

INSTALLATION, OPERATING AND MAINTENANCE



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WALL MOUNTED FAN COIL UNIT

COMFAIR HD

1525 - 3949 W

234 - 620 m³/h

COMFAIR HD-IOM-1801-E



www.lennoxemea.com

LENNOX

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INTRODUCTION

Please read this manual carefully before operating the unit.

Pay particular attention to the instructions for use accompanied by the writing "DANGER" or "CAUTION", as failure to comply with these instructions could cause damage to the appliance or property and injury to persons.

For any malfunctioning not contemplated in this guide, immediately contact an authorised after-sales service centre.

1. Do not store or unpack the unit in a wet area or expose to rain or water, it may cause the unit short circuit and may result electric shocks or fire.
2. Do not install in a place where flammable gas may leak, it may cause fire.
3. This unit is designed for domestic and commercial use only, if used in certain environments, such as manufacturing workplace, the air conditioner may not function efficiently

The manufacturer cannot be held liable for any damage or injury caused by misuse of the appliance or by partial or superficial knowledge of the information contained in this guide.

RECOMMENDATIONS

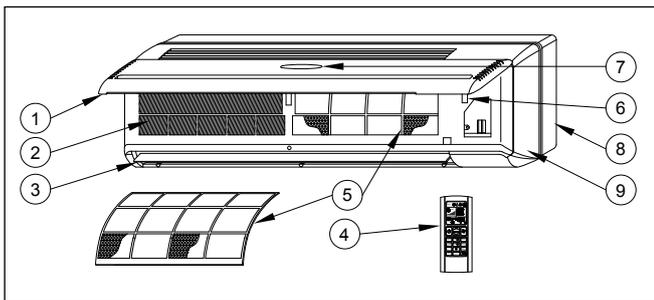
- Installations must be performed by a qualified technician.
- Before carrying out installation, put proper individual protection device.
- This air conditioner must be properly installed in accordance with the Installation Manual.
- Check all local codes and ordinances that could affect installation of this unit.
- Refer to rating plate on each unit for the correct voltage, frequency and current.
- Be sure that the power supply corresponds to the specified rating in the nameplate.
- Do not use the extension cables. In the case extended cables are needed use terminal block.
- Refer to dimensional drawings for location of refrigerant tubing, condensate drain, and electrical connections before setting in place.
- The appliance shall be installed in accordance with national wiring regulations.

THIS PRODUCT MUST BE PROPERLY GROUNDED

Moving machinery and electrical power is hazards it may cause severe injury or death. Turn off and disconnect the power during installation and repair or any services attempt to the unit.

Sharp edges and coil surfaces are a potential injury hazard avoid contact with them.

MAIN COMPONENTS



- | | |
|------------------------|-------------------------------|
| 1. Frontal panel | 6. Emergency/auxiliary switch |
| 2. Evaporator coil | 7. Display |
| 3. Horizontal louver | 8. Base Pan |
| 4. Remote control unit | 9. Frame grille |
| 5. Air filters | |

1. FRONTAL PANEL

The air intake is through the slots of the frontal panel. Lifting the frontal panel you will have the access to the air filter and to the other internal parts.

2. EVAPORATOR COIL

This is made of a copper tube with turbelented type.

3. HORIZONTAL LOUVER

Use to deflect the air from the unit, operated with the step motor.

4. REMOTE CONTROL UNIT

Using this unit make possible to set all operating parameters of the unit, these parameter are shown in the LCD display to make the programming operations easier.

5. AIR FILTERS

To trap all dirt and dust coming with the air.

6. EMERGENCY/AUXILIARY SWITCH

Make it possible to turn the unit "ON" or "OFF" in the absence of remote control. To access it, raise the frontal panel.

7. DISPLAY

Shown the current operating status of the unit, receive signal from remote control.

8. BASE PAN

The base of the whole unit.

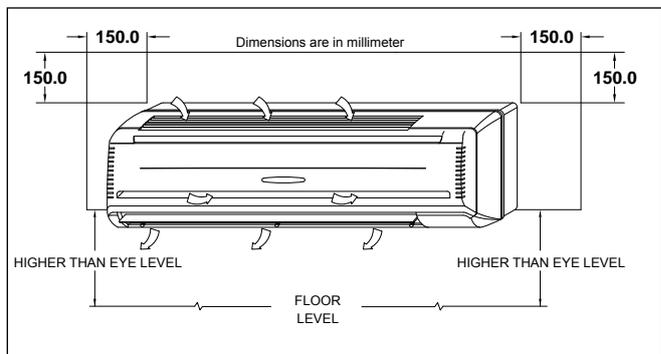
9. FRAME GRILLE

LOCATION FOR FAN COIL UNIT

Select the location of fan coil unit with following consideration:

1. The front of air inlet and outlet shall be free from any obstruction. The outlet air should flow out freely.
2. The wall where unit is to be mounted should be strong enough to bear the weight and not to produce noise.
3. Ensure the clearance on every side of fan coil unit (see drawing below).

Avoid installing the unit in direct sunlight.



WORK LIMITS

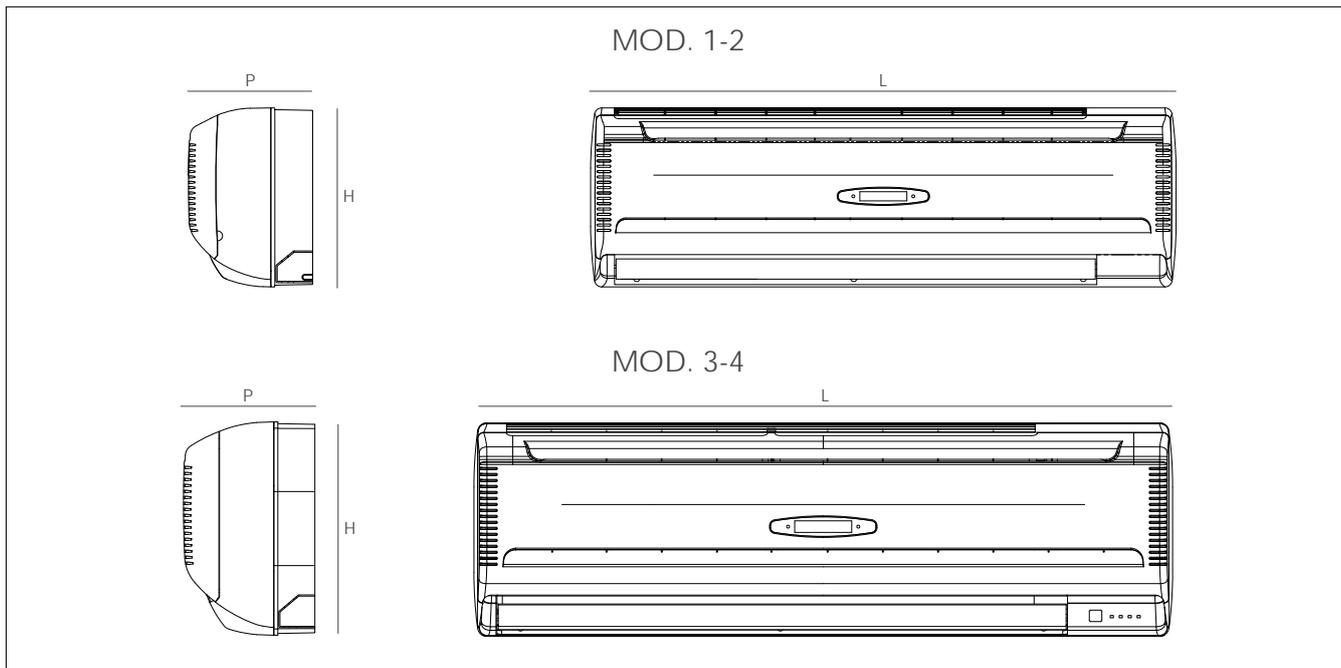
SUMMER (COOLING)

| | |
|---------------------------------|--------|
| Minimum inlet water temperature | +4°C |
| Maximum inlet water temperature | +15°C |
| Maximum operating pressure | 15 bar |
| Maximum room air temperature | +35°C |
| Maximum room air humidity | 80% |

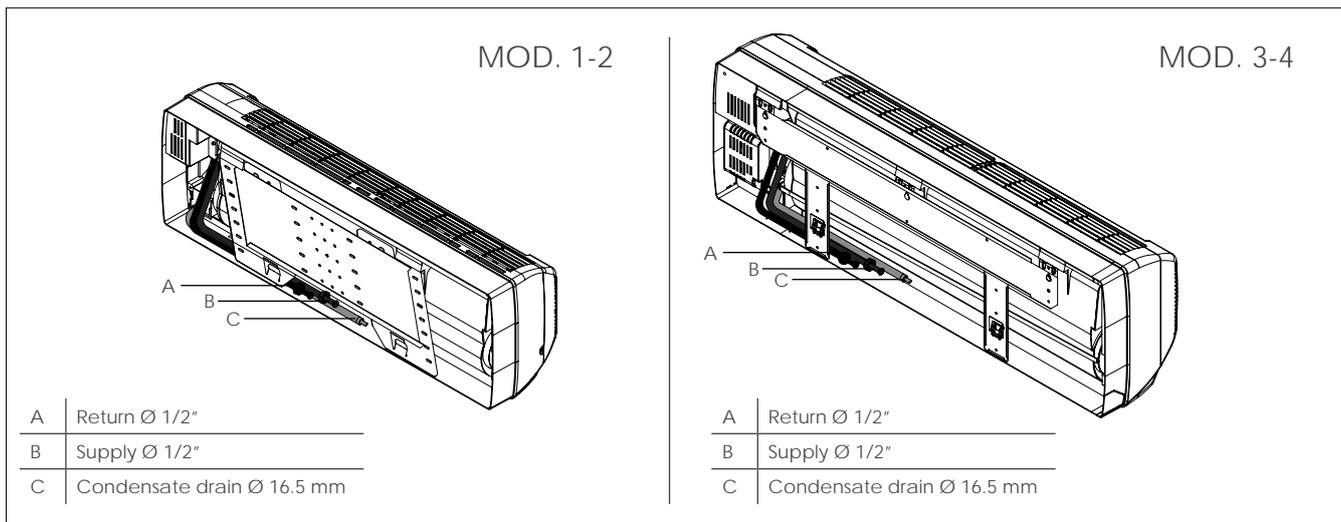
WINTER (HEATING)

| | |
|---------------------------------|--------|
| Maximum inlet water temperature | +70°C |
| Minimum inlet water temperature | +40°C |
| Maximum operating pressure | 15 bar |
| Minimum room air temperature | +4°C |
| Maximum room air humidity | 80% |
| Maximum room air temperature | +35°C |

