

XRV SYSTEMS AIR CONDITIONERS 2011
MULTISPLIT INVERTER SYSTEM, AIR-TO-AIR, HEAT PUMP

USER'S MANUAL

HTFU 222~452XRV



HTBU 561~1401XRV



HRDU 182~562XRV



HUCU 222~1402XRV



HVDU 2002~2802XRV



HFIU 222~452XRV



HSFU 361~1121XRV



HFLU 221~801XRV



HFCU 221~801XRV



HKEU 221~561XRV



HOKKAIDO

WARNING!

PLEASE READ CAREFULLY THIS MANUAL BEFORE OPERATING YOUR NEW AIR CONDITIONER.

HOKKAIDO

TERMAL S.R.L. Via della Salute, 14 -- 40132 -- Bologna -- ITALY

EN EUROPEAN REGULATIONS CONFORMITY FOR THE MODELS:

Indoor Units:	Cassette 60 x 60: HTFU 222 XRV, HTFU 282 XRV, HTFU 362 XRV, HTFU 452 XRV
	Cassette 84 x 84: HTBU 561 XRV, HTBU 711 XRV, HTBU 801 XRV, HTBU 901 XRV, HTBU 1001 XRV, HTBU 1121 XRV, HTBU 1401 XRV
	Duct Low Static Pressure: HRDU 182 XRV, HRDU 222 XRV, HRDU 282 XRV, HRDU 362 XRV, HRDU 452 XRV, HRDU 562 XRV
	Duct Med Static Pressure: HUCU 222 XRV, HUCU 282 XRV, HUCU 362 XRV, HUCU 452 XRV, HUCU 562 XRV, HUCU 712 XRV, HUCU 802 XRV, HUCU 902 XRV, HUCU 1122 XRV, HUCU 1402 XRV
	Duct High Static Pressure: HVDU 2002 XRV, HVDU 2502 XRV, HVDU 2802 XRV
	Console: HFIU 222 XRV, HFIU 282 XRV, HFIU 362 XRV, HFIU 452 XRV
	Ceiling / Floor: HSFU 361 XRV, HSFU 451 XRV, HSFU 561 XRV, HSFU 711 XRV, HSFU 801 XRV, HSFU 901 XRV, HSFU 1121 XRV
	Standing Floor Exposed: HFLU 221 XRV, HFLU 281 XRV, HFLU 361 XRV, HFLU 451 XRV, HFLU 561 XRV, HFLU 711 XRV, HFLU 801 XRV
	Standing Floor Concealed: HFCU 221 XRV, HFCU 281 XRV, HFCU 361 XRV, HFCU 451 XRV, HFCU 561 XRV, HFCU 711 XRV, HFCU 801 XRV
	Wall-Mounted: HKEU 221 XRV, HKEU 281 XRV, HKEU 361 XRV, HKEU 451 XRV, HKEU 561 XRV
Outdoor Units:	HCNU 1101 XRV, HCSU 1101 XRV, HCNU 1401 XRV, HCSU 1401 XRV, HCSU 1551 XRV, HCSU 2501 XRV-2, HCSU 3001 XRV-2, HCSU 3501 XRV, HCSU 4001 XRV, HCSU 4501 XRV, HCSRU 2501 XRV, HCSRU 3001 XRV

CE

All the products are in conformity with the following European provision:

- Low Voltage Directive 73/23/EEC
- Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility 89/336/EEC
- Electromagnetic Compatibility 2004/108/EC

ROHS

The products are fulfilled with the requirements in the directive 2002/95/EEC of the European parliament and of the council on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU RoHS Directive)

WEEE

In accordance with the directive 2002/96/CE of the European parliament, herewith we inform the consumer about the disposal requirements of the electrical and electronic products.

DISPOSAL REQUIREMENTS:



Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other part must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information. Battery must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

President
Giorgio Giatti

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GENERAL INFORMATION

Outline of specific features

ECO-FRIENDLY REFRIGERANT R410A

As R410A refrigerant contains no chlorine, it does not damage ozone.

POWER CONTROL THROUGH "DC INVERTER"

Power is supplied according to real needs of comfort, thus permitting a sure energy saving.

VARIABLE REFRIGERANT FLOW SYSTEM (VRF)

An electronic expansion valve controls the refrigerant flow on each Indoor Unit.

INFRARED WIRELESS REMOTE CONTROLLER AND (OPTIONAL) WIRED CONTROLLER

All available functions of the air conditioner can be set by using a wireless infrared remote controller or by a wired controller, whose LCD panel immediately shows the operating parameters.

ON TIMER / OFF TIMER

ON Timer, allows to program the air conditioner's start within 24 hours. If the set time does not exceed 10 hours, the TIMER ON is set by 0.5 hours' steps. If the set time exceeds 10 hours, the TIMER ON is set by 1 hour's steps.

OFF Timer, allows to program the air conditioner's stop within 24 hours. If the set time does not exceed 10 hours, the TIMER OFF is set by 0.5 hours' steps. If the set time exceeds 10 hours, the TIMER OFF is set by 1 hour's steps.

The air conditioner's start and/or stop may also be programmed in sequence, within 24 hours.

DRY FUNCTION

When "DRY" function is selected, the air conditioner strongly reduces humidity inside the room, and also keeps the room temperature at a constant value.

ADVANCED CONTROL FOR INDOOR UNIT'S FAN

Thermostatic stops. In Heating mode, when set temperature has been reached inside the room, the compressor stops and the indoor fan speed is lowered to avoid cold drafts.

Hot Keep. At the beginning of operation in Heating mode, the indoor fan will start only 5 minutes later, i.e. when the temperature of indoor heat exchanger is adequate.

MICROCOMPUTER CONTROLLED DEFROSTING FUNCTION (HEATING MODE)

The microcomputer on printed circuit board can monitor all decreases in heating power of the air conditioner caused by frosting on outdoor heat exchanger, and inputs the signal for automatic defrosting; a LED lights up when this function is activated.

THERMOSTAT UNDER MICROCOMPUTER CONTROL

The thermostat being controlled by microcomputer allows remarkable energy saving and provides more comfort, as the room temperature is checked with the greatest precision.

INDOOR FAN AUTOMATIC SPEED CONTROL



The airflow from the Indoor Unit can be controlled step by step, on the basis of the difference between the room temperature and the set temperature. This allows to reduce the lapse of time needed to reach the desired temperature both in Cooling and Heating mode, by treating the appropriate air volumes.


MOTORIZED LOUVERS FOR AIRFLOW DIRECTION

(EXCEPT DUCT MODELS HRDU, HUCU, HVDU AND STANDING FLOOR MODELS HFLU, HFCU)

The flaps can be controlled directly by the remote controller so as to reach your desired position.

- By pressing "AIR DIRECTION" button (HTBU Cassette Models, HSFU Ceiling-Floor Models & HFIU Console Models) and "SWING" button (HTFU Cassette & HKEU Wall-Mounted Models), you can select your desired angle for vertical airflow louver. Once the angle has been selected, the position is memorized by the inner electronics for next start of the air conditioner.

- Moreover, If you press "SWING" button ( for HFIU Console Models and  for HTBU Cassette & HSFU Ceiling-Floor Models), the flaps move up and down continuously, thus increasing air circulation inside the room.

- Only for HSFU Ceiling-Floor Models: if you press  button, the flaps move continuously from left to right and vice versa.

AUTORESTART AFTER A POWER FAILURE

- When a power failure occurs during operation, the air conditioner immediately stops.
- When power is restored, "OPERATION" lamp starts blinking. In particular, the air conditioner will automatically restart after 3 minutes have elapsed since power is restored. This means that it is not required to press "ON/OFF" button on the remote controller. The settings will be the same as before the blackout.

DIAGNOSTIC & PROTECTIVE FUNCTIONS

Shown by codified flashing of LED indicators on the Indoor Unit, they allow to diagnose in a quite precise way the main malfunctions which may concern the air conditioner.

3-minutes' delay protection: there is a protective control of the Outdoor Unit, to prevent compressor's damages after stops. This control is effective in case of malfunction, power failure, turning off the system, etc. and it does not allow Outdoor Unit to restart before 3 minutes have elapsed since the Unit stopped. During this time, Indoor Unit cannot run.

GENERAL INFORMATION

Recommended operating conditions

In order to obtain the Unit's best performances, it is recommended its use under the following conditions:

COOLING OPERATION	Outdoor temperature:	-15°C to 48°C
	Room temperature:	17°C to 32°C
	CAUTION: Room relative humidity should be less than 80%. If the air conditioner operates beyond this limit, the surface of the heat exchanger could get covered with frost.	
HEATING OPERATION	Outdoor temperature:	-15°C to 21°C
	Room temperature:	< 30°C
DRY OPERATION	Outdoor temperature:	-15°C to 48°C
	Room temperature:	17°C to 32°C

Use of air conditioner out of the above mentioned temperature ranges could cause the intervention of built-in protective functions consequently stopping the system operation.

NOTE: If the Units operates in rooms which are saturated with oil vapors or volatile matters, harmful substances could coat and clog the Indoor Unit's heat exchanger. Besides, scalings of saltiness could form on the Outdoor Units installed in sea-surroundings; if not removed, they will damage the Units in a very short time. In both cases, contact the Authorized Technical Service to require frequent maintenance.

SAFETY PRECAUTIONS

Before starting the air conditioner, please read carefully the information in this "USER'S MANUAL". The User's Manual contains very important suggestions related to installation, operation and maintenance of the air conditioner and concerning your personal safety.

The Manufacturer accept no responsibility for the damages that may arise due to non-observance of the instructions listed in this "USER'S MANUAL".

Disposal of an old air conditioner

Before disposing an old air conditioner, please make sure it is inoperative and carry out the disposal by adopting all safety precautions. Unplug it from the power line in order to avoid risks of electric shock.

Please remember that an air conditioner contains refrigerant fluid, requiring specialized waste disposal.

The valuable materials contained in the air conditioner can be recycled. Contact your local Waste Disposal Center for adequate disposal or contact your Dealer for any question.

Please make sure that piping of your air conditioner does not get damaged before being picked up by the relevant Waste Disposal Center. You can contribute to the protection of the environment by adopting an appropriate anti-pollution method of disposal.

Disposal of the packaging of your new air conditioner

All the packaging materials used in the package of your new air conditioner can be disposed without any danger for the environment.

The cardboard may be broken or cut into small pieces and given to a Waste Paper Disposal Service. The wrapping bag made of polyethylene and the polyethylene foam pads contain no fluorochloric hydrocarbon.

All these valuable materials may be taken to a Waste Collecting Center and used again after adequate recycling.

Consult your local Authorities for the name and address of the Waste Materials Collecting Centers and Waste Paper Disposal Services nearest to your house.

General warnings for safety

- Do not operate damaged air conditioners. In case of doubt, contact your Dealer.
- Use of air conditioner must be carried out in strict compliance with the instructions listed further on.
- Do not damage any parts of the air conditioner that carry refrigerant by piercing or perforating the piping with sharp or pointed objects, by crushing or twisting the tubes or scraping off the surfaces' coatings. If the refrigerant spurts out and gets into eyes, this may result in serious injuries.
- Do not obstruct or cover the ventilation grille of the air conditioner. Do not put fingers nor insert objects into the inlet/outlet vent or into the motorized louver.
- Do not allow children to play with the air conditioner. Children should be never allowed to sit on the Outdoor Unit.
- The appliance is not intended for children and disabled people. They must not operate the air conditioner without supervision.
- Electrical works must be carried out according to the local laws. If the power cable is damaged, it must be replaced by the Manufacturer or by qualified Personnel. Size of power cables and connecting wires must be adequate to the characteristics of the air conditioner (current values and power input values).
- If fuses on the PCB are blown, they must be replaced with new fuses of the same type and size.
- After installation, power plug should be properly disposed.
- Exhausted batteries (infrared remote controller) should be properly disposed.
- Always remember to unplug the air conditioner before opening the inlet grille. Never try to unplug the air conditioner by pulling off the power cable. Always grip the power plug firmly and pull it straight out of the power socket.

SAFETY PRECAUTIONS

- **Strictly observe the instructions provided in this Manual.**
- **The air conditioning system contains inside its refrigerant circuit the R410A gas under pressure. Never disconnect refrigerant pipes or connection joints.**
- **Never perform any handling on Outdoor Unit service valves or on Indoor Unit's unions.**
- **Keep this Manual in a safe place easy to reach at any time for convenient reference.**
- **In case the air conditioner is transferred and reinstalled, this User's Manual should always be attached to the appliance.**

SAFETY INSTRUCTIONS

- Please read carefully the following Safety Instructions before operating the air conditioner.
- A strict observance of the instructions indicated in this "USER'S MANUAL" will prevent personal hurt and incidents to the User. Moreover, correct operation and long life of the system will be ensured.
- Depending on the seriousness of potential risks and damages, the reported Instructions are classified in two types: "WARNING" and "CAUTION". A strict observance of the Instructions is required to guarantee your personal safety and the safety of the environments where the Units are installed.
- The following Instructions are related to the air conditioner's installation. They have been reported in this "USER'S MANUAL" just to allow the User to check that installation has been properly carried out. If an improper installation - not corresponding to the Instructions - is verified, please contact the Dealer or the Authorized Technical Service.

The User must never attempt to repair, install or perform special maintenance by himself.

Key to symbols



This symbol points out the risk of serious injury or death.



This symbol points out the risk of injury or damage to the property.



Prohibition. Action or procedure not allowed, with serious effects on objects and people.






Obligation. Compulsory action or procedure. The missed observance could bring serious effects on objects and people.






SAFETY PRECAUTIONS



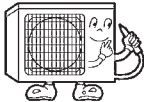

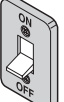
Installation

Never try to install this Unit by yourself, i.e. without the support of Technical Personnel. Never try to repair the Unit by yourself. The Unit's components can be reached only by opening or removing the covering panels, and this involves exposure to high voltage. Even by disconnecting power supply, it is not always possible to avoid the risk of electric shocks.

 WARNING	
<ul style="list-style-type: none"> • Please always contact the Dealer or the Authorized Service Center for installation. Never attempt to install the air conditioner by yourself, because improper installation could cause electric shock, injuries, water leakage or fire. 	
<ul style="list-style-type: none"> • Please always contact the Dealer or the Authorized Service Center for any servicing operation or special maintenance. Never try to repair or carry out special maintenance by yourself. Improper repair or maintenance could cause electric shock, injuries, water leakage or fire. 	










