MRCOOL®
Signature Series Stud-Mount AHU Electric Heat Kit

Installation & Owner's Manual

MODELS:

MCAEHWD*X1AA

Read this manual carefully before installation and keep it where the operator can easily find it for future reference.

Due to updates and constantly improving performance, the information and instructions within this manual are subject to change without notice.

Version Date: September 5, 2025
Please visit www.mrcool.com/documentation to ensure you have the latest version of this manual.

MRCOOL®
COMFORT MADE SIMPLE

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Safety Precautions

Read Before Using

Incorrect usage may cause serious damage or injury.

The symbols below are used throughout this manual to indicate instructions that should be followed closely or actions that should be avoided to prevent death, injury, and/or property damage.

WARNING — Indicates a medium level of risk which, if not avoided, may result in death or serious injury.

CAUTION — Indicates a low degree of risk which, if not avoided, may result in minor or moderate injury.

WARNING

Hazardous Voltage- Disconnect Power Before Servicing.

CAUTION

- Sharp metal edges can cause injury. When installing this unit, use care to avoid sharp edges. Wear proper personal protective equipment at all times. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings and cautions included in literature and attached to the system.
- If this unit is installed in a mobile or manufactured home application, the ductwork must be sized to achieve static pressures within the manufacturer's guidelines. All other installation guidelines must be followed. Failure to do so may result in equipment damage, personal injury, and improper performance of the unit.

WARNING

This product contains fiberglass wool insulation. Fiberglass dust and ceramic fibers are believed by the state of California to cause cancer through inhalation. Glasswool fibers may also cause respiratory, skin, or eye irritation.

Precautionary Measures

- Avoid breathing fiberglass dust.
- Use a NIOSH approved dust/mist respirator.
- Avoid contact with the skin or eyes. Wear long-sleeves, loose fitting clothing, gloves, and eye protection.
- Wash clothes separately from other clothing, rinse your washer thoroughly.
- Operations, such as sawing, blowing, tear-out, and spraying may generate fiber concentrations requiring additional respiratory protection. Use the appropriate NIOSH approved respirator in these situations.

First Aid Measures

- Eye contact: Flush eyes with water to remove dust. If symptoms persist, seek medical attention.
- Skin contact: Wash affected area gently with soap and warm water after handling.

Read the whole instruction manual before starting the installation.

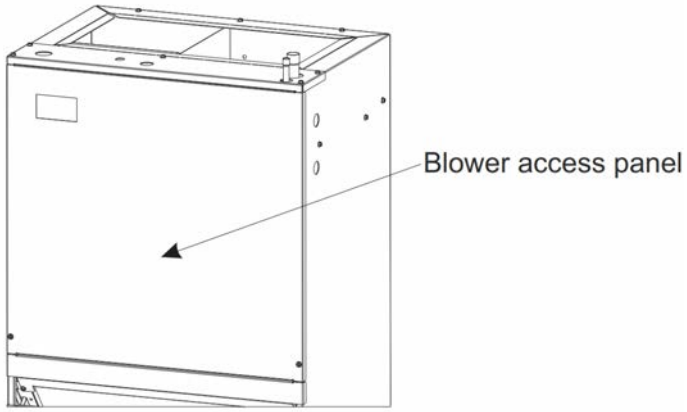
Before performing installation, service or maintenance operations on this system, turn off all main power switches. There may be more than one disconnect. Turn off the accessory heater power switch if applicable. Electrical shocks can cause personal injury or death. When installed in a garage the heater elements should have a clearance of 18in (45.72cm) from the floor, insure that the area is well ventilated.

