CairSoft

V4.5 and more

November 2015

CAIR POL

111 bd Robespierre, 78300 POISSY – TEL. 33(0)-1.39.22.38.00 – FAX 33(0)-1.39 65.38.08 – www.cairpol.com

**e-Files** preserve the environment

HELP SAVE PAPER

1. MINIMUM SYSTEM REQUIREMENTS

✓ Operating system supported:
   Windows Vista SP2
   Windows 7 SP1
   Windows 8
   Windows 8.1
   Windows 10
   Windows Server 2008 SP2
   Windows Server 2008 R2 SP1
   Windows Server 2012
   Windows Server 2012 R2

✓ Hardware:
   Processor 1 GHz
   512 Mo of RAM

✓ Microsoft .Net Framework 4.6 and up

2. DOWNLOAD FROM INTERNET.

✓ Go to our website www.cairpol.com, in the menu "Downloads", category "Software", or click on the following link: click here.

✓ Download ''***CairsoftV4.x.x***'' *(Version 4.5 and more)*.

✓ Launch setup ''***setup-Cairsoft-4.x.x.exe***''*(Version 4.5 and more)*.

3. CAIRSOFT INSTALLATION
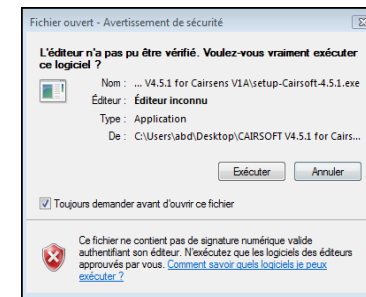
a)   Launch the setup ''*setup-Cairsoft-4.x.x.exe*'' *(Version 4.5 and more)*.

b)   Follow the instructions of the installer

c)   The installer checks for the required framework version (see Requirements chapter). If this good version is not available on your PC, it will be automatically installed (internet access required).
Otherwise, the framework version 4.6 (or more) can be installed manually. Restart the installer after, at the step a).
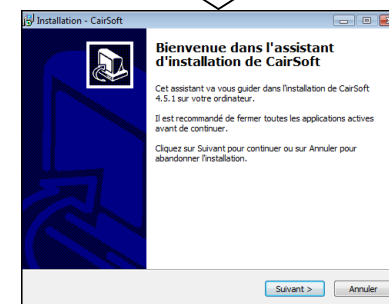
d)   Validate "FTDI CDM" driver's installation and follow installer instructions.

e)   Complete the installation.
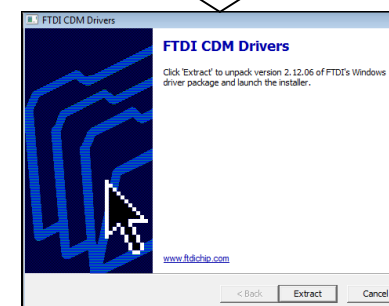
f)   The Cairsoft is ready to use.

