MITSUBISHI ELECTRIC | MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A.

MANUAL CODE
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C01001502L-04-22-EN

MHD2

Wall-mounted fan coil

MHD2 30-40-50-60

EN INSTALLATION, USE AND MAINTENANCE MANUAL

Italian is the original language.
The other languages versions are translation of the original.

To ensure safe and correct use, carefully read this manual and make sure to understand all the contained indications and information

CE EAC UK CA

CLIMAVENETA®

MHD2 30-40-50-60

CONTENTS

The following symbols are used in some parts of the booklet:

⚠ **CAUTION:**
for actions that require particular caution and adequate preparation.

⛔ **FORBIDDEN:**
for actions that MUST NOT be carried out.

DESCRIPTION OF THE APPLIANCE

The fan coils are appliances intended for high quality civil use. The elegant aesthetic design, the control electronics and the top class components facilitate its location and guarantee optimum conditions of comfort.

INDOOR UNIT

- **Housing:**
  made of self-extinguishing plastic
- **Electric fan unit:**
  cross-flow fan with direct current motor
  3 speeds and auto function
- **Exchange coil:**
  consisting of copper pipes with swirl design and aluminium fins
- **Control card:**
  microprocessor
- **Filtering systems:**
  activated charcoal filters

REMOTE CONTROL

The infrared remote control is used for control, adjustment and programming; its functions and use are described in the user guide.

⚠ Pictures of the hi-wall unit are purely rapresentative and could be some differences with product received.

GENERAL WARNINGS — General

⚠ After having removed the packaging, check that the contents are intact and complete. In the event of non-compliance, contact the Agency which sold you the appliance.

⚠ The appliances must be installed by a qualified company in accordance with the laws and regulations in force in the country of installation. Upon completion of work this company should issue the owner the declaration of conformity of installation with current regulations and standards and with the instructions given in this booklet.

⚠ These appliances have been designed for cooling or heating environments and should only be used for this purpose in compatibility with their performance characteristics.

⚠ **Do not operate the unit for more than 4 hours in a very humid environment (relative humidity greater than or equal to 80%) and/or with doors or windows left open.**
- this may cause condensate to form inside the air conditioner, which may then leak, wetting or damaging furniture;
- condensation inside the air conditioner may also lead to the growth of fungi, such as mould.

⚠ Under no circumstances can the Company be held liable under contract or in tort for damage caused to property or injury to persons or animals due to incorrect installation, regulation and maintenance or to improper use.

⚠ Avoid the room being closed for a long time. Periodically open the windows to ensure a correct change of air.

⚠ Should there be a water leak, put the installation on/off switch to "off" and turn the water taps off.

⚠ Too low a temperature is harmful to health as well as being a useless waste of energy.
Avoid prolonged direct contact with the flow of air.

⚠ During storms put the installation on/off switch to “off”.

⚠ This instruction booklet is an integral part of the appliance and should therefore be carefully preserved and ALWAYS accompany the appliance, also in the event of transfer to another owner or user or into another installation. Should the booklet be damaged or lost, request a copy from the Area Service Centre.

⚠ Repair or maintenance work must be carried out by the After-Sales Service Centre or by qualified personnel in accordance with instructions given in this booklet. Do not alter or tamper with the appliance, since hazardous situations could be created and the manufacturer of the appliance will not be liable for any damage or injury caused.

⚠ In the case of Heating/Cooling installations, the temperature of the water circulating in the fan coil must not exceed 60 °C.

⚠ Appliance must to be installed at minimum 2,5 meter above the ground.

BASIC SAFETY RULES — General

Using electrically-operated products implies the observance of certain basic safety rules, such as those given below:

⛔ Children and unassisted disabled persons must not use the appliance.

⛔ Do not touch the appliance when feet are bare or parts of the body are wet or damp.

⛔ Do not carry out any cleaning until the appliance has been disconnected from the mains electricity supply by putting the installation on/off switch to "off".

⛔ Do not alter the safety or regulating devices without the permission and instructions of the manufacturer of the appliance.

⛔ Do not pull, detach or twist the electric cables connected to the appliance, even if disconnected from the mains electricity supply.

⛔ It is forbidden the use of fan coil by people with physical, sensory or mental disabilities or lack of experience. They can use the appliance if they benefit throught the intermediary of a person responsible for their security, the necessary surveillance or specific instructions regarding the use of fan coil.

⛔ Do not climb onto or place any objects on top of the appliance.

⛔ Do not spray or direct water directly onto the appliance.

⛔ Do not insert sharp pointed objects through the air delivery and intake grilles.

⛔ Do not open the flaps to access internal parts of the appliance unless the installation on/off switch is on “off”.

⛔ Do not leave the packaging material within reach of children, but dispose of properly since it is a potential source of danger.

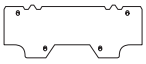
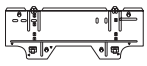
CONTENTS OF THE SUPPLY — General

The fan coil comes in a pack protected by a cardboard box and is accompanied by:

- Hydronic unit
- Operating and installation manual

which are enclosed in plastic bags inside the indoor unit pack.

⚠ The operating and installation manual are considered part of the appliance and must therefore be read carefully and kept for reference.

	Remote control	1		Paper template for installation	1
	Type AAA batteries	2			
	Quick-connect elements	2			
	Metal support	1			
	Screws (4.1x32) for metal support	5			

RECEIVING AND HANDLING THE PRODUCT — General

The fan coils come in single packs protected by a cardboard box.

⚠ It is advisable to remove the packaging only when the appliance has been located near the point of installation. After the packaging has been removed, the fan coil must be handled manually by suitably equipped, qualified personnel and in compliance with accidentprevention norms.

⚠ The fan coil must be handled by suitably equipped qualified personnel using suitable equipment for the weight of the appliance.

⚠ Take care when removing the adhesive strips from the appliance.

⛔ Packaging components must be disposed of correctly and not left within reach of children since they are a potential source of danger.

⛔ Do not leave the packaging material within reach of children, but dispose of properly since it is a potential source of danger.

