



1. Preface

Dear users:

Thank you for choosing our latest new product QD63B--universal A/C control system with air quality monitoring. To bring much convenience to your daily life is the greatest wish of all the staff in our company. Please read the manual carefully before using it, which will assist you getting the most from this control system.

2. Product Function Introduction

2.1 Application

Suitable for cabinet air conditioner, split units, ceiling & floor units and ceiling cassette.

For the control of complicated refrigeration system.

For the control of refrigeration house and the greenhouse.

2.2 Features

► Display panel with the standard of car dashboard.

► VOC air quality monitoring.

► High-precision temperature & humidity detection.

► Judge the possibility of suffering heatstroke & flu according to prediction algorithm of WBGT standard.

► Five working modes: auto, cooling, heating, dehumidifying, ventilation.

► Four fan speed: high, middle, low, auto.

► Two sensors: coil protection, effective auto defrost.

► Two types control for wind direction: stepper motor, AC swing motor.

► Auto restart function(optional).

► Fresh air & negative ion control function

► Electrical heating function.

► Prevent the cold wind in heating mode.

► Accurate timer on & off function.

► Sleep function.

► Outdoor fan controlled independently.

► 3 minutes protective delay for compressor to start.

3. Diagram Illustration

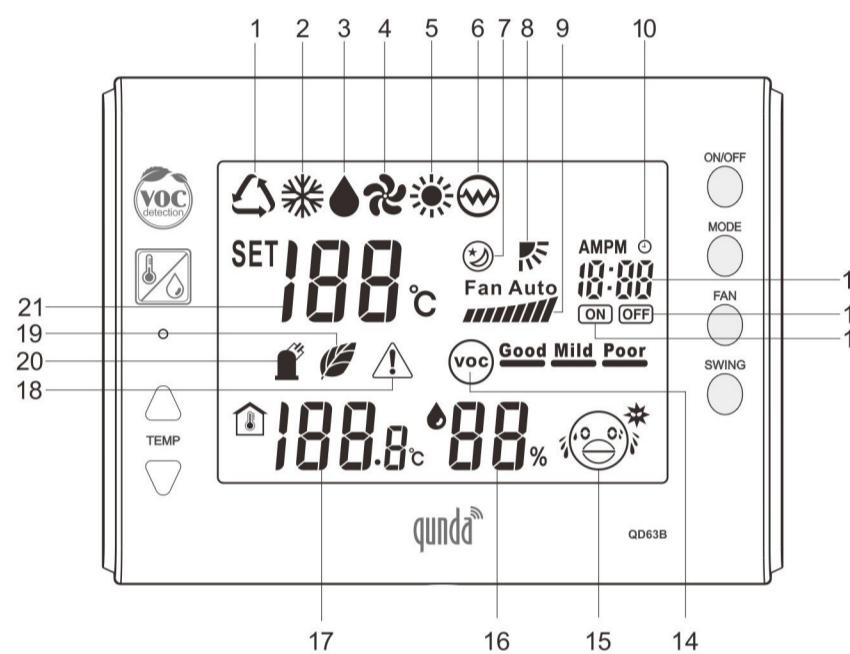


Diagram Illustration

Item	Illustration
1	Auto symbol: To show the current mode is auto mode.
2	Cooling symbol: To show the current mode is cooling mode.
3	Dehumidification symbol: To show the current mode is dehumidification mode.
4	Ventilation symbol: To show the current mode is ventilation mode.
5	Heating symbol: To show the current mode is heating mode.
6	Electrical heating symbol: It would appear when the electrical heating function is on.
7	Sleeping symbol: It would appear when the sleep mode turns on.
8	Wind direction symbol:
9	Fan speed symbol: indicates low speed; indicates middle speed; indicates high speed; indicates auto airflow.
10	Timer symbol: To show timer function is on.
11	Clock symbol: To show the system time.
12	Timer on symbol: To show timer on function has been set.
13	Timer off symbol: To show timer off function has been set.
14	VOC symbol: To show the current air quality.
15	Emoji symbol: Warning symbol for heatstroke & flu.
16	Humidity: To show the current humidity.
17	Temperature: To show the current temperature.
18	Communication failure symbol: When the communication between display panel and control board failed over 10 seconds, the symbol flashes.
19	Green leaf symbol: To show the fresh air or negative ion function is on.
20	Compressor status symbol: It will appear when the compressor is working. It will be flashing when the compressor needs to be turned on but still be power off.
21	Setting temperature: To show the setting temperature.

