



USE AND INSTALLATION MANUAL

FK260 - FK360



5140901_01

Aermec. 16.01. 5140901_01

SUMMARY

1.	WARNINGS	4
1.1.	GENERAL WARNINGS	4
1.2.	WARNINGS FOR R32 GAS	4
1.3.	R32 GAS ADVANTAGES.....	4
1.4.	WARNINGS FOR MAINTENANCE OR REPAIR.....	4
1.5.	FILLING R32 REFRIGERANT GAS	4
1.6.	DISPOSAL OF R32 REFRIGERANT GAS	4
1.7.	SAFETY STANDARDS FOR TRANSPORTATION AND STORAGE	4
1.8.	WARNINGS FOR THE INSTALLER.....	5
1.9.	WARNINGS FOR THE USER.....	6
1.10.	PRECAUTIONS FOR USE	6
2.	UNIT TYPE.....	7
3.	FEATURES	7
4.	OPERATING LIMITS.....	8
5.	TECHNICAL DATA.....	8
6.	DESCRIPTION OF COMPONENTS	9
7.	INSTALLATION	10
7.1.	PRECAUTIONS FOR INSTALLATION OF THE UNIT	10
7.2.	POSITIONING.....	10
7.3.	MINIMUM TECHNICAL CLEARANCES	11
7.4.	CONDENSATE DRAINAGE.....	11
7.5.	ELECTRICAL WARNINGS.....	12
7.6.	UNIT DIMENSIONS	12
8.	WIRING DIAGRAMS	13
9.	OPERATING TEST	14
10.	ROUTINE CHECKS FOLLOWING INSTALLATION	14
11.	MAINTENANCE	15
11.1.	GENERAL NOTES	15
11.2.	CLEANING THE FRONT PANEL.....	15
11.3.	CLEANING THE AIR FILTER	15
11.4.	CHECK BEFORE STARTING.....	15
11.5.	MAINTENANCE AFTER USE	15
12.	CONTROL PANEL.....	16
13.	REMOTE CONTROL	17
13.1.	REPLACING THE REMOTE CONTROL BATTERIES.....	19
14.	RECOMMENDED OPERATIONS.....	20
14.1.	OPERATIONS FOR GREATER COMFORT AND SAVINGS	20
15.	ALARMS DISPLAY	21
15.1.	ERROR CODES	21
16.	SAFETY STANDARDS DUE TO GAS R32	22

Dear customer,

I would like to thank you for having chosen to buy an AERMEC product. This product is the result of many years of experience and special studies and design, and it has been built with the best materials and the most advanced technology..

The quality level is being constantly monitored, so AERMEC products are synonymous with Safety, Quality and Reliability.

The data may undergo modifications considered necessary for the improvement of the product, at any time and without the obligation for any notice thereof.

Thank you once again.
AERMEC S.p.A.



This marking indicates that this product should not be disposed with other household wastes in the entire EU.

To prevent any harm to the environment or human health caused by incorrect disposal of Waste Electrical and Electronic Equipment (WEEE), please return the device using suitable collection systems, or contacting the retailer where the product was purchased. For further information please contact the appropriate local authority.

Unlawful disposal of the product by the user may result in the application of administrative fines based on current laws

All specifications are subject to change without prior notice. Although every effort has been made to ensure precision, Aermec does not assume any responsibility for any errors or omissions.

1. WARNINGS

1.1. GENERAL WARNINGS



WARNING

Please read this manual carefully before using the unit.



WARNING

Please read this manual carefully before installing the unit.



WARNING

Please read this manual carefully before repairing or performing maintenance on the unit.



WARNING

This unit contains flammable R32 gas.

1.2. WARNINGS FOR R32 REFRIGERANT GAS

- The FK unit uses eco-friendly R32 refrigerant gas.
- The refrigerant gas is odourless.
- R32 refrigerant gas is flammable, but only in the presence of flames.
- There is a chance of explosion but only if a certain concentration is reached in the air.
- Smoking near the unit is prohibited.
- Provide signage prohibiting smoking near the unit.
- The flammability of the gas is very low.
- Keep the room where the unit is installed well ventilated.
- Do not pierce or burn the unit.
- The unit cannot be placed near ignition sources such as open flames, electric heaters, etc.
- All repairs or extraordinary maintenance operations must be carried out by specialised technicians or qualified personnel.

1.3. R32 GAS ADVANTAGES

- Compared to common refrigerants, R32 is a non-polluting refrigerant. It causes no damage to the ozone layer and does not add to the greenhouse effect..
- R32 has excellent thermodynamic features that lead to high energy efficiency.

1.4. WARNINGS FOR MAINTENANCE OR REPAIR

THESE PROCEDURES MAY ONLY BE FOLLOWED BY SPECIALISED TECHNICIANS OR QUALIFIED PERSONNEL.

If the pipes of the refrigerant system are to be cut or welded, please follow the steps below:

1. Turn off the unit and disconnect it from the electricity
2. Drain the refrigerant gas
3. Extract the remaining gas
4. Clean with Nitrogen (N₂)
5. The pipes can only be cut or welded at this moment
6. Ensure that there are not open flames
7. The refrigerant must be recycled in the special tanks

1.5. FILLING R32 REFRIGERANT GAS

THESE PROCEDURES MAY ONLY BE FOLLOWED BY SPECIALISED TECHNICIANS OR QUALIFIED PERSONNEL.

- Make sure that other types of refrigerant do not contaminate the R32.
- The gas tank must be kept in a vertical position during filling.
- Apply the specified label to the unit after filling.
- Do not add more refrigerant gas than necessary.
- Once filling is finished, carry out the leak detection operations before testing its functioning.
- A second check for gas leaks must be performed once all of the previous operations are completed.

1.6. DISPOSAL OF R32 REFRIGERANT GAS

THESE PROCEDURES MAY ONLY BE FOLLOWED BY SPECIALISED TECHNICIANS OR QUALIFIED PERSONNEL.

- Do not dispose of it in areas with a risk of formation of explosive atmospheres with the air. The gas must be disposed of in a suitable torch with an anti-flame-return device. Contact the supplier if you need instructions for use.

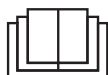
1.7. SAFETY STANDARDS FOR TRANSPORTATION AND STORAGE

- Using a suitable gas detector, check that there are no gas leaks in the environment before draining, and open the container of the unit.
- Ensure there are no ignition sources near the unit.
- Smoking near the unit is prohibited.

WARNING

Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
Should repair be necessary, contact your nearest authorized Service Centre.
Any repairs carried out by unqualified personnel may be dangerous.
The appliance must be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater). Do not pierce or burn.
Appliance must be installed, operated and stored in a room with a floor area larger than X m². (Please see below table).
Appliance filled with flammable gas R32. For repairs, refer to manufacturer's instructions only.
Be aware that refrigerants do not contain odour. Read specialist's manual.

Minimum room area m ²	Charge amount "kg"	≤1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2	2,1	2,2	2,3	2,4	2,5
window mounted		-	5,2	6,1	7	7,9	8,9	10	11,2	12,4	13,6	15	16,3	17,8	19,3



PURPOSE OF THE UNIT:

FK monoblock air conditioners have been designed only for the purpose of cooling internal spaces with dimensions and conditions of use that are suited to the power installed. DO NOT USE THESE UNITS FOR OTHER PURPOSES.

Operation of the various models is managed with the remote control or the panel on the machine.

