Kolpak®

Polar-Pak®
by **Kolpak**

OWNER'S MANUAL

Installation, Operation & Maintenance Instructions

NOTE: Read this manual completely before attempting installation of your POLAR-PAK refrigeration system. Damage could occur to the unit if instructions are not followed completely.

Kolpak... Specified #1 Among Walk-ins
www.kolpak.com

Manitowoc Foodservice Group

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Receiving Inspection

All POLAR-PAK refrigeration systems are factory tested for performance and certified free from defect when shipped.

The utmost care has been taken in packaging to insure against damage in transit. Should there be noted damage upon uncrating:

1) Carefully check the crate for visible signs of cause;
2) **SAVE THE CRATE** and;
3) **IMMEDIATELY** file a "Claim of Damaged Goods" with the carrier.

Under **NO** circumstance may a damaged unit be returned to KOLPAK without first obtaining written permission. Address all inquiries to:

Kolpak
P.O. Box 550
Parsons, TN 38363-0550
Customer Service Department
800-225-9916

1.0 Installation – General Information

- Installation instructions for the walk-in are supplied separately.
- Installation information for the top-mount POLAR-PAK refrigeration system is presented in Section 2. Installation information for the side-mount POLAR-PAK refrigeration system is presented in Section 4. All models are self-contained and fitted with a compressor heated condensate vaporizer system. As such, there is no need for refrigeration piping installation, system evacuation and charging or drain line hook-up at the job site.
- Tools required for installation of POLAR-PAK refrigeration systems:
    - Regular screwdriver
    - Phillips head screwdriver
    - Ratchet with 3/8" and 7/16" socket

2.0 Installation – Top Mount Models

The refrigeration system for the top-mount model has been shipped in its own individual shipping crate. It is recommended that the refrigeration system first be mated to the refrigeration-system-accommodating ceiling panel and then installed on the walk-in as an assembly (see following sections 2.1-2.2).

⚠ **CAUTION:** The supply and return air assembly is fragile and extends down into the ceiling panel. Please allow adequate clearance when handling this unit, individually or in conjunction with the ceiling panel. Do not drive a forklift into, or rest the refrigeration system on, the supply and return air assembly.

2.1 Installing the Roof Membrane and Curb – *OUTDOOR UNITS ONLY*

Top mount Polar-Pak units installed in outdoor applications must have a roof curb and membrane installed in order to ensure water-tightness. Refer to Figure 1 when following the instructions below.

- Remove roof curb from shipping skid and remove outer cover over double stick tape.
- Center curb over opening in ceiling panel
- With double-stick tape side down, press firmly in place.
- Place membrane roof material over the walk-in ceiling and cut an opening around perimeter of *inside* of roof curb.
- Following the directions in Section 2.2 below, lower the refrigeration system onto ceiling panel, making sure roof membrane material stays in place.
- Trim out roof curb around perimeter of walk-in.

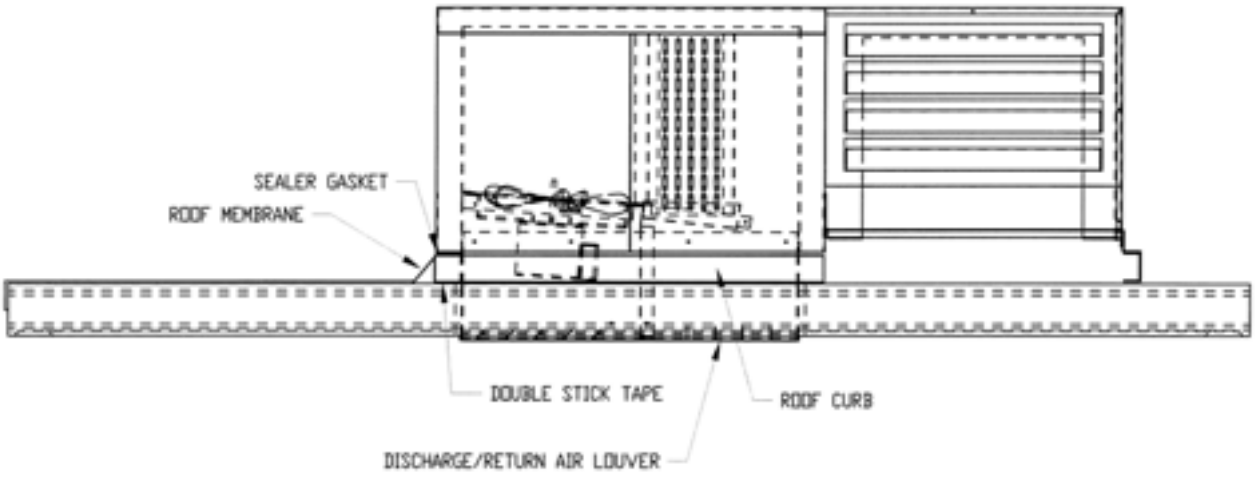

Figure 1: Installation of the Roof Curb and Membrane for Outdoor Top Mount Polar-Pak Units

2.2 Joining The Refrigeration Unit To The Ceiling Panel

- Place the ceiling panel to which the refrigeration system is to be connected on 12" high supports (Refer to Fig. 2). The space below the rectangular opening in the panel should be clear and free of obstructions.

  NOTE: This assembly should take place as close as possible to the area where the walk-in is to be erected.

- Lift the refrigeration unit from its shipping crate and lower it into position. The refrigeration system may be lifted manually (**CAUTION** – refrigeration system is heavy – use reasonable care when handling) or with mechanical lifting equipment (Refer to Fig. 2).

- ***See note on page 5 concerning sealing evaporator box to ceiling panel.***

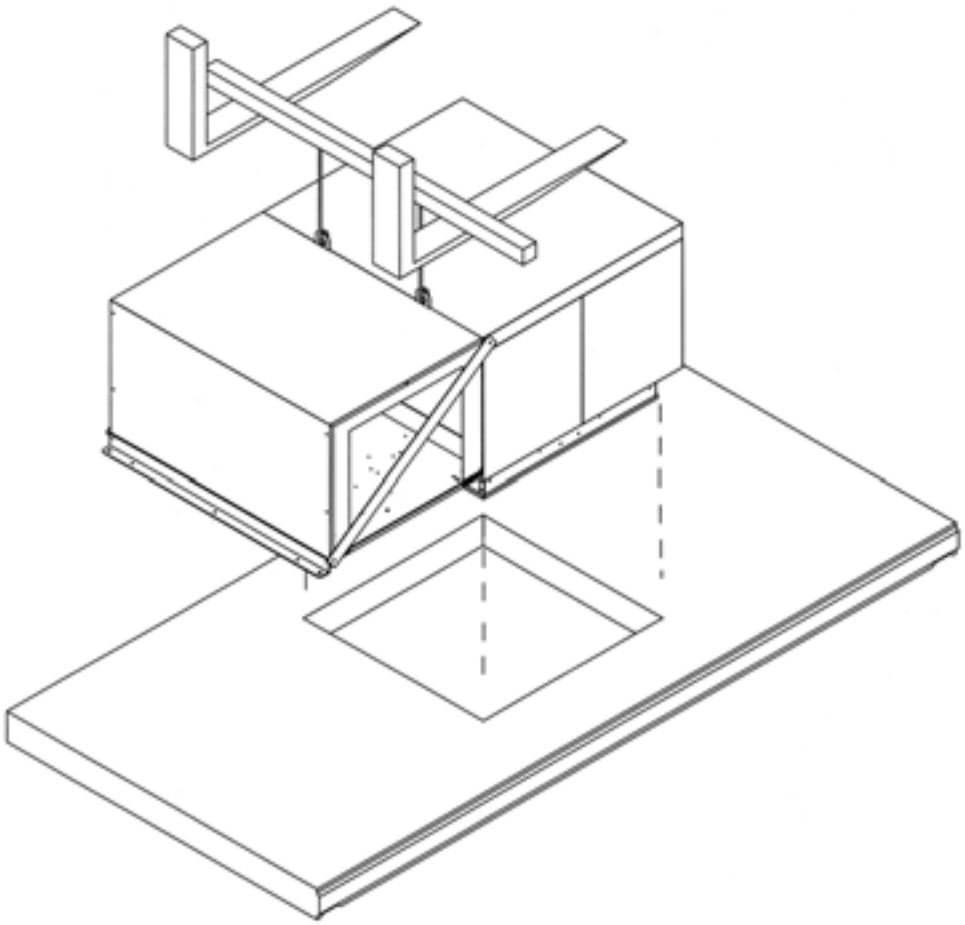

Figure 2: Joining the Top-Mount Refrigeration System to the Ceiling Panel

2.3 Walk-In Assembly

NOTE: Allow at least 18" of clearance around the refrigeration system when fully assembled. Failure to allow adequate clearance can result in poor system performance and premature compressor failure.

