



ESSENSSE NEO SUPERIOR



EN Installation and operation instructions

4-118-0249



P04-0226-0517-00





CONTROL THE DELIVERY

PLEASE NOTE

Check the product for damages immediately after delivery. In case of damage on the packaging, contact the carrier. Claims not filed in due time will be disregarded.

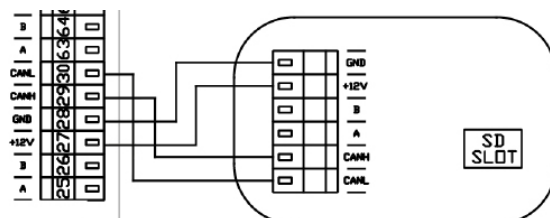
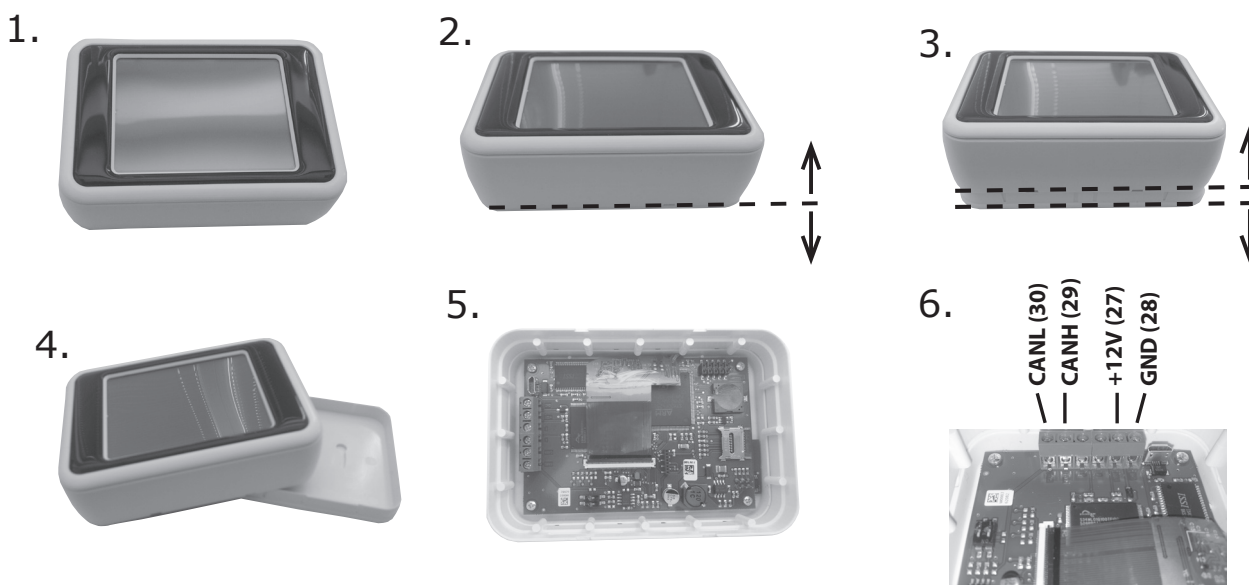
- Check that it corresponds to the type of product ordered. In case of discrepancy, do not unpack the product and contact the vendor.
- After unpacking, check that the product and all the other components are in good order. In case of doubt, contact the vendor.
- Do not install a damaged unit!
- If you will not unpack the product immediately after delivery, store it indoors, in a dry place with ambient temperatures between **+5 °C and +40 °C**.



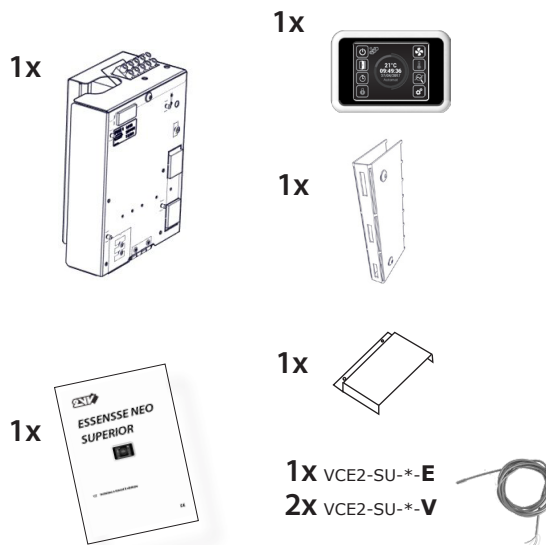
	All the packaging material is environmentally friendly and can be reused or recycled. Contribute actively to the protection of the environment and ensure the proper disposal or recycling of the packaging materials.	
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1. INSTALLATION

1.1 CONNECTING THE CONTROL



PACKAGE CONTENTS



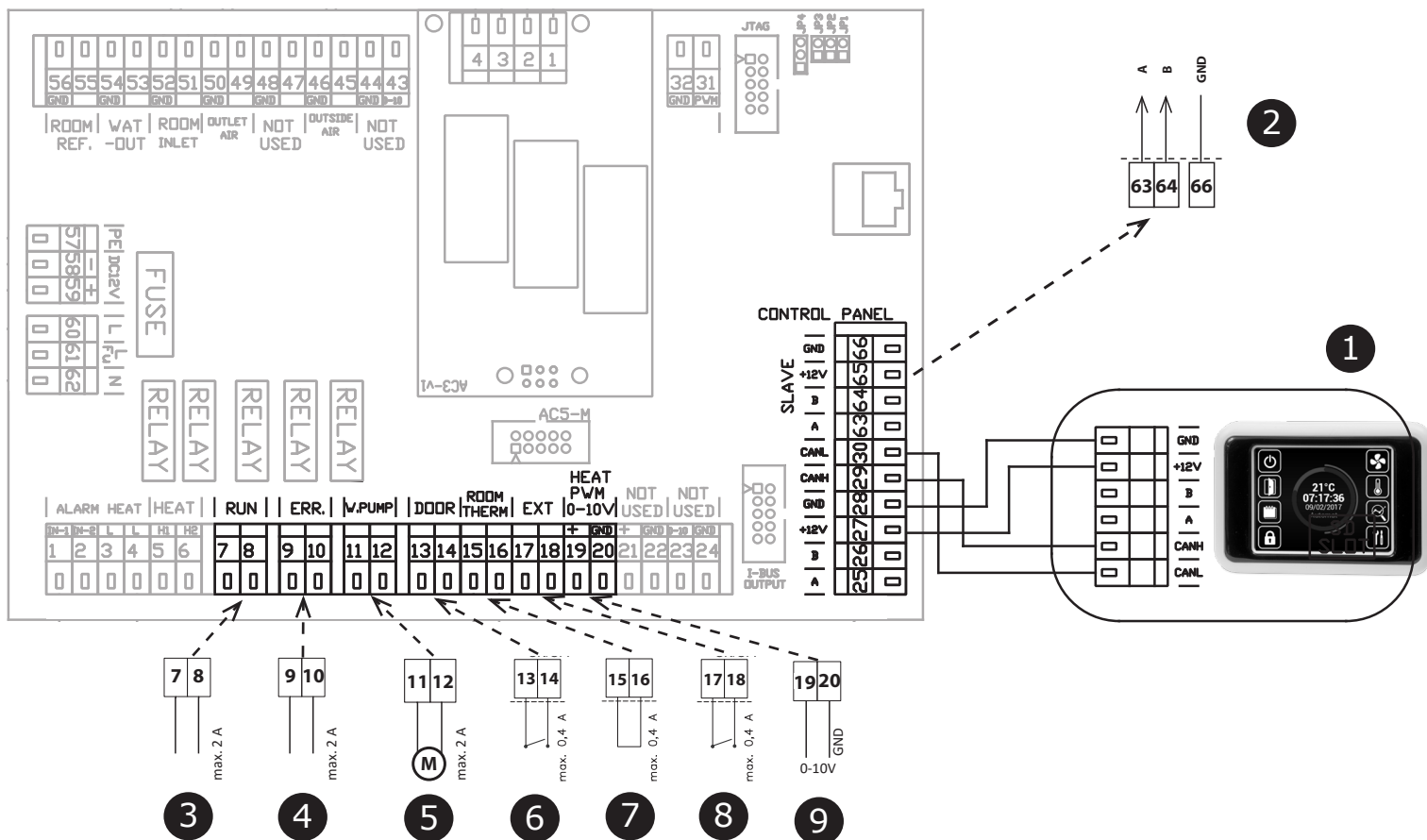
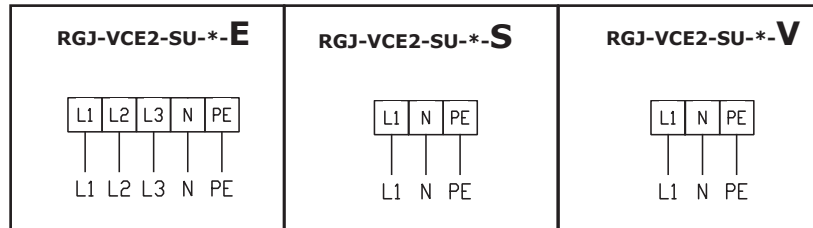
PLEASE NOTE

- If the unit was transported in temperatures lower than 0°C, after unpacking, leave it in operational conditions for at least two hours without activating in order to compensate the inner temperature.

