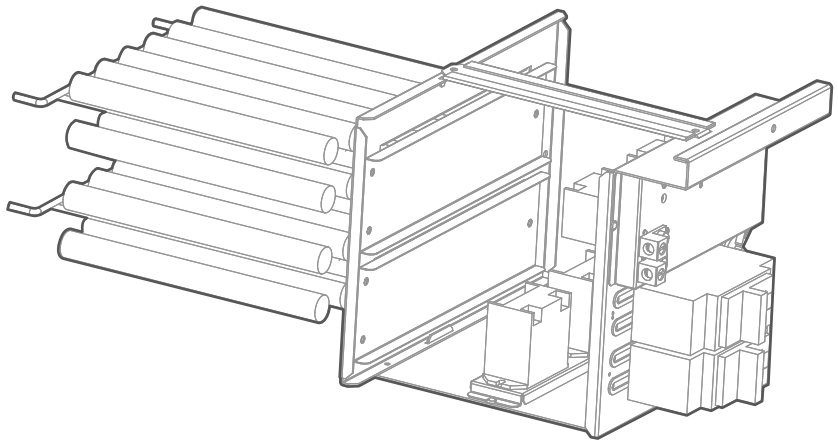
AUXILIARY HEATER AUXILIARY HEATER

Installation Manual

Safety precautions & Installation

EAH-**E SERIES



IMPORTANT NOTE:

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

Dial® HVAC

INSTALLATION MANUAL

SAFETY PRECAUTIONS 02
INSTALLATION 04
ELECTRICAL SPECIFICATIONS 07

Read this manual

Inside you'll find many helpful hints on how to use and maintain your auxiliary heater properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your auxiliary heater. These instructions may not cover every possible condition of use, so common sense and attention to safety is required when installing, operating and maintaining this product.

SAFETY PRECAUTIONS

Intended Use

The following safety guidelines are intended to prevent unforeseen risks or damage from unsafe or incorrect operation of the appliance. Please check the packaging and appliance on arrival to make sure everything is intact to ensure safe operation. If you find any damage, please contact the retailer or dealer. Please note modifications or alterations to the appliance are not allowed for your safety. Unintended use may cause hazards and loss of warranty claims.

Explanation of Symbols

WARNING
The signal word indicates a hazard with a medium level of risk which, if not avoided, may result in death or serious injury.

CAUTION
The signal word indicates a hazard with a low degree of risk which, if not avoided, may result in minor or moderate injury.

Read these operating instructions carefully and attentively before using/commissioning the unit and keep them in the immediate vicinity of the installation site or unit for later use!

⚠ WARNING

This appliance is not intended for use by persons(including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

⚠ ELECTRICAL WARNINGS

- The product must be properly grounded at the time of installation, or electrical shock may occur.
- For all electrical work, follow all local and national wiring standards, regulations, and the Installation Manual. Connect cables tightly, and clamp them securely to prevent external forces from damaging the terminal. Improper electrical connections can overheat and cause fire, and may also cause shock. All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
- All wiring must be properly arranged to ensure that the control board cover can close properly. If the control board cover is not closed properly, it can lead to corrosion and cause the connection points on the terminal to heat up, catch fire, or cause electrical shock.
- If connecting power to fixed wiring, an all-pole disconnection device which must be incorporated in the fixed wiring in accordance with the wiring rules.

⚠ WARNINGS FOR PRODUCT INSTALLATION

- Installation must be performed by an authorized dealer or specialist. Defective installation can cause water leakage, electrical shock, or fire.
- Installation must be performed according to the installation instructions. Improper installation can cause water leakage, electrical shock, or fire. (In North America, installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.)
- Contact an authorized service provider for repair or maintenance of this unit. This appliance shall be installed in accordance with national wiring regulations.
- Only use the included accessories, parts, and specified parts for installation. Using non-standard parts can cause water leakage, electrical shock, fire, and can cause the unit to fail.
- For units that have an auxiliary electric heater, do not install the unit within 1 meter (3 feet) of any combustible materials.
- **Do not** install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it may cause fire.
- Do not turn on the power until all work has been completed.
- When moving or relocating the auxiliary heater, consult experienced service technicians for disconnection and reinstallation of the unit.
  How to install the appliance to its support, please read the information for details in indoor unit.

