OPERATION MANUAL

Daikin Altherma indoor unit

EKHVMRD50ABV1
EKHVMRD80ABV1

EKHVMYD50ABV1
EKHVMYD80ABV1

CONTENTS

Page

1. Definitions ... 1
2. Introduction ... 2
   2.1. General information ... 2
   2.2. Scope of this manual ... 2
3. Quick start-up of the unit ... 2
   Space heating operation ... 2
   Domestic water heating operation ... 3
4. Operation of the unit ... 3
   4.1. Remote controller buttons and icons ... 3
   4.2. Setting the clock ... 5
   4.3. Space heating operation ... 5
   Room temperature control ... 5
   Leaving water temperature control ... 6
   4.4. Emergency operation ... 7
   4.5. Space cooling operation ... 7
   Room temperature control ... 7
   Leaving water temperature control ... 7
   4.6. Domestic water heating operation ... 8
   Automatic storage ... 8
   Manual storage ... 9
   Reheat ... 9
   Disinfection operation ... 9
   4.7. Other operation modes ... 10
   Start up operation ... 10
   Defrost operation ... 10
   Quiet mode operation ... 10
   4.8. Simultaneous demand of space heating and domestic water heating ... 10
   4.9. Simultaneous demand of space cooling and domestic water heating ... 10
   4.10. Temperature read-out mode ... 10
   4.11. Schedule timer operation ... 11
   Space heating ... 11
   Space cooling ... 12
   Domestic water heating ... 12
   Quiet mode ... 13
   4.12. Programming and consulting the schedule timer ... 13
   Programming space heating ... 14
   Programming space cooling ... 15
   Programming domestic water heating ... 16
   Programming quiet mode ... 17
   Consulting programmed actions ... 18
   Tips and tricks ... 18
   4.13. Operating the remote alarm option ... 18
   4.14. Operating the optional remote controller ... 18
   4.15. Field settings ... 19
   Procedure ... 19
   4.16. Field settings table ... 20
5. Maintenance ... 22
   5.1. Maintenance activities ... 22
   5.2. Important information regarding the refrigerant used ... 22
6. Troubleshooting ... 22
7. Disposal requirements ... 22

Thank you for purchasing this unit.

The original instructions are written in English. All other languages are translations of the original instructions.

CAREFULLY READ THESE INSTRUCTIONS BEFORE OPERATING THE UNIT. THEY WILL TELL YOU HOW TO USE THE UNIT PROPERLY. KEEP THIS MANUAL IN A HANDY PLACE FOR FUTURE REFERENCE.

This appliance is not intended for use by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children shall be supervised to ensure that they do not play with the appliance.

- This unit contains electrical and hot parts.
- Before operating the unit, be sure the installation has been carried out correctly by an installer.
  If you feel unsure about operation, contact your installer for advice and information.

1. DEFINITIONS

Installation manual:

Instruction manual specified for a certain product or application, explaining how to install, configure and maintain it.

Danger:

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

Warning:

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

Caution:

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Note:

Indicates situations that may result in equipment or property-damage accidents only.

Dealer:

Sales distributor for products as per the subject of this manual.

Installer:

Technical skilled person who is qualified to install products as per the subject of this manual.

Service agent:

Qualified person who can perform or coordinate the required service to the unit.

Legislation:

All international, European, national and local directives, laws, regulations and/or codes which are relevant and applicable for a certain product or domain.

Accessories:

Equipment which is delivered with the unit and which needs to be installed according to instructions in the documentation.

Optional equipment:

Equipment which can optionally be combined to the products as per the subject of this manual.

Field supply:

Equipment which needs to be installed according to instructions in this manual, but which are not supplied by Daikin.

2. Introduction

2.1. General information

Thank you for purchasing this unit.

The unit is the indoor part of the air to water EMRQ heat pump. The unit is designed for floor standing indoor installation and used for heating applications. The unit can be combined with space heating radiators (field supply) and with an EKHTS* domestic hot water tank (option).

A remote controller with room thermostat functionality is standard supplied with this unit to control your installation.

NOTE An EKHVMRD and EKHVMYD indoor unit can only be connected to an EMRQ outdoor unit.

Refer to the installation manual for the list of options.

2.2. Scope of this manual

This manual describes how to start up and switch off the unit, set parameters and configure the schedule timer by means of the controller, maintain the unit and solve operational problems.

The installation of the indoor unit(s) is described in the indoor unit installation manual.

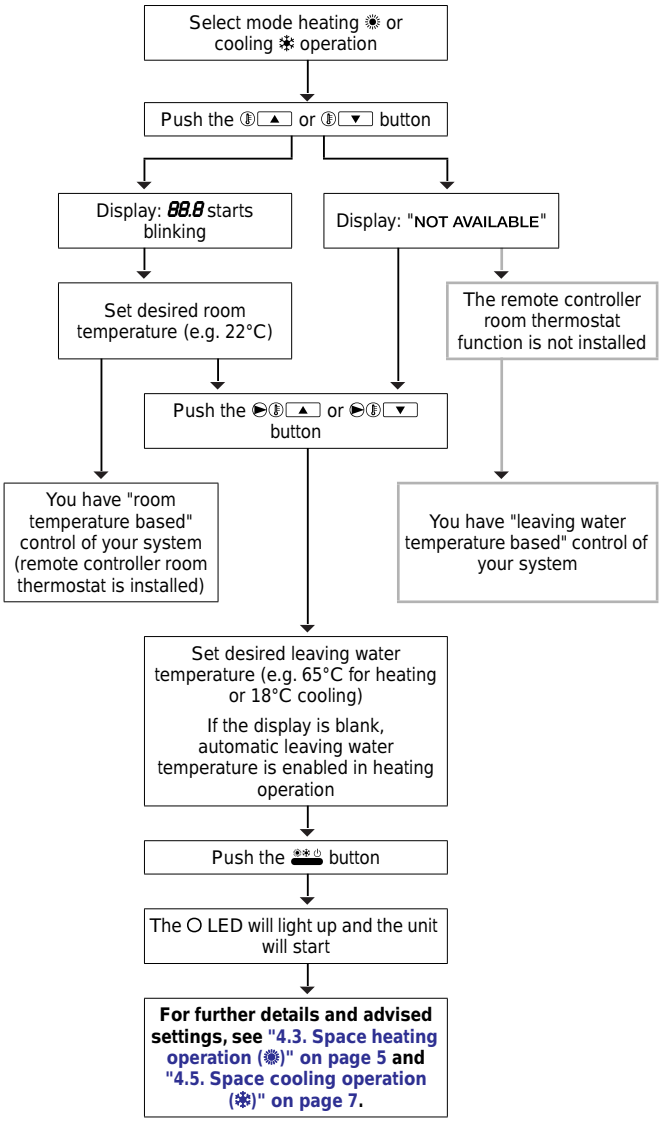
3. Quick start-up of the unit

In this chapter the step-by-step procedure is explained for starting up both space heating/cooling and domestic water heating.

The more detailed information of how the unit must be operated is explained in the chapter "4. Operation of the unit" on page 3.

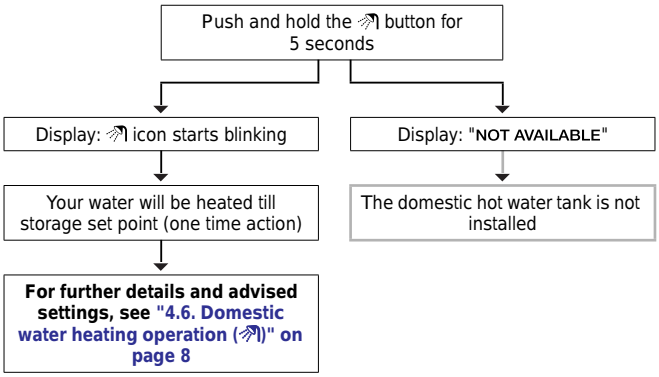
The quick start-up offers the user the possibility to start up the system before reading the entire manual.

Space heating operation



Domestic water heating (only if domestic hot water tank option is installed)	
Automatic storage (daily water heat-up, once during night and/or once during day)	
Turn on field setting [1-00] and or [1-02] and then push the ⊗◴ button. See "Automatic storage" on page 8.	The ◴ icon will display. Hot water will be produced at next scheduled action. When water heat-up starts, the icon will be blinking (1 second interval).
Manual storage (one time water heat-up)(refer to scheme below)	
Push and hold the button for 5 seconds. See "Manual storage" on page 9.	The icon will start blinking (1 second interval). Hot water will be produced.
Reheat (continuous, keeping the minimum water temperature)	
Push the button 1 time. See "Reheat" on page 9.	Hot water will be produced if the domestic hot water tank temperature is below the selected value. Water will be heated up until the selected value is reached.

Manual storage



4. OPERATION OF THE UNIT

The remote controller offers full control over your installation. It can control all heating applications which vary in capacity, electrical supply and installed equipment (options). Operating the EKHVMRD and EKHVMYD unit comes down to operating the remote controller.

NOTE

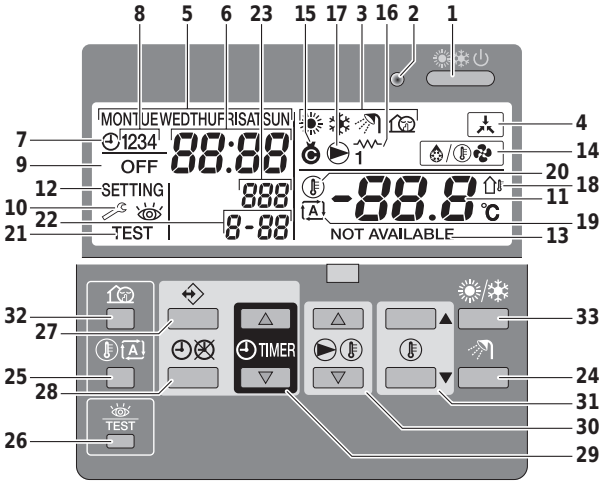
It is advised to use the remote controller, which includes room thermostat function, delivered with the unit.

This will prevent excessive space heating and will stop the outdoor and indoor unit when the room temperature is above the thermostat set point. Based on the request from the user there is an immediate feedback to the compressor control which optimizes the performance.

