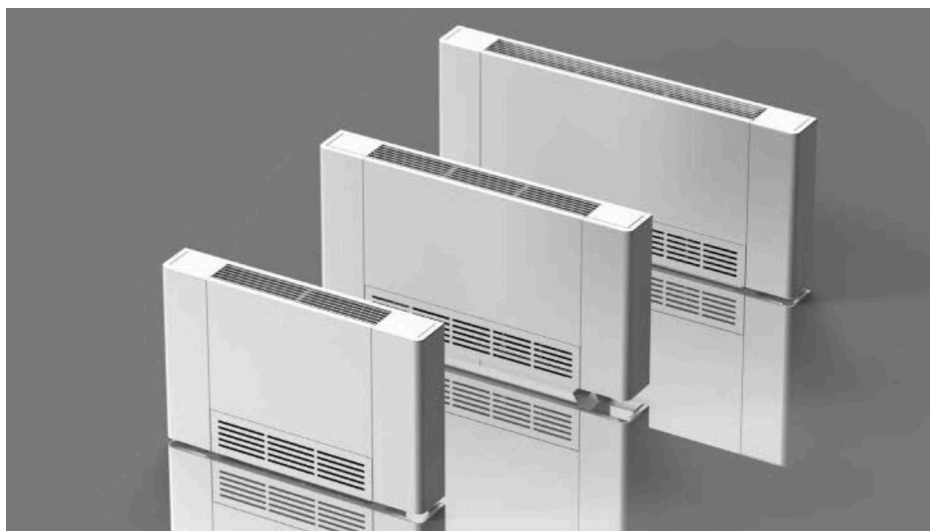




Mareli Systems

STEP FORWARD

FANCOIL RADIATOR
AMG 890 / 1090 / 1290



Important information

On delivery, check the availability of all components. If something is missing, contact the representative of “MARELI SYSTEMS Ltd.” who sold you the device.

The devices must be installed by an authorized installer, who, upon completion of the work, will issue to the customer the complete documentation related to the device.

These appliances are intended for indoor cooling and / or heating and must be used only for this purpose and according to their performance.

“MARELI SYSTEMS Ltd.” is not responsible for any damage resulting from improper installation, adjustment, maintenance or improper use.

In case of water leaks, switch off the main circuit breaker to the “OFF” position and close the water taps. Contact the technical service department of MARELI SYSTEMS Ltd or other professionally qualified personnel as soon as possible and do not take action on the appliance.

If the product is not used for a long time, please do the following:

- Turn the system main switch to the “OFF” position.
- Close the water taps.
- If there is a risk of freezing, check that antifreeze has been added to the system; otherwise, empty the system.

It is very important to keep the user manual ALWAYS with the appliance, even if it is handed over to its new owner or user or transferred to another system.

All repair or maintenance work must be carried out by the maintenance department or by qualified personnel. Do not modify or repair the appliance, as this may create dangerous situations and the manufacturer will not be liable for any damage.

Danger of burns - be careful when touching.

IMPORTANT:

Once the installation is complete the fan-coil becomes a stationary unit and can't be moved.

Safety rules

When using a product that runs on electricity and water, you need to follow some basic safety rules, such as:

It is forbidden to make changes in the safety or regulation devices or to make adjustments without permission and instructions from the manufacturer.

It is forbidden to use the appliance by children or unsupervised people with disabilities.

It is forbidden to touch the appliance with wet hands or body when you are barefoot.

It is forbidden to carry out any cleaning before disconnecting the appliance from the mains by switching off the main switch.

It is forbidden to pull, cut or tie a knot on the electrical cables coming out of the appliance, even if it is disconnected from the mains.

It is forbidden to poke with objects or others in the grilles of the air inlet and outlet.

It is forbidden to open the doors to access the internal parts of the appliance without first switching off the main switch of the system.

It is forbidden to throw away or leave packaging materials that may be a source of danger in places where they can be reached by children.

It is forbidden to climb on the appliance or place objects on it.

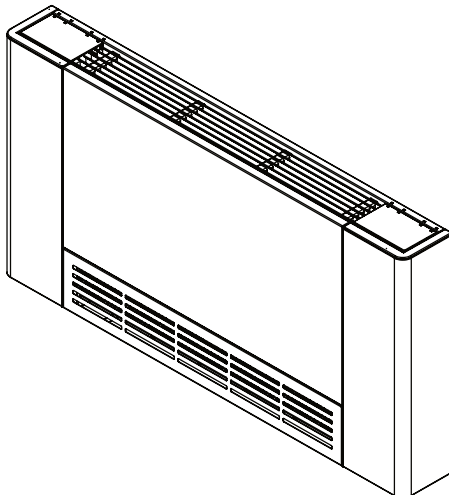
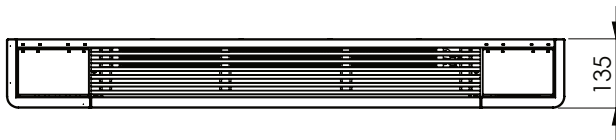
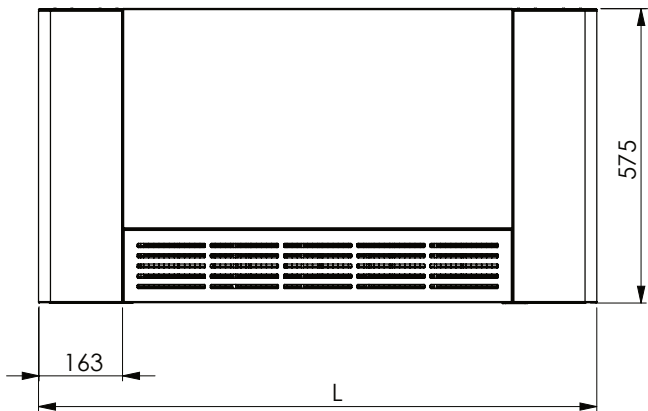
The outside of the appliance may reach a temperature higher than 70 ° C.

Technical characteristics for model AMG				
		AMG890	AMG1090	AMG1290
Fan flow - max.	m3/h	230	370	420
Fan flow - min.	m3/h	110	180	360
Total cooling capacity (high – power)	(W)	1710	2410	3440
Total cooling capacity * (med – power)	(W)	1250	1980	2620
Total cooling capacity (low – power)	(W)	870	1450	1710
Total heated power **	max (W)	3800	6000	7900
	med (W)	3300	5200	6900
	low (W)	1000	1540	2040
Total heated power ***	max (W)	2340	3700	4900
	med (W)	1990	3150	4170
	low (W)	550	870	1150
Noise	dB(A)	32	35	37
Power supply	230V,50Hz	230V,50Hz		
Power consumption	W	12	18	23
Water flow	m3/h	0,34	0,44	0,61
Input heat exchanger	∅	3/4"		
Heat exchanger output	∅	3/4"		
Heat exchanger	type	Highly efficient heat exchanger with copper tubes and aluminium fins		
Maximum operating pressure	bar	16		
Connect the condensing pipe	mm	∅ 16		
Dimensions (L / W / H)	mm	890/135/594	1090/135/594	1290/135/594

* Cooling capacity at water 7 ° C / 12 ° C and room temperature DB 27 ° C and 19 ° C WB (according to EN 1397)

** Heating capacity at water 70 ° C and room temperature 20 ° C (according to EN 16430-2)

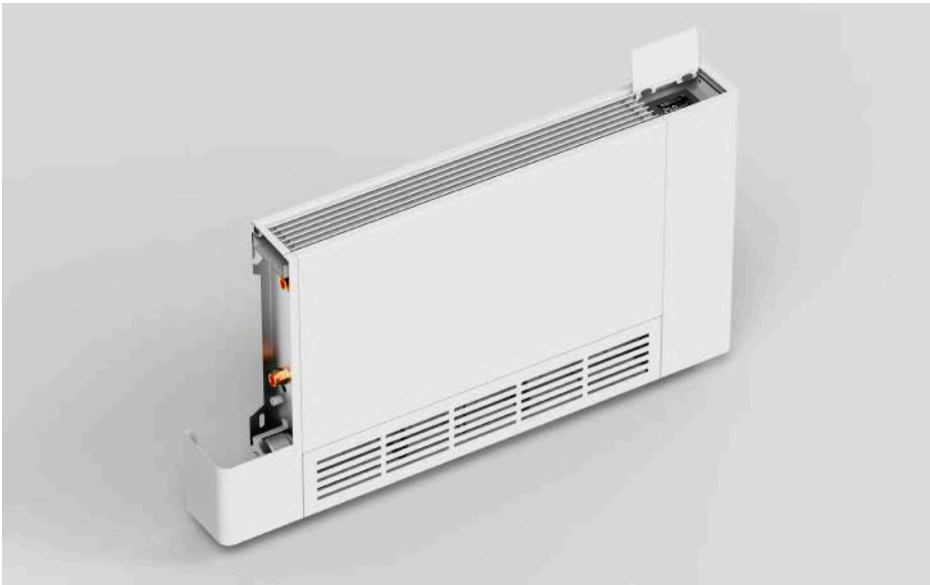
*** Heating capacity at water 50 ° C and room temperature 20 ° C (according to EN 16430-2)



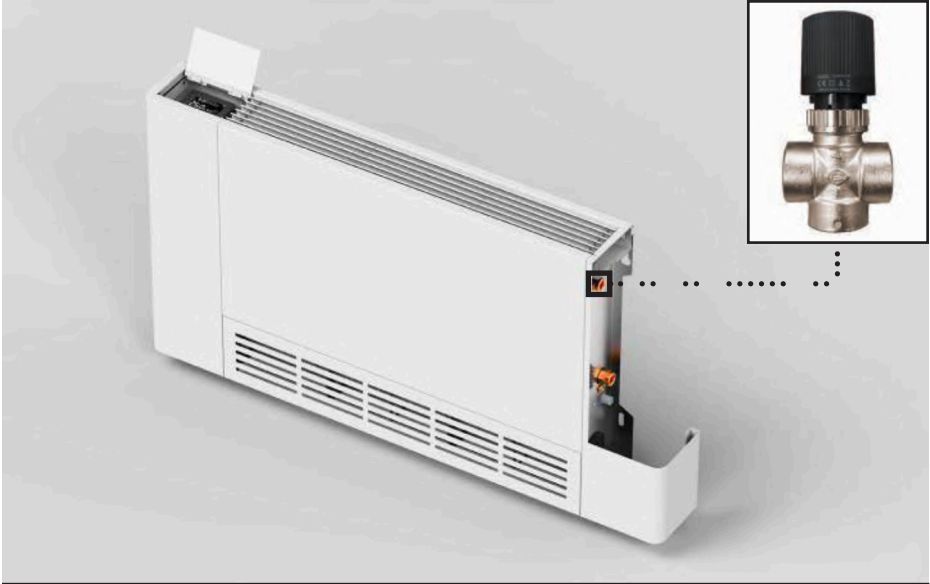
FANCOIL RADIATOR	AMG890	AMG1090	AMG1290
L	890	1090	1290



