

WKE SERIES

(USA ONLY)

--INSTALLATION INSTRUCTIONS--

Thank you for choosing a **BREEZAIRE** cooling unit. We believe our products are the best on the market and will provide many years of trouble free service.

Please take a few minutes and read the entire instruction before beginning the installation.

**Before removing the cooling unit from the box, please inspect for damage, which might have occurred during shipping. If damage is found, notify the Freight Company immediately.
BREEZAIRE is not responsible for any damages during shipping.**

MODEL _____ SERIAL NUMBER _____

INSTALLED BY _____ DATE _____

While great effort has been made to provide accurate guidelines, **BREEZAIRE** cannot warrant its units to properly cool a particular enclosure. Customers are cautioned that enclosure construction, unit location and many other factors can affect the operation and performance of the unit. Therefore the suitability of the unit for a specific enclosure or application must be determined by the customer and cannot be warranted by **BREEZAIRE**.

INSTALLATION INSTRUCTIONS FOR WKE SERIES SENTINEL II EQUIPPED COOLING UNITS

The **BREEZAIRE** WKE Series cooling units are designed to, when installed in a properly constructed enclosure, provide a constant, selectable temperature approximately 48°F and 62°F while reducing the excess relative humidity to the proper 50% to 75%. **BREEZAIRE** cooling units are designed to lower the temperature, while removing *only* excessive moisture. In a properly constructed enclosure this process can raise the *relative* humidity. The unit does not add moisture to the enclosure. The unit does not include a heating system and will not warm the enclosure. The WKE Series is not intended to cool service cabinets, which are maintained at lower temperatures and opened or entered frequently.

ENCLOSURE CONSTRUCTION GUIDELINES

To use the below **SIZING GUIDE**, the enclosure to be cooled must be built to the following minimum specifications. If the enclosure cannot be built to these minimum specifications, consult your **BREEZAIRE** dealer for assistance in choosing the correct unit. **BREEZAIRE cooling units are not warranted to cool a specific enclosure.**

All walls, floors and ceilings should have a vapor barrier. This vapor barrier should be installed on the warm side of the insulation. All interior walls and floors should be lined with a minimum of R-11 insulation and exterior walls and ceiling insulation value should be a minimum of R-19. There should be no glass doors and/or windows.

- ☞ All joints, door frames, electrical outlets or switches and any pipes or vents which go through the enclosure should be sealed to prevent air and moisture leakage into the room. Concrete, rock and brick are not insulation or moisture barriers.
- ☞ Doors into the enclosure should be of minimum size, insulated to R-11 and be tightly sealed with a high quality weather stripping. Be sure to seal the bottom of the door and fill the gap between the door's frame and wall before installing the cap molding.
- ☞ Enclosure lighting should be of low wattage, with a timer to insure lights are not left on when the enclosure is unoccupied. Recessed lighting should not be used, as they will allow outside air to enter the enclosure.
- ☞ The ambient temperature surrounding the enclosure should not exceed the desired cellar's temperature by more than 25°F. No enclosure wall should receive direct sunlight or strong wind.
- ☞ *Note:* Glass doors and/or windows are not included in our calculations and should not be used in a wine enclosure.

SIZING GUIDE & SPECIFICATIONS

This guide to be used only for enclosures meeting the above construction requirements.

<u>BREEZAIRE Model</u>	<u>Enclosure Volume</u>	<u>Electrical</u>	<u>Dimensions (inches)</u>	<u>Weight</u>
WKE 3000	650 cu.ft.	5 Amps	14.25W x 19.75H x 21.63D	76 lb.
WKE 4000	1000 cu.ft.	7 Amps	14.25W x 19.75H x 21.63D	81 lb.
WKE 6000	1500 cu.ft.	9.5 Amps	16.25W x 22.00H x 22.25D	101 lb.
WKE 8000	2000 cu.ft.	10 Amps	16.25W x 22.00H x 22.25D	101 lb.

Note: All units are 115 Volt, 60 Hz

INSTALLATION

Before installing the unit, inspect it again for any shipping damage. Test the unit by placing it in a room where the temperature is above 65°F. Position the unit to allow cold air to flow from evaporator outlet. (See Fig. 1) Plug the unit's electrical cord into a properly grounded electrical outlet of adequate capacity (see unit specification for unit electrical requirements).