Refer to the typical application examples in the indoor installation manual for more details.

- Never let the remote controller get wet. This may cause an electric shock or fire.
- Never press the buttons of the remote controller with a hard, pointed object. This may damage the remote controller.
- Never inspect or service the remote controller yourself, ask a qualified service person to do this.
- Do not rinse the indoor unit. This may cause electric shock or fire.
- Do not climb, sit or stand on top of the unit.
- Do not place any objects or equipment on the unit top plate.

4.1. Remote controller buttons and icons



1. ON/OFF BUTTON
The ON/OFF button starts or stops the space heating/cooling. Pressing the ON/OFF button consecutively too many times may cause malfunction of the system (maximum 20 times per hour).

NOTE

Remark that pushing the button has no influence on the domestic water heating. Domestic water heating is only switched on or off by means of the button and/or disabling the storage schedule timer.

2. OPERATION LED ○
The operation LED is lit during space heating/cooling operation. The LED blinks if a malfunction occurs. When the LED is OFF, space heating/cooling is inactive while an other operation mode can still be active.

3. OPERATION MODE ICONS ☀, ❄, ,
These icons indicate the current operation mode(s): space heating (☀), space cooling (❄), domestic water heating () or quiet mode (). Within limits, different modes can be combined, e.g. space heating and domestic water heating. The corresponding mode icons will be displayed simultaneously.

If the domestic hot water tank is not installed, the icon will never be displayed.

4. EXTERNAL CONTROL ICON
This icon indicates that the outdoor unit is working in a forced operation. As long as this icon is displayed, the remote controller cannot be operated.

5. DAY OF THE WEEK INDICATOR MONTUEWEDTHUFRISATSUN
This indicator shows the current day of the week.

When reading or programming the schedule timer, the indicator shows the set day.

6. CLOCK DISPLAY *88:88*
The clock display shows the current time.

When reading or programming the schedule timer, the clock display shows the action time.

7. SCHEDULE TIMER ICON ◴
This icon indicates that the schedule timer is enabled.

8. ACTION ICONS 1234
These icons indicate the programming actions for each day of the schedule timer.

9. OFF ICON **OFF**
This icon indicates that the OFF action is selected when programming the schedule timer.

10. INSPECTION REQUIRED and
These icons indicate that inspection is required on the installation. Consult your dealer.

11. TEMPERATURE DISPLAY -88.8
The display shows the current temperature of the installation either leaving water set point temperature or actual room temperature.
When changing the room temperature set point, the set point will be flashing for 5 seconds and then return to the actual room temperature.

12. SETTING SETTING
When you enter field setting in the field setting mode, this will be indicated. See "4.14. Operating the optional remote controller" on page 18.

13. NOT AVAILABLE NOT AVAILABLE
This icon is displayed whenever a non-installed option is addressed or a function is not available. A function not available can mean insufficient permission level or can mean that a slave remote controller is used (see installation manual).

			Permission	
	Master	Slave	level 2	level 3
Operation ON/OFF	✔	✔	✔	✔
Domestic water heating operation ON/OFF	✔	✔	✔	✔
Setting the leaving water temperature	✔	✔	✔	—
Setting the room temperature	✔	✔	✔	✔
Quiet mode ON/OFF	✔	✔	—	—
Weather dependent set point operation ON/OFF	✔	✔	✔	—
Setting the clock	✔	✔	—	—
Programming the schedule timer	✔	—	—	—
Schedule timer operation ON/OFF	✔	—	✔	✔
Field settings	✔	—	—	—
Error code display	✔	✔	✔	✔
Test operation	✔	✔	—	—

✔ = operable

14. DEFROST/START UP MODE ICON
This icon indicates that the defrost/start up mode is active.

15. COMPRESSOR ICON
This icon indicates that the compressor in the indoor unit of the installation is active.

16. HEATER STEP
If the heater kit option is installed, icon indicate that the heater is operating.

17. PUMP ICON
This icon indicates that the heating/cooling circulation pump is active.

18. OUTDOOR TEMPERATURE DISPLAY
When this icon is flashing, the outdoor ambient temperature is displayed. Refer to "4.10. Temperature read-out mode" on page 10 for more information.

19. WEATHER DEPENDENT SET POINT ICON
This icon indicates that the controller will adapt the leaving water temperature set point automatically, based on the outdoor ambient temperature.

20. TEMPERATURE ICON
This icon is displayed when the actual room temperature or room temperature set point are shown.
The icon is also displayed when the temperature set point is set in schedule timer programming mode. Refer to "4.10. Temperature read-out mode" on page 10 for more information.

21. TEST OPERATION ICON TEST
This icon indicates that the unit runs in test mode.

22. FIELD SET CODE 8-88
This code represents the code from the field set list. Refer to the "4.16. Field settings table" on page 20.

23. ERROR CODE 888
This code refers to the error code list and is for service purposes only. Refer to the error code list in the installation manual.

24. DOMESTIC WATER HEATING BUTTON
This button enables or disables the different domestic hot water modes in combination with the schedule timer button.
This button is not used when the domestic hot water tank is not installed.

NOTE Remark that pushing the button has no influence on the domestic water heating. Domestic water heating is only switched on or off by means of the button and/or disabling the storage schedule timer.

25. WEATHER DEPENDENT SET POINT BUTTON
This button enables or disables the weather dependent set point function which is available in space heating operation.
If the controller is set to permission level 3 (refer to "Field settings" in the installation manual), the weather dependent set point button will not be operable.

26. INSPECTION/TEST OPERATION BUTTON
This button is used for installation purposes and changing field settings. Refer to "4.15. Field settings" on page 19.

27. PROGRAMMING BUTTON
This multi-purpose button is used to program the controller. The function of the button depends on the actual status of the controller or on previous actions carried out by the operator.

28. SCHEDULE TIMER BUTTON /
The main function of this multi-purpose button is to enable/disable the schedule timer.
The button is also used to set the clock and to program the controller. The function of the button depends on the actual status of the controller or on previous actions carried out by the operator.

29. TIME ADJUST BUTTONS and
These multi-purpose buttons are used to adjust the clock, to toggle between temperatures (water inlet/outlet temperature of the indoor unit, outdoor ambient temperature, actual room temperature and domestic hot water temperature) and in schedule timer programming mode.

30. LEAVING WATER TEMPERATURE ADJUST BUTTONS and
These buttons are used to adjust the leaving water temperature set point in normal operation mode or in schedule timer programming mode.
If the controller is set to permission level 3 (refer to "Field settings" in the installation manual), the leaving water temperature adjust button will not be operable.
In case the weather dependent set point operation is selected, the unit has a floating set point. In this case, the icon as well as the shift value (in case not zero) will display.

31. ROOM TEMPERATURE ADJUST BUTTONS and
These multi-purpose buttons are used to adjust the current room temperature set point in normal operation mode or in schedule timer programming mode.
When changing the room temperature set point, the set point value on the display will be flashing. After 5 seconds the display will show to the actual room temperature.

32. QUIET MODE BUTTON
This button enables or disables quiet mode.
If the controller is set to permission level 2 or 3 (refer to "Field settings" in the installation manual), the quiet mode button will not be operable.

33. The / button is used to select the operation mode: space heating () or space cooling ().

4.2. Setting the clock

After initial installation, the user can set the clock and day of the week.

The remote controller is equipped with a schedule timer that enables the user to schedule operations. Setting the clock and day of the week is required to be able to use the schedule timer.

1 Hold down the ⏲⊗ button for 5 seconds.
The clock read-out and the day of week indicator start flashing.

2 Use the ⏲▲ and ⏲▼ buttons to adjust the clock.
Each time the ⏲▲ or ⏲▼ button is pressed, the time will increase/decrease by 1 minute. Keeping the ⏲▲ or ⏲▼ button pressed will increase/decrease the time by 10 minutes.

3 Use the ⏵⏲▲ or ⏵⏲▼ button to adjust the day of the week.
Each time the ⏵⏲▲ or ⏵⏲▼ button is pressed the next or previous day is displayed.

4 Press the ⬨ button to confirm the current set time and day of the week.
To leave this procedure without saving, press the ⏲⊗ button.
If no button is pressed for 5 minutes the clock and day of the week will return to their previous setting.

NOTE

- The clock needs to be set manually. Adjust the setting when switching from summertime to wintertime and vice versa.
- If the controller is set to permission level 2 or 3 (refer to "Field settings" in the installation manual), setting the clock will not be possible.
- A power failure exceeding 1 hour will reset the clock and the day of the week. The schedule timer will continue operation, but with a disordered clock. Therefor it will be needed to correct the clock and the day of the week.

4.3. Space heating operation (☼)

Space heating operation can be controlled in two different ways:

- based on room temperature,
- based on leaving water temperature.

The purpose of each operation and how the configuration is done, is explained below.

Room temperature control

In this mode, heating will be activated as required by the room temperature set point. The set point can be set manually or through the schedule timer.

NOTE

When using room temperature control, space heating operation based on room temperature will have priority over leaving water control.

Note that it is possible that the leaving water temperature becomes higher than the set point if the unit is controlled by room temperature.

Selecting space heating operation

1 Use the ☼⏻ button to switch ON/OFF space heating (☼).
Icon ☼ appears on the display as well as the corresponding actual room temperature.
The operation LED ○ lights up.

2 Use the 🌡▲ and 🌡▼ buttons to set the desired room temperature.
Temperature range for heating: 16°C~32°C (room temperature)
In order to avoid overheating, space heating is not operable when the outdoor ambient temperature rises above a certain temperature (see operation range).
Refer to "4.12. Programming and consulting the schedule timer" on page 13 for setup of the schedule timer function.

3 Use the ⏵🌡▲ and ⏵🌡▼ buttons to select the leaving water temperature which you want to be used to heat up your system (for detailed information see "Leaving water temperature control" on page 6).

Automatic setback function

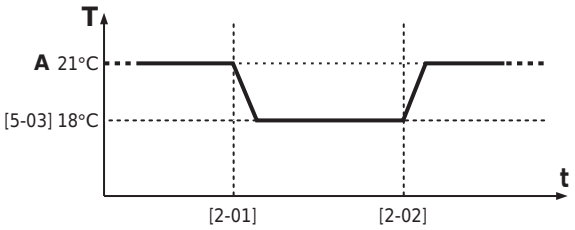
Setback function provides the possibility to lower the room temperature. The setback function can for instance be activated during the night because the temperature demands during night and day are not the same.

