




www.Berner.com

**Pass-Thru 6
Air Curtain Series
#PE06 & PT06**

WHEN THE DOORS ARE OPEN™ save energy & create healthy, comfortable environments





Made in USA

Model #PE06


for outdoor use

Model #PT06



Installation & Maintenance Instructions

TABLE OF CONTENTS

I. UNCRATING.....	2
II. GENERAL MOUNTING INSTRUCTIONS	3
III. WALL MOUNTING	3
IV. SUSPENDED MOUNTING	4
V. ELECTRICAL CONNECTIONS	4
VI. OPERATING INSTRUCTIONS	5
VII. MAINTENANCE AND CLEANING	5
VIII. SERVICE	6
IX. TROUBLESHOOTING	7
X.WARRANTY	8

Thank you for choosing Berner.

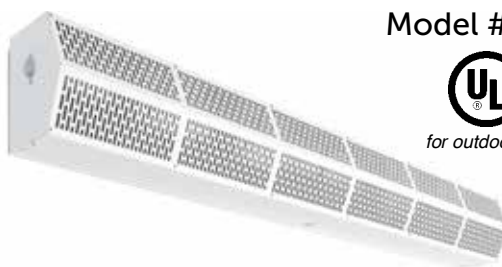
Berner International has been saving energy and creating healthy, comfortable environments for our customers for over 60 years. Berner offers unmatched quality, performance, and dependability—not to mention our service. At Berner, we stand behind our products.

READ ALL INSTRUCTIONS BEFORE INSTALLING OR USING AIR CURTAIN

II-400
August, 2021

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

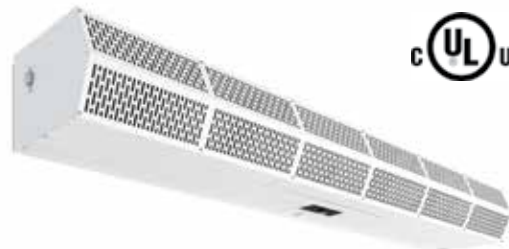
- A. Read all instructions before installing or using this air curtain.
- B. Use this unit only in the manner intended by the manufacturer and described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons. If you have any questions, contact 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).



Model #PE06



for outdoor use



Model #PT06



I. UNCRATING

Carefully examine the carton(s) for damage. If the carton is damaged, immediately notify the shipping company. **Do not delay in filing a claim.** If the air curtain(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. If the unit will be wall mounted, remove and save the locking screws from the wall plate and detach and set aside the wall mounting plate.

Immediately verify that the electrical rating nameplate located on the cover matches the electrical power supply available. Retain the shipping carton(s) until the air curtain(s) are installed and properly operating.

ACCESSORIES: If the air curtain(s) were ordered with optional electrical accessories, the accessories will be found in the carton containing the air curtain packed in a red bag (marked "additional parts inside") or in a separate carton(s) accompanying the air curtain(s).

Check all of the cartons/skids for accessories before discarding.

NOTE: Unheated models come with a remote mounted switch.

II. MOUNTING INSTRUCTIONS (General)

The Pass-Thru 6 air curtain is designed to be an effective barrier against cold drafts in the winter and hot air in the summer, flying insects and airborne contaminants. Series# PE06 is UL certified for Outdoor Mounting and may be mounted inside or outside, whereas Series# PT06 is UL certified for Indoor Mounting only. To achieve optimum protection, the unit should be mounted flush to the wall and as close to the top of the opening as possible. To ensure peak performance, keep air stream free of obstructions.

The air curtain will not perform properly if negative air pressure exists in the building. Under these conditions, a means for make-up 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 (supplied by others) should be capable of supporting a minimum of three (3) times the weight of the unit. **See 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 opening. If the air stream strikes any obstruction (the top edge of the opening, a window opening device, etc.), the effectiveness of the unit will be greatly reduced.

See FIGURE 1.