1. INSTALLATION

1.2 EXTERNAL ACCESSORIES

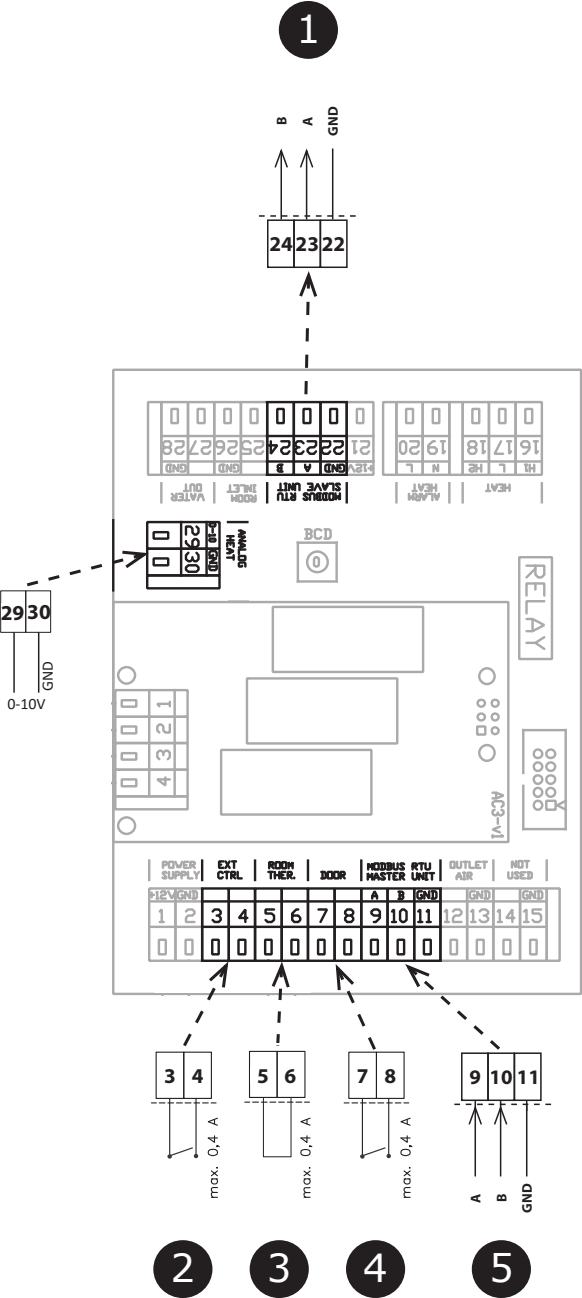
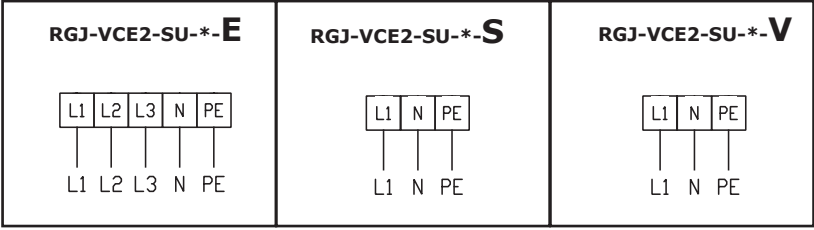
SUPERIOR MASTER
Regulation module Master Superior



1	Control panel
2	Connection for SLAVE unit
3	RUN contact (relay, NO/NC)
4	ERROR contact (relay NO/NC)
5	Water pump (relay)
6	DOOR contact (input, NO/NC)
7	Thermostat (input, NO/NC)
8	External control (input, ON/OFF)
9	Water valve control (0-10V)

1. INSTALLATION

SUPERIOR MASTER Regulation module Slave SUPERIOR

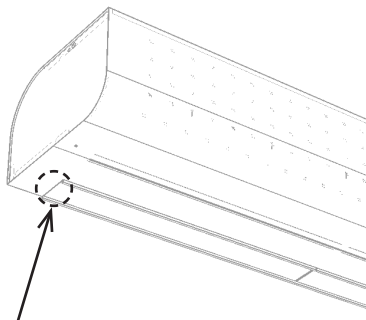
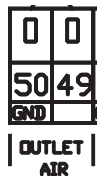


1	Connection for SLAVE unit
2	External control (input, ON/OFF)
3	Thermostat (input, NO/NC)
4	DOOR contact (input, NO/NC)
5	Control signal from MASTER unit
6	Water valve control (0-10V)

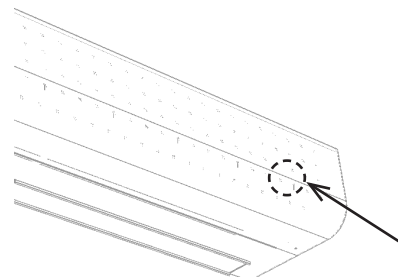
1. INSTALLATION

Positions of temperature sensors

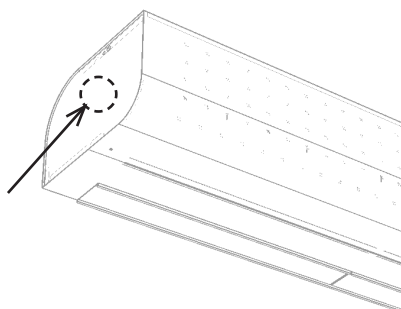
Outlet air temperature - already in product



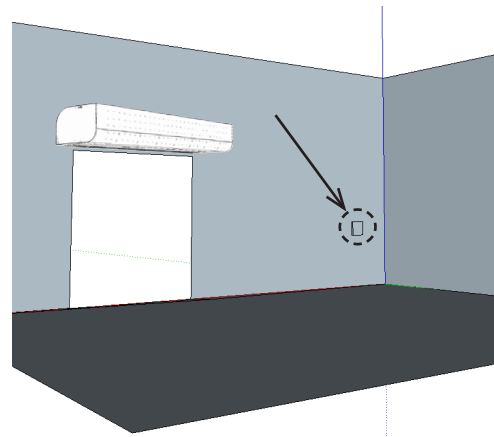
Inlet air temperature - already in product



Temperature of return water



Room temperature sensor - accessories

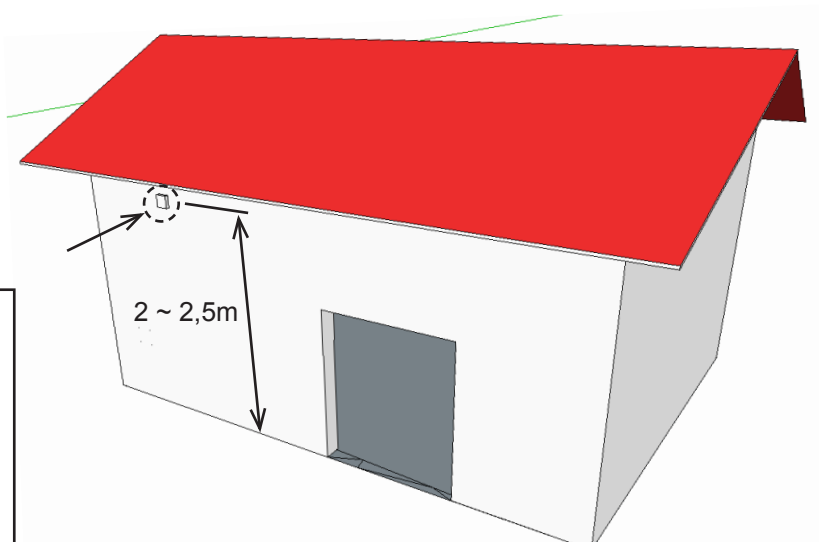


Outside temperature - sensor included



Outside temperature sensor is recommended to be installed on North side of building, protected against direct sunlight or any other unwanted heat radiation.

Temperature sensor is recommended to install to an cover box, which should contain small hole for better results. Sensor is water protected.



2. EXTERNAL ACCESSORIES

2.1 CONNECTING EXTERNAL ACCESSORIES



PLEASE NOTE

- The unit must be disconnected from the power supply to connect accessories.
- All external control components must be connected according to the wiring diagram.
- The connectors must be connected to the electrical board with adequate force and always perpendicular to the base.

2.1-1 DS door contact



TECHNICAL INFORMATION

- suitable for all SM regulation
- Isolated switching contact with maximum voltage 230V, 6A
- IP67, can be connected as a break or switching contact



CAUTION!

Not included with the product.

2.1-2 DK-1 / DK-B3 door contact



TECHNICAL INFORMATION

- Isolated switching contact with maximum voltage 12V.
- Cable - Two-core cable with a cross section of 0,5 mm². - Maximum length: 50 m



CAUTION!

Not included with the product.

2.1-3 Thermostatic valve – TV1/1



TECHNICAL INFORMATION

- Thermostatic valve to regulate the water exchanger
- Suitable for all types of curtain with water exchanger
- Works independent to the electronic controls



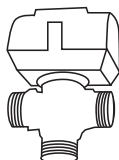
CAUTION!

Not included with the product.

2.1-4 Zone valve ZV-3-24V



TECHNICAL INFORMATION



- Zone valve to regulate the water exchanger 0-10V
- Cable - Four-core with a cross-section of 0.5 mm² Supply 24 V/ 50/60 Hz (24V external source, not included), control tension 0-10V

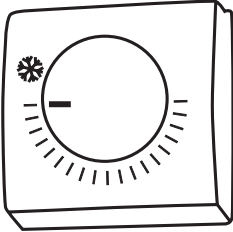


CAUTION!

Not included with the product.

2. EXTERNAL ACCESSORIES

2.1-5 Room thermostat - TER-P



TECHNICAL INFORMATION

- Room thermostat to regulate heating
- Cable - Two-core cable with a cross-section of 1.5 mm², 230 V/ 50 Hz.



CAUTION!

Not included with the product.

3. COMMISSIONING



PLEASE NOTE

Before starting up the unit, check the following:

- Did you leave inside tools or objects that could damage the unit?
- Is the supply of energy and heating water (if applicable) adequate?
- Is the unit well closed?
- Is the control module properly connected?
- Does the unit have adequate protection according to the applicable standards?

4. CONTROL

READ CAREFULLY!

Before the initial commissioning, check:

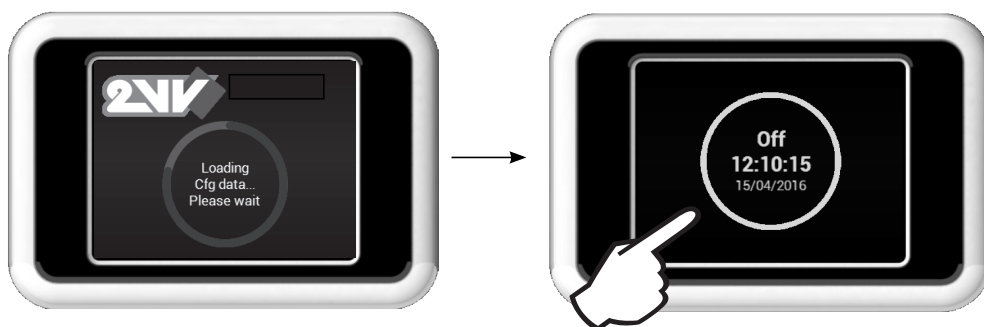
- that the device is well fastened to the support structure,
- that the device is properly closed
- that the power supply is properly connected, including the earthing and the external trigger protection,
- that all the electrical components are securely connected,
- that the installation complies with all the instructions herein,
- that no tool or any other object that may damage the unit remains within.

