

Climaset® is under continuous development. Both the described products and document contents may be changed or withdrawn without any previous notice. The scope of the warranty and responsibility of Climaset applies to the device only. Under no circumstances shall Climaset be responsible for any special, incidental, consequential, or indirect damages, howsoever caused.

### Enjoying your Climaset® safely

The instructions below have been prepared to help you enjoy using your Climaset® safely for many years. Please read it thoroughly before starting to use the device.

- Each air conditioning device should be protected by its own miniature circuit breaker (MCB).
- Each thermostat is intended to control a single air conditioning unit. We do not recommend control of multiple units with a single thermostat.
- If you ever encounter device malfunction, switch the respective MCB off and contact customer service.
- Should you notice that your air conditioner is not protected by an MCB, ask your electrician to add one for you. You may find proper recommended MCB specifications in Appendix A.
- The MCB rating should be selected according to the required current for the normal operation of your air conditioner. Using a

higher rating, protection is not assured.

- Your Climaset® also protects itself as well as your air conditioner with a fuse. In case of a burnt fuse, please check for malfunction of your air conditioner and thermostat, incorrect wiring, or short circuit. It may also indicate that the thermostat can not supply the necessary current for the air conditioner. You may need to add a relay between the thermostat and the air conditioner. Refer to Appendix B.
- Always replace the fuse with one of the same type. Fuses have several specifications other than their current rating. Check Appendix D for the proper type of fuse. Contact your local customer service if an extra fuse is necessary.
- Never bridge the fuse with wire or replace it with one of a higher rating.
- Before screwing the wires to the device terminals, use the wire ferrules supplied with the device. This will avoid the possibility of a short circuit. We recommend using AWG 16 (1.5 mm) cables.
- Never use detergent to clean the thermostat surface. It may leave undesirable marks on the surface of the thermostat. Always use a soft, moist tissue to clean the device.
- The device is not designed to work in places with condensing humidity.
- Strong electromagnetic fields, such as powerful radio transmissions, may cause device malfunction.
- Never try to fix the device yourself. Replacement of the parts may affect the safe usage of the device. Always contact your local Climaset® service center for repair.

### Introducing your Climaset®

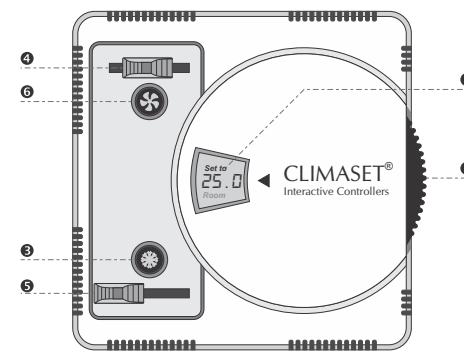
Climaset® Retro™ series 4 is the successor of Retro series 3. The new generation is equipped with an LCD display to indicate both room and set temperature. The dial may be used to adjust the set temperature in 0.5° C steps, while the room temperature is displayed with 0.1°C resolution. The sliding indicator mechanism for heat/cool and fan speed adds vitality and dynamism to the device. Its black and white design makes it attractive for modern decor.

### Discovering your thermostat

Your Climaset® has three indicators, one LCD display to show the set and the room temperature successively (❶), one for operation mode (❷), and the other for fan speed (❸). There is a dial (❹) for adjustment of the desired temperature. Also, there are two slide switches to select the operation mode (❺) and fan speed (❻).

### Adjusting the desired temperature

- Turn the dial (❹) clockwise to increase or counterclockwise to decrease the desired temperature.
- ⚠ Once you turn the dial the set temperature will be displayed on LCD. Few seconds after adjustment of the set temperature, the successive indication of the room and the set temperature will be started again.
  - ⚠ The ideal room temperature depends on ambient and personal habits. In normal circumstances, 25°C is suitable for most people and environments.
  - ⚠ Please note that setting a lower temperature does not speed up cooling and setting a higher temperature does not speed up heating. If you need to hasten temperature increase or decrease, set the fan speed to maximum.



### Selecting the fan speed

The slide switch at the top left corner of the device selects the fan speed. Slide it right to increase or left to decrease the fan speed. The device supports three fan speeds. The indicator below the switch (❸) shows the operational fan speed based on your selection. The figure below shows the respective sign for each fan speed.



