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# SUPPLEMENTAL INSTRUCTIONS

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## CMC-36, -37, -38, -39, -40, -41 Compressor Crankcase Heaters for Use with W Series Wall-Mount Units

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### General

CMC-36, CMC-37, CMC-38, CMC-39, CMC-40 and CMC-41 are field-installable crankcase heater kits to be used with Bard W Series wall-mount units.

Kit Number	Product Voltage/Phase	Models Used With
CMC-36	230V 1 PH	W18-36AB*A W18-36HB-A WG3S2*A
CMC-37	460V 3 PH	W18-36AB*C W18-36HB-C WG3S2*C
CMC-38	230V 1 PH	W42-72AC*A W42-60HC-A WG4-5S2*A
CMC-39	460V 3 PH	W42-72AC*C W42-60HC-C WG4-5S2*C
CMC-40	230V 3 PH	W18-36AB*B W18-36HB-B WG3S2*B
CMC-41	230V 3 PH	W42-72AC*B W42-60HC-B WG4-5S2*B

Kits include:

- Crankcase Heater
- Contactor Assembly (with wires)
- Crimp Connectors (2)
- Screws (3)
- Wire Ties (6)
- CMC-\*\* I.D. Label

Field-supplied tools needed:

- Appropriate personal protection equipment, including gloves and safety glasses
- 5/16" nut driver
- Phillips head screwdriver
- Small flat head screwdriver for securing wire in terminal blocks
- Wire crimpers



Bard Manufacturing Company, Inc.  
Bryan, Ohio 43506  
www.bardhvac.com

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## **WARNING**

***Exposed moving parts.***

***Disconnect all electrical power before servicing.***

***Failure to do so can result in severe injury or amputation.***

## **CAUTION**

***Sharp metallic edges.***

***Take care and wear appropriate protective devices to avoid accidental contact with sharp edges.***

***Failure to do so can result in personal injury.***

## **WARNING**

***Electrical shock hazard.***

***Disconnect the remote electric power supply or supplies before servicing.***

***Failure to do so can result in serious injury or death.***

## **Installation**

1. Disconnect all power to the wall-mount unit and remove the control panel covers and the side grille closest to the compressor. The front condenser grille may also need to be removed for wire routing in W42/48/60/72 units.
2. Remove the existing compressor contactor and replace it with the one from the kit. Be sure to reconnect all the existing unit wires to the correct terminals by referring to the unit wiring diagram.
3. Route the black wires, one coming from the auxiliary switch on the side of the compressor contactor and the other from L2 on the compressor contactor, down to the base of the compressor from the control panel. Route the wires in the same path as the compressor power wires.
4. Install and tighten the crankcase heater around the base of the compressor using the built-in clamp on the heater (see Figure 1).
5. Connect the two black wires from the control panel to the crankcase heater wires with the crimp connectors provided in the kit.
6. Attach the green ground wire from the crankcase heater to an existing screw on the fan shroud or use the self-drilling screw supplied in the kit to attach the ground wire to the chassis in a secure location.
7. Dress and secure the wires with the included wire ties to keep the wires away from the fan blade and hot surfaces.
8. Apply the CMC-\*\* I.D. label to the inner control panel cover.
9. Verify the wiring of the crankcase heater by referring to Figure 2.
10. Once proper wiring has been verified, re-install the grilles and the control panel cover.
11. Turn on power to the unit.
12. This completes the installation of the crankcase heater.

## **Operation**

The heater will be energized whenever the compressor is off. This helps to keep refrigerant from migrating to the compressor during the off cycle in cold climates. By doing so, this prevents oil dilution at start-up and thus decreases the chance of having the compressor bearings scored from a lack of oil.

**FIGURE 1**  
**Attaching Crankcase Heater to Compressor**



MIS-3904A

ATTACH CRANKCASE HEATER  
 TO BOTTOM OF COMPRESSOR AS SHOWN

**FIGURE 2**  
**Wiring Diagram**