GENERAL DIMENSIONS



HYDRAULIC CONNECTIONS AND CONDENSATE DRAIN



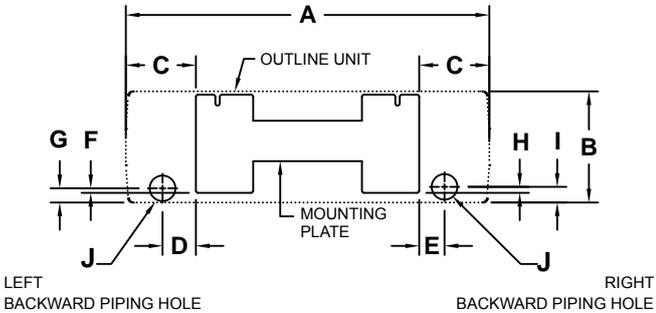
TECHNICAL DATA

| MOD. | | | 1 | 2 | 3 | 4 |
|--|----------------------------------|--------|------|------|------|------|
| | Fans | n° | 1 | 1 | 1 | 1 |
| | Coils | n° | 1 | 1 | 1 | 1 |
| Coil used for both cooling and heating | Water content | liters | 0,8 | 0,9 | 1,2 | 1,9 |
| | Water connections (Ø female Gas) | Ø | 1/2" | 1/2" | 1/2" | 1/2" |
| General features | Lenght | L (mm) | 880 | 990 | 1172 | 1172 |
| | Height | H (mm) | 298 | 305 | 360 | 360 |
| | Depth | P (mm) | 205 | 210 | 220 | 220 |
| | Net weight | kg | 11.5 | 12.4 | 19 | 20.5 |

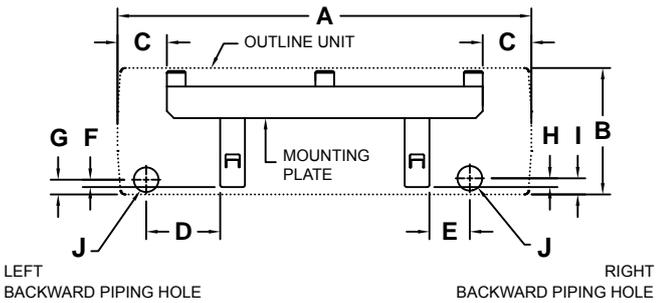
MOUNTING PLATE INSTALLATION

- After a suitable place for installation has been selected, place the mounting plate horizontally on the wall. **If the unit is not perfectly installed horizontally, some problems with condensate discharge may occur.**
- Referring to the figure below, mark the location for the wall plugs and the hole for the pipings.

PLAN DIMENSIONS FOR MOUNTING PLATE INSTALLATION

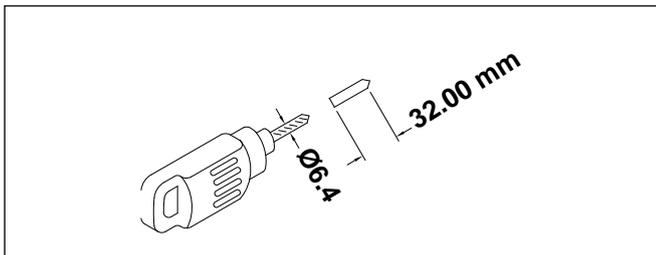


| MOD. | A | B | C | D | E | F | G | H | I | J |
|------|-----|-----|-----|----|----|----|----|----|----|------|
| 1 | 880 | 298 | 190 | 90 | 68 | 21 | 36 | 25 | 40 | ∅ 70 |
| 2 | 990 | 305 | 191 | 91 | 69 | 24 | 46 | 28 | 50 | ∅ 70 |

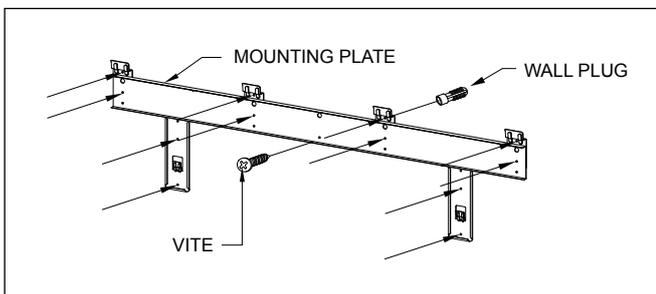


| MOD. | A | B | C | D | E | F | G | H | I | J |
|------|------|-----|-----|-----|-----|----|----|----|----|------|
| 3 | 1172 | 360 | 139 | 210 | 115 | 21 | 42 | 25 | 46 | ∅ 70 |
| 4 | 1172 | 360 | 139 | 210 | 115 | 21 | 42 | 25 | 46 | ∅ 70 |

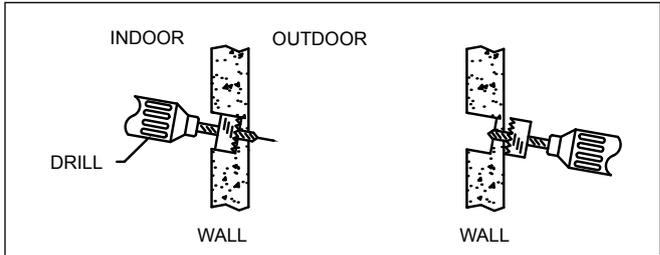
- Drill 6.4 mm diameter, 32.0 mm depth on the wall.



- Insert the wall plugs.
- Secure the mounting plate and check for stiffness.

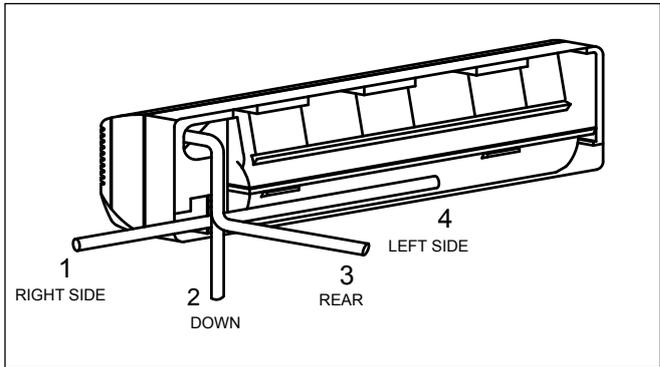


- Drill a piping hole 70.0 mm diameter hole either from the right or to the left fan coil side and make sure that the hole is slightly slant downward.
- If the wall is hollow please provide a sleeve for tube assembly to protect the drain line, pipings and field connection.

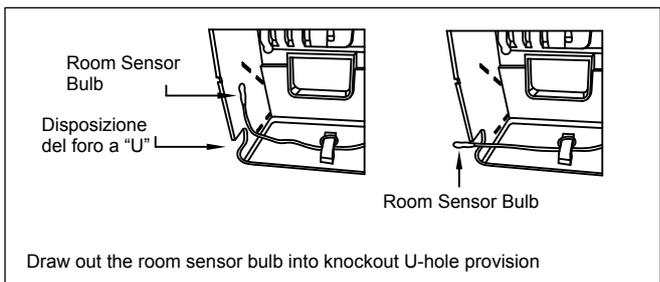
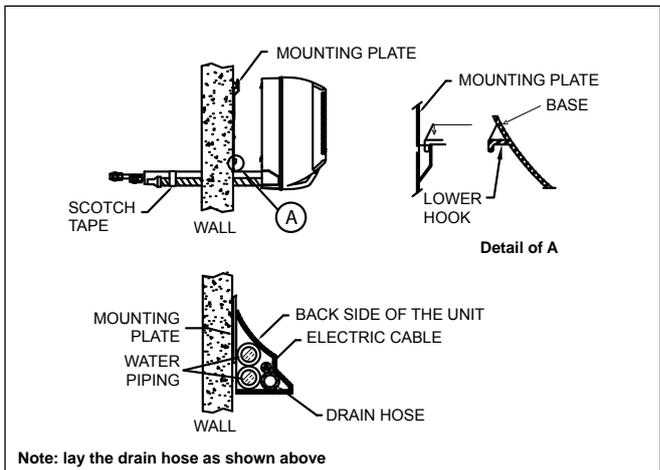


PIPING AND DRAINAGE OF FAN COIL UNIT

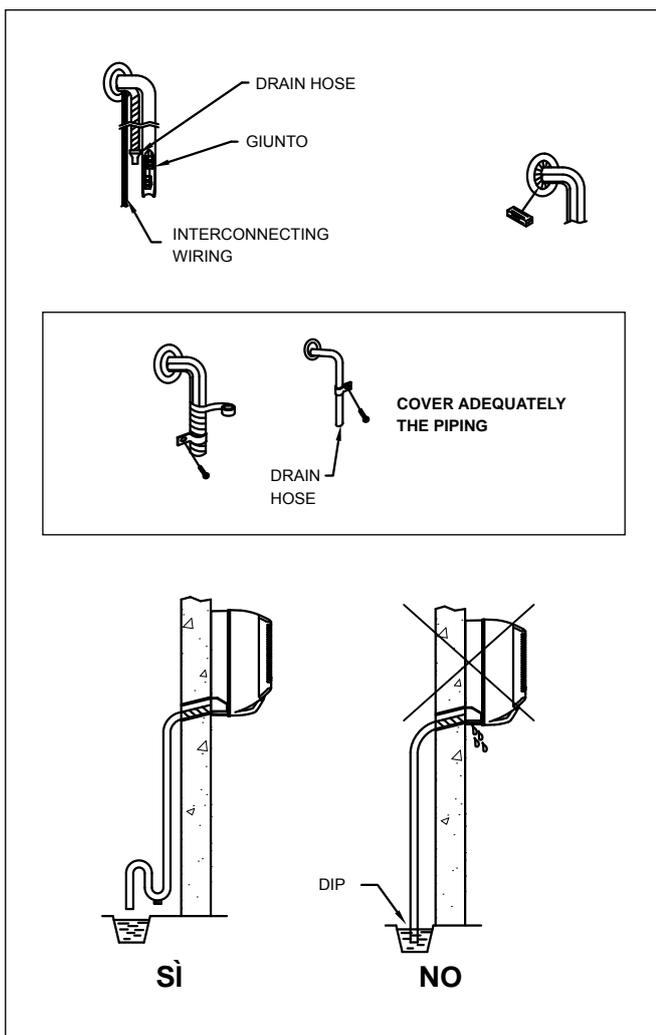
- Route the fan coil tubing with drain hose to the hole. There are four possible tubing routes. For the route 1, 2 and 4 cut the plate to pass the pipe through it, remove sharp edge left on the base pan.



