



Climatization

User Manual



## Historical

Version	Date	Author	Changes
1.0	2011-10-21		-
2.0	2015-04-03		Minor changes
3.0	2018-09-13	LLA	Branding actualization
4.0	2020-11-03	RA/LLA	Actualization

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## INTRODUCTION

**Climatization** is the main source of comfort of a home but also of costs.

The temperature control in each dependency is not only more comfortable but more economical because it connects only when necessary. For example, it makes no sense to heat a bedroom at 18:00 if we are only going to bed at 23:00 hrs.

The ONLY engineers designed a climatization system that ensures maximum comfort with minimal human intervention and with seamless integration with the automation system.

The system offers:

- Temperature control of each dependence of the house
- Three operating periods with respective temperature for each day of the week
- Independent programmes for summer and winter
- Multiple control options for central heating, heat pumps, fan coil units, air conditioning, floor heating, etc.
- Remote control (on/off) by telephone

Since design and comfort is a priority for ONLY, the operation is done via touch panels of the ONLY TOUCH line in total harmony with the rest of the commands in the house.



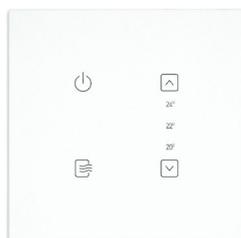
with LCD

## EQUIPMENT

In your house you will probably find two types of climate control units:

- one with an LCD display - OTC-CLIMA
- one or various without LCD - OTC-TERMO

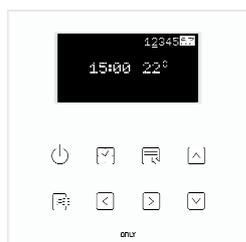
Both are programmable thermostats that can manage independently the temperature of the room it is in. For this there is a thermal sensor on the bottom part of the panel that measures constantly the ambient temperature, comparing it with the programmed temperature for that moment. If necessary, the heating or cooling is switched on.



Without LCD

## CONTROLS AND INDICATIONS

The ONLY climate control units have illuminated touch sensors that function as buttons. They allow the following functions:



- ⏻ - Turns the unit on and off
- 📅 - Displays the date
- ☰ - Allows access to the programming menus
- 🌀 - Indicates the operation and allows control of the fan speed
- ⬅️ - Allows navigation to the left in the setup menus
- ➡️ - Allows navigation to the right in the setup menus
- ⬆️ - Allows increasing the target temperature or navigation in the menus.
- ⬇️ - Allows decreasing the target temperature or navigation in the menus

The LCD indicates the room temperature, the time and the day of the week. The days of the week are indicated by the numbers 1 to 7. On the OTC-TERMO the LEDs 20°, 22° and 24° indicate the room temperature. In case the target temperature is changed, these LEDs show the selected temperature for 2.5 seconds and then return to showing the room temperature. When two LEDs light up (e.g. 20° and 22°) this means that the temperature is between them (e.g. 21°). If the room temperature is higher as 24° or lower than 20° the respective LEDs blink.

## CONFIGURATION VIA THE OTC-CLIMA

The OTC-CLIMA allows adjustment of several parameters both local and of other OTC-TERMO units scattered throughout the house.

Pressing the  key enters the setup menu.

With the  and  keys you can navigate in the menu between the other menu options. Possible options are:

- 1-DATA - set the date and time
- 2-CICLO - cycle selection - summer or winter
- 3-INVERN - definition of winter programme
- 4-VERAO - definition of summer programme
- 5-INSTAL - installation of OTC-TERMO
- 6-REMOVE - removal of OTC-TERMO

Within the menu the  button lets you select the option and the  button lets you exit the current menu and go back to the former.

### 1. Setting the date and time

The ONLY climate control units have illuminated touch sensors that function as buttons. They allow the following functions:

To set the date and time press  within the option 1-DATE.

With the keys  and  you select the digit you want.

To move to the next digit press , or press  to go to the previous digit. The date format is DD-MM-YY.

When the date is set, press  to validate and move to the time adjustment.

With the keys  and  you select the digit you want.

To move to the next digit press , or press  to go to the previous digit.

When the time is set, press  to validate and move to the time zone adjustment.

The zone set to “\_” means that the automatic adjustment of summer and winter time is not active.