B. For optimum performance, the bottom of the unit (discharge nozzle) should be no more than 1" above the top of the opening with the unit mounted flush to the wall. If the unit must be mounted higher, it must be **spaced out** from the wall $\frac{3}{8}$ " for every inch the unit is above the opening. Any void between the air curtain and the wall should be sealed along the full length of the unit. **See FIGURE 2.**

C. Do not block (obstruct) the air intake grill. Insufficient airflow can cause the unit to overheat.

D. Electric heated air curtain(s) shall:

1. Have a minimum clearance of at least 1" from the sides and 1" from the top for electric heated units.
2. Have a minimum clearance of at least 6' between the bottom of the air curtain and the floor.
3. Be installed Indoors Only.

E. Proceed to: **Section III-WALL MOUNTING** or **Section IV-SUSPENDED MOUNTING**

III. WALL MOUNTING

A. PREPARATION

1. Position and center the mounting plate over the window opening. The mounting plate must be positioned with the hook on top.
2. Mark and drill holes on the mounting plate where the wall will provide sufficient support for the air curtain. A minimum of four holes close to the corners is recommended. **See FIGURE 3.** The mounting hardware (supplied by others) must be capable of supporting a minimum of three times the net weight of the air curtain. **See WEIGHT CHART, TABLE 1.**
3. Drill the four holes as marked on the wall and attach the mounting plate with anchors (if used) and the four mounting screws (provided by others).

B. ATTACHING THE AIR CURTAIN TO THE MOUNTING PLATE.

1. Raise the unit over the opening (air nozzle facing down) and onto the mounting plate. Tilt the unit upward, matching the holes in the frame with the tabs on the mounting plate. **See FIGURE 4.**

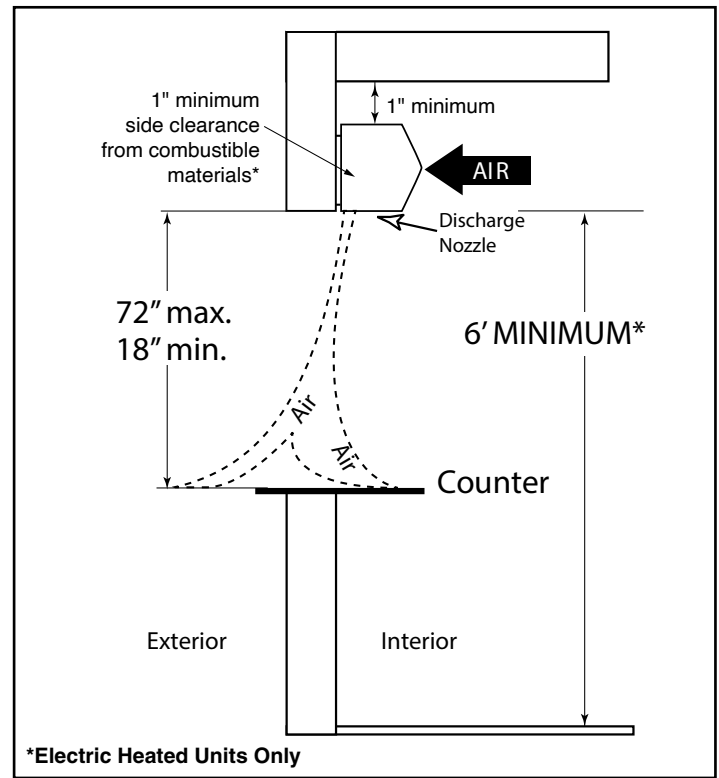


FIGURE 1 - Air Stream

MODEL PE06C	Net Weight (lbs)
PE06-C-1025A	30
PE06-C-1030A	33
PE06-C-1036A	35
PE06-C-1042A	38
PE06-C-1048A	42
PE06-C-1060A	49
PE06-C-1072A	56
PE06-C-2084A	76
PE06-C-2096A	84
PE06-C-2108A	91
PE06-C-2120A	98

MODEL PT06C	Net Weight (lbs)
PT06-C-1025E	37
PT06-C-1030E	42
PT06-C-1036E	48
PT06-C-1042E	53
PT06-C-1048E	58
PT06-C-1060E	67
PT06-C-1072E	77
PT06-C-2084E	105
PT06-C-2096E	115
PT06-C-2108E	123
PT06-C-2120E	137