- Insert the fan coil unit pipings and drain pipe through the hole.
- Tape the tubing, drain hose, and connecting cable.
- For the horizontal piping, make sure they are laid along the groove at the back of unit and secure the piping using piping clamp (2 pieces) before fixing to mounting plate.
- Secure the unit to the mounting plate.



6. Connect the piping and make sure that the seals are fitted neatly.
7. Connect the drain hose and tape over the connecting parts.
8. Ensure that the drain hose has no traps or dips to impede the water flow.



ATTENZIONE!
FOR THE INSTALLATION OF SHUT OFF/BALANCING VALVES, OF TWO SHUT OFF VALVES OR OF THE CONDENSATE DRAIN PUMP IT IS NECESSARY TO INSTALL A BOX FORESEEN FOR CONDITIONING SYSTEM.

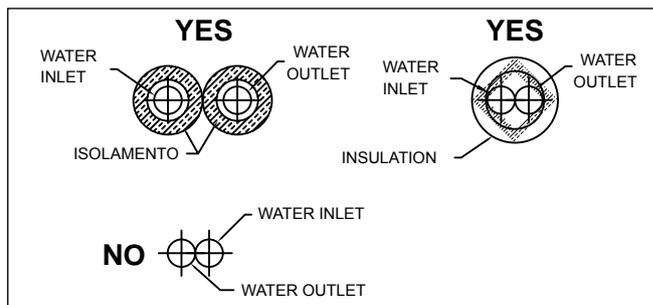
FIELD PIPING CONNECTION

| MOD. | CONNECTION | |
|------|-------------|--------------|
| | WATER INLET | WATER OUTLET |
| 1 | FEMALE 1/2" | FEMALE 1/2" |
| 2 | FEMALE 1/2" | FEMALE 1/2" |
| 3 | FEMALE 1/2" | FEMALE 1/2" |
| 4 | FEMALE 1/2" | FEMALE 1/2" |

ATTENZIONE!
During the installation the piping must not create undesired siphons.

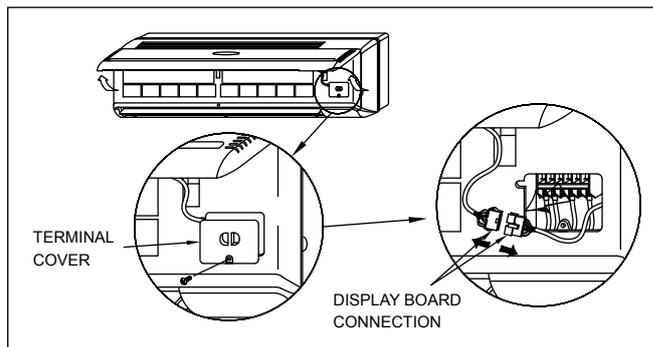
INSULATION OF PIPES

1. The pipe insulation should cover both INLET and OUTLET pipes as shown below.
2. Use the insulation of polyethylene foam minimum of 6 mm in thickness.



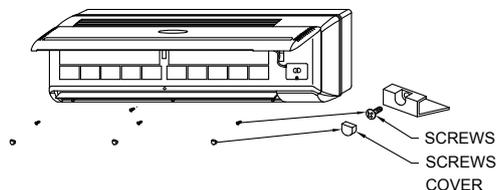
HOW TO REMOVE THE FRAME GRILLE

1. Open the front panel by grasping the panel at the side rounded groove and pulling it towards you.
2. Unscrew the terminal cover, pull out and disconnect the display board connection as shown in the illustration.

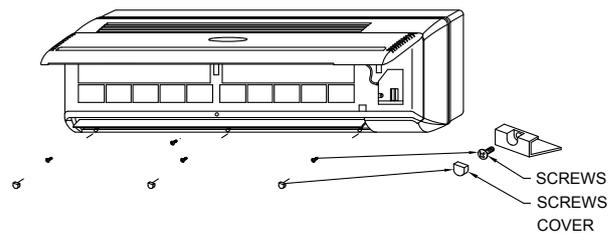


3. Remove the 3 screws cover and the mounting screws of the frame grille (please refer to the illustration)

MODELS 1-2

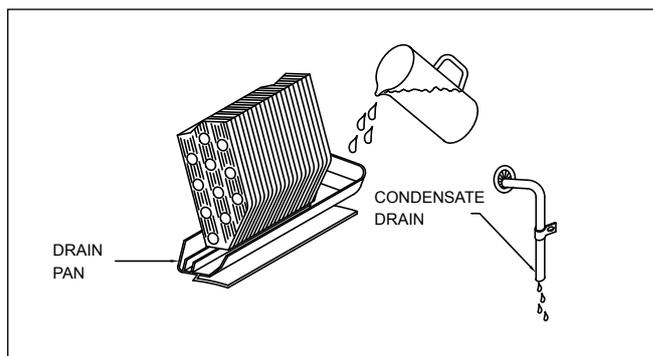


MODELS 3-4



CHECKING THE DRAINAGE

1. Turn off power to the unit.
2. Pour a glass of water into the drain pan.
3. Ensure that the water flows out from the drain hose of fan coil unit.

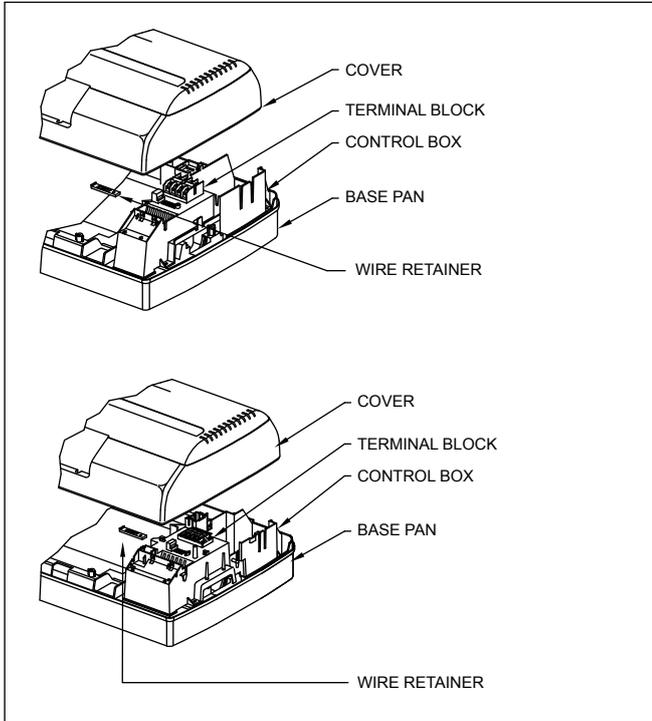


WIRING CONNECTIONS

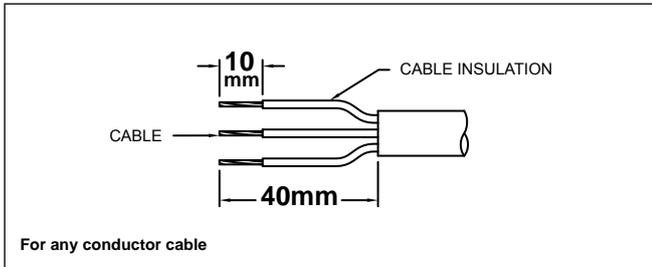
- Be sure to turn off the main power supply before open the frame grille for servicing.
- Always refer to the wiring diagrams inside the unit.

Connect the unit to adequate power outlet.
(Rating voltage $\pm 10\%$ during operation)

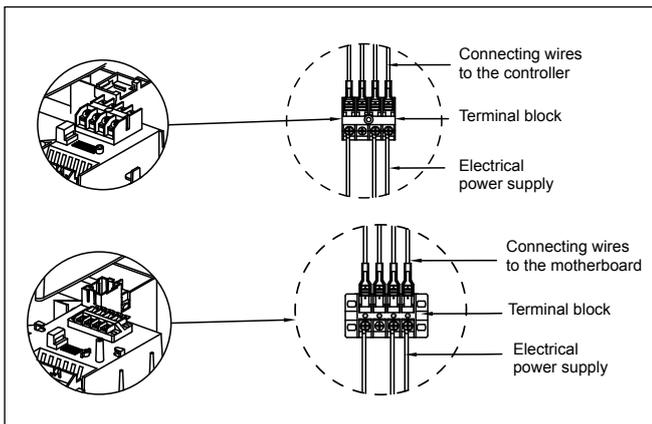
1. After removing the front grille, connect the power source cable.
2. Remove the wire retainer.



3. Field wiring insulation length to be removed.



4. Power source wires section must be ≥ 1 mm.
5. Insert the power source wires fully into the terminal blocks and secure it by screw tightly.
6. Secure the connecting cable wire retainer.
7. When using the auxiliary output CP (circulation pump) and WCV (electrovalve), protect it with an external 1A fuse.



WIRING DIAGRAMS

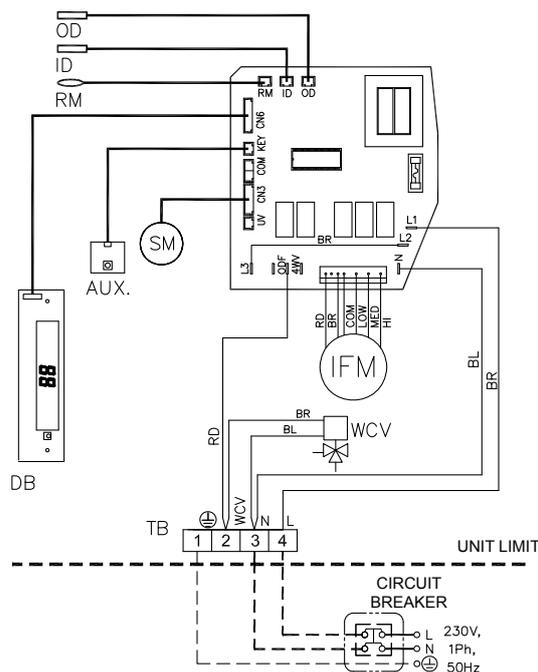
**MOD. 1-2
WITH IR REMOTE CONTROL
WITH ON/OFF VALVE 230 Vac**

CABLE COLORS:

- BL Blue
- BR Brown
- BK Black
- RD Red
- YL Yellow
- GR Green
- WH White

LEGENDA:

- AUX. Emergency auxiliary switch
- DB Receiver with display
- ID/OD Water temperature sensors
- IFM Fan motor
- L Phase
- N Neutral
- RM Air temperature sensor
- SM Louver motor
- TB Terminal block
- WCV 3 way valve
- COM Motor common
- LOW Minimum speed
- MED Medium speed
- HI Maximum speed



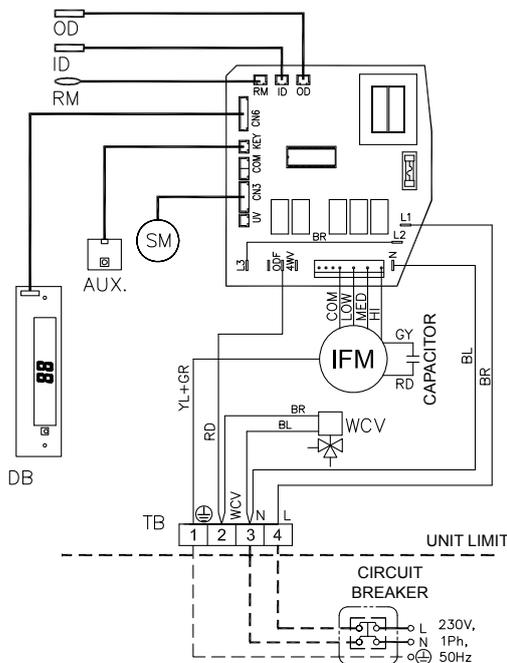
**MOD. 3-4
WITH IR REMOTE CONTROL
WITH ON/OFF VALVE 230 Vac**

CABLE COLORS:

- BL Blue
- BR Brown
- BK Black
- RD Red
- YL Yellow
- GR Green
- WH White

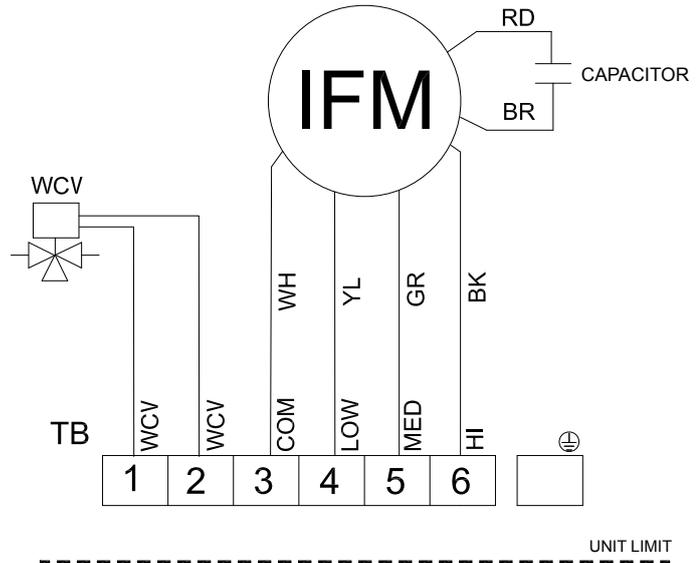
LEGENDA:

- AUX. Emergency auxiliary switch
- DB Receiver with display
- ID/OD Water temperature sensors
- IFM Fan motor
- L Phase
- N Neutral
- RM Air temperature sensor
- SM Louver motor
- TB Terminal block
- WCV 3 way valve
- COM Motor common
- LOW Minimum speed
- MED Medium speed
- HI Maximum speed



WIRING DIAGRAMS

**MOD. 1-2
FORESEEN FOR REMOTE CONTROL
WITH ON/OFF VALVE 230 Vac**

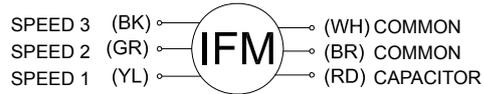


CABLE COLORS:

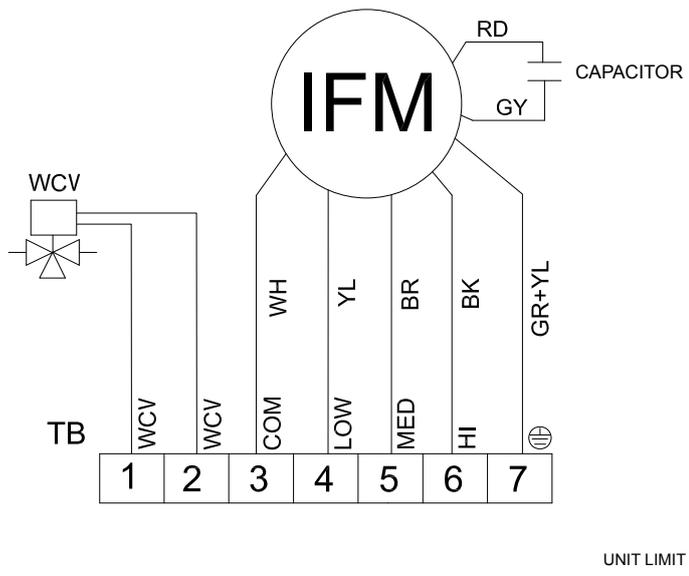
| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-----|----------------|
| IFM | Fan motor |
| TB | Terminal block |
| WCV | 3 way valve |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |



**MOD. 3-4
FORESEEN FOR REMOTE CONTROL
WITH ON/OFF VALVE 230 Vac**

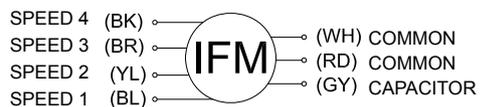


CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-----|----------------|
| IFM | Fan motor |
| TB | Terminal block |
| WCV | 3 way valve |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |



WIRING DIAGRAMS

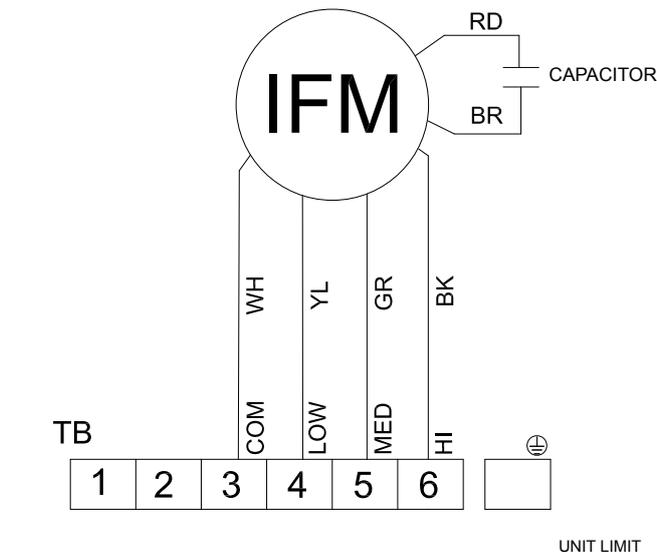
MOD. 1-2
FORESEEN FOR REMOTE CONTROL
WITHOUT ON/OFF VALVE 230 Vac

CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-----|----------------|
| IFM | Fan motor |
| TB | Terminal block |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |



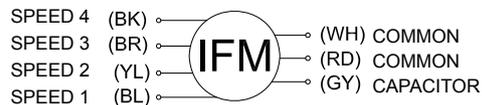
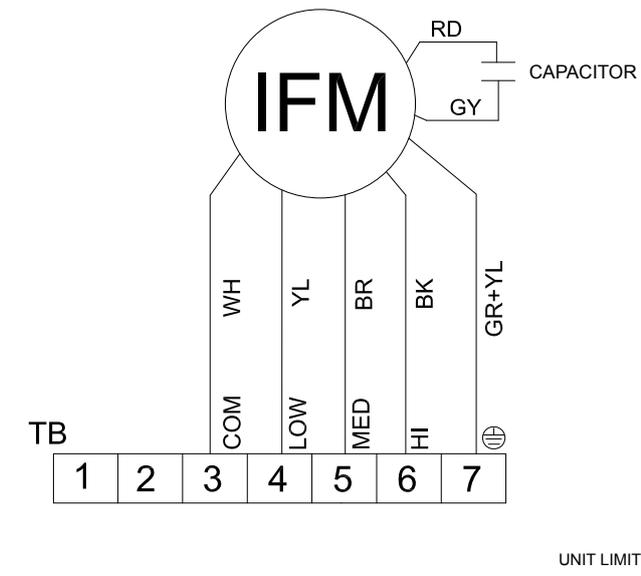
MOD. 3-4
FORESEEN FOR REMOTE CONTROL
WITHOUT ON/OFF VALVE 230 Vac

CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

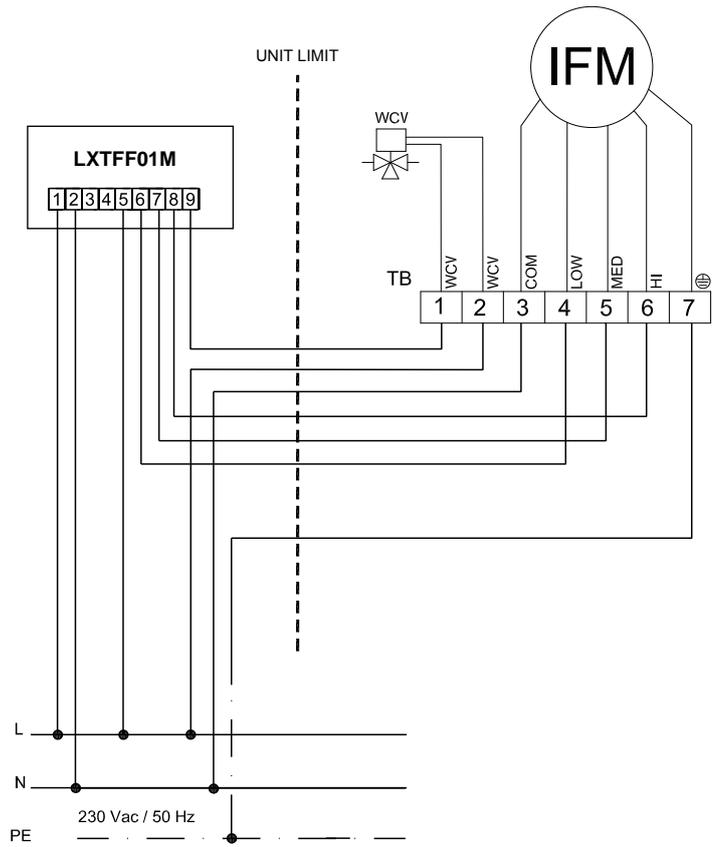
LEGENDA:

| | |
|-----|----------------|
| IFM | Fan motor |
| TB | Terminal block |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |



WIRING DIAGRAMS

**MOD. 1-2-3-4
FORESEEN FOR REMOTE CONTROL
WITH ON/OFF VALVE 230 Vac
+ LXTFF01M CONTROL**



LEGENDA:

- IFM Fan motor
- TB Terminal block
- WCV 3 way valve
- COM Motor common
- LOW Minimum speed
- MED Medium speed
- HI Maximum speed

WIRING DIAGRAMS

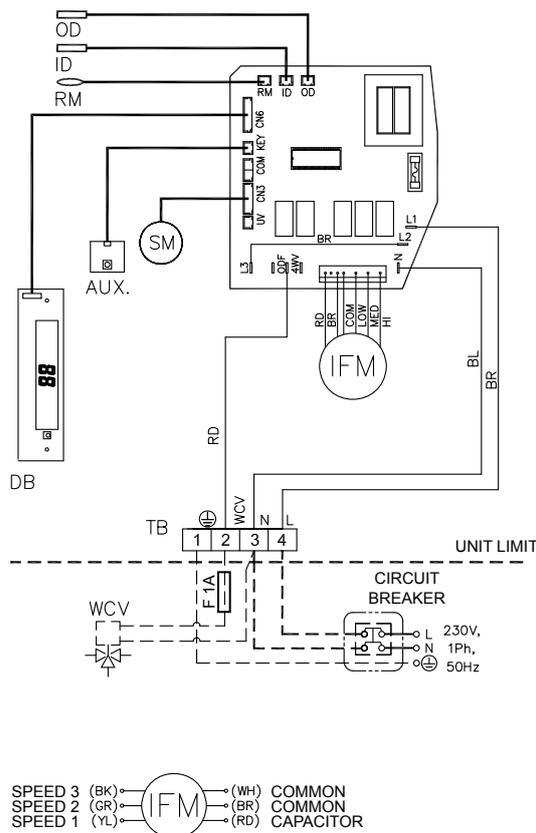
MOD. 1
WITH IR REMOTE CONTROL
WITHOUT ON/OFF VALVE 230 Vac

CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-------|----------------------------|
| AUX. | Emergency auxiliary switch |
| DB | Receiver with display |
| ID/OD | Water temperature sensors |
| IFM | Fan motor |
| L | Phase |
| N | Neutral |
| RM | Air temperature sensor |
| SM | Louver motor |
| TB | Terminal block |
| WCV | 3 way valve |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |
| F 1A | 1A fuse |



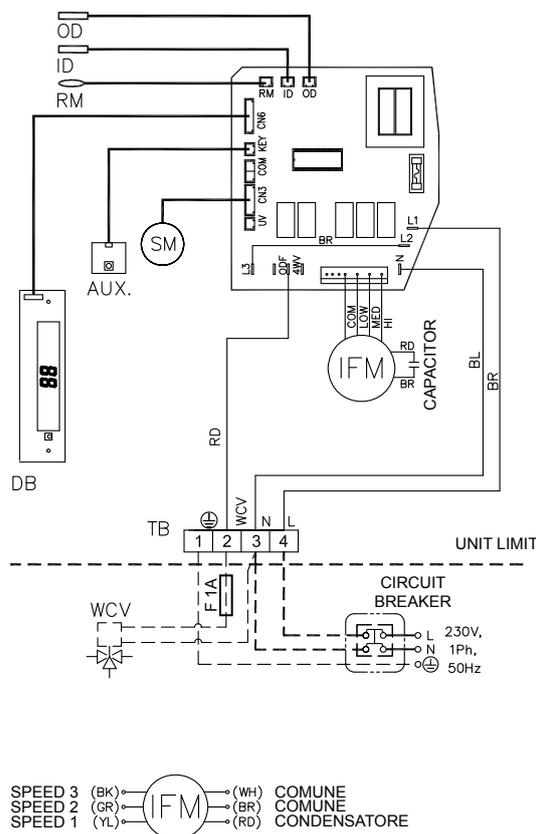
MOD. 2
WITH IR REMOTE CONTROL
WITHOUT ON/OFF VALVE 230 Vac

CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-------|----------------------------|
| AUX. | Emergency auxiliary switch |
| DB | Receiver with display |
| ID/OD | Water temperature sensors |
| IFM | Fan motor |
| L | Phase |
| N | Neutral |
| RM | Air temperature sensor |
| SM | Louver motor |
| TB | Terminal block |
| WCV | 3 way valve |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |
| F 1A | 1A fuse |



WIRING DIAGRAMS

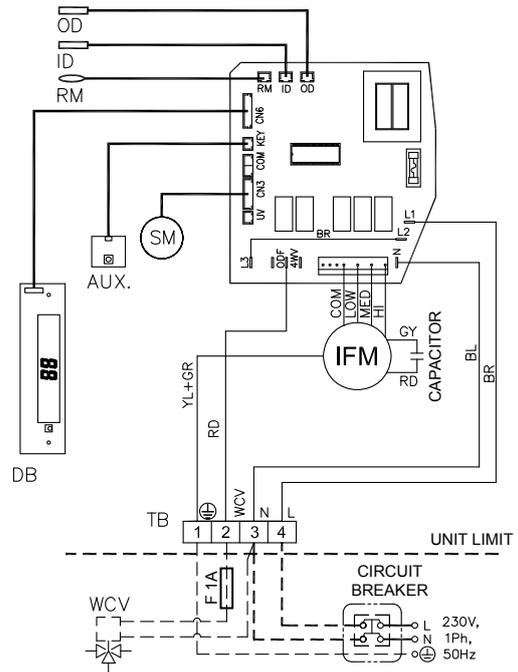
**MOD. 3-4
WITH IR REMOTE CONTROL
WITHOUT ON/OFF VALVE 230 Vac**

CABLE COLORS:

| | |
|----|--------|
| BL | Blue |
| BR | Brown |
| BK | Black |
| RD | Red |
| YL | Yellow |
| GR | Green |
| WH | White |

LEGENDA:

| | |
|-------|----------------------------|
| AUX. | Emergency auxiliary switch |
| DB | Receiver with display |
| ID/OD | Water temperature sensors |
| IFM | Fan motor |
| L | Phase |
| N | Neutral |
| RM | Air temperature sensor |
| SM | Louver motor |
| TB | Terminal block |
| WCV | 3 way valve |
| COM | Motor common |
| LOW | Minimum speed |
| MED | Medium speed |
| HI | Maximum speed |
| F 1A | 1A fuse |



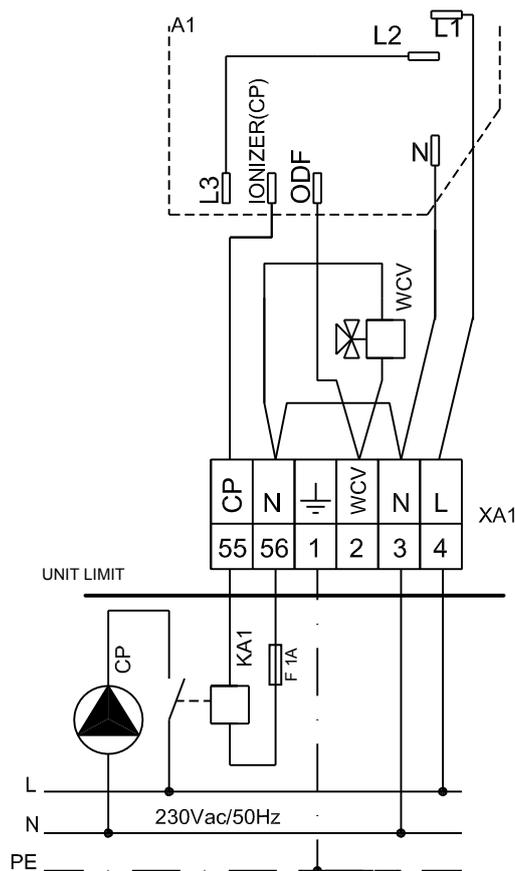
WIRING DIAGRAMS - NEW SERIES

**NEW SERIES WITH INFRARED REMOTE CONTROL
(circulation pump control included)**

**UNIT WITH 3 WAY VALVE
FACTORY INSTALLED**

LEGENDA:

- A1 Electronic board
- CP Circulation pump
- KA1 Relay 230Vac
- XA1 Terminal board
- WCV 3 way valve factory installed (on/off 230Vac)
- L Phase
- N Neutral
- PE Protective conductor
- F 1A 1A fuse

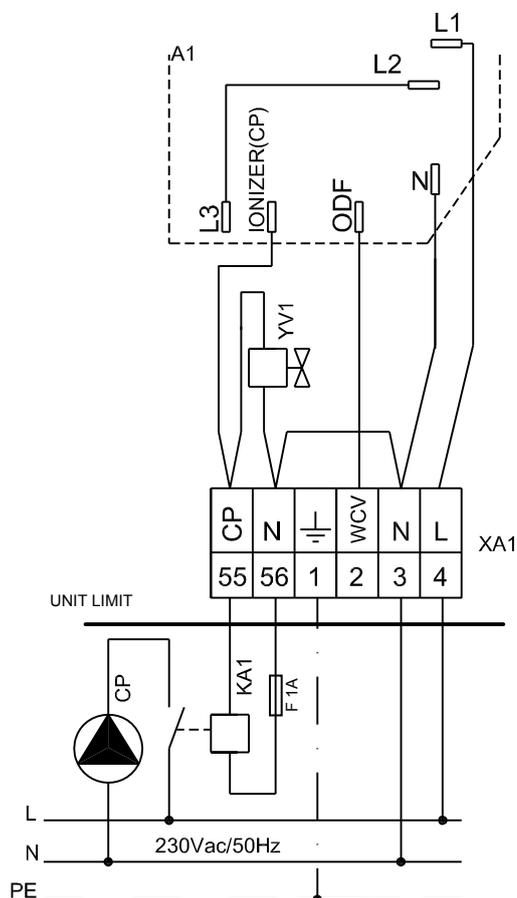


**NEW SERIES WITH INFRARED REMOTE CONTROL
(circulation pump control included)**

**UNIT WITH 2 WAY VALVE
FACTORY INSTALLED**

LEGENDA:

- A1 Electronic board
- CP Circulation pump
- KA1 Relay 230Vac
- XA1 Terminal board
- YV1 2 way valve factory installed (on/off 230Vac)
- L Phase
- N Neutral
- PE Protective conductor
- F 1A 1A fuse



