



## **Chef Base Refrigerators**

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### **Service, Installation and Care Manual**

**Please read this manual completely before attempting to install or operate this equipment.  
Notify carrier of damage! Inspect all components immediately.**



IMPORTANT INFORMATION  
READ BEFORE USE  
PLEASE SAVE THESE INSTRUCTIONS!

## CONTENTS

RECEIVING & INSPECTING EQUIPMENT.....	2
SPECIFICATIONS.....	3
INSTALLATION.....	4
OPERATION.....	5
MAINTENANCE.....	7
WIRING DIAGRAM.....	9

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## SERIAL NUMBER INFORMATION

The serial number of all self-contained refrigerators is located outside the unit on the left hand side near the top on the wall and also on the back of the unit.

Always have the serial number of your unit available when calling for parts or service.

This manual covers standard units only.

## RECEIVING AND INSPECTING THE EQUIPMENT

Even though most equipment is shipped crated, care should be taken during unloading so the equipment is not damaged while being moved into the building.

1. Visually inspect the exterior of the package and skid or container. Any damage should be noted and reported to the delivering carrier immediately.
2. If damaged, open and inspect the contents with the carrier.
3. In the event that the exterior is not damaged, yet upon opening, there is concealed damage to the equipment, notify the carrier. Notification should be made verbally as well as in written form.
4. Request an inspection by the shipping company of the damaged equipment. This should be done within 10 days from receipt of the equipment.
5. Be certain to check the compressor compartment housing and visually inspect the refrigeration package. Be sure lines are secure and base is still intact.
6. Freight carriers can supply the necessary damage forms upon request.
7. Retain all crating material until an inspection has been made or waived.

## SPECIFICATION

MODEL#	V/Hz/Ph	AMPS	STORAGE CAPACIT	HP	BTU	CHARGE OZ	SHIP WEIGHT LBS	NEMA PLUG
ARCB48	115/60/1	5.8	6.5	1/3	5800	9.5	265	5-15P
ARCB60	115/60/1	5.8	8.8	1/3	5800	10.6	310	5-15P
ARCB72	115/60/1	5.8	11.1	1/3	5800	12.3	355	5-15P

### **\*\*\*REQUIRED OPERATING CONDITIONS:**

- Minimum clearance of 4" required between bottom of cooking equipment heating element and ARCB top. Failure to provide clearance voids manufacturer warranty.
- Installation of a heat shield (supplied by others) is recommended for optimum performance.
- Counter top cooking equipment should be used in conjunction with the manufacturer supplied legs.

## INSTALLATION

### Location

Units represented in this manual are intended for indoor use only. Be sure the location chosen has a floor strong enough to support the total weight of the cabinet and contents. A fully loaded unit can weigh as much as 1500 pounds. Reinforce the floor as necessary to provide for maximum loading. For the most efficient refrigeration, be sure to provide good air circulation inside and out.

### Inside cabinet

Do not pack the units so full that air cannot circulate. The refrigerated air is discharged at the rear of the unit. It is important to allow for proper air flow from the rear to the front of the unit. Obstructions to this air flow can cause evaporator coil freeze ups and loss of temperature or overflow of water from the evaporator drain pan. However, bags and other items can still be located to the far rear of the cabinet. Air is brought into the evaporator coil with fans. Prevent obstruction to allow the outlet or inlet of air flow.

### Outside cabinet

Be sure that the unit has access to ample air. It is recommended that the unit be installed no closer than 3" from any wall

### Leveling

A level cabinet looks better and will perform better because the doors will line up with the frames properly. Use a level to make sure the unit is level from front to back and side to side. Units supplied with legs will have adjustable bullet feet to make the necessary adjustments. If the unit is supplied with casters, no adjustments are available. Ensure the floor where the unit is to be located is level.