4 CONNECTION OF CAIRSENS TO A PC
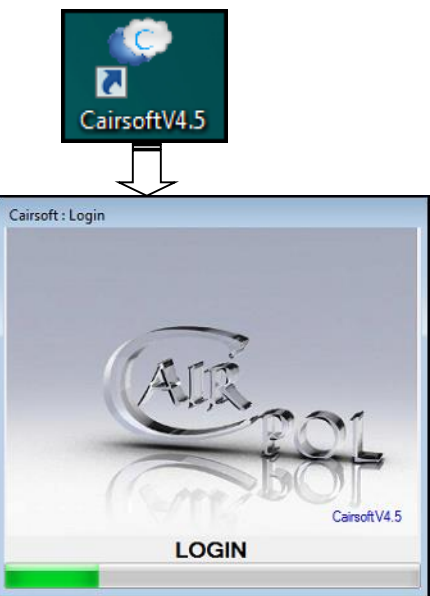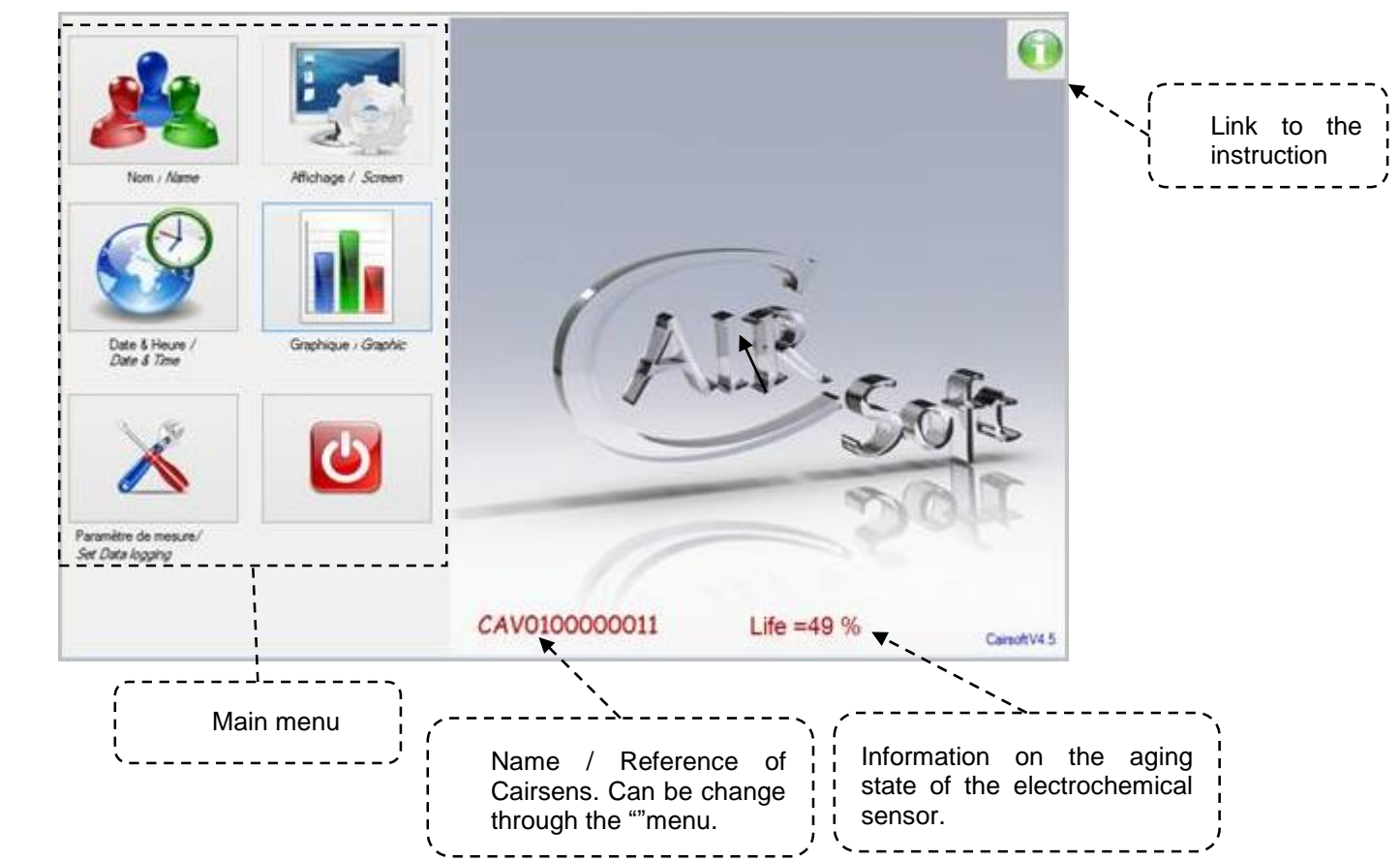
Cairsens connects to the PC using the specific "USB A" to "mini USB B" cable provided (commercially available cable would not fit).

→ **Do not use USB cable other than the one supplied as it may damage the equipment.**
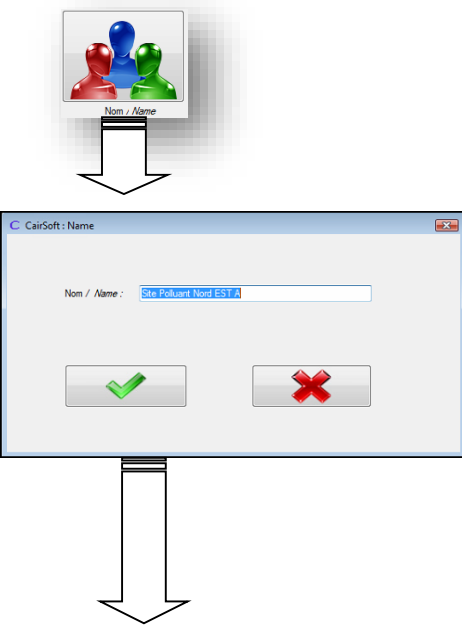
5 STARTING CAIRSOFT

✓ Connect the Cairsens to the PC using the USB cable (see previous chapter 4).

✓ Launch Cairsoft from the "CairsoftV4.X" (*Version 4.5 and more*) shortcut on the desk or from the folder "Cairpol" in Start menu.

