25/08 - 5389591\_10 Translation of Original instructions



# WRC



# WIRED CONTROLLER



www.aermec.com

Dear Customer,

Thank you for wanting to learn about a product Aermec. This product is the result of many years of experience and in-depth engineering research, and it is built using top quality materials and advanced technologies.

The manual you are about to read is meant to present the product and help you select the unit that best meets the needs of your system.

However, please note that for a more accurate selection, you can also use the Magellano selection program, available on our website.

Aermec, always attentive to the continuous changes in the market and its regulations, reserves the right to make all the changes deemed necessary for improving the product, including technical data. Thank you again.

Aermec S.p.A.

### CERTIFICATIONS

### **COMPANY CERTIFICATIONS**





This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled disposal of Waste Electrical and Electronic Equipment (WEEE), please return the device using appropriate collection systems, or contact the retailer where the product was purchased. Please contact your local authority for further details. Illegal dumping of the product by the user entails the application of administrative sanctions provided by law.



In accordance with Italian Legislative Decree 116 / 2020, the machine's packaging is marked; for unmarked packaging parts, the composition is as follows: **Expanded polystyrene - PS 6** 

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec shall not be held liable for any errors or omissions.

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# 1 ELECTRICAL DEVICE WARNINGS

# 1.1 WARNING AND HAZARD TERMS

Before proceeding with any assessment or operation on the unit, carefully read this manual and all of its notes marked with the following symbols, which indicate the various levels of hazard or situations that are potentially hazardous to prevent malfunctioning or physical damage to property or personal injury:

	WARNING
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	MANDATORY
	This indicates a mandatory action that, if not carried out, could cause death or serious injuries.
	PROHIBITION
$\bigcirc$	Indicates a prohibited action which, if not avoided, could result in death or serious injury.
	ΝΟΤΙϹΕ
Í	IMPORTANT additional information on how to use the product

# 1.2 GENERAL WARNINGS

### CAUTION

Failure to observe these instructions can cause damages to property or people's injuries, which may be serious depending on the circumstances.

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Read carefully these general safety precautions before installing the air conditioning devices and ensure that the installation is performed correctly.

Aermec S.p.A. will in no case be liable for any damages to property and/or persons caused by improper operations such as: incorrect installations, debugging or maintenance not carried out, non-compliance with the installation regulations foreseen in the country where the device will be installed or non-compliance with the rules contained in this manual.



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**Refer to the national regulations for the installation:** the device must be installed in compliance with national plant engineering rules.

# 1.3 WARNINGS FOR THE USER

### CAUTION

### To prevent electric shock or fire accidents:

- 1. Do not operate the air conditioner with wet hands.
- 2. Do not disassemble the device or remove its internal parts.
- **3.** Do not modify or repair the air conditioner by yourself.
- 4. Do not move or re-install the device by yourself.
- 5. Do not use flammable materials near the device.

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To clean the device, do not use organic solvents, such as paint thinners. Possible result: damages, electric shock or fire accidents.

### NOTICE

It is not recommended for persons (including children) with limited physical, sensorial or mental abilities, or operators without experience and knowledge, to use the machine unless in the presence of a person responsible for their safety capable of monitoring them and of providing adequate instructions for use. Do not allow children to play with the appliance.

All illustrations and information contained in this manual are purely indicative; for the actual command of the device functions, refer to the controller display (if fitted).

In order to improve the product, we reserve the right to modify or revise this document without prior notice; therefore remember to periodically verify the presence of new versions.

# 1.4 WARNINGS FOR THE INSTALLER

### CAUTION



Improper installation or assembly of the device could cause electrocution, short-circuits, leaks and fires.

Ensure that the electrical power supply complies with the parameters included in this manual. A power supply that is different from the recommended one can cause damage.



Ensure that all connections are performed according to the instructions in this manual. Incorrect connections could cause communication malfunctioning.

Ensure to be able to use the correct communication ports, otherwise the connection may not work properly.

The connected communication line must be protected with electrical tape to prevent oxidation and short-circuits.

Do not install the device in a location where it could be affected by inflammable gas leaks or deposits of materials which are inflammable, explosive, poisonous, corrosive or hazardous substances. Install the device in a place with minimal levels of dust, fumes, air humidity and corrosive agents.

# MANDATORY

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The electric connections and installation of the device must only be performed by individuals with the technical-professional requisites for installation, transformation, expansion and maintenance of the systems and able to check the same for safety and functionality purposes. In this manual they will be generically referred to as "Staff with specific technical skill".





Use exclusively optional devices and spare parts approved by Aermec S.p.A..

# PROHIBITION

This device cannot be used on its own. Also refer to the user manuals of the outdoor/indoor unit.

# 2 OPERATION NOTICES

# MANDATORY The power supply for all indoor units must be unified. When the system mode priority is the master-slave mode, in one system network, you must set one indoor unit as the master indoor unit, other indoor units are slave indoor units. PROHIBITION Never install the wired controller in the moist circumstance or expose it directly under the sunlight. Never beat, throw, and frequently disassemble the wired controller and the wireless remote controller. Never operate the wired controller and the wireless remote controller with wet hands. NOTICE î When the system mode priority is the master-slave mode, the operation mode of the system is basing on that of the master indoor unit. The master indoor unit can be set to any mode (including auto mode), while the slave indoor unit can't set to the mode that conflicts with the system mode. i When an operation mode is set, the indoor unit can be set to any mode (excluding auto mode). The indoor unit will automatically switch to the system mode, when the operation mode of the indoor unit conflicts with the system operation mode. i System mode priority defaults to master-slave mode and only certain units have other system mode priorities. i When two wired controllers control one (or more) indoor unit(s), the address of wired controller should be different. If a function is not available for the indoor unit, the remote control cannot set the function. Please read the manual carefully before using and installing this product.

# 3 WIRED CONTROLLER

The WRC wired panel allows display and rapid setting of the machine's operating parameters. The card stores all the default settings and any modifications. After the absence of voltage for any period of time, the unit is able to start up again automatically, maintaining the original settings.

The user interface comprises an LCD display with icons used to display information and available functions about the units; the user may interact with the panel using the function keys located in the lower part of the panel itself.

Wired Controller

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		SHIELD	]	Master		
ENTER/CANCEL	SLEEP	FAI	4	MODE	-	
— <b>v</b>	r		- 🔺		-	
FUNCTION	TIMER	SWIN	IG	ON/OF	F	

# 3.1 USER INTERFACE (DISPLAY)



The following table indicates which functions match the various icons available on the wired panel's LCD display:

Number	Description
1	Function not available
2	Function not available
3	Function not available
4	Indicates that AUTOMATIC mode is active (only available on the MASTER unit)
5	Indicates that COOLING mode is active (only available if the MASTER unit is set with a compatible mode): COOLING, DEHUMIDIFICATION)
б	Indicates that DEHUMIDIFICATION mode is active (only available if the MASTER unit is set with a compatible mode): COOLING, DEHUMIDIFICATION)
7	Fan mode
8	Indicates that HEATING mode is active (only available if the MASTER unit is set with the same mode):
9	Function not available
10	Function not available
11	Indicates the status of the SWING (vertical) function
12	Function not available
13	Indicates the current fan setting
14	These icons are displayed when setting operating parameters; they indicate the maximum (when setting the heat limit) or minimum (when setting the cool limit) values
15	During normal unit operation, the temperature setting in use is displayed