4. Regarding the warning of flu

This product can give a warning for the flu according to the absolute humidity calculated in the environment. In most cases, when the absolute humidity is below 7g/m³, it is possible to suffer the flu.

Regarding the showing ways of the flu warning.

Level	Safe	Warning
Absolute humidity range	>7g/m ³	<=7g/m ³
Showing ways		

※ Flu symptom and countermeasures

Safe: The risk of infection with influenza viruses is low. Wash your hands and gargle regularly, and develop a good habit.

Warning: There is a higher risk of infecting with influenza viruses. Wash your hands and gargle regularly. Wear the breathing mask when you go out. You can turn on the air conditioner and choose the heating mode to increase the room humidity and decrease the possibility of suffering flu.

5. Regarding the warning of heatstroke

This product can give a warning for the heatstroke. On the basis of WBGT index, it is realized through the special algorithm inside the controller according to room temperature and humidity.

What is WBGT?

The full name of WBGT is Wet Bulb Globe Temperature. It is a basic parameter to evaluate the heating load of human body contacting with environment. And four factors are fully considered — air temperature, air humidity, wind speed,

radiant heat, which can help to prevent people from heatstroke in sporting and high temperature working environment. ISO also adopts it as a standard (ISO7243). Chinese grading criteria of high temperature work is also based on the WBGT.

Regarding the showing ways of heatstroke warning

Level	Safe	Attention	Warning	Danger
Temperature range	25~27°C	28~30°C	31~33°C	大于33°C
Showing ways				

※ Heatstroke symptom and countermeasures

Safe: The risk of heatstroke is low. Pay attention to the heatstroke symptom, and keep the window open.

Attention: The risk of heatstroke is increasing. Drink water timely once you have an exercise over 30 minutes.

Warning: The risk of heatstroke is very high. You should avoid doing strenuous exercise, have a good rest and drink water timely. At room, you can turn on the air conditioner and choose the cooling mode.

Danger: In this situation, don't do any strenuous exercise, have a good rest and drink water timely. At room, you can turn on the air conditioner and choose the cooling mode.

6. Air quality monitoring

This product uses the high-accuracy chip of VOC air quality monitoring to monitor the formaldehyde, benzene, CO, ammonia gas and other harmful gases.

Regarding the showing ways of harmful gas

Level	Good	Mild	Poor
Gas concentration	<15ppm	<30ppm	>30ppm
Showing ways			

※ Gas concentration and countermeasures

Good: The indoor air quality is good, and you can have indoor activities normally.

Mild: The indoor harmful gas concentration is increasing, and you need to open the window to refresh the air.

Poor: The harmful gas concentration is very high, and don't have indoor activities at this time. This controller has interface which is used to connect with the fresh air and anion equipment. Open the fresh air system to speed up the air circulation for purifying the air.

7. Basic operation

7.1 Regular function

1. **ON/OFF:** Turn the air conditioner on or off.

2. **MODE:** Switch the mode among auto, cooling, dehumidification, ventilation, heating.

3. **FAN:** Switch the fan speed among low, middle, high, auto.

4. **SWING:** Control the swing louver to work automatically or stop working.

5. **TEMP ▲ ▼:** press ▲ once to raise 1°C. Press ▼ once to lower 1°C.