### Stabilizing

All models are supplied with casters for your convenience. It is very important, however, that the cabinet be installed in a stable condition with the front wheels locked while in use. Should it become necessary to lay the unit on its side or back for any reason, allow at least 24 hours before start-up to allow compressor oil to flow back to place. Failure to meet this requirement can cause compressor failure and unit damage.



**Unit repairs will not be subject to standard unit warranties if due to improper installation procedures.**

### Electrical connection

Refer to the amperage data on page 3, the serial tag, your local code or the National Electrical Code to be sure the unit is connected to the proper power source. **A dedicated 20 Amp circuit is required for each unit. Improper electrical connection will void warranty.**

**Use of extension cords is strictly prohibited and will also void warranty.**



**The unit must be turned OFF and disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.**

## OPERATION



### CAUTION

Do not throw items into the storage area. Failure to heed these recommendations could result in damage to the interior of the cabinet.

### Refrigerated cabinets

Temperature range for the internal cabinets is 34° to 38°F for all food prep units, worktop refrigerators.

The rail's temperature range for all prep units is 33° to 41°F.

Food Prep units should operate with pans in place. Operating without pans and/or pan covers in place will lower the efficiency and may damage the unit due to continuous over-use.

Continuous opening and closing of the door will prevent the unit's ability to maintain optimum refrigeration temperature.

Top section is not intended for overnight storage. Product should be removed from pans. Pans can remain in cabinet if empty.

### Defrosting:

Every 6 hours, the unit will turn off so the evaporator coil can defrost. The controller now displays the defrost symbol. When the coil temperature reaches the terminal temperature or after 20 minutes of defrost, the unit will turn on.

## SOLID-STATE THERMOSTAT DESCRIPTIONS

### 1. FRONT PANEL COMMANDS



**SET:** To display target set point; in programming mode it selects a parameter or confirms an operation.

(DEF) To start a manual defrost

(UP) To view the last alarm occurrence; in programming mode, it browses the parameter codes or increases the display value

(DOWN) To view the last alarm occurrence; in programming mode, it browses the parameter codes or decreases the display value








### KEY COMBINATION

+ To lock & unlock the keyboard

SET + To enter in programming mode

SET + To return to the room temperature display

### 1.1 Function of LEDES

LED	MODE	FUNCTION
	ON	Compressor enabled
	Flashing	-Programming Phase (flashing with  - Anti-short cycle delay enabled
	ON	Defrost enabled
	Flashing	- Programming Phase (flashing with  - Drip time in progress
	ON	An temperature alarm happened




## 2. MAIN FUNCTIONS

### 2.1 HOW TO SEE THE SETPOINT


1. Push and immediately release the **SET** key: the display will show the set point value.
2. Push and immediately release the **SET** key or wait for 5 seconds to display the sensor value again.



### 2.2 HOW TO CHANGE THE SETPOINT



1. Push the **SET** key for more than 2 seconds to change the set point value.
2. The value of the set point will be displayed and the  LED starts blinking.
3. To change the set value push the  or  key within 10s.
4. To set new point value, push the SET key again or wait 10s.

### 2.3 HOW TO START A MANUAL DEFFROST

Push the  key for more than 2 seconds and a manual defrost will start



### 2.4 HOW TO LOCK THE KEYBOARD

1. Hold the  and  keys for more than 3s.
2. The "POF" message will be displayed and the keyboard will be locked. At this point, it will be possible only to see the set point or the MAX or Min temperature stored.
3. If a key is pressed more than 3s the "POF" message will be displayed.





### 2.5 HOW TO UNLOCK THE KEYBOARD

Hold the  and  keys together for more than 3s, till the "POF" message is displayed.

## 3. ALARM SIGNALS

### HOW TO SEE THE ALARM AND RESET THE RECORDED ALARM

1. Hold the  or  key to display the alarm signals.
2. When the signal is displayed, hold the **SET** key until the "rst" message is displayed. Push the **SET** key again. The "rst" message will start blinking and the normal temperature will be displayed again.

