



Architectural Recessed  
Air Curtain Series  
#ARE12 & ARE16

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



Connect with  
**BERNER AIR**  
▶ SET UP  
▶ CONTROL  
▶ TROUBLESHOOT

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Installation & Maintenance Instructions

**TABLE OF CONTENTS**

I. UNCRATING.....	2
II. MOUNTING PREPARATION .....	4
III. GENERAL MOUNTING INSTRUCTIONS .....	5
IV. ELECTRICAL CONNECTIONS .....	5
V. FIELD CONNECTIONS .....	6
VI. OPERATING INSTRUCTIONS (Berner AIR®, Intelliswitch™).....	7
INTELLISWITCH™ QUICK START OPERATION.....	12
VII. MAINTENANCE AND CLEANING.....	8
VIII. SERVICE .....	10
IX. TROUBLESHOOTING .....	14
X. APPENDIX	
A. INTERCONNECT OPERATION (daisy chain) .....	15
B. REMOTE MOUNTED TOUCHSCREEN or TABLET .....	15
C. BUILDING MANAGEMENT SYSTEM (BMS) INTEGRATION (BACnet or Modbus) .....	15
XI.WARRANTY .....	16

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.

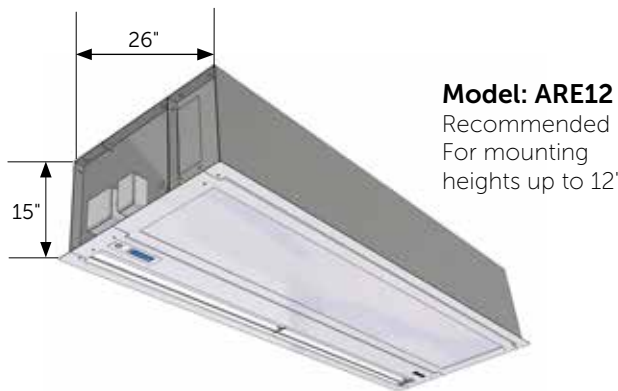


READ ALL INSTRUCTIONS BEFORE INSTALLING OR USING AIR CURTAIN

II-300-E  
June, 2025

## 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 5, 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. 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.

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.

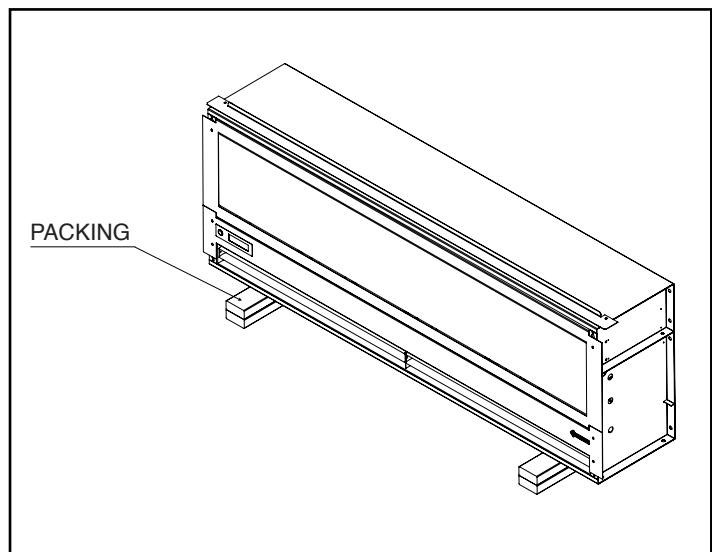
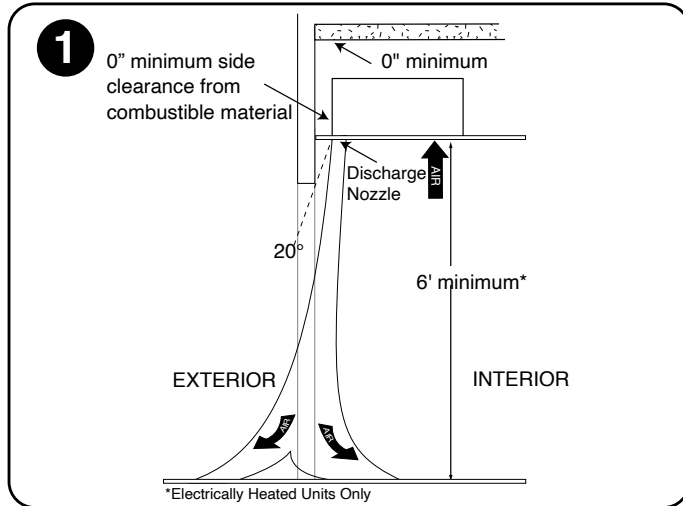


