OWNER'S MANUAL

Amazon Unitario
Descarga vertical

K2UF-560 DN3
K2UF-615 DN3
K2UF-670 DN3

Original instructions

Thank you very much for purchasing our air conditioner.
Before using your air conditioner, please read this manual carefully and keep it for future reference.

Caution: The manual is applicable for the cooling & heating and cooling only outdoor unit. The cooling & heating indoor unit is applicable for the cooling & heating and the cooling only outdoor unit; the heating capacity of the indoor unit will be effective only when the indoor unit connect to the cooling & heating outdoor unit.

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1. IMPORTANT SAFETY INFORMATION

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage.

The safety precautions listed here are divided into two categories. In either case, important safety information is listed which must be read carefully.

WARNING

Failure to observe a warning may result in serious injuries.

CAUTION

Failure to observe a caution may result in injury or damage to the equipment.

WARNING

- **Ask your dealer for installation of the air conditioner.** Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.
- **Ask your dealer for improvement, repair, and maintenance.** Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.
- **In order to avoid electric shock, fire or injury, or if you detect any abnormality such as smell of fire, turn off the power supply and call your dealer for instructions.**
- **Never replace a fuse with that of wrong rated current or other wires when a fuse blows out.** Use of wire or copper wire may cause the unit to break down or cause a fire.
- **Do not insert fingers, rods or other objects into the air inlet or outlet.** When the fan is rotating at high speed, it will cause injury.
- **Never use a flammable spray such as hair spray, lacquer paint near the unit.** It may cause a fire.
- **Never touch the air outlet or the horizontal blades while the swing flap is in operation.** Fingers may become caught or the unit may break down.
- **The appliance shall be installed in accordance with national wiring regulations**
- **Never inspect or service the unit by yourself.** Ask a qualified service person to perform this work.
- **Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.**
- **Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.** Contact your local government for information regarding the connection systems available.
- **If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.**
- **Keep far away from high-frequency equipment.**
- **Where oil gas, salty air (near the coast), caustic gas (the sulfide in hot spring) exist, otherwise it may damage the unit and shorten the life span of the machine. If the situations above can't be avoided, choose an anticorrosive model.**
- **In the case of extremely strong wind, please prevent the air from flowing backwards into the outdoor unit.**
- **Snow canopy is necessary in snowfall places on the outdoor unit. Please consult the local dealer for details.**
- **In the frequent thunderstruck place, lightning proof actions should be taken.**
- **To prevent refrigerant leak, contact your dealer.** When the system is installed and run in a small room, it is required to keep the concentration of the refrigerant, if by any chance coming out, below the limit. Otherwise, oxygen in the room may be affected, resulting in a serious accident.
- **The refrigerant in the air conditioner is safe and normally does not leak.** If the refrigerant leaks in the room, contact with a fire of a burner, a heater or a cooker may result in a harmful gas.
- **Turn off any combustible heating devices, ventilate the room, and contact the dealer where you purchased the unit.** Do not use the air conditioner until a service person confirms that the position where the refrigerant leaks is repaired.

CAUTION

- **The cooling & heating indoor unit is applicable for the cooling & heating and the cooling only outdoor unit; the heating capacity of the indoor unit will be effective only when the indoor unit connect to the cooling & heating outdoor unit.**
- **Do not use the air conditioner for other purposes.** To avoid any quality deterioration, do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- **Before cleaning, be sure to stop the operation, turn the breaker off or pull out the supply cord.** Otherwise, an electric shock and injury may result.
- **To avoid electric shock or fire, make sure that an earth leak detector is installed.**
- **Be sure the air conditioner is grounded.** To avoid electric shock, make sure that the unit is grounded and that the earth wire is not connected to gas or water pipe, lightning conductor or telephone earth wire.

