

Control panel

MIT-II/E - MIT-II/H MIT/EP - MIT/HP QUADROPAC DUP 500




User Guide


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Congratulations on choosing a De Dietrich product, a product of quality. We strongly recommend that you read the following instructions in order to guarantee the optimal operation of your appliance. We are sure that you will not be disappointed and that it will satisfy all of your expectations.

1 Used symbols

 **Caution danger**
Risk of injury and damage to equipment. Attention must be paid to the warnings on safety of persons and equipment

 **Specific information**
Information must be kept in mind to maintain comfort


 Refer to another manual or other pages in this instruction manual


DHW: Domestic hot water


MIT: Indoor module fitted with a Diematic 3 control panel

HP or PAC: Heat pump.

2 Important recommendations

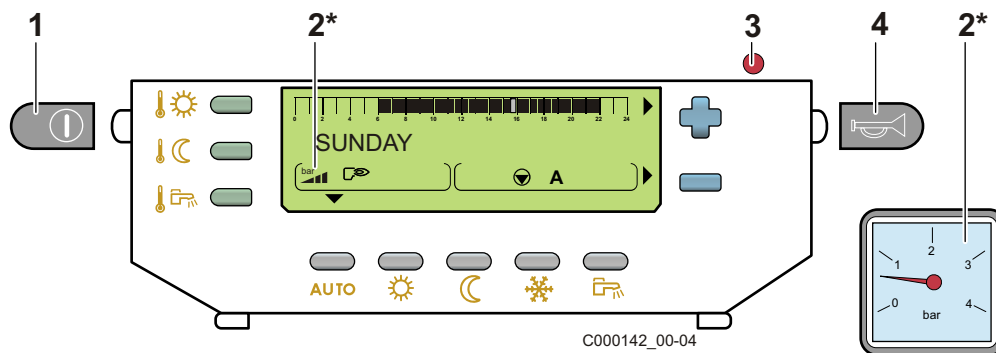
 For a proper operating of the boiler, follow carefully the instructions.

 Any intervention on the appliance and heating equipment must be carried out by a qualified technician.

 The manufacturer is not liable for any improper use of the appliance or failure to maintain or install the unit correctly (the user shall take care to ensure that the system is installed by a qualified fitter).


3 Control panel

3.1 Electromechanical components



1. Main ON/OFF switch

To take advantage of the pump cleaning function, do not switch off the appliance in summer. Use the Summer mode for the desired heating shutdown period.

 See: Operating mode.

If a remote control CDI 2 is connected, it will have no display when the general switch is in the off position .

2. Pressure gauge

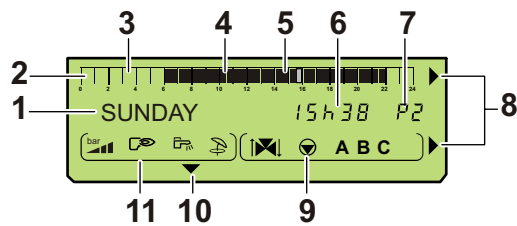
* Depending on the model of the appliance, the pressure gauge is manual (dial display) or automatic (pictogram display).






3. Alarm indicator

- Red indicator: The PAC is safe
- Green indicator: normal operation
- Red control light is flashing: Sensor fault








4. Reset button

3.2 Display











1	Text and numerical display
2	Graphic bar displaying the programme on circuit A or B (in zone 9)
3	Light area: Nighttime period
4	Dark area: Daytime period
5	Flashing cursor showing the current time
6	Number display (current time, adjusted values, parameters, etc.)
7	Active programme display, P1, P2, P3, P4 or E: Summer mode activated - heating OFF
8	Flashing arrows when the  or  keys should be used to adjust the displayed parameter
9	Circuit operation symbols
	Opening the 3-way valve
	Closing the 3-way valve
	Displayed circuit pump on
A, B	Name of the circuit displayed
10	Symbol displayed above the active operating mode





11	Symbols indicating that the following inputs/outputs are active
	ROE-II - ROE+ - SOLO - NAPO - ROI+ - ROE-H

	PAC is operating in Hot or Cold mode
	PAC is operating in Hot mode with additional electrical heating at stage 1
	PAC is operating in Hot mode with additional electrical heating at stage 2
	Additional electrical heating operating, stage 1. PAC off
	Additional electrical heating operating, stage 2. PAC off
	DHW production pending with the thermodynamic unit
	Forced "summer" condition

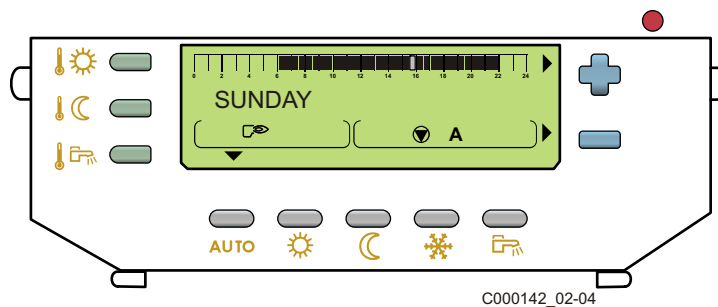
ROE+ TH

	PAC is operating in Hot mode with 1 compressor
	PAC is operating in Hot mode with 2 compressor
	PAC is operating in Hot mode with 2 compressors and 1 back-up provision
	PAC is operating in Hot mode with 2 compressors and 2 back-up provision
	Additional electrical heating operating, stage 1. PAC off
	Additional electrical heating operating, stage 2. PAC off
	DHW production pending with the thermodynamic unit
	Forced "summer" condition

