507131-01
2/2018
Supersedes 3/2014

LOW AMBIENT & CRANKCASE HEATER KIT

INSTALLATION INSTRUCTIONS FOR LOW AMBIENT & CRANKCASE HEATER KITS USED ON KG/KC/ZG/ZC 092-150 PACKAGED ROOFTOP UNITS

Shipping and Packing List

Package 1 of 1 contains:

2- Pressure switches (S11, S84)

2- Wire harnesses

2- Wire crankcase heaters

Application

Low ambient kits are used as shown in table 1.

⚠WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier

The low ambient pressure switches cycle the outdoor fan while allowing compressor operation in the cooling cycle. This intermittent fan operation results in a high evaporating temperature which allows the system to operate without icing the evaporator coil and losing capacity. This kit is designed for use in ambient temperatures no lower than 0°F (-17.8°C) unless otherwise noted in the Engineering Handbook.

NOTE - Do not use this low ambient kit on units with capillary tube metering devices.

⚠IMPORTANT

Power wiring must be routed and secured away from hot copper piping to avoid melting wiring insulation.

⚠CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

TABLE 1

Kit		Unit	Voltage
10A88	603364-12	KG/KC 092-150	240
10A89	603364-13	KG/KC 092-150	460
10A90	603364-14	KG/KC 092-150	575
10Z35	612397-02	ZG/ZC 092	240
10Z36	612397-03	ZG/ZC 092	460
10Z37	612397-04	ZG/ZC 092	575
10Z50	612397-05	ZG/ZC 102-150	240
10Z51	612397-06	ZG/ZC 102-150	460
10Z52	612397-07	ZG/ZC 102-150	575

Crankcase Heater Installation

1- Disconnect all power to unit and open compressor access panels.

2- Position crankcase heater below dimples on compressors as shown in figure 1. Position belly-band screw over the vertical weld seam on the compressor. Tighten belly-band screw to secure in place.

Note - Tightening the belly-band screw over the compressor seam prevents damage to the heater wire.

3- Route harness as shown in figure 2.

CRANKCASE HEATER POSITION

INSTALL ALL CRANKCASE HEATERS JUST BELOW DIMPLES ON COMPRESSOR HOUSING

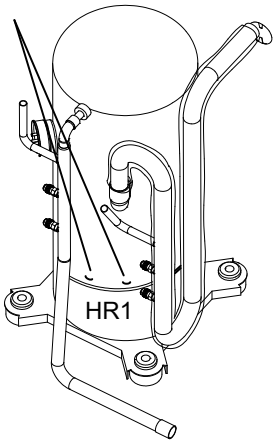

FIGURE 1

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4- Use markings on wires to connect harness as shown in (also refer to the unit wiring diagram) figure 3.

5- Secure crankcase heater ground wires using screws and washers provided in kit. Refer to:

Figure 4 KG/KC 092-150 units

Figure 5 ZG/ZC 092-150 units

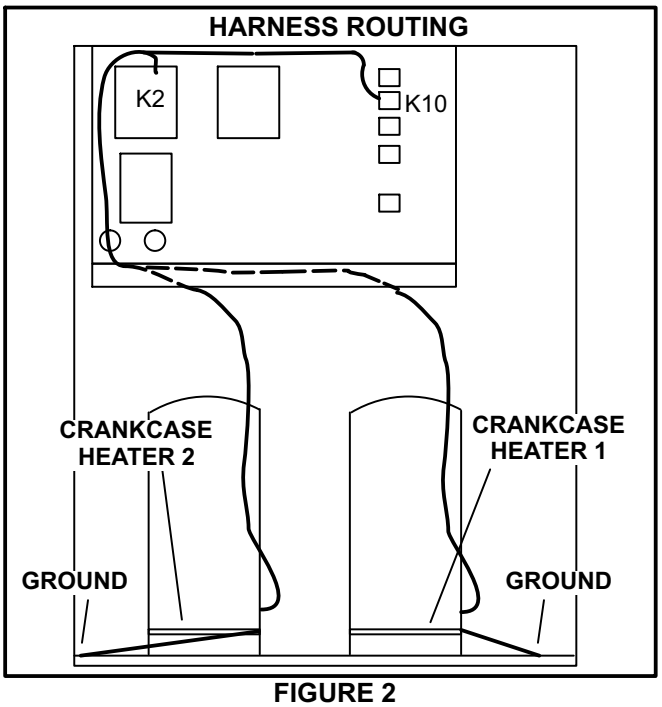

FIGURE 2