⚠ If the fan speed is not in accordance with your selection, then the wiring must be faulty. Turn the circuit breaker off. Detach the thermostat from the wall. Recheck and redo the wiring (Refer to Appendix B for wiring and installation information).

### Switching the air conditioner off

Switch the air conditioner off if you do not intend to use it for a specific period. Slide the switch at the bottom left corner of thermostat (❺) to the middle position. The indicator above the switch shows the power off sign as shown in the figure on the next page.

### Changeover between heating and cooling

Slide the operation switch (❷) at the bottom left corner of the device to the right position for heating. The indicator above the switch shows the flame sign as shown in the figure below. To select the cooling mode, slide it to the left position. The indicator above the switch shows a snowflake sign as shown in the figure below.



- ⚠ After installation, if the device does not operate, turn the dial in a different direction or slide the operation switch to heat or cool. The device should start to function immediately.
- ⚠ If the room temperature is below 18°C and you choose cooling or above 30°C and you choose heating, the air conditioner will not turn on even by turning the dial. Reverse the position of the heat/cool operation selection mode switch (❷) if you want to check the operation of the fan.

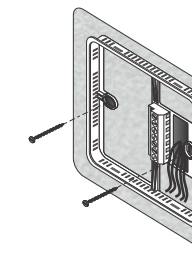
### Summary of steps to adjust your thermostat

- ❶ Turn the dial to adjust your desirable set point. 25°C is suitable for most people and environments.
- ❷ Slide the operation mode selection switch at the bottom left corner of the device (❷) to select heating or cooling.
- ❸ Slide the fan speed selector switch to choose the most convenient fan speed.

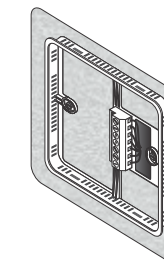
### Installing the device easily

The instructions below have been prepared to assist you in the installation of the device. Please read the instructions thoroughly and carefully before installing. Following all the steps as described guarantees your safety and the functionality and endurance of the thermostat at and air conditioner.

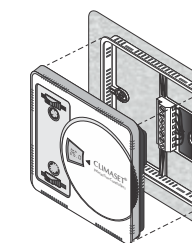
- ❶ Turn off the respective circuit breaker. Do not try to install the device while the circuit breaker is on. It may not only put your safety at risk but also the sparks produced while securing the wires may shorten the life of some components within the device.
- ❷ Use a crimping tool to secure the wire ferrules supplied with the device on the wires to prepare them to be screwed into the terminals. The recommended wire size is AWG16 (1.5 mm diameter), but wires up to AWG12 (2.5 mm diameter) may also be used in the thermostat terminals.
- ❸ Release the back wall mounting plate. There are four latches, as illustrated in the figure, two at the top and two at the bottom of the thermostat. Use a screwdriver with a tip between 3 and 5 mm to gently release them. After releasing each of the latches, pull the respective device corner a little to keep the latch from snapping in again. Pull the device straight out from the back mounting plate after releasing all four latches.



- ❹ Position the mounting plate on the wall. Use a pencil to mark the mounting holes. Remove the plate from the wall and drill 3/16" holes in the wall. Tap anchors into the drilled holes. Reposition the plate and loosely insert two mounting screws in the holes. Level the plate for appearance. Tighten the mounting screws.
  - ⚠ You may also use it over a standard 60x60x40 mm conduit box. The screw holes match the holes of the conduit box and will cover the box completely.



- ❺ Wiring techniques: The function of the wires and their respective positions in thermostat terminals vary based on the type of air conditioner and the thermostat. The proper wiring of the device is essential in its functionality. You may find proper wiring techniques for several types of air conditioners and thermostats in Appendix B. Please match the thermostat carefully with your air conditioner and follow the wiring instructions as illustrated.



Ⓢ Mounting the unit: Hold the thermostat face parallel to the wall surface. Do not incline the thermostat face. Match the needles on the back of the thermostat with the holes on the terminals of the mounting plate. Push the thermostat gently over the needles until the latches snap closed.

Ⓢ Turn on the circuit breaker. The device will be operational.

