IMPORTANT INSTRUCTIONS
READ AND SAVE THESE INSTRUCTIONS

No.    II-480
Date     September, 2016

SANITATION CERTIFIED
Low Profile 7
AIR CURTAIN SERIES SLC07

COMMERCIAL
Low Profile 8
AIR CURTAIN SERIES CLC08

Installation & Maintenance Instructions

TABLE OF CONTENTS
I. UNCRATING............................................................................................................................................................. 2
II. MOUNTING INSTRUCTIONS................................................................................................................................ 2
III. WALL MOUNTING................................................................................................................................................ 2
IV. SUSPENDED MOUNTING.................................................................................................................................... 3
V. ELECTRICAL CONNECTIONS .............................................................................................................................. 3
VI. MECHANICAL CONNECTIONS .......................................................................................................................... 5
VII. AIRFLOW ADJUSTMENTS ................................................................................................................................. 5
VIII. MAINTENANCE AND CLEANING .................................................................................................................... 6
IX. SERVICE ................................................................................................................................................................ 6
X. TROUBLESHOOTING ............................................................................................................................................ 7
XI. WARRANTY .......................................................................................................................................................... 8

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 3, 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 THE AIR CURTAIN UNIT

Carefully examine the carton(s) for damage before opening. If the carton is damaged, immediately notify the 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. Remove the plastic cover housing by lifting vertically. Remove and discard four (4) nuts and washers holding the motor/blower section to the bottom of the carton. Remove motor/blower section from the carton.

CAUTION: ONLY LIFT THE UNIT BY GRASPING INLET RINGS ON THE BLOWER HOUSING WITHOUT TOUCHING BLOWER WHEELS. 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) are installed and properly operating.

ACCESSORIES: If the unit(s) were ordered with optional electrical accessories (door switch, control panel, etc.), 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)

The Certified Low Profile 7/Commercial Low Profile 8 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. To achieve optimum protection, the unit should be mounted on the inside of the building, flush to the wall and as close to the top of the door 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 door opening. If the air stream strikes any obstruction (the top edge of the doorway, a door 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 door 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 door opening. Any void between the air curtain and the wall should be sealed along the full length of the unit. See FIGURE 2.

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

A. Determine the location on the wall above the opening where the air curtain will be mounted. This location should center the unit over the opening and provide suitable mounting support. It is recommended to use at least four locations that correspond to the outer corners of the wall mounting plate. See FIGURE 3.

B. Prepare the wall as necessary for the wall mounting plate anchors (by others).
C. Drill holes in the wall mounting plate to correspond to the locations on the wall.
D. Anchor the wall mounting plate over the door opening with the mounting tabs pointing upwards.
E. Raise the unit over the door (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.
F. Lower the unit into place allowing it to rest on the mounting plate. The unit flange should rest above the mounting plate flange.
G. After the unit is securely seated to the mounting plate, install the locking screws along the bottom flange. See FIGURE 4.
H. 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. The top of the unit is provided with an electrical knockout for power connection. Remove the wiring tray compartment cover. Remove the knockout and attach necessary electrical hardware. Save the wiring diagram found inside of wiring tray.
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.

A. Check the electrical rating nameplate on the top of the air curtain for supply voltage and current requirements. 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. Remove the wiring tray cover; on air curtains that are comprised of modules, remove the wiring tray cover that is located closest to the electrical rating nameplate (if it has not already been done). **See FIGURE 6.**

D. The top of the air curtain has two knockouts on each side of the air curtain, allowing for a left hand or right hand power connection. Remove the required knockout if it has not already been done 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.
VI. MECHANICAL CONNECTIONS
A. ELECTRICALLY HEATED MODELS
   The heater circuit may be controlled by a combination of a remote thermostat and the fan/off/fan & heat rocker switch. Overheating protection is provided by auto reset thermal cutouts built into the heater coil assembly (see the wiring diagram, located in wiring tray).

B. STEAM OR HOT WATER HEATED MODELS
   Piping should be done in accordance with local codes, regulations and standard practices. Connect the building system supply and return to the ¾” MPT nipples on the heating coil. See FIGURE 7.

VII. OPERATING INSTRUCTIONS
A. GENERAL OPERATION
   1. The air curtain can be directly operated by using the rocker switches located on the bottom of the unit. The air curtain may also be automatically operated by a combination of the rocker switches and a remote door switch and/or thermostat (See the wiring diagram).
   2. Rocker switch positions are labeled on the air curtain cabinet.
   3. Unheated units have one rocker switch that turns the unit on or off. The other rocker switch selects fan speed.
   4. Heated units have one rocker switch that determines whether the unit is off, energizes only the fans, or energizes both the fans and the method of heat. The other rocker switch selects fan speed.