1.8. WARNINGS FOR THE INSTALLER

- The installation and electrical connection of the unit must be carried out only by persons possessing the technical-professional requisites for installation, transformation, expansion and maintenance of systems and the ability to perform checks on them for safety and operation. In this manual, these will generally be referred to as "Personnel with specific technical skills".
- This air conditioner must be installed according to national plant engineering regulations. Particular attention must be paid to safety guidelines and to ensuring that the wiring is correctly connected: incorrect wiring connection could result in supply cables, plug or power socket overheating, which could present a fire risk.
- Ensure that the air conditioner is connected to the power supply or to a power socket with the correct voltage and frequency. Using power supplies with the incorrect voltage and frequency could damage the unit and consequently risk starting a fire. The voltage must be stable with no large fluctuations.
- Install on a solid surface that can hold the weight of the air conditioner. Check the support is securely installed and the unit is absolutely stable after operating for a long time.
- To protect the unit against short circuits, fit a thermomagnetic isolator switch to the power line with a minimum contact gap of 3mm on both poles.
- The isolator switch and any plug must be installed in an easily accessible position.
- To ensure good drainage, the condensate discharge pipes must be correctly installed, following the installation instructions. Adopt the most suitable measures to avoid heat dispersion and the consequent formation of condensate. Incorrect installation of the pipes can result in water leaks, wetting furniture and other items in the room.
- Do not install the unit in a location where it could be affected by inflammable gas leaks or deposits of materials which are inflammable, explosive, poisonous, corrosive or hazardous substances. Do not use naked flames near the units. Risk of fire or explosion. Install the unit in a location with minimal levels of dust, fumes, humidity and corrosive agents in the air.
- Do not install in laundries.
- When installing the unit, allow sufficient technical clearance around the unit for maintenance.
- When installing the unit, ensure that the dimensions and weight of the unit are visible.
- Do not make any modifications to the unit! Do not attempt to repair the unit alone, this is extremely dangerous! Incorrect operations could cause electric shocks, water leaks, fires etc. Contact your After Sales Service, these operations must only be carried out by "Personnel with the specific technical skills".
- Ensure that the power supply and the installed output are adequately scaled to supply the air conditioner correctly.
- Before operating the air conditioner, ensure that the electric cables, condensate discharge pipes and cooling connections have been correctly installed to avoid the risk of refrigerant gas leaks and electric shocks.
- The air conditioner must be correctly earthed. Do not connect the earth cable to the gas or water pipes, to the lightning conductor, or to the earth cable of the telephone. Incorrect earthing could cause electric shocks.
- Do not handle the air conditioner or touch the keys with wet hands. Risk of electric shocks.
- The unit and the isolator switch must be turned off before carrying out maintenance work or cleaning. The rotation of the fans inside the unit can cause injury.
- Check that the power supply is disconnected before carrying out any operations on the unit.
- Do not place objects on the external part and do not climb on top.
- For the power supply, use undamaged cables with a section that is suitable for the load.
- Stranded cables can be used only with a cable terminal. Ensure the strands of the wires are inserted well.
- Take care when stretching the supply and connection cables around the units: the cables must not be subject to mechanical stress. The cables must be protected.
- Do not make connections on the power supply cable: use a longer cable. Junctions can cause overheating and/or fires.
- If the power cable is damaged, it can be replaced by the manufacturer or by the technical assistance service or a person with a similar qualification, so as to prevent any risks.
- Do not leave any cables in direct contact with the refrigerant pipes as they could reach high temperatures and moving parts, such as the fans.
- Periodically check that the installation conditions of the unit have not been altered, and have the system checked by "personnel with specific technical skills".
- Install the indoor unit and the remote control at least 1 metre away from electrical appliances, TV, radio, and stereo equipment etc.
- After completing the electrical wirings, carry out a test. This operation must only be carried out by "Personnel with specific technical skills".
- The wiring diagrams are subject to a continuous update. Therefore, it is mandatory to refer to those on the machine.
- Only replace the fuses with others identical to the original ones.

1.9. WARNINGS FOR THE USER

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and necessary knowledge if they are supervised or have received instructions concerning use of the appliance in a safe way and understand the hazards involved. Children must not play with the unit. Cleaning and maintenance intended to be performed by the user should not be performed by children without supervision.
- Do not dismantle or repair the unit while it is in operation.
- Do not obstruct the entry and exit of air. A reduction in the air flow reduces the effectiveness of the air conditioner, and causes breakdowns and malfunctions.
- Do not spray or throw water directly onto the unit. Water may cause electric shocks or damage to the unit.
- Do not drop the remote control and do not press the keys with pointed objects: this could damage the remote control.
- Do not pull or deform the supply cable. If the cable is pulled or used inappropriately, the unit could be damaged and there is a risk of electric shock.
- Adjust the room temperature correctly to obtain a comfortable environment.
- Switch off the power supply if the air conditioner is not to be used for a long time. When the power supply switch is turned on, electricity is consumed even if the system is not operating.
- Do not leave the doors or windows open for long periods when the air conditioner is operating. The cooling yield is reduced if doors and windows are kept open.
- Position devices such as TV, radio, stereo, etc. at a distance of at least 1 metre from the indoor unit and the remote control. There may be some audio and video interference.

1.10. PRECAUTIONS FOR USE

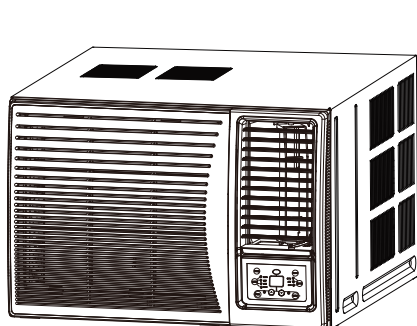
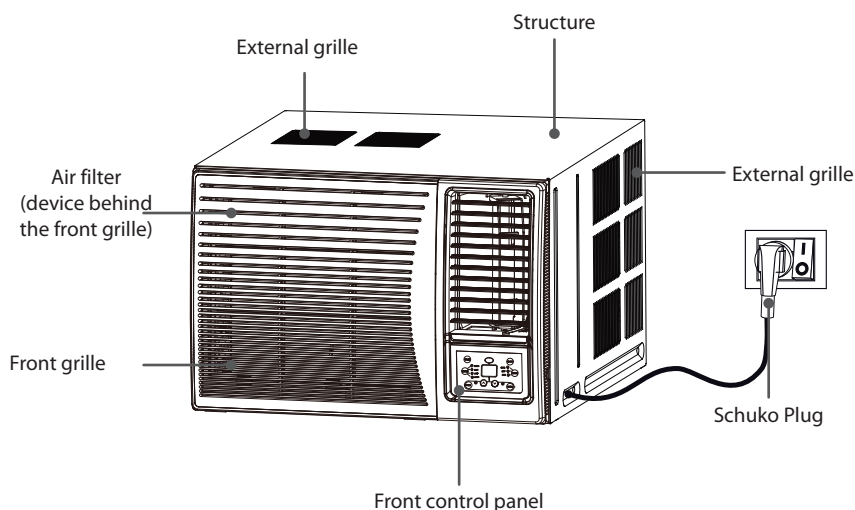
- Ensure the equipment is not used by children or disabled people without suitable supervision; remember also that the equipment must not be used by children as a toy.
- To manually orient the regular flow of air, keep the position of the vanes of the grille forward.
- Do not direct the air jet straight at your body. Avoid excessive cooling of air; This may cause health problems.
- Do not direct the air flow straight at animals and plants.
- Periodically check that the installation conditions of the unit have not been altered, and have the system checked by a qualified engineer.
- Do not remove the protection grilles. Do not insert your hands, or any objects, into the sockets or air vents.
- Do not place objects on the external part and do not climb on top.
- In the event of issues with the air

conditioner (e.g. burning smell), turn off the air conditioner and disconnect it from the power supply using the isolator switch. If the anomaly persists, the unit could be damaged and could cause electric shocks or fires. Contact your local After Sales Service.