The thermostat has no "off" position; therefore it will begin to run within 5 minutes of being plugged in. Allow it to run for a minimum of 15 minutes. There should be a flow of cool air from the evaporator side upper grille (see Fig. 1) and warm air should be flowing from the rear opening on the exterior condenser grille side (see fig. 3). If there is no airflow or no change in temperature on either side, contact your dealer.

- ☞ **If your installation cannot be performed in accordance with these instructions contact your dealer.**
- ☞ **BREEZAIRE** units should not be installed in a fire rated wall without consulting your local building inspector and building codes.
- ☞ The unit must be installed in the upright position and is not designed to have ductwork on either the warm air or cold air side. Do not drill any holes into the cooling unit. It may damage the unit, promotes rust, and will void the warranty. Do not install the unit so that its removal will be difficult or impossible. It may be necessary to periodically remove the unit to clean the condenser coil.
- ☞ This is a mechanical piece of equipment, it will make noise and produce heat on the warm side exterior condenser grille (Fig. 3). Remember, unit installation location is not only important inside the wine cellar, but just as important is where the warm side exhaust air is being rejected.
- ☞ Select a place to mount the unit where the warm airflow from the exterior condenser grille (see Fig. 3) is unobstructed for a minimum of 3 feet. The area into which the unit exhausts must be well ventilated. If not, the unit will be unable to reject the excessive moisture and heat, resulting in unsatisfactory performance.
- ☞ Inappropriate locations for the warm air exhaust includes unventilated laundry rooms, closets, bathrooms, garages, crawl spaces, attics and humid basements.

☞ Additionally, cold air flowing from the upper cold side grille must remain unobstructed for 3 feet. It is preferred that the unit be mounted near the ceiling and as close to equal distance from each end of the wall as possible. If necessary, these units may be mounted near the floor if the upper grille is interchanged with the blank off plate so that the cold air will be directed up (See Fig. 1). There should be nothing above the unit to block airflow. Remove the insulation under the blank off plate with a knife.

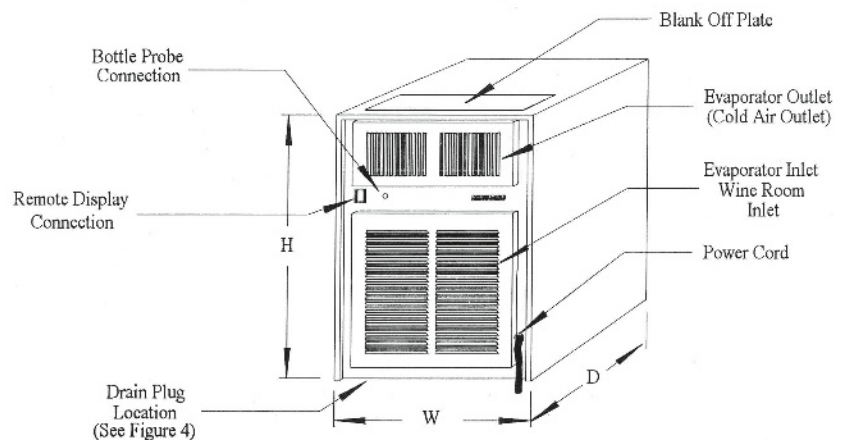


Figure 1

- ☞ Make sure that the warm air exhaust condenser grille can be properly attached to the unit (see fig. 3). NOTE: The unit will not work properly without this grille.
- ☞ Make a hole through the wall as illustrated in Fig. 2. The dimensions of the hole should be approximately 1/4 inch larger than the width and height given in the specifications. If the unit is to be installed above floor level, construct a shelf as shown in Fig. 3. This shelf must be capable of supporting the weight indicated in the specifications. NOTE: Insulation placed between the unit and the shelf will reduce additional noise and help reduce condensate from forming on the underside of the unit.
- ☞ Cut a hole in the shelf that corresponds to the Pull down drain tube's location on the underside of the unit for easy access. Refer to section "ENCLOSURE PROBLEMS".
- ☞ Place the unit through the opening with the warm air exhaust side, flush to the outside of the wall (see fig. 3). Attach the exterior condenser grille to the unit and to the wall with screws supplied with grille. Note: the unit may be installed with the cold side flush to the inside wall, however, 2 provisions must be made. First, insure the exterior condenser grille will be installed. Second, insulate and vapor barrier the framed opening to prevent any wall moisture from condensing on the cold surface of the cooling unit in the wall.