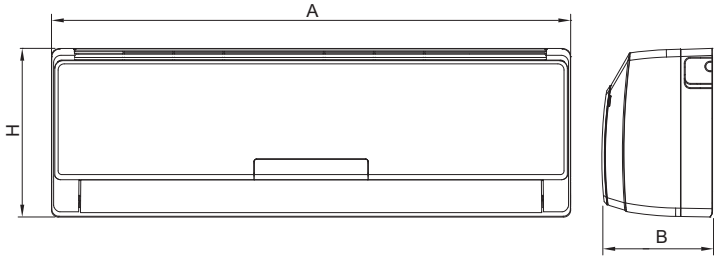
TECHNICAL DATA — General

MHD2			30	40	50	60
ELECTRICAL DATA						
Power supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
2 PIPES SYSTEM CONFIGURATION						
ENERGY EFFICIENCY						
COOLING (EN14511 VALUE)						
FCEER	(1)(6)	kW/kW	74	81	72	67
FCEER Class			D	C	D	D
HEATING ONLY (EN14511 VALUE)						
FCCOP	(2)(6)	kW/kW	86	98	72	82
FCCOP Class			D	D	D	D
PERFORMANCE						
MIN SPEED						
Fan Power Input	(1)	W	23,0	22,0	38,0	46,0
Air flow rate	(1)	m³/h	334	403	570	697
Total capacity in cooling mode	(1)	kW	1,65	1,78	2,67	3,04
Total Net Cooling Capacity	(1)(6)(7)	kW	1,63	1,76	2,64	3,00
Sensible capacity in cooling mode	(1)	kW	1,33	1,45	2,13	2,58
Net sensible cooling capacity	(1)(6)(7)	kW	1,31	1,43	2,10	2,53
Net latent power in cooling	(1)(6)(7)	kW	0,32	0,33	0,54	0,46
Water flow in cooling mode	(1)	l/s	0,08	0,09	0,13	0,15
Pressure Drop in cooling mode	(1)	kPa	9,5	8,8	21,9	42,5
Total capacity (heating mode)	(2)	kW	1,56	1,75	2,63	2,97
Total Net Heating Capacity	(2)(6)	kW	1,58	1,77	2,67	3,02
Water flow in heating mode	(2)	l/s	0,08	0,08	0,13	0,14
Pressure drop in heating mode	(2)	kPa	9,1	8,7	21,7	35,9
Sound Pressure	(3)	dB(A)	27	28	37	42
Sound Power	(4)(7)	dB(A)	38	39	48	53
MED SPEED						
Fan Power Input	(1)	W	25,0	25,0	42,0	51,0
Air flow rate	(1)	m³/h	376	522	691	810
Total capacity in cooling mode	(1)	kW	1,85	1,89	3,00	3,50
Total Net Cooling Capacity	(1)(6)(7)	kW	1,83	1,87	2,96	3,46
Sensible capacity in cooling mode	(1)	kW	1,50	1,62	2,57	2,97
Net sensible cooling capacity	(1)(6)(7)	kW	1,48	1,60	2,53	2,92
Net latent power in cooling	(1)(6)(7)	kW	0,35	0,27	0,43	0,54
Water flow in cooling mode	(1)	l/s	0,09	0,09	0,14	0,17
Pressure Drop in cooling mode	(1)	kPa	10,7	9,6	25,8	52,7
Total capacity (heating mode)	(2)	kW	1,77	1,96	2,98	3,46
Total Net Heating Capacity	(2)(6)	kW	1,80	1,99	3,02	3,51
Water flow in heating mode	(2)	l/s	0,09	0,09	0,14	0,17
Pressure drop in heating mode	(2)	kPa	10,3	10,1	25,9	45,1
Sound Pressure	(3)	dB(A)	31	34	41	45
Sound Power	(4)(7)	dB(A)	42	45	52	56
MAX SPEED						
Fan Power Input	(1)	W	27,0	28,0	46,0	62,0
Air flow rate	(1)	m³/h	436	632	780	920
Total capacity in cooling mode	(1)	kW	2,15	2,67	4,00	4,23
Total Net Cooling Capacity	(1)(6)(7)	kW	2,12	2,64	3,96	4,17
Sensible capacity in cooling mode	(1)	kW	1,71	2,13	3,02	3,56
Net sensible cooling capacity	(1)(6)(7)	kW	1,68	2,10	2,98	3,50
Net latent power in cooling	(1)(6)(7)	kW	0,44	0,54	0,98	0,67
Water flow in cooling mode	(1)	l/s	0,10	0,13	0,19	0,20
Pressure Drop in cooling mode	(1)	kPa	12,4	15,0	38,5	70,1
Total capacity (heating mode)	(2)	kW	2,01	2,62	3,39	4,12
Total Net Heating Capacity	(2)(6)	kW	2,04	2,65	3,43	4,18
Water flow in heating mode	(2)	l/s	0,10	0,13	0,16	0,20
Pressure drop in heating mode	(2)	kPa	11,7	14,8	31,0	58,8
Sound Pressure	(3)	dB(A)	34	41	44	49
Sound Power	(4)(7)	dB(A)	45	52	55	60
SIZE AND WEIGHT						
A	(5)	mm	845	845	920	920
B	(5)	mm	180	180	200	200
H	(5)	mm	270	270	298	298
Operating weight	(5)	kg	10	10	13	13

Notes

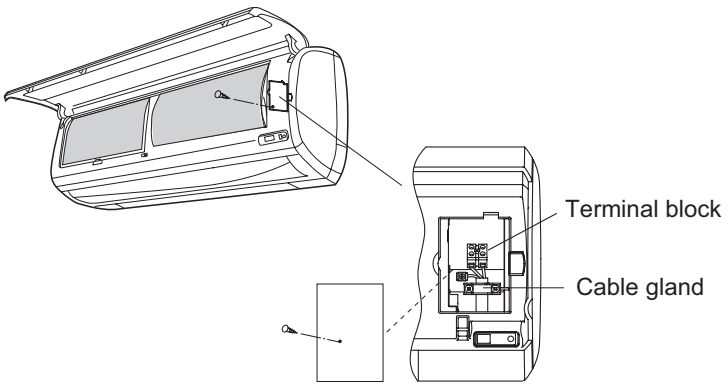
1 Room temperature 27°C d.b./18,9°C w.b., Chilled water (in/out) 7°C/12°C.
2 Room temperature 20°C d.b., hot water (in/out) 45°C/40°C.
3 Sound pressure level in free field on a reflective surface, 1 m from fan front and 1 m from the ground. Non -binding value obtained fron sound power level.
4 Sound power on the basis of measurements made in compliance with ISO 3741 and Eurovent 8/2.
5 Unit in standard configuration/execution, without optional accessories.
6 Values in compliance with EN14511
7 Values in compliance with [REGULATION (EU) N. 2016/2281]