✓ The download windows appears, the downloading of all the data in the Cairsens begins. **Do not disconnect the Cairsens from the PC.**

✓ After downloading ends, the main window of Cairsoft appears and gives access to :

- The main menu constituted by five icons allowing to personalize the Cairsens and to visualize the history of the measures, the hygrometry parameters and the level of the battery voltage.
- This instructions manual of Cairsoft, accessible by the icon on the top right of the main window.

Link to the instruction

Main menu

Name / Reference of Cairsens. Can be change through the ""menu.

Information on the aging state of the electrochemical sensor.

6 PERSONALIZATION OF THE CAIRSENS.

Name of the Cairsens.

The default name of your device is its serial number (example: "CCB0100000891").

✓ Click on the "Name" icon to modify it.

✓ The window "Name" appears : in the text field "Name", enter the new name of your Cairsens.

✓ The change of the name is only available if you click on the green button "Validate".

✓ To cancel and return to the main menu window, click on the red button "Cancel".

✓ The new name is memorized in the Cairsens and appears in the main window.

✓ The name of Cairsens can be modified as often as wished.

Display Mode of Cairsens.

✓ Disabled for Cairsoft V4.5.1 and following version.
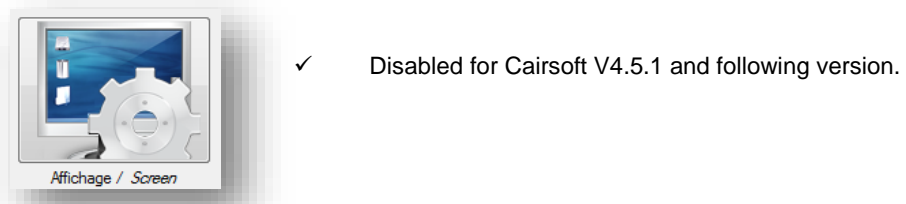
Date and Time of Cairsens
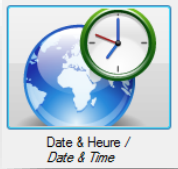
In case of autonomy loss (the battery is fulyl discharged), the timestamp restarts automatically at the date "2010.01.01" and at the time "00:00".

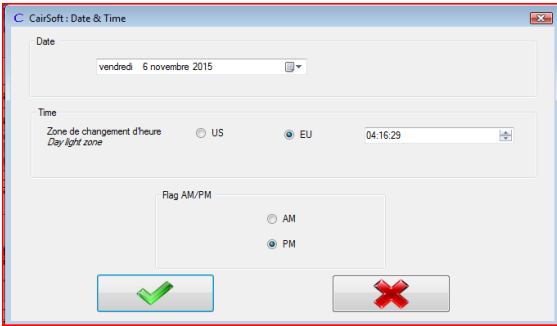In such case, it is highly recommended to proceed to the time setting of the Cairsens, to assure a valid timestamp for the future measurement data.

This feature uses the "Date" and the "Time" from the PC to which the Cairsens is connected.

✓ Click on "Date & Time" icon to start setting the date and time of the Cairsens.

✓ Select the geographical area (EU or US).

✓ Select "time" format (AM or PM).

✓ Validate by clicking the green button "Validate".

✓ To cancel and return to the main menu, click on the red button "Cancel".

Sampling / measurement interval.

This feature allows you to change the measurement step of the Cairsens. The sensor makes continuous measurements and stores average, to choose between 1 minute, 15 minute or 1 hour.
The selected step of measurement directly affects the number of data stored in the Cairsens.
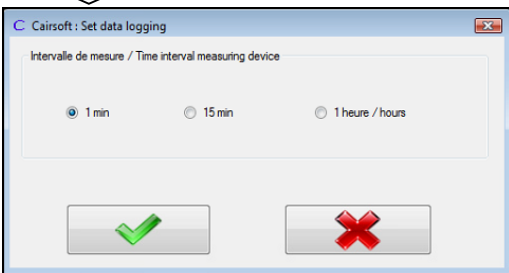
✓ Click on the icon "Parameters of measure" to modify the interval of time between 2 measures.

✓ The window "Parameters of measure" appears.

✓ Select the step of measurement

✓ Click the green button to validate (to cancel, click the red button).

✓ A window "Confirmation" appears : confirm or not your choice.
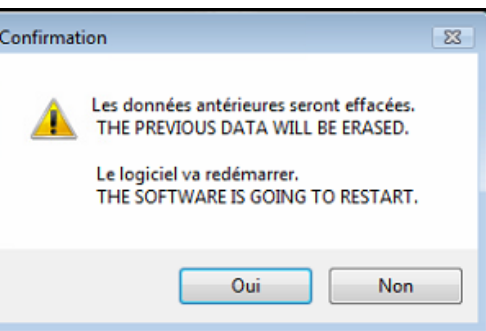
✓ WARNING: if the confirmation is accepted, all data previously stored in the Cairsens will be deleted.