A separate installation instruction manual for the walk-in is included with the shipping crate. Please read it prior to installation. Figure 3 shows the spatial relationship of the parts:

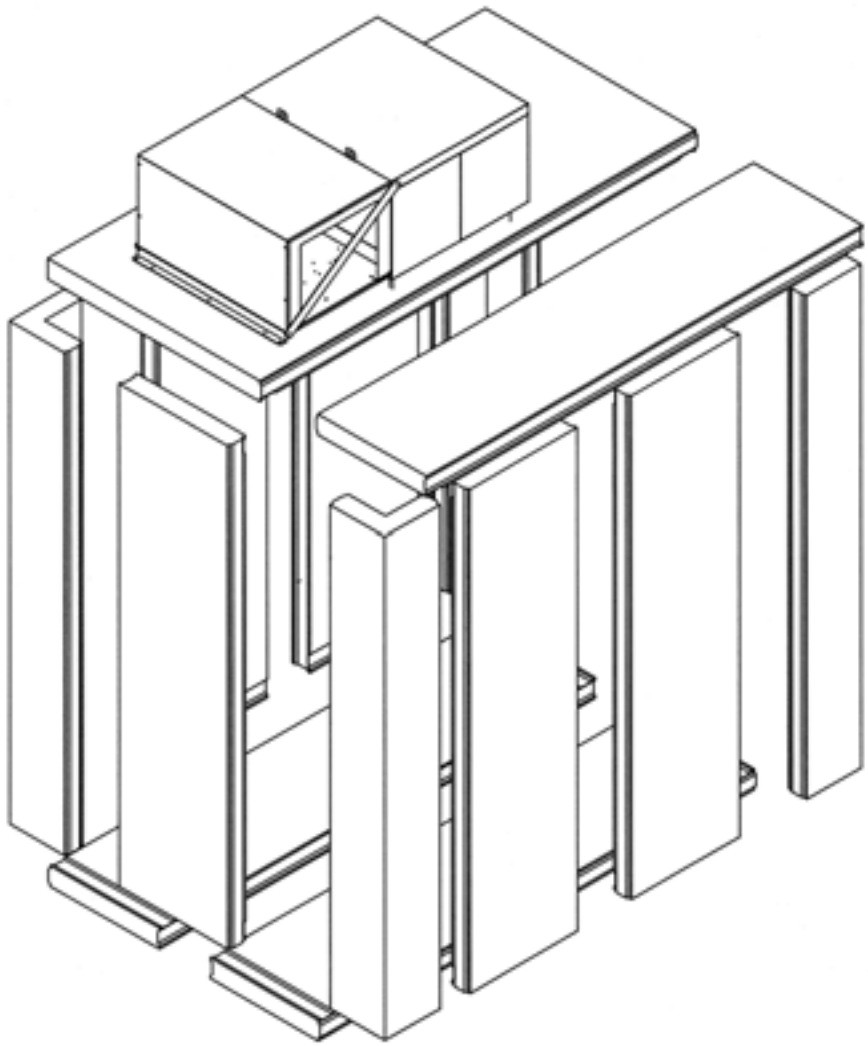

Figure 3: Break-Away of Walk-in and Polar Pak Top-Mount Refrigeration System

The refrigeration assembly, consisting of the ceiling panel and the refrigeration unit, should be handled together.

⚠ **CAUTION:** The refrigeration system is heavy, bulky, and has unequal weight distribution. When handling this equipment, please use reasonable care to prevent personal injury or damage to the equipment.

- Lay the floor panels and allow at least 18" of clearance around the refrigeration system when fully assembled.
- Stand up the back and the side panels **ONLY** and lock them together and to the floor panels.
- Moving from front to rear of walk-in, lift (manually or with lifting equipment) the refrigeration assembly over the side panels and lower it in place. Lock this panel to the back and side panels.
- Complete the assembly and installation of the walk-in per instructions provided with the walk-in.
- *To insure there is no air infiltration into the walk-in, the gasket on the foamed evaporator box must seal all around the perimeter where it comes in contact with the ceiling panel. The condensing unit is attached to the evaporator box with screws in slotted holes. Loosen the screws, and push down on the evaporator to insure a tight seal, then tighten the screws.*

3.0 Power Hook-Up – Top Mount Models

⚠ **CAUTION:** Power installation must be in full compliance with the National Electrical Code and all applicable local codes.

3.1 Coolers

- Locate electrical box inside condensing unit compartment (Refer to Fig. 4):

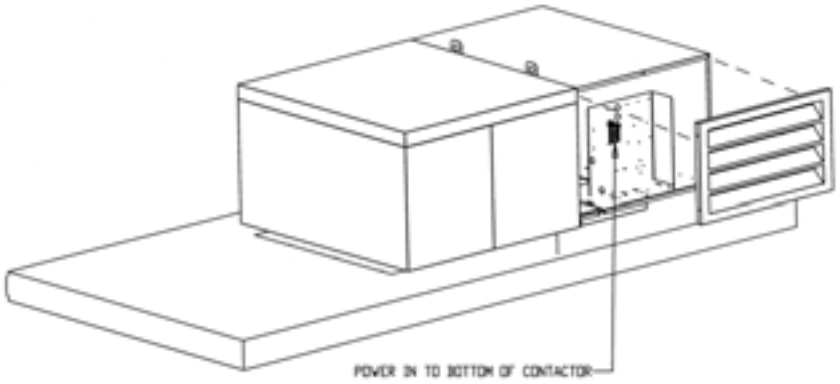

Figure 4: Power Hook-Up for Polar Pak Top-Mount Coolers and Freezers

3.1 Coolers (Cont'd)

- Connect one end of the power line to the bottom of the contactor provided in the electric box in the condensing unit compartment, and the other end to a properly sized electric outlet with an appropriate overcurrent protection device. Consult the unit name plate for power requirement.
- The cooler thermostat is preset to maintain walk-in temperature of 38 °F. Should any adjustment become necessary, please consult the section on thermostat operation.
- For information on defrost timer setting, please refer to Section 7.2 before replacing the end panel and turning on the power.
- Replace the end panel and turn on the power.

3.2 Freezers

- Remove both louvered end panels by loosening and taking out mounting screws.
- Remove the top/side panel to expose the condensing unit. This is a one piece cover that fits over the condensing unit and ties to the base frame with screws at the top and on the bottom as shown in Figure 3.
- Connect one end of the power line to the bottom of the contactor provided in the electric box in the condensing unit compartment, and the other end to a properly sized electric outlet with an appropriate overcurrent protection device. Consult the unit name plate for power requirement.
- The defrost timer is programmed at the factory to initiate four defrosts daily at 4:00 AM, 10:00 AM, 4:00 PM, and 10:00 PM, respectively. The procedure for resetting the frequency and duration of the defrost cycle is presented in the section of the defrost timer operation and on the inside cover of the defrost timer box.
- Set the defrost timer clock by grasping the outer dial and rotating it in a **CLOCKWISE** direction. This will revolve the outer dial. Line up the correct time of day on the outer dial with the time pointer.
- The freezer thermostat is preset to maintain walk-in temperature of 0°F. Should any adjustment become necessary, please consult the section on thermostat operation.
- Replace the top/side panel and the end panel that covers the condenser coil.
- Turn power on and check. Reset the defrost timer clock if needed.

4.0 Installation – Side Mount Models

4.1 Preparation for Installation

Normally the walk-in panels, refrigeration system, and installation instructions are shipped together. Transport the crate to the job site, uncrate, and remove the refrigeration system for installation.

⚠ **CAUTION:** The side-mount Polar-Pak refrigeration systems are top heavy and the casters are designed for ease of installation **ONLY**. Transport the unit using a forklift or furniture dolly **THROUGH THE BACK SIDE ONLY**.

4.2 Walk-in Assembly

Set up the walk-in according to the installation instructions provided. Allow at least **TWO FEET** of clearance on the sides and back of the refrigeration system when fully assembled. Consult Fig. 5 for the correct spatial relationship of the parts.

NOTE: Failure to allow adequate clearance can result in poor system performance and premature compressor failure.

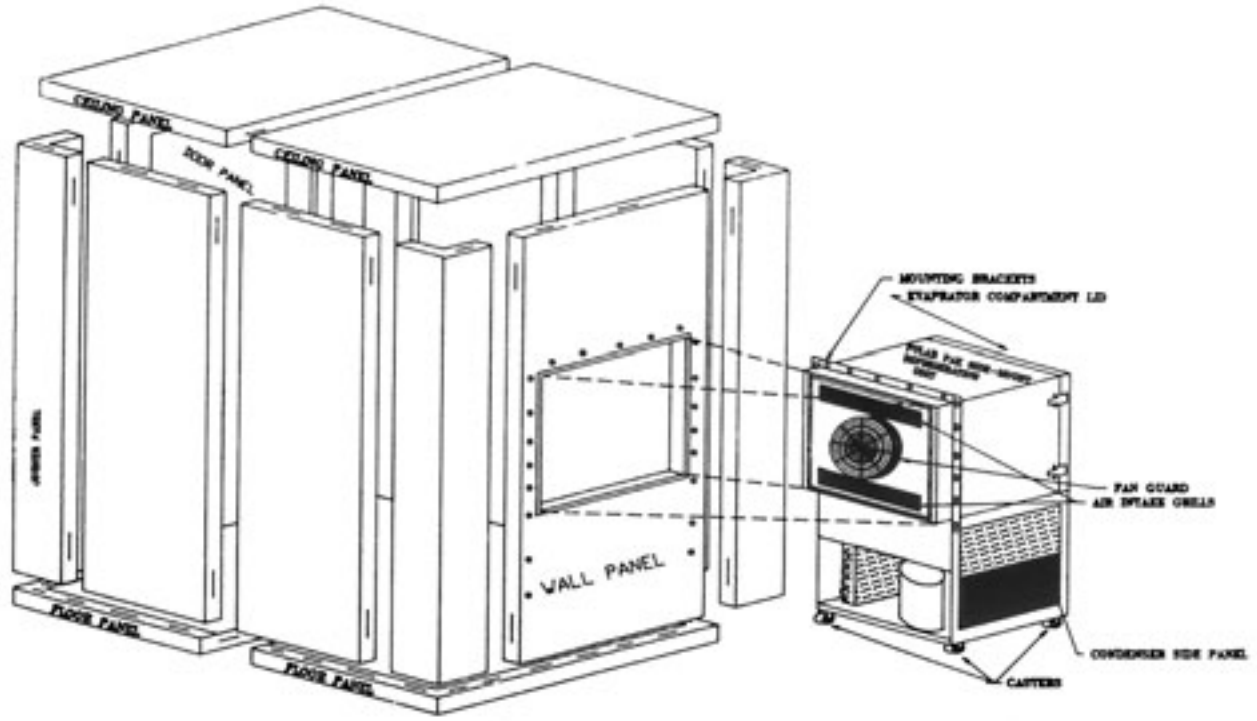

Figure 5: Break-away of Walk-in and Polar-Pak Side Mount Refrigeration System

4.3 Mounting the Refrigeration Unit

NOTE: Mounting hardware is supplied in a small cloth bag shipped secured inside the condensing unit compartment.