⚠ WARNINGS FOR CLEANING AND MAINTENANCE

- Turn off the device and disconnect the power before cleaning. Failure to do so can cause electrical shock.

Note:

The machine you purchased may be one of the types in the table below.
The indoor and outdoor units are designed to be used together. Please check the machine you purchased. You can also find the model of the machine you purchased on the packaging box of the machine.

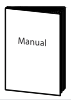
Model	Indoor unit
18K(208/230V)	DAP18M2A1, DSS1824M2A1, DSP1824M2A1
24K(208/230V)	DAP24M2A1, DSS1824M2A1, DSP1824M2A1
30K(208/230V)	DAP30M2A1, DSS30M2A1, DSP3036M2A1
36K(208/230V)	DSS36M2A1, DSP36M2A1
48K(208/230V)	DSS48M2A1, DSP48M2A1
60K(208/230V)	DSS4860M2A1, DSP4860M2A1

INSTALLATION

NOTICE

Installation must be performed by a licensed contractor. Please make necessary precaution when performing the installation operation.

Accessories

Name of Accessories	Q'ty(pc)	Shape
Manual	1	
Foam gasket	2	
Screws	7	
Silicone breaker cover	1	
Electric auxiliary heating wiring diagram	1	
Circuit breaker label	1	

Model size selection

For installations requiring supplemental heating, the optional Electric Auxiliary Heat Module is available in sizes from 3kW to 25kW to accommodate appropriate sizing given the specific heat load and electrical requirements of each installation. Please refer to the table below for selection of available sizes of each outdoor unit model, being sure to avoid improper matching.

INDOOR UNIT MODEL (Btu/h)	3kW	5kW	8kW	10kW	15kW	20kW	25kW
18K	Y	Y	Y	Y	-	-	-
24K	-	Y	Y	Y	Y	-	-
30K	-	Y	Y	Y	Y	-	-
36K	-	Y	Y	Y	Y	Y	-
48K	-	-	Y	Y	Y	Y	-
60K	-	-	-	Y	Y	Y	Y

NOTICE

Only use matched modules certified for use with model. Please refer to the Electric Auxiliary Heat Model specification for additional details to ensure proper selection and installation.

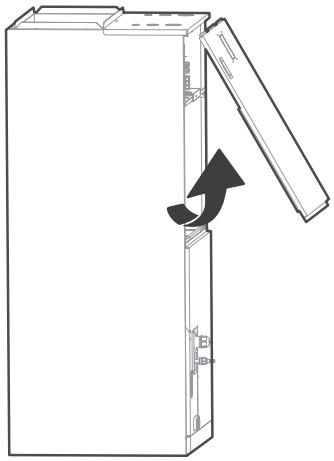
Preparations for Installation

Before installation, please confirm the electric auxiliary heat module and supplied accessories are complete and free of any damage. Do not attempt to install if damage is present.

Electric Auxiliary Heat Module installation and Wiring Operation

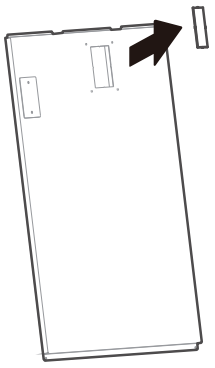
Step 1

Open the upper cover.



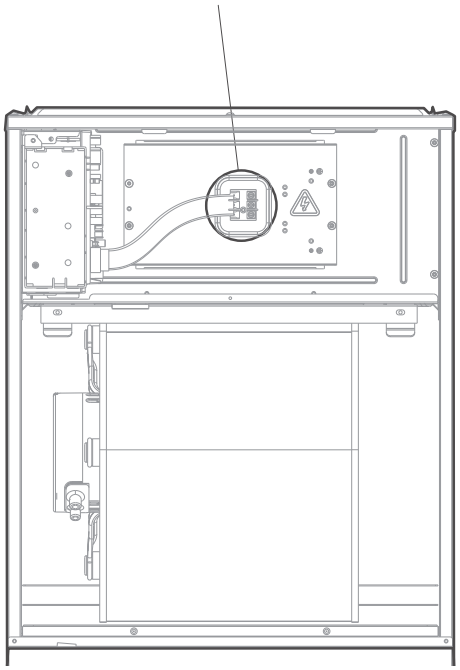
Step 2

Use tools to remove the knock-out holes of upper cover.



