# **Installation Instructions**

A220687

**PAGE** 

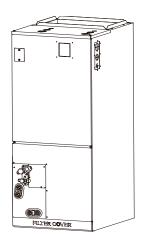


Fig. 1 —Air Handler

NOTE: Read the entire instruction manual before starting the installation.

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### SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in the literature and attached to the unit. Consult the local building codes and the current editions of the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the Canadian Electrical Code CSA C22.2 No. 60335-2-40. Recognize safety information.

This is the safety-alert symbol . When you see this symbol on the unit and in instruction manuals, be of the potential for personal injury. Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards which could result in personal injury or death. CAUTION is used to identify unsafe practices which may result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

## **WARNING**

### ELECTRICAL OPERATION HAZARD

Failure to follow this warning could result in personal injury or death. Before installing or servicing the unit, always turn off all power to the unit. There may be more than one disconnect switch. Turn off accessory heater power if applicable. Lock out and tag the switch with a suitable warning label.



#### **CUT HAZARD**

Failure to follow this caution may result in personal injury. Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts.

# MOUNT ELECTRIC HEATER (OPTIONAL)

Table 1 — Accessories

Name	Shape	Quantity
Owner's and Installation Manual	Monual	1
Seal		1
Screw		7
Resilient Cap		1
Electric Auxiliary Heating Wiring Diagram		1
Circuit Breaker Label		1

NOTE: Installation must be performed by an authorized dealer or specialist. Use recommended PPE when installing the unit.

Specification of electric auxiliary heat modules: 5kW, 8kW, 10kW, 15kW, 20kW, 25kW.

Table 2 — Selection and Matching of Internal Machine and Electric Auxiliary Heating Components

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

# **A** CAUTION

This electric auxiliary heat module is internally mounted in the air handler. **DO NOT** mount in the ductwork.

If the unit needs to be equipped with the electric auxiliary heat module, check the electric auxiliary heat module specification that is compatible with the unit to avoid unnecessary consequences caused by improper matching and refer to Product Data Manual.

### INSTALLATION REQUIREMENTS

NOTE: Installation of Auxiliary Electric Heat Module should be completed before installing the discharge ductwork to insure proper alignment of the inside support brackets.

Before installation, check the list of electric auxiliary heat modules and physical objects. After transportation, check whether the electric heat module is damaged. If any damage is detected, contact the after-sales personnel immediately.

NOTE: A separate power source is required for an Auxiliary Electric Heater. These units do NOT support a SINGLE POINT electrical connection when utilizing auxiliary heat.

### ELECTRIC AUXILIARY HEAT MODULE INSTALLATION AND WIRING

1. Remove the upper cover and use professional tools to remove the upper cover knock-outs.

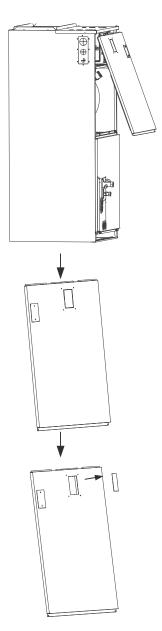
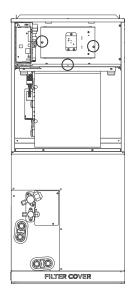


Fig. 2 — Remove the Upper Cover

- 2. Remove the terminal block and power cord.
- 3. Loosen the screws.
- 4. Remove the electric auxiliary heating cover.

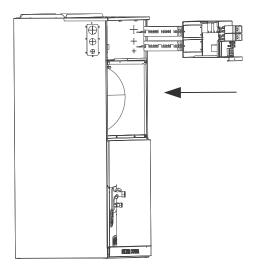


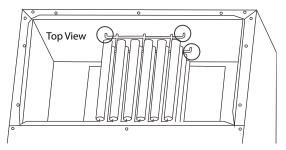
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Fig. 3 — Remove the Terminal Block and Power Cord

5. Install the electric auxiliary heating component into the chassis shell along the front of the unit.

NOTE: Insert the front end into the shell assembly hole.





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Fig. 4 — Install the Electric Auxiliary Heating Component

6. Tighten the screws.

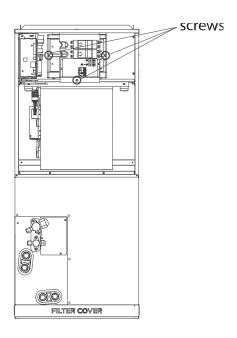
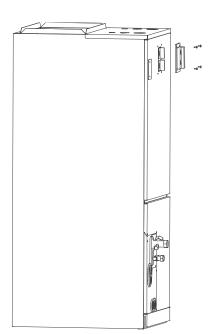


Fig. 5 — Tighten the Screws

- 7. Wiring according to the wiring template.
- 8. Install the upper cover.
- 9. Install the waterproof case.



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Fig. 6 — Wiring According to the Wiring Template

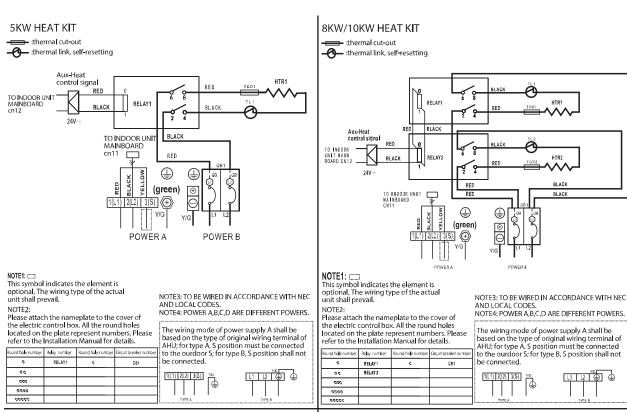
After the electric heating wiring is connected and before powering on:

- check all wiring and ensure a reliable connection of the wire body
- ensure the electric heating screw is tightened
- ensure the size selection of the power wire meets the power supply requirements.