Reminder:

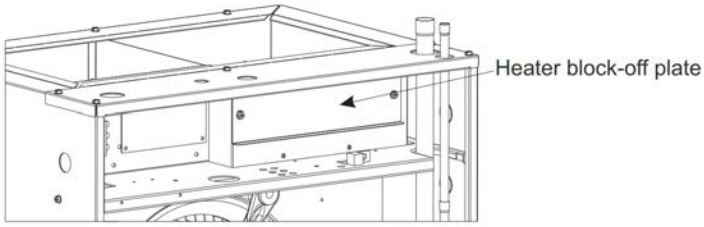
Installation and servicing of this equipment should only be performed by trained and qualified personnel. If these instructions and/or codes are not followed or if the equipment is not properly installed, possible injury or death can occur during installation or operation.
Remember, it is YOUR responsibility to install the product safely and to know it well enough to be able to instruct a customer on its safe use.

2.1 Start-Up & Checks

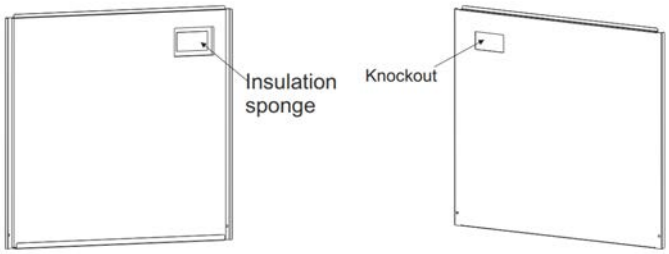
1. Remove the blower access panel of the air handler unit.



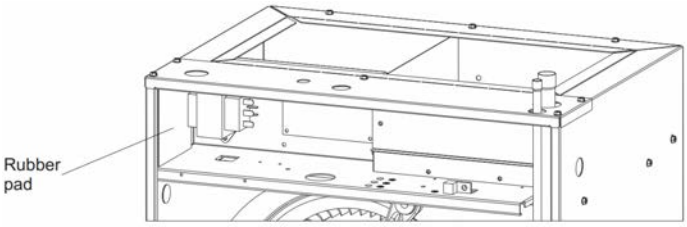
2. Remove the heater block-off plate and save the screws for mounting the heater kit.



3. Remove the circuit breaker knockout(s) in the unit access panel as required and cut the insulation sponge from the breaker knockout area.

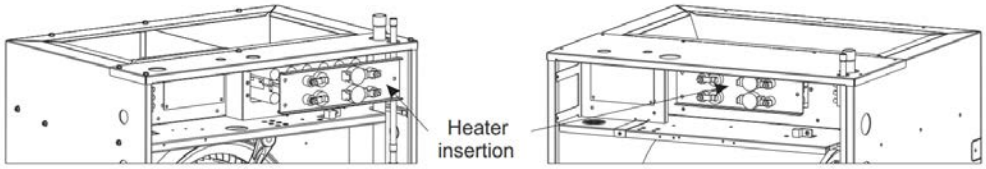


4. For the 18/24k air handlers, fix a rubber pad on the fiberglass cotton on the side panel.

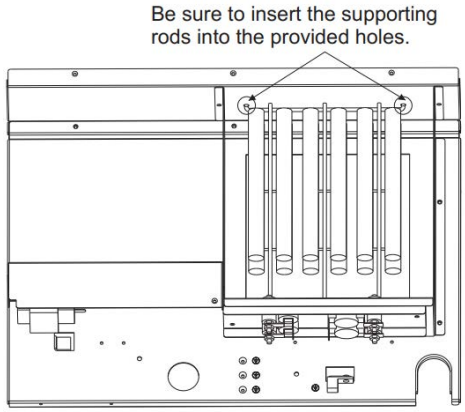


2.2 Strip Installation

1. Position and slide the heater assembly into the blower section through the access opening. Secure the heater into place with the screws removed from the block-off plate.



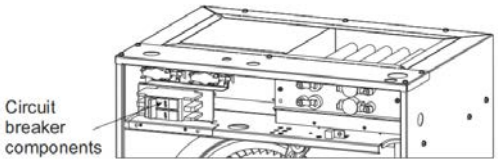
2. Secure the bracket to the cabinet mounting rail with the screws provided. Be sure to insert the rods into the provided holes.