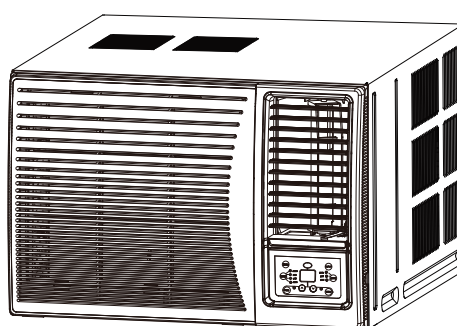
- Do not use sprays or insecticides on the unit: risk of fire.
- Air the room. We recommend that the room where the air conditioner is installed is periodically aired, especially if many people occupy the room or if there is equipment that uses gas. Insufficient ventilation may result in a lack of oxygen.
- If the air conditioner is being used in a room where there are children, elderly or disabled people or bedridden patients, ensure that the room temperature is appropriate.
- Do not use the air conditioner to store food or to dry clothes.
- When humidity is above 80% (with doors and windows open) and the air conditioner is operating in cooling mode for a long time, the formation of water condensation is possible in the delivery of air to the internal unit. This could cause unwanted dripping.
- Do not under any circumstances insert your fingers or any object into the unit.
- Do not turn on or off the air conditioner from the electric panel or the power socket. To turn the air conditioner on or off, use the remote control or the panel on the machine.
- Energy saving advice: Do not leave the doors and windows open while the unit is operating. The effectiveness of the air conditioner is reduced, and energy is wasted.
- When operating in Cooling mode, the temperature selected must not be more than 5°C below the outdoor temperature, for optimum comfort and energy saving.
- Limit the room's exposure to direct sunlight using blinds or by leaving the windows ajar.
- Do not place hot devices, flames or other heat sources near the unit. The effectiveness of the air conditioner is reduced, and energy is wasted.
- Clean the air filters once a fortnight.
- Be sure to disconnect the power supply when the unit is not being used for a long period of time. Disconnect the isolator switch from the power supply.

2. UNIT TYPE

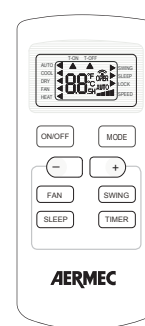
The air conditioners are of the air condensed FK monoblock type, ideal for cooling, dehumidifying or just ventilation. Perfect for applications in commercial environments such as stores, hotels, offices, laboratories, prefabricated sheds, etc. These units are equipped, as standard, by a front control panel on the machine, as well as a remote control device.



FK 260



FK 360



**Remote control
remote**

3. FEATURES

- Operation with R32 eco-friendly refrigerant gas
- Centrifugal fan evaporator side and axial fan condenser side
- *DC Inverter Rotary Compressor*
- Infra-red remote control
- Control panel on the machine
- Compact unit with reduced dimensions
- Three possible functions:
 - Cooling
 - Dehumidification
 - Ventilation only
- Class A energy efficiency
- Contained sound emissions
- Plug and play
- Possibility to adjust the flow of air upward or downward.
- Timer for setting operation with a clock (turning on or switching off).
- Easy installation and maintenance
- Automatic operating modes suitable for the various installation contexts (room, office, restaurant).
- *Auto-Restart Function*: The System will save the setting operation status before *Power Supply* failure (Black Out). Once *Power Supply* recovered, the System will automatically operate at the set status before *Power Supply* failure.

4. OPERATING LIMITS

FK operating limits				
	Inner side		Outer side	
	Dry bulb (°C)	Wet bulb (°C)	Dry bulb (°C)	Wet bulb (°C)
Cooling in standard conditions	27	19	35	-
Maximum cooling	32	23	43	-
Minimum cooling	21	15	16	-

The safety devices can prevent the unit from operating beyond these limits.

5. TECHNICAL DATA

Unit	Operating speed	-	FK260	FK360
General data				
Refrigerating power	-	W	2700	3650
Cooling Power Input	-	W	782	1030
Cooling Power Current	-	A	3,5	4,6
EER (2)	-	W/W	3,45	3,54
SEER	-	-	5,2	5,4
Energy efficiency class (1)	-	-	A	A
Annual electric consumption	-	kWh/annum	182	240
Air flow rate	maximum	m³/h	400	480
Air flow rate	medium	m³/h	360	430
Air flow rate	minimum	m³/h	320	380
Moisture removed	-	L/h	1,00	1,60
Power supply	-	-	220-240V~50Hz	220-240V~50Hz
Power cord	-	-	H05VV-F 300/500V 3G1,0mm² L= 1,50m + Schuko Plug	
Protection rating	-	-	IPX4	IPX4
Refrigerant	-	Type / GWP	R32 / 675 kgCO2eq.	
GWP	-	kgCO2eq.	675	675
Refrigerant Charge	-	kg	0,51	0,63
Rated Power Input (3)	-	W	1100	1300
Rated Current Input (3)	-	A	5,5	6,5
Inner side				
Fans	-	Type	Centrifugal	Centrifugal
Fan power	-	W	60	60
Evaporator	-	Type	Copper aluminium	Copper aluminium
Sound pressure (4)	maximum	dB(A)	50	50
Sound pressure (4)	medium	dB(A)	48	48
Sound pressure (4)	minimum	dB(A)	46	46
Sound power	maximum	dB(A)	59	59
Sound power	medium	dB(A)	57	57
Sound power	minimum	dB(A)	55	55
Outer side				
Compressor	-	Type	Rotary	Rotary
Condenser	-	Type	Copper aluminium	Copper aluminium
Fan	-	Type	Axial	Axial
Air flow rate	-	m³/h	800	1200
Sound pressure	maximum	dB(A)	56	56
Sound pressure	medium	dB(A)	54	54
Sound pressure	minimum	dB(A)	52	52
Sound power	maximum	dB(A)	65	65
Sound power	medium	dB(A)	63	63
Sound power	minimum	dB(A)	61	61
Unit dimensions				
Height	-	mm	375	428
Width	-	mm	560	660
Depth	-	mm	710	700
Weight	-	kg	43	50
Transport packaging dimensions				
Height	-	mm	425	505
Width	-	mm	623	739
Depth	-	mm	806	793
Weight	-	kg	47	54

Cooling (EN-14511 and EN-14825)

Ambient air temperature 27°C D.B. / 19°C W.B. Outside air temperature 35°C; Max. speed

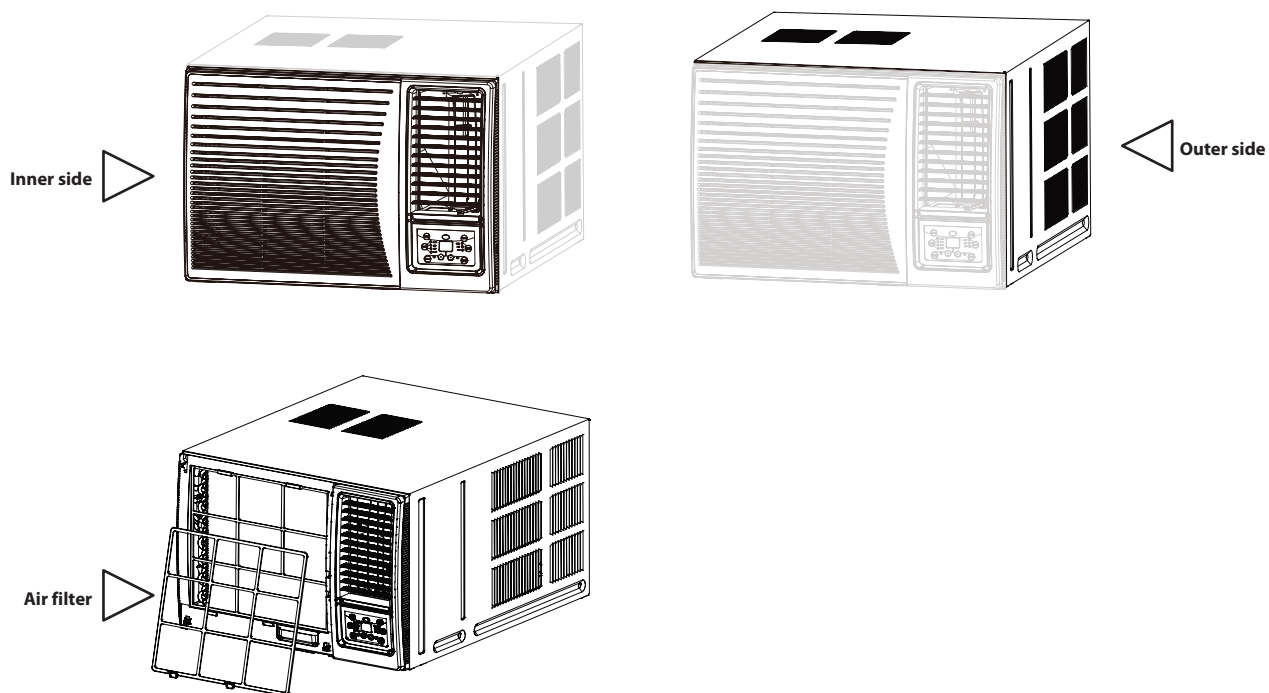
(1) Data in accordance with Delegated Regulation (EU) No. 626/2011

