2VV

PARTNER
IN VENTILATION
2VV.CZ

VENESSE
COMFORT

Installation and operation instructions

$C \in$ EAC

CONTROL THE DELIVERY

PLEASE NOTE

Check the product for damages immediately after delivery In case 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.**
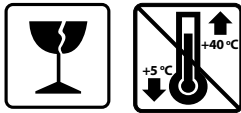
	All the packaging material is environmentally friendly and can be reused or recycled. Contribute actively to the protection of the environment and ensure the proper disposal or recycling of the packaging materials.	

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.
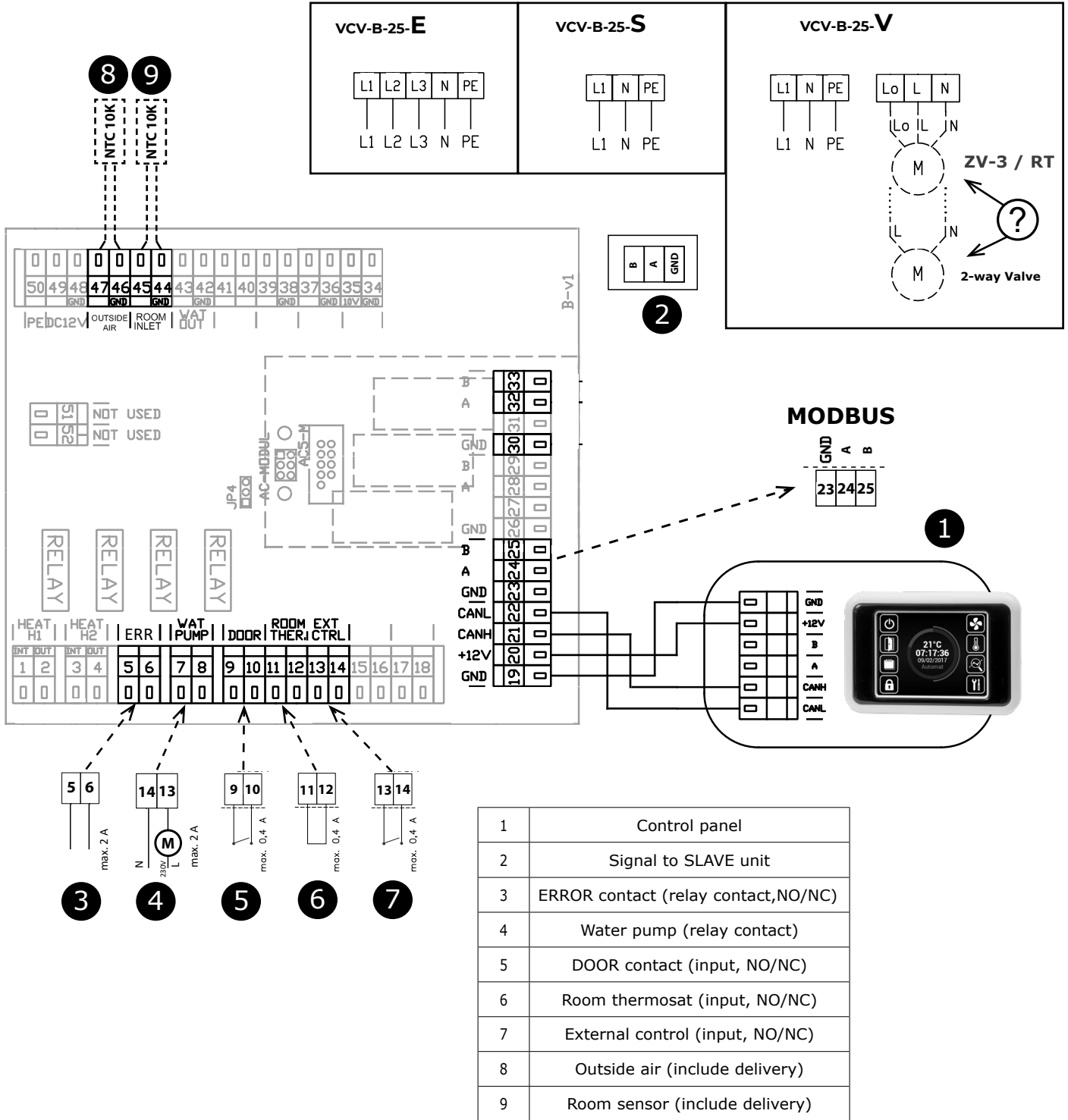
2W

1. INSTALLATION

1.1 CONNECTING THE CONTROL

1.

2.

3.

4.

5.

6.

