

1

10156 06 - 2017

П

WALL-MOUNTED

User Manual

Contents

1 - QUICK START 1.1 Important 1.2 Key features 2 - WUI DISPLAY OVERVIEW	3
3 - OVERVIEW OF ICONS	5
4 - PROGRAMMING THE CONTROL	6
4.1 Clock/Day: Setting the time and day	6
4.2 Heating / Cooling / DHW only / Off: Changing the operating mode	7
4.3 Home / Sleep / Away: Changing the comfort range	8
4.4 Current setpoint control: Changing the temperature	
4.5 Additional data display: General status of the unit	11
4.6 Scheduling: Assigning schedules to heating and cooling modes	
5 - ADVANCED PROGRAMMING OPTIONS	
5.1 Advanced settings: Programming the Control	
5.2 Domestic Hot Water mode	
5.3 Pool Heating mode	
5.4 Master / Slave control	16
6 - ALARMS AND ERRORS	
6.1 Alarms	
6.2 Errors	

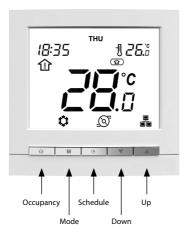


1.1 Important

Your system is controlled by a Wall-Mounted User interface (WUI) that can be installed inside your home.

This manual provides guidelines on how to use this interface effectively.

If you have any questions regarding the display and its configuration, please contact your installer for more information.



1.2 Key features

- Heating / Cooling: Depending on the unit, the system may operate in Heating or Cooling.
- Occupancy control allows you to easily set the system to operate in the following modes:



• Easy temperature control: Depending on system configuration, room temperature or water temperature will be constantly displayed on the screen.

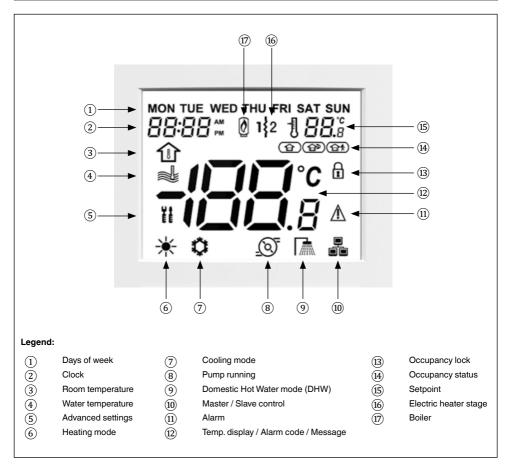


Room temperature icon indicates that system control is based on room temperature.



Water temperature icon means that the system is controlled according to water temperature.

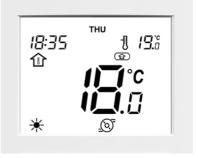
- The setpoint which is the temperature to be achieved is displayed in the upper-right corner of the screen.
- Schedule control allows you to set the unit to operate with a set of pre-defined parameters (heating/cooling, occupancy, setpoint) in a specific period of time. You can always modify the schedule if necessary.
- Additional data display: In addition to the standard display, you may easily check other parameters, which provide information on the general status of the unit.
- Home anti-freeze protection is used to maintain the minimum room temperature. When the room temperature goes below a user-defined threshold, the unit starts heating in order to protect the building against freezing. No user configuration is required.
- Water anti-freeze protection is used to protect water pipes against freezing when the outdoor air temperature is low. No user configuration is required.
- Alarms are used to warn of potentially dangerous situations that may result in the failure of the unit.
- Domestic Hot Water. The DHW mode allows for controlling hot water production provided that the heat pump system is equipped with a domesic water tank and a diverting DHW valve.
- Master/Slave control allows you to control up to four units at the same time.
- Pool heating mode allows for controlling pool water temperature provided that the heat pump system is equipped with a specific heat exchanger and a diverting valve.
- **TIP** To configure the advanced parameters of the unit, please contact professional technicians.