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Number	Description			
16	Indicates the unit of measure used to indicate the temperature settings			
17	This group of icons depicts the functions and information associated with the system time or the options associated with the unit ON/OFF timer			
18	Indicates the SLEEP function is active			
19	Function not available			
20	Indicates that the QUIET quiet operation was activated			
21	If fitted, it indicates that wired panel backlighting is active			
22	Function not available			
23	Indicates that the antifreeze function was activates			
24	Function not available			
25	Indicates that the key lock function is active on the panel Indicates that all the buttons of the remote control are locked			
26 Indicates that energy saving mode is active on the indoor unit connected				
27	Indicates that the wired panel is a slave (i.e. two wired panels are connected to the indoor unit: one master and one slave)			
28	Function not available			
29	Indicates that the outdoor unit is operating in "safe" mode			
30	This icon appears in order to indicate that the filter on the indoor unit must be cleaned			
31	Function not available			
32	Indicates that the X-FAN function is active on the unit (this functions dries the coil in cool or dehumidification mode)			
33	Function not available			
34	Indicates that the outdoor unit is currently defrosting			
35	This icon indicates that the panel was disenabled by a remote controller (zone control, mains control) VRF Debugger			
36	This icon indicates that the wired panel controls several indoor units (a group)			
37	Indicates that the Indoor unit is resuming the settings stored in memory (this event occurs after a black-out)			
38	Indicates that the indoor unit connected to the panel is the system MASTER			

# NOTICE



When wired controller is connected with different indoor units, some functions will be different.

# 4 BUTTONS

# 4.1 USER INTERFACE (BUTTONS)



Number	Description			
1	Selects or Cancels desired function			
2	Sets night-time comfort mode SLEEP			
3	Activates or de-activates certain extra functions (for example the QUIET, X-FAN, SAVE, CLEAN modes)			
4	Sets data for unit timers			
	Decrease the value of the active function:			
	Temperature			
5	• Time			
	• Timer			
	Pass to the previous data			
6	Sets the fan speed			
7 Sets the operating mode				
8	Sets automatic delivery fin oscillation (on units where this is envisaged)			
9	Switches indoor unit ON/OFF			
	Increase the value of the active function:			
	Temperature			
10	• Time			
	• Timer			
	Pass to the previous data			
5+10	Press the buttons $\checkmark$ and $\land$ at the same time for 5 seconds to enable or disable the button lock function			

# 5 INSTALLATION AND START-UP

### MANDATORY

MV systems must have a master only one) for correct management of the operating modes. For the setting procedure, refer to the specific section.

Fig. 5.1.1: Dimensions of Wired Controller



Fig. 5.1.2: Parts and Components of Wired Controller



N.	1	2	3	4
Name	Wired Controller	Self-tapping screw ST3.9×25 MA	Screw M4×25	Soleplate of the Wired Controller
Quantity	1	3	2	1

# 5.1 INSTALLATION OF THE WIRED CONTROLLER

### 5.1.1 Requirements for model selection of communication wire



Cable type	Max lenght	Size	Standard	Note
Standard 2-pole cable with PVC sheath (60227 IEC 52 / 60227 IEC 53)	L ≤ 250 m	from 2 x 0,75 to 2 x 1,25 mm <sup>2</sup>	IEC 60227-5:2007	<ol> <li>Total length of communication line can't exceed 250m.</li> <li>The cord shall be Circular cord (the cores shall be twisted together).</li> <li>If unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.</li> </ol>

### NOTICE

If the unit is installed in a location with intense electromagnetic interference, the wired panel communication line must use a screened twisted pair.

The wired panel communication line materials must be chosen strictly in accordance with this instruction manual.

### 5.1.2 Requirements for installation

- **1.** It is not allowed to install the wired controller in the wet place.
- 2. It is not allowed to install the wired controller in the place with direct sunlight.
- 3. The wired control panel must not be installed near heat sources or places where it may come into contact with water.
- **4.** It is not allowed to install the wired controller outdoor.

### 5.1.3 Requirements for wired connection

Network connecting methods between wired controller and indoor unit are as below:

- 1. The wired panel communicates with the Indoor unit through a serial port; it is possible to select several Indoor unit management configurations using the wired panel:
- A. SINGLE connection, where the unit (or group of units) is managed by a single wired panel;
- **B.** DUAL connection, where the unit (or group of units) is managed by two wired panels, one of which is the MASTER and the other is the SLAVE.

Fig. 5.3: one wired controller controls one indoor unit





Fig. 5.4: two wired controllers control one indoor unit

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- 1. D1 D2
- 2. H1 H2
- 2. The second serial connection possibility envisages only one panel (reminder: each individual unit of group of units can be managed by a single panel or by two panels connected to the same Indoor unit in MASTER/SLAVE mode, as indicated in the previous page) for the overall group of units (a group may comprise max. 16 units); this solution allows unique settings for the timer, setpoint and ventilation speed for all the Indoor units in the group.

Fig. 5.5: one wired controller controls multiple MV indoor units simultaneously



- 1. D1 D2
- 2. H1 H2

3. The third serial connection possibility envisages two panels (reminder: each individual unit of group of units can be managed by two panels connected to the same Indoor unit in MASTER/SLAVE mode, as indicated in the previous page) for each unit; this solution allows customised settings for the timer, setpoint and ventilation speed for each indoor unit;



Fig. 5.6: two wired controllers control multiple MV indoor units simultaneously

- 2. H1 H2

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### NOTICE

If the units are installed in a location exposed to electromagnetic interference, shielded twisted pair cables must be used for the communication connections between the units.

Instruction for wire connection:

- 1. The wiring methods in Fig. 5.3 and Fig. 5.4 can be adopted for the wired panel connecting the MV units, i.e., one or two wired panels can control only one indoor unit, but cannot control multiple indoor units of different systems.
- 2. When one (or two) wired controller(s) control(s) multiple indoor units simultaneously, the wired controller can connect to any one indoor unit. The total quantity of indoor unit controlled by wired controller can't exceed 16 sets, and the connected indoor unit must be within the same indoor unit's network. Wire controller must set quantity of group control indoor units. Please refer to Parameter Setting "P14".
- 3. When two wired controllers control one (or more) indoor unit(s), the addresses of those two wired controllers should be different. Please refer to Parameter Setting "P13".
- 4. The terminal of the wire controller is non-polarized and cannot be connected to strong electric.

### NOTICE

Wired controller WRC only supports one (or more) indoor unit(s) controlled by one wired controller.



4. The fourth serial connection possibility envisages a panel (reminder: each individual unit of group of units can be managed by a single panel or by two panels connected to the same Indoor unit in MASTER/SLAVE mode, as indicated in the previous page) for each unit; this solution allows customised settings for the timer, setpoint and ventilation speed for each Indoor unit.



5. The fifth serial connection option involves either a single panel connected to a group of multiple units, or a panel connected and dedicated to each unit.



### 5.1.4 Installation

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Fig. 5.7: Installation of Wired Controller



Fig. 5.7 shows a simple installation course of wired controller, and the following points should be noted:

- 1. Before installation, please cut off the power supply of indoor unit, it is not allowed to operate with power supply;
- 2. Pull out the 2-core twisted pair inside the installation hole in the wall, and thread the wire through the hole in the back of soleplate of wired controller;
- **3.** Stick the soleplate of wired controller on the wall, and use Self-tapping Screw ST3.9×25 MA or screw M4×25 to fix the soleplate with the installation hole of wall;
- 4. Connect the 2-core twisted pair to wiring terminal H1 and H2, and then tighten the screw;
- 5. Arrange the wires in the back of panel, and then buckle the panel of wired controller with the soleplate of wired controller.