CANL (22)
CANH (21)
+12V (20)
GND (19)
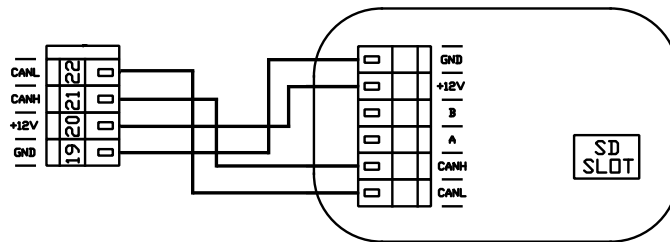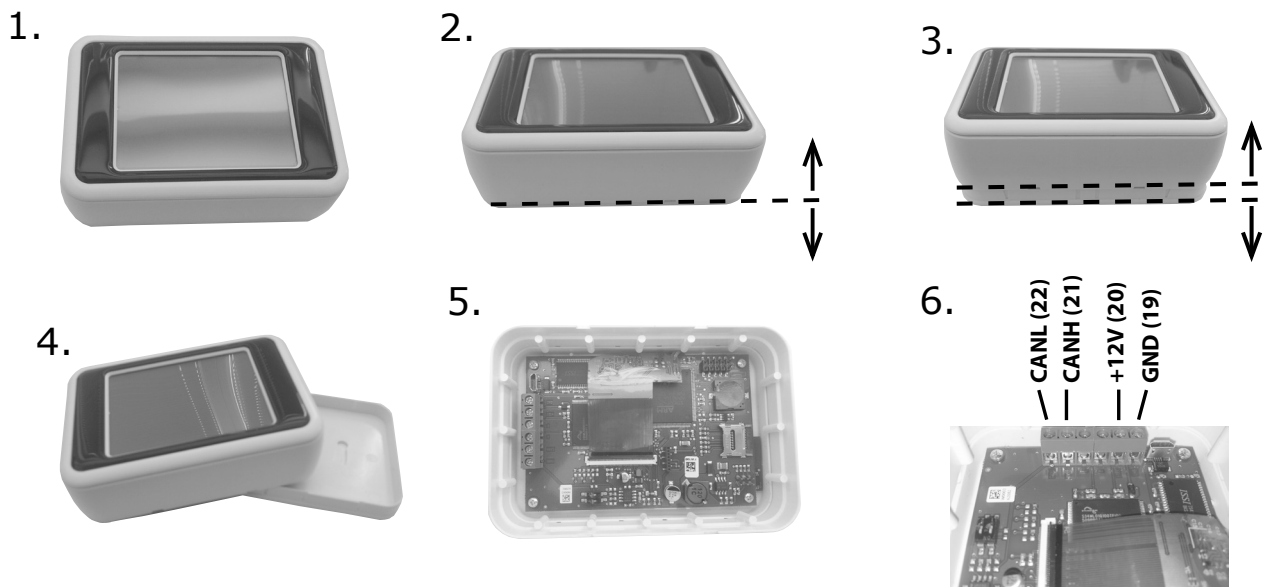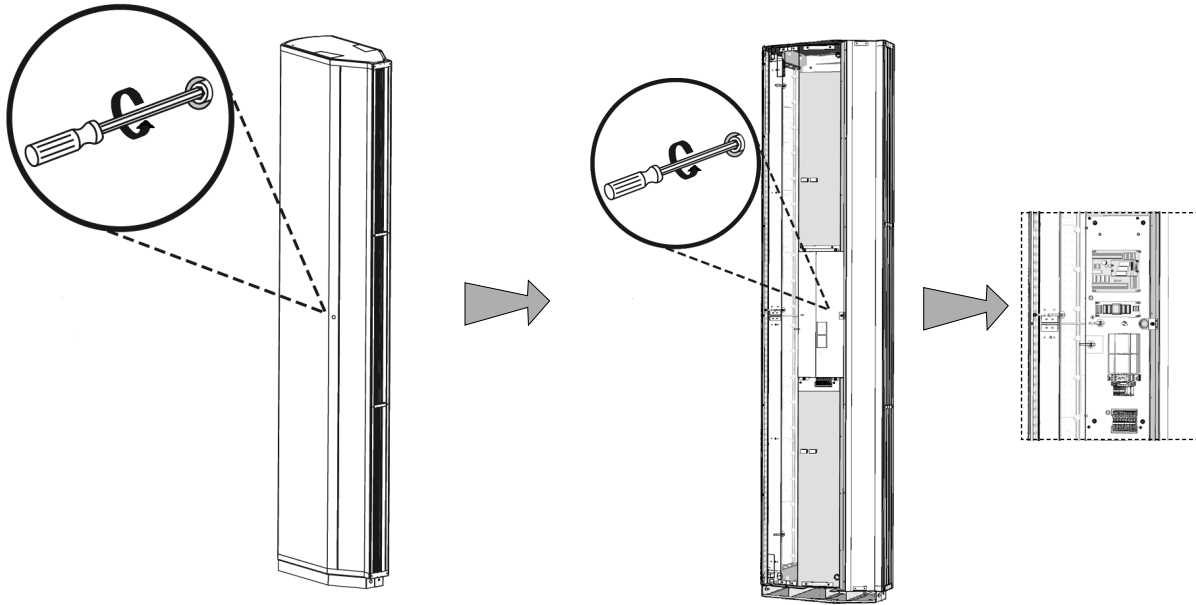
1. INSTALLATION

1.2 EXTERNAL ACCESSORIES

COMFORT MASTER
Regulation module Master Comfort

| 1	Control panel
2	Signal to SLAVE unit
3	ERROR contact (relay contact,NO/NC)
4	Water pump (relay contact)
5	DOOR contact (input, NO/NC)
6	Room thermosat (input, NO/NC)
7	External control (input, NO/NC)
8	Outside air (include delivery)
9	Room sensor (include delivery)

1. INSTALLATION

COMFORT SLAVE
Regulation module Slave Comfort

VCV-B-25-E	**VCV-B-25-S**	**VCV-B-25-V**

ZV-3 / RT

2-way Valve
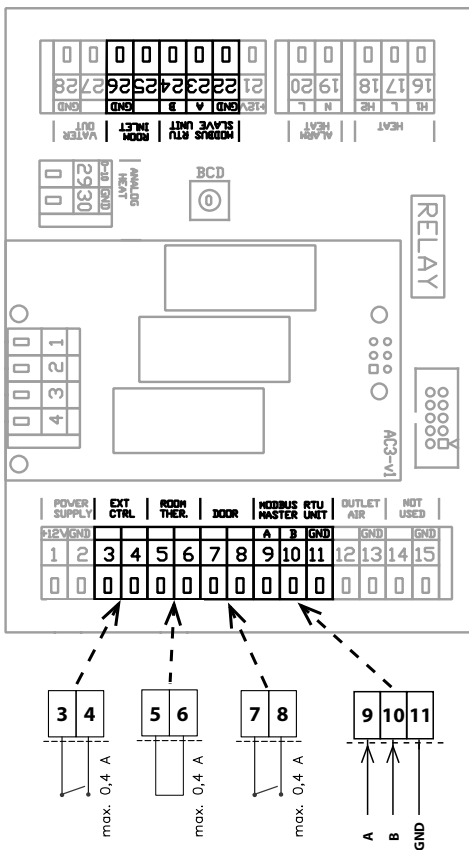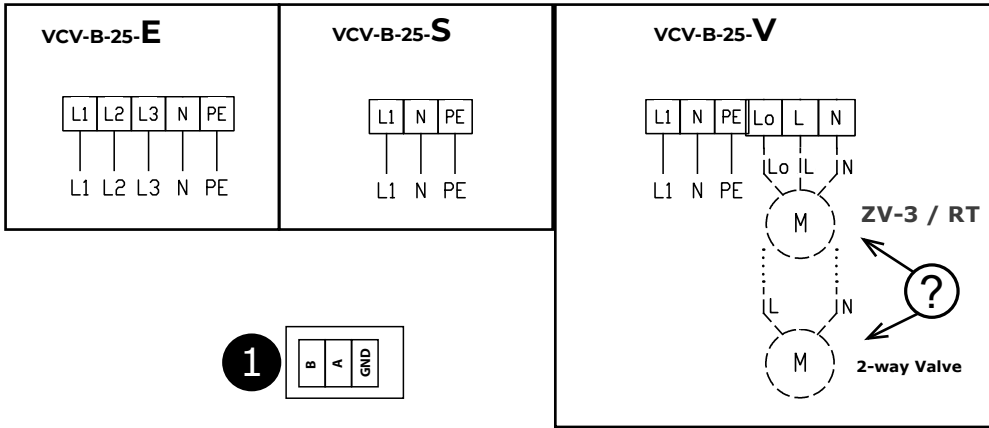
1	Connection for SLAVE unit
2	External control (input, ON/OFF)
3	Thermostat (input, NO/NC)
4	DOOR contact (input, NO/NC)
5	Control signal from MASTER unit

