



# INSTALLATION AND OPERATION INSTRUCTIONS

## 4400 SERIES POWER PAKS



| MODELS      |          |
|-------------|----------|
| 4400 Series |          |
| 4404        | 4414-230 |
| 4410        | 4410W    |
| 4414        | 4414W    |
| 4420        | 4420W    |



### IMPORTANT INFORMATION

To register your product, visit our web site at **www.perlick.com**. Click on **Commercial**, then **Service**. You will see the link to **Warranty Registration Form**. You must complete and submit this form or the installation date will revert back to the ship date.

Permanently mount the enclosed Warning/Safety Instruction label in a visible location near the CO2 regulator.

This manual has been prepared to assist you in the installation of your Century Remote Beer System and to acquaint you with its operation and maintenance.

We dedicate considerable time to ensure that our products provide the highest level of customer satisfaction. If service is required, your dealer can provide you with a list of qualified service agents. For your own protection, never return merchandise for credit without our approval.

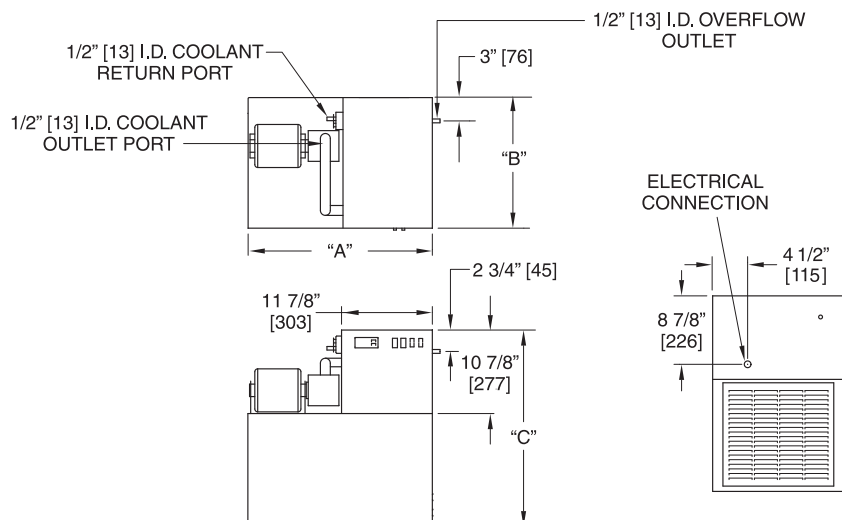
We thank you for selecting a Perlick product and assure you of our continuing interest in your satisfaction.