If the time zone is set to any other value, automatic adjustment of summer and winter time is active. This adjustment is done at the same time at 01:00 hrs on the last Sunday in March and at 02:00 hrs on the last Sunday in October.

For continental Portugal, the zone is 0 because we are in the GMT (Greenwich Main Time) time zone.

After setting the zone press  to validate. The menu returns to the beginning.

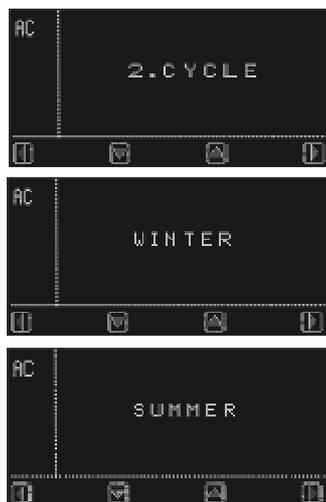
The weekday is automatically adjusted. The days of the week are indicated as follows:

- 1 = Monday
- 2 = Tuesday
- 3 = Wednesday



- 4 = Thursday
  - 5 = Friday
  - 6 = Saturday
  - 7 = Sunday
- Press to exit the menu.

## 2. Setting the cycle



The cycle defines the operation of the unit. In summer mode, the climatization is turned on if the room temperature is higher than the target temperature, while in winter it is turned on when the room temperature is lower than the target temperature.

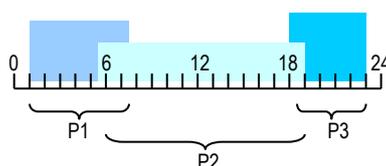
To define the cycle press within the option 2-CYCLE. Select the desired mode with and . Then press to validate. Press to leave the menu.

## 3. Winter programme

The winter programme defines the operating hours of the climatization and its respective target temperatures.

It is possible to define, for each day of the week, 3 operating periods. You can, for the same day of the week, define overlapping periods, where the higher temperature prevails.

The starting time of a period has to be before the end time.



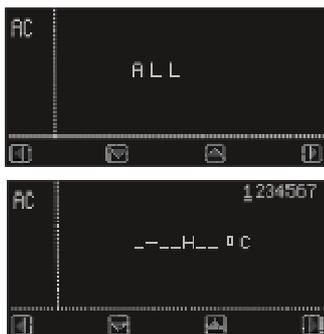
Period 1 does not have to start before period 2 or 3.

To adjust the winter programme press within the option 3-WINTER.

The option LOCAL allows you to define the programme on the local unit. If there are OTC-TERMO's installed you can choose here which unit you wish to programme using the and keys, and validating with the key.

You can now select the day of the week you wish to edit with the and keys. Going to the right, you can select all days of the week, only Monday to Friday or only the Weekend. In this case of multiple days of the week you cannot edit the programme that was already defined for one particular day, always starting the same programme pattern.

If you select a single day of the week and validate with you will see the 1st programme of this day on the display. The bar below the 1 blinks indicating the programme number.



If there is no programme defined “\_” will appear on all positions. This is also the way to delete a programme from a day, by selecting “\_” in all digits.

With  $\leftarrow$  and  $\rightarrow$  select the digit you wish to change and with  $\uparrow$  and  $\downarrow$  you can select the desired value.

When the period is defined, validate it with  $\rightarrow$ , repeating the steps for the remaining periods.

It is not mandatory to define 3 periods for a particular day of the week. It is also possible not to define any programme for some days.

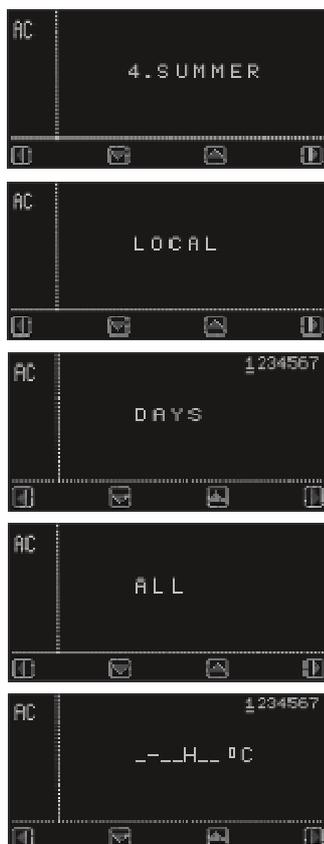
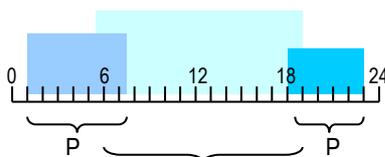
Once the 3rd programme is finished, press  $\rightarrow$  to save.