Home Screen

Please note that the home screen display may vary depending on unit configuration and screen settings:

- Heating / Cooling / DHW mode
- Additional heating: Boiler or electric heating
- Occupancy mode control: Home/Sleep/Away
- Air temperature control (room temp.)
- Water temperature control
- Time display: 12-hour clock or 24-hour clock



	Days of week:		Temperature display:		
FRI	Monday – Sunday		Room temperature		
	Clock:				
	12-hour or 24-hour clock display		Water temperature		
	Room temperature:		Occupancy lock:		
<u> </u>	System control is based on room	[8]	Occupancy is set manually by the user		
	temperature		(schedule control is disabled)		
	Water temperature:		Occupancy:		
	System control is based on water	(行)	HOME mode is active		
	temperature				
	Advanced settings:		Occupancy:		
ĔĒ	The icon is blinking when a password	(((1 _□))	SLEEP mode is active		
	is required				
<u> </u>	Heating mode:	(A)	Occupancy:		
<u>不</u>	HEATING mode is active		AWAY mode is active		
- L	Cooling mode:		Setpoint:		
1 1	COOLING mode is active		Temperature to be achieved		
" X "			(room or water temperature)		
	Pump status:	L I	Electric heater stage active:		
<u>(``Q`)</u>	Pump is running	1{2	Used in the case of heat pump failure		
		ſ	or low outdoor air temperature		
	Domestic Hot Water mode (DHW):		Boiler active:		
///////	DHW mode is active	0	Used in the case of heat pump failure		
<i>1</i> //1000		Ъ	or low outdoor air temperature		
	Master / Slave:		Alarm:		
	Steady icon: This interface is	٨	Steady icon: Alarm condition		
	connected to the master unit and it is	/١\	detected; the unit is stopped		
	used to control all units in the same	<u>/•</u>			
	master/slave group				
<u> </u>	Fast flashing icon: This interface is	$\land \land \land$	Elashing icon: Alarm condition		
	connected to the slave unit and it is	$\overline{}$	detected; the unit is running		
	controlled by commands sent from the				
	Master Slowly flashing icon: Master/Slave				
₽	communication failure				

NOTE When the user interface backlight is switched off, press any key to turn on the display.

4.1 Clock/Day: Setting the time and day

Before using any programming features of the WUI, it is

necessary to set the time and day of the control.

To configure time and day display

1. To access the time configuration menu, press and hold the **Schedule** key for 2 seconds.



Day of week setting

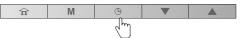
2. The current day starts flashing.



3. If necessary, press the **Down** key or the **Up** key to change the day of the week.

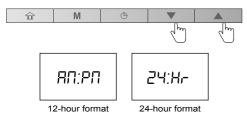
â	M	G		
			راس	Հիղ

 Press the Schedule key to confirm your selection and go to the next parameter.

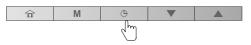


Time format setting

- 5. Once the day of the week has been confirmed, set the time format.
- 6. Press the **Down** key or the **Up** key to change the time format.



7. Press the Schedule key to confirm the time display.



You may customise the clock to display time in a 12hour or 24-hour format.

Example: 12-hour clock display



Example: 24-hour clock display



Time setting

- 8. Once the time format has been confirmed, set the time.
- 9. Press the Down key or the Up key to set the time.



For 24-hour format: Set the <u>hour</u> and press the Schedule key to confirm. Then, set <u>minutes</u> and press the Schedule key to confirm.

10. To confirm all changes, press and hold the **Schedule** key for 2 seconds.



4.2 Heating / Cooling / DHW only / Off: Changing the operating mode

The operating mode display depends on the unit configuration as well as user settings.



Heating: The heat pump heats the water loop to the selected temperature setpoint.

Cooling: The heat pump or chiller cools the water loop to the selected temperature setpoint.

Domestic Hot Water only: The heat pump is used to provide domestic hot water. Cooling or Heating is disabled.

Example:



Mode	Cooling
Occupancy	Home
Temp. control	Air temp. control
Room temp.	28°C
Setpoint	26°C

To set the operating mode

1. Press the **Mode** key successively to select the required operating mode.



2. The icon corresponding to the selected mode will be displayed.

Example:



Mode	Heating	
Occupancy	Home	
Temp. control	Water temp. control	
Water temp.	34°C	
Setpoint	35°C	

To turn on the system

1. Press the **Mode** key to go from the OFF Mode to any other mode.



To turn off the system

1. Press and hold the Mode key for 2 seconds.

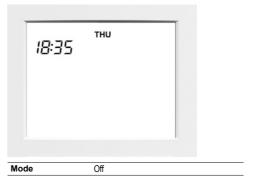


2. The unit will be turned off, but the current time and day will be still displayed on the screen.

When the unit is OFF, all operating modes described above (cooling / heating / DHW only) are disabled.

Never turn the power off to your system in order to ensure that the home anti-freeze protection and the water anti-freeze protection are always available.