### NOTICE

- If the chosen communication line cable size is too large, a layer of cable sheath can be removed to meet installation requirements.
- Notes for installing the wired panel It is advised not to install the wired panel where it may come into contact with water or direct sunlight; it is also advised to avoid installation too close to sources of intense heat.
- MV systems must have a master only one) for correct management of the operating modes. For the setting procedure, refer to the specific section.



### 5.1.5 Disassembly

Fig. 5.8: Disassembly of wired controller



### 5.2 COMMISSIONING

### 5.2.1 Set a Master unit

Under Off status, long press "MODE" button for 5s to set the corresponding indoor unit of wired controller as master indoor unit.

If the system mode priority is the master-slave mode, "MASTER" icon will be light after finishing setting.





In a system with a master indoor unit, other slave indoor units can be set as master units; in this case the original master unit will become a slave unit.

Only one main indoor unit is allowed in a system. If the system detects the presence of several master units, it will designate the unit with the smallest project number as the master unit.

### 5.2.2 Display indoor unit operating parameters

This function is used to display a series of operating parameters (each code is associated with the letter "C"); the parameters in this menu may not be modified but only displayed (read only); to read the operating parameters, perform the following operations:

- 1. Press "FUNCTION" button for 5s to enter the interface of viewing unit parameters. "EDD" is displayed in temperature zone.
- **2.** Press the buttons  $\checkmark$  or  $\land$  to scroll the operating parameters.
- 3. Press "ENTER" button to return to last step until exits viewing parameters.



### The parameter enquiry list is as following:

Index parameter	Function	Range	Description of operating parameter
C 00	Indoor unit project number	-	This parameter indicates the project number assigned to the Indoor unit to which the wired panel is connected (if the panel is connected to several units, the lesser project number will be displayed). The project number is a value assigned automatically by the system so that each indoor unit can be specifically identified (auto-addressing function); this number is fundamental for identifying the unit through software in order to monitor the system (for more information as regards system monitoring software, refer to www.aermec.com)
C 0 I	System error monitor	1-255	<ul> <li>This parameter is used to scroll all the project numbers (and consequently all the units in the system) to search for any errors; to scroll the list of units, perform the following operations: <ol> <li>Select the operating parameter "C01";</li> <li>Press the "MODE" button to enter the list of indoor units (after entering this list, the setpoint area will display any alarm codes while the timer zone will display the project number for the indoor unit in question; if the Indoor unit currently displayed is the system master, the "MASTER" icon will be displayed);</li> <li>Press the arrow buttons to scroll the indoor units;</li> <li>Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ol> </li> <li>WARNING: if an error occurs in one or more indoor units when assigning the project number, in place of this number (in the timer zone) error code C5 will be displayed; in this case, the system initialisation procedure must be repeated (for more information as regards system initialising, contact the area technical assistance service)</li> </ul>
C 03	Total number of indoor units in the system	1-100	This parameter indicates (in the timer zone) the total number of indoor units connected to the system
C 06	Display the operating priority of these indoor units	00: normal operation 01: priority operation	<ul> <li>This parameter displays the priority assigned to each Indoor unit; priority means which units are used in case the system detects power drops, thereby making it possible to select which indoor units should be given priority, as required, over other units (in this parameter, this priority has a value of 01 while the standard priority has a value of 00); to scroll the priorities assigned to each unit, perform the following operations:</li> <li>(1) Select the operating parameter "CO6";</li> <li>(2) Press the "MODE" button to enter the list of indoor units (after entering this list, the setpoint area will display the project number for the indoor unit in question while the timer zone will display the priority setting; if the Indoor unit currently displayed is the system master, the "MASTER" icon will be displayed);</li> <li>(3) Press the arrow buttons to scroll the indoor units;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>

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Index parameter	Function	Range	Description of operating parameter
רם כ	Display the room temperature	-	<ul> <li>This parameter is used to display the room temperature read on each indoor unit (in accordance with the specific settings of each individual unit); to display the room temperatures, perform the following operations:</li> <li>(1) Select the operating parameter "CO7";</li> <li>(2) Press the "MODE" button to enter the list of indoor units (after entering this list, the setpoint area will display the number of the unit while the timer zone will display the project number for the indoor unit in question); if the Indoor unit currently displayed is the system master, the "MASTER" icon will be displayed);</li> <li>(3) Press the arrow buttons to scroll the indoor units;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
C 08	Display the current setting for the filter cleaning alarm	4-416: days	This parameter indicates (in the timer zone) the number of days set as the period after which a message will be displayed requesting removal and cleaning of the air filter on the Indoor unit to which the wired panel is connected
C 09	Display the address of the wired panel	01, 02	This parameter indicates (in the timer zone) the address assigned to the wired panel (this address is fundamental if two different wired panels are used to manage one or more units, since the two panels must have different addresses)
[	Number of units in the group	1-16	This parameter indicates (in the timer zone) the number of units in any group connected to the wired panel
5 12	Display external temperature;	-	This parameter indicates (in the timer zone) the temperature of the external air
[ 1]	Parameter reserved		
C 18	Display all project numbers at the same time	1-255	<ul> <li>This parameter is used to scroll all project numbers (and consequently all the units in the system) associated with the unit number (in relation to the total number of internal units in the system); to scroll the list of units, perform the following operations: <ol> <li>Select the operating parameter "C18";</li> <li>Press the "MODE" button to enter the list of indoor units (after entering this list, the setpoint area will display the number of the unit while the timer zone will display the project number for the indoor unit in question); if the Indoor unit currently displayed is the system master, the "MASTER" icon will be displayed);</li> <li>Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ol> </li> <li>ATTENTION: <ul> <li>After displaying parameter C18, all indoor unit wired panels will display (in the timer zone) their specific project numbers, which will remain displayed until this function is dosed;</li> <li>Reminder: it will not be possible to enter this parameter if access is attempted from a slave wired panel (installation with two wired panels connected to the same indoor unit);</li> <li>reminder: pressing the "ON/OFF" button on any wired panel during this function will immediately finish it;</li> <li>If, when displaying parameter C18, no operation is performed for more than 20 seconds, the function is automatically exited.</li> </ul> </li> </ul>
05 3	Parameter reserved		
E 23	Version inquiry	-	Timer zone: program version of the current wired controller



### NOTICE

In the parameter display state, the "FAN", "TIMER" and "SWING" buttons are not valid. Press the "ON/ OFF" button to return to the home page, not to switch the unit on/off.

Under parameter viewing status, the signal from remote controller is invalid.

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### 5.2.3 Activation of indoor unit operating parameter modification menu

### CAUTION

Accidental modification of these parameters may cause malfunctions or block the entire system; reminder: setting or modifying these parameters must ONLY be performed by the technical assistance service or personnel having the necessary technical skills.

This function is used to modify a series of operating parameters (each code is associated with the letter "P"); to set these operating parameters, perform the following operations:

- 1. Long press "FUNCTION" button for 5s and the temperature zone displays "EDD"; long press "FUNCTION" button for another 5s to enter the interface of setting wired controller parameters. "PDD" is displayed in temperature zone.
- 2. Press ✓ or ▲ to scroll the operating parameters. Press the MODE button to access the parameter setting. At that moment, the parameter value will flash. Press ✓ or ▲ to adjust the parameter value and press ENTER/CANCEL to end the setting.
- 3. Press the "ENTER/CANCEL" button again to exit the operating parameter display.

