# ComfoWay V2
# Quick setup guide

## In this document you find information on the following topics


1 Hook up the device ..... 2
1.1 RJ45 connector ..... 2
1.2 SubD-9 connector (Luxe units only) ..... 5
1.3 KNX EIB and LAN-ethernet ..... 7
2 Logon to the Device Website ..... 8
3 Configure the network IP address ..... 10
4 Configure the Device physical KNX address ..... 11
5 Manage the administrator and user access ..... 12
6 Configure the ComfoWay KNX group addresses ..... 13
6.1 General info ..... 13
7 Interface language ..... 16
8 Use the vizualisation on your tablet or smartphone ..... 17
9 Supplementary features ..... 18
9.1 KNX Objects ..... 18
9.2 Objects Logging ..... 19
9.3 Alerts, Logs and Error log ..... 19
10 Advanced settings ..... 20
10.1 Hostname ..... 20
10.2 KNX-IP router & filtering ..... 20

For a minimal setup, you only need to go through steps 1, 2, 3 and 8.

# 1 Hook up the device

Three connections are to be made.

Power supply: any supply in the 12-24DVC range is OK, typical power consumption is ~1Watt. Either use a separate PSU to power your ComfoWay, or use the 12V from the Zehnder ComfoAir unit to provide power as shown below.

Connect the ComfoWay to your Zehnder ComfoAir 330/350/450/550 Luxe unit data-port or the RJ45 port on either the luxe or base board.

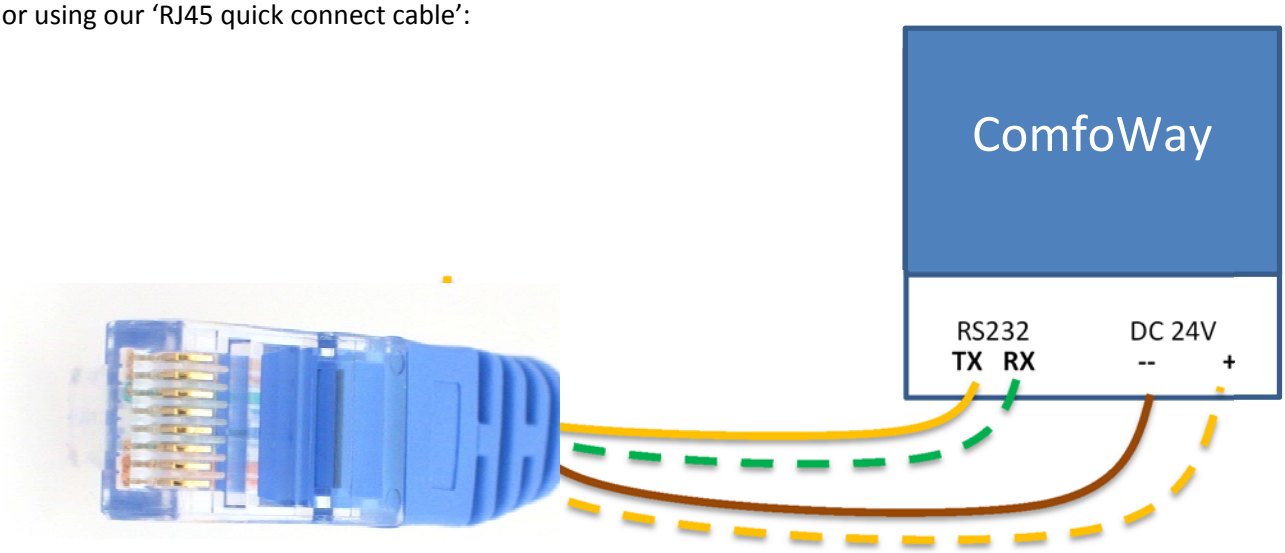
To do so, make a cable to link the ComfoWay to the SubD9 'RS232-PC' connector and 12V CC-Ease terminal on the Luxe board or use one of our 'RJ45 quick connect cables' as explained below.

**DO NOT USE ANY OTHER RS232 TX/RX PORT ON THE COMFOAIR LUXE BOARD. IT WILL DAMAGE YOUR**

It is advised to switch off your ComfoAir before making any connection.

## 1.1 RJ45 connector

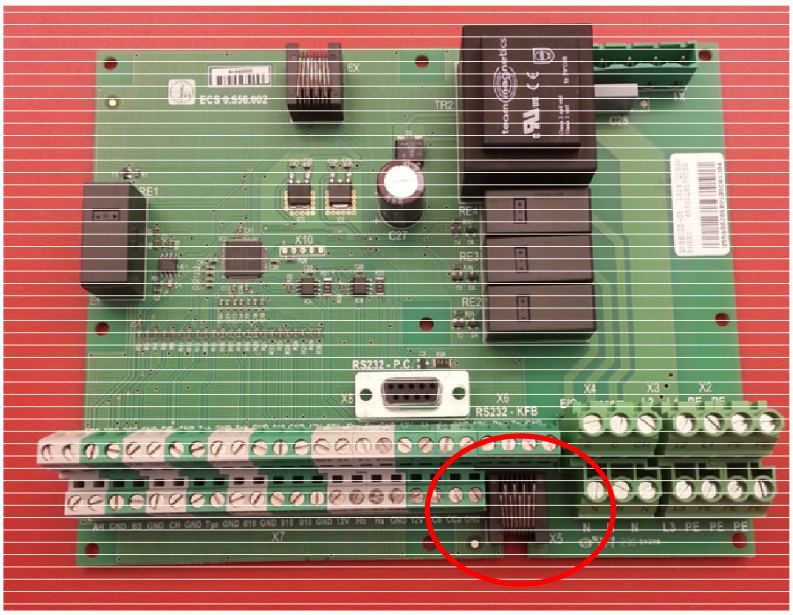
Use the following scheme to hook up your ComfoWay using a male RJ45 connector, using RJ45 wiring pattern **T568B**,
or using our 'RJ45 quick connect cable':