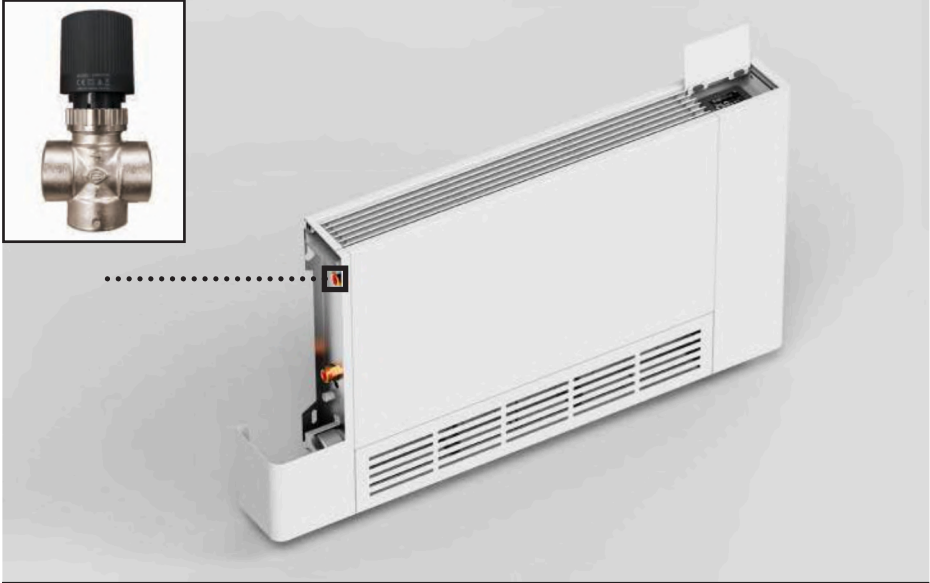
The right sided version of the fan-coil



The left sided version of the fan-coil



The right sided version of the fan-coil
3-way valve option available



The left sided version of the fan-coil
3-way valve option available

INSTALLATION

Device placement

Avoid installing the appliance near:

- places exposed to sunlight;
- close to heat sources;
- in damp rooms or in places with possible contact with water;
- in places with oily fumes
- in places exposed to high frequencies.

Make sure that:

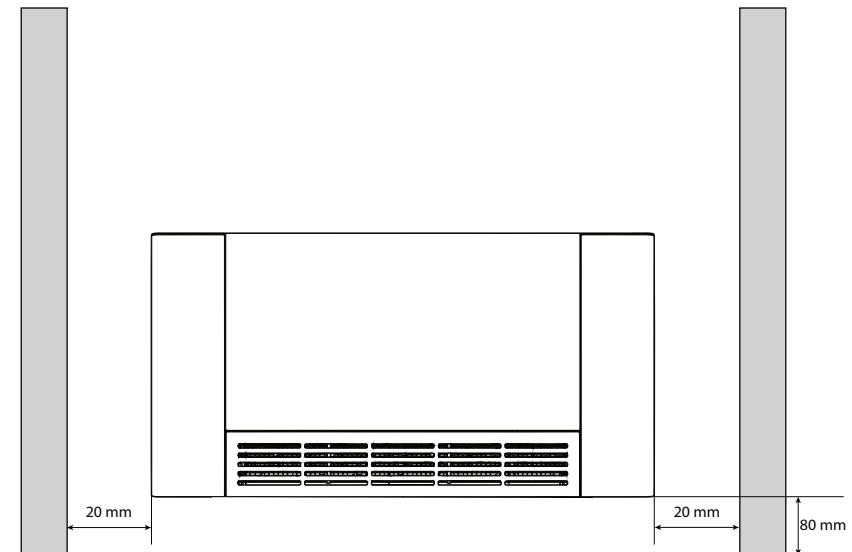
- the wall on which the appliance is to be mounted is strong enough to support its weight;
- no pipes or electrical cables pass through the part of the wall in question;
- the wall in question is perfectly smooth;
- there is a place without obstacles that may obstruct the air flow at the entrance and exit;
- the mounting wall is preferably a wall from the outer perimeter, which allows condensate to drain out during cooling mode ;

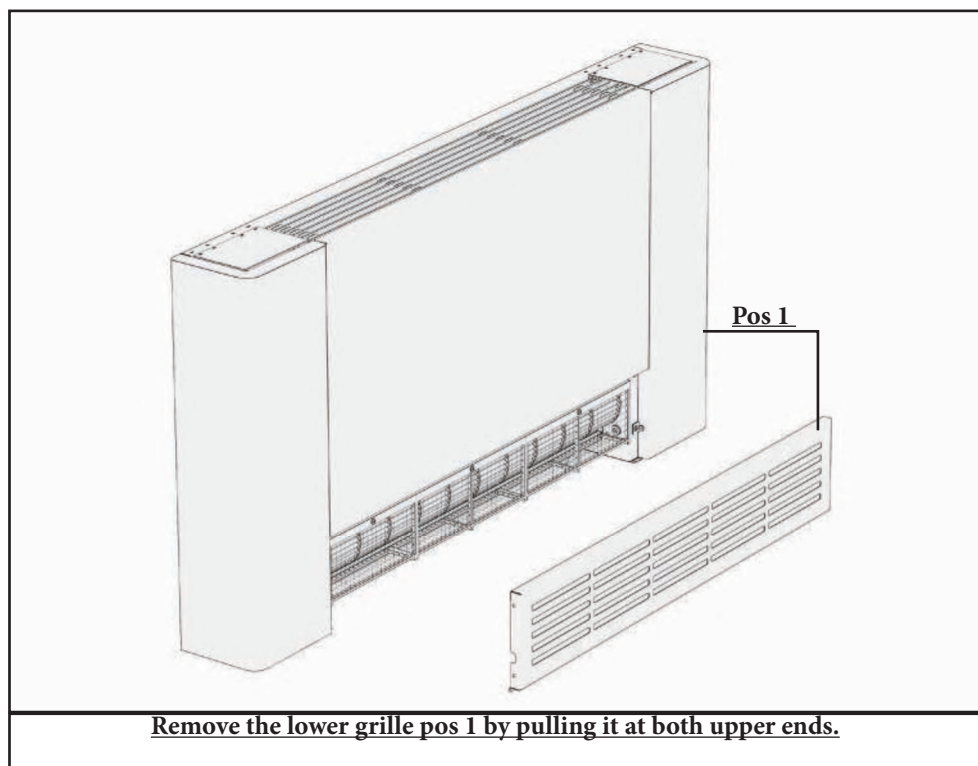
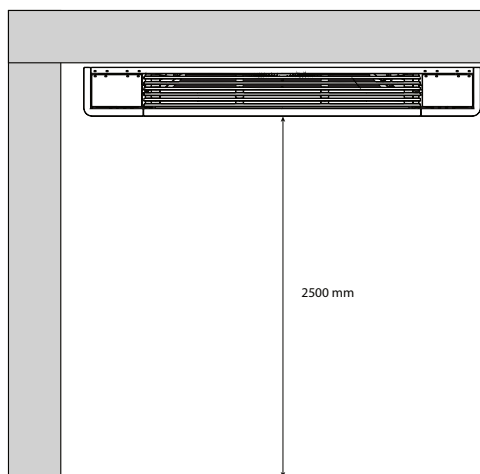
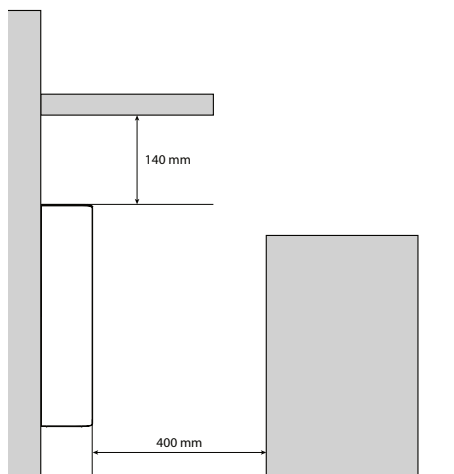
Installation methods

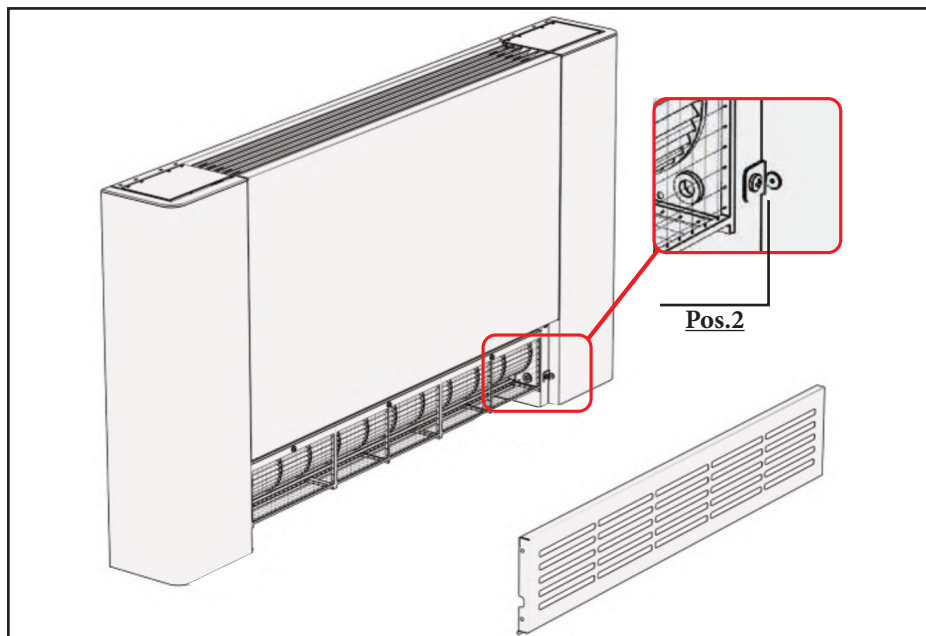
The following descriptions of the different phases of installation and the corresponding designs refer to the version of the machine with fasteners on the left side. The steps for mounting appliances with fasteners on the right side are the same. Failure to comply with these rules may not only lead to a malfunction of the appliance, but will also void the warranty and therefore MARELI SYSTEMS LTD will not be liable for any damage caused to people, animals or property.