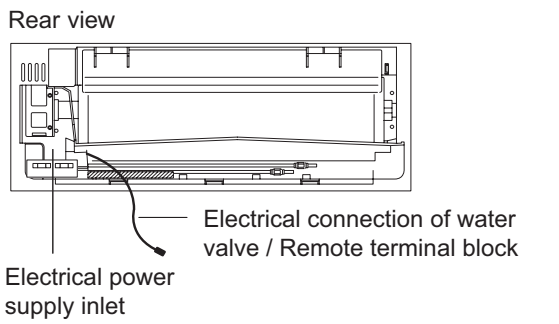
Certified data in EUROVENT



ACCESS TO CONNECTIONS — General

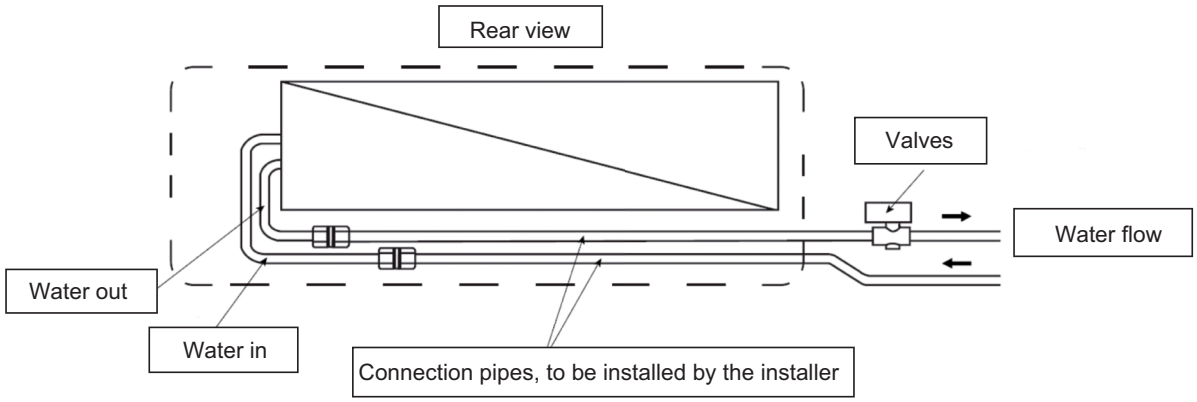
ELECTRICAL CONNECTIONS





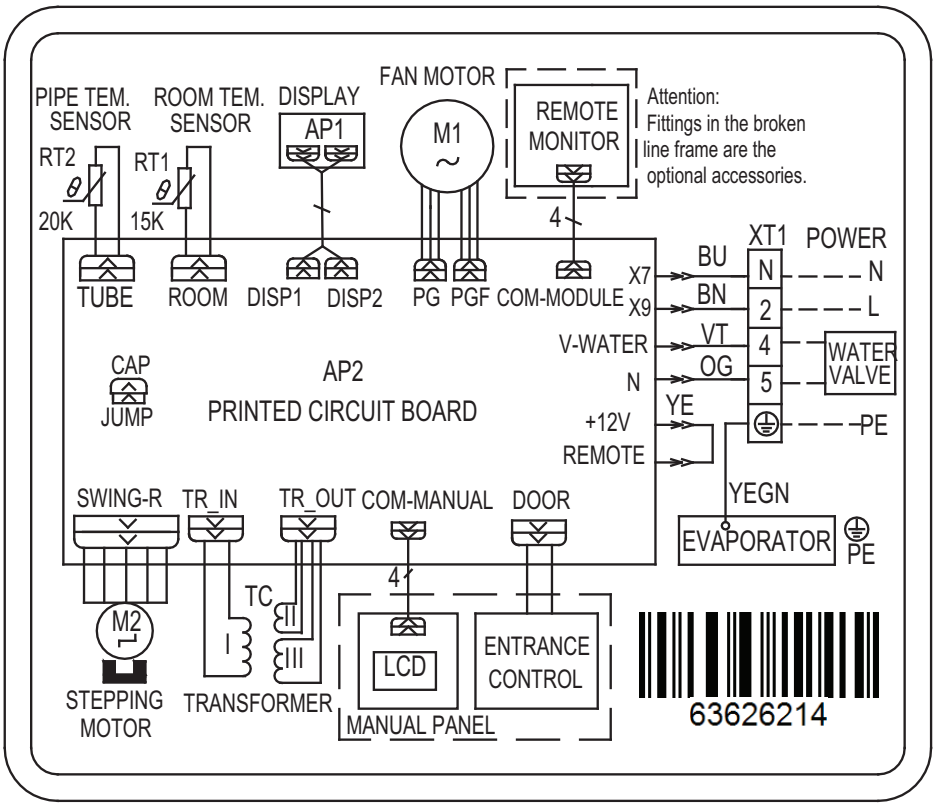
⚠ Take care when removing the protective cover from the indicator lights.

HYDRAULIC CONNECTIONS



WIRING DIAGRAMS — General

MHD2 30-40-50-60



LOCATING THE INDOOR UNIT

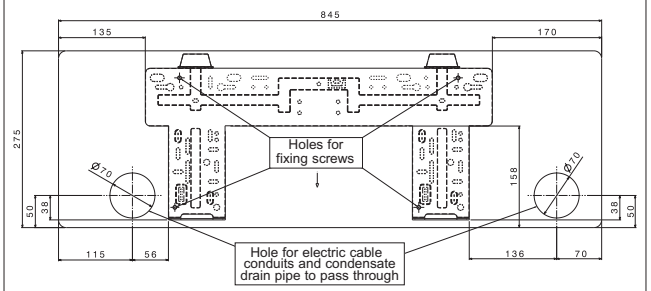
The place of installation must be established by the installation designer/services engineer or by a technically competent person and must take into account technical requirements as well as applicable current laws and regulations. The fan coil must be installed by a qualified company in accordance with applicable laws and regulations in force in the country of installation.
The fan coils are designed for wall mounting.
Installation should allow the treated air to circulate freely throughout the room and leave sufficient space for access to the unit for maintenance or servicing operations.

⚠ Before starting installation, decide on the position of the indoor, taking into account the minimum technical spaces required.

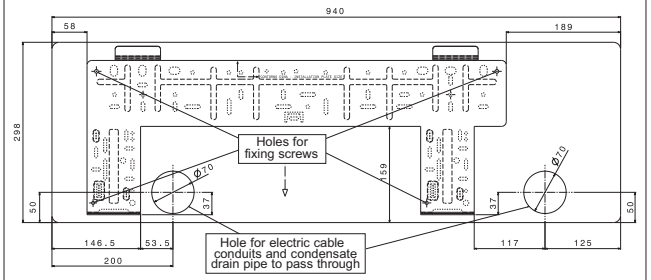
To mount the unit on the wall:
- Fix the metal plate to the wall using the provided screw anchors and screws.

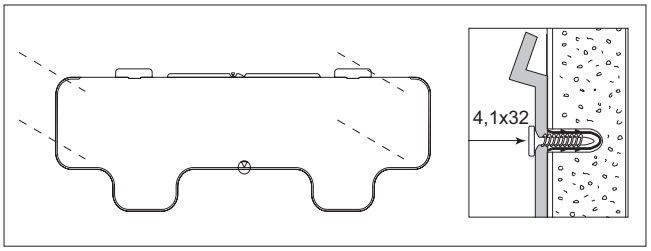
UNIT INSTALLATION

MHD2 30-40



MHD2 50-60





DRAIN PIPE CONNECTION

The indoor unit is fitted with a condensate drain pipe to which a lagged drainage hose should be connected leading to a suitable drainage outlet. The appliance is designed for condensate drainage from either side, although the drain pipe is connected in the factory on the left.

- Remove front panel as described in Maintenence section.
- Using a tool remove fixing spring located in left condesate pipe.
- Remove plug present.
- Place fixing spring in right condensate pipe.
- Replace front panel

⚠ Connect a lagged drainage pipe (inside ø 16 mm) to the hose fitting of the drain pipe and direct it towards a suitable drainage outlet.

⚠ After installation, check that the condensation flows out regularly.

⚠ For data regarding installation, see the section “Information for installation”.

⚠ To access the connections, see the section “Access to connections”.

⚠ The drainage pipe must have a 3% slope downwards towards the drain.

⚠ Check all the joints for leaks.

⚠ Apply heat-insulating material to the joints.

CONNECTION TO THE WATER SYSTEM

For connections at the sides:

- Remove the relevant knockout from the housing

For connections at the rear:

- Drill a hole Ø 60 in the wall within one of the two areas A” (see section “Information for installation”).

⚠ Pass a protective plastic pipe through the hole in the wall.

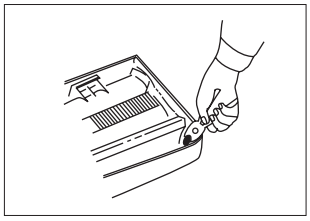
⚠ Ensure that the section of wall in question has no bearing structural members, pipes or electric cables.

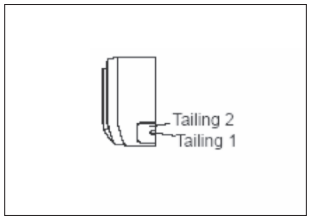
⚠ Upon completion of work it is advisable to close the holes made in the wall using elastic and, if possible, soundproofing material.

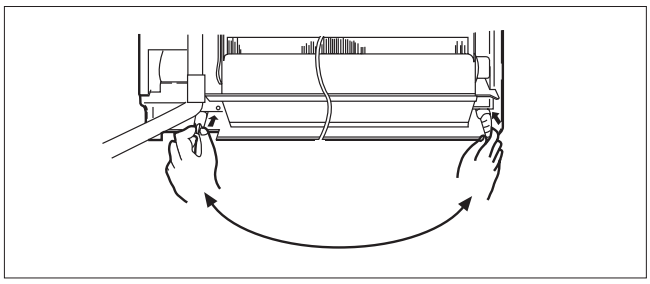
- To facilitate carrying out the water connections, keep the unit raised by means of a spacer.

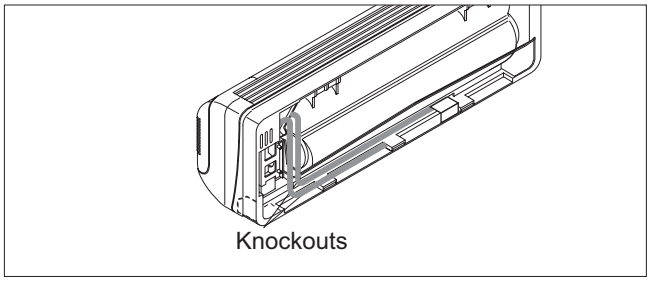
- If necessary position the connections in the space provided at the rear of the indoor unit and fix them with the provided bracket A.

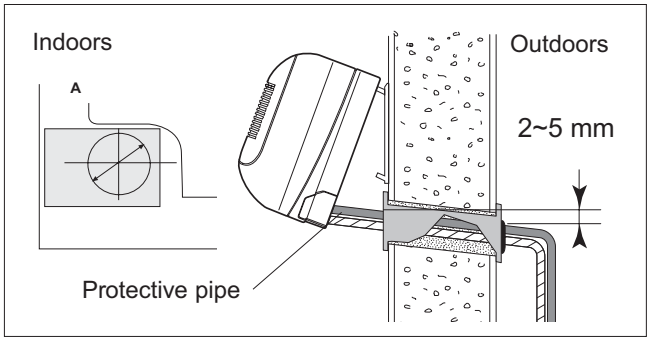
⚠ Position the pipes so that they occupy as little space as possible in order to facilitate hooking of the appliance onto the metal plate.