Water pressure display, user interface

	Insufficient pressure: add water (0 - 0.5 bar)
	Addition of water recommended (0.5 - 1 bar)
	Pressure correct (1 - 2 bar)
	Too much pressure (> 2 bar)

3.3 Keys accessible when the flap is closed



Temperature setting keys

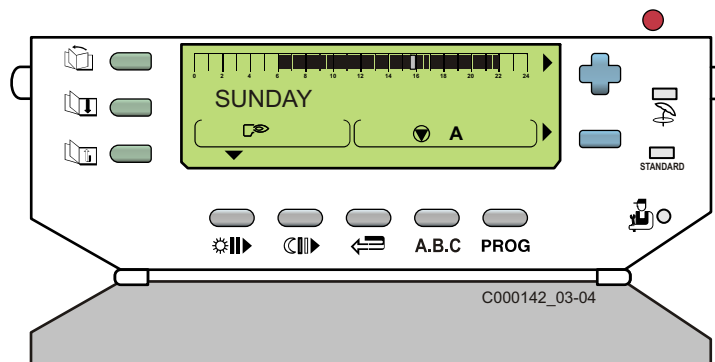
- Daytime temperature
- Nighttime temperature
- Domestic hot water temperature
- Is used to adjust the selected temperature

i When one of these keys is pressed, the active time programme corresponding to the circuit is displayed in the graphic bar

Operating mode selection keys

- AUTO** Heating according to the time programme
- Forced operation at Daytime temperature
- Forced operation at Nighttime temperature
- Antifreeze mode
- Tank load enabled mode

3.4 Keys accessible when the flap is open



Manual "Summer" shutdown key

STANDARD "Standard" programme key
Reset of all time programmes.

Fitter settings access key

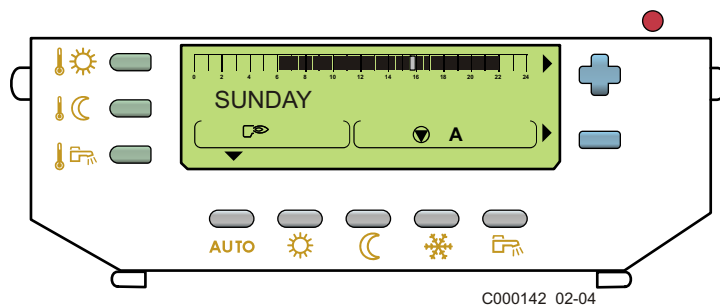
Key for access to setting and measurements

- Page scrolling
- Line scrolling
- Return to the previous line

Programming keys

- Input (per 1/2 hour) of the Daytime Temperature period
- Input (per 1/2 hour) of the Nighttime Temperature period
- Return key
- A.B** Circuit display selection key
- PROG** Active heating programme selection key (P1, P2, P3 or P4)

3.5 Operating mode



Select the operating modes using the **AUTO** - ☀ - ☾ - ❄ keys. These keys simultaneously control all circuits connected.

To modify the operating mode (**AUTO**, Daytime ☀ or Nighttime ☾) for only one of the heating circuits, use the remote control corresponding to this circuit.

An override applied to the remote control takes priority over the override selected on the central regulator.

- ▶ **AUTO** key = Automatic mode

Heating according to the time programme.

See: Programming.

- ▶ Key ☀ = Daytime mode

The heating operates according to the Daytime temperature, independently of the timed programmes.

- ▶ Key ☾ = Night mode

The heating operates according to the Nighttime temperature, independently of the timed programmes.

- ▶ Key 🛢 = Tank load enabled mode

Domestic hot water production is enabled, independently of the time programme.

- ▶ Key ❄ = **Antifreeze mode**

The heating is off but the installation is monitored and protected against frost.

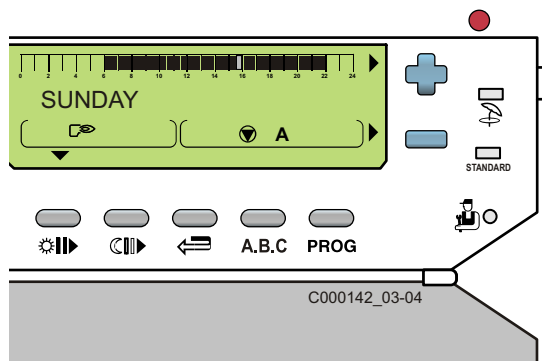
The antifreeze mode protects:

- The installation if the outside temperature is lower than 3°C (factory setting).
- The room temperature if a remote control is connected and the room temperature is lower than 6 °C (factory setting).

i Antifreeze protection is guaranteed for each heating circuit, regardless of the setting on the corresponding room temperature sensor. The room temperature in "antifreeze" mode is preset to +6 °C. This value can be modified if a room sensor is fitted.

See: Table of "User" setting.

- ▶ Key ☰ (Located under the flap) = **SUMMER** mode / Cooling



Key ☰ is used to cut off the heating and, if the corresponding function is activated, to switch to Cooling mode.

See menu **#HEAT PUMP**, parameter **REFR.**:













This function is independent of the "automatic heating shutdown" function in summer when the outside temperature exceeds the outside temperature for "heating shutdown".

i When the heating is off during the "summer" mode, the pumps are started up once a week for one minute in order to prevent fouling.

