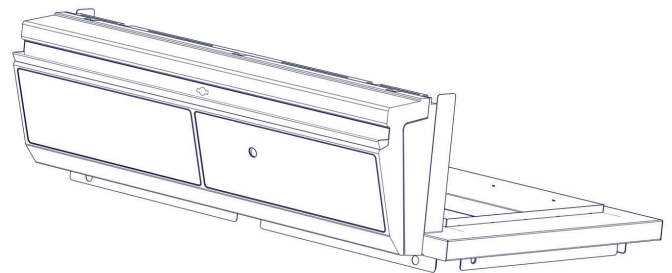
**J1** x1  
 PIDEL8603



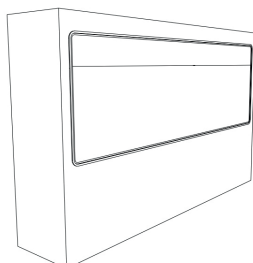
**J2** x1  
 EU = PIDEL076  
 USA = PIDEL080  
 GB = PIDEL090  
 CH = PIDEL106



**K** x1  
 KPS 1634



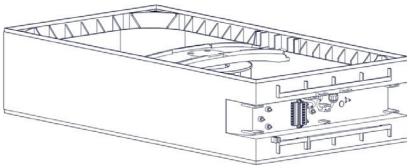
**L** x2  
 PIDMS8552



## N

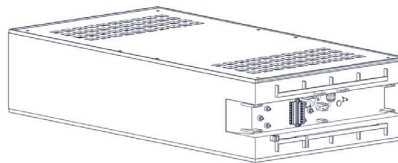
### N3 x1

Z3FM004



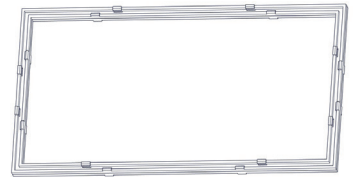
### N4 x1

Z3FM004 + PIDMS8522



### N5 x1

PIDMS8532



### N6 x4

2C1P : PIDREQT0018

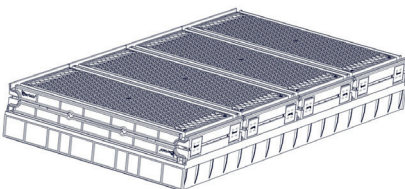


### N7 x4

1C1P : PIDREQT0019

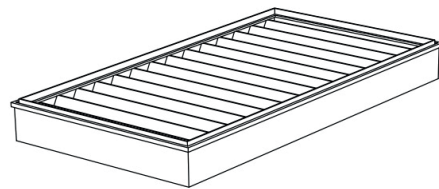


### N1



Filtre moléculaire

### N2



Filtre HEPA H14 / ULPA U16

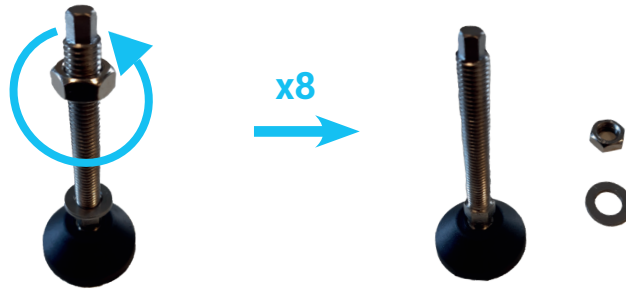
SQUARE PART	FILTER
H11074101	AS
H11074201	BE+
H11074301	K
H11074401	F