(2) EER in accordance with Standard EN-14511

(3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Rated Current) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40

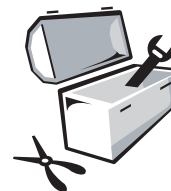
(4) Sound Pressure measured in a Semi Anechoic chamber at a distance of 1,5m from the front of the unit

6. DESCRIPTION OF COMPONENTS





INSTALLATION



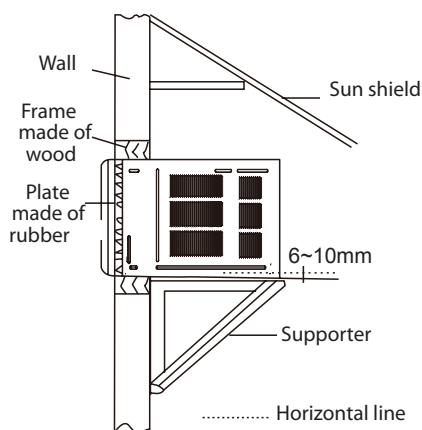
7. INSTALLATION

7.1. PRECAUTIONS FOR INSTALLATION OF THE UNIT

To guarantee the unit operates correctly, the choice of location for the installation must meet the following criteria:

- The external parts of the unit must be installed so as to avoid the recirculation of air discharged from the unit and that there is sufficient space around the machine for maintenance operations.
- The place of installation should have good ventilation so the external parts of the unit can suck in and blow out a sufficient amount of air. Make sure there are not obstacles near the air intake and delivery sockets.
- Remove any obstacles which may be blocking the intake or discharge of air.
- The position of installation should be solid enough to support the weight of the unit, and it must be possible to absorb vibrations and insulate noise. Ensure that the air and noise coming from the unit do not disturb your neighbours.
- The installation position must ensure that the external parts are not covered by snow and it not subject to the effects produced by fumes from fuel and oils.
- Avoid direct exposure of the unit to solar radiation: it is recommended to install protection.
- The place of installation should guarantee the drainage of rainwater.
- Always ensure adequate condensate drainage is installed. **The condensate discharge pipe is NOT supplied with the unit.** It should only be installed under the base of the unit and connected to a pipe of a sufficient diameter.
- The site of installation must be positioned so that the discharge air outlet is not exposed to strong winds and the air discharged must be free to disperse into the atmosphere.
- There should be no obstacles near the air delivery and intake sockets in the internal part so that air can circulate freely.
- Ensure the installation complies with the minimum technical clearances specified in the installation diagram.
- The installed unit must be horizontal and level.
- Installation in dusty or smoky environments (kitchens with cookers, etc.) can clog the filter, the exchanger and the condensate discharge pipe, resulting in reduced performance and the risk of condensate water overflow.
- If the unit is installed in a kitchen, ensure that the fume extractor hood is sufficient to extract all fumes from the cookers. Install the unit far away from cookers to avoid the intake of fumes into the air conditioner.
- Install the unit further than 1 m away from other electrical appliances such as TVs, radios, audio equipment, etc.
- Do not install the unit in a location where it could be affected by inflammable gas leaks.
- Do not install the unit near a laundry, bathroom, shower or swimming pool.
- To avoid problems with the air conditioner, avoid installation in locations:
 - Where there is a lot of oil.
 - Where there is an acid base.
 - Where the power supply is irregular.

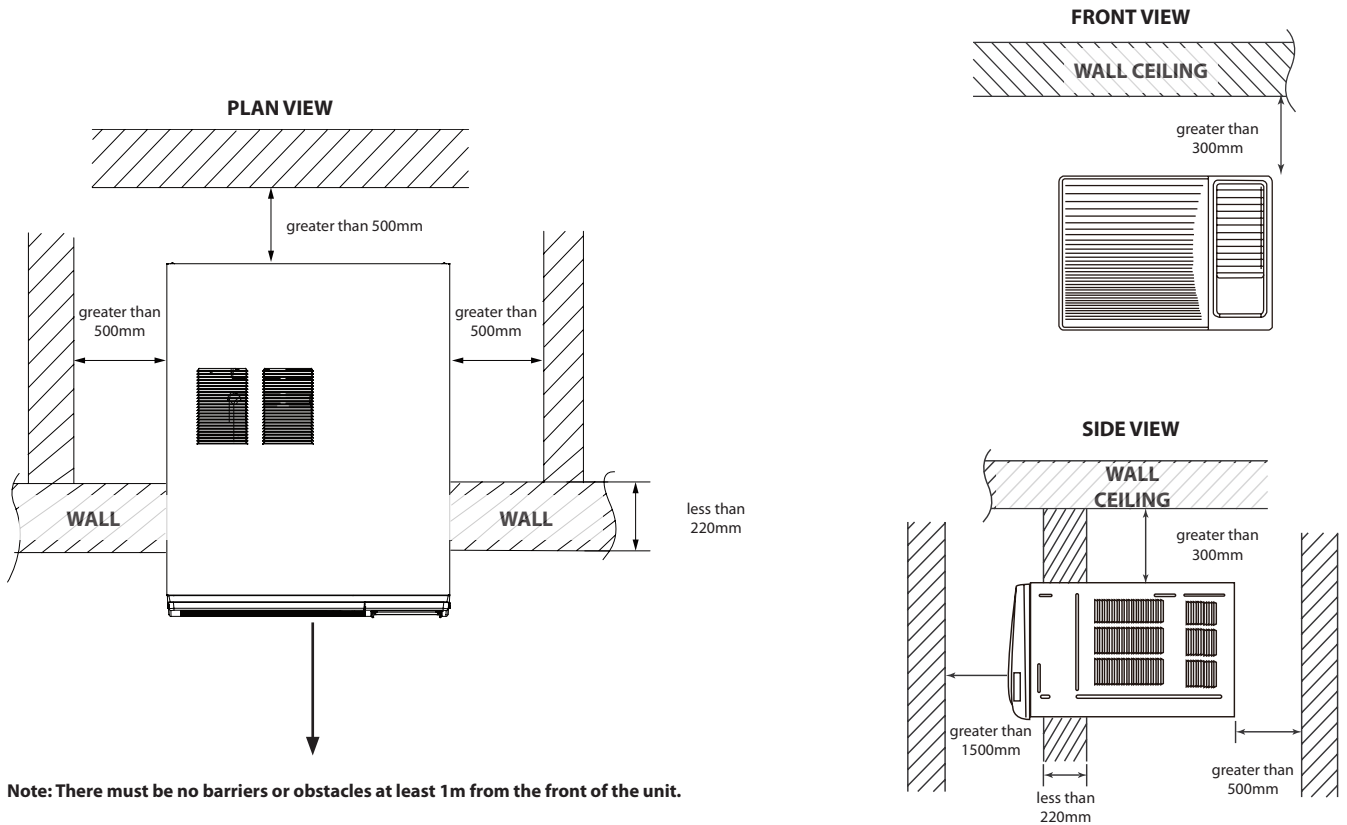
7.2. POSITIONING



Carry out the following installation procedure:

- Remove the sticker from the front panel.
- Put the unit in the installation hole.
- During installation the unit should be inclined by 6 to 10 mm towards the rear as shown in the figure, for ensuring the correct drainage of the condensate.
- The installation hole must be robust enough to avoid expanding over time and to avoid causing noises or vibrations.
- Fill the space between the hole and the unit with polyurethane foam or similar for proper fixing and insulation.
- Use a suitably sized bracket that can support the weight of the unit.
- Level the bracket.