- **In order to avoid injury, do not remove the fan guard of the outdoor unit.**
- **Do not operate the air conditioner with a wet hand.**
  An electric shock may happen.
- **Do not touch the heat exchanger fins.**
  These fins are sharp and could result in cutting injuries.
- **After a long use, check the unit stand and fitting for damage.**
  If damaged, the unit may fall and result in injury.
- **To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the air conditioner.**
- **Arrange the drain hose to ensure smooth drainage.**
  Incomplete drainage may cause wetting of the building, furniture etc.
- **Never expose children, plants or animals directly to the air flow.**
  Adverse influence to little children, animals and plants may result.
- **Notice to avoid places where operation noise may easily be spread away or be enhanced.**
- **Noise can be amplified by anything blocking the air outlet of the outdoor unit.**
- **Choose a proper place that the noise and hot or cold wind blown out of the outdoor unit will not bring inconvenience to your neighbors and not affect the growth of animals or plants.**
- **Do not allow a child to mount on the outdoor unit and avoid placing any object on it.**
  Falling or tumbling may result in injury.
- **Do not operate the air conditioner when using a room fumigation - type insecticide.**
  Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.
- **Do not place appliances which produce open fire in places exposed to the air flow from the unit or under the indoor unit.**
  It may cause incomplete combustion or deformation of the unit due to the heat.
- **Do not install the air conditioner at any place where flammable gas may leak out.**
  If the gas leaks out and stays around the air conditioner, a fire may break out.
- **The appliance is not intended for use by young children or infirm persons without supervision.**
- **Young children should be supervised to ensure that they do not play with the appliance**.
- **If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.**
- **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 knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.**

2. PARTS NAMES

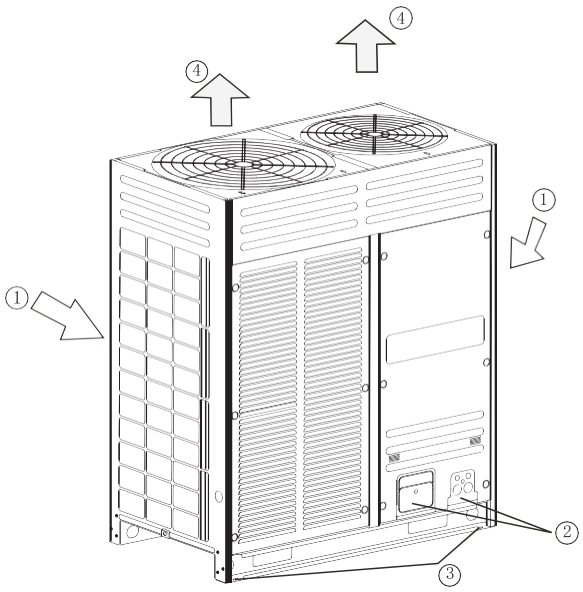

Fig.2-1

1	Air inlet (at the two sides ,front and rear of the unit)
2	Refrigerant pipe's connective vent, wires outlet
3	Fixed feet
4	Air outlet (when cooling operation, it will blow heat air out; when heating operation, it will blow cool air out)

NOTE

All the pictures in this manual are for explanation purpose only, there may be slightly different from the air conditioner you purchased (depend on model). The actual shape shall prevail.

To avoid danger, never put sticks or other objects into it.

Please preheat the air conditioner for at least 12 hours before operation. Do not switch off the power if you need to stop the unit for 24h or shorter time. (This is to heat the crank case heater to avoid the compulsive start of compressor.)

Make sure the air inlet and outlet are not blocked, or it may degrade the performance of air conditioner or start up protector which will stop the unit from running.

3. OPERATION AND PERFORMANCE

PERFORMANCE

This air-conditioner is suitable for indoor air conditioning in hospital, research laboratory, office building, hotel, school, villa etc. Its features are:

- Green refrigerant, healthy and comfortable.
- DC inverter technology, energy-saving.
- Strengthen heating technology, perfect low temperature heating effect.
- Intelligent defrosting, humanistic control.
- Light structure, convenient for installation.
- Network central control, simple and high efficiency management.

■ Cooling and heating operation of inverter central A/C

- The indoor unit of this air conditioner can be controlled solely, and the indoor unit in the same system can not run cooling and heating at the same time.

- When the Cooling and Heating operation confront with each other, please determine the problem according to the settings of outdoor unit Mode dial code S5.

1. When set as the Heating Priority Mode, the indoor unit on Cooling Mode would stop and there will be Standby or No Priority displayed on the control panel. Those indoor units which are running on Heating Mode will run continuously.

2. When the Cooling Priority Mode has been set, the indoor unit on Heating Mode would stop and there will be Standby or No Priority displayed on the control panel. Those indoor units which are running on Cooling Mode will run continuously;

- When set the NO.63 indoor unit+more running as Priority Mode, provided NO.63 indoor unit has been set and running , its running mode will be the Priority Mode; if there's no N0.63 indoor unit or the NO.63 indoor unit is not running, the running mode of more running indoor unit will the Priority Mode. Any of the indoor unit can not run on mode other than the Priority Mode, and Standby or No Priority will be displayed in its Control Panel.