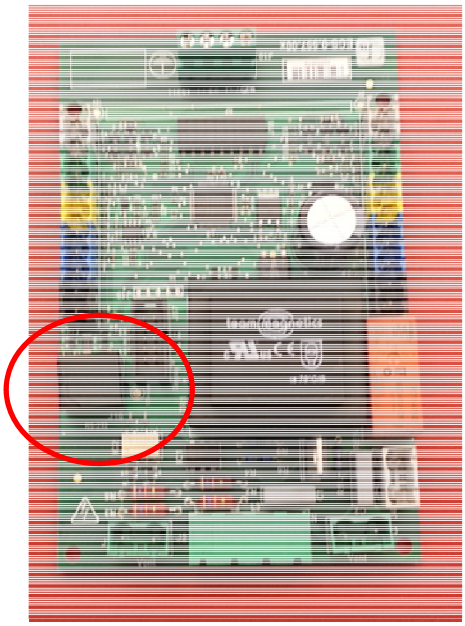

For some hardware versions: in case you have more than 1 RS-232 port on your ComfoWay, you need to use the **rightmost** RS232 port when looking at the device as shown further down in the SubD9 variant.

Hook up the RJ45 connector to either:

- the Luxe board ‘Ext Comm’ X5 connector.



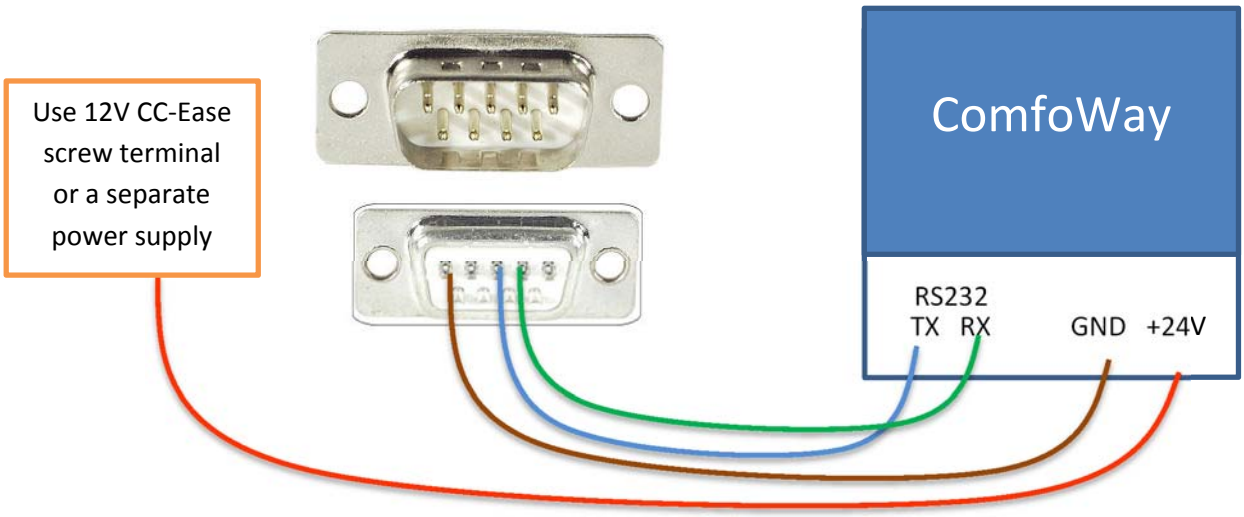

- The Base board J16 connector



You can find the Luxe board on top of you unit:

## 1.2 SubD-9 connector (Luxe units only)

In case you prefer to use the Sub-D9 on the luxe board: use the following scheme to hook up your ComfoWay using a male SubD9 connector:




Depending on hardware version: in case you have more than 1 RS232 port on your ComfoWay, you need to use the **rightmost** RS232 port when looking at the device as shown above.

