Библиотека СОК

AIR-CHILLING HEAT PUMP MODULE GROUP'S NETWORK CONTROLLING SYSTEM APPLICATION MANUAL

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.

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1. SYSTEM INTRODUCTION

1-1 System Introduction

This system is mainly composed by Epistatic Unit (network control system of epistatic unit), KJR-08B wire controller as well as sub-module. Each Epistatic Unit connects with a 485 bus via serial port; mostly 16 set of KJR-08B wire controller could be connected with a bus, while each wire controller could be under connected with mostly 16 sets of Heat Pump Air Chilling module (i.e. mostly 256 sets of Heat Pump Air Chilling module could be connected in this system). The address 0 is the main unit, other address are auxiliary units.

1-1-1 Unit group

Heat Pump Air Chilling Module is divided into three types of serious: with a single main control panel: 30KW(P) and 35KW(P) series; with two main control panels: 60KW(P) and 65KW(P); with four main control panels: 130KW(P) series; with six main control panels: 200KW(P) series; with a single main control panel: 30KW(T)、35KW(T)、60KW(T)、65KW(T) series; with two main control panels: 130KW(T) series; with three main control panels: 200KW(T) series. normally, the unit group with more than one main control panels, the modules addresses are consecutive.

Series	30 kW（P）	35 kW（P）	60 kW（P）	65 kW（P）	130 kW（P）	200 kW（P）
The number of main control panels	1	1	2	2	4	6
Series	30 kW（T）	35 kW（T）	60 kW（T）	65 kW（T）	130 kW（T）	200 kW（T）
The number of main control panels	1	1	1	1	2	3

Notice:

(P): For plate type unit

(T): For tube type unit

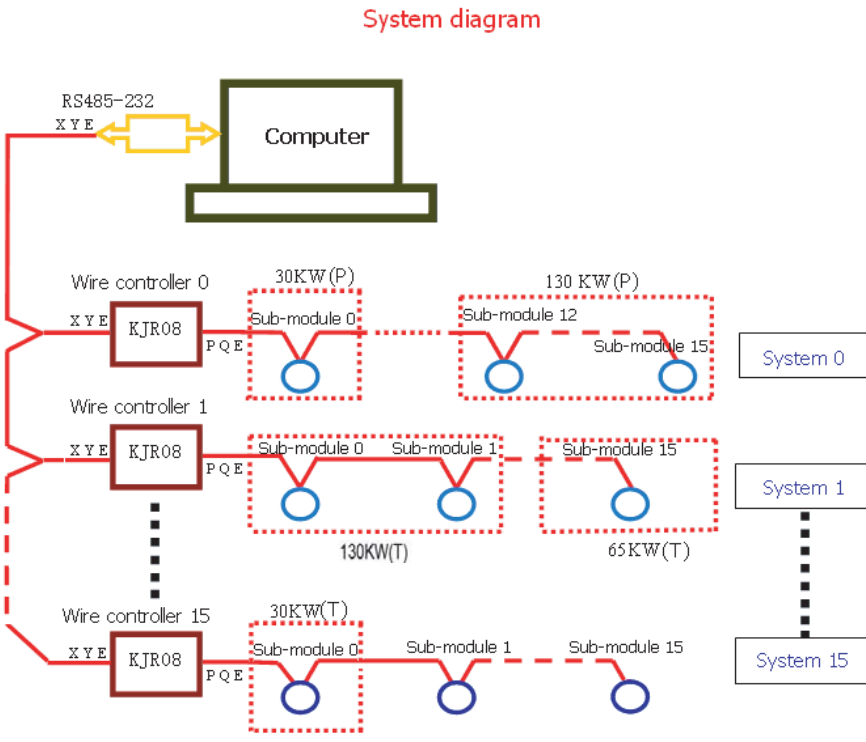
1-1-2 Hardware composing

Computer, RS485-232 adapter, KJR-08B wire controller, Module unit group.

1-1-3 The connecting method on the switch interfaces of the wire controller KJR-08B and RS485-232:

The X side of the wire controller KJR-08B connect with the “－” side of the wire controller RS485-232; the Y side of the wire controller KJR-08B connect with the “＋” side of the wire controller RS485-232; the E side of the wire controller KJR-08B connect with the “ ” side of the wire controller RS485-232.

System structure as follows illustration:



2. SOFTWARE INSTALLATION

1-1 Installation the FireBird database

1) Installation window as Fig. 2-1. Select English as the used language, click “OK” to continue:

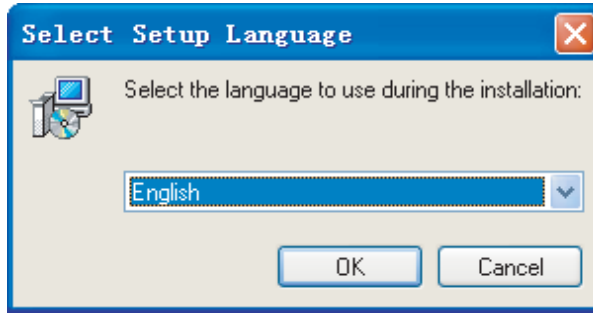


Fig.2-1

2) Installation window as Fig. 2-2, click “Next” to continue:

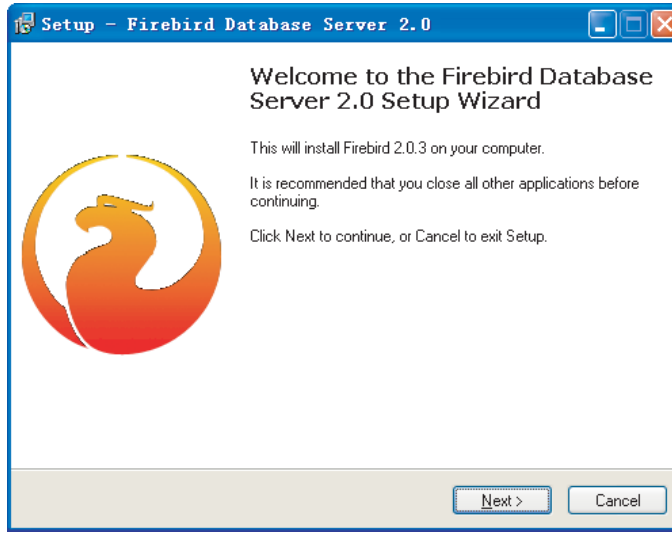


Fig.2-2

3) Installation window as Fig. 2-3, select “I accept the agreement”，click “Next” to continue:

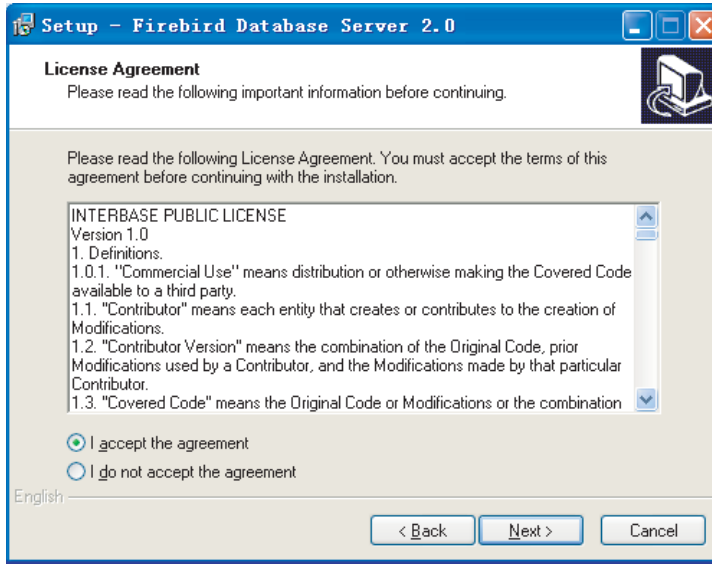


Fig.2-3

4) Installation window as Fig. 2-4, click “Next”vvvv to continue:

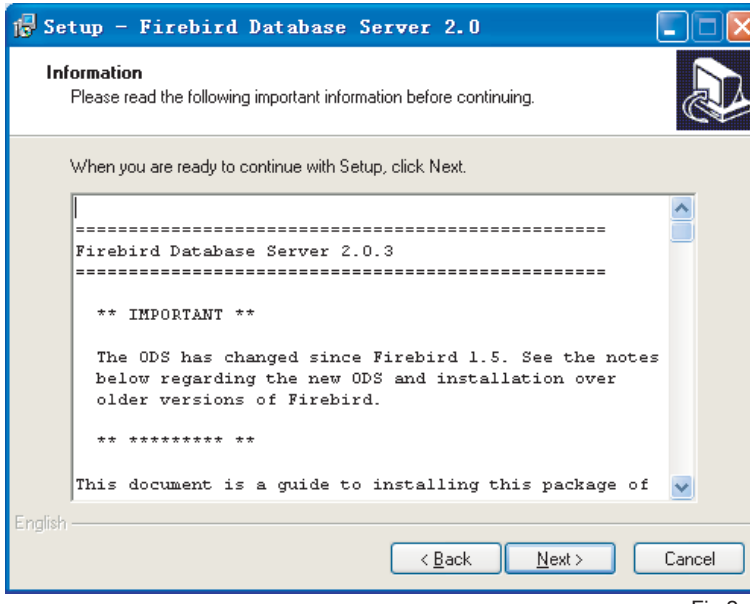


Fig.2-4

5) Installation window as Fig. 2-5, click “Browse…..” Key to select the installation address for install the Firebird database (See Fig. 2-6), and then click “Next” to continue the installation:

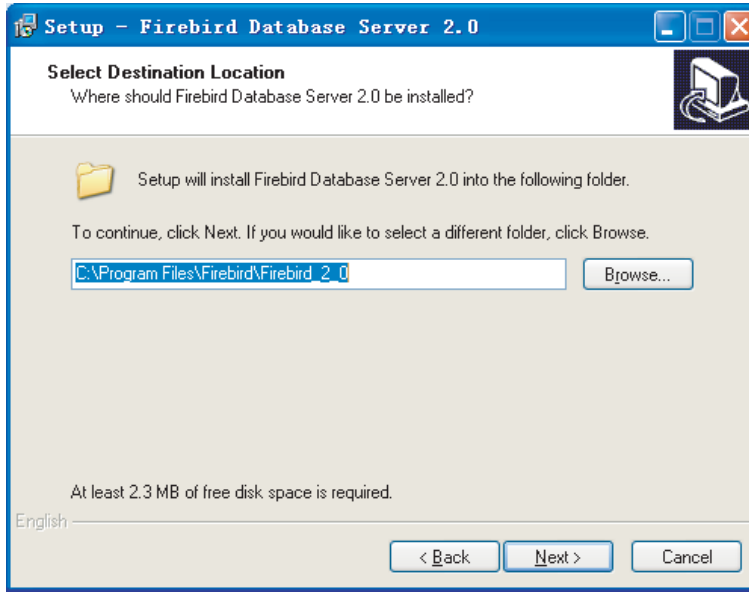


Fig.2-5

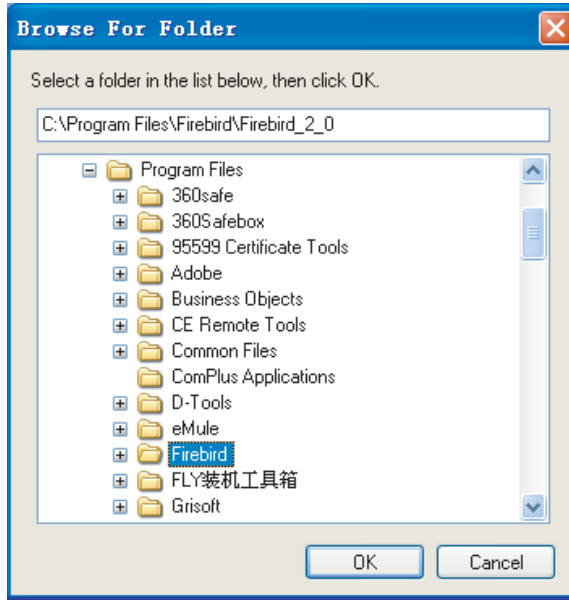


Fig.2-6

6) Installation window as Fig. 2-7, select the items as Fig. 2-7, and click “Next” to continue the next step installation:

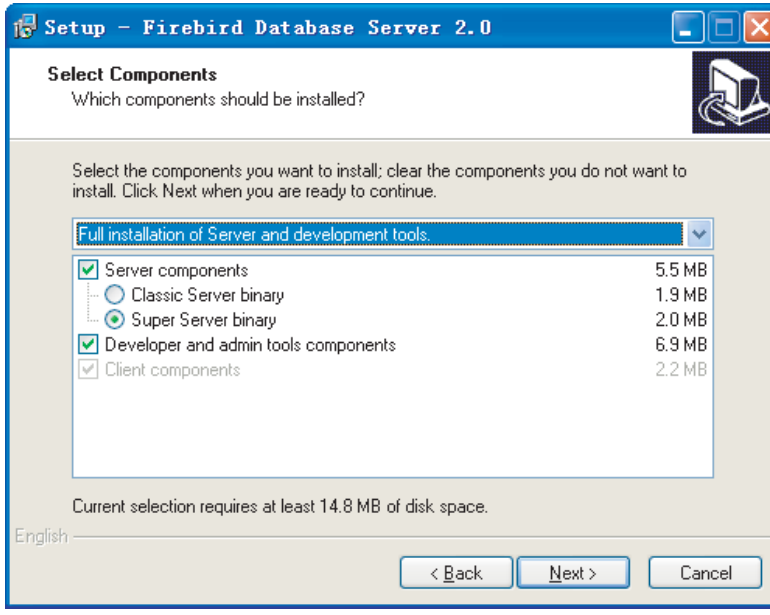


Fig. 2-7

7) Installation window as Fig. 2-8, click “Next” to continue:

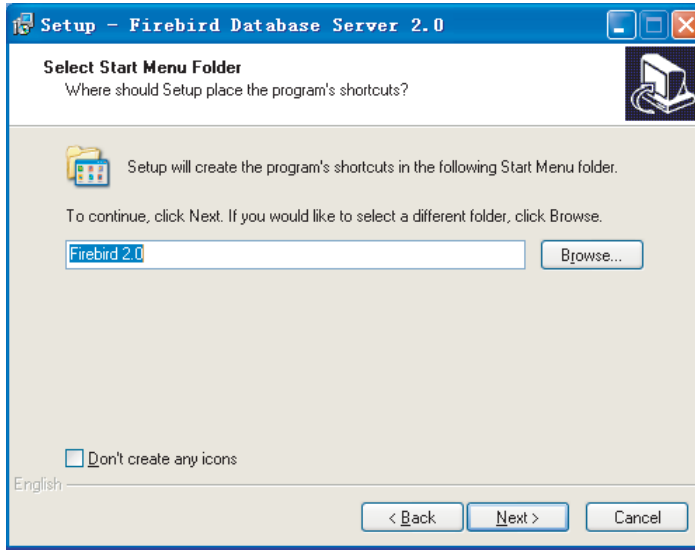


Fig. 2-8

8) Installation window as Fig. 2-9, select the items as Fig.9, and click “Next” to continue the next step installation:

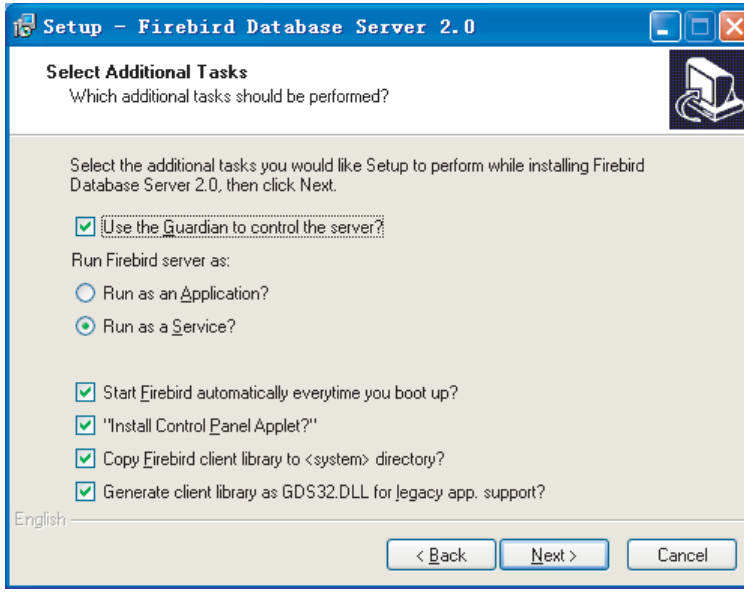


Fig. 2-9

9) Installation window as Fig.2-10, click “Install” to continue:

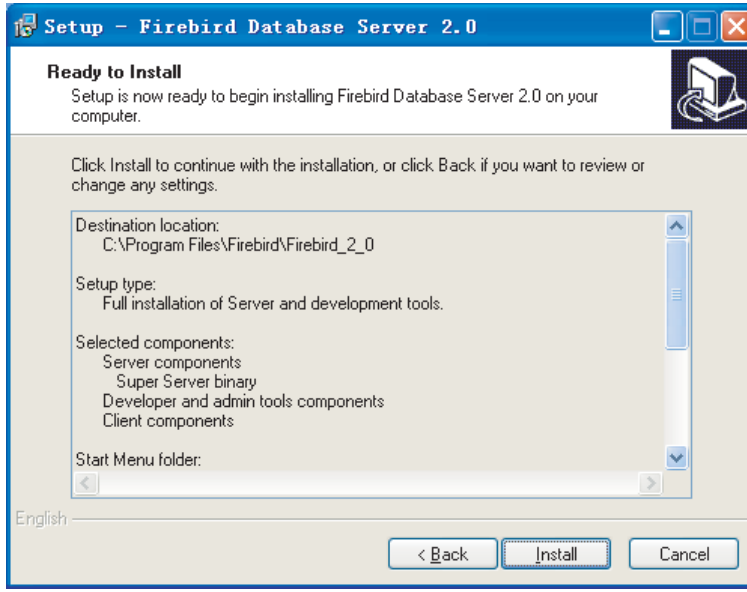


Fig. 2-10

10) Installation window as Fig. 2-11, until the window as Fig. 2-12 displays, and then click “Next” to continue the installation:

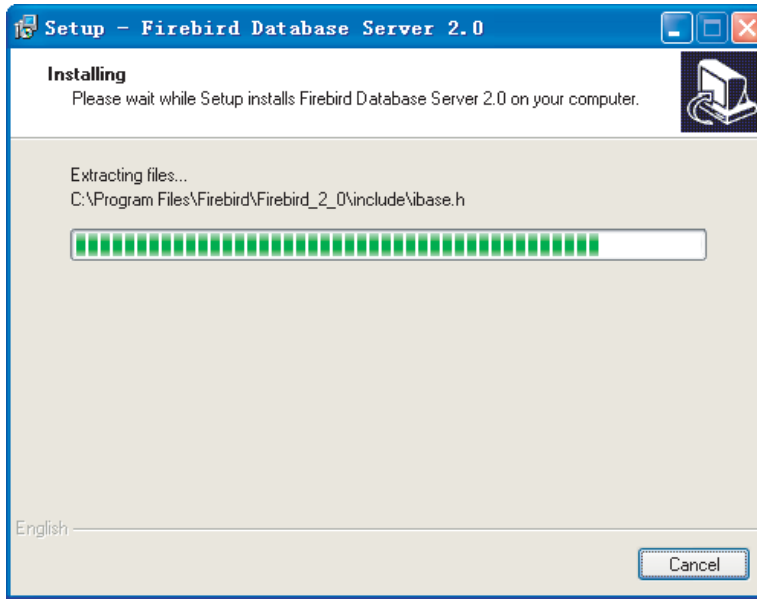


Fig. 2-11

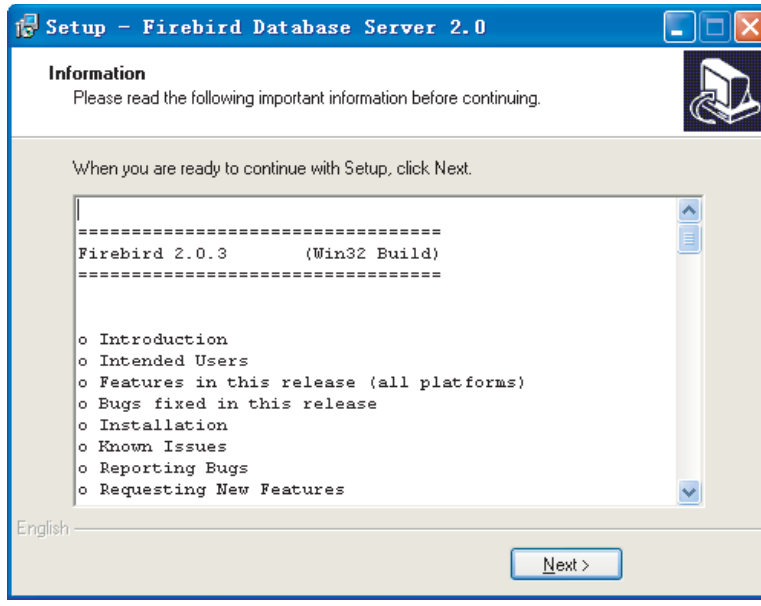


Fig. 2-12

11) Installation window as Fig. 2-13, click “Finish” to finish the installation.

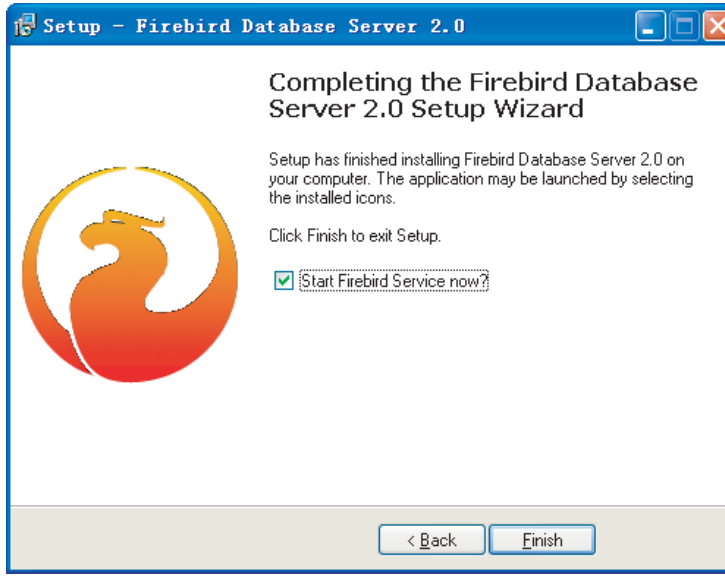


Fig. 2-13

2-2 Install the FireBird ODBC

1) Installation window as Fig. 2-14, click “Next” to continue:

Fig. 2-14

2) Installation window as Fig.2-15, select “I accept the agreement”， click “Next” to continue:

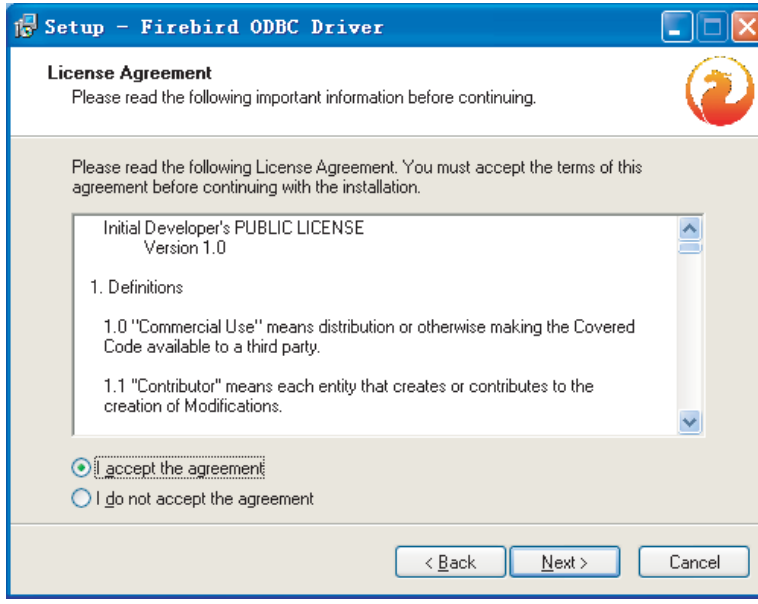


Fig. 2-15

3) Installation window as Fig.2-16, click “Next” to continue:

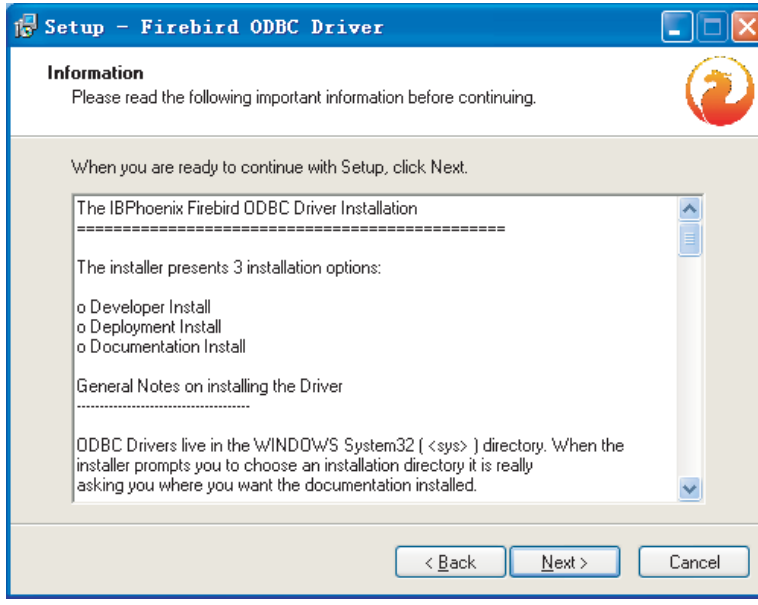


Fig. 2-16

4) Installation window as Fig.2-17, click “Browse…..” Key to select the installation address for the Firebird database (See Fig. 2-18), and then click “Next” to continue the installation:

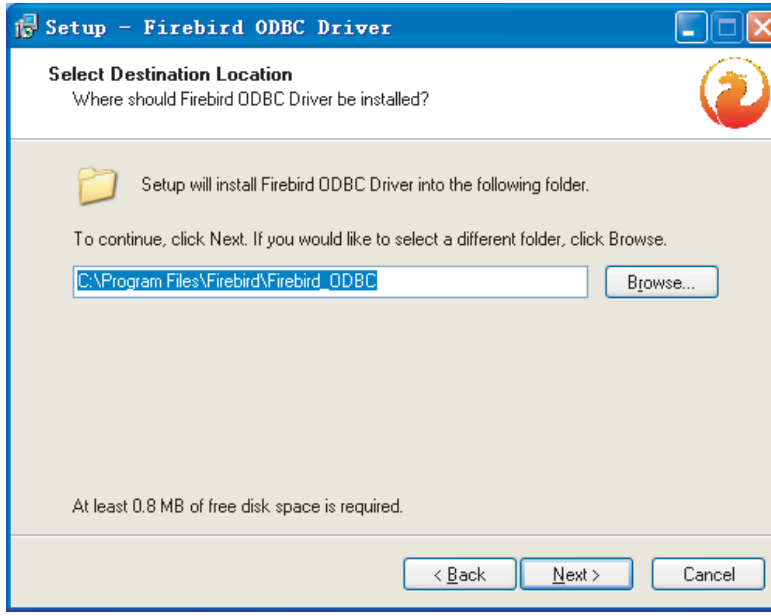


Fig. 2-17

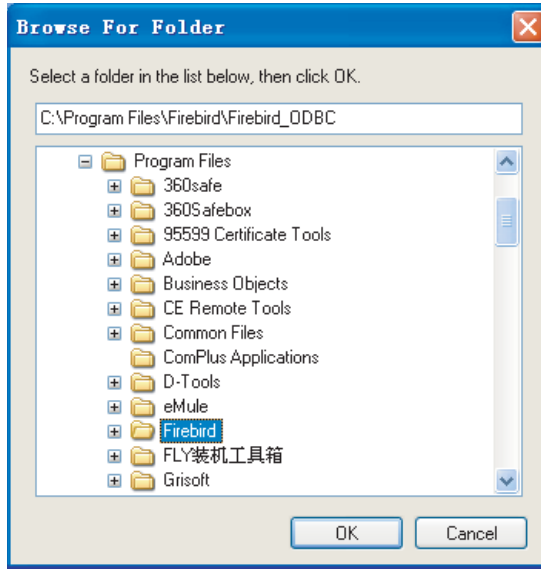


Fig. 2-18

5) Installation window as Fig. 2-19, select the items as Fig. 2-19, and click “Next” to continue the next step installation:

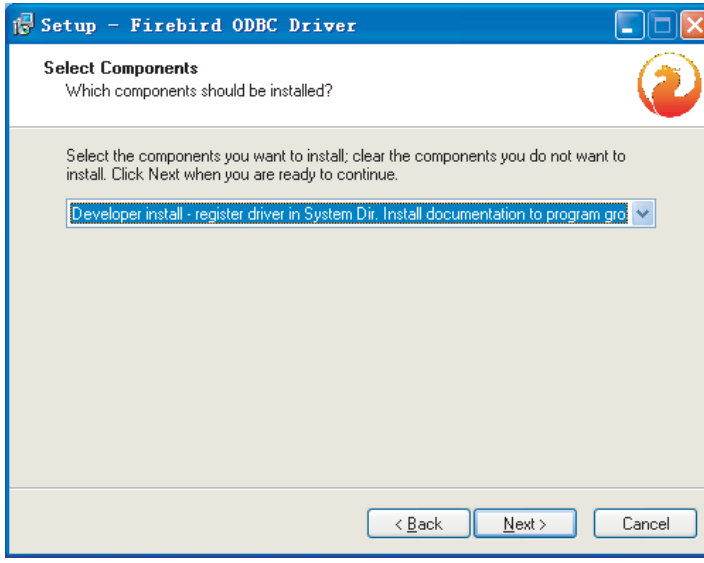


Fig. 2-19

6) Installation window as Fig. 2-20, select the shortcuts folder’s name in the Initial Program, click “Next” to continue the installation:

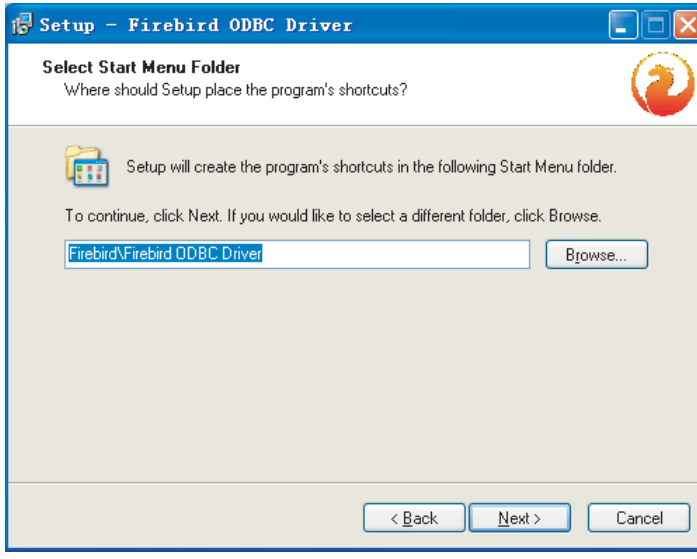


Fig. 2-20

7) Installation window as Fig. 2-21, click “Install” to continue:

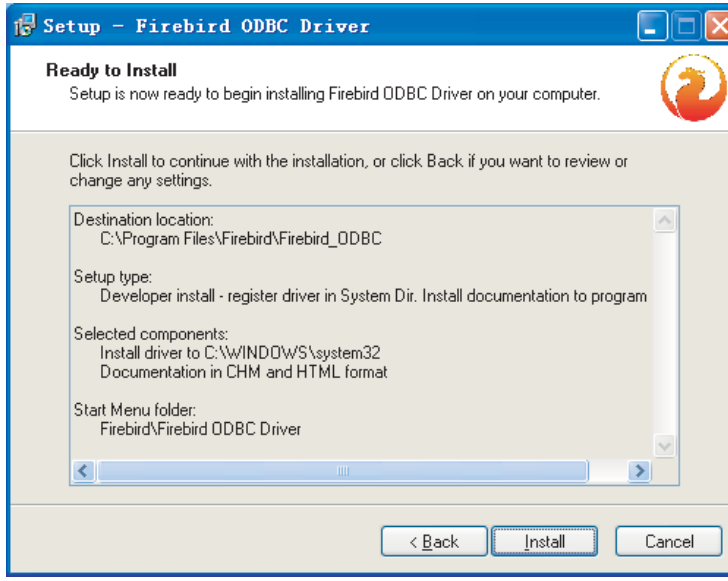


Fig. 2-21

8) Installation window as Fig. 2-22, until the window as Fig. 2-23 displays, and then click “Next” to continue the installation:

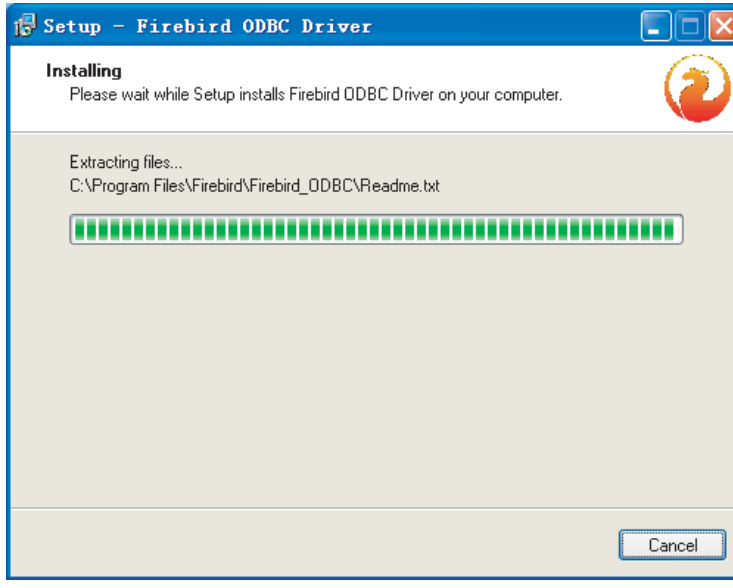


Fig. 2-22

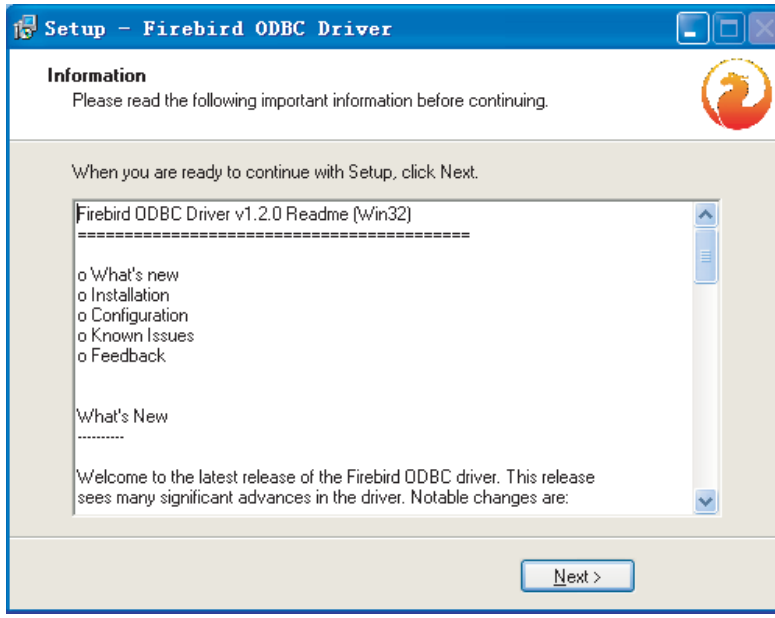


Fig. 2-23

9) Installation window as Fig. 24, click “Finish” to finish the installation.