7.3. MINIMUM TECHNICAL CLEARANCES

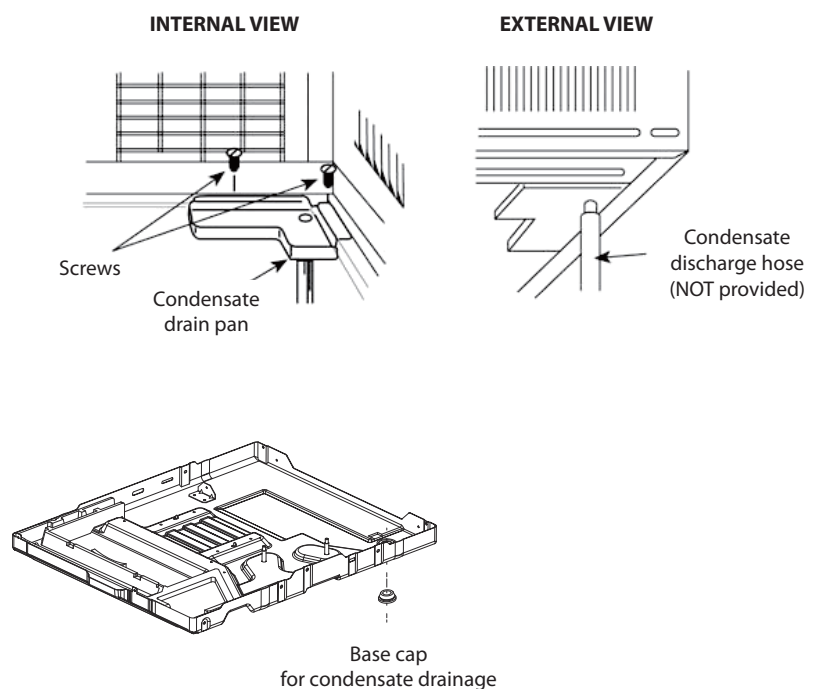


7.4. CONDENSATE DRAINAGE

Perform the following procedure to install the condensate drain pan (provided) and the condensate discharge hose (NOT provided):

- Perform this procedure before starting up the unit.
- Slide the frame of the unit from the base.
- Install the condensate drain pan hose on the corner and fix it with two screws, as shown in the figure.
- Connect the condensate discharge hose (NOT provided) to the specified coupling on the bottom of the drain pan.
- Slide the frame of the unit back to its original position.

The unit is designed to spray the condensate water of the evaporator on the condenser coil. This process is necessary to increase performance by reducing the condensation temperature. If the sound of the spraying is bothersome, the cap can be removed from the base (this can cause a slight loss of performance).



7.5. ELECTRICAL WARNINGS

Use electrical power supply as shown in the table of technical data.

- Be careful, as the electrical components can be damaged if the power supply voltage is too high.
- If the tension is too low, the compressor may vibrate violently and damage the cooling system, easily causing damage to the compressor itself and to the electrical components.



EARTHING:

Ensure that the earthing cable is connected to the building's earthing connection system. Ensure that a differential switch suitable for leaks to the ground is installed. Do not connect the earth cable to the gas or water pipes, to the lightning conductor, or to the earth cable of the telephone.

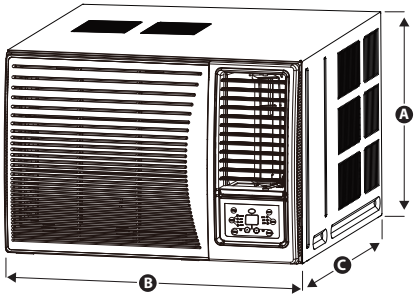


WARNING:

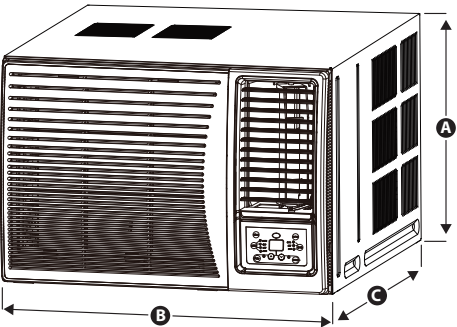
Water pipes: Some parts of the water pipes are made of plastic materials and are not suitable for earthing.

Gas pipes: If there is an accidental electrical discharge from the air conditioner, it could easily cause a fire or even an explosion.