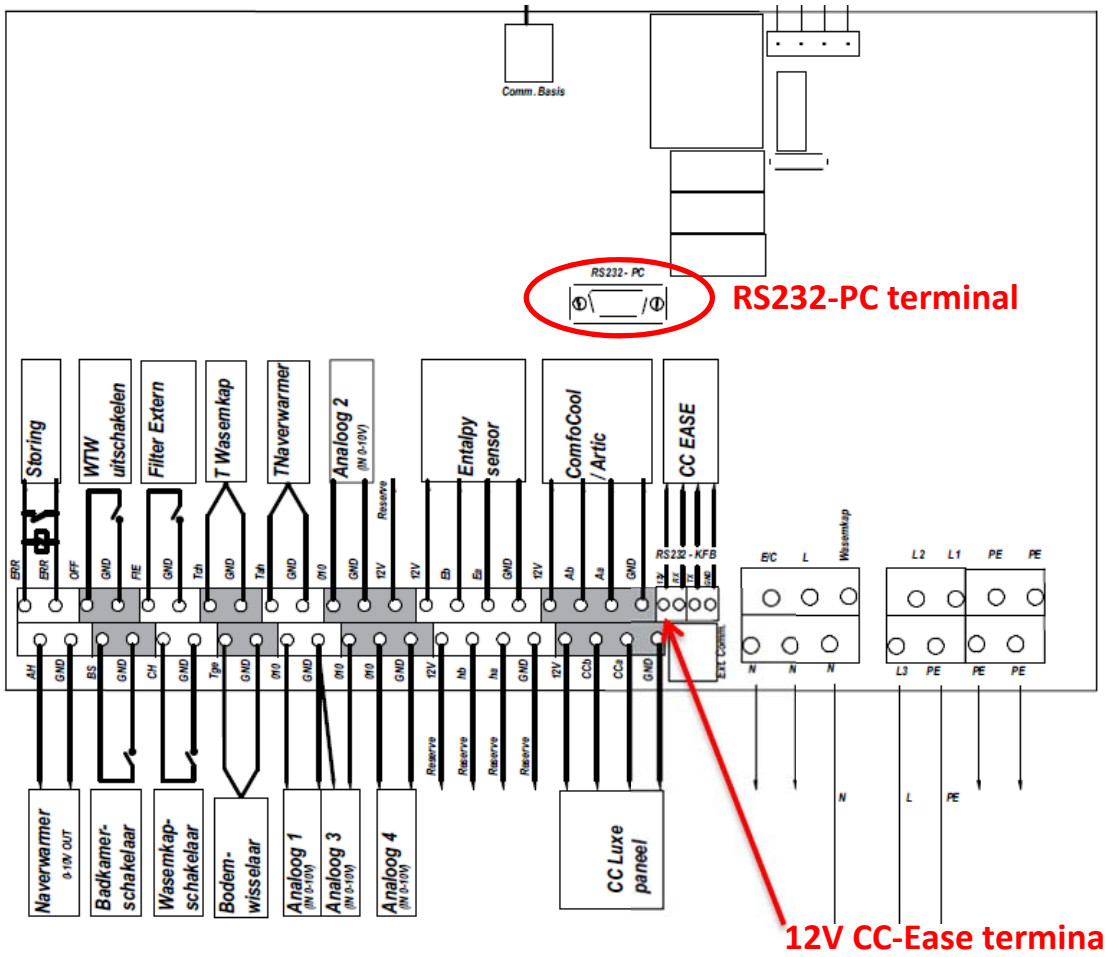
When you use the 'SubD-9 ComfoWay quick connector cable' then use the colors as on the illustration above. This is what your comfoWay will look like.

When using an external power supply then the RS232 GND also needs to be connected to the ComfoAir unit.

Hook up the SubD9 / 12V to the Luxe board RS232-PC.

You can find the Luxe board on top of you unit:

The required connections on the luxe board below the lid are here:

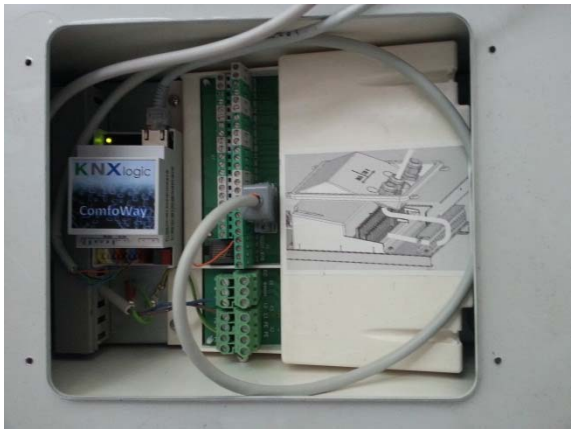



The resulting setup should look like this:

## 1.3 KNX EIB and LAN-ethernet

Finally connect the KNX bus cable and connect a LAN cable. Switch on the ventilation unit, this will start the ComfoWay as well.

Depending on the type of ventilation unit, you can even put the ComfoWay inside your unit:




It does not harm to have a double setup of both a CC-Ease display and a ComfoWay. However, sporadically the responsiveness of the ComfoWay could be slightly slower when leaving on the CC-Ease.

# 2 Logon to the Device Website

Default configuration information:

| Parameter | Value |
|---|---|
| Default IP address | Fixed: 192.168.0.10 |
| Configuration login: Username & password | admin & admin |
| Vizualization login: Username & password | Acces control disabled, no password needed |
| Vizualisation pin code for some user commands | 1234 |
| Vizualisation pin code for advanced setting pages | 9876 |

*Default Fix-IP configuration (IP = 192.168.0.10):*

Assure your pc (or tablet) is on the same subnet of your ComfoWay. In other words, it needs a similar IP address: 192.168.0.xxx. You can do so by configuring a fixed IP address for your LAN adapter (example 192.168.0.9).

Google for '*assign static IP address windows*' if you need assistance with that.

Now open your browser and surf to http://192.168.0.10 or to http://ComfoWay.local/

*DHCP configuration:*

The network setting of your ComfoWay can be set to receive it's IP address automatically by DHCP (see further).

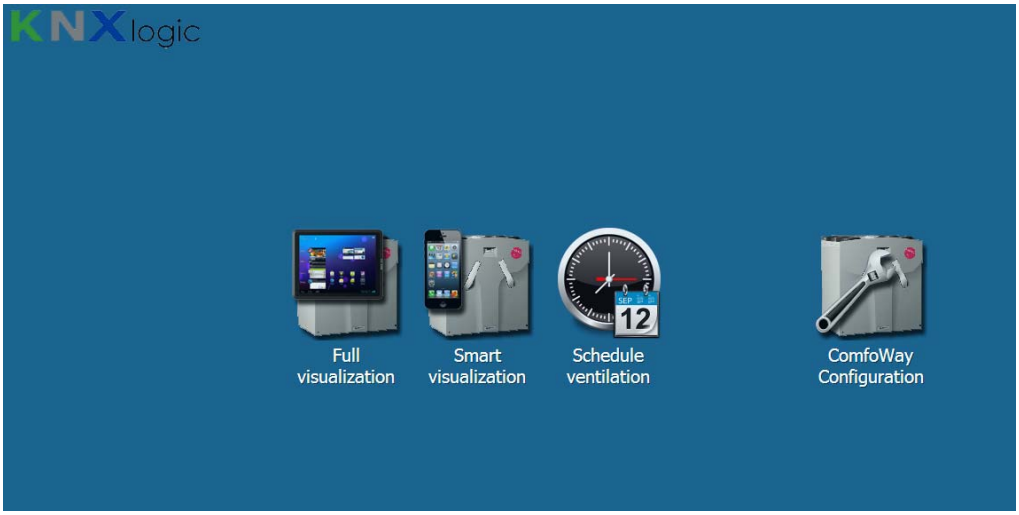
Open your browser on an Apple enabled device (iPad, iPhone, Mac, or PC with iTunes) : surf to http://ComfoWay.local/

No Apple enabled device?

