INSTALLATION & OWNER'S MANUAL

SYSVRF *AHU Box*

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.

CONTENTS PAGE

1. PRECAUTIONS

- **Be sure to be in conformity with the local, national and international laws and regulations.**
- **Read "PRECAUTIONS" carefully before installation.**
- **The following precautions include important safty items. Observe them and never forget.**
- **Keep this manual with the owner's manual in a handy place for future reference.**
- **Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.**

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

WARNING

Failure to observe a warning may result in death.

CAUTION

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

After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained.Also, inform customers that they should store this installation manual along with the owner's manual for future reference.

WARNING

Be sure only trained and qualified service personnel to install, repair or service the equipment.
Improper installation, repair, and maintenance may result in electric shocks, short-circuit, leaks, fire or other damage to the equipment.

Install according to this installation instructions strictly.
If installation is defective, it will cause water leakage, electric shocks, fire.

When installing the unit in a small room, take measures against to keep refrigerant concentration from exceeding allowable safety limits in the event of refrigerant leakage.
Contact the place of purchase for more information. Excessive refrigerant in a closed ambient can lead to oxygen deficiency.

Use the attached accessories parts and specified parts for installation.
otherwise, it will cause the set to fall, water leakage, electrical shock fire.

Install at a strong and firm location which is able to withstand the set' s weight.
If the strength is not enough or installation is not properly done, the set will drop to cause injury.

The appliance must be installed 2.5m above floor.

The appliance shall not be installed in the laundry.

Before obtaining access to terminals, all supply circuits must be disconnected.

The appliance must be positioned so that the plug is accessible.

The enclosure of the appliance shall be marked by word, or by symbols, with the direction of the fluid flow.

For electrical work, follow the local national wiring standard, regulation and this installation instructions. An independent circuit and single outlet must be used.
If electrical circuit capacity is not enough or defect in electrical work, it will cause electrical shock fire.

Use the specified cable and connect tightly and clamp the cable so that no external force will be acted on the terminal.
If connection or fixing is not perfect, it will cause heat-up or fire at the connection.

Wiring routing must be properly arranged so that control board cover is fixed properly.
If control board cover is not fixed perfectly, it will cause heat-up at connection point of terminal, fire or electrical shock.

If the supply cord is damaged, it must be replaced by the manufacture or its sevice agent or similarly qualifued person in order to avoid a hazard.

An all-pole disconnection switch having a cintract separation of at least 3mm in a poles should be connected in fixed wiring.

When carrying out piping connection, take care not to let air substances go into refrigeration cycle.
Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.

Do not modify the length of the power supply cord or use of extension cord, and do not share the single outlet with other electrical appliances.
Otherwise, it will cause fire or electrical shock.

Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.
Improper installation work may result in the equipment falling and causing accidents.

If the refrigerant leaks during installation, ventilate the area immediately.
Toxic gas may be produced if the refrigerant comes into the place contacting with fire.

After completing the installation work, check that the refrigerant does not leak.
Toxic gas may be produced if the refrigerant leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker.

CAUTION

Ground the air conditioner.
Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.Incomplete grounding may result in electric shocks.

Be sure to install an earth leakage breaker.
Failure to install an earth leakage breaker may result in electric shocks.

Connect the outdoor unit wires , then connect the indoor unit wires.
You are not allow to connect the air conditioner with the power source until w(including
iring and piping the air conditioner is done.

While following the instructions in this installation manual, install drain piping in order to ensure proper drainage and insulate piping in order to prevent condensation.
Improper drain piping may result in water leakage and property damage.

Install the indoor and outdoor units, power supply wiring and connecting wires at least 1 meter away from televisions or radios in order to prevent image interference or noise.
Depending on the radio waves, a distance of 1 meter may not be sufficient enough to eliminate the noise.

The appliance is not intended for use by young children or infirm persons without supervision.

Young children should be supervised to ensure that they do not play with the appliance.

Don't install the air conditioner in the following locations:

- Outdoor occasions.
- There is petrolatum existing.
- There is salty air surrounding (near the coast).
- There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).
- The Volt vibrates violently (in the factories).
- In buses or cabinets.
- In kitchen where it is full of oil gas.
- There is strong electromagnetic wave existing.
- There are inflammable materials or gas.
- There is acid or alkaline liquid evaporating.
- The appliance shall not be installed in the laundry.
- Other special conditions.

2. INSTALLATION INFORMATION

- **To install properly, please read this "installation manual" at first.**
- **The air conditioner must be installed by qualified persons.**
- **When installing the indoor unit or its tubing, please follow this manual as strictly as possible.**
- **If the air conditioner is installed on a metal part of the building, it must be electrically insulated according to the relevant standards to electrical appliances.**
- **When all the installation work is finished, please turn on the power only after a thorough check.**
- **Regret for no further announcement if there is any change of this manual caused by product improvement.**

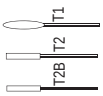
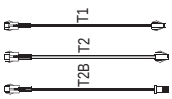
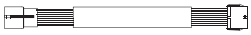
INSTALLATION ORDER

- Select the location;
- Install the control box;
- Install the outdoor unit;
- Install the connecting pipe ;
- Wiring;
- Test operation.

3. ATTACHED FITTINGS

Please check whether the following fittings are of full scope. If there are some spare fittings , please restore them carefully.

Table.3-1

NAME	SHAPE	QUANTITY	FUNCTION
1. Installation&owner's manual		1	
2. Wire controller		1	Wire controller
3. Wire controller installation&owner's manual manual		2	
4. Wire controller connecting wire group		1	
5. Signal receiver display board		1	Receive and display signal box
6. Screw ST3.9x25		8	Secure the installation board
7. Plastic expanded tube		8	
8. Temp.sensor		3	
9. Temp.sensor connecting wire group		3	
10. Display panel connecting wire group		1	