7.6. UNIT DIMENSIONS



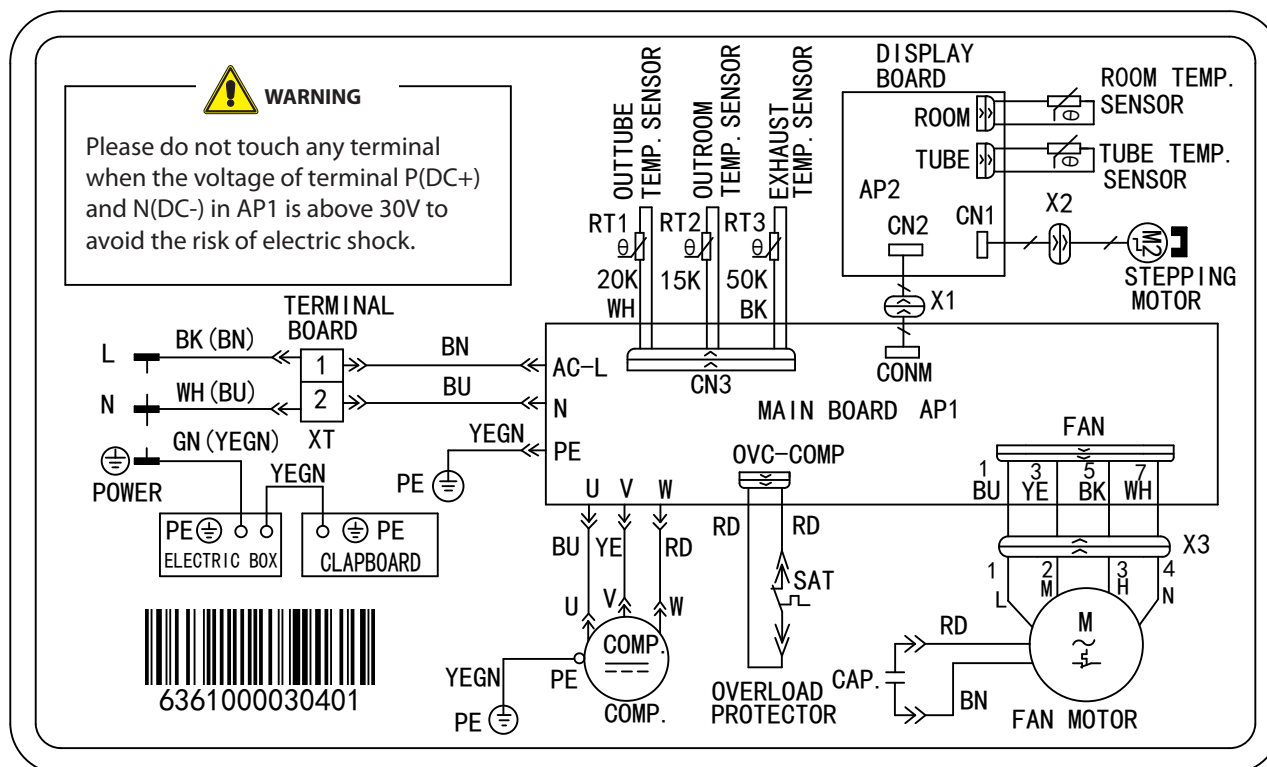
FK 260



FK 360

FK	-	260	360
A	mm	375	428
B	mm	560	660
C	mm	710	700

8. WIRING DIAGRAMS



AC-L	AC phase input of the main board
AP1	Main board
AP2	Display electrical board
BK	Black
BN	Brown
BU	Blue
CAP.	Capacitor
CLAPBOARD	Earth connector
CN1	CN1 Connector
CN2	CN2 Connector
CN3	CN3 Connector
COMP.	Compressor
CONM	Interface connector
DISPLAY BOARD	Display electrical board
ELECTRIC BOX	Electric box
FAN	Fan
FAN MOTOR	Fan motor
GN	Green
H	High speed
L	Low speed
M	Medium speed
MAIN BOARD	Main board
N	Neutral
OUTDOOR UNIT	Outdoor unit
OVC-COMP	Compressor thermal protector connector
OVERLOAD PROTECTOR	Thermal protector
PE	Protective Earth
POWER	Voltage supply
RD	Red

Room	Room
ROOM TEMP. SENSOR	Room ambient temperature
RT1 OUTTUBE TEMP. SENSOR	Outtube temperature sensor
RT2 OUTROOM TEMP. SENSOR	Outroom temperature sensor
RT3 EXHAUST TEMP. SENSOR	Exhaust temperature sensor
SAT	Thermal protector
STEPPING MOTOR	Stepping motor
TERMINAL BOARD	Terminal
TUBE	Tube
TUBE TEMP. SENSOR	Water probe
U	U phase of the compressor
V	V phase of the compressor
W	W phase of the compressor
WH	White
X1	X1 connector
X2	X2 connector
X3	X3 connector
XT	XT connector
YE	Yellow
YEGN	Yellow / Green

9. OPERATING TEST

Before commissioning the air conditioner, an operating test must be performed. Proceed as follows:

Preparing for the test

- Check that the network voltage is correct.
- Do not connect the unit to the power supply before installation is complete.
- Ensure that the connection and supply cables are correctly connected to the unit.
- Ensure that the gas and liquid pipe valves are open.
- Remove any dust and swarf created during installation.

Running the test

- Give voltage to the unit, press the ON/OFF button (by remote control) to start the test.
- Repeatedly press the MODE button, select COOL, DRY, FAN, etc. and check that operation is normal.
- Check the operation of the condensate discharge.

10. ROUTINE CHECKS FOLLOWING INSTALLATION

ITEMS TO CHECK	POSSIBLE ANOMALY	SITUATION
Is the unit firmly fixed?	The unit could fall, vibrate or generate noise.	
Has a check for refrigerant leaks been performed?	Poor performance.	
Is the thermal insulation sufficient?	It could cause condensate and dripping water.	
Does the unit correctly drain the condensate water?	It could cause condensate and dripping water.	
Does the power supply voltage correspond to the one indicated on the label?	Electrical operating fault or damage to components which could be blown.	
Have the cables and pipes been connected correctly and safely?	Electrical operating fault or damage to components which could be blown.	
Has the unit been safely grounded via an earth connection?	Risk of electrocution. Damage to components.	
Have the guidelines the manual regarding electric cable type and section been followed?	Failure to do so could cause electrical operating faults or damage to components which could be blown.	
Are the air inlet and outlet on the indoor unit free of obstacles?	Poor performance.	
Have the pipe length and refrigerant charge been recorded?	Poor performance. Impossible to check the amount of refrigerant added.	

11. MAINTENANCE

11.1. GENERAL NOTES

- Disconnect the power supply before cleaning the unit
- Disconnect the power supply when the air conditioner is off
- Do not pour water directly to the unit may cause an electrical shock
- Clean the cabinet with a soft, dry cloth or a cloth slightly dampened with water or detergent (do not use solvents)

11.2. CLEANING THE FRONT PANEL

Clean the dirty side of the panel with a cloth dampened with warm water. Do not immerse the panel in water, so as not to damage the electrical circuit.

11.3. CLEANING THE AIR FILTER

the air filter behind the intake grille must be washed at least once every two weeks. Remove the air filter (as shown in the following figures):

- Open the air intake panel
- Remove the screws on the left and right sides (shown in the figure)
- Apply light force to the structure to remove the filter.

How to clean the filter:

1. To remove the air intake grille, grasp the tab of the filter and pull to unhook it.

2. When the filter cleaning LED light appears, it is better to operate this way; once the filter is removed, dust it with a vacuum cleaner.

3. rinse the filter under running water, always facing up so as to wash away excess dust not captured by the vacuum cleaner.

4. Only if after these steps the filter is still dirty, fill a tub with lukewarm water and some non-aggressive cleanser and soak it for a few minutes. Next, dry it with a cloth.

5. Otherwise, have a specialised technician clean the filter.

NOTES:

Do not clean with water that is too hot.

Do not dry the flame.

Do not operate the air conditioner without the air filter.

Do not use brushes or tools drives.

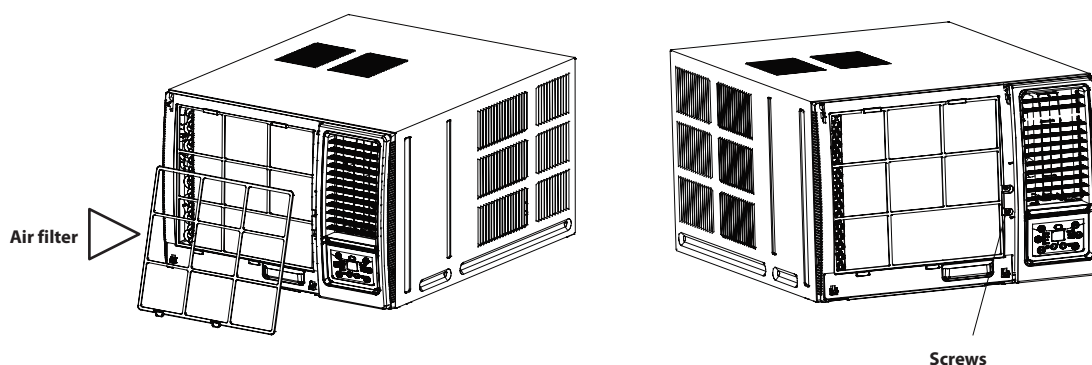
11.4. CHECK BEFORE STARTING

- Check to make sure that the inlet and outlet are not obstructed by objects on both units, external and internal.
- Check to make sure the earthing cable is connected and not damaged.
- Check to make sure the air filter is clean.
- Make sure that the remote control batteries are exhausted.
- Make sure that the unit are not damaged and that they are securely fastened.

11.5. MAINTENANCE AFTER USE

- Disconnect the power supply.
- Clean the filter and the internal grilles.

- Clean the unit and remove any obstructions from the heat exchanger.