## 4. Summer programme

The summer programme defines the operating hours of the climatization and its respective target temperatures.

It is possible to define, for each day of the week, 3 operating periods. You can, for the same day of the week, define overlapping periods, where the lower temperature prevails.

The starting time of a period has to be before the end time.



Period 1 does not have to start before period 2 or 3.

To adjust the summer programme press  $\rightarrow$  within the option 4-SUMMER.

The option LOCAL allows you to define the programme on the local unit. If there are OTC-TERMO's installed you can choose here which unit you wish to programme using the  $\uparrow$  and  $\downarrow$  keys, and validating with the  $\rightarrow$  key.

You can now select the day of the week you wish to edit with the  $\leftarrow$  and  $\rightarrow$  keys.

Going to the right, you can select all days of the week, only Monday to Friday or only the Weekend. In this case of multiple days of the week you cannot edit the programme that was already defined for one particular day, always starting the same programme pattern.

If you select a single day of the week and validate with  $\rightarrow$  you will see the 1st programme of this day on the display. The bar below the 1 blinks indicating the programme number.

If there is no programme defined “\_” will appear on all positions. This is also the way to delete a programme from a day, by selecting “\_” in all digits.

With  $\leftarrow$  and  $\rightarrow$  select the digit you wish to change and with  $\uparrow$  and  $\downarrow$  you can select the desired value.

When the period is defined, validate it with  $\rightarrow$ , repeating the steps for the remaining periods.

It is not mandatory to define 3 periods for a particular day of the week. It is also possible not to define any programme for some days.

Once the 3rd programme is finished, press  $\rightarrow$  to save.

## 5. Installation of unit without LCD

1234567 5-INSTAL
---------------------

1234567 T01
----------------

1234567 T01 OK
-------------------

1234567 T02
----------------

1234567 T02 OK
-------------------

1234567 5-INSTAL
---------------------

1234567 09:58 23°
----------------------

The units without LCD do not have an LCD but can be programmed using the unit with LCD. For this the units without LCD must be installed on the command with LCD.

To install an unit without LCD press  within the option 5-INSTAL.

The display shows T01 (Termo 01).

Now you should go to the first unit without LCD and press the key . This makes the unit without LCD send a command and as such stay associated to the unit with LCD. On the display of the OTC-CLIMA appears T01 OK.

If you wish to install more units you should now select T02 with the  key and repeat the procedure, this time with the new unit.

When installation is finished press  to leave the menu.

To set the programme for the units without LCD you should select the respective number (e.g. T01) with  and , and validate it with . The definition of the programme is now exactly the same as the local unit, except that the programme is afterwards stored in the respective unit.

Note: If a name was assigned to the unit without LCD (only possible with a computer) this name will appear instead of T01.

## 6. Removing unit without LCD

1234567 6-REMOVE
---------------------

1234567 T01
----------------

1234567 T02
----------------

1234567 T01
----------------

1234567 6-REMOVE
---------------------

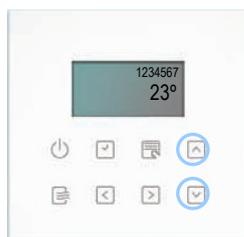
1234567 09:58 23°
----------------------

It may be necessary to remove an unit without LCD from an unit with LCD. In this case press  within the option 6-REMOVE.

With the keys  and  you can navigate between the installed units. Once you have selected the one you wish to delete, press  to validate.

This unit is now removed, and you are no longer able to edit its programme.

## Ideal temperatures - OTC-CLIMA



↑  
PROG

You must have an ideal temperature for summer and winter. This temperature is selected as the target when climatization is switched on outside the periods defined in the programme.

This can happen for example when you return home earlier than usual.

In this case you wish to turn on climatization without having to change the programme. To do this, simply switch it on with the  key and the ideal temperature is automatically selected as target temperature.

### Ideal summer temperature



Adjustment of the summer temperature is done by pressing PROG for 2 seconds:

- when touching the panel only the keys  and  light up.

Press the  key to adjust the summer temperature.