- In terms of the settings only respond the Heating Mode, the indoor unit will run in Heating Mode normally, if unit be run in the Cooling Mode or air Supply Mode, the indoor unit will display Mode Conflicting;

- In terms of the settings only respond the Cooling Mode, the indoor unit will run in Cooling Mode or air supply mode normally, if unit be run in the Heating Mode, the indoor unit will display Mode Conflicting.

■ **Features of heating operation**

- Warm air will not be blown out immediately at the beginning of the heating operation,3~5minutes later (depends on the indoor and outdoor temperature), until the indoor heat exchanger become hot, then blows out warm air.

- During operation, the fan motor in the outdoor unit may stop running under high temperature.

- During Fan operation, if other indoor Units are running on heating mode, the fan may stop in order to prevent sending heat wind.

■ **Defrost in the heating operation**

- During heating operation, outdoor unit sometimes will frost. To increase efficiency, the unit will start defrosting automatically (about 2~10 minutes), and then water will be drained out from outdoor unit.

- During defrosting, both the fan motors in the outdoor unit and indoor unit will stop running.

Operation conditions

For proper performance, run the air conditioner under the following temperature conditions:

Table.3-1

Temperature / Mode	Outdoor temperature	Indoor temperature	Room relative humidity
Cooling mode	-5°C ~ 48°C	17°C ~ 32°C	below 80%
Heating mode	-20°C ~ 24°C	15°C~30°C	

NOTE

■ Room relative humidity should be less than 80%. If higher than 80%, the surface of indoor unit may be condensed or the condensate will be blown from air outlet.

■ Protection device may start if running the unit outside the above condition, which will prevent the unit from operation.

■ Protection Device
This protection device will stop the unit automatically in case the air conditioner is on forced running mode. When protection device is activated, running indicator light is lightened and query light flashes. Protection device may start under the following circumstances:

■ cooling operation:

- The air inlet or air outlet of outdoor unit is blocked.
- Strong wind is continuously blowing to the air outlet of the outdoor unit.

■ heating operation:

- Too much dust and rubbish adhere to the dust filter in the indoor unit,and the air inlet or outlet of indoor unit is blocked.

■ Power cut

- If power is cut during operation, stop all the operation immediately.
- Power comes again. The operation indicator on the wire controller flashes.
- Push the ON/OFF button again if you want to restart the unit.

■ Mishandling in operation
In case of mishandling caused by lighting or mobile wireless, please switch off the manual power off the manual power. Push ON/OFF again when restarting.

■ Heating capacity

- The heating process is to absorb heat from outdoor, while expel heat to indoor by hot pump. Once the outdoor temperature drops down, heating capacity is degraded correspondingly.
- It is command to equip with other warming facility, when outdoor temperature is low.
- It is better to equip with additional purchase indoor auxiliary heating device in paramos area where is in particularly low outdoor temperature. (See Indoor Unit Operation Manual for detail information)

NOTE

Please switch off the power when protection device starts.
Do not restart until the problems are solved.

4. RE-INSTALLATION

NOTE

- Air conditioner installation should meet the national standards and the electric rules and the requirements of INSATLLATION MANUAL.
- Re-installation of the unit should ask the installation technicians.
- Improper install the unit by oneself, it will cause fire or electric shock.

- Notices for user
  - User should provide power which same with the unit nameplate, which voltage should within 90%~110% of rated voltage.
  - It should install PRCD or air-break switch etc. protective devices for the power lines, which capacity should 1.5 times larger than the max. current value of the air conditioner.
  - Use specified wires and effective grounding socket. This unit has grounding terminal in the plug, do not change it.
  - Please use the fuse or breaker specified in INSTALLATION MANUAL.
  - Ask certificated electricians for the wiring work, and must be met the electric safety requirements.
  - Make sure ground the air conditioner well.
  - If it is needed to change the power wire, it must operate by the professionals of Air-conditioner Customer Service center or Technical Service Department.

- Installation position
  Not allow to install the unit at the following places:
  - where away from the TV, radio etc. 1m,
  - where wear the machines with high frequency.
  - where oil permeates.
  - where air contain much salt.
  - where corrosive gases exist, e.g., sulfide gas.
  - where has strong wind.
  - where acid or alkali gases evaporate.
  - where there are boats or jennies.

- Details requirements can check the INSTALLATION MANUAL.

NOTE

- Please install the unit firmly, otherwise it will cause noise a vibration.
- Pleas install the unit at a place that the operation noise and the spelling of air do not affect neighbors.