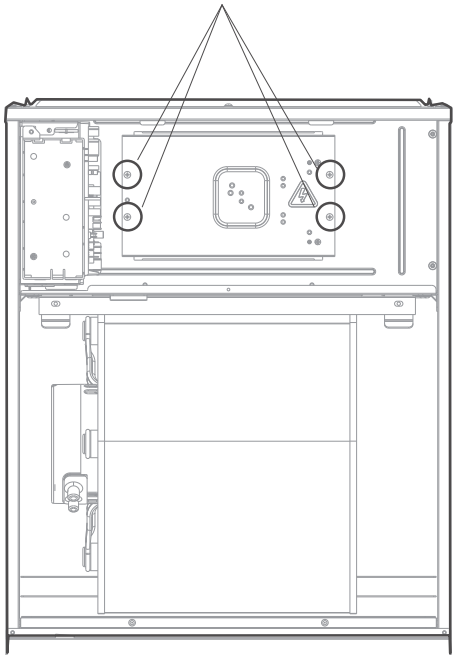
Step 3

Remove the wiring terminal block and grounding wires (if have) from the cover. Do not dismantle the connection at the other end of these wires.



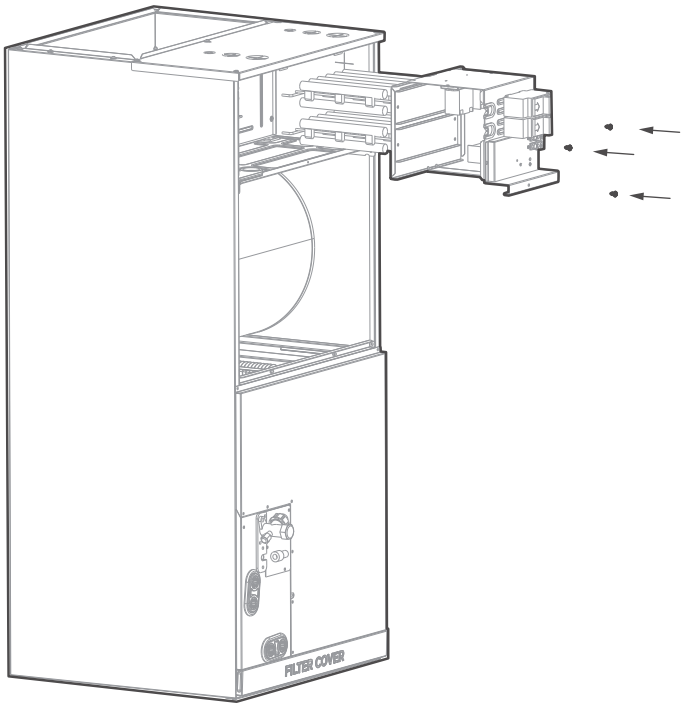
Step 4

Dismantle the electric auxiliary heater cover.



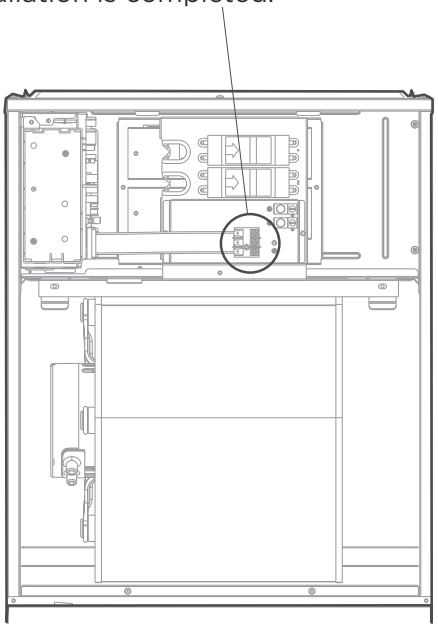
Step 5

Install the electric auxiliary heater assembly the front, and note that the support assembly must lock into the support holes in the back of the cabinet.