2VV

ELECTRICAL SCHEMES CHAINING
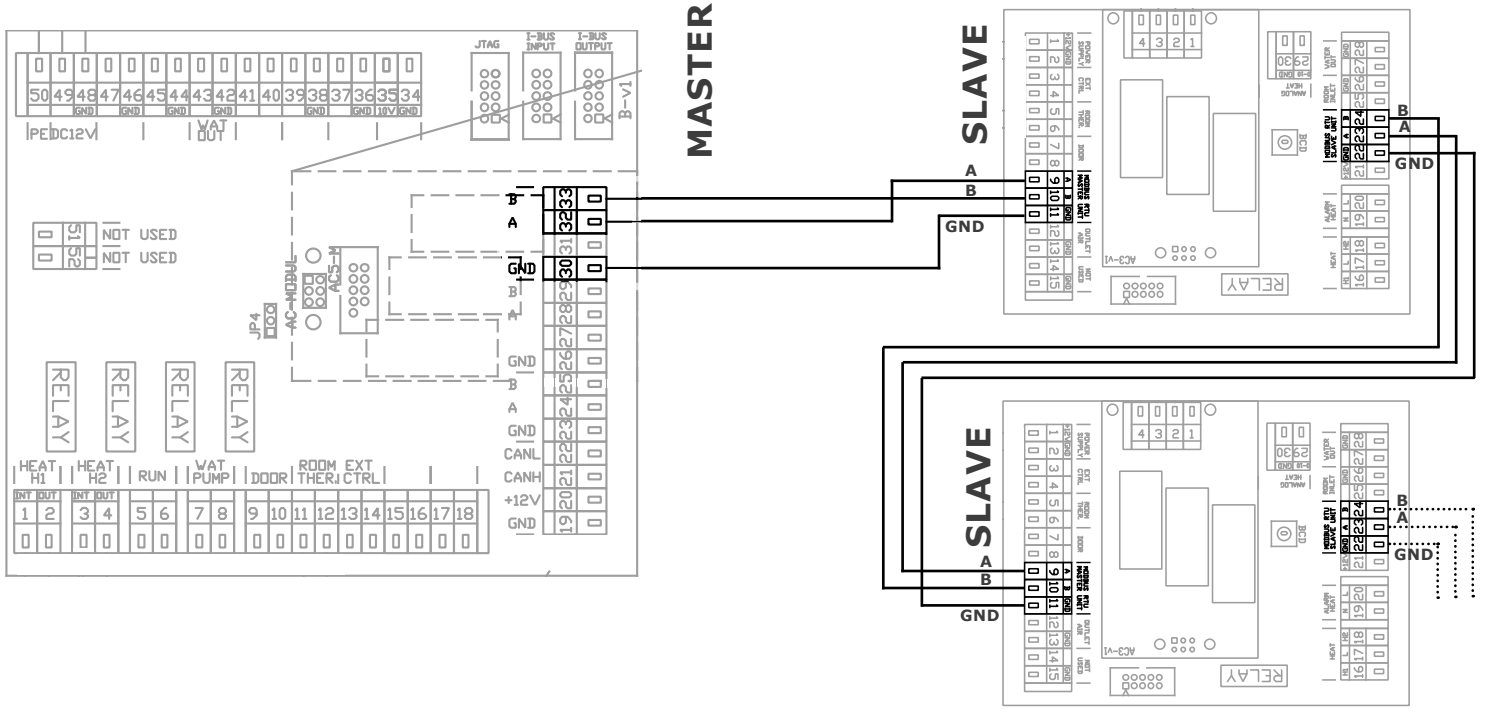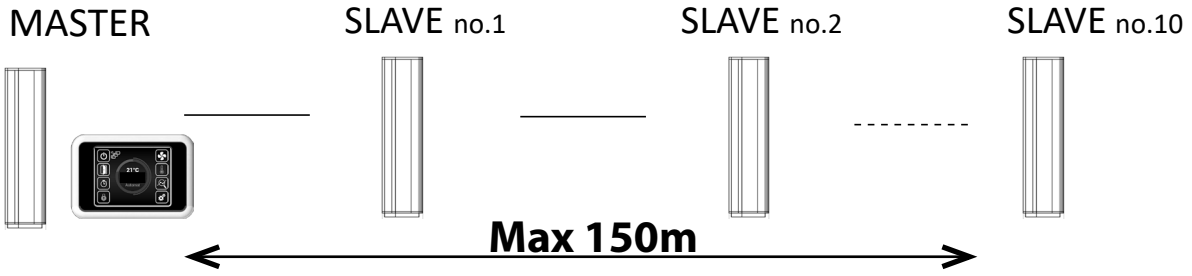
The total bus length of all chained curtains must not exceed 150m!!!
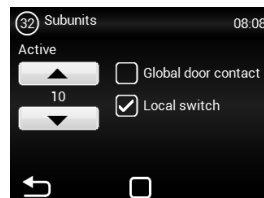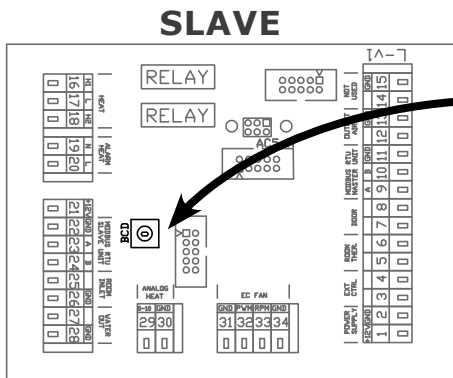
SLAVE	BCD ⓪	SLAVE	BCD ⓪
NO.1	1	NO.6	6
NO.2	2	NO.7	7
NO.3	3	NO.8	8
NO.4	4	NO.9	9
NO.5	5	NO.10	A