WARNING:

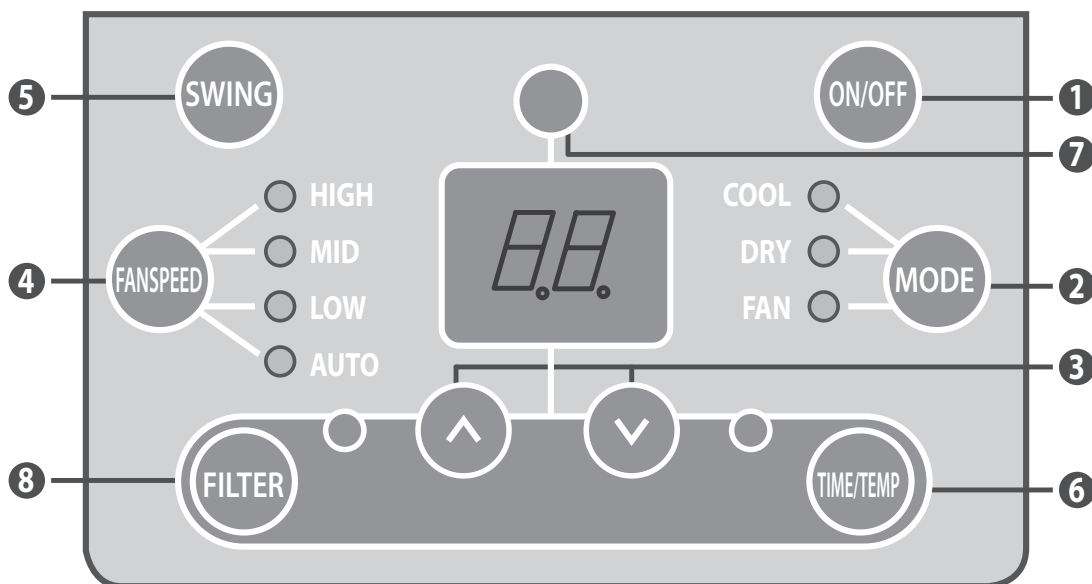
- This equipment is not intended for use by persons (including children) with reduced physical or sensory impairment, or lack of experience and knowledge, unless an individual is responsible for the supervision and safety of people above provide them with the necessary instructions and supervision.
- The device should not be used by children as a game.
- Instruct the customer on how to use the system by showing him/her the accompanying manual.
- Make sure that the power user falls within the tolerance (+ / -10%).



USING THE UNIT



12. CONTROL PANEL

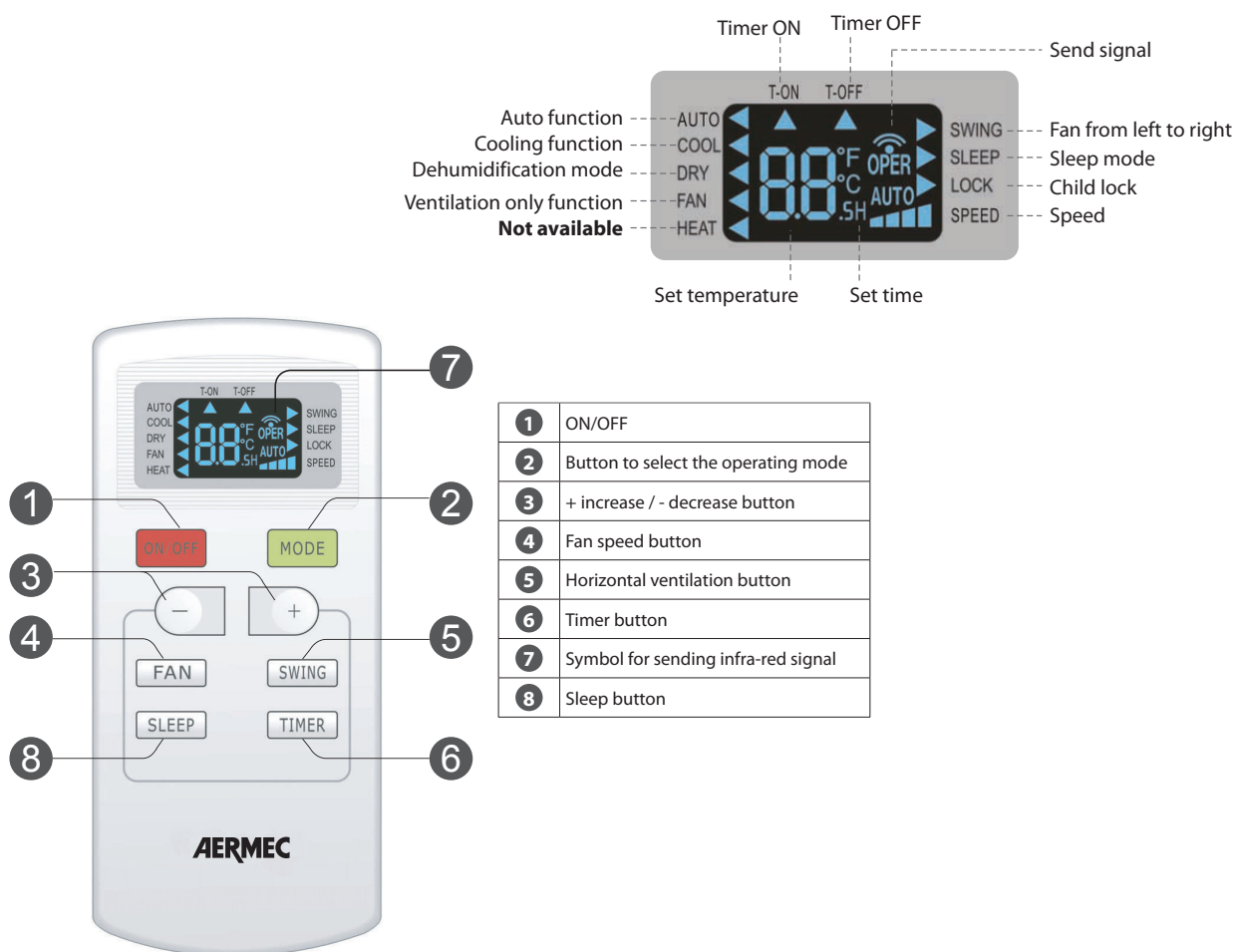


Alarm	Function of the button:
1	ON/OFF button Press this button to turn the unit on or off.
2	MODE button Press any button to activate one of the possible modes Press it multiple times until the desired mode is reached The selected mode will be marked with this symbol "◀" every time it is pressed it will go to the next mode as follows: COOL ▶ DRY ▶ FAN ▶
3	+/- button Function 1 Pressing + or - once will increase or reduce the set temperature by 1°C. When + or - is pressed for 2 seconds the set temperature on the remote control changes quickly. Release the button once the desired temperature is reached. Function 2 When setting the On or Off Timer, press + or - to adjust the time.
4	FAN button Press this button to select the fan speed:
5	SWING button Press this button to select the fan mode, from left to right.
6	TIMER button Timer function for setting the time the unit is switched on or off. Temp function to set the ambient temperature.
7	Infra-red signal receiver.
8	FILTER Button (Air Filter Cleaning Alarm Function) Setting this function the unit will show automatically to the user when it's necessary to clean the air filter. Please remember that a regular cleaning of the air filter grants a better efficiency for air conditioner. Push FILTER button to set this function. After 250 hours of operation the LED close to FILTER button will light and it will advise it is better to clean the air filter. The unit will continue to work properly also when the LED is on. After cleaning the air filter it is necessary to push FILTER button to switch-off the LED and the function. Push the FILTER button again to set this function.

WARNING:

The Control Logic of the System is set for a minimum time between a switch off and next switch on of the compressor to be three minutes.