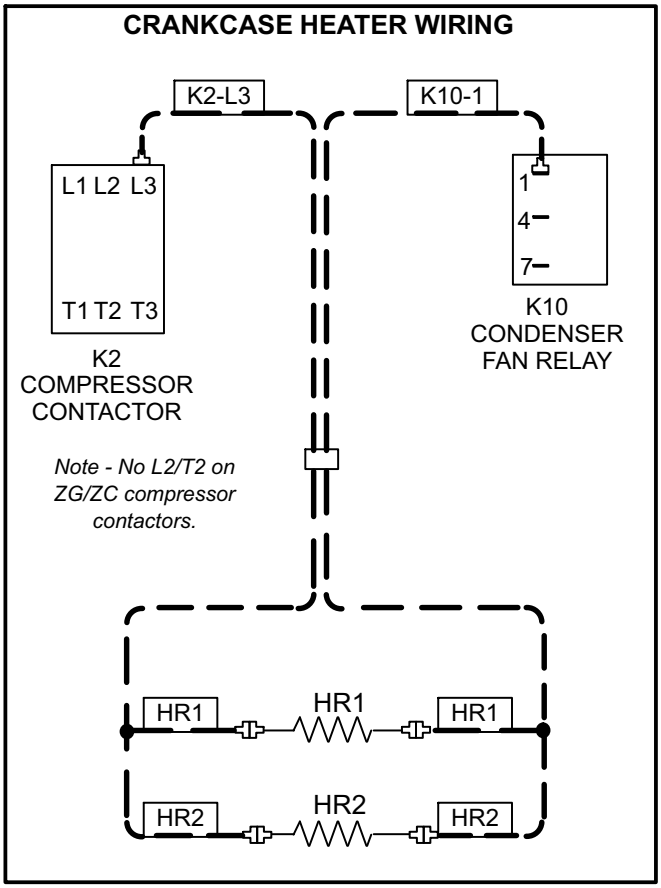

FIGURE 3

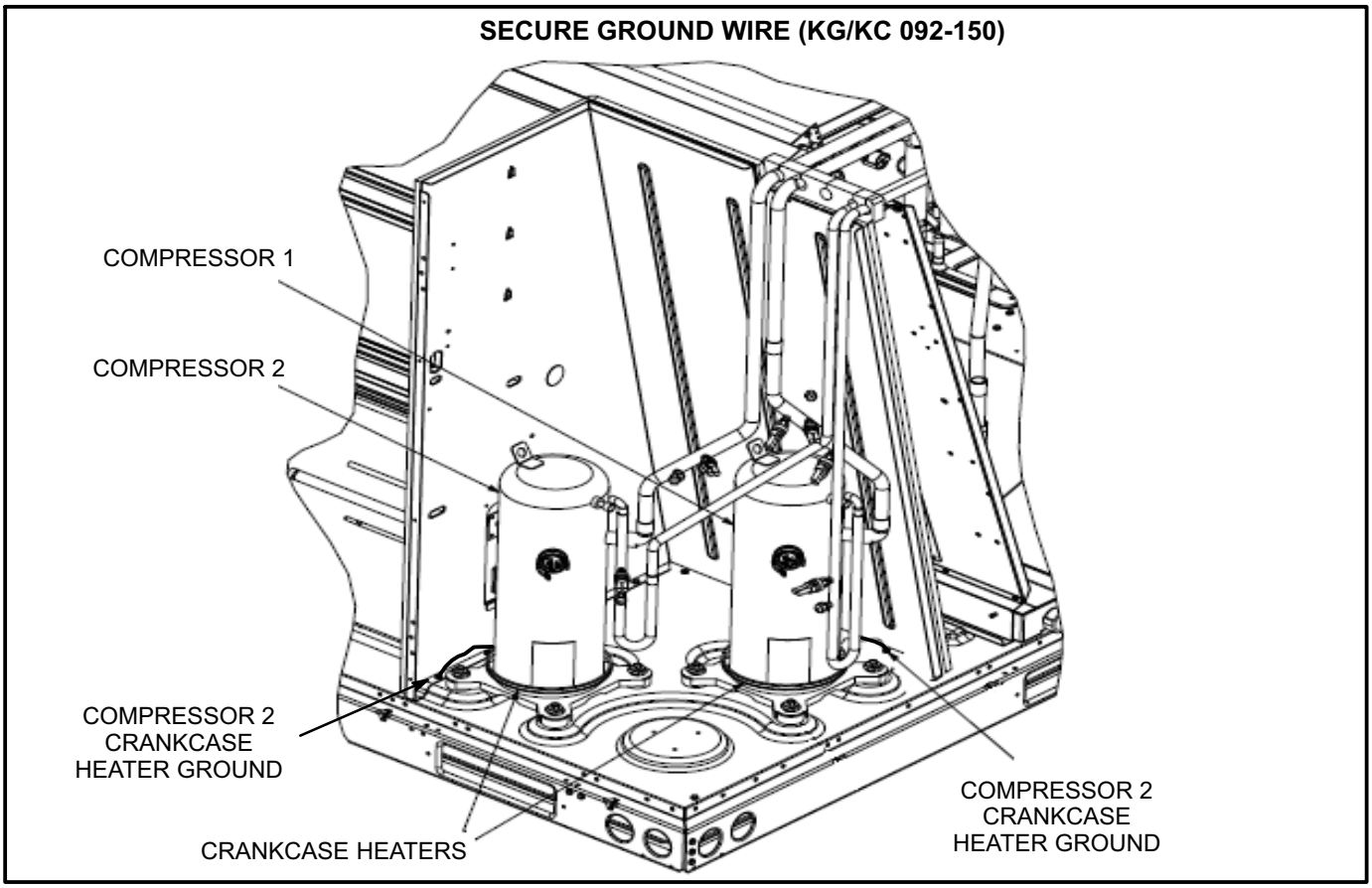

FIGURE 4

SECURE GROUND WIRE (ZG/ZC 092-150)