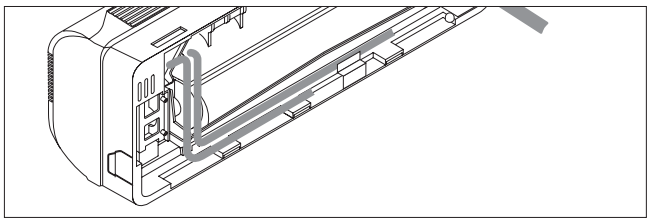


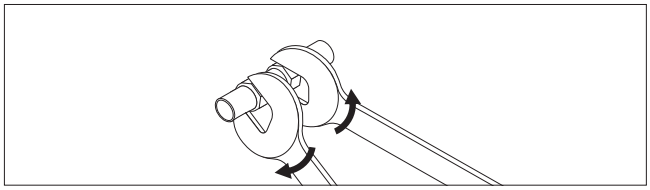










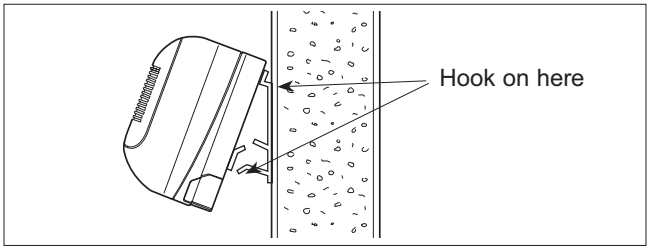


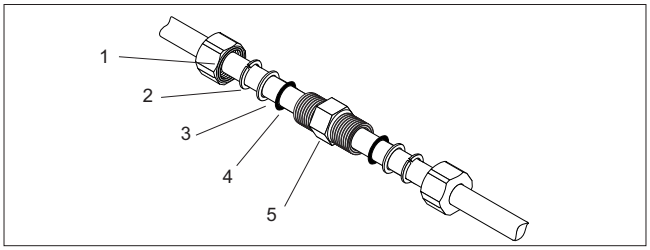
⚠ The choice and installation of the components is left to the installer, who should operate in a workmanlike manner in compliance with current laws and regulations.
The use of water disconnectors is compulsory on systems to which anti-freeze has been added.
Special supply/fill-up water should be treated with suitable systems. Reference values may be taken as those given in the table.

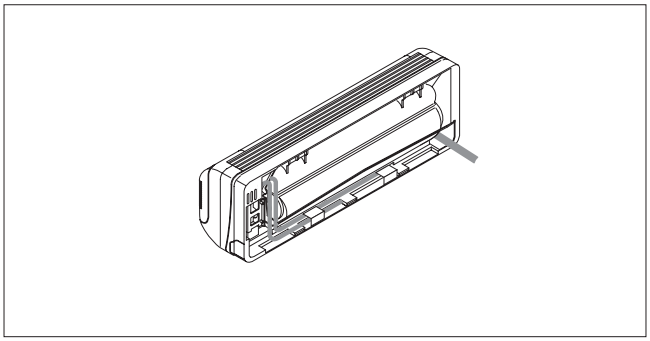
⚠ Do not apply the adhesive tape too tightly in order not to damage the insulation.

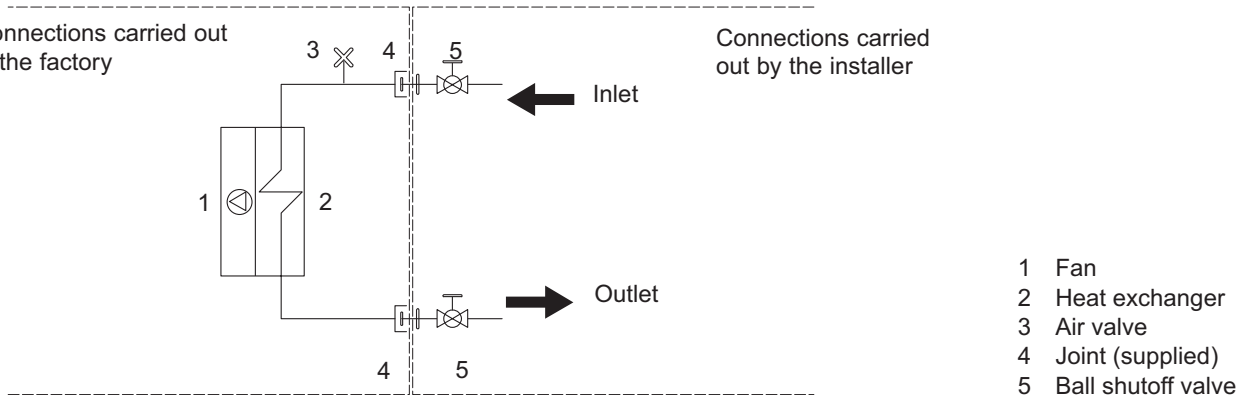
REFERENCE VALUES H2O	
pH	**6-8**
Electric conductivity	less than 200 mV/cm (25°C)
Chlorine ions	less than 50 ppm
Sulphuric acid ions	less than 50 ppm
Total iron	less than 0.3 ppm
Alkalinity M	less than 50 ppm
Total hardness	less than 35 °f
Sulphur ions	none
Ammonium ions	none
Silicate ions	less than 30 ppm

To carry out the water connections
- Hook the fan coil to the metal plate keeping the lower edge raised.
- Position the water pipes.
- Clean the surfaces of the fittings and the ends of the water pipes.
- Position the supplied joints on the ends of the water pipes and on the fan coil fittings.
- Tighten the joints properly.
- Place insulating material over the joints, fixing it with adhesive tape in order not to damage the insulation.
- Hook the fan coil onto the metal plate.







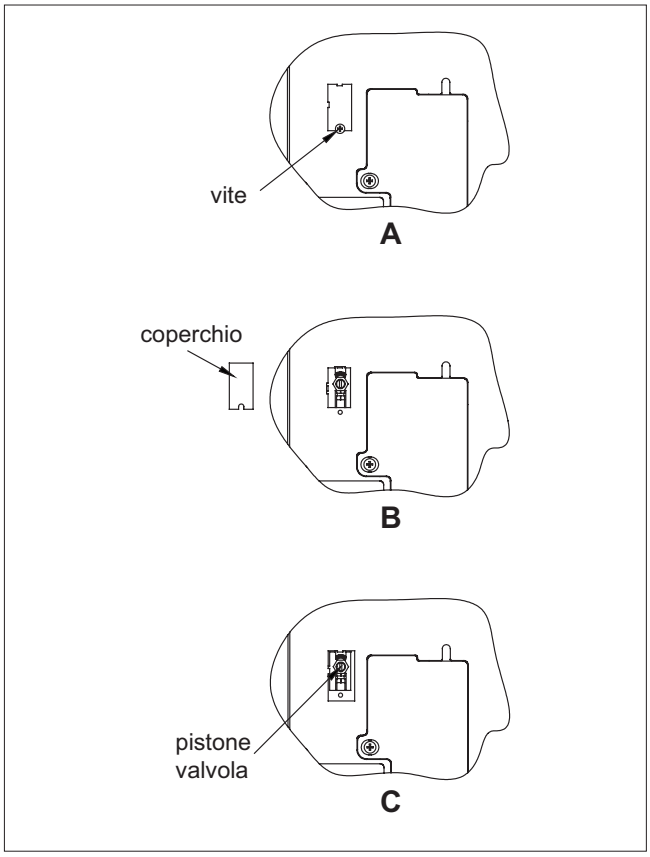


THE WAY OF OPERATING VENT VALVE

When necessary to operating the vent valve, the steps should operate as follow:

1. Screw out the selfmounted screw (fig. A)
2. Remove the window cautiously (fig. B)
3. Screw out the valve piston counter-clockwise 3~4 ring cautiously.around “ON" direction in the window) (fig. C)
4. Run the fancoil.