On the LCD you will see the selected temperature. You can select between 18° and 29° pressing successively the PROG key.

Once the desired value is selected, you can confirm it with .

### Ideal winter temperature



Adjustment of the winter temperature is done by pressing PROG for 2 seconds:

- when touching the panel only the keys  and  light up.

Press the  key to adjust the winter temperature.

On the LCD you will see the selected temperature. You can select between 18° and 29° pressing successively the PROG key.

Once the desired value is selected, you can confirm it with .

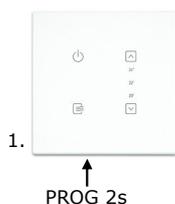
## CONFIGURATION OF THE UNIT WITHOUT LCD

There are some parameters that can be adjusted directly on the unit without LCD.

These are:

- ideal winter temperature
- ideal summer temperature
- operating cycle

### Ideal temperatures



The unit without LCD is a programmable thermostat with three periods of operation for each day of the week. During these operation periods the temperature is controlled in accordance with the programme. Outside the operating periods the climatization is switched off.

Even so, the user can switch on climatization by pressing the button  in winter or the button  in summer. The target temperature is the ideal temperature which is defined as follows:



## Ideal winter temperature

1. Keep the key PROG pressed during 2 seconds.
2. Now press the button : The LED of the temperature scale light up indicating the actually selected temperature. If two LEDs (e.g. 20° and 22°) light up; this means that the selected temperature is in the middle, e.g. 21°.
3. Press PROG to select the next temperature. Pressing PROG repeatedly increases the temperature until the turnaround point and return to the lowest temperature. You can select a temperature from 19°C until 24°C in 1°C steps.
4. Confirm the selection by pressing .

## Ideal summer temperature

- Keep de key PROG pressed during 2 seconds.
- Press the button : The LED of the temperature scale light up indicating the actually selected temperature.
- Press PROG to select the next temperature. Pressing PROG repeatedly increases the temperature until the turnaround point and return to the lowest temperature. You can select a temperature from 20°C until 25°C in 1°C steps.
- Confirm the selection by pressing .

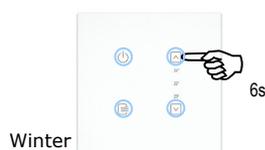


## Selection of Winter and Summer cycle

The unit without LCD can work during winter (heating control) as well as during summer (cooling control).

To select the **Winter** mode, proceed as follows:

1. Switch on the unit with the button .
2. Keep the key pressed during 6 seconds: you will hear a beep to indicate that the mode was selected.

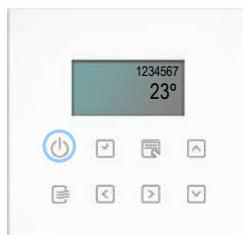


To select the **Summer** mode, proceed as follows:

- Switch on the unit with the button .
- Keep the key pressed during 6 seconds: you will hear a beep to indicate that the mode was selected.

## OPERATION

### UNIT WITH LCD



When the unit with LCD is switched off, touching the panel will only light up the LED of the  key. This means that the only possible operation is switching the unit on or off.

To switch on the unit press : you will hear two beeps indicating that the unit is on and the LEDs of some other keys light up.



#### Manual operation

The unit with LCD can operate in automatic and manual mode. To operate in automatic mode it is necessary that the unit has the date and time adjusted. If this is not the case, the unit can only function in manual mode.

If the display shows only the temperature, this means that there is no date and time adjusted.

In this case, when you switch on the unit with the  key, it automatically goes to manual mode. This is indicated by the LED of the  key that blinks or lights up.

 blinks - unit switched on but climatization switched off

 lights up - unit switched on and climatization switched on

In this last case the LCD indicates  if it is cooling or  if it is heating up.

During manual operation the ideal temperature is the one that is previously adjusted for the respective season.

If desired, you can edit the target temperature by pressing the keys  to increase or  to decrease.



### Automatic operation

If the date and time are adjusted, the display shows the time. In this case, when you switch on the unit it goes to automatic mode.

If the actual time is outside of any defined operating period the unit stays in STANDBY, waiting for an operating period to start.

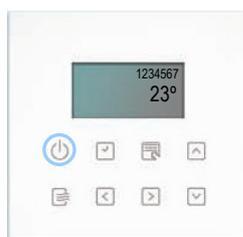
In this case the  key does not light up, indicating that the climatization is switched off.