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| MODEL NOS.                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4404                                                                   | 4410          | 4414         | 4414-230          | 4420              |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|--------------|-------------------|-------------------|
| DIMENSIONS:<br>EXTERIOR (mm)        | Length "A"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 24¼" (616)                                                             | 24¼" (616)    | 24¼" (616)   | 26¾" (679)        | 26¾" (679)        |
|                                     | Width "B"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 17¼" (438)                                                             | 17¼" (438)    | 17¼" (438)   | 20¼" (519)        | 20¼" (519)        |
|                                     | Height "C"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 25½" (648)                                                             | 25½" (648)    | 25½" (648)   | 31" (782)         | 31" (782)         |
|                                     | A minimum of six inches of clearance should be allowed around the entire unit for proper performance. Additional clearance should be considered for above the unit and in front of the unit for serviceability.                                                                                                                                                                                                                                                                                                                                           |                                                                        |               |              |                   |                   |
| ELECTRICAL                          | Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120 V                                                                  | 120 V         | 120 V        | 115 - 208/230 V** | 115 - 208/230 V** |
|                                     | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 60 Hz                                                                  | 60 Hz         | 60 Hz        | 60 Hz             | 60 Hz             |
|                                     | Phase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1 Ø                                                                    | 1 Ø           | 1 Ø          | 1 Ø**             | 1 Ø**             |
| SINGLE PUMP                         | RLA (Rated Load Amps)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 15.1                                                                   | 15.7          | 17.1         | 10.5              | 21.9              |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 17.2                                                                   | 18.0          | 19.6         | 12.2              | 26.4              |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 25                                                                     | 25            | 25           | 15                | 40.0              |
| DUAL PUMPS<br>(add -2 to model #)   | RLA (Rated Load Amps)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A                                                                    | 21.8          | 22.7         | 13.3              | 24.7              |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A                                                                    | 24.1          | 29.6         | 15.0              | 29.2              |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A                                                                    | 30.0          | 40.0         | 20.0              | 45.0              |
| TRIPLE PUMPS<br>(add -3 to model #) | RLA (Rated Load Amps)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A                                                                    | N/A           | N/A          | 16.1              | 27.5              |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A                                                                    | N/A           | N/A          | 17.8              | 32.0              |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/A                                                                    | N/A           | N/A          | 20.0              | 50.0              |
| COMPRESSOR                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1/3 HP                                                                 | 1/2 HP        | 3/4 HP       | 3/4 HP            | 1.5 HP            |
| EVAPORATOR RATING<br>@ 20°F (BTUH)  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3420                                                                   | 3800          | 6000         | 6300              | 12000             |
| HEAT REJECTION (MAX)                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4080                                                                   | 6080          | 9600         | 10080             | 19200             |
| REFRIGERANT                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | R-134a                                                                 | R-134a        | R-134a       | R-134a            | R-134a            |
| SHIPPING WEIGHT LBS (kg)            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 140 (64)                                                               | 153 (69)      | 180 (82)     | 205 (93)          | 255 (116)         |
| CABINET                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Stainless Steel                                                        |               |              |                   |                   |
| CIRCULATING PUMP                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100 GPH/130 PSIG                                                       |               |              |                   |                   |
| RESERVOIR CAPACITY                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.75 gal                                                               | 1.75 gal      | 1.75 gal     | 1.75 gal          | 1.75 gal          |
| REFRIGERATION                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Constant Pressure Expansion Valve, Condensing Unit with Service Valves |               |              |                   |                   |
| REFRIGERANT CHARGE (grams)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 14.0 oz/397 g                                                          | 12.0 oz/340 g | 9.5 oz/269 g | 11.0 oz/312 g     | 16.0 oz/453 g     |
| GLYCOL CONCENTRATION                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30%                                                                    | 30%           | 30%          | 30%               | 30%               |
| OPTIONAL ACCESSORIES                | <b>4430</b> 115V pump kit for <b>4410</b> Power Pak (field installed)<br><b>4431</b> 115V pump kit for <b>4414</b> Power Pak (field installed)<br><b>4432</b> 208/230V pump kit for <b>4414/230V</b> and <b>4420</b> Power Paks (field installed)<br><b>4435</b> BLM Receptacle<br><b>4408SS</b> Wall Bracket for <b>4404</b> and <b>4410</b> only<br><b>C21499BSS</b> Stainless Steel Table Stand<br><b>61790</b> Dual Tier Rack<br><b>61790P1</b> Triple Tier Rack<br><b>C22296A-20</b> Cord Kit for 120V single pump Power Paks only (Field installed) |                                                                        |               |              |                   |                   |

\*\* 4 WIRE AC POWER SOURCE REQUIRED  
(Ground, Neutral, Hot-Power, Hot-Power)  
AC: 115 - 208/240v, 60 HZ, Split Single Phase