2W

1. INSTAIACE

Location of temperature sensors

Room Temperature Sensor - the sensor is included
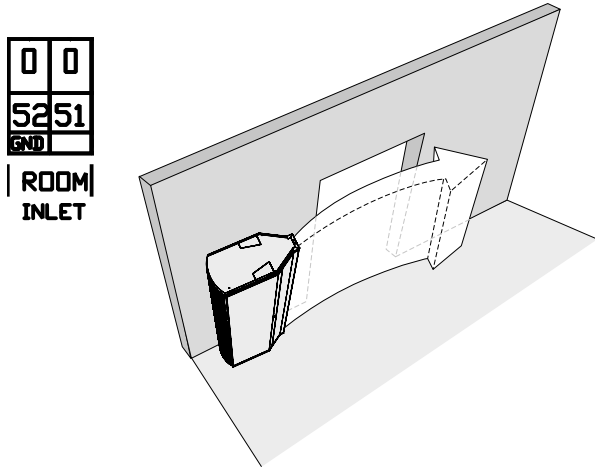
Outdoor temperature - the sensor is included
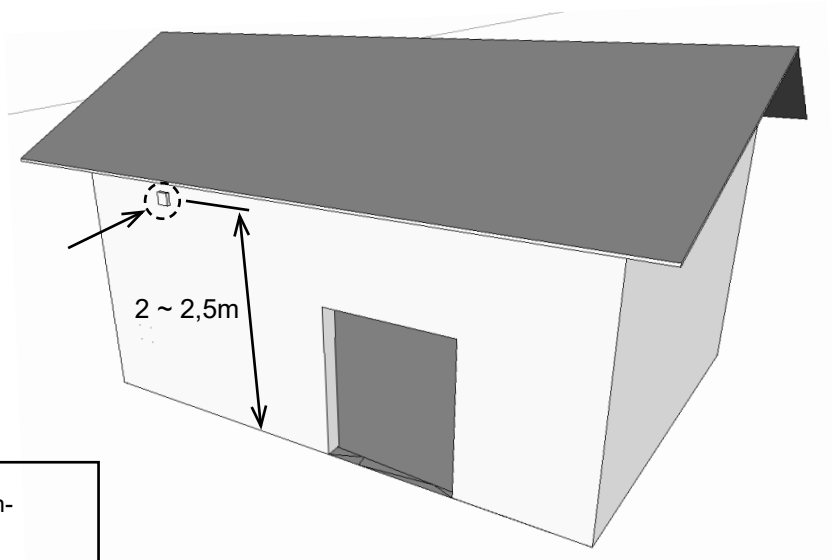
⚠️ The outdoor temperature sensor is recommended to be installed on the north side of the building, protected from direct sunlight or other undesirable thermal radiation.
The temperature sensor is recommended to be installed in a cover box that should contain a small hole for better results.

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.

2.1-1 DS door contact

⚙ *TECHNICAL INFORMATION*

- 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

⚠ *ATTENTION!*

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
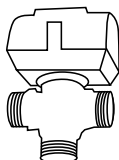
⚠ *CAUTION!*

Not included with the product.

2.1-4 Zone valve ZV3 / RT-3-xx

⚙ *TECHNICAL INFORMATION*

– Zone valve to regulate the water exchanger

– Cable - Three-core cable with a cross-section of 1.5 mm², 230 V/ 50 Hz.

⚠ *CAUTION!*
Not included with the product.

2. EXTERNAL ACCESSORIES

2.1-5 Room thermostat - TER-P
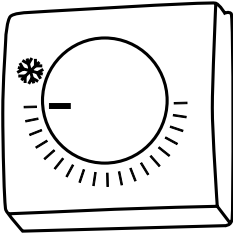
TECHNICAL INFORMATION

- Room thermostat to regulate heating
– Cable - Two-core cable with a cross-section of 0.5 mm^2, 230 V/ 50 Hz.

⚠ *ATTENTION!*

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?

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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.

⚠ *ATTENTION!*

- 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.
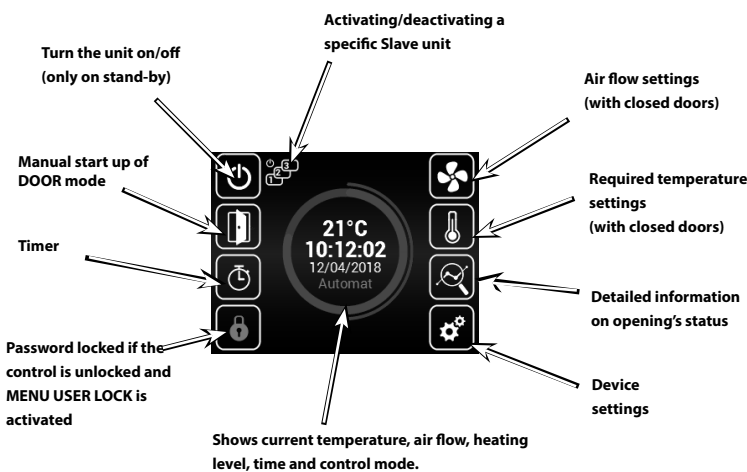
START-UP

After connecting power supply, the display lights up and the data is loaded.
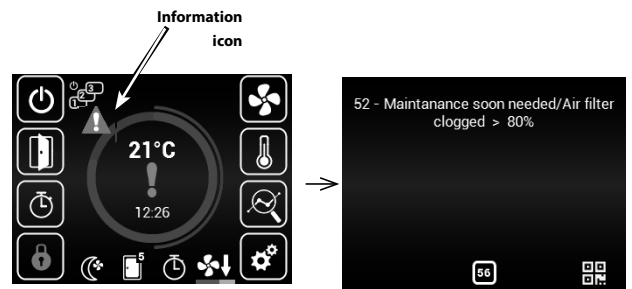The device is ready to be activated once the service data has fully loaded.
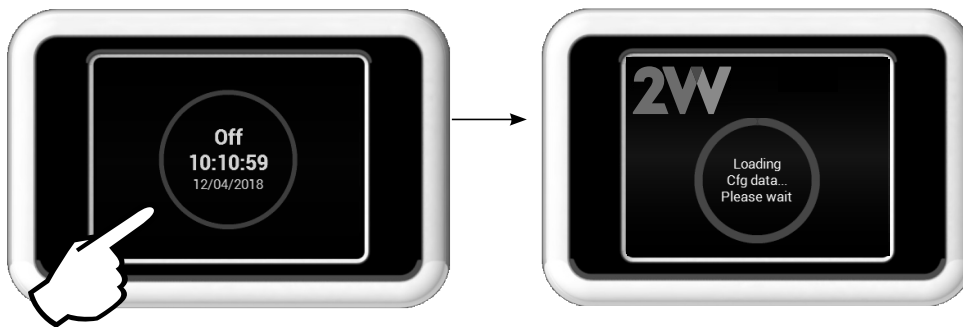
The remote control has a touch screen. The device is controlled tapping the symbols on the screen

Description of main screen

Activating/deactivating a specific Slave unit

Turn the unit on/off (only on stand-by)

Air flow settings (with closed doors)

Manual start up of DOOR mode

Required temperature settings (with closed doors)

Timer

Detailed information on opening's status

Password locked if the control is unlocked and MENU USER LOCK is activated

21°C
10:12:02
12/04/2018
Automat

Device settings

Shows current temperature, air flow, heating level, time and control mode.