After running, fit in the parts as follow. Screw the valve piston clockwise properly before operation (around “OFF" direction in the window). Reinstall the window, screw the self-mounted screw.



ELECTRICAL CONNECTIONS

The fan coil leaves the factory fully wired and only requires:

- connecting to the mains electricity supply.

⚠ For any work of an electrical nature, see the section “Wiring diagrams”.

⚠ Check that:

- The characteristics of the mains electricity supply are suitable for the maximum input values indicated in the table in the section “Technical data”, also taking into consideration any other appliances working in parallel.
- The supply voltage corresponds to the rated value +/- 10%.

⚠ The following is compulsory:

- Installation of an omnipolar line disconnecting switch to CEI-EN standards (with contact separation of at least 3 mm) near the appliance.
- An efficient earth connection.

⚠ The manufacturer cannot be held liable for any damage or injury caused by failure to earth the installation or failure to comply with the wiring diagrams.

⛔ Under no circumstances should gas or water pipes be used for earthing the appliance.

⚠ To access the connections, see the section “Access to connections”.

POWER SUPPLY

- Carry out the connections as shown in the figure.

⚠ The unit comes with a power cable 1.6 m long.

⚠ The unit ON-OFF switch must be in the ON (I) position”.

- Upon completion of connections, secure the cables with cable glands and replace the terminal block covers.

FITTING THE FILTERS — Installer

The fan coil comes with air filters designed to absorb microscopic particles of dust, pollen and mould/mildew.

To install, proceed as follows:
- Put the installation on/off switch to “off”.

⚠ Installing the air filter reduces the airflow and consequently the cooling and heating capacity. In this case it is recommended to use the air-conditioner at MEDIUM or HIGH speed.

⚠ Clean air filters once every 2 weeks.

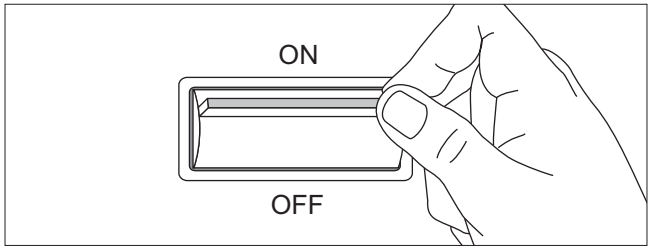
⚠ Keep the air filters sealed until they are to be used.

⚠ When inserting the air filters avoid contact with the exchanger coil or use suitable personal protective equipment.

FIRST TIME OF SWITCHING ON — Installer

Before starting up the fan coil for the first time and carrying out the functional test, it is indispensable that:
- All the safety conditions have been satisfied
- The appliance is correctly positioned
- The electrical, cooling circuit and condensate drain connections have been carried out correctly
- The shutoff valves are open.

Then:
- Put the installation on/off switch to "on"



MHD2 models
- Activate the fan coil using the remote control
- Check operation in the various modes
- Check the fan speeds of operation

See the instructions in the User Guide on how to use the remote control.

AUTOMATIC RESTART

The fan coil is fitted with a device that allows automatic restart in the event of a blackout and subsequent return of the power supply.

⚠ The fan coil restarts in the previously set mode of operation.

FILLING AND DRAINING THE INSTALLATION — Installer

FILLING

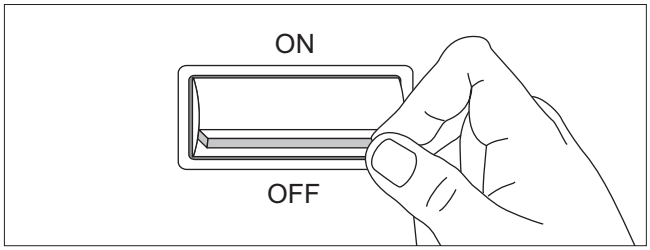
- Before filling, put the installation on/off switch to "off".
- Check that the drain tap is closed
- Remove unit cabinet as described in Maintenance section
- Open the air valve on the fan coil and the installation (see figure)
- Start filling by slowly opening the installation water supply tap outside the appliance
- When water starts to come out the air valve, close it immediately and continue filling until the pressure gauge shows the value envisaged for the installation.

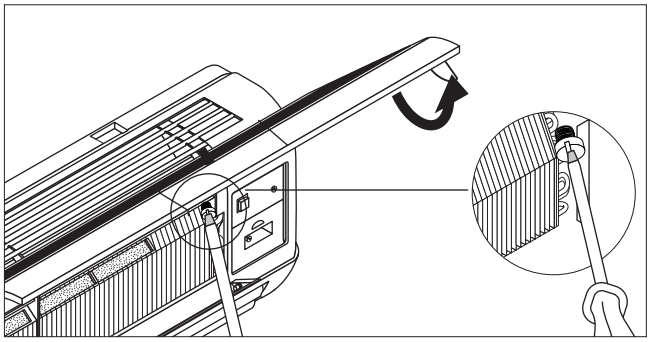
⚠ Check the air valve for leaks.
Check all the joints for leaks.
It is recommended that this operation be repeated after the appliance has been working for several hours and that the installation pressure be checked periodically.
This operation must be carried out by specialised technical personnel.

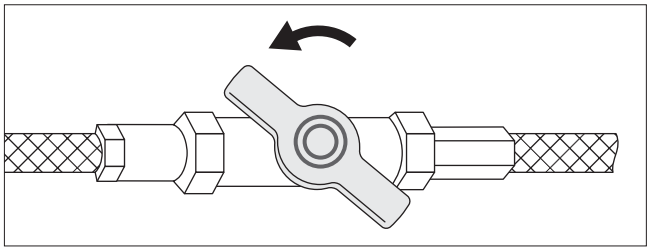
DRAINING

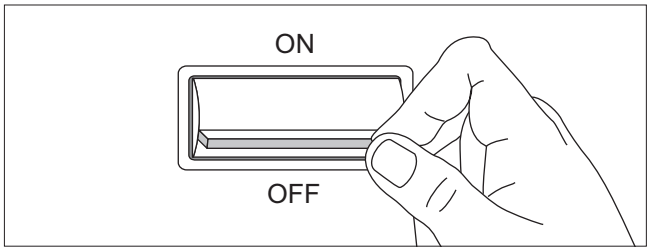
- Before draining, put the installation on/off switch to "off".
- Check that the installation supply tap is closed.
- Open the fan coil and the installation air valve.

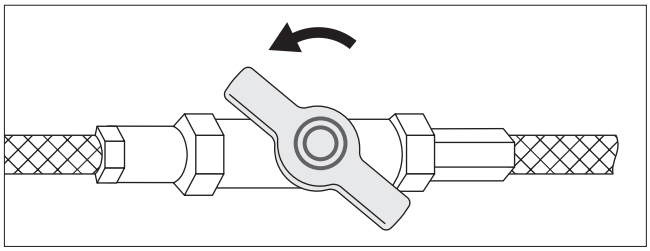
⚠ If anti-freeze has been put into the system, it must not be allowed to drain away freely since it is a pollutant. It must be collected and if possible recycled.
This operation must be carried out by specialised technical personnel.