SQUARE PART	FILTER
H11074031	H14
H11074061	U16

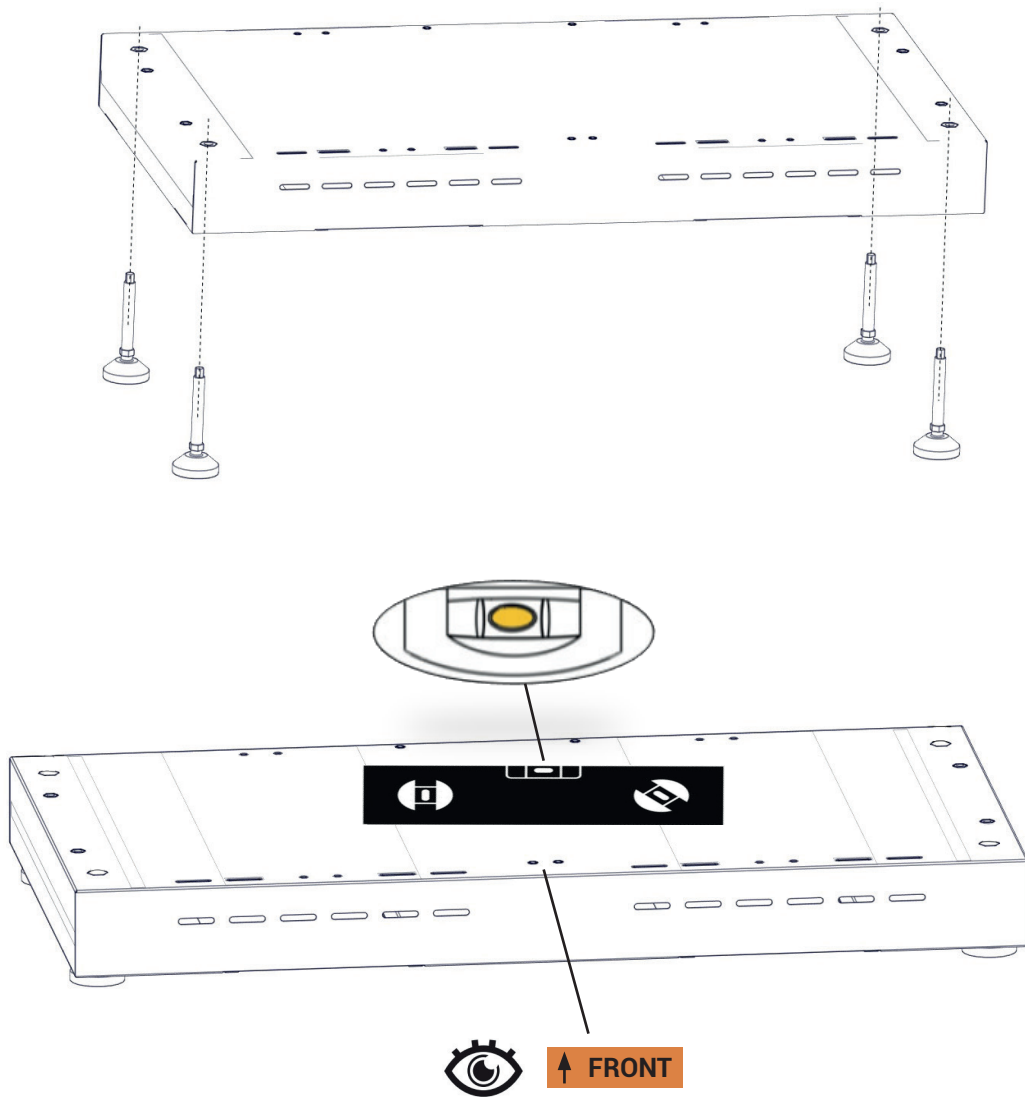
1

F	x2
G	x8

**G**




**F**



2

A	x2
A1	x2
G	x8

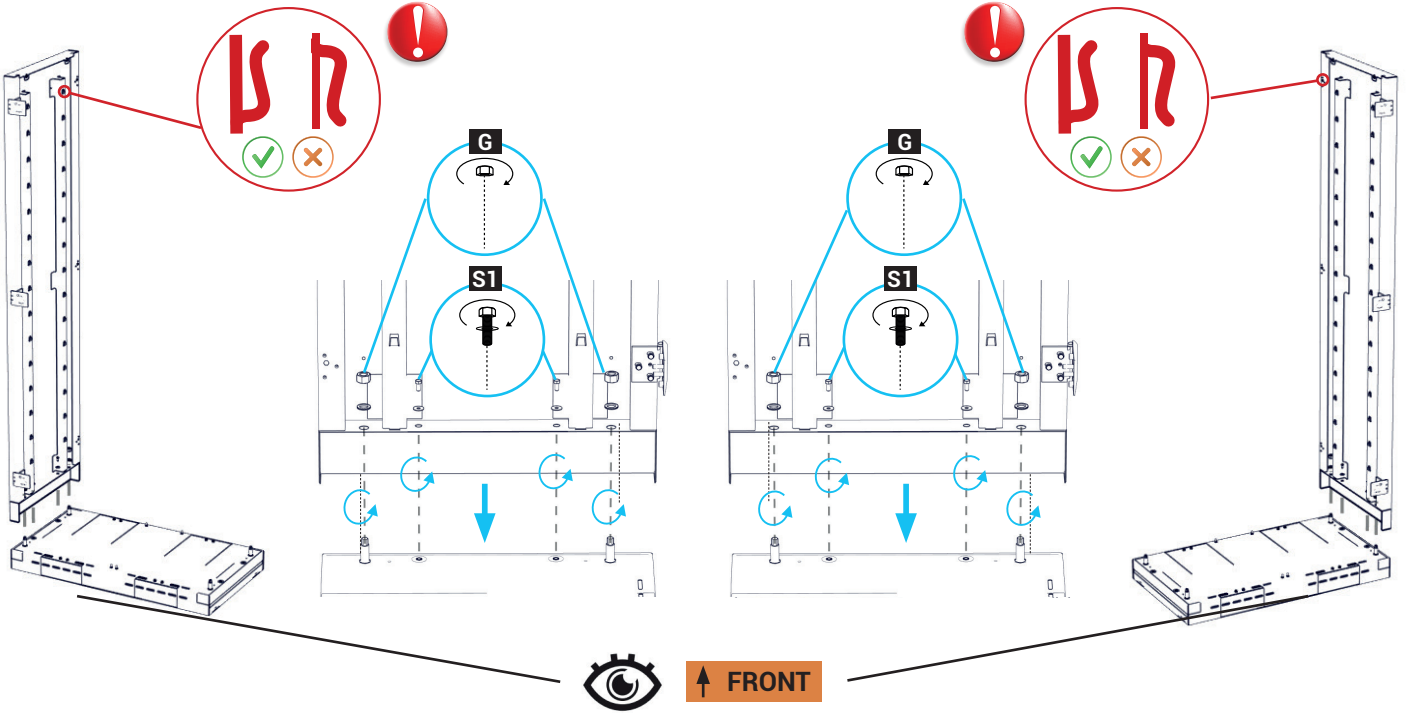
S1	x20
----	-----



1

A

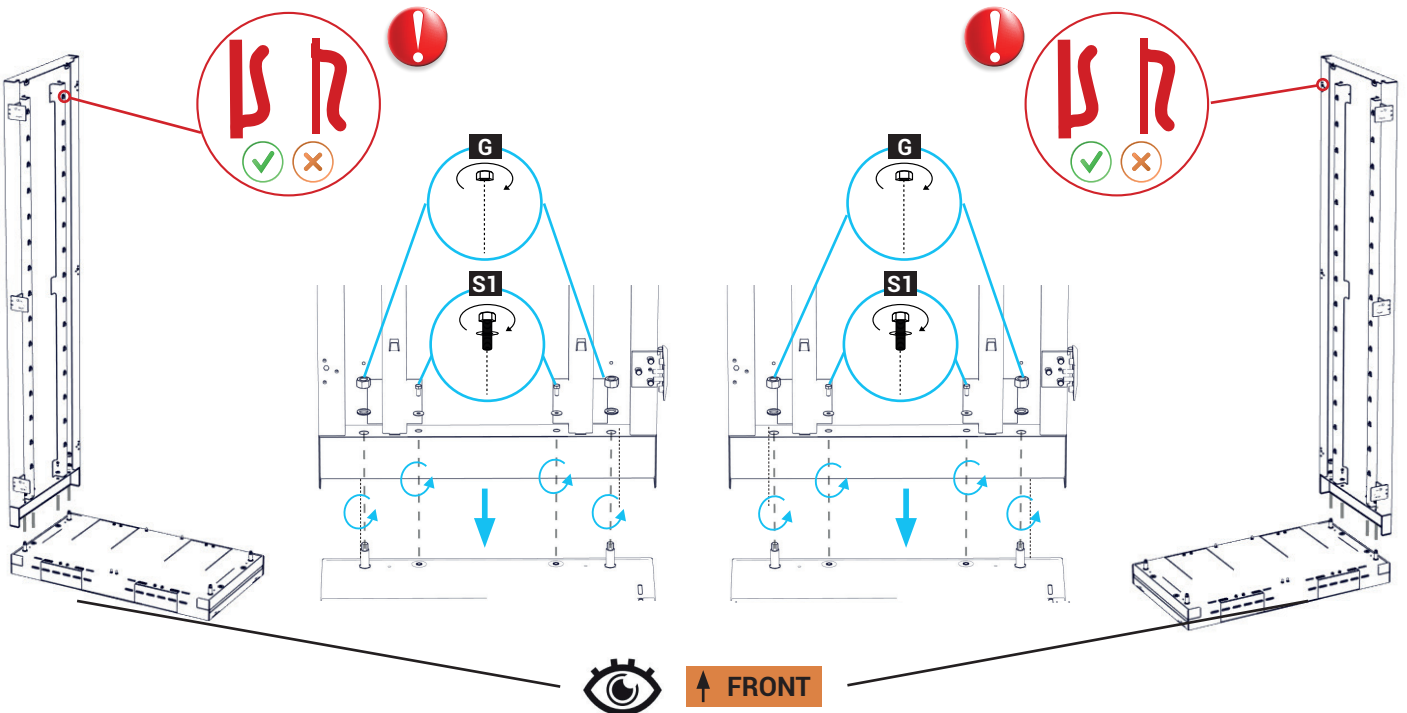
A1



2

A1

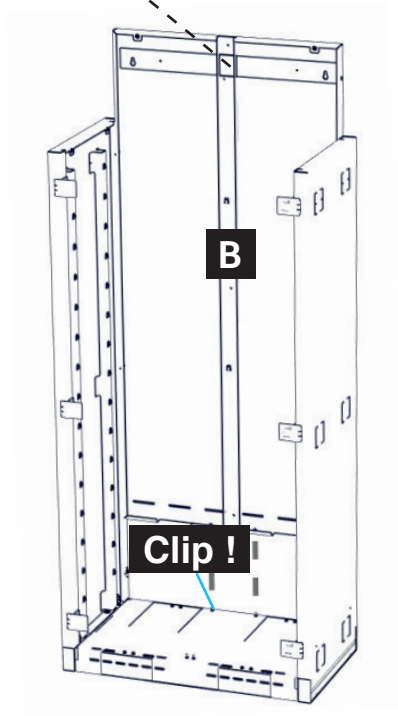
A



**B** x2

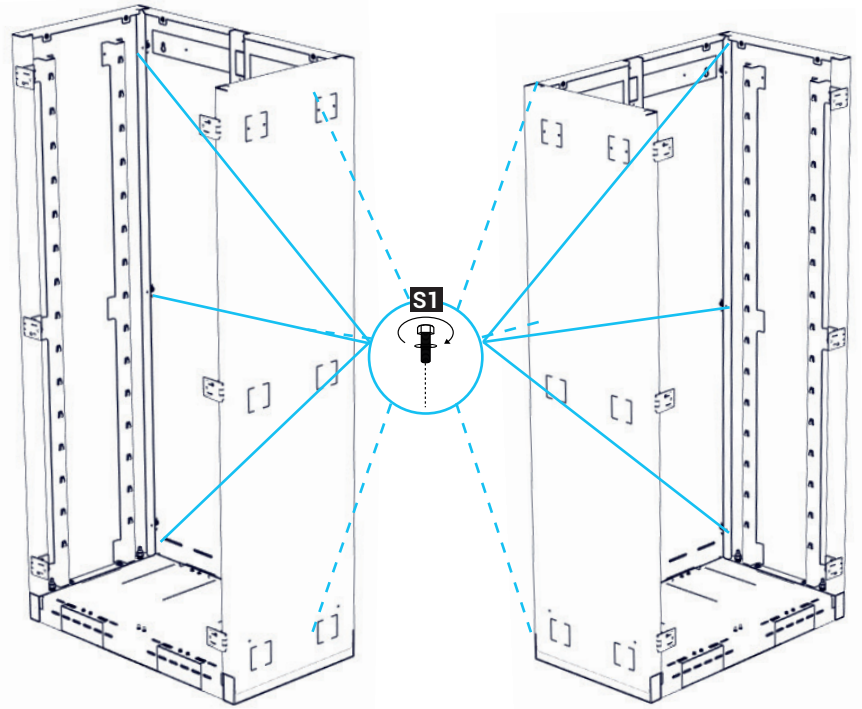


↑ UP



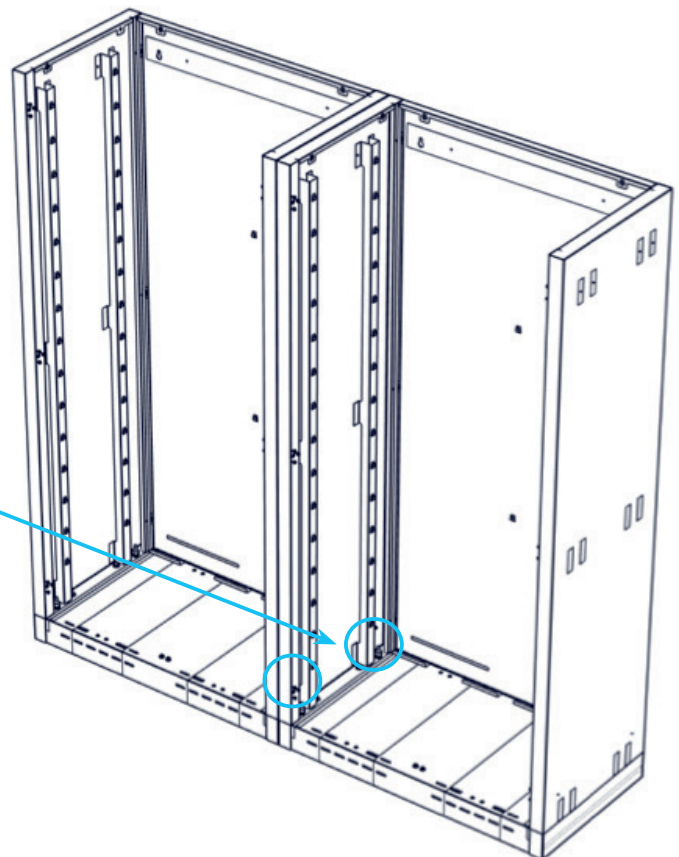
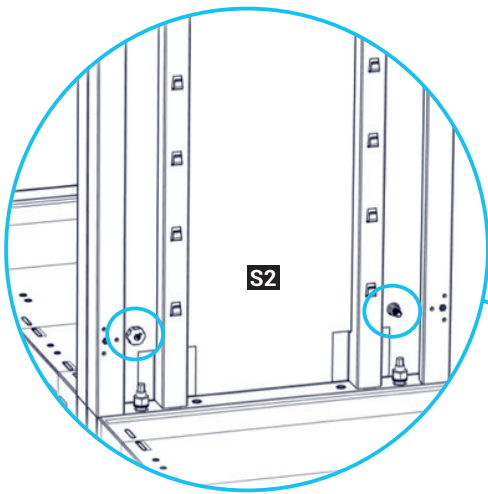
LEFT

RIGHT



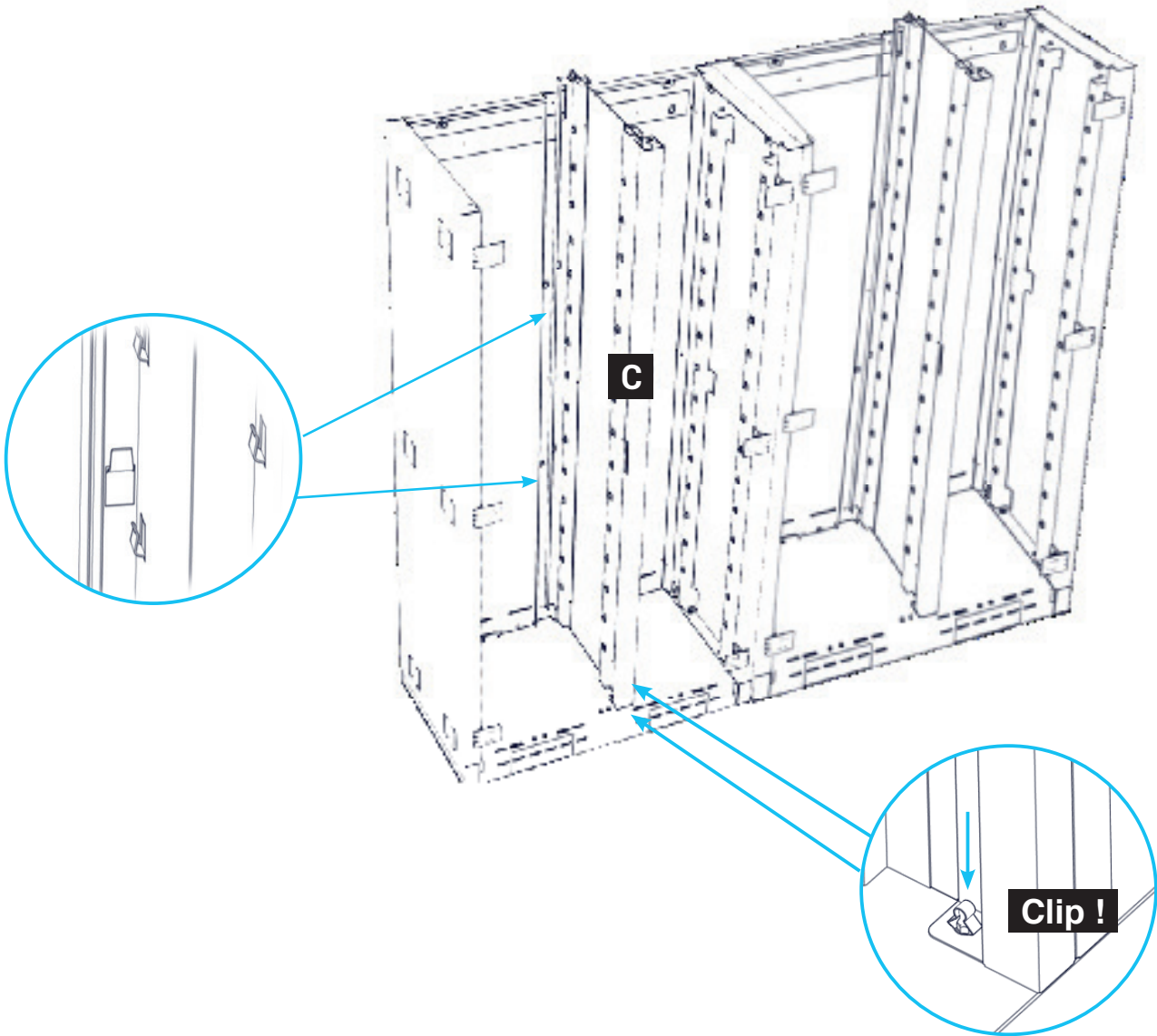
**3**

**S9** x2  


4

C x2

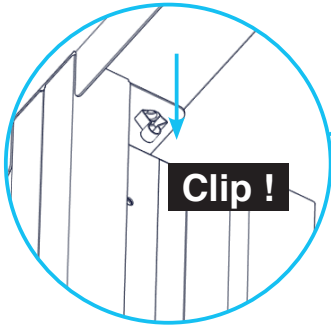


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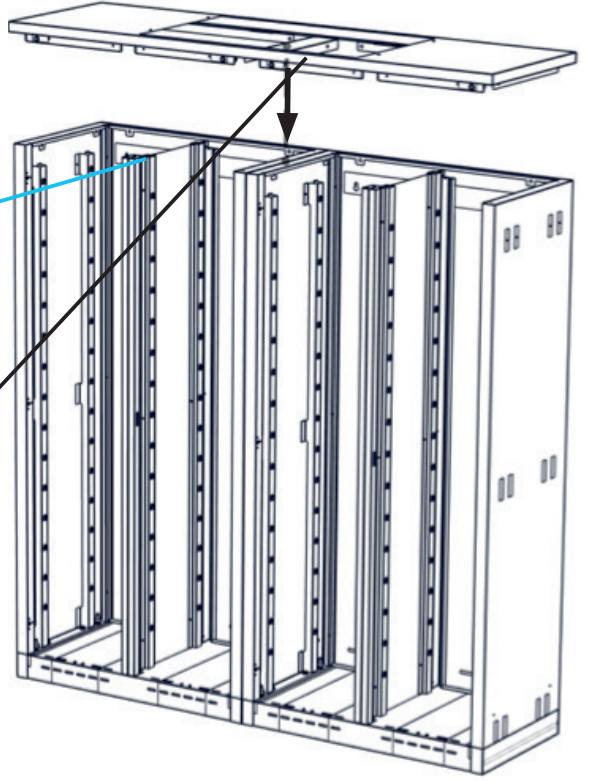
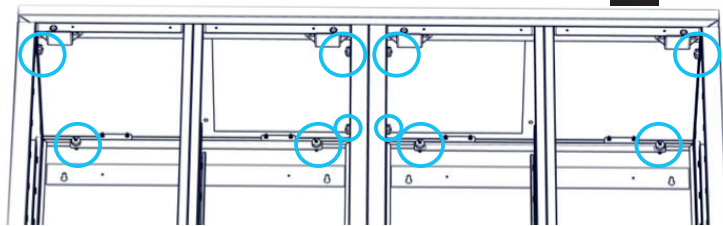
T x1

S9 x10  


T




S2

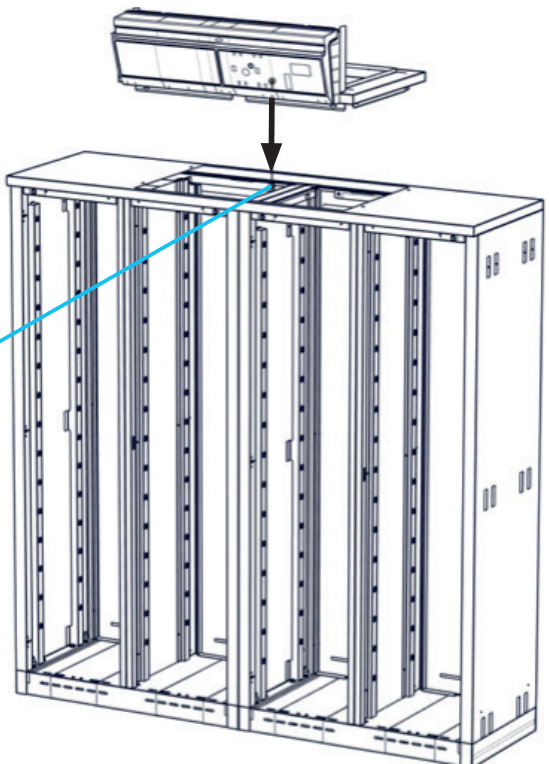
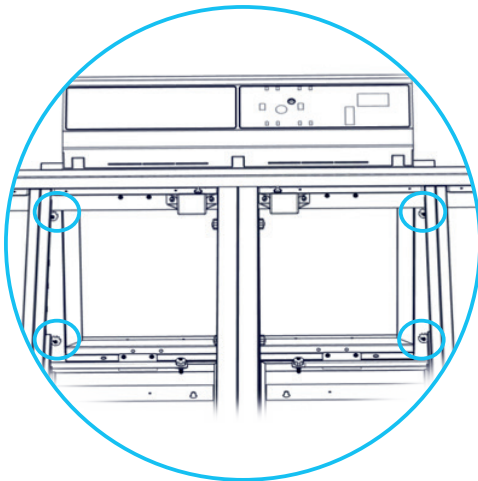


6

K x1

S9 x4  


K

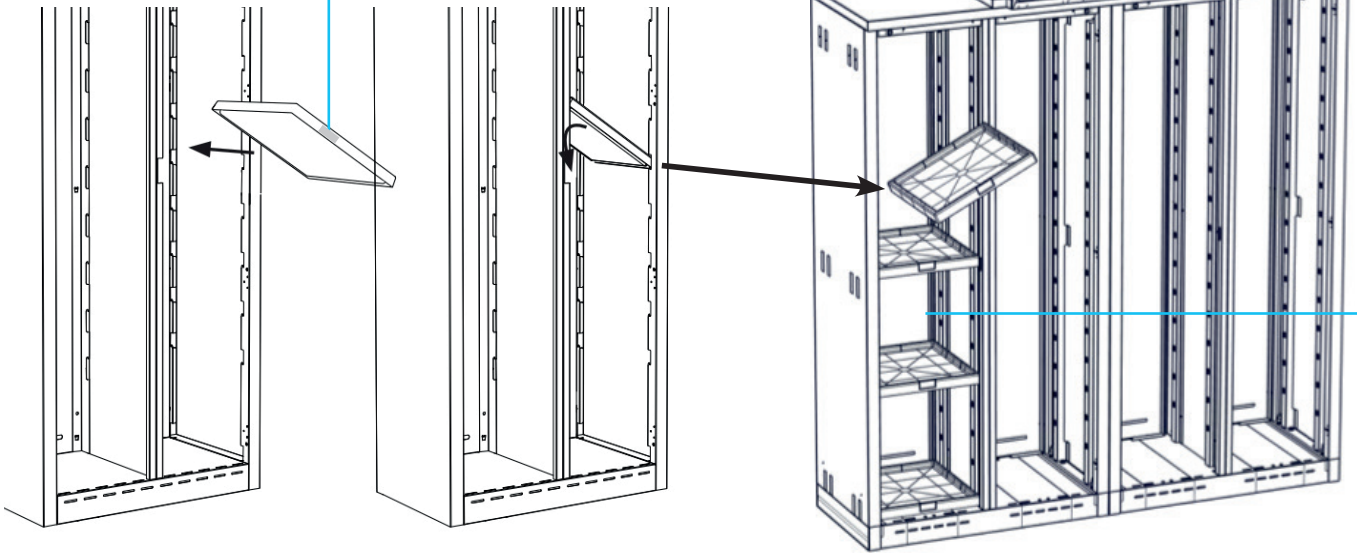
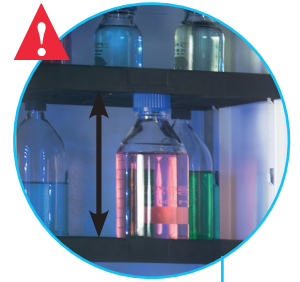
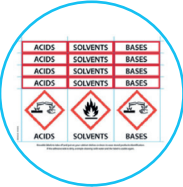