B. AIR STREAM SPLIT ADJUSTMENT
   1. With the air curtain 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, by its corners, approximately 12” above the floor. 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. See FIGURE 8.
   3. Adjust the discharge nozzle vanes so the split location is approximately 3” outside the doorway. This is accomplished by first de-energizing the unit. Remove the cover housing, loosen the nozzle vane locking screws and adjust vanes.

FIGURE 7 - Steam/Hot Water Connections

FIGURE 8 - Air Flow Adjustment
VIII. 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. To access the interior of the unit:

A. Disconnect the power to the unit.
B. Remove the intake grille by removing all phillips head screws around edge. See FIGURE 9.
C. 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.
D. 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.

IX. 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 Certified Low Profile7/Commercial Low Profile 8 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.

A. FAN AND MOTOR REMOVAL

1. Disconnect power to the unit.
2. Remove the intake grille by removing all phillips head screws around 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.
## X. TROUBLESHOOTING

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO AIR</td>
<td>• Electrical Power supply line open (no power)</td>
<td>• Check power source, check method of control is in &quot;ON&quot; position</td>
</tr>
<tr>
<td></td>
<td>• Fuse blown/circuit breaker tripped</td>
<td>• Replace fuse(s)/reset breaker</td>
</tr>
<tr>
<td></td>
<td>• Motor overload tripped</td>
<td>• Internally protected motor - should reset automatically after cool-down, if not, replace motor.</td>
</tr>
<tr>
<td></td>
<td>• Failed switch</td>
<td>• Replace switch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOTOR RUNNING/FANS ARE NOT ROTATING</td>
<td>• Broken fan hub</td>
<td>• Replace fan</td>
</tr>
<tr>
<td></td>
<td>• Shaft rotating inside fan</td>
<td>• Tighten set screws/tighten fan on shaft</td>
</tr>
<tr>
<td></td>
<td>• Broken / Loose coupling</td>
<td>• Replace / Tighten coupling</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTRICAL CONTROLS NOT FUNCTIONING WHEN DOOR IS OPEN</td>
<td>• Selector switch is in &quot;OFF&quot; position</td>
<td>• Turn switch to &quot;ON&quot; position</td>
</tr>
<tr>
<td></td>
<td>• Door limit switch not operating</td>
<td>• Repair or replace limit switch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MINIMUM AIR</td>
<td>• Air directional discharge vanes misadjusted</td>
<td>• Adjust vanes to proper position; see installation instructions</td>
</tr>
<tr>
<td></td>
<td>• Inadequate intake clearance</td>
<td>• Move air curtain or remove obstruction</td>
</tr>
<tr>
<td></td>
<td>• Blower motor operates below speed</td>
<td>• Provide adequate space for air curtain</td>
</tr>
<tr>
<td></td>
<td>• Fan rubbing against housing</td>
<td>• Improper voltage</td>
</tr>
<tr>
<td></td>
<td>• Fan wheels clogged with dirt</td>
<td>• Free fan from housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clean and vacuum fan wheels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR IS NOT HITTING FLOOR</td>
<td>• Air stream too weak</td>
<td>• Adjust nozzle to proper position, adjust motor speed; see installation instructions</td>
</tr>
<tr>
<td></td>
<td>• Air steam hits obstruction</td>
<td>• Remove obstruction or reposition air curtain (move out 3/8&quot; for every 1” up from the door)</td>
</tr>
<tr>
<td></td>
<td>• Negative pressure</td>
<td>• Relieve negative pressure by providing makeup air</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNEVEN AIR</td>
<td>• Shaft rotating inside fan</td>
<td>• Tighten set screws/Replace fan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCESSIVE AIR MOVEMENT AT DOORWAY</td>
<td>• Nozzle not angled out far enough</td>
<td>• Adjust nozzle angle to outside</td>
</tr>
<tr>
<td></td>
<td>• Air movement too cold</td>
<td>• Add auxiliary heat to overcome wind chill</td>
</tr>
<tr>
<td></td>
<td>• Pushing air outside building</td>
<td>• Adjust nozzle angle towards door threshold</td>
</tr>
<tr>
<td></td>
<td>SEE: AIR IS NOT HITTING FLOOR</td>
<td></td>
</tr>
</tbody>
</table>
XI. 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 HERE OF 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

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.

© Copyright 2016 Berner International

MADE IN U.S.A.