# 4400 SERIES POWER PAKS - WATER COOLED

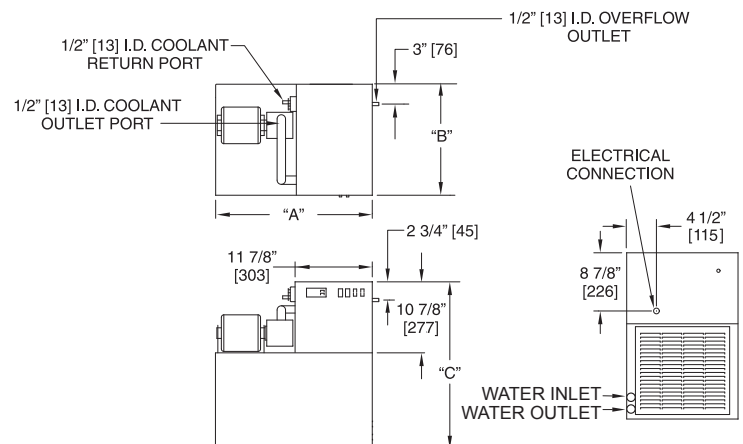
## Operation/Installation Manual



| MODEL NOS.                          | 4410W                                                                                                                                                                                                         | 4414W           | 4420W           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| DIMENSIONS:<br>EXTERIOR (mm)        | Length "A"                                                                                                                                                                                                    | 24 1/4" (616)   | 26 3/4" (679)   |
|                                     | Width "B"                                                                                                                                                                                                     | 17 1/4" (438)   | 20 1/4" (519)   |
|                                     | Height "C"                                                                                                                                                                                                    | 25 1/2" (648)   | 31" (782)       |
|                                     | A minimum of six inches of clearance should be allowed around the entire unit for proper performance. Additional clearance should be considered for above the unit and in front of the unit for servcability. |                 |                 |
| ELECTRICAL                          | Voltage                                                                                                                                                                                                       | 120 V           | 120 V           |
|                                     | Frequency                                                                                                                                                                                                     | 60 Hz           | 60 Hz           |
|                                     | Phase                                                                                                                                                                                                         | 1 Ø             | 1 Ø**           |
| SINGLE PUMP                         | RLA (Rated Load Amps)                                                                                                                                                                                         | 17.1            | 17.4            |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                   | 19.9            | 20.4            |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                           | 30.0            | 30.0            |
| DUAL PUMPS<br>(add -2 to model #)   | RLA (Rated Load Amps)                                                                                                                                                                                         | 23.2            | 23.0            |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                   | 26.0            | 26.0            |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                           | 35.0            | 35.0            |
| TRIPLE PUMPS<br>(add -3 to model #) | RLA (Rated Load Amps)                                                                                                                                                                                         | N/A             | 28.6            |
|                                     | MCA (Min. Circuit Ampacity)                                                                                                                                                                                   | N/A             | 31.6            |
|                                     | MOCP (Max. over Current Protection)                                                                                                                                                                           | N/A             | 40.0            |
| COMPRESSOR                          | 1/2 HP                                                                                                                                                                                                        | 3/4 HP          | 1-1/2 HP        |
| EVAPORATOR RATING @ 20°F (BTUH)     | 4080                                                                                                                                                                                                          | 6870            | 13,800          |
| HEAT REJECTION (MAX)                | 2450                                                                                                                                                                                                          | 4122            | 6500            |
| REFRIGERANT                         | R-134a                                                                                                                                                                                                        | R-134a          | R-134a          |
| SHIPPING WEIGHT LBS (kg)            | 143 (65)                                                                                                                                                                                                      | 205 (93)        | 255 (116)       |
| CABINET                             | Stainless Steel                                                                                                                                                                                               |                 |                 |
| CIRCULATING PUMP                    | 100 GPH/130 PSIG                                                                                                                                                                                              |                 |                 |
| RESERVOIR CAPACITY                  | 1.75 gal                                                                                                                                                                                                      | 1.75 gal        | 1.75 gal        |
| REFRIGERATION                       | Constant Pressure Expansion Valve, Condensing Unit with Service Valves                                                                                                                                        |                 |                 |
| REFRIGERANT CHARGE (grams)          | 14.5 oz / 410 g                                                                                                                                                                                               | 22.0 oz / 623 g | 22.0 oz / 623 g |
| GLYCOL CONCENTRATION                | 30%                                                                                                                                                                                                           | 30%             | 30%             |
| PLUMBING REQUIREMENTS               |                                                                                                                                                                                                               |                 |                 |
| INLET & OUTLET                      | All employ 1/2" O.D. Quick Connect Fittings                                                                                                                                                                   |                 |                 |
| FLOW RATE (gpm) @ 75°F              | 0.6                                                                                                                                                                                                           | 0.9             | 1.2             |
| PRESSURE DROP (psig)                | 0.2                                                                                                                                                                                                           | 0.4             | 0.5             |
| MAX SUPPLY PRESSURE                 | All Models: Incoming Water Pressure not to exceed 150 psig                                                                                                                                                    |                 |                 |

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| OPTIONAL<br>ACCESSORIES | 4430 115V pump kit for 4410 Power Pak (field installed)                    |
|                         | 4431 115V pump kit for 4414 Power Pak (field installed)                    |
|                         | 4435 BLM Receptacle                                                        |
|                         | 440855 Wall Bracket for 4404 and 4410 only                                 |
|                         | 57782 Set of four adjustable legs                                          |
|                         | 54838 Water hammer arrestor (add if incoming water is under 65°F)          |
|                         | 61790 Dual tier rack                                                       |
|                         | 61791+1 Triple tier rack                                                   |
|                         | 61792+2 Quad tier rack                                                     |
|                         | C22296A-20 Cord Kit for 120V single pump Power Paks only (Field Installed) |
|                         | C21499B55 Stainless Steel Table Stand                                      |

\*\* 4 WIRE AC POWER SOURCE REQUIRED  
(Ground, Neutral, Hot-Power, Hot-Power)  
AC: 115 - 208/240v, 60 HZ, Split Single Phase



Perlick is committed to continuous improvement. Therefore, we reserve the right to change specifications without prior notice



# 4400 SERIES POWER PAKS - GENERAL INFORMATION

## Operation/Installation Manual

### Accessories

#### Power Cord Kit

C2296A-20--12/3 Cord, 20A, Nema Plug 5-20P, Dedicated Circuit Models - See above electrical specifications

#### Power Pak Racks

61790, 61790+1, 61790+2 - All Models

#### Power Pak Wall Mounting Brackets

For Models [4404](#) & [4410](#) only

#### Coolant Solution-[63299-1](#)

One gallon Perlick Coolant solution, 30% DowFrost HD/70% Distilled Water

#### Coolant Connector Kit

[63335](#) - All Models

#### Leg Set - All Models

[57782](#) . . . Set of four, 5 <sup>3</sup>/<sub>4</sub>"-7 <sup>1</sup>/<sub>2</sub>" adjustable legs