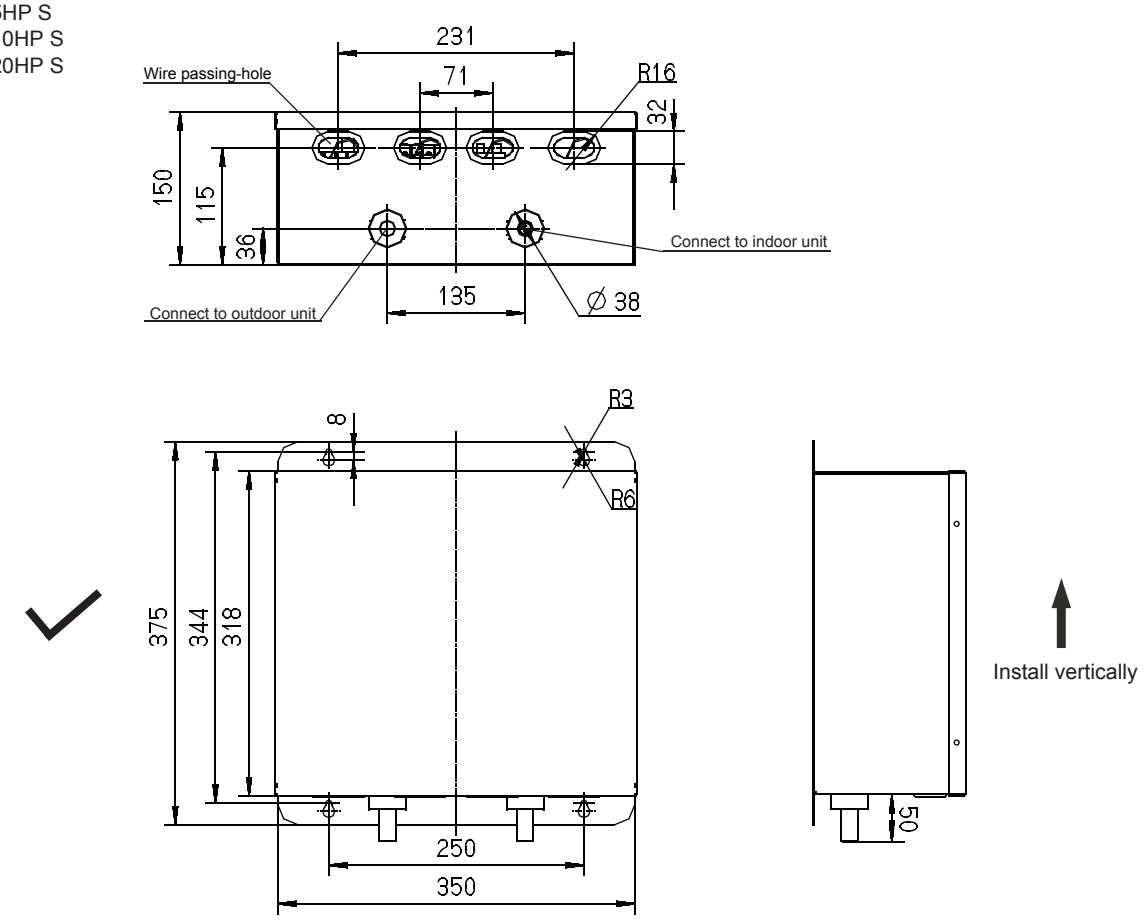
■ Cautions on wire controller installation

- Never throw or beat the controller.
- This DX AHU box can be controlled by SYSTEMAIR controller and SIEMENS controller. If choose to use SYSTEMAIR controller, operate the wire controller to determine its location in a reception range.
- Keep the wire controller at least 1m apart from the nearest TV set or stereo equipment. (It is necessary to prevent image disturbances or noise interferences.)
- Do not install the controller in a place exposed to direct sunlight or close to a heatingsource, such as a stove.Note that the positive and negative poles are in right positions when loading batteries.

4. INSTALLATION METHOD & DIMENSION

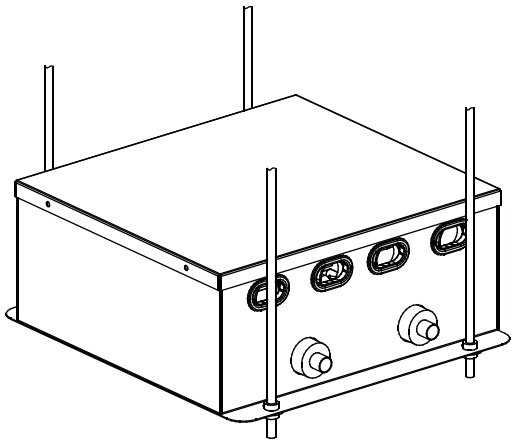
Units: mm

AHU 5HP S
AHU 10HP S
AHU 20HP S



Installation method : Hanging

Fig.4-1



Wrong installation way

Fig.4-2

NOTE

1 The controller box can not installation in outdoor occasions,if inevitable,it must increase rainproof precautions, specific methods please contact the local dealar or technical support engineer.
2 As hanging installation please use Screw ST3.9x25 for installation.
3 As hanging installation, the box should be vertical, and the box can not be installed horizontally.
4 Please refer to the foregoing,make sure the laying direction of the refrigerant pipe and the connecting place of the connecting wire.
5 All the pictures in this manual are for explanation purpose only. They may be slightly different from the control box you purchased(depend on model).The actual shape shall prevail.

5. MATERIAL AND SIZE OF THE PIPING

CAUTION

1 The connecting distance of each control box and indoor unit should not more than 8 m.
2 This control box can only connect to R410A refrigerant system.
3 This control box can only connect to VRF system.
4 This control box can not connect heat recovery system.
5 During the installation of connecting pipes, do not let air, dust, or other sundries enter to the piping system.
6 Install the connecting pipe only after the indoor and outdoor units have been fixed.
7 When installing the connecting pipes, it must be kept dry and do not let water enter to the piping system.
8 The connecting copper pipes must be wrapped with thermal insulation materials (usually the thickness should be more than 10mm; in some humid area it should be thicken properly).

Table.5-1

Pipe Material		Copper Pipe for Air Conditioner		
Model		AHU 5HP	AHU 10HP	AHU 20HP
Size(mm)	(Liquid in)	Φ8	Φ12.7	Φ16
	(Liquid out)	Φ8	Φ12.7	Φ16

6. REFRIGERANT PIPE

6-1 Pipe classification

Table.6-1

Pipe name	Code(refer to Fig.6-1)
Controller box main pipe	L_1, L_2
Controller box aux. pipe	a_1,a_2,b_1,b_2,c_1,c_2
Controller box branch joint assembly	A, B

NOTE

The connecting distance of each control box and indoor unit should not more than 8 m
a2+L4≤8m b2+L2+L4≤8m c2+L2+L4≤8m

6-2 Size of joint pipe for 410A indoor unit

Table.6-2

Capacity of controller box A(×100W)	Size of main pipe(mm)	
	Liquid side(mm)	Available branch joint
200<A<460	Φ12.7	JOINT 01
460≤A<660	Φ15.9	JOINT 02
660≤A<1350	Φ19.1	JOINT 03
1350≤A	Φ22.2	JOINT 04

e.x.1: Refer to *Fig.6-1* , the capacity of downstream controller box to L4 is 560+280+140=980, the pipe is Φ19.1.

