

FULL DC INVERTER SYSTEMS

USER MANUAL

CCM04

COMMERCIAL AIR CONDITIONERS SDV4



"Original instructions"

IMPORTANT NOTE: Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the wired controller please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.

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1. SAFETY PRECAUTIONS

The following contents are stated on the product and the operation manual, including usage, precautions against personal harm and property loss, and the methods of using the product correctly and safely. After fully understanding the following contents (identifiers and icons), read the text body and observe the following rules.

Identifier description

Identifier	Meaning	
Warning	Means improper handling may lead to personal death or severe injury.	
Caution	Means improper handling may lead to personal injury or property loss.	
[Note]: 1. "Harm" means injury, burn and electric shock which need long-term treatment but need no hospitalization		
2. "Property loss" means loss of properties and materials.		

l Icon description

lcon	Meaning
	It indicates forbidding. The forbidden subject-matter is indicated in the icon or by images or characters aside.
!	It indicates compulsory implementation. The compulsory subject-matter is indicated in the icon or by images or characters aside.

Warning

Delegate Warning	Please entrust the distributor or professionals to install the unit. The installers must have the relevant know-how. Improper installation performed by the user without perm ission may cause fire, electric,shock, personal injury or water leakage.
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	Forbid	Do not spray flammable aerosol to the wire controller directly. Otherwise, fire may occur.
Usage Warning	Forbid	Do not operate with wet hands or let water enter the wire controller. Otherwise, electric shock may occur.

2. SUMMARIZE

Usage condition:

- 1. Power supply: 5V DC.
- 2. Operation temperature:

-15°C~ +43°C(-5°F+109°F).

3. Operation humidity: 40%-90%,RH.

3. FUNCTION SUMMARY

Main function:

- 1. Connecting to indoor unit by +5V, GND,
- E, Y, X terminal;
- 2. Buttons setting action mode/ fan/ time/ temperature/ date etc.
- 3. LCD and background display.
- 4. Timer for every week.
- 5. Override function
- 6. Unified switch of ON/OFF

4. NAME AND FUNCTION OF LCD ON THE WIRE CONTROLLER



①Operation mode indication: When press "MODE" button, the following mode can be selected in circle: Cool \rightarrow Heat \rightarrow Fan \rightarrow Off.

For cooling only model, heat mode should be skipped.

②Fan speed indication :There are four fan modes : auto, low, middle, high.For some air conditioners with no middle fan, then the middle fan is seen as high speed.

③Fault indication.

④ Temperature or error code indication.

⁽⁵⁾Weekly Schedule Controller switch indication.

6 Date indication.

⑦Time indication.

8 Period indication.

9Lock indication.

Week indication.

5. INSTALLATION METHOD

When a weekly schedule controller is needed, a small 2-cores wire and 3-cores wire should be added. Connect like the following figure.



6. NAME AND OPERATION OF THE BUTTON ON THE WIRE CONTROLLER



①Mode button: press this button, then the operation mode will change in turn as follows: $COOL \rightarrow HEAT \rightarrow FAN \rightarrow OFF$ Remark : For the cooling only model, the heating mode should be skipped. ②Fan speed button: press this button, then the operation fan will change in turn as follows: Auto→Low→Middle→High
③Edit button: press this button, then you can setup Weekly time function. (Details in page 9: SET PLAN_①)

④Date button: press the button, and then enter the date of calibration, the calibration sequence year--month--day--week.

Jump to next setparameters when press the Confirm button every time, set the scope of date (1-31) is not checking it without date. (Press Cancel that can return to the previous parameter changes)

⑤Timer on/off button:Press this button, can turn off the weekly timer function.

③Reset button:When press this button, the system will clear the information of weekly timer and delay,come into normal display state and need to carry out some initial setting (in page 9: SET PLAN_2).
⑦Lock button:press this button,weekly timer come into lock mode, Press LOCK again,lock mode is unchained at once. Weekly timer lock mode state can not be canceled when weekly timer has come back to supply power after interruption of power supply.

③Cancel button: It is for not saving and retreating, or to cancel the temporary setting (Details in page 10).

(9) Query button: Press "Query", display present indoor temperature value, press "Cancel" to back; press "Add " or "Reduce" to select the day you want to query from "Sun" to "Sat", press "Confirm". Then press "Add " or "Reduce" to select the period you want to query from "1"~"4" period. Press "Cancel" to back or select other periods. (10) Reduce button: It is for reducing to numbers and moving left or up to the other.