#### Pump Kits

[4430](#) - Pump kit, 115V, 6.1 A, 100 gph, 130 psig  
Models [4410](#), [4410W](#)

[4431](#) - Pump kit, 115V, 5.6 A, 100 gph, 130 psig  
Models 4414, 4414W

[4432](#) - Pump kit, 230V, 2.8 A, 100 gph, 130 psig  
Models 4414-230, 4420

### PRODUCT DESCRIPTION

Power Paks have always been an integral part of a Perlick Century Beer System. The 4400 Series Power Pak product line has been expanded to satisfy longer beer runs. A Power Pak circulates coolant solution (food grade propylene glycol with distilled water) from walk-in cooler to the dispensing station(s) and back, maintaining the desired dispensing temperature at the faucet. The 4400 series Power Pak incorporate a 1/3 hp ball bearing, maintenance free motor with a 100 gallon per hour 150 psig positive displacement pump for optimum performance. The 4400 series Power Pak product line employs a direct expansion form of refrigeration increasing the units' efficiency as well as making the units more compact. These units also employ an electronic temperature control with digital readout. This state of the art control controls the performance of the unit as well as giving the user a visual indication of the how the unit is working as well as giving the user a visual indication of the how the unit is working as well as early indication if something may be going wrong through the use of internal alarms.



#### WARNING: California Prop 65 Notice

These products may expose you to chemicals including Chromium, which are known to the state of California to cause cancer and birth defects or other reproductive harm. For more information on whether a product in this list contains these chemicals, please refer to the specific product page at [perlick.com](http://perlick.com). Or to find out more about Prop 65, go to [P65Warnings.ca.gov](http://P65Warnings.ca.gov).

## INSTALLATION

### IMPORTANT SAFETY WARNINGS!

- Follow all National and Regional Codes.
- Read Installation and Operating Instructions carefully before attempting to install, operate or maintain the product.
- Protect yourself and others by observing all safety information.
- Electrical hazards exist and can cause injuries if not serviced by properly trained personnel.
- Failure to comply with instructions could result in personal injury and/or property damage!
- Retain instructions for future reference.
- Never operate the circulating pump without coolant in the reservoir.

**NOTE: Air-cooled Power Paks must be installed in areas with adequate ventilation to maintain ambient temperatures of less than 105°F to achieve optimum performance and satisfy warranty requirements.**

### INSTALLING THE POWER PAK

Prior to installing a 4400 Series Power Pak, it is imperative that the method of connecting it to the electrical service has been determined. Ensure that the electrical service to power the Power Pak will handle the load requirements. Perlick has a Power Cord specifically designed for a Power Pak, which has a RLA of 16 amps or less, and a MCA of 20 amps or less. All units with RLA greater than 16 amps and a MCA of greater than 20 amps should have the Power Pak hard-wired to electrical service.

### ALL MODELS

- Determine the ideal placement of the Power Pak. Locate the connection point to the truck housing and place the Power Pak as close to this point as possible. **NOTE: If the Power Pak is to be located on top of the walk-in cooler, it is imperative that proper ventilation is provided to prevent system failure due to overheating. Inadequate ventilation will void warranty.**

- Place the Power Pak and Ensure that it is level to provide proper overflow protection. **REMINDER: Allow a minimum of six inches of clearance on the louvered ends of the cabinet for proper airflow. Allow accessibility room on the top of the cabinet for serviceability.**
- Remove the top panels (2).
- Ensure Power Switches for Condensing Unit and Pump(s) are in the OFF position. Make the electrical connections per their illustrations. NOTE: Electrical circuit should be a dedicated circuit for use only with the Power Pak. The circuit should be sized in accordance with the electrical requirements of each unit as well as in compliance with all National and Local Codes.
- Plumb overflow port to a suitable reservoir/drain.

### WATER-COOLED MODELS

- In addition to the above installation instruction:
- Care should be exercised in locating the Power Pak so that the unit will never be exposed to temperatures below freezing.
- If the Power Pak is installing more than 5 feet higher than the remote outlet drain point (i.e., location of the floor drain) of the condenser, a vacuum breaker or open vent line should be provided to prevent the discharge line from creating a partial vacuum condition in the condenser water system.
- If a water-circulating pump is used it should be placed on the water supply side of the condenser, so water is being pushed through the condenser.
- A potable water supply is required as well as a drain or reclamation system. Make water supply connection to fitting labeled as the water inlet. Make outlet connection to fitting labeled as the water outlet connection. Both the inlet and outlet fittings supplied with the Power Pak are 1/2" Quick Connect fittings.
- This equipment when equipped with a water-cooled condenser, connected to a portable water supply system is to be installed with adequate backflow protection to comply with applicable federal, state and local codes.(Backflow protection not included.)