CAUTION!

- Interventions or changes to the internal connections are forbidden and shall result in the loss of warranty.
- We recommend the use of accessories supplied by our company. Contact your supplier in case of doubts regarding the use of non-original accessories.

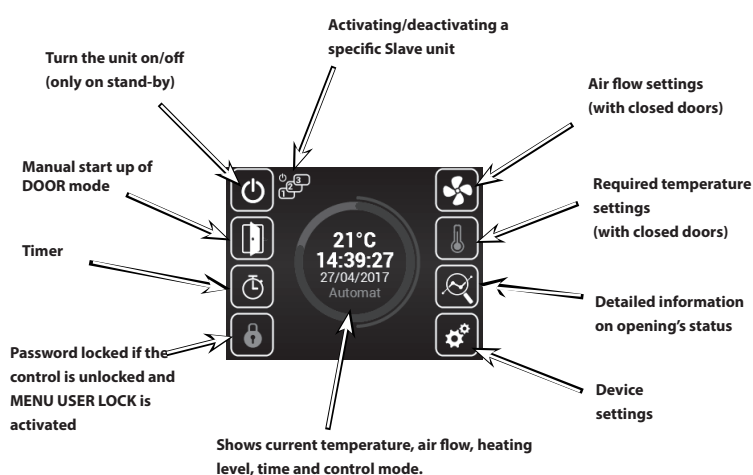
START-UP

After connecting power supply, the display lights up and the data is loaded.
The device is ready to be activated once the service data has fully loaded.



The remote control has a touch screen. The device is controlled tapping the symbols on the screen

Description of main screen

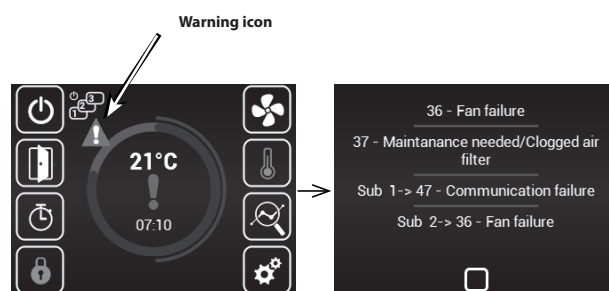


The menus are described below

-  page 13   
-  page 14 
-  page 17 

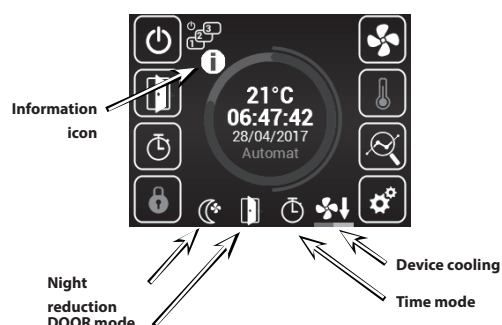
Warning icons

They inform about errors. Clicking on them opens a screen with the error report.



Information icons

They only inform about status, not errors.



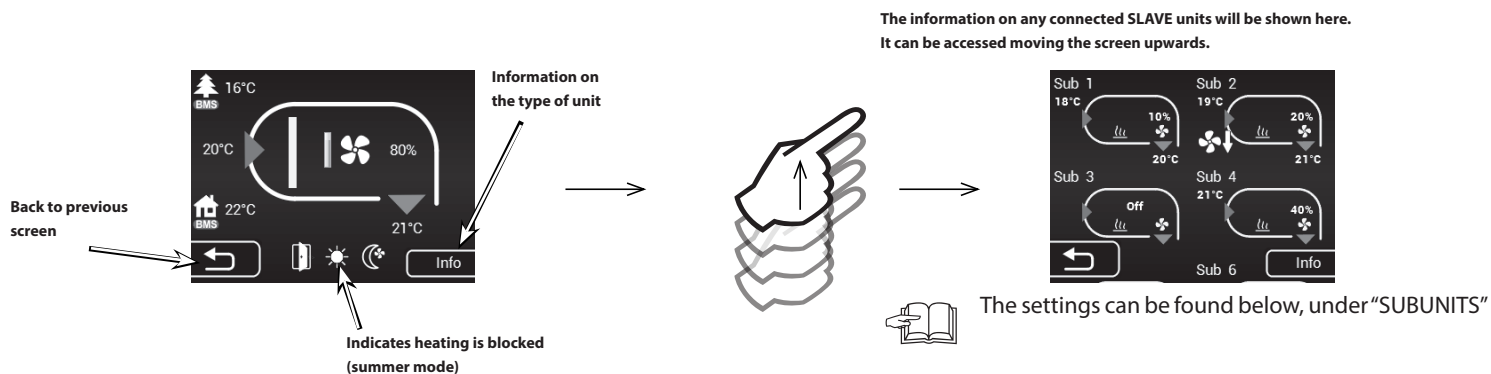
4. CONTROL



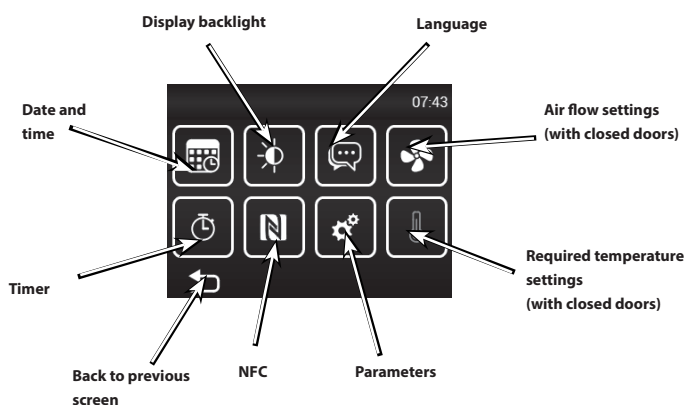
Current status

This screen shows the detailed status of the opening and the sensor values:

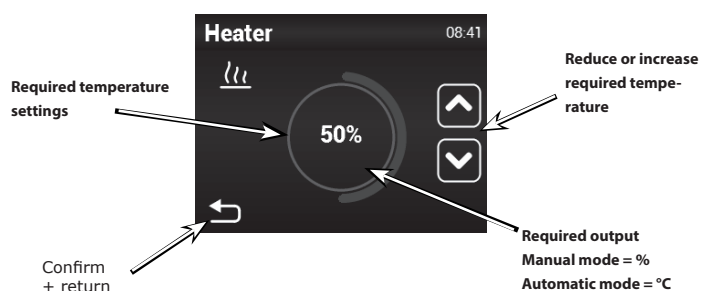
- Current air-flow settings (step or %), information icons
- Air temperature at intake*, exhaust*, room temperature* and outside temperature* (* – if the relevant sensors are installed and enabled)
- Heater output settings (if included)



Settings MENU



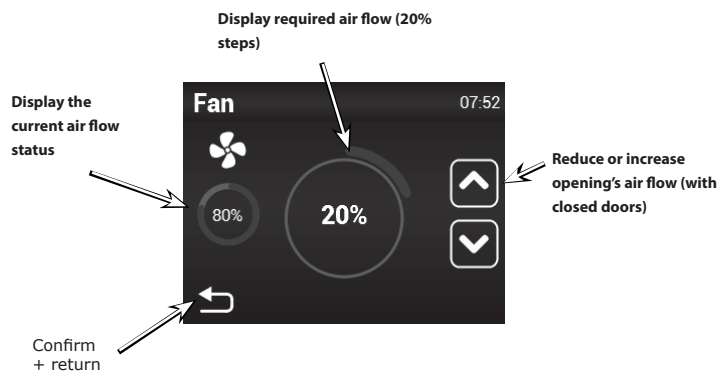
Required temperature settings with closed doors



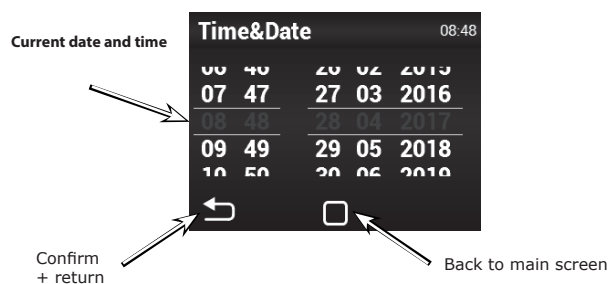
If the heating is blocked in summer mode (MENU - SUMMER HEATING), the screen will show a "Sun" icon and will not allow to select the output.



Air flow settings with closed doors



Date and time settings

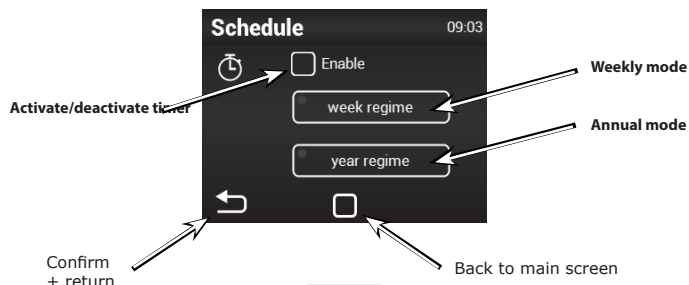


4. CONTROL

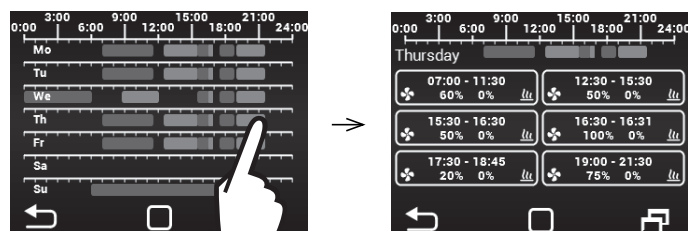


Timer

Unless otherwise set, the unit goes on stand-by mode after the timer expires.