🔍 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 icon

21°C
12:26

52 - Maintanance soon needed/Air filter clogged > 80%

Information icons

They only inform about status, not errors.

Warning icon

21°C
10:14:17
12/04/2018
Automat

Night reduction DOOR mode

Device cooling

Time mode

10

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4. CONTROL

Current status

This screen displays detailed status of the shutter and sensor values:
- Current set air flow (step or %), informational icons
- Air temperature for intake*, exhaust*, room temperature*, and temperature outside the building* (* - in the event that the necessary sensors are installed and enabled)
- Set heater power (if included)

If there are SLAVE shutters connected, the information from them is displayed here. Access to them is available by shifting the screen upward.
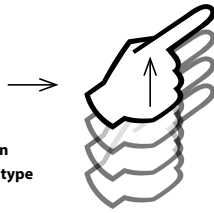
Exterior temperature

Heater power

Blower power

Spatial temperature

Return to previous screen

SP= required temperature

Indication of heating blockage (summer mode)

Information about unit type

Settings can be found in these instructions in the "SUBUNITS" menu.

Settings MENU

Display backlight

Language

Date and time

Setting air flow (for closed doors)

Timer

Setting required temperature (for closed doors)

Return to previous screen

QR code

Parameters

Required temperature settings with closed doors

Required temperature on selected temperature sensor in 1616/Temperature sensor (ROOM, ROOM BMS)

Reducing or increasing required temperature

Confirm + return

Required power
Manual mode = %
Automatic mode = °C

In the event that heating is suspended by summer mode (MENU - SUMMER HEATING), the "Sun" icon is displayed here without the option to select power.

Air flow settings with closed doors

Display required air flow (three speeds)

Display the current air flow status

Reduce or increase opening's air flow (with closed doors)
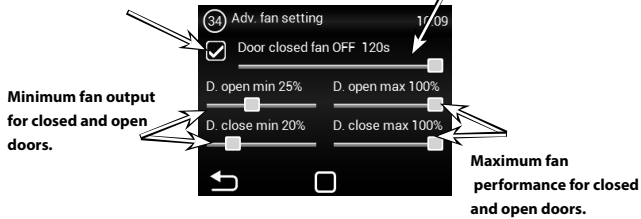
Confirm + return

2VV

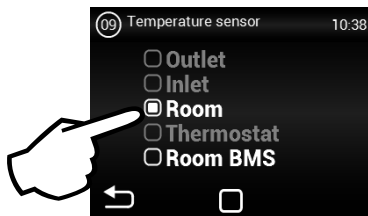# 4. CONTROL

Required temperature settings with closed doors

In menu 34 Adv. Fan settings you can select if you want the fan to contiue when the set point is reached or if you want the fan to stop. (Default)

Date and time settings

When selecting this function the fan will stop when the set point for room temperature is reached. When its not selected the fan will always run.

Setting the time when the curtain will operate after the door is closed.
Even when the set room temperature is reached

Setting current date and time

Minimum fan output for closed and open doors.

Maximum fan performance for closed and open doors.

Confirm + return

Return to main screen

To activate this function, you need to select the room thermostat sensor in menu 09.

If this is not activated, the curtain will turn off immediately after the door is closed, but the desired temperature must be reached.

4. CONTROL

Timer

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

Schedule 09:10

Activate/deactivate timer

Enable

Weekly mode

week regime

Annual mode

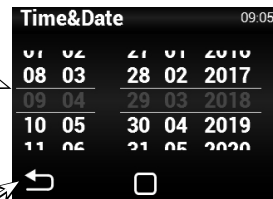year regime

Confirm + return

Back to main screen

Weekly mode

Tap on a day to set different time modes

Button to copy the day plan to another day

Thursday
Copy to :

Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

Copy + return

Copy to

Annual mode

year regime

01/01 - 14/02
60% 20°C

01/03 - 14/03
60% 20°C

Tap to add a new time mode

START / STOP interval

Start
14 / 03

Stop
24 / 03

0%

0°C

CANCEL

Off mode

Only MANUAL

Fan 20%

Required ventilation rate in annual mode

Temperature 0°C

Required heating rate in manual mode

Language

There are 5 languages available

Language 10:45

Select language

Suomea

English

Français

Confirm + return

Back to main screen

Confirm selection

Lightning settings

Display 10:59

On mode

Display backlight when on

Standby

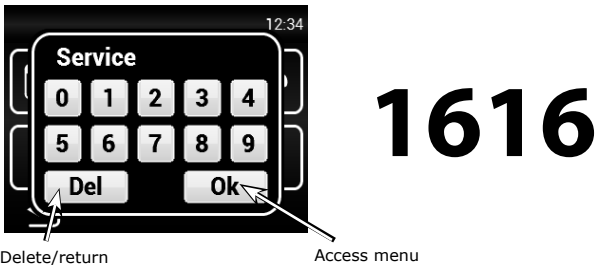Confirm + return

Lightning level on stand-by

Back to main screen
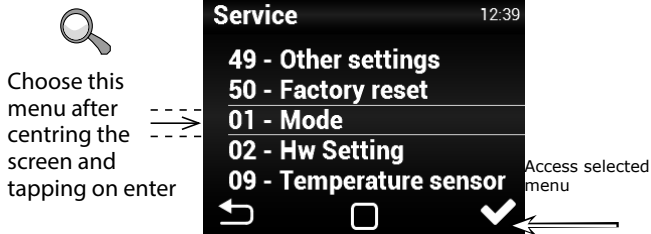
4. CONTROL

Service menu

Enter code 1616 to access the service menu

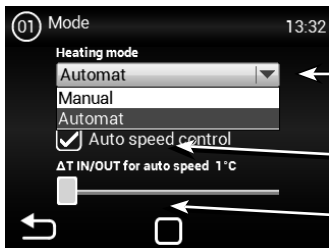**1616**

Delete/return

Access menu

Choose this menu after centring the screen and tapping on enter

Access selected menu

MENU - MODE

Select heating mode MANUAL / AUTOMATIC

Activate / deactivate automatic speed control.

