

# IMPORTANT INSTRUCTIONS



## READ AND SAVE THESE INSTRUCTIONS

No.  
Date

II-450  
July, 2015



## DRIVE-THRU UNIT 3

AIR CURTAIN SERIES DTU03



 for outdoor use  
unheated only



**Your new Drive-Thru air curtain (air door), properly installed, maintained and operated, will keep fumes out of your restaurant, increase employee comfort, and save energy.**

## Installation & Maintenance Instructions

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### WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- A. Read all instructions before installing or using this air curtain.
- B. Use this unit only in the manner intended by the manufacturer and described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons. If you have any questions, contact the manufacturer.
- C. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- D. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable national and local codes having jurisdiction, including fire-rated construction. See page 4, ELECTRICAL CONNECTIONS (NEC Code ANSI/NFPA No. 70).
- E. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- F. To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the air curtain.
- G. This air curtain is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 1 inch from the top, back, front, sides and at least 6 feet from the discharge of the air curtain.
- H. Extreme caution is necessary when any air curtain is used by or near children or invalids, and whenever the heater is left operating unattended.
- I. Do not operate any air curtain after it malfunctions. Disconnect power at the service panel and have the air curtain inspected by a reputable electrician before reusing.
- J. To disconnect the air curtain, turn controls to "off", and turn off power to the air curtain circuit at main disconnect panel.
- K. Do not insert or allow foreign objects to enter any ventilation or discharge opening as this may cause an electric shock or fire, or damage the air curtain.
- L. To prevent a possible fire, do not block the air intake or discharge of the air curtain in any manner.
- M. The air curtain has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
- N. This heater may include an audible or visual alarm to warn that parts of the heater are getting excessively hot. If the alarm sounds (or illuminates), immediately turn the heater off and inspect for any objects on or adjacent to the heater that may have blocked the airflow or otherwise caused high temperatures to have occurred. DO NOT OPERATE THE HEATER WITH THE ALARM SOUNDING (OR ILLUMINATING).

## I. UNCRATING

Carefully examine the carton(s) for damage before opening. If the carton is damaged, immediately notify shipping company. If the unit(s) were shipped on wooden skids, remove protective wood and banding straps securing the carton(s) to the skid. Open the carton(s) and remove all protective packaging. Immediately verify that the electrical rating nameplate located on the cover matches electrical power supply available. Retain the shipping carton(s) until the unit(s) is installed and properly operating.

**ACCESSORIES:** If the unit(s) was ordered with optional electrical accessories, the accessories may be found in the carton containing the unit or in a separate carton(s) accompanying the unit(s). Check all of the cartons/skids for accessories before discarding.

## II. MOUNTING INSTRUCTIONS

*(General Notes for All Mounting Configurations)*

### INDOOR MOUNTING ONLY!

Environmental/Insect/Dust & Fume Control

The Drive-Thru Unit 3 air curtain is designed to be an effective barrier against cold drafts in the winter and hot air in the summer. To achieve optimum protection, the unit should be mounted on the inside of the building, as close to the top of the window opening as possible. To ensure peak performance, keep the air stream free of obstructions. The unit is equipped with mounting brackets to ensure proper mounting in most applications.