Android devices: Android is gradually adding 'zero config support' to its operating system. From a device which is not yet enabled: install the free app 'ZeroConf Browser'. Under HTTP you'll find the ComfoWay with its IP-number. Surf to that IP number with any internet browser.

From a PC without any Apple support: install *'Bonjour for Windows'* from Apple (or install iTunes) and proceed as above.

From a Linux device: assure you have a '*zero config service'* running such as Ahavi

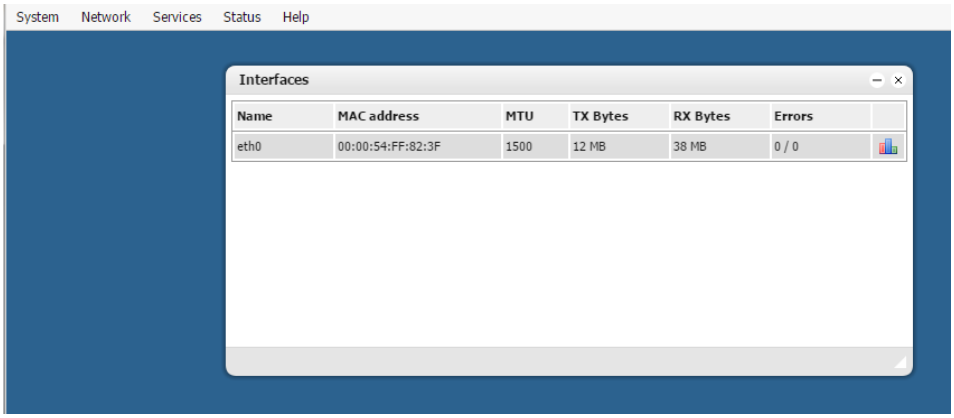

KNXlogic
Full visualization
Smart visualization
Schedule ventilation
ComfoWay Configuration

# 3 Configure the network IP address

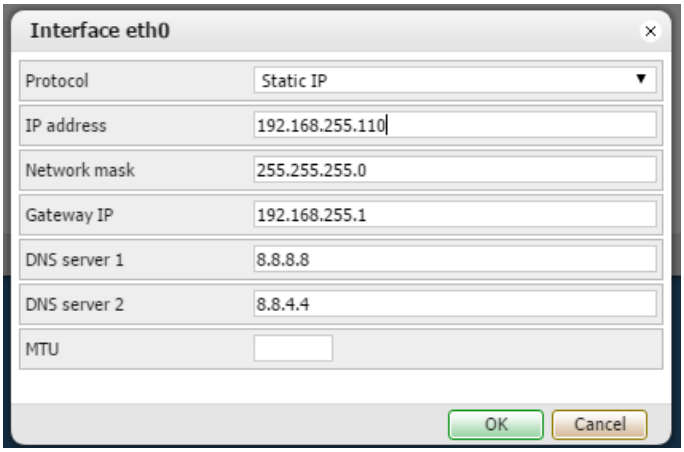
You will probably want a different network IP address. Contact your network administrator if you need assistance.

From the homepage open the '*ComfoWay configuration*' then 'System configuration' and log in.

Select Network->Interfaces and click on the first and only interface *'eth0'* to get the configuration window:



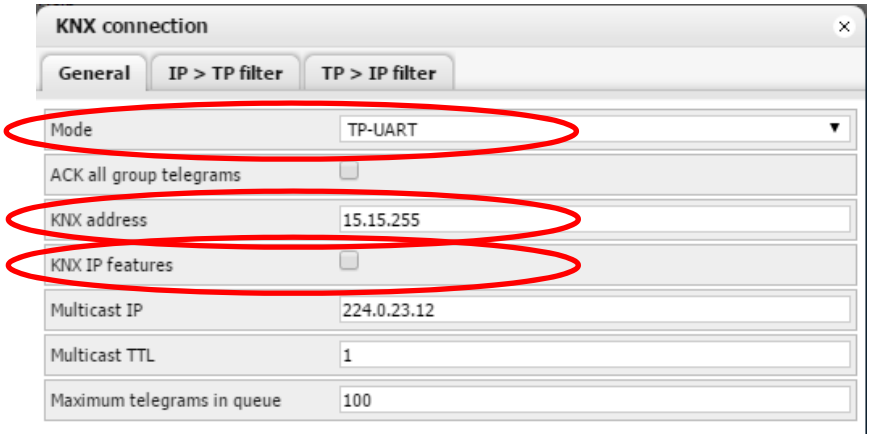

This will open the interface configuration form:



# 4 Configure the Device physical KNX address

The physical KNX/EIB address configuration is done through the web interface. ETS is not needed to configure the device.

From the Configuration page, go to: tab '*Utilities*' -> *System* -> '*KNX connection*' (or from the System page -> Network -> KNX connection)

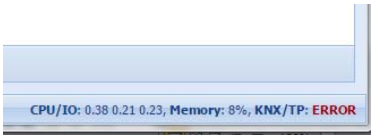



1) KNX address (physical address): assign in line with your KNX line addressing.
2) Mode: If you have the KNX/EIB bus connected directly to the ComfoWay (on the red&black sugar), then 'Mode' needs to be set to 'TP-UART' or 'FT1.2' (only one of both will be available). If you want to connect through KNX-IP without a direct bus connection, then put 'Mode' on 'EIBnet/IP routing'
3) KNX IP features: with a TP KNX/EIB connection, you can switch on/off the KNX-IP features if you wish. (when using any other mode, KNX IP is always required)

You should not need to change the other settings in this tab.