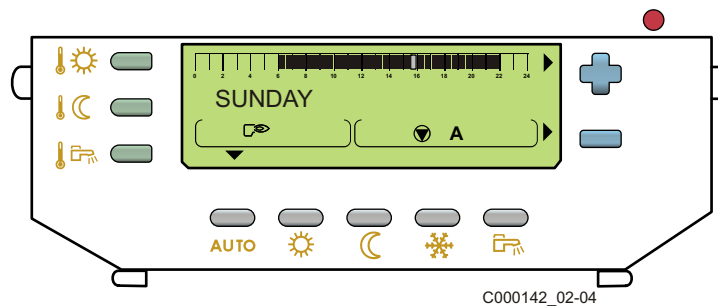
i The MIT interior hydraulic module operates in **COOLING** mode only:

- During the **DAY** period on timed programmes **A** and **B**,
- **and** if the outside temperature is higher than the instruction **SUM/WIN + SUM/WIN BAND** (Factory setting: 22 + 4 = 26 °C).

⚠ Do not use or modify this programme when operating with the QUADROPAC domestic hot water tank.

	Brief touch	Several brief touches	1 long touch (5 seconds)
AUTO key	Depending on the situation: - Cancellation of the Daytime or Nighttime mode - Confirmation of the antifreeze setting (or after 2 minutes)	–	Cancels the message SHOW REM. CTRL which signals the presence of an override on a remote control. The AUTO mode is forced on all existing heating circuits.
Key 	Temporary activation (Until midnight) The arrow above the key flashes.	–	Permanent activation The arrow above the key is steady.
Key 	Temporary activation Set the number of days' absence (current day = 1) using keys  and  (up to 99 days). The arrow above the key flashes. Cancellation: The antifreeze mode is cancelled when the number of antifreeze days is reset to zero or when the set time has elapsed.	Deferred temporary activation: - First brief touch: Set the number of days' absence (current day = 1) using keys  and  (up to 99 days). - Second brief touch: Set the start month using keys  and  . - Third brief touch: Set the start day using keys  and  . The arrow above the key flashes until the start day and then becomes steady. Cancellation: The antifreeze mode is cancelled when the number of antifreeze days is reset to zero or when the set time has elapsed.	Permanent activation The arrow above the key is steady. i The permanent "antifreeze" mode can also be selected using the TELCOM 2 remote voice monitoring module delivered as an option.
Key 	Temporary activation (Until midnight) The arrow above the key flashes.	Second depression: Deactivation	Permanent activation The arrow above the key is steady.
Key  (Located under the flap)	–	–	First press: Permanent activation The heating is off. The symbol SU appears. Second depression: Deactivation

4 Heating and domestic hot water temperature setting



- Comfort temperature - Cooling
- Reduced temperature
- Domestic hot water temperature

4.1 Heating temperature setting

The comfort and reduced temperatures are set separately for each circuit:

- Select the comfort temperature or the reduced temperature for the desired circuit by successively pressing key or .
- Set the temperature using keys and .

i The graphic bar displays the heating programme for the displayed circuit for the current day.

End of setting: Press the **AUTO** key or after 2 minutes.

Temperature	Factory setting	Adjustment range
DAY TEMP. A	20 °C	5 to 30 °C In steps of 0.5°C
ROOM REFR.T. *	25 °C	22 to 30 °C In steps of 0.5°C
NIGHT TEMP. A	16 °C	5 to 30 °C In steps of 0.5°C

* Is displayed if the following 2 conditions are satisfied:

- at least one room sensor is connected on a circuit which is configured in underfloor heating (FL.HE.),
- cooling mode on.
- In summer mode, when the room temperature measured by the sensor is higher than the set point **ROOM REFR.T.**, the cooling mode starts up. The cooling mode shuts down when the room temperature measured is lower than **ROOM REFR.T. -0.5°C**.
- In parallel, depending on the outside temperature, automatic cooling remains on.

4.2 DHW set temperature

- Select the domestic hot water temperature using key and set the temperature using keys or .

i If there is no domestic hot water sensor, pressing this key has no effect.

- **End of setting:** Press the **AUTO** key or after 2 minutes.

Temperature	Adjustment range	Factory setting
Domestic hot water	10 to 80 °C In steps of 5°C	55 °C

i If DHW consumption is high, increase the domestic hot water set temperature to 60°C.

5 Programming



5.1 Selecting a programme

The DIEMATIC 3 control unit includes 4 heating programmes:

- 1 fixed programme **P1**, activated in the factory.
- 3 custom programmes **P2**, **P3**, **P4** to adapt to the lifestyle of the occupants.

Allocation of a programme to a circuit:


- Select the circuit using key **A.B**.
- Select the programme using the **PROG** key.
- The programme selected is active in automatic mode.

i The programme for the current day can be displayed on the graph bar using key  or .

Programme	Day	Daytime period
P1	Monday - Sunday	6:00 - 22:00
P2 (Factory setting)	Monday - Sunday	4:00 - 21:00
P3 (Factory setting)	Monday - Friday Saturday - Sunday	5:00 - 8:00, 16:00 - 22:00 7:00 - 23:00
P4 (Factory setting)	Monday - Friday Saturday Sunday	6:00 - 8:00, 11:00 - 13:30, 16:00 - 22:00 6:00 - 23:00 7:00 - 23:00

5.2 Hot water programme

The DIEMATIC 3 control unit includes a custom domestic hot water programme.

i The programme for the current day can be displayed on the graph bar using key .

Programme	Day	Filling enabled
Tank (Factory setting)	Monday - Sunday	2:00 - 6:00

MIT

For correct operation, we recommend activating timed programmes **DHW** and **AUX** at night to:

- Take advantage of off-peak tariffs.
- Avoid having non-heating periods which are too long.
- Avoid switching from cold to hot operation several times a day when the cooling mode is activated during the daytime.