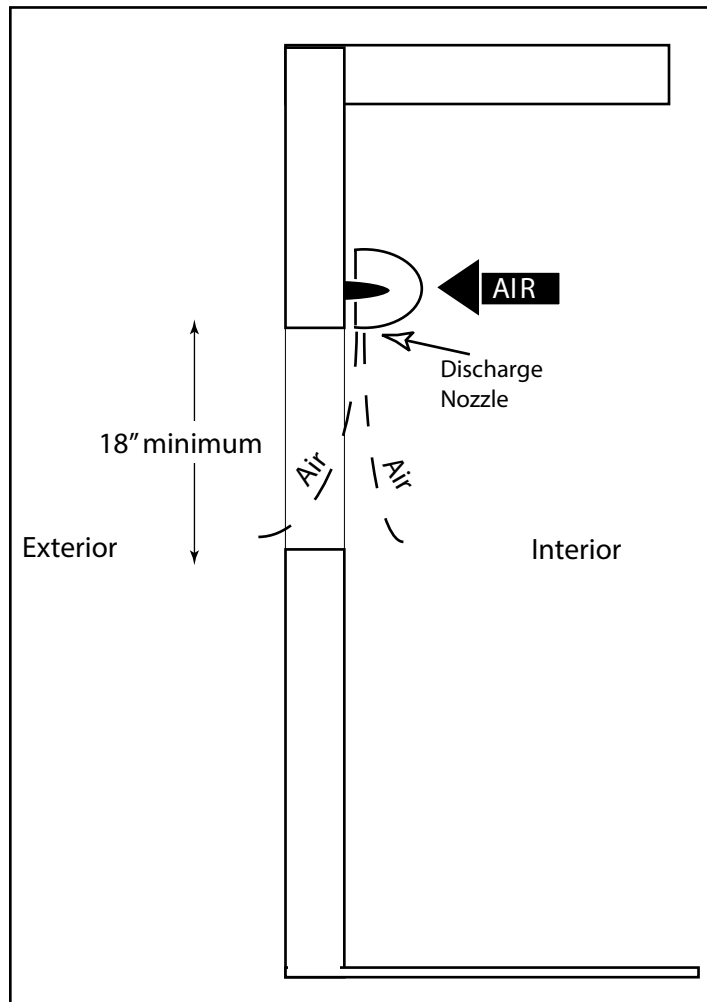
**The air curtain will not perform properly if negative air pressure exists in the building. Under these conditions, a means for makeup air to the building must be provided so that the air pressure on both sides of the opening is in balance.**

Before mounting the unit, check the supporting structure to verify that it has sufficient load-carrying capacity to support the weight of the unit(s). The mounting hardware should be capable of supporting a minimum of three (3) times the weight of the unit (See Table 1).

MODEL	NET WEIGHT AMBIENT (lbs)	NET WEIGHT ELECTRIC (lbs)
DTU03-1018	11	12
DTU03-1026	16	17

TABLE 1

- A. When determining the mounting location for the unit(s), make sure that nothing interferes with the curtain of air developed when the discharge vanes are directed from 0° to 20° toward the drive-thru window opening. If the air stream strikes any obstruction (the top edge of the window, a window opening device, etc.), the effectiveness of the unit will be greatly reduced (See Drawing 1).



DRAWING 1

- B. For optimum performance, the bottom of the unit (discharge nozzle) should be no more than 1" above the top of the drive-thru window opening with the unit mounted flush to the wall. If the unit must be mounted higher, it must be spaced out from the wall 3/8" for every inch the unit is above the drive-thru window opening.
- C. Electric heated units shall:
1. Have a minimum clearance of at least 1" between the sides and top of the unit and any combustible material.
  2. Have a minimum clearance of at least 18" between the bottom of the unit and the counter.

### III. WALL MOUNTING

The Drive-Thru Unit 3 air curtain is shipped with a variety of wall mounting options. Included in standard orders are standard brackets (See Figure 1) and spanning legs (See Figure 2). Adjustable brackets (See Figure 3) available by special order.

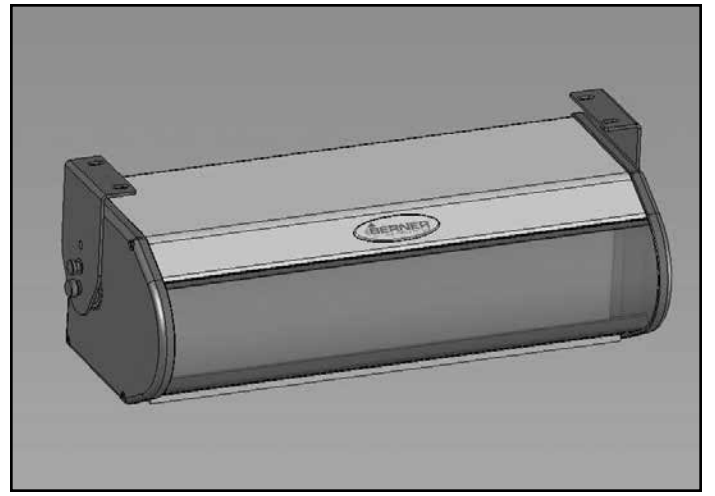
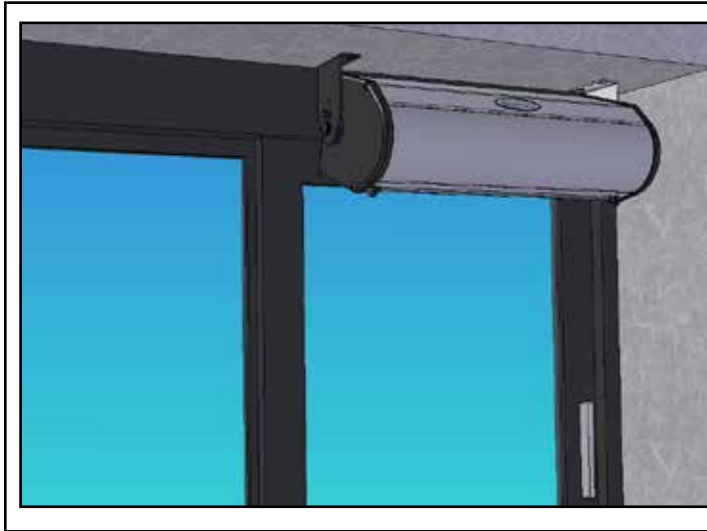