4.3 Home / Sleep / Away: Changing the comfort range

To optimise energy efficiency of the building while preserving its occupants' comfort, the controller is normally scheduled according to occupancy hours.

If necessary, you can select the occupancy mode manually. Each occupancy mode is associated with a pre-defined temperature range.

Three methods used to define the comfort range (occupancy mode) are as follows (A/B/C):

A. Scheduling

The user can set up to 8 steps where each step is defined by the following parameters:

- Starting time
- Occupancy mode
- Day(s) of week when it is activated

For more information about occupancy control based on scheduling, please see "Scheduling: Assigning schedules to heating and cooling modes" on page 12.

B. Manual setting

The user can change occupancy directly on the screen. This setting will be effective until the next scheduling step becomes active.

To set occupancy manually

1. Press the **Occupancy** key successively to select the required occupancy mode.



2. The icon corresponding to the selected mode will be displayed.





The heat pump or chiller is running in the **Home** mode and the Home setpoint is used.

The heat pump or chiller is running in the **Sleep** mode and the Sleep setpoint is used.

The heat pump or chiller is running in the ${\bf Away}$ mode and the Away setpoint is used.

Note To configure the setpoints of different occupancy modes, refer to " Current setpoint control: Changing the temperature.

C. Occupancy lock

The current occupancy can be locked during a period specified by the user ("occupancy lock"). During this time, the scheduling will be ignored. Once this period has elapsed, occupancy returns to the scheduling setting.

To set the time for the selected occupancy

1. Press and hold the **Occupancy** key for 2 seconds.



 The length of Home / Sleep / Away period can be set in hours or days. Press the **Down** key or the **Up** key to set the required number of hours/days.



Example: Occupancy period (2 hours / 2 days)



Note Upon "23 Hr", the display switches to days ("1 d"). When set in days, the defined occupancy will end at exactly the same time it started. Afterwards, the mode defined by the schedule will be in force.

 To confirm the selected occupancy, press and hold the Occupancy key for 2 seconds.



4. The lock icon will be displayed $\begin{bmatrix} \square \\ \$ \end{bmatrix}$

Example: Occupancy lock (Home)



To cancel the occupancy lock

1. Press and hold the Occupancy key for 2 seconds.



 The display will show you the time remaining till the end of the selected occupancy. Press the **Down** key to set the counter to "0".



3. To confirm your action, press and hold the **Occupancy** key for 2 seconds.



 The lock icon will disappear ^(C)
 ^{(C}

4.4 Current setpoint control: Changing the temperature

Two different configurations could be available:

- If the user interface is installed on the unit (local user interface), then the setpoint control is based on the leaving water temperature.
- If the user interface is installed indoors (remote user interface), then the setpoint control is based on the room temperature.

WUI type	Current setpoint
Local	Water setpoint
Remote	Air setpoint

To achieve better comfort, it is possible to adjust the current setpoint according to your needs.

To adjust the setpoint

- 1. Press the **Down** key to decrease the temperature.
- 2. Press the Up key to increase the temperature.



Please remember that the setpoint can be adjusted only within a range defined for each occupancy mode.

Note 1 After a pre-defined period of inactivity (no key is pressed), the setpoint information (air or water temp. to be achieved) is dimmed. By default, the timeout is 10 minutes.

Note 2 With the method described in this section, it is also possible to configure the setpoint for different occupancy modes, except when setpoint control is configured on leaving water setpoint and with the climatic curves (depending on installer configuration). In this case, the setpoints cannot be changed by user. If necessary, please contact a professional technician to change the configuration.

ROOM TEMPERATURE CONTROL

Example (room temp. and air setpoint):



Current setpoint 19°C

WATER TEMPERATURE CONTROL

Example (water temp. and water setpoint):



Current setpoint 35°C



4.5 Additional data display: General status of the unit

Normally when the **user interface** is installed **indoors**, you have the current **indoor air temperature** and the **air setpoint** displayed on the screen.

For units installed **outdoors**, the **display** normally shows the current **water temperature** and the **water setpoint**.

In addition to these temperatures, WUI gives you the option to check other parameters allowing you to monitor the status of the unit (see the table given below). Please note that these parameters (1-17) are in read-only access.