- ☞ Please remember that in all cases the exterior condenser grille must be directly attached to the warm side of the unit. Do not leave an air gap between the unit's surface and the exterior condenser grille. **The unit will not work properly without this grille.** The exterior condenser grille has only a white primer coat. If this grille is installed on an outside wall it should be coated with an appropriate paint.
- ☞ **Seal the opening around the unit with high quality weather stripping and cover with an appropriate molding.** Attach the molding to the wall, not the unit.
- ☞ Plug the unit's electrical cord into a properly grounded electrical outlet of adequate capacity (see specification for unit electrical requirements)

OPERATION

On initial start-up the cooling unit will reduce the temperature of the enclosure slowly. The unit may run constantly or cycle off for short periods. The time required to reach the desired temperature will vary, depending on the enclosure construction and contents.

The thermostat is factory set to approximately 55°F. Unless the temperature falls below that which is desired, do not change the thermostat setting for at least 3 days.

After initial cool down, the "on-off" cycle should be relatively constant. The percentage of "off" time will depend on enclosure construction, contents, and the temperature surrounding the enclosure. If it is necessary to adjust the temperature of the enclosure; adjust the thermostat to a colder temperature while the unit is running and to a warmer temperature while the unit is off. The set point can be adjusted no lower than 48°F or higher than 62°F. NOTE: If the enclosure is not cooling to the current set point, lowering the set point temperature further will not help. (See ENCLOSURE PROBLEMS section) If the operation of the unit is stopped, either by unplugging it or by power outage, do not restart it for at least 10 minutes.

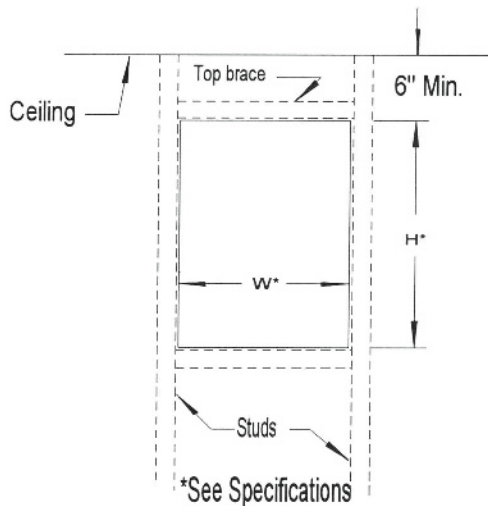


Figure 2

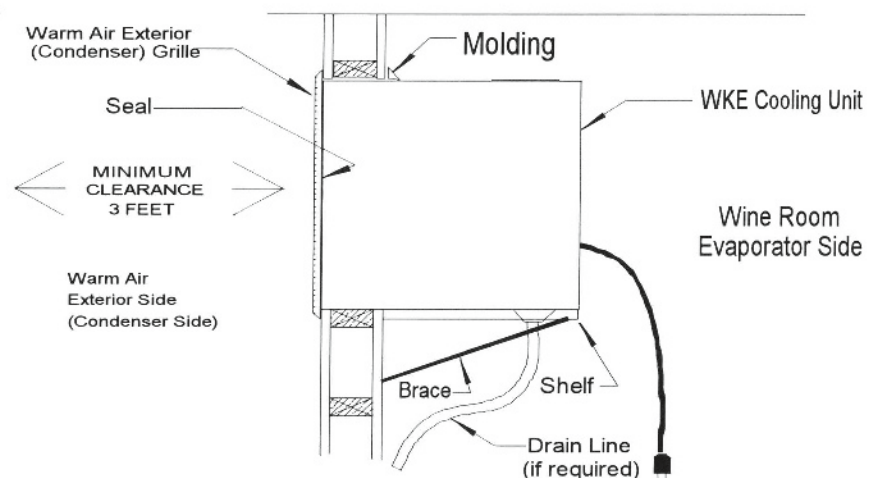


Figure 3

MAINTENANCE

The **BREEZAIRE** cooling unit requires very little maintenance. To maintain optimal performance, the condenser coil should be inspected and cleaned every three months. Remove the exterior condenser grille located outside the enclosure and use a vacuum (with a brush attachment) to remove the dirt and lint from the fins of the condenser coil.