FIGURE 1 -Standard Brackets

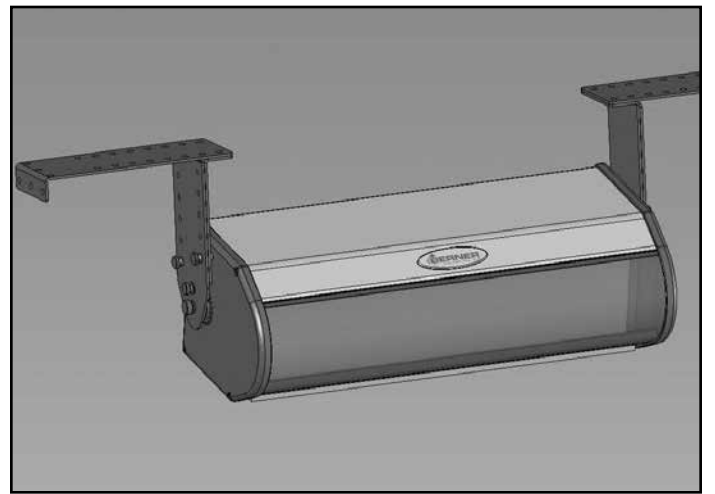
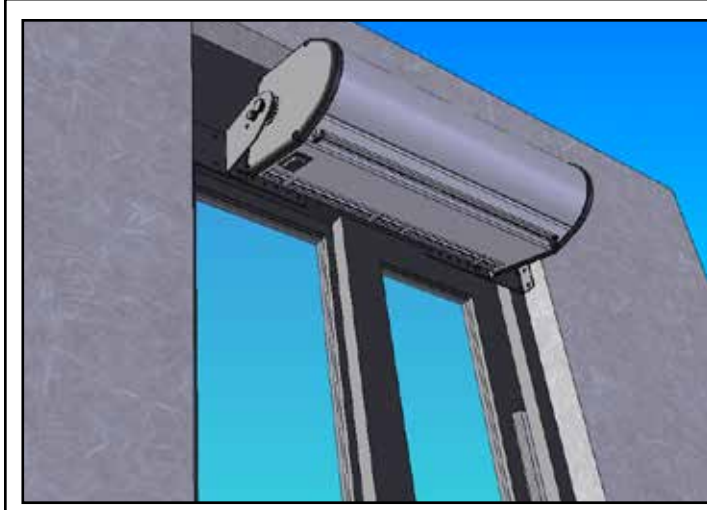


FIGURE 2 -Spanning Brackets (works with both standard and adjustable extension brackets)