Weekly mode

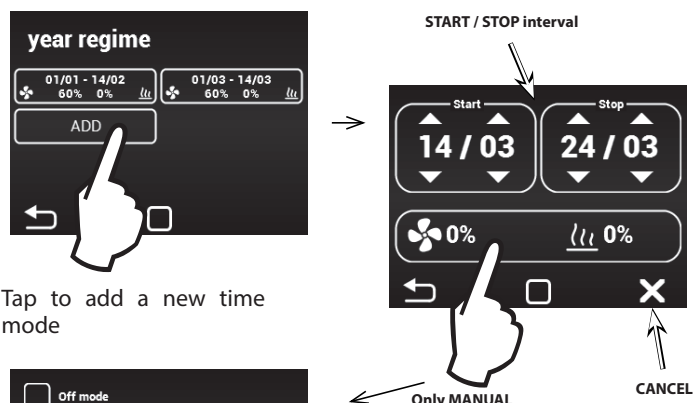


Tap on a day to set different time modes

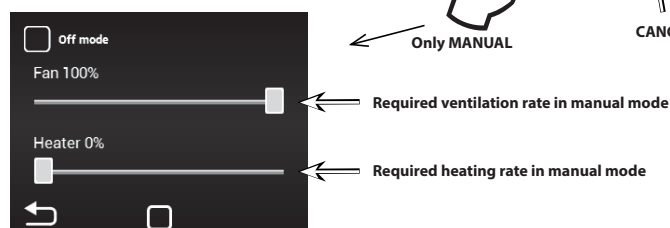
Button to copy the day plan to another day



Annual mode

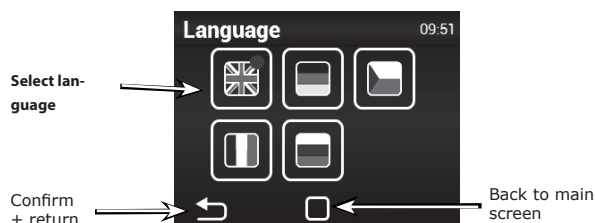


Tap to add a new time mode

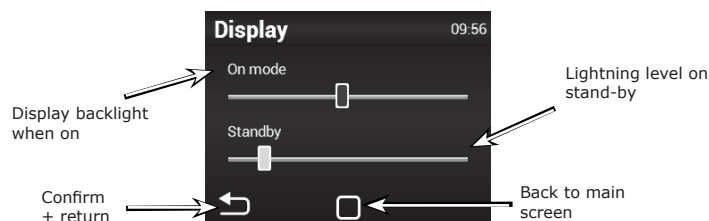


Language

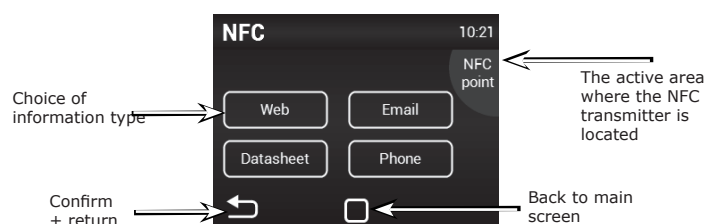
There are 5 languages available



Lightning settings



Near Field Communication (NFC)



The NFC menu allows devices compatible with Near Field Communication (NFC) to transmit relevant information. Mobile telephones and tables are usually fitted with this chip. Check whether your device has this feature before use.

How to use:

- 1) In the NFC menu, select the information you want to see in your device
- 2) Enable NFC in your device and place it in the upper-right corner of the control, see image below

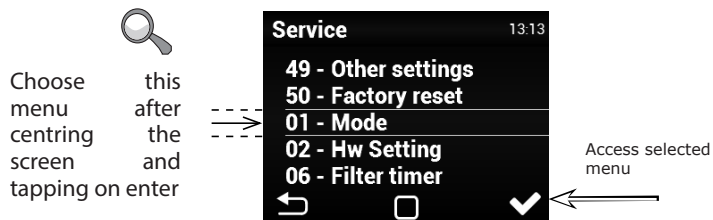
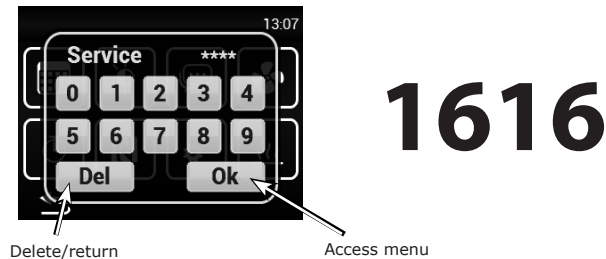


4. CONTROL

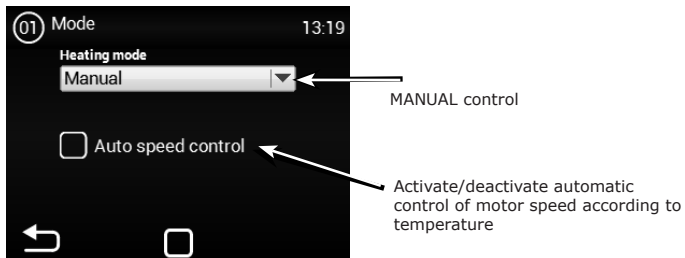


Service menu

Enter code 1616 to access the service menu



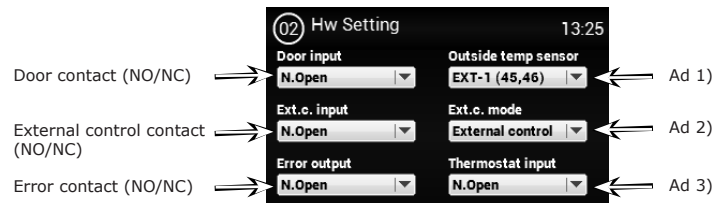
MENU - MODE



Setting AUTO or MANUAL may block/unblock certain items in the service menu.

MENU - HW SETTING

Use this menu to set the detailed behaviour of the inputs and outputs of the regulators



Ad 1) - External temperature sensor activation/settings Options:

None - no sensor connected - inactive

EXT-1 (45,46) - sensor connected (must be on terminals 45 y 46)

BMS - sensor active and used from the master system

Ad 2) - Sets the external contact input behaviour. Options:

None - inactive

External control - External switching of device

Night reduction - Night reduction on/off (settings described below)

Ad 3) - Thermostat (NO/NC)

4. CONTROL

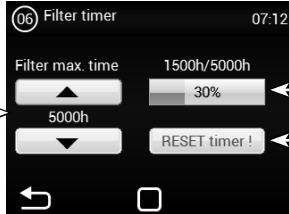
MENU - FILTER TIMER



Use this menu to set the period (in motor hours) after which you will be reminded to replace the filters or reset to timer.

Set the time after which a notice will appear in the main screen.

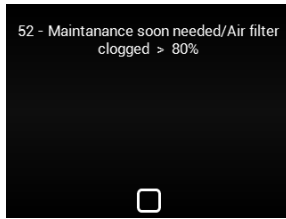
1000h ~ 5000h



Current timer status

RESET button (use after replacing filters)

Shows the status of the clogged filter in the main screen

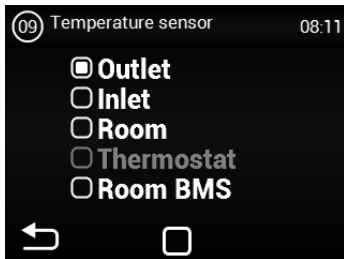


MENU - TEMPERATURE SENSOR



Available only in automatic mode

Use this menu to select the sensor to be used for primary temperature control



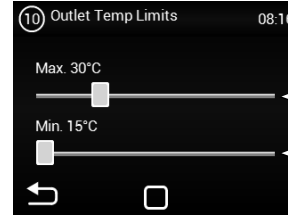
Options:

- Outlet** – Temperature sensor at the outlet (behind the exchanger)
- Inlet** – Temperature sensor at the inlet (before the exchanger)
- Room** – Room temperature sensor
- Thermostat** – Room thermostat (ON/OFF)
- Room BMS** – Room temperature sensor from master system

MENU - OUTLET TEMP LIMITS



Use this menu to set the limits of the exhaust

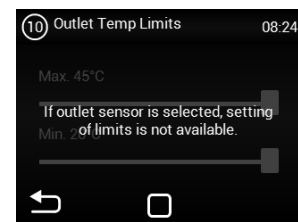


Maximum temperature limit: 25°C - 45°C

Minimum temperature limit: 15°C - 20°C



If "OUTLET" is selected in the TEMPERATURE SENSOR MENU, it will not be possible to set values as they are already defined by the sensor. You will see this screen:

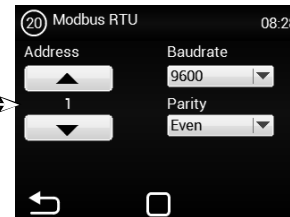


MENU - MODBUS RTU



Use this menu to set the Modbus RTU communication parameters

Address 1~247



Communication speed:
4800 Bd
9600 Bd
14400 Bd
19200 Bd
38400 Bd

Parity
None
Odd
Even

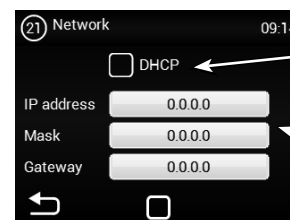


An incorrect setting may prevent communication with the regulator

MENU - NETWORK



Use this menu to set the communication parameters of the network interface



DHCP blocked/enabled

Regulator network settings to be entered manually:
IP address
Mask
Gate



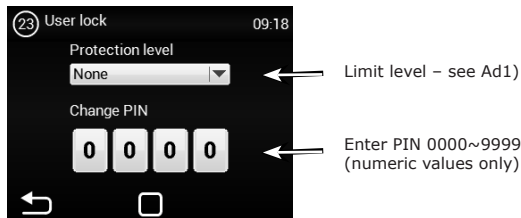
An incorrect setting may prevent communication with the regulator

4. CONTROL

MENU - USER LOCK



Use this menu to set the limits to control the regulator with a multi-level panel



Options:

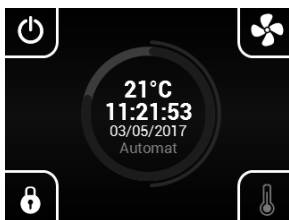
None – Limit inactive

On/Off – Only On/Off and access to the information menu are enabled in the main screen

On/Off, Temp, Flow – On/Off, the information menu, and temperature and air flow settings can be accessed without password.