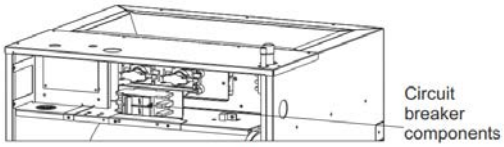
! CAUTION

To prevent damage, carefully insert the electric heating assembly through the rectangular opening in the front of the discharge opening so the heat element support rod is seated into the hole on the back side of the discharge opening.

3. Place the circuit breakers onto the breaker bracket, as shown below. Secure the breaker bracket to the cabinet mounting rail with the screws provided, making sure that all wiring is rounded away from any sharp edges.



18K/24K

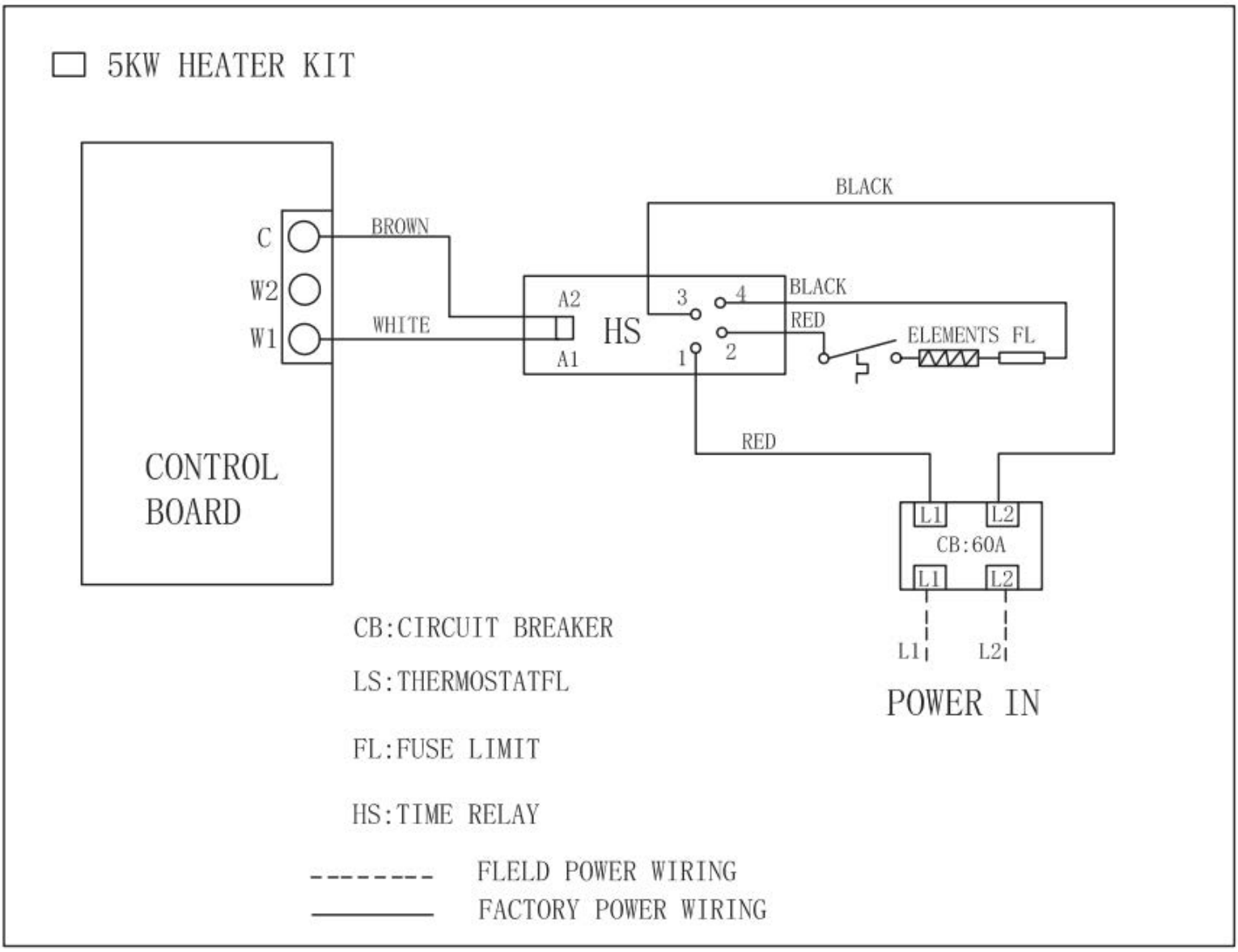


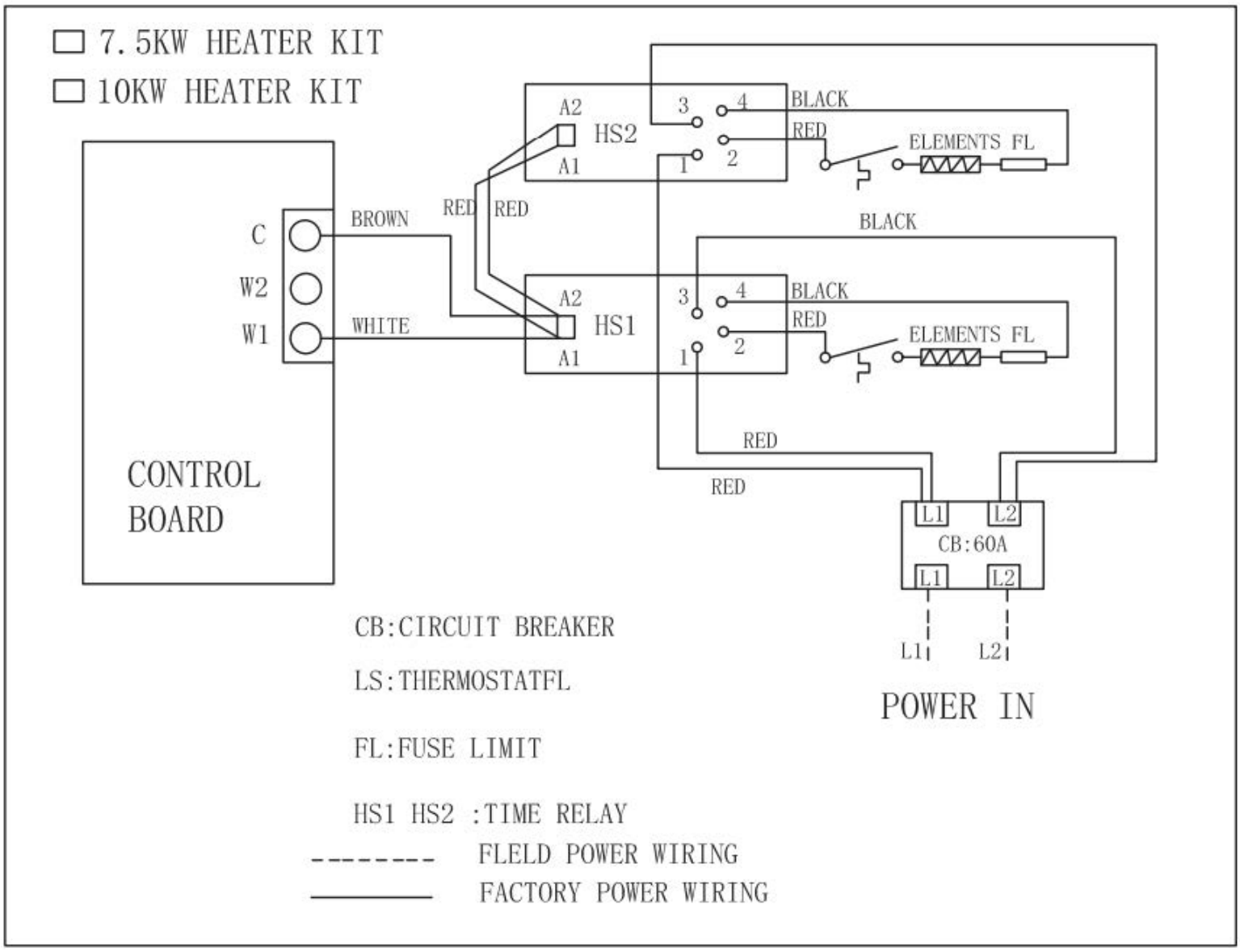
30K/36K

4. Wiring:
   1. Select the corresponding cable group for the electric heater component. The cable can be found on the air handler's accessory bag.
   2. Connect 2 pins of the plug group to the control circuit board of the air handler according to the wiring diagram.
5. Check Out:
   1. Check for loose terminal connections.
   2. Check that all fuse and circuit breaker short circuit interruption ratings are adequate.