Step 6

Fix the wiring terminal block and grounding wires (if have) that removed from the indoor unit to the corresponding positions on the electric auxiliary heating cover.If the indoor unit is equipped with a label for the wiring terminal, please paste it back after the installation is completed.



Step 7

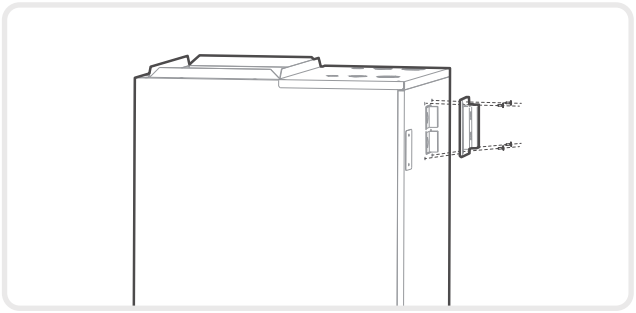
Wire according to the wiring nameplate. Apply the wiring diagram to the inside cover wiring is completed for future reference and maintenance.

NOTICE

For the indoor unit terminal block wiring method, please refer to the original power supply configuration and maintain consistency.

Step 8

Install the upper cover,and the silicone breaker cover.



Step 9

After installing the electric auxiliary heat module, apply the circuit breaker label near the silicone breaker cover that was just applied.

ELECTRICAL SPECIFICATIONS

NOTICE

Electric auxiliary heating wiring diagram packed with the accessories.
If branch circuit wire length exceeds 100ft, consult the local code to determine maximum wire length. Use 2% voltage drop.

After the electric heating wiring is connected, please confirm before power on:

- Check all wiring and ensure secure connection of all wiring.
- Ensure that wire size is properly selected per the local code.

Specifications	Number of circuit breakers	Number of relays	Number of power cord groups	Number of power cord grounding screws
3kW	1	1	2	2
5kW	1	1	2	2
8kW	1	2	2	2
10kW	1	2	2	2
15kw	2	3	3	3
20kW	2	4	3	3
25kW	3	5	4	4

Use copper wire only to connect unit. If other than uncoated (non-plated) 75°C copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used consult applicable tables of the National Electric Code (ANSI/NFPA 70).

NOTICE

The specification may be different between different models, please refer to indoor unit's nameplate.

Auxiliary Heater Electrical Data

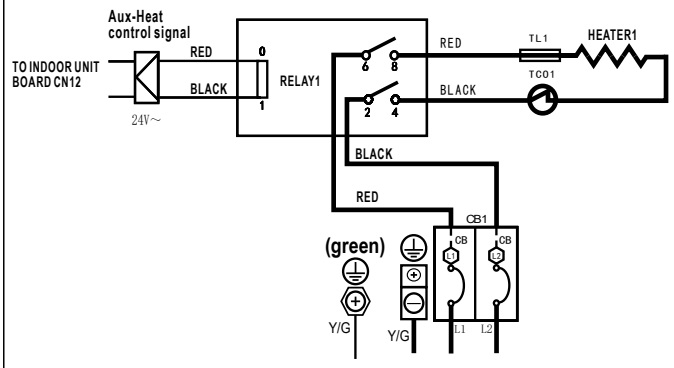
Heater Part No.	Heater KW	Internal Circuit Protection	CIRCUIT 1 208/230V			CIRCUIT 2			CIRCUIT 2		
			Heater Amps	MCA (1)	MOP (2)	Heater Amps	MCA (1)	MOP (2)	Heater Amps	MCA (1)	MOP (2)
EAH-03E(UL)	3	Ckt Bkr	10.8/12.0	14.0/16.0	15.0/20.0	/	/	/	/	/	/
EAH-05E(UL)	5	Ckt Bkr	18.0/19.5	23.0/27.0	25.0/30.0	/	/	/	/	/	/
EAH-08E(UL)	8	Ckt Bkr	28.8/32.0	37.0/42.0	40.0/45.0	/	/	/	/	/	/
EAH-10E(UL)	10	Ckt Bkr	36.1/39.5	46.0/53.0	50.0/60.0	/	/	/	/	/	/
EAH-15E(UL)	15	Ckt Bkr	18.0/20.0	23.0/27.0	25.0/30.0	36.0/40.0	46.0/53.0	50.0/60.0	/	/	/
EAH-20E(UL)	20	Ckt Bkr	36.0/40	46.0/53.0	50.0/60.0	36.0/40.0	46.0/53.0	50.0/60.0	/	/	/
EAH-25E(UL)	25	Ckt Bkr	18.0/20.0	23.0/27.0	25.0/30.0	36.0/40.0	46.0/53.0	50.0/60.0	36.0/40.0	46.0/53.0	50.0/60.0