Full – Only the information menu can be accessed without password

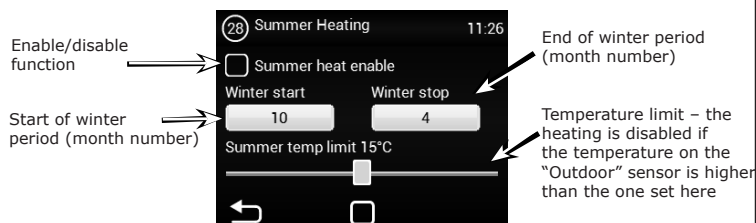
User mode – Special user menu, see image below



MENU - SUMMER HEATING



Use this menu to set heating limits in summer months

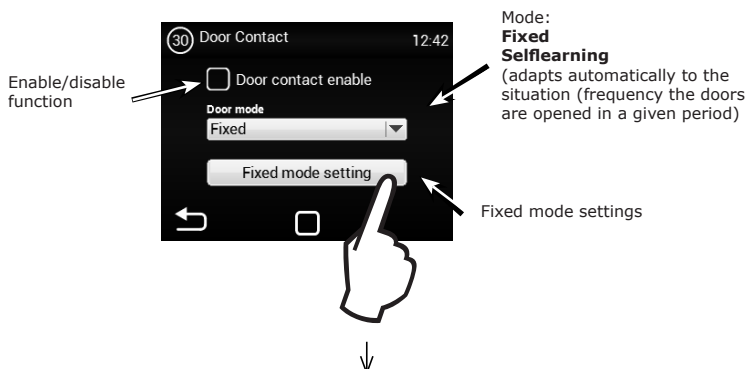


If the outside temperature sensor is not set, the "summer heating" mode will operate only according to the selected time and the temperature will not be taken into account

MENU - DOOR CONTACT



Use this menu to set the behaviour of the regulator according to the door contact



Ventilation rate with open doors (20%-100%)

Heating settings with open doors
Manual = 0%, 50%, 100%
Auto = 15°C-45°C

Rundown function:
Disable
Time interval
Temperature (when reaching a temperature on the thermostat)

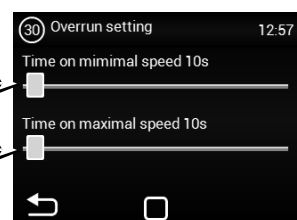


Detailed settings of the rundown function

Timed rundown

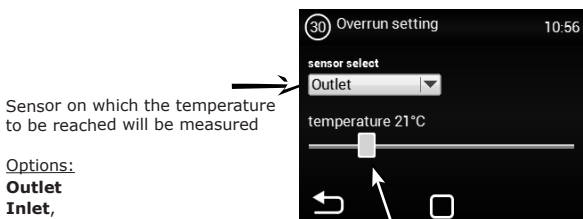
Timed rundown at minimum speed: 5s ~ 300s

Timed rundown at maximum speed: 5s ~ 300s



After the rundown, the unit goes into closed door mode. When unit is off in closed door mode, if it has electric reheating, the electric exchanger is cooled. If the doors are opened again, the rundown is interrupted.

Thermal rundown



Sensor on which the temperature to be reached will be measured

Options:

Outlet
Inlet
Room
Thermostat

Room BMS – Sensor from the BMS system

Temperature required for thermal rundown
OUTLET: 15°C-45°C
INLET: 15°C-30°C
ROOM: 15°C-30°C
THERMOSTAT: N/A
ROOM BMS: 15°C-30°C



After the reaching the temperature, the unit goes into closed door mode. When unit is off in closed door mode, if it has electric reheating, the electric exchanger is cooled. If the doors are opened again, the rundown is interrupted.

4. CONTROL

MENU - WATER ANTIFREEZE



The menu is enabled only in units with water exchanger

Settings
(20%-100%)

Ventilation rate with
open doors
(20%-100%)



MENU - SUBUNITS



Use this menu to set the behaviour of the IC-S regulators connected as SLAVE

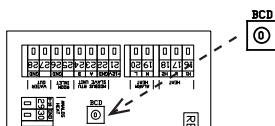
Number of SLAVE
regulators:
0 ~ 10



Ad 1)

Ad 2)

Slave address parameter:



ADDRESS	SLAVE UNIT	ADDRESS	SLAVE UNIT
1	1	6	6
2	2	7	7
3	3	8	8
4	4	9	9
5	5	A	10

Ad 1) – Use one door contact as main. Its status will be sent to the SLAVE regulators and it will no longer be necessary to connect it to each regulator, if required.



Not allowed = the door contact will not transmit to the SLAVE regulator from the MASTER



Allowed = the door contact will transmit to the SLAVE regulator from the MASTER

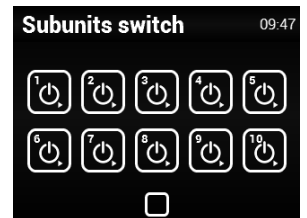
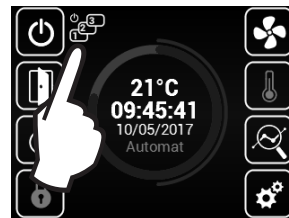
Ad 2) – Activates in the main screen the icon to turn each SLAVE regulator ON/OFF. If inactive, all the SLAVE regulators will be turned on or off simultaneously.



Not allowed = The SLAVE regulators are turned on/off simultaneously



Allowed = The SLAVE regulators can be turned on/off individually from the main screen

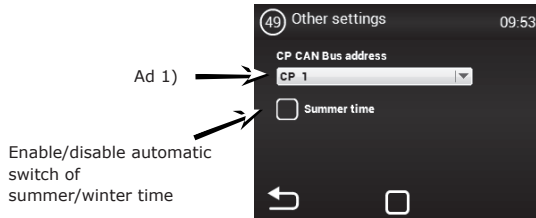


4. CONTROL

MENU - OTHER SETTINGS



Use this menu to set the remaining parameters



Ad 1) – Sets the CAN address of the control panel so up to 2 control panels may be connected to the MASTER regulator
Options: CP 1 = control panel's address is 1
CP 2 = control panel's address is 2

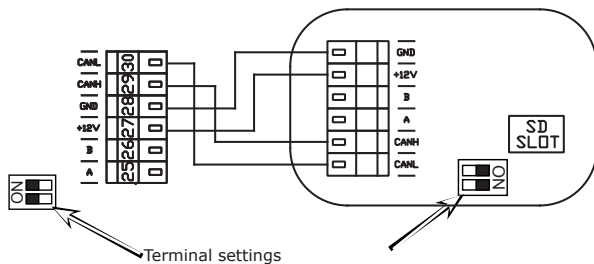


The address is set for each control, which then addressed according to it.

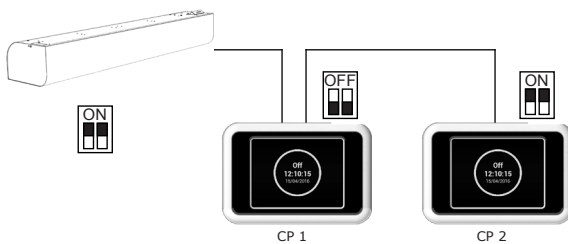


Each panel must have its own address, otherwise it may result in the malfunction of the regulator.

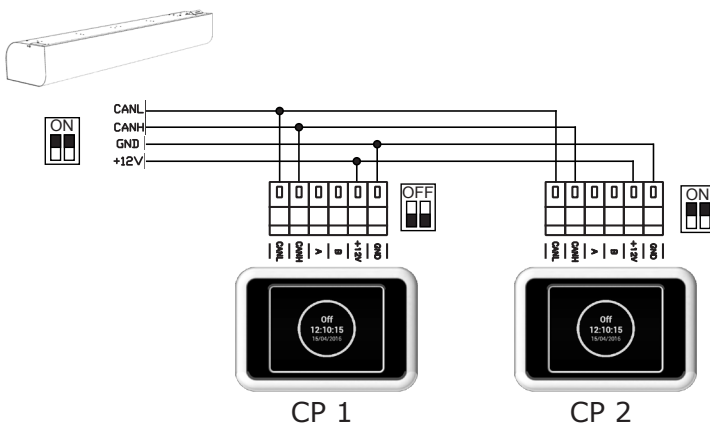
Terminals must be set if multiple panels are to be connected. They are found in the main electronics and the controller:



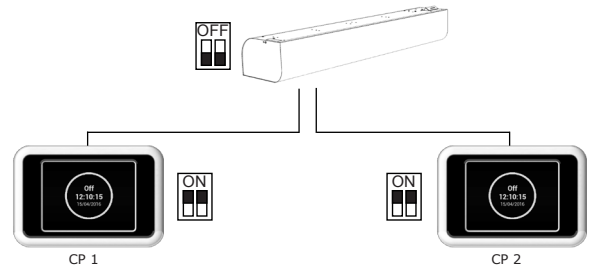
Example of controller connection – Option 1:



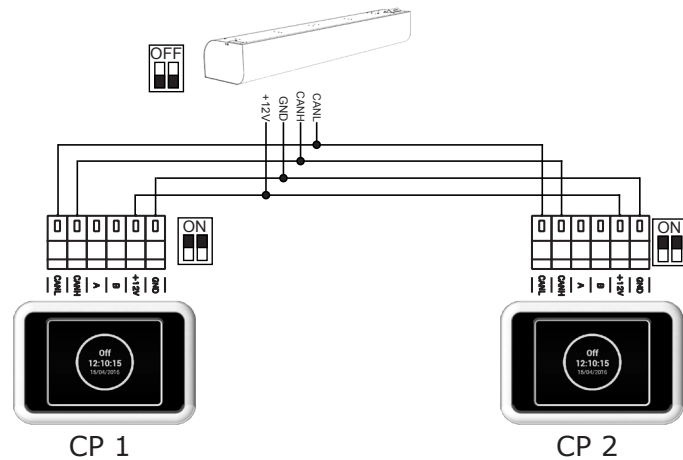
Electric connection – Option 1:



Electric connection – Option 2:



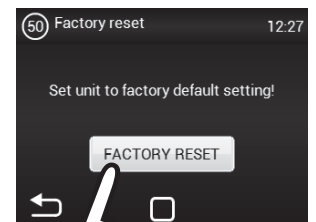
Electric connection – Option 2:



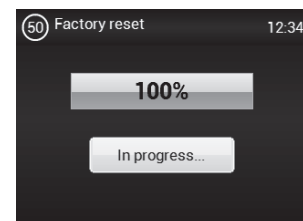
MENU - FACTORY RESET



Use this to reset the default values



Press "FACTORY RESET" to reset the default values of MENU 1616



Once completed, we recommend to turn the main supply off and on.