QUADROPAC

Programme 2 hours of DHW loading before a large draw-off (shower, bath, etc.).


5.3 Auxiliary programme

The DIEMATIC 3 control unit includes a custom programme on the auxiliary outlet.

Programme	Day	Filling enabled
AUX (Factory setting)	Monday - Sunday	6:00 - 22:00

Note: When you set parameter **S.AUX:** to **AP. DHW**, timed programme **DHW** is copied to timed programme **AUX**. Programme **AUX** can be customised.

5.4 Customising the programmes

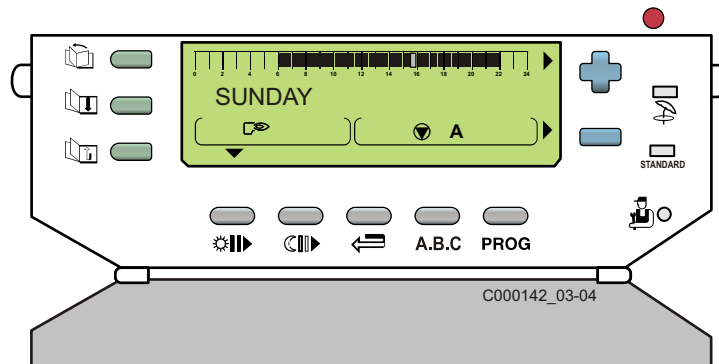
 See: 6.2 Customising the programmes (P2, P3 or P4).

5.5 Resetting the programmes


Press the **STANDARD** key for 5 seconds:


- All customised programmes are replaced with their factory setting.
- Programme P1 is assigned to all heating circuits.


6 "User" settings




Key for access to setting and measurements


 Page scrolling


 Line scrolling

 Back to the title or the previous line

Programming keys

 Input (per 1/2 hour) of the Daytime Temperature period (Dark area)

 Input (per 1/2 hour) of the Nighttime Temperature period (Light area)

 Return key

When the flap is open, the keys are used to display measurements, programme modifications and the settings of the various parameters.

i The various settings and programmes are saved even when the power supply is cut off.


6.1 Table of "User" setting

The different adjustable parameters are listed in their order of appearance.







At the end of the intervention, the data is memorised after 2 minutes or by pressing the **AUTO** key.

Display	ROE-II	ROE-H	ROE+	ROE+TH	SOLO, NAPO	ROI+	Parameter set	Factory setting	Adjustment range
#MEASURES							Allows the values below to be read		
TEMP.MIT	x	x	x	x	x	x	Water temperature in the MIT-II module or heating zone in the Quadro	-	-
HP FLOW TEMP.			x	x	x		Water temperature at the PAC outlet	-	-
SOURCE TEMP.					x		Refrigerant temperature at the heat pump source end	-	-
COLD TEMP.			x		x		Temperature of the PAC cold circuit	-	-
EVAPORATOR T.				x			Refrigerant temperature at the fin tube exchanger outlet	-	-
OUTLET TEMP. B*	x		x	x	x	x	Water temperature in circuit B (Flow sensor)	-	-
WATER TEMP. *	x		x	x	x	x	Tank water temperature	-	-
ROOMTEMP. A*	x		x	x	x	x	Room temperature A	-	-
ROOMTEMP. B*	x		x	x	x	x	Room temperature B	-	-
OUTSIDE TEMP.	x		x	x	x	x	Outside temperature measured by the MIT-II module	-	-
HP RETURN TEMP	x	x					Return temperature	-	-
HP FLOW TEMP.	x	x					Flow temperature	-	-
FLUID EVAP.T.	x	x					Fin tube exchanger refrigerant temperature	-	-
FLUID COND.T.	x	x					Refrigerant temperature at the heat exchanger	-	-
HOT GAS TEMP.		x					Refrigerant temperature at the compressor outlet	-	-
HP OUTSIDE T.	x	x	x	x			Outside temperature measured by the PAC	-	-
HP FLOW TEMP.						x	Water temperature at the PAC outlet	-	-
HP RETURN TEMP						x	Return temperature	-	-
HP AIR IN T.						x	Outside temperature at the heat pump	-	-
EVAPORATOR T.						x	Refrigerant temperature at the fin tube exchanger outlet	-	-
HOT GAS TEMP.						x	Compressor outlet temperature	-	-
PRESSION(BAR)	x	x	x	x	x	x	Water pressure display	-	-
NB IMP.COMP.	x	x	x		x		Number of PAC start-ups	-	-
NB IMP.COMP.1				x			Number of start-ups on compressor 1	-	-
RUNTIME COMP.	x	x	x	x	x	x	Number of PAC operating hours Number of hours' operation of compressor 1	-	-
NB IMP.COMP.2				x			Number of start-ups on compressor 2	-	-
RUNTIME.COMP.2				x			Number of hours' operation of compressor 2	-	-
CTRL	x	x	x	x	x	x	Information reserved for the technician (Diematic programme version)	-	-

* The line or title is only displayed for the options, circuits or sensors actually connected.