   3. Turn on the unit and the electric heaters power.
   4. Set the thermostat to call for heat and check the operation of the heater.
6. Reinstall the blower access panel of the air handler.

3 WIRING DIAGRAMS

- Wiring Diagrams




7.5KW HEATER KIT
10KW HEATER KIT
CONTROL BOARD
C
W2
W1
BROWN
WHITE
RED
RED
A2
A1
HS2
HS1
3
4
1
2
BLACK
RED
ELEMENTS FL
BLACK
RED
RED
L1
L2
CB:60A
L1
L2
L1
L2
POWER IN
CB:CIRCUIT BREAKER
LS:THERMOSTATFL
FL:FUSE LIMIT
HS1 HS2 :TIME RELAY
-------- FLELD POWER WIRING
———— FACTORY POWER WIRING

- Specifications

IMPORTANT

The electric heat accessory includes one 60 amp circuit breaker to provide an electrical disconnect for service personnel that is intended to help protect internal electrical components in the event of a short circuit or ground fault. As designed, the circuit breakers supplied in the accessory do not provide overcurrent protection of the branch circuit. Therefore, the branch circuit(s) should be sized and protected according to the unit nameplate. The electric heater is shipped as an accessory and installed on-site.

Heater Data					
Heater Model	**Phase**	**Frequency**	**Voltage**	**Capacity**	**Heater Amps**
MCAEHWD5X1AA	1	60Hz	240V	5kW	20.84
MCAEHWD7X1AA	1	60Hz	240V	7.5kW	31.25
MCAEHWD10X1AA	1	60Hz	240V	10kW	41.67
Note: For model specific electrical data, refer to the air handlers installation manual.					

Heating kW Correction Factor					
Supply Voltage	240	230	220	210	208
Correction Factor	1	0.92	0.84	0.77	0.75

Electrical Data for Stud Mount Air Handlers					
Model	Heater Kit Usage	MCA (Min. Circuit Ampacity)		MOP (Max. Fuse or Breaker (HACR) Ampacity)	
		208V	230V	208V	230V
18K	MCAEHWD5X1AA	23.1	25.1	25	30
	MCAEHWD7X1AA	35.3	38.5	40	40
	MCAEHWD10X1AA	46.3	50.3	50	60
24K	MCAEHWD5X1AA	23.1	25.1	25	30
	MCAEHWD7X1AA	35.3	38.5	40	40
	MCAEHWD10X1AA	46.3	50.3	50	60
30K	MCAEHWD5X1AA	23.1	25.1	25	30
	MCAEHWD7X1AA	35.3	38.5	40	40
	MCAEHWD10X1AA	46.3	50.3	50	60
36K	MCAEHWD5X1AA	23.1	25.1	25	30
	MCAEHWD7X1AA	35.3	38.5	40	40
	MCAEHWD10X1AA	46.3	50.3	50	60



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Consult with the sales agency or manufacturer for details.