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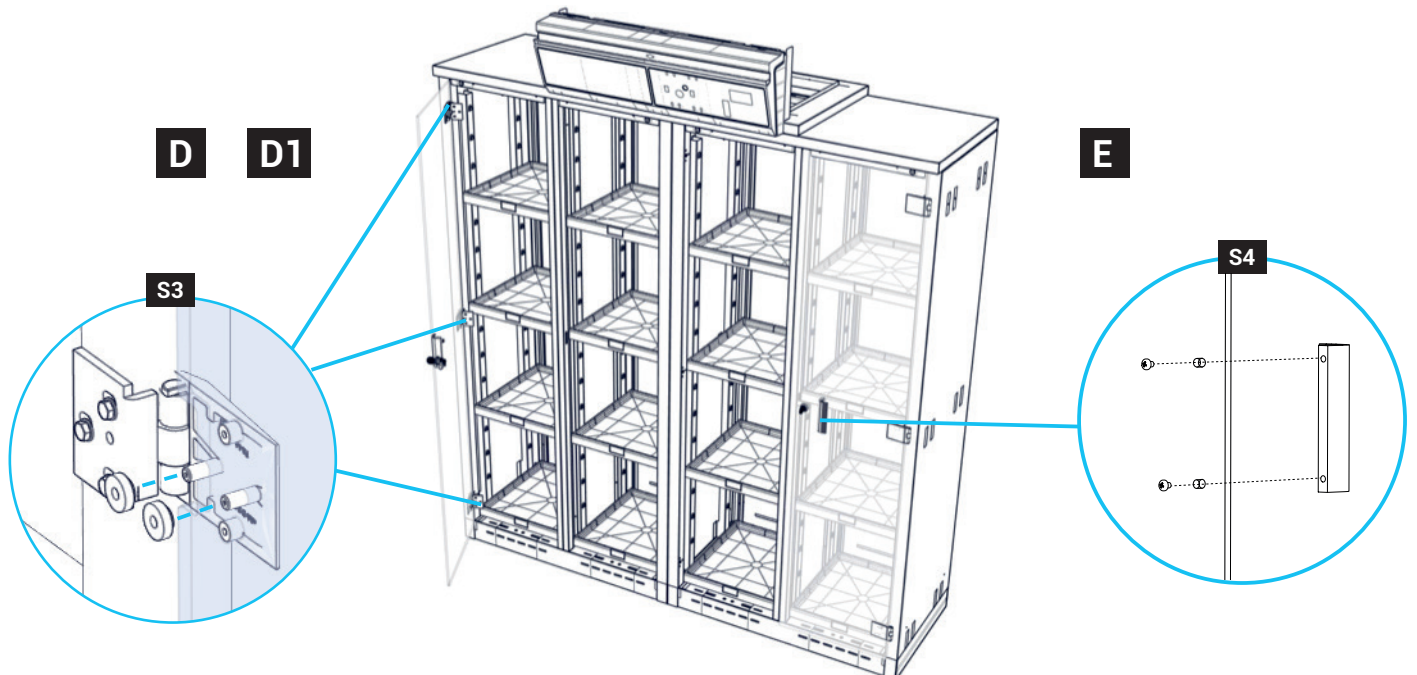
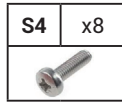
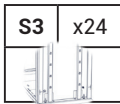
H x20

H



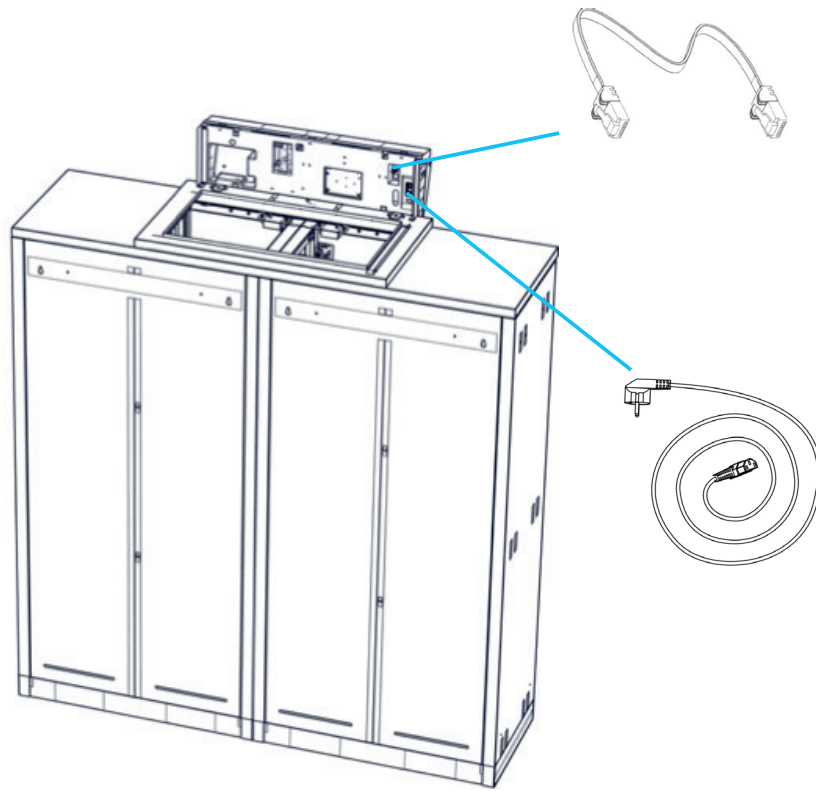
8

D	x2
D1	x2
E	x4



9

J1	x1
J2	x1



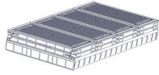

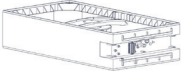
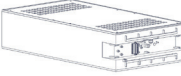



J1



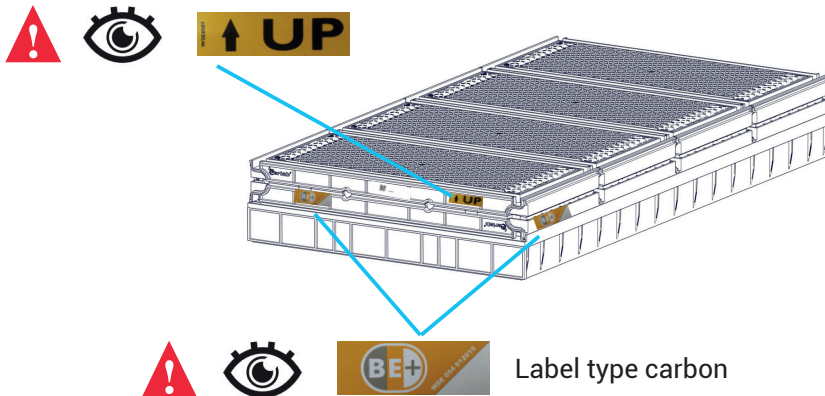
J2



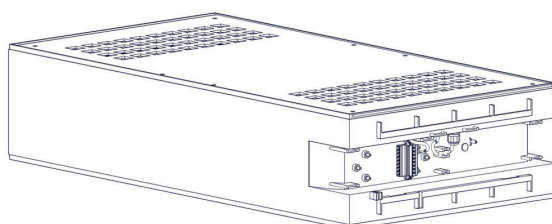
**10**

	Versions	1C	2C	1P	1P1C	1P2C	1C1P	2C1P
<b>N1</b>		x1	X2		X1	X2	X1	X2
<b>N2</b>				X1	X1	X1	X1	X1
<b>N3</b>			X1			X1	X1	X1
<b>N4</b>		X1		X1	X1			
<b>N5</b>				X1				
<b>N6</b>							X4	
<b>N7</b>								X4

**N1**



**N3 - N4**



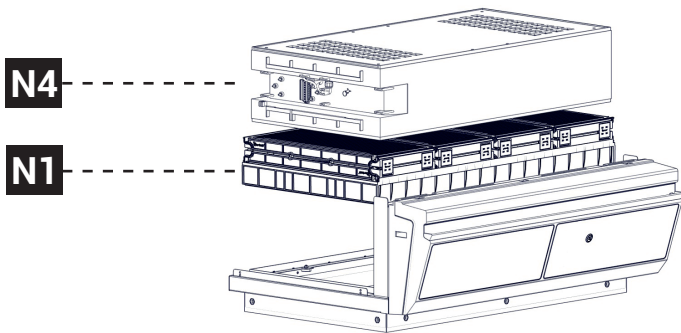
Fan without moleculecode S



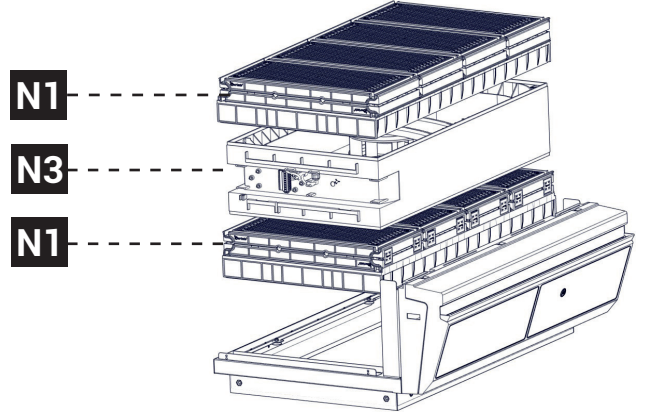
Fan with moleculecode S



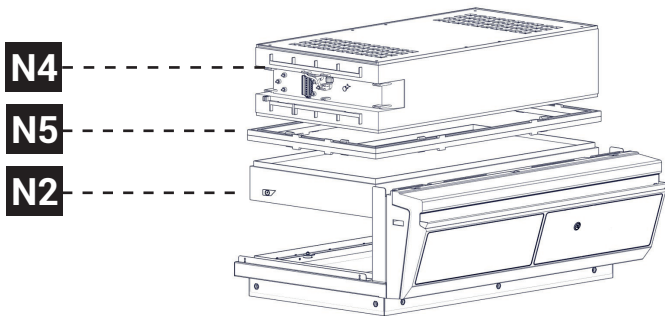
**1C**



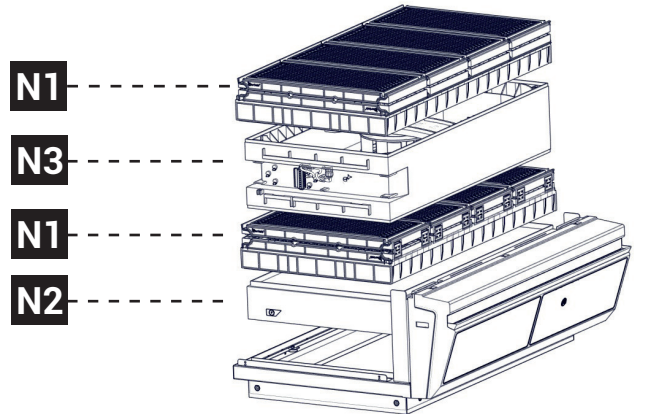
**2C**



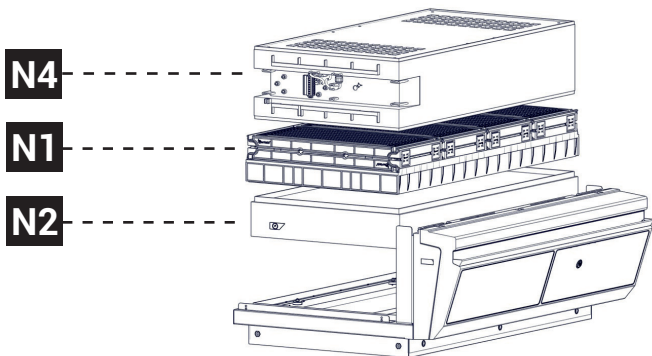
**1P**



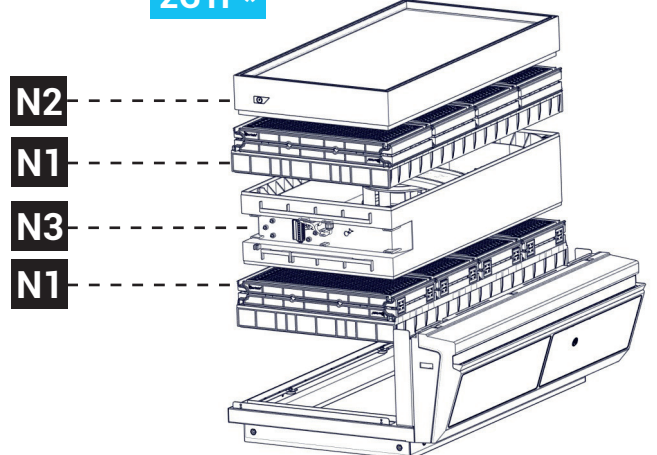
**1P2C**



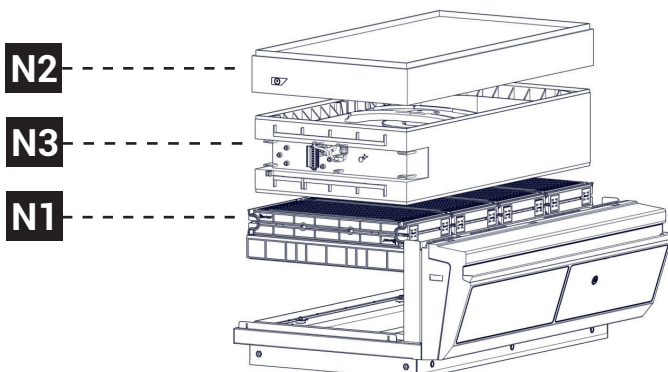
**1P1C**



**2C1P\***



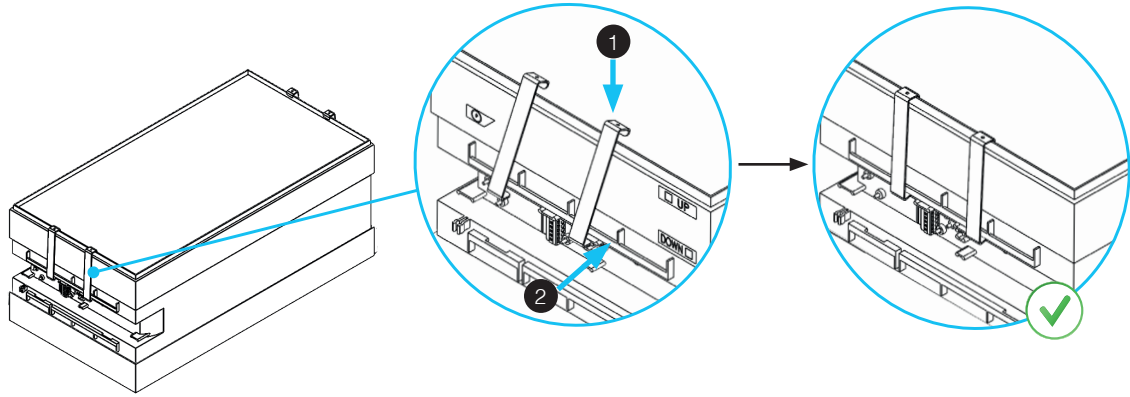
**1C1P\***



## \* Hook mounting

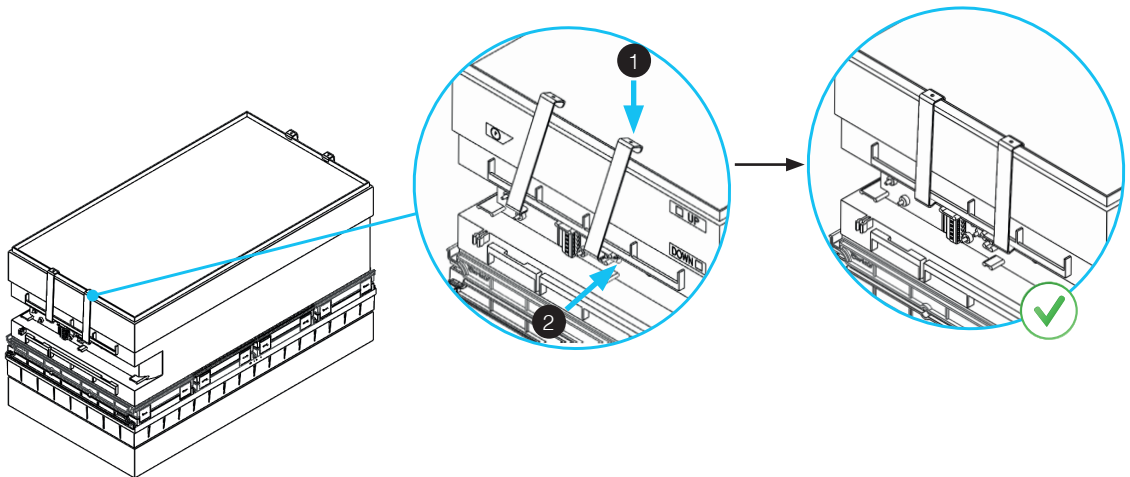
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N7 x4