Fig. 2-24

2-3 Install the Air-Chilling Module Group Network Controlling Software

1） Run the “Setup.exe” tool in the installation disc, window shows like Fig. 2-25 , click “Next” to continue the installation:

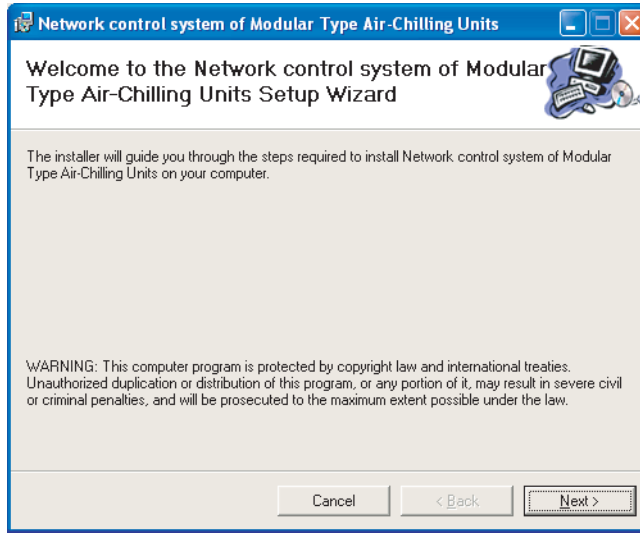


Fig. 2-25

2) Installation window as Fig. 2-26, click “Browse…..” Key to select the installation address, and then click “Next” to continue the installation:

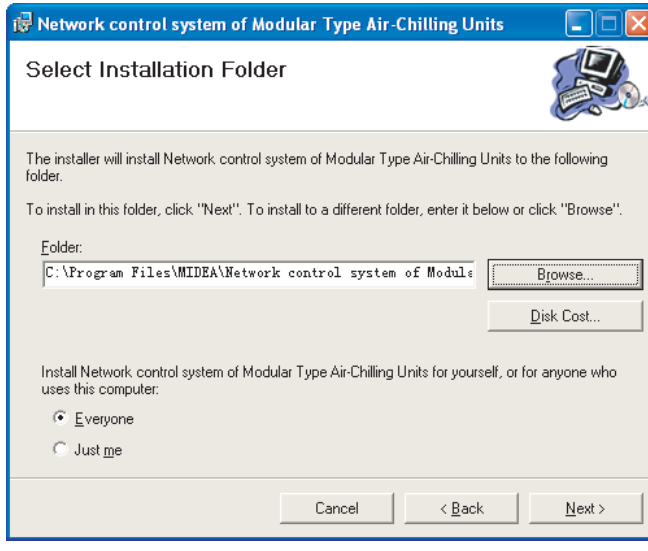


Fig. 2-26

3) Installation window as Fig. 2-27, click “Next” to continue:

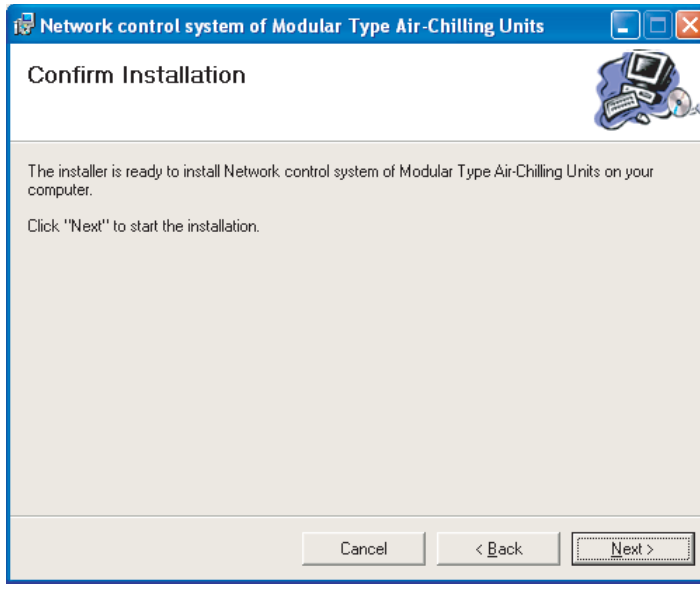


Fig. 2-27

4） Installation window as Fig. 2-28, until the window as Fig. 2-29 displays, and then click “Close” to finish the installation:

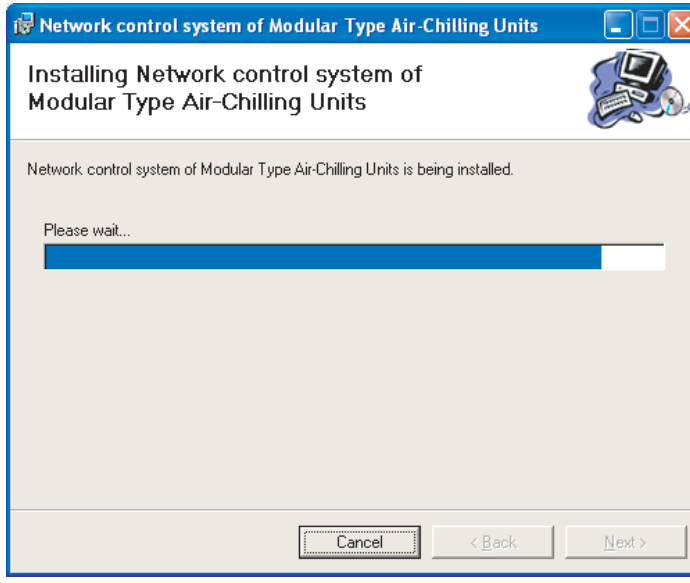


Fig. 2-28

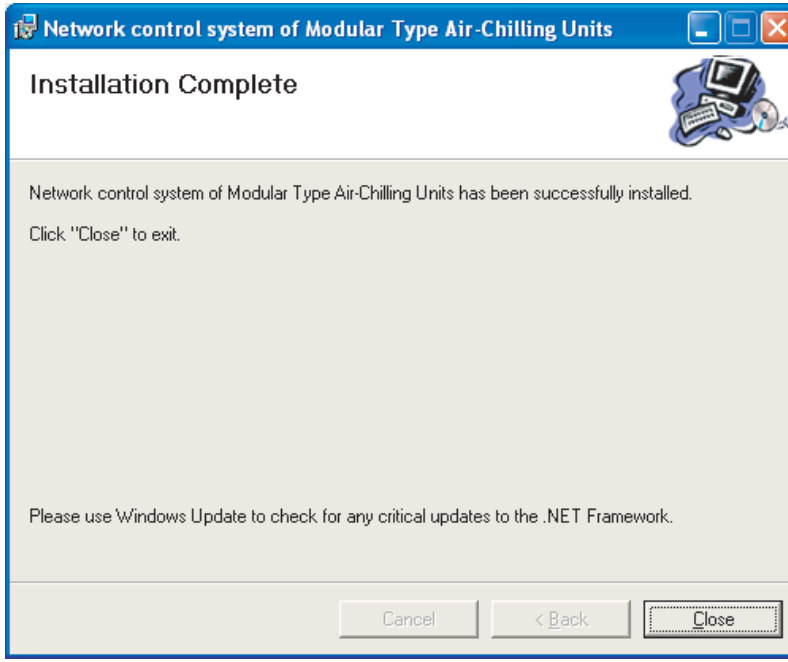


Fig. 2-29

2-4 Install the Softdog Drive-up

1）Run the “MicroDogInstdrv.exe” file in the installation disc, window as follows figure displays, and insert the Softdog to any USB serial port in the epistatic unit, click “Installation” key:

Fig. 2-30

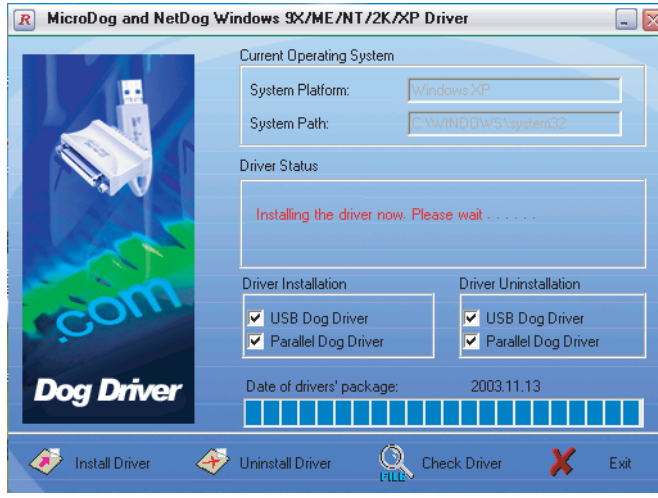


Fig. 2-31

Fig. 2-32

2）Window as follows shows, select “Install the software automatically (Recommended)”, click “Next”:

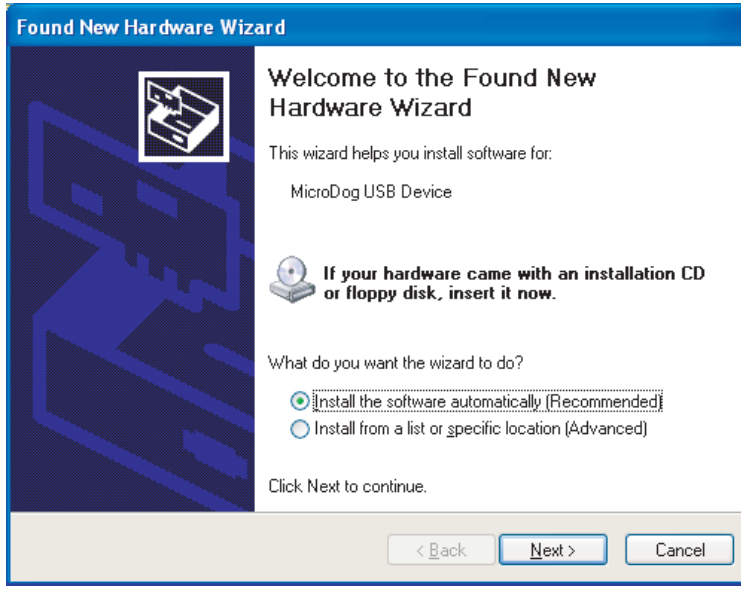


Fig. 2-33

3）System will search the Drive-up programmer automatically, window as follows will show:

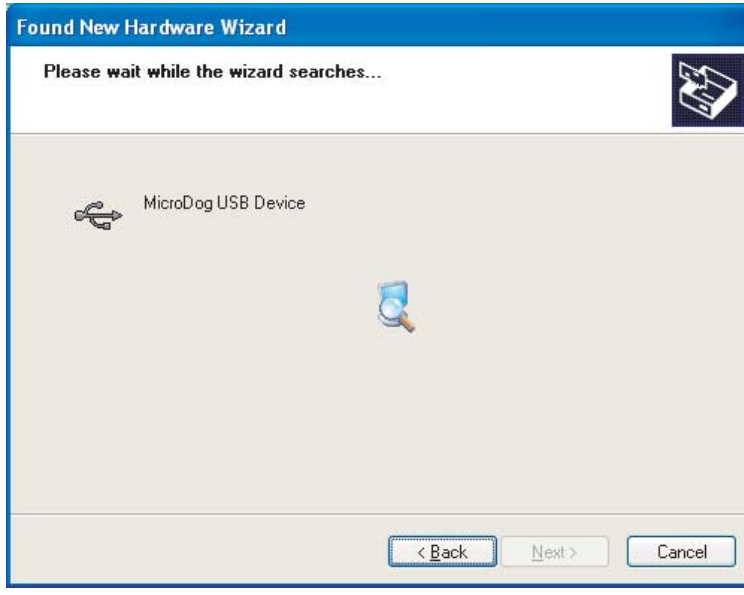


Fig. 2-34

4）After find out the Drive-up programmer, the follows window will shows, click “Continue Anyway” key to continue installation:

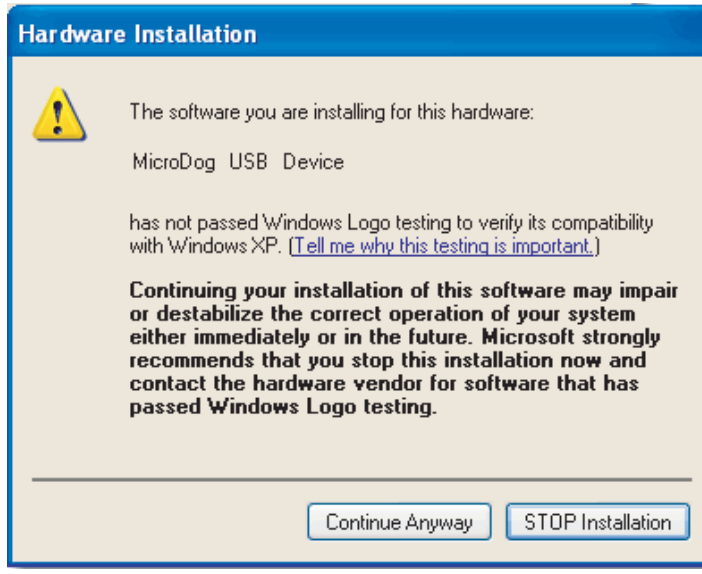


Fig. 2-35

5）The follows windows will shows, click “Finish”;then the Softdog Drive-up programmer successfully be installed.

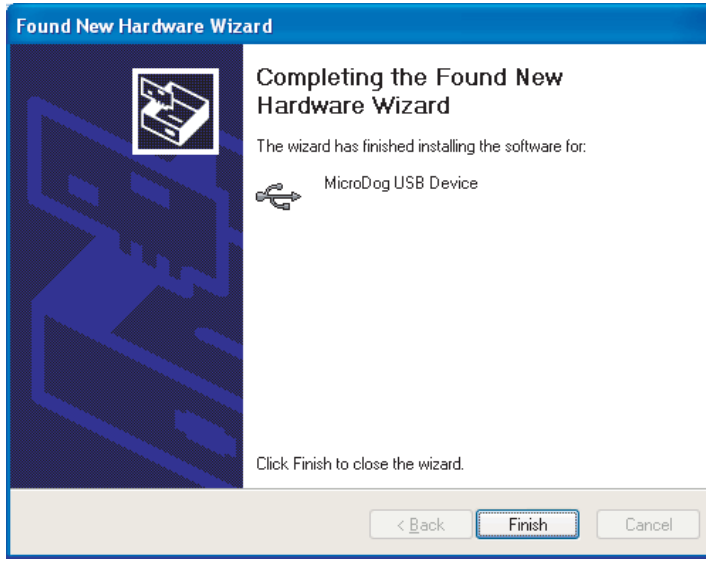


Fig. 2-36

3. THE SOFTWARE INTRODUCTION

1. Control operation mode in the refrigeration system.
2. Query real-time operating parameter in the main system and subsystem.
3. Set up the weekly timing that could realizes the schedule management for the refrigeration system.
4. Record refrigeration system error.

4. SOFTWARE APPLICATION

Premise of operating the software: Open the database Firebird 2.0:

1、Open the “Control Panel”.