Electric auxiliary heating wiring diagram

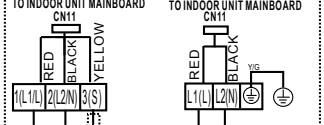
3KW/5KW HEAT KIT

:THERMAL LINK

:THERMAL CUT-OUT, SELF-RESETTING



ACCORDING TO THE INTERNAL COMMUNICATION METHOD, SELECT THE TERMINAL BLOCK FOR TYPE A OR TYPE B WIRING.



Electric heating is only applicable to 208-230V.

NOTE1: ⬚ This symbol indicates the element is optional, The wiring type of the actual unit shall prevail.

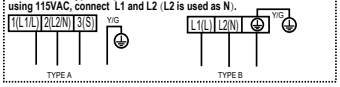
NOTE2: PLEASE ATTACH THE NAMEPLATE TO THE COVER OF THE ELECTRIC CONTROL BOX. ALL THE ROUND HOLES LOCATED ON THE PLATE REPRESENT NUMBERS. PLEASE REFER TO THE INSTALLATION MANUAL FOR DETAILS.

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC AND LOCAL CODES.

NOTE4: POWER A,B,C,D ARE DIFFERENT POWERS.

Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○			
○○○			
○○○○			
○○○○○			

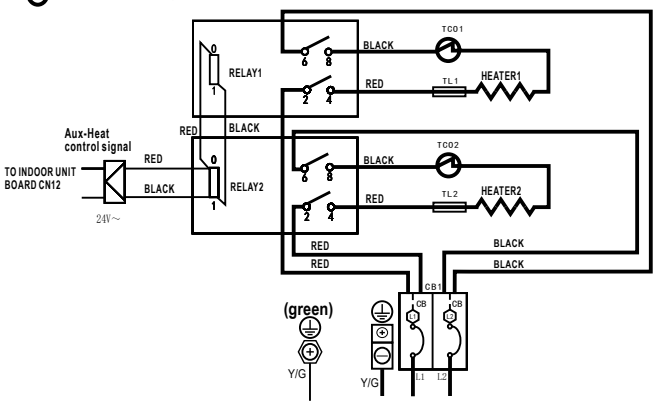
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected.When 485 IDU AHU using 115VAC, connect L1 and L2 (L2 is used as N).



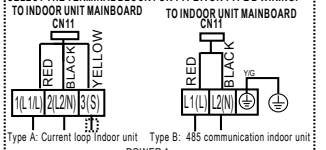
8KW/10KW HEAT KIT

:THERMAL LINK

:THERMAL CUT-OUT, SELF-RESETTING



ACCORDING TO THE INTERNAL COMMUNICATION METHOD, SELECT THE TERMINAL BLOCK FOR TYPE A OR TYPE B WIRING.



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NOTE1: ⬚ This symbol indicates the element is optional, The wiring type of the actual unit shall prevail.

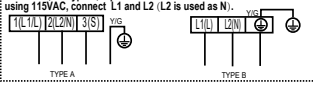
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Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○	RELAY 2		
○○○			
○○○○			
○○○○○			

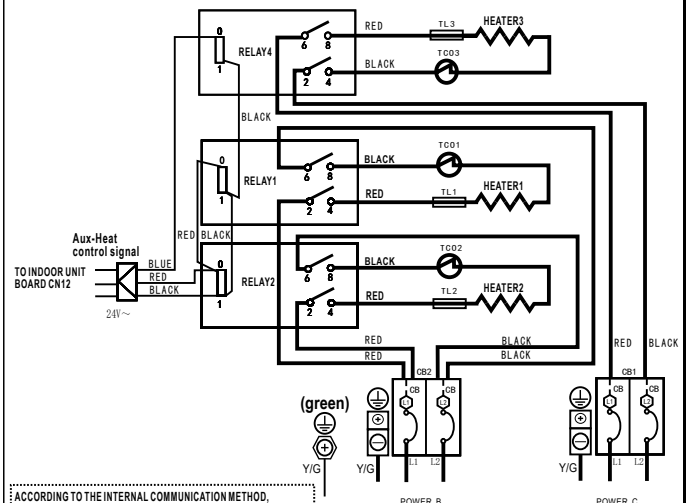
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected.When 485 IDU AHU using 115VAC, connect L1 and L2 (L2 is used as N).