TABLE 1 - Weight Charts

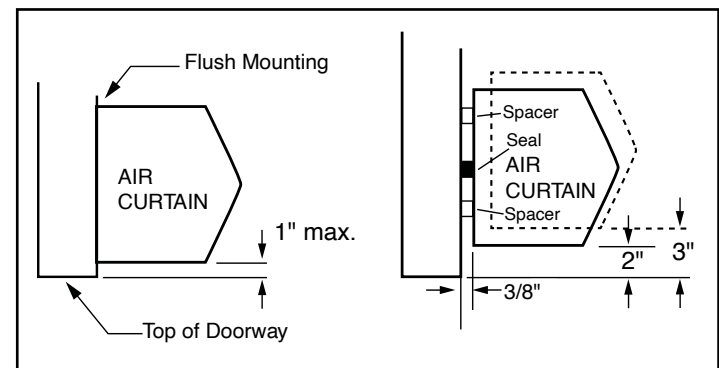


FIGURE 2 - Positioning of Air Curtain

2. Lower the unit into place allowing it to rest on the mounting plate. The unit flange should rest above the mounting plate flange.

3. After the unit is securely seated to the mounting plate, install the locking screws along the bottom flange.

See **FIGURE 4**.

C. Proceed to **Section V-ELECTRICAL CONNECTIONS**

IV. SUSPENDED MOUNTING

(Ceiling Suspension)

A. When the unit is top mounted, the wall mounting plate is designed to store on the back of unit for future use.

B. Four (4) factory installed #10-24 threaded inserts are located on the top of the unit for top suspension mounting.

See **FIGURE 5**.

C. Determine the exact mounting location of the air curtain.

D. Install #10-24 threaded rods, or other suitable hardware at a location sufficient to support the air curtain. The mounting hardware (supplied by others) must be capable of supporting a minimum of three times the net weight of the air curtain. See **WEIGHT CHART, TABLE 1**.

E. Attach #10-24 threaded rods, or other suitable hardware to the top mounted threaded inserts.

F. Proceed to **Section V-ELECTRICAL CONNECTIONS**

V. 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. Check the electrical rating nameplate on the top of the air curtain for supply voltage and current requirements.

A. A separate line voltage supply with a suitable branch circuit protection device should be run directly from the main electrical panel to the air curtain. 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 air curtain must be replaced, it must be replaced with copper wiring with a minimum insulation of 90° C.

C. On top of the air curtain, remove the wiring compartment cover. See **FIGURE 6**.

D. Remove the required knockout(s) and connect the power supply to the air curtain. Connect all supply and control circuit wires according to the wiring diagram provided.

NOTE: For Electrically Heated air curtain(s) provided with the optional remote thermostat: mount and wire the thermostat according to instructions and wiring diagram.

NOTE: For Electrically Heated air curtain(s) - Overheating protection is provided by auto reset thermal cutouts built into the heater coil assembly (see the wiring diagram, located in wiring tray).

VI. OPERATING INSTRUCTIONS

A. GENERAL OPERATION

1. The air curtain can be directly operated by using the rheostat variable speed switch:

Series# PE06 - Unheated units use a remote mounted rheostat variable speed switch that is shipped loose and is located in the red bag.

Series# PT06 - Heated units include a built-in rheostat variable speed switch and a built-in heat on/off switch on the bottom of the air curtain. Units ordered with a remote mounted rheostat variable switch have no