- Remove the back and the side panels from the condensing unit compartment. Loosen the mounting bolts of the cast iron body compressor (**freezers only**) to allow free suspension of the compressor on support strings. A label is attached to the condenser base as a reminder. Coolers **DO NOT** require such an adjustment.
- Carefully roll the unit to the walk-in mounting panel. Center the face of the unit with the panel opening to verify proper alignment for full engagement of the unit into the panel opening. If there is vertical misalignment between the unit and the panel opening, adjust the casters by turning their shanks with a 3/8" socket and ratchet. Maximum allowable travel is +5/16" or -5/16".

⚠ **CAUTION:** The weight of the refrigeration unit must be supported on casters **ONLY**. Adjust all four casters to attain equal weight distribution. Failure to support the refrigeration system weight on the casters can result in air leaks and damage to the mounting panel and brackets.

- After the correct alignment is obtained, push the unit forward in the mounting hole until the mounting brackets rest against the panel. The front legs of the support rack are fitted with stops and four mounting slots. Secure the unit to the panel using the square washers and the mounting bolts provided. Make sure all the holes are engaged. Tighten the mounting bolts and the leg bolts sequentially to obtain tight fit between the front of the unit and the walk-in molding. This is manifested by the gasket material being evenly compressed to 1/8" thickness and the front leg "stops" resting against the mounting panel surface. Consult Fig. 6 for mounting illustrations.

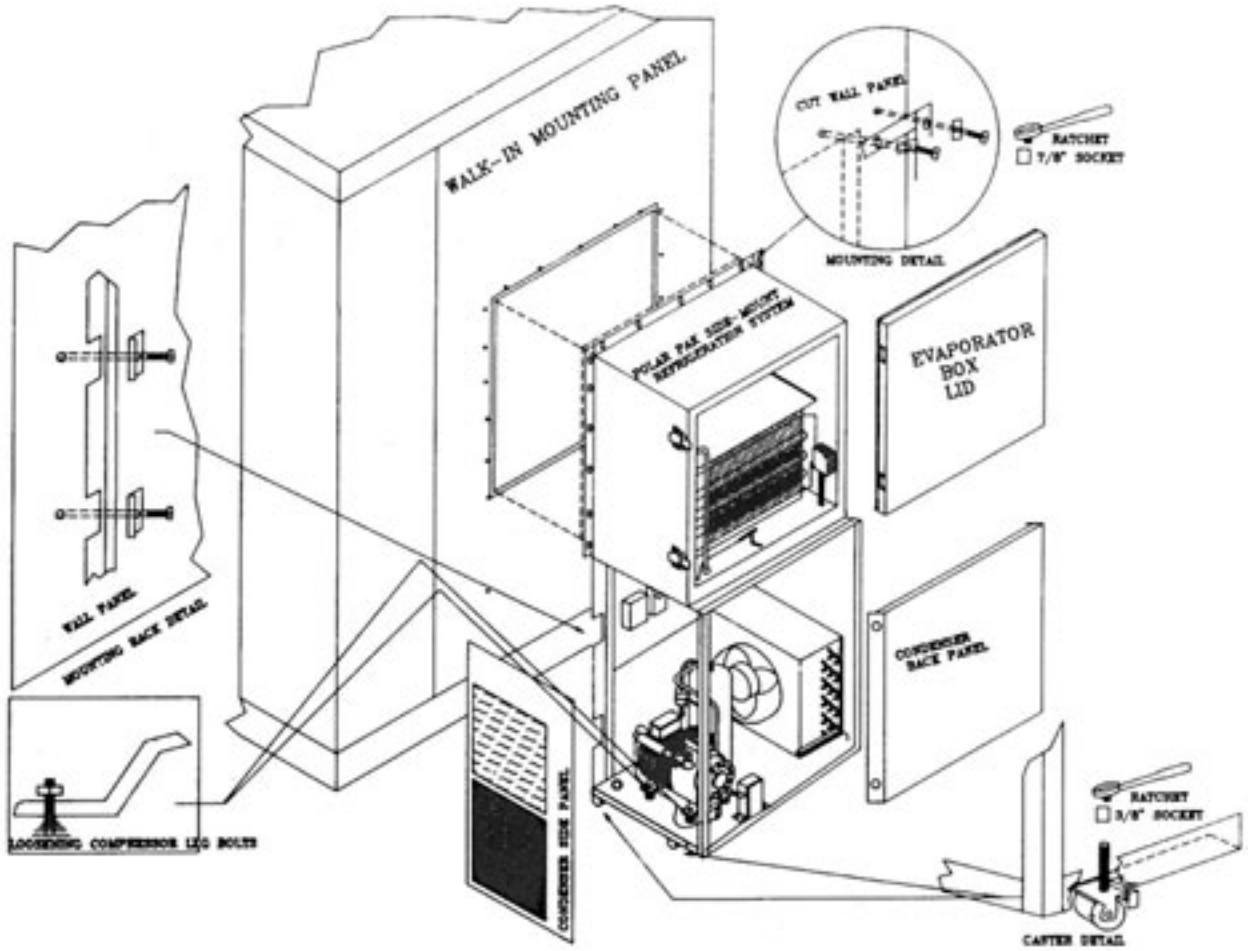

Figure 6: Mounting Illustration for Polar-Pak Side Mount Refrigeration Systems

5.0 Power Hook-up – Side Mount Models

⚠ **CAUTION:** Power installation must be in full compliance with the National Electrical Code and all applicable local codes.

5.1 Coolers

- Locate the power connection junction box. Refer to Fig. 7.
- Feed the power line through the circular opening on the bottom of the condensing unit. Connect one end to pigtails in the unit power junction box and the other end to a properly sized electric outlet with an appropriate overcurrent protective device. Consult the unit nameplate for power requirement. Fig. 7 shows the wiring illustration.
- The cooler thermostat is preset to maintain walk-in temperature of 38° F. Should any adjustment become necessary, please consult the section on thermostat operation.
- For information on defrost timer setting, please refer to Section 7.2 before replacing side and back panels and turning on power.
- Replace the side and back panels and turn power on.

5.2 Freezers

- Locate the power connection junction box. Refer to Fig. 8.
- Feed the power line through the circular opening on the bottom of the condensing unit. Connect one end to the pigtails in the unit power junction box and the other end to a properly sized electrical outlet with an appropriate overcurrent protective device. Consult the unit nameplate for power requirement. Fig. 8 shows the wiring illustration.
- The freezer thermostat is preset to maintain walk-in temperature of 0° F. Should any adjustment become necessary, please consult the section on thermostat operation.

Setting the Defrost Timer

Please refer to Sections 6.0 and 7.0 for full instructions.

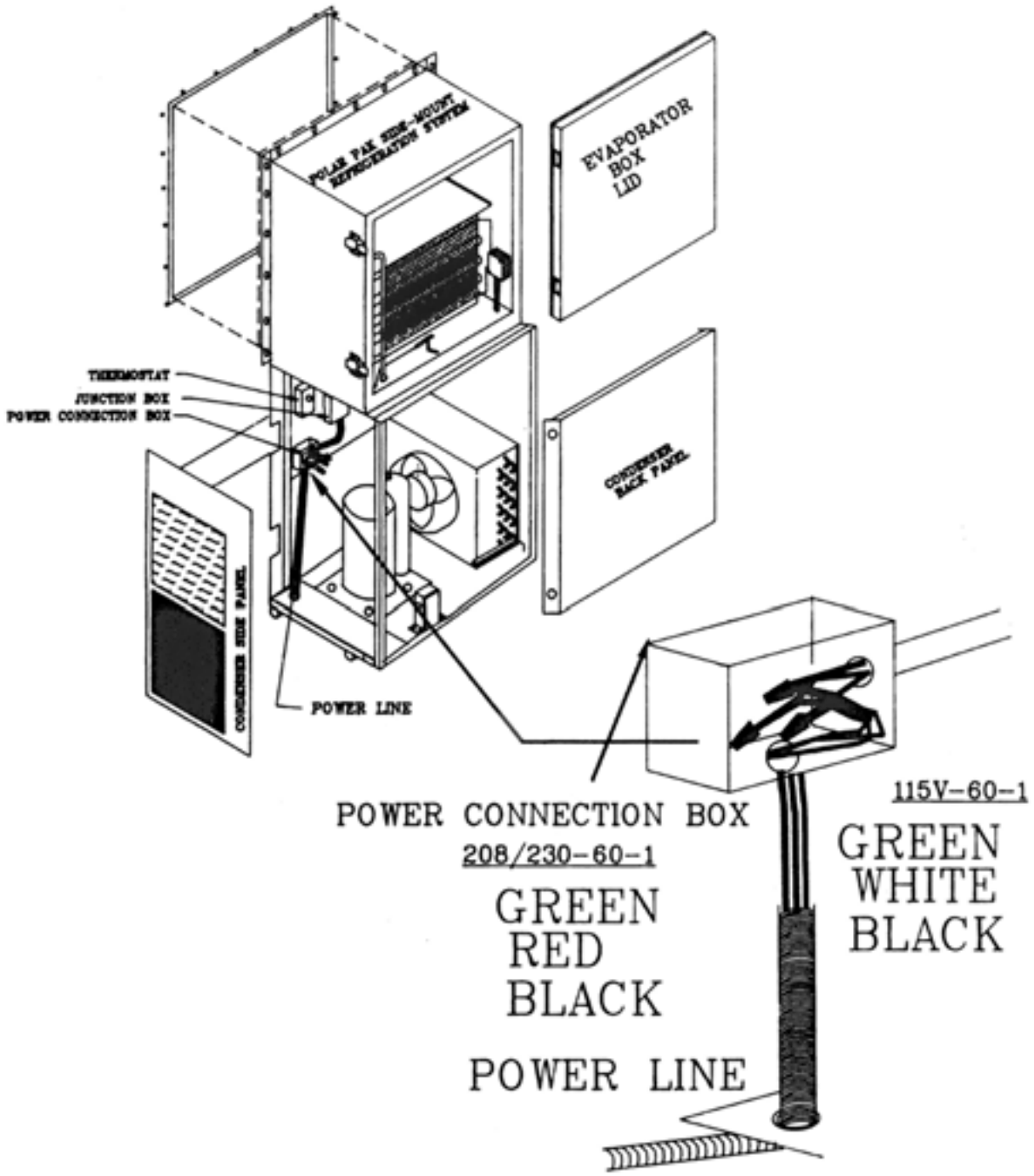

Figure 7: Power Hook-up for Polar-Pak Side Mount COOLERS.