Pressing the  key switches the unit on in manual mode. The target temperature is the defined ideal temperature. Climatization is switched on if necessary.

As an alternative, you can press  in winter or  in summer. In this case climatization is always switched on being the target temperature the actual temperature plus (winter) or minus (summer) 1°.

When the time reaches an operating period, the defined target temperature of that period is selected and the unit switches to automatic mode.

When the program ends, climatization is switched off.



To switch off the unit, press  for more than 1 second.

## UNIT WITHOUT LCD



When the unit without LCD is switched off, only the LED of the key lights up when the panel is touched. This means that the only possible operation is switching the unit on or off.

To switch on the unit press : you will hear two beep tones indicating that the unit is switched on and the LEDs of some more keys light up.

## Manual operation



The unit without LCD can operate in automatic and manual mode.

To operate in automatic mode it is necessary that the unit receives the date and time. If this is not the case, the unit can only function in manual mode.

Since the unit without LCD does not have its own clock (there is no display for it) you can receive the time signal from other units in the system. The ONLY units that send time signals are the D-BUSDRV and the CENTRALSEC..

As such, when at least one of these units is placed in the system and the date and time are adjusted, the unit without LCD receives the time signal.

If this is not the case, when you switch on the unit with the key, it goes directly to manual mode. This is indicated by the LED of the key that lights up or starts blinking.

blinking - unit switched on but climatization switched off

lights up - unit and climatization switched on

During manual functioning the ideal temperature is the one previously adjusted for the respective season.

If desired you can change the target temperature by pressing the keys to increase or to decrease the temperature.



## Automatic operation

If the unit receives a time signal it goes to automatic operation when it is switched on.

If the actual time is outside any defined operating period, the unit stays in STANBY until an operating period starts.

In this case the key stays off, indicating that climatization is switched off.

Pressing the key switches the unit on in manual operation and the target temperature is the defined ideal temperature. If necessary, climatization is switched on.

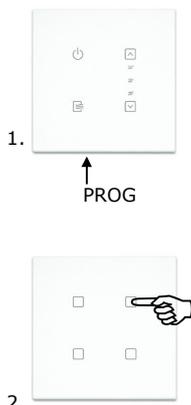
As an alternative you can press in winter or in summer. In this case climatization is always switched on being the target temperature the actual temperature plus (winter) or minus (summer) 1°.

When the time reaches an operating period, the defined target temperature of that period is selected and the unit switches to automatic mode.

When the program ends, climatization is switched off.

To switch off the unit, press for more than 1 second.

## INTEGRATION WITH DOMOTICS

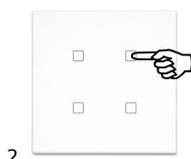


The units of the ONLY climatization can be integrated with the rest of the automation. It may for instance be an advantage in an office to associate the opening of a blind or switching on a light to switching on climatization. In this way the user configures the office with the use of just one button. When switching on the light or opening a blind, climatization is switched on. When switching off the light or closing a store, climatization is switched off.

For this, the association is done in the same way as any other output of the ONLY system.

To associate a unit to a button, proceed as follows:

1. press PROG on the climatization unit
2. then press the automation button that you wish to associate.



To remove the button from the unit:

1. press PROG on the climatization unit
2. press PROG again for more than 1 second to switch to the mode APAGAR
3. then press the automation button you wish to remove.

## Association with Scenarios

The SCENARIO commands are commands that allow the combination of different states of multiple outputs.

The climatization units can be linked to these scenarios, like the other units.

For the scenario the status of the unit is memorized:

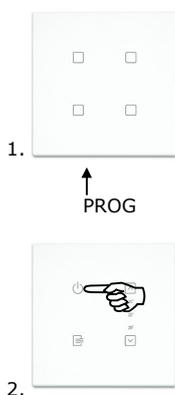
- switched off
- automatic mode
- manual mode

The unit will enter the respective mode when the SCENARIO command is received.

## Association with ON or OFF

The commands ON and OFF are commands that define a specific state. Therefore, the climatization units execute them literally.

As such the command ON switches climatization on independent of the state it was in. The command OFF switches climatization off, as well as it switches the unit off.