6-3 Example

Take (56+36+20) kW that composed by three controller box as an example to clarify the pipe selection.

Table.6-3

Controller box capacity A(×100W)	AHU 5HP 90<A≤200	AHU 10HP 200<A≤360	AHU 20HP 360<A≤560
Liquld side(mm)	Φ9.5	Φ12.7	Φ15.9

A The branch pipe at the controller box.
There are a~c branch pipe at the controller box, the branch pipe diameter should be select as Table. 6-3.

B Main pipe at the controller box (Refer to Table. 6-2)

1) The main pipe L_1 L_2 with N_1, N_2 downstream controller box that total capacity is 280+140=420, the pipe L_1 diameter is Φ12.7, thus select JOINT 01 for the branch joint B.

2) The branch joint A with N_0~N_2 downstream controller box that total capacity is 560+280+140=980, thus select JOINT 03 for the branch joint A.

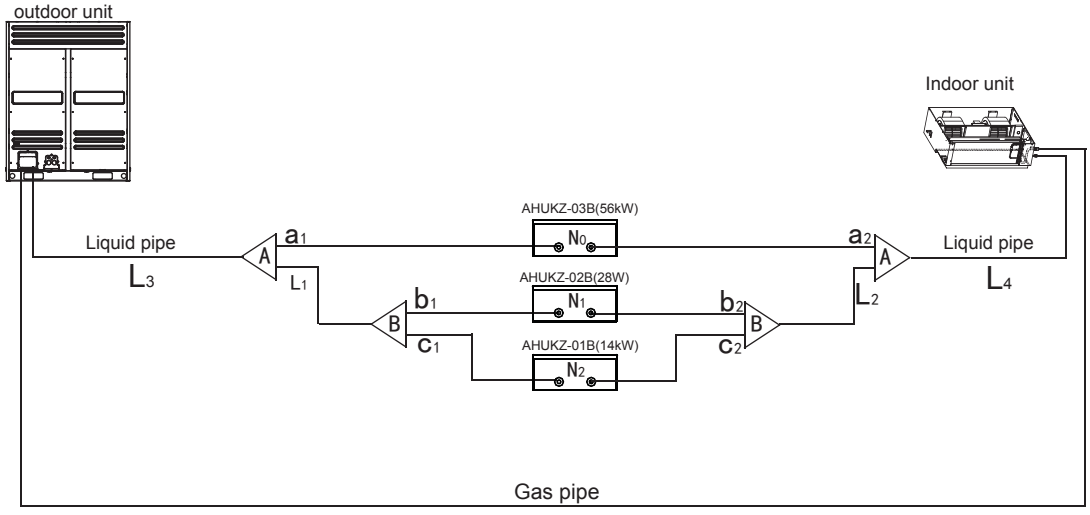


Fig.6-1

7. ELECTRICAL WIRING

CAUTION

1 The outdoor and indoor units should use separate power supply with rated voltage. but all the indoor units in the same system shoud be use the same power.
2 The external power supply to the air conditioner should have ground wiring, which is linked to the ground wiring of the indoor and outdoor unit.
3 The wiring work should be done by qualified persons according to circuit drawing.
4 The fixed connecting lines must equip with at lease 3mm electric shock spacing.
5 A leakage protector should be installed according to the local electrical standard.
6 Be sure to locate the power wiring and the signal wrings well to avoid cross-disturbance and their contact with connecting pipe or stop value body. Generally, do not twist two wiring together unless the joint is soldered well and covered with insulator tape.
7 Do not turn on the power until the electrical wiring have been done correctly.

7-1 The specification of power

The specification of power as the follow display figure, if the wire is too small will lead to over heat, and cause burning of the machine accident.

Table.7-1

Model		AHU 5HP
Power	Phase	Single-phase
	Voltage and Frequency	220-240V ~ 50Hz 208-230V ~ 60Hz
Indoor unit power wire(mm^2)		2.0(<50 m)
communication wire(mm^2) weak electric signal		0.75

Table.7-2

Model		AHU 10HP, 20HP
Power	Phase	Single-phase
	Voltage and Frequency	220-240V ~ 50Hz 208-230V ~ 60Hz
Indoor unit power wire(mm^2)		4.0(<50 m)
communication wire(mm^2) weak electric signal		0.75

CAUTION

The air-gap notch in the circuit breaker is used for insulating the flexible conductor, so that must respond to the related national wire requests to connect to the fixed circuit.

7-2 The maxium current of AC motor

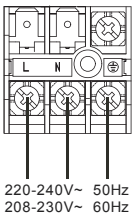
The DX AHU control box has a control port for single-phase AC motor, refer to Fig.7-2. Please pay attention to the maxium current of motor, it should not exceed value in the table 7-3.

Table.7-3

Model	The maxium current of AC motor
AHU 5HP	3.5 A
AHU 10HP, 20HP	18 A

7-3 Terminal block setting figure

Please refer to the indoor unit wiring figure for connecting wire.



Connect to indoor power

Fig.7-1

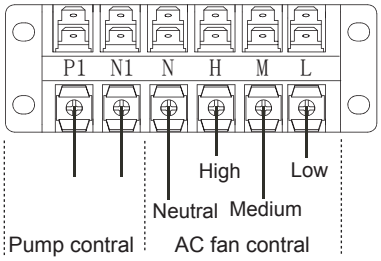
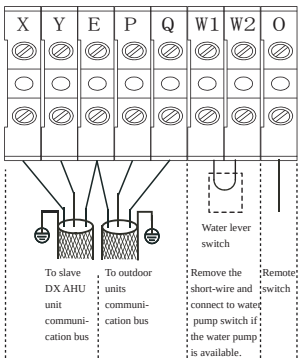


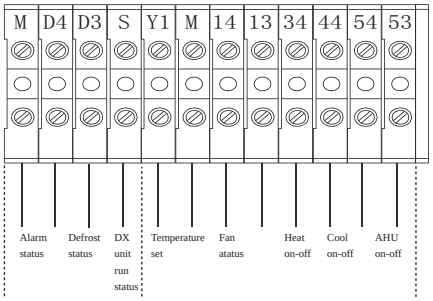
Fig.7-2



Please use 3-core shielding wire, and ground the shielding layer.