No.	Description	Parameter number	EREBA T/HT	EREBA He
1	Outdoor Air Temp	P001	х	х
2	Entering Water Temp	P003	х	х
3	Leaving Water Temp	P004	Х	х
4	Water Control Temp	P044	х	х
5	Saturated Suction Temp	P008	х	N/A
6	Suction Temperature	P009	х	х
7	Superheat Temperature	P015	х	х
8	Superheat Target Temp	P016	Х	х
9	Discharge Temperature	P010	Х	х
10	Refrigerant Temperature	P005	х	х
11	Requested Compressor Frequency	P022	Х	х
12	Actual Compressor Frequency	P023	Х	х
13	Water Control Point	P043	Х	х
14	Flow Switch Status	P070	Х	х
15	Safety Switch Status	P069	Х	х
16	DHW Tank Temperature	P091	o1	o1
17	Pool Entering Water Temp	P117	o2	o2

x = Value is displayed for this unit

o1 = Value is displayed only if DHW option is configured

o2 = Value is displayed only if Pool Heating option is configured

N/A = Value is not available for this unit (-40°C is displayed)

To display the required temperature

1. Press and hold the **Occupancy** key and the **Mode** key simultaneously for 2 seconds.



- 2. The first parameter will be displayed.
- 3. Press the **Down** key or the **Up** key to switch between all parameters listed in the table above.



 To exit the current screen, press and hold the Occupancy key until the home screen is displayed or wait for 30 seconds (screen timeout).



Example: Outdoor Air Temp (Parameter: P001)



4.6 Scheduling: Assigning schedules to heating and cooling modes

The scheduling functionality makes it possible to set the unit to operate in a specific mode during a pre-defined period of time. The system allows you to modify eight steps, where each step is defined by the day(s) of the week, start time, and occupancy.

Example of scheduling parameters

Step		Day of week							C	Occupanc	у
Number	MON	TUE	WED	THU	FRI	SAT	SUN	Start time	Home	Sleep	Away
1	х	х	х	х	x	x	х	06:00	х		
2	х	х	х	х	x			08:00			х
3			х					12:00	х		
4	х	х		х	x			17:00	х		
5	х	х	х	x	x			22:00		х	
6						x	х	23:00		х	
7								00:00			
8								00:00			

Hour (Start time)

Hour	06	:00	08	:00	12:	:00	17	:00	22	:00	23	:00
MON	•									•	•	•
TUE	•									•	•	•
WED	•									•	•	•
THU	•									•	•	•
FRI	•									•	•	•
SAT	•											•
SUN	•											•

Occupancy mode

	Home
	Away
•	Sleep

 \sim Complete the schedule according to daily routine and use it as you follow the instructions below.

Step			D	ay of wee	k			Start time	Occupancy		
Number	MON	TUE	WED	THU	FRI	SAT	SUN	Start time	Home	Sleep	Away
1											
2											
3											
4											
5											
6											
7											
8											

4 - PROGRAMMING THE CONTROL

To modify the schedule (schedule steps)

1. Press the Schedule key to edit the schedule.

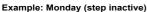


2. Upon entering the schedule menu, you will be able to edit the first schedule step.

Day(s) of the week

 The first day of the week ("MON") will start flashing. Press the **Down** key or the **Up** key to set "Yes" (step active on this day) or "no" (step inactive on this day).







Example: Monday (step active)



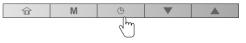
4. Press the Schedule key to confirm your choice.

â	M	G	
		qm	

 The following day ("TUE") will start flashing. Press the **Down** key or the **Up** key to set "Yes" (step active on this day) or "no" (step inactive on this day).



6. Press the **Schedule** key to confirm your choice and continue with the remaining days of the week.



Start time

- 7. Once the last day of the week ("SUN") has been set, the clock starts flashing.
- 8. Press the **Down** key or the **Up** key to set the start time.



9. Press the Schedule key to confirm the start time.

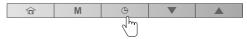


OCCUPANCY

- 10. Once the start time has been set, the occupancy icon starts flashing.
- 11. Press the **Down** key or the **Up** key to set the <u>occupancy</u> for a given period.



12. Press the **Schedule** key to confirm the selected occupancy.



- 13. The first day "MON" will start flashing. You can edit your schedule settings again if necessary.
- 14. To validate the current schedule, press and hold the **Schedule** key for 2 seconds.



15. The next schedule step will be displayed (Schedule 2).

Saving the schedule

At any time in the schedule menu, you can save the current schedule step settings and go to the next schedule step.

To save the current schedule and go to the next one

 Press and hold the Schedule key for 2 seconds (repeatedly) until the required schedule number appears.