5. MALFUNCTIONS

5.1 MALFUNCTIONS

Disconnect the main power supply before any intervention to the unit. If you are not sure of the correct steps, do not attempt to perform any repairs and call a professional service!

Description	Unit behaviour	Likely problem	Solution
44 – Fan error	Unit out of order	Overheated fan or defect on thermal contact of inlet fan	Determine the cause of the overheating (defective bearing, short-circuit...) or replace the motor. Check the thermal contacts from the motor to the regulator.
45 – Mandatory maintenance/filter clogged	Unit operational	Filter clogged or the time to replace it has come	Replace filters. After replacing, do not forget to reset the MENU 1616 – FILTER TIMER
46 – Heater malfunction	Unit out of order	Heater malfunction	Check the heater and the condition of the safety thermostat Does the heater have proper cooling? Check engine running.
47 - malfunction in external temperature sensor (45,46)	Unit out of order	Temperature sensor malfunction on terminals 45,46	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
48 – Outlet temperature sensor malfunction (49,50)	Unit out of order	Temperature sensor malfunction on terminals 49,50	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
49 – Inlet temperature sensor malfunction (51,52)	Unit out of order	Temperature sensor malfunction on terminals 51,52	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
60 – Exchanger's return sensor malfunction (53,54)	Unit out of order	Temperature sensor malfunction on terminals 53,54	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
61 – Room temperature sensor malfunction (55,56)	Unit out of order	Temperature sensor malfunction on terminals 55,56	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
62 - malfunction in external temperature sensor from BMS	Limited operation of the device	Temperature sensor malfunction in BMS	Check that in the BMS that the address where the sensors sends the data is properly set (on the right regulator) Check the function of the sensor in the BMS
63 - malfunction in room temperature sensor from BMS	Limited operation of the device	Temperature sensor malfunction in BMS	Check that in the BMS that the address where the sensors sends the data is properly set (on the right regulator) Check the function of the sensor in the BMS
79 – Heating reduced due to low air flow	Unit operational	Only information	The air flow settings were reduced, limiting the heater output to prevent overheating
65 – Communication error	Unit out of order	Communication error	Check the communication cable for damages and if it is properly connected Observe the wiring diagram to prevent occurrences that may disrupt communication (wiring near high tension, phenomena on site causing disruptions)
Unit's not working	Unit out of order	Power supply interrupted	Check that the power supply is not interrupted
		Cracked fuse	Check the fuse in side the control module
The heating switches off automatically	Unit operational but not heating	The heater overheats	The heater overheats due to insufficient air flow. Check that the ventilators are in good order and that the air supply is not disrupted.

6. MAINTENANCE

6.1 CLEANING



CAUTION!

- Do not use compressed air, chemicals, solvents or water to clean the unit.
- Use a soft brush or a vacuum cleaner to clean the suction cover and the inside of the unit.
- See the installation manual of the ESSENSSE NEO curtain

7. SERVICE

7.1 IF YOU ARE UNABLE TO REPAIR THE UNIT

If you were unable to solve a problem, contact the supplier or the representative of 2VV. Warranty and post-warranty service are provided by the supplier or an authorised service included in the list available at the supplier's.

Give the following information to the supplier or service:

- **type designation of the air curtain**
- **accessories in use**
- **place of installation**
- **serial number**
- **conditions of the installation (incl. electrical)**
- **period of operation**
- **detailed description of the malfunction**

7.2 – DECOMMISSIONING THE PRODUCT – LIQUIDATOIN

Before scrapping the product, make it unusable. Old products still have raw materials that can be reused. Take them to a collection centre for secondary raw materials. It is preferable to have the product liquidated by a specialist so that the recyclable materials may be reused. Take the unusable parts to an appropriate waste disposal site.

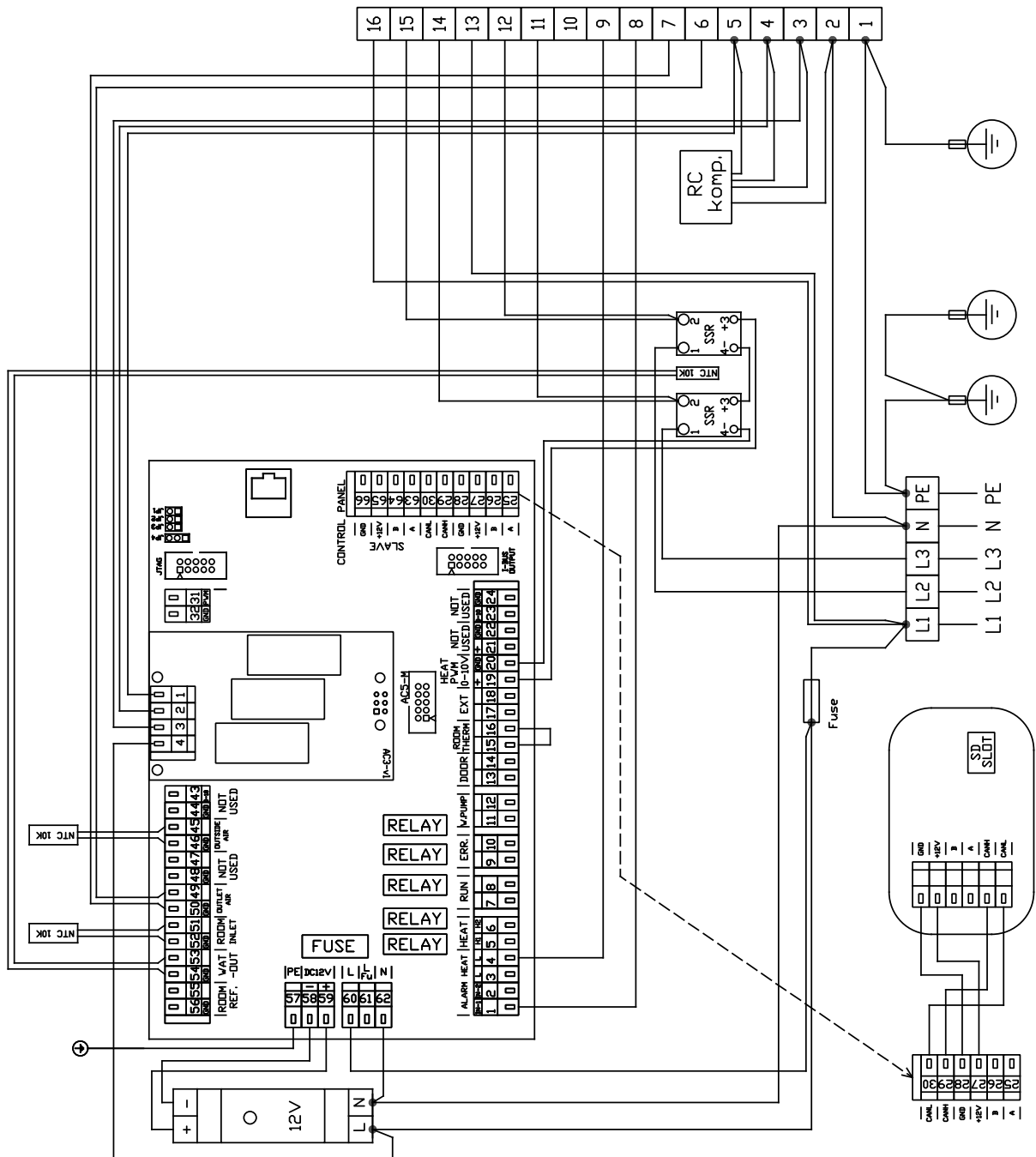


The liquidation of materials must observe the applicable waste management regulations.