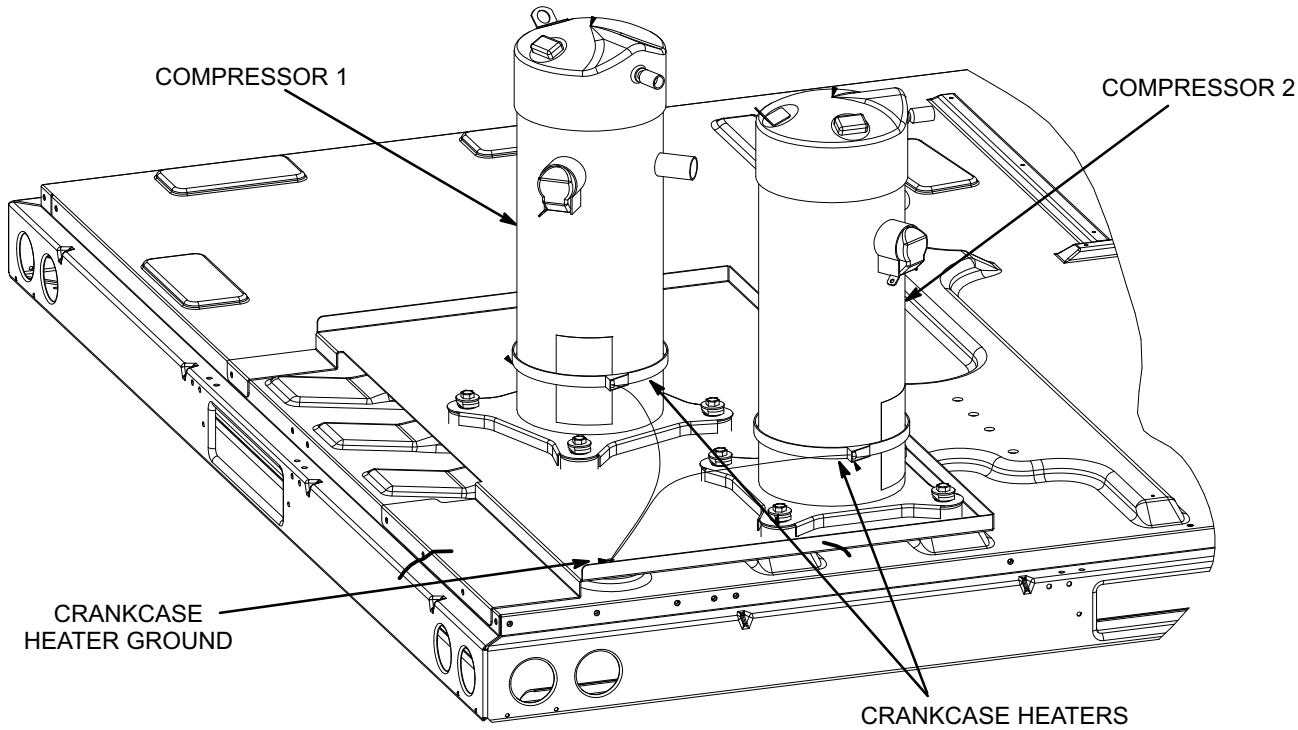

FIGURE 5

Pressure Switch Installation

1- Disconnect power to unit.

2- Refer to table 2 for figure number showing switch location. Open appropriate unit panel.

3- Install pressure switches on liquid line pressure taps.

4- Check system for leaks.

Pressure Switch Wiring

1- Disconnect wires marked S11 as shown in figure 7 for ZG/ZC units and figure 9 for KG/KC units.

2- Connect harness wires as shown in figure 8.

3- Bundle wiring and secure away from unit components.

4- Close all unit panels and restore power to unit.