NOTE

- Remark that the 🌡 icon will be flashing during setback operation.
- By default the setback function is enabled.
- The setback function can be combined with the automatic weather dependent set point operation.
- Setback function is an automatic daily scheduled function.

The setback function is configured through field settings. Refer to the chapter "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[2-00]** Status: defines whether the setback function is turned ON (1) or OFF (0)
- **[2-01]** Start time: time at which setback is started
- **[2-02]** Stop time: time at which setback is stopped
- **[5-03]** Room setback temperature



A Normal room temperature set point
t Time
T Temperature

NOTE

While room temperature setback function is active, leaving water setback operation is also performed (see "Leaving water temperature control" on page 6).

Pay attention not to set the setback value too low, especially during colder periods (e.g. winter time). It is possible that the room temperature can not be reached (or it will take a much longer time) because of the big temperature difference.

Leaving water temperature control

In this mode, heating will be activated as required by the water temperature set point. The set point can be set manually or through the schedule timer or weather dependent (automatic).

Selecting space heating operation

1 Use the button to switch ON/OFF space heating (☼).

Icon ☼ appears on the display as well as the corresponding water temperature set point.
The operation LED ○ lights up.

2 Use the ▲ and ▼ buttons to set the desired leaving water temperature.

Temperature range for heating: 25°C~80°C (leaving water temperature)
In order to avoid overheating, space heating is not operable when the outdoor ambient temperature rises above a certain temperature (see operation range).

Refer to "Remote controller schedule timer" for setup of the schedule timer function.

NOTE

- When an external room thermostat is installed, the thermo ON/OFF is determined by the external room thermostat. The remote controller is than operated in the leaving control mode and is not functioning as a room thermostat.
- The remote controller ON/OFF status always has priority over the external room thermostat!

Selecting weather dependent set point operation

When weather dependent operation is active, the leaving water temperature is determined automatically depending on the outdoor temperature: colder outdoor temperatures will result in warmer water and vice versa. The unit has a floating set point. Activating this operation will result in a lower power consumption than use with a manually fixed leaving water set point.

During weather dependent operation, the user has the possibility to shift up or down the target water temperature by a maximum of 5°C. This shift value is the temperature difference between the temperature set point calculated by the controller and the real set point. E.g. a positive shift value means that the real temperature set point will be higher than the calculated set point.

It is advised to use the weather dependent set point because it adjusts the water temperature to the actual needs for space heating. It will prevent the unit from switching too much between thermo ON operation and thermo OFF operation when using the remote controller room thermostat or external room thermostat.

NOTE

During this operation, instead of showing the water temperature set point, the controller shows the shift value which can be set by the user.

1 Press the Ⓐ button 1 time to select weather dependent set point operation (or 2 times when the remote controller room thermostat function is used).

Icon Ⓐ appears on the display as well as the shift value. The shift value is not shown in case it is 0.

2 Use the ▲ and ▼ buttons to set the shift value.

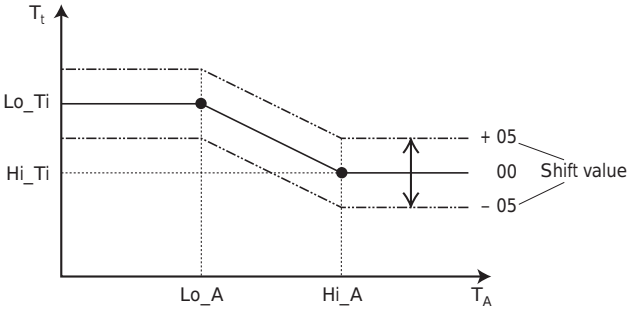
Range for the shift value: –5°C to +5°C

Icon Ⓐ will be displayed as long as the weather dependent set point operation is enabled.

3 Press the Ⓐ button to deactivate weather dependent set point operation.

The ▲ and ▼ buttons are used to set the leaving water temperature.

Field settings define the parameters for the weather dependent operation of the unit. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.



T_t	Target water temperature
T_A	Ambient (outdoor) temperature
Shift value	= Shift value

- **[3-00]** Low ambient temperature (Lo_A): low outdoor temperature.
- **[3-01]** High ambient temperature (Hi_A): high outdoor temperature.
- **[3-02]** Set point at low ambient temperature (Lo_Ti): the target outgoing water temperature when the outdoor temperature equals or drops below the low ambient temperature (Lo_A).

  Note that the Lo_Ti value should be higher than Hi_Ti, as for colder outdoor temperatures (i.e. Lo_A) warmer water is required.
- **[3-03]** Set point at high ambient temperature (Hi_Ti): the target outgoing water temperature when the outdoor temperature equals or rises above the high ambient temperature (Hi_A).

  Note that the Hi_Ti value should be lower than Lo_Ti, as for warmer outdoor temperatures (i.e. Hi_A) less warm water suffices.

NOTE

If by mistake the value of [3-03] is set higher than the value of [3-02], the value of [3-03] will always be used.

Automatic setback function

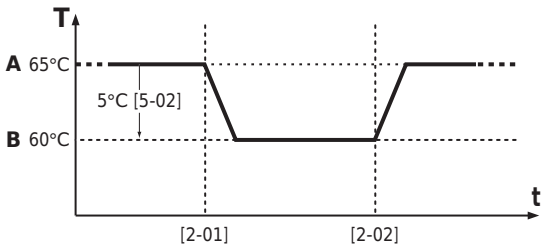
Setback function provides the possibility to lower the room temperature. The setback function can for instance be activated during the night because the temperature demands during night and day are not the same.

NOTE

- Remark that the icon will be flashing during setback operation.
- By default the setback function is enabled.
- The setback function can be combined with the automatic weather dependent set point operation.
- Setback function is an automatic daily scheduled function.

The setback function is configured through field settings. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[2-00]** Status: defines whether the setback function is turned ON (1) or OFF (0)
- **[2-01]** Start time: time at which setback is started
- **[2-02]** Stop time: time at which setback is stopped
- **[5-02]** Leaving water setback temperature (temperature drop)



A Normal leaving water temperature set point

B Leaving water temperature, including the leaving water setback temperature

t Time

T Temperature

4.4. Emergency operation

- **[8-02]** Emergency operation

  During emergency mode, heating is only done by the heater kit, not by the heat pump.

  Activation of emergency mode is done by changing field setting [8-02]=1.

  Activating the emergency mode will stop the heat pump operation. The pump of the indoor unit will be started, but heating itself is done by the heater kit. If there are no error conditions in leaving or returning water thermistors, the heater kit can start to follow emergency operation.

NOTE

Before activating emergency operation, be sure to activate the heater kit. The heater will stay in emergency mode until the field setting is set back to default [8-02]=0.

4.5. Space cooling operation (❄)

Space cooling operation can be controlled in two different ways:

- based on room temperature,
- based on leaving water temperature.

The purpose of each operation and how the configuration is done, is explained below.

Room temperature control

In this mode, cooling will be activated as required by the room temperature set point. The set point can be set manually or through the schedule timer.

NOTE

When using room temperature control, space cooling operation based on room temperature will have priority over leaving water control.

Note that it is possible that the leaving water temperature becomes lower than the set point if the unit is controlled by room temperature.

Selecting space cooling operation

1 Use the button to switch ON/OFF space cooling (❄).
Icon ❄ appears on the display as well as the corresponding actual room temperature.
The operation LED ○ lights up.

2 Use the and buttons to set the desired room temperature.
Temperature range for cooling: 16°C~32°C (room temperature)
Refer to "4.12. Programming and consulting the schedule timer" on page 13 for setup of the schedule timer function.

3 Use the and buttons to select the leaving water temperature which you want to be used to cool down your system (for detailed information see "Leaving water temperature control" on page 6).

Leaving water temperature control

In this mode, cooling will be activated as required by the water temperature set point. The set point can be set manually or through the schedule timer.

Selecting space cooling operation

1 Use the button to switch ON/OFF space cooling (❄).
Icon ❄ appears on the display as well as the corresponding water temperature set point.
The operation LED ○ lights up.

2 Use the and buttons to set the desired leaving water temperature.
Temperature range for cooling: 20°C~5°C (leaving water temperature)

Refer to "Programming space heating" on page 14, "Programming space cooling" on page 15, "Programming domestic water heating" on page 16, and "Programming quiet mode" on page 17 for setup of the schedule timer function.

NOTE

- When an external room thermostat is installed, the thermo ON/OFF is determined by the external room thermostat. The remote controller is than operated in the leaving control mode and is not functioning as a room thermostat.
- The remote controller ON/OFF status always has priority over the external room thermostat!
- Setback operation and weather dependent setpoint are not available in cooling operation.

4.6. Domestic water heating operation (🚿)

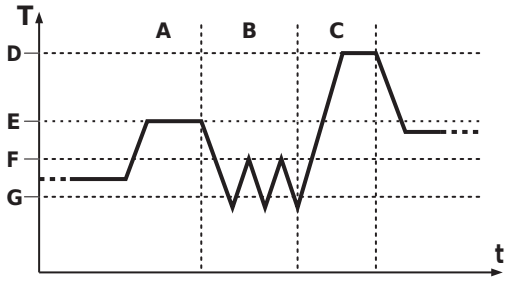
NOTE Any domestic water heating operation is impossible when the domestic hot water tank is not installed.

For the domestic water heating mode, several operations are possible:

- storage operation (either automatic or manually set)
- reheat operation
- disinfection operation

The purpose of each operation, and how the configuration is done, is explained below.

Domestic water heating modes



A Storage operation (if activated)

B Reheat operation (if activated)

C Disinfection operation (if activated)

Field settings

D Disinfection operation temperature [5-00] (e.g. 70°C)

E Hot water storage temperature [b-03] (e.g. 60°C)

F Reheat maximum water temperature [b-01] (e.g. 45°C)

G Reheat minimum water temperature [b-00] (e.g. 35°C)

t Time

T Domestic hot water tank temperature

Automatic storage

In this mode, the indoor unit will deliver hot water to the domestic hot water tank based on the daily fixed pattern. This mode will continue until the storage temperature set point is reached. During operation of this mode, the 🚿 icon will be blinking with 1 second intervals.