Display	ROE-II	ROE-H	ROE+	ROE+TH	SOLO, NAPO	ROI+	Parameter set	Factory setting	Adjustme nt range
#PROG. CIRC.A *	x	x	x	x	x	x	Heating programme for circuit A if used  See also: Customising the programmes.	-	-
PROG EVERY DAY P2	x	x	x	x	x	x	Used to programme every day of the week simultaneously. Each day can subsequently be individually modified.		
PROG MONDAY P2 PROG TUESDAY P2 PROG WEDNESDAY P2 PROG THURSDAY P2 PROG FRIDAY P2 PROG SATURDAY P2 PROG SUNDAY P2	x	x	x	x	x	x			
PROG EVERY DAY P3	x	x	x	x	x	x	Used to programme every day of the week simultaneously. Each day can subsequently be individually modified.		
PROG MONDAY P3 PROG TUESDAY P3 PROG WEDNESDAY P3 PROG THURSDAY P3 PROG FRIDAY P3 PROG SATURDAY P3 PROG SUNDAY P3	x	x	x	x	x	x			
PROG EVERY DAY P4	x	x	x	x	x	x	Used to programme every day of the week simultaneously. Each day can subsequently be individually modified.		
PROG MONDAY P4 PROG TUESDAY P4 PROG WEDNESDAY P4 PROG THURSDAY P4 PROG FRIDAY P4 PROG SATURDAY P4 PROG SUNDAY P4	x	x	x	x	x	x			
#PROG. CIRC.B *	x	x	x	x	x	x	Heating programme for circuit B if used Lines as circuit A		
#PROG. AUXIL	x	x	x	x	x	x	Auxiliary contact programming Lines as circuit A		
#PROG. DHW*	x	x	x	x	x	x	DHW tank programming (if the domestic hot water sensor is connected)		



* The line or title is only displayed for the options, circuits or sensors actually connected.

Display	ROE-II	ROE-H	ROE+	ROE+TH	SOLO, NAPO	ROI+	Parameter set	Factory setting	Adjustment range
#SETTING	x	x	x	x	x	x	The parameters are set using keys  or  .  See also: Miscellaneous settings.	-	-
CONTRAST DISP.	x	x	x	x	x	x	Adjusting the display contrast	-	-
BACK LIGHT	x	x	x	x	x	x	ON: The lighting is permanent if the circuit is in Daytime period. If the circuit displayed is in a Night period, the backlighting is ECO . ECO: If the circuit displayed is in Nighttime period, the lighting is on for 2 minutes if a key on the keyboard is pressed. OFF: The display is never lit	ON	ON, ECO or OFF
SUM/WIN	x	x	x	x	x	x	Summer/winter setting	22 °C	15 to 30 °C - OFF
CALIBR. OUT	x	x	x	x	x	x	Outside sensor calibration	0.0	-5.0 to +5.0 K
CALIBR. ROOM A *	x	x	x	x	x	x	Calibration of the room sensor on circuit A	0.0	-5.0 to +5.0 K
OFFSET ROOM A *	x	x	x	x	x	x	Room offset on circuit A	0.0	-5.0 to +5.0 K
OFFSET ROOM B *	x	x	x	x	x	x	Room offset on circuit B	0.0	-5.0 to +5.0 K
ANTIFR. ROOM A *	x	x	x	x	x	x	Room temperature antifreeze activation on circuit A	6 °C	0.5 to 20 °C
CALIBR. ROOM B *	x	x	x	x	x	x	Calibration of the room temperature sensor on circuit B	0.0	-5.0 to +5.0 K
ANTIFR. ROOM B *	x	x	x	x	x	x	Room temperature at which the antifreeze mode is activated on circuit B	6 °C	0.5 to 20 °C
#TIME . DAY	x	x	x	x	x	x	The parameters are set using keys  or  .  See also: Setting the time and the date - Summer time.	-	-
HOURS	x	x	x	x	x	x			
MINUTE	x	x	x	x	x	x			
DAY	x	x	x	x	x	x			
MONTH	x	x	x	x	x	x			
DATE	x	x	x	x	x	x			
YEAR	x	x	x	x	x	x			
SUM. TIME:	x	x	x	x	x	x	AUTO: automatic switch to summer time on the last Sunday in March and back to winter time on the last Sunday in October. MANU: for countries where the time change is done on other dates or is not in use.	AUTO	AUTO or MANU


* The line or title is only displayed for the options, circuits or sensors actually connected.

6.2 Customising the programmes

Write the customized programmes in the tables below, then save them as follows:


1. Open the cover to access to the setting and programme keys.
2. Press key  to select the paragraph (**#PROG. CIRC.A** - **#PROG. CIRC.B** - **#PROG. AUXIL** - **#PROG. DHW**)
3. Select successive lines using key .

i The programming selected for line **PROG EVERY DAY** is automatically copied to the other lines but can still be individually modified for each day.

4. Use key  to define the daytime periods (per 1/2 hour) (dark areas on the graphic display).

Use key  to define the Nighttime periods (per 1/2 hour)

(dark areas on the graphic display).

Use the return key  if you make a mistake.

5. Proceed similarly for each connected circuit, if necessary.
6. When programming is completed, press key **AUTO**. Otherwise, the programme will be automatically saved after 2 minutes.

i To reset to the factory settings, press the key **STANDARD** for 5 seconds.

■ #PROG. CIRC.A

Day	Daytime period
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

■ #PROG. CIRC.B

Day	Daytime period
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	





■ #PROG. AUXIL

Day	Daytime period
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

■ #PROG. DHW: Domestic hot water

Day	Daytime period
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

6.3 Miscellaneous settings

1. Use the  key to select the paragraph **#SETTING**.
2. Display the desired parameter using key .
3. Set the value of the parameter by pressing buttons  and .

▶ **SUM/WIN:** Automatic heating shutdown instruction.

Used to set the outside temperature above which heating will be shut down.