Note, The connecting terminals of the water level switch W1 and W2 are connected by default, when connect the indoor unit with water pump please remove the connecting wire and connect to the water level switch.

Fig.7-3



The communication ports with SIEMENS controller

Fig.7-4

7-4 Electric control box wiring figure

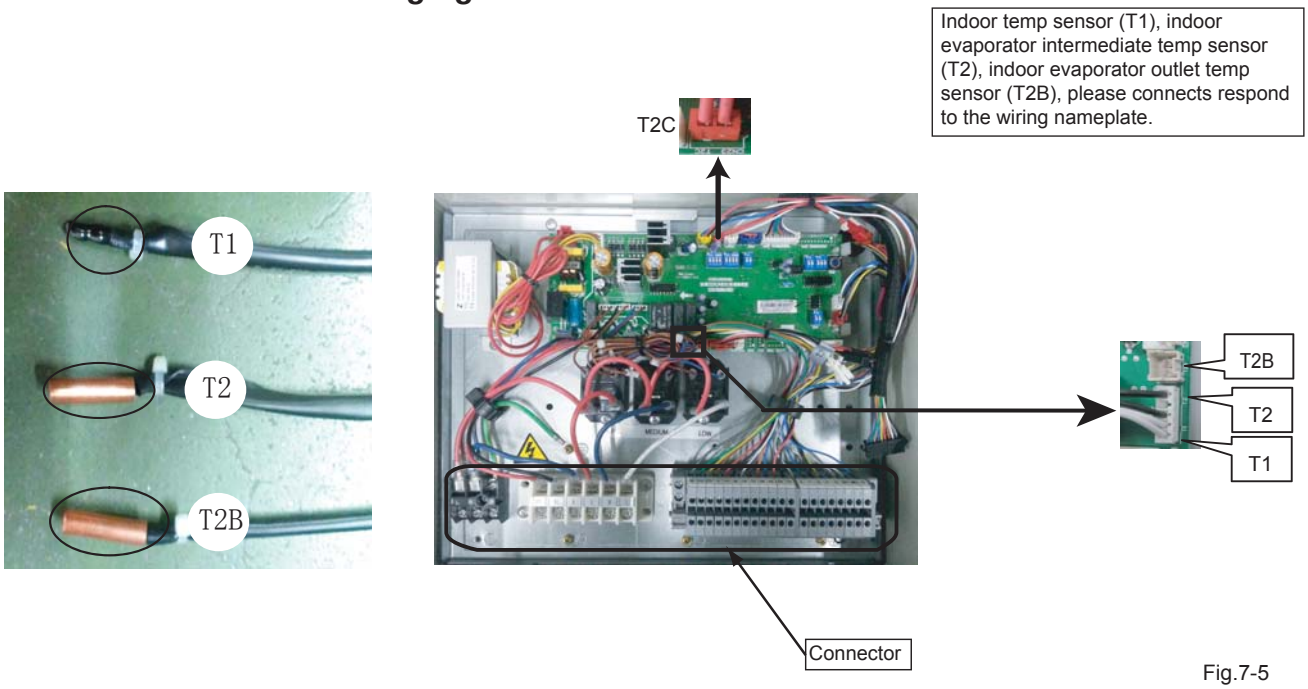


Fig.7-5

CAUTION

1 SYSVRF AHU 5HP, 10HP, 20HP are applied one main control panel, the temperature sensor T1, T2 and T2B must connect to the main control board before first powered on ;
2 T1 is indoor temperature sensor, install to the air inlet of the indoor unit.
3 T2 is indoor evaporator intermediate temperature sensor, install to the intermediate of temperature evaporatorz.
4 T2B is indoor evaporator outlet sensor, install to the outlet of the evaporator.
5 T2C is indoor evaporator inlet sensor, it has been installed before the product leaves the factory.
6 If two or more DX AHU box are parallel connected to control one indoor unit, only the master DX AHU box need to connect T1, T2,T2B.