Automatic storage is the recommended domestic hot water mode. In this mode, water heats up during the night (when space heating requirements are lower) until the storage temperature set point is reached. The heated water is stored in the domestic hot water tank at a higher temperature so it can fulfil the domestic hot water requirements throughout the day.

NOTE Remark that the 🚿 icon will only be blinking during effective automatic storage operation. Presence of the permanently lit 🚿 icon does not mean that automatic storage is enabled, but only means that reheat is enabled.

During operation it is always possible to cancel the operation by pushing the 🚿 button once.

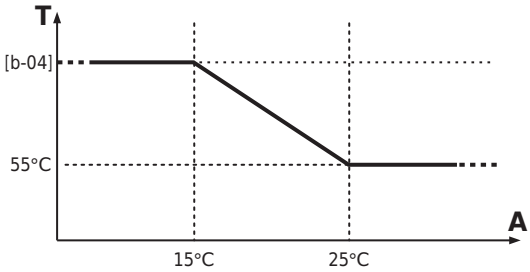
Be aware that after pushing the 🚿 button, it is possible that the permanently lit 🚿 icon still displays.

The storage temperature set point and the timing are field settings. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[1-00]** Status: defines whether the domestic water heating (storage mode) during night is enabled (1) or not (0).
- **[1-01]** Start time: time of the night at which the domestic water should be heated.
- **[1-02]** Status: defines whether the domestic water heating (storage mode) during daytime is enabled (1) or not (0).
- **[1-03]** Start time: time of the day at which the domestic water should be heated.

⚠ Be aware that despite the automatic storage is a pre-programmed schedule timer, it is only active when the schedule timer is enabled. This means that you have to push the ⊗🕒 button and confirm that the 🕒 is displayed to make sure that the automatic storage will operate.

- **[b-03]** set point: storage temperature (see figure "Domestic water heating modes" on page 8) only valid if [b-02]=0.
- **[b-02]** Status: defines whether the weather dependent domestic water heating is turned ON (1) or OFF (0).
  If enabled, the storage set point will be set weather dependent. In case of a higher ambient temperature (e.g. during summer-time), temperature of supply water to the domestic hot water tank will be higher too, so that storage temperature set point can be set lower in order to keep the overall equivalent hot water amount the same during the whole year. Therefore it is recommended to use this function.
- **[b-04]** Automatic maximum domestic hot water storage temperature: default = 70°C.



A Ambient temperature

T Domestic hot water storage temperature

NOTE The ambient temperatures for weather dependent domestic water heating (see figure) are fixed and can not be changed.

NOTE If weather dependent domestic water heating is enabled [b-02], the storage temperature will be set automatically and the field setting [b-03] will be of no importance.

NOTE

- Make sure the domestic hot water is only heated up to the domestic hot water temperature you require.
  Start with a low domestic hot water storage temperature set point, and only increase if you feel that the domestic hot water supply temperature is not sufficient for your needs (this depends on your water using pattern).
- Make sure the domestic hot water is not heated unnecessary. Start with activating automatic storage during night (default setting). If it seems that the domestic hot water night storage operation is not sufficient for your needs, an additional storage during daytime can be set.
- For energy-saving purposes, it is advised to enable the weather dependent domestic water heating.

Manual storage

This mode is to be selected manually and will make the indoor unit immediately deliver hot water to the domestic hot water tank. This mode will continue until the storage temperature set point is reached. It is a one-time hot water making feature.

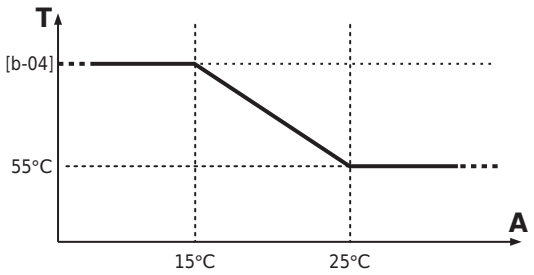
Selecting manual storage operation for domestic water heating

1 Push and hold the button for 5 seconds to activate manual storage operation.
The icon will start blinking with 1 second intervals.

NOTE Remark that the icon will only be blinking during effective operation.
During the operation it is always possible to cancel the operation by pushing the button once.
Be aware that after pushing the button, it is possible that the permanently lit icon still displays, meaning that the reheat function is enabled.

The storage temperature set point is a field setting. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[b-03]** set point: storage temperature (see figure "Domestic water heating modes" on page 8) only valid if [b-02]=0.
- **[b-02]** Status: defines whether the weather dependent domestic water heating is turned ON (1) or OFF (0).
  If enabled, the storage set point will be set weather dependent. In case of a higher ambient temperature (e.g. during summer-time), temperature of supply water to the domestic hot water tank will be higher too, so that storage temperature set point can be set lower in order to keep the overall equivalent hot water amount the same during the whole year. Therefor it is recommended to use this function.
- **[b-04]** Automatic maximum domestic hot water storage temperature: default = 70°C.



A Ambient temperature
T Domestic hot water storage temperature

NOTE The ambient temperatures for weather dependent domestic water heating (see figure) are fixed and can not be changed.

Manual storage is deactivated automatically when the set point for the domestic hot water storage temperature is reached. It can also be stopped at any time by pushing the button.

NOTE If weather dependent domestic water heating is enabled [b-02], the storage temperature will be set automatically and the field setting [b-03] will be of no importance.

Reheat

This mode will prevent the domestic hot water from cooling down lower than a certain temperature. When enabled the indoor unit will deliver hot water to the domestic hot water tank when the reheat minimum value is reached. The domestic water heating will continue until the reheat maximum temperature is reached.

Selecting reheat operation for domestic water heating

1 Use the button to enable reheat operation.
The icon will display.

NOTE Remark that the icon will be continuously lit as long as the reheat function is enabled. It is not possible to see when the indoor unit is reheating the domestic hot water tank.

2 Press the button again to disable reheat operation.
The icon disappears.

The reheat minimum and reheat maximum temperature set points are field settings. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[b-00]** Set point: reheat minimum temperature (see figure "Domestic water heating modes" on page 8).
- **[b-01]** Set point: reheat maximum temperature (see figure "Domestic water heating modes" on page 8).

NOTE Remark that pushing the button has no influence on the domestic water heating. Domestic water heating is only switched on or off by means of the button and/or disabling the storage schedule timer.

Disinfection operation

This mode will disinfect the domestic hot water tank by periodically heating the domestic water to a specific temperature. During the operation of this mode the icon will be blinking rapidly with 0.5 second intervals.

NOTE Remark that the icon will only be blinking during effective operation.
During the operation it is always possible to cancel the disinfection function by pushing the button once.
Be aware that after pushing the button, it is possible that the permanently lit icon still displays, meaning that the reheat function is enabled.

NOTE If a domestic hot water tank is installed, the disinfection function is enabled by default.

The disinfection temperature set point is a field setting as are the retention time, day and hour. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[4-00]** Status: defines whether the disinfection function is turned ON (1) or OFF (0).
- **[4-01]** Operation interval: day of the week at which the domestic water should be heated.
- **[4-02]** Start time: time at which the disinfection operation is started.
- **[5-00]** Set point: Disinfection water temperature to be reached (see figure "Domestic water heating modes" on page 8).
- **[5-01]** Duration: time period defining how long the disinfection set point temperature should be maintained.

Even if all schedule timers are de-activated and there is no reheat function active, the disinfection function will operate if a domestic hot water tank is installed and field setting [4-00] is set to ON.

4.7. Other operation modes

Start up operation (♨/◑/✤)

During start up, the ♨/◑/✤ icon displays, indicating that the heat pump is starting up and is not working in a steady state condition.

Defrost operation (♨/◑/✤)

In space heating operation or domestic water heating operation, freezing of the outdoor heat exchanger may occur due to low outdoor temperature. If this risk occurs, the system goes into defrost operation. During defrost operation, space heating or domestic hot water operation is not possible.

Quiet mode operation (🏠)

Quiet mode operation means that the indoor unit works at reduced compressor speed so that the noise produced by the indoor unit drops. This implies that it will take longer till the required temperature set point is reached. Beware of this when a certain level of heating is required indoors.

Selecting quiet mode operation

1 Use the 🏠 button to activate quiet mode operation.
The 🏠 icon displays.
If the controller is set to permission level 2 or 3 (refer to "Field settings" in the installation manual), the 🏠 button is not operable.

2 Press the 🏠 button again to deactivate quiet mode operation.
The 🏠 icon disappears.

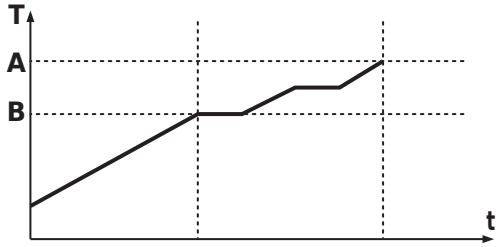
There are 3 different levels of quiet mode operation. The desired quiet mode is set through a field setting. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[8-03]** Status: defines the level of low noise operation (quiet mode).

4.8. Simultaneous demand of space heating and domestic water heating

The unit can not perform domestic water heating and space heating at the same time. If both modes are requested at the same time, the unit will heat up till the reheat maximum temperature in 1 time. During this period, space heating is not possible.

- If you are using the remote controller room temperature control:
When the reheat temperature is reached, the further heat up of the domestic hot water tank will be decided by the remote controller room thermostat in order to prevent the room temperature to drop too much.
- If you are using the external room thermostat:
When the reheat temperature is reached, the further heat up of the domestic hot water tank will be decided by the external room thermostat thermo conditions and running timers which are programmed by your installer.
- If you are using the remote controller leaving water temperature control:
When the reheat temperature is reached, the further heating up of the domestic hot water tank will be decided by the running timers which are programmed by your installer.



A Storage temperature
B Reheat maximum temperature
t Time
T Domestic hot water storage temperature

4.9. Simultaneous demand of space cooling and domestic water heating

The unit can perform simultaneous operation of cooling and domestic water heating.

During cooling operation, the energy taken from the cooled water will be transferred into energy to heat up the domestic water. It is a recovery function and is controlled automatically by the system.

This heat recovery is only possible if heat recovery operation is permitted (it is an installation related setting).