The parameter setting list is as following:

LIST OF OPERATING PARAMETERS

Index parameter	Function	Default	Range	Description of operating parameter
P 10	Set the system MASTER unit	00	00: Slave Unit 01: MASTER unit	This parameter is used to set an Indoor unit as the system master; for these systems, the presence of a master unit IS ABSOLUTELY COMPULSORY; inasmuch, one of the indoor units must be set as such; reminder: the master unit is the reference unit for solving mode conflicts; consequently, if the master changes its operating mode, so does the entire system; to set the parameter, proceed as follows: (1) Select the operating parameter "P10"; (2) Press the "MODE" button to enter the parameter modify mode; (3) Press the "CMDE" button to set the required value; (4) Press the "ENTER/CANCEL" button to return to the list of operating parameters ATTENTION: • after setting a master, its wired panel will indicate its master status by means of an icon; • if, after setting a unit as the master, the operation is repeated on another Indoor unit, the master status will be modified, and the system will be updated with the new reference unit
P	Enable infra-red remote controls	01	00: NOT enabled 01: enabled	<ul> <li>This parameter is used to enable or disenable the infra-red remote controls on the system (if envisaged); this parameter can ONLY be set from the panel of the master indoor unit; to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P11";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
P (3	Set the address of the wired panel	01	01: MASTER panel 02: SLAVE panel	<ul> <li>This parameter is used to set the address to be assigned to the wired panel; this parameter is used if two panels are connected to the same machine or the same group in order to set two different addresses; to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P13";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>

Index parameter	Function	Default	Range	Description of operating parameter
P 14	Set the number of units in the group	01	00: test disenabled 01-16: group with units	This parameter performs a test on the group (if a group has been created) in order to specify how many indoor units belong to it. This test checks whether the number set in the parameter matches the number of units detected by the system in the group; if this function is disenabled (value 00) and the wired panel manages a group, no alarms will be displayed for any malfunctions in this group; to set the parameter, proceed as follows: (1) Select the operating parameter "P14"; (2) Press the "MODE" button to enter the parameter modify mode; (3) Press the arrow buttons to set the required value; (4) Press the "ENTER/CANCEL" button to return to the list of operating parameters
P 16	Set unit of measure	00	00: °C 01: °F	<ul> <li>This parameter specifies which unit of measure is used to display temperatures; to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P16";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
P 30	Setting the useful head for the fans of duct type indoor units	05	01-09: Useful head level	There are two kinds of Useful head level: • 5 levels: 03, 04, 05, 06, 07; • 9 levels: 01, 02, 03, 04, 05, 06, 07, 08, 09. The wired panel is compatible with different types of indoor units, and it is equipped with a 1 to 9 useful pressure level selection. When the indoor unit with 5 useful pressure levels receive a level setting lower than 3 from the remote control, the pressure is set to the 3rd level; when it is higher than 7, it is set to the 7th level.
P 3 (	Parameter not used			
P 33	Set type of clock	00	00: countdown 01: Clock	<ul> <li>This parameter is used to select which type of clock must be activated on the system; possible modes are:</li> <li>COUNTDOWN: management of timed actions after a certain number of hours (for more information about this mode, refer to page "6.6.1 Modifying the programmed ON/OFF timer - COUNTDOWN mode on page 32" in this manual);</li> <li>STANDARD CLOCK: management of timed operations using the system clock (this clock must be updated by the user. For more information in this regard, refer to page "6.6.2 Set system time (only used in CLOCK mode) on page 33" in this manual);</li> <li>To set the parameter, proceed as follows:</li> <li>Select the operating parameter "P33";</li> <li>Press the "MODE" button to enter the parameter modify mode;</li> <li>Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
P 34	Set repetition of time settings	00	00: repetition disenabled 01: repetition enabled	This parameter is used to set (only if parameter P33 is set with the value 01) the repetition of time settings; if the repetition function is disenabled, the time settings will be performed only once and they will have to be set again every day; to set the parameter, proceed as follows: (1) Select the operating parameter "P34"; (2) Press the "MODE" button to enter the parameter modify mode; (3) Press the arrow buttons to set the required value; (4) Press the "ENTER/CANCEL" button to return to the list of operating parameters

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Index parameter	Function	Default	Range	Description of operating parameter
р эт	Cool set for AUTO mode	25°C (77°F)	17°C~30°C (63°F~86°F)	<ul> <li>This parameter is used to define a cool setpoint used in AUTO mode (reminder: the auto mode is only available on the master unit); to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P37";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
P 38	Heat set for AUTO mode	20°C (68°F)	16°C~29°C (61°F~84°F)	<ul> <li>This parameter is used to define a heat setpoint used in AUTO mode (reminder: the auto mode is only available on the master unit); to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P38";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
Р 43	Set indoor unit priority	00	00: normal priority 01: high priority	This parameter is used to select the priority to be assigned to the Indoor unit connected to the wired panel; this priority, if the unit detects power drops, makes it possible to exclude indoor units having normal priority in favour of those with high priority; to set the parameter, proceed as follows: (1) Select the operating parameter "P43"; (2) Press the "MODE" button to enter the parameter modify mode; (3) Press the arrow buttons to set the required value; (4) Press the "ENTER/CANCEL" button to return to the list of operating parameters
Р 46	Enable filter cleaning alarm	00	00: filter cleaning alarm disenabled 01: filter cleaning alarm enabled	<ul> <li>This parameter is used to enable or disenable the filter cleaning alarm (set using the specific function"6.12 Set indoor unit FILTER CLEANING alarm <u>on page 40</u>" in this manual on page ); to set the parameter, proceed as follows:</li> <li>(1) Select the operating parameter "P46";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the required value;</li> <li>(4) Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ul>
P 49	Set delivery fin standard opening	01	01: 25° opening 02: 30° opening 03: 35° opening	<ul> <li>This parameter is used to set the standard opening (i.e. the position taken by the delivery fin once the unit is switched on for heat or cool) of the indoor units fitted with motor-driven delivery fins (inasmuch, canalised units are excluded); to set the parameter, proceed as follows: <ol> <li>Select the operating parameter "P49";</li> <li>Press the "MODE" button to enter the parameter modify mode;</li> <li>Press the arrow buttons to set the required value;</li> <li>Press the "ENTER/CANCEL" button to return to the list of operating parameters</li> </ol> </li> </ul>
P 50	Parameter reserved	18°C		
<u>P51</u>	Parameter reserved	22°C		
<u> </u>	Parameter reserved	00		
P 74	Parameter reserved	01		
P 75	Ventilation setting with	00	00: low speed	Valid only for tray units
ס יכ	thermostat off	00	UI: turned off	
<u>סי ז</u> פר ק	Parameter recerved	00		
P 82	Set time format	00		This parameter allows you to set the time format (12 - 24h)
	set unic formut			This parameter anons you to set the time format (12 241)

### NOTICE

In the parameter setting state, the "FAN", "TIMER" and "SWING" buttons are not valid. Press the "ON/ OFF" button to return to the home page, not to switch the unit on/off.

Under parameter setting status, the signal from remote controller is invalid.

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### 5.2.4 Activation of the menu to modify the ADVANCED OPERATING PARAMETERS of the indoor unit

Press the FUNCTION button for at least 5 seconds, after which the temperature setting will be replaced by an indication of the operating parameter currently displayed (from C00 up to C23; for more information about the operating parameters sequence and the data displayed, refer to the table provided below).

Press the MODE key 3 times in succession (with intervals of less than 1 second).

Press the FUNCTION again for at least 5 seconds, after which Parameter C00 will be replaced by the first modifiable parameter identified by the code P00 (sequence from P00 to P82); for more information about the operating parameters sequence and the data displayed, refer to the table provided below).