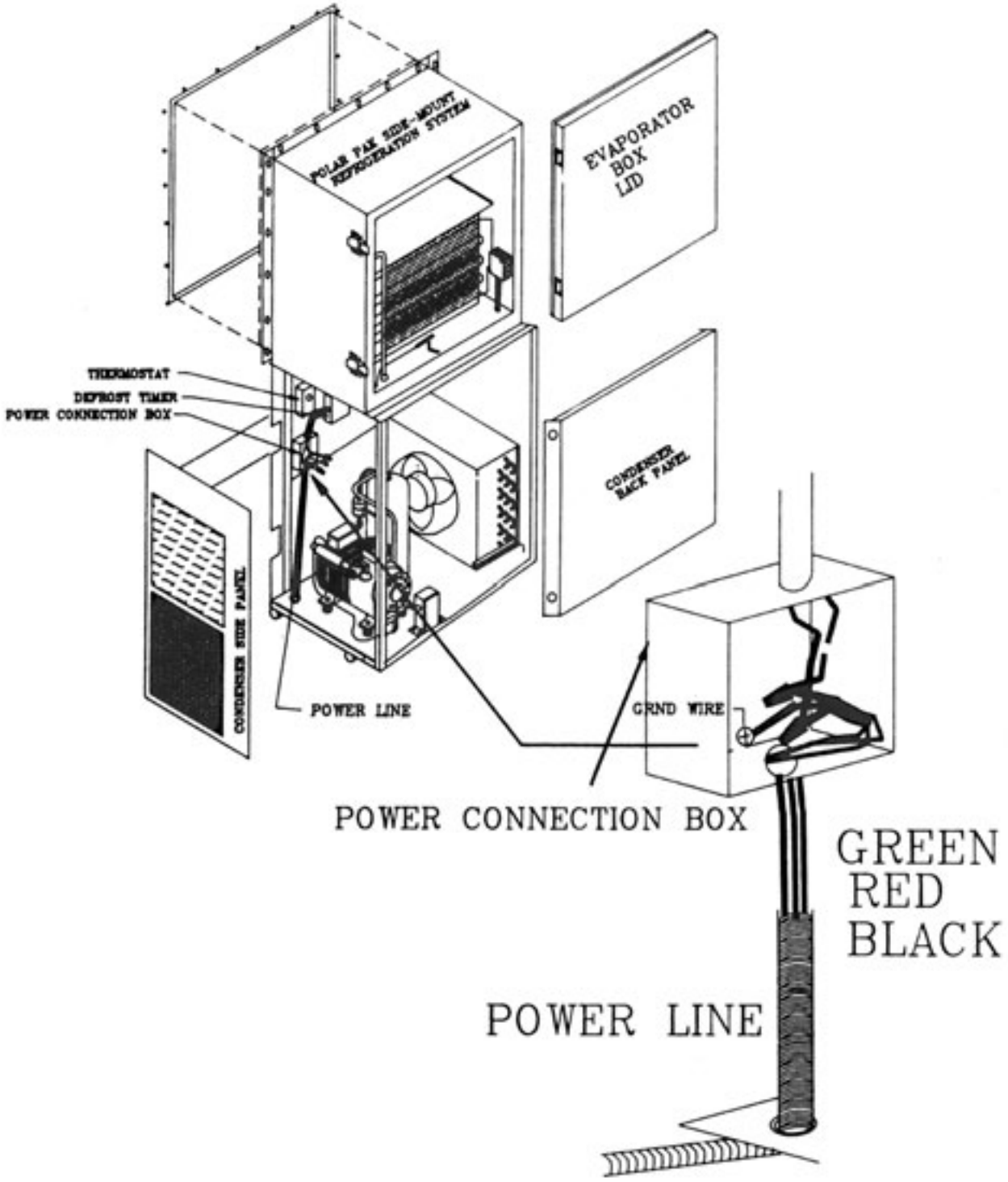

Figure 8: Power Hook-up for Polar-Pak Side Mount FREEZERS.

6.0 Operation

POLAR-PAK Refrigeration Systems utilize a draw-through design. The walk-in air is drawn into the air in-take vent(s) and the evaporator coil prior to becoming discharged into the walk-in. This circulation becomes a vehicle for transporting the unwanted thermal load into the evaporator coil for rejection to the ambient air. Any interruption or obstruction of the supply or return air streams will result in unsatisfactory operation of the system.

⚠ **CAUTION:** Do not block the air intake grill, the return grill, or the areas immediately in front of or underneath them. Keep plastic wrap, small pieces of paper, labels, etc. from being airborne and becoming lodged in the air intake grill or the evaporator coil.

6.1 Coolers - All Models

With the power turned on, the evaporator fan runs continuously but the condensing unit cycles to maintain the walk-in temperature at the set point.

6.2 Freezers - All Models

With the power turned on, the condensing unit starts and chills the evaporator coil. The evaporator fan starts and stops a few times until the coil is sufficiently chilled for continuous operation. During this period, the evaporator fan runs continuously and the condensing unit cycles to maintain the set point temperature.

7.0 Defrost Cycle

7.1 Polar-Pak Coolers

POLAR-PAK Coolers defrost during the condenser unit off time. As such, no changes or modifications should be made to the working parts.

During the compressor “on time,” the evaporator coil is kept below the water freeze point of 32 °F. During the compressor “off time,” the evaporator fan continues to circulate the 38 °F walk-in compartment air through the evaporator coil. This circulation raises the coil temperature above the freezing point, thus melting away any frost or ice that may have accumulated. This continuous evaporator coil temperature swing results in evaporator coil icing and subsequent deicing. The run off water is drained into a vaporizer pan which is evaporated during compressor “on time.

7.2 Optional Defrost Timer for Coolers

The defrost timer is programmed at the factory to initiate four automatic defrost cycles daily at 4:00am, 10:00am, 4:00pm, and 10:00pm, respectively. You will need to set the defrost timer clock to the correct time of day upon installation (see below).

The procedure for resetting the frequency and duration of the defrost cycle is presented in Section 8.0, "Defrost Timer Operation." This procedure is also printed on the inside cover of the defrost timer box.

Setting the Defrost Timer Clock

- Remove the condensing unit housing cover and the electric box cover.
- Grasp the outer dial and rotate it in a **CLOCKWISE** direction. This will revolve the outer dial. Line up the correct time of day on the outer dial with the time pointer.
- Replace the side panel
- Turn the power on and check. Reset the defrost timer clock if needed.
- Replace end panel.

7.3 Polar-Pak Freezers

All freezer models are fitted with an evaporator coil defrost heater and a drip pan heater controlled by the defrost timer. The defrost cycle is time initiated and time and/or temperature terminated.

During the defrost cycle, the system shuts down completely and the heaters are energized to melt away the frost and accumulation on the coil. The run off water is drained into a vaporizer pan which is evaporated during the normal system operation.

At the factory, the defrost timer is set for four cycles, initiated at 4:00am, 10:00am, 4:00pm, and 10:00pm daily. Each cycle should last sufficiently long to rid the coil of unwanted ice and frost. The procedure for resetting the frequency and duration of the defrost cycle is presented in Section 8.0, "Defrost Timer Operation." This procedure is also printed on the inside cover of the defrost timer box.

8.0 DEFROST TIMER OPERATION

The defrost timer is located in the electric box inside the condensing unit compartment. To gain access, remove the condensing unit housing cover and the electric box cover (See Fig. 15).

The optional defrost timer will be mounted in the unit electrical box. The working parts are as follows:

A. Outer rotating dial
B. Inner dial with clock pointer
C. The defrost initiation tabs (each tab represents 15 minutes of defrost)
D. Time pointer located on the inner ring

The defrost time duration is preset at the factory:

- Coolers are set to 30 minutes
- Freezers are set to 45 minutes

These times were determined to be sufficiently long for most applications. If you experience coil icing, please contact your factory representative.

The defrost time duration may be changed in 15 minute increments. Each tab on the outer ring represents a 15 minute defrost cycle. With all captive trippers pushed to the outer ring position, the unit will be in the on position. When a tripper is pushed to the inside, this represents 15 minutes of defrost cycle.

To set the time of day, grasp the outer ring and rotate it in a clockwise direction. This will revolve the outer dial. Line up the correct time of day on the outer dial with the time pointer.

Do not try to set the time control by grasping the time pointer. Rotate the outer dial only.

To set the desired defrost cycle initiation, push the captive trippers to the inner position. The minimum time between consecutive defrost cycles is 15 minutes.