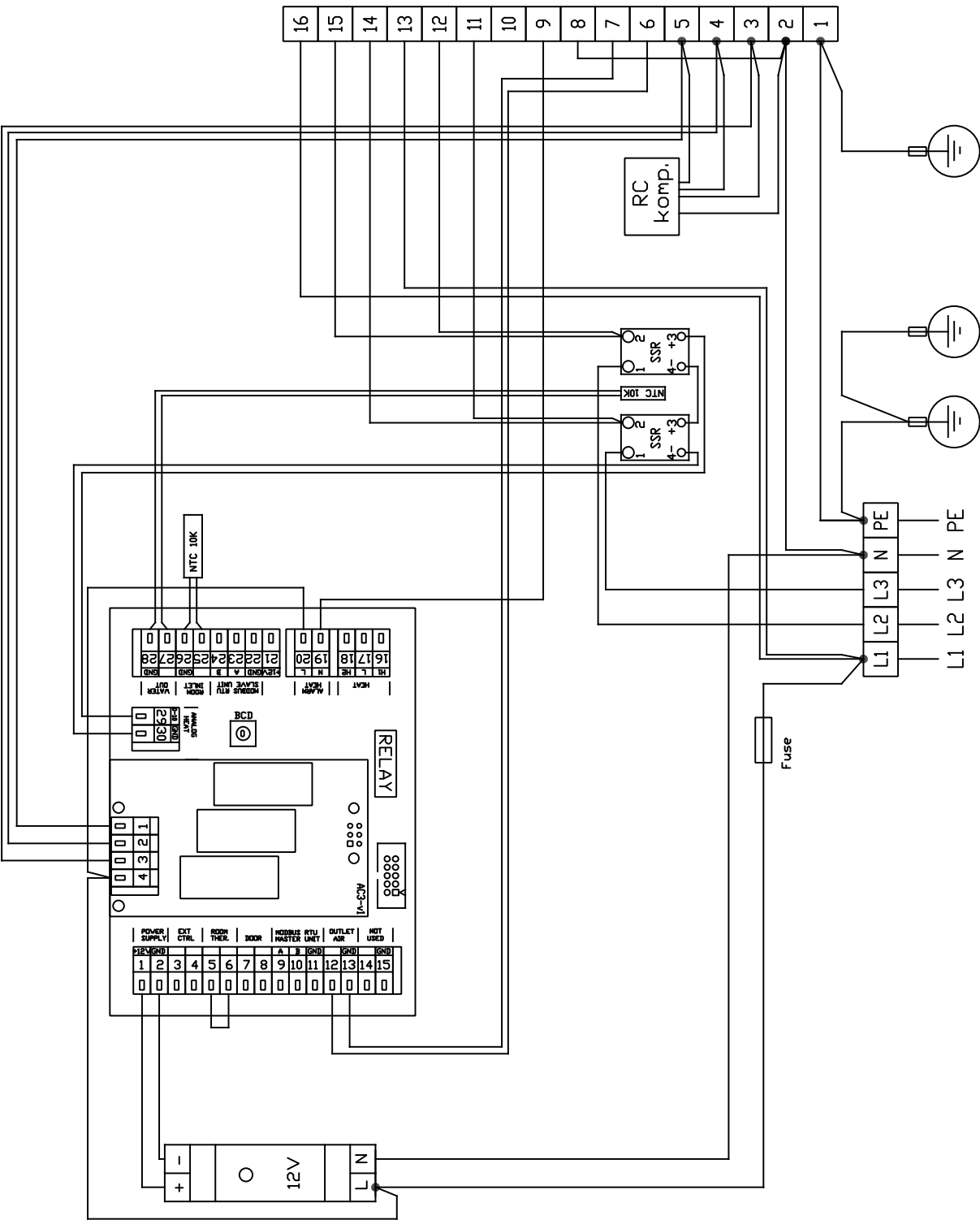
8. WIRING DIAGRAM



8. WIRING DIAGRAM

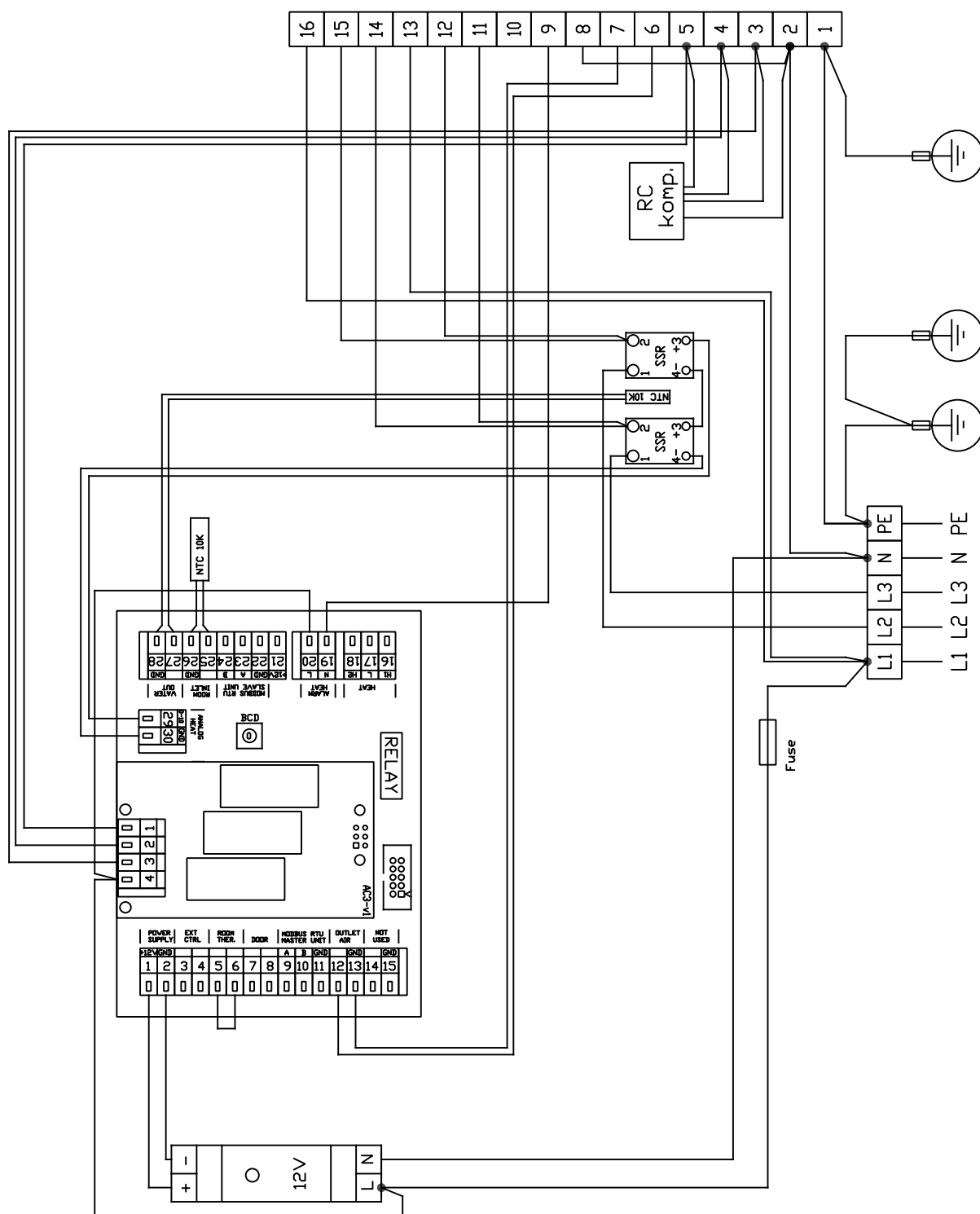


8. WIRING DIAGRAM



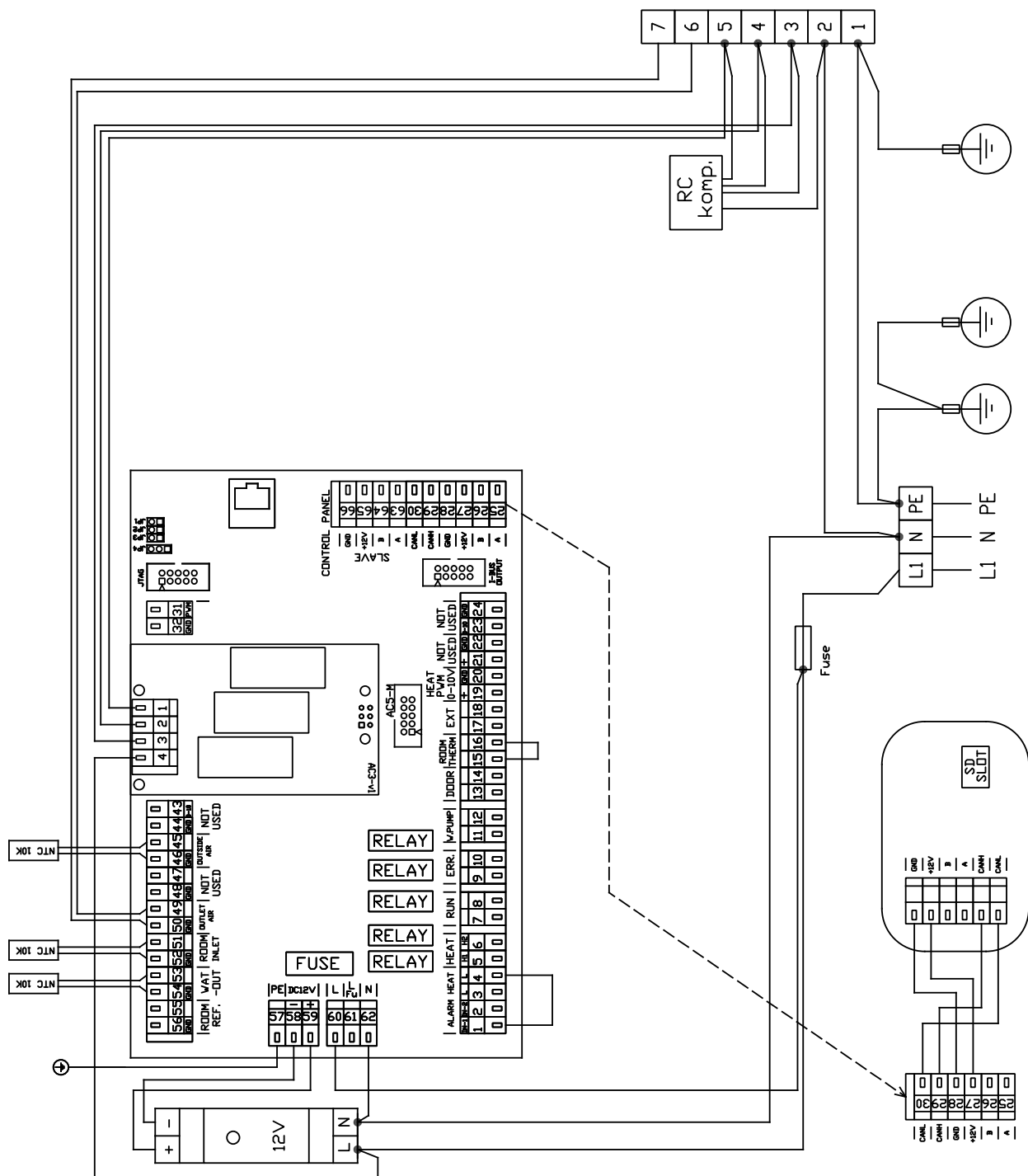
RGJ-VCES2-SU-E-SL-2-AC

8. WIRING DIAGRAM

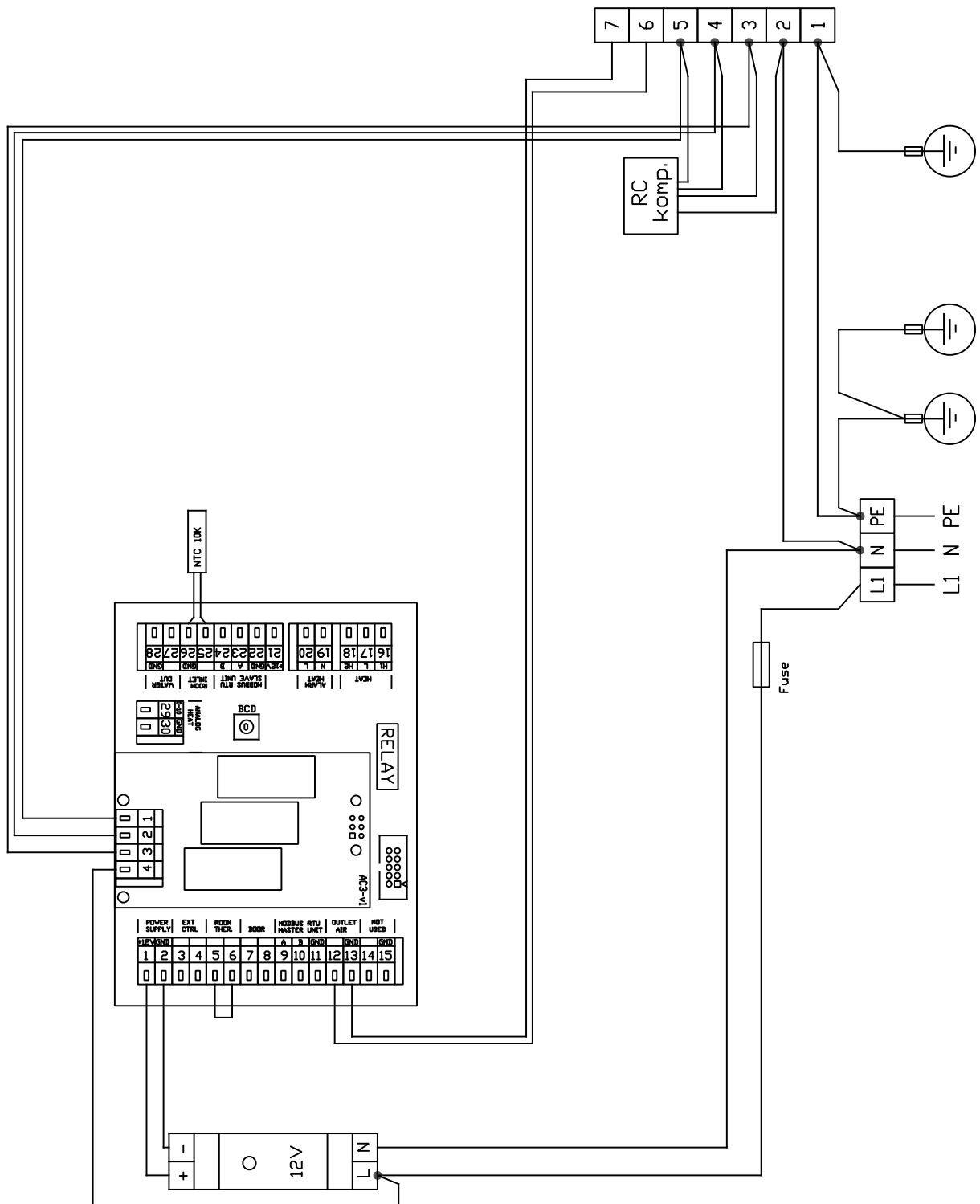


RGJ-VCES2-SU-V-MA-AC

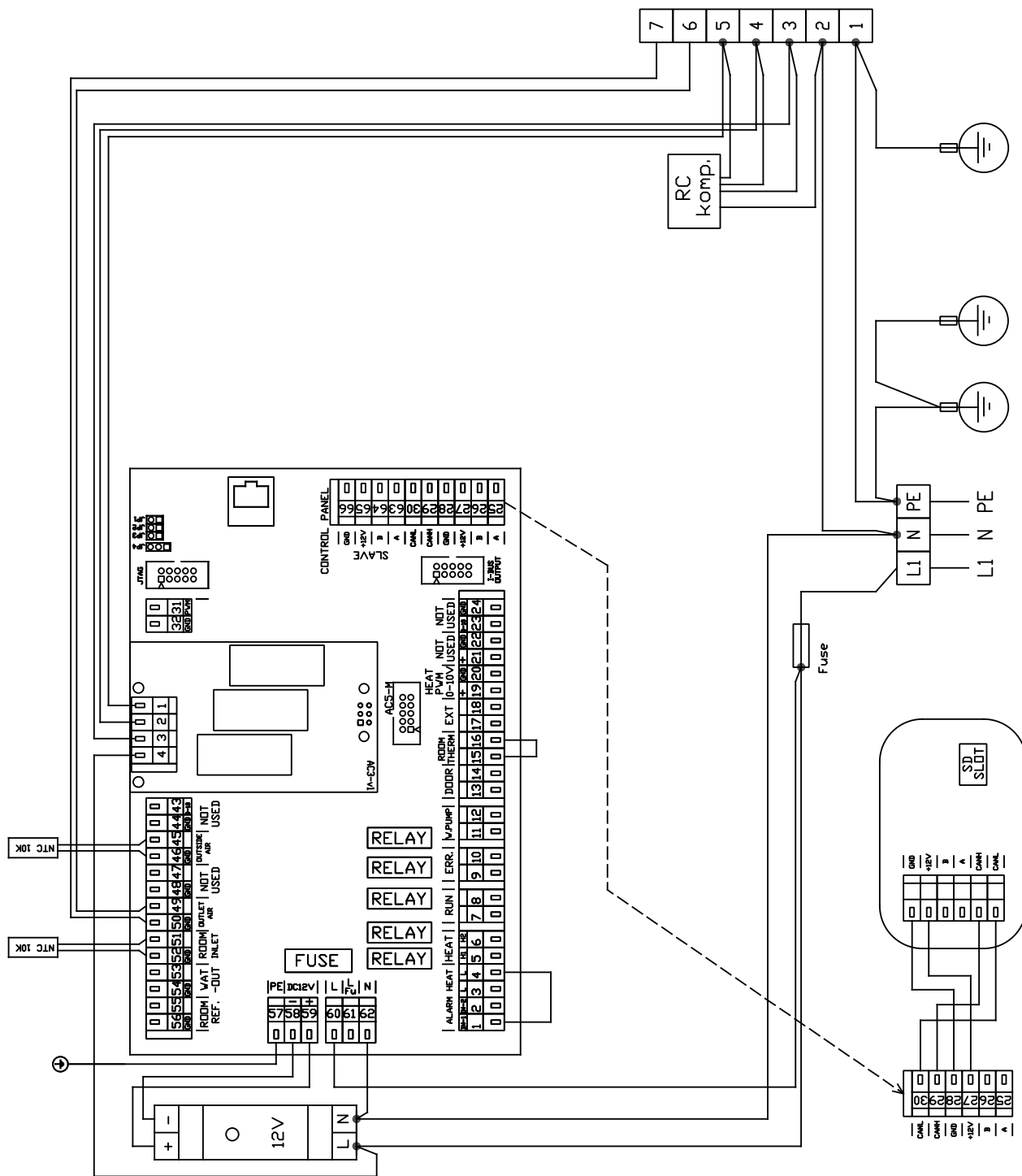