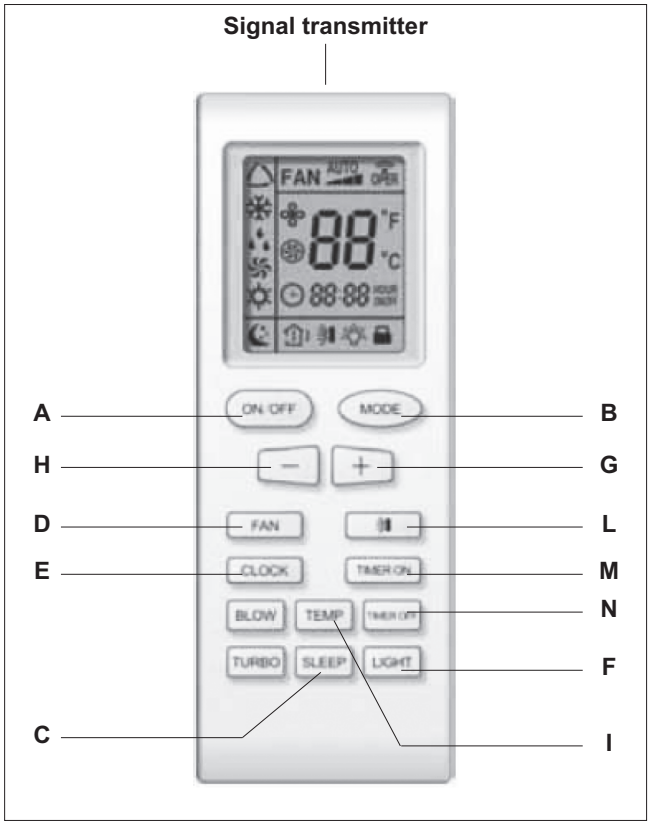












Be sure that there are no obstructions between receiver and remote controller; Don't drop or throw the remote control; Don't let any liquid in the remote control and put the remote control directly under the sunlight or any place where is very hot.

Indicator symbols

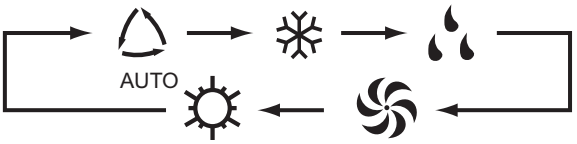
- **AUTO**
- **COOL**
- **DRY**
- **FAN**
- **HEAT**
- **Low FAN**
- **Middle FAN**
- **High FAN**
- **Clock**
- **Light**
- **Sleep**
- **Temp**
- **Padlock**

A. ON/OFF button

Press this button, the unit will be turned on, press it once more, the unit will be turned off.
When turning on or turning off the unit, the Timer, Sleep function will be canceled.

B. MODE button

Auto, Cool, Fan, Heat mode can be selected circularly. Fan mode is default while power on. Under Fan mode, the temperature will not be changed, it shows 24°C (75°F). Under Heat mode, the initial value is 28°C (82°F); Under other modes, the initial value is 25°C (77°F).



C. SLEEP button

Sleep On and Sleep Off can be selected. After powered on , Sleep Off by default. After the unit is turned off, the Sleep function is canceled. After Sleep function set up, the signal of Sleep will display. In this mode, the time of timer can be adjusted. Under Fan and Auto modes, this function is not available.

D. FAN button

Auto, Low, Middle, High speed can be circularly selected. After powered on, Auto fan speed is default. Under Dehumidify mode, Low fan speed only can be set up.

Under the Dry mode, the fan speed isn't adjustable.

E. CLOCK button

Press this button, the clock can be set up, signal 🕘 blink on display. Within 5 seconds, the value can be adjusted by pressing + or - button, if continuously press this button for 2 seconds above, in every 0.5 seconds, the value on ten place of Minute will be increased 1. During blinking, repress the Clock button, signal 🕘 will be constantly displayed and it denotes the setting succeeded. After powered on, 12:00 is defaulted to display and signal 🕘 will be displayed. If 🕘 symbol is displayed the current time value is Clock value, otherwise is Timer value.

F. LIGHT button

Press this button to select LIGHT on or off in the displayer. When the LIGHT on is set, the icon 💡 will be displayed and the indicator light 💡 in the displayer will be on. When the LIGHT off is set, the icon will be displayed and the indicator light in the displayer will be off.

G. [+] button

For presetting temperature increasing. Press this button, can set up the temperature, when unit is on. Continuously press and hold this button for more than 2 seconds, the corresponding contents will be changed rapidly, until unpress the button °C (°F) laying all along. In Auto mode, the temperature can not be set up. Centigrade setting range: 16-30; Fahrenheit scale setting range 61-86.

H. [−] button

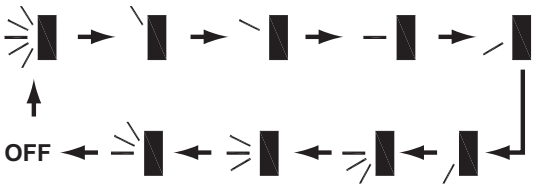
To decrease set temperature. Press this button, the temperature can be set up, continuously press this button and hold for two seconds, the relative contents can quickly change, until unhold this button and send the order that the °C (°F) signal will be displayed all the time. The temperature adjustment is unavailable under the Auto mode.

I. TEMP button

After powered on, the setting temperature displaying is default, (according to customers requirements to display, if there is no requirement that will default to display the presetting temperature and there is no icon displayed on wireless remote control). Press this button, (When displaying ⌂), will display presetting temperature; (when displaying ⌂) will display indoor ambient temperature. If current displays indoor ambient temperature, if received the other remote control signal, it will display presetting temperature, 5 second later, will back to display ambient temperature.

L. SWING UP AND DOWN button

Press this button, to set up swing angle, which circularly changes as below:



M. TIMER ON button

Timer On setting: Signal “ON” will blink and display, signal ◴ will conceal, the numerical section will become the timer on setting status. During 5 seconds blink, by pressing **+** or **-** button to adjust the time value of numerical section, every press of that button, the value will be increased or decreased 1 minute. Hold pressing **+** or **-** button, 2 seconds later, it quickly change, the way of change is: During the initial 2.5 seconds, ten numbers change in the one place of minute, then the one place is constant, ten numbers change in the tens place of minute at 2.5 seconds speed and carry. During 5s blink, press the Timer button, the timer setting succeeds. The Timer On has been set up, repress the timer On button, the Timer.

On will be canceled. Before setting the Timer, please adjust the Clock to the current actual time.

N. TIMER OFF button

Once press this key to enter into TIMER OFF setup, in which case the TIMER OFF icon will blink. The method of setting is the same as for TIMER ON.

WIRELESS REMOTE CONTROL: MODES OF OPERATION — User

Selecting the mode of operation

Each time the MODE button is pressed, the mode of operation changes in the following order:
COOLING - DRY - FAN - HEATING - AUTO

⚠ The HEATING mode is not available in installations designed for cooling only.

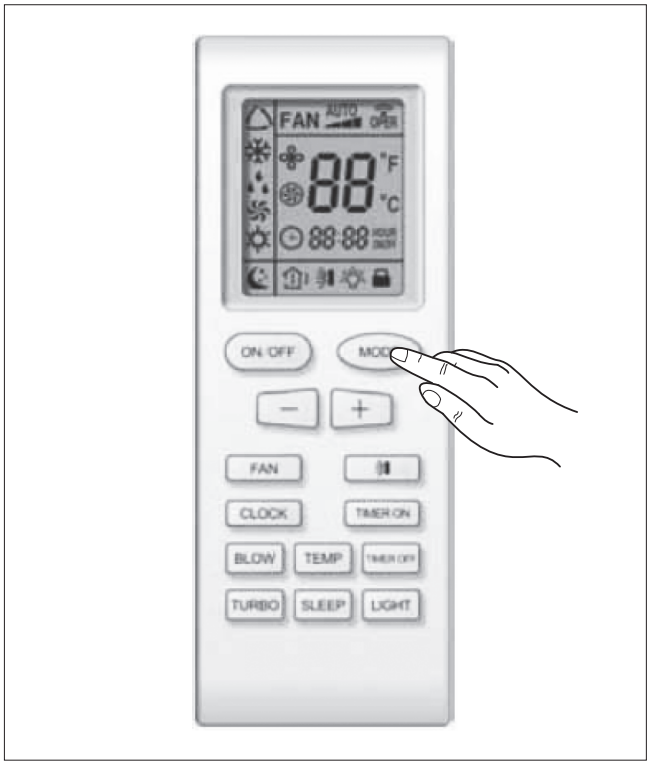
⚠ The fan coil is a terminal unit and its operation depends on the boiler or cooler to which it is connected.

⚠ In the Heating mode the fan will only work when the supply water temperature is sufficiently high.

Available ranges of temperature settings:

Heating*	16°C ~ 30°C
Cooling	16°C ~ 30°C
Dehumidifying/dry	Room temperature ± 2°C
Fan	

* Only for installations that offer this mode.