Minimum mounting distances

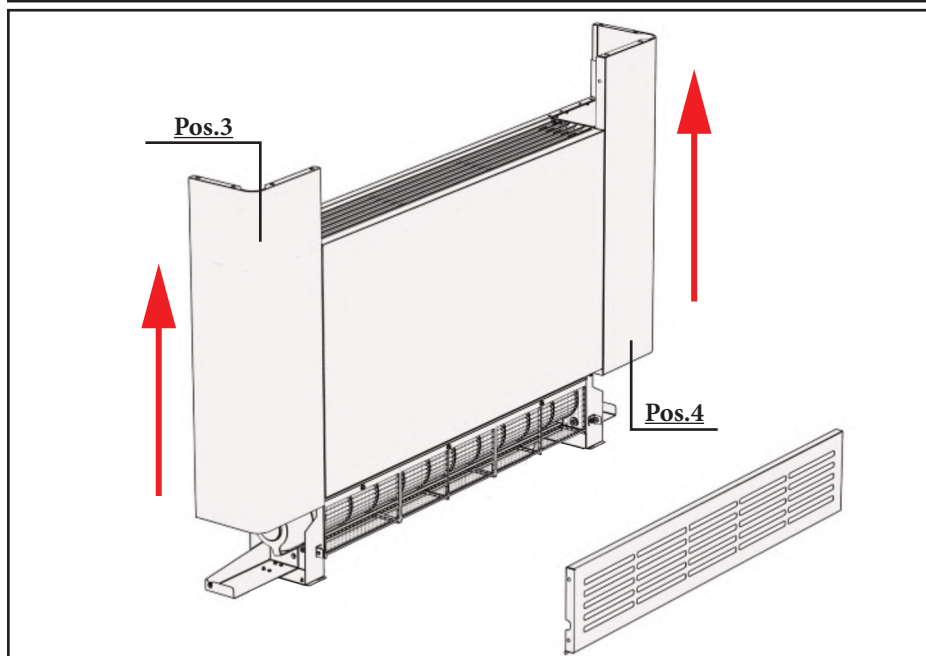
The figure below shows the minimum mounting distances between the wall-mounted cooling and heating convector and the furniture in the room.



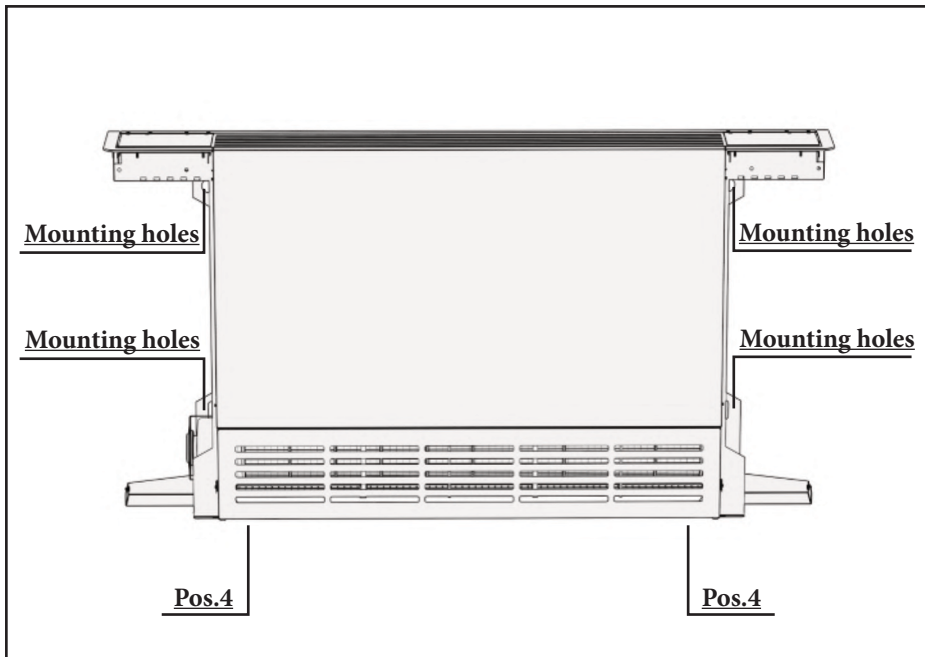




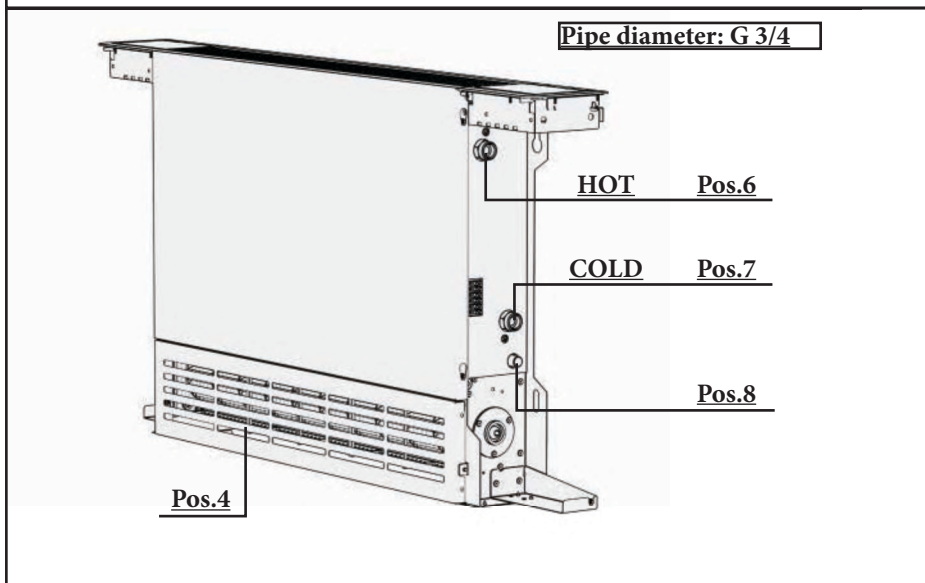
Unscrew the screws pos.2 on both sides of the convector.



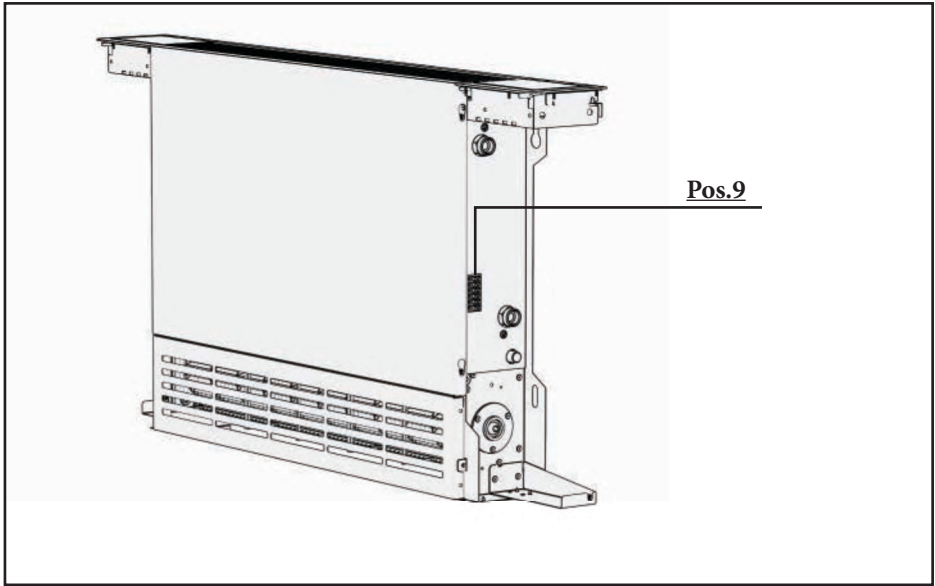
Remove the side covers pos.3 and pos.4 by sliding them upwards.



If the mounting is on a wall, remove the feet pos.4 and mount the convector to the wall through the specified mounting holes.