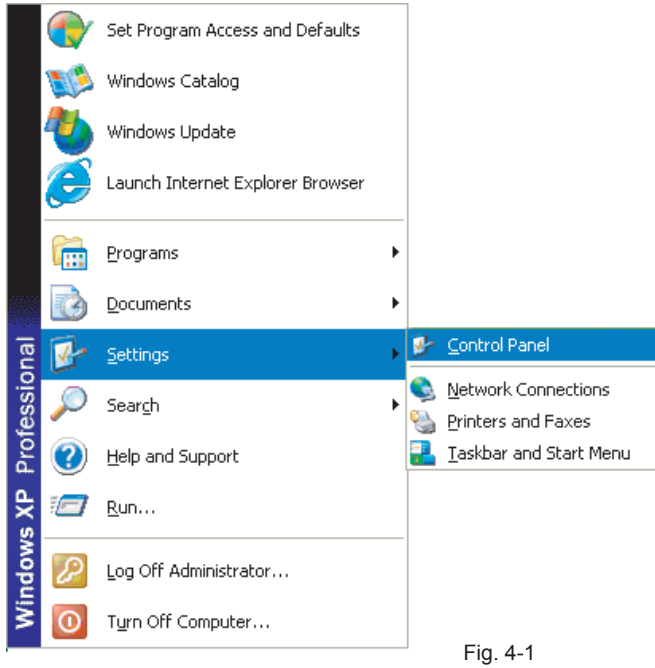


Fig. 4-1

2、Find out the Firebird 2.0 Server Manger in the “Control Panel”, and double-click this icon.

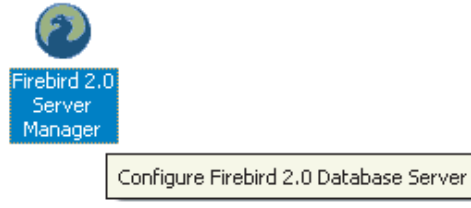


Fig. 4-2

3、The button where the red circle shows as Fig. 4-3 is “Start”, then click the button and open the database server; if the button is “Stop” (display as Fig. 4-4), then it means that the database server has been opened.

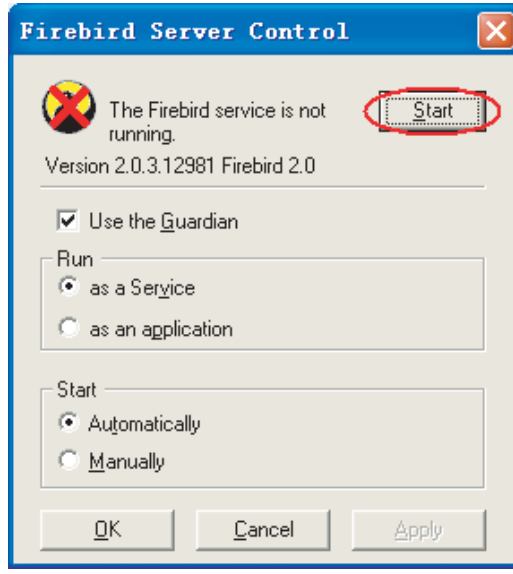


Fig. 4-3

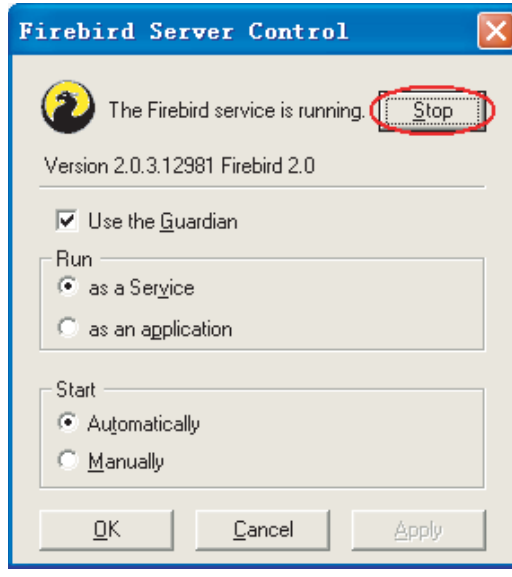


Fig. 4-4

4-1 Software login

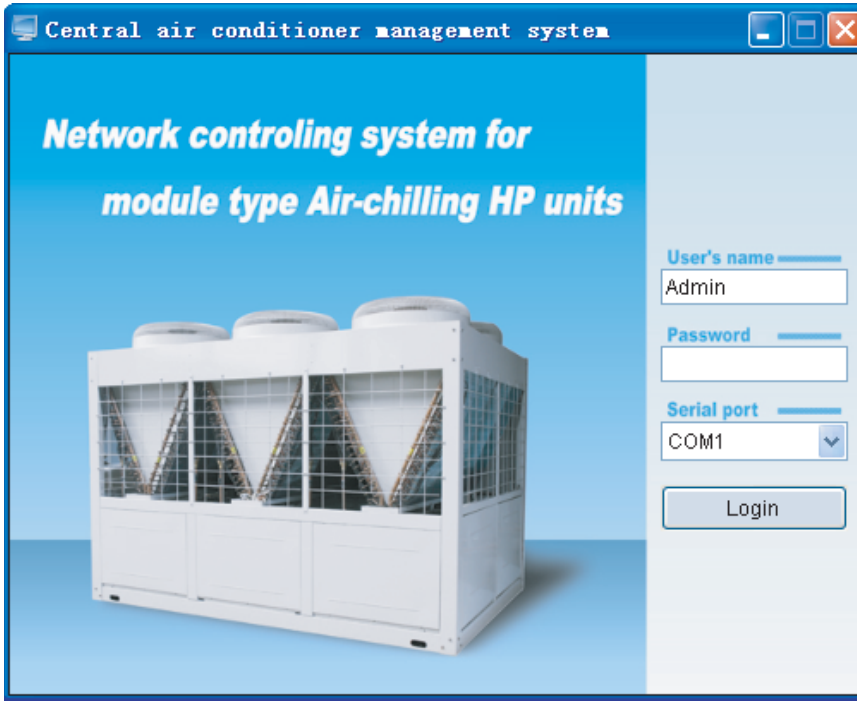


Fig. 4-5

1）The LOGIN window as Fig. 4-5.

2）User need to input the name and password (default name: Admin, default password: Admin);user's name and password could be changed after login.

3）Select the computer serial port. The system default selection is COM1 (the software will checkout the available serial ports in the computer automatically, and will list them at the Optional Table).

4）When logining, you must insert the Softdog provided by manufacturer to the computer, otherwise, the system cannot be logined and the window as Fig. 4-6,and the Softdog Error would show as follows.

Fig. 4-6

5）Be sure that the softdog has been inserted to USB port all the time while the software is running, otherwise the softdog error dialogs displays like Fig. 4-7.

Fig. 4-7

6）When provid a wrong USERE'S NAME, the window as Fig.4-8 will be display, while PASSWORD error, the window shows like Fig.4-9.

Fig. 4-8

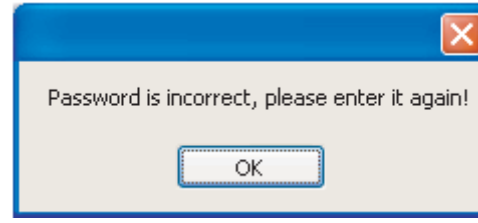


Fig. 4-9

7）In case the password error time exceed 6 times (i.e. the 7th times password error), the window show as Fig.4-10, and then click OK, it will exit the program.

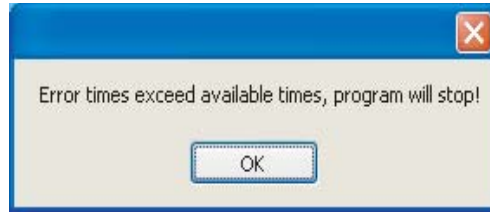


Fig. 4-10

8）In case the selected serial port is unavailable, the window as Fig.4-11 will be display.

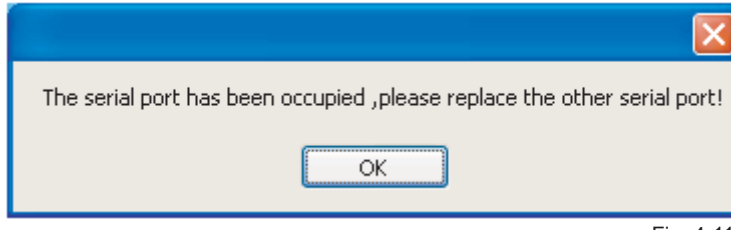


Fig. 4-11

4-2 Detail Application Manual

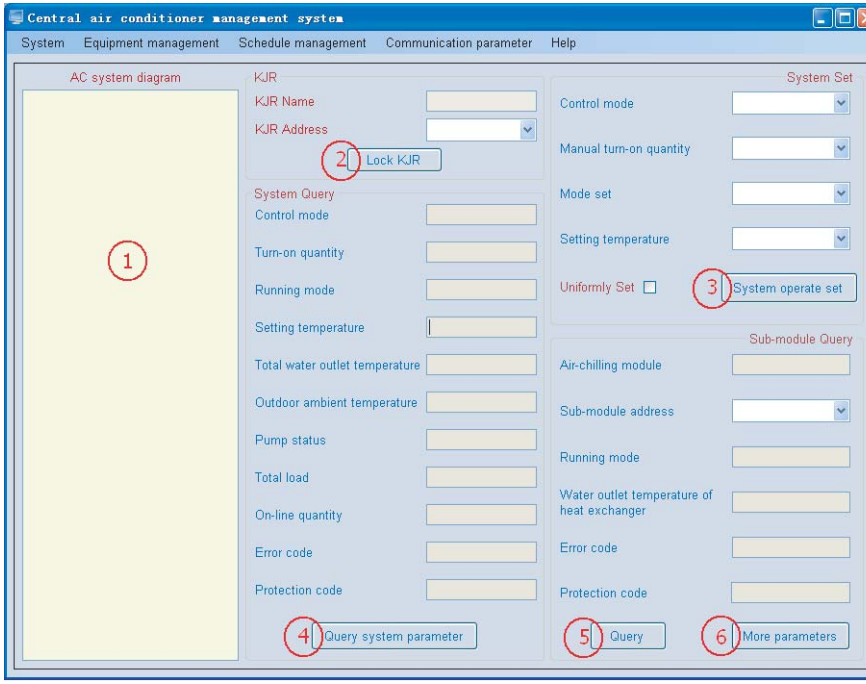


Fig. 4-12

Main interface of this software as Fig. 4-12, detail as follows:

1）Menu includes："System"、"Equipment management"、"Schedule management"、"Communication parameter"、"Help"。

2）System configuration illustration (The ① show as Fig. 4-12): Not more than16 wire controllers could be connected to the computer. This kind of wire controller could be connected to the module group of : 30KW(P)、35KW(P)、60KW(P)、65KW(P)、130KW(P)、200KW(P)、30KW(T)、35KW(T)、60KW(T)、65KW(T)、130KW(T)、200KW(T)etc. Total 16 sub-modules could be jointed to a wire controller. (For the Maximum sub-module quantity could be jointed to a wire controller, the quantity conversion between module group and sub-module, please refer to "Remark 1 in Remark 10. of 三、Software application")

Indicated icon：

Wire controller：

Module group：

Sub-module：

For the meaning of the different color represent, please see ”4. AC system diagram in 4 Software Application”

3）“Lock KJR” (The ② show as Fig. 4-12): To lock or unlock the current selected wire controller to limit the wire controller setting the refrigeration system.

4）”System operate set” (The ③ show as Fig. 4-12): To set the operation of the selected refrigeration system.

5）“Query system parameter” (The ④ show as Fig. 4-12), Press this key to query the selected refrigeration system, the current operating parameter will be display.

6）“Query” (The ⑤ show as Fig. 4-12): Press this key to query the selected sub-module, the current operating parameter will be display.

7）“More parameters” (The ⑥ show as Fig. 4-12): More operating parameter will be display.

If the software has been configured, then will automatic scan the configured system while open the software, the scan interface display as Fig.4-13:

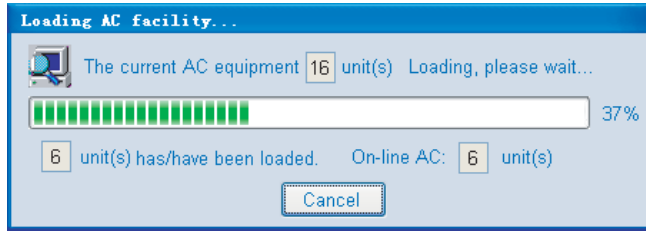


Fig. 4-13

Provided that malfunction occur, window as Fig. 4-14 will display.

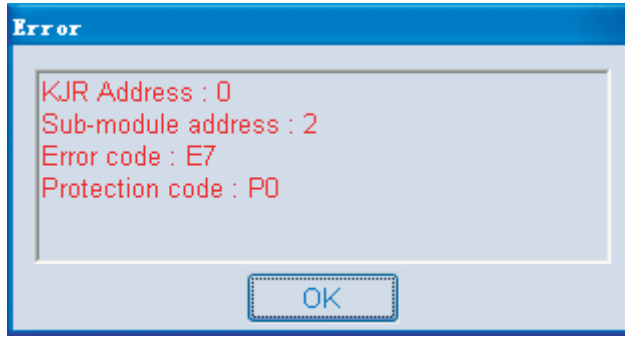


Fig. 4-14

4-3 Menu Application

1）“System” includes：“Password Modification”、“Re-login”、“Exit the program”。See Fig. 4-15.

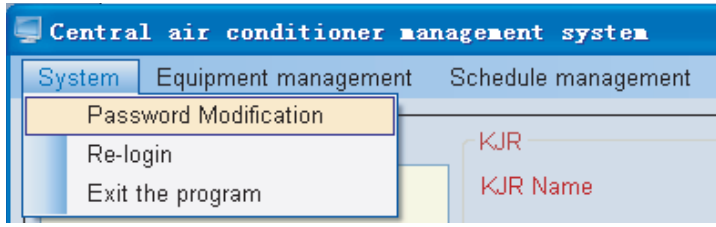


Fig. 4-15

①Click “Password Modification” will display window as Fig. 4-16——input old password as requirement, and then reset a new password, click “OK” or “Modify”, window as Fig. 4-17 will show that new password has been already successful set; if input an old password error, window as Fig. 4-18 will show; if the new passwords be input do not match, the message box as Fig. 4-19 will display.

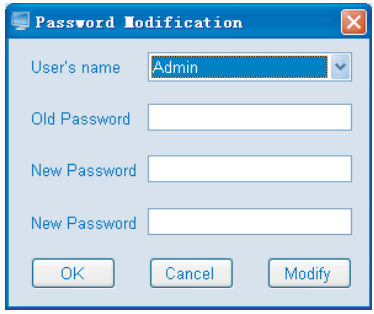


Fig.4-16

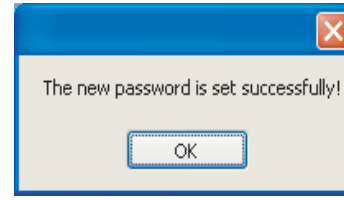


Fig.4-17

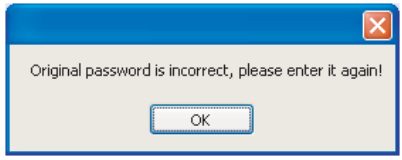


Fig.4-18

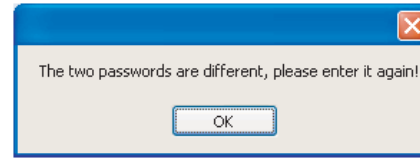


Fig.4-19

②Click “Re-login”, window as Fig. 4-20 will display that interface ask user whether re-login the system, if yes, please click “OK Click “Re-login”, system will close the main interface and enter to the login interface again.

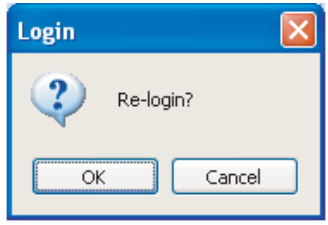


Fig.4-20

③Click “Exit the program” to quit the program, while click “Cancel”, system will not quit.

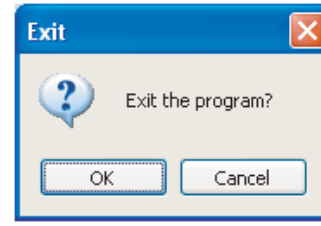


Fig.4-21

2）“Equipment management” includes：“KJR Setting”、“Module parameter setting”、“Outdoor module setting”。See Fig. 4-22.

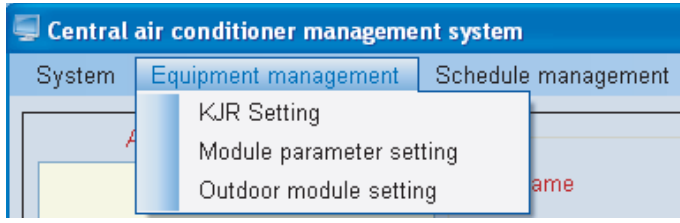


Fig.4-22

①Click “KJR Setting”, the window as Fig. 4-23 will be display——add wire controller to the system to be monitored.