SELECTING THE COOLING MODE

- Press the button to switch on the fan coil.
  The symbol starts blinking on the display and a beep indicates that the fan coil has started.
- Press the MODE button repeatedly until the cooling symbol appears on the display.
- The temperature should now be set using the (−) (+) keys.
- To select the fan speed, just press the FAN button repeatedly until obtaining the required fan setting (automatic, high, medium, low).

⚠ In the cooling mode the appliance automatically takes excess moisture from the environment.

SELECTING THE DEHUMIDIFYING/DRY MODE

It is advisable to activate this function when humidity levels are high.

- Press the ON/OFF button to switch on the fan coil.
- The symbol starts blinking on the display and a beep indicates that the fan coil has started.
- Press the MODE button repeatedly until the dehumidifying symbol appears on the display.
- The dehumidifying level should now be set using the keys (−) (+).
- The fan speed is selected automatically by the appliance in the dehumidifying/dry mode.

SELECTING THE FAN ONLY MODE

On sultry but not particularly hot days it could be sufficient to activate the fan function.

- Press the ON/OFF button to switch on the fan coil.
- The symbol starts blinking on the display and a beep indicates that the fan coil has started.
- Press the MODE button repeatedly until the fan symbol appears on the display.
- Once the fan function has been activated, press the FAN button repeatedly until obtaining the required speed (high, medium, low).

SELECTING THE HEATING MODE

- Press the ON/OFF button to switch on the fan coil.
  The symbol starts blinking on the display and a beep indicates that the fan coil has started.
- Press the MODE button repeatedly until the heating symbol appears on the display.
- Once the fan function has been activated, press the FAN button repeatedly until obtaining the required speed (high, medium, low).

PROGRAMMING THE TIMER

User

After having selected the required mode of operation, switch on the timer by pressing the TIMER ON button when going out in the morning so that you can find your home at a comfortable temperature when you return.

Programming switching ON

- With the fan coil switched on, press the TIMER OFF button. Time starts blinking on the display. Set hour required of switching off using the [−] [+] buttons.
- Press the TIMER OFF button again to confirm the selection.
- When hour set is displayed, the appliance automatically switches OFF.
- To delete the set time, press the TIMER button again. There will be a beep.

Programming switching OFF

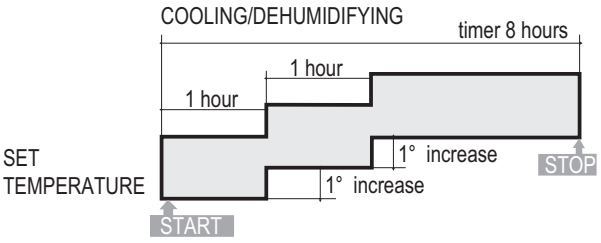
- With the fan coil switched off, press the TIMER ON button. Time starts blinking on the display. Set hour required of switching on using the [−] [+] buttons.
- Press the TIMER button again to confirm the selection.
- When hour set is displayed, the appliance automatically switches ON.
- To delete the set time, press the TIMER button again. There will be a beep.

SLEEP MODE

User

The SLEEP mode may be set in the COOLING, HEATING and DEHUMIDIFYING modes of operation.
This function is used to obtain a more comfortable environment while sleeping.
In the SLEEP mode:

- The appliance switches off automatically after 8 hours of operation.
- The fan speed is automatically set on the lowest level.
- The set temperature increases by 1°C per hour if the appliance operates in the cooling mode for 2 hours. The temperature remains constant thereafter.
- The set temperature decreases by 1°C per hour if the appliance operates in the heating mode for 2 hours. The temperature remains constant thereafter.



OPERATION OF WIRELESS REMOTE CONTROL — User

About lock

Press **+** and **-** buttons simultaneously to lock or unlock the keyboard. If the remote controller is locked, the icon 🔒 will be displayed on it, will flicker for three times. If the keyboard is unlocked, the padlock will disappear.

About swing up and down

1. Press swing up and down button continuously more than 2s,the main unit will swing back and forth from up to down, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.
2. Under swing up and down mode, when the status is switched from off to , if press this button again 2s later, status will switch to off status directly; if press this button again within 2s,the change of swing status will also depend on the circulation sequence stated above.

About switch between Fahrenheit and Centigrade

Under status of unit off, press MODE and - buttons simultaneously to switch °C and °F.

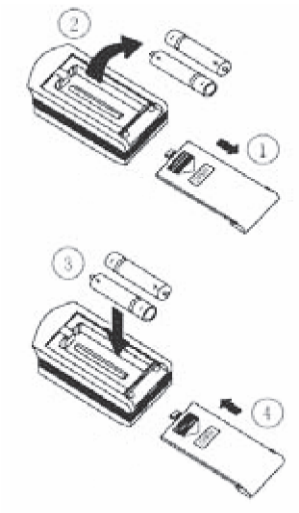
Before using the fan coil, make checks and setting as described below.

How to insert the batteries

1. Remove the battery compartment cover by sliding in the arrow's direction;
2. Take out the old batteries;
3. Insert the new batteries (AAA 1,5V) and pay attention to the polarity;
4. Replace the cover by sliding it into place.

NOTE:

- When changing the batteries, do not use the old or different batteries, otherwise, it can cause the malfunction of the wireless remote control.
- If the wireless remote control will not be used for a long time, please take them out, and don't let the leakage liquid damage the wireless remote control.
- If the wireless remote control can not operate normally, please take them out, after 30s later and reinsert, if they cannot normally run, please change them.



ADJUSTING THE AIRFLOW — User

Adjusting the airflow

The vertical airflow is automatically adjusted at a certain angle after switching on the appliance according to the mode of operation.

The airflow direction may be adjusted as required by pressing the “Swing” button on the remote control.

Up and down louver swing (variable airflow)

Press the “Swing” button once. The airflow direction louvers automatically swing up and down.

Setting the airflow direction

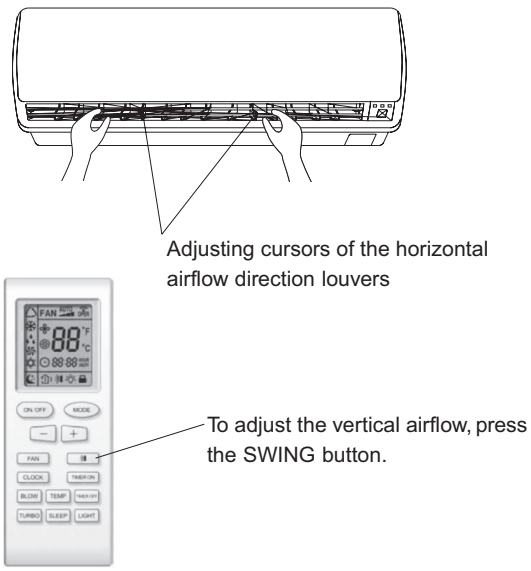
Press the “Swing” button again when the louvers are in the desired position to stop their movement.

Adjusting the horizontal airflow (manual)

- Switch off the appliance
- Turn the adjusting cursors of the horizontal airflow direction louvers by hand to change the direction as shown.

⚠ Do not turn the vertical airflow direction louvers by hand as this could cause malfunctioning. If this occurs, switch the appliance off and then on again with the remote control. The louvers will automatically move to the best position.

⚠ Do not keep the vertical airflow direction louvers in a downward position for a long time in the Cooling or Dehumidifying modes in order to avoid dripping due to condensation.



Cooling	Horizontal direction
Dehumidifying	Horizontal direction
Heating	Downwards
Fan only	Downwards

Displayer indicator light control of the unit

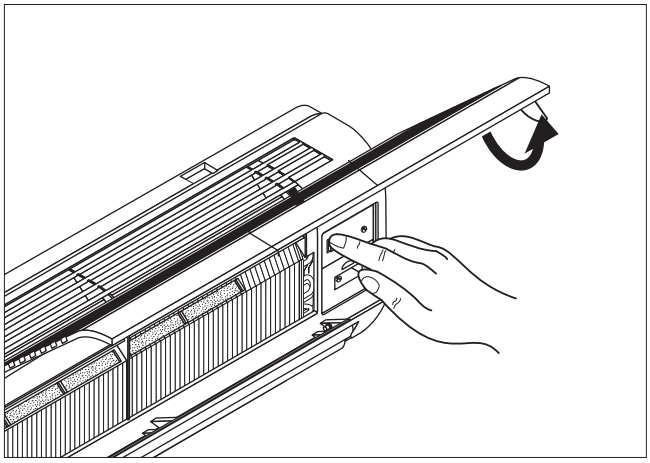
It's a special selective button for the users, who are not accustomed to the light at sleeping.