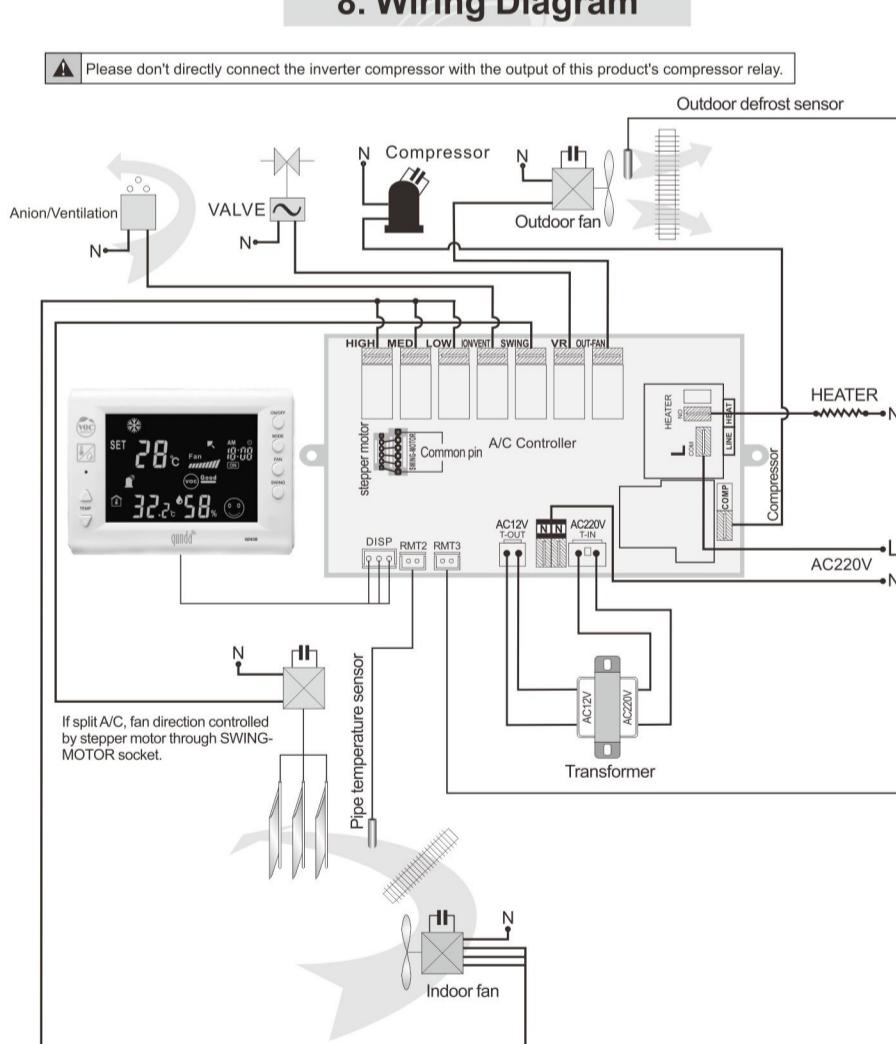
7.2 Other function

1. Adjust the brightness of LCD back-light display

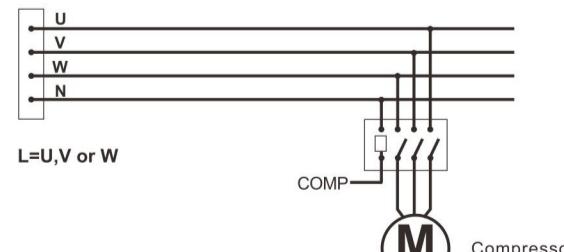
Press and hold the TEMP ▲ for 3 seconds. When the buzzer has a feedback, the back-light brightness will be adjusted one grade. The back-light brightness can be switched among 1-4 grade.

It can also be adjusted through the remote control. Each time press the "Light" button, the back-light brightness will be adjusted one grade. The back-light brightness can be switched among 1-4 grade.

8. Wiring Diagram



3 phases compressor connection



- After turning off the compressor, it needs 3 minutes to start again
- There must be no strong light in the front of IR receiver.
- If it is split A/C, the fan direction is controlled by stepper motor through SWING-MOTOR socket. The stepper motor output socket(SWING-MOTOR) has 6 pins. Two pins on both sides are common pins(12V). Either of them must connect with the common pin of motor plug that has 5 pins. If stepper motor rotating direction is reversed, the common pin of the motor plug should be connected to other common pin of stepper motor output socket.
- Please don't directly connect the inverter compressor with the output of this product's compressor relay.

9. Technical parameter

Power	AC220V~240V 50/60HZ
Temperature setting range	16°C~30°C
Temperature displaying range	-9°C~60°C (An accuracy of 0.1°C)
Humidity displaying range	20%~95%
RMT2 testing range	-9°C~99°C
RMT3 testing range	-9°C~99°C
Temperature error range	±1°C
Fuse specifications	5A AC250V
Current of relay for compressor	20A AC250V
Current of relay for electrical heating	20A AC250V
Current of relay for indoor fan	3A AC250V
Current of relay for outdoor fan	3A AC250V
Current of relay for swing controlled by AC motor	3A AC250V
Current of relay for reversing valve	3A AC250V
Current of fresh air and negative ion	3A AC250V
Output of stepper motor	(DC12V) 5lines or 6 lines
Remote control with LCD display	(DC3V) AAA battery*2
Working temperature	0°C~50°C

10. Packing fittings

Packing box	1
Control board	1
Display panel	1
Remote control	1
Transformer	1
Sensor	2
Wiring accessory package	2
Instruction manual	1

11. Company information

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