Note: when logging in to the configuration page, you will be prompted with a warning if no TP connection was found while mode is set to TP-UART. When confirming, the configuration will be changed (mode= EIBnet/IP routing, KNX-IP features=enabled).

When neither communication over TP of KNX-IP is possible, an error will be flagged in the Configuration page, at the bottom right corner:



# 5 Manage the administrator and user access

*Note: this step is only needed if you want to change the user & administrator passwords (recommended once in normal use) and vizualisation acces rules.*

From the homepage go to 'ComfoWay Configuration', then select 'System Configuration' and log in.

Select the menu System->'User access' to modify the access & passwords:

The 'Admin/Remote' tab allows changing the access control to the configuration pages.

The 'Vizualization' tab allows changing the access control for the user vizualisation pages.

By default, the Access control for the vizualisation is disabled (no password needed to login).

# 6 Configure the ComfoWay KNX group addresses

*Note: this step id only needed if you use a KNX-domotics network and wish to modify default group address assignments.*

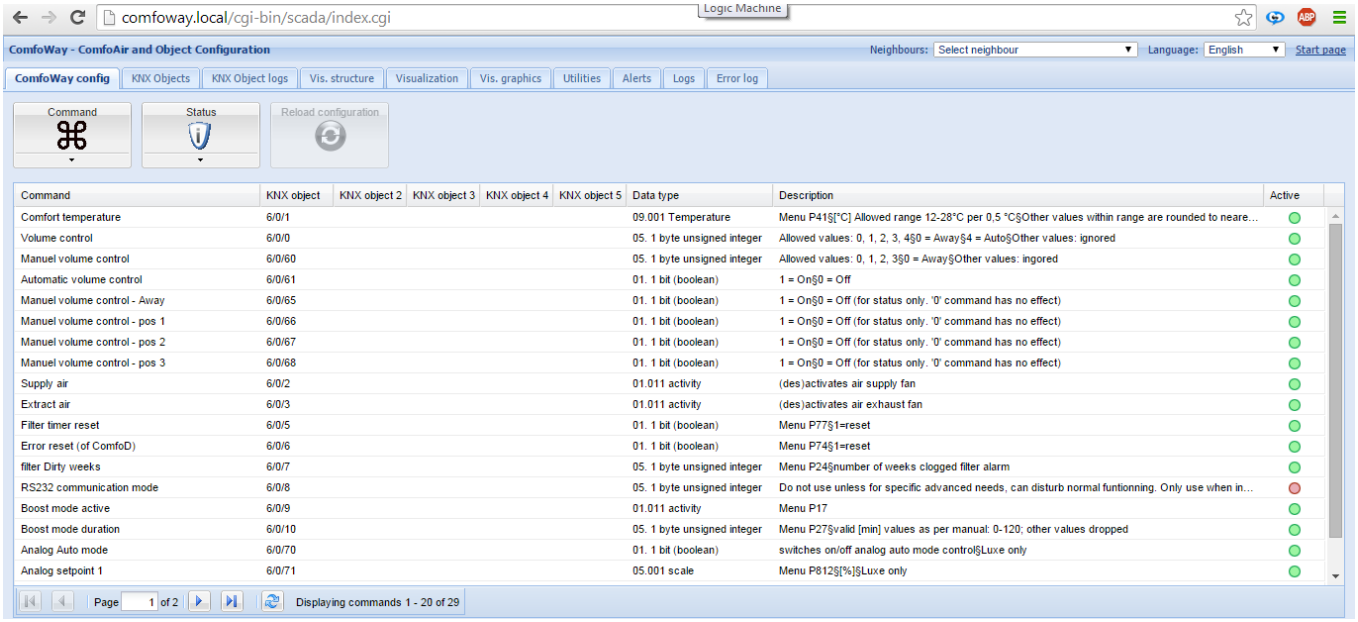
All group address configuration is done through the web interface. ETS is not needed to configure the device.

The device is configured with default group addresses for all communication objects of the Zehnder ComfoAir devices. These group addresses are used for the embedded KNX vizualisation. If you wish to use the same group addresses then you can create them in ETS as well and use them on your ETS-configured devices.

These default ranges are:

- 6/0/X for the commands
- 6/1/X for the statuses

You can consult and edit the detailed list by looking in the device: on the homepage select 'ComfoWay Configuration', then select 'KNX & Vizu configuration'.




The *'ComfoWay config'* tab gives you the overview of all available Command and Status communication objects, with their group address assignments.

## 6.1 General info

For each type (status or command) there is a separate listing on the '*ComfoWay config'* tab. Click the button to show.

From the listing you can:

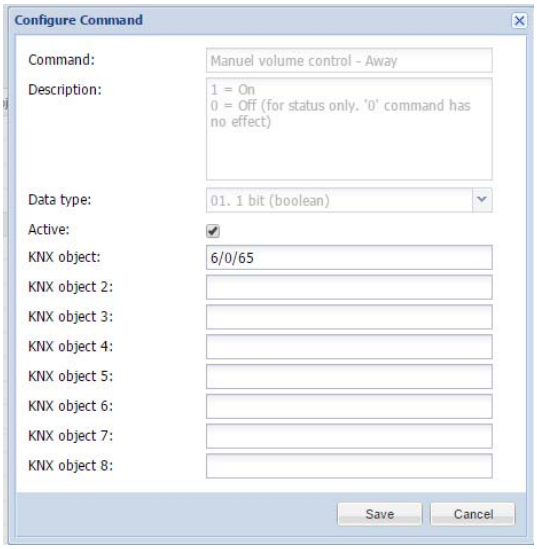
- edit the object: click anywhere on the row

- activate/deactivate a communication object: click the red/green round
- sort the objects: click on the required sort field in the header.

| Class | Event | Element ID | Option | KNX object ▲ | KNX value | Description | Dupl... | Active |
|---|---|---|---|---|---|---|---|---|
| Doors | Access Granted | 1 | * | 1/2/3 | 1 | send 1 in case somebody gets access at door 1 | | |

Editing generalities

When editing a communication object an edit form will appear:




The first field is always the selected status or command.