7-5 Indoor and outdoor unit wiring figure

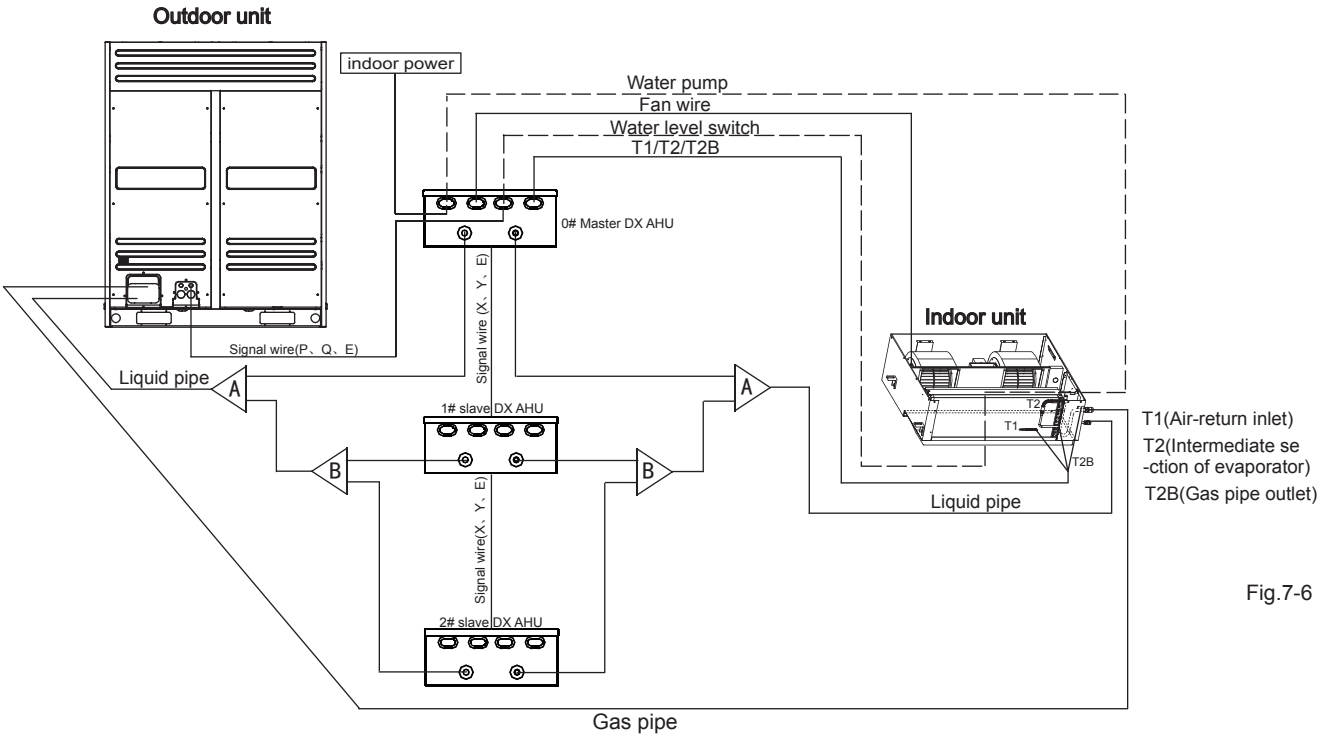


Fig.7-6

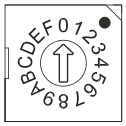
CAUTION

If it is needed, user can select the backup function in the dotted line frame.

8. APPLICALTION CONTROL

8-1 Capacity setting

Set the dial switch ENC1 on the main control board by different usage. After setting, be sure to turn off the total power switch and then switch on. The setting function can not be carried out if not to turn off the total power switch and then switch on.



ENC1

Fig.8-1

- Function specification:

ENC1——Cooling capacity setting, set the cooling capacity of this machine (Table. 8-1).

Table.8-1

	Code	Setting cooling capacity
ENC1(The horsepower has been set before leaving the factory; anyone can't modify it except the maintenance person.)	0	0.8HP
	1	1.0HP
	2	1.3HP
	3	1.6HP
	4	2.0HP
	5	2.5HP
	6	3.0HP
	7	3.2HP
	8	4.0HP
	9	5.0HP
	A	6.0HP
	B	8、10、12HP
	C	14、16HP
	D	18、20HP
	E	Reserved
	F	Reserved

The corresponding capacity range of the controller box display as the table.8-2

Table.8-2

Model	Setting cooling capacity (HP)	Indoor unit capacity (kW)	Internal volume of heat exchanger (dm^3)	reference air volume (m^3/h)
AHU 5HP S	3.2	9~11.2	1.6585~2.0639	1400
	4	11.2~14	2.0639~2.5799	1700
	5	14~18	2.5799~3.3170	2100
	6	18~20	3.3170~3.6855	2700
AHU 10HP S	8	20~25	3.6855~4.6069	3000
	10	25~30	4.6069~5.5283	3700
	12	30~36	5.5283~6.6430	4500
AHU 20HP S	14	36~40	6.6430~7.3711	5400
	16	40~45	7.3711~8.2925	6000
	18	45~50	8.2925~9.2139	6700
	20	50~56	9.2139~10.3195	7500

1) The"Internal volume of Heat exchanger "calculation formula is as follows:

3.14159×(heat exchanger copper tube OD -2×heat exchanger copper tube wall thickness)²×heat exchanger copper tube length /4

thereinto, "heat exchanger copper pipe " refers to the copper tubes that are covered by fins.The tube is inner grooved copper tube.The fins is lourered fins.

2)The volume of heat exchanger desinged is based on evaporating temperature of 8℃,superheat of 4K, suction air temperature of 27℃ DB/19℃ WB

8-2 Master/Slave DX AHU box setting

In a set of the DX AHU box system,it is need to set master DX AHU box and slave DX AHU box respectively.Please refer to the definition of SW6(table.10-5). If only one DX AHU box control one indoor unit, the DX AHU box is the master DX AHU box. If two or more DX AHU boxes parallel connection control one indoor unit, the maximum capacity DX AHU box should be the master box, second largest capacity box should be the slave 1, third largest capacity box should be the slave 2 and so on. The sum of DX AHU box should less than or equal to 4.

8-3 The quantity of slave DX AHU box setting

In a set of the DX AHU box system, the quantity of slave DX AHU boxes need to be setted on the master DX AHU box, please refer to the definition of SW1(table.10-1). If the quantity of slave DX AHU boxes detected by Master DX AHU box is not equal to the setting quantity, the master box will display error code 'H7'.

Note：the quantity of slave DX AHU control boxes setting only need in master DX AHU box.

8-4 DX AHU control box address and network Address Setting

After first powered on, please set the system address by remote controller or wired controller,the address of DX AHU box in the same system can not be repeated.

8-4-1 One DX AHU box controlling one indoor unit

For one DX AHU box control one indoor unit condition, each DX AHU box needs to be set an address, this address is an actual address, when the capacity code ENC1 is selected to be B～F, this DX AHU box will produce virtual address(es) with corresponding quantity based on the actual address, please refer to table.8-3. if an address has been an actual address or virtual address, then this address can not be the actual address or virtual address of any other DX AHU box in the same system.

For example, if there are two DX AHU boxes in the same system, one of the capacity code is D, the setting actual address is 5, then according to the table.8-3 this control box will produce three virtual addresses as 6, 7 and 8, and then the actual address and the virtual address of the other independent control box can not be any one of 5, 6, 7, 8.

The actual address and the virtual address should less than or equal to 63. When the capacity code is F, it will produce five virtual address, so the actual address recommended less than or equal 58.

Table.8-3

ENC1	Corresponding virtual addresses for different ENC1					quantity of occupied address
0～A	No virtual address					1
B	Actual address +1	/	/	/	/	2
C	Actual address +1	Actual address +2	/	/	/	3
D	Actual address +1	Actual address +2	Actual address +3	/	/	4
E	Actual address +1	Actual address +2	Actual address +3	Actual address +4	/	5
F	Actual address +1	Actual address +2	Actual address +3	Actual address +4	Actual address +5	6

3) The indoor unit quantity detected by outdoor unit will be the sum of the actual address quantity and the virtual address quantity, when the capacity code of independent control box is D, the setting actual address is 5, then it will produce virtual address 6, 7 and 8, and then the indoor unit quantity detected by outdoor unit will be 4.