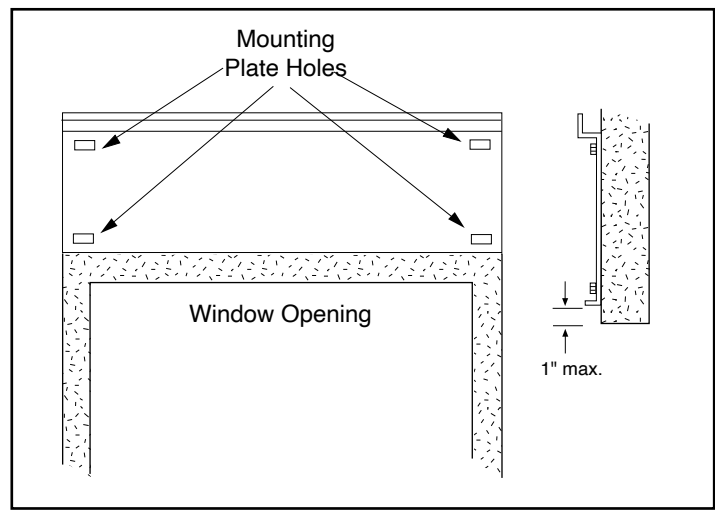


FIGURE 3 - Positioning of Mounting Plate

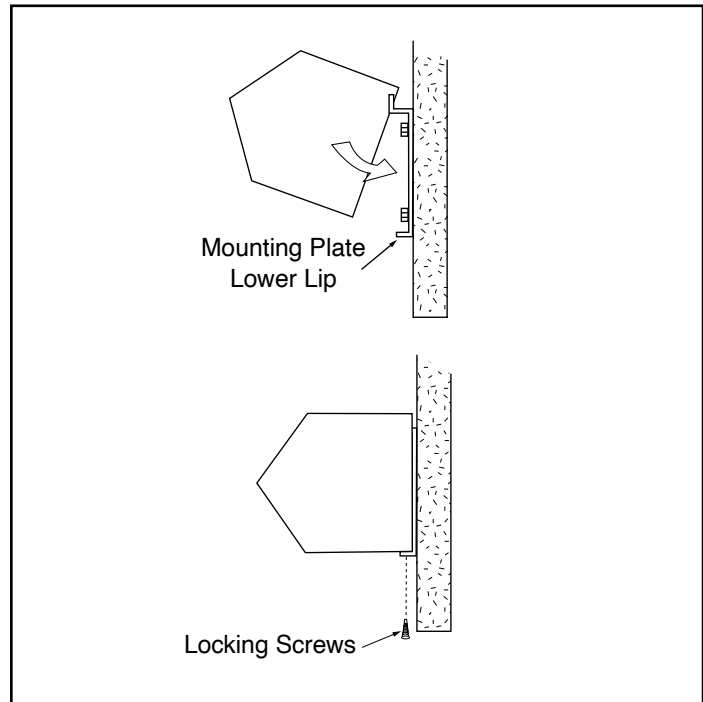


FIGURE 4 - Attaching Unit to Mounting Plate

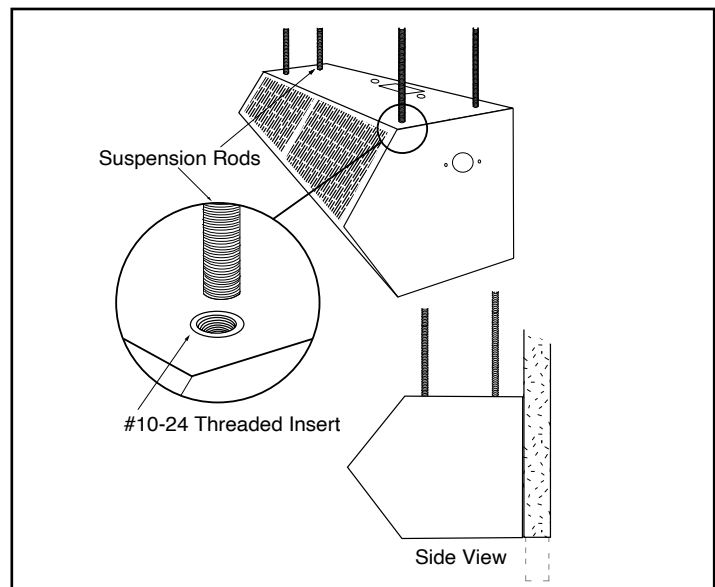


FIGURE 5 - Suspended Mounting

heat on/off switch; the heater is operated via the thermostat.

2. **Unheated units** have one rheostat switch that turns the unit on or off and provides fan speed control.
3. **Heated units** have: 120V – one rheostat switch per motor, 208/240V - one rheostat switch per unit, that turns the unit on or off and provides fan speed control, and another switch that turns on or off the electric heater. Units outfitted with remote rheostats do not have a heat on/off switch.
4. The air curtain may also be automatically operated by a combination of the rheostat switch and a remote door switch and/or thermostat (See the wiring diagram).