- The symbol **SU** appears.

If this parameter is set to **NO**, the heating is never shut down automatically.

The cooling mode is activated when the following conditions are satisfied:

- Parameter **REFR.:** is set to **ON**
- Outside temperature > SUM/WIN instruction + **SUM/WIN BAND**
- The circuit is configured as underfloor heating or convector fan.

 See: Technical and installation instructions for MIT.

▶ **CALIBR. OUT:** Outside sensor calibration

Used to correct the outside temperature.

For example:

Outside temperature measured = 10 °C

Temperature displayed = 11 °C

Set parameter **CALIBR. OUT** to -1.

Calibration only becomes effective after a few dozen seconds, and the display is corrected only after this time.

▶ **ANTIFR. ROOM...:** Room antifreeze

Setting the minimum room temperature which is maintained in the antifreeze mode for each circuit.

This temperature is only checked if a room sensor is connected. Without a room sensor, this parameter is not displayed and the set temperature is 6 °C (not adjustable).

▶ **CALIBR. ROOM...:** Room sensor calibration

Used to correct the room temperature display.

For example:

Room temperature measured = 20 °C

Temperature displayed = 19 °C

Set parameter **CALIBR. ROOM...** to +1.

i When a remote control is connected, this setting must be made at least 2 hours after the power is turned on, to enable the room temperature to stabilise.

▶ **AMB OFFSET...:** Room offset - Without room sensor

Is used to set a room offset.

For example:





Set room temperature = 20 °C

Measured temperature = 19 °C

Set parameter **AMB OFFSET...** to +1.

i The setting must be made after the temperatures have stabilised.

6.4 Setting the time and the date - Summer time

1. Press the  key to select the **#TIME . DAY** menu
2. Display the desired parameter using key .
3. Set the value of the parameter by pressing buttons  and .

HOURS

MINUTE

DAY

MONTH

DATE

YEAR

SUM. TIME: AUTO (Factory setting) - **MANU**


The control unit is programmed to switch automatically to summer time on the last Sunday in March and back to winter time on the last Sunday in October.

When the setting is on "manual", the automatic change does not take place.


7 Message


Message	Probable causes	Action
SHOW REM. CTRL	The message SHOW REM. CTRL signals the presence of an override on a remote control	To cancel the overrides on all remote controls, press the AUTO key for 5 seconds.

8 Maintenance

 The installation and maintenance of the appliance must be carried out by a qualified professional in compliance with the statutory texts of the codes of conduct in force.

 Before working on the appliance, ensure that it is switched off and safe.

 Check the discharge on the compressor condenser for single phase voltages.

 Before working on the cooling circuit, switch off the appliance and wait a few minutes. Some equipment such as the compressor and the pipes can reach temperatures higher than 100°C and high pressures, which may cause serious burns.

Maintenance operations are important for the following reasons:

- To guarantee optimum performance
- To extend the life of the equipment
- To provide an installation which offers the customer optimum comfort over time

Take a reading of the installation's operation at each periodic service. Refer to this reading in the maintenance log and compare it with the commissioning data. Signal any anomalies.

8.1 Maintenance contract

We recommend taking out a maintenance contract.

Servicing frequency: At least **once a year**


Schedule a **service in cold periods** to check the following points:

- Operation of the defrosting process
- Setting of the thermostats and safety devices
- Thermal output by measuring the temperature difference between the flow and the return

8.1.1 Operations to be done at each service

■ Preventive monitoring

- Check whether the pump stopped after a safety shutdown (Error warning light illuminated)
- Dust and clean the external unit on the PAC

 Do not pour water on it, use a rag or a sponge.

- Check the run-off in the condensates vats.
- Clean the condensates vats.
- Check the performance of the heat pump: Temperature control.
- Carry out a visual and aural check on the entire system (normal noises, panel detached, lagging, traces of water,...)
- Regularly check the concentration of the antifreeze fluid.

■ Maintenance

- Check for leaks on components which guarantee the containment of refrigerant.
- Check the electrical connections.
- Regulator function check.
- Change all parts and cables judged to be defective.
- Check all screws and nuts (cover, support, etc.)
- Change damaged sections of lagging.
- Paint the damaged parts.

8.2 Fault finding

All work on the cooling circuit must be done by a qualified professional, according to prevailing codes of practice and safety in the profession (recovery of the refrigerant, brazing under nitrogen, etc.)

All brazing work must be done by qualified brazers.

This appliance is fitted with pressurised equipment, including the refrigeration pipes.




Use only original parts to replace a defective refrigeration component.

Leak detection - Pressurised tests:

- Never use oxygen or dehumidified air, danger of fire or explosion.

- Use dehydrated nitrogen or a mixture of nitrogen and refrigerant indicated on the rating plate.