Message	Cause	Outputs
"P1"	Room probe failure	Compressor output according to par. "Con" and "COF"
"P2"	Evaporator probe failure	Defrost end is timed
"HA"	Maximum temperature alarm	Outputs unchanged.
"LA"	Minimum temperature alarm	Outputs unchanged.
"dA"	Door open	Regulation restarts
"EA"	External alarm	Output unchanged.
"CA"	Serious external alarm (i1F=bAL)	All outputs OFF.
"CA"	Pressure switch alarm (i1F=PAL)	All outputs OFF

## MAINTENANCE



The power switch must be turned OFF and the unit disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.

### Cleaning the Condenser Coil

The condenser coil requires regular cleaning. Cleaning is recommended every 90 days. In some instances, you may find that there is a large amount of debris and dust or grease accumulated prior to the 90 day time frame. In these cases the condenser coil should be cleaned every 30 days.

If the build up on the coil consists of only light dust and debris, the condenser coil can be cleaned with a simple brush. Heavier dust build-up may require a vacuum or even compressed air to blow through the condenser coil.

If heavy grease is present, there are de-greasing agents available for refrigeration use and specifically for the condenser coils. The condenser coil may require cleaning with the de-greasing agent and then blown through with compressed air.

Failure to maintain a clean condenser coil can initially cause high temperatures and excessive run times. Continuous operation with dirty or clogged condenser coils can result in compressor failures. Neglecting the condenser coil cleaning procedures will void any warranties associated with the compressor or cost to replace the compressor.



**Never use a high pressure water wash for this cleaning procedure as water can damage the electrical components located near or at the condenser coil.**

In order to maintain proper refrigeration performance, the condenser fins must be cleaned of dust, dirt and grease regularly. It is recommended that this be done at least every three months. If conditions are such that the condenser is totally blocked in three months, the frequency of cleaning should be increased. Clean the condenser with a vacuum cleaner or stiff brush. If extremely dirty, a commercial-grade condenser cleaner may be required.

### Stainless Steel Care and Cleaning

To prevent discoloration of rust on stainless steel, several important steps need to be taken. First, we need to understand the properties of stainless steel. Stainless steel contains 70-80% iron which will rust. It also contains 12-30% chromium which forms an invisible passive film over the steels surface which acts as a shield against corrosion. As long as the protective layer is intact, the metal is still stainless. If the film is broken or contaminated, outside elements can begin to breakdown the steel and begin to form rust of discoloration. Proper cleaning of stainless steel requires soft cloths or plastic scouring pads,



**NEVER USE STEEL PADS, WIRE BRUSHES OR SCRAPERS!**

## MAINTENANCE

Cleaning solutions need to be alkaline based or non-chloride based. Any cleaner containing chlorides will damage the protective film of the stainless steel. Chlorides are commonly found in hard water, salts, and household and industrial cleaners. If cleaners containing chlorides are used, be sure to rinse and dry thoroughly.

Routine cleaning of stainless steel can be done with soap and water. Extreme stains or grease should be cleaned with a non-abrasive cleaner and plastic scrub pad. It is always good to rub with the grain of the steel. There are also stainless steel cleaners available which can restore and preserve the finish of the steels protective layer.

Early signs of stainless steel breakdown can consist of small pits and cracks. If this has begun, clean thoroughly and start to apply stainless steel cleaners in attempt to restore the passivity of the steel.



**CAUTION**

**Never use an acid based cleaning solution! Many food products have an acidic content which can deteriorate the finish. Be sure to clean the stainless steel surfaces of ALL food products.**

### Gasket Maintenance

Gaskets require regular cleaning to prevent mold and mildew build up and also to keep the elasticity of the gasket. Gasket cleaning can be done with the use of warm soapy water. Avoid full strength cleaning products on gaskets as this can cause them to become brittle and prevent proper seals. Do not use sharp tools or knives to scrape or clean the gasket which could possibly tear the gasket and rip the bellows.