9.0 Thermostat Operation

The body of the thermostat is mounted inside the condenser compartment. The sensing bulb is placed in the return air stream inside the evaporator compartment.

To gain access to the thermostat, remove the condensing unit compartment "power" end panel for ceiling-mount models. The thermostat cover is held to the body by one screw. Remove the cover by loosening the mounting screw and pulling gently on the cover. The mounting screw stays with the cover.

The cut-out temperature or the termination is set by moving the dial so the desired setting is in line with the dial pointer on the stop bracket. Use a fine blade screw driver to set the dial to a desired temperature. The cut-in point or the initiation is set by rotating the differential knob on the left hand side to desired differential (differential is the temperature between the initiation and the termination temperatures). Under most conditions, the minimum differential setting is used.

EXAMPLE: Determine appropriate settings for a system thermostat to initiate at 40 °F and terminate at 36 °F

A. Set the thermostat to 36 °F
B. Set the differential to the minimum position, i.e. 4 °F (the settings on the differential knob are for reference only and not actual temperature settings).

NOTE: Temperature settings are subject to calibration and the accuracy of the thermostat.

10.0 High-Pressure Safety Control

Both cooler and freezer systems employ a high pressure safety control which is located inside the condensing unit compartment. The safety prevents the building up of dangerously high system pressures and prevents ruining the compressor through overloading and overheating. Common causes for extremely high discharge pressures are:

- A dirty or clogged condenser
- Condenser fan failure
- Extreme high ambient temperatures
- Blocking of air supply to condenser or other abnormal conditions

The safety control is factory set and is **NOT** adjustable in the field. The control is of the automatic reset type, which means after the control has shut off the condensing unit due to sensing the high pressure limit setting, it will automatically turn the condensing unit on again once the high side pressure has decreased to the pre-set level within the safe operating range. If the cause of the high pressure cut-out condition is consistent the unit will continue to repeat this cycle. Should this condition occur, a qualified service technician should be called in to determine the cause and the corrective action required. (Consult factory if needed).

11.0 Available Accessories for Polar-Pak Refrigeration Systems

Standard POLAR-PAK refrigeration systems are designed for indoor use (protected from weather) when indoor temperature ranges between 55 °F to 100 °F.

Some accessories that may be available with your POLAR-PAK refrigeration system by special order are as follows:

- Fan cycle switch
- Compressor crank case heater.

These two items make up the "Low Ambient Kit". Their purpose is to keep the refrigeration system operating properly at low ambient conditions.

12.0 Maintenance

12.1 Evaporator Box

From time to time it is recommended that the evaporator box be cleaned using warm water and mild detergent.

⚠ **CAUTION:** Disconnect power to the unit.
DO NOT attempt cleaning if in doubt.

The evaporator box may be accessed from inside the refrigerated compartment. Remove the supply air/return air panel by loosening and taking out the mounting screws.

Using warm water and mild detergent, clean and wipe all surfaces exposed to the walk-in environment. Remount the supply air/return air panel. Restore power and reset the defrost time to local time.

12.2 Condensing Unit

The condenser fan circulates air through the condensing unit to remove unwanted heat from coil, motor and compressor. Narrow passages in these compartments trap lint, grease, contaminants and impurities which result in poor heat removal and diminished system performance. Regular cleaning can restore the unit to its original operating condition.

If the condenser air supply is close to polluting sources such as cooking appliances, inspect and clean the condenser coil regularly at 6 to 8 week intervals (or more frequently if required). Otherwise, the condensing unit should be cleaned every 3 months.

Cleaning Procedure - Condensing Unit

1. Turn off power.
2. Remove end panels and side/top panels on top-mount models.
3. Use a vacuum cleaner with proper attachments to clean the condenser coil and other components.
4. In extreme cases of dust and grease build up, remove the condenser fan by loosening and removing the four mounting screws. Use clean compressed air to blow out contaminants from the back side of condenser coil.
5. Remount the condenser fan.
6. Reset the defrost time clock to local time.
7. Replace the panels and turn power on.

⚠ **CAUTION:** Failure to keep the condenser coil cleaned properly will result in reduced air flow through the condensing unit system, which could result in poor system performance or premature compressor failure–which **WILL NOT** be covered under your compressor warranty.

13.0 Wiring Diagrams

Cooler Model:	PC039T2	Fig. 9
Cooler Model:	PC049T2	Fig. 10
Cooler Model:	PC069T2	Fig. 11
Cooler Model:	PC069T3	Fig. 12
Cooler Model:	PC099T2	Fig. 13
Cooler Model:	PC099T3	Fig. 14
Freezer Model:	PF064T3	Fig. 15
Freezer Model:	PF094T3	Fig. 15
Freezer Model:	PF144T3	Fig. 15
Freezer Model:	PF194T3	Fig. 15

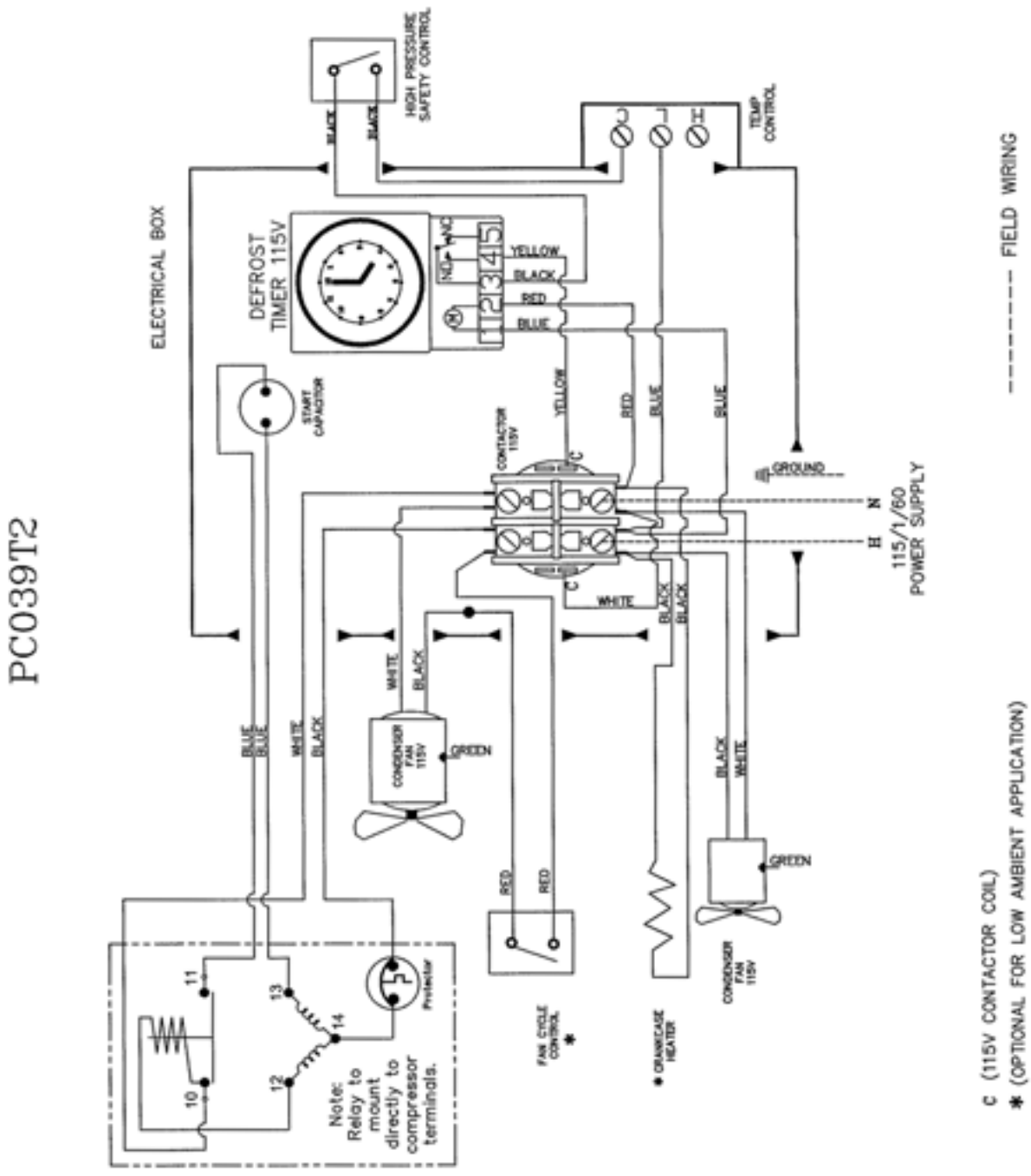
PC039T2
ELECTRICAL BOX
HIGH PRESSURE SAFETY CONTROL
TEMP CONTROL
DEFROST TIMER 115V
YELLOW
BLACK
RED
BLUE
START CAPACITOR
CONTACTOR 115V
GROUND
115/1/60 POWER SUPPLY
WHITE
BLACK
BLUE
RED
GREEN
CONDENSER FAN 115V
FAN CYCLE CONTROL *
* CRANKCASE HEATER
Protector
Note: Relay to mount directly to compressor terminals.
FIELD WIRING
C (115V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)