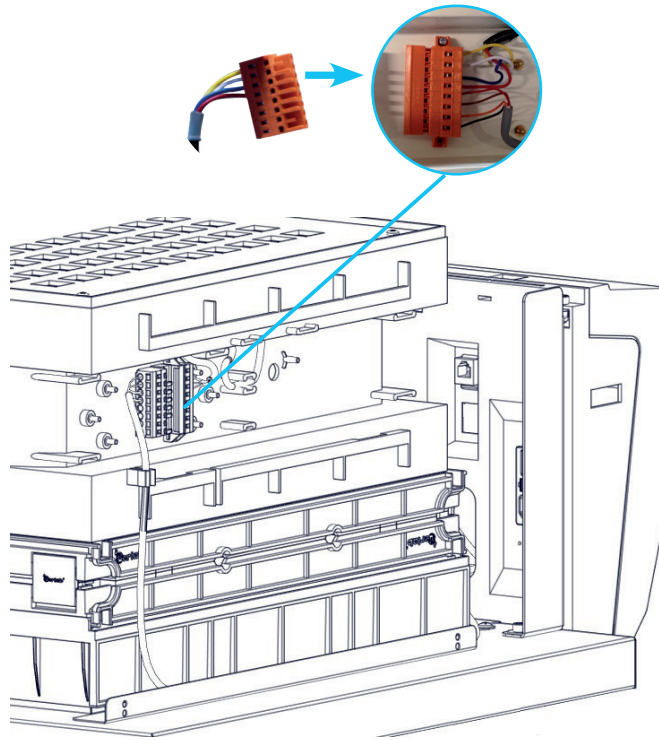
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N6 x4

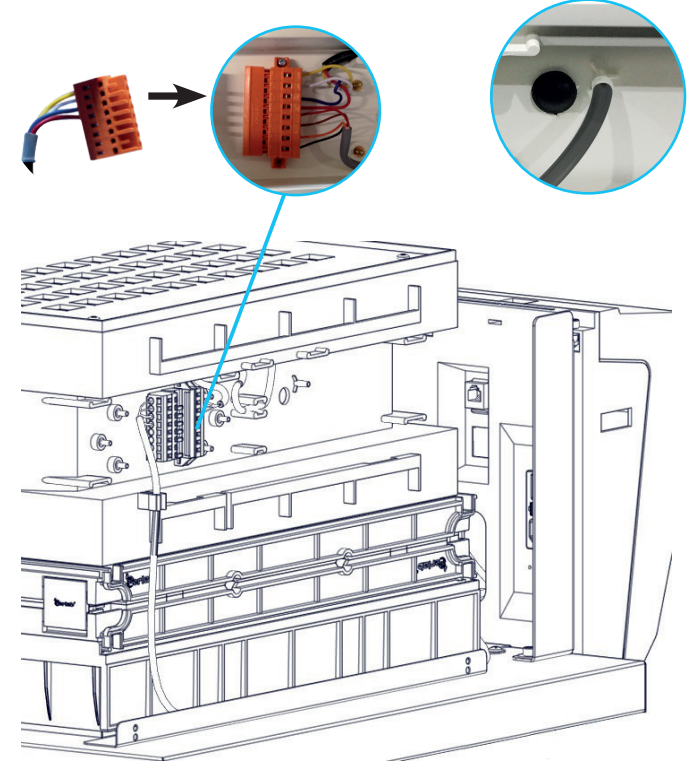


10

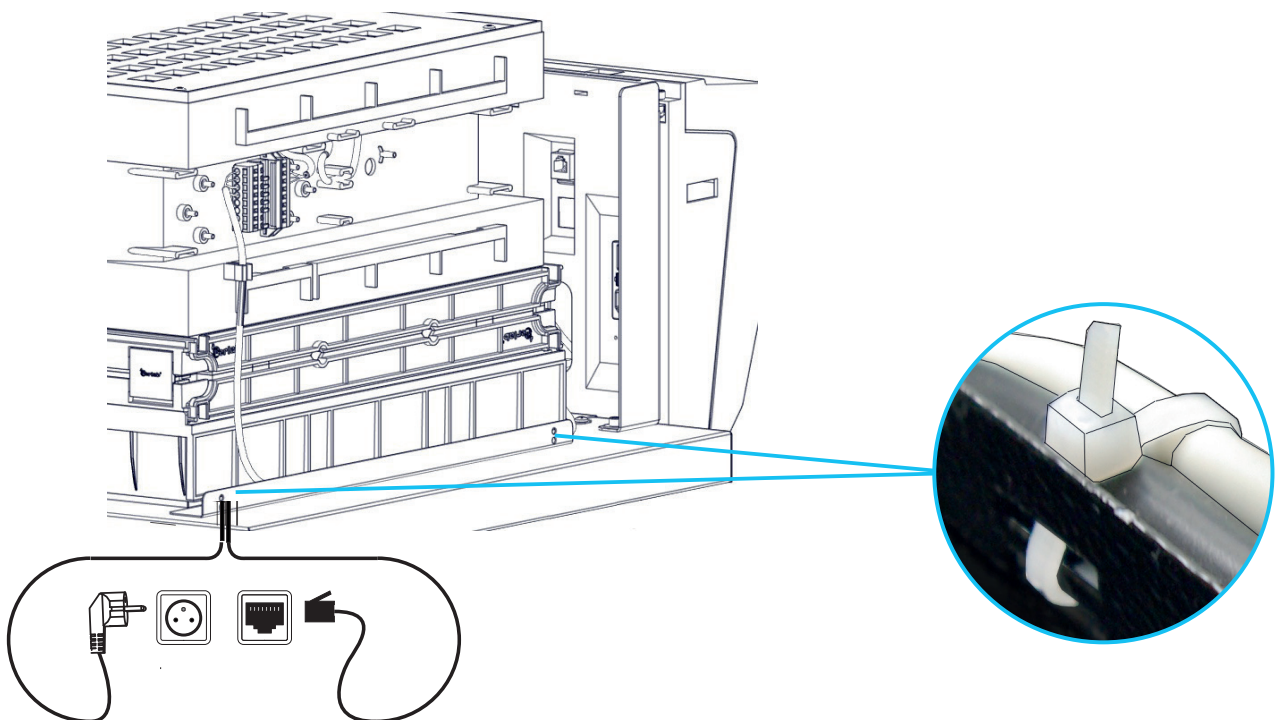
with and without Molecode S



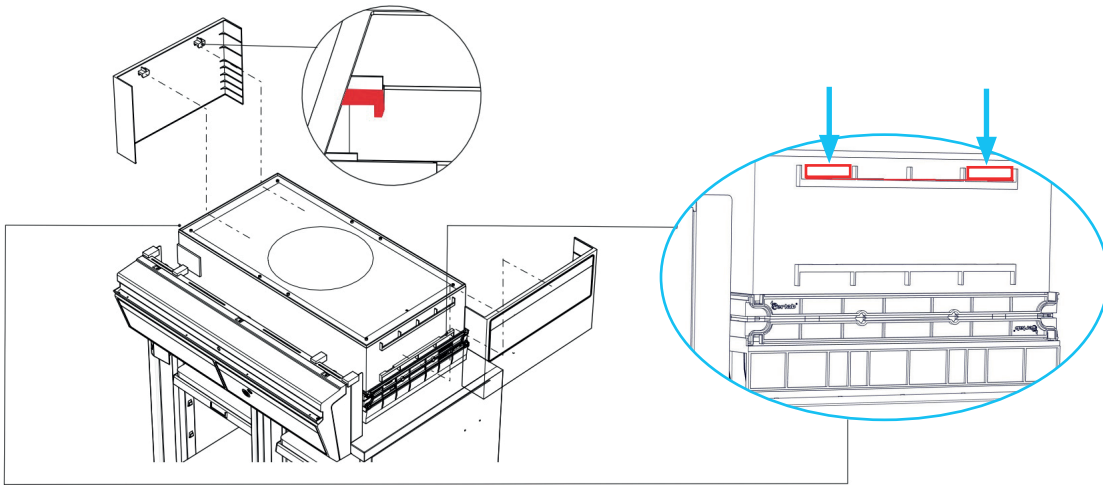
with Molecode A-F



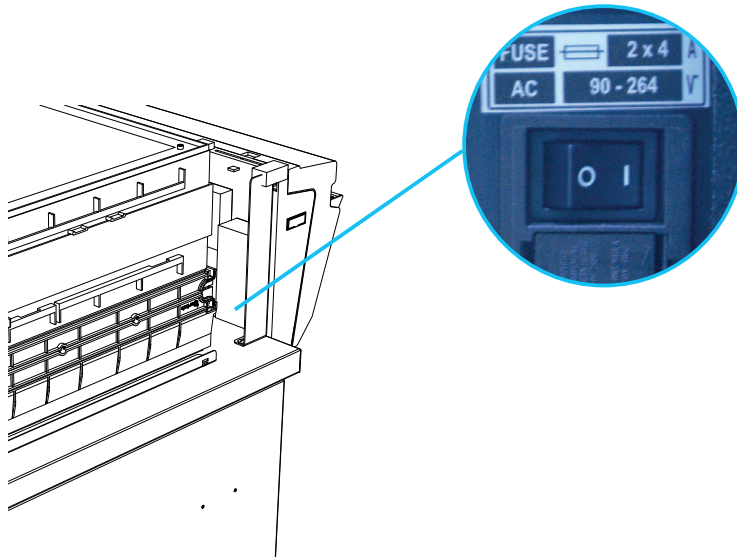
11



12

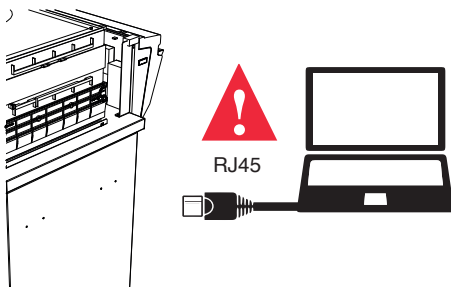


13



14

## Parameter settings



Access to the Embedded Service (default IP address)

**IP : 192.168.0.200**

## 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 switch off the unit for maintenance



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

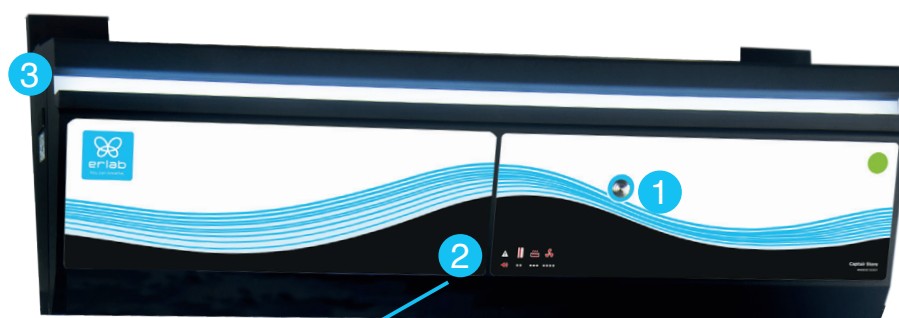
Filter breakthrough sensor (Molecode option) :

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.**

### 1. Description of the control module



- 1 - Silence the alarm
- 2 - Keycode to indicate which alarm is active
- 3 - Smart-Light that pulses when in alarm



The fixed light bar shows the optimal level of protection the operator is afforded.

The hood communicates its operational state in real time through a series of sound and light pulses.





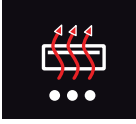

## 2. Alarms description

### Note:

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
Doors opening						
	2 beeps + 5 seconds apart	Pulses	Doors ajar	Doors opened		
Filtration						
	3 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.		
Fan						
	4 beeps + 5 seconds apart	Pulses	Fan fault	The rotation speed (RPM) is +/- 10% of the fan setpoint.	Press Mute key	
			Fan Unserviceable	The rotation speed (RPM) is < 700 RPM		
Filter breakthrough sensor replacement (Molecode)						
	5 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.

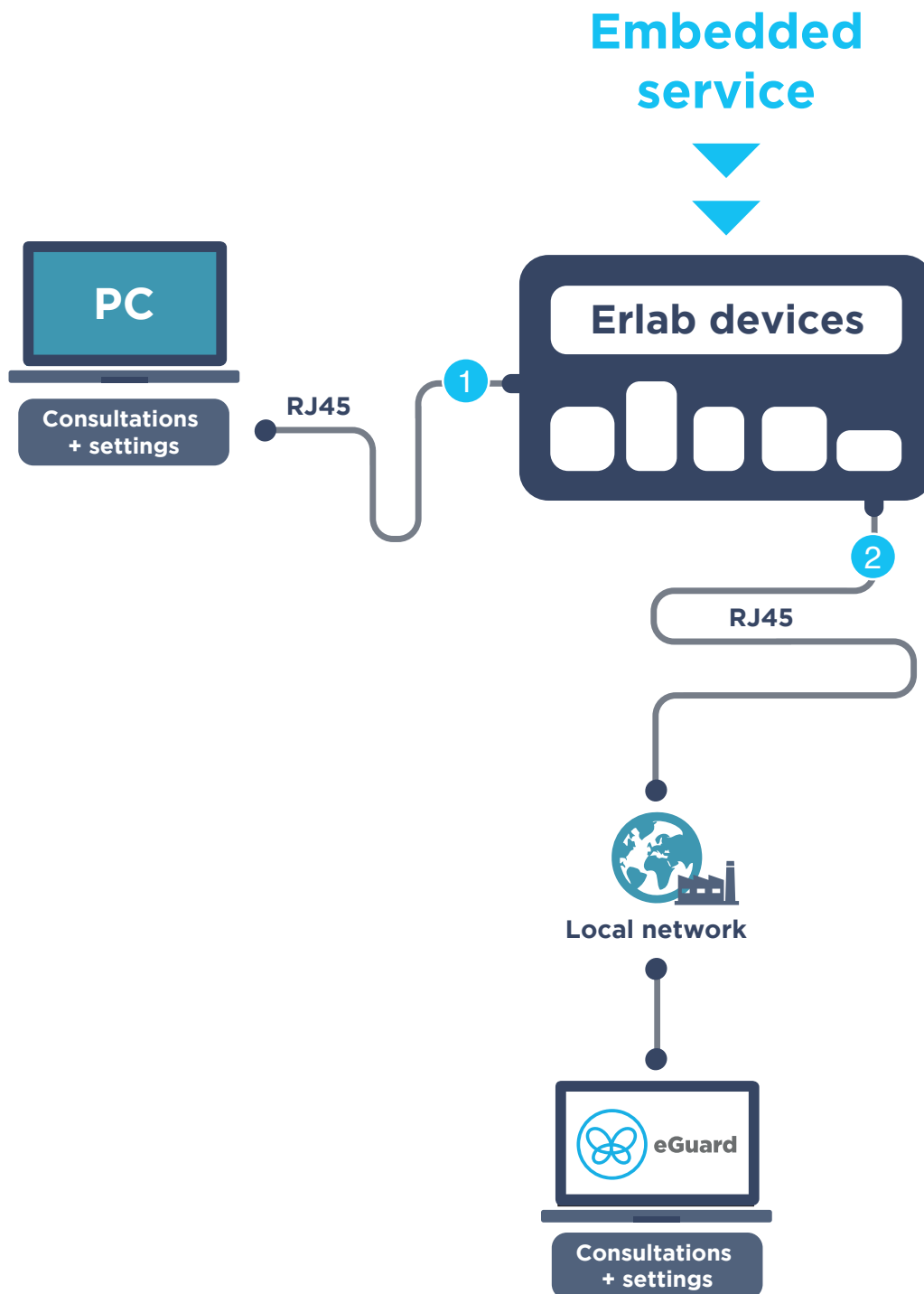
### Reset network settings











Forgot network settings?