## Appendix A. Miniature circuit breaker (MCB) selection guide

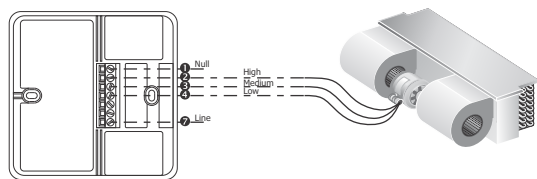
The following table provides a guideline to select the proper type of miniature circuit breaker to protect your air conditioner and therefore your thermostat. The nominal rating of the proper circuit breaker has been estimated based on the air handling capacity of the air conditioner. If the specified type of circuit breaker in the air conditioner catalogue differs from what is specified here, it overrules the following table. The specified type of circuit breaker proposed by the air conditioner manufacturer should be used.

Ⓢ Always use Type C miniature circuit breakers. Type C has been assigned for inductive loads, such as the load of an electro motor.

Air handling capacity (CFM)	Nominal rating (A)
200	1
300	1
400	1
600	1
800	2
1000	2
1200	3
1400	3
1600	4
1800	4
2000	4

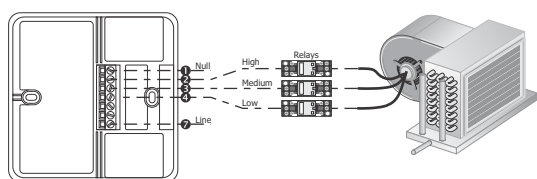
## Appendix B. Thermostat selection guide and wiring diagrams

Air conditioner type: 3-speed horizontal room fan coil  
Appropriate thermostat: **Retro 311**



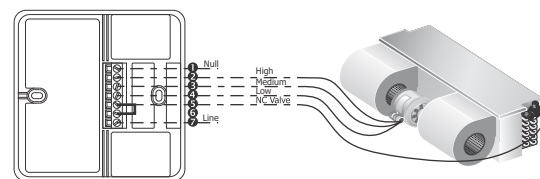
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	Do not connect	-	-
6	Do not connect	-	-
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed ducted fan coil  
Appropriate thermostat: **Retro 311**



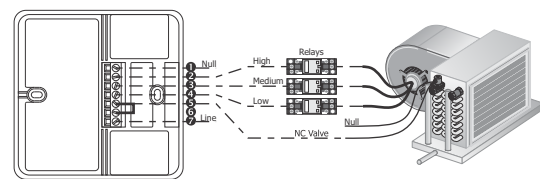
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	Do not connect	-	-
6	Do not connect	-	-
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed horizontal room fan coil with on/off normally closed valve  
Appropriate thermostat: **Retro 311**



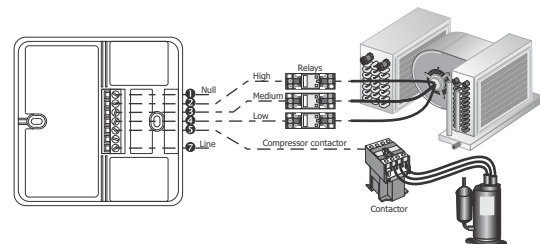
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To normally closed valve	Output	AC 220V / 24V 50Hz
6	Bridge it with terminal no. 5	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed ducted fan coil with on/off normally closed valve  
Appropriate thermostat: **Retro 311**



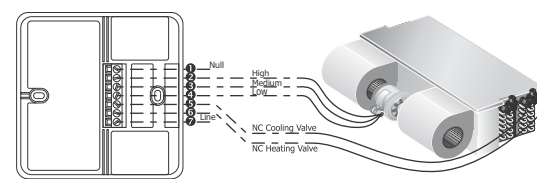
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To normally closed valve	Output	AC 220V / 24V 50Hz
6	Bridge it with terminal no. 5	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed ducted split or packaged air conditioner equipped with hot water coil for heating  
Appropriate thermostat: **Retro 311**



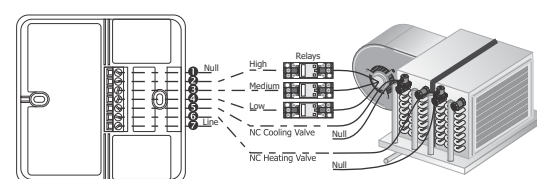
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To compressor contactor	Output	AC 220V / 24V 50Hz
6	Do not connect	-	-
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Four-pipe horizontal room fan coil with two on/off normally closed valves  
Appropriate thermostat: **Retro 311**