### CONNECTING POWER PAK TO TRUNK HOUSING

400 Series Power Paks require rigid fittings with a minimum pressure rating of 150 psig. Use Coolant Connector Kit #63335 to connect Power Pak to Trunk Housing.

- Inspect pump outlet port for debris. Insert barbed fitting #63307 into pump outlet port.
- Inspect Glycol Return Manifold inlet for debris. Insert barbed fitting #63307 into return manifold inlet port.
- Cut supplied coolant tubing, #54588, to required length to reach from Power Pak to Trunk Housing connection point.
- Cut tubular insulation sleeve, #C12700, in half and install over previously cut coolant tubing.
- Take Oetiker clamps, #54871-210, and install over coolant tubing ends.
- Push coolant lines, one each over pump outlet barbed fitting #63307 and return manifold barbed fitting #63307.
- Position Oetikers over barbed fitting and clamp securely.
- Slide tubular insulation sleeves tightly against connection points. Use insulation tape as necessary to ensure an air tight seal to prevent excessive heat gain or condensation problems.
- Drill a 3-1/2" diameter hole in walk-in cooler to accommodate coolant lines.
- Install insulation donuts over hole (both inside and outside of cooler walls).
- Slide large insulation sleeve, #57478, over remaining coolant tubing exposed to warm air conditions including inside walk-in cooler from Power Pak to Trunk Housing connection point. Seal and tape all seams to prevent excessive heat gain or condensation problems.
- Slide coolant lines through 3-1/2" donut hole previously cut in walk-in cooler wall.

- Position Trunk Housing coolant lines and Coolant Connector kit lines in horizontal position, to alleviate condensation runoff into Trunk Housing.
- Cut Trunk Housing coolant lines with tubing cutter to ensure clean burr free ends.
- Take Oetikers clamps #54871-210, and install over coolant connector kit tubing ends.
- Slide coolant connector kit tubing over the trunk housing coolant lines and secure using the Oetikers.
- Complete the insulation process by ensuring that all coolant lines are well insulated including all seams to prevent excessive condensation and heat gain.
- Seal donut hole to ensure an air tight seal to prevent walk-in cooler problems as well as condensation.

### CONNECTING TRUNK HOUSING COOLANT LINES TO DISPENSING HEAD

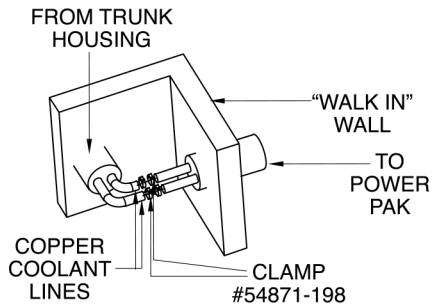
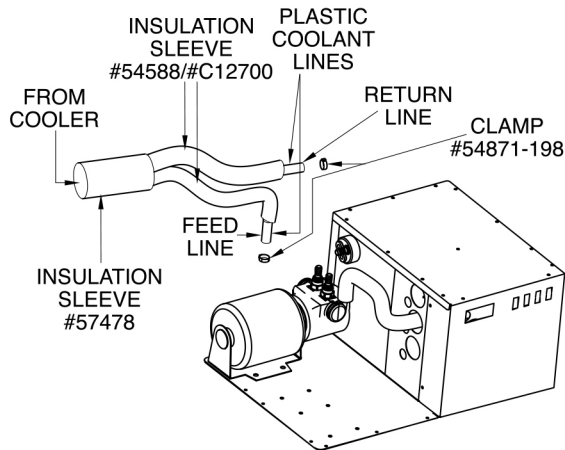
- Position the trunk housing so that beverage lines can be connected with a minimum cutting.
- Split trunk housing approximately 12 inches from the end to allow working room for the connections.
- Cut and deburr copper coolant lines coming from trunk housing and dispensing head. Stagger the lengths.
- Connect trunk housing coolant lines to dispensing head coolant lines using clamps, hose and 3/8" x 1/2" union, included in Head connecting kit, #63486. Ensure that coolant lines are fully clamped to guarantee a leak free connection.