Setting the difference between outdoor and indoor temperature.

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

Manual: works according to the set heating / ventilation output

Automat: Heats automatically and trying to reach the desired temperature on the selected sensor (ROOM,BMS) the fan works according to the set performance. if it is not selected (Auto speed control)

Auto speed control: automatically regulates the fan's power on the basis of the difference temperature

MENU - HW SETTING

Use this menu to set the detailed behaviour of the inputs and outputs of the regulators
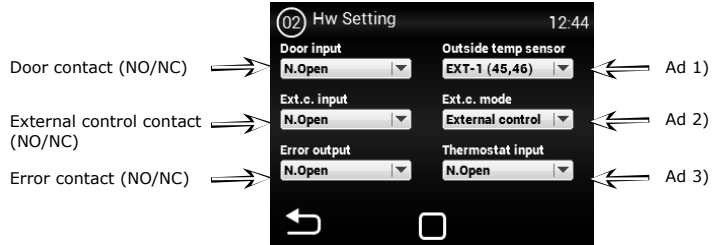
Door contact (NO/NC)

External control contact (NO/NC)

Error contact (NO/NC)

Ad 1)

Ad 2)

Ad 3)

Ad 1) – External temperature sensor activation/settings
  None - no sensor is connected - inactive
  EXT-1 (45,46) - sensor connected (must be on terminals 45 and 46)
  BMS - temperature sensor active and used from the parent system

Ad 2) - Sets the external contact input behaviour. Options:
  None – inactive
  External control – External switching of device
  Night reduction - Activation/deactivation of the night attenuation
      (settings described later in this manual)

Ad 3) - Thermostat (NO/NC)

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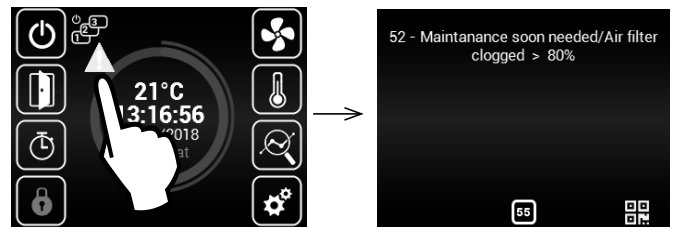
Set the time after which a notice will appear in the main screen.

1000h ~ 5000h

Current timer status

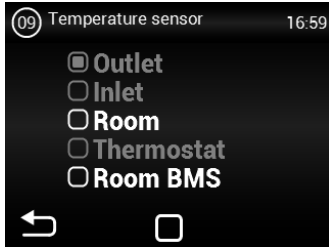RESET button (use after replacing filters)

Shows the status of the clogged filter in the main screen

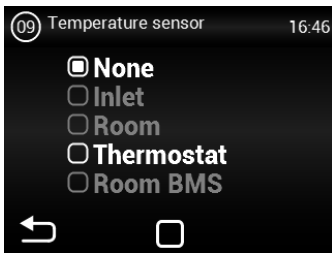52 - Maintanance soon needed/Air filter clogged > 80%

4. CONTROL

MENU - TEMPERATURE SENSOR

Available only in automatic mode
Use this menu to select the sensor to be used for primary temperature control

Options:

None
Room – Room temperature sensor
Room BMS – Room temperature sensor from master system

Available only in manual mode.

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
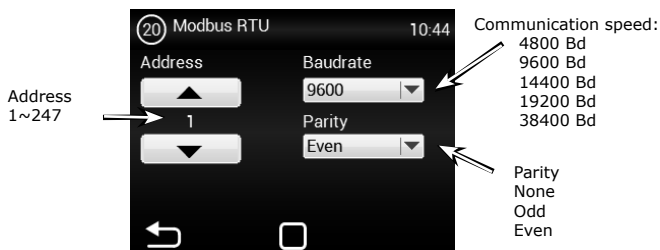
⚠ An incorrect setting may prevent communication with the regulator

MENU - USER LOCK

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

Limit level – see Ad1)
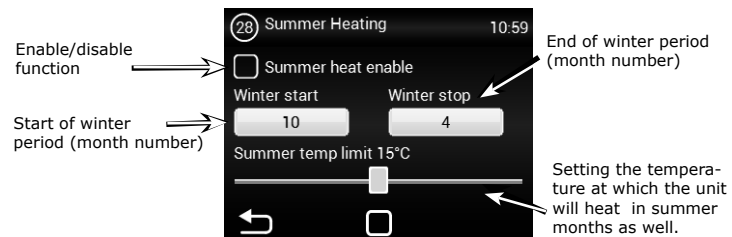
Enter PIN 0000~9999 (numeric values only)
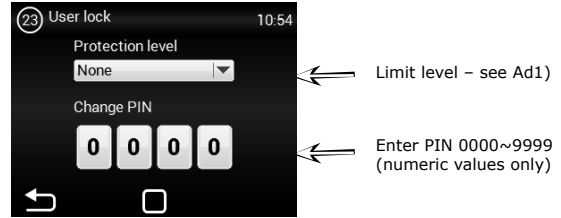
Options:
None – Limit inactive
On/Off – Only On/Off and access to the information menu are enabled in the main screen
On/Off, Temp, Flow – On/Off, the information menu, and temperature and air flow settings can be accessed without password.
Full – Only the information menu can be accessed without password
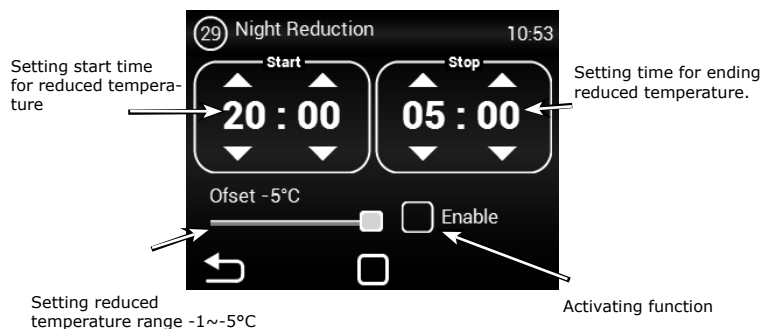**User mode** – Special user mode, see image below

MENU - SUMMER HEATING

Use this menu to set heating limits in summer months
Winter mode set by default. Enabling the function allows heating also in summer

Enable/disable function

End of winter period (month number)

Start of winter period (month number)

Setting the temperature at which the unit will heat in summer months as well.