8. WIRING DIAGRAM



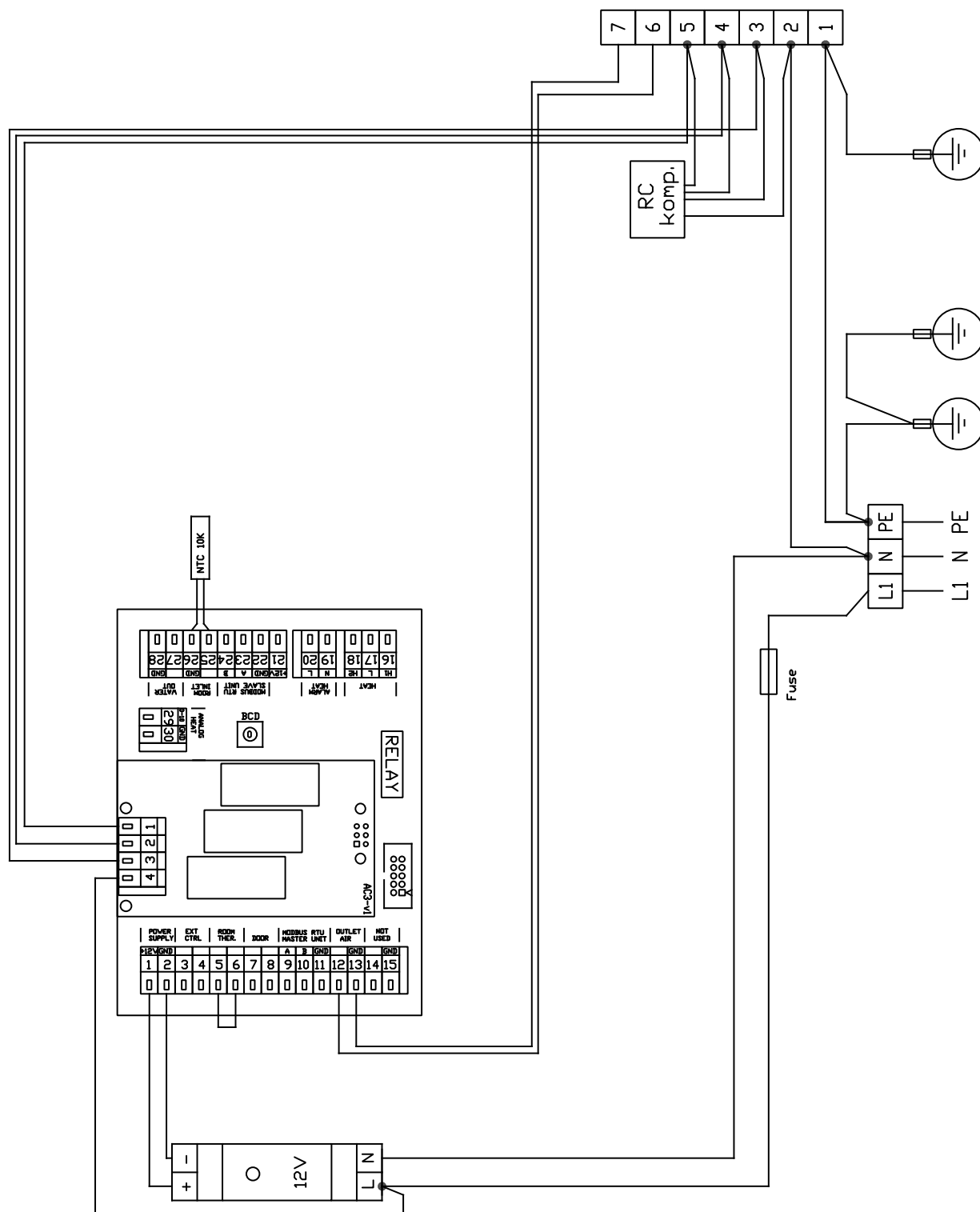
RGJ-VCES2-SU-V-SL-AC



RGJ-VCES2-SU-S-MA-AC



8. WIRING DIAGRAM



9. CONCLUSION

9. CONCLUSION

In case of any doubt or query, do not hesitate to contact our sales or technical support departments.

CONTACT

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