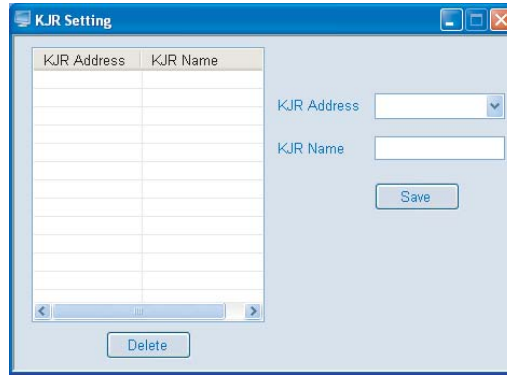


Fig.4-23

Detail operation procedure as follows:

a、 Add a wire controller: Select the wire controller address (0-15) at the “KJR Address”, fill the wire controller name at “KJR Name” and click “Save”.

b、 Modify wire controller: Select an existing wire controller (by click the drop down list of the KJR Address at the left Chart or by click the drop down list of the KJR Address at the right), and re-fill the wire controller name and click “Save” to finish the wire controller modification(see Fig. 4-24). KJR Name could not empty or pure blank character string (pure blank charter string is composed by space and tab)

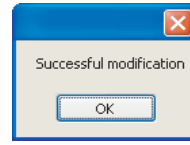


Fig.4-24

c、 Delete wire controller: Select an existing wire controller (as above method), and click “Delete”, if there is no outdoor module controlled by any wire controller (see Fig. 4-25), the one could be deleted; if there are outdoor modules controlled by wire controller (see Fig. 4-26), a failed delete message box would pop up (see Fig. 4-27). As long as delete all modules under connect the wire controller, the wire controller could be deleted.

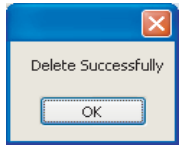


Fig.4-25

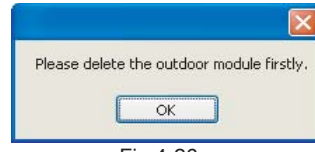


Fig.4-26

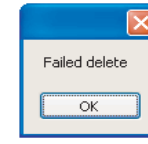


Fig.4-27

Note: Please select wire controller according to actual system condition.

②Click the ” Module parameter setting”, a window as Fig. 4-28 will pop up: add module group under connect with the wire controller

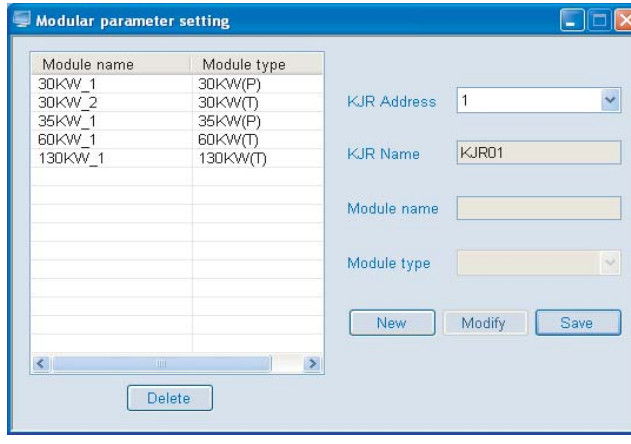


Fig.4-28

a、Add module group: Select the existing wire controller address, and click the “New” key to select the module model at the drop-down box (30KW(P)、35KW(P)、60KW(P)、65KW(P)、130KW(P)、200KW(P)、30KW(T)、35KW(T)、60KW(T)、65KW(T)、130KW(T)、200KW(T))，and fill the module name in “Module Name” column, click “Save” key to complete the module group setting. When the numbers of modules under connect the wire controller exceed the maximum numbers of modules under connect a wire controller, then the system will pops-up prompt dialog box display as Fig.4-29

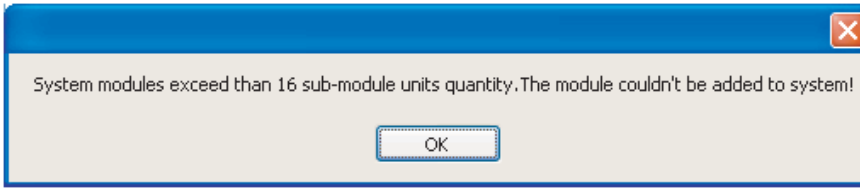


Fig.4-29

b、Delete module group: Select the module group which wanted to delete (select the module group in the drop-down list by click the “Module Name” at left), and click “Delete” key, if there are sub-modules connect with the module, a message box would pop up informing you (message box as Fig. 4-30), click “OK” the module together with its sub-module would be deleted.

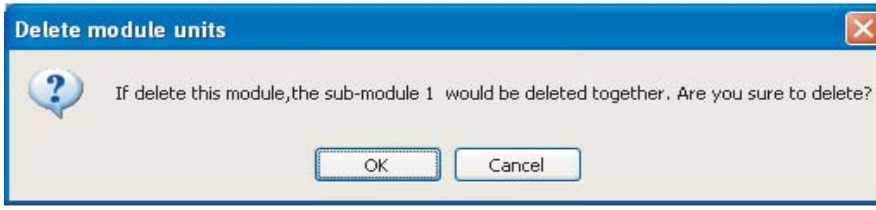


Fig.4-30

c、 Modify module group: The added module group’s name could be changed. Select the module group which is desired to change name (by click the drop-down list of the “Module Name” at left), and then input the new name in the “Module name” column, click “Modify” key to finish the save the new name (see Fig. 4-31).

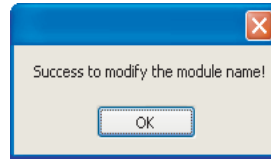


Fig.4-31

③Click “Outdoor module setting”, the pop-up window as Fig.4-32——Add outdoor module under connect with the corresponding wire controller.

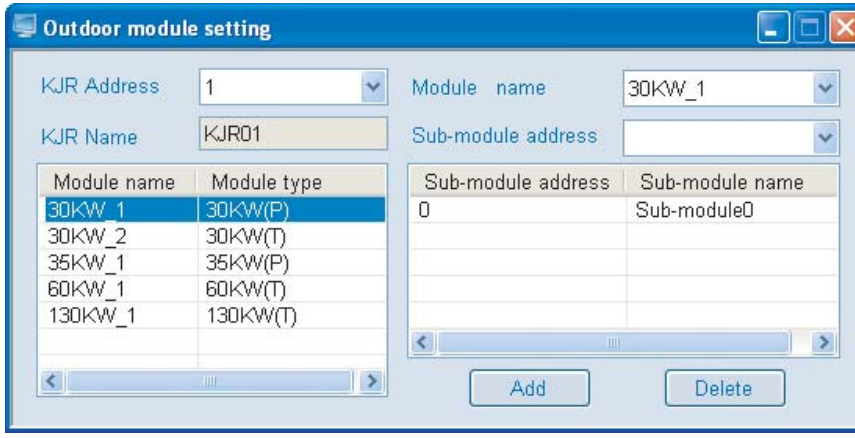


Fig.4-32

a、Add sub-module: Select the existing wire controller address from the “KJR Address”, and select the configured module group at the drop-down box of “Module name”, select the sub-module address in the drop-down box of the configured “Sub-module address”, and then click “Add”. The sub-module would not be configured, if the sub-module address without configured in this wire controller; if sub-module is exists, a message box would pop up as Fig. 4-33 to note you, the sub-module cannot configured. If the sub-module quantity exceeds than the maximum module under connect with wire controller, the message box as Fig. 4-34 will pop up.

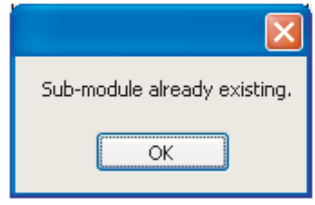


Fig.4-33

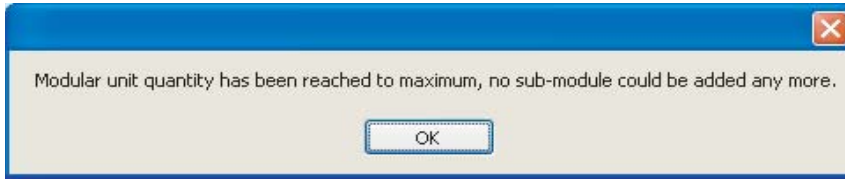


Fig.4-34

b、Delete sub-module: Select the sub-module which wanted to delete (select the wanted delete sub-module at the drop-down box of “Sub-module address”), and click “Delete” to finish this operation.

3）“Schedule management” includes: “Weekly timing setting” and “Error record”。See Fig. 4-35

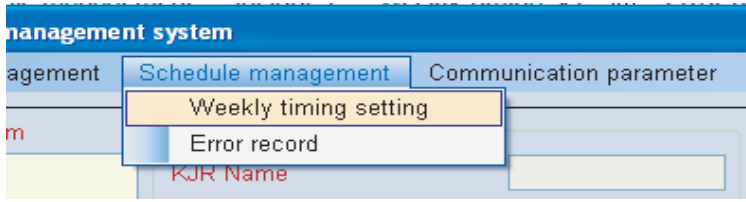


Fig.4-35

①Click “Weekly timing set” a window as Fig. 4-36 would pop up——finish the weekly schedule management setting, each wire controller represents a refrigeration system; and the existing wire controller is a wire controller has already been configured in the system.

Wire controller icons：（1） （2） （3）

（1）Gray color represents Weekly Timing without set in this wire controller.

（2）Light green represents at less one Weekly Timing schedule has been set in this wire controller, without schedule in activating.

（3）Blue color represents at less one Weekly Timing schedule has been set in this wire controller as well as at less one of this schedule in activating.

controller as well as at less one of this schedule in activating.

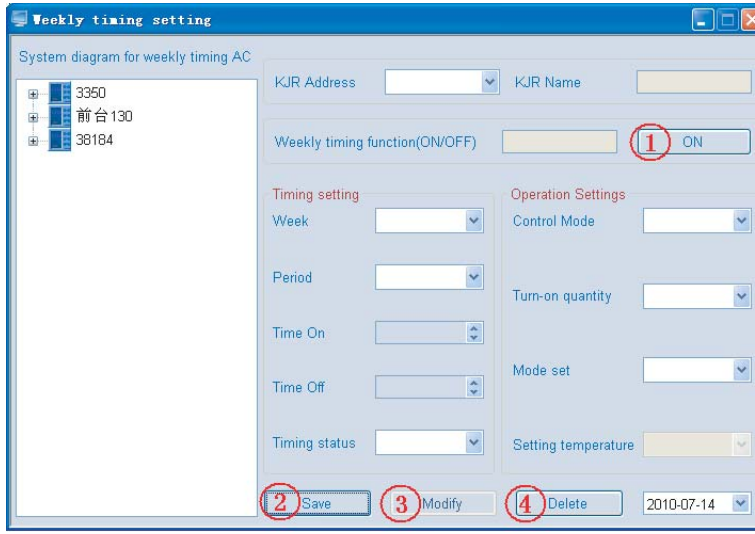


Fig.4-36

a、KJR Address——Wire controller address, each wire controller represents one refrigeration system.

b、Weekly timing function——Display the weekly set status in the current wire controller is ON or OFF (ON or OFF could display as long as at least one weekly schedule has been set, otherwise, nothing would display.)

c、Detail weekly timing parameter—— Week, Period, Time On, Time Off, Timing Status, Control Mode, Turn-on quantity, Mode set and Setting temperature.

d、Timing ON/OFF key for controlling the weekly timing wire controller (See the ① key in the figure) ——when Weekly Timing Function is ON, the key shows OFF (see Fig. 4-37), once click the key, all weekly timing function would be turned off, and then the Weekly Timing Function displays OFF, while the key shows ON （see Fig. 4-38）; when Weekly Timing Function is OFF, the key shows ON (see Fig. 4-38), once click the key, all weekly timing function would be turned on, and then the Weekly Timing Function displays ON, while the key shows OFF （see Fig. 4-39）.

Fig.4-37

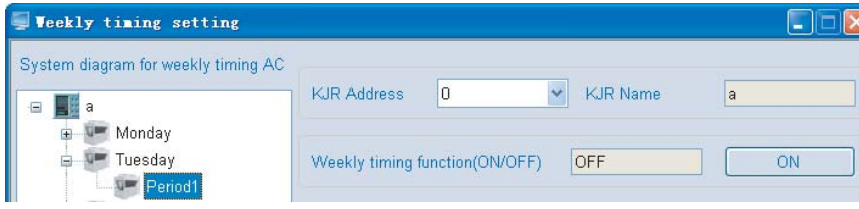


Fig.4-38

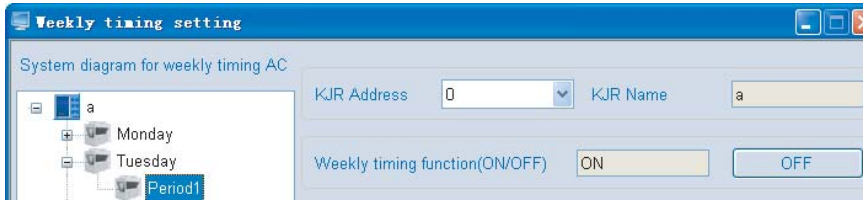


Fig.4-39

e、Save（See the ② key in the Fig.4-36）—— Save the current settings or the modified settings.

f、Modify(See the ③ key in the figure) ——Press this key the parameter of selected period become changeable, and then click “Save”. Press the key again, all parameters in this period become unchangeable. see Fig. 4-40.

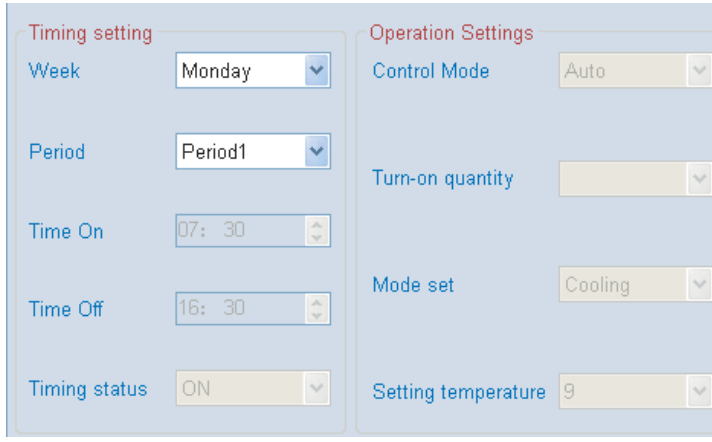


Fig.4-40

Select the setting Period, click “Modify”, all parameter will become changeable status, see Fig. 4-41.

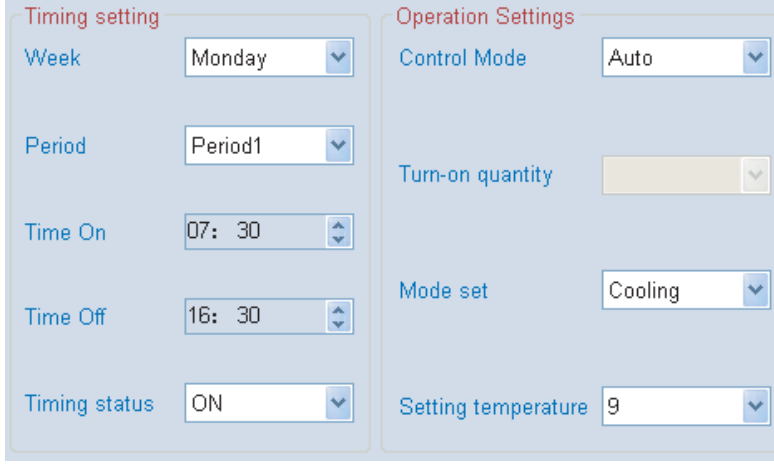


Fig.4-41

g、Delete key (See the ④ key in the figure) ——select a Period and click the key, the current selected Weekly Timing setting period could be deleted. Click the key, window as Fig. 4-42 shows, click “OK” to delete Period. Successful delete the Period, message box as Fig. 4-43 will show.

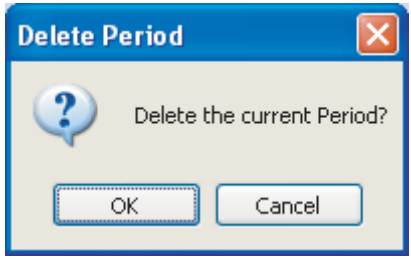


Fig.4-42

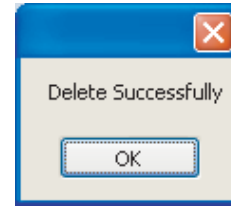


Fig.4-43

（1）Detail procedures of add a new Weekly Timing Schedule:

a、Select a wire controller: By clicking the “System diagram for weekly timing AC” wire controller icon at the left side in the wire controller, or by selecting the wire controller at the drop-down box of “KJR Address”.

b、Detail parameter for setting weekly timing schedule:

Week：Day（Monday、Tuesday、Wednesday、Thursday、Friday、Saturday、Sunday）

Period：Period 1、Period 2，set two Period per day.

Time On：Turn on time, when Time On selecting ”--：--“ , then means do not turn on the unit , display as Fig 4-44.

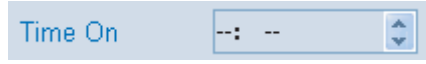


Fig 4-44

Time Off：Turn off time, when Time Off selecting ”--：--“ , then means do not turn off the unit , display as Fig 4-45.

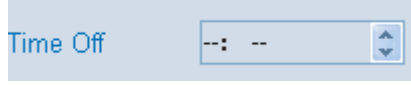


Fig 4.45

Timing Status：Drive up the weekly timing function in the current period or not.