# 4400 SERIES POWER PAKS - INSTALLATION

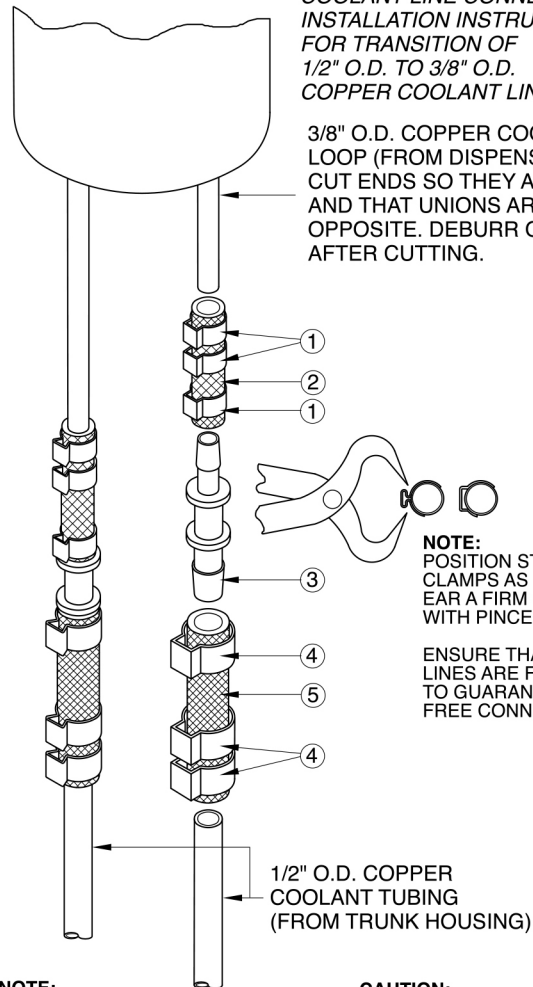
Operation/Installation Manual



## INSTRUCTION DRAWING FOR 4400 SERIES POWER PAK COOLANT CONNECTOR KIT INSTALLATION INSTRUCTIONS



### INSIDE "WALK IN" COOLER



## COOLANT LINE CONNECTOR KIT INSTALLATION INSTRUCTIONS FOR TRANSITION OF 1/2" O.D. TO 3/8" O.D. COPPER COOLANT LINES.

3/8" O.D. COPPER COOLANT LOOP (FROM DISPENSING STATION). CUT ENDS SO THEY ARE STAGGERED AND THAT UNIONS ARE NOT DIRECTLY OPPOSITE. DEBURR O.D. AND I.D. AFTER CUTTING.

**NOTE:**  
POSITION STEPLESS EAR CLAMPS AS SHOWN. GIVE EAR A FIRM SQUEEZE WITH PINCERS.

ENSURE THAT COOLANT LINES ARE FULLY CLAMPED TO GUARANTEE A LEAK FREE CONNECTION.

**NOTE:**  
POSITION BEER LINES TO MAKE CONTACT WITH COOLANT LINES AND NOT OVER EARS OF CLAMP.

**CAUTION:**  
MAXIMUM PRESSURE 150 P.S.I.G.

## CONNECTOR KIT (1/2" O.D. TO 3/8" O.D.) #63486

| ITEM | DESCRIPTION                     | PART NO.  |
|------|---------------------------------|-----------|
| ①    | STEPLESS CLAMP (NO. 15.70)      | C31958    |
| ②    | BRAIDED HOSE (F/3/8" O.D.)-3.0" | C14230B   |
| ③    | HOSE UNION (3/8" TO 1/2")       | 63331     |
| ④    | STEPLESS CLAMP (F1/2" O.D.)     | 54871-198 |
| ⑤    | BRAIDED HOSE (F/1/2" O.D.)-3.0" | 54589-1   |



## 4400 SERIES POWER PAKS - START-UP

### Operation/Installation Manual

#### SYSTEM START-UP

Use only Perlick Approved Coolant Solution, #63299-1, all other solutions and mixtures will void the Perlick warranty. The Coolant Solution has been pre-mixed for optimum performance and wear protection. The Power Pak reservoir holds approximately 1.75 gallons of solution. It takes approximately 1 gallon of Coolant Solution to fill every 60 feet of Perlick Trunk Housing.

- Never operate the circulating pumps without coolant in the reservoir.
- Fill Power Pak reservoir with Perlick Coolant Solution.
- Turn condensing unit switch and pump switch to the ON position. Coolant solution level will begin to drop in reservoir.
- Continue adding Perlick Coolant Solution until no air bubbles are apparent from the Coolant return line. **NOTE: Never allow for the Coolant level in the reservoir to drop below the heat exchanger tube inlet. Allowing the level to drop below the inlet will allow air into the lines.**
- Fill Power Pak reservoir until both the return line fitting port and the overflow tube port are submersed under Coolant Solution. Watch return line fitting port for additional Coolant Solution may need to be added.
- Thoroughly check all field connection points for leaks.
- Monitor Power Pak Temperature read-out to ensure Power Pak is working properly. Dependent on length of trunk housing run(s) and surrounding ambient conditions, these factors will determine how long it takes for the Power Pak to cut-out on the temperature control.

#### DIGITAL TEMPERATURE CONTROLLER

The 4400 Series Power Pak comes equipped with a Factory Programmed Electronic Thermostat with display. The Thermostat has numerous factory settings, which should never be adjusted or tampered with to ensure proper operation of the Power Pak. The Thermostat has been factory programmed to cut-out at 30°F with a hysteresis/differential of 4°F.