Gaskets can easily be replaced and don't require the use of tools or authorized service technicians. The gaskets are "Dart" style and can be pulled out of the grove in the door and replaced by pressing the new one back into place.

### Doors/Hinges

Over time and with heavy use, door hinges may become loose. If the door is beginning to sag, tighten the screws that mount the hinge brackets to the frame of the unit. If the doors are loose or sagging this can cause the hinge to pull out of the frame which may damage to both the doors and the door hinges.

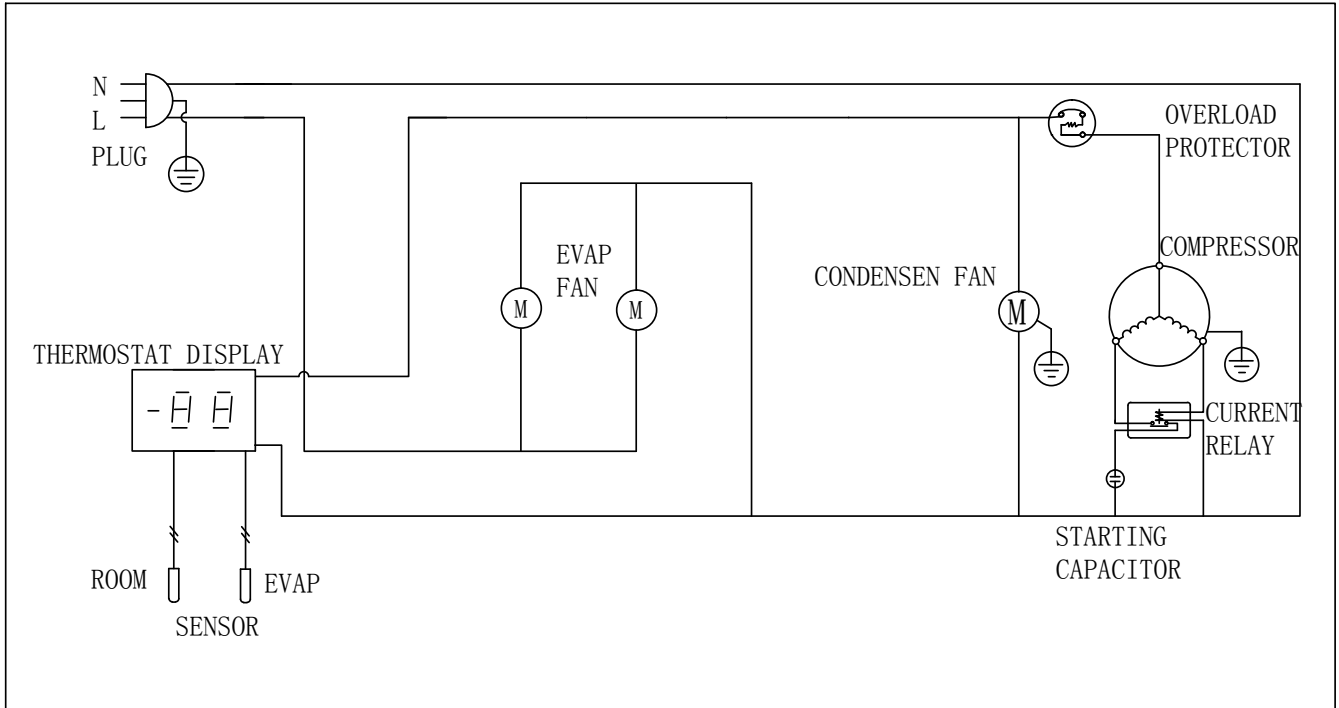
### Drain Maintenance

Each unit has a drain located inside the unit which removes the condensation from the evaporator coil and evaporates it into an external condensate evaporator pan. Each drain can become loose or disconnected from moving or bumping the drain. If you notice excessive water accumulation on the inside of the unit, be sure the drain tube is connected from the evaporator housing to the condensate evaporator drain pan. If water starts to collect underneath the unit, you may want to check the condensate evaporator drain tube to be sure it is still located inside the drain pan. The leveling of the unit is important as the units are designed to drain properly when on a level surface. If your floor is not level this can also cause drain problems. Be sure all drain lines are free of obstructions because this may cause water to back up and overflow the drain pans.