MENU - Night Reduction

This MENU allows for setting reduced temperatures during night hours with closed doors.

Setting start time for reduced temperature

Setting time for ending reduced temperature.

Setting reduced temperature range -1~-5°C

Activating function

In this menu, the reduction of temperature may be set only by five degrees at the set time compared to the set (required) temperature.

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4. CONTROL

MENU - DOOR CONTACT

🔍 This MENU allows for setting the behaviour of the regulator according to doors contact

Activation/de-activation of this function

Mode:
Fixed - fixed setting
Selflearning - automation menu

30 Door Contact   07:41
☑ Door contact enable
Door mode
Fixed

Fixed mode setting

Setting Fixed mode

Time interval

Blower power with open doors

Flow open door 80%

Temperature open door 28°C

Required temperature with open doors

Suspend mode: at a set time, or upon achieving a specific temperature

Overrun mode
time interval   Setting
disable
time interval
temperature

30 Overrun setting   17:09
Time on mimimal speed 30s

Time on maximal speed 280s

Time of shutter operation per minimum rotation of the motor from closed doors.

Time of shutter operation per maximum rotation of the motor from closed doors.

Temperature

Flow open door 80%

Temperature open door 21°C

Overrun mode
temperature   Setting

Blower power with open doors.

The temperature the shutter attempts to reach with open doors.

Room
Outlet
Inlet
Room
Thermostat
Room BMS

30 Overrun setting   08:32
sensor select
Room
temperature 25°C

In this menu it is possible to specify which sensor will be active and the temperature the shutter
will attempt to reach after closing doors so as to balance temperature loss.
After reaching the set temperature, the shutter transitions into the selected automatic/manual mode.

MENU Selflearning

30 Door Contact   15:10
☑ Door contact enable
Door mode
Selflearning
Fixed
Selflearning

Selflearning- available only in automation and active function mode (Auto speed control), depending on the number of open doors it optimises the period in which the shutter is in operation, even when doors are closed.

Must be set to activate Selflearning.

01 Mode   08:58
Heating mode
Automat
☑ Auto speed control
ΔT IN/OUT for auto speed 1°C

MENU - WATER ANTIFREEZE

🔍 The menu is enabled only in units with water exchanger

Settings (20%-100%)

31 Water antifreeze   15:49
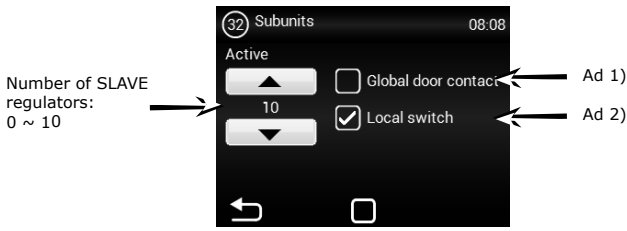Antifreeze air 5°C

Antifreeze water 10°C

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

4. CONTROL
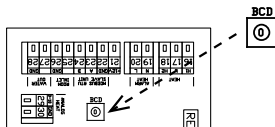
MENU - SUBUNITS

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

Number of SLAVE regulators: 0 ~ 10

Screen shows: (32) Subunits 08:08 — Active — 10 — Global door contact → Ad 1) — Local switch → 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
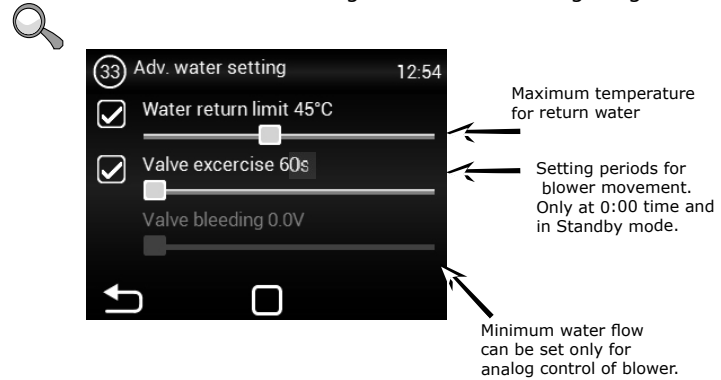
Ad 2) – Activates in the main screen the icon to turn each SLAVE regulator ON/OFF If inactive, all the SLAVE regulators will be turned on or off simultaneously

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

☑ Allowed = The SLAVE regulators can be turned on/off individually form the main screen
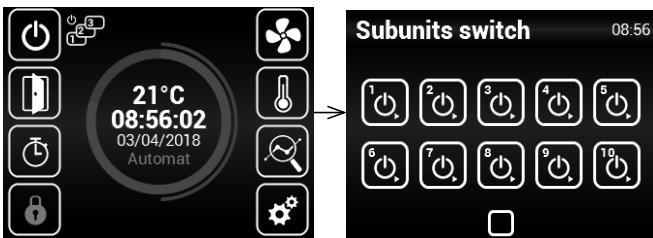
MENU - Adv. WATER SETTING

This MENU is available only for units with water heat exchanger it allows for advanced setting of water heat exchanger regulation.

Screen shows: (33) Adv. water setting 12:54 — Water return limit 45°C — Valve excercise 60s — Valve bleeding 0.0V
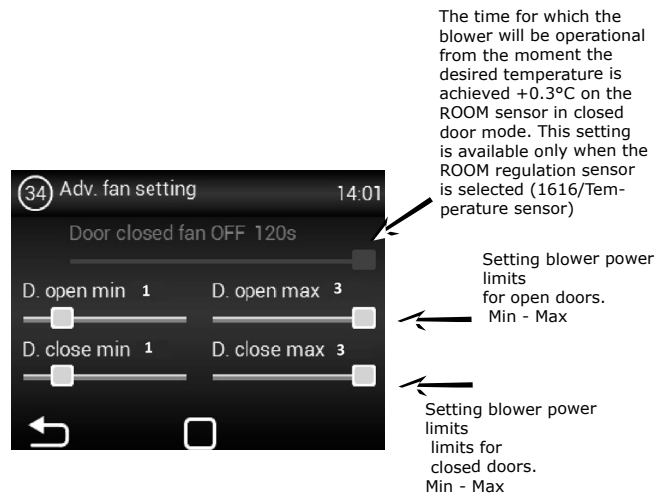
Maximum temperature for return water

Setting periods for blower movement. Only at 0:00 time and in Standby mode.