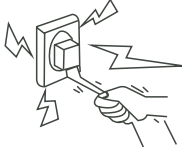

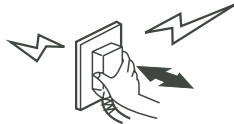

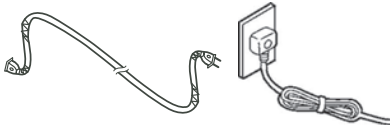



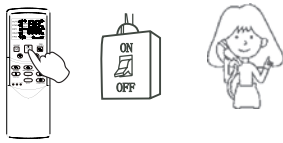

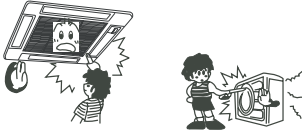




Please confirm that installation has been carried out according to the following prescriptions:

 CAUTION	
<ul style="list-style-type: none"> • When installing, all possible countermeasures must be taken to avoid refrigerant leaks. If there is a high concentration of refrigerant gas in the room, oxygen lack may occur. 	
<ul style="list-style-type: none"> • Do not install the air conditioner near burners, heat sources or flammable gas. This is to avoid the risk of malfunctioning, fire or explosion. 	
<ul style="list-style-type: none"> • Ensure that a circuit breaker has been installed on the power supply line of the air conditioner, to avoid the risk of electric shocks. 	
<ul style="list-style-type: none"> • When installing in a small room, countermeasures should be taken in case of a refrigerant leak exceeds the proper range. Otherwise, it will cause asphyxia. 	

 CAUTION	
<ul style="list-style-type: none"> • Ensure that drain hose and drain pipe installation has been carried out correctly. Incorrect installation or maintenance will cause water leakage. 	
<ul style="list-style-type: none"> • Ensure that Indoor and Outdoor Units have been properly grounded. Defective grounding could cause electric shock. 	 
<ul style="list-style-type: none"> • This kind of appliance needs a specific circuit breaker with proper protective devices against overcurrents and short circuits (fuses or automatic switches). 	<p style="font-size: small;">Circuit breaker (specific)</p> 

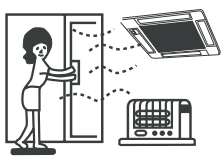



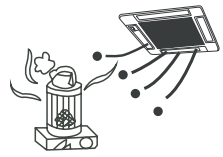

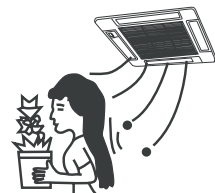





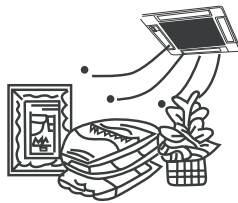





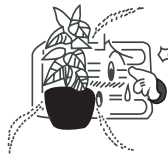


SAFETY PRECAUTIONS

Always observe the operating precautions listed in the following tables. In this way, correct operation and safeguard of people, animals and objects inside the air-conditioned room will be ensured.

 WARNING	
<p>Use the correct voltage and frequency for power supply.</p> <p style="text-align: center;">220~230V, 50Hz</p>  	<p>Do not insert the air conditioner's plug into multiple sockets or into sockets to which other appliances are connected. Do not use plug adapters.</p>  
<p>Fully insert the plug into the power socket and make sure the connection is secure and without play. Otherwise, sparks and fire may occur.</p>  	<p>Do not put heavy objects on the power supply cord. Take care not to damage it. Do not use supply cords which are faulty or damaged.</p>  
<p>Do not pull the plug out of the power socket by drawing the power cord. Damaging to the power cord, to the plug or to the socket may occur, and this could result in electric shock or fire generation.</p>  	<p>Never turn off the air conditioner by pulling the power supply plug out of the socket. This could cause electric shock or fire. Always press the "ON/OFF" button on remote controller.</p>  
<p>Do not use extension cords. Do not use rolled power supply cords.</p>  	<p>Never touch switches, sockets or power supply plugs with wet hands. This could cause electric shock.</p>  
<p>If you smell something burning, immediately turn off the air conditioner, switch the circuit breaker to "OFF" or "0", and contact the Authorized Technical Service.</p>  	<p>Do not insert any objects into the air inlet or outlet of Indoor and Outdoor Units. Even if fans are stopped, they could automatically start all at once.</p>  
<p>You should avoid to expose your body directly to cool air for a long time. This may cause health problems to you.</p>  	<p>Do not direct the airflows towards infants, aged or disabled people.</p>  

SAFETY PRECAUTIONS

⚠ CAUTION

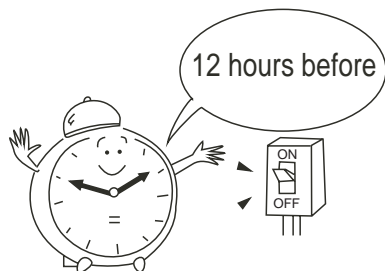
<p>Ventilation should be operated when using the air conditioner and gas burners at the same time. Insufficient ventilation will cause lack of oxygen.</p>  	<p>Do not use sprayers near the air conditioner, and do not spray anything towards the appliance.</p>  
<p>Do not place burners near the airflow of air conditioner.</p>  	<p>Do not expose plants or animals to the direct airflow of the air conditioner.</p>  
<p>To avoid the risk of electric shock, do not sprinkle water or other liquid on Indoor Unit. Do not clean the air conditioner by water spruts.</p>  	<p>Ventilate the room regularly while the air conditioner is operating. Fail to follow this advice could result in lack of oxygen inside the room.</p>  
<p>Do not expose food, animals, precision devices or works of art to the direct airflow of the air conditioner.</p>  	<p>For proper performance, operate the air conditioner under the recommended temperature and humidity range (see page 6). If the Unit operates beyond these conditions, malfunctions may occur or dew may drip out of the Indoor Unit.</p>  
<p>When necessary, replace fuses with new ones of the same type and size. Never use a piece of iron or copper instead of a proper fuse, as it could result in a malfunction or in a fire accident.</p>  	<p>Do not place anything on the air conditioner. Do not place anything in front of it nor obstruct the air outlet.</p>  
<p>Do not touch the heat exchangers' metal fins on Indoor and Outdoor Units. This could cause hurts due to the sharp shape of the fins. Take care of this especially when removing the air inlet panel and the air filter.</p> 	

OPERATING INSTRUCTIONS

Before operating the air conditioner

Before operating the air conditioner, it is important to perform some final checks and respect some easy rules for its correct operation.

1 Connect the air conditioner to the power line 12 hours before turning it on



In order to protect the compressor, it is necessary to connect the Outdoor Unit to the power line 12 hours before operating it.

2 Install the air conditioner far from radio & TV



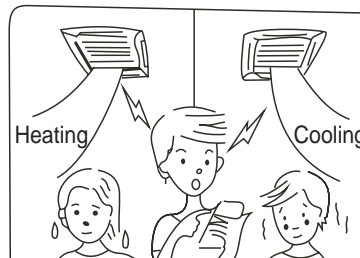
Place TV and radio at 1 meter at least far from the air conditioner, otherwise signal interferences may occur.

3 Check the air filters



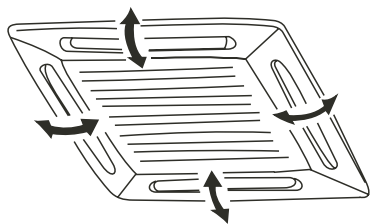
Check if the air filters are correctly installed. Without them, dust and dirt will form on indoor heat exchanger.

4 Operate all Indoor Units in the same operation mode



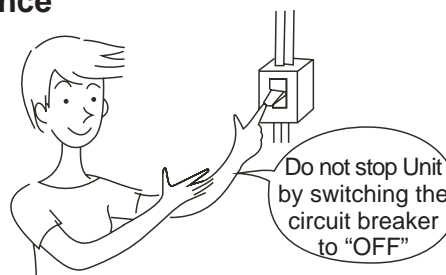
It is not possible to operate some Units in Cooling mode and other Units in Heating mode. Please operate all Units in the same operation mode.

5 In Cooling mode, place the motorized louvers horizontally.



In Cooling mode, it is necessary to place the motorized louvers horizontally, otherwise the condensate could drip from the Unit inside the room (Cassette, Wall-Mounted & Ceiling-Floor type Models).

6 Do not disconnect the air conditioner at once



Do not disconnect the Unit during operation. In order to stop the air conditioner, press the ON/OFF button on remote controller.

OPERATING INSTRUCTIONS

During operation

During the air conditioner' operation, the User should know that:

① 3-MINUTES' DELAY PROTECTION

There is a protective control of the Outdoor Unit, to prevent compressor's damages after stops. This control is effective in case of malfunction, power failure, turning off of the system, etc. and it does not allow Outdoor Unit to restart before 3 minutes have elapsed since the Unit stopped. During this time, Indoor Units cannot run.

② DEFROST

When the system operates in Heating mode, frost may form on the outdoor heat exchanger, depending on operative conditions. When this happens, automatic defrost starts. Defrost time lasts about 2 ~ 10 minutes. During this time, Indoor Units cannot operate and all fans on Indoor and Outdoor Units stop.

On all Models - except HKEU Wall-Mounted type Models - defrost is shown by lighting up of DEF-FAN indicator on Indoor Units' panel.

On HKEU Wall-Mounted type Models, the digital display shows "dF" during defrost.

③ POWER FAILURE

When power resumes after a power failure, Indoor Units' buzzer beeps and OPERATION indicator on Indoor Units' panel starts to flash. Indoor Units automatically restart - so it is not needed to press ON/OFF button on remote controller - and keep the previous settings.

④ INSUFFICIENT HEATING

In Heating mode, if outdoor temperature is very low, heating capacity could result insufficient. In this case, it is necessary to solve this problem by additional heating appliances.

⑤ FAN'S START WHEN INDOOR UNIT IS STOPPED

To protect an Indoor Unit when it is in thermostatic off condition while other Indoor Units are operating, its fan will start operating for 3 minutes at LOW speed. This occurs once in an hour in Cooling mode and every 4 hours in Heating mode.

⑥ COLD DRAFT PREVENTION FUNCTION

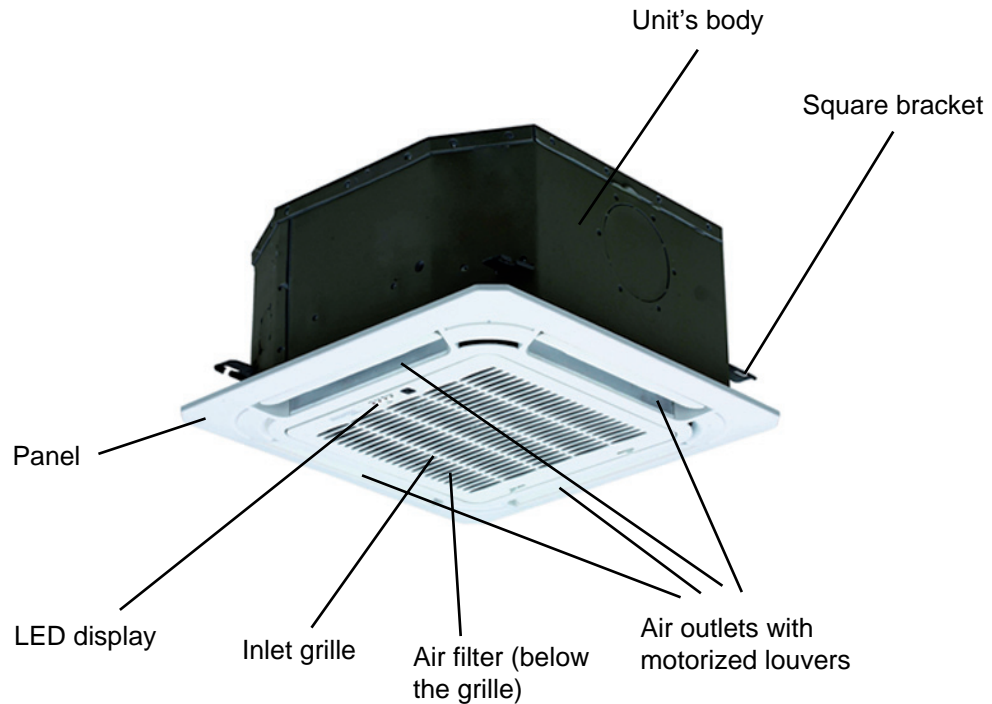
At the beginning of Heating operation, the Indoor Unit will not blow air until indoor heat exchanger will be warm enough, so as to prevent cold drafts. Depending on indoor and outdoor temperature, the preheating time lasts 3-5 minutes.

CASSETTE 60 X 60 HTFU XRV

4-ways Cassette Models

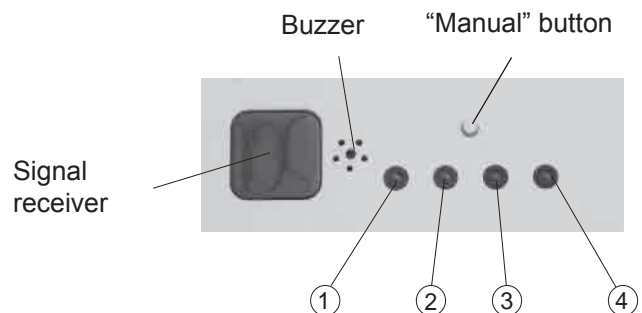
Compact Cassette 60 x 60 HTFU 222, 282, 362, 452 XRV

Cassette 4-ways 60x60



LED Display of Compact Cassette Models HTFU 222~452 XRV

- ① OPERATION LED (green)
- ② TIMER LED (green)
- ③ DEF/FAN LED (red)
- ④ ALARM LED (red)



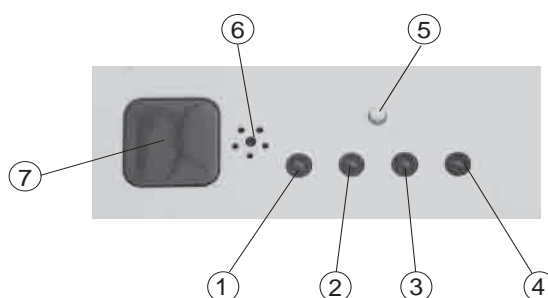
(For further details, see the following page)

NOTE: All the Figures have the only purpose to show to the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

LED indicators on Compact Cassette Indoor Unit HTFU 222~452 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.

- ① OPERATION LED (green)
- ② TIMER LED (green)
- ③ DEF/FAN LED (red)
- ④ ALARM LED (red)



① OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ DEF/FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

④ ALARM LED

The LED flashes when the level in the water condensate pan exceeds the operation limit. This also makes the compressor stop, till the condensate drain pump has eliminated the surplus water.

⑤ MANUAL button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

⑥ Buzzer

It emits a sound when a signal is received by the Indoor Unit.

⑦ Signal receiver

It permits to receive signals from the remote controller.

Adjusting the air flow direction

Adjust the airflow direction properly to obtain a regular distribution of temperature in the room and optimize comfort.

Vertical adjustment

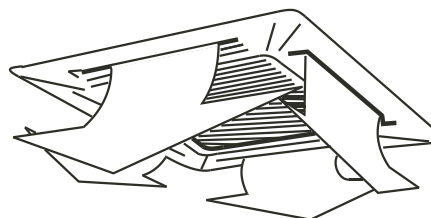
When pressing "ON/OFF" button on the remote controller, the Unit starts and automatically selects the best angle for the motorized louver, according to the set operating mode (Cool, Dry or Heat mode). It is possible to select your desired position for the motorized louver by pressing "SWING" button.