9 Diagnosing breakdowns

Display	ROE-II ROE-H	ROE+ ROE+TH SOLO NAPO	ROI+	Installation malfunction/HP or PAC	Meaning / Cause (listed in order of likelihood)
No display	x	x	x		<ul style="list-style-type: none"> - Check the electricity supply - Check that the fuses are in good working condition
HP COM.FAIL	x	x	x	Communication error with the PAC.	<ul style="list-style-type: none">  ROE+: When the appliance is switched on, the end-of-defrosting pressure switch must be open.  NAPO: The primary flow switch must be closed when the appliance is switched on.  Code resistance value: ROE+: 68 kΩ SOLO: 18 kΩ - Thermodynamic unit off. - Parameter HP in the #HEAT PUMP menu incorrectly configured. - BUS wiring problem between the MIT and the thermodynamic unit (colours, polarities) - MIT flat cable faulty - Communication pcb defective.
MANOMETRE FAIL	x	x	x	Fault on the water pressure sensor	<ul style="list-style-type: none"> - Wiring problem - The manometer is defective - Sensor pcb defective
FAIL. MIT S.	x	x	x	MIT sensor fault	
OUTSI. S.FAIL.	x	x	x	Fault external sensor	
OUTL S.B FAIL.	x	x	x	Sensor fault flow circuit B	
ROOM S.A FAIL.	x	x	x	Fault room temperature sensor A	<ul style="list-style-type: none"> - Wiring problem between the MIT module and the remote control. - Remote control defective. - Sensor pcb defective.
ROOM S.B FAIL.	x	x	x	Fault room temperature sensor B	<ul style="list-style-type: none"> - Wiring problem between the MIT module and the remote control. - Remote control defective. - Sensor pcb defective.
DHW S. FAILURE	x	x	x	Domestic hot water outlet sensor fault	
FAIL. SOURCE S.		x	x	Fault on the source sensor (SOLO / NAPO) or the outside sensor (ROE+)	
FAIL. PAC FLOW S.		x	x	Fault on the PAC flow sensor	
COLD S.FAIL		x	x	Fault on the cold sensor	
COLD CIRC.FAIL		x		Fault on the cold circuit	<ul style="list-style-type: none"> - A H.PRES. FAIL., HOT GAS FAIL. or L.PRES. FAIL fault has occurred previously. For more information, display the #DEF. HISTORY menu. - To eradicate this fault, switch off the control panel and turn it back on.

i When a fault is displayed followed by **AUTO**, this disappears automatically after a few minutes. When the fault displayed is followed by **MANU**, it is necessary to reset the HP using the reset button (See section 3.1).

Display	ROE-II ROE-H	ROE+ ROE+TH SOLO NAPO	ROI+	Installation malfunction/HP or PAC	Meaning / Cause (listed in order of likelihood)
H.PRES. FAIL.		x	x	High Pressure fault Installation malfunction The PAC has been deactivated after reaching the high pressure limit	<ul style="list-style-type: none"> - Heating water flow rate too low - Heating circulating pump defective - Differential valve incorrectly set or incorrectly dimensioned - Air in the heating circuit - Nonreturn valve in the collector open or faulty - HP pressure switch defective - Condensor blocked - Regulator faulty
HOT GAS FAIL.		x		Hot gas fault	<p>The temperature between the primary and the PAC outlet is too high. (For example: -20°C outside - 50°C at PAC outlet)</p> <ul style="list-style-type: none"> - Heating water flow rate too low - Heating circulating pump defective - Differential valve incorrectly set or incorrectly dimensioned - Air in the heating circuit - Nonreturn valve in the collector open or faulty - HP pressure switch defective - Condensor blocked - Regulator faulty
L.PRES. FAIL		x	x	Low Pressure fault PAC malfunction The PAC has been deactivated after reaching the high pressure limit	<ul style="list-style-type: none"> - System temperature too low - Evaporator on PAC air/water frozen - Heat source production or collector on PAC under-dimensioned - Leak in refrigerant circuit - LP pressure switch defective - Filter blocked - Regulator faulty - Glycol water concentration too weak - Evaporator on PAC blocked
MOT.PROT.FAIL		x	x	Motor/compressor protection PAC malfunction Compressor fault	<ul style="list-style-type: none"> - defective - Progressive starter faulty - Filter blocked - Electricity consumption too high - Glycol water concentration too weak (< 25 %) - Evaporator rusty
FLOW FAIL.		x	x	Flow rate fault (Only with hot water PACs and heating with 1 compressor) Installation malfunction	<ul style="list-style-type: none"> - On NAPO PAC: Flow rate on well too low - Filter blocked - Absorption well and supply well inverted - Evaporator on PAC blocked
COMP.FAIL.	x			Fault level: temporary	<ul style="list-style-type: none"> - Compressor rotation
HP OUT LIMIT	x			Under the lower operating limit Installation malfunction	<ul style="list-style-type: none"> - Antifreeze protection 2 time in 2 hours
OUT LIMIT 1	x			Under the lower operating limit	-
OUT LIMIT 3	x			Above the upper operating limit	-
FAIL. H.P PAC	x			Fault level: Permanent / temporary	<ul style="list-style-type: none"> - HP or fin tube battery sensor short circuited

i When a fault is displayed followed by **AUTO**, this disappears automatically after a few minutes. When the fault displayed is followed by **MANU**, it is necessary to reset the HP using the reset button (See section 3.1).