Press the buttons  $\checkmark$  or  $\land$  to scroll the operating parameters.

Press the MODE key to access the operating parameter to be modified; then the value of the operating parameter flashes and it can be modified by using the keys  $\checkmark$  or  $\bigstar$ .

Press the "ENTER/CANCEL" button again to exit the operating parameter display.

### MANDATORY

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**ATTENTION:** if the system plans to manage external air (total or partial), it is NECESSARY to set parameter PED as explained below.

Index parameter	Function	Default	Range	Description of operating parameter
P 20	Setting of the temperature sensor to be used on the indoor unit	03	01: Intake temperature sensor 02: Temperature sensor pm external panel flush 03: Intake temperature sensor for cold mode, dehumidification and ventilation only, sensor on flush panel for hot mode 04: Sensor on flush panel for cold mode, dehumidification and ventilation only, intake temperature sensor for heating mode	<ul> <li>In case of master and slave control panels and should you wish to use the temperature sensor on the flush panel, by default the sensor of the master flush panel is selected and used. Note: <ol> <li>In automatic mode, the room temperature sensor settings are not valid for a common indoor unit however the set value will still be stored.</li> <li>The ambient temperature sensor located on the control panel when the reference indoor unit is a heat recovery unit cannot be selected. The intake temperature sensor will be selected by default.</li> </ol> </li> </ul>
P60	Enable plants with external air	00	00: system with external air disabled 01: system with external air enabled	<ul> <li>This parameter allows you to enable the parallel management of several AHUKIT:</li> <li>(1) Select the operating parameter "PED";</li> <li>(2) Press the "MODE" button to enter the parameter modify mode;</li> <li>(3) Press the arrow buttons to set the value 01;</li> <li>(4) Press the "SWING/ENTER" button to return to the list of operating parameters.</li> </ul>
P 80	Temperature display	00	00: temperature setting display 01: room temperature display	

# **6** FUNCTIONS AVAILABLE FROM WIRED PANEL

# 6.1 SWITCHING THE INDOOR UNIT ON AND OFF

The Indoor unit (or group of indoor units) managed by the wired panel is/are turned on and off using the ON/OFF button; every time it is pressed thereafter will switch the connect Indoor unit ON or OFF. The interfaces of "ON/OFF" status are shown in Fig. 6.1 and 6.2.

Fig. 6.1: Interface of ON status



Fig. 6.2 Interface of OFF status



Indoor unit OFF

# 6.2 SELECT THE OPERATING MODE FOR THE INDOOR UNIT

The various operating modes have different features and ranges:

- AUTOMATIC mode (AUTO): in this mode, the remote control does not display any set-point value and the fans speed is set to AUTO;
- COOLING mode (COOL): in this mode the user must set the operating set-point and a fan speed; if the room temperature is higher than the set value, which can be seen on the display, the air conditioner will continue to cool the air until the room temperature will reach the setpoint value;
- DEHUMIDIFICATION mode (DRY): in this mode the user must set the operating set-point but not the fan speed (which remains fixed at minimum); if the room temperature is higher than the set value, which can be seen on the display, the air conditioner will continue to dehumidify the air until the room temperature will reach the setpoint value;
- VENTILATION mode (FAN): in this mode the user must set only the fan speed. This mode provides no heating or cooling but only uses the internal fan to ventilate the space;
- HEATING mode (HEAT): in this mode the user must set the operating set-point and a fan speed; if the room temperature is lower than the set value, which can be seen on the display, the air conditioner will continue to heat the air until the room temperature will reach the setpoint value.

### NOTICE

AUTO mode is ONLY available on the Indoor unit set as MASTER.

Sets the operating mode





### NOTICE

The available modes are different for different models, the wired controller will automatically select mode setting range according to the model of indoor unit.

Only the main indoor unit in master-slave mode can set the automatic mode.

In Automatic mode, if the indoor unit operates in Cooling, the icons " $\triangle$ " and " $\cancel{}$ " come ON; if the indoor unit operates in Heating, the icons " $\triangle$ " and " $\cancel{}$ " come ON.

# 6.3 OPERATING LOGIC FOR AUTO MODE



If **TEMP**  $\leq$  **22°C** Heat Mode will be activated with a setpoint of 20°C (setpoint can be chosen from parameter P38)

If 22°C < TEMP < 26°C the last active mode will be activated (but if this is the initial start-up, then Ventilation Only mode will be selected)

If **TEMP**  $\leq$  **26°C** Cool Mode will be activated with a setpoint of 26°C (setpoint can be chosen from parameter P37)

# **NOTICE** In the case of systems with multiple internal units, this function must be set on the Master unit; if set on the Slave units, it will have no effect.

# 6.4 MODIFYING THE OPERATING TEMPERATURE

To modify the operating temperature, regardless of the operating mode (except for Ventilation Only which does not use the operating setting), simply press the buttons  $\checkmark$  or  $\land$  respectively to decrease or increase the operating setting by 1°C.

Set the operating temperature

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In Cooling, Ventilation and Heating mode the temperature range is 16°C~30°C.

In Dehumidification mode, the temperature setting range is  $12^{\circ}$ C or  $16^{\circ}$ C- $30^{\circ}$ C. When the temperature is  $16^{\circ}$ C, press " $\checkmark$ " repeatedly twice to lower the temperature to  $12^{\circ}$ C (when the power saving function is enabled, the temperature in Dehumidification mode cannot be adjusted to  $12^{\circ}$ C and the temperature range is: "lowest temperature in energy saving mode" ~  $30^{\circ}$ C).

### NOTICE



In Auto mode or with the Antifreeze function enabled, the set temperature cannot be adjusted by pressing  $\checkmark$  or  $\bigstar$ .

# 6.5 MODIFYING FAN SPEED

The Ventilation speed (in all operating modes except for dehumidification) of the Indoor unit (or group of indoor units) managed by the wired panel can be modified using the FAN button; every time it is pressed thereafter will switch between one speed and the next (following the sequence indicated below).

Setting the ventilation speed



### **Turbo function setting**

With the unit on press the "FUNCTION" button to switch to the Turbo function with the "TURBO" icon flashing, then press "ENTER/CANCEL" to start or cancel the Turbo function.

When Turbo function is activated, Turbo function icon "**I** 



# 6.6 TIMER SETTING

### 6.6.1 Modifying the programmed ON/OFF timer - COUNTDOWN mode

To set programmed ON or OFF operations using the countdown mode, perform the following operations:

- 1. Press the "TIMER" button (if the Indoor unit is ON, the procedure will set a countdown to switch the unit OFF, otherwise the operations will set a time after which the unit will be switched ON); at this stage, the number of hours is shown after which the ON or OFF operation will be performed (next to this number, the wording "HOUR" will begin to flash);
- 2. Press ∨ or ∧ respectively to decrease or increase the counter by 0.5 hours; press and hold ∨ or ∧ to increase or decrease by 0.5 hours every 0.3 seconds;
- 3. Press the "TIMER" button again to save the settings; the wording "HOUR" will become steady.

# NOTICE After saving data, pressing the "TIMER" button again will cancel the previous setting. Once the unit is switched ON using a timer function, it will resume the functions and settings in use before the system was switched off for the last time.



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### NOTICE

The system envisages two types of timer management:

— COUNTDOWN mode this mode manages programmed unit on-off operations by specifying an "interval" (in hours) after which the unit will switch on or off;

— CLOCK mode: this mode manages programmed unit on-off operations by specifying a time when the operations will be performed (in this case, the system clock is activated and displayed).