The recommended positions according to the different operating modes are shown in the Figures below:

Cool / Dry



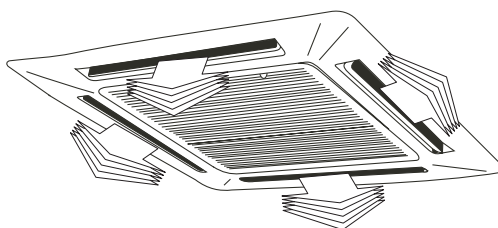
Heat



Press "SWING" button and leave it when your desired angle for air out louver has been reached. This position will be memorized at next restart of air conditioner.

Automatic swinging

Press "SWING" button once: the motorized louver will start swinging up and down, as it is shown in the Figure below:



NOTES

- When the Unit is stopped, the motorized louver automatically moves to the closing position.
- Never move the motorized louver by hand, but always use the remote controller. Moving it by hand may damage the control mechanism. In case the flaps do not move correctly, stop the Unit and restart it again after a few minutes.
- In Cool and Dry modes, the flaps should not be oriented downwards for a long time. Otherwise, condensate may form on the air outlet.

Cleaning of air filters on 4-ways Cassette Models HTFU

1 Open the frontal grille by seizing with the fingers the little levers inserted in the grille's body, and slide them to the open position (towards the centre).
Pull down the air inlet grille together with the filter (Fig. 1).

2 Pull down the grille till opening it by 45°, then push the grille and the filter upwards to detach them from the Unit's body (see Fig. 2).

3 Clean the filter by using a vacuum cleaner, or wash it with water. In case of washing with water, dry the filter in the shade and never under the rays of sunlight nor by other heat sources.

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you.
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 3).

4 Reinstall the filter. Attach correctly the filter by the special fixed joints.

5 Close the inlet grille.



CAUTION

After removing the filters, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filter.

CLEAN THE AIR FILTERS EVERY 2 WEEKS

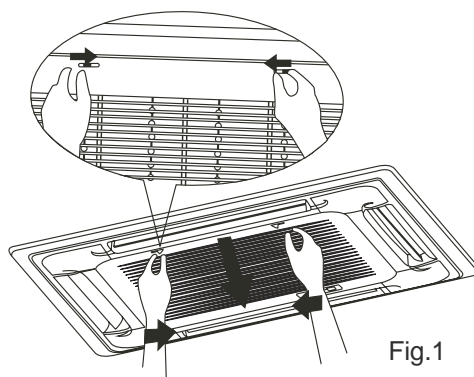


Fig.1

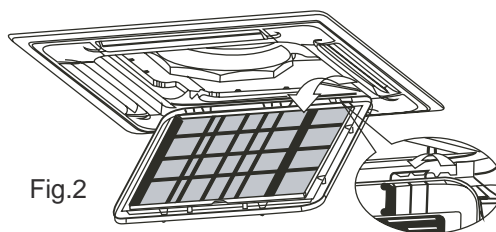


Fig.2

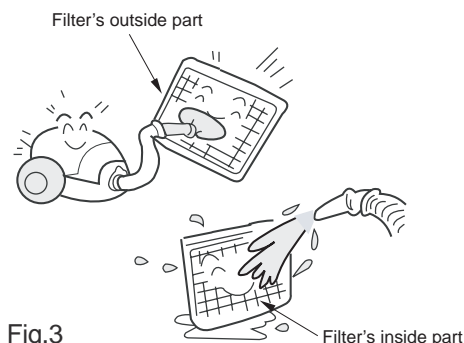


Fig.3

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filter on Indoor Unit in case it is damaged.

Normally, the cleaning must be carried out every 2 weeks.

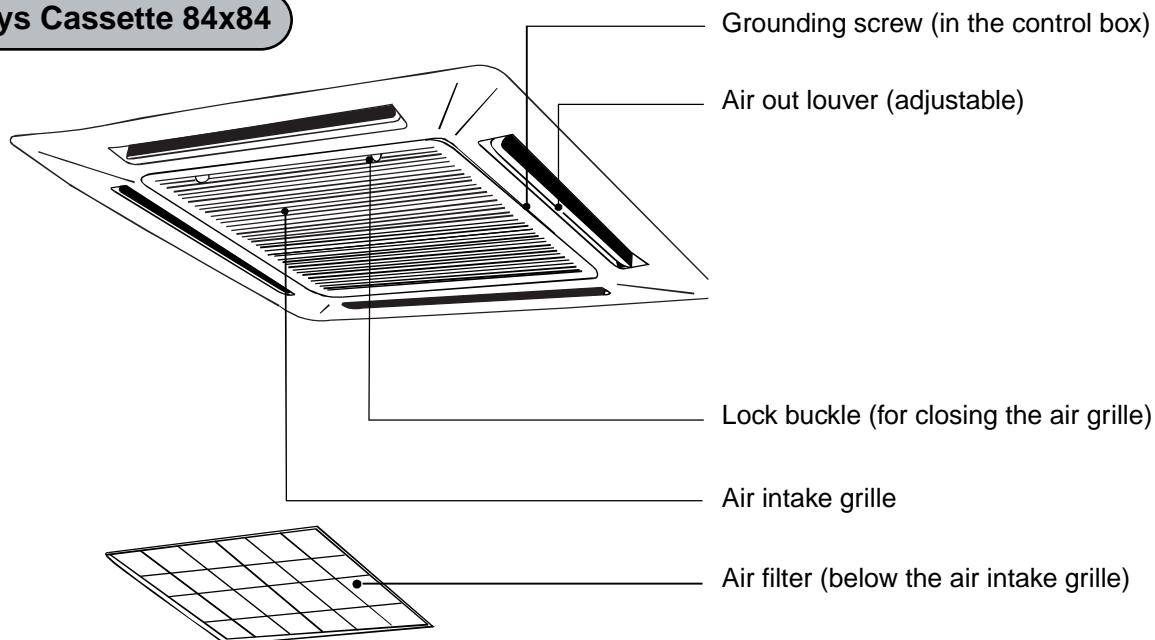
However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

CASSETTE 84 X 84 HTBU XRV

4-ways Cassette Models

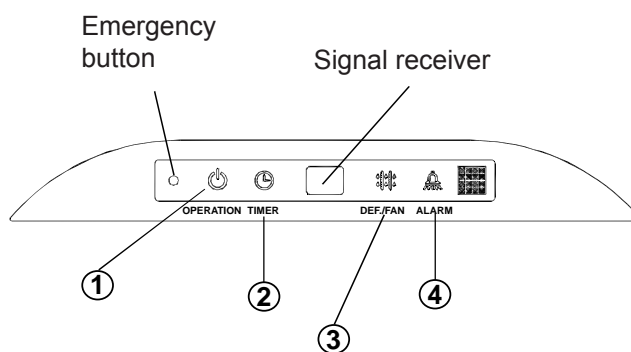
Cassette 84 x 84 HTBU 561, 711, 801, 901, 1001, 1121, 1401 XRV

4-ways Cassette 84x84



LED Display of Cassette Models 84x84 HTBU 561~1401 XRV

- ① OPERATION LED
- ② TIMER LED
- ③ DEF/FAN LED
- ④ ALARM LED

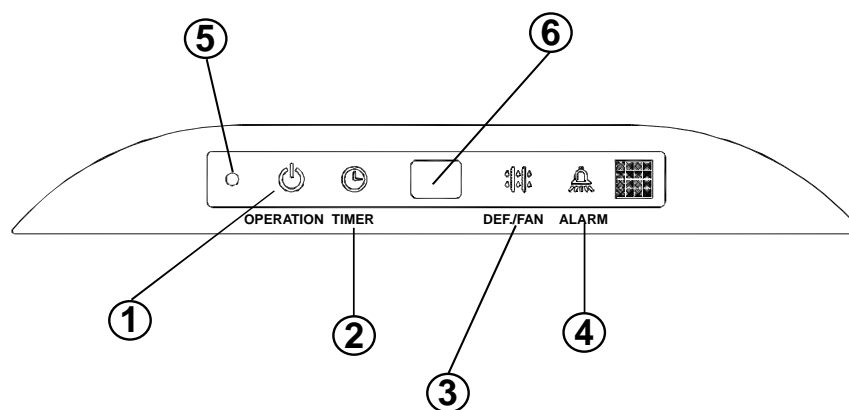


(For further details, see the following page)

NOTE: All the Figures have the only purpose to show to the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

LED indicators on 4-ways Cassette Indoor Unit HTBU 561~1401 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.



① OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ DEF/FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

④ ALARM LED

The LED flashes when the level in the water condensate pan exceeds the operation limit. This also makes the compressor stop, till the condensate drain pump has eliminated the surplus water.

⑤ Emergency button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

⑥ Buzzer

It emits a sound when a signal is received by the Indoor Unit.

⑦ Signal receiver

It permits to receive signals from the remote controller.

Adjusting the air flow direction

Adjust the airflow direction properly to obtain a regular distribution of temperature in the room and optimize comfort.

Vertical adjustment

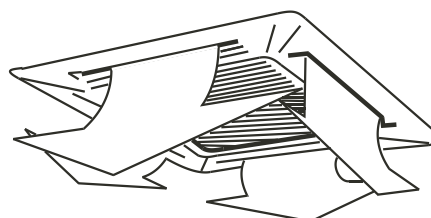
When pressing "ON/OFF" button on the remote controller, the Unit starts and automatically selects the best angle for the motorized louver, according to the set operating mode (Cool, Dry or Heat mode). It is possible to select your desired position for the motorized louver by pressing "AIR DIRECTION" button.

The recommended positions according to the different operating modes are shown in the Figures below:

Cool / Dry




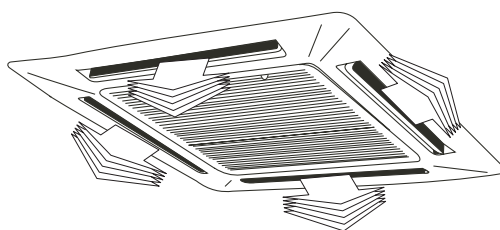
Heat



Press "AIR DIRECTION" button several times and leave it when your desired angle for air out louver has been reached. This position will be memorized at next restart of air conditioner.

Automatic swinging

Press  button once: the motorized louver will start swinging up and down, as it is shown in the Figure below:



NOTES

- When the Unit is stopped, the motorized louver automatically moves to the closing position.
- Never move the motorized louver by hand, but always use the remote controller. Moving it by hand may damage the control mechanism. In case the flaps do not move correctly, stop the Unit and restart it again after a few minutes.
- In Cool and Dry modes, the flaps should not be oriented downwards for a long time. Otherwise, condensate may form on the air outlet.

Cleaning of air filters on 4-ways Cassette Models HTBU

1 Open the frontal grille by seizing with the fingers the little levers inserted in the grille's body, and slide them to the open position (towards the centre).
Pull down the air inlet grille together with the filter (Fig. 1).

2 Pull down the grille till opening it by 45°, then push the grille and the filter upwards to detach them from the Unit's body (see Fig. 2).

3 Clean the filter by using a vacuum cleaner, or wash it with water. In case of washing with water, dry the filter in the shade and never under the rays of sunlight nor by other heat sources.

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you.
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 3).

4 Reinstall the filter. Attach correctly the filter by the special fixed joints.

5 Close the inlet grille.



CAUTION

After removing the filters, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filter.

CLEAN THE AIR FILTERS EVERY 2 WEEKS

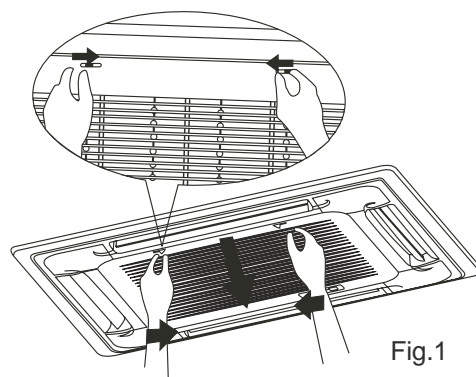


Fig.1

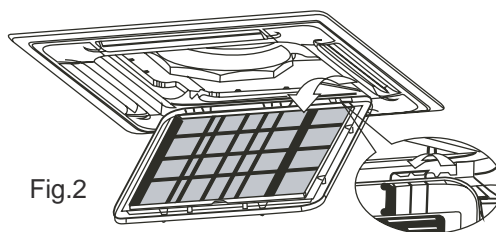


Fig.2

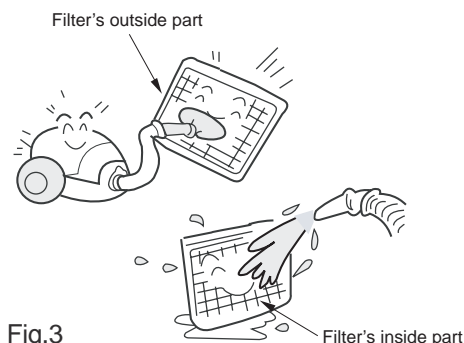


Fig.3

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filter on Indoor Unit in case it is damaged.

Normally, the cleaning must be carried out every 2 weeks.