#### Front Panel Commands—Normal Operation

SET:

To display target set point.

DEFROST:

To start a manual defrost. (This feature is available, however, the parameters for actuation are programmed, such that, no defrost is available).

#### Front Panel Commands—Programming Mode

SET:

Selects a parameter or confirms an operation.

UP ARROW:

Browses the parameter codes or increases the displayed value.

DOWN ARROW:

Browses the parameter codes or decreases the displayed value.

## Meaning of LEDS

| LED                                     | MODE     | FUNCTION                                     |
|-----------------------------------------|----------|----------------------------------------------|
| SNOWFLAKE                               | ON       | Compressor Enabled                           |
| SNOWFLAKE Phase (flashing with DEFROST) | FLASHING | Programing<br>Anti-short cycle delay enabled |
| DEFROST Phase (flashing with SNOWFLAKE) | FLASHING | Programming<br>Drip time in progress         |

## How to see the SETPOINT

- Press and immediately release the SET key: the display will show the Set point value.
- Press and immediately release the SET key or wait for 5 seconds to display the probe value again.

## How to change the SETPOINT

- Press and hold the SET key for more than 2 seconds to change the Set point value.
- The value of the set point will be displayed and the SNOWFLAKE LED starts blinking.
- To change the Set value, press the UP or DOWN ARROWS, dependent on the new set point value.
- To memorize the new set point value, press the SET key again or wait 15 seconds.

## DISPLAY MESSAGE MEANINGS

| MESSAGE | MEANING                                                                               |
|---------|---------------------------------------------------------------------------------------|
| POF     | Keyboard is locked out. No parameters can be adjusted without unlocking the keyboard. |

| ALARM | MEANING                | ACTION                |
|-------|------------------------|-----------------------|
| EE    | Data or memory failure | Consult Factory       |
| P1    | Room probe failure     | Numerous - see note 1 |

## WARNING:

IF MESSAGE OR INFORMATION SHOWN ON READOUT IS UNFAMILIAR, ALLOW CONTROL TO SIT FOR A MINIMUM OF 15 SECONDS AND CONTROLLER SHOULD RETURN TO DISPLAY PROBE TEMPERATURE.

**NOTE 1: Faulty probe, loose connection, broket wire. (Power Pak will continue to operate with a faulty probe. The controller has been factory programmed to continue operation with the compressor cycling on and off in 5 minute intervals.**



# 4400 SERIES POWER PAKS - REPLACEMENT PARTS

Operation/Installation Manual

## Replacement Parts

| COMPONENT/MODEL        |                  | 4404                    | 4410                    | 4414                 | 4414-230             | 4420                |
|------------------------|------------------|-------------------------|-------------------------|----------------------|----------------------|---------------------|
| Condensing Unit        |                  | 572FG5108AA<br>(C22652) | 559HG5110HA<br>(C22667) | 1022593              | 1022594              | C22668              |
|                        | Compressor       | 262FG92UB.2             | 269HG9290AF             | RRT10K1E-<br>PFA-901 | RRT10K1E-<br>PFV-901 | ZS19KAE-<br>PFV-818 |
|                        | Cond Fan Motor   | 1450076                 | 1450095                 | 050-0367-06          | 950-0344-00          | 950-0265-00         |
|                        | Fan Blade        | 2455003                 | 2455003                 |                      |                      | 083-0033-01         |
|                        | Start Components | US-PBNE6210Z1           | US-PBNEK6214Z1          |                      |                      |                     |
|                        | Water Regulator  | N/A                     | N/A                     | N/A                  | N/A                  | N/A                 |
| Pump Motor             |                  | 63292                   | 63292                   | 63293                | 63293                | 63293               |
| Heat Exchanger         |                  | 63303A                  | 63300B                  | 63301B               | 63301B               | 63302B              |
| Gasket, Heat Exchanger |                  | 61758A                  | 61758A                  | 61758A               | 61758A               | 61758A              |
| Grille                 |                  | 64197-1SS               | 64197-1SS               | 64197-1SS            | 64285-1SS            | 64286-1SS           |
| Front Panel            |                  | 64407-1SS               | 64407-1SS               | 64407-1SS            | 64285-1SS            | 64286-1SS           |
| Contactor              |                  | N/A                     | N/A                     | N/A                  | 63359                | 63359               |
| Relay, Pump            |                  | N/A                     | N/A                     | N/A                  | 63358                | 63358               |
| Access Panel           |                  | N/A                     | N/A                     | 1018561-1SS          | 1018561-1SS          | 1018561-1SS         |