The '*Description*' field: gives a description of the communication object, the allowed values, and a reference to the ComfoAir 'P-menu code' in those cases where the object corresponds to a menu item.

The third field shows the assigned KNX Data Type.

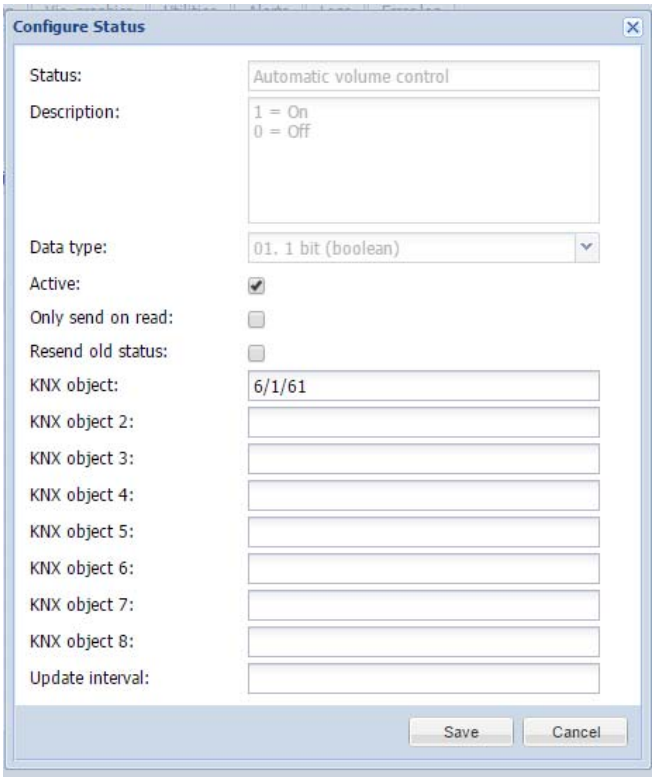
*The 'Active'* field: you can have the communication object active or inactive. When inactive, the ComfoWay will not consider the communication object.

For certain fields, there are control tip text boxes that appear when moving your cursor/mouse over the field. They give additional help to fill in the field.

There are a total of eight KNX group address fields which can be assigned.

Status object

The editing window for a status objects is shown below. It has three additional fields which are not present for commands objects: 'Only send on read', 'Resend old status' and 'Update interval'.




By default, an updated status value is written to the bus in 3 cases:

- when the value changes (write telegram)
- when a read telegram is received (response telegram)
- every 24h (write telegram)

'*Only send on read*': when checked no write telegram will be written on the bus when the value changes. The value will be updated internally for the logging and the vizualisation to work correctly.

'*Resend old status*': when checked, then prior to sending a value change telegram with the new value, a write telegram is sent on the same address with the current telegram. This may be useful when needed to automatically make graphs of discrete status values.

'*Update interval*': when left blank, the default update interval for the status value will be used. This value depends on the object and ranges from 1s (eg. Position and Comfort temperature) over 60s (for air temperatures) to 3600s (1h) for hour counters. If needed, these values can be adjusted by specifying the number of seconds you need.

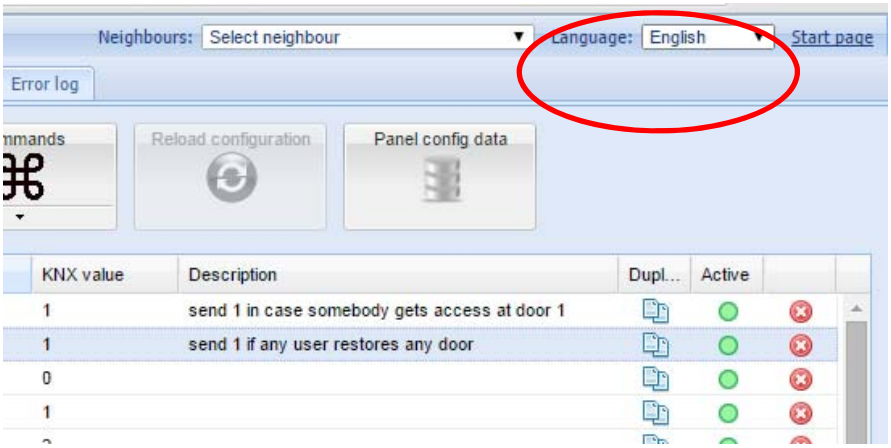
After making changes, you need to '*Reload*' the configuration in order to take effect.

Advanced ETS

In case you need advanced ETS functions (filter tables) then you can use a dummy KNX device to assign your group addresses. Read the instructions in the document '**ComfoWay – KNX and ETS usage**' which you find on our website.

# 7 Interface language

The default language of the user interface is English. If you need your user interface in another language, select one of the available languages in the top left corner of the *configuration* page.