Figure 9

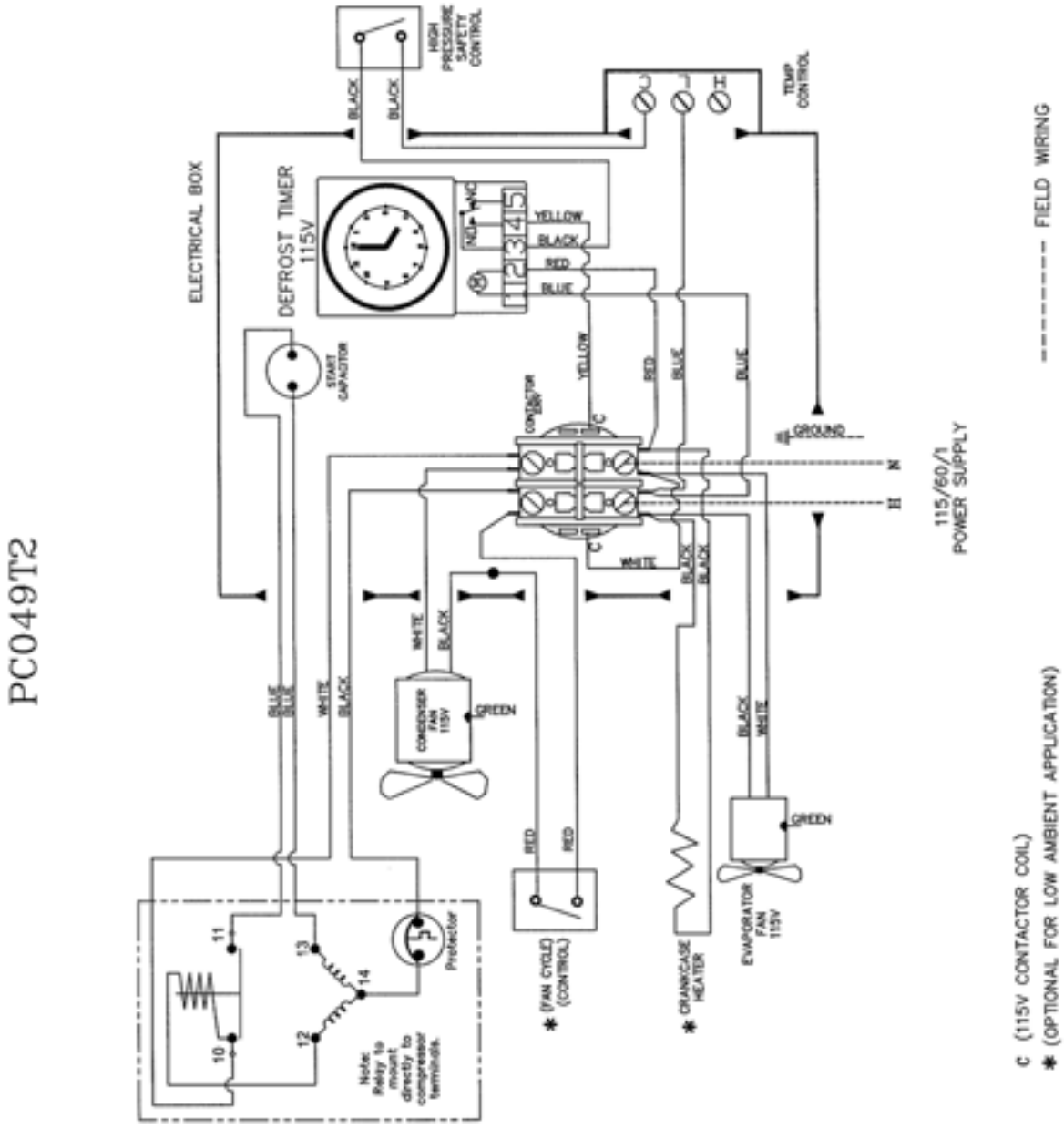
PC049T2
ELECTRICAL BOX
DEFROST TIMER 115V
HIGH PRESSURE SAFETY CONTROL
TEMP CONTROL
START CAPACITOR
CONTACTOR
GROUND
115/60/1 POWER SUPPLY
CONDENSER FAN 115V
EVAPORATOR FAN 115V
CRANKCASE HEATER
(FAN CYCLE) (CONTROL)
Protector
Note: Relay to mount directly to compressor terminals.
BLACK
YELLOW
RED
BLUE
WHITE
GREEN
C (115V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)
---------- FIELD WIRING

Figure 10

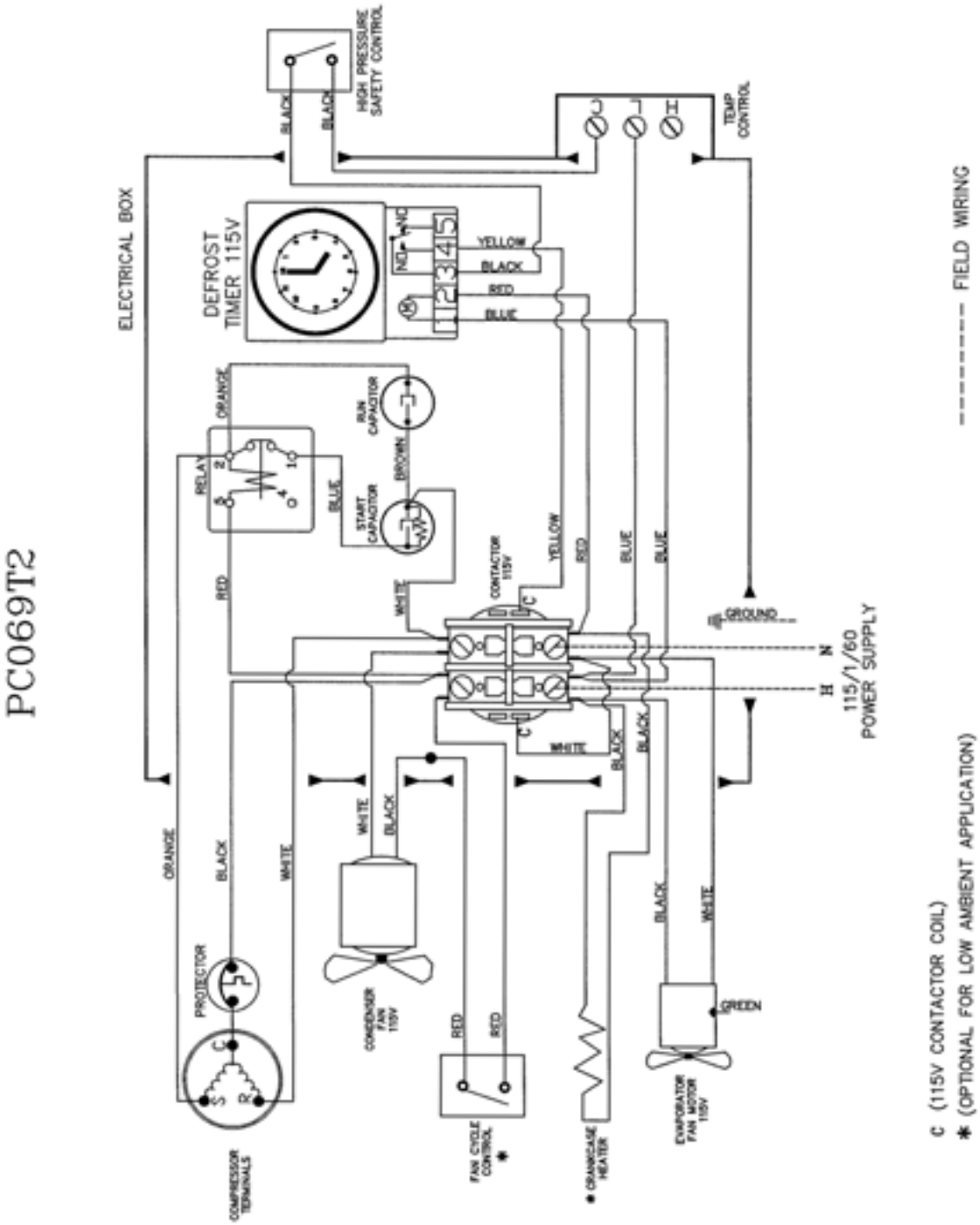
PC069T2
ELECTRICAL BOX
HIGH PRESSURE SAFETY CONTROL
TEMP CONTROL
DEFROST TIMER 115V
YELLOW
BLACK
RED
BLUE
ORANGE
RELAY
RUN CAPACITOR
BROWN
START CAPACITOR
CONTACTOR 115V
GROUND
115/1/60 POWER SUPPLY
PROTECTOR
CONDENSER FAN 115V
FAN CYCLE CONTROL *
CRANKCASE HEATER *
EVAPORATOR FAN MOTOR 115V
COMPRESSOR TERMINALS
GREEN
WHITE
C (115V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)
FIELD WIRING