俞	М	G		

2. Perform all required steps as presented earlier in this section.

Editing schedules

If necessary, you may easily modify any of 8 schedule steps that are available.

To modify only one schedule, e.g. schedule "2"

1. Press the **Schedule** key to enter the schedule menu.

ô	M	Θ	
		Ś	

 Press and hold the Schedule key for 2 seconds to validate schedule "1" without making any modifications.

Û	M	G		

- 3. Schedule "2" will be displayed.
- 4. Perform all required steps as presented earlier in this section.

Example:



Start time	9:00	
Days of week	WED, SAT, SUN	
Occupancy	HOME	
Schedule step	8	

To exit the schedule menu

1. To exit the schedule menu at any time, press and hold the **Occupancy** key for 2 seconds.

Û	M	Θ	
- mo			

 The home screen will be displayed and changes made to the currently modified schedule will NOT be saved.

For example:

After having set and validated schedule "1", you may want to edit schedule "2".

- When exiting schedule "2" without prior validation, schedule "2" will NOT be saved (schedule "1" will be saved).
- To validate a schedule, press and hold the **Schedule** key for 2 seconds.

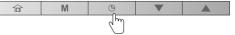


Deleting a schedule step

There are 8 schedule steps available; however, not all of them have to be used.

To delete a schedule

1. Press the Schedule key to go to the Schedule menu.



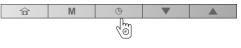
- 2. Once you have navigated to the schedule step to be deleted, you have to deselect all days of the week in a given schedule.
- 3. Press the **Down** key or the **Up** key to set "no" (step inactive on this day).



4. Press the **Schedule** key to confirm your choice.



- 5. Follow steps given above (step 3 and 4) to deselect all days of the week.
- 6. To confirm deleting the schedule step, press and hold the **Schedule** key for 2 seconds.





5.1 Advanced settings: Programming the Control

The settings menu is used by technicians to configure some advanced settings of the unit.

To access the settings menu

 Press and hold the Occupancy key and the Schedule key simultaneously for 2 seconds.



- 2. The password screen is displayed.
- Provide the password. For the user access, provide the following password: 0000.
- To validate the password and access settings configuration, press and hold the Mode key for 2 seconds.

合	M	G	
	- M		

5. Press the **Down** key or the **Up** key to navigate across the screens.



5.2 Domestic Hot Water mode

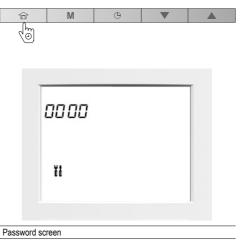
Please remember that the Domestic Hot Water (DHW) mode enabling hot water production is applicable only to heat pumps that come with a domestic water tank.

Normally the Domestic Hot Water mode is triggered whenever necessary and no further action from the user is required.

The Domestic Hot Water schedule and the DHW setpoint are set by the installer. For more information about DHW schedule configuration, please refer to the IOM Manual.

To exit the password screen

1. Press and hold the **Occupancy** key until the home screen is displayed.



For more information about advanced settings configuration, please refer to the IOM Manual.

5.3 Pool Heating mode

Please remember that the Pool heating mode enabling hot water production is applicable only to heat pumps that come with a Pool heatting recommended heat exchanger.

Normally the Pool heating mode is triggered whenever necessary and no further action from the user is required.

The Pool heating schedule and the Pool heating setpoint are set by the installer. For more information about Pool heating schedule configuration, please refer to the IOM Manual.

5 - ADVANCED PROGRAMMING OPTIONS

5.4 Master / Slave control

Building installations may require a few units to be interfaced together in order to provide cooling / heating on the same network.

The unit that is the decision point for the OPERATING MODE and the CONTROL POINT is defined as the **Master**, all other units belonging to the same group on the same network are referred to as **Slaves**.

When the user interface is connected to the Master unit, the Master / Slave icon is displayed on the screen.



If you change the operating mode or define a new setpoint on your "master" user interface, this command will be sent to all slaves on the network. The slaves will act according to the command sent from the Master.

When the **user interface** is connected to the **Slave unit**, the Master / Slave icon is **flashing rapidly**.



If you change the operating mode or define a new setpoint on your "slave" user interface, this command will be ignored. The operating mode and setpoint defined by the Master will be active.

When the **Master / Slave communication failure** occurs, the Master / Slave icon is **flashing slowly**.