If the condenser coil becomes blocked preventing proper airflow the unit will overheat causing a loss in cooling efficiency and will result in a failure of the unit not covered under warranty.

ENCLOSURE PROBLEMS

BREEZAIRE is extremely proud of the quality and reliability of its products. Experience has shown that of the small number of problems encountered, the large majority are due to improper unit selection or enclosure construction. Should the cooling system be suspected of malfunctioning, check the temperature of the air being exhausted from the upper part of the exterior condenser grille. If it is warm, the unit is working. A further check may be made by comparing the temperature entering the lower grille on the cold side (Evaporator side) with that leaving from the upper cold side grille. (see Fig. 1) If the air leaving the unit is 6°F or more degrees colder than the temperature entering, the unit is working properly.

In situations where the ambient relative humidity is very low, the desired enclosure relative humidity may not be achieved without adding moisture. To add moisture to the enclosure only use slow, natural evaporation from a small porous water container. Do not use a humidifier.

Improper placement or installation may cause the unit's performance to be degraded. The warm air exterior side (Condenser Side) of the unit must have a constant supply of fresh air, less than 85°F. If the unit is exhausted into a confined area with poor ventilation, or duct work is attached, it will not be able to reject the heat and moisture it is removing from the enclosure and a malfunctioning unit will be suspected.

Obstruction to the free flow of air into or from the cooling unit (see Fig. 3) for any reason can cause the unit to heat rather than cool the enclosure.

Proper sealing of the enclosure through the use of a vapor barrier and weather stripping cannot be over emphasized. The unit will not be able to maintain the proper conditions if fresh, moisture-laden air is constantly being introduced into an improperly sealed enclosure. Symptoms of this condition are; unit runs all the time with only a slight reduction in enclosure temperature and/or water overflows from the unit. One way of discovering gross air leaks is to stand inside the enclosure with the lights off, allow your eyes to adapt to the dark and look for light showing through cracks in the walls or around the door. Also close the door on a piece of paper, if you can pull the paper through the door seal, it means air and moisture are also entering into your enclosure. Because of the temperature difference between the inside and outside, very small cracks can allow large amounts of outside air into the enclosure. Please be aware that moisture will pass through solid concrete, brick, paint, paper and wood. A newly constructed room may contain fresh wood, paint, concrete and other building materials containing large amounts of moisture. This condition can cause symptoms similar to a poorly sealed enclosure, but will gradually go away.

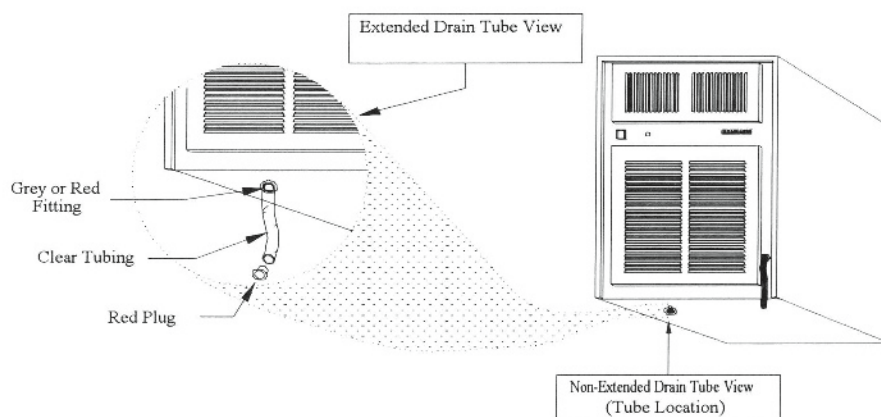


Figure 4

EXCESS CONDENSATE DRAIN TUBE: Your unit is equipped with a Pull-down Drain tube to prevent condensate overflow. To temporarily drain excess amounts of condensate engage the drain tube and provide a receptacle or drain to receive the excess condensate.

EXTENDING THE DRAIN TUBE: To extend and open the drain, use a pair of small pliers to grab the red plastic plug and vinyl tubing. Pull the plug and tubing down approximately 6 inches until it snaps into the locked position and the "Grey Fitting" is visible through the drain hole (see fig. 4). Remove the bottom red plug. Now the cooling unit will drain any condensate that is standing above 1/4 inch deep in the base pan.

