

KAACH1201 KAACH1901
KAACH1301 KAACH2001
KAACH1401 KAACH2101
KAACH1501 KAACH2201
KAACH1601 KAACH2301
KAACH1701 KAACH2401
KAACH1801

Crankcase Heater Kit

Installation Instructions

NOTE: Read the entire instruction manual before starting the installation. Use only the kit components described in this installation procedure.

SAFETY CONSIDERATIONS

Installing and servicing air conditioning equipment can be hazardous due to system pressures and electrical components. Only trained personnel should install or service air conditioning equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils, or cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on air conditioning equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Use quenching cloth for brazing operations. Have fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. Consult local building codes and current editions of the National Electrical Code (NEC) NFPA 70. In Canada, refer to current editions of the Canadian electrical code CSA 22.1.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand these 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 beginning any installation or modification, be sure the main electrical disconnect switch is in the OFF position. TAG THE DISCONNECT SWITCH WITH A SUITABLE WARNING LABEL.

INTRODUCTION

This instruction covers the installation of Crankcase Heater Kits in air conditioning equipment.

DESCRIPTION AND USAGE

The crankcase heater warms the compressor crankcase during the off cycle. Crankcase heater is wired across the open contacts of the contactor. When contactor is de-energized, crankcase heater is on. When contacts are closed, no current flows through the heater because it is on the same line voltage side as the compressor. The heater is used to warm the oil, to reduce refrigerant migration, and ensure proper compressor lubrication.

Kit contents:

- Crankcase heater - 1
- Installation Instructions - 1
- Temperature Switch (kits 1601, 1701 and 2101 only) - 1

INSTALLATION

1. Remove unit access panel and control box access panel. Install crankcase heater on compressor as shown in Fig. 1.
2. Wrap heater around compressor base below oil level (heater arms may be spread to slip over piping and terminal box).
3. Position heater below compressor terminal box approximately 2 in. (50.8 mm) above compressor mounting plate.
4. Fasten heater firmly in place with clip provided on heater.

Wiring (kit numbers 1201, 1301, 1401, 1501, 1801, 1901, and 2001)

1. Route crankcase heater wires into control box and attach to quick-connect line voltage terminals 11 and 21 on contactor.
2. Reinstall control and unit access panels and check unit operation.

Wiring (kit numbers 1601, 1701, and 2101)

1. Route the crankcase heater wire with 1/4" quick-connect into control box and attach to quick-connect line voltage on terminal 11 on contactor.
2. Connect the other crankcase heater wire to the temperature switch wire with 3/16" quick-connect.
3. Route the other switch wire into control box and attach to quick-connect line voltage terminal 21 on contactor.

NOTE: Temperature switch must be exposed in ambient temperature. Wire tie temperature switch to wire bundle outside control box enclosure. Reinstall control and unit access panels and check unit operation.

Wiring (kit numbers 2201, 2301 and 2401)

1. Route crankcase heater wires into control box.
2. Attach 1/4" female quick-connect on crankcase heater to line voltage terminal 21 on contactor.
3. Attach 1/4" male quick-connect on crankcase heater to control board female tab labeled CCH.
4. Reinstall control box access panel and check unit operation.

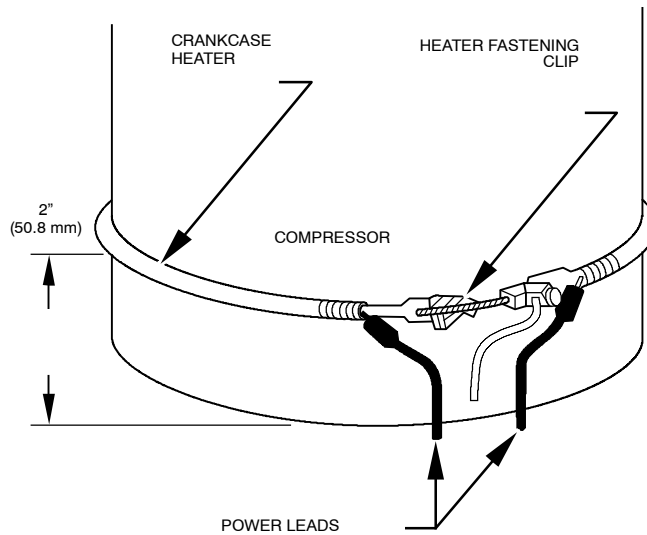
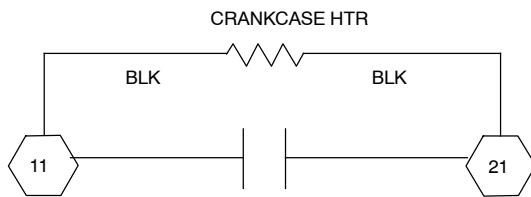