TABLE 2

Unit	Switch Location
KG/KC 092-150	Figure 6
ZG/ZC 092-150	Figure 7

PRESSURE SWITCH LOCATION - KG/KC 092-150 UNITS

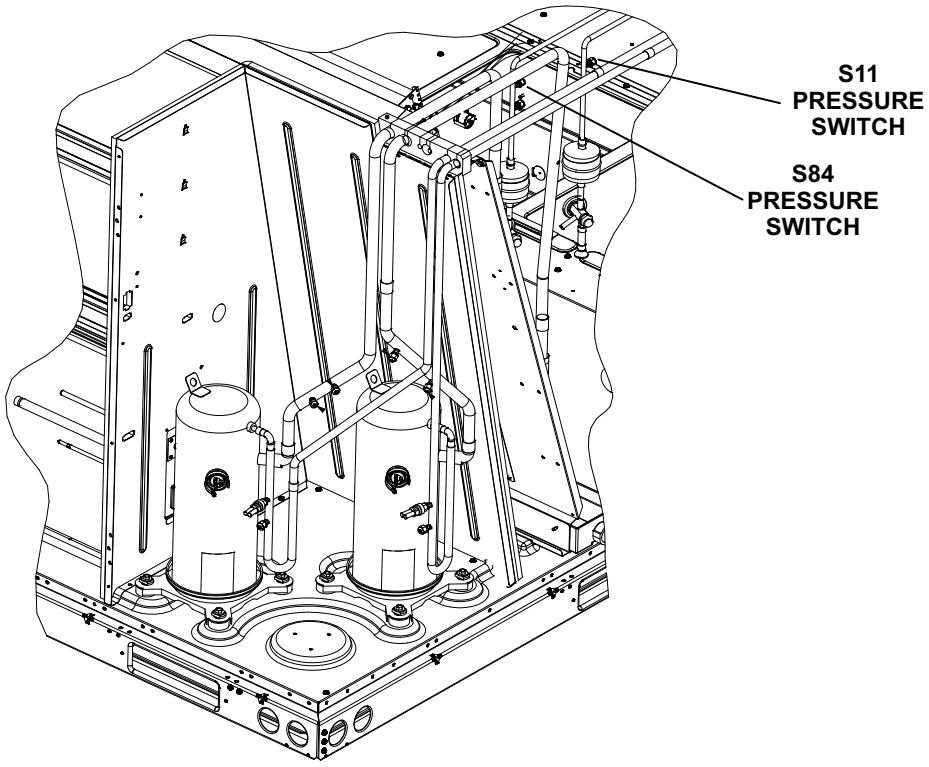

FIGURE 6

PRESSURE SWITCH LOCATION - ZG/ZC 092-150 UNITS

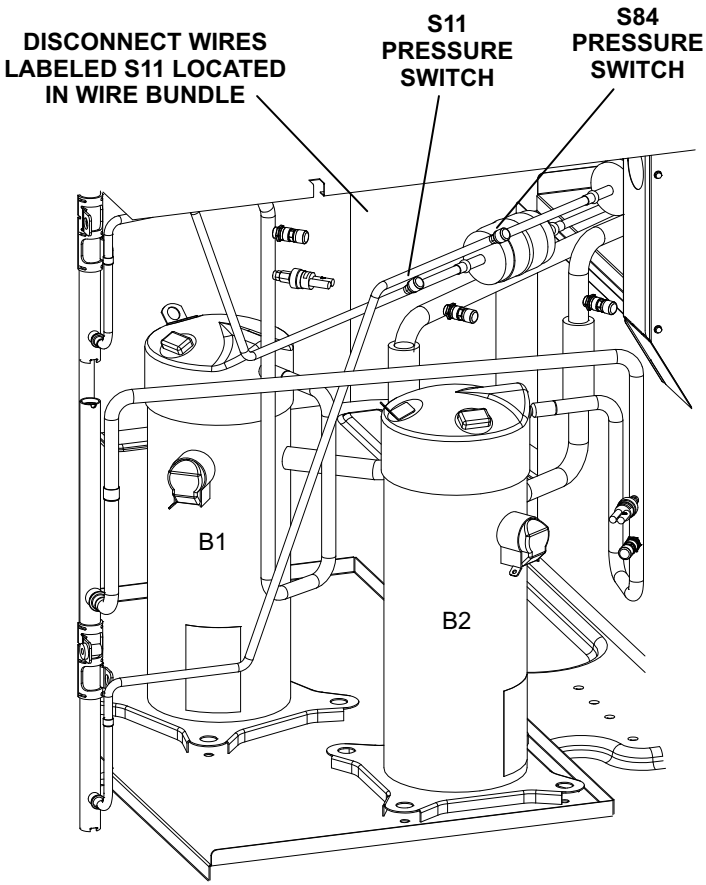

FIGURE 7

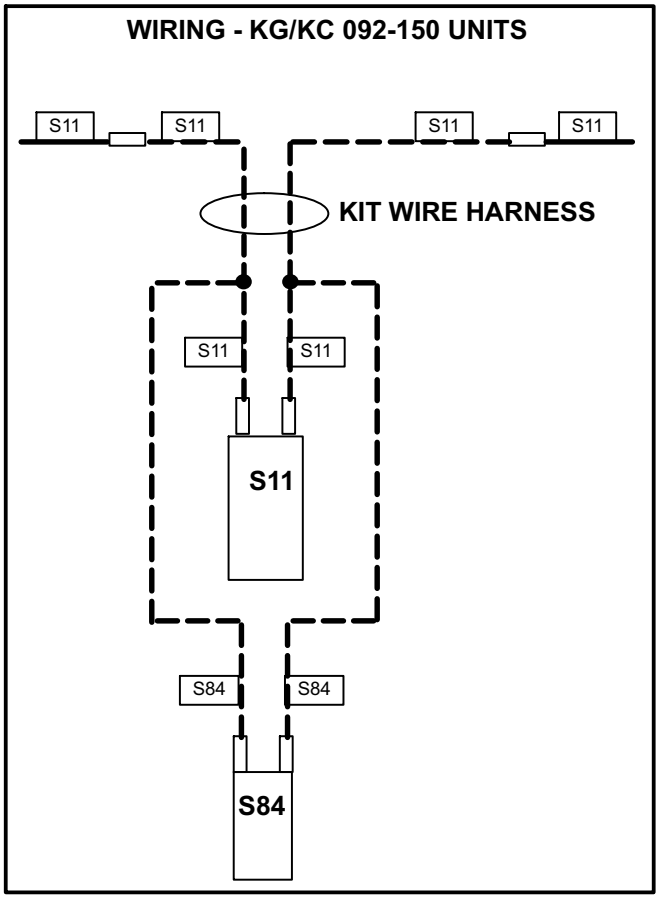