### 6.6.2 Set system time (only used in CLOCK mode)

To set the time on the system clock (only used if CLOCK mode is selected in the operating parameters, parameter P33), perform the following operations:

- 1. Press and hold down the "TIMER" button (5 seconds); at this stage, the symbol  $\oplus$  appears will flash to indicate that system time modification mode has been selected;
- 2. Press ∨ or ∧ respectively to decrease or increase the clock by 1 minute; press and hold ∨ or ∧ for 5 seconds to increase or decrease the time by 10 minutes;
- 3. Press the "TIMER" button again or the "ENTER/CANCEL" button to save the time and exit the procedure.

Set system time (only used in CLOCK mode)



### 6.6.3 Set clock mode Modifying the programmed ON/OFF timer

Clock mode is used to manage several functions:

(a) time band management: this function is used to set a switch ON time and a subsequent switch OFF times, thereby defining a time band within which the Indoor unit will operate.

(b) only programmed switch ON: this function is used to set a switch ON time for the unit.

(c) only programmed switch OFF: this function is used to set a switch OFF time for the unit.

To set clock mode functions, perform the following operations:

- 1. With the unit ON, press the "TIMER" button; at this stage, the working "ON" appears and flashes to indicate the time when the switch ON operation should be performed;
- 2. Press ∨ or ∧ respectively to decrease or increase the switch on time by 1 minute; press and hold ∨ or ∧ for 5 seconds to increase or decrease the time by 10 minutes;
- **3.** Press the "TIMER" button to save the switch ON time, the wording "ON" remains steady, while the wording "OFF" appears and flashes (to indicate that the switch OFF time must be entered);
- 4. Press ∨ or ∧ respectively to decrease or increase the switch off time by 1 minute; press and hold ∨ or ∧ for 5 seconds to increase or decrease the time by 10 minutes;
- 5. Press the "ENTER/CANCEL" button to save the time band settings and exit modify mode.

### NOTICE

After completing the entry of a time band, pressing the "TIMER" button again will activate cancel mode; whenever the "TIMER" button is pressed, the system passes from "ON" time to "OFF" time (the time currently selected will flash); after selecting the time to be cancelled, pressing the "ENTER/CANCEL" button will eliminate it.



NOTICE

To set the various functions described at the beginning of this paragraph identified as (a), (b) and (c), the sequence of operations may be different; there follow the complete sequences for every function:

(a) time band management: (1) + (2) + (3) + (4) + (5)
(b) only programmed switch ON: (1) + (2) + (5)
(c) only programmed switch OFF: (1) + (3) + (4) + (5)

Once the unit is switched ON using a timer function, it will resume the functions and settings in use before the system was switched off for the last time.

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# 6.7 SET DELIVERY FIN (SWING)

To set delivery fin swing (function NOT AVAILABLE on canalised models), simply press the "SWING" button while the unit is on; every time it is pressed thereafter will switch between one function status to another (following the sequence indicated below).

### Up & down swing function:

Up & down swing function has two modes: simple swing mode and fixed-angle swing mode. In unit off status, press "SWING" button and "+" button together for 5 seconds to switch between simple swing mode and fixed-angle swing mode. Up & down swing icon "i = 1" will blink during switching.

1. When simple swing mode is set in unit on status, press "SWING" button to start or stop up & down swing.

2. When fixed-angle swing mode is set in unit on status, press "SWING" button to adjust swing angle circularly as below:

Set delivery fin (swing)





# 6.8 QUIET FUNCTION SETTING

The system envisages two different types of operation: "QUIET" and "AUTO QUIET", which differ in terms of the logic they use to manage fan speed. To set this function, perform the following operations:

- 1. Press the "FUNCTION" button until one of the "QUIET" function icons is displayed  $(\mathbf{Q})$ ; this function directly sets fan speed to minimum, thereby ensuring the least noise possible; or "AUTO QUIET"  $(\mathbf{Q})$ ; this function manages fan speed in relation to the difference between indoor temperature and the operating setting, in accordance with the following Cooling conditions:
- If the indoor air Temperature is higher than the setting temperature  $+ 2^{\circ}$ C, MEDIUM speed will be set;
- If the indoor air Temperature is lower or equal to the setting temperature + 2°C, MINIMUM speed will be set.

Or Heating conditions:

— If the indoor air Temperature is lower than the setting temperature -2°C, MEDIUM speed will be set;

- If the indoor air Temperature is higher than the setting temperature -2°C, MINIMUM speed will be set.

At this stage, the selected icon will begin to flash, indicating that the chosen low noise function mode selected is active.

- 2. Press buttons ♥ o ▲ respectively to switch from "QUIET" to "AUTO QUIET" function.
- **3.** Press the "ENTER/CANCEL" button again to activate the selected function.

Fig. 6.9: Set QUIET function



### NOTICE

To deactivate this function, press the "FUNCTION" button until the function to be cancelled is selected and then press the "ENTER/CANCEL" button.

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# 6.9 ACTIVATING/DEACTIVATING THE NIGHT-TIME COMFORT FUNCTION

The night-time comfort function controls the air conditioner in an optimal way during the night. The following logic is applied:

- In cooling or dehumidification: the temperature setpoint is gradually increased to guarantee maximum comfort combined with energy saving;
- In heating: the temperature setpoint is gradually decreased to guarantee maximum comfort combined with energy saving.

If the unit is on (except in automatic or ventilation mode), pressing the SLEEP button activates or deactivates the night time health function.

If the function is active the icon is displayed on the wired panel  $\mathfrak{C}$ =.

Setting night-time comfort function



### NOTICE

The night time health function is deactivated by switching off the unit, and on restarting will not be active; this function can be activated at any time.

# 6.10 SET THE DISPLAY FUNCTION ON THE INDOOR UNIT

To activate or de-activate illumination of the indoor unit display (obviously except for canalised units), perform the following operations:

- **1.** Press the "FUNCTION" key until the icon for this function appears  $20^{-2}$ ; at this stage, the selected icon will begin to flash, thereby indicating that the function has been selected;
- 2. Press the "ENTER/CANCEL" button again to activate the selected function.

### NOTICE

To deactivate this function, press the "FUNCTION" button until the function to be cancelled is selected and then press the "ENTER/CANCEL" button.

Enabling the display on the indoor unit

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When no button is used on the wired panel or no signal is received for 20 consecutive seconds:

- If the Lighting function is enabled, the display backlight will be reduced by half.
- If the Lighting function is disabled, the display backlight will be disabled.

# 6.11 SET THE ENERGY SAVING FUNCTION ACTIVE ON INDOOR UNIT

This mode is available for heat and cool operations (in the first instance a minimum set is defined, while in the latter case a maximum set is defined as the setpoint limits beyond which it will not be possible to operate the machine); to see this function (with the unit ON), perform the following operations:

- 1. Press the "FUNCTION" key until the Energy Saving icon appears (), at this stage, the selected icon will begin to flash; additionally, the wording "MIN" will be displayed when setting energy saving during cooling mode or "MAX" when setting a value during heating mode.
- 2. Press the buttons V or A to set a maximum or minimum value (in relation to the active operating mode) to be used as the limit for the operating setpoint.
- 3. Press the "ENTER/CANCEL" button again to activate the selected function.

Fig. 6.13: Set the ENERGY SAVING function active on indoor unit

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### NOTICE

To deactivate this function, press the "FUNCTION" button until the function to be cancelled is selected and then press the "ENTER/CANCEL" button.