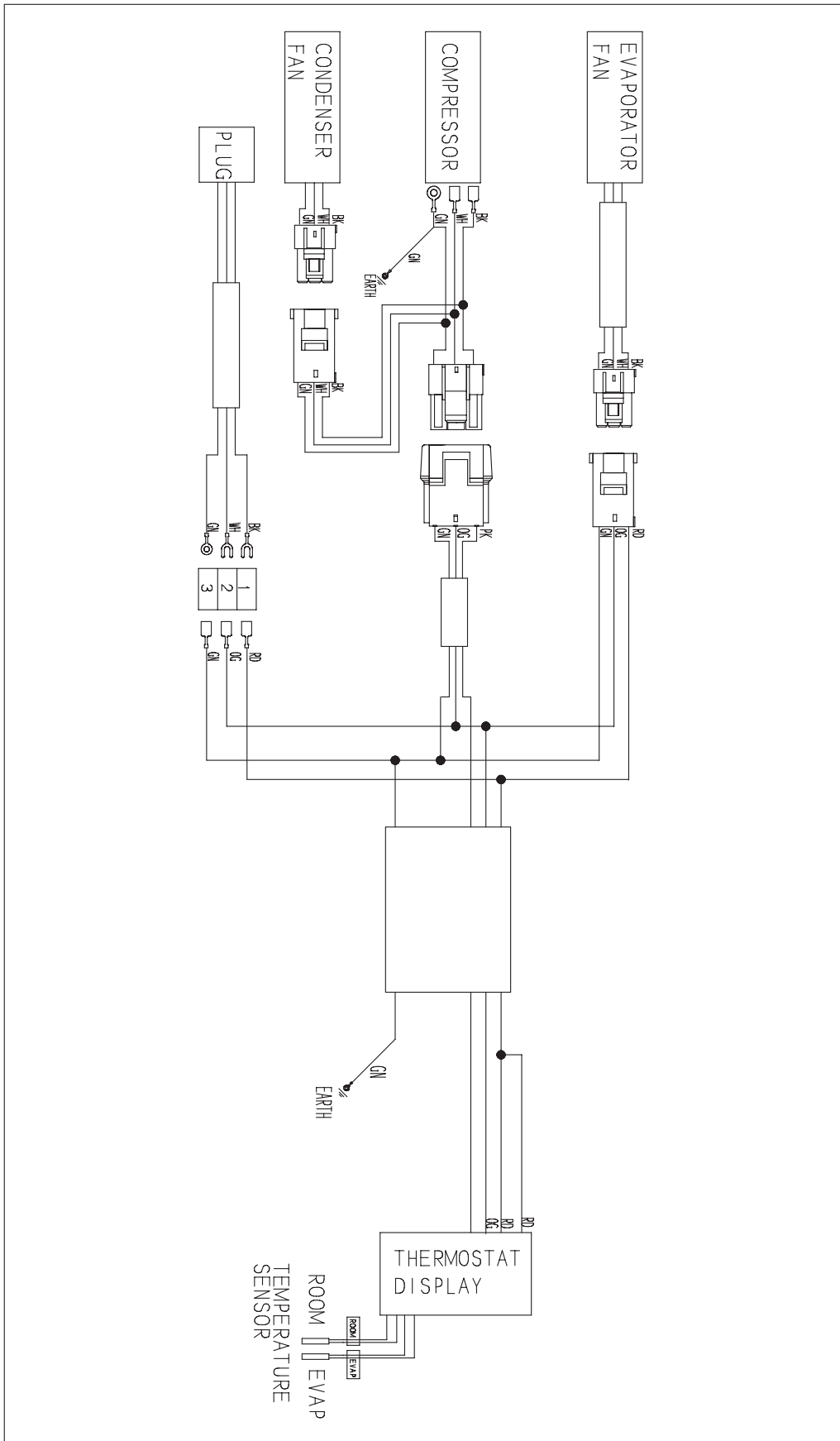
# WIRING DIAGRAM

MODEL: ARCB48/ARCB60/ARCB72



# WIRING DIAGRAM

MODEL: ARCB48/ARCB60/ARCB72





### **Two-year parts & labor warranty\***

Arctic Air warrants, to the original purchaser, all qualifying models of its new equipment to be free from defects in material or workmanship, under normal use and maintenance service, for a period of two (2) years from the date of original purchase or 30 months after shipment date from the manufacturer, whichever occurs first. Warranty coverage is limited to the repair and/or replacement, including labor charges, of defective parts and/or assemblies. The labor warranty shall include straight time labor charges and travel charges within 100 miles roundtrip.

#### **\* Exclusions:**

- Any Arctic Air model installed in mobile application such as concession trailers, food trucks, etc. or in an outdoor venue shall be limited to one (1) year parts, labor, & compressor warranty only.
- **Models AWR25, AWF25, ACP40, ACP55, ACP4SQ, & ACPSQ are limited to one (1) year parts & labor coverage.**
- **Light bulbs and door gaskets are limited to 90-day warranty period & door hinges to one (1) year period.**

### **Additional three-year compressor warranty\***

In addition to the two (2) year warranty stated above, Arctic Air warrants its compressor units to be free from defects in both material and workmanship under normal and proper use and maintenance service for a period of three (3) additional years from the date of original installation but not to exceed five (5) years and three (3) months after shipment from Arctic Air.

The three (3) year extended compressor warranty applies only to the compressor part itself and does not apply to any other parts, components, or labor charges involved in replacement of compressor. In addition, shipping charges for replacement compressors in the extended three-year period are not covered by this warranty and compressor replacement is limited to one (1) compressor during the three-year period.