FIGURE 8

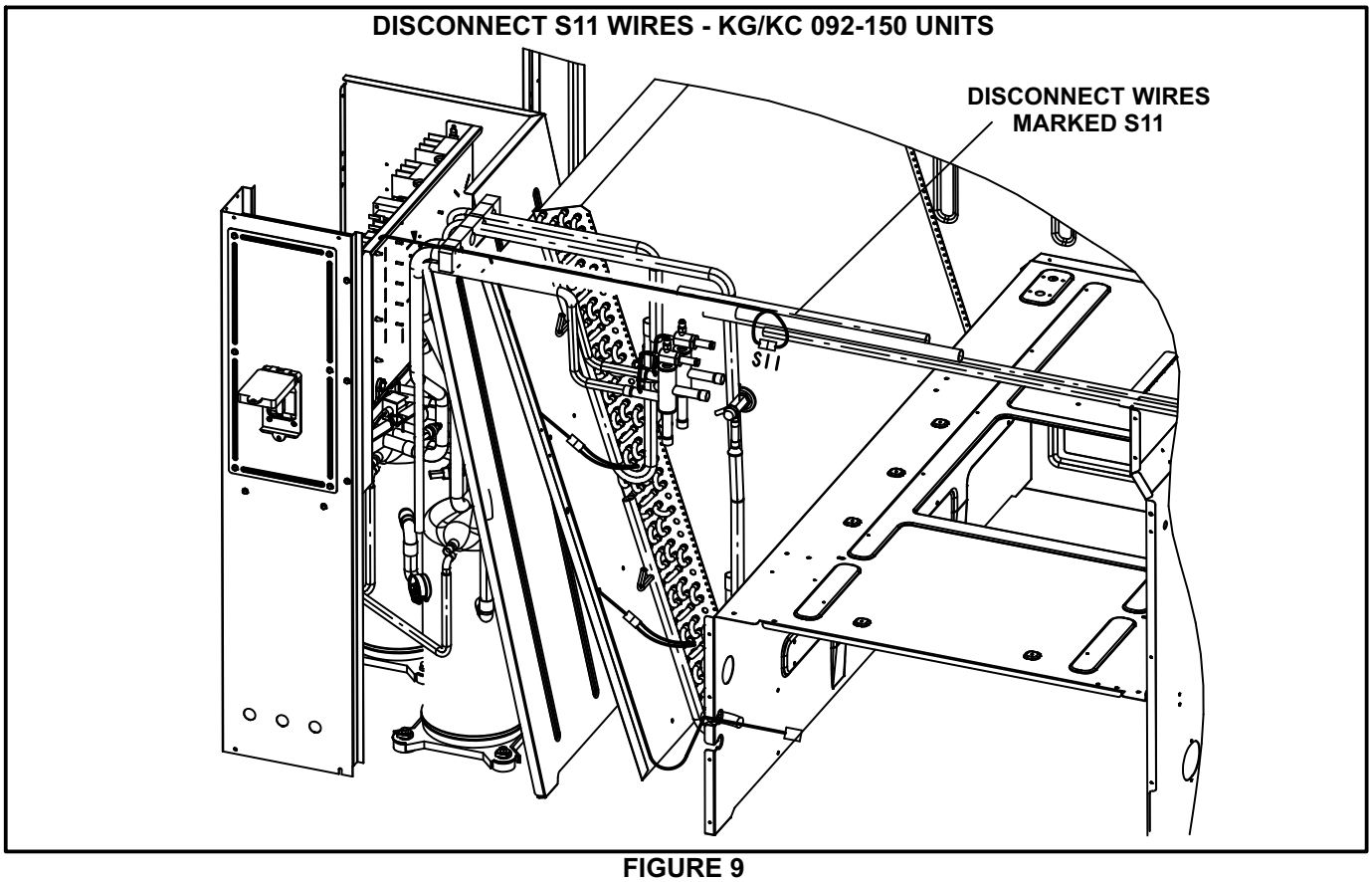

FIGURE 9

Operation

Outdoor fans will be energized when the liquid pressure rises to 450 psig (3103kPa) and de-energize when liquid pressure drops to 240 psig (1655kPa).

Outdoor fans cycle together (all switches must be open).