4) The outdoor unit can not use auto addressing for to set the address for the indoor unit without address, only the indoor unit has address then can the outdoor unit to be set auto addressing;

5) When the DX AHU control box system connects to the indoor unit centralized controller, the actual address and the virtual address will be displayed on the centralized controller, when the capacity code of independent control box is D, the setting actual address is 5, then the actual address 5 and virtual address 6,7 and 8 will be displayed on the centralized controller, that is to say, it equals to four DX AHUKZ, and the states of four indoor units will be kept in the same;

6)The network address is the same as the indoor unit address, no need to setting separately.

8-4-2 Several DX AHU boxes parallel connection controlling one indoor unit

For this product, several DX AHU boxes are allowed to parallel connect to control one indoor unit. In this case, only the master DX AHU box needs to be set an address, this address is an actual address. Virtual addresses will be generated in the parallel system.

Shown as Table 8-3, DX AHU box with capacity dial code from 0 to A occupy 1 address. DX AHU box with capacity dial code of B occupies 2 addresses. DX AHU box with capacity dial code of C occupies 3 addresses. DX AHU box with capacity dial code of D occupies 4 addresses. DX AHU box with capacity dial code of E occupies 5 addresses. DX AHU box with capacity dial code of F occupies 6 addresses. The number of virtual addresses in parallel system equals to the total number of occupied addresses by DX AHU boxes minus one. Virtual addresses are based on actual address and exist in the system. For several DX AHU boxes parallel connection control one indoor unit condition, there's only one actual address and several virtual addresses.

Take Fig 7-6 for instance, this system is a system that 3 DX AHU boxes are parallelly connected to control one indoor unit, e.g. 0# DX AHU box is AHUKZ-03B and it's capacity code is D, 1# DX AHU box is AHUKZ-02B and it's capacity code is B, 2# DX AHU box is AHUKZ-01B and it's capacity code is A. So set 0# DX AHU box as master DX AHU box, set 1# DX AHU box as slave 1 DX AHU box, set 2# DX AHU box as slave 2 DX AHU box. The quantity of the addresses occupied by the set of parallel boxes is 4+2+1=7. If set address 5 to 0# DX AHU box , then the parallel DX AHU boxes occupy address 5, 6, 7, 8, 9, 10, 11. The address 6, 7, 8, 9, 10, 11 are virtual adresses. The number of indoor units which are detected by outdoor unit is 7 units.

If there're several parallel DX AHU boxes systems in one refrigerant system, take fig 8-2 for instance, please calculate the number of occupied virtual addresses for each parallel DX AHU box system, design the actual address of each parallel DX AHU box system to avoid repetition of actual addresses and virtual addresses. The actual address and virtual address should less than or equal to 63.

8-5 The wiring figure for several DX AHU boxes parallel connection.

For several DX AHU boxes parallel connection control one indoor unit condition, the wiring figure is showing as fig.8-2.

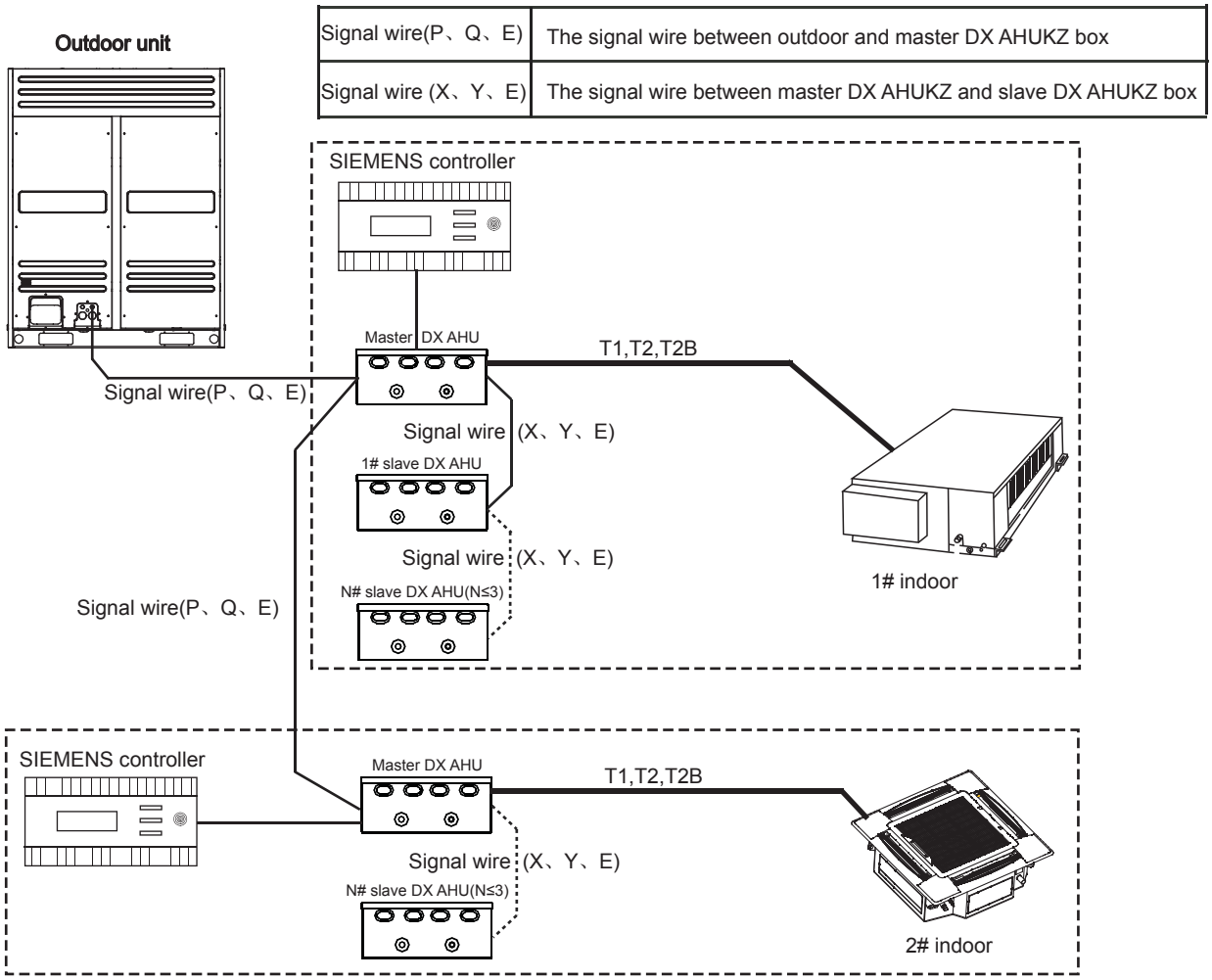


Fig.8-2

9. CONTROLLER SELECTION

The DX AHU box can be controlled by SYSTEMAIR controller and SIEMENS controller. The status of SW3 on the main board will decide which controller has been selected.