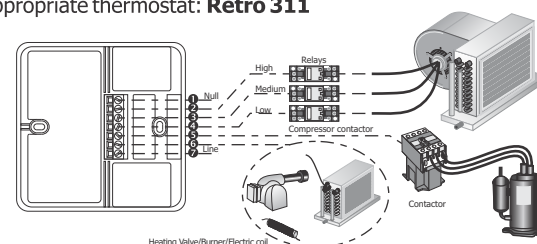
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To N/C cooling valve	Output	AC 220V / 24V 50Hz
6	To N/C heating valve	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Four-pipe, three-speed, ducted fan coil with two on/off normally closed valves  
Appropriate thermostat: **Retro 311**



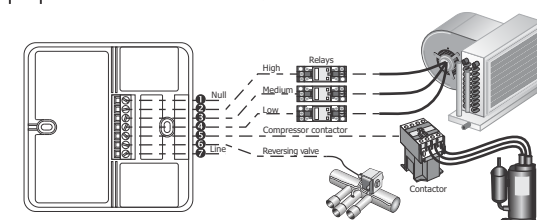
Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To N/C cooling valve	Output	AC 220V / 24V 50Hz
6	To N/C heating valve	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed ducted split or packaged air conditioner unit equipped with hot water coil with normally closed valve/electric coil/gas burner for heating  
Appropriate thermostat: **Retro 311**



Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To compressor contactor	Output	AC 220V / 24V 50Hz
6	To valve/electric coil relay/gas burner controller	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

Air conditioner type: Three-speed ducted split or packaged air conditioner unit with reversing valve for heating  
Appropriate thermostat: **Retro 311R**



Terminal number	Description	Input/ Output	Electrical characteristics
1	Null	Input	AC 220V / 24V 50Hz
2	Fan high	Output	AC 220V / 24V 50Hz
3	Fan medium	Output	AC 220V / 24V 50Hz
4	Fan low	Output	AC 220V / 24V 50Hz
5	To compressor contactor	Output	AC 220V / 24V 50Hz
6	To reversing valve	Output	AC 220V / 24V 50Hz
7	Line	Input	AC 220V / 24V 50Hz

## Appendix C. Troubleshooting

Issue	Action
The air conditioner does not start	<ol style="list-style-type: none"> <li>1. Check whether the operation mode selection switch has been positioned correctly. Selecting the cool instead of heat or vice versa may cause the device not to start.</li> <li>2. Turn the dial to a lower set point for cooling or a higher set point for heating.</li> <li>3. If the room temperature is below 18°C in cooling or above 30°C in heating mode, the device will not start. Reverse the operation mode to test it.</li> <li>4. Ask customer service to check for a burnt fuse, wrong or loose wiring, and the proper supply voltage of the thermostat.</li> <li>5. Ask the responsible maintenance technician to check your air conditioner.</li> </ol>
The air conditioner is always running	<ol style="list-style-type: none"> <li>1. Check whether you have selected the heating or cooling mode appropriately.</li> <li>2. Check whether your desired temperature is too low or too high. The ideal set point is 25°C.</li> <li>3. It is possible that your air conditioner capacity is not enough for your use or that its performance has dropped because of some technical problems.</li> </ol>
Burnt fuse	Have a professional check the wiring. Always replace the fuse with one of the same ampere rating and the same I <sup>2</sup> t. Never bridge a fuse with wire or other conducting material.

Ⓢ Contact your local customer service provider if the problem is not resolved or is not listed here.

## Appendix D. Technical specifications

Thermostat specifications	Temperature sensitivity	0.1°C
	Backlight	White
	Width	90 mm / 3.5 inches
	Length	90 mm / 3.5 inches
Operating conditions	Height	28 mm / 1.1 inches
	Temperature	0°C to 70°C
	Humidity	5% to 90% non-condensing
Fuse specifications	Current rating	3.15 A
	Nominal melting I <sup>2</sup> t	80 A <sup>2</sup> /S
Input voltage specifications	Max. withstanding voltage	400VAC
	Max. operating voltage	250VAC