4.10. Temperature read-out mode

On the remote controller, the actual temperatures can be displayed.

1 Push and hold the ◑/A button for 5 seconds.
The heating/cooling leaving water temperature is displayed (icons 👁 and ☀/❄ and ▶ are blinking).

2 Use the 🕘/▲ and 🕘/▼ buttons to display:
- The entering water temperature (icons 👁 and ☀/❄ are blinking and the ▶ icon is flashing slowly).
- The indoor temperature (icons 👁 and ☀/❄ are blinking).
- The outdoor temperature (icons 👁 and ⌂ are blinking).
- The hot water supply tank temperature (icons 👁 and 🚿 are blinking).

3 Push the ◑/A button again to leave this mode. If no button is pressed, the remote controller leaves the display mode after 10 seconds.

4.11. Schedule timer operation

In schedule timer operation, the installation is controlled by the schedule timer. The actions programmed in the schedule timer will be executed automatically.

The schedule timer is enabled (◴ icon displayed) or disabled (◴ icon not displayed) by pressing the ◴⊗ button.

Space heating

Refer to "Programming space heating" on page 14.

4 actions per day of the week can be programmed, totalling 28 actions.

The space heating schedule timer can be programmed in 2 different ways: based on the temperature set point (both leaving water temperature and room temperature) and based on the ON/OFF instruction.

The desired method is set through field setting. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[0-03]** Status: defines whether ON/OFF instruction can be used in the schedule timer for space heating.

NOTE

By default space heating based on temperature set point (method 1) is enabled, so only temperature shifts are possible (no ON/OFF instruction).

Advantage of this method is that you can simply switch off the space heating operation by pushing the ❀❀ button without disabling the automatic domestic hot water storage operation (e.g. during summertime when no space heating is required).

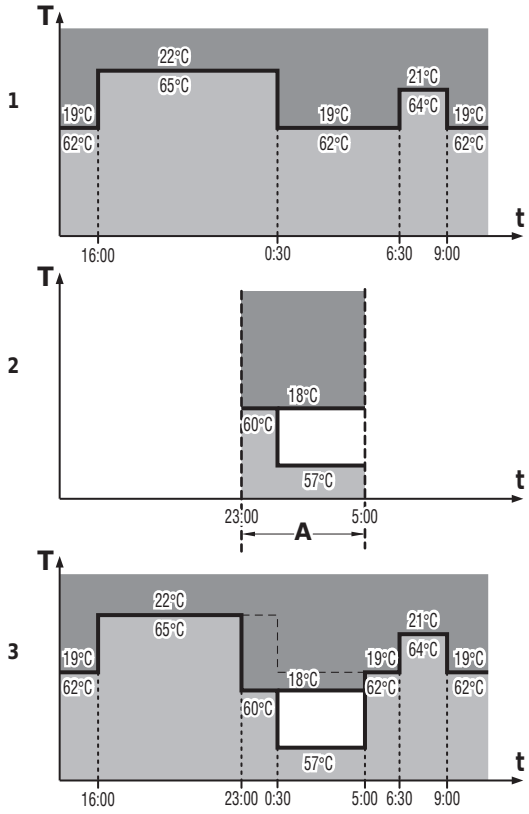
In the following tables both methods on how to interpret the schedule timer are shown.

Method 1 [0-03]=1 (default)	Space heating based on temperature set point[(a)]
During operation	During schedule timer operation the operation LED is lit continuously.
When pushing the ❀❀ button	The schedule timer for space heating will stop and will not start again. The controller will be switched off (operation LED will stop working). However, the schedule timer icon will stay displayed which means that the domestic water heating stays enabled.
When pushing the ⊗/◴ button	The schedule timer for space heating **and** domestic water heating along with the quiet mode will be stopped and will not start again. The schedule timer icon will not be displayed anymore.

(a) For leaving water temperature and/or room temperature

Operation example: Schedule timer based on temperature set points

When setback function is enabled, the setback operation will have priority over the scheduled action in the schedule timer.

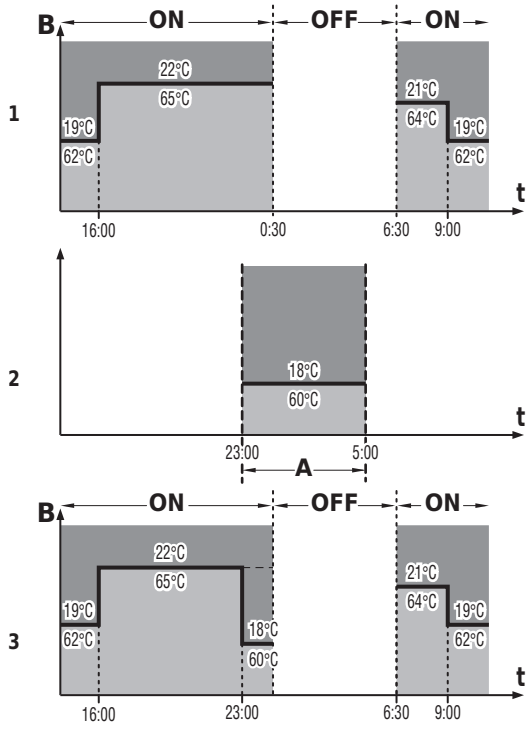


1 Schedule timer
2 Setback function
3 When both setback function and schedule timer are enabled
A Setback function
t Time
T Temperature set point
Room temperature
Leaving water temperature

Method 2 [0-03]=0	Space heating based on ON/OFF instruction
During operation	When the schedule timer switches space heating OFF, the controller will be switched off (operation LED will stop working). Note that this has no influence on the domestic water heating.
When pushing the ❀❀ button	The schedule timer for space heating will stop (when active at that moment) and will start again at the next scheduled ON function. The "last" programmed command overrules the "preceding" programmed command and will remain active until the "next" programmed command occurs. Example: imagine the actual time is 17:30 and actions are programmed at 13:00, 16:00 and 19:00. The "last" programmed command (16:00) overruled the "previous" programmed command (13:00) and will remain active until the "next" programmed command (19:00) occurs. So in order to know the actual setting, one should consult the last programmed command. It is clear that the "last" programmed command may date from the day before. Refer to "Consulting programmed actions" on page 18. The controller will be switched off (operation LED will stop working). However the schedule timer icon will stay displayed which means that the domestic heating stays enabled.
When pushing the ⊗/◴ button	The schedule timer for space heating **and** domestic water heating along with the quiet mode will be stopped and will not start again. The schedule timer icon will not be displayed anymore.

Operation example: Schedule timer based on ON/OFF instruction

When setback function is enabled, the setback operation will have priority over the scheduled action in the schedule timer if ON instruction is active. If OFF instruction is active this will have priority over the setback function. At any time the OFF instruction will have the highest priority.



1	Schedule timer
2	Setback function
3	When both setback function and schedule timer are enabled
A	Setback function
B	ON/OFF instruction
t	Time
T	Temperature set point
	Room temperature
	Leaving water temperature

Space cooling

Refer to "Programming space cooling" on page 15.

4 actions can be programmed, these actions are repeated daily.

The space cooling schedule timer can be programmed in 2 different ways:

- based on the temperature set point (leaving water temperature and room temperature)
- based on the ON/OFF instruction.

The desired method is set through field setting. Refer to "4.15. Field settings" on page 19 for a detailed description how to set one or more field settings.

- **[0-04]** Status: defines whether ON/OFF instruction can be used in the schedule timer for space cooling.

The implementation and meaning of setting [0-04] and schedule settings are the same as for heating operation. See "Operation example: Schedule timer based on temperature set points" on page 11 and "Operation example: Schedule timer based on ON/OFF instruction" on page 12.

For cooling, no setback function is available.

NOTE

By default space cooling based on temperature set point (method 1) is enabled, so only temperature shifts are possible (no ON/OFF instruction).

Advantage of this method is that you can simply switch off the space cooling operation by pushing the button without disabling the automatic domestic hot water storage operation.

Domestic water heating

Refer to "Programming domestic water heating" on page 16.

Domestic water heating can be done through several standard operation modes:

- Automatic storage: by field setting, once during night and/or once during the afternoon the water is heated till storage set point.
- Manual storage: if due to special circumstances, production of hot water (till storage set point) is needed immediately (1 time), this function can be used.
- Reheat: the reheat function can be activated next to or separate from the automatic storage operation if the user wants to keep the domestic hot water tank at the minimum reheat temperature.

Next to the standard domestic water heating operation modes, it is also possible to freely program the domestic water heating operation through the schedule timer (refer to "Programming domestic water heating" on page 16). Then the mode is switched on or off at a scheduled time. 4 actions can be programmed per mode. These actions are repeated daily (additional schedule of storage on top of the automatic day and night storage functionality).

NOTE

- Remark that only the time when domestic water heating must start and stop can be programmed in the schedule timer. When domestic water heating is enabled, the water will be heated till storage set point. The storage set point is set through field setting.
- For energy-saving reasons, keep hours with low electricity cost tariffs in mind when programming the schedule timer for domestic water heating.

Quiet mode

Refer to "Programming quiet mode" on page 17.

Switch the mode on or off at a scheduled time. 4 actions can be programmed per mode. These actions are repeated daily.

NOTE

- If the auto restart function is disabled, the schedule timer will not be activated when power returns to the unit after a power supply failure. Press the ⏲⊗ button to enable the schedule timer again.
- When power returns after a power supply failure, the auto restart function reapplies the user interface settings at the time of the power supply failure (if time is shorter than 2 hours). It is therefore recommended to leave the auto restart function enabled.
- The programmed schedule is time driven. Therefore, it is essential to set the clock and the day of the week correctly.
  Refer to "4.2. Setting the clock" on page 5.
- When the schedule timer is not enabled (⏲ icon not displayed), schedule timer actions will not be executed!
- The programmed actions are not stored according to their timing but according to the time of programming. This means that the action that was programmed first gets action number 1, even though it is executed after other programmed action numbers.