CLOSING THE DRAIN TUBE: To close the drain tube, simply replace the "Red stopper" and push the vinyl tubing back up into the bottom of the cooling unit. This action extends the top of the tube above the water line preventing it from draining. **CAUTION:** Do not push the entire length of tubing back up into the drain hole.

INSTALLING A DRAIN LINE: To extend the drain tube into a basement drain or container, acquire a length of vinyl tubing with a inside diameter of 1/2 inch from a local hardware store. Slip this larger piece of tubing over the Pull-down drain tube. **CAUTION:** Always have the extended drain line running "down hill". This is a gravity flow system. If a horizontal run is encountered, an air vent or condensate pump may be required to maintain drainage.

Do not drill or tap the drain hole. Doing so will result in rusting of the metal base and void the unit's warranty.

SENTINEL II CONTROL SYSTEM

The **BREEZAIRE Sentinel II** is the precision micro-processor control system that makes the WKE Series the most sophisticated wine cooling units available. The **Sentinel II** features a remote display and control panel that serves as a wine cellar temperature display, programming panel and alarm. The following three parameters are set through the display-control panel:

- 1- DESIRED TEMPERATURE OF WINE CELLAR.** Choose temperature between 48°F and 62°F.
- 2- EVAPORATOR FAN OPERATION.** Choice of "auto" or "on" modes. Evaporator fan will turn on and off with the cooling unit in the "auto" mode, and remain on all the time in the "on" mode. The "auto" setting should be used for normal operation. For floor mount applications where the wine cellar temperature variation is unacceptable, the "on" setting will work best.
- 3- ALARM TEMPERATURE.** You can choose an alarm temperature between 50°F and 75°F. If the temperature of the wine cellar goes above the alarm temperature the red alarm indicator on the program panel will be lit. Choose an alarm temperature approximately 6°F above the desired temperature setting of wine cellar.

The **Sentinel II** also controls the speed of the condenser fan to provide maximum cooling while reducing energy usage and noise. During warm days the condenser fan will run at a higher speed than under less severe conditions.

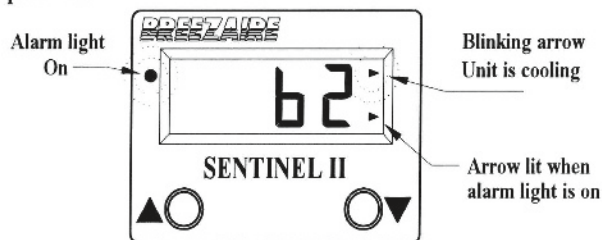
The **Sentinel II** display-control panel can be mounted directly on the cooling unit face or may be mounted in a remote location. If a remote location is desired, obtain a standard four wire (two line) telephone extension cord of not more than 100 feet in length from a local supplier. If the extension cord does not have one female end, an adapter to join the two male ends will be required.

The **Sentinel II** display-control panel is not a temperature sensing device and may be mounted outside the cellar. The display has three arrows to the far right of the screen. One arrow, two, or three arrows may be lit at any time.

When the cooling unit is plugged in and receiving electrical power the top arrow will be lit. This top arrow will blink when the compressor is operating and the unit is cooling.

The middle arrow is lit when in the programming mode.

The bottom arrow and the red alarm light are lit when the cellar's temperature exceeds the alarm set temperature.



BOTTLE PROBE (OPTIONAL)

Allow the enclosure to stabilize at the desired temperature for several days. Fill a suitable bottle with wine (preferably) or water, insert the bottle probe into the bottle, and place it in the enclosure. Do not connect the probe to the unit until the bottle has had sufficient time to cool to the enclosure temperature (several days). Connect the probe to the outlet located on the front face of the unit (see fig. 1). The on and off operation of the unit is now controlled by the temperature of the wine in the bottle. The temperature displayed is that of the bottle. Unplugging the probe will return control of the unit to the room air temperature.

PROGRAMMING THE SENTINEL II

In order to set the **DESIRED TEMPERATURE OF THE WINE CELLAR**, the cooling unit must be installed as per previous instructions. The current temperature will appear on the display. Press the two display panel buttons at the same time and release. The display will show the word "set", followed by "cool". After a few seconds the panel will automatically show the set temperature previously programmed.