Figure 11

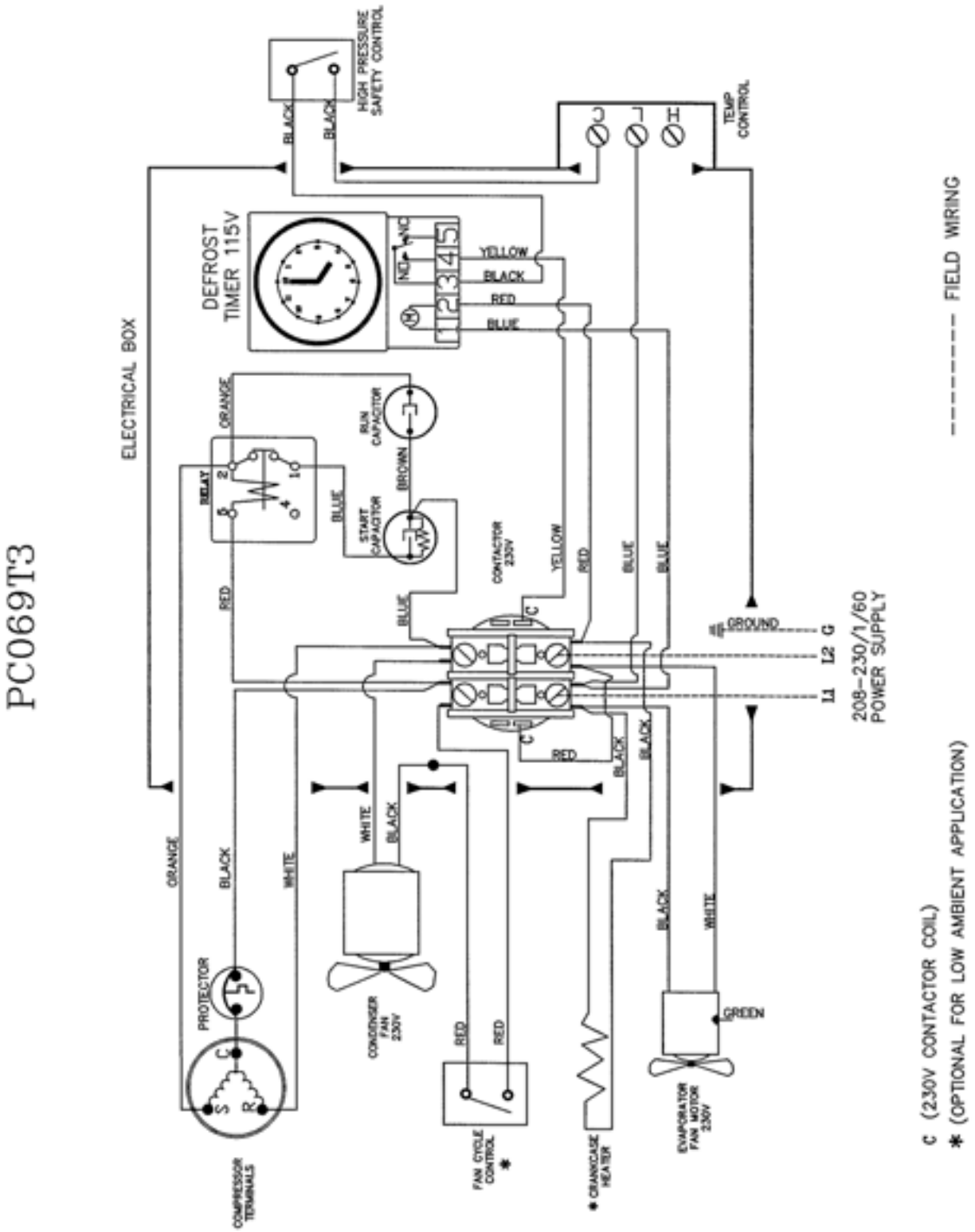
PC069T3
ELECTRICAL BOX
HIGH PRESSURE SAFETY CONTROL
TEMP CONTROL
DEFROST TIMER 115V
RUN CAPACITOR
START CAPACITOR
RELAY
CONTACTOR 230V
PROTECTOR
COMPRESSOR TERMINALS
CONDENSER FAN 230V
FAN CYCLE CONTROL *
* CRANKCASE HEATER
EVAPORATOR FAN MOTOR 230V
GROUND
208-230/1/60 POWER SUPPLY
L1 L2 G
C (230V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)
FIELD WIRING

Figure 12

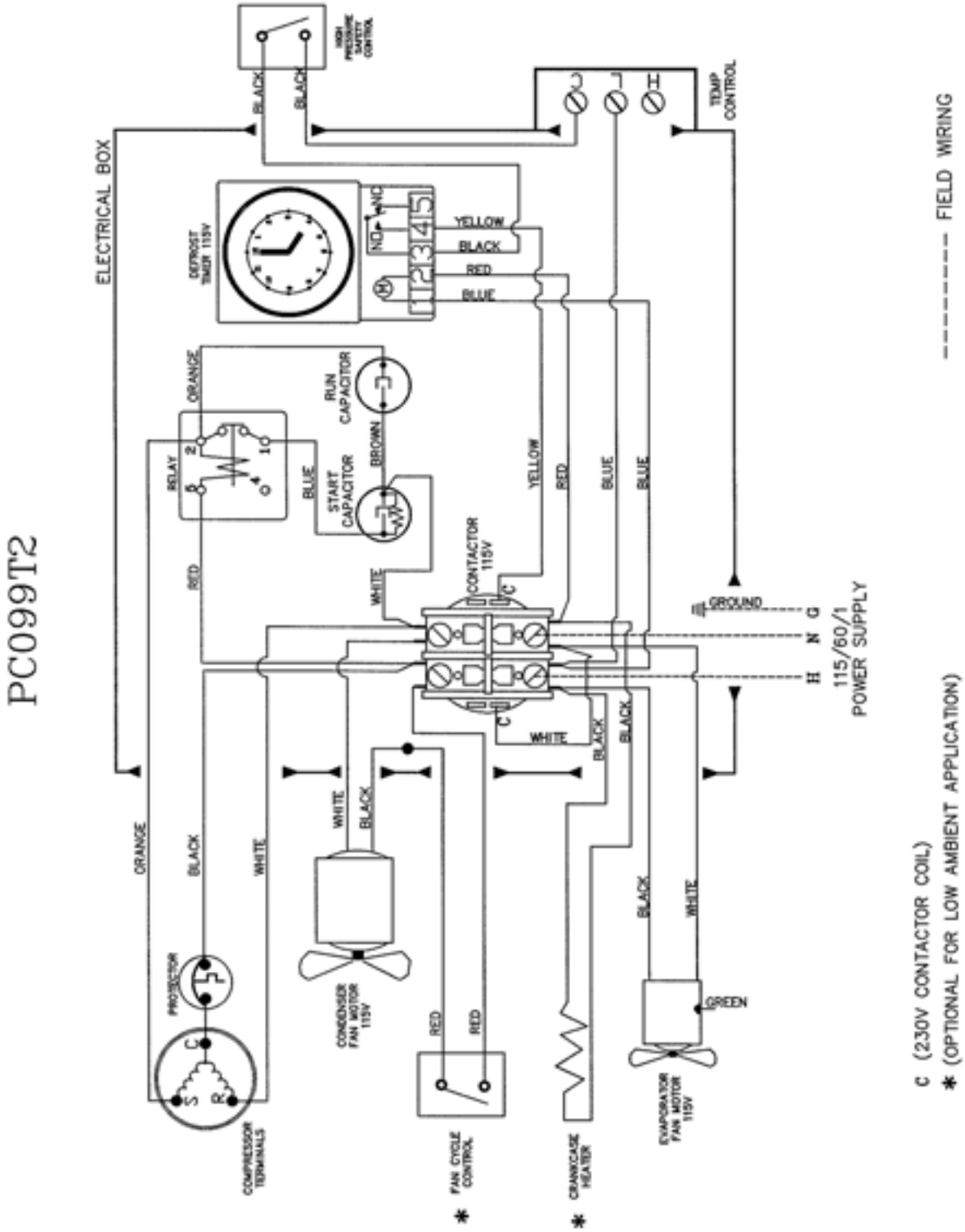
PC099T2
ELECTRICAL BOX
HIGH PRESSURE SAFETY CONTROL
TEMP CONTROL
DEFROST TIMER 115V
NO
NC
YELLOW
BLACK
RED
BLUE
ORANGE
RUN CAPACITOR
RELAY
START CAPACITOR
BROWN
BLUE
YELLOW
RED
BLUE
BLUE
CONTACTOR 115V
WHITE
GROUND
G
N
H
115/60/1
POWER SUPPLY
ORANGE
BLACK
WHITE
WHITE
BLACK
WHITE
BLACK
BLACK
BLACK
WHITE
PROTECTOR
CONDENSER FAN MOTOR 115V
RED
RED
GREEN
COMPRESSOR TERMINALS
FAN CYCLE CONTROL *
CRANKCASE HEATER *
EVAPORATOR FAN MOTOR 115V
FIELD WIRING
C (230V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)