4.12. Programming and consulting the schedule timer

Programming the schedule timer is flexible (you can add, remove or alter programmed actions whenever required) and straightforward (programming steps are limited to a minimum). However, before programming the schedule timer, remind:

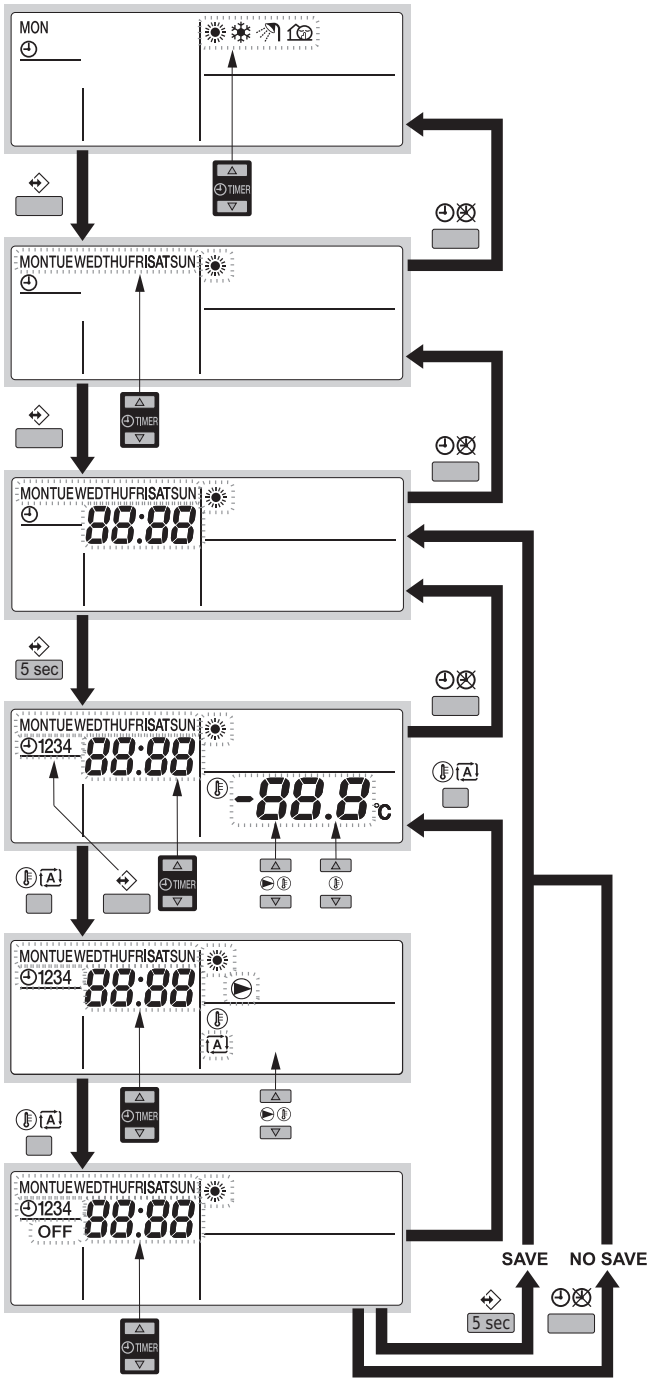
- Familiarize yourself with the icons and the buttons. You will need them when programming. Refer to "4.1. Remote controller buttons and icons" on page 3.
- Fill out the form at the very end of this manual. This form can help you define the required actions for each day.
- Take your time to enter all data accurately.
- Try to program the actions in a chronological way: start with action 1 for the first action and end with the highest number for the last action. This is not a requirement but will simplify the interpretation of the program later.
- If 2 or more actions are programmed for the same day and at the same time, only the action with the highest action number will be executed.

  Example:

Programmed actions			Executed actions		
	Time (hour)	Temperature (°C)		Time (hour)	Temperature (°C)
1	18:00 —	OFF	**1**	06:00 —	21
2	08:00 —	23	**2**	08:00 —	23
3	06:00 —	21	**3**	18:00 —	OFF
4	18:00 —	26			

- You can always alter, add or remove the programmed actions later.

Programming space heating



Programming space heating is carried out as follows:

NOTE Returning to previous steps in the programming procedure without saving modified settings is done by pressing the ⏲⊗ button.

1 Press the ⏲ button to enter the programming/consulting mode.

2 Select the operation mode you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ⏲ button to confirm the selected mode.

The actual day is blinking.

4 Select the day you would like to consult or to program by means of the ⏲▲ and ⏲▼ buttons.

The selected day is blinking.

5 Press the ⏲ button to confirm the selected day.

6 Hold down the ⏲ button for 5 seconds to program the detailed actions.

The first programmed action of the selected day appears.

7 Use the ⏲ button to select the action number you would like to program or to modify.

8 Use the ⏲▲ and ⏲▼ buttons to set the correct action time.

9 Use the 🌡▲ and 🌡▼ buttons to set the leaving water temperature.

10 Use the 🌡▲ and 🌡▼ buttons to set the room temperature.

11 Use the 🌡Ⓐ button to select:

- **OFF**: to switch heating and the remote controller off.
- Ⓐ: to select automatic temperature calculation for leaving water temperature

Use the 🌡▲ and 🌡▼ buttons to set the appropriate shift value (refer to "4.3. Space heating operation (☼)" on page 5 for more information about weather dependent set point).

12 Repeat steps 7 to 11 to program the other actions of the selected day.

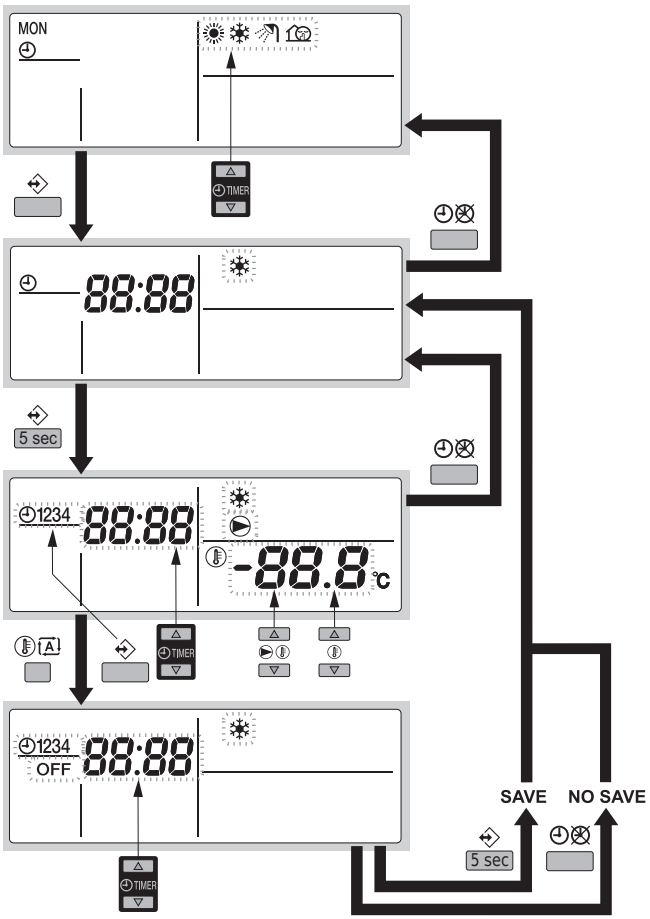
When all actions have been programmed, make sure that the display shows the highest action number you would like to save.

13 Press the ⏲ button for 5 seconds to store the programmed actions.

If the ⏲ button is pressed when action number 3 is displayed, actions 1, 2 and 3 are stored but 4 is deleted.
You automatically return to step 6.
By pressing the ⏲⊗ button several times, you return to previous steps in this procedure and finally return to normal operation.

14 You automatically return to step 6, start again to program the following day.

Programming space cooling



Programming space cooling is carried out as follows:

NOTE Returning to previous steps in the programming procedure without saving modified settings is done by pressing the ⏲⊗ button.

1 Press the ⇳ button to enter the programming/consulting mode.

2 Select the operation mode you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ⇳ button to confirm the selected mode.

The time is blinking.

4 Consult the action by means of the ⏲▲ and ⏲▼ buttons.

5 Hold down the ⇳ button for 5 seconds to program the detailed actions.

The first programmed action appears.

6 Use the ⇳ button to select the action number you would like to program or to modify.

7 Use the ⏲▲ and ⏲▼ buttons to set the correct action time.

8 Use the ▶🌡▲ and ▶🌡▼ buttons to set the leaving water temperature.

9 Use the 🌡▲ and 🌡▼ buttons to set the room temperature.

10 Use the 🌡A button to select **OFF** to switch cooling and the remote controller off.

11 Repeat steps 6 to 10 to program the other actions.

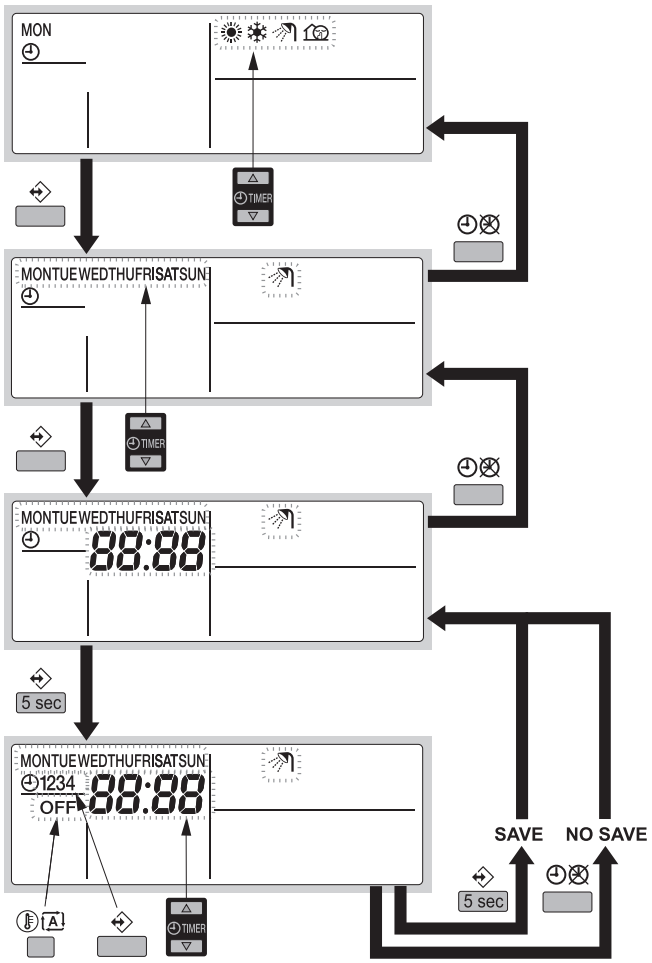
When all actions have been programmed, make sure that the display shows the highest action number you would like to save.