means to connect SYSTEMAIR controller

means to connect SIEMENS controller

Fig.9-1

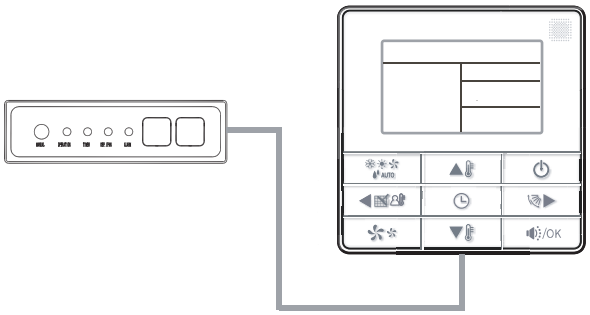
Note, After changing the status of any dial switch on the main board, be sure to turn off the total power switch and then switch on. The setting function can not be carried out if not to turn off the total power switch and then switch on.

9-1 SYSTEMAIR controller

When SYSTEAIR controller has been selected, the DX AHU box can be controlled by wire controller or remote controller.

Remote controller

Fig.9-2



Wire controller

Fig.9-3

The detail instructions for wire controller and remote controller please refer to the operation manual separately.

Note, When SYSTEMAIR controller has been selected, the DX AHU box main board will not response the signal from SIEMENS controller.

9-2 SIEMENS controller

When SIEMENS controller has been selected, only SIEMENS controller can be use to control the DX AHU box. The signal from SYSTEMAIR controller will not be responsed except the address set and inquire signal.

Even if SIEMENS controller has been selected, a SYSTEMAIR remote controller or wire controller is need to set address for DX, AHU box, because SIEMENS controller do not has this function.

9-2-1 Wiring figure

The wiring figure please refer to figure 9-4, there have three points need to be pay attention.

1.The distance between SIEMENS controller and DX AHU control box should less than or equal 15 m.

2.If several DX AHU boxes parallel connection control one indoor unit, SIEMENS controller only need to be connected with master DX AHU box.

3.One SIEMENS can not control two or more indoor units at the same time.

9-2-2 The definition of signal between SIEMENS controller and DX AHU box.

1. Signals from SIEMENS controller to DX AHU box.

Table.9-1

Signal	Signal type	Specification	Port
Temp. set	Analog voltage	0~10VDC please refer to table. 9-3	Y1-M
ON/OFF	Dry contact	close means ON disconnect means OFF	54-53
Cool mode	Dry contact	close means cool mode disconnect means no cool signal	44-43
Heat mode	Dry contact	close means heat mode disconnect means no heat signal	34-33
Fan status	Dry contact	close means fan ON disconnect means fan OFF	14-13

2. Signals from DX AHU box to SIEMENS controller.

Table.9-2

Signal	Signal type	Specification	Port
Alarm	Dry contact	close means no alarm disconnect means alarm	D4-M
Defrost	Dry contact	close means defrosting disconnect means no defrost	D3-M
Run status	Dry contact	close means running disconnect means off	/

3. Communication ports on the main board.

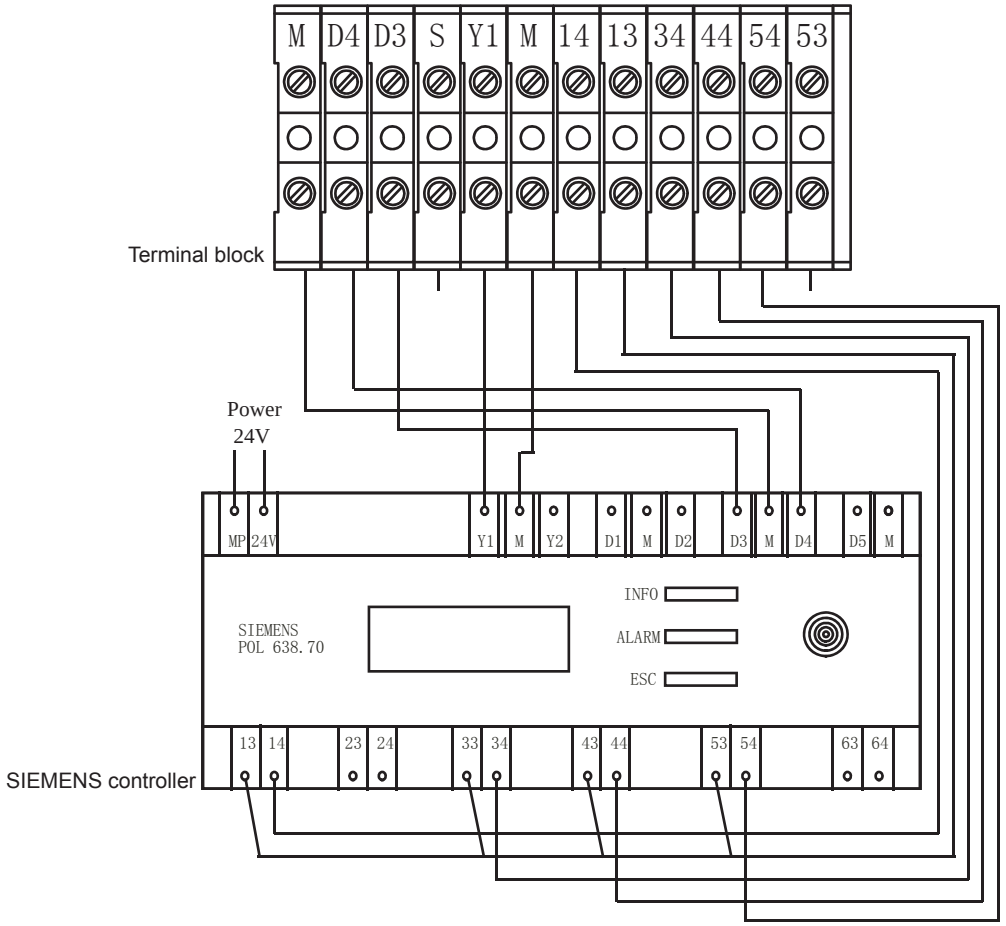


Fig.9-4

Note,

1. The distance between SIMENS controller and DX AHU control box should less than or equal 15 m.
2. If several DX AHU boxes parallel connection control one indoor unit, SIEMENS controller only need to be connected with master DX AHU box.
3. One SIEMENS can not control two or more indoor units at the same time.
4.All signals between SIEMENS controller and DX AHU box must be accord with the definition from table.9-1 and table.9-2. It will not work correctly if the definition of signal in SIEMENS controller has been changed.