13. REMOTE CONTROL



1	ON/OFF
2	Button to select the operating mode
3	+ increase / - decrease button
4	Fan speed button
5	Horizontal ventilation button
6	Timer button
7	Symbol for sending infra-red signal
8	Sleep button

Alarm	Function of the button:
1	ON/OFF button Press this button to turn the unit on or off.
2	MODE button Press any button to activate one of the possible modes Press it multiple times until the desired mode is reached The selected mode will be marked with this symbol "◀" every time it is pressed it will go to the next mode as follows: ▶ COOL ▶ DRY ▶ FAN COOL: Cooling mode; the unit operates in cooling mode. Then press + or - to adjust the temperature to be set. Press the FAN button to adjust the fan speed. DRY: Dehumidification mode; the unit operates in dehumidification mode. Ventilation is set automatically, therefore it is not possible to adjust the ventilation speed. FAN: Ventilation only mode; the unit operates in ventilation mode. In this case, press the FAN button repeatedly to adjust the ventilation speed.
3	+/- button Function 1 Pressing + or - once will increase or reduce the set temperature by 1°C. When + or - is pressed for 2 seconds the set temperature on the remote control changes quickly. Release the button once the desired temperature is reached. Function 2 When setting the On or Off Timer, press + or - to adjust the time.

4	FAN button Press this button to select the fan speed: 5 ventilation modes: AUTO Automatic speed  Speed 1  Speed 2  Speed 3  Speed 4
5	SWING button Press this button to select the fan mode, from left to right.
6	Timer button PROGRAMMED SHUT-OFF FUNCTION When the unit is turned on, pressed the Timer button to set the programmed shut-off function. The T-OFF and H icons on the display will start to blink. In 5 seconds press the +/- buttons to set the shut-off time, then press the TIMER button to confirm. The T-OFF and H icons will stop blinking. PROGRAMMED START-UP FUNCTION When the unit is turned off, pressed the Timer button to set the programmed start-up function. The T-ON and H icons on the display will start to blink. In 5 seconds press the +/- buttons to set the start-up time, then press the TIMER button to confirm. The T-ON and H icons will stop blinking. DEACTIVATING THE TIMER To deactivate the programmed start-up/shut-off functioned, press the TIMER button once to see how much time remains. Within 5 seconds, press the TIMER button a second time to cancel the function.
7	Infra-red signal (visible on the remote control with the symbol )
8	Sleep button Press this button to turn on the Sleep function. Press thus button to cancel the Sleep function. Under the FAN and DRY functions, this function is not available.

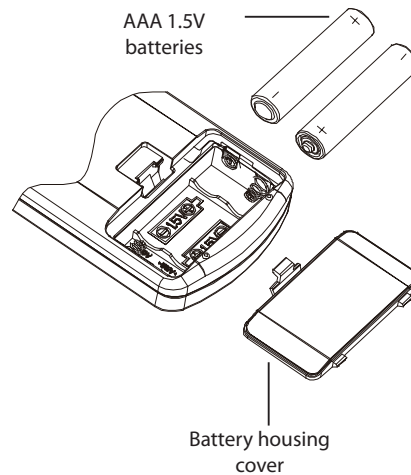
13.1. REPLACING THE REMOTE CONTROL BATTERIES

To replace the batteries of the infra red remote control proceed as follows:

- Press the tab " " located on the back of the remote control. Open the battery cover by sliding it in the direction of the arrow.
- Remove the old batteries.
- Insert new alkaline high performance LR03 (AAA) 1.5V batteries (penlight) batteries, being careful not to invert the polarity.
- Close the battery cover.

NOTE:

When batteries are replaced use new batteries of the recommended type. Remove the batteries if the remote control is not used for extended periods. The remote control can emit a signal up to a maximum distance of 8 metres. The unit may be influenced by signals transmitted by remote controls of televisions, neon lights or wireless telephones/devices or other equipment used in the same room.



14. RECOMMENDED OPERATIONS

14.1. OPERATIONS FOR GREATER COMFORT AND SAVINGS

Do not excessively cool the ambient temperature, as this may cause health problems and overconsumption of electric energy.

Keep a space that is free from direct sun rays.

Keep a uniform room temperature.

We recommend that you do not keep the air jets direct; instead, set the unit to Swing mode.

Make sure the doors and windows are closed well. Avoid opening the doors and windows of the room as much as possible while the unit is operating.

Clean the filter regularly. A dirty filter significantly reduces the dehumidification abilities.

It is recommended that you clean the filter every 2 weeks.

Air out the room from time to time.
This must be done while the unit is turned off.

15. ALARMS DISPLAY

If malfunctioning occurs during system functioning, the units show the relative alarm code which easily permits to the After-Sales Service Area to identify the cause of errors; this error code is shown on the display with two characters.

15.1. ERROR CODES

Code on the display	Alarm description	
E2	Anti-freeze protection	Contact specialised personnel or the Aermec Assistance Service.
H5	IPM protection Module temperature too high	Contact specialised personnel or the Aermec Assistance Service.
E5	Protection from overcharging	Contact specialised personnel or the Aermec Assistance Service.
H4	System fault	Contact specialised personnel or the Aermec Assistance Service.
E4	Compressor protection from high temperature	Contact specialised personnel or the Aermec Assistance Service.
H3	Compressor protection from overloading	Contact specialised personnel or the Aermec Assistance Service.
L9	Power supply protection	Contact specialised personnel or the Aermec Assistance Service.
H5	Module temperature too high	Contact specialised personnel or the Aermec Assistance Service.
PL	DC bus-bar voltage too low	Contact specialised personnel or the Aermec Assistance Service.
PH	DC bus-bar voltage too high	Contact specialised personnel or the Aermec Assistance Service.
HC	PFC protection	Contact specialised personnel or the Aermec Assistance Service.
Fo	Refrigerant gas collection	Contact specialised personnel or the Aermec Assistance Service.
F3	Short circuit in temperature sensor for external environment	Contact specialised personnel or the Aermec Assistance Service.
F4	Short circuit in temperature sensor for external compressor	Contact specialised personnel or the Aermec Assistance Service.
F5	Short circuit in external discharge sensor	Contact specialised personnel or the Aermec Assistance Service.
E6	Communication malfunction	Contact specialised personnel or the Aermec Assistance Service.
F1	Short circuit in internal air temperature probe	Contact specialised personnel or the Aermec Assistance Service.
F2	Short circuit in evaporator probe	Contact specialised personnel or the Aermec Assistance Service.
U7	4-way valve malfunction	Contact specialised personnel or the Aermec Assistance Service.

If alarm codes other than those shown in the table appear, please contact the Aermec Assistance Service.



WARNING:
Turn off the unit immediately and disconnect the power cable if you see these faults:

- The machine is turned on or off in fault mode.
- The fuse burns very often.
- Water accidentally on the unit while it is operating.
- The electric cables are very hot or damaged, even partially.
- Other fault situations.

16. SAFETY STANDARDS DUE TO GAS R32

To operate on this unit, the personnel must have a qualification certificate enabling them to work in contact with flammable gases such as in this case.

- All operators working in the cooling circuit must have obtained the certificate to be able to work with these gases. This certificate is issued by the organisation in authority, and must be recognised by the company or agency where these operations are carried out. Otherwise, the operating technician must be watched by a third party who possesses this certification.
- The unit can be repaired only with the method suggested by the producer of the material.
- The unit must be installed in a space that respects the minimum allowed dimensions. Please carefully observe the following table.

Minimum dimension of the room m ²	Quantity of gas filled in "kg"	≤1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	2	2,1	2,2	2,3	2,4	2,5
	Positioning on the floor	-	14,5	16,8	19,3	22	24,8	27,8	31	34,3	37,8	41,5	45,4	49,4	53,6
	Installation in the wall	-	5,2	6,1	7	7,9	8,9	10	11,2	12,4	13,6	15	16,3	17,8	19,3
	Installation on the window	-	1,6	1,9	2,1	2,4	2,8	3,1	3,4	3,8	4,2	4,6	5	5,5	6
	Installation in the ceiling	-	1,1	1,3	1,4	1,6	1,8	2,1	2,3	2,6	2,8	3,1	3,4	3,7	4

- Verify that the maintenance area or the room area meet the requirements on the label.
- Verify that the maintenance area is well ventilated. The ventilation status must be maintained for the entire duration of the operation.

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