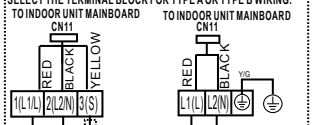
15KW HEAT KIT

:THERMAL LINK

:THERMAL CUT-OUT, SELF-RESETTING



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NOTE1: ⬚ This symbol indicates the element is optional, The wiring type of the actual unit shall prevail.

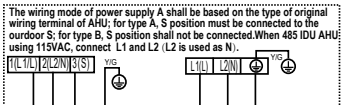
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Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○	RELAY 2	○○	CB2
○○○			
○○○○	RELAY 4		
○○○○○			

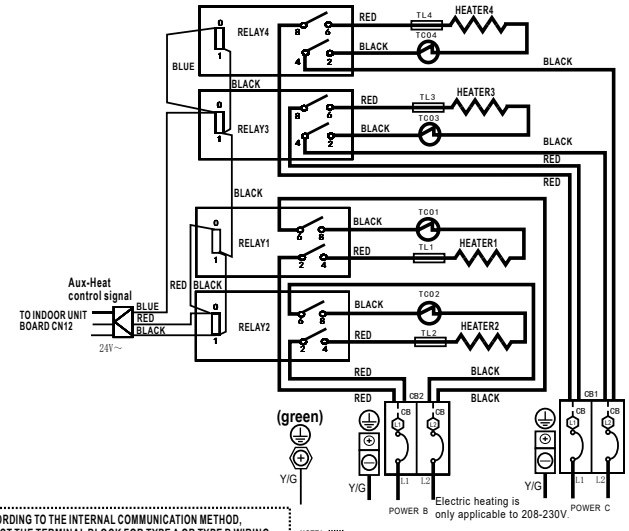
The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected.When 485 IDU AHU using 115VAC, connect L1 and L2 (L2 is used as N).



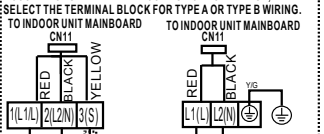
20KW HEAT KIT

:THERMAL LINK

:THERMAL CUT-OUT, SELF-RESETTING



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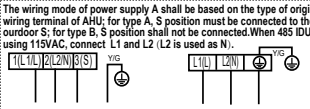
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Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○	RELAY 2	○○	CB2
○○○	RELAY 3		
○○○○	RELAY 4		
○○○○○			

The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected.When 485 IDU AHU using 115VAC, connect L1 and L2 (L2 is used as N).