B. RHEOSTAT FIELD ADJUSTMENT

1. Locate the hole in the nameplate for access to the adjusting screw.
2. Insert small Phillips screwdriver in hole and gently turn POT in proper direction to change speed.
3. A very small degree of rotation is required to change speed, wait for speed to settle, then change a little more if needed.
4. Test full range, turn knob to high speed to check for variation.
5. Ambient unit low speed should be about 1050 RPM, Electric heated unit low speed should be about 1250 RPM.
See FIGURE 7.

WARNING: SETTING POT TOO HIGH MAY CAUSE MOTOR TO STALL ON LOW SPEED.

IF SPEED IS TOO LOW ON ELECTRIC HEATED UNITS, YOU CAN CREATE ABNORMAL POTENTIALLY HAZARDOUS TEMPERATURES CAUSING THE HEATERS TO TRIP OUT THE THERMAL CUTOUPS INTERMITTENTLY.

C. AIR STREAM SPLIT ADJUSTMENT

1. With the air curtain operating and the window is 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, by its corners, approximately 12" above the counter. Gently move the handkerchief back and forth in the window. 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.
See FIGURE 8.
3. Adjust the discharge nozzle vanes so the split location is approximately 3" outside the opening. This is accomplished by de-energizing the unit, loosening the nozzle vane locking screws and adjusting vanes.

VII. MAINTENANCE AND CLEANING

CAUTION: ELECTRIC SHOCK HAZARD Disconnect power whenever servicing air curtain unit. More than one disconnect may be required to de-energize air curtain unit.

Keep your air curtain operating at peak efficiency by cleaning the blower wheels, motor(s) and intake grille. Buildup 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 in which 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.