**\*(Not applicable for ACP counter-top models and/or any model being used in mobile/outdoor use application)**

### **Conditions**

**All service under this warranty, for either labor or parts, must be performed by a preferred service provider arranged by the Arctic Air Warranty Center at 1-855-431-5558. Proof of purchase will be required to validate warranty coverage dates. Service coverage is limited to units located in the United States and Canada only.**

### **Limitations & Exclusive Warranty**

This parts and labor warranty is the sole and exclusive warranty remedy offered by Arctic Air. Arctic Air's sole obligation under this warranty is limited to either repair or replacement of parts and is subject to the limitations listed below. Arctic Air will bear no responsibility or liability for any equipment which has been misapplied, mishandled, misused, subjected to harsh chemical action, or external causes such as the use of extension cords, electrical power fluctuations, lack of proper maintenance, non-factory approved revisions or modifications, or equipment damaged by fire, flood, or other acts of God.

1. Arctic Air will bear no responsibility for consequential loss or damages such as, including but not limited to, economic loss, profit loss, personal injury, property damage, damage during transit, losses or damages arising from food or product spoilage claims.
2. Arctic Air shall bear no responsibility for parts or labor coverage for component failure or other damages resulting from improper usage, installation, or maintenance as described in the owner's manual. In addition, charges that include but are not limited to ferry charges, city torch/burn permits, or labor time to access mobile units are not covered by this warranty.
3. Arctic Air equipment is intended for commercial use only and this warranty is void if the equipment is installed in other than commercial applications.
4. All other warranties, either express or implied, arising under law or equity or custom of the trade, including but not limited to, warranties or merchantability or fitness for a particular purpose are excluded.



**Broich Enterprises, Inc. / Arctic Air**

6440 City West Parkway

Eden Prairie, MN 55344

Phone: 952-941-2270

Fax: 952-941-3066

Website: [www.arcticairco.com](http://www.arcticairco.com)