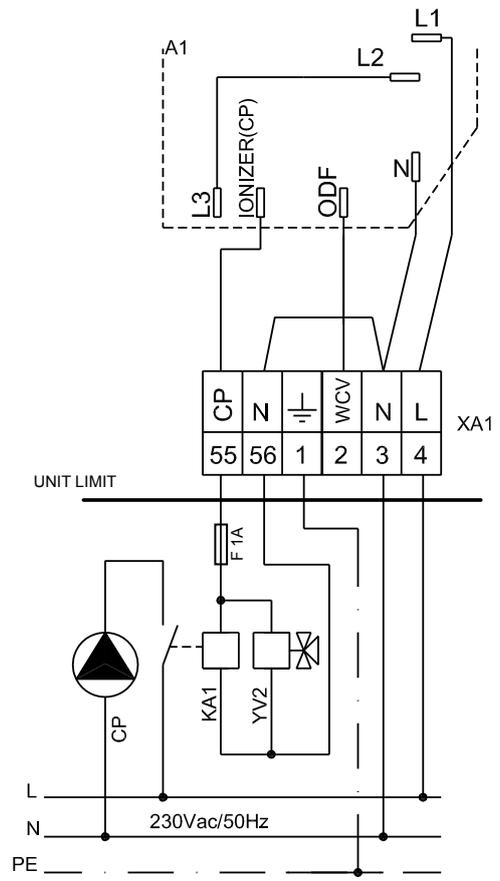
WIRING DIAGRAMS - NEW SERIES

**NEW SERIES WITH INFRARED REMOTE CONTROL
(circulation pump control included)**

**UNIT WITH 2/3 WAY VALVE
INSTALLED BY CUSTOMER**

LEGENDA:

- A1 Electronic board
- CP Circulation pump
- KA1 Relay 230Vac
- XA1 Terminal board
- YV2 2/3 way valve customer provided
- L Phase
- N Neutral
- PE Protective conductor
- F 1A 1A fuse

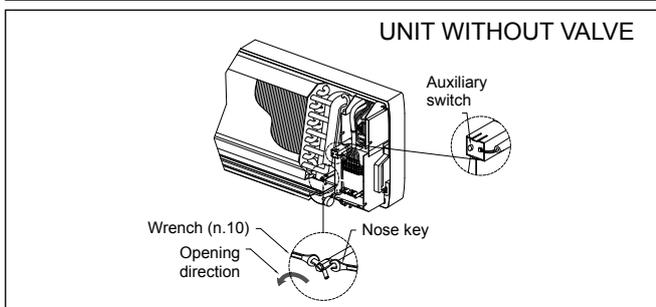
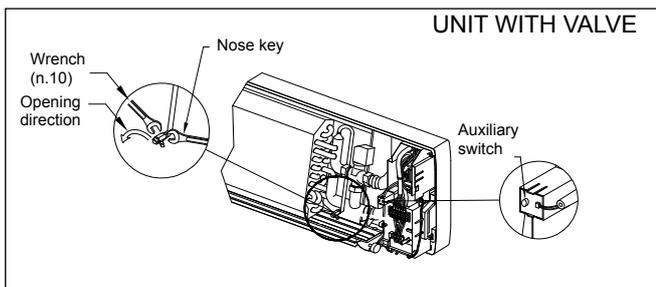


AIR PURGING

1. After connecting the water inlet and outlet pipes to the main water supply lines, turn on the power and operate the unit by pressing the Auxiliary switch.
2. Open the water inlet valve and flood the coil.
3. Disconnect the power supply
4. Check all connection for water leak, if no leak found unloose (1 turn, counter clockwise) the purging valve by using standard head screw driver and support with an open end wrench (No.10), then purge the trap air inside the coil.

Ensure to vent the unit after power supply disconnection!

4. Close the purging valve (Clockwise) when there is no bubbles appears.
5. Open the water outlet valve.

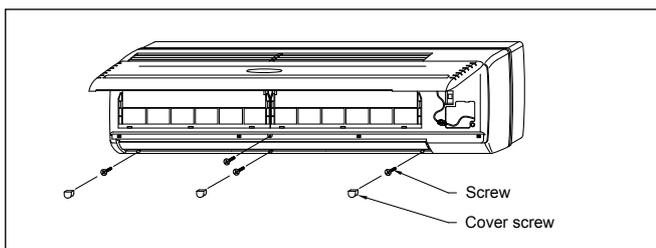


HOW TO INSTALL THE FRAME GRILLE ON THE FAN COIL UNIT

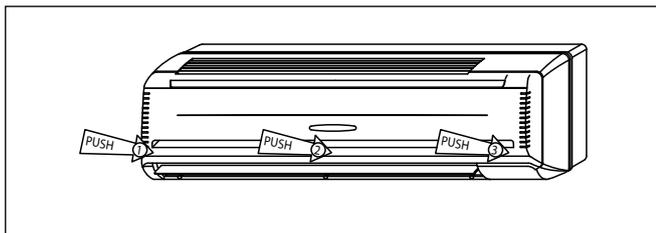
1. Install the frame grille in the opposite order of "HOW TO REMOVE THE FRAME GRILLE".

When the frame grille is removed and mounted again, take the following actions:

Before fastening the mounting screws be sure to hook the top inside lock of the frame grille.



2. Re-connect the display board connection and return it to the original location, return the terminal cover by fastening its screw.
3. Close and push the front panel into the frame grille until the "click" sound is heard.

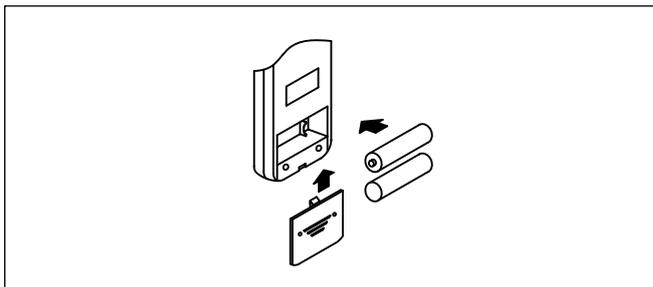


ATTENZION!

Do not operate the unit without the front grille.

PREPARATION OF THE REMOTE CONTROLLER

- Open the battery cover by pressing slightly in the direction of arrow.
- Insert two 1.5 Volt high performance alkaline batteries (AAA), being careful not to invert the polarity.
- Close the battery cover.



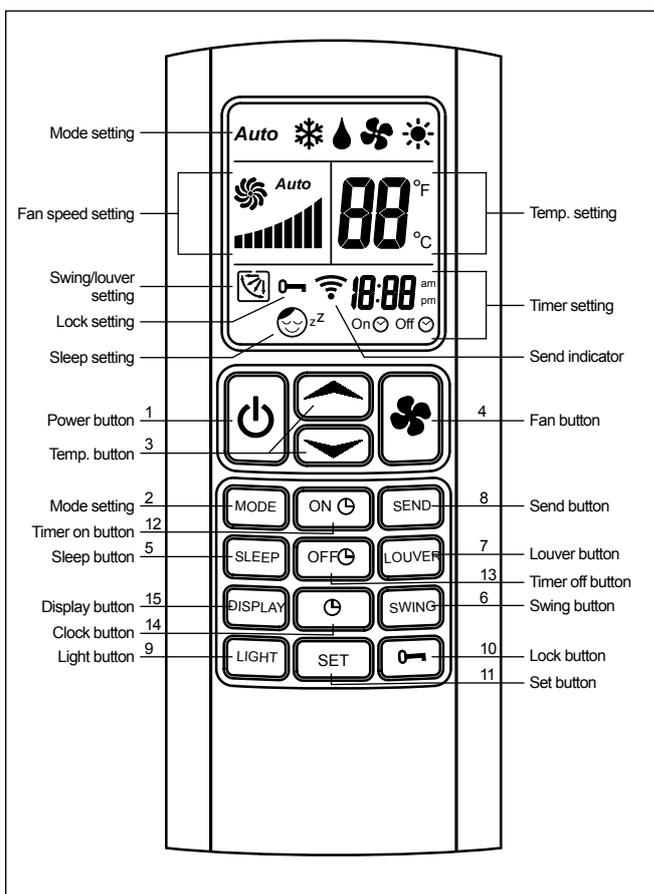
USE OF THE REMOTE CONTROLLER

- Be sure that no obstructions between receiver and remote controller.
- The remote control signal can be received at the distance of up to about 7 Meters.
- Point the remote control unit transmitter towards the air conditioner receiver while the setting is being stabilise.
- To be able to carry out any operation or change of the setting from the remote control unit air conditioner must be powered.
- When a signal is receive correctly by the unit, the unit will emit a beep. If you do not hear the sound, press the remote control button again.

IMPORTANT

- Don't drop or throw the remote controller.
- Don't put any liquid in the remote controller and don't put it directly under the sunlight or any place where is very hot.
- Remove batteries when the remote controller is not in use for a long time.
- The two batteries must be identical and must changed at the same time.
- The remote controller should be place 1 Meter or more away from TV. or any other electric appliances

DESCRIPTIONS AND FUNCTION OF REMOTE CONTROLLER

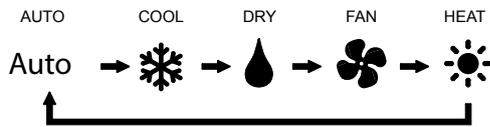


1. POWER ON/OFF

- Press POWER button will turn on the air conditioner or vice versa. When turn on, it will operate according to the setting shown on the IR remote control.

2. OPERATING MODE

- By pressing the "MODE" button, the air conditioner can be put in five operating mode (auto, cool, dry, fan and heat).



FAN

The display board in the unit will show . The system will operate as FAN. The SLEEP, TEMP and TEMP buttons are not used.

COOL

The display board in the unit will show . The system will operate as the air conditioner.

DRY

The display board in the unit will show . The system will operate as the humidifier.

HEAT

The display board in the unit will show . The system will operate as the heat pump.

AUTO

The display board in the unit will show and mode at the same time. The system will automatically switch for Cool mode, Heat mode or dead band mode depending on the inlet water temperature.

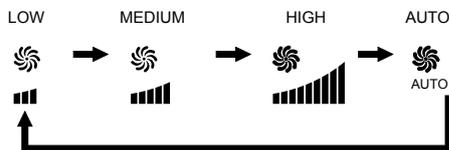
Note: In case the unit is running in Dead band mode, it will switch to FAN mode automatically.

3. TEMPERATURE SETTING

- The setting temperature can be set in the range of 16-30°C by pressing TEMP or TEMP button. The LCD on the Remote unit will show the setting temperature.

4. FAN

- Press FAN button to select the fan speed (High, Medium, Low or Auto mode). The display on the Remote unit will show the status.



Note: The button can be used only in FAN, COOL, HEAT, and AUTO mode, it can not be used in DRY mode.