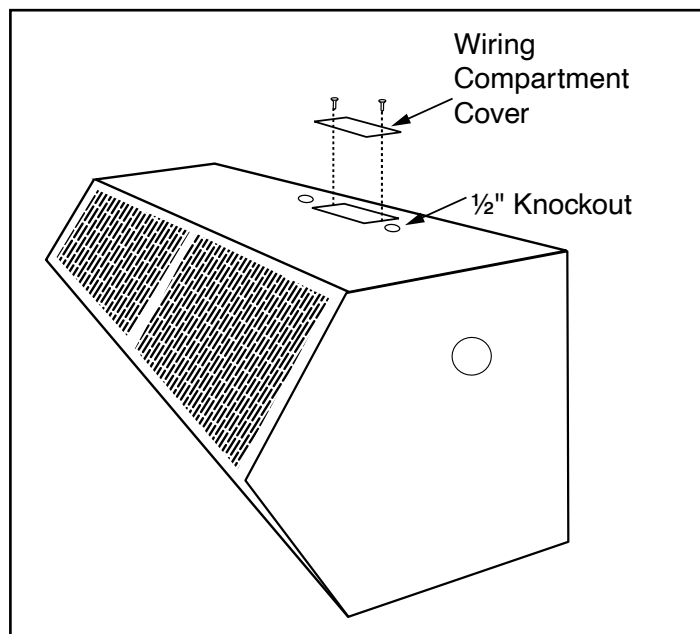


FIGURE 6 - Electrical Connections

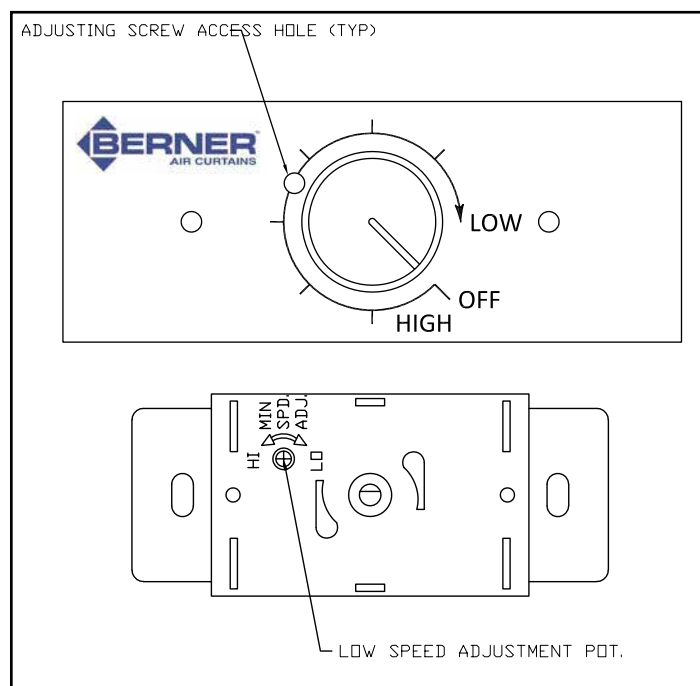


FIGURE 7 - Rheostat Field Adjustment

A. PERFORMING PREVENTATIVE MAINTENANCE

1. Disconnect the power to the unit.
2. Remove the intake screen by removing all Phillips head screws around the edge. **See FIGURE 9.**
3. Vacuum and scrape (if necessary) to remove the buildup of dirt and debris. The motor(s) are permanently lubricated and require no additional lubrication. Reinstall the cover and intake grille.
4. Reconnect the power, and turn on after cleaning.
CAUTION: STAND CLEAR OF THE UNIT OR WEAR SAFETY GOGGLES AS LOOSE DEBRIS MAY BE PRESENT AND MAY EXIT THROUGH THE NOZZLE.

VIII. SERVICE

CAUTION: ELECTRIC SHOCK HAZARD Disconnect power whenever servicing air curtain unit. More than one disconnect may be required to de-energize unit.

Any service performed on the Pass-Thru 6 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 bearings and require no maintenance.

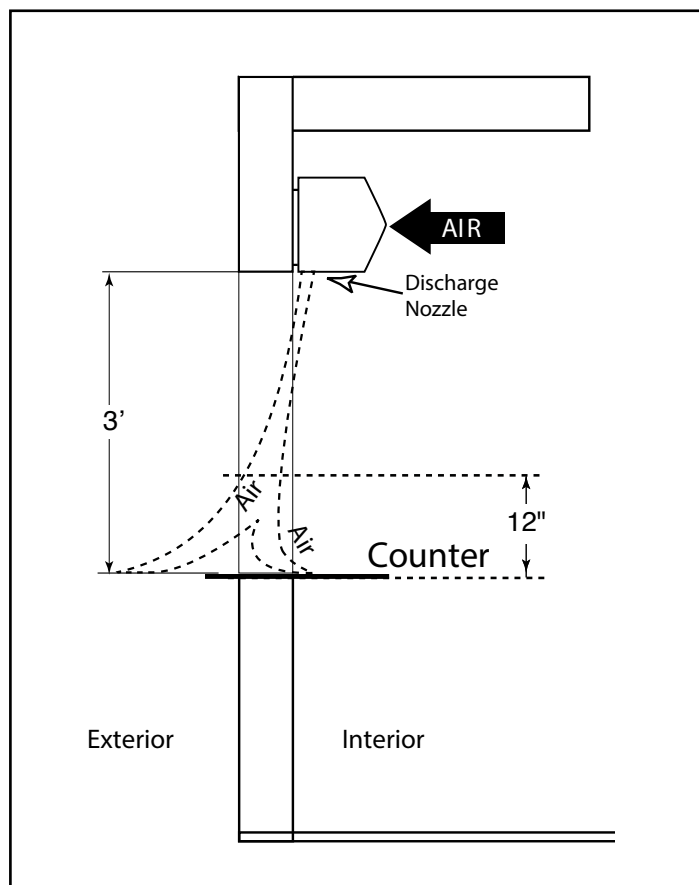


FIGURE 8 - Air Flow Adjustment

A. FAN AND MOTOR REMOVAL

1. Disconnect power to the unit.
2. Remove the intake screen by removing all Phillips head screws around the edge. **See FIGURE 9.**
3. Unplug motor harness from motor and remove necessary wiring.
4. Using a 1/8" Allen wrench, loosen each set screw attaching fan(s) to motor.
5. While holding the motor in place, loosen and remove the motor clips.
6. Slide the fans toward the motor so that the ball bearings on the outer fan shaft are exposed.
7. Slowly roll the motor out of the motor mount cradle forward and down. The hubs of the fans are flexible enough to allow the motor to move before the fans' outer ball bearings pull out of the unit.
8. Reinstall in reverse order of removal.