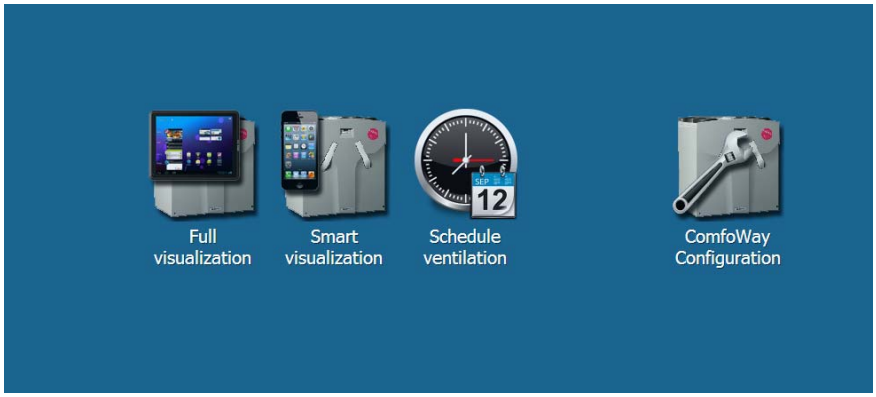

If you want to contribute a missing translation, please contact us for the conditions we offer.

Vizualisation

You can edit the vizualisation easily yourself to any language or terminology you need for your project through the embedded editor on the configuration page.

# 8 Use the vizualisation on your tablet or smartphone

Open the homepage in a web browser on your tablet or smartphone. (see step 2)




From the homepage on your device, select the *'User mode vizualisation'* optimised for tablets & pc's or the *'Touch Vizualisation'* optimised for smartphones.

If you wish to schedule your ventilation needs (position of temperature) automatically, use the '*Schedule ventilation*'.

Depending on the user access settings you set, log in.

Tip if access control is enabled: if on a single device you do not want to enter the username and password then you can configure them in the web address in the following format:

http://username:password@youradworkaddress

You want a dedicated icon on your device to take you to the vizualisation? Example: on an iPad, open the above link in Safari, then go to the vizualisation interface you want to use. Then click the share icon and select 'Add to home screen'

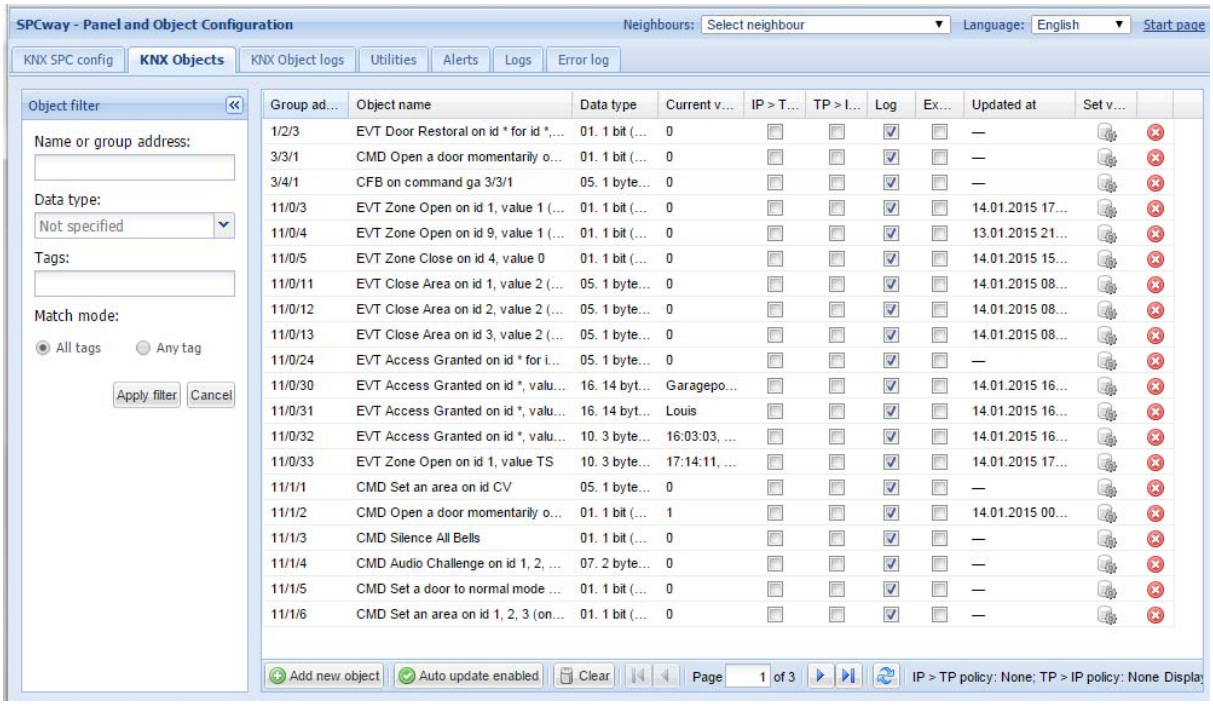
For certain commands (eg. Reset filter alarm) a pin code is asked in the vizualisation. The default pin code is 1234 for certain user controls (eg reset alarm). The default pin code for the advanced seting pages is 9876.

If needed they can be modified through the vizualisation editor tabs.

# 9 Supplementary features

## 9.1 KNX Objects

A list of all managed KNX objects can be found in the KNX objects tab




In this tab you can:

- Consult the existing KNX objects,
- Add objects (which are not parts of the ComfoWay configuration)
- Modify object settings.
  Note: for those objects created by the ComfoWay, you should not change the settings such as name or data type. When you do, they will be reset by the ComfoWay protocol daemon after some time.
  You can modify filtering.
- Write a value to the KNX bus: click on the ‘set value’ icon to the right of the row listing.
- Delete objects: again, for objects created by the ComfoWay: you should not delete. When an object is no longer configured, the ComfoWay daemon will remove it for you.
- Filter the list by the panel on the left.