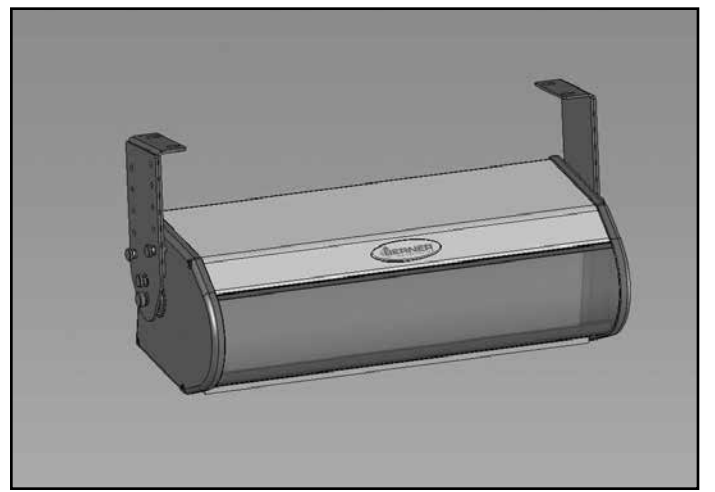
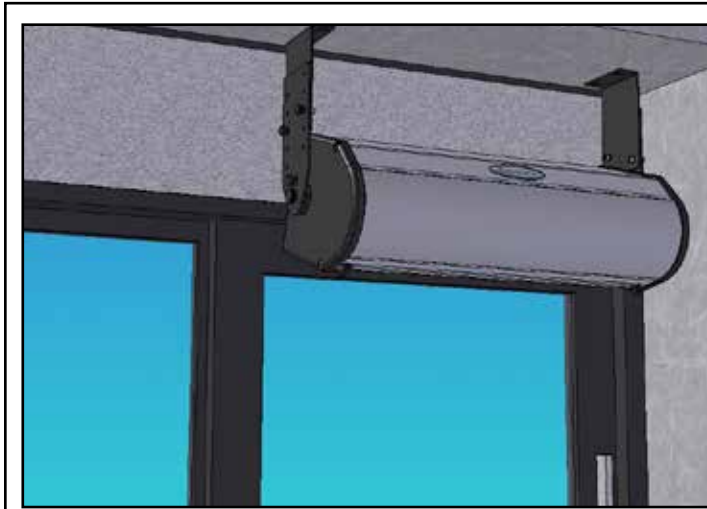


FIGURE 3 -Adjustable Extension Brackets (optional, must be ordered separately by special order)

## IV. ELECTRICAL CONNECTIONS

All electrical wiring and connections **MUST** be performed by qualified personnel in accordance with the National Electrical Code ANSI/NFPA No. 70 (latest edition) or, in Canada, the Canadian Electrical Code, Part 1-C.S.A. Standard C22.1, and local codes and regulations.

- A. Check the rating nameplate on the top of the unit for supply voltage and current requirements (See Figure 2). Unheated units may be plugged into any 15 or 20 amp receptacle. **Heated units require a dedicated 20 amp receptacle and circuit.** A disconnect switch for each branch circuit is a required part of this installation.
- B. All field wiring must be copper with a minimum insulation of 60°C within approved conduit. If any of the wire supplied with the unit must be replaced, it must be replaced with copper wiring with a minimum insulation of 90°C.

## V. OPERATION INSTRUCTIONS

### A. General Operation

1. The unheated Drive-Thru Unit 3 air door operates with a two position on-off switch.
2. The heated Drive-Thru Unit 3 air door operates with a three position fan-off-heat switch.

### B. Air Flow Adjustments

1. With the air door operating and the door in its full open position, check to see that nothing is obstructing the air flow at the discharge nozzle vanes.
2. Find the air stream split location. Hold a handkerchief or tissue, by its corners, approximately 4" above the counter. Gently move the handkerchief back and forth in the doorway. Make sure the air is being directed to both the inside and the outside. The split location is indicated where the handkerchief is vertical with minimal or no fluttering.
3. Rotate the air curtain by adjusting its position in the mounting bracket so the split location is approximately 2" outside the window (See Drawing 1).

## VI. MAINTENANCE AND CLEANING

### CAUTION: ELECTRIC SHOCK HAZARD:

**Disconnect power when servicing unit.**

**More than one disconnect may be required to de-energize unit.**

Keep your air curtain operating at peak efficiency by cleaning the blower wheels, motor(s) and intake grille. Build up of dust on the blower wheels can cause vibration, noise and excessive wear on the motor bearings. The frequency of cleaning will depend on the environment where the unit is operating.