✓ The Cairsoft restart with the new configuration of the Cairsens (do not disconnect the Cairsens from the PC).

Visualization on the graph and export of data in csv format.
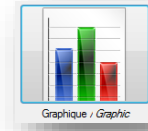
This feature allows to view and/or export (in .csv format) measures, temperature, relative humidity and also the voltage level of the battery on one or several days.

The period of visualization and data export are of one day and in ppb, by default. It is possible to view and export all data available in the Cairsens memory.

✓ **In the main window of Cairsoft, click on the logo "Graphic".**

(1) Select the measurement period: 1 day or all measured data available (the other selections, 6 days, 1 – 2 – 3 – 7 and 10 months, are not active).

(2) Select the measurement unit (ppb or µg/m3).

(3) Click on the green button "Validate" to refresh the graph. An interactive menu (edit, zoom, print …) is available with a right click on the graph.

(4) For export in XLSX type, click on the Excel logo (copyright Microsoft).

Measurement step or time interval of the Cairsens.

Information on the aging state of the electrochemical sensor.

Visualization of measurement and other data on the table XLSX type.

The export in xlsx table allows to retrieve the following parameters:

	A	B	C	D	E	F
1	Equipment number	CHM0100000002			Life(%)	100
2	Time	Eq. H2S (TRS) Level (ppb)	Bat.(mV)	Temp. hygro °C	Hygro. %	
3	08/11/2015 08:41:00	1	4710	25	35	
4	08/11/2015 08:42:00	1	4710	25	35	
5	08/11/2015 08:43:00	0	4711	25	35	
6	08/11/2015 08:44:00	1	4709	25	35	
7	08/11/2015 08:45:00	1	4710	25	35	
8	08/11/2015 08:46:00	1	4710	25	35	
9	08/11/2015 08:47:00	1	4711	25	35	
10	08/11/2015 08:48:00	1	4709	25	35	
11	08/11/2015 08:49:00	1	4711	25	35	
12	08/11/2015 08:50:00	1	4711	25	35	
13	08/11/2015 08:51:00	1	4708	25	35	
14	08/11/2015 08:52:00	1	4710	25	35	
15	08/11/2015 08:53:00	0	4710	25	35	
16	08/11/2015 08:54:00	1	4711	25	35	
17	08/11/2015 08:55:00	1	4711	25	35	
18	08/11/2015 08:56:00	1	4709	25	35	
19	08/11/2015 08:57:00	1	4711	25	35	
20	08/11/2015 08:58:00	1	4711	25	35	
21	08/11/2015 08:59:00	1	4710	25	35	
22	08/11/2015 09:00:00	0	4710	25	35	
23	08/11/2015 09:01:00	1	4710	25	35	
24	08/11/2015 09:02:00	1	4711	25	35	
25	08/11/2015 09:03:00	1	4710	25	35	
26	08/11/2015 09:04:00	1	4709	25	35	
27	08/11/2015 09:05:00	1	4710	25	35	
28	08/11/2015 09:06:00	2	4710	25	35	
29	08/11/2015 09:07:00	1	4710	25	35	
30	08/11/2015 09:08:00	0	4710	25	35	
31	08/11/2015 09:09:00	1	4710	25	35	
32	08/11/2015 09:10:00	1	4710	25	35	
33	08/11/2015 09:11:00	0	4709	25	35	
34	08/11/2015 09:12:00	2	4711	25	35	
35	08/11/2015 09:13:00	0	4711	25	35	
36	08/11/2015 09:14:00	1	4710	25	35	
37	08/11/2015 09:15:00	1	4710	25	35	
38	08/11/2015 09:16:00	1	4711	25	35	

data

- The reference of the Cairsens.

- The aging state in % translated as follows:

  o   100 % = 0 month of operating for the Cairsens
  o   50 % = 6 months of operating for the Cairsens.
  o   00 % = 12 months of operating for the Cairsens.

- The time stamp corresponding to the selected measurement period in "Measures parameters" window.

- Measurements with the unit selected in "Graphic" window.

- Battery voltage in mV translated as follow

  o   ≥ 4700 mV = Plugged onto external power.
  o   4200 < mV < 3100 mV = On battery only / without external power.
  o   4200 mV = the battery is fully charged
  o   3100 mV = the battery is empty and must be recharged.

- Measures of the temperature in Celsius degrees (°C).

- Measures of relative humidity (RH%) in %.