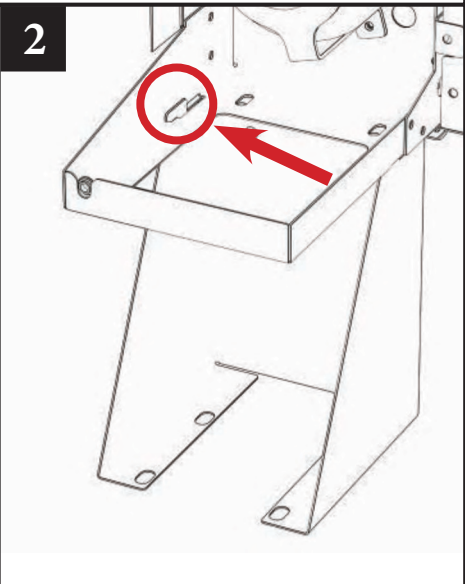
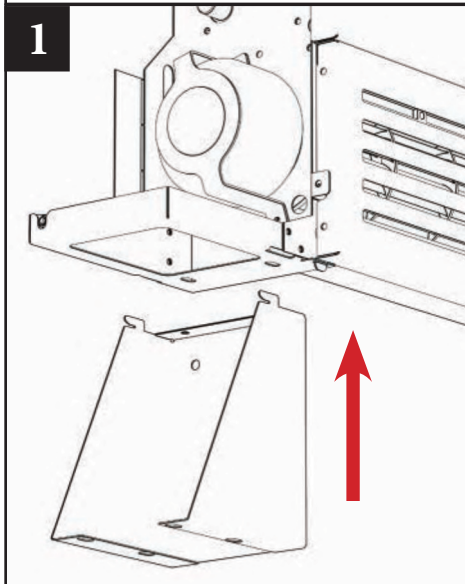


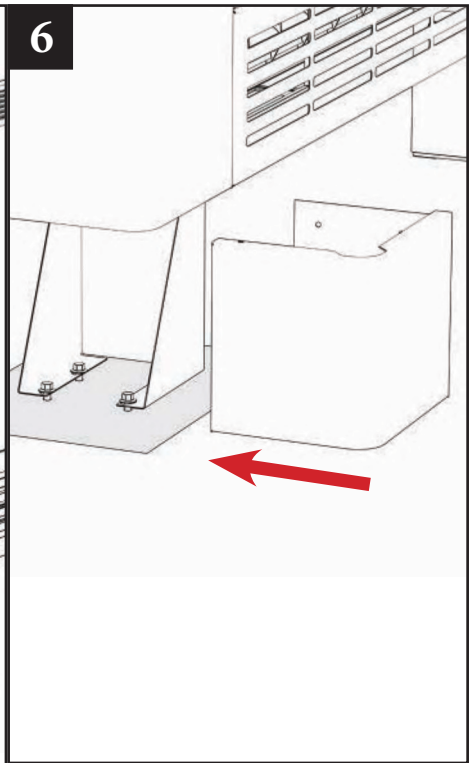
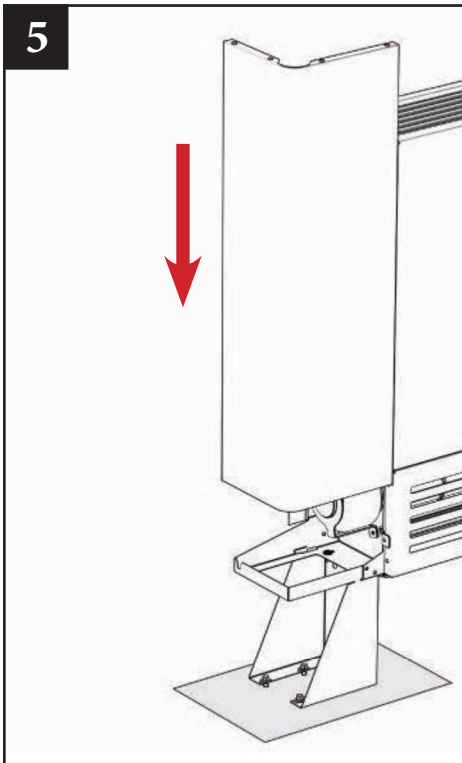
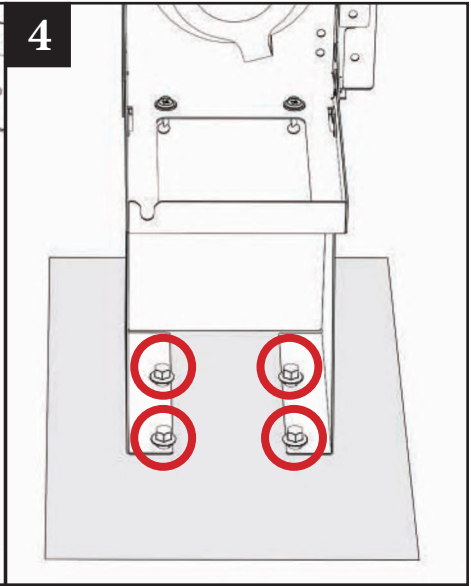
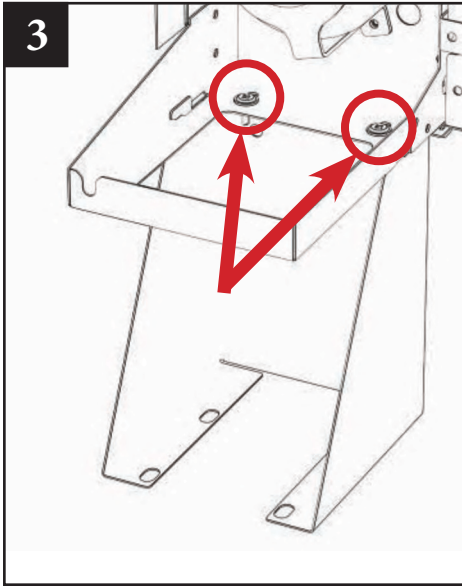
Connect the radiator nozzles pos.6 and pos.7 to the water installation. Connect the condensate pipe to the nozzle pos.8.

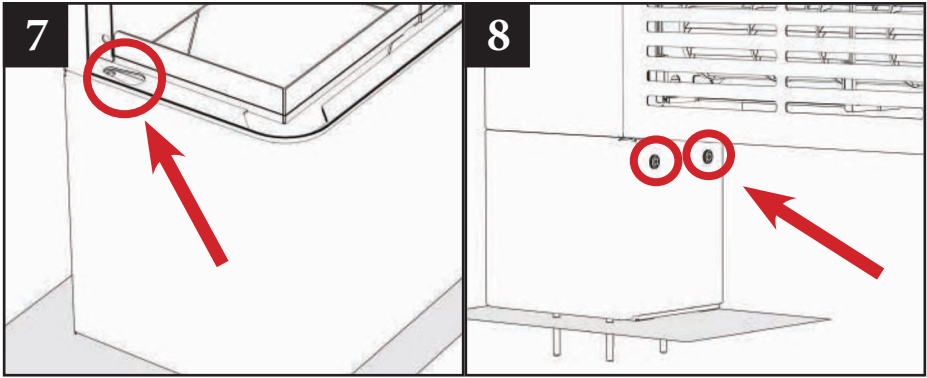


Connect the power cables in terminal block Pos. 9 in the appropriate places, denoted by L, N and \perp . Assemble everything in reverse order.

MOUNTING THE LEGS







Hydraulic connections

The selection and sizing of hydraulic ducts must be made by a specialist who must work in accordance with the required good technical skills and applicable laws, taking into account the fact that smaller pipes cause malfunctions.

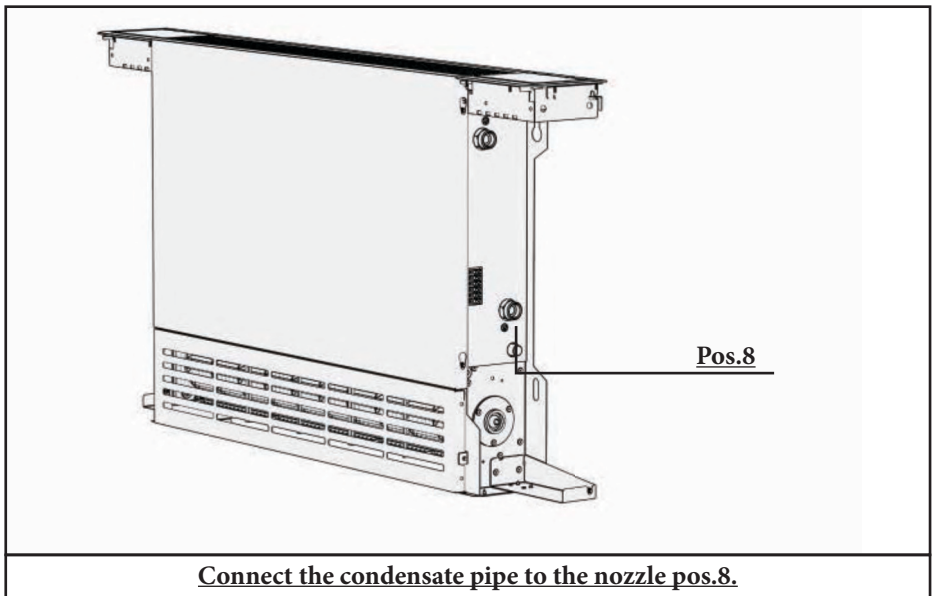
To make the connections:

- lay the hydraulic pipes
- Tighten the connections with a wrench and another holding counter
- check for liquid leaks
- cover the connections with insulating material.

Hydraulic pipes and fittings must have thermal insulation. Avoid partial insulation of pipes.

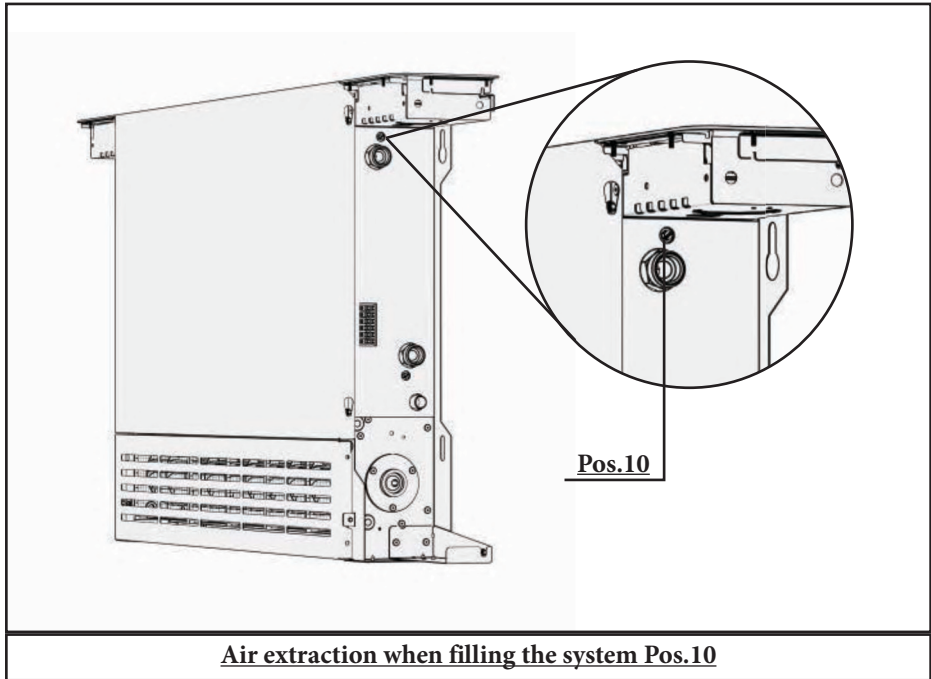
Do not tighten too much to avoid damaging the insulation.