- Please check the general switch of the unit is turned ON,
- Switch OFF the key 1,
- Press the Mute key for 5 seconds,
- After 3 beeps, network settings are reset,
- Reboot the unit: turn OFF/ON the general switch of the unit on the back of the control panel,
- The network default IP address is : 192.168.0.200

## The connectivity principle

An ecosystem designed for simpler use and safer protection



2 ways to connect your device	 <b>1</b> <b>Embedded service</b>	 <b>2</b> <b>eGuard PC</b>
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		 (except if local connection)

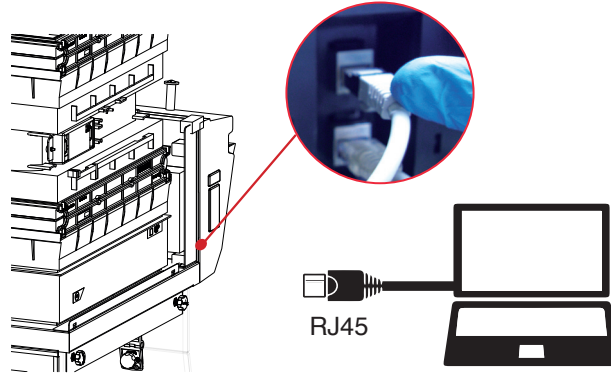


The connectivity of Erlab devices allows for the remote setting and monitoring of one or more devices.

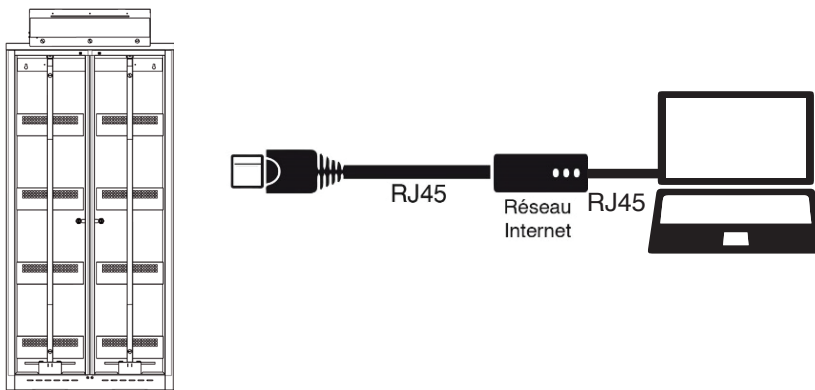
**After registering your product online, use eGuard :**

- Receive security alerts,
- View your usage statistics,
- Enhance your user experience
- Benefit from exclusive guarantees and services

### 3. How to connect Embedded service



#### eGuard PC



#### Embedded service

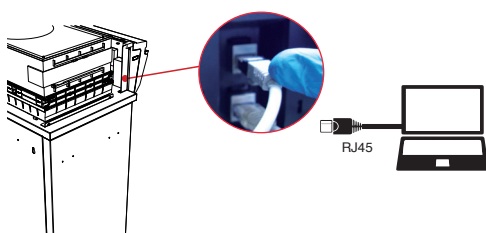
Consultez les paramètres et accédez aux réglages de votre appareil via le service embarqué.

#### Au préalable:

- Munissez vous d'un ordinateur équipé d'un port Ethernet (pour branchement câble RJ45)
- Le WIFI de cet ordinateur doit être impérativement **désactivé**
- Vérifier que cet ordinateur est équipé d'un navigateur WEB (Internet Explorer, Edge, Chrome, Mozilla Firefox, Safari...)

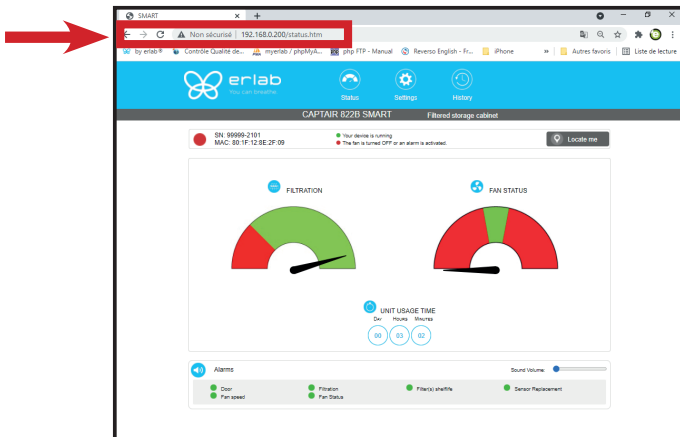
N.B : le câble RJ45 qui permet la connexion directe à l'ordinateur est fourni avec l'appareil.

### 1 Connecting the device to the PC



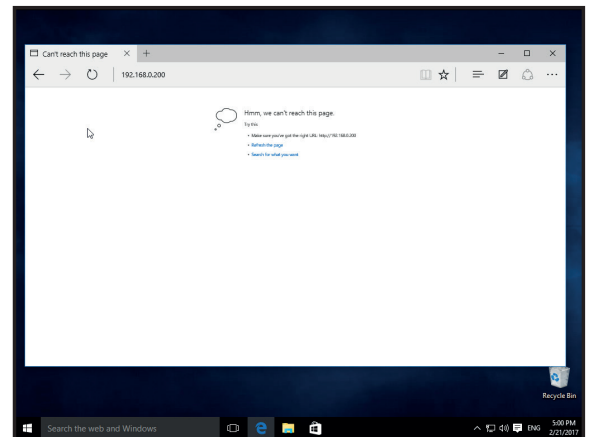
- Take RJ45 cable (black) already connected on the unit and rolled at the back of the control panel.
- Check that main switch (at the back of the control panel on fume hoods and storage cabinets) of the device is ON

**2** Open your web browser, type the following IP address 192.168.0.200 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**  
**Please go to page 34**