# 6.12 SET INDOOR UNIT FILTER CLEANING ALARM

This function is used to set a certain number of operating hours after which the unit will send a message requesting that the air filter be pulled out and cleaned (for the filter removal and cleaning procedure, refer to the indoor unit installation manual); to set this function (with the unit ON), perform the following operations:

- 1. Press the "FUNCTION" key until the Clean Filter icon appears (CLEAN); at this stage, the selected icon will begin to flash; The wording "set" will also appear with the current value set for the function.
- 2. Press buttons ♥ or ∧ to set a value for the desired level (to find out the corresponding number of hours associated with each level, refer to the table in the dwgs at the bottom of the page).
- 3. Press the "ENTER/CANCEL" button again to activate the selected function.

### NOTICE

The system indicates that filter cleaning is underway by displaying the relative icon **CLEAN**. To reset the message (and resume hour metering), press the "FUNCTION" button until the CLEAN function is selected in the same way as for the operations described above at point (1) and then press the "ENTER/CANCEL" button.

Fig. 6.15: Set indoor unit FILTER CLEANING alarm



Long	period	Mediur	n period	Short	period
SET	Hours	SET	Hours	SET	Hours
10	5500	20	1400	30	100
11	6000	21	1800	31	200
12	6500	22	2200	32	300
13	7000	23	2600	33	400
14	7500	24	3000	34	500
15	8000	25	3400	35	600
16	8500	26	3800	36	700
17	9000	27	4200	37	800
18	9500	28	4600	38	900
19	10000	29	5000	39	1000

### NOTICE

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### If the value 00 is set (default value), this function will be disenabled.

**Description on cleaning level**: When setting the Filter Clean Reminder Function, timer zone will display 2 digits, of which the former indicates the pollution degree of operating place and the latter indicates the operating time of indoor unit.

**Pollution level of the** environment where the **Description of Levels** indoor unit is installed Turn off Clean reminding Timer zone shows 00 The former digit shows 1 while the latter one shows 0, which indicates the accumulating operating time is 5500 hours. Each time the latter digit increases 1, the operating time increases **Light Pollution** 500 hours. When it reaches 9, it means the operating time is 10000 hours. The former digit shows 2 while the latter one shows 0, which indicates the accumulating operating time is 1400 hours. Each time the latter digit increases 1, the operating time increases **Medium Pollution** 400 hours. When it reaches 9, it means the operating time is 5000 hours. The former digit shows 3 while the latter one shows 0, which indicates the accumulating operating time is 100 hours. Each time the latter digit increases 1, the operating time increases **Heavy Pollution** 100 hours. When it reaches 9, it means the operating time is 1000 hours.

#### There are 4 types of situations:

### 6.13 X-FAN SETTING

This function is used to dry the coil (only during cool and dehumidification modes) if the unit is switched off before reaching the desired setpoint, in order to avoid the formation of mould or bacteria on the coil; to activate or de-activate this function, perform the following operations:

- 1. Press the "FUNCTION" key until the icon for this function appears **X-FAN**; at this stage, the selected icon will begin to flash, thereby indicating that the function has been selected.
- 2. Press the "ENTER/CANCEL" button again to activate the selected function.

Set the X-FAN function on indoor unit

![](_page_40_Figure_8.jpeg)

### NOTICE

To deactivate this function, press the "FUNCTION" button until the function to be cancelled is selected and then press the "ENTER/CANCEL" button.

![](_page_41_Picture_0.jpeg)

# 6.14 SET THE ANTIFREEZE FUNCTION ON INDOOR UNIT

This function (only in Heat mode) allows setting a minimum room temperature; after setting it, the function is activated automatically if the room temperature falls below 6°C and is then deactivated when the temperature rises above 10°C; to activate or de-activate this function, perform the following operations:

- 1. Press the "FUNCTION" key until the icon for this function appears **1**; at this stage, the selected icon will begin to flash, thereby indicating that the function has been selected.
- 2. Press the "ENTER/CANCEL" button again to activate the selected function.

Set the ANTIFREEZE function on indoor unit

![](_page_41_Figure_6.jpeg)

### NOTICE

To deactivate this function, press the "FUNCTION" button until the function to be cancelled is selected and then press the "ENTER/CANCEL" button.

### 6.15 SHIELDING STATUS

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**Remote Shield Function**: Remote monitor or central controller can disable the relevant functions of wired controller so as to realize the function of remote control.

When the remote monitor or central controller activates Remote Shield on the wired controller, "SHIELD " icon will show. If user wants to control through the wired controller, "SHIELD " icon will blink to remind that these controls are disabled.

### 6.16 SET KEY LOCK ON WIRED PANEL

This function is used to lock the buttons of the wired panel connected to the unit; to activate or de-activate this function, perform the following operations:

Press buttons  $\checkmark$  or  $\land$  simultaneously for at least 5 seconds. The icon then appears to indicate button lock activation; on pressing these two buttons again (for a further 5 seconds), the unit is unlocked and the icon disappears.

Set key lock on wired panel

![](_page_42_Figure_2.jpeg)

# 6.17 INQUIRY OF INDOOR TEMPERATURE WITH ONE BUTTON

In the homepage, hold "ENTER/CANCEL" button for 5 seconds, and the wired controller will display the indoor temperature for 5 seconds.

Within the 5 seconds, it can quit displaying the indoor temperature immediately and be responded to the instructions as usual after pressing any buttons.

# 7 DISPLAY OPERATING ERRORS OR SYSTEM MESSAGES

These units envisage signals for various alarms, operating errors or system messages using a code shown on the wired panel display (as well as on the indoor unit display for units where this is envisaged); alarm codes and related causes are listed below.

![](_page_43_Picture_3.jpeg)

Current alarm code (if there are several simultaneous alarms, the codes will be displayed on rotation)

### NOTICE

**Reminder:** in the event of an alarm, the unit must be switched off and the technical assistance service contacted for any kind of intervention on the unit.

# 8 TABLE OF DISPLAY ERROR CODES FOR MV UNIT

### 8.1 TABLE OF ERROR CODES FOR OUTDOOR UNIT

Code	Description
EO	Outdoor unit error
Εl	High pressure protection
53	Low temperature alarm (discharge)
EB	Low pressure protection
E۲	Excessive temperature on compressor discharge
Ed	Low Temperature Protection of Driver Module
FD	Outdoor unit electronic card malfunction
F (	High Pressure Sensor Error
F2	Inlet Tube Temperature Sensor Error of Plate Type Heat Exchanger
F3	Low Pressure Sensor Error
F٩	Outlet Tube Temperature Sensor Error of Plate Type Heat Exchanger