Use tow and green paste to seal the threaded joints; the use of Teflon tape is recommended when there is antifreeze in the hydraulic circuit.



Filling the system

When starting the system, make sure that the deaerator of the hydraulic unit is open. If there is no mains supply and the solenoid valve has already been supplied, use the special head to press the shut-off device of the valve to open it.



Air extraction when filling the system Pos.10

Electrical connections

Follow the electrical connections according to the requirements and Basic Safety Rules sections as well as the diagrams described in the installation manuals.

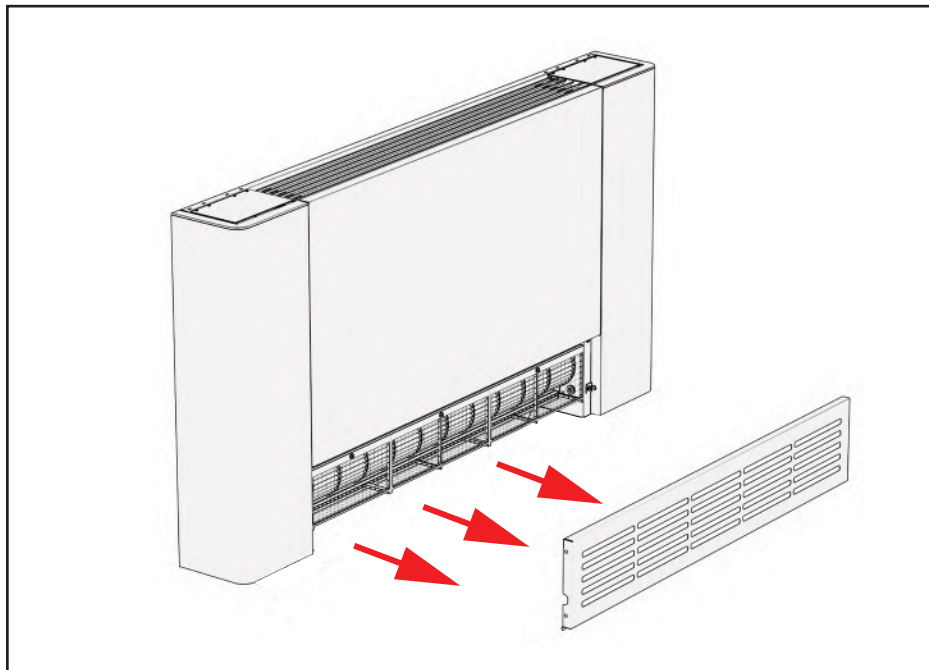
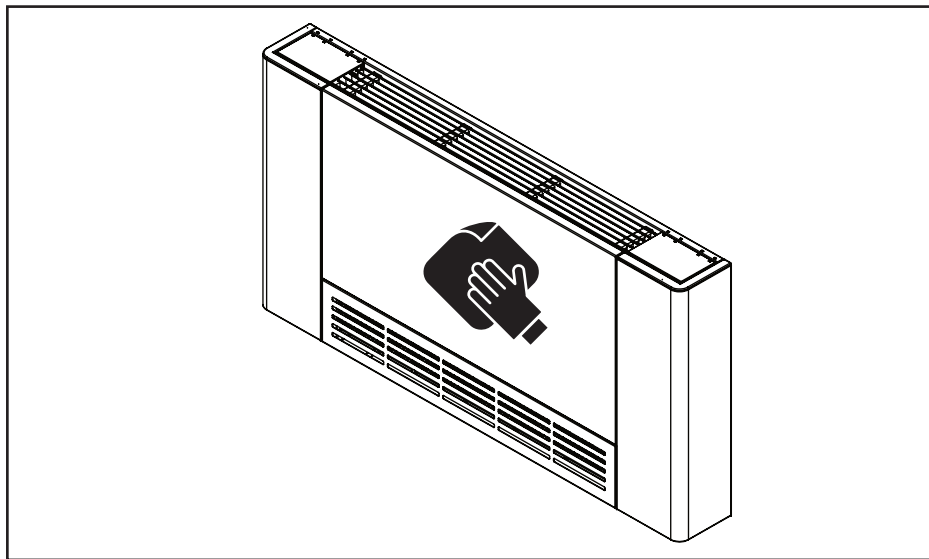
Before performing any action, make sure that the power supply is switched off.

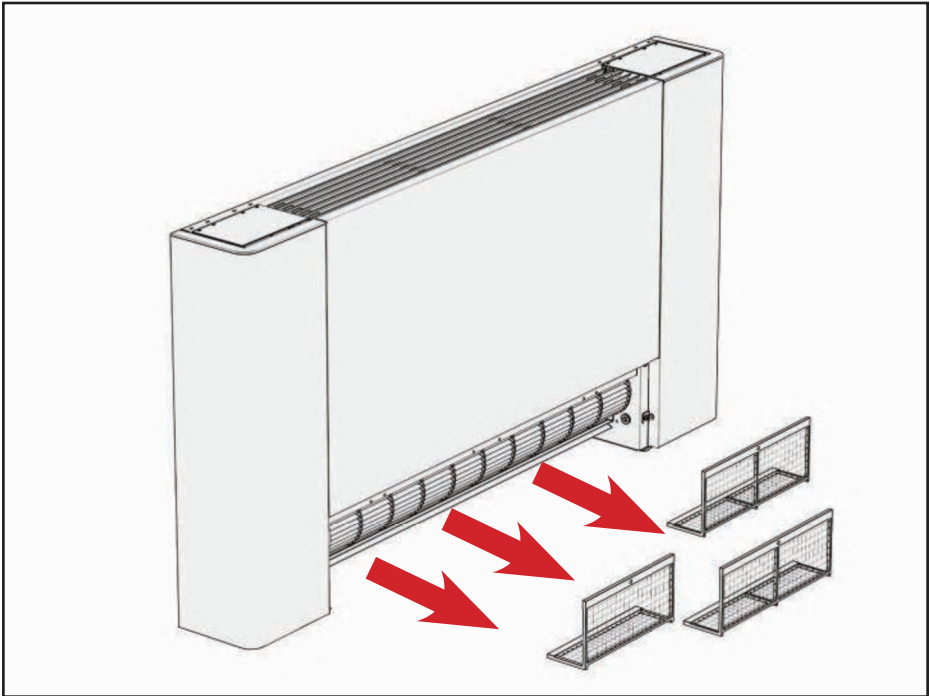
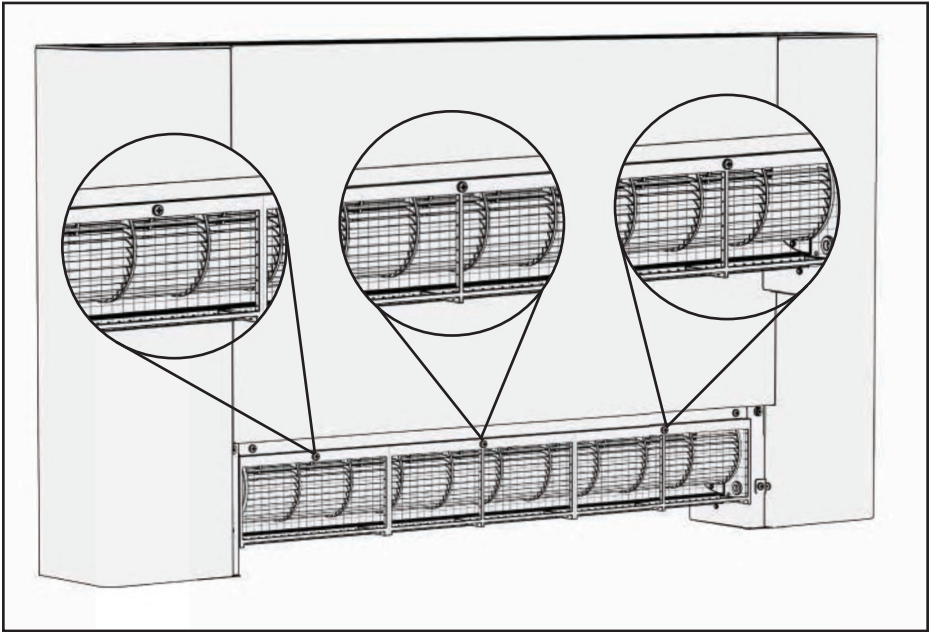
The appliance must be connected to the main power with a multi-pole switch with a minimum contact opening of at least 3 mm or with a device that allows complete disconnection from the appliance in case of overvoltage.

Maintenance

Carrying out regular maintenance activities is essential to keep the convector in good, safe and reliable condition over the years. They can be performed every six months for some activities and annually for others by a qualified person.

Cleaning





Troubleshooting

In the event of water leaks or malfunctions, turn off the power immediately and close the water taps. If one of the following faults occurs, contact an authorized service center or authorized qualified person, avoiding taking any action.

- Ventilation is not activated even if there is hot or cold water in the hydraulic circuit.
- Water flows from the appliance in heating mode.
- Water is flowing from the appliance in cooling mode.
- The appliance makes excessive noise.
- Condensed drops form on the front panel.

TA652FC-W Fan Coil Wi-Fi Thermostat

CAUTION:

1. Turn off all electrical devices (e.g. heater, cooler) that are connected to the unit before installation and maintenance.
2. The installer must be a trained service personnel
3. Disconnect the power supply before maintenance.
4. It must be mounted on a dry clean indoor place.
5. Do not expose this unit to moisture.
6. Do not expose this unit to dipping or splashing.

Introduction

TA652FC is a controller that controls fan coil system to maintain room temperature at a desired level. Changeover sensor is required to install when auto changeover is used.