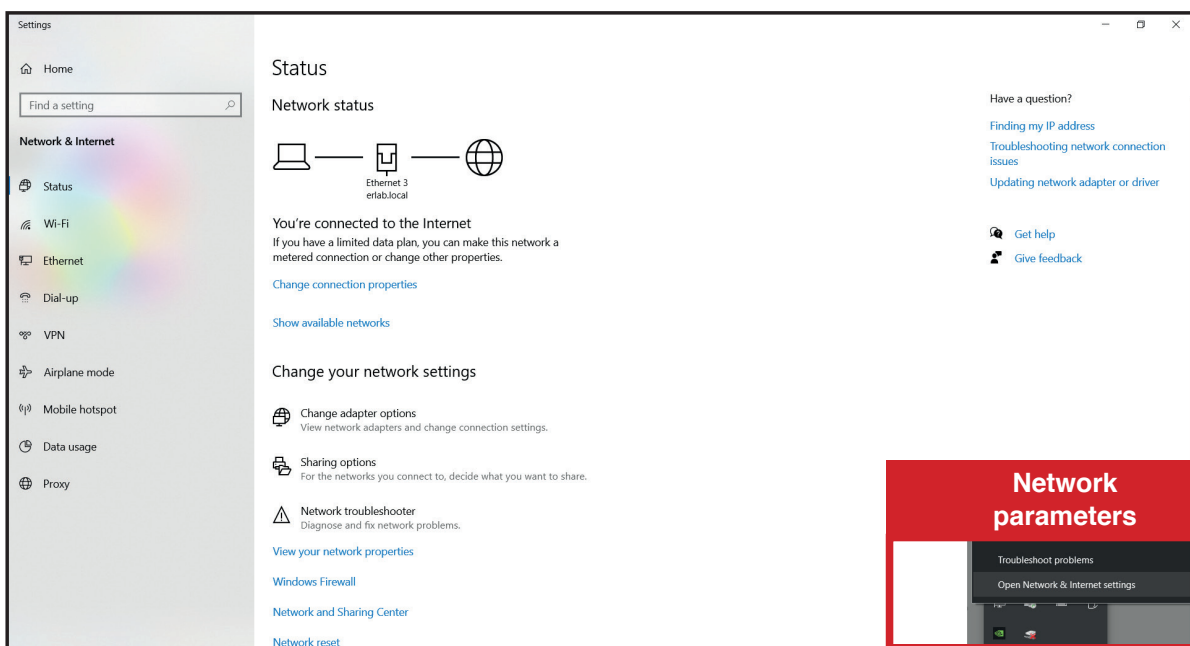
**Page is not accessible**

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

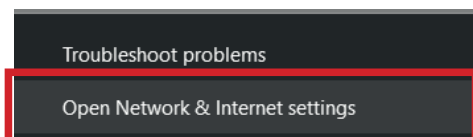
**Apply the following procedure**

**Page is not accessible:**

**1** Modify computer network parameters (windows 10)



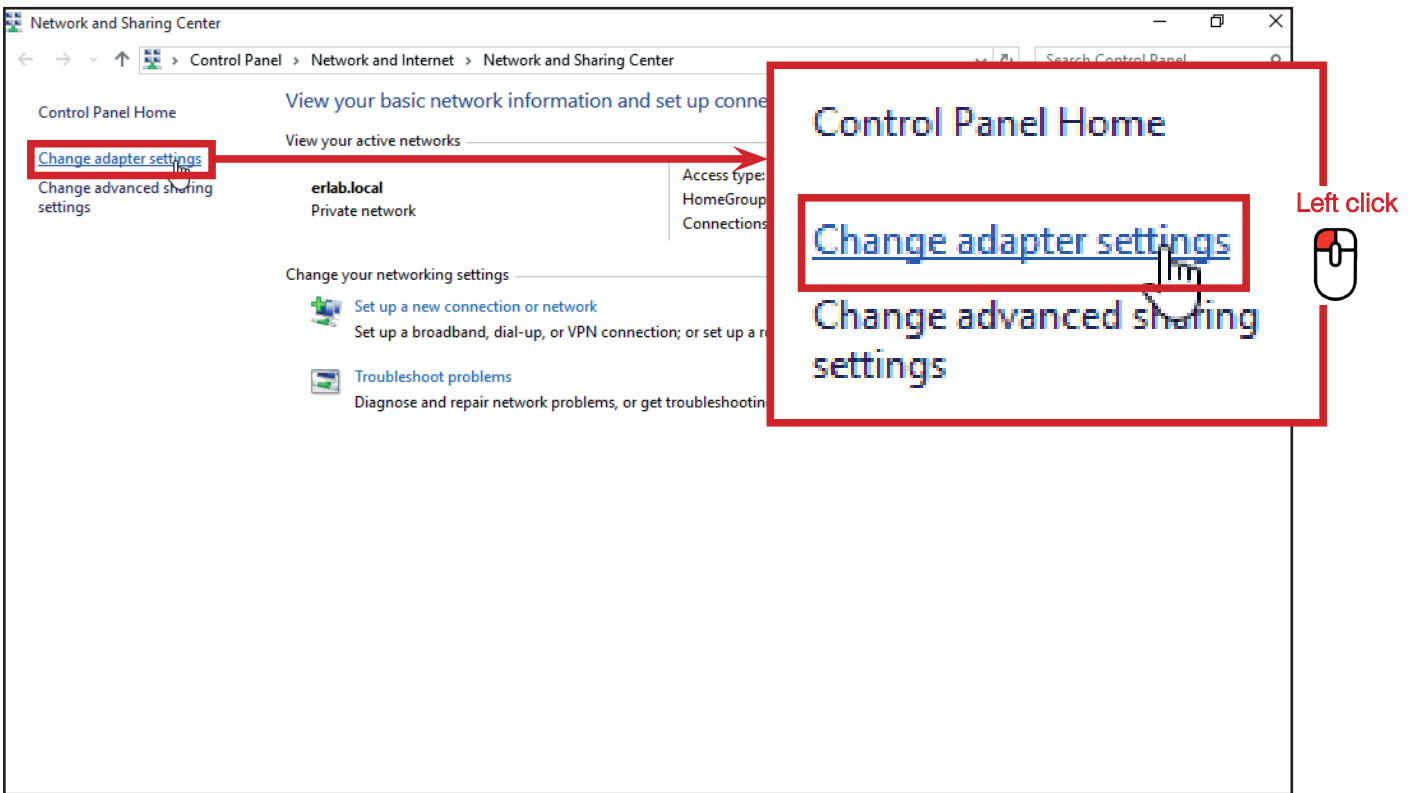
Left click



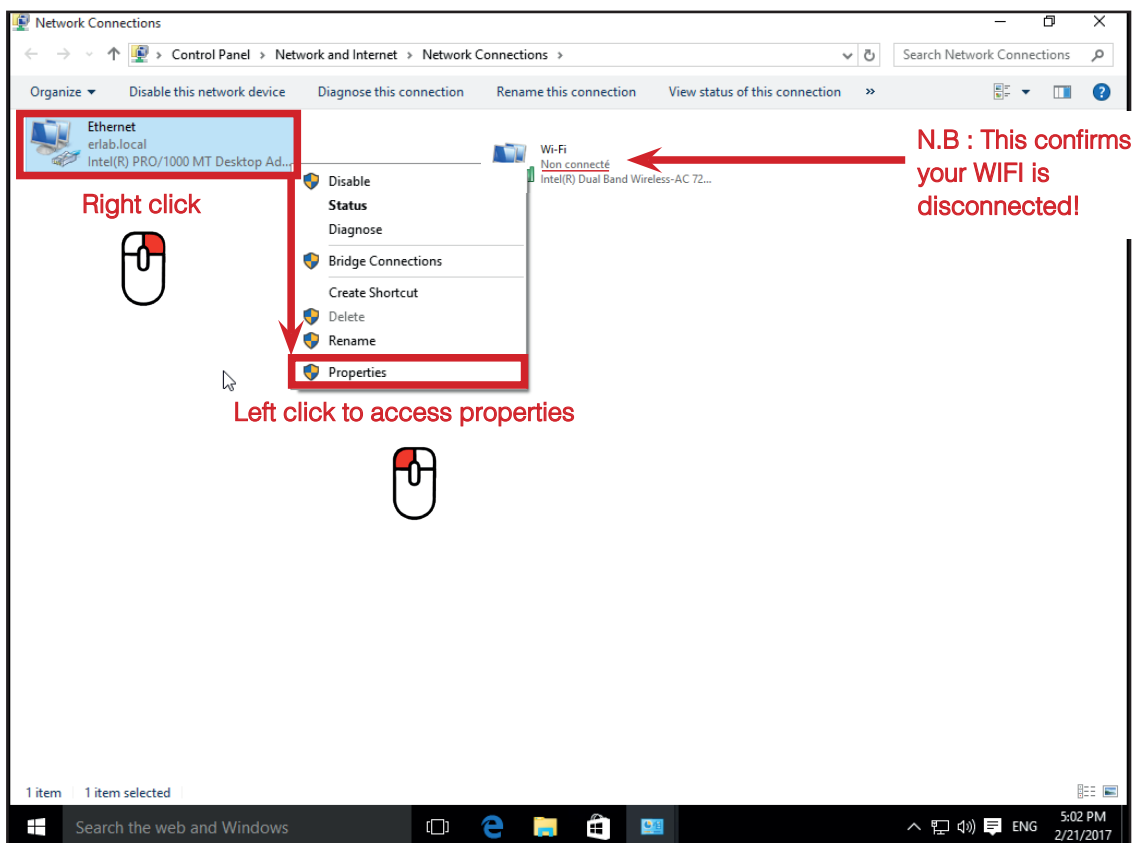
Right click



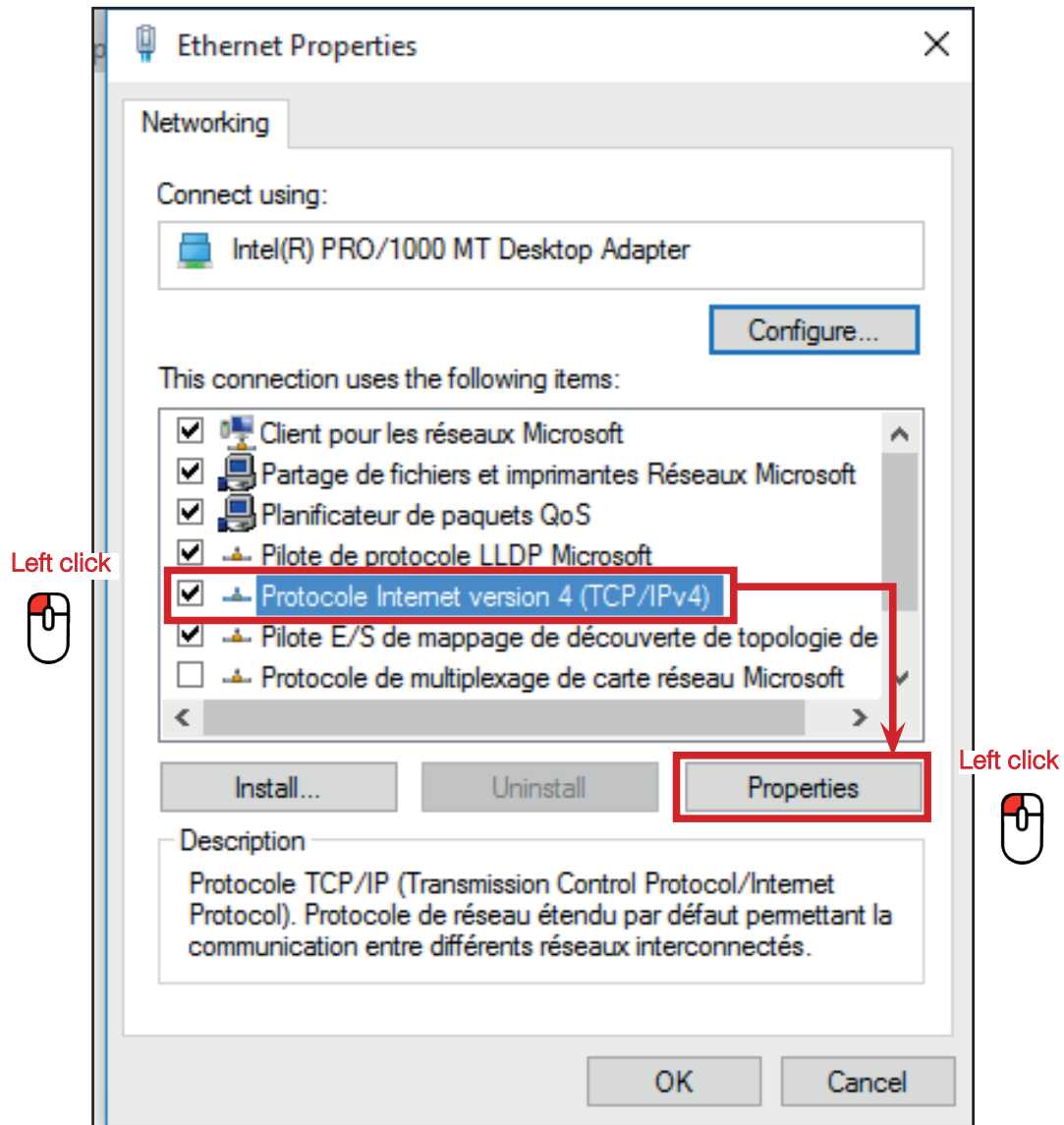
**2** Access to the Network and sharing center (windows 10)



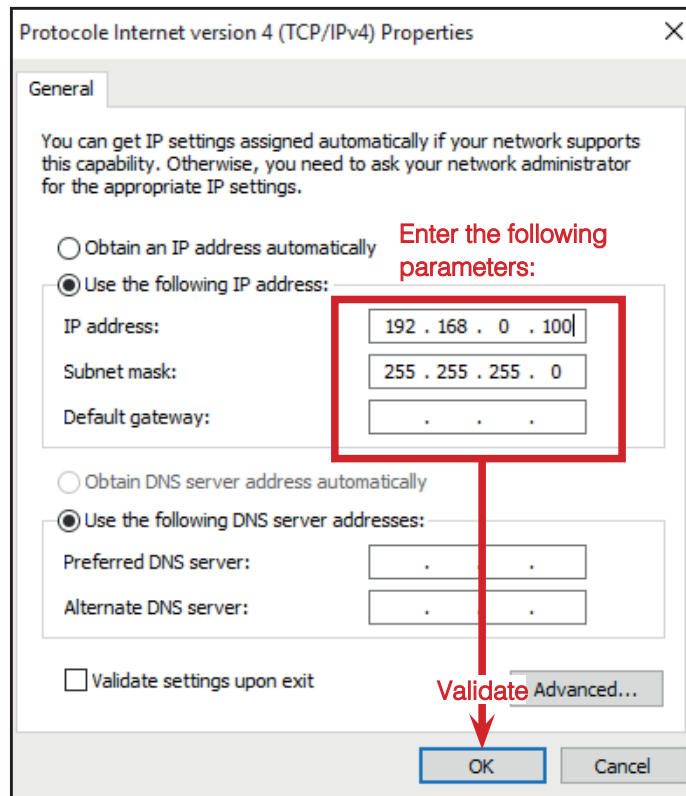
**3** Access to the network connection (windows 10)



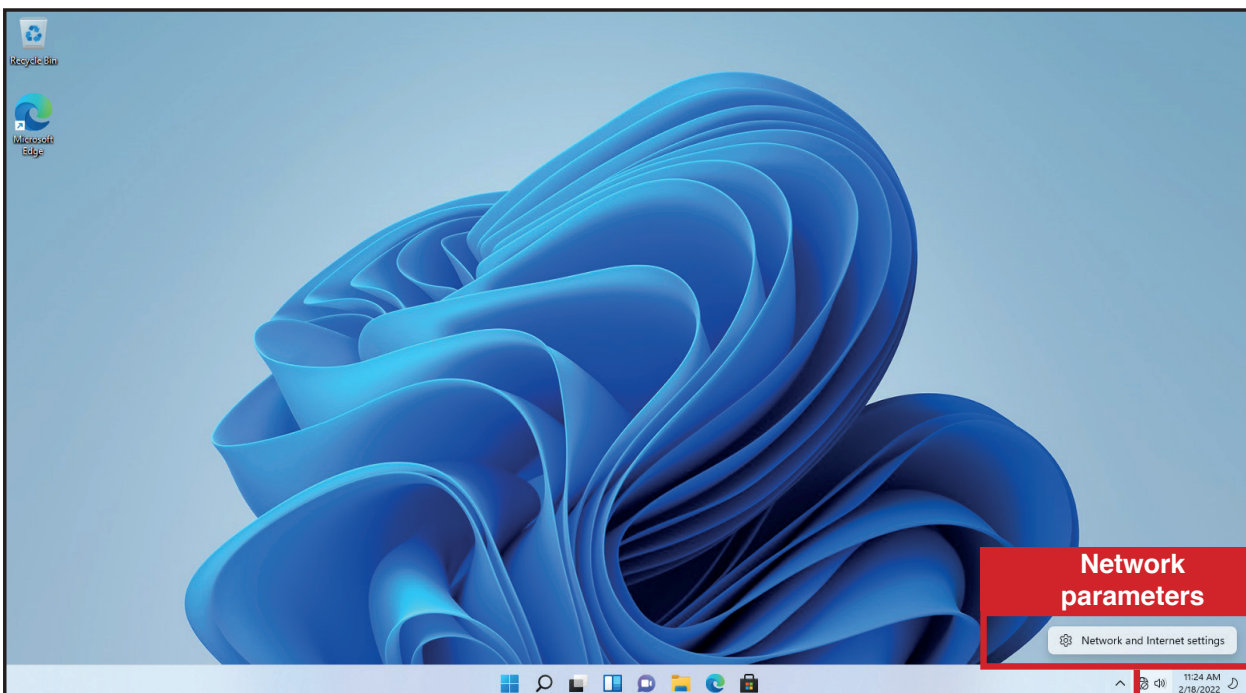
4 Enter compatible network parameters as indicated below (windows 10)



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

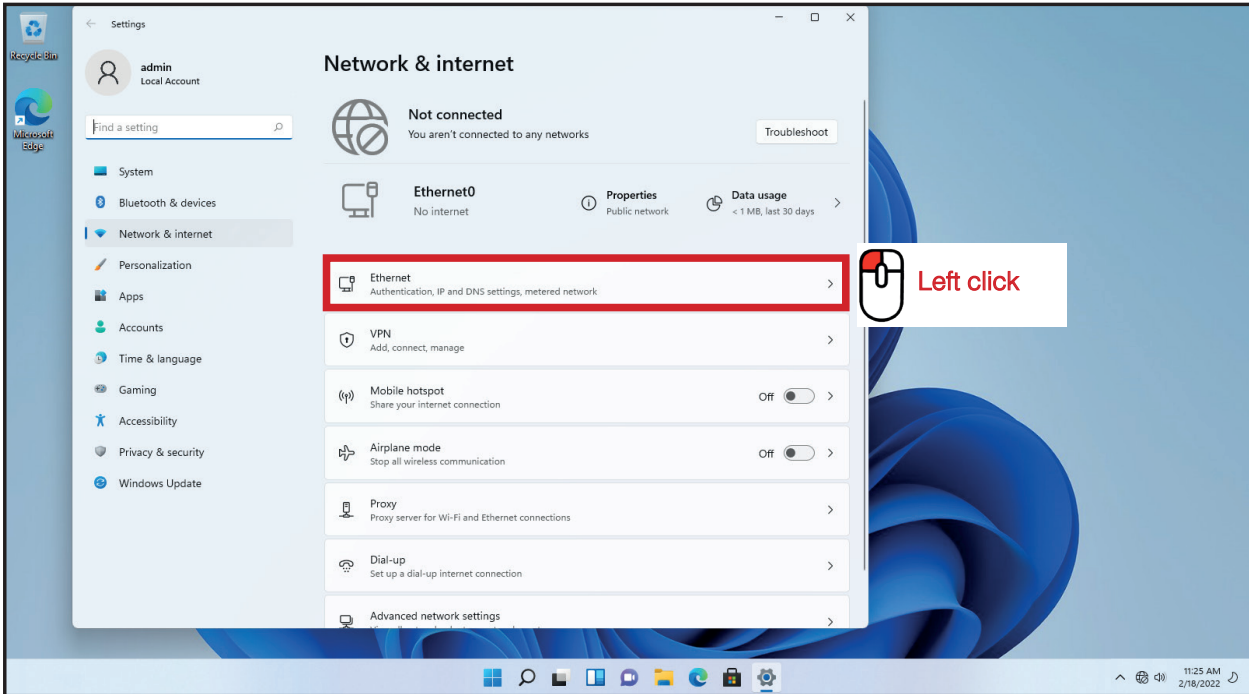


## 1 Modify computer network parameters (windows 11)

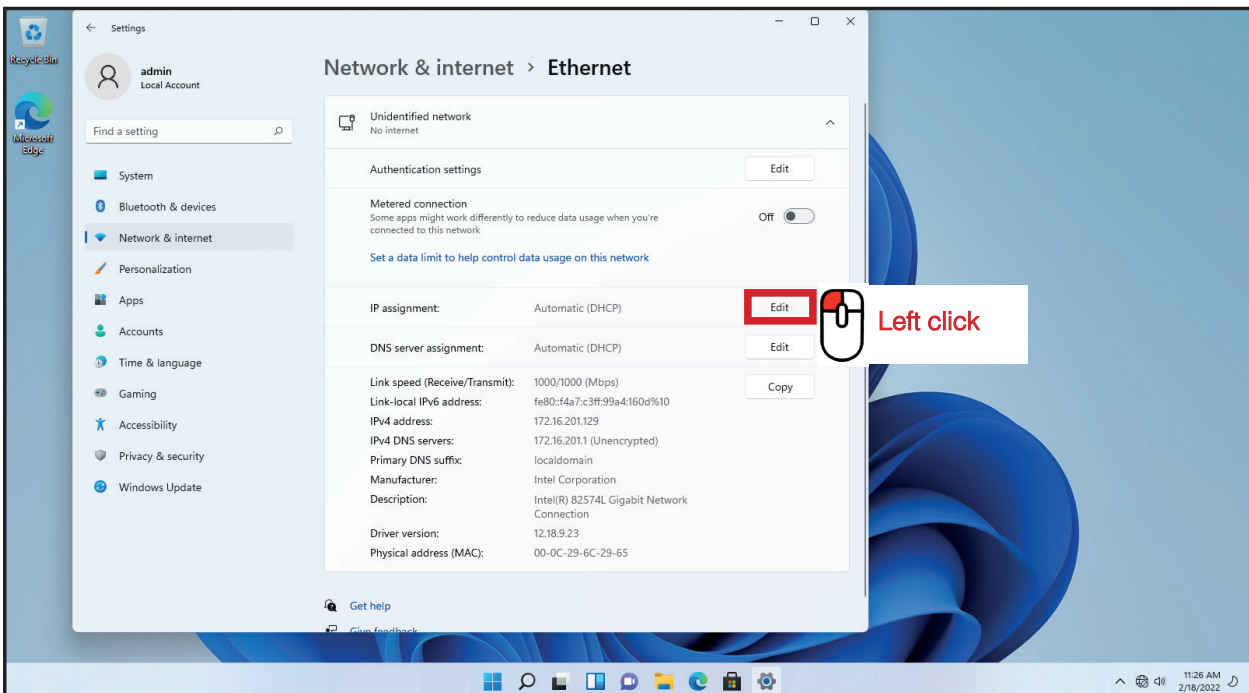




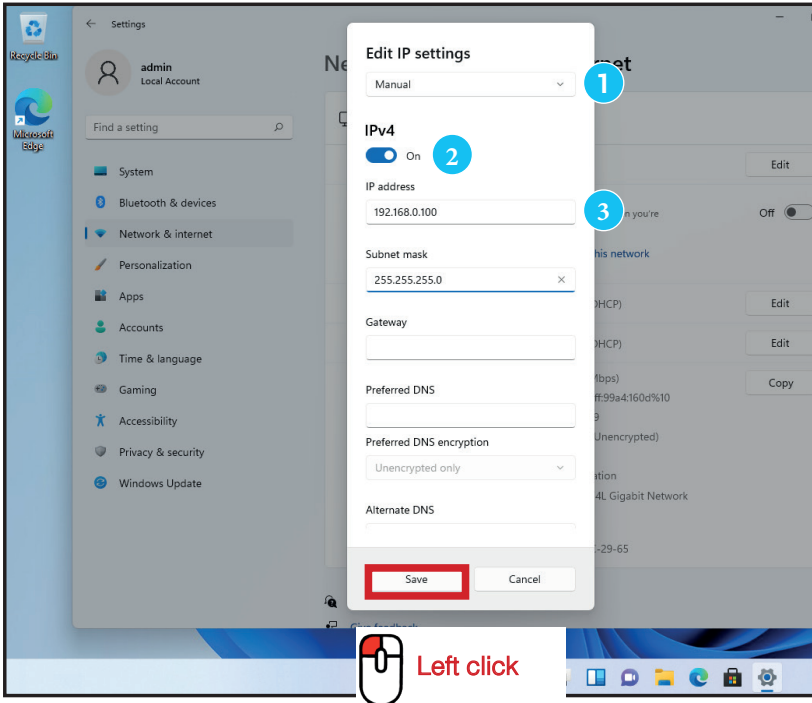
## 2 Access to the Network and sharing center (windows 11)