## Association of outputs to climatization

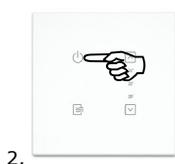
It might be necessary to associate automation outputs to the climatization units. This is for instance the case when you wish to command a boiler with an ON/OFF output via any ONLY module that is installed near it.

The intention is that this output is switched on if at least one climatization unit is heating, and switched off otherwise. Therefore, this output must be associated to the climatization units.

To do this, proceed as follows:

1. press PROG on the output module
  2. then press  on the climatization unit.
- Repeat this for further climatization units.

From now on, the output is turned on when at least one of the associated units is ON.



## FACTORY DEFAULT

### VERY IMPORTANT:

The ONLY climatization units have to be configured according to the installation in which they are used. This configuration should be done by the installer because it depends on the installation architecture and the physical connections made.

Therefore, you should **never reset to the factory default settings**, because the unit will no longer function.

To reset the unit to the factory default, press PROG for more than 10 seconds. At the end you will hear a long BEEP.

Factory mode performs the following functions:

- Erases all keys from memory
- Erases all temperature programs
- Select winter mode
- Restores ideal temperatures to 20°C in winter and 24°C in summer
- Resets operating mode 1
- Select local machine control

## RELAYS MODE

Climatization units need to be configured for the application in which they are installed. This programming is done like this:

- 1.) Hold down the PROG key for 2 seconds
- 2.) Press the key  $\phi$  :
  - A beep will sound (mode 1)
- 3.) Select the desired mode with the PROG key
- 4.) Confirm with key  $\phi$ .

The possible modes depend on the model in question. For units with 2 relays the possible modes are as follows:

Mode	R1	Relays	R2
1	Heating		Heating
2	Cooling		Cooling
3	Heating		Cooling
4	Heating + Colding		Heating + Cooling
5	Switch on when ON		Heating + Cooling
6	Switch on with unit		Proporcional Heating

The different modes are intended for the following type of air conditioning:

Mode	Type
1	Heating only with radiators and boiler
2	Cooling only (indiscriminated machine)
3	Heating and Cooling with 2 diferents machines
4	1 speed fan coil (ventilation only when heating or cooling)
5	1 speed fan coil (ventilation when climatization is ON)
6	Floor heating + cooling by water

For units with 4 relays the possible modes are as follows:

Mode	V1, V2, V3	Relays	VA
1	Switch on when ON		Heating + Cooling
2	Heating + Cooling		Heating + Cooling
3	Heating + Cooling		Cycle: Heating (1) ou Cooling (0)

The different modes are intended for the following type of air conditioning:

Mode	Type
1	1 speed fan coil (ventilation when climatization is ON)
2	1 speed fan coil (ventilation only when heating or cooling)
3	DAIKIN Air Conditioning máquinas FDX*

\* - DAIKIN KRP413A adapter card only.

## 2 MACHINE AIR CONDITIONING

If two HVAC systems have been installed in the same space, normally floor heating or radiators for heating (local machine) and air conditioning or fan coil for heating and cooling (remote machine), then your thermostat can control both machines as long as installation has been made for this.

You can always define whether you want to acclimatize with the local machine, with the remote one or with both.

To configure the type of operation, proceed as follows:

- 1.) Hold down the PROG key for 2 seconds
- 2.) Press the key :
  - a beep will sound (operation type 1)
- 3.) Select the desired type with the PROG key
- 4.) Confirm with key .

Possible types are:

Mode	Operation
1	Operation only with local machine
2	Operation only with remote machine
3	Operation with both machines

To associate a remote machine controller (CO-TERMO4) to this unit, proceed as follows:

- 1.) Press the PROG key on the remote unit (CO-TERMO4)
  - The 3 LEDs light up.
- 2.) Press the key  on the local unit's panel.

NOTE: each remote control can only have one thermostat associated.

## Remote machine control

If you chose climate control with a remote machine, the thermostat will only control the remote machine.

Likewise, if you chose to control with both, both will work at the same time.

If you chose climate control with the local machine, you can always turn on the remote machine by simply pressing the key  when the climate is on (heating or cooling): the remote machine will be turned on to help the climate control. When it reaches the ideal temperature, the remote machine will be turned off and will not be turned on again until a new manual order.

When the remote machine is in operation, pressing the key  allows you to control the fan speed or even turn it off.

- To select the speed then press the key 
- To turn off the remote machine, keep the key  pressed for more than 1 second.