Feature List

- Voltage supply: 230VAC
- Temperature display in oC or oF
- Temperature measurable range : 0 – 50 C
- 2-pipe system
- Manual changeover or Autochangeover can be selected
- Selection of Heat/Cool
- 7days/5+1+1days,1day program, no program.
- EEPROM stores all settings
- Adjustable control span

Wiring

TERMINALS

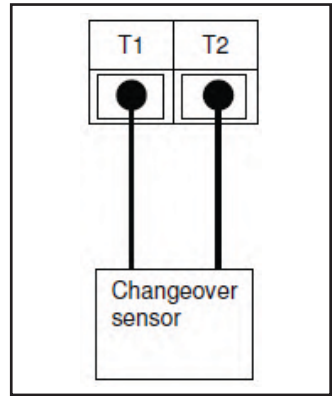
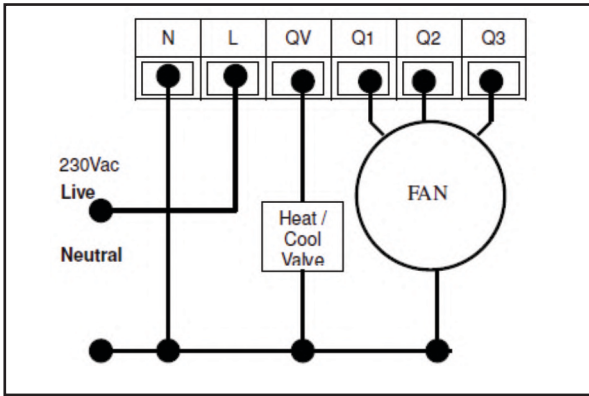
DEVICE

L	— —	230VAC LIVE
N	— —	230VAC NEUTRAL
QV	— —	CHANGEOVER VALVE
Q1	— —	FAN LOW
Q2	— —	FAN MED
Q3	— —	FAN HIGH
T1	— —	CHANGEOVER SENSOR
T2	— —	CHANGEOVER SENSOR

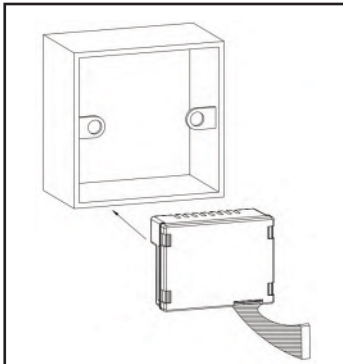
Pull all cables back into the wall beforehand to avoid trapping of wires.

Do not use any metal conduits or cables provided with metal sheaths.

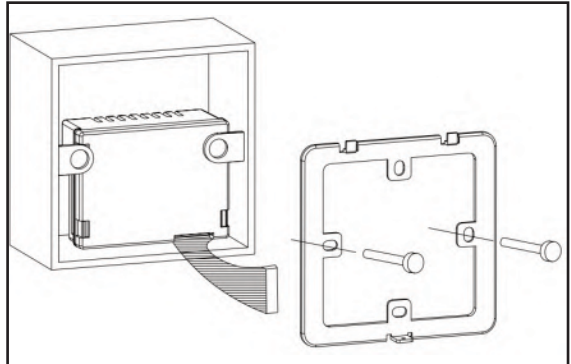
Recommend adding fuse or protective device in the live circuit.



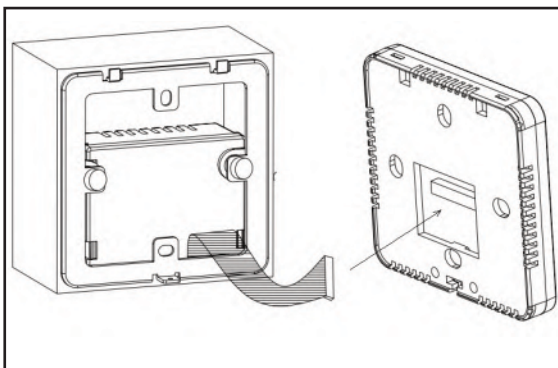
Mounting



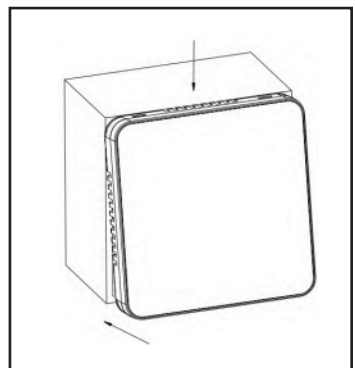
1. Place relay unit inside the wall-box, with the back of relay unit facing outwards.



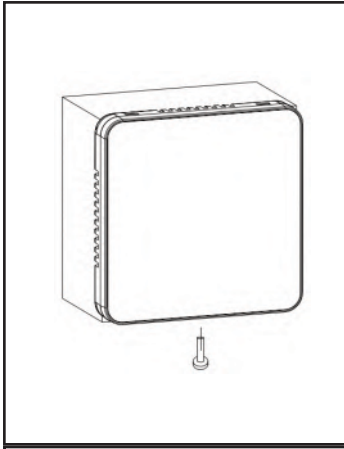
2. Install metal bracket



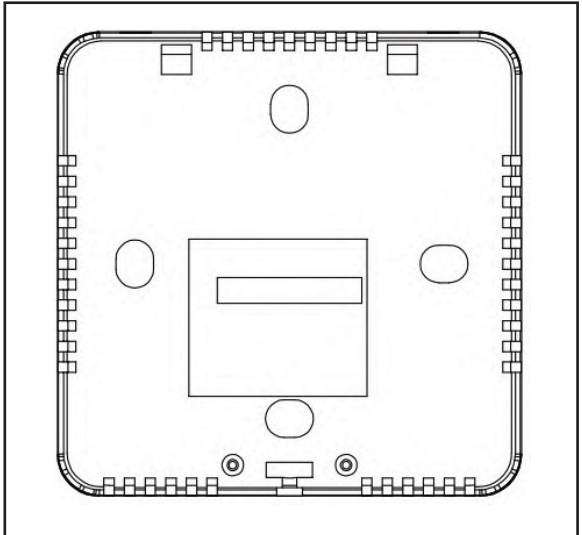
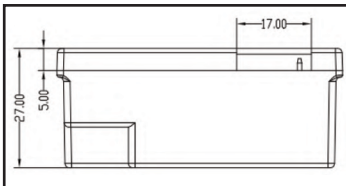
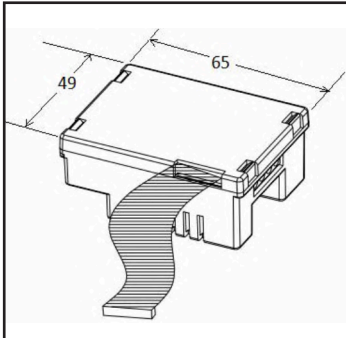
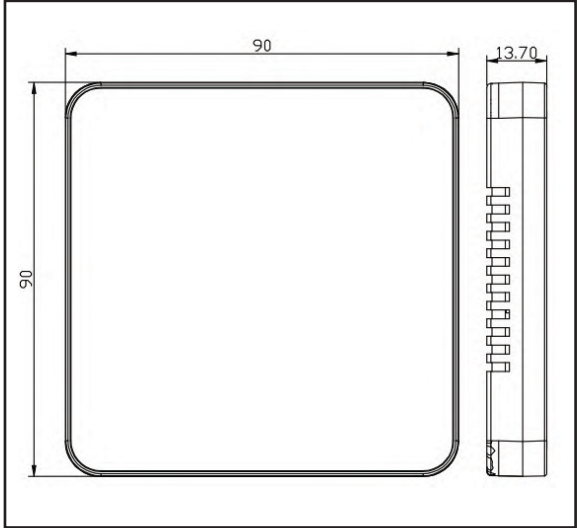
3. Connect front unit to relay unit by cables attached.

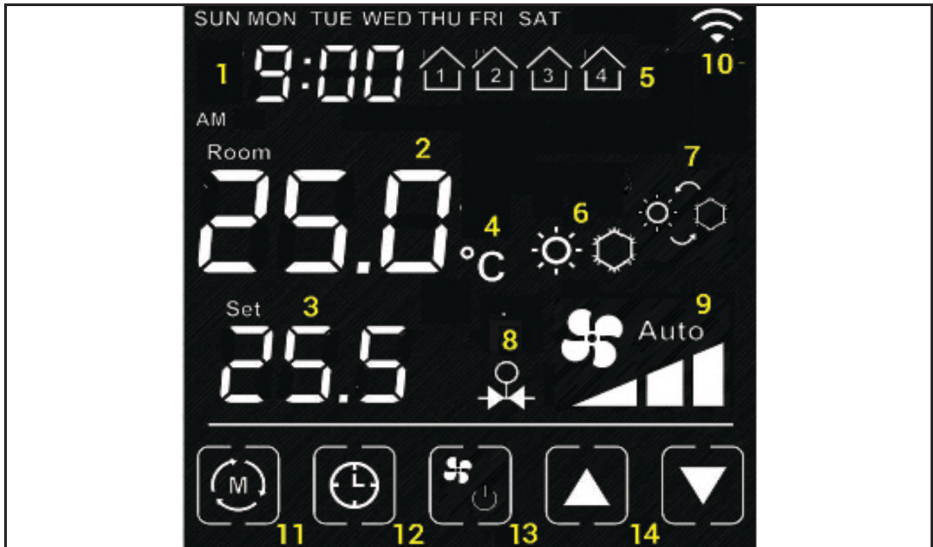


4. Snap front on metal bracket, using the top edge as pivot.



5. Finally, secure controller by screw





ITEM	MEANING
1	Time
2	Room Temperature
3	Current Set Point
4	Temperature Unit
5	Current Program
6	Heat / Cool Mode
7	Auto Changeover
8	Output is ON (when appear) (valve on)
9	Fan Low/Med/High/Auto
10	Wi-Fi (appears when connected to internet)
11	Mode Key: Short-Press to change H/C Press-n-hold to access internal setting
12	Clock Key: Press to set clock. Press-n-Hold to Program the Schedule
13	Dual-function Fan/ON Key Short Press: Fan L/M/H/Auto Press-n-Hold: ON/OFF
14	Up/Down key: Adjust Set point or Value of setting.

TA652FC-W Mobile App Interface

For smartphones with Android

1 Login screen. The interface features the EasyStat logo at the top. Below the logo are two buttons: a green "Log In" button and a white "Create New Account" button with a green border.