Display	ROE-II ROE-H	ROE+ ROE+TH SOLO NAPO	ROI+	Installation malfunction/HP or PAC	Meaning / Cause (listed in order of likelihood)
FAIL. PAC V4V	x	x		4-way valve fault PAC malfunction Fault level: temporary	- 4-way valve blocked open or closed - Reversal of the heating flow and return - Lack of refrigerant - Regulator faulty
FAIL. PAC PUMP	x			Fault level: Permanent / temporary	- No water - Circulating pump breakdown
FAIL.EXT.S.PAC	x			Fault level: permanent in hot mode / temporary in cold mode	- Opening or short circuit on the outside temperature sensor
FAIL.RET.S.PAC	x		x	Fault level: Permanent	- Opening or short circuit on the water inlet temperature sensor
FAIL. PAC FLOW S.	x		x	Fault level:Permanent	- Opening or short circuit on the water outlet temperature sensor
FAIL.BAT.S.PAC	x			Fault level:Permanent	- Opening or short circuit at the fin tube exchanger refrigerant temperature sensor
FAIL.EXCH.S.PAC	x			Fault level: permanent in cold mode / temporary in hot mode	- Opening or short circuit of the refrigerant temperature sensor at the heat exchanger inlet
HGAS S.HP FAIL	x			Fault level:Permanent	- Opening or short circuit of the refrigerant temperature sensor at the compressor outlet
FLOW FAIL. 6	x			Fault level:Permanent / temporary	- Exchanger frozen
FLOW FAIL. 7	x			Fault level:Permanent / temporary	- Exchanger frozen
FLOW FAIL. 8	x			Fault level: temporary	- Exchanger frozen
FAIL.EEPROM CPU	x			Error EEPROM CPU	- Switch off PAC and start up again - Change the micro-connect board
FAIL. UNKNOWN	x			Fault unknown	- Switch off PAC and start up again - Change the micro-connect board
MC COM.FAIL	x	x		Communication fault Boiler Module	
BIOS FAIL.		x		Wrong Carel box	- Replace the box
CONFIG.FAIL.		x		Wrong coding resistor / cold sensor combination	- Check the wiring and the cold sensor
SHUNT/CA FAIL.	x			If the contact is open and there is a communication with the control panel, the PAC stops (except ROE-H)	
COND. ANTI. F.			x	The PAC flow temperature is too low	- Check that the back-ups are working
DEFROST FAIL.			x		-
AIR IN S.FAIL			x		- Opening of or short circuit on the air inlet temperature sensor
HGAS S.FAIL			x		- Opening of or short circuit on the hot gas temperature sensor
EVA.S.HP FAIL			x		- Opening of or short circuit on the evaporator temperature sensor
COND.S.HP FAIL			x		-
HP FAIL.: ...			x	Fault number if this is not included in the list	-

i When a fault is displayed followed by **AUTO**, this disappears automatically after a few minutes. When the fault displayed is followed by **MANU**, it is necessary to reset the HP using the reset button (See section 3.1).

Display	ROE-II ROE-H	ROE+ ROE+TH SOLO NAPO	ROI+	Installation malfunction/HP or PAC	Meaning / Cause (listed in order of likelihood)
NO CONFIG.			x	The PAC is not recognised	- Check that the coding resistor is fitted

i When a fault is displayed followed by **AUTO**, this disappears automatically after a few minutes. When the fault displayed is followed by **MANU**, it is necessary to reset the HP using the reset button (See section 3.1).

Warranty

You have just purchased one of our appliances and we thank you for the trust you have placed in our products. Please note that your appliance will provide good service for a longer period of time if it is regularly checked and maintained. Your fitter and our customer support network are at your disposal at all times.

■ Warranty terms

Starting from the purchase date shown on the original fitter's invoice, your appliance has a contractual guarantee against any manufacturing defect.

The length of the guarantee is mentioned in the price catalogue.

The manufacturer is not liable for any improper use of the appliance or failure to maintain or install the unit correctly (the user shall take care to ensure that the system is installed by a qualified fitter). In particular, the manufacturer shall not be held responsible for any damage, loss or injury caused by installations which do not comply with the following:

- applicable local laws and regulations
- specific requirements relating to the installation, such as national and/or local regulations
- the manufacturer's instructions, in particular those relating to the regular maintenance of the unit
- the rules of the profession

The warranty is limited to the exchange or repair of such parts as have been recognised to be faulty by our technical department and does not cover labour, travel and carriage costs. The warranty shall not apply to the replacement or repair of parts damaged by normal wear and tear, negligence, repairs by unqualified parties, faulty or insufficient monitoring and maintenance, faulty power supply or the use of unsuitable fuel. Sub-assemblies such as motors, pumps, electric valves etc. are guaranteed only if they have never been dismantled.

■ France

The preceding dispositions are not exclusive of benefits for the purchaser of the legal guarantee as stated in Civil Code articles 1641 to 1648.

■ Poland

Warranty conditions are included in the warranty card.

■ Switzerland

The application of the warranty is subject to the terms and conditions of sale, delivery and warranty of the company marketing our products.

■ Belgium

The preceding dispositions about the contractual guarantee are not exclusive of profit if the need arises for the purchaser in Belgium of the applicable legal dispositions on hidden defects.

■ Italy

The duration of our warranty is shown on the certificate delivered with the appliance.

Our liability as manufacturer may not be invoked in respect of incorrect use of the appliance, incorrect or insufficient maintenance thereof, or incorrect installation of the appliance (you must therefore ensure that installation and maintenance operations are carried out respectively by a qualified professional and by an after sales service company).

The legislation laid down by European Directive 99/44/EEC, transposed by Legislative Decree No. 24 of 2 February 2002 published in O.J. No. 57 of 8 March 2002, continues to apply.

■ Russia

The foregoing provisions in no way affect the rights of the consumer, which are guaranteed by the legislation of the Russian Federation as regards hidden defects.

The terms and conditions of warranty and the terms and conditions of application of the warranty are indicated on the warranty form.

The warranty shall not apply as regards the replacement or repair of wearing parts under normal use. Such parts include thermocouples, injection nozzles, flame control and ignition systems, fuses and gaskets.

■ Turkey

Due to the laws and regulations the product life for this product is 10 years. During that time the producer and/or the distributor has to provide after sales services and spare parts.

■ Other countries

The above provisions do not restrict the benefit of the legal laws regarding hidden defects applicable in the buyer's country.

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