12 Press the ⇳ button for 5 seconds to store the programmed actions.

If the ⇳ button is pressed when action number 3 is displayed, actions 1, 2 and 3 are stored but 4 is deleted.
You automatically return to step 5.
By pressing the ⏲⊗ button several times, you return to previous steps in this procedure and finally return to normal operation.

13 You automatically return to step 5, start again to program the following day.

Programming domestic water heating



Programming domestic water heating is carried out as follows:

NOTE Returning to previous steps in the programming procedure without saving modified settings is done by pressing the ⏲⊗ button.

1 Press the ◈ button to enter the programming/consulting mode.

2 Select the operation mode you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ◈ button to confirm the selected mode.

4 Select the day you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual day is blinking.

5 Press the ◈ button to confirm the selected day.

6 Hold down the ◈ button for 5 seconds to the program the detailed actions.

The first programmed action of the selected day appears.

7 Use the ◈ button to select the action number you would like to program or to modify.

8 Use the ⏲▲ and ⏲▼ buttons to set the correct action time.

9 Use the 🌡Ⓐ button to select or deselect **OFF** as action.

10 Repeat steps 7 to 9 to program the other actions of the selected mode.

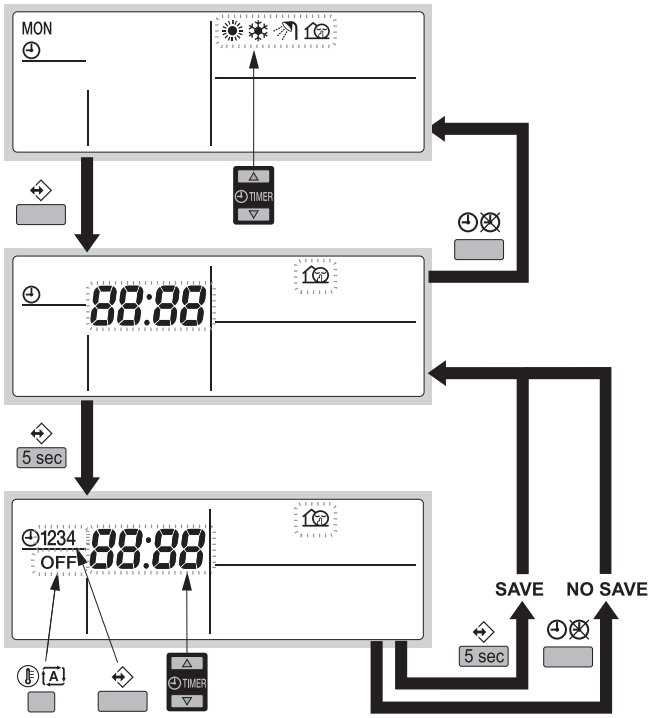
When all actions have been programmed, make sure that the display shows the highest action number you would like to save.

11 Press the ◈ button for 5 seconds to store the programmed actions.

If the ◈ button is pressed when action number 3 is displayed, actions 1, 2 and 3 are stored but 4 is deleted.
By pressing the ⏲⊗ button several times, you return to previous steps in this procedure and finally return to normal operation.

12 You automatically return to step 5, start again to program the following day.

Programming quiet mode



Programming quiet mode is carried out as follows:

NOTE Returning to previous steps in the programming procedure without saving modified settings is done by pressing the ⏲⊗ button.

1 Press the ◈ button to enter the programming/consulting mode.

2 Select the operation mode you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ◈ button to confirm the selected mode.

4 Consult the actions by means of the ⏲▲ and ⏲▼ buttons.

5 Hold down the ◈ button for 5 seconds to the program the detailed actions

The first programmed action appears.

6 Use the ◈ button to select the action number you would like to program or to modify.

7 Use the ⏲▲ and ⏲▼ buttons to set the correct action time.

8 Use the 🌡Ⓐ button to select or deselect **OFF** as action.

9 Repeat steps 6 to 8 to program the other actions of the selected mode.

When all actions have been programmed, make sure that the display shows the highest action number you would like to save.

10 Press the ◈ button for 5 seconds to store the programmed actions.

If the ◈ button is pressed when action number 3 is displayed, actions 1, 2 and 3 are stored but 4 is deleted.
By pressing the ⏲⊗ button several times, you return to previous steps in this procedure and finally return to normal operation.

11 You automatically return to step 5, start again to program the following day.

Consulting programmed actions

Consulting space heating, space cooling, domestic water heating or quiet mode is carried out as follows:

NOTE Returning to previous steps in this procedure is done by pressing the ⏲⊗ button.

1 Press the ⏲ button to enter the programming/consulting mode.

2 Select the operation mode you would like to consult by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ⏲ button to confirm the selected mode.

The actual day is blinking.

4 Select the day you would like to consult by means of the ⏲▲ and ⏲▼ buttons.

The selected day is blinking.

5 Press the ⏲ button to confirm the selected day.

The first programmed action of the selected day appears.

6 Use the ⏲▲ and ⏲▼ buttons to consult the other programmed actions of that day.

This is called the readout mode. Empty program actions (e.g. 4) is not displayed.
By pressing the ⏲⊗ button several times, you return to previous steps in this procedure and finally return to normal operation.

Tips and tricks

Programming the next day(s)

After confirming the programmed actions of a specific day (i.e. after pressing the ⏲ button for 5 seconds), press the ⏲⊗ button once. You can now select another day by using the ⏲▲ and ⏲▼ buttons and restart consulting and programming.

Copying programmed actions to next day

In space heating program it is possible to copy all programmed actions of a specific day to the next day (e.g. copy all programmed actions from "MON" to "TUE").

To copy programmed actions to the next day, proceed as follows:

1 Press the ⏲ button to enter the programming/consulting mode.

The actual mode is blinking.

2 Select the operation mode you would like to program by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.
You can leave programming by pressing the ⏲⊗ button.

3 Press the ⏲ button to confirm the selected mode.

The actual day is blinking.

4 Select the day you would like to copy to the next day by means of the ⏲▲ and ⏲▼ buttons.

The selected day is blinking.
You can return to step 2 by pressing the ⏲⊗ button.

5 Press the ⏲ and ⏲⊗ buttons simultaneously for 5 seconds.

After 5 seconds the display will show the next day (e.g. "TUE" if "MON" was selected first). This indicates that the day has been copied.
You can return to step 2 by pressing the ⏲⊗ button.

Deleting one or more programmed actions

Deleting one or more programmed actions is done at the same time as storing the programmed actions.

When all actions for one day have been programmed, make sure that the display shows the highest action number you would like to save. By pressing the ⏲ button for 5 seconds, you store all actions except those with a higher action number than the one that is displayed.

E.g. when the ⏲ button is pressed when action number 3 is displayed, actions 1, 2 and 3 are stored but 4 is deleted.

Deleting a mode

1 Press the ⏲ button to enter the programming/consulting mode.

2 Select the operation mode you would like to delete by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ⏲ and ⓘ button simultaneously for 5 seconds to delete the selected mode.

Deleting a day of the week

1 Press the ⏲ button to enter the programming/consulting mode.

2 Select the operation mode you would like to delete by means of the ⏲▲ and ⏲▼ buttons.

The actual mode is blinking.

3 Press the ⏲ button to confirm the selected mode.

The actual day is blinking.

4 Select the day you would like to delete by means of the ⏲▲ and ⏲▼ buttons.

The selected day is blinking.

5 Press the ⏲ and ⓘ button simultaneously for 5 seconds to delete the selected day.

4.13. Operating the remote alarm option

An optional EKRP1HBA digital I/O PCB can be connected to the indoor unit and be used to remotely monitor your system. This address card offers 3 voltage free outputs:

- Output 1 = THERMO ON/OFF
  this output will be enabled when your unit is in space heating operation.
- Output 2 = ALARM OUTPUT
  this output will be enabled when your unit is in error condition.
- Output 3 = DOMESTIC HOT WATER MODE ON/OFF
  this output will be enabled when your unit is in domestic water heating operation.

For more details about the wiring connections of this option, refer to the wiring diagram of the unit.

4.14. Operating the optional remote controller

If besides the main remote controller the optional remote controller is installed as well, the main remote controller (master) can access all settings while the second remote controller (slave) can not access schedule settings and parameter settings.

Refer to the installation manual for more details.

4.15. Field settings

The configuration of the Daikin system is done through field settings.

In this operation manual all field settings related to the operation of the unit and user demand are explained. A list of all those field settings and default values is given under "4.16. Field settings table" on page 20. In this same list, we provided for 2 columns to register the date and value of altered field settings at variance with the default value.

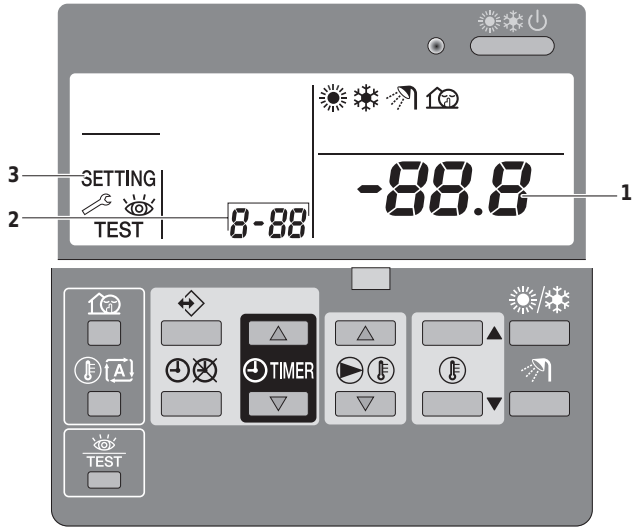
For a total list of field settings, refer to the installation manual.

All field settings are accessible and programmable through the user interface on the indoor unit.

Each field setting is assigned a 3-digit number or code, for example [5-03], which is indicated on the user interface display. The first digit [5] indicates the 'first code' or field setting group. The second and third digit [03] together indicate the 'second code'.

