

OWNER' S MANUAL

CENTRAL MONITOR CONTROL

MODEL: MD-CCM02/E
MD-CCM02/E(H)
MD-CCM02/E(A)
WP-CCM02/E(A)
KCC-22

Thank you very much for purchasing our product.
Before using your unit, please read this manual carefully and keep it 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.	

■ Icon description

Icon	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

 Warning	Delegate installation	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 permission may cause fire, electric shock, personal injury or water leakage.
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 Usage Warning	Forbid	Do not spray flammable aerosol to the wire controller directly. Otherwise, fire may occur.
	Forbid	Do not operate with wet hands or let water enter the wire controller. Otherwise, electric shock may occur.

2. SUMMARIZE OF OUTDOOR CCM

The functions only can be realized when the system is in normal operation.

1. Central Control Monitor can realize the central control and data query to outdoor units. One outdoor CCM can connect max 8 refrigerant system by NIM, so each outdoor CCM can connect max 8 systems are multiplied by max 4 sets outdoor units per system equals max 32 outdoor units. And it adopts

wire-connecting method communication to realize central control to the outdoor units in the same network. .

2. CCM can communicate with PC through RS485/RS232 converter. One PC can connect max. 16 outdoor CCM and 16 indoor CCM. And PC can realize central control to outdoor units, central control to indoor units, central control to indoor units and outdoor units, management, status query and so on.

3. The CCM and outdoor units, PC and CCM adopt main-auxiliary response communication. In the network of CCM and outdoor units, CCM is the main unit and outdoor units are the auxiliary units.

3. BASIC REQUIREMENTS

1. Applicable Power Voltage Range:
Input Voltage 220~240VAC.
2. AC Input Power Frequency: 50Hz/60Hz.
3. Working Ambient Temp.:
-15°C (-5°F) ~ +43°C (+109°F).
4. Working Ambient Humidity: RH40%~RH90%.

4. OPERATION

4-1 Key Words and Basic Functions

- **Power on or restore**

After the CCM is power on or restore, first all display segment on LCD will be on and last 3 seconds, then all will be off. 2 second later, the system enters into

normal display state, the CCM is in the main page and display the data in the first page.

- **Network Area Address Setting**

The PC or gateway can connect max. 16 sets CCM. Every CCM can be viewed as one network area and be distinguished by address set through the address setting button in keyboard. The setting range is 16-31.

Address setting method:

pressing the Address set button repeatedly, the address will be increased one by one. When the address is equal MAX.31 and you press once more, the address will restart from 16.

- **Indicator Display**

Indicator lamp will be on when the CCM is power on.

- **CCM LOCKED**

All the other button will not be on controlled anytime when pushing the

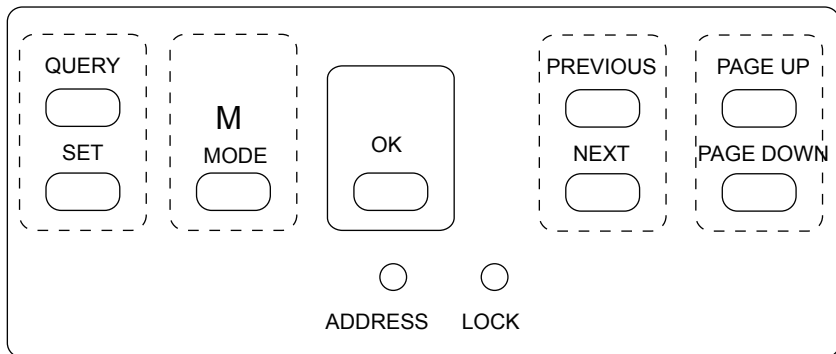
CCM is locked, and unlock happens when receiving the lock!

- **Electric energy consumption query**

The Electric energy consumption can be queried through CCM when the outdoor unit has its ammeter.

4-2 Function

4-2-1 Buttons on CCM



Graph 1 Button Distribution on CCM

1. QUERY BUTTON

Push it to enter into the query state

2. PREVIOUS BUTTON

On the query state, push it to query in default the running states of other online

air-conditioners.

3. NEXT BUTTON

On the query state, push it to query in default the running states of other online air-conditioners.