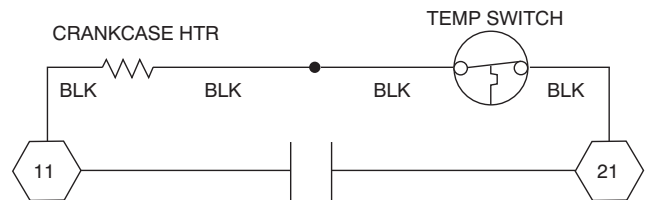
Fig. 1 - Crankcase Heater Installation

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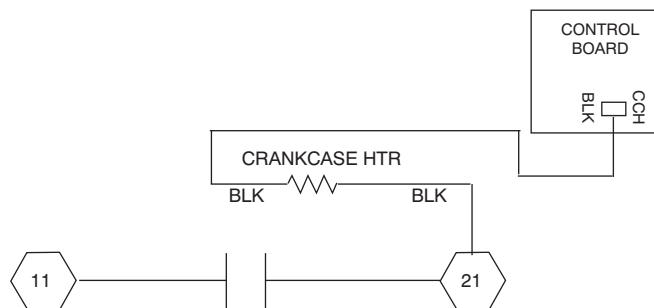
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Fig. 2 - Crankcase Heater Wiring
(for kit numbers 1201, 1301, 1401, 1501, 1801, 1901, and 2001)



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Fig. 3 - Crankcase Heater Wiring
(for kit numbers 1601, 1701, and 2101)



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Fig. 4 - Crankcase Heater Wiring
(for kit numbers 2201, 2301 and 2401)

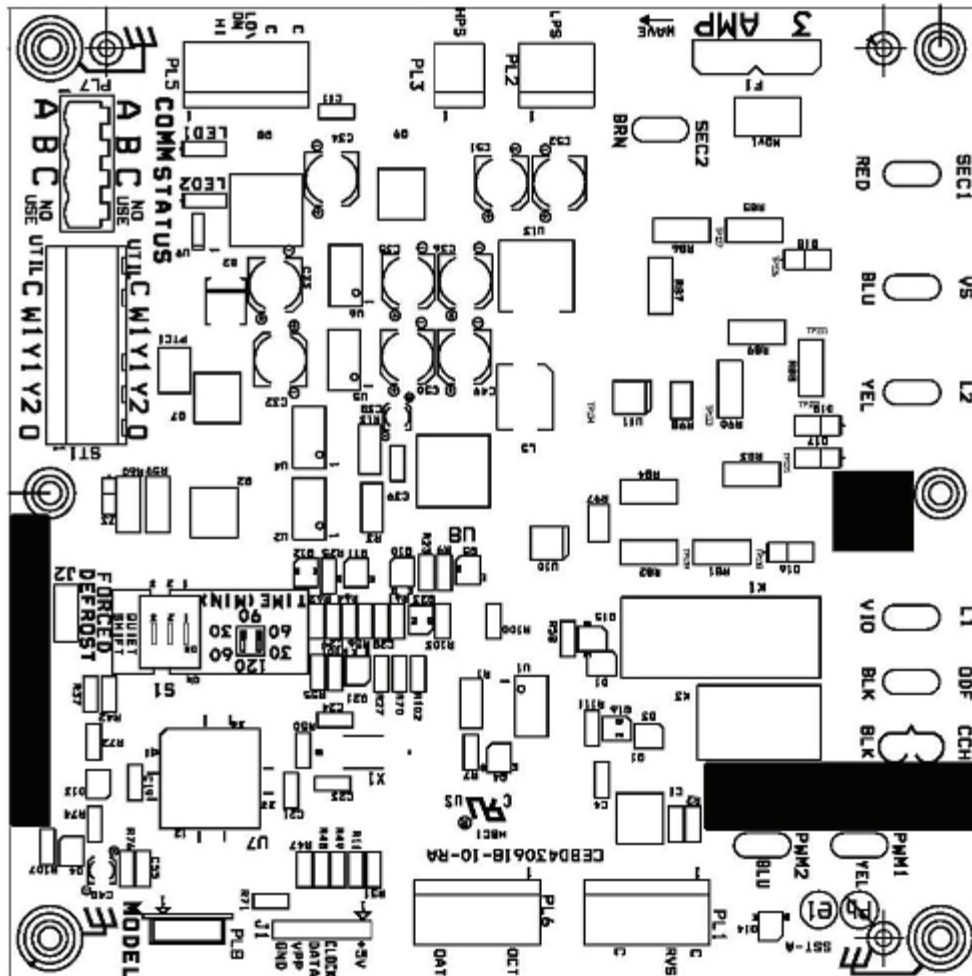


Fig. 5 - Control Board
(for kit numbers 2201, 2301 and 2401)

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