- Get the displayer indicator light on: When setting the light function, the mark will display on the remote controller screen by pressing this button. In which case, the displayer indicator light will be on if the AC receives this signal.
- Get the displayer indicator light off: If cancel the light function , the mark will disappear on the remote controller screen by pressing this button. In which case, the displayer indicator light will be off if the AC receives this signal.

Emergency operation

If the wireless remote control is lost or broken, please use the manual switch button. At this time, the unit will run at the Fan mode, but the temperature and fan speed cannot be changed. The operation was shown as below:

- Turn on the unit: At unit turned off, press the button , the unit will run at Fan mode immediately. The microcomputer will accord to the indoor temperature to select (Cooling, Heating, Fan) and obtain the comfortable effect.
- To switch ON hi-wall unit with manual switch button, remove cabinet of the appliance as described in maintenance section.
- Press button for at least 3 second using a tool.



⚠ Turn power off and pull out the power plug before cleaning air conditioner , or it may cause electric shock.

⚠ Never sprinkle water on the indoor unit for cleaning because it can cause an electric shock.

⚠ Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner. Wipe the units with a dry soft cloth, or a cloth slightly moistened with water or cleanser.

Clean the front panel

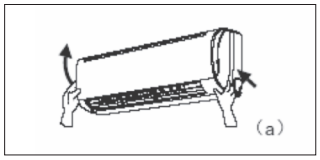
When cleaning the front panel, please dip the cloth into the water temperature of 45°C below, then to dry the cloth and wipe the dirty part.

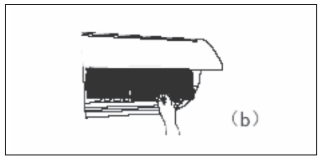
Note: Please do not to immerse the front panel in water, due to there are microcomputer components and circuit diagrams on the front panel.

Clean the air filter

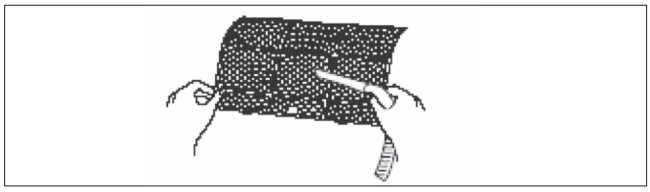
Note: If dust is much more around the air conditioner, the air filters should be cleaned many times. After taking off the filter, don't touch the fin of the unit, in order to avoid hurt your fingers (Recommended once every three months).

1. **Take down the air filter**
   At the slot of surface panel to open an angle, pull the air filter downward and take it out, please see the Fig. (a, b).

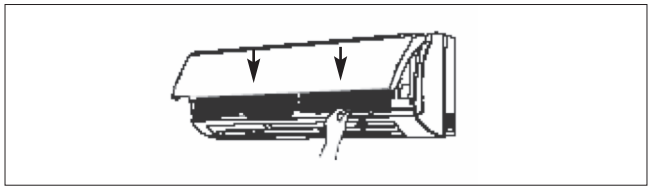




2. **Clean the air filter**
   To clean the dust adhering to the filters, you can either use a vacuum cleaner, or wash them with warm water the water with the neutral detergent should below 45 degree), and dry it in the shade.
   Note: Never use water above 45°C to clean, or it can cause deformation or discoloration. Never parch it by fire, or can cause a fire or deformation.



3. **Insert the air filter**
   Reinsert the filters along the direction of arrowhead, and then to close the cover and clasp it.



Check before use

- Be sure that nothing obstructs the air outlet and intake vents.
- Check that whether ground wire is properly connected or not.
- Check that whether the batteries of air conditioner are changed or not.

Maintain after use

- Turn main power off.
- Clean the filter and the unit bodies.
- Adopt the special shield to cover the unit, avoid the dust enter into the unit and get rust.

MAINTENANCE — Service

Periodic maintenance is essential for keeping the fan coil efficient and must be carried out at least once a year by the After-Sales Service Centre or qualified personnel.

⚠ Before carrying out any maintenance, disconnect from the power supply by putting the installation on/off switch to “off”.

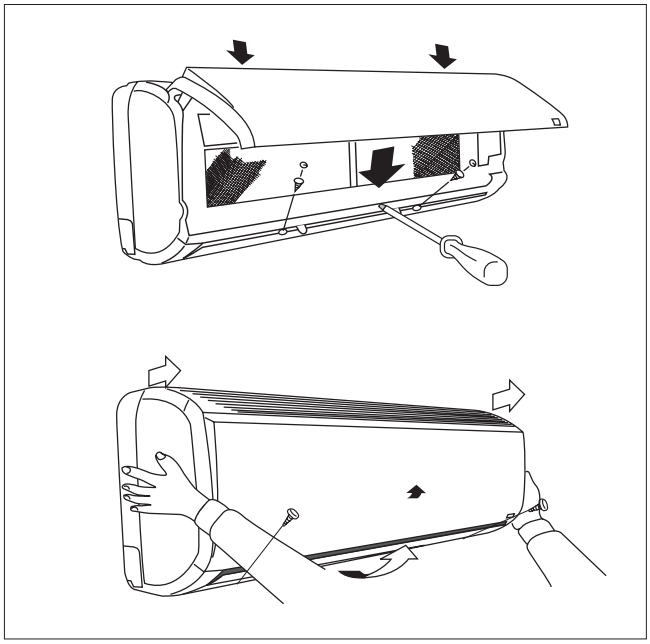
It may be necessary during maintenance to remove the housing cabinets from the units; in this case proceed as follows:
- Open the motor-operated flap
- Remove all screws present and loosen the fixing screws
- Remove the housing.

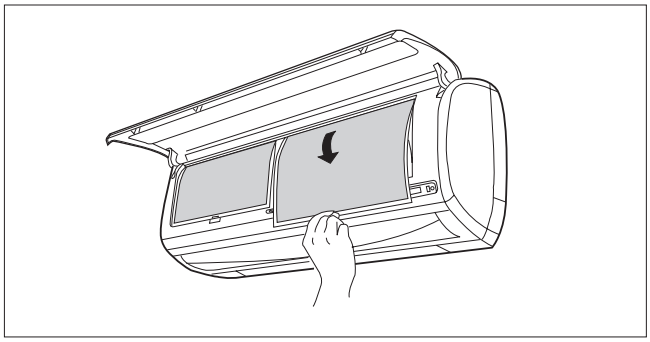
Cleaning the air filters is essential for optimum operation of the fan coil. To remove the filters:
- Switch off the appliance using the remote control.
- Put the installation on/off switch to “off”.
- Raise the front grille.
- Take out the air filters.
- Remove the dust with a vacuum cleaner.
- Replace the filters, proceeding in the reverse order.

⚠ If the filters are very dusty, wash with lukewarm water (max 40°C) and a neutral detergent; rinse thoroughly and leave to dry in the shade.

⚠ Clean the air filters once every 2 weeks, keeping them sealed until they are to be used, as shown in the figure.

⛔ The appliance must not be used without the air filter. Before carrying out any cleaning, first disconnect the appliance from the mains electricity supply by putting the installation on/off switch to "off".





TROUBLESHOOTING — Service

TROUBLE CAUSE REMEDY	CAUSE	REMEDY
The air conditioner does not start	No electricity supply	Check the power supply
		Check fuses on control boards
Inefficient	Clogged mesh filter	Clean the filter
Noise and vibration	Contact between metal parts	Check
	Weak outdoor unit supporting base	Check
	Loose screws	Tighten the screws

DISPOSAL

All consumable and replaced parts must be disposed of safely and in compliance with environmental protection regulations.

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