5. TROUBLES AND CAUSES

CAUTION

- In case the following malfunctions, please switch off the power and contact the local dealer. Incorrect ON/OFF operation
- Fuse or leakage protector is frequently broken.
- Foreign matter or water falls in the unit.

Please read the following illustration (before applying for servicing) Table.5-1

	Troubles	Causes
Non malfunction	**Outdoor unit** • White mist or water • The sound of “hiss”	• FAN function stops automatically to defrost. It is the start and stop sound of the solenoid valve • At the beginning and the end of the running process, sounds like water flow in valve occurs, which will be amplified in 3~15 minutes, this is caused by dehumidifying process of refrigerant current.
	Indoor unit • Bad odor • Operation lamp flashes • No priority of Standby on panel is lightened	• Slight hiss is caused by heat exchanger as temperature changes. • Pieces of the wall, carpet, furniture, cloth, cigarette, cosmetics are adhering to the unit. • Switch on the power after the power cut. • Other equipment preheating process stops cooling operation. • The operator sets an opposite mode against the fixed cooling and heating mode. • FAN mode stops to avoid cold air blown out.
Check it again	• Start or stop operation automatically	• Wrong operation on timer.
Check it again	• No operation	• Whether the power is cut. • Whether manual power switch is turned on. • Whether the fuse is melted. • Whether the protection device works. (operation lamp is lightened) • Whether it is the time set.
	• Insufficient cooling • Insufficient heating	• Whether the inlet and outlet of outdoor unit is blocked. • Whether the door and window are open. • Whether the air filter is blocked by dust. • Whether the air deflector is in the right place • Whether fan speed is slight or whether it is in FAN mode. • Whether the temperature is set properly. • Whether setting COOL and HEAT simultaneously. (Indicator light Standby or No Priority on panel is lightened)

6. MALFUNCTION

When the air conditioner has the following malfunctions, please stop the unit and contact with local dealer or After-sales Service Center.

Malfunction display of outdoor unit's DSP2

Table.6-1

No.	Error code	Error or protection type	Note
1	E0	Outdoor unit COMM. error	Only display in slave unit
2	E1	Phase protection	
3	E2	COMM.error with indoor unit	20 minutes after first power on or indoor and outdoor communication break off over 2 minutes after first power on 20 minutes
4	E3	Reserve	
5	E4	Outdoor Temp. sensor error	
6	E5	Low-voltage power protection	
7	E6	Reserve	
8	E7	Discharge sensor error	Air discharge< 15 degree, at the same time pressure higher than 3.0 MPa, then will alarm, need to power off for recovery
9	E8	Reserve	
10	H0	COMM. error (IR341&MC9S08AC128)	
11	H1	COMM. error (0537&MC9S08AC128)	
12	H4	3 times of module protection in 60 minutes	Not recoverable until re-power on
13	H5	3 times of P2 protection in 60 minutes	Not recoverable until re-power on
14	H6	3 times of P4 protection in 100 minutes	Not recoverable until re-power on
15	H7	Qty. of indoor units can't match	Indoor unit lost over 3 minutes; can not recover, until recover the unit Qty.
16	H8	Pressure sensor error	Air discharge pressure Pc≤0.3MPa
17	H9	3 times of P9 protection in 60 minutes	Not recoverable until re-power on
18	HC	Outdoor unit capacity setting error	
19	P0	Inv. compressor top Temp. protection	
20	P1	High pressure or Inv. discharge Temp. protection	
21	P2	Low pressure protection	After 3 times P2 protection in 60 minutes will report H5
22	P3	Inv. compressor current protection	
23	P4	High discharge Temp. protection	After 3 times P4 protection in 100 minutes will report H6
24	P5	High condenser Temp. protection	
25	XP7	No. X fixed compressor current protection	X stand for the fixed compressor No.
26	P8	Reserve	
27	P9	DC Fan module protection	After 3 times P9 protection in 60 minutes will report H9
28	L0	Compressor module protection	
29	L1	DC bus low voltage protection	
30	L2	DC bus high voltage protection	
31	L3	Reserve	
32	L4	MCE error / synchronization / closed-loop	
33	L5	Zero-speed protection	
34	L6	Reserve	
35	L7	Phase sequence error	
36	L8	Frequency changed over 15Hz one time	
37	L9	Setting & actual frequency :over 15Hz	
38	dF	Defrosting (DSP1:dF,DSP2: frequency)	
39	d0	Oil returning (DSP1:d0,DSP2: frequency)	
40	r1	Lack of refrigerant	1. Display in the first two bits of the digital pipe 2. Judge only when all the indoor units operate cooling (heating), and keep the last judged result
41	r2	Obviously lack of refrigerant	
42	r3	Seriously lack of refrigerant	
43	R1	Lot of refrigerant	
44	R2	Too much refrigerant	

Note: P6 and L0-L9 are not displayed, they will be displayed only through combined buttons (press 10 times SW3, about 1s per pressing).