Object naming

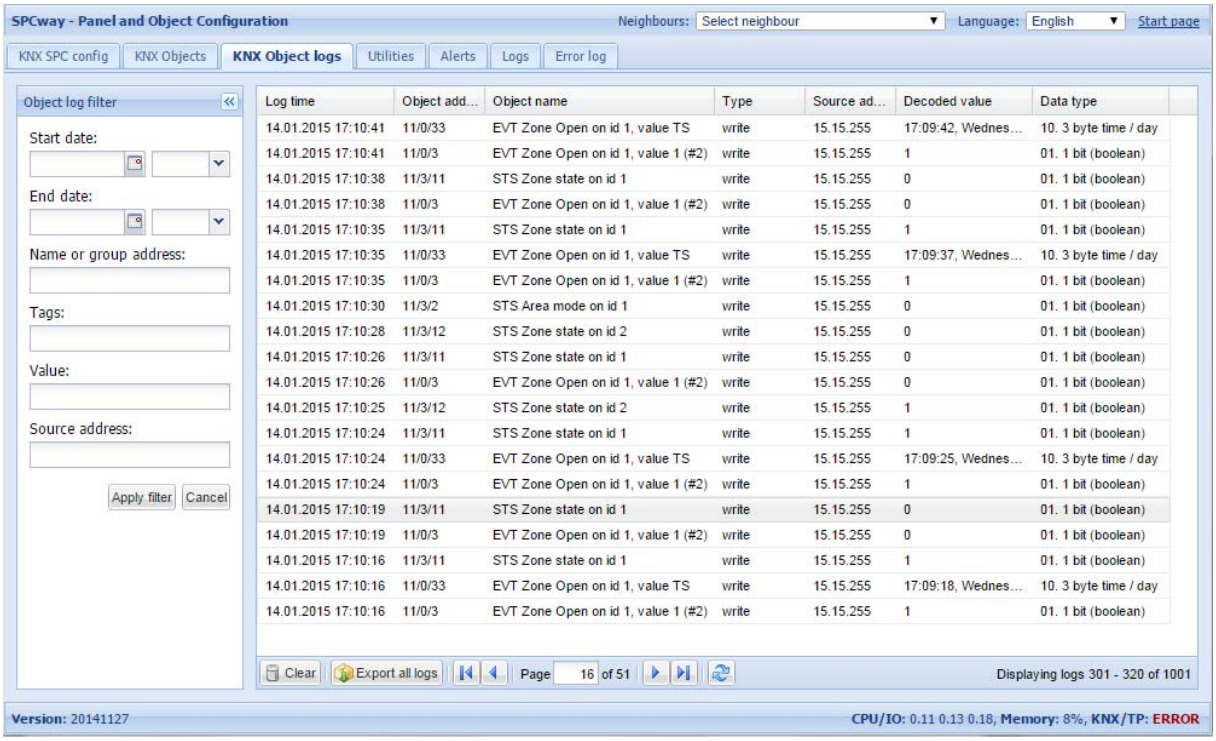
When creating the objects the ComfoWay will try to give a clear name to facilitate the use of the ‘*KNX objects*’ tab and the *Logging* tab. When multiple events/status/command are linked to one object, this is indicated by ‘(# *n*)’, where *n* is the number of links.

Automatic object discovery

If you which, you can have the ComfoWay discover and list all KNX objects it detects on the bus. For that purpose you need to activate the buss sniffer. Go to the *Utilities* tab->*'General Configuration'->Bus sniffer*

## 9.2 Objects Logging

All objects which are listed in the KNX objects tab, and for which the logging is activated, will be logged in the ComfoWay. The size of the Log can be set in the *Utilities* tab.




You can use the left pane to filter the log.

## 9.3 Alerts, Logs and Error log

In the interface you will also find three tabs which you normally do not need once everything runs fine. However, in order set up the ComfoWay, this can provide helpful information.

In normal operation, there will be very little messages in these three tabs.

However, if configuration issues are found, these will be reported here.

This provides helpful information to diagnose the configuration.

# 10 Advanced settings

## 10.1 Hostname

You can change the hostname (ie 'ComfoWay'): 'Sytem Configuration' -> Menu 'System' -> 'Hostname'

If you don't use an internal DNS service, then you can use the hostname of your ComfoWay. Simply go to http://ComfoWay.local/ and all Apple enabled pc's and tablets will find your ComfoWay on the network. On Android, install the free 'ZeroConfig Browser' to easily find your ComfoWay

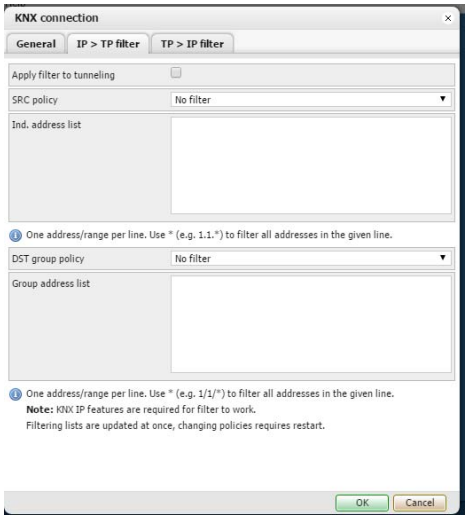
If you have an internal DNS, then the network administrator can define a network name and IP-lease for your device.

## 10.2 KNX-IP router & filtering

When KNX-IP features are enabled, all telegram will be exchanged between the TP and the IP side.

In order to limit traffic in either or both directions, filters can be defined. These can be defined at:

- high level : go to the *System configuration page* -> *Network* -> *KNX connection*. Then modify the filtering tabs accordingly. If you need further assistance then please contact us for a detailed explanation




- Object level: in the KNX objects tab of the 'KNX & *Vizu configuration'* page, you can specify for every Object if and in which direction it can pass.