Procedure

To change one or more field settings, proceed as follows.



1 Press the TEST button for a minimum of 5 seconds to enter FIELD SET MODE.
The SETTING icon (3) will be displayed. The current selected field setting code is indicated *8-88* (2), with the set value displayed to the right *-88.8* (1).

2 Press the ▲ button to select the appropriate field setting first code.

3 Press the ▼ button to select the appropriate field setting second code.

4 Press the TIMER ▲ button and TIMER ▼ button to change the set value of the select field setting.

5 Save the new value by pressing the ⊗ button.

6 Repeat step 2 through 4 to change other field settings as required.

7 When finished, press the TEST button to exit FIELD SET MODE.

NOTE

Changes made to a specific field setting are only stored when the ⊗ button is pressed. Navigating to a new field setting code or pressing the TEST button will discard the change made.

NOTE

- Before shipping, the set values have been set as shown under "4.16. Field settings table" on page 20.
- When exiting FIELD SET MODE, "88" may be displayed on the remote controller LCD while the unit initializes itself.

- When running through the field settings you may notice that there are some more field settings as there are mentioned in the "4.16. Field settings table" on page 20. **These field settings are not applicable and may not be changed!**
- For more information about installation related setting, see installation manual of the indoor unit. For settings different from the default value, contact your installer.

4.16. Field settings table

First code	Second code	Setting name	Installer setting at variance with default value				Default value	Range	Step	Unit
			Date	Value	Date	Value				
0	**Remote control setup**									
	00	Installation related setting[(a)]					2	2~3	1	—
	01	Installation related setting[(a)]					0	–5~5	0.5	°C
	02	Not applicable. Do not change the default value.					1	—	—	—
	03	Status: space heating schedule timer mode Method 1=1 / Method 2=0					1 (ON)	0/1	—	—
	04	Status: space cooling schedule timer mode Method 1=1 / Method 2=0					1 (ON)	0/1	—	—
1	**Automatic storage timing for domestic water heating**									
	00	Status: night time storage					1 (ON)	0/1	—	—
	01	Night time storage start time					1:00	0:00~23:00	1:00	hour
	02	Status: day time storage					0 (OFF)	0/1	—	—
	03	Day time storage start time					15:00	0:00~23:00	1:00	hour
2	**Automatic setback function**									
	00	Status: setback operation					1 (ON)	0/1	—	—
	01	Setback operation start time					23:00	0:00~23:00	1:00	hour
	02	Setback operation stop time					5:00	0:00~23:00	1:00	hour
3	**Weather dependent set point**									
	00	Low ambient temperature (Lo_A)					–10	–20~5	1	°C
	01	High ambient temperature (Hi_A)					15	10~20	1	°C
	02	Set point at low ambient temperature (Lo_Ti)					70	25~80	1	°C
	03	Set point at high ambient temperature (Hi_Ti)					45	25~80	1	°C
4	**Disinfection function**									
	00	Status: disinfection operation					1 (ON)	0/1	—	—
	01	Disinfection operation day selection					Fri	Mon~Sun	—	—
	02	Disinfection operation start time					23:00	0:00~23:00	1:00	hour
5	**Automatic setback and disinfection set point**									
	00	Set point: disinfection operation temperature					70	60~75	5	°C
	01	Disinfection operation time duration					10	5~60	5	min
	02	Leaving water setback temperature					5	0~10	1	°C
	03	Room setback temperature					18	17~23	1	°C
	04	Not applicable. Do not change the default value.					0	—	—	—
6	**Option setup**									
	00	Installation related setting[(a)]					0 (OFF)	0/1	—	—
	01	Installation related setting[(a)]					0 (OFF)	0/1	—	—
	02	Installation related setting[(a)]					0 (OFF)	0/1	—	—
	03	Not applicable. Do not change the default value.					0	—	—	—
	04	Installation related setting[(a)]					0	0/2	1	—
7	**Option setup**									
	00	Not applicable. Do not change the default value.					0	—	—	—
	01	Not applicable. Do not change the default value.					0	—	—	—
	02	Installation related setting[(a)]					0 (A)	0/1	—	—
	03	Installation related setting[(a)]					0 (OFF)	0/1	—	—
	04	Installation related setting[(a)]					0 (OFF)	0/1	—	—

First code	Second code	Setting name	Installer setting at variance with default value				Default value	Range	Step	Unit
			Date	Value	Date	Value				
8	**Option setup**									
	00	Installation related setting[(a)]					1 (ON)	0/1	—	—
	01	Installation related setting[(a)]					1 (ON)	0/1	—	—
	02	Emergency mode					0 (OFF)	0/1	—	—
	03	Status: low noise level					1	1~3	1	—
	04	Installation related setting[(a)]					0	0~2	1	—
9	**Automatic temperature compensation**									
	00	Installation related setting[(a)]					0	–2~2	0.2	°C
	01	Installation related setting[(a)]					0	–5~5	0.5	°C
	02	Installation related setting[(a)]					0	–5~5	0.5	°C
	03	Installation related setting[(a)]					0	–2~2	0.2	°C
	04	Not applicable. Do not change the default value.					0	—	—	—
A	**Option setup**									
	00	Installation related setting[(a)]					0	0~2	1	—
	01	Installation related setting[(a)]					0	0~2	1	—
	02	Installation related setting[(a)]					10	5~15	1	°C
	03	Installation related setting[(a)]					35	25~80	1	°C
	04	Installation related setting[(a)]					65	25~80	1	°C
b	**Domestic hot water set points**									
	00	Set point: reheat minimum temperature					35	35~65	1	°C
	01	Set point: reheat maximum temperature					45	35~75	1	°C
	02	Status: weather dependent domestic water heating					1 (ON)	0/1	—	—
	03	Set point: storage temperature					70	45~75	1	°C
	04	Automatic maximum domestic hot water storage temperature					70	55~75	1	°C
C	**Leaving water temperature limits**									
	00	Installation related setting[(a)]					80	37~80	1	°C
	01	Installation related setting[(a)]					25	25~37	1	°C
	02	Installation related setting[(a)]					20	18~22	1	°C
	03	Installation related setting[(a)]					5	5~18	1	°C
	04	Not applicable. Do not change the default value.					0	—	—	—
d	**Domestic water heating retention times**									
	00	Installation related setting[(a)]					10	5~20	1	—
	01	Installation related setting[(a)]					30	10~60	5	—
	02	Installation related setting[(a)]					15	5~30	5	—
	03	Not applicable. Do not change the default value.					15	—	—	—
	04	Not applicable. Do not change the default value.					40	—	—	—
E	**Service mode**									
	00	Installation related setting[(a)]					0	0/1	—	—
	01	Not applicable. Do not change the default value.					0	—	—	—
	02	Not applicable. Do not change the default value.					0	—	—	—
	03	Not applicable. Do not change the default value.					1	—	—	—
	04	Installation related setting[(a)]					0	0~2	1	—
F	**Option setup continued**									
	00	Installation related setting[(a)]					5	5~15	1	°C
	01	Not applicable. Do not change the default value.					0	—	—	—
	02	Installation related setting[(a)]					1	0~2	1	—
	03	Not applicable. Do not change the default value.					10	—	—	—
	04	Not applicable. Do not change the default value.					50	—	—	—

(a) For more information about installation related setting, see installation manual of the indoor unit. For settings different from the default value, contact your installer.

5. MAINTENANCE

5.1. Maintenance activities

In order to ensure optimal operation of the unit, a number of checks and inspections should be carried out on the unit ar regular intervals, preferably yearly. This maintenance shall be carried out by the installer or service agent. Refer to the installation manual for more details.

The only maintenance which may be required by the operator is:

- keeping the remote controller clean by means of a soft damp cloth,
- checking if the water pressure indicated on the manometer is above 1 bar.

If the supply cord is damaged, it must be replaced by the manufacturer, its agent or similar qualified persons in order to avoid hazards.

During longer periods of standstill, e.g. during summer with a heating only application, it is very important NOT TO SWITCH OFF THE POWER SUPPLY towards the unit.

Switching off the power supply stops the automatic repetitive movement of the pump in order to prevent it from getting jammed.

5.2. Important information regarding the refrigerant used

This product contains fluorinated greenhouse gases. Do not vent gases into the atmosphere.

Refrigerant type: R134a
GWP(1) value: 1430

Refrigerant type: R410A
GWP(1) value: 2087.5

(1) GWP = global warming potential

Periodical inspections for refrigerant leaks may be required depending on the applicable legislation. Please contat your installer for more information.

6. TROUBLESHOOTING

This section provides useful information for diagnosing and correcting certain problems which may occur with the unit.

POSSIBLE CAUSES	CORRECTIVE ACTIONS
No readings on the remote controller (blank display)	• Check if the mains power is still connected to your installation. • The benefit kWh rate power supply is active (see installation manual).
One of the error codes appears	Consult your local dealer. Refer to the installation manual for a detailed list of error codes.
The schedule timer does work but the programmed actions are executed at the wrong time (e.g. 1 hour too late or too early)	Check if the clock and the day of the week are set correctly, correct if necessary.
The domestic hot water schedule timer is programmed but does not work.	In case the ⏲⊗ icon is not displayed, push the ⏲⊗ button to enable the schedule timer.
Capacity shortage	Consult your local dealer.

7. DISPOSAL REQUIREMENTS

Dismantling of the unit, treatment of the refrigerant, of oil and of other parts must be done in accordance with the applicable legislation.



Your product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and other parts must be done by a qualified installer in accordance with the applicable legislation.

Units must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed off correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

NOTES

NOTES

NOTES



	[hh:mm]	[°C]	OFF [☑]
MON			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
TUE			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
WED			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
THU			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
FRI			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
SAT			
1	:		❑
2	:		❑
3	:		❑
4	:		❑
SUN			
1	:		❑
2	:		❑
3	:		❑
4	:		❑



	[hh:mm]	[°C]	OFF [☑]
1	:		❑
2	:		❑
3	:		❑
4	:		❑



	[hh:mm]	ON [☑]	OFF [☑]
MON			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
TUE			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
WED			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
THU			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
FRI			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
SAT			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑
SUN			
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑



	[hh:mm]	ON [☑]	OFF [☑]
1	:	❑	❑
2	:	❑	❑
3	:	❑	❑
4	:	❑	❑

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