Figure 13

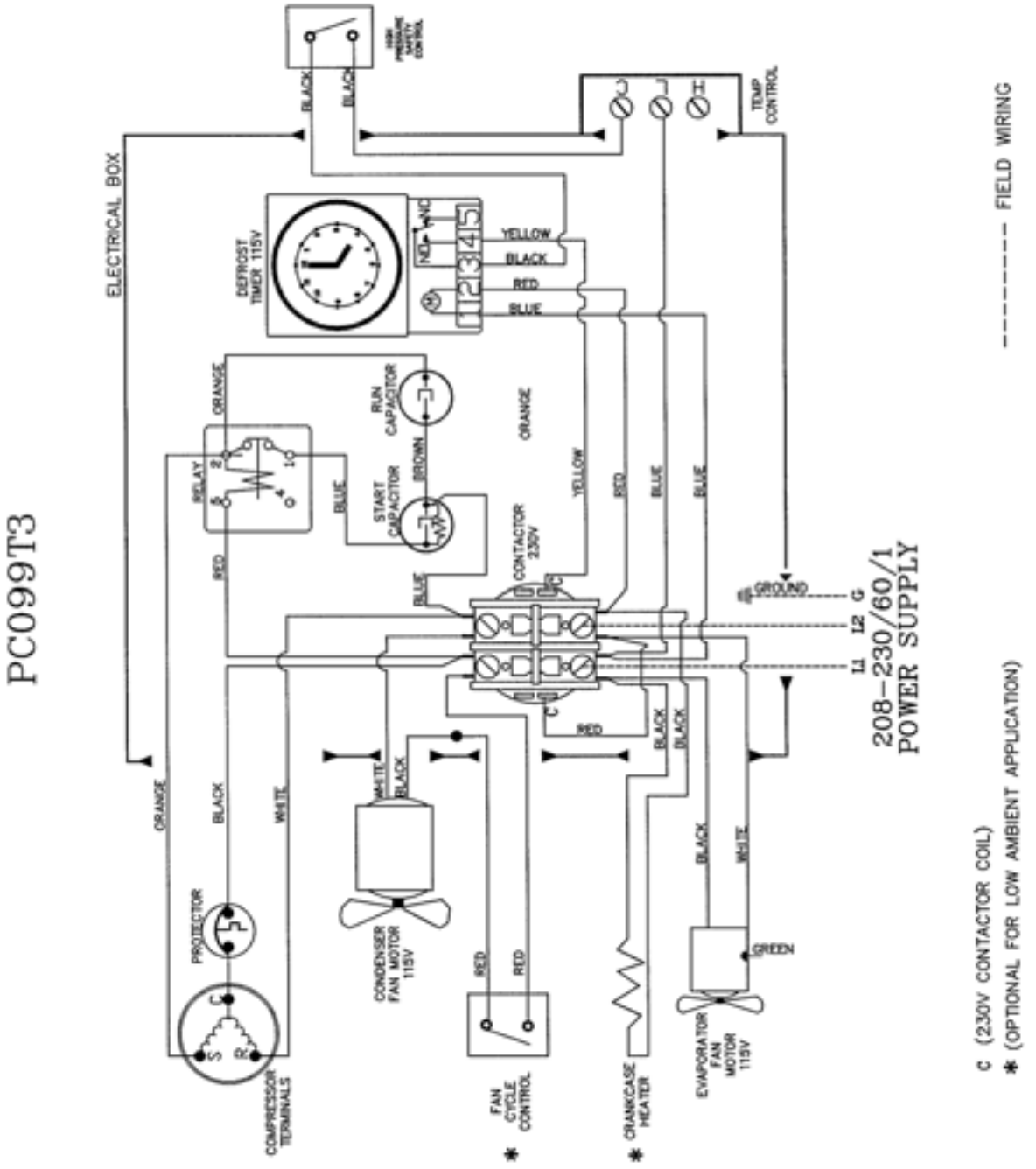
PC099T3
ELECTRICAL BOX
HIGH PRESSURE SAFETY CONTROL
BLACK
BLACK
TEMP CONTROL
DEFROST TIMER 115V
NO
NC
1 2 3 4 5
YELLOW
BLACK
RED
BLUE
ORANGE
RUN CAPACITOR
BROWN
START CAPACITOR
RELAY
2
1
5
4
BLUE
RED
ORANGE
YELLOW
RED
BLUE
BLUE
CONTACTOR 230V
BLUE
GROUND
G
L2
L1
208-230/60/1
POWER SUPPLY
RED
BLACK
BLACK
ORANGE
BLACK
WHITE
WHITE
BLACK
PROJECTOR
C
S
R
COMPRESSOR TERMINALS
CONDENSER FAN MOTOR 115V
RED
RED
FAN CYCLE CONTROL
*
CRANKCASE HEATER
*
BLACK
WHITE
GREEN
EVAPORATOR FAN MOTOR 115V
---------- FIELD WIRING
C (230V CONTACTOR COIL)
* (OPTIONAL FOR LOW AMBIENT APPLICATION)

Figure 14

PF064T3, PF094T3, PF144T3, PF194T3

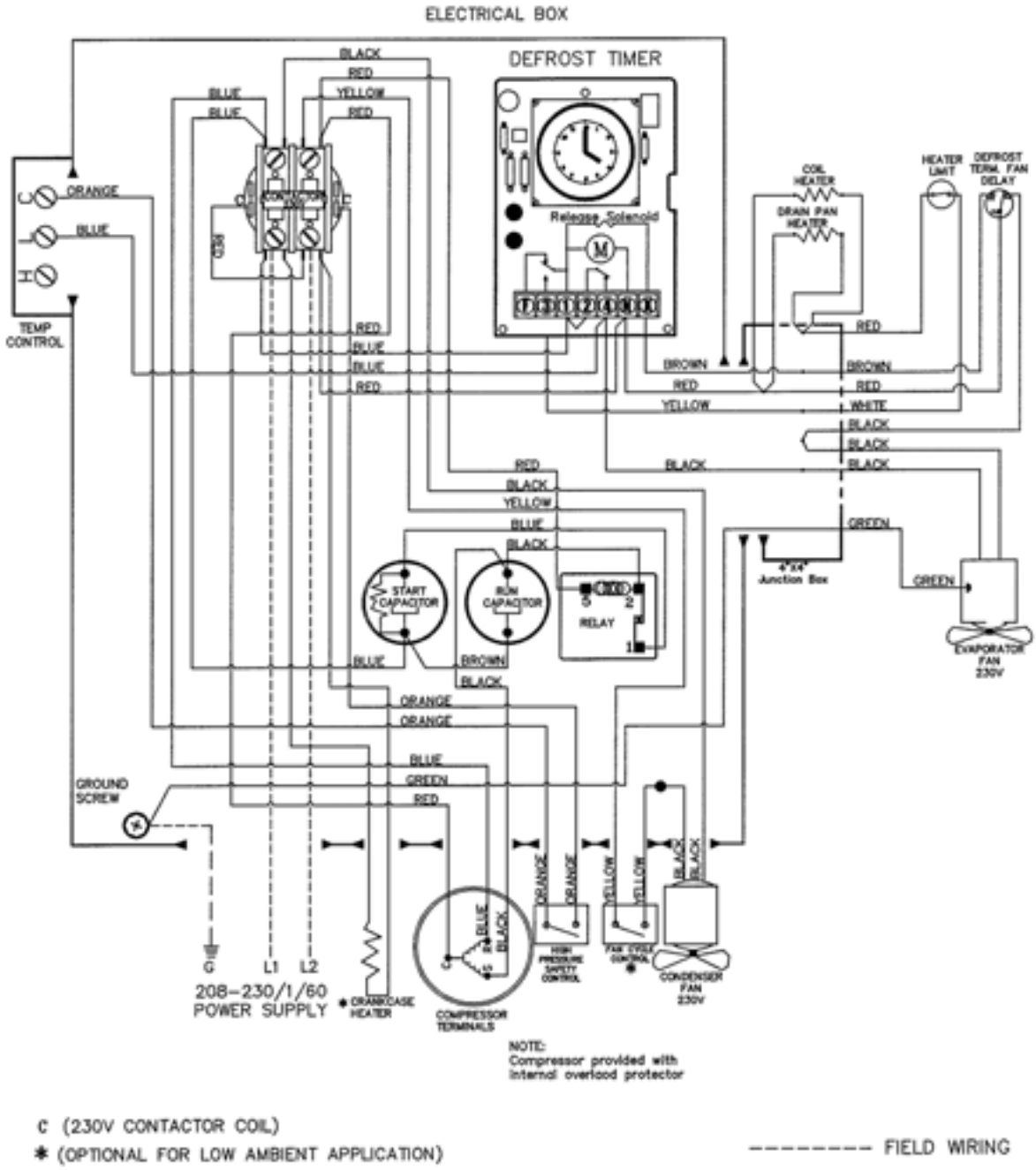

Figure 15

14.0 Polar-Pak Replacement Parts List

Cooler Models						
	PC039T2	**PC049T2**	**PC069T2**	**PC069T3**	**PC099T2**	**PC099T3**
Compressor	19014	19015	19016	19017	19018	19019
Start Relay	19028	19029	19030	19031	19030	19032
Start Capacitor	19034	19035	19036	19037	19036	11631R
Run Capacitor	--	--	19039	--	19039	19040
Condenser Coil	18830	18830	18827	18827	18827	18827
Condenser Fan Motor - 115V	12051E	12051E	12051E	--	12051E	11634E
Condenser Fan Motor - 230V	--	--	--	11634E	--	--
Condenser Fan Blade	12467R	12467R	12467R	12467R	12467R	12467R
Temperature Controller	3438S	3438S	3438S	3438S	3438S	3438S
High Pressure Safety Control	17622	17622	17622	17622	17622	17622
Evaporator Coil	18988	18988	18989	18989	18988	18988
Evaporator Fan Motor - 115V	12051E	12051E	12051E	--	12051E	--
Evaporator Fan Motor - 230V	--	--	--	11634E	--	11634E
Evaporator Fan Blade	17346	17346	17346	17346	17346	17346
Expansion Valve	10882A	10882A	12242R	12242R	12242R	12242R
Condenser/Evaporator Fan Motor Mount	17561	17561	17561	17561	17561	17561
Defrost Timer (Optional)	12149R	12149R	12149R	12149R	12149R	12149R
Fan Control (Low Ambient - Optional)	17624	17624	17624	17624	17624	17624
Crankcase Heater (Low Ambient – Optional)	2160	2160	2160	11648R	2160	11648R

Freezer Models				
	PF064T3	**PF094T3**	**PF144T3**	**PF194T3**
Compressor	17139	17826	12239R	12296R
Start Relay	11756R	11852R	11853R	11853R
Start Capacitor	18878	11856R	11856R	11856R
Run Capacitor	11630R	11857R	11857R	11979R
Condenser Coil	18830	18827	18828	18831
Condenser Fan Motor - 230V	11634E	11634R	11634E	11634E
Condenser Fan Blade	12467R	12467R	12467R	12467R
Temperature Controller	3438S	3438S	3438S	3438S
High Pressure Safety Control	17622	17622	17622	17622
Evaporator Coil	18988	18988	18989	18989
Evaporator Fan Motor - 230V	11634E	11634E	11634E	11634E
Evaporator Fan Blade	17346	17346	17346	17346
Expansion Valve	8446A	8446A	9218A	8449A
Condenser/Evaporator Fan Motor Mount	17561	17561	17561	17561
Evaporator Coil Defrost Heater	17403	17403	17163	17163
Drain Pan Defrost Heater	17402	17402	17164	17164
Defrost Timer	12181R	12181R	12181R	12181R
Fan Control (Low Ambient - Optional)	17624	17624	17624	17624
Crankcase Heater (Low Ambient – Optional)	965	965	965	965

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Manitowoc Foodservice Group