## 3 Access to the network connection (windows 11)

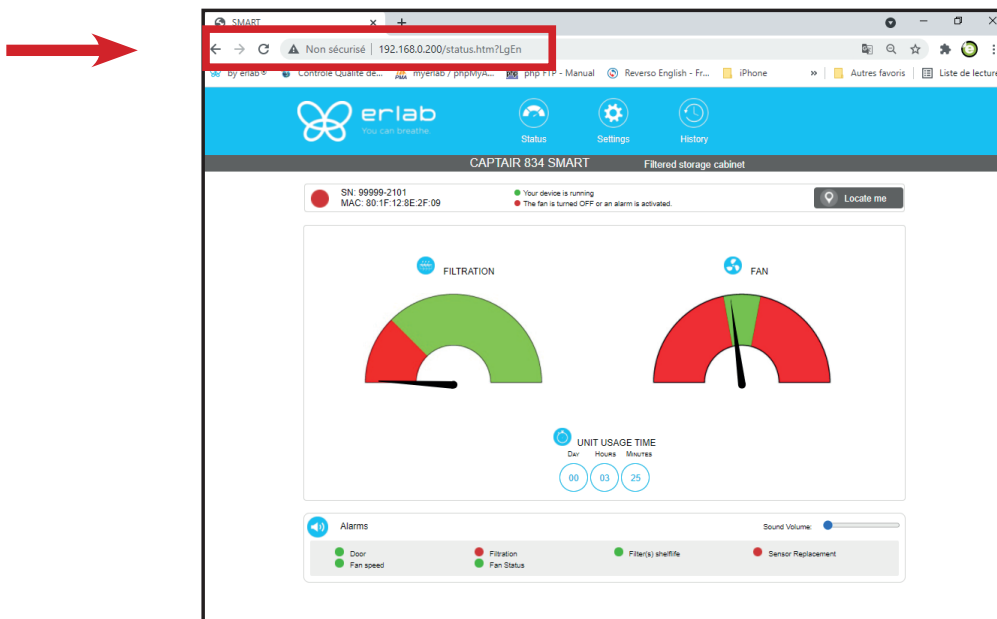


4 Enter compatible network parameters as indicated below (windows 11)



- 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 192.168.0.200 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**

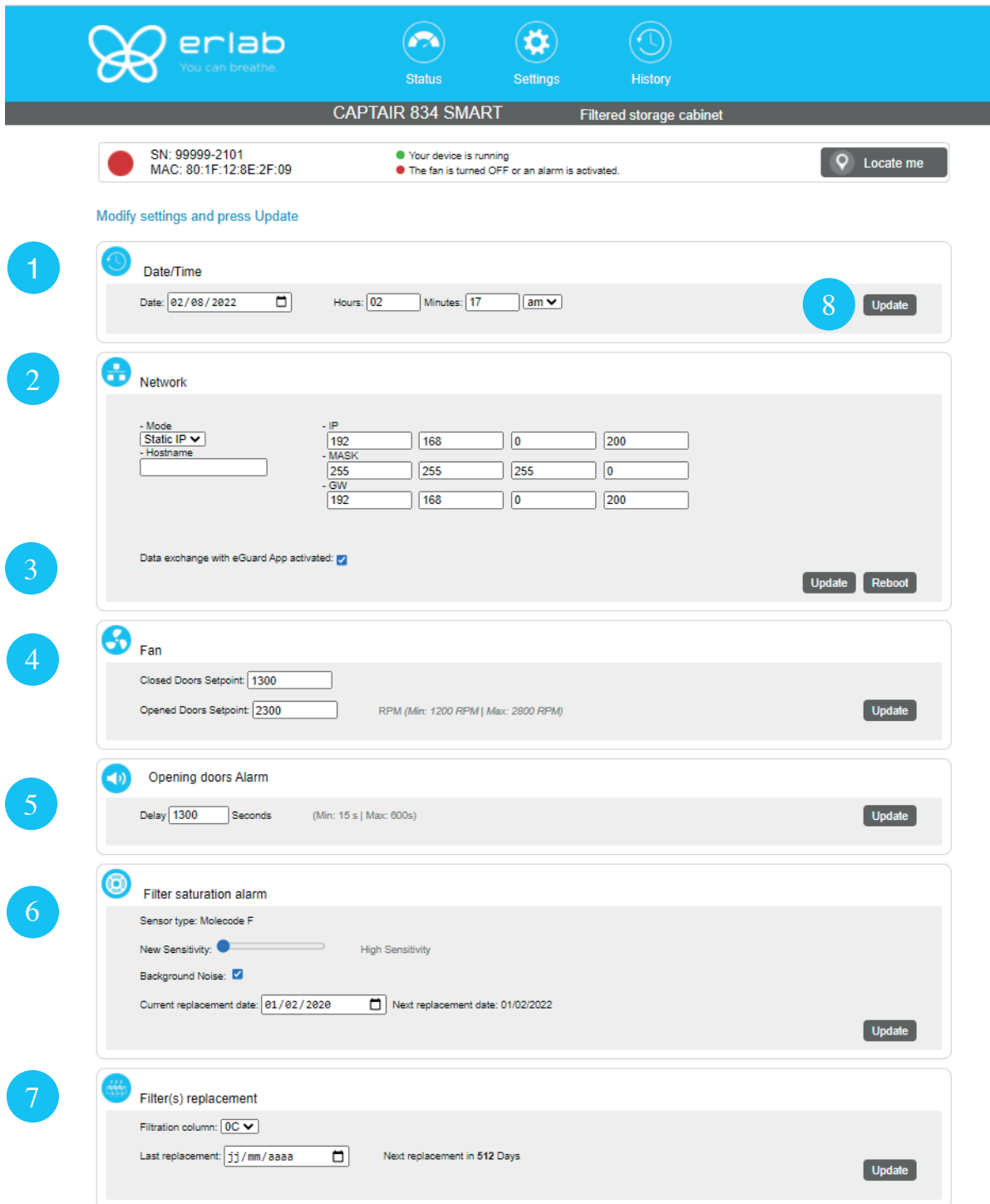
## Administrator Interface



Status page details	
1	Choose active interface page
2	Device ID: Model
3	Device ID: serial number, MAC address, device status
4	Locate me : digit the button, the light will blink 3 times
5	Option Molecode gauge: indicates a fault in the main carbon filter(s)
6	Fan Gauge: indicates the fan status
7	Device use time since fan was last started
8	Device alarm statuses (see alarm 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**



**erlab** You can breathe. Status Settings History

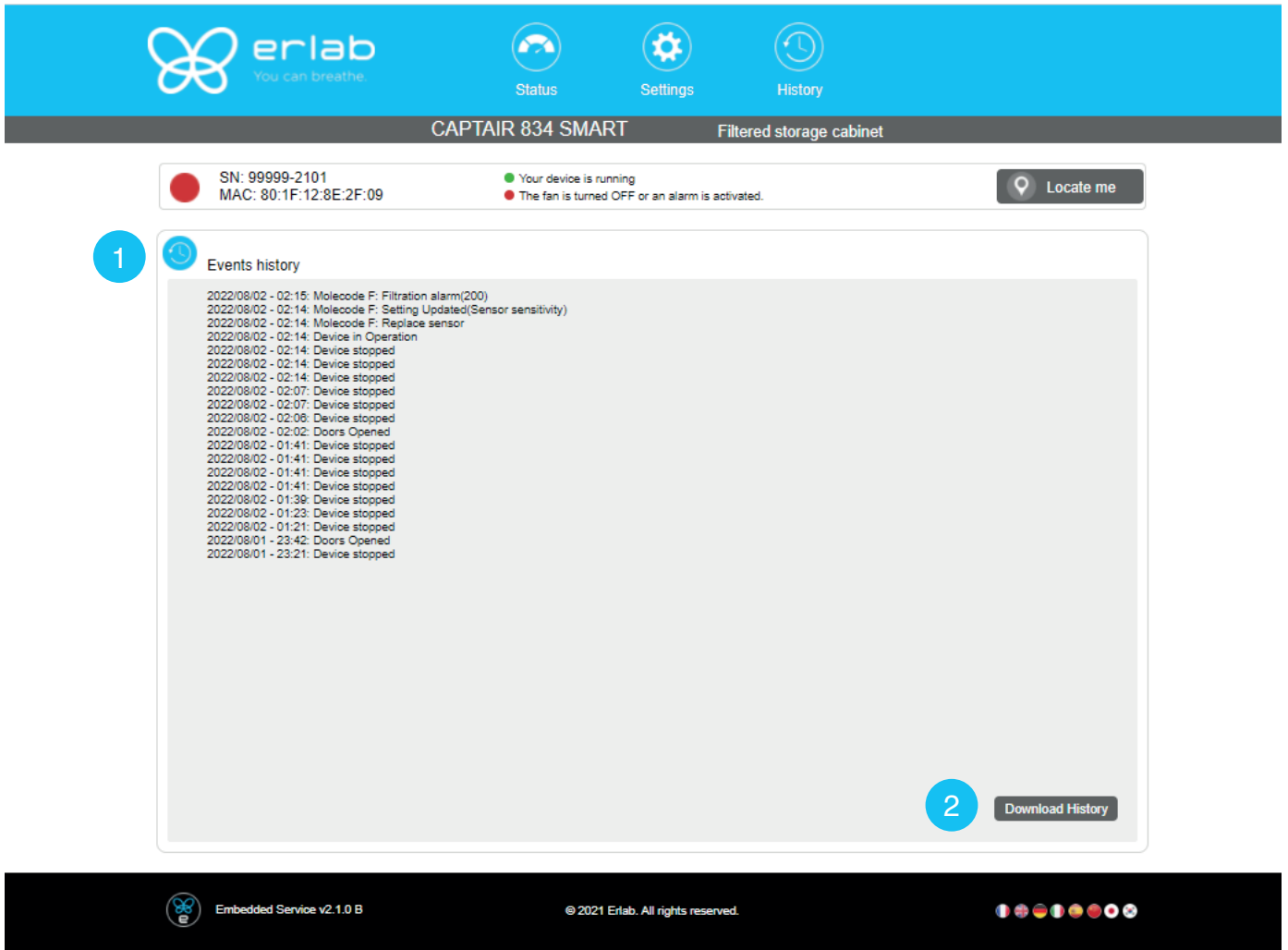
**CAPTAIR 834 SMART** Filtered storage cabinet

SN: 99999-2101 MAC: 80:1F:12:8E:2F:09 Your device is running The fan is turned OFF or an alarm is activated. Locate me

Modify settings and press Update

- 1** Date/Time  
 Date: 02/08/2022 Hours: 02 Minutes: 17 am Update
- 2** Network  
 - Mode: Static IP  
 - IP: 192 168 0 200  
 - MASK: 255 255 255 0  
 - GW: 192 168 0 200  
 Data exchange with eGuard App activated:  Update Reboot
- 3**
- 4** Fan  
 Closed Doors Setpoint: 1300 RPM (Min: 1200 RPM | Max: 2800 RPM)  
 Opened Doors Setpoint: 2300 Update
- 5** Opening doors Alarm  
 Delay: 1300 Seconds (Min: 15 s | Max: 600s) Update
- 6** Filter saturation alarm  
 Sensor type: Molecode F  
 New Sensitivity: High Sensitivity  
 Background Noise:   
 Current replacement date: 01/02/2020 Next replacement date: 01/02/2022 Update
- 7** Filter(s) replacement  
 Filtration column: 0C  
 Last replacement: jj/mm/aaaa Next replacement in 512 Days Update
- 8** Update

<b>Settings page details</b>	
1	Device time and date settings
2	<p>Device network settings            Mode: Selected IP protocol            Hostname: Device name on network            IP: IP address of the device            MASK: network mask            GW: Network gateway</p> <p><b>Modify network settings :</b></p> <p>Default mode : DHCP</p> <p>Each unit is identified with its hostname : ER-UNIT-S/N            Hostname example for a Captair 834 Smart, S/N: 25698            Hosname will be: ER-834-25698</p> <p>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 server, the unit will automatically switch to its default IP address:            192.168.0.200</p>
3	<p>Activate/Deactivate the exchange of information            This allows the transmission of information from the device to the eGuard server for:</p> <ul style="list-style-type: none"> <li>- remote monitoring via eGuard App (mobile &amp;PC)</li> <li>- receiving usage reports</li> </ul>
4	Device fan setpoint settings
5	Door alarm
6	<p>Air quality sensor</p> <p>Sensor type indication (VOCs: volatile organic compounds/ A: Acids / F: Formaldehyde)</p> <p>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</p> <p>Sensor replacement            Enter replacement sensor date, display the next sensor replacement date</p>
7	<p>Filter replacement date:</p> <p>Indicates the filter type (AS: organics vapors / BE+:Acids, inorganics, organics, and solvents vapors / K : Ammonia vapors / F : Formaldehyde vapors / HP: powders)</p> <p>For units equipped with carbon and HEPA filters, please use the carbon filter indication</p> <p>Last replacement:            Counter showing the number of days the filter(s) can be used relative to its/their service life expiry date</p>
8	Confirm settings key (please validate each setting )



The screenshot shows the erlab CAPTAIR 834 SMART interface. At the top, there is a navigation bar with 'erlab You can breathe.' and three icons: Status, Settings, and History. Below this, the device name 'CAPTAIR 834 SMART' and 'Filtered storage cabinet' are displayed. A status bar shows a red dot indicating an issue, with 'SN: 99999-2101' and 'MAC: 80:1F:12:8E:2F:09'. A green dot indicates 'Your device is running', and a red dot indicates 'The fan is turned OFF or an alarm is activated.' A 'Locate me' button is also present. The main content area is titled 'Events history' and contains a list of events with timestamps and descriptions. A 'Download History' button is located at the bottom right of the events list.

**1** Events history

- 2022/08/02 - 02:15: Molecode F: Filtration alarm(200)
- 2022/08/02 - 02:14: Molecode F: Setting Updated(Sensor sensitivity)
- 2022/08/02 - 02:14: Molecode F: Replace sensor
- 2022/08/02 - 02:14: Device in Operation
- 2022/08/02 - 02:14: Device stopped
- 2022/08/02 - 02:14: Device stopped
- 2022/08/02 - 02:14: Device stopped
- 2022/08/02 - 02:07: Device stopped
- 2022/08/02 - 02:07: Device stopped
- 2022/08/02 - 02:06: Device stopped
- 2022/08/02 - 02:02: Doors Opened
- 2022/08/02 - 01:41: Device stopped
- 2022/08/02 - 01:41: Device stopped
- 2022/08/02 - 01:41: Device stopped
- 2022/08/02 - 01:41: Device stopped
- 2022/08/02 - 01:39: Device stopped
- 2022/08/02 - 01:23: Device stopped
- 2022/08/02 - 01:21: Device stopped
- 2022/08/01 - 23:42: Doors Opened
- 2022/08/01 - 23:21: Device stopped

**2** Download History

Embedded Service v2.1.0 B © 2021 Erlab. All rights reserved.