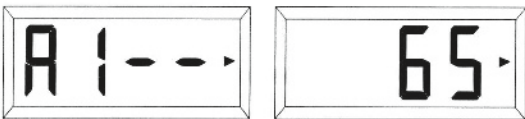
To change your desired wine cellar temperature press either of the panel buttons until the desired temperature is shown. If the desired temperature is the only parameter you wish to

change press the two panel buttons simultaneously three more times until the display shows the word "done" however to continue in the program mode press the panel buttons simultaneously once more. Now you can change the **EVAPORATOR FAN OPERATION**.



The display will show the word "fan" for a few seconds and then change automatically to the current fan setting, either "auto" or "on". To change the current setting press either

panel button once. The new setting should now appear. If you do not wish to change any other parameters press the panel buttons simultaneously twice until the display shows the word "done", however to continue in the program mode press the panel buttons simultaneously once more. Now you can set the **ALARM TEMPERATURE**.



To change the current setting press either panel button until the desired alarm temperature is displayed. To complete the program operation press the panel buttons simultaneously once. The display should show the word "done". Your

changes have now been recorded by the Sentinel II. **If the word "done" does not appear at the end of the programming mode the changes will not be saved.**

**Limited Warranty for all
BREEZAIRE self contained units
(USA only)**

BREEZAIRE Products Company warrants this product to be free from defects in material and workmanship and agrees to repair or replace any part of the enclosed unit which proves defective under these terms and conditions.

Alteration, repair or attempted repair of the unit by anyone other than BREEZAIRE will void this warranty.

Who is protected:

This warranty may be enforced only by the original retail customer and is not transferable.

Length of Warranty

All parts used in this unit are warranted for Five years (60 months) from the original retail purchase. Factory labor is provided at no cost for one year (12 months) from the original retail purchase.

What is not covered:

1. Any unit on which the serial number cannot be verified.
2. Damage, deterioration or malfunction resulting from, but not limited to:
 - a. Any shipment of the unit (claims for shipping damage must be presented to the shipper).
 - b. Installation or removal of the unit.
 - c. Installation in an enclosure of inadequate design that does not follow the minimum guide lines of the installation instructions.
 - d. Inadequate ventilation for supplying and exhausting condenser air that does not follow the minimum guide lines of the installation instructions.
 - e. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, improper storage, unauthorized modification, electrical power surges or failure to follow instructions supplied with the unit.
 - f. Exposure to corrosive environments such as, but not limited to, marine air, caustic pool chemicals, cleaning solvents, gasoline and petroleum products.
 - g. Burial or coverage by, but not limited to, dirt, snow, mud, storage shelves, fabric products or vegetation.
 - h. Any cause which does not relate to product defect.

What BREEZAIRE will pay for:

1. During the first 12 months **BREEZAIRE** will pay for labor and material to repair the unit at our factory. Additionally, **BREEZAIRE** will pay the cost of shipping the unit to and from our factory.
2. During the 13th to 60th months **BREEZAIRE** will pay for the material to repair the unit at our factory.

What BREEZAIRE will NOT pay for:

1. Installation or removal of the unit.
2. Handling or packaging of the unit.
3. Repairs performed by anyone other than **BREEZAIRE**.
4. Any other damages, whether incidental, consequential or otherwise.

How to obtain warranty service:

BREEZAIRE may require you to provide the original bill of sale or receipt as proof of purchase in order to obtain warranty service. Please retain any such proof of purchase.

If a problem is suspected with a **BREEZAIRE** cooling unit, please contact your dealer. **Do not return a unit without authorization from BREEZAIRE.**

Should it be necessary to return your unit for warranty service, it must be packaged in the original packaging or similar packaging providing an equal degree of protection. Any freight charges must be prepaid, **BREEZAIRE** will not accept collect shipments. If the unit is found to be defective **BREEZAIRE** will reimburse (during the first 12 months) the cost of shipping the unit at standard second day freight rates.

LIMITATION OF IMPLIED WARRANTY

BREEZAIRE'S SOLE LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO, AT OUR OPTION, THE REPAIR OR REPLACEMENT OF THE UNIT. **BREEZAIRE** SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE UNIT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE UNIT, LOSS OF TIME OR COMMERCIAL LOSS.
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

While great effort has been made to provide accurate guidelines, **BREEZAIRE** cannot warrant its units to properly cool a particular enclosure. Customers are cautioned that enclosure construction, unit location and many other factors can affect the operation and performance of the unit. Therefore the suitability of the unit for a specific enclosure or application must be determined by the customer and cannot be warranted by **BREEZAIRE**.