However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

DUCT MODELS HRDU, HUCU, HVDU XRV

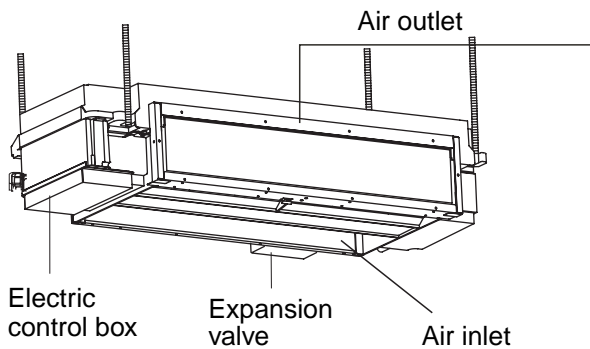
Duct Models

Low Static Pressure HRDU 182, 222, 282, 362, 452, 562 XRV

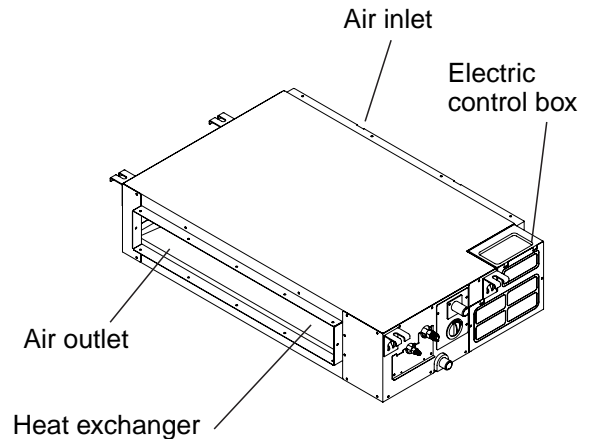
Medium Static Pressure HUCU 222, 282, 362, 452, 562, 712, 802, 902, 1122, 1402 XRV

High Static Pressure HVDU 2002, 2502, 2802 XRV

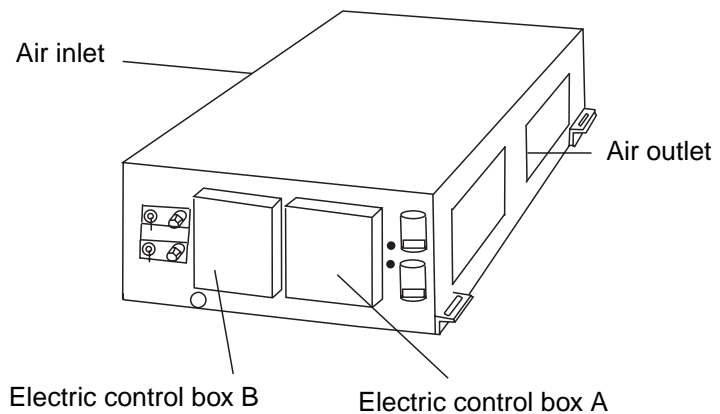
Low Static Pressure



Medium Static Pressure

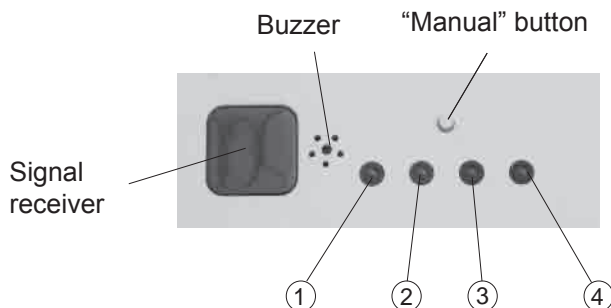


High Static Pressure



LED Display of Duct Models

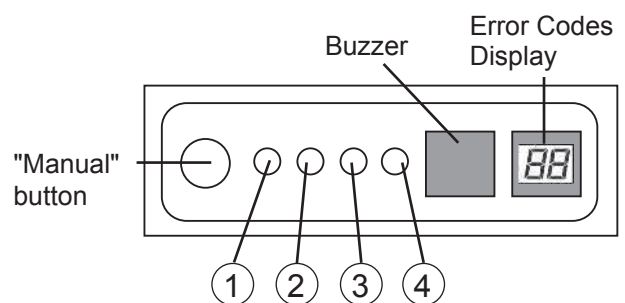
On HRDU & HVDU Models



① OPERATION LED (green)

② TIMER LED (green)

On HUCU Models



③ DEF/FAN LED (red)

④ ALARM LED (red)

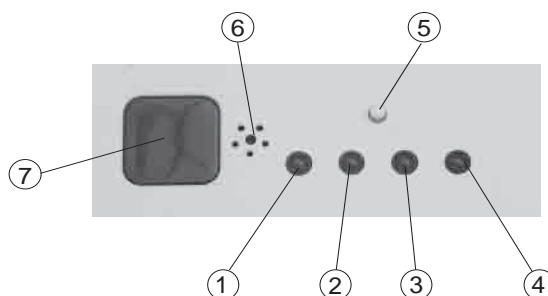
(For further details, see the following pages.)

NOTE: All the Figures have the only purpose to show the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

LED indicators on Duct HRDU 182~562 XRV & HVDU 2002~2802 XRV Models

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.

- ① OPERATION LED (green)
- ② TIMER LED (green)
- ③ DEF/FAN LED (red)
- ④ ALARM LED (red)



① OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ DEF/FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

④ ALARM LED

The LED lights up alone, or together with other lamps, to indicate a malfunction on the system. This malfunction causes the system's stop.

⑤ MANUAL button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

⑥ Buzzer

It emits a sound when a signal is received by the Indoor Unit.

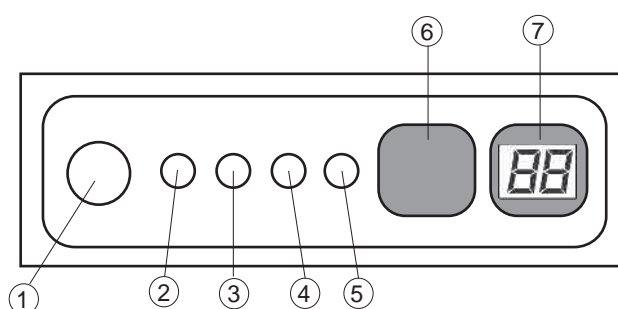
⑦ Signal receiver

It permits to receive signals from the remote controller.

LED indicators on Duct HUCU 222~1402 XRV Models

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies. Moreover, the digital display shows the Error Codes which refer to malfunctions.

- ② OPERATION LED (green)
- ③ TIMER LED (green)
- ④ DEF/FAN LED (red)
- ⑤ ALARM LED (rouge)



① MANUAL button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

② OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

③ TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop)..

④ DEF./FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

⑤ ALARM LED

The LED lights up alone, or together with other lamps, to indicate a malfunction on the system. This malfunction causes the system's stop.

⑥ Signal receiver

It permits to receive signals from the remote controller.

⑦ Error Codes Display

It displays the Error Codes corresponding to the eventual malfunctions that may occur on the system.

Adjusting the air flow direction

When you press ON/OFF button on remote controller, Unit starts. Unlike Cassette, Ceiling-Floor, Console and Wall-Mounted Models, Duct Models are not equipped with motorized louvers. The airflow comes out of vents which have to be provided by the Design Engineer or by the Installer.

According to the desired vent, it may be equipped with both horizontal and vertical flaps that can be manually moved.

On Duct Models, SWING button on remote controller is ineffective!

a) Vertical adjustment

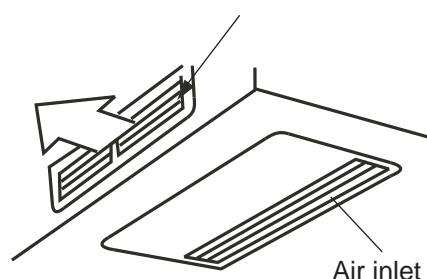
The recommended positions according to the different operation modes are the following:

Cool/Dry modes

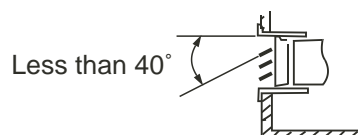
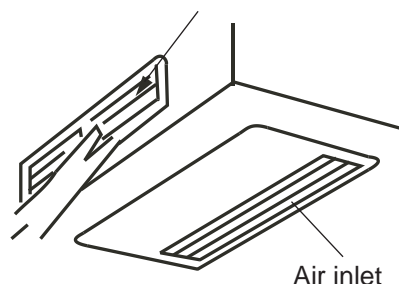
Heat mode

1) Vents on the walls

Horizontal flaps horizontally positioned



Horizontal flaps downwards positioned



NOTE 1

In Cool mode, the horizontal flaps must be positioned horizontally, so as to permit to fresh air to naturally go down and not to stratify downwards.

NOTE 2

When moving horizontal flaps for Cool or Heat modes, it is necessary that flaps will be positioned in the same way. In Heat mode, they must be oriented downwards, and in Cool mode they must be positioned horizontally.

NOTE 2

In Heat mode, it is necessary to orient the flaps downwards, so as to permit the circulation of hot air, which otherwise will stratify upwards. Anyway, the flaps must not be too much oriented downwards, as otherwise they will close the vent and cause the forming of condensation which may drip inside the room.

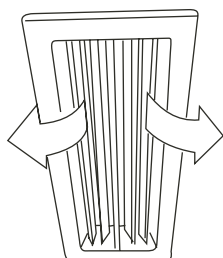
The angle must be less than 40°.

Cool / Dry modes

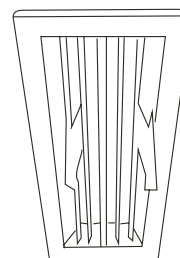
Heat mode

2) Vents on the suspended ceiling

Flaps oriented upwards



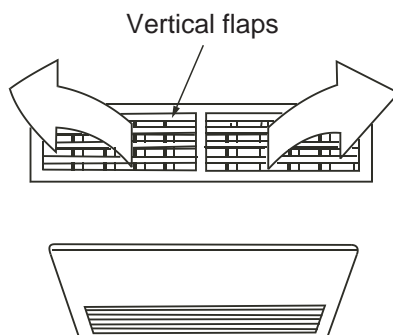
Flaps oriented downwards



See Notes 1, 2, 3 in the previous page.

b) Horizontal adjustment

The eventual vertical flaps may be positioned behind or in front of the horizontal flaps. Their position does not depend on the operation mode, but on the User's preferences. alle alette orizzontali.



Vertical flaps (view from above)

NOTE 4

Vertical flaps too - like horizontal flaps - must not be too much inclined, as excessive angles reduce airflow and may cause condensate water dripping in the room.

Cleaning of air filters on Duct Models HRDU, HUCU, HVDU

On Duct Models, the filters' cleaning must be carried out by the Personnel of the Authorized Technical Service, as the filters' removing involves reaching some installation parts which normally are not accessible by the User. Moreover, the filters' cleaning involves the disassembly of some parts of the Unit.



CAUTION

After removing the filters, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filter.

CLEAN THE AIR FILTERS AT REGULAR INTERVALS

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filter on Indoor Unit in case it is damaged.

Normally, the cleaning must be carried out at every season's change.

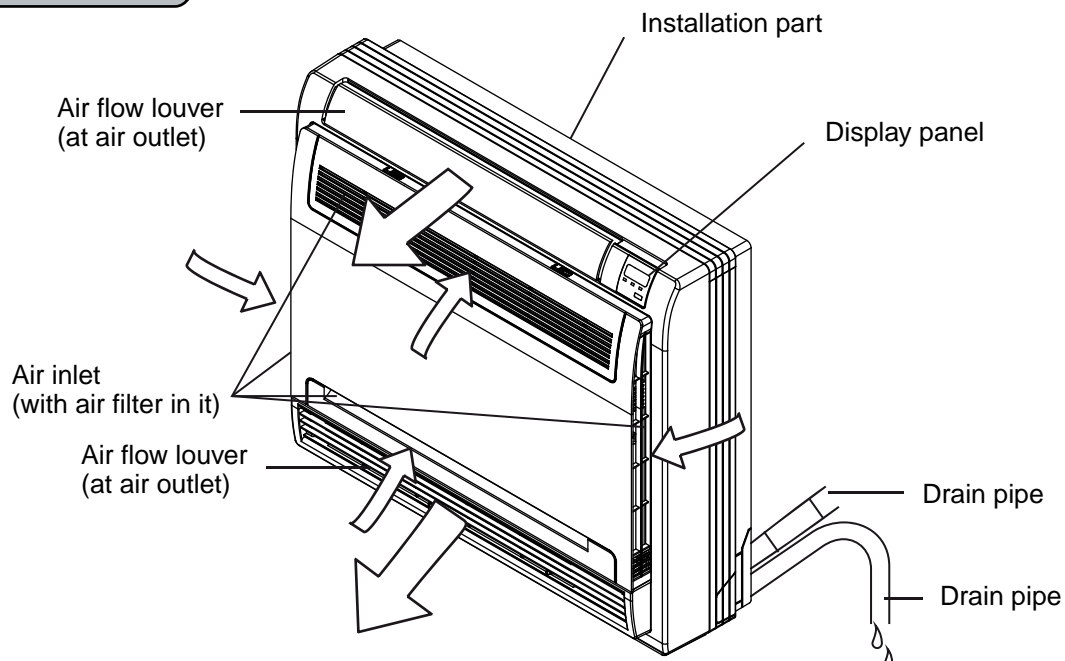
However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

CONSOLE HFIU XRV

Console Models

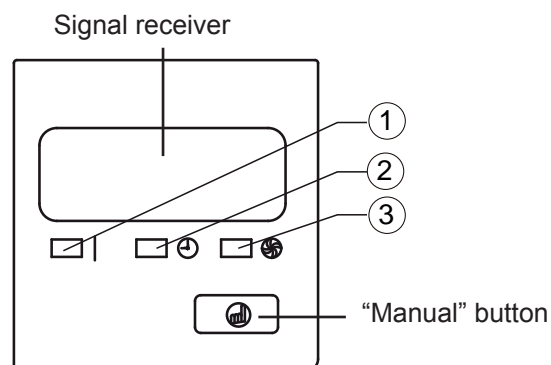
Console HFIU 222, 282, 362, 452 XRV

Console



LED Display of Console HFIU 222~452 XRV Models

- ① OPERATION LED
- ② TIMER LED
- ③ DEF/FAN LED

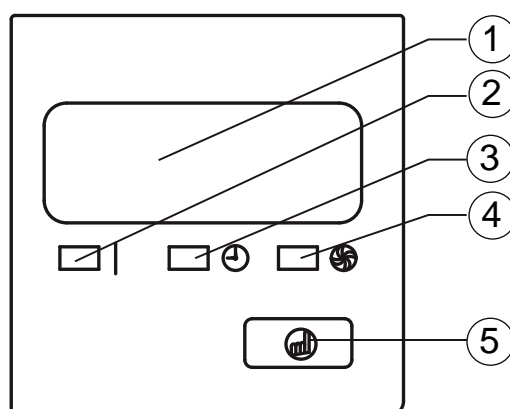


(For further details, see the following page)

NOTA: Le illustrazioni hanno il solo scopo di mostrare all'Utente funzionamenti e procedure per un corretto uso dell'apparecchiatura. Pertanto l'aspetto reale del Prodotto potrebbe essere leggermente differente.

LED indicators on Console Indoor Unit HFIU 222~452 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 3 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.



① Signal receiver

It permits to receive signals from the remote controller.

② OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

③ TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

④ PRE-DEF (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

⑤ Emergency button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation.

Adjusting the air flow direction

Air outlet selector

Air outlet selector allows you to choose the air outlet direction.
To reach the selector, you need to open the Indoor Unit's frontal panel.



WARNING

Before opening the frontal panel, switch off the air conditioner and disconnect it from the power source. il pannello frontale. Never touch the metallic components inside the Unit, to avoid injuries.

Open the frontal panel by following the instructions in Figure 1:

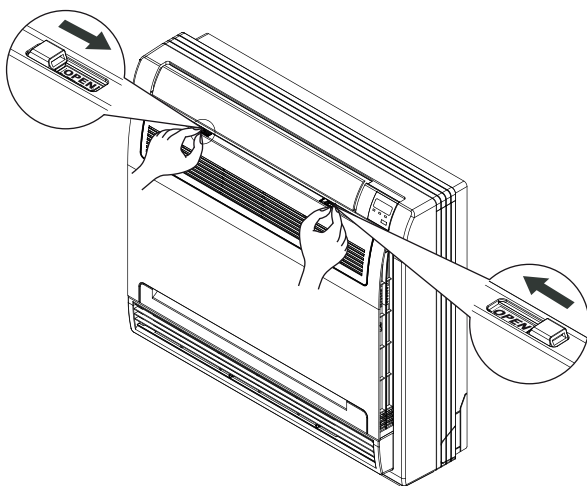


Fig. 1

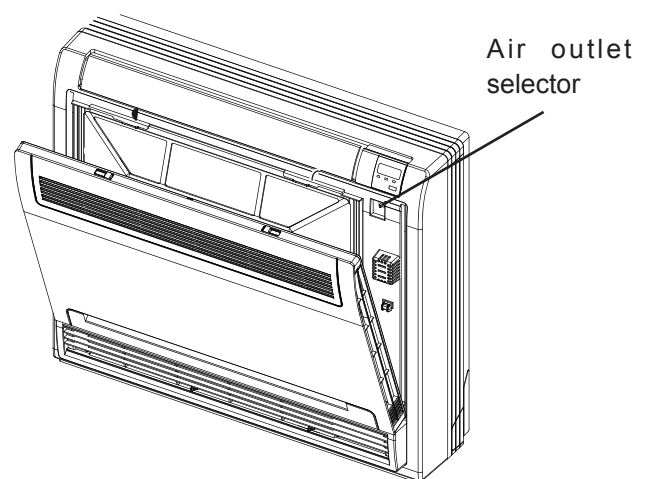
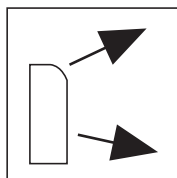
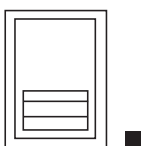
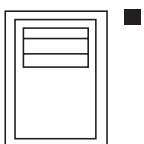


Fig. 2



Factory default (recommended):

The Unit automatically adjusts the airflow direction on the basis of the operation conditions and settings carried out by the User.