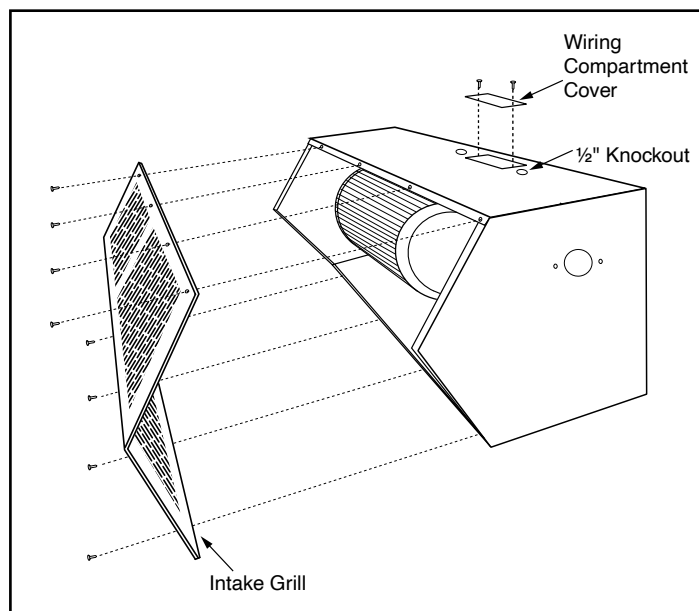


FIGURE 9

IX. TROUBLESHOOTING

SYMPTOMS	CAUSE	REMEDY
NO AIR	<ul style="list-style-type: none"> • Electrical Power supply line open (no power) • Fuse blown/circuit breaker tripped • Motor overload tripped • Failed switch 	<ul style="list-style-type: none"> • Check power source, check method of control is in "ON" position • Replace fuse(s)/reset breaker • Internally protected motor - should reset automatically after cool-down, if not, replace motor. • Replace switch
	MOTOR RUNNING/FANS ARE NOT ROTATING	
	<ul style="list-style-type: none"> • Broken fan hub • Shaft rotating inside fan • Broken / Loose coupling 	<ul style="list-style-type: none"> • Replace fan • Tighten set screws/tighten fan on shaft • Replace / Tighten coupling
	ELECTRICAL CONTROLS NOT FUNCTIONING WHEN WINDOW IS OPEN	
	<ul style="list-style-type: none"> • Selector switch is in "OFF" position • Door limit switch not operating 	<ul style="list-style-type: none"> • Turn switch to "ON" position • Repair or replace limit switch
MINIMUM AIR	<ul style="list-style-type: none"> • Air directional discharge vanes misadjusted • Inadequate intake clearance • Blower motor operates below speed • Fan rubbing against housing • Fan wheels clogged with dirt 	<ul style="list-style-type: none"> • Adjust vanes to proper position; see installation instructions • Move air curtain or remove obstruction Provide adequate space for air curtain • Improper voltage • Free fan from housing • Clean and vacuum fan wheels
AIR IS NOT HITTING FLOOR	<ul style="list-style-type: none"> • Air stream too weak • Air steam hits obstruction • Negative pressure 	<ul style="list-style-type: none"> • Adjust nozzle to proper position, adjust motor speed; see installation instructions • Remove obstruction or reposition air curtain (move out 3/8" for every 1" up from the opening) • Relieve negative pressure by providing makeup air
UNEVEN AIR	<ul style="list-style-type: none"> • Shaft rotating inside fan 	<ul style="list-style-type: none"> • Tighten set screws/Replace fan
EXCESSIVE AIR MOVEMENT AT OPENING	<ul style="list-style-type: none"> • Nozzle not angled out far enough • Air movement too cold • Pushing air outside building <p>SEE: AIR IS NOT HITTING FLOOR</p>	<ul style="list-style-type: none"> • Adjust nozzle angle to outside • Add auxiliary heat to overcome wind chill • Adjust nozzle angle towards counter threshold

X. WARRANTY

Berner International ("The Company") warrants all new equipment to be free of defects in workmanship and material for a period of five years (5 years) on unheated models and two years (2 years) on 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

DATE PURCHASED



Saving energy and creating healthy, comfortable environments

BERNER INTERNATIONAL
New Castle, Pennsylvania

724-658-3551 • 1-800-245-4455 • www.Berner.com

Berner reserves the right to alter specifications without prior notice.