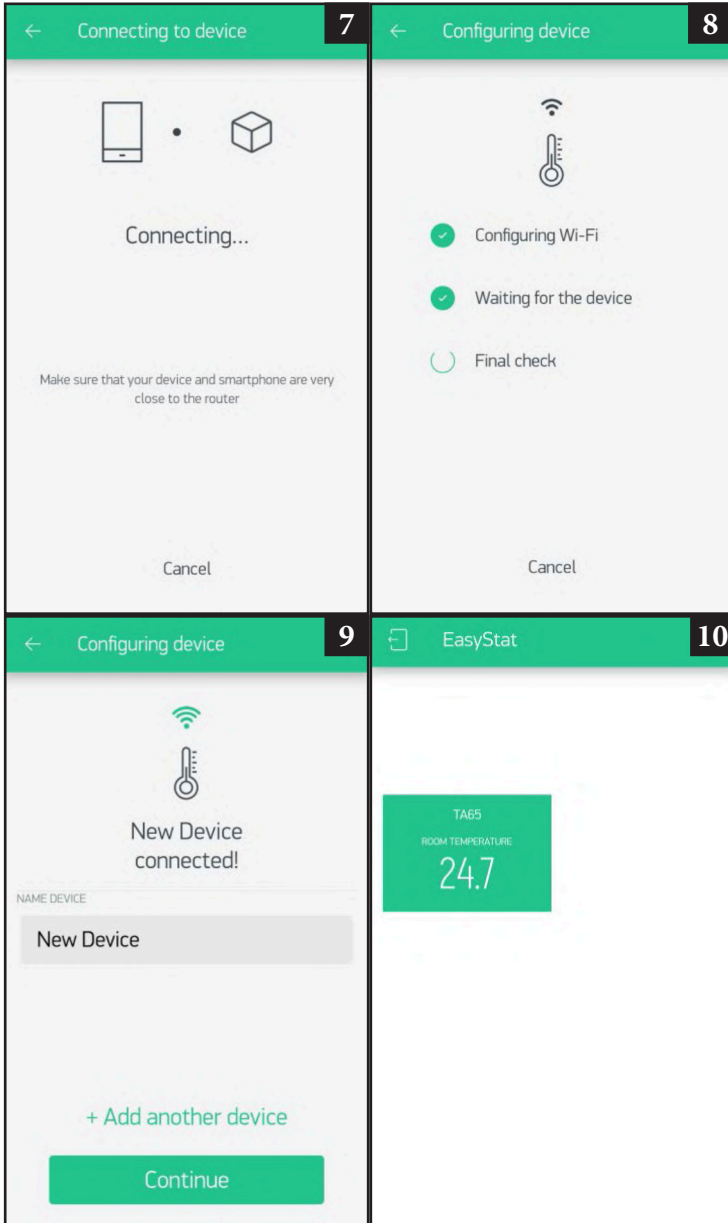
2 "Create New Account" screen. The header is "Create New Account". It contains two input fields: "Email" and "Password" (with an eye icon for visibility). A green "Sign Up" button is positioned below the fields. A keyboard is visible at the bottom of the screen.

3 "EasyStat" home screen. The header is "EasyStat". The main content area is grey and contains a message: "You don't have any devices connected yet" followed by "Click the button below to start adding a new device". A green "Add new device" button is at the bottom.

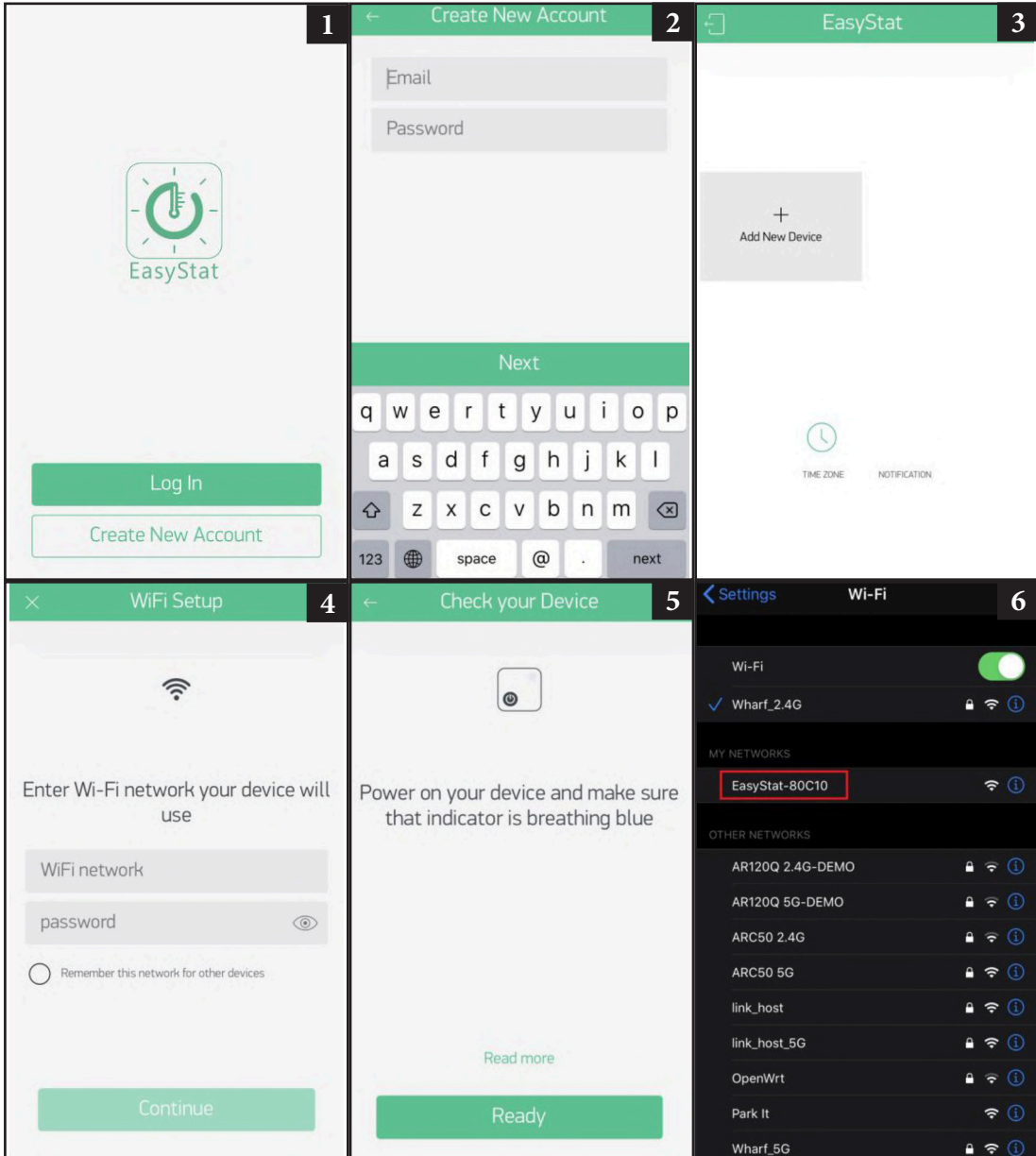
4 "Wi-Fi setup" screen. The header is "Wi-Fi setup". It displays a Wi-Fi icon and the text "Choose Wi-Fi network your device will use". Below this is a list of SSIDs, with the first one partially visible as "SSID" and a "Change" link. A "Continue" button is at the bottom.

5 "Check your device" screen. The header is "Check your device". It features a power icon and the text "Power On your device and make sure that indicator is breathing blue". A green "Ready" button is at the bottom.

6 "Choose your device" screen. The header is "Choose your device". It shows a list of devices under the heading "DEVICES", with "EasyStat-80C10" selected. Below this, under "OTHER NETWORKS", is "Park It".



For smartphones with IOS



Settings **Wi-Fi** **7**

Wi-Fi

✓ EasyStat-80C10
Unsecured Network

MY NETWORKS

Wharf_2.4G

OTHER NETWORKS

AR120Q 2.4G-DEMO

AR120Q 5G-DEMO

ARC50 2.4G

link_host


link_host_5G

OpenWrt

Park It

Other...

Choose your Device **8**




1. On your iPhone open Wi-Fi settings and choose your device

2. Hit the 'Already Connected' button below

Already connected

Go to Settings

Connecting to Device **9**




Getting device information...

Make sure that your device and smartphone are very close to the router

Cancel


Configuring Device **10**



- Configuring WiFi
- Waiting for the device
- Final check

Cancel

Device Name **11**




HA65 connected!

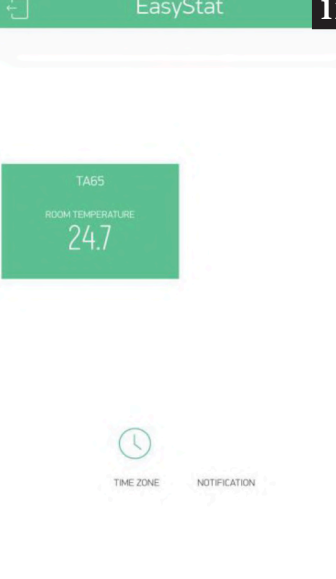
NAME DEVICE

HA65

+ Add another device

Finish

EasyStat **12**



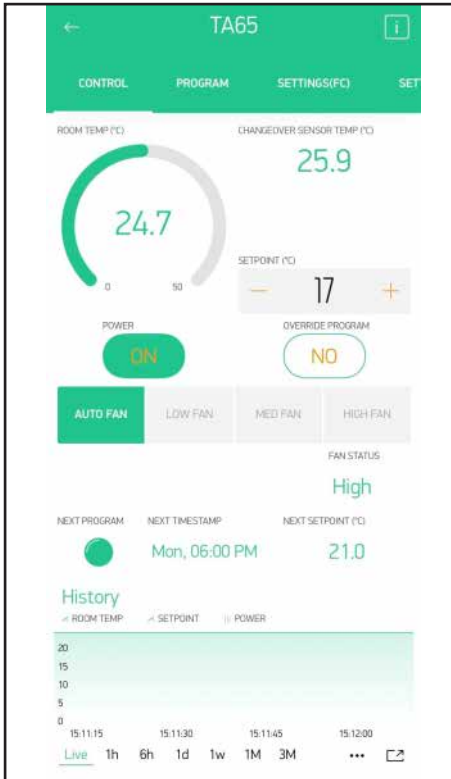
TAGS

ROOM TEMPERATURE

24.7

TIME ZONE NOTIFICATION

TA652FC-W Mobile App Interface



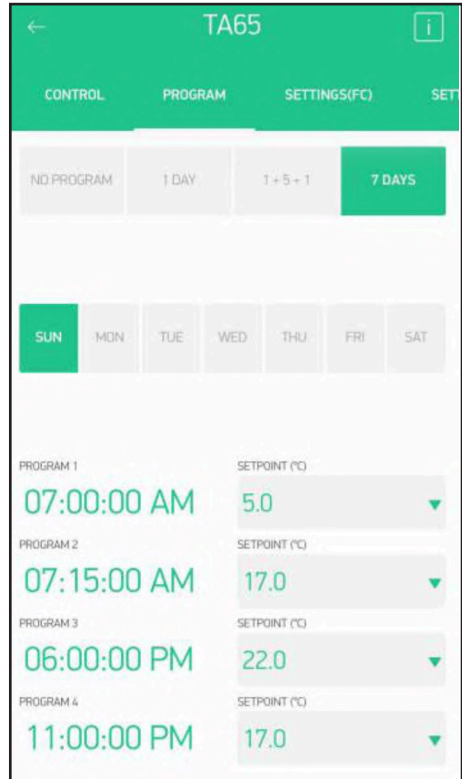
- In Control tap, Room Temperature, Floor temperature, Current setpoint, next setpoint (next program) will be displayed.