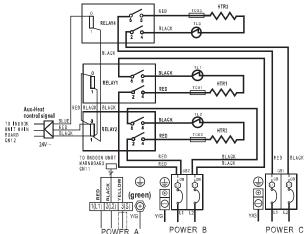
NOTE: An electric auxiliary heating wiring diagram is supplied with the accessories. For maintenance convenience, paste the wiring diagram in the inside cover after the installation of electric auxiliary heating modules is complete.

NOTE: After installing the electric auxiliary heat module, adhere the air switch label near the upper cover air switch.

#### ELECTRIC AUXILIARY HEATING WIRING DIAGRAM







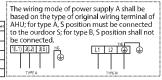
NOTE1: (:::) This symbol indicates the element is optional, The wiring type of the actualunit shall prevail. NOTE2:

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.

Round hole number	Relay number	Round hole number	Circuit breaker numbe
c	RELAY1	c	CB1
00	RELAY 2	00	CB2
000	RELAY 4		
0000			
conne			

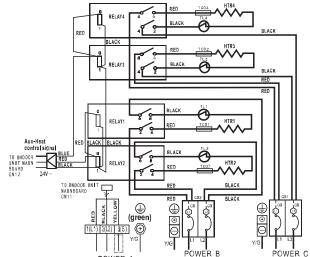
NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC

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



#### 20KW HEAT KIT

⊨ :thermal cut-out -thermal link, self-resetting



POWER A NOTE1: This symbol indicates the element is optional, The wiring type of the actual unit shall prevail. Please attach the nameplate to the cover of the

NOTE3: TO BE WIRED IN ACCORDANCE WITH NEC NOTE4: POWER A.B.C.D ARE DIFFERENT POWERS.

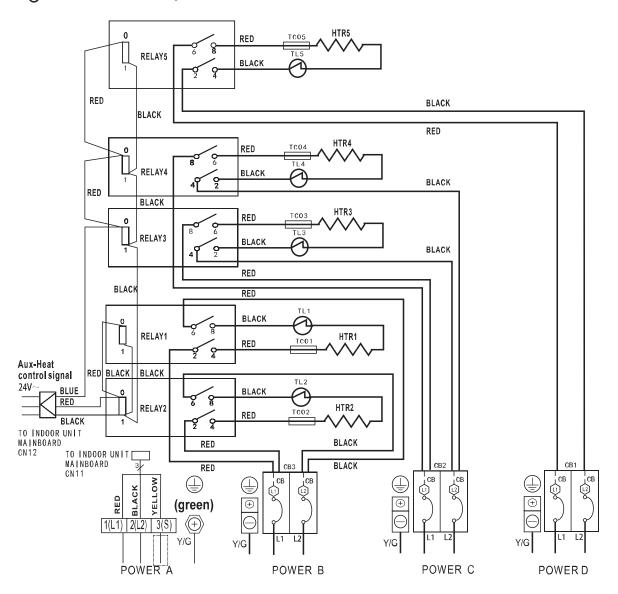
electric control box. All the round holes located on the plate represent numbers. Please refer to the Installation Manual for details. The wiring mode of power supply A shall be based on the type of original wiring terminal of AHU, for type A, S position must be connected to the ourdoor S; for type B, S position shall not be connected. Round hale n c RELAY 1 CB1 cc RELAY 2 cc CB2 1(L1) 2(L2) 3(S) RELAY 3 RELAY 4

Fig. 7 — Electric Auxiliary Heating Wiring Diagram

### ELECTRIC AUXILIARY HEATING WIRING DIAGRAM (CONT)

### 25KW HEAT KIT

: thermal cut-out



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	The wiring mode of power supply A shall be based on the type of original			
0	RELAY 1	0	CB1	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.			
00	RELAY 2	00	CB2				
000	RELAY 3	000	CB3				
0000	RELAY 4						
00000	RELAY 5			TYPE A TYPE B			

Fig. 8 —Electric Auxiliary Heating Wiring Diagram

Table 3 — Specifications

Specifications	No. of Circuit Breakers	No. of Relays	No. of Power Cord Groups	No. of Power Cord Grounding Screws
5kW	1	1	2	2
8kW	1	2	2	2
10kW	1	2	2	2
15kW	2	3	2	2
20kW	2	4	3	3
25kW	3	5	4	4

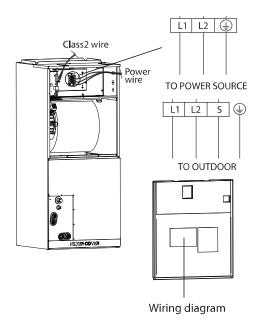


Fig. 9 —Indoor Unit Wiring Diagram

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NOTE: The electric auxiliary heat wiring diagram is supplied with the accessories. Paste the wiring diagram in the designated position after installing the heat modules.

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