Minimum water flow can be set only for analog control of blower.

MENU - Adv. fan setting

The MENU for setting the blowers when closing and opening doors. It allows for advanced settings of blower control.

The time for which the blower will be operational from the moment the desired temperature is achieved +0.3°C on the ROOM sensor in closed door mode. This setting is available only when the ROOM regulation sensor is selected (1616/Temperature sensor)

Screen shows: (34) Adv. fan setting 14:01 — Door closed fan OFF 120s — D. open min 1 — D. open max 3 — D. close min 1 — D. close max 3

Setting blower power limits for open doors. Min - Max

Setting blower power limits limits for closed doors. Min - Max

The set limits on blower power restrict the extent of blower control for open and closed doors. This restriction is applied to manual and automatic control of blower power. Exceeding limits in any blower power setting is signalled when the setting element turns red with the text overruns.

2W

4. CONTROL

MENU - OTHER SETTINGS

Use this menu to set the remaining parameters

Ad 1)

Enable/disable automatic
switch of
summer/winter time
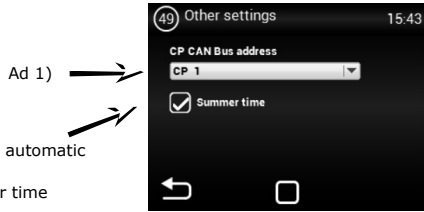
Ad 1) – Sets the CAN address of the control panel so up to 2 control panels
may be connected to the MASTER regulator
Options: CP 1 = control panel's address is 1
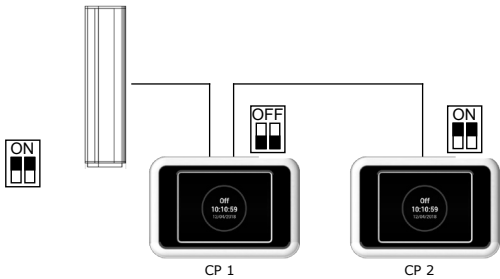CP 2 = control panel's address is 2

⚠️ *ATTENTION!*

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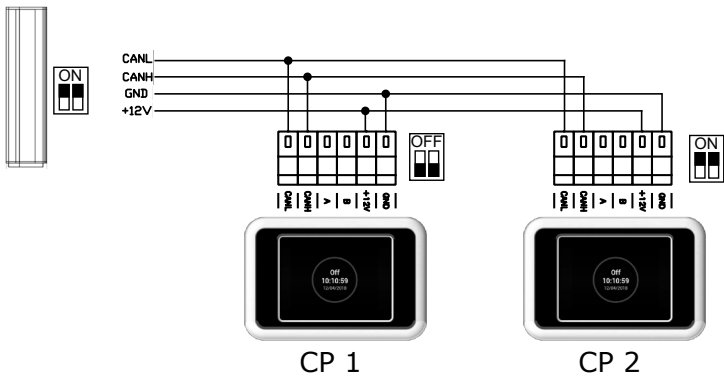otherwise it may result in the malfunction of the regulator.

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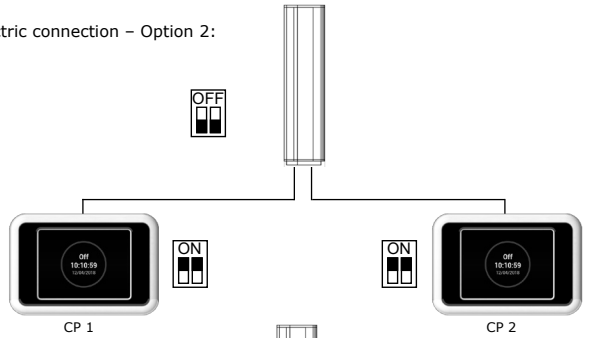the controller:

Terminal settings
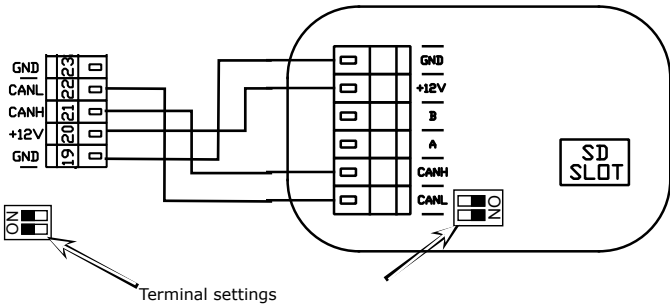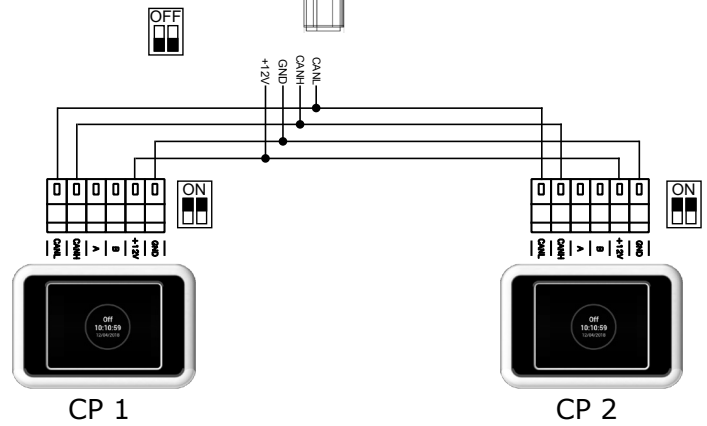
Example of controller connection – Option 1:

Electric connection – Option 1:

Electric connection – Option 2:
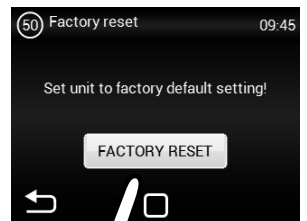

Electric connection – Option 2:

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.

2VV

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.
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.
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.

⚠️ *ATTENTION!*

Switch off the main power supply before any intervention inside the unit. Let the unit cool!

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2VV.Creating innovative solutions for you and your business since 1995.

6. MAINTENANCE

6.1 CLEANING

⚠ *ATTENTION!*

- 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. CONCLUSION

8. CONCLUSION

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

CONTACT

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