- Press Power key to turn on or off the thermostat.

- Press + or - to adjust the current setpoint to override the program. The button turns green.

- Press the “override program” button to release the override or the override setpoint would be released in next program time slot.

- The history shows the Temperature history. In 1day / 1week / 1month.

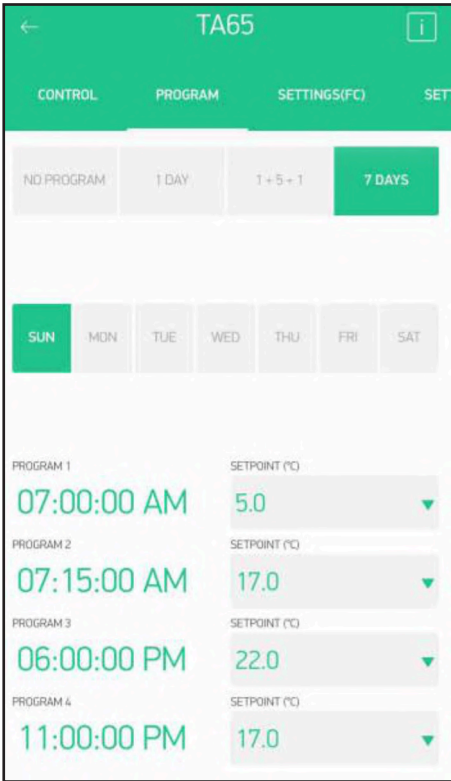


- In Programs tap, current program mode will be displayed. (No Program / 1Day / 1+5+1 / 7days).

- When No Program is selected, no setting can be adjusted.

- When 1Day / 1+5+1 / 7Day program is selected. Program time slot and setpoint can be adjusted.





- In Setting Tap, Internal setting can be adjusted.
- Heat / Cool / Autochangeover mode can be selected.
- Changeover Temp Heating / Cooling Setpoint only effect when Autochangeover mode is selected.
- Temperature offset is adjusted only when there is difference between the actual temperature and the measured value from thermostat.
- Thermostat clock will be synchronized when "Sync" is pressed.

TA652FC-W Controller LCD Interface

Turn On/Off the thermostat

Press-n-Hold [On/Off Key] to turn On / Off the thermostat. When the thermostat is Off, no Output will be activated.

Clock setting

****Normally the clock is automatically set once wifi is connected and synchronize for each day. So manual set is not necessary when it is online.**

Press [CLOCK] to start the setting;
 Press [▲] / [▼] to change the day of week;
 Press [CLOCK] again to confirm day of week setting and start to adjust hour;
 Press [▲] / [▼] to change the hour;
 Press [CLOCK] again to confirm hour setting and start to adjust minutes;
 Press [▲] / [▼] to change the minutes;
 Press [CLOCK] again to confirm minutes setting and start to adjust day of week;
 Press [blank] to confirm or leave the clock setting. Or return after no key pressed for 20 seconds.

Clock synchronization

Controller syncs local time when it has access to the internet. Please make sure it stays connected. If you wish to sync network clock manually, press the button on the App



Schedule Programming

When 1 day / 5+1+1 day / 7day program is selected in internal setting.

- Press-n-Hold on [Clock] to start the setting
- Press [▲] / [▼] to adjust the day of week
- Press [Clock] to confirm
- Press [▲] / [▼] to adjust the time of schedule
- Press [Clock] to confirm
- Press [▲] / [▼] to adjust the setpoint
- Press [Clock] to confirm
- Press [Blank] to exit

Override Temperature

The Set point can be adjusted by [▲] / [▼]. When it is in program mode, The set point will be overridden until the next time slot. Press [Clock] to release the override.

Internal Parameter Setting

- Press-n-hold on [Mode] key
- Press [Mode] to advance to the next item
- Press [▲] / [▼] to adjust the value
- Press [blank] to confirm and exit

Items	Value	Default Value
User Interface Screen Saver (P00)	0-3	0
Screen Saver Count down (P01)	0-120	20
12Display unit (P02)	°C / °F	°C
Time Display unit (P03)	12 / 24	12
Temperature Offset (P04)	-5°C ~ 5°C, -10°F ~ 10°F	0°C
Switching Differential Heat (P05)	2 ~ 4°C, 4 ~ 8°F	2°C
Switching Differential Cool (P06)	2 ~ 4°C, 4 ~ 8°F	2°C
Program mode (P07)	No program (0) / 1day program (1) / 5+1+1 program (2) / 7day program (3)	3
Forced Ventilation (P12)	Disable, Enable	Disable
Changeover Mode(P13)	Heat, Cool, Auto	Heat
Changeover temperature Heat (P14)	27 ~ 40°C	27
Changeover temperature Cool (P15)	10 ~ 25°C	10

User Interface Screen Saver:

The thermostat will go to screen saver mode after no key for certain period

Mode 0: Nothing will be displayed in screen saver mode.

Mode 1: Only room temperature will be displayed in screen saver mode.

Mode 2: Room temperature and Time will be displayed in screen saver mode.

Mode 3: Display all in screen saver mode.

Screen Saver Count Down:

The count down time (in seconds) to screen saver mode.

Display Unit:

Temperature unit in Celsius or Fahrenheit.

Time Display Unit:

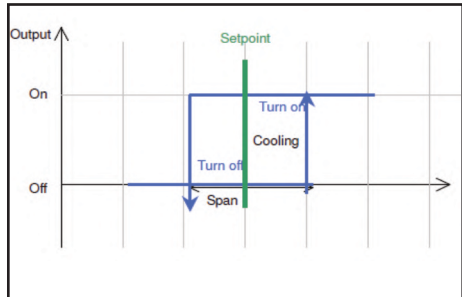
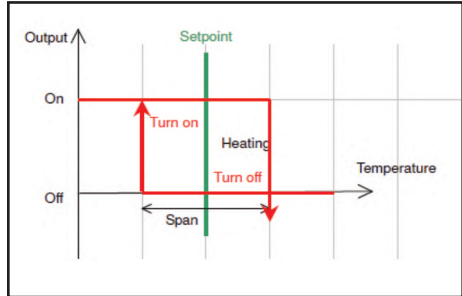
12/24.

Temperature offset:

The temperature of internal sensor can be calibrated from -5°C - +5°C in case there is temperature difference between actual value and thermostat.

Switching Differential:

The difference between switching the heating or controller on and off.



Program Mode:

0: No Program Mode, The thermostat control the temperature simply according to single setpoint.

“1”: 1 day program, The thermostat control the temperature according to single schedule.

“2”: 5+1+1 day program, The thermostat control the temperature according to 5 +1+1 schedule (Mon to Fri, Sat, Sun).

“3”: 7 day program. The thermostat control the temperature according to 7 day program (individual program for each day).

Forced Ventilation:

Disable: Fan will turn on only when heat/cool is on.
 Enable: Fan keeps on (low) even heat / cool is off.

Water Temp & Fan Control:

Fan operation limited by external temperature.
 In Heat mode, fan forced off when water temperature, measured by changeover sensor, drops below Changeover Temp Heat (P14).

In Cool mode, fan forced off when water temperature, measured by changeover sensor, rises above Changeover Temp Cool (P15).

Changeover mode:

0: Heat mode

1: Cool mode

2: Auto Changeover: When changeover sensor detects temperature above changeover heat set point, heat mode is activated.

When changeover sensor detects temperature below changeover cool set point, cool mode is activated.

Changeover temperature setpoint for heat mode:

P14. Parameter for Auto Changeover mode

Changeover temperature setpoint for cool mode:

P15. Parameter for Auto Changeover mode

Technical Data**Power supply:**

230 ± 10% VAC

Relay Contact Voltage:

230VAC max 50/60 Hz

Relay Contact Current:

2(1)A max

Sensing Element:

103AT

Terminals:

2 sq. mm Cable

Operating Temperature:

32 – 122 °F / 0 – 50 °C

Storage Temperature:

23 – 122 °F / -5 – 50 °C

Operating Humidity:

5-95%RHnon-condensing

Advanced – Factory Default

Items	Value	Default Value
Clear Wifi Configuration (P19)	Yes or No	No
Clear Parameter setting (restore default) (P20)	Yes or No	No

- Press-n-Hold on [Mode]+[Fan] keys
- Press [Mode] to advance to the next item
- Press [▲] / [▼] to adjust the value
- Press [blank] key to confirm and exit

Clear Wi-Fi Configuration (P19):

When set to yes, the SSID and Password stored in the thermostat will be cleared

Clear Parameter setting (P20):

When set to yes, all Internal parameter settings will be restored to default value in next power on i.e. power-cycle needed to complete the clearing.

Defrost

When the room temperature is below 5 oC / 41 oF, output will turn On at Heat mode or output will turn off at Cool mode. “❄” defrost indicator appears on the screen.



Mareli Systems

STEP FORWARD

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