Dirty, dusty or greasy environments could require a cleaning schedule of once every two months. If the environment is not that dirty, the unit(s) should be scheduled for cleaning a minimum of once every (6) months.

### To remove the filter:

This unit is equipped with a "No Tool" filter removal. Simply, pull the (2) black tabs, located underneath the intake grille, outward. This action releases the filter which then can be pulled downward out of the unit (See Figure 4).

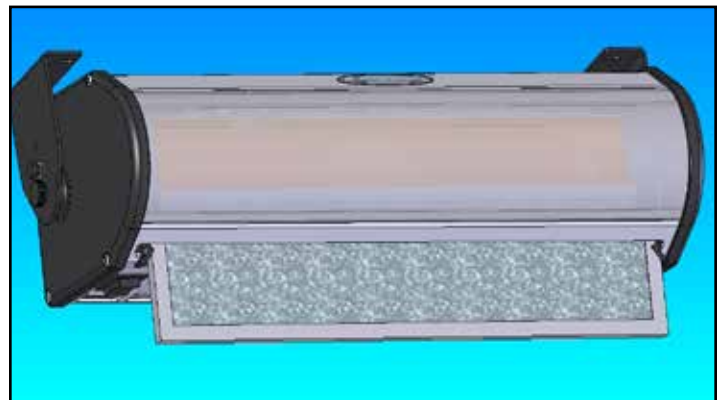


FIGURE 4 -Filter Removal

### To clean the interior of the unit:

- A. Disconnect the power to the unit; remove the intake grille by removing the (4) screws on one side of the unit. Pull the top of the end cap outward to release the filter tab to remove end cap. Slide the intake grille out of unit (See Figure 5). It is not recommended to remove the blower assembly from the cabinet. To clean the motor and blower wheels, with the filter and inlet screen removed, blow compressed air in the unit to remove loose dust and debris.

**CAUTION: STAND CLEAR OF THE UNIT OR WEAR SAFETY GOGGLES AS LOOSE DEBRIS MAY BE PRESENT AND MAY EXIT THE NOZZLE.**

- B. Connect power and switch the power on after cleaning.

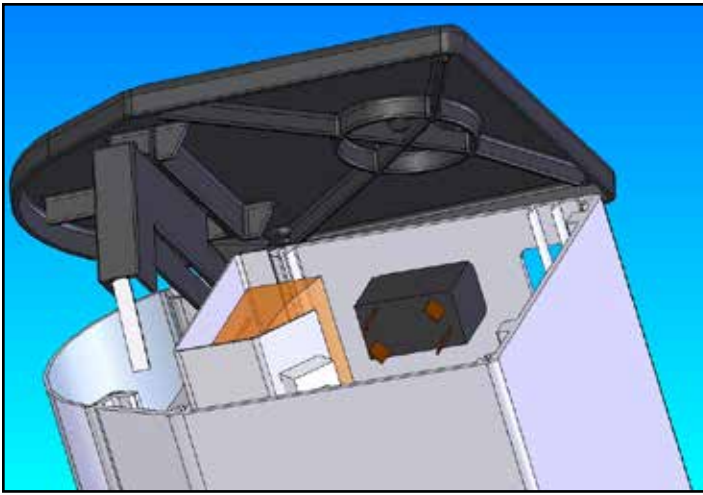


FIGURE 5 -Removing End Cap

## VII. SERVICE

### CAUTION: ELECTRIC SHOCK HAZARD:

Disconnect power when servicing unit.