In the case of master/slave communication failure, the Master will run in the standalone mode or it will continue to operate with other Slave units that are still communicating. The affected Slave unit will stop all of its operations.

Please contact a professional technician in order to set the Master/Slave assembly control.

Example: Master / Slave mode



6.1 Alarms

Alarms are used to inform you of the failure of one of the parts of the heat pump or chiller system.

In the case of an alarm, the alarm icon is displayed:

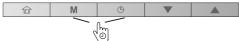


<u>Steady icon</u>: Alarm condition detected; the unit is stopped

<u>Flashing icon</u>: Alarm condition detected; the unit is running

To see the alarms

1. Press and hold the **Mode** key and the **Schedule** key simultaneously for 2 seconds.



- 2. The alarms menu will be displayed.
- Press the **Down** key or the **Up** key to display the alarms (1 to 5).



Two types of alarms are displayed:

Current alarms (C-X) / Past alarms (P-X).

Example:



Current alarm		
Alarm code	16	

Example:



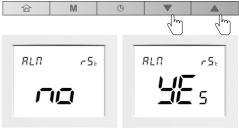
Past alarm	P1	
Alarm code	15	

To reset alarms

1. In the alarm menu, press and hold the **Mode** key and the **Schedule** key simultaneously for 2 seconds.



- 2. The reset alarm menu will be displayed.
- 3. Press the **Down** key or the **Up** key to set the alarms reset to "YES".



Alarm reset: NO

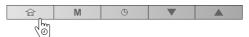
Alarm reset: YES

 To confirm the alarms reset, press and hold the Mode key and the Schedule key simultaneosly for 2 seconds.



To exit the alarm screen

Press and hold the **Occupancy** key until the home screen is displayed.



For more information about alarms, please refer to the IOM Manual.

6.2 Errors

Some components failure may cause the user interface to malfunction. In such cases, the error will be displayed on the screen.

Example: E1, error 1



- ID Description
- 1 Communication failure
- 2 Wrong configuration (Unit not configured to use WUI)
- 3 Profile table wrong size
- 4 Parameter not found but mandatory
- 5 Room sensor failure

For more information about errors, please refer to the IOM Manual.

Local parameters

No. Description Parameter number Default value Range 1 Hour of Day P901 0 to 23 0 2 P902 Minute of Hour 0 to 59 0 3 Day of Week & Holiday 1 P903 0 to 255 0 4 P904 0 Day of Month 1 to 31 5 Month P905 1 to 12 0 6 P906 Year 0 to 99 0 7 DAYLIGHT SAVING SELECT No/Yes P920 No 8 2 Hour of daylight saving period entering P921 0 to 22 9 P922 1 to 23 Hour of daylight saving period leaving 3 P923 10 Month 1 to 12 3 11 Day of week (1=Monday) P924 1 to 7 7 12 Week Number of Month P925 1 to 5 5 13 Month P926 1 to 12 10 14 Day of week (1=Monday) P927 1 to 7 7 15 Week Number of Month P928 1 to 5 5 16 CCN address of chiller P051 1 17 LCD display timeout1 P952 5 to 60 min 10 min P953 No/Yes 18 AM/PM Time format No 19 CCN Element Address P991 1 to 239 116 20 CCN Element Bus P992 0 to 239 0 21 P993 9600/19200/38400 38400 Baud Rate 22 PIC Application SW Version Number P999

In case of error, please verify that all WUI local parameters are correct, i.e. check the value of parameters given in the table below.

To access local parameters

1. Press and hold the **Occupancy** key and the **Mode** key simultaneously for 2 seconds.



- 2. The first parameter will be displayed.
- 3. Press the **Down** key or the **Up** key to switch between all parameters listed in the table.



 To exit the current screen, press and hold the Occupancy key until the home screen is displayed or wait for 30 seconds (screen timeout).







Siège social Avenue Jean Falconnier B.P. 14 01350 Culoz - France Tel. : +33 (0)4 79 42 42 42 Fax : +33 (0)4 79 42 42 10 info@ciat.fr - www.ciat.com

Compagnie Industrielle d'Applications Thermiques S.A. au capital de 26 728 480 € R.C.S. Bourg-en-Bresse B 545.620.114



CIAT Service

Tel. : 08 11 65 98 98 - Fax : 08 26 10 13 63 (0,15 €/mn)

Non-contractual document. With the thought of material improvement always in mind, CIAT reserves the right, without notice to proceed with any technical modification.