Alternative optional setting:

The Unit emits air from the upper outlet only.

Airflow supply with standard setting of outlet selector:

Operation	Circumstance	Description
Dry mode	Always	Air is supplied through the upper outlet only.
Cooling mode	When set temperature has been reached, or if 1 hour has elapsed since the start in Cooling operation.	Air is supplied through the upper outlet only.
	During the operation start, or when set temperature has not already been reached.	Air is supplied through both outlets.
Heating mode	During the operation start, or when room temperature is low.	Air is supplied through the upper outlet only.
	In all other cases.	Air is supplied through both outlets.

Air supply with alternative optional setting of outlet selector:

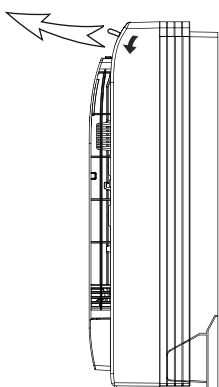
- In whatever circumstance and operation mode, air is supplied through the upper outlet only.
- Use this setting when you would like to reduce the air volume supplied by the Unit (for example, during the night rest).

Vertical adjustment

By pressing "AIR DIRECTION" button, it is possible to select and fix the position of air outlet louver. The recommended positions for the different operation modes are shown by the following Figures:

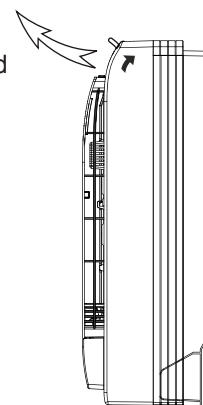
Cool / Dry modes

In "COOL" and "DRY" modes, it is recommended to adjust the louver horizontally.



Heat mode

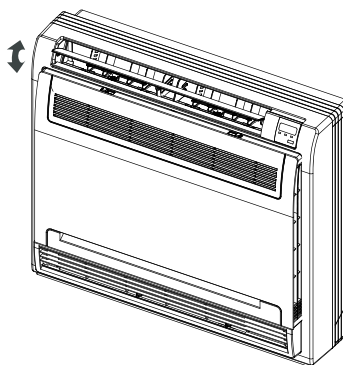
In "HEAT" mode, it is recommended to adjust the louver vertically.



Press "AIR DIRECTION" button several times till reaching your desired angle for the air outlet louver. This position will be memorized for next restart of the air conditioner.

Automatic swinging

Press "SWING" button once: the motorized louver will automatically start swinging up and down continuously:



CAUTION

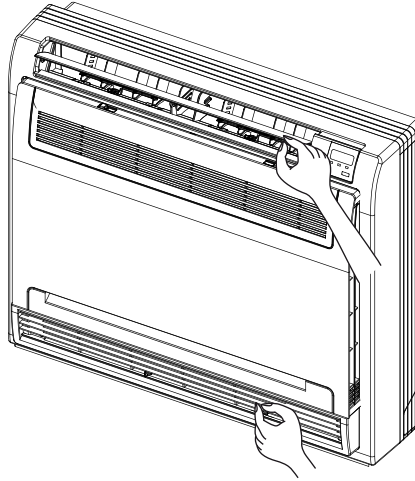
Air supply flaps must always be adjusted by pressing the relevant button on remote controller. Never move the louver by hand, so as not to damage the adjustment mechanism.

Set temperature value adjustment must always be carried out with the supervision of experienced people.

If the louver does not move properly, try to turn off the air conditioner and then turn it on again: now normal operation should be restored.

Horizontal adjustment

it is also possible to adjust the horizontal airflow direction. Move manually the knobs on left and right sides:



Horizontal airflow adjustment can be carried out by hand only.
Horizontal automatic swinging of the flaps is not available.

Cleaning of air filter on Console Models HFIU

- 1 Open the Indoor Unit's frontal panel by sliding towards the centre the buttons on left and right sides (see Fig. 1).

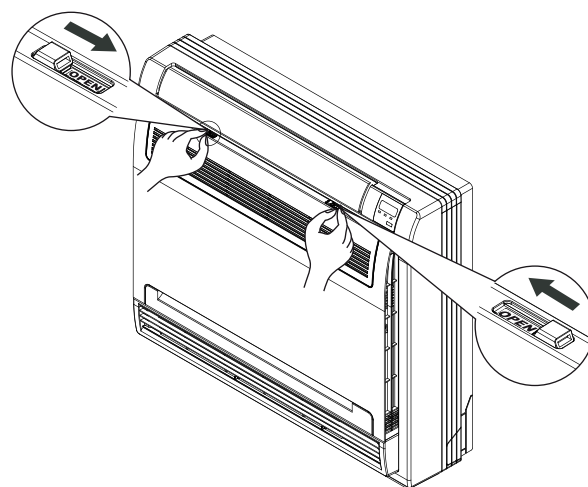


Fig.1

- 2 Lightly press the claws on left and right sides of the filter, then take out the filter by pulling it upwards (Fig. 2).

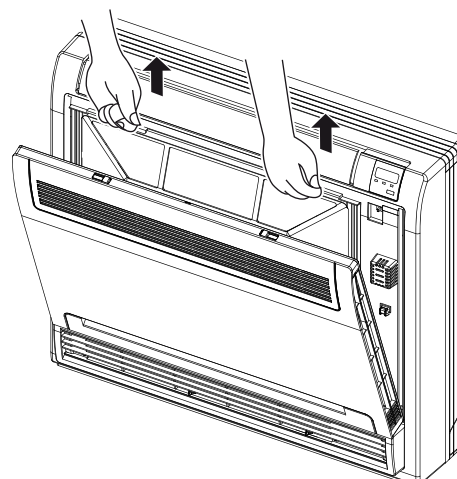


Fig.2

- 3 Take out the 2 special anti-formaldehyde filters by detaching the 4 fixing claws from the air filter's frame (Fig. 3).

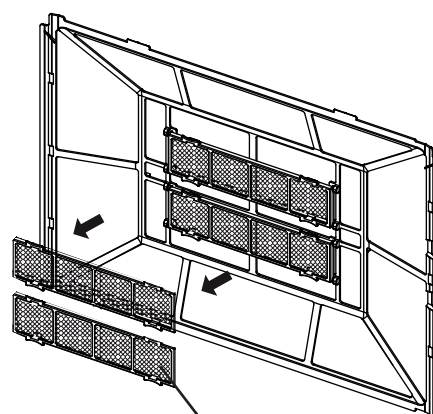


Fig.3

Cleaning of the anti-formaldehyde filters:

Wash the filters in water every 6 months.

It is recommended to replace the anti-formaldehyde filters every 3 years.

Anti-formaldehyde filter

Cleaning of the air filter:

Clean the air filter by using a vacuum cleaner, or wash it with water. If the dust accumulation is too heavy, please use a soft brush and mild detergent to clean it. In case of washing with water, dry the filter in the shade and not under the rays of sunlight or by other heat sources.

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you (Fig. 4).
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 5).



Fig.4

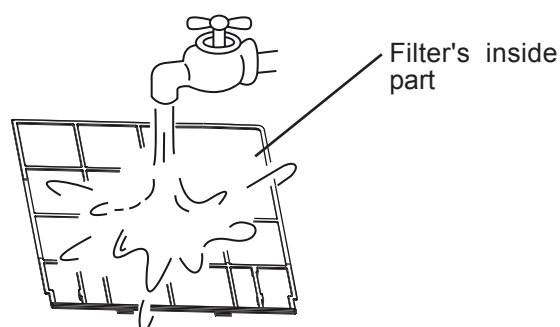


Fig.5

- 4 Reinstall the anti-formaldehyde filters, by re-attaching correctly the claws on the air filter's frame. Reinstall correctly the air filter on the Indoor Unit.
- 5 Close the Indoor Unit's panel.

CAUTION

Never operate the Unit without the filters.
CLEAN THE AIR FILTER EVERY 2 WEEKS.

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filters on Indoor Unit in case they are damaged.

Normally, the cleaning must be carried out every 2 weeks.

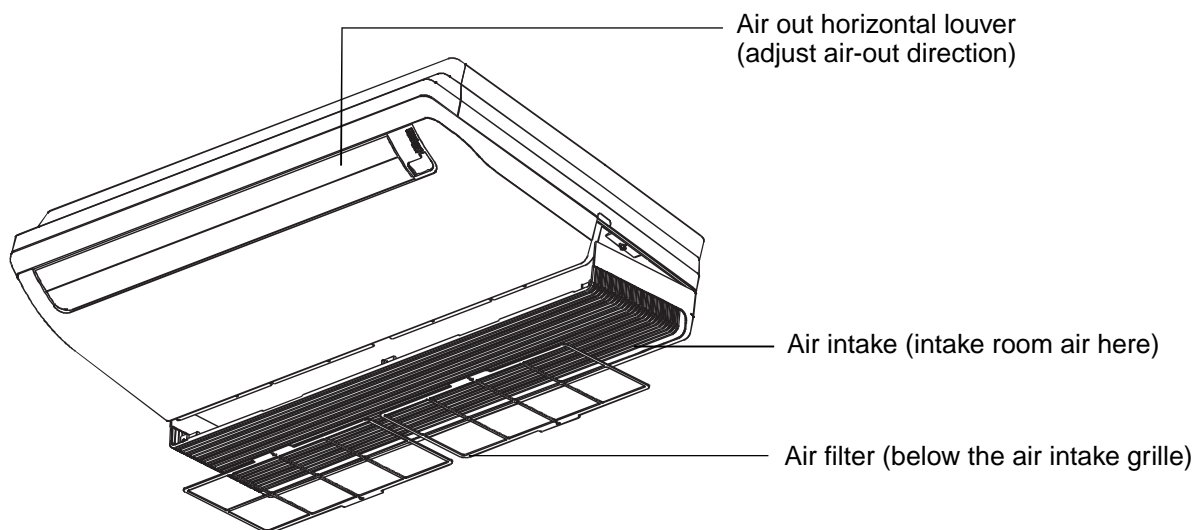
However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

CEILING-FLOOR HSFU XRV

Ceiling-Floor Models

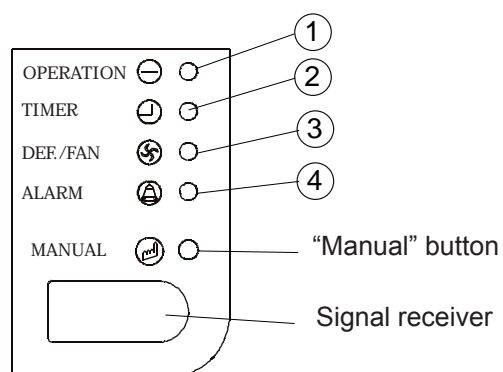
Ceiling-Floor HSFU 361, 451, 561, 711, 801, 901, 1121 XRV

Ceiling-Floor



LED Display of Ceiling-Floor Models HSFU 361~1121 XRV

- ① OPERATION LED
- ② TIMER LED
- ③ DEF/FAN LED
- ④ ALARM LED



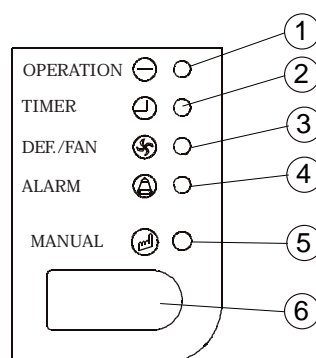
(For further details, see the following page)

NOTE: All the Figures have the only purpose to show to the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

LED indicators on Ceiling-Floor Indoor Unit HSFU 361~1121 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.

- ① OPERATION LED
- ② TIMER LED
- ③ DEF/FAN LED
- ④ ALARM LED



① OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ DEF/FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

④ ALARM LED

The LED lights up alone, or together with other lamps, to indicate a malfunction on the system. This malfunction causes the system's stop.

⑤ "MANUAL" button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

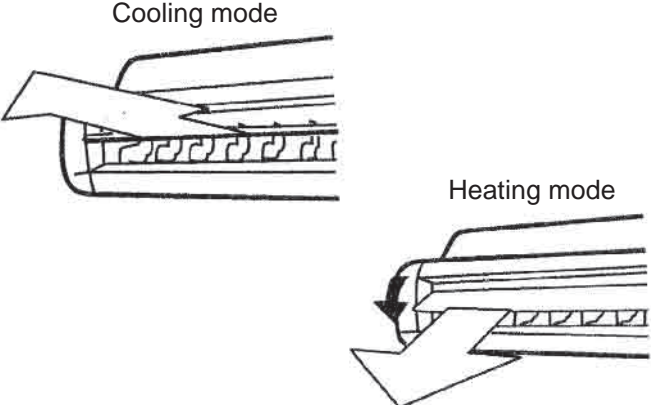
⑥ Signal receiver

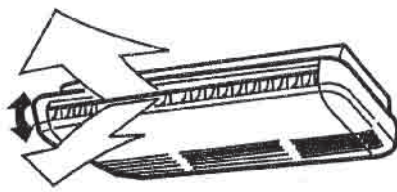

It permits to receive signals from the remote controller.