Table.9-3

Analog Input 0-10VDC			Room Temp. (˚C) Cooling	Room Temp. (˚C) Heating
Normal	Range			
	Min	Max		
0.5	0	1.15	Not available	Not available
1.5	1.35	1.65	18	16
2	1.85	2.15	18	17
2.5	2.35	2.65	18	18
3	2.85	3.15	19	19
3.5	3.35	3.65	20	20
4	3.85	4.15	21	21
4.5	4.35	4.65	22	22
5	4.85	5.15	23	23
5.5	5.35	5.65	24	24
6	5.85	6.15	25	25
6.5	6.35	6.65	26	26
7	6.85	7.15	27	27
7.5	7.35	7.65	28	28
8	7.85	8.15	29	29
8.5	8.35	8.65	30	30
9.5	8.85	10	Not available	Not available

9-2-3 Operation instruction.

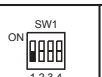
When SIEMENS controller has been selected, DX AHU box will operate according to the control signal from SIEMENS controller and output alarm, defrost and run status signal.

10. DEFINITION OF EACH DIAL SWITCH

SW1 Definition

Note：the quantity set of slave DX AHU control box only need in master indoor unit.

Table.10-1

	1 means factory test mode 0 means auto addressing mode (Default setting)
	000 means the quantity of slave DX AHU control box is 0
	001 means the quantity of slave DX AHU control box is 1
	010 means the quantity of slave DX AHU control box is 2
	011 means the quantity of slave DX AHU control box is 3
	100 means the quantity of slave DX AHU control box is 4 (reserved)
	101 means the quantity of slave DX AHU control box is 5 (reserved)
	110 means the quantity of slave DX AHU control box is 6 (reserved)
	111 means the quantity of slave DX AHU control box is 7 (reserved)

SW2 Definition

Table.10-2

	1 means reserved 0 means new display penal (Default setting)
	1 means factory relay test mode 0 means regular mode (Default setting)
	00 means when temperature is 15°C or below fan will stop to prevent cold air (Default setting)
	01 means when temperature is 20°C or below, fan will stop to prevent cold air
	10 means when temperature is 24°C or below fan will stop to prevent cold air
	11 means when temperature is 26°C or below fan will stop to prevent cold air

SW3 Definition

Table.10-3

	1 means indoor capacity requirment recorrection is 80% 0 means indoor capacity requirment recorrection is 100% (Default setting)
	1 means to connect SIEMENS controller and non-auto restart function 0 means to connect SYSTEMAIR controller and auto restart function (Default setting)

SW5 Definition

Table.10-4

	00 means temperature compensation value is 6°C under heat mode (Default setting)
	01 means temperature compensation value is 2°C under heat mode
	10 means temperature compensation value is 4°C under heat mode
	11 means temperature compensation value is 8°C under heat mode

Note，the fan will keep running when T1 has reached the set temperature under heat mode, but the function to prevent cold air still remain in effect, that means the fan will stop when T2 below the temperature setted by SW2.

SW6 Definition

Indoor unit address assignment

Table.10-5

	000 means master DX AHU control box
	001 means slave DX AHU control box 1
	010 means slave DX AHU control box 2
	011 means slave DX AHU control box 3
	100 means slave DX AHU control box 4 (reserved)
	101 means slave DX AHU control box 5 (reserved)
	110 means slave DX AHU control box 6 (reserved)
	111 means slave DX AHU control box 7 (reserved)

Note, After changing the status of any dial switch on the main board, be sure to turn off the total power switch and then switch on. The setting function can not be carried out if not to turn off the total power switch and then switch on.

11. TROUBLE SHOOTING

Table.11-1

NO.	Type	Contents	Error code	Remarks
1	Alarm	No address when first time power on	The LED display show “FE”	Recover to normal display until finish setting address
2	Alarm	M_home non-matching, or connect with “MS” device	The LED display show “H0”	
3	Alarm	Mode conflict	The LED display show “E0”	
4	Malfunction	Communication error between indoor and outdoor unit or between master indoor and slaver indoor unit	The LED display show “E1”	After the malfunctions disappear, it restores automatically.
5	Malfunction	Temperature sensor (T1) error	The LED display show “E2”	After the malfunctions disappear, it restores automatically.
		Temperature sensor (T2) error	The LED display show “E3”	
		Temperature sensor (T2B) error Temperature sensor (T2C) error	The LED display show “E4”	
6	Malfunction	EEPROM error	The LED display show “E7”	After the malfunctions disappear, it restores automatically.
7	Malfunction	Outdoor unit error	The LED display show “Ed”	After the malfunctions disappear, it restores automatically.
8	Malfunction	Water lever alarm	The LED display show “EE”	After the malfunctions disappear, it restores automatically.
9	Malfunction	Quantity of parallel connected indoor units not match	The LED display show “H7”	After the malfunctions disappear, it restores automatically.

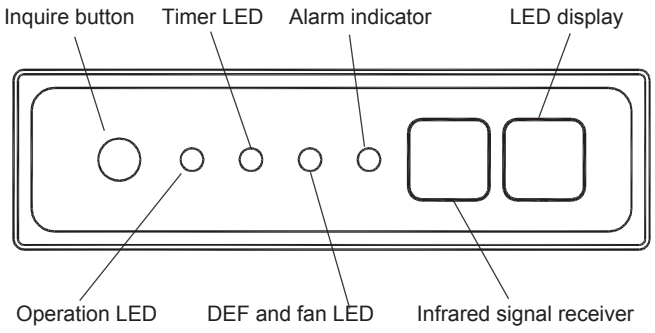


Fig.11-1

Note, If SIEMENS controller gets an alarm information from DX AHU box. Identify and correct problem first, then put a jumper to D5-M terminals to restore it.

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