5. SLEEP

- Press the "SLEEP" button, LCD on the IR remote control will show symbol.
- This Sleep mode is not available under DRY, FAN and AUTO mode.
- The temperature is automatically adjusted to provide comfortable sleep.

6. SWING

- Press "SWING" button will turn on/off the sweep motor.

7. LOUVER

- Press "LOUVER" button to change the angle of louver (which is controlled by step motor).

- If the button is pressed and released, the angle of louver is change one step at a time.

8. SEND

- Press "SEND" button to re-transmit all parameters shown on the LCD to the main control board.

9. LIGHT

- Hold "LIGHT" button for 3sec to control the LCD screen light ON or OFF.

10. LOCK

- Hold button for 3sec to lock or unlock the other buttons, when the symbol display on the LCD screen, the other keys were locked.

11. SET

- Hold "SET" to set clock, timer and timer off setting.

12. TIMER ON

- The air conditioner can be programmed to turn off in advance.

Press "ON button, the symbol will appear.

Press or button to change the real time (1 min incremental).

Hold or button for 3 sec, the real time will be 10 min incremental.

Press "SET", the symbol will appear on display.

13. TIMER OFF

- The air conditioner can be programmed to turn on in advance.

Press "OFF button, the symbol OFF will appear.

Press or button to change the real time (1 min incremental).

Hold or button for 3 sec, the real time will be 10 min incremental.

Press "SET", the symbol OFF will appear on display.

Remarks:

- When the symbol display on the LCD screen, press "ON button, symbol will blink, then press "ON button again to cancel the TIMER ON setting. The symbol will disappear on the LCD screen.

- When the OFF symbol display on the LCD screen, press "OFF button, OFF symbol will blink, then press "OFF button again to cancel the TIMER ON setting. The symbol OFF will disappear on the LCD screen.

Once the TIMER function has been programmed with the remote control, it is always active; a symbol displays to indicate the fact.

Only in case of power failure is the function disabled (the symbol on the display also disappears).

14. CLOCK

- To set the clock on the remote unit.

Press " button, the symbol will blink.

Press or button to change the real time (1 min incremental). Hold or button for 3 sec, the real time will be 10 min incremental.

Press SET button, the symbol will disappear on the LCD screen and the new real time clock will display to the LCD screen.

15. DISPLAY

- To set the display board ON or OFF.

OPERATION GUIDE OF REMOTE CONTROLLER

COOLING OPERATION (COOL)

1. PRESS ON/OFF BUTTON ()

- The air conditioner turned on with the last setting.

2. PRESS THE "MODE" BUTTON

- Press the mode key repeatedly until the appears on the LCD screen.

The symbol will lights on the display board.

3. PRESS THE TEMPERATURE BUTTON () TO REGULATE THE TEMPERATURE.

- The key with the symbols allows increases of 1°C.

- The key with the symbols allows decreases of 1°C.

- The display shows the set value, the temperature can be between 16°C and 30°C.

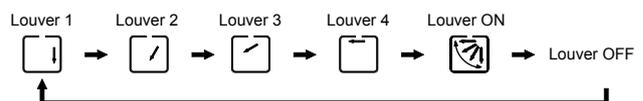
4. PRESS THE FAN BUTTON

- When the button is pressed repeatedly, the system will changed the fan to auto, high, med and low speed.

5. PRESS THE "SWING" AND "LOUVER" BUTTON

- When the "SWING" button is pressed, the horizontal louver is oriented continuously oscillating movements. Press again to stop.

- When the "LOUVER" button is pressed, the horizontal louver work like in illustration below.



HEATING OPERATION (HEAT)

1. PRESS ON/OFF BUTTON ()

- The air conditioner turned on with the last setting.

2. PRESS THE "MODE" BUTTON

- Press the mode key repeatedly until the appears on the LCD screen.

The symbol will lights on the display board.

3. PRESS THE TEMPERATURE BUTTON () TO REGULATE THE TEMPERATURE.

- The key with the symbols allows increases of 1°C.

- The key with the symbols allows decreases of 1°C.

- The display shows the set value, the temperature can be between 16°C and 30°C.

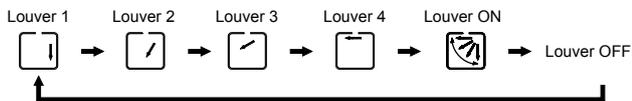
4. PRESS THE FAN BUTTON

- When the button is pressed repeatedly, the system will change the fan to auto, high, med and low speed.

5. PRESS THE "SWING" AND "LOUVER" BUTTON

- When the "SWING" button is pressed, the horizontal louver is oriented continuously oscillating movements. Press again to stop.

- When the "LOUVER" button is pressed, the horizontal louver work like in illustration below.



DEHUMIDIFICATION OPERATION (DRY)

1. PRESS ON/OFF BUTTON

- The air conditioner turned on with the last setting.

2. PRESS THE "MODE" BUTTON

- Press the mode key repeatedly until the appears on the LCD screen. The symbol will light on the display board.

3. PRESS THE TEMPERATURE BUTTON TO REGULATE THE TEMPERATURE.

- The key with the symbols allows increases of 1°C.

- The key with the symbols allows decreases of 1°C.

- The display shows the set value, the temperature can be between 16°C and 30°C.

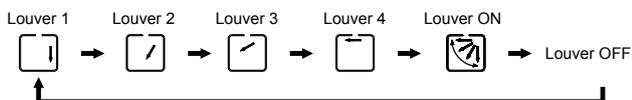
4. PRESS THE FAN BUTTON

- When the button is pressed repeatedly, the system will change the fan to auto, high, med and low speed.

5. PRESS THE "SWING" AND "LOUVER" BUTTON

- When the "SWING" button is pressed, the horizontal louver is oriented continuously oscillating movements. Press again to stop.

- When the "LOUVER" button is pressed, the horizontal louver work like in illustration below.



VENTILATION OPERATION (FAN)

1. PRESS ON/OFF BUTTON

- The air conditioner turned on with the last setting.

2. PRESS THE "MODE" BUTTON

- Press the mode key repeatedly until the appears on the LCD screen. The symbol will light on the display board.

3. PRESS THE TEMPERATURE BUTTON TO REGULATE THE TEMPERATURE.

- The key with the symbols allows increases of 1°C.

- The key with the symbols allows decreases of 1°C.

- The display shows the set value, the temperature can be between 16°C and 30°C.

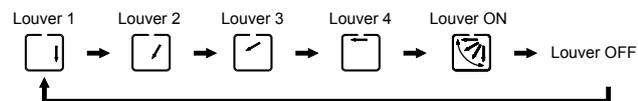
4. PRESS THE FAN BUTTON

- When the button is pressed repeatedly, the system will change the fan to auto, high, med and low speed.

5. PRESS THE "SWING" AND "LOUVER" BUTTON

- When the "SWING" button is pressed, the horizontal louver is oriented continuously oscillating movements. Press again to stop.

- When the "LOUVER" button is pressed, the horizontal louver work like in illustration below.



FUNCTIONING IN JUST VENTILATION MODE

This program is used to move the room air and avoid stagnation.

SLEEP OPERATION (SLEEP)

1. PRESS ON/OFF BUTTON

- The air conditioner turned on with the last setting.

2. PRESS "MODE" BUTTON

- Press the "MODE" button to select your desired setting.

3. PRESS THE TEMPERATURE BUTTON TO REGULATE THE TEMPERATURE.

- The key with the symbols allows increases of 1°C.

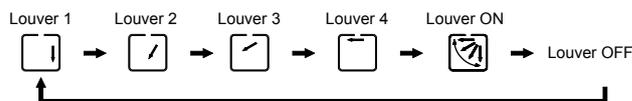
- The key with the symbols allows decreases of 1°C.

- The display shows the set value, the temperature can be between 16°C and 30°C.

4. PRESS THE "SWING" AND "LOUVER" BUTTON

- When the "SWING" button is pressed, the horizontal louver is oriented continuously oscillating movements. Press again to stop.

- When the "LOUVER" button is pressed, the horizontal louver work like in illustration below.



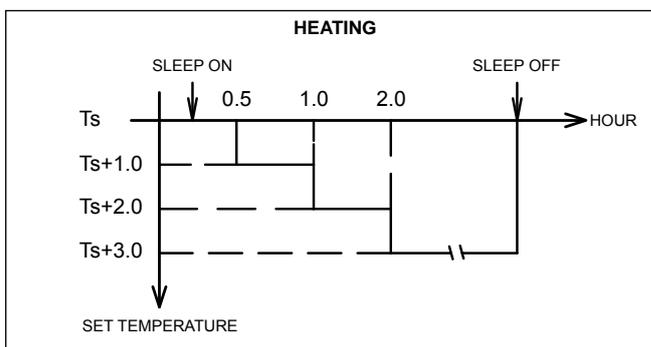
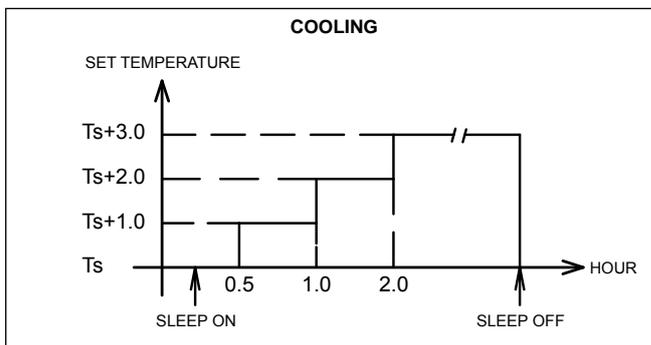
5. PRESS THE "SLEEP" BUTTON

- Press "SLEEP" button to start the sleep function. The display will show symbol.

The setting temperature will be automatically raised by 1°C after one hour.

For COOL mode, the setting temperature will be automatically raised up 1°C after 1 hour.

For HEAT mode, the setting temperature will be automatically decreased by 1°C after 1 hour.



- When the system is put in the sleep mode, and the or button is pressed, it will raise up the setting temperature 1°C from the last setting.

- Press the "SLEEP" button again to cancel the sleep function.

- Power failure, turning "OFF" and changing mode of the unit will cancel the sleep function.

AUTO-START PROGRAM BY TIMER

- This function can program the air conditioner to turn "ON" in advance.

- Press "ON button, the symbol (on) symbol will blink,

- Press or button to change the real time (1 min incremental).