(1) Add button: It is for adding to numbers, and moving right or down to the other.

① Confirm button: It is for confirm selection.

(3) Time button: press this button, then press "Add" or "Reduce" to adjust the hours value, press "Confirm" to adjust minutes: press "Add" or "Reduce" to adjust the minutes value, press "Confirm" to save and back. (1) Delay button:

press this button once, display" #7," and wait 3 seconds to confirm. It means the unit will override 1 hour;

press this button twice, display" and wait 3 seconds to confirm. It means the unit will override 2 hours;

press three times, display" []]," and wait 3 seconds to confirm. It means to cancel the setting;

cycling display as follows: 1h-2h-0h-1h. When the override function does not go into effect, the delay time can be changed through the setting. But if the function has gone into effect, any operation for the delay button is not effective and the delay button is only for querying the delay time you set.

Remark : If weekly timer is off, delay button is ineffective.

15 ON/OFF button:

Push the button at the condition of OFF, the OPERATION lamp lights, and the wire controller enters into ON operation, simultaneously sends the information of operation mode, fan speed, temperature etc. Push the button at the condition of ON, the OPERATION lamp extinguishes, simultaneously sends the OFF. If having set DELAY, the wire controller will cancel this setting before entering into OFF, close the concern indicator, and then send the OFF information.

7. USING METHOD SET TIME



🖗 ΝΟΤΕ

In operating, Press the key "CANCEL", to turn back to the previous step or the normal display interface.

SET DATE

QUERY PLAN



SET PLAN





set various parameters of the next period from the place " \star ", till the setting of parameters of all the four period is done, turn back to the "slect week" interface, as this time, you can also press the key "CANCEL"back to the normal display interface.

🦞 ΝΟΤΕ

In operating, Press the key "CANCEL", to turn back to the previous step or the normal display interface.

How to change " Γ " to " Γ ",or " Γ " to " Γ "?

There are two methods:





The example of DELAY

The plan setted as follows:

period Time	Period 1	Period 2	Period 3	Period 4
Start time	09:00	14:30	19:00	00:00
End time	11:30	17:30	21:30	00:00

If you want the unit overrides 1/2 hour after period 1. Just press " Delay " button once during 09:00 to 11:30.

But if you set the delay time(1/2 hour) out of the period you set (like during 11:31 to 14:30), the unit will override 1/2 hour at once.

Remark: When finishing the function, the unit will operate following the plan you set.

How to set mode/fan/temperature under the OFF status?

Firstly, press the Mode button to enter the setting. Then it will display the mode/ fan/ temperature before OFF. At this time, you could set the mode/ fan/ temperature you want.

And When you finish the setting, press the Confirm button to send. The air conditioner will start with the information you set.

What is the temporary setting?

① Weekly timer is operating:

When the unit operated with the Weekly timer, Any operations of mode/ fan speed/ temperature are called temporary setting. When the wire controller displays Currently icon, temporary setting has been effective. Under the main interface, pressing "cancel" button will cancel the temporary setting.

" Currently " icon will disappear and the mode/ fan speed/ temperature parameters of temporary setting will be saved. Then the unit operated with the Weekly timer.

2 Weekly timer is off:

Temporary setting is always effective.

8. TECHNICAL INDICATION AND REQUIREMENT

EMI and EMC comply to CE

9. TABLE OF ALARM STATES

Alarm states	Description
EF	Other malfunctions
EE	Water level detection malfunction
ED	Outdoor malfunction protection
EA	Compressor overcurrent (4 times)
E8	Air speed detection out of control
E7	EEPROM error
E6	Zero-crossing detection error
E8	Malfunction in air discharge temperature sensor of T3, T4 or digital compressor
E5	T2B Sensor malfunction
E4	T2A Sensor malfunction
E2	T1 Sensor malfunction
E1	Communication malfunction
E0	Phases' sequence error or default
F1	Weekly schedule Sensor malfunction

NOTE: When the unit appears error, the corresponding error code will be displayed with the flashing OPERATION LAMP.

10. TABLE OF PROTECTION STATES

Protection states	Description
PF	Other protection
P8	Compressor overcurrent
P7	Power supply over-under voltage protection
P6	Air exhaust low pressure protection
P5	Air exhaust high pressure protection
P4	Air exhaust temperature protection
P3	Compressor temperature protection
P2	Condensate high temperature protection
P1	Anti-cool air or defrost protection
P0	Evaporator temperature protection