Control Mode：Automatically drive-up mode

Mode set：Operation mode: Cooling, Heating, Water Pump

Setting temperature：Setting temperature

Note: The ON/OFF time of the weekly timing can not be at the same time point, the following will be not allowed for example if the ON time was 8:00 of Period1 and the OFF time was 8:00; and the OFF time of Period1 was 10:00 and the ON time of Period2 was 10:00. If there is error and then will pops-up prompt dialog box display as Fig. 4-46:

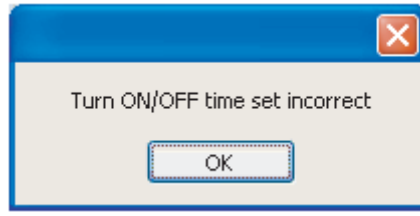


Fig 4-46

If no Timing Status has been set, a message box as Fig. 4-47 would pop up.

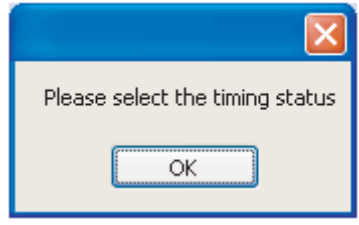


Fig.4-47

If no Control Mode has been set, a message box as Fig. 4-48 would pop up.

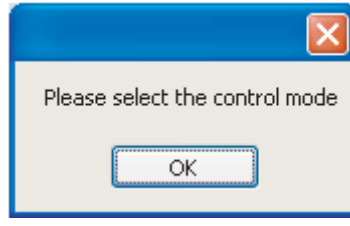


Fig.4-48

If no Mode set has been set, a message box as Fig. 4-49 would pop up.

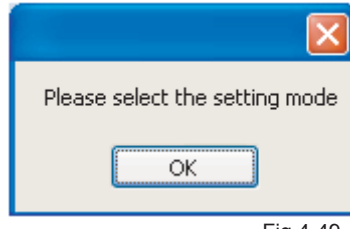


Fig.4-49

If no Setting temperature has been set, a message box as Fig. 4-50 would pop up.

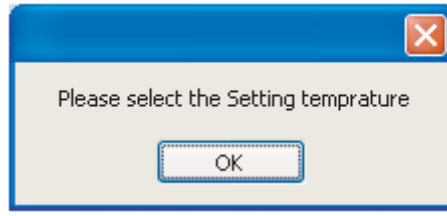


Fig.4-50

（2）Detail procedures of modify a Weekly Timing Schedule:

a、Select a wire controller: By clicking the “System diagram for weekly timing AC” wire controller icon at the left side in the wire controller, or by selecting the wire controller at the drop-down box of “KJR Address”.

b、Select a wire controller: By clicking the Period of the “System diagram for weekly timing AC” at the left side in the wire controller, or by selecting the wanted modified Period at the drop-down box of “Period”.

c、Detail parameter for modifying weekly timing schedule:

Time On：Turn on time, when Time On selecting ”--：--“ , then means do not turn on the unit , display as Fig 4-51.

Fig 4-51

Time Off：Turn off time, when Time Off selecting ”--：--“ , then means do not turn off the unit , display as Fig 4-52.

Fig 4-52

Timing Status：Drive up the weekly timing function in the current period or not.

Control Mode：Automatically drive-up mode

Mode set：Heating、Cooling、Water Pump

Setting temperature：Setting temperature

If other parameters have been set, click “Save” key, a message box as the same as above”

(1) Detail procedures of add a new Weekly Timing Schedule” will pop up.

Once the setting time is reach, system will set according to the setting parameter, window as Fig. 4-53 will display. When finish the set up, message box will close automatically.

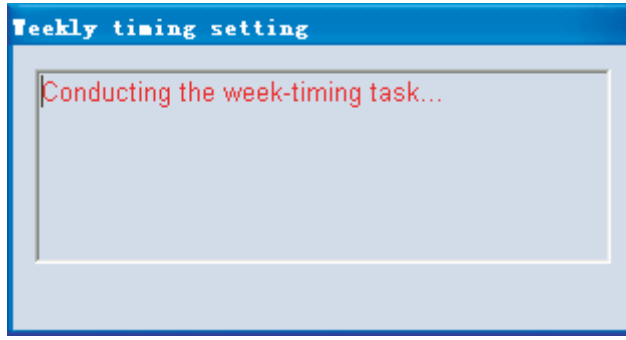
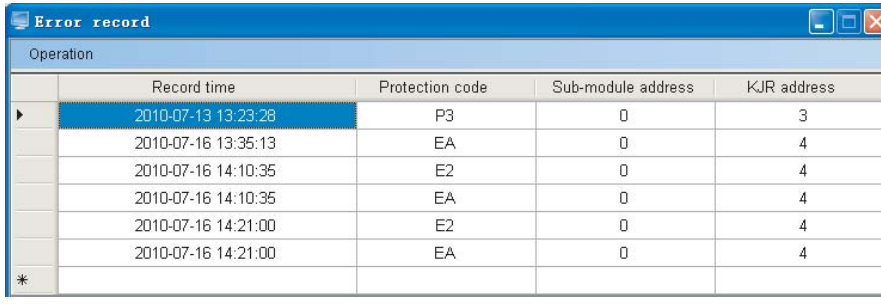


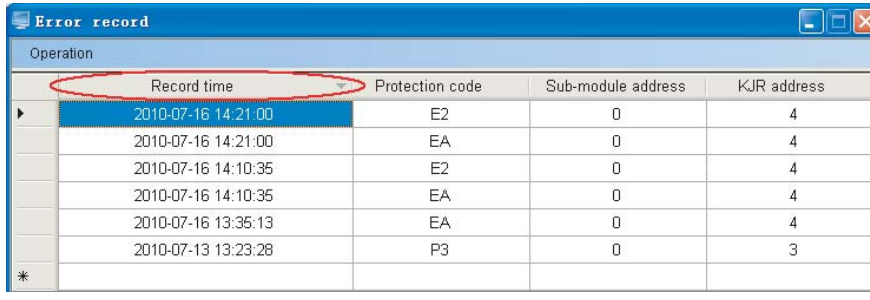
Fig. 4-53

②“Error record”——Save the system operation error record, includes: Record time, Error prevented cord, Sub-module address and KJR address (see Fig. 4-54); click the “Record time”、”Protection code”、”Sub-module address”、”KJR address”can proceed ordering(see Fig 4-55) ;“Clear all record”in the Menu (See Fig. 4-56) could be used to delete all error records.



	Record time	Protection code	Sub-module address	KJR address
▶	2010-07-13 13:23:28	P3	0	3
	2010-07-16 13:35:13	EA	0	4
	2010-07-16 14:10:35	E2	0	4
	2010-07-16 14:10:35	EA	0	4
	2010-07-16 14:21:00	E2	0	4
	2010-07-16 14:21:00	EA	0	4
*				

Fig.4-54



	Record time	Protection code	Sub-module address	KJR address
▶	2010-07-16 14:21:00	E2	0	4
	2010-07-16 14:21:00	EA	0	4
	2010-07-16 14:10:35	E2	0	4
	2010-07-16 14:10:35	EA	0	4
	2010-07-16 13:35:13	EA	0	4
	2010-07-13 13:23:28	P3	0	3
*				

Fig 4-55

Fig.4-56

4）“Communication parameter” includes：“Serial port set” and “History set”。See Fig.4-57

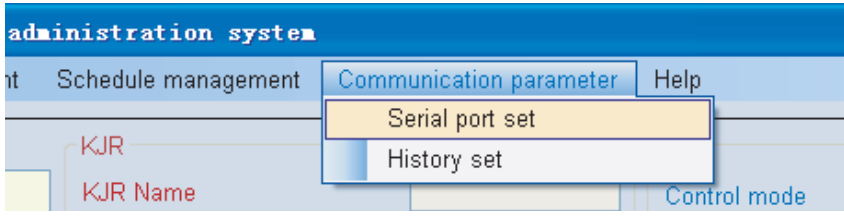


Fig.4-57

①Click “Serial port set”, window as Fig. 4-58 will pop up—— modify or select the serial port in computer. The available serial port source is captured by software, and saved at the optional list for user to select. Provided that the selected serial port has been occupied, once click “Apply” or “Enter”, a message box as Fig. 4-59 will pop up; if the serial port as is the current applying port, once click “Apply” or “Enter”, a message box as Fig. 4-60 will pop up.

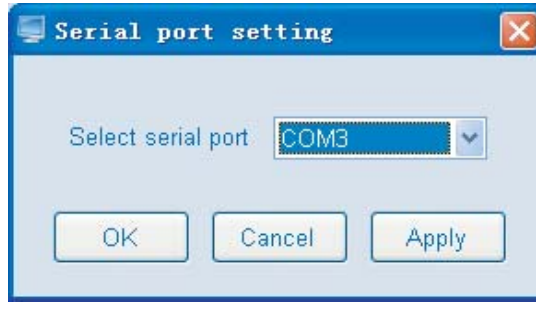


Fig.4-58

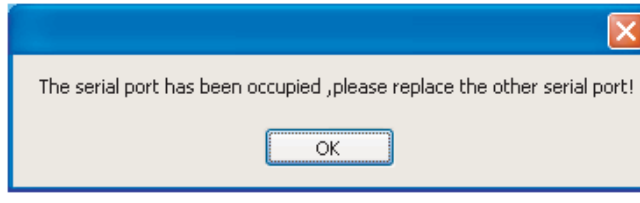


Fig.4-59

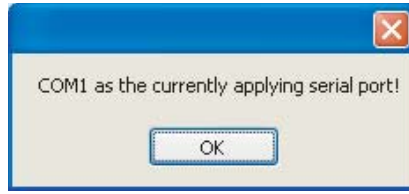


Fig.4-60

②Click “History set”, an interface as Fig. 4-61 displays ———to modify or select the history error saving duration.

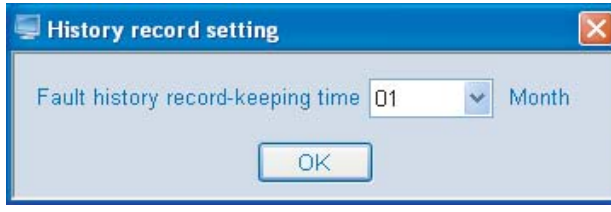


Fig.4-61

5）“Help” includes：“User guidance” and “About”. See Fig. 4-62

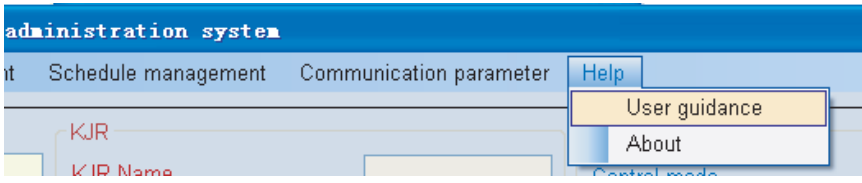


Fig.4-62

①Owner’s manual——Software application manual, i.e. this manual.

②About——some relevant software information

4-4 AC system diagram explanation

4-4-1 16 wire controllers at most could be connected to this system, i.e. 16 sets of refrigeration systems. Each wire controller could be connected by the module group of :30KW(P)、35KW(P)、60KW(P)、65KW(P)、130KW(P)、200KW(P)、30KW(T)、35KW(T)、60KW(T)、65KW(T)、130KW(T)、200KW(T) etc.Mostly 16 sets sub-modules could be jointed to a wire controller.（The quantity conversion between module group and sub-module, please refer to Remark 1 in Remark 10. of 4 Software application) see Fig. 4-63 the treeview structure, which could be find in this software.

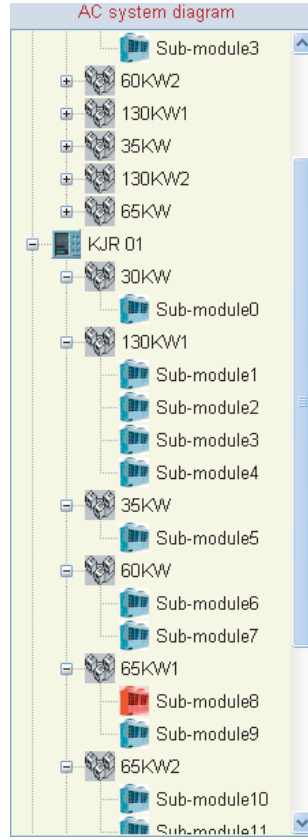


Fig.4-63

Specific operating status could be distinguished by colors of the treeview. See follows table for detail color information:

No.	Color	Status	Equipment
1	、	OFF-LINE	CONTROLLER（）、SUB-MODULE（）
2	、	NORMAL	CONTROLLER（）、SUB-MODULE（）
3		ON-LINE ERROR	SUB-MODULE（）

4-4-2 Right-click the blank space of “AC system diagram”, then will pops-up the menu display as Fig. 4-64:

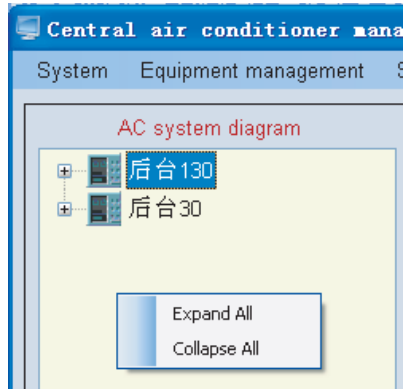


Fig. 4-64

Select the “Expand All” and expand all nodes; select the “Collapse All” and collapse all the nodes.

4-4-3 Right-click a node of “AC system diagram”, then will pops-up the menu display as Fig. 4-65:

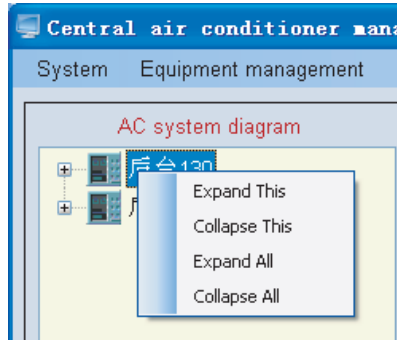


Fig. 4-65

Select the “Expand This” and expand the selected node; select the “Collapse This” and collapse the selected node; select the “Expand All” and expand all nodes; select the “Collapse All” and collapse all the nodes.

4-5 Wire controller lock/unlock

Provided that the selected wire controller in unlock status, the key would display “Lock KJR”(see Fig. 4-66), once successful lock the wire controller, the message box (see Fig. 4-67) would display, tells user that the setting is successful, then the key displays “Unlock KJR”(see Fig. 4-68); If the set failed, message box (Fig. 4-69) would display. If without select wire controller, message box as Fig. 4-70 will display.

Fig.4-66

Fig.4-67

Fig.4-68

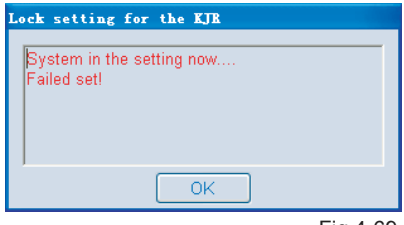


Fig.4-69

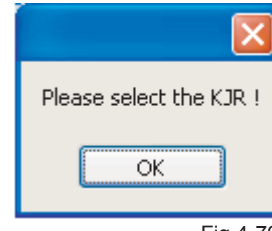


Fig.4-70

Provided that the selected wire controller in lock status, the key would display “Unlock KJR”(see Fig. 4-71), once successful unlock the wire controller, the message box (see Fig. 4-72) would display, then the key displays “Lock KJR”(see Fig. 4-73); If the set failed, message box (Fig. 4-74) would display, tells user that set failed because of timeout.

Fig.4-71

Fig.4-72

Fig.4-73

Fig.4-74

4-6 Query system parameter

Click “Query system parameter”, system will query the operating status (display the sub-module of 0 address’s operation status) and display the operative interface according to the selected wire controller (refrigeration system). In the querying, a message box (see Fig. 4-75) would pop up.