4. PAGE UP BUTTON

Pushing the PAGE UP button when choosing a online air-conditioner on the query state can display the parameters in previous page, and this can be cycled.

5. PAGE DOWN BUTTON

Pushing the PAGE DOWN button when choosing a online air-conditioner on the query state can display the parameters in next page, and this can be circled.

6. SET BUTTON

Press SET button to enter into Set Page.

7. MODE BUTTON

Pressing MODE button to enter into MODE set, and select circularly between

Forced Cooling and OFF state.

8. OK BUTTON

Pressing OK button to confirm all settings and send to the corresponding air-conditioners.

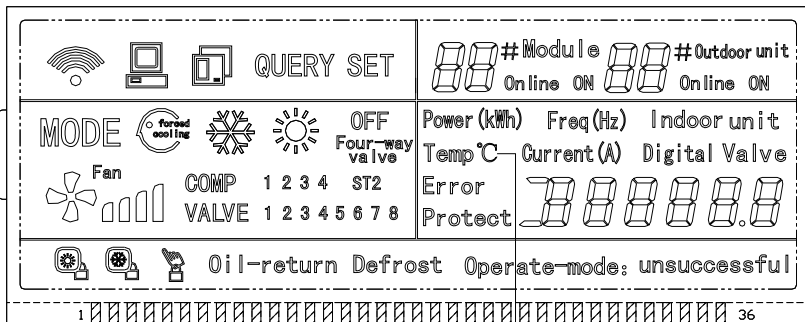
9. LOCK BUTTON

All the other button will not be on controlled anytime when pushing the button, and unlock happens when push it again.

10. ADDRESS SET BUTTON

In set page, pressing the SET button repeatedly, the address will be increased one by one. When the address is equal 31 and you press once more, the address will restart from 16.

4-2-2 Datas



Graph 2 LCD Screen OR display 'Temp°F' with the model:MD-CCM02/E(H)

• Common Display Data:

1. Figure means CCM is sending query order;
2. Figure means CCM is in communication connection with PC, and it will be off in 20 seconds with no communication;
3. Figure means CCM is in communication connection with outdoor unit, and it will be off in 20 seconds with

communication

4. Press the OK button in setting page and waiting for 4 seconds, "success" or "fail" will be shown in the operation state area.;

• Stand-by Page Display:

1. Figure means the total number of online modules;
2. Figure means the total number of online outdoor units;

3.Stand-by Page can display the address of CCM with the address format of "Addr xx", here"xx"equals the real address of CCM plus 16, so the range of "xx" is 16-31.

• Query Page Display

1.Query Page Display the symbol of query;

2.Displaying the address of selected outdoor unit with #Module and #Indoor unit.

3.Mode display:  means cool,  means heat, OFF means shut off,  means locked cool,  means locked heat.

4.Fan Speed Display:  means low speed,  means middle speed,  means high speed.

5.Compressor State Display: "COMP. 1 2 3 4";

6.Electromagnetism Valve Display:

"EMV. 1 2 3 4 5 6";

7.4-Ways Valve Display:  ;

8.Defrost Display:"Defrost";

9.Oil Return Display:"OIL RETURN";

10.Page0 displays the consumption of electric energy with: "ELECTRIC ENERGY Kwh"and the number;

11.Page1 displays the input power frequency with "Frequency Hz" and the number;

12.Page2 displays the total number of indoor units;

13.Page3 displays the temperature symbol T3;

14.Page4 displays the temperature symbol T4;

15.Page5 displays the temperature symbol T6;

16.Page6 displays the discharge temperature of compressor symbol C1;

17.Page7 displays the discharge temperature of compressor symbol C2;

18. Page 8 displays the discharge temperature of compressor symbolized C3 ;
19. Page 9 displays the compressor current symbolized 1 with "CURRENT A", "1" and the number;
20. Page 10 displays the compressor current symbolized 2 with "CURRENT A", "2" and the number;
21. Page 11 displays the compressor current symbolized 3 with "CURRENT A", "3" and the number;
22. Page 12 displays the digital capacity with "DIGITAL CAPACITY" and the number;
23. Page 13 displays the openness of electromagnetism valve symbolized 1 with "VALVE OPENNESS" , "1" and the number;
24. Page 14 displays the openness of electromagnetism valve symbolized 2 with "VALVE OPENNESS", "2" and the number;
25. Page 15 displays the most advanced

malfunction with "MALFUNCTION" and the code;

26. Page 16 displays the most advanced protection with "PROTECTION" and the code.



NOTE

The page will increase or decrease by 1 every time you press "PAGE UP" or "PAGE DOWN".