Cada	
Code	
FS	lemperature sensor error on compressor discharge 1
F6	Temperature sensor error on compressor discharge 2
F7	Temperature sensor error on compressor discharge 3
F8	Temperature sensor error on compressor discharge 4
FS	Temperature sensor error on compressor discharge 5
FR	Temperature sensor error on compressor discharge 6
F[	Compressor power supply current sensor error 2
FL	Compressor power supply current sensor error 3
FE	Compressor power supply current sensor error 4
FF	Compressor power supply current sensor error 5
F네	Compressor power supply current sensor error 6
FP	Malfunction of DC motor
FU	Temperature sensor error on compressor 1
FЪ	Temperature sensor error on compressor 2
۶d	Exchange module outlet tube temperature sensor error
Fn	Exchange module inlet tube temperature sensor error
FY	Water-in Temperature Sensor Error
<u>ا ل</u>	Over-current protection on compressor 1
<u>2</u> ۲	Over-current protection on compressor 2
EL	Over-current protection on compressor 3
님님	Over-current protection on compressor 4
کل	Over-current protection on compressor 5
6ل	Over-current protection on compressor 6
]	4 way valve protection
8ل	High pressure protection
2ك	Low pressure protection
Rل	Abnormal pressure protection
ЦС	Protection of Water Flow Switch
L	Protection of Low High-pressure
٦F	Oil Return Pipe is Blocked
JF	Oil Return Pipe is Leaking
	Inlet water temperature too low protection
Ь¦	Ambient air temperature probe
Ь2	Temperature probe 1 error for defrosting
ь3	Temperature probe 2 error for defrosting
ЬЧ	Under-cooling probe error (fluid leak)
Ь5	Under-cooling probe error (gas leak)
ьб	Error on fluid separator inlet probe
67	Error on fluid separator outlet probe
ь8	Outdoor Humidity Sensor Error
ь9	Heat Exchanger Gas-out Temperature Sensor Error
ьЯ	Oil return temperature probe error
ЬН	System Clock Malfunction
ьΕ	Malfunction of Entry Tube Temperature Sensor of Condenser
ЪF	Malfunction of Exit Tube Temperature Sensor of Condenser

i

Code	Description
ь.!	High and Low Pressure Sensors are Connected
	Inversely
ьР	Oil return temperature probe error 2
ьЦ	Oil return temperature probe error 3
ЬЬ	Oil return temperature probe error 4
Ъď	Air-in Temperature Sensor Error of Subcooler
ხი	Liquid-in Temperature Sensor Error of Subcooler
ЬУ	Water-out Temperature Sensor Error
PC	Compressor Drive Board Error
Pl	Inverter compressor control card malfunction
	Protection of Compressor Drive Board Power
, <u> </u>	Supply
P3	Protection of Compressor Drive Board Module
	Reset
HC	Error of Fan Drive Board
H (	Malfunction of Fan Drive Board
H2	Fan power supply module protection
6H	PV DC/DC Protection

# 8.2 TABLE OF ERROR CODES FOR INDOOR UNIT

Code	Description
LO	Indoor unit error
LI	Fan protection
٢2	Electric resistor protection
LB	Water Full Protection
Ľ۲	Wired panel power supply error
٢2	Anti-freeze protection
L6	Mode conflict
L7	No master set on system
L8	Insufficient power supply
19	Too many units in the group
LR	Indoor Units Incompatibility Error
LH	Poor air quality warning
LC	Incompatibility between indoor and outdoor units
LF	Shunt Valve Setting Error
۲٦	Wrong Setting of Function DIP Switch
LP	Malfunction of PG motor
LU	Inconsistent Branch of Group-controlled Indoor Units in Heat Recovery System
Lb	Inconsistency of Group-controlled Indoor Units in Reheat Dehumidification System
۲q	Indoor fan 2 error
Ln	Lift Panel Return Air Frame Reset Exception
41	Indoor unit control electric card error
63	Room air sensor error
占Ч	Inlet Pipe Temperature Sensor Error
d5	Malfunction of Middle Tube Temperature Sensor
d6	Outlet Pipe Temperature Sensor Error
5	Humidity probe error
48	Water Temperature Abnormal
69	Jumper cap error
dЯ	Indoor unit addressing error
ЧР	Connection error between wired panel and Indoor unit control card

Code	Description
36	DIP switch setting error for selecting size
٥L	Outlet air temperature sensor error
dЕ	Indoor unit CO <sub>2</sub> sensor error
db	Indicates that Debug mode is active
dn	Swing Assembly Error
67	Water temperature sensor error
51	Inlet Pipe Temperature Sensor 2 Error
75	Outlet tube temperature probe 2 error
73	Central tube temperature probe 2 error
51	-
48	Indoor Air Box Sensor Error
43	Outdoor Air Box Sensor Error
УR	IFD error
ЯH	-
ЧC	Return air inlet temperature sensor error
ΥL	Air-return Outlet Temperature Sensor Error
ЧE	High Liquid Level Switch Error
ЧF	Low Liquid Level Switch Error
οŪ	Motor drive error
01	Low Voltage of IDU Bus Bar
- 20	High Voltage of IDU Bus Bar
03	IDU IPM module protection
0¥	IDU Startup Failure
o5	IDU Overcurrent Protection
o5	IDU Current Detective Electric Circuit Error
٦٥	Desynchronizing protection of IDU
08	IDU Driver Communication Error
o9	Communication Error of IDU Master Controller
6	High temperature of IDU module
0	Indoor unit charging circuit error
ор	Temperature sensor error of IDU module

# 8.3 TABLE OF DEBUGGING CODES

Code	Description
50	Jumper cap setting error on outdoor unit (capacity selector)
UЗ	Protection on system power supply phase sequence
비서	Refrigerant low protection
Ľ۵	Addressing error on compressor control card
U6	Electronic expansion valve abnormal function alarm
Ľ٦	Grid DRED0 Response Protection
18	Indoor unit refrigerant circuit malfunction
81	Indoor unit refrigerant circuit malfunction
ĽR	DC bus over-voltage protection
IJН	DC bus under-voltage protection
ЫC	Master indoor unit is successfully set
IJΓ	Emergency mode (wrong compressor DIP switch settings)
١E	Refrigerant Charging is ineffective
Ľ۶	Exchange module indoor unit identification error
60	PV module F0 protection
UP	Thermal storage tank module shut-down error protection

Code	Description
UU	Electronic expansion valve leak error of thermal storage module
ШЬ	Protection without shutdown error of thermal storage module
비식	Grid-connection driver board error
Ľ٨	Communication error between grid-connection driver board and master controller
비거	PV module overheating protection
60	Communication error (general)
[]	Communication error of expansion board
23	Communication error (between master and compressor control card)
E3	Communication error (between master and fan control card)
[4	Refrigerant gas quantity error
[5	Alarm of Indoor Unit Project Number Collision
62	Alarm of Wrong Number of Outdoor Unit
[7	Communication error on exchange module
EH	Power yield error (excessive power)
	Master unit not assigned
EL	Power yield error (low power)
٢E	Communication error between the exchange module and the indoor unit
٢F	Master error (more than one master has been assigned)
61	General address assignment error
٢P	Master error (more than one master has been assigned for wired panels)
۲IJ	Communication error (between Indoor unit and remote receiver)
Сь	IP address assignment error
63	Communication error between the exchange module and the outdoor unit
[n	Internal and external network error of the exchange module
[٢	Communication error of the exchange module

# 8.4 TABLE OF STATUS CODES

Code	Description
RC	Unit on hold because of debug mode
R (	Compressor operating parameter control procedure underway
82	Insufficient refrigerant gas quantity warning (replenishment required)
RB	Defrost
RY	Oil return
RS	Unit in test mode
88	Pump down mode currently underway
89	Operate in Setback Function
RH	Heating
RE	Cooling
RF	Ventilation
RJ	Indoor unit air filter cleaning warning
RU	System emergency stop (from remote system)
ЯЬ	System emergency stop
84	Protected operation
Rn	Lock status

Code	Description
Ry	Shielding status
-3	Compulsory defrosting
95	Setting of ordinary units and high sensible heat units
97	Select degree Celsius or Fahrenheit
98	Discharge low temperature protection revision value
99	Setting of defrosting mode
96	Setting of static pressure
96	EVI Operating Mode
٩F	System compulsory cooling mode
٩P	Unit export area setting PV
98	Grid voltage system configuration
96	Anti-condensation temperature setting
98	Setting of target degree of super-cooling of unit
<u>۹</u> ۰	PV grid-connected settings
99	Working mode of compressor heating belt

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