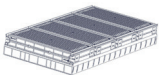

Log page details	
1	Displays the device's event log
2	Used for downloading the log in .csv format

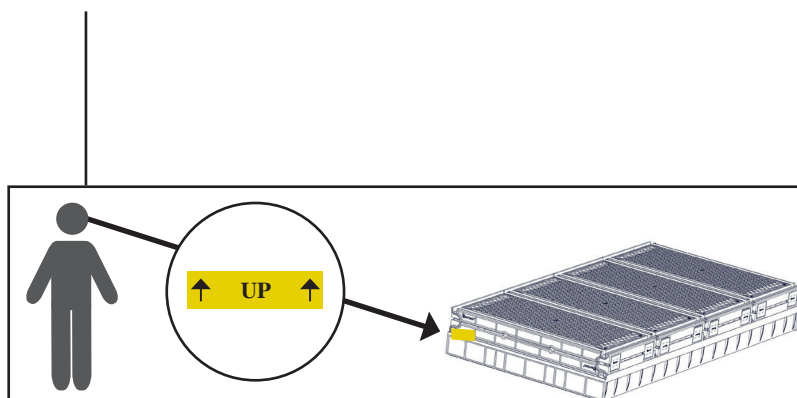
## Fan setpoints

Unit / Type of filtration column	1P	1C	1C1P	1P1C	1P1C1P	1P2C	2C1P	2C	2P
1634	Open doors : 2300 RPM / Closed doors : 1300 RPM								

## Replacing the filters

The table below summarises all possible Flex™ filter technology configurations for Captair Smart chemical storage cabinets.

	Molecular filter	HEPA filter H14 or ULPA
Column Configuration		
Models	<b>Captair 1634 Smart</b>	<b>Captair 1634 Smart</b>
1C	x1	
2C	x2	
1P		x1
2P		x2
1P 1C	x1	x1
1P 2C	x2	x1
1C 1P	x1	x1
2C 1P	x2	x1
1P 1C 1P	x1	x2



Each molecular filter is labelled as follows

**Please observe these markings.**

The table below summarises the different types of carbon filters that Erlab® offers along with their fields of application.

<b>Type AS</b>	For organic vapors
<b>Type BE +</b>	Multi-application for acid and organic vapors
<b>Type K</b>	For ammonia vapors
<b>Type F</b>	For formaldehyde vapors

## Replacing the HEPA H14 / ULPA filters

### Pre-requisites

- The operator in charge of the filter replacement must be informed by users about the complete list of stored chemicals to allow to select its PPE
- The laboratory is empty when the operation is carried out
- The laboratory is ventilated by mechanical or natural means while the operation is carried out

### Minimum protective equipment

- One-piece overall + overshoes + bouffant cap
- Laboratory gloves (latex or nitrile)
- Protective glasses
- Breathing mask with particle filter (P3)



**This procedure is applicable to HEPA/ULPA filters located at the bottom of the filtration columns and designed to trap powders handled.**

### Strict chronological order to follow:

- 1- Switch on the device fan
- 2- Carefully spray the bottom surface of the HEPA/ULPA filter (paint with NON FLAMMABLE propellant), to be done inside the enclosure
- 3- Allow at least 5 minutes with the fan running for the spray to dry
- 4- Shut down and unplug the device and disconnect the fan module power supply cable and the sampling tubes from the sampling area (if installed)
- 5- Carefully remove the molecular filter(s) (if present) and the fan module
- 6- Carefully unwrap the new HEPA/ULPA filter  
 Keep the plastic film and cardboard box so that you can use it later to pack up the used filter  
 Lay out the film on a flat surface in the immediate vicinity of the operation so that it is at the ready
- 7- Carefully remove the used HEPA/ULPA filter and immediately place it contaminated-side down onto the plastic film
- 8- Clean the filter housing
- 9- Package up the used filter + contaminated equipment  
 Seal the plastic film tightly
- 10- Place the sealed package in the box the new carbon filter came in, then seal it using adhesive tape

**Have the filter disposed of via a suitable disposal process in accordance with the applicable regulations.**

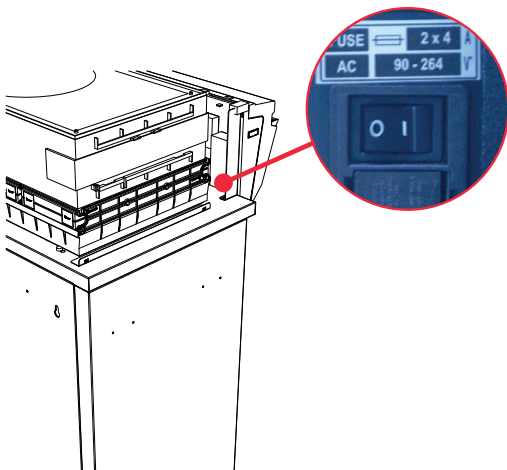
**To find out more, please contact your usual advisor.**



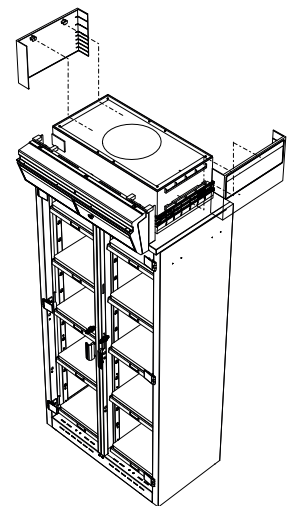
- 11- Fit the new HEPA/ULPA filter, main molecular filter (if present) and the fan module, followed by the backup molecular filter (if present). Make sure that all the column components.
- 12- Reconnect the device's various cables and hoses, switch the device back on.

## Filter Replacement Procedure

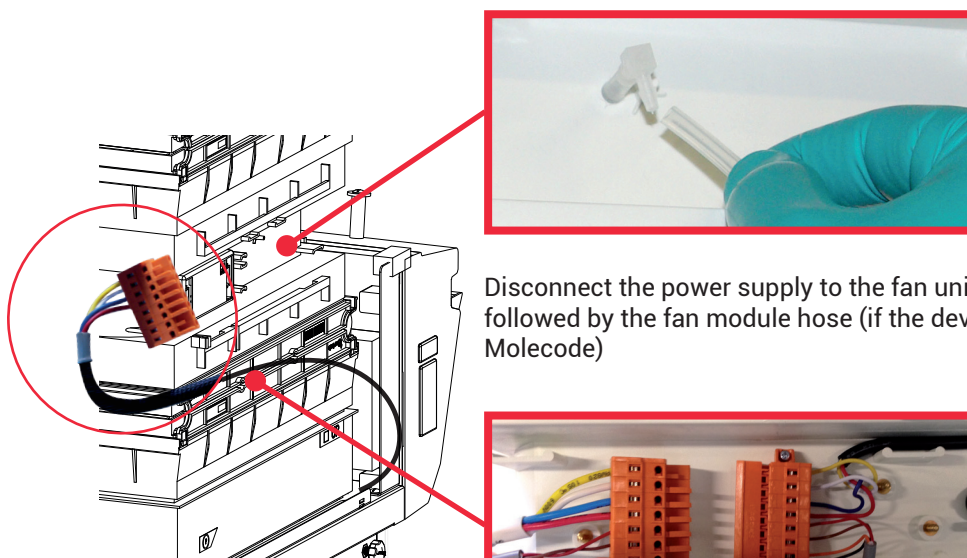
For these operations, we strongly recommended that the user or maintenance technician wear the necessary safety equipment, including: safety glasses, lab coat and gloves



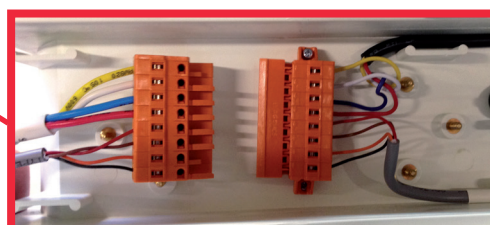
Switch off the unit



Remove the two protective shields on either side of the unit



Disconnect the power supply to the fan unit followed by the fan module hose (if the device is fitted with a type A or F Molecode)



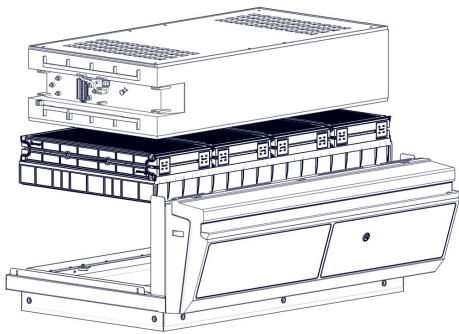
Identify which column configuration below applies to your chemical storage cabinets. (See your Valipass label)

Unstack the filtration column(s) above the chemical storage cabinets.

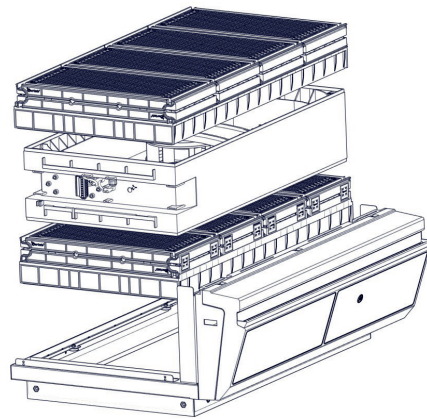
After carefully removing the filters from their packaging, assemble the column per the configuration below

If your column configuration changed, Apply the correct fan setpoint for the filtration column configuration (see fan setpoints)

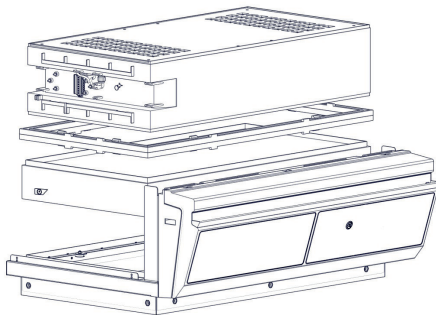
**1C**



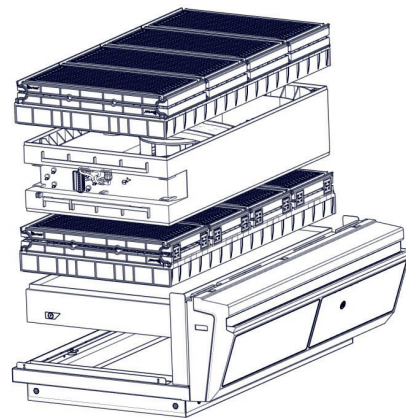
**2C**



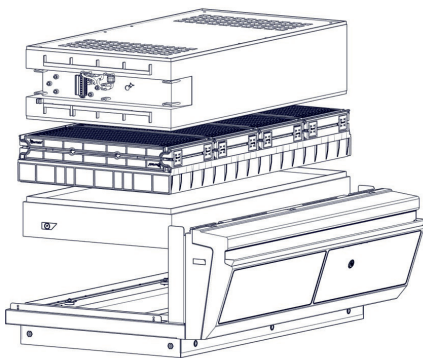
**1P**



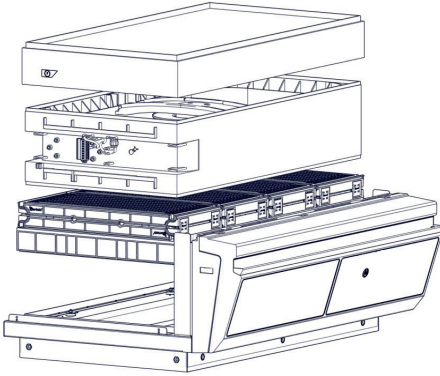
**1P2C**



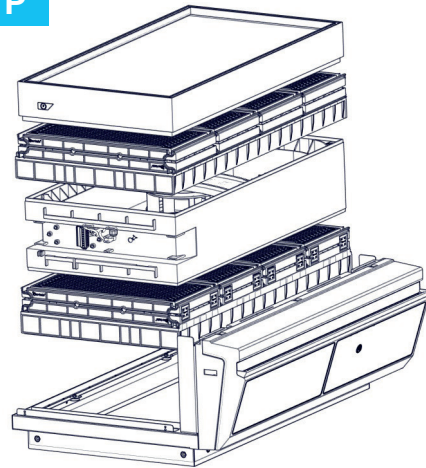
**1P1C**



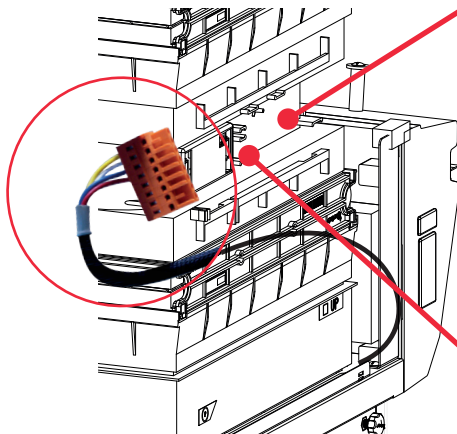
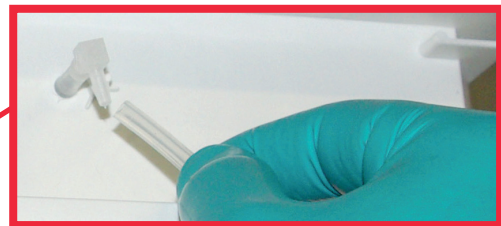
1C1P



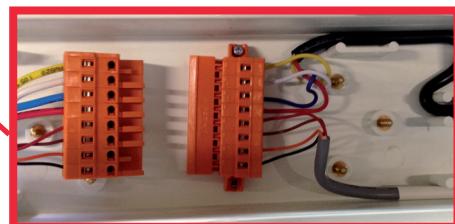
2C1P



When reassembling the filtration column, be sure that the fan module is positioned correctly to access your connection points.



Reconnect the power supply to the fan unit and the hose to the sampling port.  
(If the device is fitted with a type A or F Molecode)



## Recommendations for the use of filters

**We recommend replacing the filter annually (if used 24/7).**

**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: :

- Organisation of storage
- Type(s) of filter(s) to use and filtration column configuration (if required)
- Predicted service life of the activated carbon molecular filters

How does the E.S.P service work ?

- The customer registers these chemicals by logging on to **www.evaliquest.erlab.com**
- 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 registered their products in the **eValiQuest** interface 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 and particulate filters at least every 12 months and implementation of a regular filter fault monitoring protocol.**

## Shelves : maximum permissible mass

Plastic Shelves	Basket for pull out doors
15 kg	15 kg

## Cleaning and maintenance

### Mechanical item checks

#### Hinges:

Hinges must be correctly attached and not too tight; they must allow cabinet doors to be opened instantaneously with no effort.

#### Acrylic Parts:

These parts must be clean; white streaks or spatters indicate rather heavy use of acid (hydrochloric acid) or products handled at a high temperature. Ensuring the transparency of the walls is a part of regular maintenance for the enclosure.

### CLEANING THE ENCLOSURE

Cleaning the dividers is mandatory and must be done regularly. It may be done in several ways:

- With soapy water followed by rinsing with clear water and drying with a soft; nonabrasive; B32 absorbent paper towel.
- Or with a commercial PH neutral neutralizing product followed by drying with a soft; non-abrasive; absorbent paper towel.
- Or with a commercial glass cleaning product

#### Coated Metallic Parts:

- They must be inspected and free from any traces of corrosion.
- Check that no liquid stagnates in the shelves with a retention tank.
- Clean retention tanks if necessary



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 **NFX 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 programme

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.

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