Select the online outdoor unit by push the "previous" or "next" freely.

• SET PAGE DISPLAY

1. Set Page Displays "set";
2. Mode display: Pressing MODE button to enter into MODE set, and select circularly between Forced Cooling  and OFF state;
3. Set page displays the addresses of selected outdoor unit and module;
4. Pressing OK button to confirm all settings and send to the corresponding

air-conditioners.

5."successful"or "unsuccessfull" shown
in the operation state area indicates

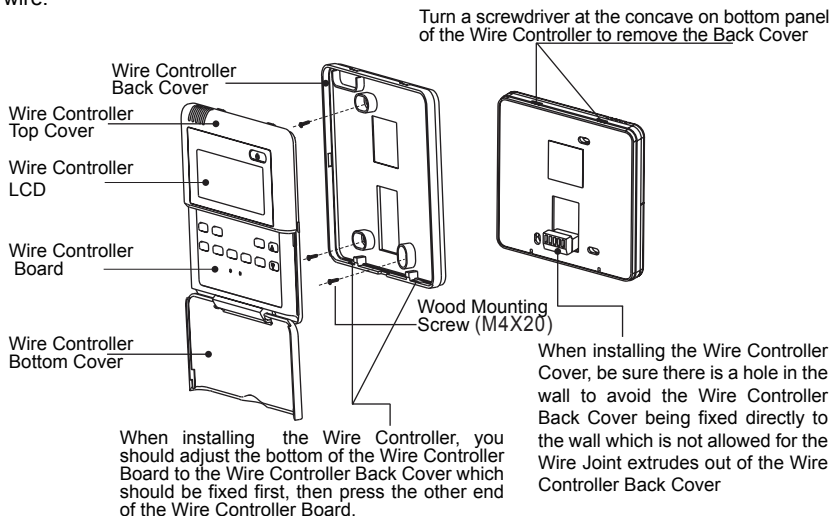
whether the transmission is confirmed
or not.

4-3.Malfunction and Protection Code Table

ERROR Code	ERROR Contents	Description	ERROR Code	ERROR Contents	Description
H3	Outdoor adding malfunction (valid for host unit)		PA	Defrost Protection	
H2	Outdoor decreasing malfunction (valid for host unit)		P8	Compressor Current 3rd Protection	
H1	Net communication malfunction		P7	Compressor Current 2nd Protection	
EF	Other malfunction		P5	Condenser High Temp. Protection	
E4T4	Temp. Sensor malfunction		P4	Discharge Pipe Temp. Protection	
E3T3	Temp. Sensor malfunction		P3	Compressor Current 1st Protection	
E2	Sensor malfunction		P2	Discharge Low-pressure Protection	
E1	Phase sequence or lack of phase		P1	Discharge High-pressure Protection	
E0	Communication malfunction		P0	Compressor High Temp. Protection	
PF	Other Protection				
PE	Oil Balance				
PD	Oil Return				

5. INSTALLATION

1. Never connect the network communication wire with strong power or put it into the same wiring tube with the strong power. And at least 300-500mm distance should be left between their wiring tubes.
2. The shield cable must be connected stable to the ground, or transmission may fail.
3. Do not attempt to extend the shield cable by cutting.
4. After finishing connection, do not use Megger to have the insulation check to the signal wire.



6.TECHNICAL INDEX AND REQUIREMENT

EMC and EMI should conform to the requirement of CE Certification.

Version: MDV06U-001IW

202000170150

双胶纸100g;黑白印刷，尺寸130mm*130mm.

本页只做更改说明，不做菲林

更改说明：

版本号升级为I版本；

更改内容：说明书增加适用机型KCC-22.