Adjusting the air flow direction

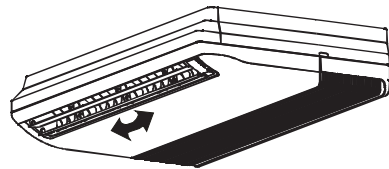

Vertical adjustment & automatic swinging

The vertical direction of the airflow can be set by using the infrared remote controller:

 <p>Cooling mode</p> <p>Heating mode</p>	<p>Setting preferences:</p> <p>Perform this setting while the air conditioner is operating. Press the "AIR DIRECTION" button till reaching your desired angle for the louver.</p> <p>To obtain the air conditioner's best performance:</p> <ul style="list-style-type: none"> • In Cooling mode: adjust the louver horizontally. • In Heating mode: adjust the louver vertically.
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	<p>Vertical automatic swinging of flaps (SWING UP/DOWN):</p> <p>Perform this setting while the air conditioner is operating. Press "SWING" button  to make the flaps swing left and right continuously. Press the button again to stop the automatic swinging.</p>
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Regolazione orizzontale

	<p>Horizontal automatic swinging of flaps (SWING LEFT/RIGHT):</p> <p>Perform this setting while the air conditioner is operating. Press "SWING" button  to make the flaps swinging left and right continuously. Press the button again to stop the automatic swinging.</p>
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WARNING

- "AIR DIRECTION" and "SWING" buttons will be disabled when the air conditioner is not operating.
- To avoid malfunctions, never attempt to move the flaps by hand but always use the remote controller.
- When the air conditioner is turned on, the motorized louver will start moving 10 seconds later, as soon as it gets under control of the inner electronics. When the air conditioner is stopped, the motorized louver for vertical airflow direction will automatically move to closing position.
- If the motorized flaps malfunction, it is advised to turn off the air conditioner and cut the power for some minutes; then restore the power, turn the Unit on again and check if the flaps work properly.
- Do not operate the air conditioner for a long time with the motorized louver for vertical airflow direction set downwards in "COOL" mode and in "DRY" mode. This may cause dew dripping from the louver inside the room.
- Open angle of the motorized louver for vertical airflow direction should not be too small, as cooling or heating performance may be impaired due to too restricted airflow area.
- Do not operate Unit with the motorized louver for vertical airflow direction in closed position.
- Relative humidity in the room should be less than 80%. If the air conditioner operates beyond this limit, the surface of indoor heat exchanger may get covered with frost: in this case, adjust the louver for vertical airflow direction to the maximum open angle and select "HIGH" fan speed.

Cleaning of air filters on Ceiling-Floor Models HSFU

- 1** Push the notches at the grille's sides and lift the grille for opening it (Fig. 1).
- 2** Detach the fixing tabs at the bottom of each air filter and pull the filters downwards for removing them.
- 3** Clean the filters by using a vacuum cleaner, or wash them with water. In case of washing with water, dry the filters in the shade and never under the rays of sunlight nor by other heat sources.

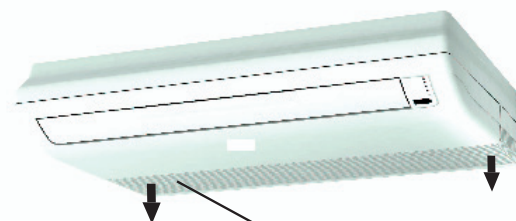


Fig.1 Filter

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you.
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 2).

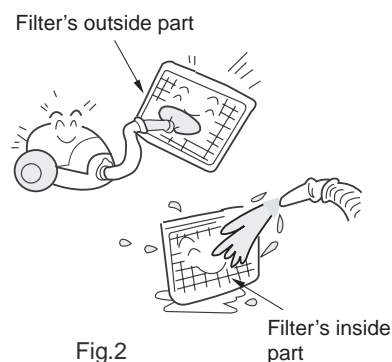


Fig.2

- 4** Reinstall the filters. Attach correctly the filters by the special fixing tabs situated at their bottom.
- 5** Close the inlet grille.



CAUTION

After removing the filters, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filters.

CLEAN THE AIR FILTERS EVERY 2 WEEKS

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filters on Indoor Unit in case they are damaged.

Normally, the cleaning must be carried out every 2 weeks.

However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

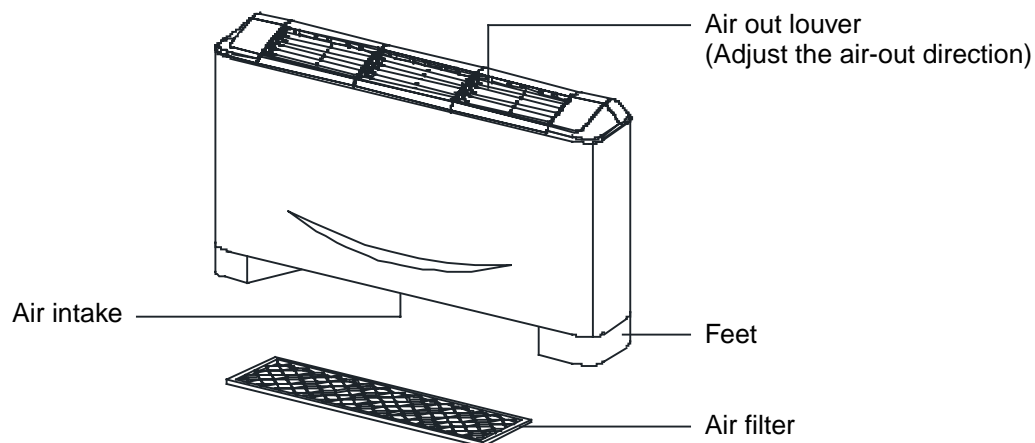
STANDING FLOOR HFLU & HFCU XRV

Standing Floor Models

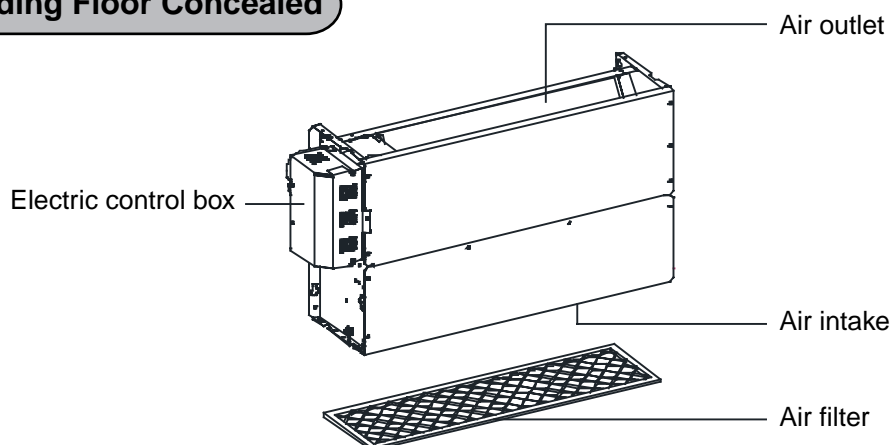
Standing Floor Exposed HFLU 221, 281, 361, 451, 561, 711, 801 XRV

Standing Floor Concealed HFCU 221, 281, 361, 451, 561, 711, 801 XRV

Standing Floor Exposed

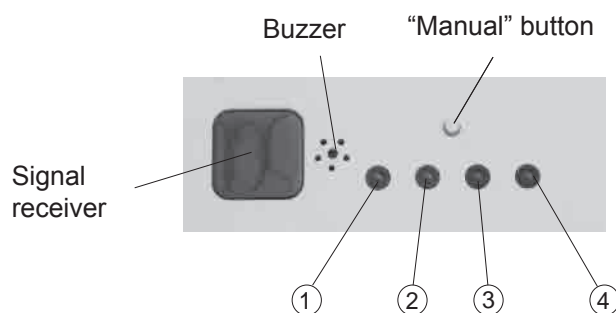


Standing Floor Concealed



LED Display of Standing Floor Exposed Models HFLU 221~801 XRV & Standing Floor Concealed Models HFCU 221~801 XRV

- ① OPERATION LED (green)
- ② TIMER LED (green)
- ③ DEF/FAN LED (red)
- ④ ALARM LED (red)



(For further details, see the following page)

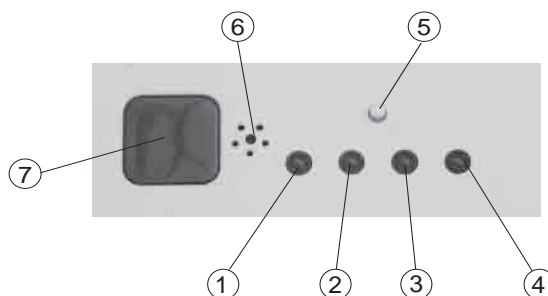
NOTE: All the Figures have the only purpose to show to the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

STANDING FLOOR HFLU & HFCU XRV

LED indicators on Standing Floor Exposed HFLU 221~801 XRV & Standing Floor Concealed HFCU 221~801 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 4 LED indicators on the Indoor Unit's frontal panel. According to the state of each indicator (ON, flashing, OFF), the Authorized Technical Service is able to detect the common type of anomalies.

- ① OPERATION LED (green)
- ② TIMER LED (green)
- ③ DEF/FAN LED (red)
- ④ ALARM LED (red)



① OPERATION LED

When connecting the Unit to the power source, the LED starts flashing. During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ DEF/FAN (DEFROST/PREHEATING) LED

- In Heating mode, if a layer of frost forms on the outdoor heat exchanger, defrosting automatically starts and the LED lights up.
- The LED also lights up when indoor heat exchanger's Preheating function is activated. This occurs in Heating mode, in order to avoid the emission of air at low temperature (prevention function anti-cold drafts).

④ ALARM LED

The LED flashes when the level in the water condensate pan exceeds the operation limit. This also makes the compressor stop, till the condensate drain pump has eliminated the surplus water.

⑤ MANUAL button

To start the air conditioner when the remote controller is not available, and to start the Test mode in Cooling operation. This button is not effective: on these Models, Test button is on the Outdoor Unit's PCB.

⑥ Buzzer

It emits a sound when a signal is received by the Indoor Unit.

⑦ Signal receiver

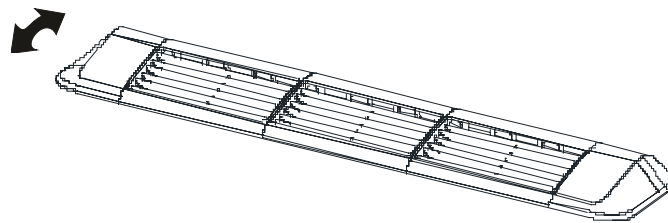
It permits to receive signals from the remote controller.

Adjusting the air flow direction

Vertical adjustment (only by hand)

Standing Floor Models are not equipped of motorized louvers, so "SWING" button on remote controller is ineffective.

On Standing Floor Models, outlet air direction can be manually adjusted by shifting the louver upwards and downwards, so as to optimize the comfort in Cooling mode and in Heating mode.



Warning!

On Standing Floor Concealed Models, the upper outlet air grille is an optional accessory, so it has to be locally purchased.

Cleaning the air filters on Standing Floor Models HFLU & HFCU

On Standing Floor Models HFLU & HFCU - which take in air from below or from the rear - the filter is housed in the lower part of the Unit.

To remove the filter, please proceed as indicated in the following Figures:

1 Loosen the two screws placed at the bottom of the Unit, on right and left sides (Fig. 1).

2 Dismantle the air filter from its housing, by slightly tilting it (Fig. 2).

3 Clean the air filter by using a vacuum cleaner, or wash it with water. In case of washing with water, dry the filter in the shade and never under the rays of sunlight nor by other heat sources.

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you.
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 3).

4 Properly reinstall the air filter.

5 Screw again the fixing screws.

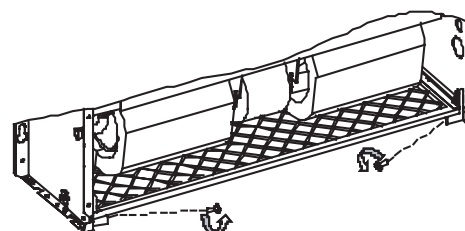


Fig.1

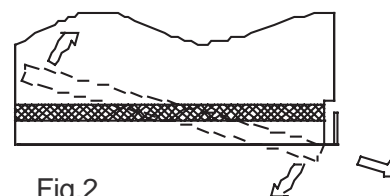


Fig.2

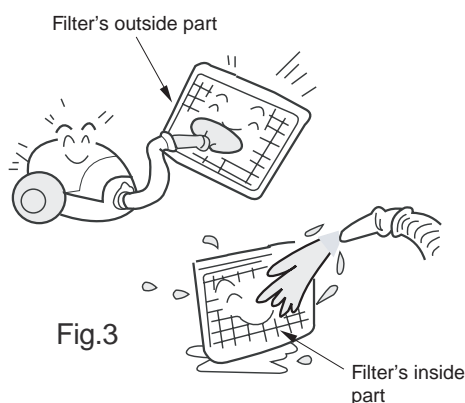


Fig.3



CAUTION

After removing the air filter, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filter.

CLEAN THE AIR FILTER EVERY 2 WEEKS

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filters on Indoor Unit in case they are damaged.

Normally, the cleaning must be carried out every 2 weeks.

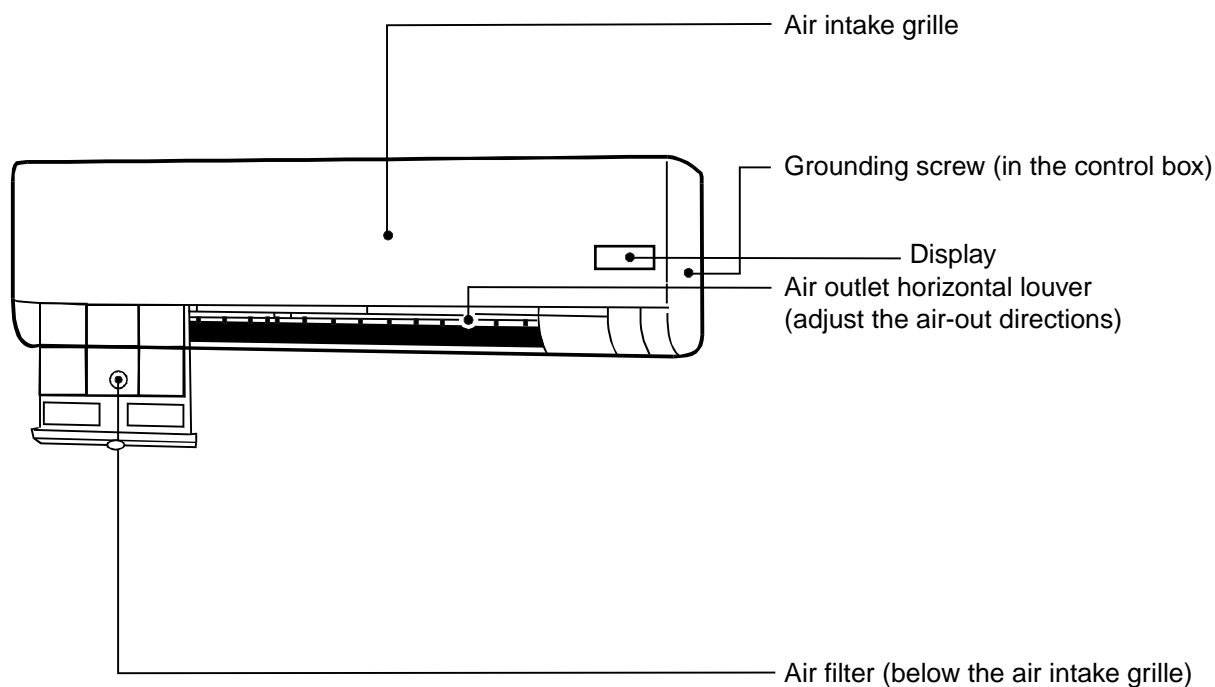
However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