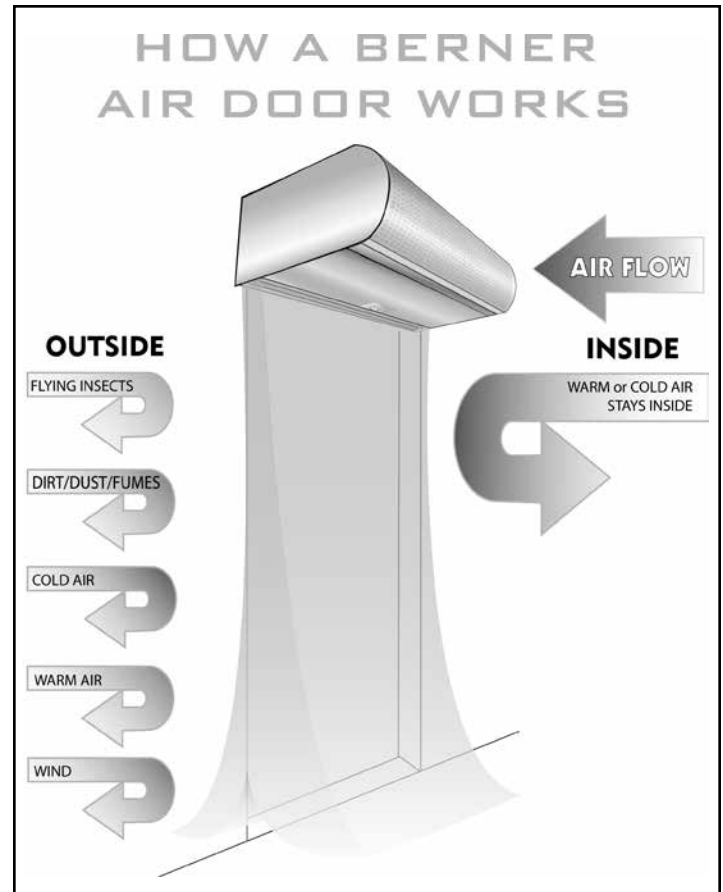
More than one disconnect may be required to de-energize unit.

Any service performed on the Drive-Thru Unit 3 air curtain **MUST** be done by qualified personnel.

Berner air curtains require very little servicing. All parts are easily accessible for periodic inspection and maintenance. Units should be cleaned at least twice a year. Your particular application (the amount of dirt and dust in the air) and location of the unit(s) will determine how often your unit(s) will need to be cleaned and serviced. All motors have permanently lubricated, sealed, sleeve, or ball bearings and require no maintenance.

### A. REPLACEMENT OF ELECTRIC HEATER ELEMENT

1. Disconnect power to the unit.
2. Remove the end cap and intake grille by removing the screws on one end of the unit and sliding the grille out.
3. Remove and mark all wires from damaged element.
4. To remove damaged element from unit, slide it out through the front of the unit.
5. Install new element and connect all wires.
6. Reinstall intake grille and end cap.
7. Connect power and turn power on.



**www.berner.com**  
**800-343-7991**

## VIII. WARRANTY

Berner International ("The Company") warrants all new equipment to be free of defects in workmanship and material for a period of one year on unheated and heated models from the original date of shipment, provided the equipment has been properly cared for, installed and operated in accordance with the limits specified on the nameplate and The Company's instructions.

The Company will correct by repair or replacement, at its option and expense, any proven defects in said apparatus, subject to the above conditions, provided that immediate written notice of such defects is given to The Company. The warranty does not include any labor incurred for the removal or installation of defective part(s). The Company reserves the right to inspect, or have inspected by a qualified representative, any apparatus at the place of installation before authorizing repair or replacement. Repair or replacement will be made F.O.B. factory with any applicable transportation charges to be borne by the customer. Merchandise not of The Company's manufacture supplied in piece, or in component assemblies, is not covered by the above warranty, but The Company will give the customer the benefit of any adjustment as made with the Manufacturer.

This warranty is void if the apparatus has been tampered with in any way or shows evidence of misuse.

The Company will not assume any expense or liability for repairs made outside its factory without proper written consent from its service manager, nor for any transportation charges on apparatus returned to the factory without written authorization by The Company.

Nothing in the above warranty provisions, however, shall impose any liability or obligation of any type, nature or description upon Berner International if Berner has not received payment in full for the apparatus in question.

**THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

### LIMITATION OF DAMAGES

**Notwithstanding anything to the contrary above, customer's exclusive remedy for any and all losses or damages resulting from the sale of The Company's equipment under this agreement, including but not limited to, any allegations of breach of warranty, breach of contract, negligence or strict liability, shall be limited, at The Company's option, to either the return of the purchase price or the replacement of the particular equipment for which a claim is made and proved. In no event shall The Company be liable for any special, consequential, incidental or indirect losses or damages from the sale of The Company's equipment under this agreement.**

SERIAL NUMBER	MODEL NUMBER	DATE PURCHASED
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*Berner reserves the right to alter specifications without prior notice.*