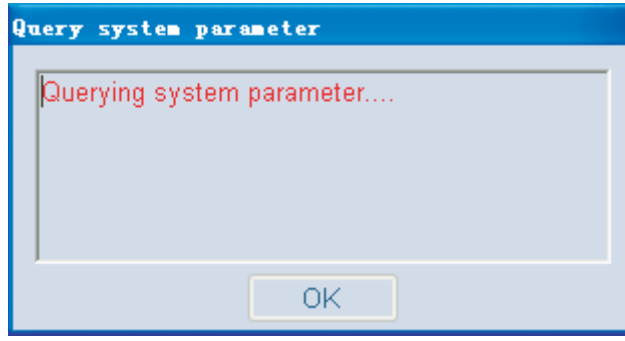


Fig.4-75

If successful query the system, a message box (see Fig. 4-76) will pop up and note you query success, and system parameter interface will update according to the query result. (Fig. 4-77)

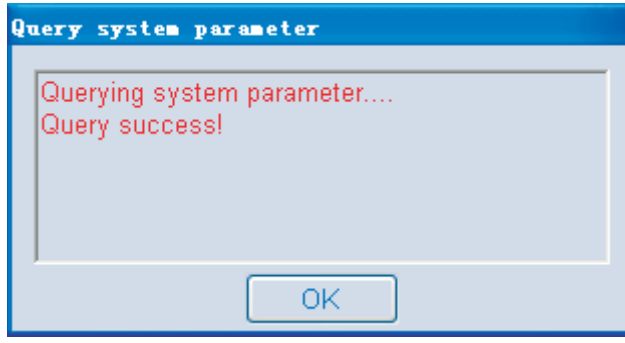


Fig.4-76

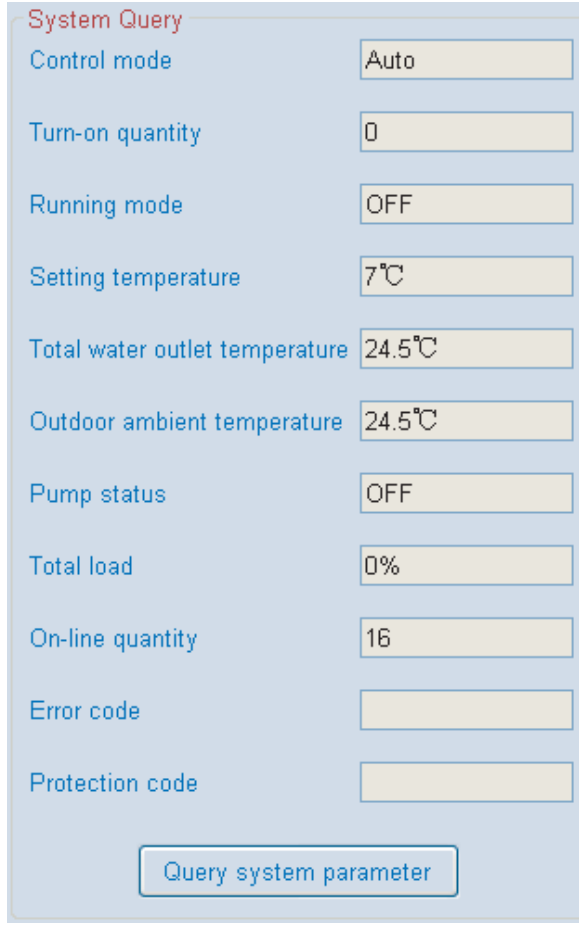


Fig.4-77

Whereas, “Query overtime” would display (see Fig. 4-78). Provided that the wire controller hasn’t been selected, namely the wire controller address is empty, a message box as Fig 4-79 would pop up. The query performance failed.

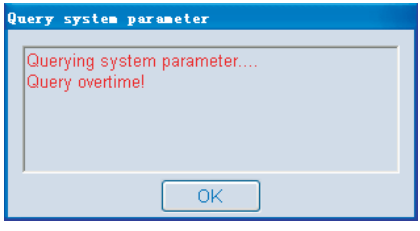


Fig.4-78

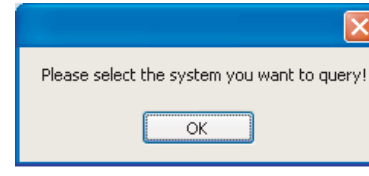


Fig.4-79

Provided that malfunction occur, the corresponding error code will show in the System Query; Provided that protection function perform, the corresponding protection code will show in the System Query; if move the mouse arrow to the these codes, a floating window as the follows Fig. 4-80 and 4-81 will appearance to giving the specific error or protection information.

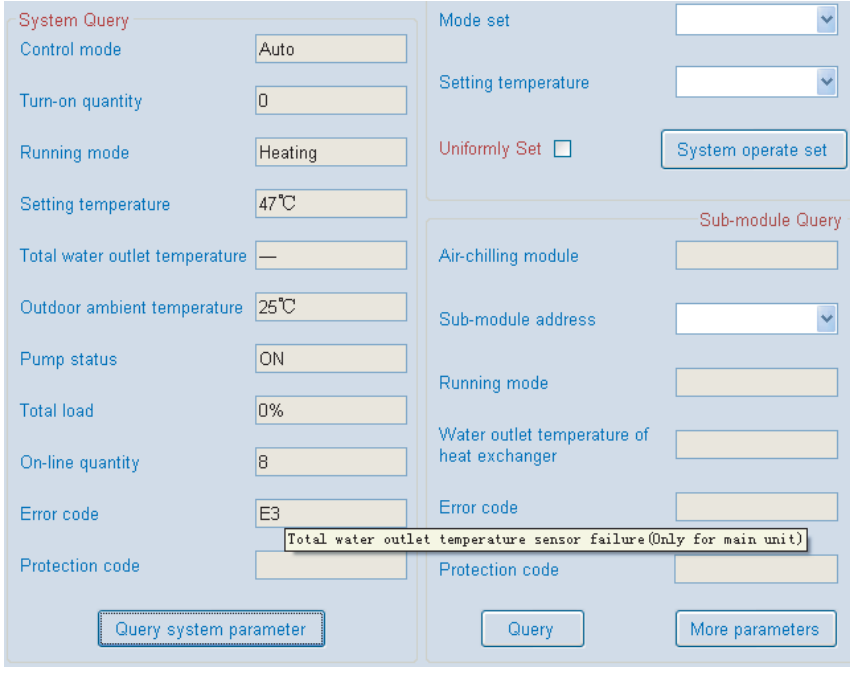


Fig.4-80

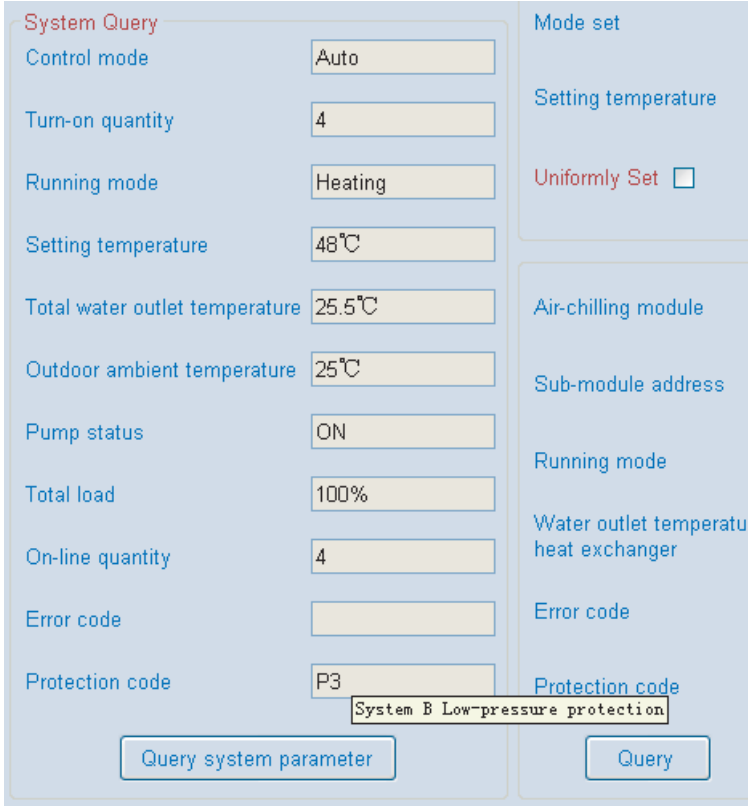


Fig.4-81

4-7 Sub-module Query

Click the “Query”, system will query the operative status and display the information in the operation interface according to the current selected sub-module. In the querying, a message box (see Fig. 4-82) would pop up: “Query success” (see Fig. 4-83) to note you the query is successful and update the parameter interface (see Fig. 4-84) base on the query result; whereas, “Query overtime” (see Fig. 4-85) would display. Provided that sub-module hasn’t been selected, namely the sub-module address and the corresponding name are empty, a message box (see Fig. 4-86) would pop up. The query performance failed.

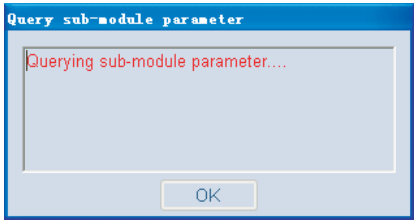


Fig.4-82

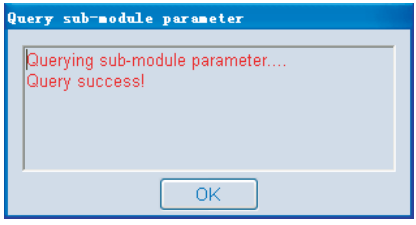


Fig.4-83

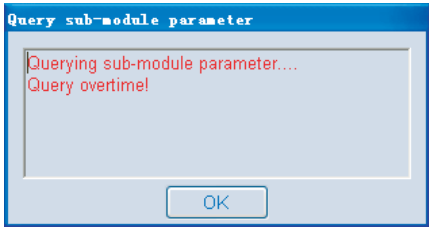


Fig.4-85

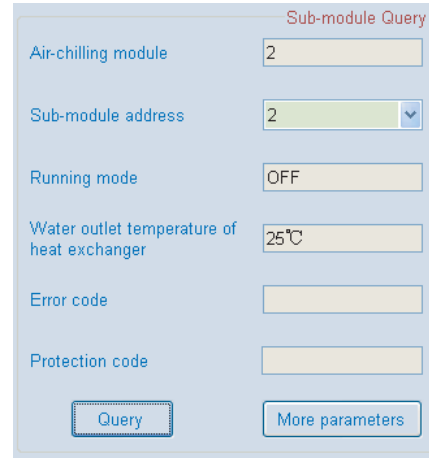


Fig.4-84

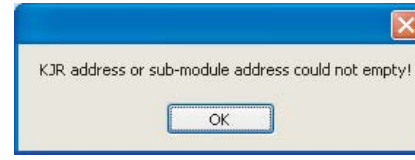


Fig.4-86

Provided that malfunction occur, the corresponding error code will show in the Sub-module query; Provided that protection function perform, the corresponding protection code will show in the Sub-module query; if move the mouse arrow to the these codes, a floating window as the follows Fig. 4-87 and 4-88 will appearance to giving the specific error or protection information.

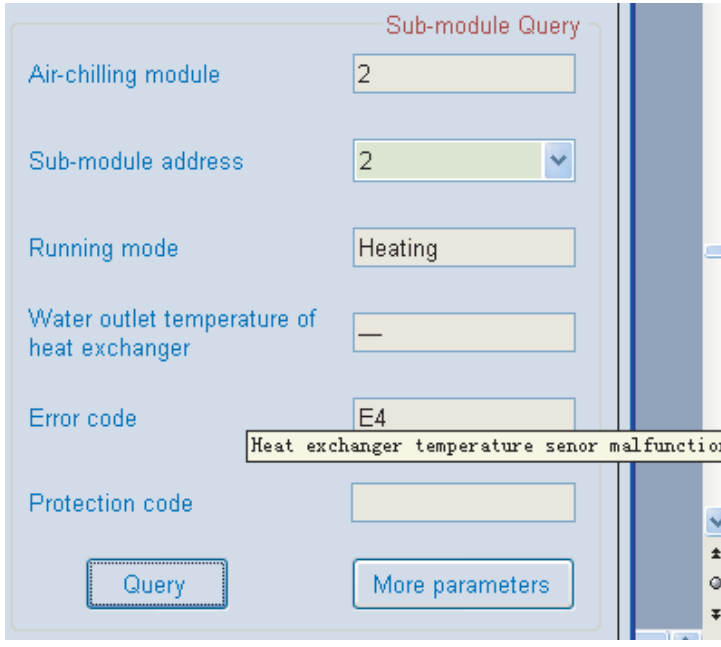


Fig.4-87

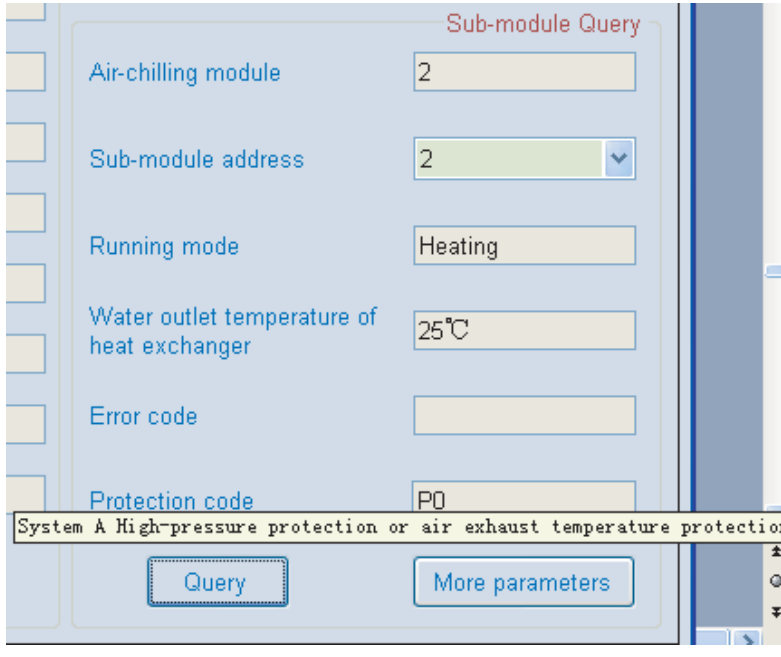


Fig.4-88

4-8 More parameters

Click More Parameters, you could query more data (See Fig.4-89). If the sub-module hasn't been selected, a message box as Fig. 4-90 would show. You must click a certain sub-module firstly, and then to click the "More parameters" key, more parameter could be queried; a message box (See Fig.4-91) will display informing more parameters are empty.

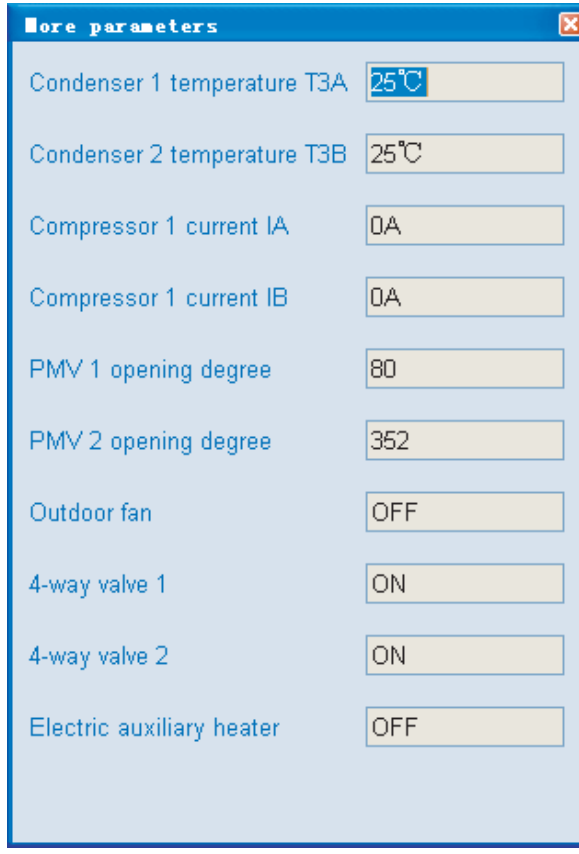


Fig.4-89

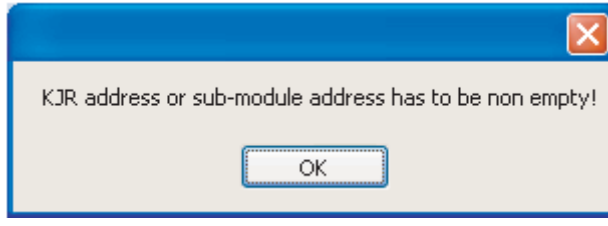


Fig.4-90

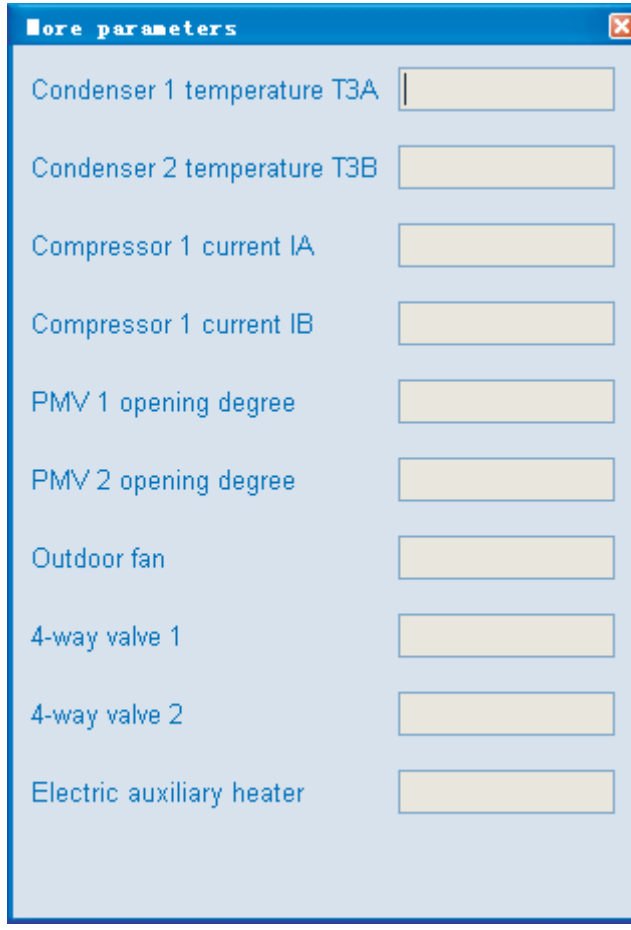


Fig.4-91

4-9 System operate set

1）During setting, message boxes as following might display.
Click the “System operate set” in the conditioner of without wire controller has been selected, a message box as Fig. 4-92 would show.