WALL-MOUNTED HKEU XRV

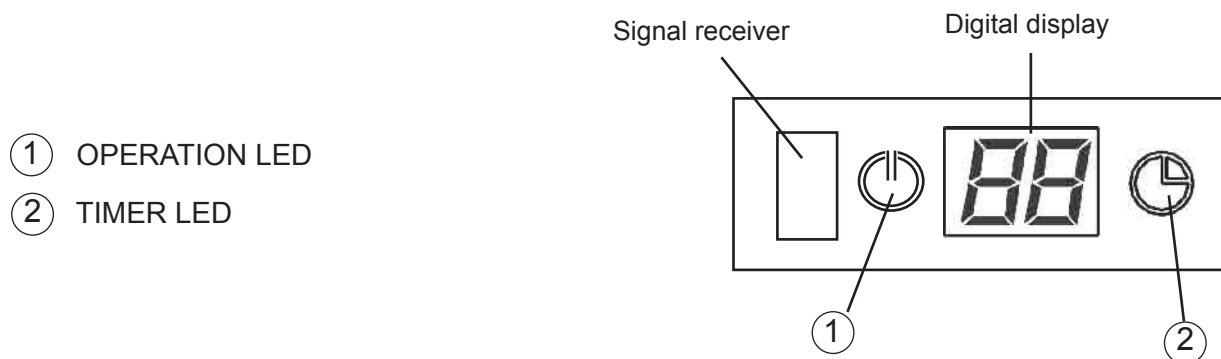
Wall-Mounted Models

Wall-Mounted HKEU 221, 281, 361, 451, 561 XRV

Wall-Mounted



LED Display of Wall-Mounted Models HKEU 221~561 XRV



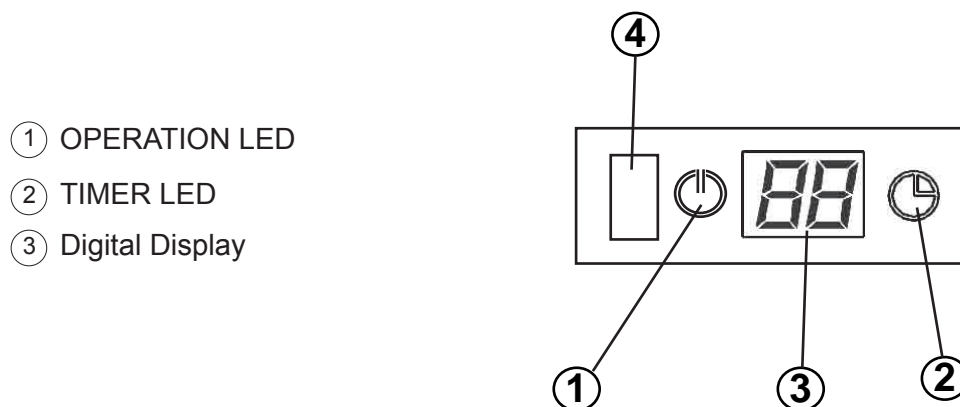
(For further details, see the following page)

NOTE: All the Figures have the only purpose to show to the User how to operate for a correct use of the air conditioner. Therefore, they may be lightly different from the real products.

LED indicators on Wall-Mounted Indoor Unit HKEU 221~561 XRV

The electronics of the air conditioner is able to diagnose eventual malfunctions which can be interpreted by the 2 LED indicators and by the digital display on the Indoor Unit's frontal panel.

According to the state of each indicator (ON, flashing, OFF) and of the Error Codes shown by the digital display, the Authorized Technical Service is able to detect the common type of anomalies.



- ① OPERATION LED
- ② TIMER LED
- ③ Digital Display

① OPERATION LED

- When connecting the Unit to the power source, the LED starts flashing.
- When the air conditioner stands by, the LED is off.
- During the air conditioner's operation, it stops flashing and lights up.

② TIMER LED

It lights up when TIMER function is selected (air conditioner's programmed start and/or stop).

③ Digital Display

- When the Unit is off or stands by, the display is off.
- When FAN only mode is selected, the digital display is off.
- In all operation modes (except FAN only mode, the display shows set temperature.
- When defrosting, the digital display shows "dF".
- When there are malfunctions, the display shows Error Codes.

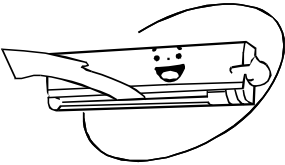
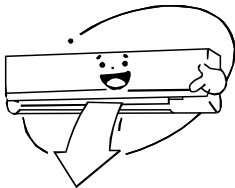
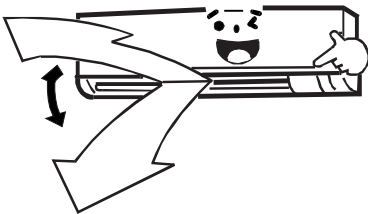
④ Signal receiver

It permits to receive signals from the remote controller.

Adjusting the air flow direction

Vertical adjustment

The vertical direction of the airflow can be set by using the infrared remote controller:

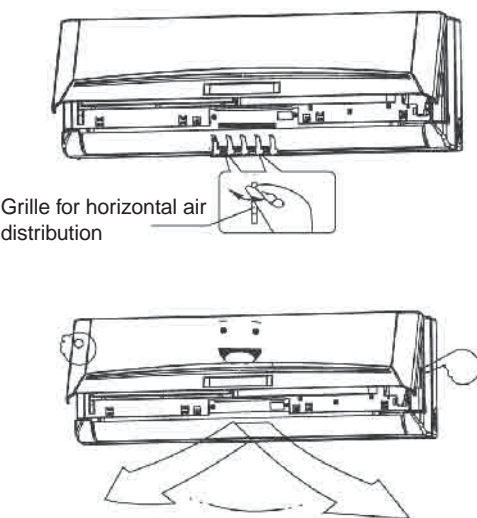
<p>Setting your preferences: Perform this setting while the air conditioner is operating. Press "SWING" button and leave it when your desired angle for the louver has been reached.</p> <p>Recommended positions:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>In Cooling mode: adjust the louver horizontally.</p>  </div> <div style="text-align: center;"> <p>In Heating mode: adjust the louver vertically.</p>  </div> </div>	<p>Automatic swinging (SWING): Perform this setting while the air conditioner is operating. Press "SWING" button to make the flaps swing up and down continuously. Press the button again to stop the automatic swinging.</p> <div style="text-align: center;">  </div>
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WARNING

- "SWING" button will be disabled when the air conditioner is not operating.
- To avoid malfunctions, never attempt to move the flaps by hand but always use the remote controller.
- When the air conditioner is turned on, the motorized louver will start moving 10 seconds later, as soon as it gets under control of the inner electronics. When the air conditioner is stopped, the motorized louver for vertical airflow will automatically move to closing position. If the motorized louver malfunction, it is advised to turn off the air conditioner and cut the power for some minutes; then restore the power, turn the Unit on again and check if the flaps work properly.
- Do not operate the air conditioner for a long time with the motorized louver for vertical airflow direction set downwards in "COOL" mode and in "DRY" mode. This may cause dew dripping from the louver inside the room.
- Open angle of the motorized louver for vertical airflow direction should not be too small, as cooling or heating performance may be impaired due to too restricted airflow area.
- Relative humidity in the room should be less than 80%. If the air conditioner operates beyond this limit, the surface of indoor heat exchanger may get covered with frost: in this case, adjust the louver for vertical airflow direction to the maximum open angle and select "HIGH" speed.
- When the air conditioner is connected to the power source, the flap may generate a sound for 10 seconds: this is normal.

Horizontal adjustment (by hand)

Horizontal airflow direction can be MANUALLY set by moving the vertical outlet grille behind the horizontal flap.

 <p>Grille for horizontal air distribution</p>	<p>Setting your preferences:</p> <p>BEFORE YOU START: Use "SWING" button on remote controller to move the vertical airflow louver in the middle position.</p> <p>In this way, you will have access to the levers on the airflow grills laying behind; move them to the desired position in order to adjust airflow direction.</p> <hr/> <p>Automatic setting:</p> <p>No automatic setting is available to select the angle for vertical outlet grille.</p>
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Cleaning of air filters on Wall-Mounted Models HKEU

1 Push the notches at the grille's sides and lift the grille for opening it (Fig. 1).

2 Detach the fixing tabs at the bottom of each air filter and pull the filters downwards for removing them (Fig. 2).

3 Clean the filters by using a vacuum cleaner, or wash them with water. In case of washing with water, dry the filters in the shade and never under the rays of sunlight nor by other heat sources.

- If the cleaning is carried out with a vacuum cleaner, the filter's outside part must be oriented towards you.
- If the cleaning is carried out with water, the filter's inside part must be oriented towards you (Fig. 3).

4 Reinstall the filters.
Attach correctly the filters by the special fixing tabs situated at their bottom (Fig. 4).

5 Close the inlet grille.

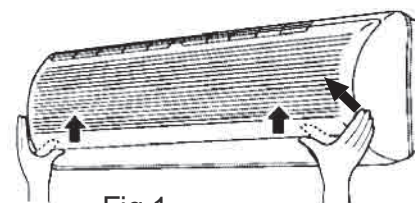


Fig.1

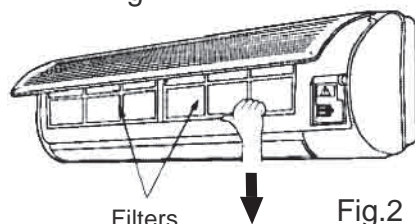


Fig.2

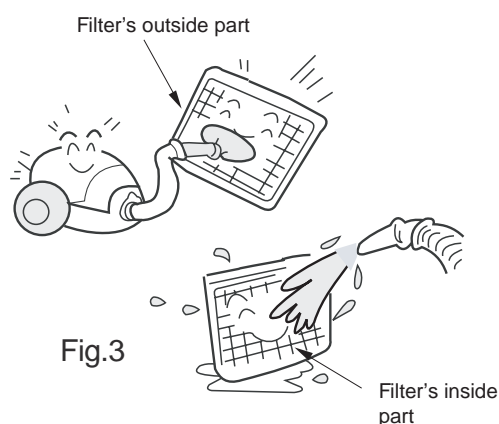


Fig.3



CAUTION

After removing the filters, do not touch the metallic flaps of indoor heat exchanger, as they are sharp and may hurt you.

Do not operate the Unit without the air filters.

CLEAN THE AIR FILTERS EVERY 2 WEEKS

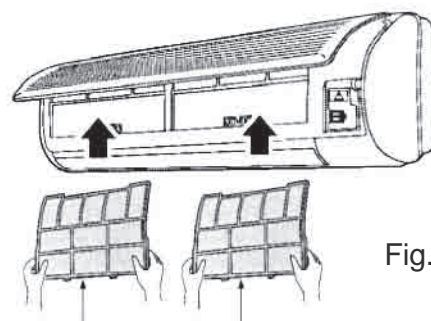


Fig.4

NOTES:

- The filters must always be clean: if they are clogged with dust or other solid particles in general, the cooling and heating capacity of the air conditioner will be reduced. Moreover, the appliance will be noisier and consume more electricity.
- Normally, it is not necessary to replace the filters: you only have to clean them at regular intervals. Replace the filters when the accumulated dirt is too hard to be removed.
- In case the air filters are damaged and need to be replaced, it is necessary to order them as spare parts: please contact your Retailer or the Authorized Technical Service.
- **IMPORTANT:** Never reinstall the filters on Indoor Unit in case they are damaged.

Normally, the cleaning must be carried out every 2 weeks.

However, if the air conditioner is used for many hours a day in a dusty environment, it must be cleaned more often than other air conditioners used in less heavy conditions.

ORDINARY MAINTENANCE AND ADVICE FOR USE

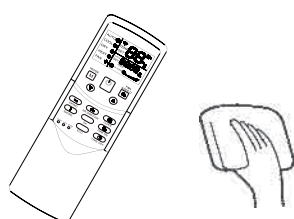
Indoor Unit's cleaning

WARNING

Before starting any kind of ordinary maintenance:

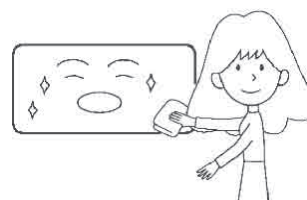
- 1 - Stop the appliance by pressing "ON/OFF" button on remote controller;
- 2 - Move the circuit breaker to "OFF" or "0" position;
- 3 - Pull the plug out of the power socket;
- 4 - To reach the Unit, please use a stepladder or other appropriate bearing strong enough to ensure your safety.

Cleaning the remote controller



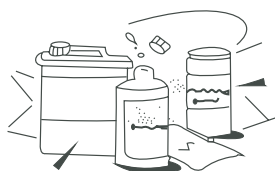
Do not use water, but a dry cloth. Do not use products for glass cleaning, nor soaked in detergents.

Cleaning the Indoor Unit



Use a dry and soft cloth. In case of need, dampen the cloth in water and neutral detergent, then wring well.

Never use any of the following products for cleaning



Benzine, paint solvents, polishing products, by-products of oil in general, etc. may damage the outside surfaces of Unit and cause deformations and scratches on the appliance and on the remote controller.



The use of very hot water (over 40°C) may discolour and/or deform the plastic parts.

NOTES:

- If the appliance or the inlet grille are very dirty, clean them with a cloth soaked in tepid water and neutral detergent. Rinse in clean water and dry well. The presence of humidity on the inlet grille may cause electric shocks.
- Never use any abrasive sponge for cleaning, to avoid scratching the Unit's surfaces.
- If the grille is open or has been removed, do not touch the metallic flaps of the heat exchanger, as the flaps are sharp and may hurt you.
- Do not expose the grille or the Unit to direct sunlight, to avoid discolouring or deforming them.

Outdoor Unit's cleaning

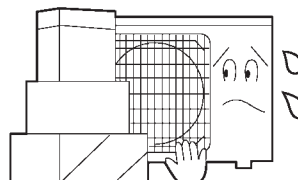
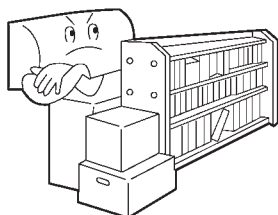
- Check regularly that the air inlet and outlet are not obstructed by dust or dirt in general.
- For any other cleaning or maintenance of Outdoor Unit, always contact the Authorized Technical Service.

At the beginning of season

When restarting the air conditioner after a long time, or at the beginning of the season, please carry out the following procedure:

1 Do not obstruct the air inlet and outlet

Check if any objects obstruct the airflow at the air inlet and outlet on Indoor and Outdoor Units.

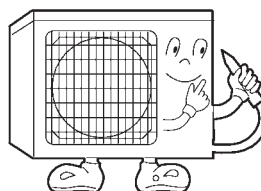


2 Check the Unit's fixing

Check the condition of fixing devices on Indoor and Outdoor Units, especially those made of iron on Outdoor Units which are more subject to corrosion, so as to avoid their possible collapse.

3 Earth cable

Check if there are no false electric contacts and especially if the earth cable is not interrupted and well connected.



CAUTION

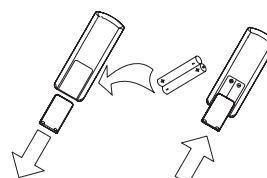
An incorrect or inexistent earth connection may cause the danger of electric shocks.