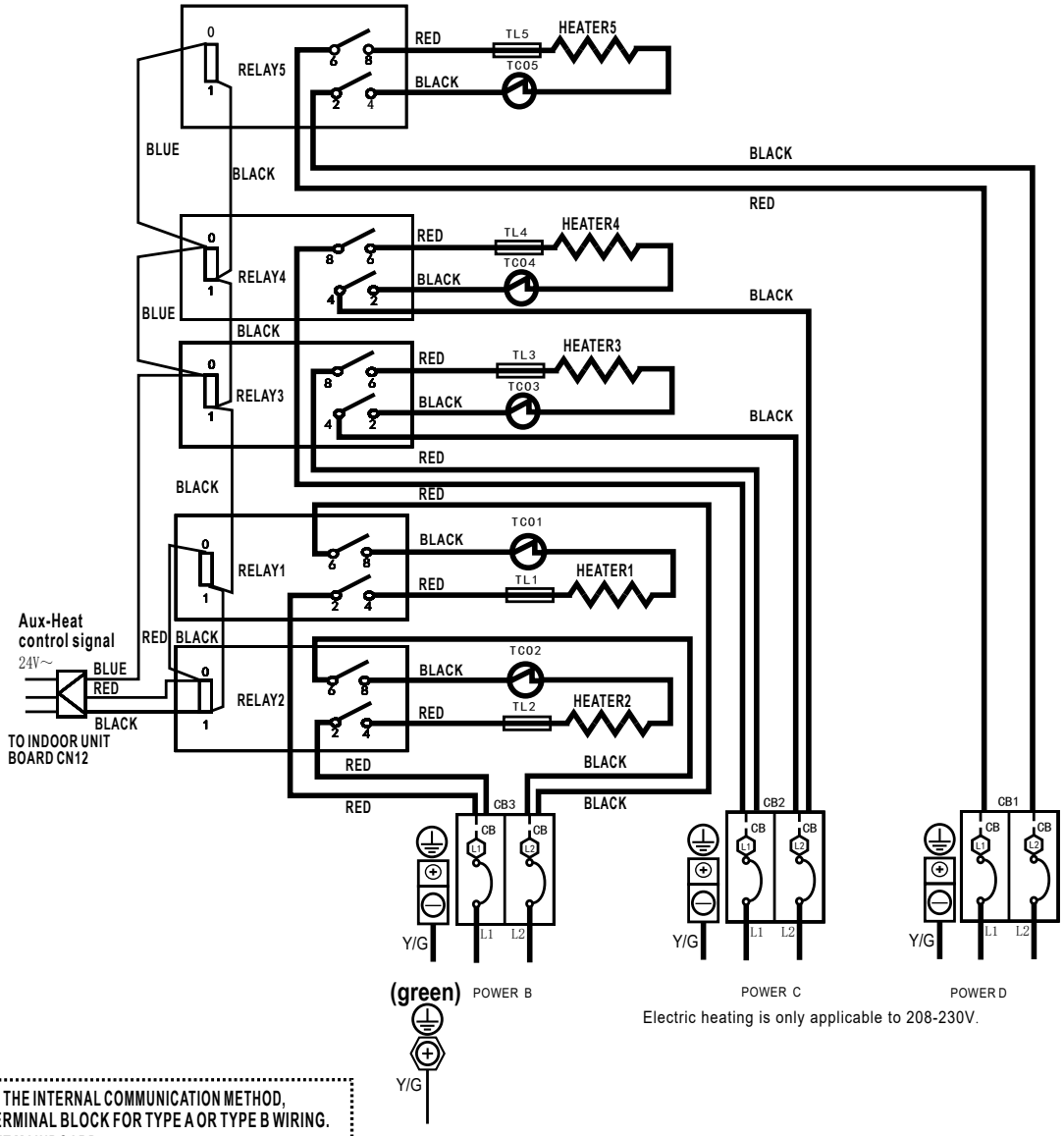


Electric auxiliary heating wiring diagram

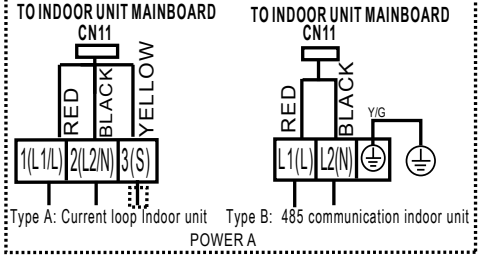
25KW HEAT KIT

:THERMAL LINK

:THERMAL CUT-OUT, SELF-RESETTING



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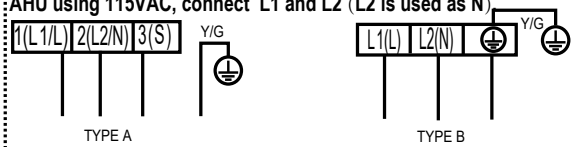
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Round hole number	Relay number	Round hole number	Circuit breaker number
○	RELAY 1	○	CB1
○○	RELAY 2	○○	CB2
○○○	RELAY 3	○○○	CB3
○○○○	RELAY 4		
○○○○○	RELAY 5		

The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU; for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected.When 485 IDU AHU using 115VAC, connect L1 and L2 (L2 is used as N)



The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details. Any updates to the manual will be uploaded to the service website, please check for the latest version.

QS002I-2Gen AHU(AUXILIARY HEATER)

16122600A13701