If the problem still existing, please contact with the sales distributor or the service center, tell us your model No. and the detail of the error.

7. CONSTRAINT COOLING AND QURTY

■ **Constraint Cooling**

Once pressing the constraint cooling button (see the chart on the right), all the indoor unit will be on forced cooling mode and the wind speed is HIGH.

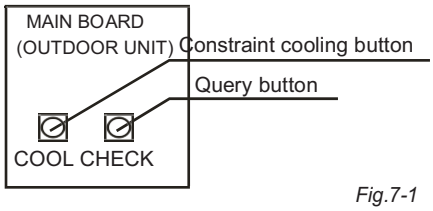

Fig.7-1

■ **Query**

Table.7-1

NO.	Normal display	Display content	Note Dsp1: outdoor unit address; Dsp2: indoor unit Qty.(Stand-by)
1	0. – –	ADDR of outdoor unit	0 Individual
2	1. – –	Cap. of outdoor unit	20, 22, 24 (Corresponding capacity code 6, 7, 8)
3	2. – –	Qty. of modular outdoor unit	Available for No.0 unit
4	3. – –	Indoor unit setting Qty.	**Available for No.0 unit**
5	4. – –	Outdoor unit total capacity	Capacity requirement
6	5. – –	Total Cap.REQT of indoor units capacity	Available for No.0 unit
7	6. – –	Total Cap. REQT. of main unit (after corrected)	Available for No.0 unit
8	7. – –	Operation mode①	0，2，3，4
9	8. – –	The actual operation capacity of this outdoor unit	Capacity requirement
10	9. – –	Speed of fan A②	
11	10. – –	Speed of fan B②	
12	11. – –	T2B/T2 average Temp.	Actual value
13	12. – –	T3 consender Temp.	Actual value
14	13. – –	T4 ambient Temp.	Actual value
15	14. – –	Discharge Temp.of Inv.compressor	Actual value
16	15. – –	Discharge Temp.of No.1 fixed compressor	Actual value
17	16. – –	Discharge Temp.of No.2 fixed compressor	Actual value
18	17. – –	Reserve	
19	18. – –	Corresponding saturation Temp. of discharge air	Actual value+30
20	19. – –	Current of Inv.compressor	Actual value
21	20. – –	Current of No.1 fixed compressor	Actual value
22	21. – –	Current of No.2 fixed compressor	Actual value
23	22. – –	Reserve	
24	23. – –	Opening degree of EXV A③	
25	24. – –	Opening degree of EXV B③	
26	25. – –	High pressure	Actual value ×10
27	26. – –	Qty.of Indoor units	
28	27. – –	Qty.of operating indoor units	
29	28. – –	Priority mode④	0；1；2；3；4
30	29. – –	Silent mode⑤	0；1；2；3
31	30. – –	Static mode⑥	0；1；2；3
32	31. – –	DC voltage	Actual value
33	32. – –	Reserve	
34	33. – –	The last error or protection code	Without protection or error displays as 888
35	– –	——	Check end

Normal display:
Display Qty. of indoor units which communicate with outdoor unit on stand-by mode. In case of Cap. requirement, display running frequency of compressor.

① Operation mode: 0—OFF; 2—Cooling; 3—Heating; 4—Constraint cooling.

② Rotation speed: 0—fan stop; 1~15 speed increase sequentially.

③ EXV opening degree: Pulse count= display value × 8
④ Mode priority: 0—Heating Priority Mode; 1—Cooling Priority Mode; 2—No.63+on many priority; 3—Only Respond The Heating Mode; 4—Only Respond The Cooling Mode.
⑤ Silent mode: 0—Night silent; 1—Silent; 2—Super silent; 3—None.
⑥ Static mode: 0—0 static; 1—Low static; 2—Med static; 3—High static.
SW1: Constraint cooling button ENC1: Outdoor unit address setting switch ENC2: Outdoor unit capacity setting switch
SW2: Query button ENC3+S12: Indoor unit Qty. setting switch ENC4:Network ADDR setting switch

8. AFTER-SALES SERVICE

If the air conditioner can not operate normally, please cut off the manual power switch and contact with local dealer or After-sales Service Center.

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