| COMPONENT/MODEL        |                  | 4410W                | 4414W                | 4420W               |
|------------------------|------------------|----------------------|----------------------|---------------------|
| Condensing Unit        |                  | 1022591              | 1022592              | C22666              |
|                        | Compressor       | RRT62C1E-<br>IAA-901 | RRT10K1E-<br>PFA-901 | CS18K6E-<br>PKV-970 |
|                        | Cond Fan Motor   | N/A                  | N/A                  | N/A                 |
|                        | Fan Blade        | N/A                  | N/A                  | N/A                 |
|                        | Start Components |                      |                      |                     |
|                        | Water Regulator  | 510-0049-00          | 510-0049-00          | 510-0049-00         |
| Pump Motor             |                  | 63292                | 63293                | 63293               |
| Heat Exchanger         |                  | 63300B               | 63301B               | 63302B              |
| Gasket, Heat Exchanger |                  | 61758A               | 61758A               | 61758A              |
| Grille                 |                  | 64197-1SS            | 64197-1SS            | 64285-1SS           |
| Front Panel            |                  | 64407-1SS            | 64407-1SS            | 64286-1SS           |
| Contactor              |                  | N/A                  | N/A                  | 63359               |
| Relay, Pump            |                  | N/A                  | N/A                  | 63358               |

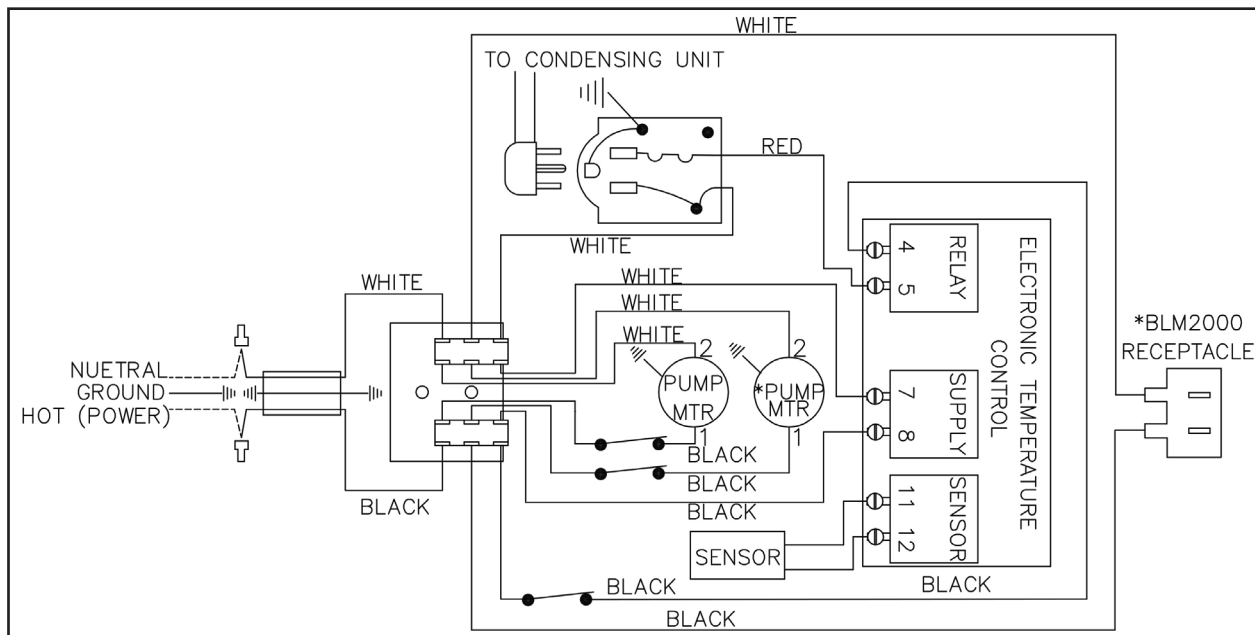
## Common Components

| COMPONENT/MODEL     | ALL MODELS |
|---------------------|------------|
| Expansion Valve     | 63826      |
| Pump                | 63291-1    |
| V-Clamp             | 63291-2    |
| Pump Insulation     | 64425      |
| Zip Tie, Pump Insul | 57551      |
| Temp Control Kit    | 67177      |

| COMPONENT/MODEL     | ALL MODELS |
|---------------------|------------|
| Controller, Digital | 67139      |
| Compression Fitting | 63296-3    |
| Switch              | 63303      |
| Drier               | 63297      |
| Coolant Solution    | 63299-1    |

Perlick is committed to continuous improvement. Therefore, we reserve the right to change specifications without prior notice

## Wiring Diagram For 4404, 4410, 4414 115V Power Paks



## Wiring Diagram For 414-230, 4420, AC115 - 208/240, 60 HZ Power Paks (4 Wire AC Power Source Required)