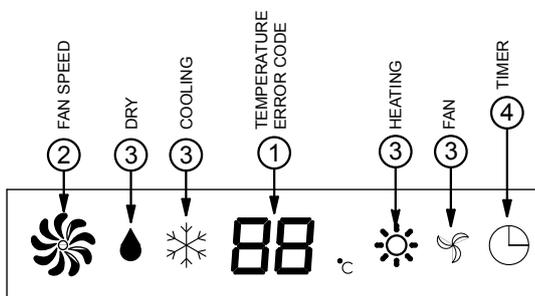
- Hold or button for 3 sec, the real time will be 10 min incremental.

- Press "SET" button, the (ON) symbol will display on the LCD screen.
- If this function is activated, unit will start automatically everytime it reach the time setting.
- This function will disable only when the (ON) symbol display on the LCD screen, press "ON" button, (ON) symbol will blink, then press "ON" button again to cancel the TIMER ON setting. The symbol (ON) will disappear on the LCD screen.

AUTO-STOP PROGRAM BY TIMER

- This function can program the air conditioner to turn "OFF" in advance.
- Press the "OFF" button, the symbol (OFF) will blink.
- Press (▲) or (▼) button to change the real time (1 min incremental).
- Hold (▲) or (▼) button for 3 sec, the real time will be 10 min incremental.
- Press "SET" button, the (OFF) symbol will display on the LCD screen.
- If this function is activated, unit will stop automatically everytime it reach the time setting.
- This function will disable only when the (OFF) symbol display on the LCD screen, press "OFF" button, (OFF) symbol will blink, then press "OFF" button again to cancel the TIMER OFF setting. The symbol (OFF) will disappear on the LCD screen.

SELF DIAGNOSTIC



1. TEMP/ERROR CODE

- Normally shows the room temperature when the air-conditioner is turned on.
- If the setting temperature is changed it will blink the new setting in °C for 5 seconds.
 - If room sensor error is active, E1 will blink.
 - If Indoor sensor error is active, E2 will blink.
 - If Inlet water sensor error is active, E3 will blink.
 - If Inlet water temperature fault is active, E4 will blink.

2. FAN SPEED

Shows the real working speed of the blower (not the setting speed).

3. DRY, COOL, HEAT and FAN

Normally shows the working mode of operation.

4. TIMER

Shows the status of the auto start and auto stop.

START-UP NOTICE

1. Be sure that there is no obstruction in the air outlet and intake vents.
2. Check if the filter is installed.
3. Check if the power supply is connected.
4. Check if the ground wire is properly connected.

ADJUSTING AIR FLOW DIRECTION

The horizontal louver and air deflectors on the air delivery can arranged in two directions:

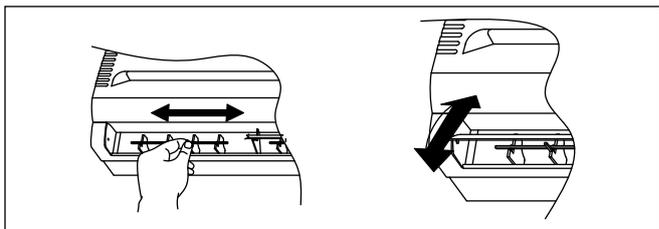
- Air deflectors to be oriented manually
- Horizontal louver, can be oriented only by means of the remote controller

ORIENT THE AIR DEFLECTOR:

- Turn the air deflector as indicated in the figure
- Both in Heating and Cooling mode it is advisable for the air flow not to hit people directly.

MOTORIZED HORIZONTAL LOUVER:

- Never orient the motorized horizontal louver manually. Any manual operation on the louver may cause damage in the system and cause malfunctioning. Adjust the horizontal louver using only the remote controller.



MAINTENANCE AND CARE

WARNING

- Disconnect and lock off the power before making any repair or any services.
- Sharp edges and coil surfaces are a potential injury hazard avoid contact with them.

MAINTENANCE

If you plan to idle the unit for a long time, performed the following:

1. Operate the fan motor to dry off the unit.
2. Stop the air conditioner and disconnect power.
3. Remove the batteries from the remote controller.

CHECK BEFORE OPERATION

1. Check the wiring if is not broken off or disconnected.
2. Check the air filter if is installed and the air outlet is not blocked.

PULIZIA DEL VENTILCONVETTORE

1. Pulire la parte esterna ogni settimana, con un panno asciutto bagnato con acqua e detergente delicato, evitare l'uso di altri detersivi.
2. Il telaio con griglia con il pannello può essere rimosso, pulirlo con acqua tiepida non superiore ai 40°C e asciugare con un panno asciutto.
3. Non usare un panno trattato chimicamente o uno spolverino per pulire l'unità.
4. Non usare benzene, solventi, lucidanti chimici o simili solventi per pulire. Possono scolorire, screpolare o deformare la superficie plastica.

CLEANING AIR FILTERS

Dirty and clogged filters reduce the cooling efficiency of the unit, it is recommended to clean the filters once every 2 weeks or weekly.

1. Open the deco panel by grasping the rounded groove and pulling it towards you.
2. Hold the tabs of air filter and raise it slightly, then pull it downwards.
3. Clean the air filters with vacuum cleaner or wash it with water then dry it up in the cool place.
4. Do not use benzene, thinner, polishing chemical or similar solvents for cleaning. These may cause the plastic surface to crack or deform.
5. Install the air filter vice versa of dismantling procedure. The correct filter side shown the "FRONT" letter towards you.

OPERATION TIPS

The following events may occur during normal operation.

A PECULIAR SMELL COMING FROM THE UNIT

Odors present in the room, such as those from the carpet, furniture or smoke maybe emitted from the unit.

HISSING SOUND HEAR DURING OPERATION

A soft, swishing noise can be heard during operation or immediately after the unit is turned ON or OFF. This is the sound of circulating cooling media.

TROUBLE SHOOTING GUIDE

If the unit appears to be malfunctioning, check the following points before calling for service.

PROBLEM

1. Air conditioner doesn't operate at all.

PROBLEM CAUSE

1. Is the power been shut down or power failure?
2. Is the wiring connection loose?
3. Is the power leakage protection in operation?
4. Is Fuse blown or Circuit breaker open?

REMEDY

1. Wait for power resume.
2. Tighten the connection.
3. Reset the power leakage protection.
4. Replace fuse or reset the circuit breaker.

PROBLEM

2. Insufficient Cooling or Heating.

PROBLEM CAUSE

1. Is the set temperature is suitable?
2. Is air inlet or outlet obstructed?
3. Are filters are dirty?
4. Is there any other heat source in the room?
5. Is there a large number of people in the room?

REMEDY

1. Reset in suitable set temperature
2. Remove objects that obstruct the air inlet and outlet.
3. Clean filters and other part.

PROBLEM

3. Wireless remote controller is not functioning.

PROBLEM CAUSE

1. Is the remote control unit out of effective distance to the indoor unit?
2. Are there any obstruction between the remote controller and signal receptor?
3. Is the battery dryout?

REMEDY

1. Use the remote controller in sufficient distance.
2. Remove or clean the obstruction.
3. Replace with new batteries.

PROBLEMS THAT NEEDS QUALIFIED PERSONNEL ASSISTANCE.

PROBLEM

1. Air conditioner doesn't run.

PROBLEM CAUSE

1. Faulty contactor, relay and fan motor capacitor.
2. Control board not functioning.
3. Terminal loose.

REMEDY

1. Replace faulty components.
2. Check the cause of malfunctioning and replace control board, if necessary.
3. Check and retighten.

DISPLAY AND ALARM CODES

The display normally shows the room temperature when the unit is on.

If the temperature setpoint is changed, the new setting flashes for 5 seconds.

The display then returns to displaying the room temperature.

Alarms are displayed flashing on the display:

E1 = room air temperature sensor (RM) faulty or disconnected.

E2 = cylinder water temperature sensor (ID sensor) faulty or disconnected.

E3 = water temperature sensor (OD sensor) on valve by-pass (units with factory installed three-way valve only) faulty or disconnected.

E4 =

1) water temperature (OD sensor) invalid for selected mode; on units with factory installed three-way valve, the valve cannot be opened.

Heating: the water temperature must be greater than 31°C for the valve to open

Cooling: the water temperature must be lower than 20°C for the valve to open

2) Water temperature (ID sensor) invalid for fan operation.

Heating: the water temperature must be greater than 36°C for the fan to run

Cooling: the water temperature must be lower than 15°C for the fan to run

E5 = water low temperature alarm; water temperature lower than 4°C; danger of damage to cylinder due to freezing

E7 = water high temperature alarm; water temperature greater than 70°C; danger of damage due to plastic parts melting.

AUXILIARY EMERGENCY BUTTON FUNCTIONS

- Hold down the auxiliary emergency button for 5 seconds to display the cylinder temperature (ID water temperature sensor). The unit beeps and the cold symbol flashes quickly

- Hold the button again for another 5 seconds to display the valve by-pass temperature (OD water temperature sensor, on units with factory installed three-way valve only). The unit beeps and the cold symbol flashes slowly

- Press the button once (one click) to stop displaying the water temperatures. The unit beeps and returns to normal operation, displaying the room temperature.

The emergency button is also used to operate the unit if the remote control is not available

Press the button to scroll through the functions Cold-Hot-Off with their default settings:

- Cold

Temperature setpoint: 25°C

Fan speed: auto

Fins: on

- Hot

Temperature setpoint: 22°C

Fan speed: auto

Fins: on

IMPORTANT INFORMATION

The unit is connected to the power supply. Operations performed by persons without the required technical skills can lead to personal injury to the operator or damage to the unit and surrounding objects.

MALFUNCTIONING

- In the case of malfunctioning remove the power to the unit then repower it and start up the unit again. If the problems occur again, call services personnel promptly.

- Air conditioner must be operated comply with the Power, Amps and Hz noted in the unit name plate. Failing to do so, it may cause permanent damage to the unit.

- The ground must be connected. Do not connect the ground wire to water pipes, gas pipes, lighting rods, and telephone ground wire.

- Select the most appropriate temperature to provide maximum comfort in room. Keep the room cooler than outside about 5°C. Careful choice of the room temperature will lead to energy savings.

- Do not leave windows and doors open while operating the air conditioner. During operation always leave the filters on the unit otherwise the dust in the air could soil the surface of the evaporator coil.

- The air direction can be adjusted appropriately. The air coming out of the unit must not strike people directly it could cause cold sensation and resulting discomfort. Adjust the air deflector by hands and use the remote control to adjust the horizontal louver.

Do not put anything in the air inlets or outlet slot. this could cause injury to the people and damage to the fan.

Splashing water on the air conditioner can cause an electrical shock and malfunction on the unit.

Due to continuous research and development, the specification may change without prior notice.

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