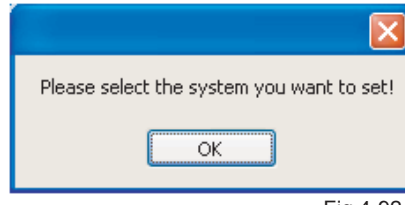


Fig.4-92

Click the “System operate set” in the conditioner of although the wire controller has been set, all options in the System Set are empty (See Fig. 4-93), a message box as Fig. 4-94 would show.

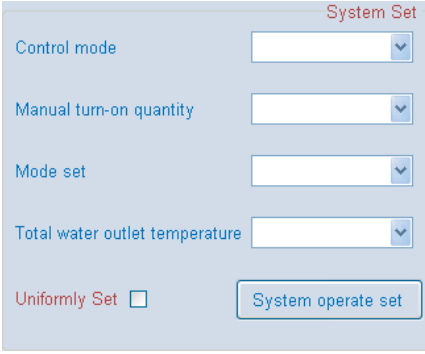


Fig.4-93

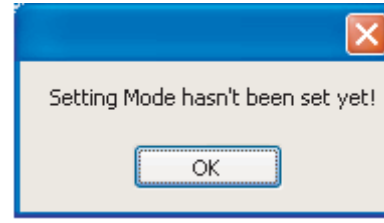


Fig.4-94

Click the “System operate set” in the conditioner of without Control Mode has been selected, a message box as Fig. 4-95 would show.

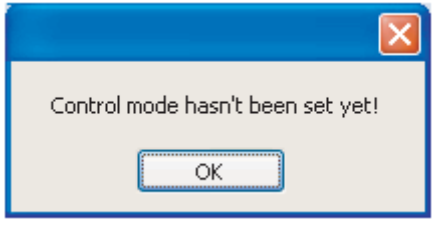


Fig.4-95

Click the “System operate set” in the conditioner of without Mode set has been selected, a message box as Fig. 4-96 would show.

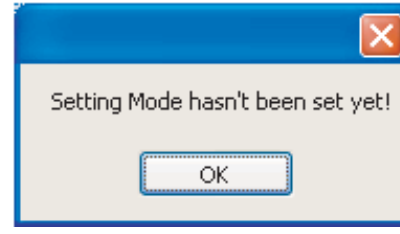


Fig.4-96

Click the “System operate set” in the conditioner of without Setting temperature has been selected, a message box as Fig. 4-97 would show.

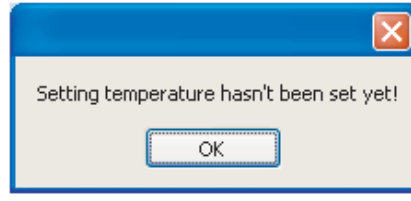


Fig.4-97

2）Set wire controller separately: Do not tick the “Uniformly Set”. Select the wanted set wire controller (refrigeration system) from the wire controller address column and select the corresponding set parameters, which include control Mode (Auto), Mode set (cooling/heating/Water pump/turn-off), Setting temperature (Cooling: 5~17℃; Heating:45~50℃). After set up all above parameters (See Fig. 4-98), please click the “System operate set”, system begins to set up. A message box (See Fig. 4-99) will pop up. Once successful setting, a message box as Fig. 4-100 will display to inform you Successful System Set, whereas, Failed System set as Fig. 4-101 will display.

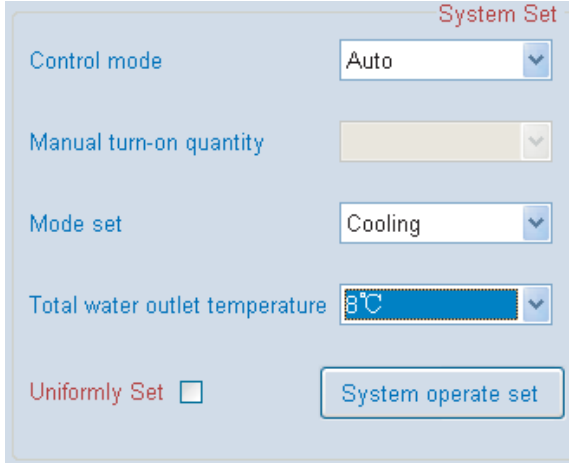


Fig.4-98

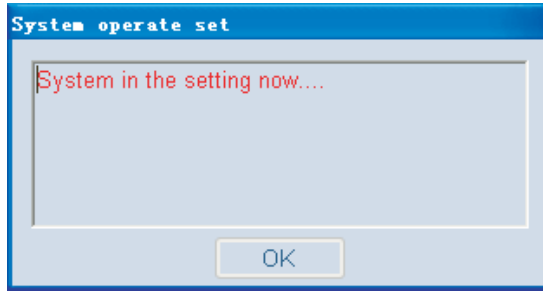


Fig.4-99

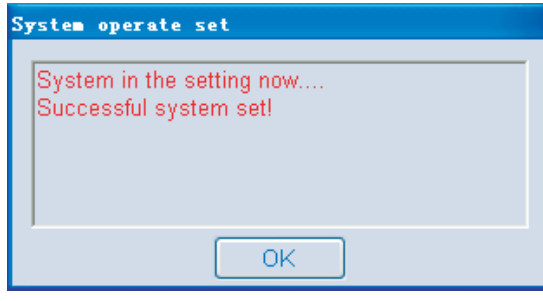


Fig.4-100

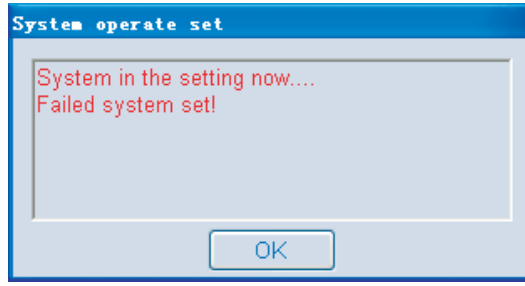


Fig.4-101

3）Uniformly set all wire controllers: Tick Uniformly Set as Fig. 4-102, and then select the corresponding parameters, click the System Operate Set, system starts to set up. A message box as Fig. 4-103 will display during the setting. Once successful setting, a message box as Fig. 4-104 will display to inform you Successful System Set, whereas, Failed System set as Fig. 4-105 will display. After all setting done, a message box (see Fig. 4-106) will display informing “Setting Finish”!

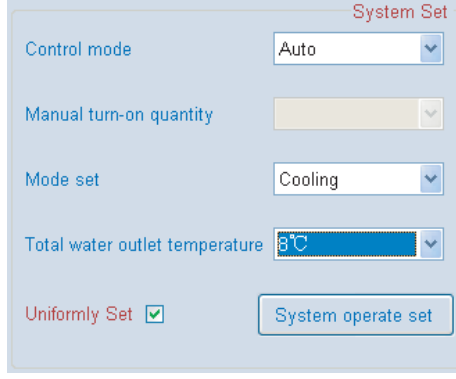


Fig.4-102

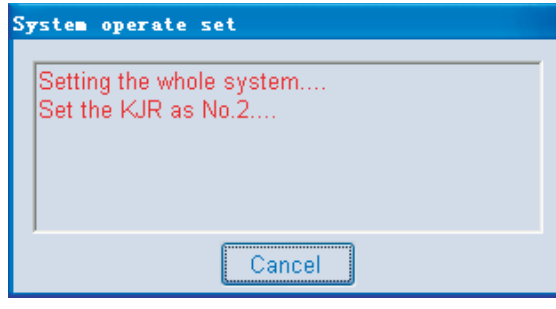


Fig.4-103

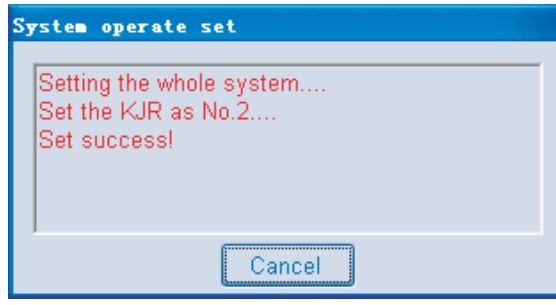


Fig.4-104

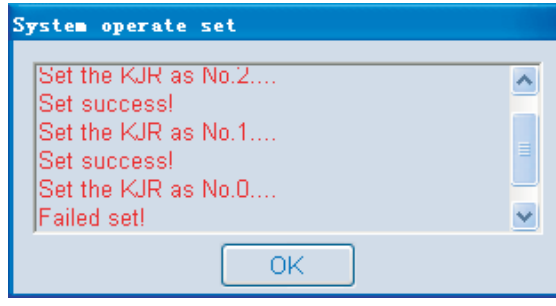


Fig.4-105

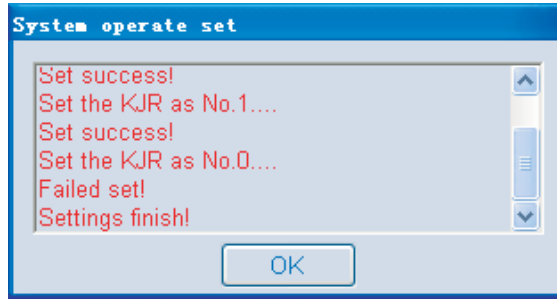


Fig.4-106

4-10 Remark

Remark 1：

Mostly 16 sets of SUB-MODULES are allow to connect under a WIRE CONTROLLER; MODULE GROUP directly under connects with a WIRE CONTROLLER; SUB-MODULE under connects with MODULE GROUP. The quantity conversion between MODULE and SUB-MODULE: add a 30KW(P) or a 35KW(P) module equal to add one sub-module; add a 60KW(P) or a 65KW(P) module equal to add two sub-modules; add a 130KW(P) module equal to add four sub-modules. I.E. a wire controller is under connected with one 30KW(P) module, one 35KW(P) module, one 60KW(P) module, one 65KW(P) module and two 130KW(P) modules, that is to say 1+1+2+2+4*2=14 sub-modules are under connected with this wire controller, no more 130KW(P) module could be set under to this wire controller, for the reason of 14+4=18, the quantity18 exceeds than the maximum allowance quantity 16, thus, only one 60KW(P) sub-module or one 65KW(P) module, or two 30KW(P) modules or two 35KW(P) modules, or one 30KW(P) module with one 35KW(P) module could be under connected with this wire controller. Anyway, total modules quantity is not allow exceeds than 16.

Remark 2：

Series	30 kW（P）	35 kW（P）	60 kW（P）	65 kW（P）	130 kW（P）	200 kW（P）
The number of main control panels	1	1	2	2	4	6
Series	30 kW（T）	35 kW（T）	60 kW（T）	65 kW（T）	130 kW（T）	200 kW（T）
The number of main control panels	1	1	1	1	2	3

Remark 3：

The computer can use the names of serial ports for querying:

1、Right-click the “My Computer” and select the “Properties”

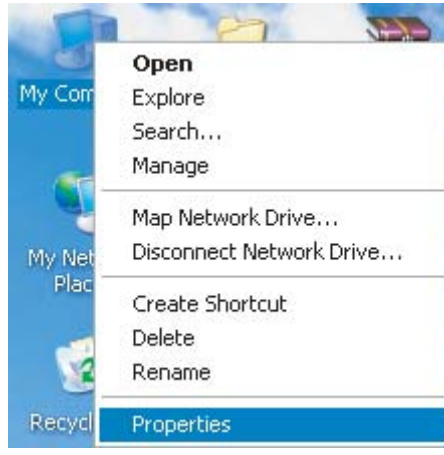


Fig.4-107

2、The window “System Properties” will be popped-up after selecting the “Properties”, and then select the “Device Manager” in the “Hardware”

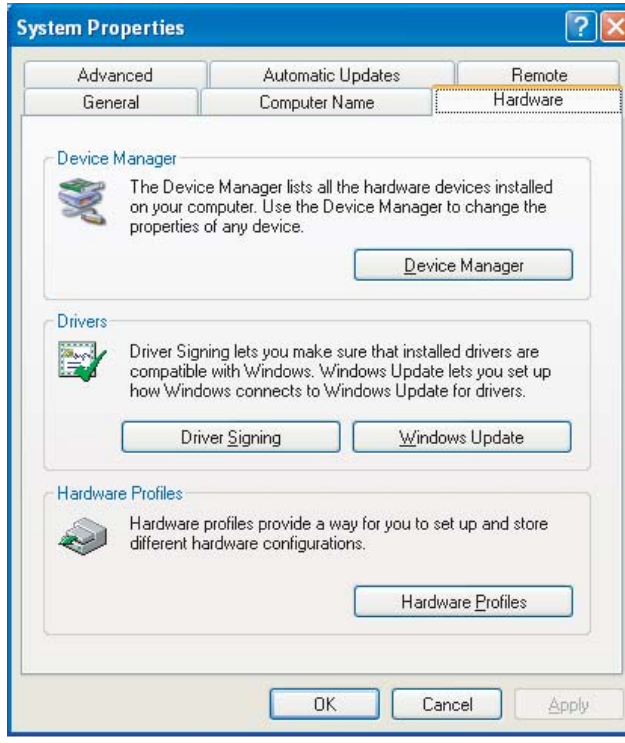


Fig.4-108

3、The window “Device Manager” will be showed up after clicking the “Device Manager”

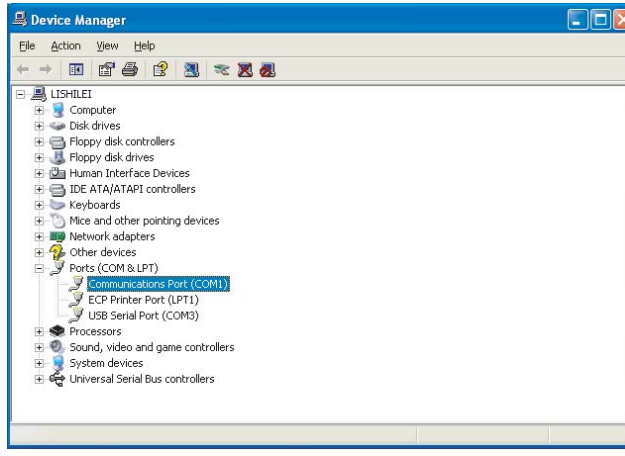


Fig.4-109

4、Click the icon “ ⊞ ” in front of the “Ports（COM&LPT）”, then can view the port names by the format as “COM”+number, these names are the usable serial port names for the computer (Note: the computer may has more serial ports or no ports)

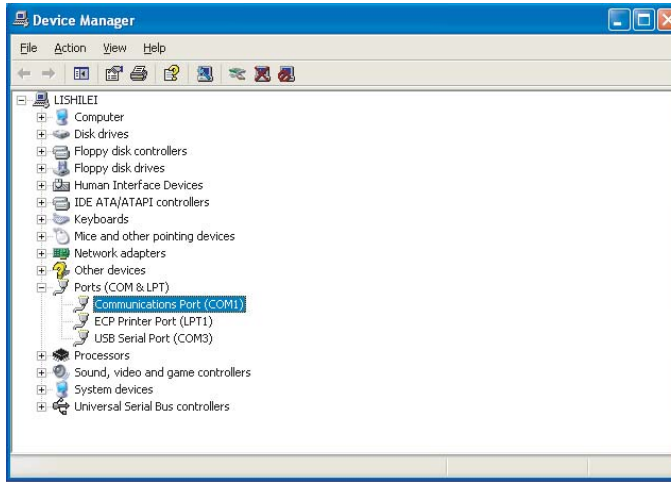


Fig.4-110

5 APPENDIX

1. Query list for malfunction status

E0	Water flow detection error（The third times）
E1	Power phase sequence error
E2	Communication error
E3	Total water outlet temp. sensor error (available for unit)
E4	Heat exchanger temperature sensor error
E5	Pipe temp. sensor of Condensator A error
E6	Pipe temp. sensor of Condensator B error
E7	Outdoor ambient temp. sensor error
E8	System A discharge temperature of digital compressor error
E9	Water test failure (The first and second times)
EA	Auxiliary unit quantity (detected byu the main unit) decreased error
Eb	T61 anti-freezing temperature sensor of heat exchanger failure
Ed	4 times PE protections occur within one hour, the system should be shut-down and re-power ON
EF	T62 anti-freezing temperature sensor of heat exchanger failure

2. Query list for protection status

P0	System A High-pressure protection or air exhaust temperature protection
P1	System A Low-pressure protection
P2	System B High-pressure protection or air exhaust temperature protection
P3	System B Low-pressure protection
P4	System A current protection
P5	System B current protection
P6	System A condenser High-Pressure protection
P7	System B condenser High-Pressure protection
P8	System A as the air exhaust temprature protection gor digital compressor
P9	Protection of outlet and inlet water temperature difference
Pb	System antifreezing protection
PC	Protection of diacharge temperature of digital scroll compressor above 125℃
PE	Heat exchanger low-rempertaure protection

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