4 Air filter

Check if there is the filter on the Indoor Unit. The filter must be clean. In case there is no filter or the filter is dirty, reinsert or clean it.

5 Remote controller's batteries

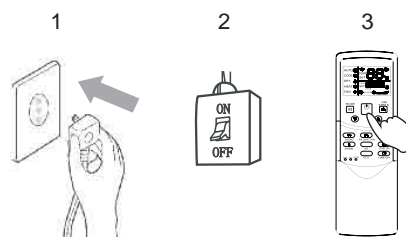
Insert batteries in the remote controller's battery case.



6 Unit's start

The Outdoor Unit must be connected to the power line 12 hours before its start. Insert the plug into the power socket and move the circuit breaker to "ON": "OPERATION" LED on Indoor Unit will start flashing once per second.

Start the Indoor Unit by pressing "ON/OFF" button on remote controller only 12 hours after the Outdoor Unit has been powered.




At the end of season

At the end of the season or in case you foresee not to use the air conditioner for a long time, please carry out the following procedure:

1 Dry the Unit

Operate the air conditioner in "COOL" mode for about half a day by setting a temperature of 30°C, or operate the appliance in "FAN" mode for half a day by setting a "HIGH" fan speed.

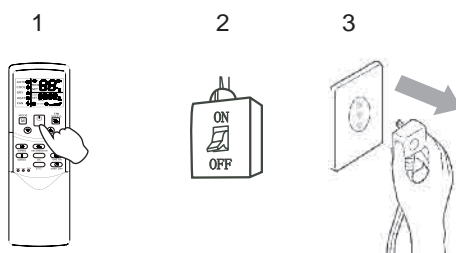
This is for drying the Unit and preventing the forming of moulds and/or bad smells.

 ~ 6 hours
Cool operation / 30°C
Fan operation / HIGH (fan speed)

2 Disconnect the appliance from the power supply

Stop the air conditioner by pressing "ON/OFF" button on remote controller, move the circuit breaker to "OFF" or "0" and pull the plug out of the power socket.

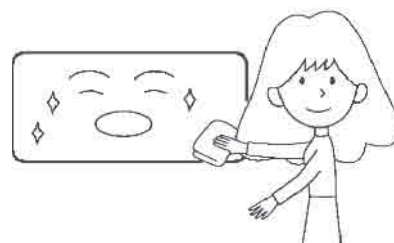
This is necessary as the appliance consumes a little quantity of electricity even if it is stopped.



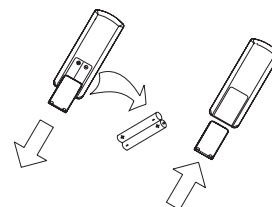
3 Clean and reinstall the air filter



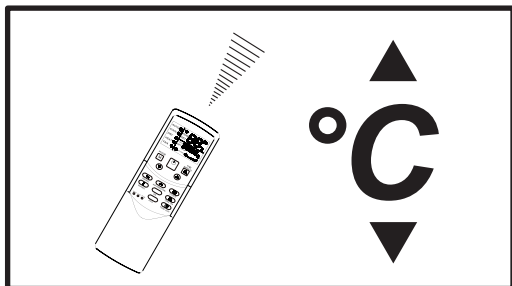
4 Clean the body or the panel of the Unit



5 Remove batteries from the remote controller

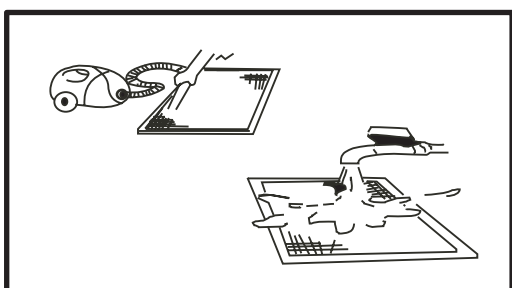


Suggestions for economical use



Select a suitable temperature value

- In Heating mode, avoid to set too high temperature value (recommended temperature: 22°C~24°C).
- In Cooling mode, avoid to set too low temperature values (recommended temperature: 26°C~28°C).



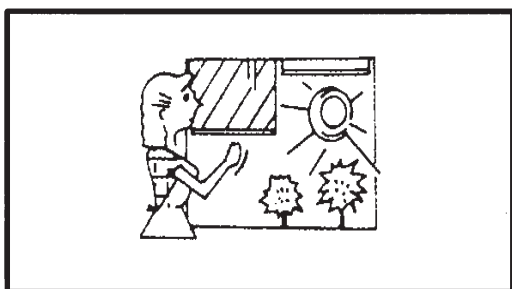
Often clean the air filters

- To obtain the air conditioner's best performance, it is necessary to clean the filters on Indoor Unit at least every 2 weeks (at every season's change on Duct Models), as already described. If dust accumulates on the filter, the air conditioner's performance decreases.



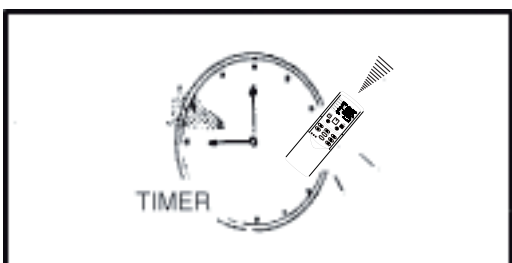
Do not keep doors or windows open

- This decreases the air conditioner's performance and causes an increase in electricity consumption. Moreover, in case of thermal overload, the automatic protective functions may intervene, and the air conditioner will stop operation.



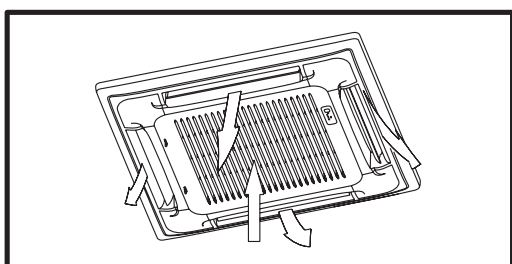
Reduce the exposure to sunlight

- In Cool mode, protect the window panes by curtains or shutters. In this way, you can obtain more comfort and a reduction in electricity consumption.



Use TIMER function moderately

- Do not select operating intervals higher than real comfort needs, and consider above all the real stay of people inside the air-conditioned room.



Adjust the airflow correctly

- With a little experience, it is possible to estimate by yourself the increase in comfort which arises from a correct adjusting of the airflow coming out of the Unit. Energy consumptions being equal, comfort remarkably increases.

TROUBLESHOOTING

Following symptoms are not air conditioner's troubles

The following table shows a series of seeming malfunctions.

Please check the following items before calling the Authorized Technical Service.

WHAT HAPPENS	REASON
After a stop, the air conditioner does not restarts immediately.	<ul style="list-style-type: none"> • If "OPERATION" LED on Indoor Unit lights up, it is normal that the system does not immediately restart. A protective function (3-minutes' delay) is active for preventing damages to the compressor every time the operation restarts after a stop. • If both "OPERATION" and "DEF./FAN" lamps light up, this is not a malfunction: the compressor does not immediately restarts because of the intervention of the anti-cold drafts protection.
Change into the "FAN" mode during "COOL" mode.	<ul style="list-style-type: none"> • In order to prevent the frosting of indoor heat exchanger, the system changes into "FAN" mode automatically, and restores to the "COOL" mode after soon. • When the room temperature value drops to the set temperature value, compressor stops and the Indoor Unit changes to "FAN" mode. When temperature rises up, the compressor starts again. It is the same in "HEAT" mode.
White mist comes out of the Indoor Unit.	<ul style="list-style-type: none"> • If during operation in "COOL" mode, humidity is high and the Indoor Unit's inside is very dirty, temperature distribution inside the room becomes uneven. It is necessary to clean the Indoor Unit: please call the Authorized Technical Service.
White mist comes out of the Outdoor Unit.	<ul style="list-style-type: none"> • During operation in "HEAT" mode. This is because the Outdoor Unit is carrying out the automatic defrosting.
Noise from the Indoor Unit or from the Outdoor Unit	<ul style="list-style-type: none"> • When the system stops after heating operation, the Indoor Unit emits a creaking sound. This is normal: expansion and contraction of plastic parts caused by temperature changes make this noise. • During the start in "COOL" mode or after the stop of "HEAT" operation, you may hear a gurgling sound or a hissing sound. This is the sound of refrigerant gas flowing through both Indoor and Outdoor Units. • When operation mode is switched from "COOL" to "HEAT", you may hear a hissing sound coming from the refrigerant circuit. This is the noise of refrigerant caused by flow stop or flow change. • The tone of operating noise changes. This noise is caused by the change of frequency.
Dust comes out of the Indoor Unit.	<ul style="list-style-type: none"> • This happens if the Unit is used again after a long time. During this time, dust has got inside the Unit.
The Indoor Unit gives off bad smells.	<ul style="list-style-type: none"> • The Unit can absorb the smell of rooms, furniture, cigarettes, etc., and then emits it again.
The Outdoor Unit's fan does not spin.	<ul style="list-style-type: none"> • This happens during the system's operation. The speed of the fan is controlled in order to optimize product operation.

TROUBLESHOOTING

Problems deriving from the remote controller

Before starting troubleshooting, please perform the following checks:

It is not possible to change the settings while the air conditioner is operating		
WHAT HAPPENS	CHECK	POSSIBLE REASON
The User cannot change the indoor fan speed.	Check if "AUTO" mode is displayed on remote controller.	When operating in "AUTO" mode, the indoor fan speed is automatically set by the electronics.
	Check if "DRY" mode is displayed on remote controller.	When operating in "DRY" mode, the indoor fan speed is automatically set by the electronics.

The transmission indicator on the remote controller does not light up		
WHAT HAPPENS	CHECK	POSSIBLE REASON
Signals from the remote controller are transmitted only when "ON/OFF" button is pressed.	Check if TIMER function is active.	Signals from remote controller cannot be transmitted because the appliance is stopped.

Set point temperature is not displayed on remote controller		
WHAT HAPPENS	CHECK	POSSIBLE REASON
Set point temperature is not displayed on remote controller.	Check if "FAN" mode has been selected.	Set temperature cannot be set when operating mode is "FAN".

"TIMER" indications displayed on remote controller go off		
WHAT HAPPENS	CHECK	POSSIBLE REASON
After a lapse of time, "TIMER OFF" indication disappears from the display.	Check if TIMER OFF function has been set.	The air conditioner automatically stops at set time, and TIMER indication on remote controller goes off.
After a lapse of time, "TIMER ON" indication disappears from the display.	Check if TIMER ON function has been set.	As soon as set time for start has been reached, the air conditioner starts and the displayed time goes off.

The signal receiving tone from Indoor Unit is no more heard		
WHAT HAPPENS	CHECK	POSSIBLE REASON
When pressing "ON/OFF" button on remote controller, no receiving tone is heard from Indoor Unit.	Check if remote controller is actually turned to the receiver on the Indoor Unit, and that no obstacles are placed between them.	Turn the remote controller to the receiver on the Indoor Unit, then push "ON/OFF" button.
Remote controller's buttons are not active.		Press "RESET" button.

NOTE: Sometimes, the remote controller may stop operating correctly because of interferences or electromagnetic noise. In this case, it is necessary to remove batteries from the remote controller, possibly eliminate the noise's reason, wait a few minutes and reinsert the batteries in their case. Now operation should be normal.

TROUBLESHOOTING

Problems and possible solutions

The following table shows a series of problems and their possible reasons and solutions.

Compiere le verifiche descritte prima di richiedere l'intervento dell'Assistenza Tecnica.

PROBLEM	REASONS	SOLUTIONS
Unit does not start.	<ul style="list-style-type: none"> • Power failure. • Power switch is off. • Fuse of power switch may have burned. • Batteries of remote controller exhausted or other problem of controller. 	<ul style="list-style-type: none"> • Wait for the comeback of power. • Switch on the power. • Replace the fuse. • Replace the batteries or check the controller.
Air flowing normally, but completely cannot cooling.	<ul style="list-style-type: none"> • Temperature is not set correctly. • The 3-minutes' delay protection for compressor is active. 	<ul style="list-style-type: none"> • Set the temperature properly. • Wait 3 minutes, then the compressor will restart and the Unit will restarts cooling.
Unit starts and stops frequently.	<ul style="list-style-type: none"> • Refrigerant is too little or too much. • Presence of air or insufficient refrigerant gas in the refrigerating circuit. • Compressor's malfunction. • Voltage is too high or too low. • System circuit is blocked. 	<ul style="list-style-type: none"> • Check leakage, and rightly recharge refrigerant. • Vacuumize and rightly recharge refrigerant. • Repair or replace compressor. • Install a manostat. • Find reasons and solution.
Low cooling effect.	<ul style="list-style-type: none"> • Heat exchanger on Indoor and Outdoor Units is dirty. • Air filter is dirty. • Air inlets and outlets on Indoor/ Outdoor Units are obstructed. • Doors and/or windows are open. • Sunlight directly shines. • There are too much heat sources. • Outdoor temperature is too high. • Leakage or lack of refrigerant. 	<ul style="list-style-type: none"> • Clean the heat exchanger. • Clean the air filter. • Eliminate all dirties on the air inlets/ outlets. • Close doors and/or windows. • Install curtains in order to shelter the Unit from sunshine. • Reduce heat sources. • AC cooling capacity is reduced (this is normal). • Check leakage and rightly recharge refrigerant.
Low heating effect.	<ul style="list-style-type: none"> • Outdoor temperature is lower than 7°C. • Doors and/or windows are not completely closed. • Leakage or lack of refrigerant. 	<ul style="list-style-type: none"> • Install further heating devices. • Close the doors and/or the windows. • Check leakage and rightly recharge refrigerant.

TROUBLESHOOTING

CAUTION:

Never try to repair the Air Conditioner by yourself!

if one of the following malfunctions occur, immediately stop operation, turn off the main switch and contact the Authorized Technical Service:

- You smell something burning.
- "OPERATION" LED on Indoor Unit is flashing rapidly (5Hz). This lamp is still flashing rapidly after turning off the power and turn on again.
- Remote controller is malfunctioning, or its buttons do not work well.
- A safety device such as a fuse or a breaker frequently actuates.
- Obstacles or water enter the Unit.
- Water leaks from Indoor Unit.
- Other malfunctions are observed.

AUTOMATIC RESTART AFTER A POWER FAILURE

- When a power failure occurs during operation, the air conditioner stops immediately.
- When power is restored, the "OPERATION" lamp on the Indoor Unit starts blinking.
- In particular, the air conditioner will restart automatically after 3 minutes have elapsed since power is restored. This means that it is not required to press the "ON/OFF" button on the remote control.

The settings will be the same as before the blackout.

However, it is necessary to program TIMER again, as in case of a blackout, TIMER settings for automatic start/stop of the air conditioner are cancelled.



HOKKAIDO Srl
14, Via della Salute
40132 Bologna - Italy
Tel. +39.051.41.33.111
Fax +39.051.41.33.112
www.hokkaido.eu
www.termalgroup.com

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