Figure 1 - Uncrating

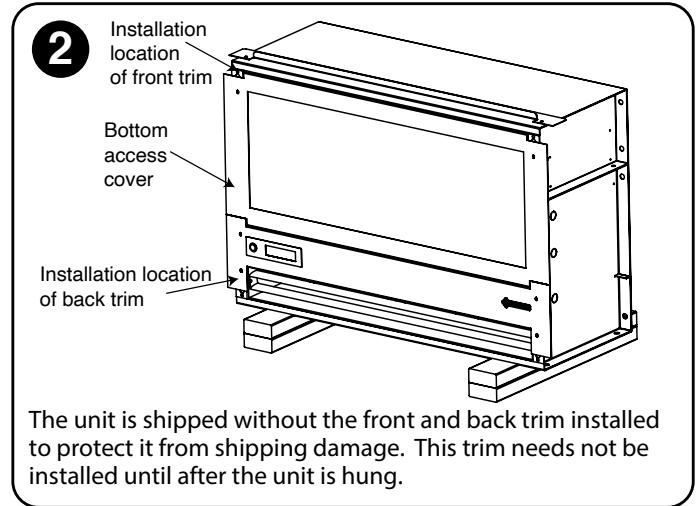


## Architectural Recessed 12 & 16 Air Curtain

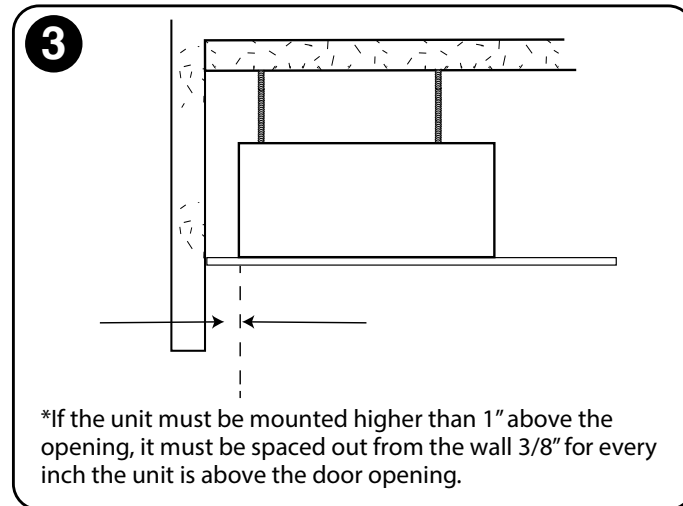
Simple to install, Easy to operate & maintain



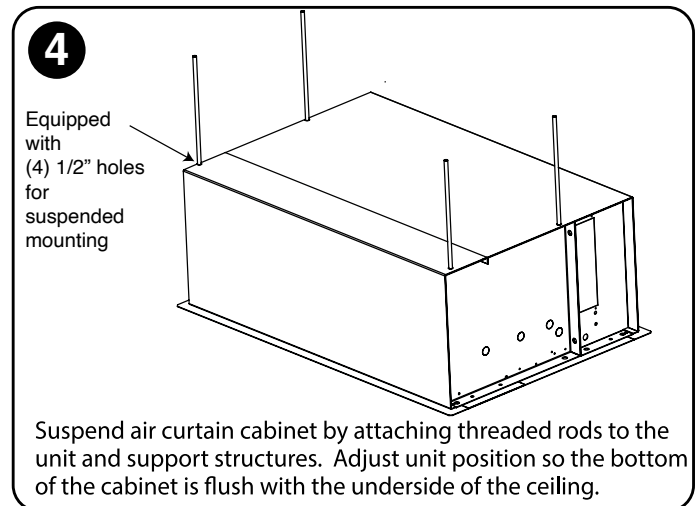
For more information see page 4



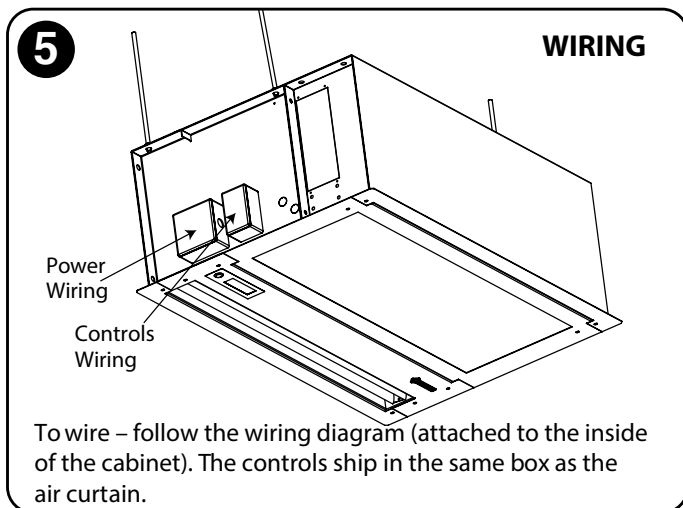
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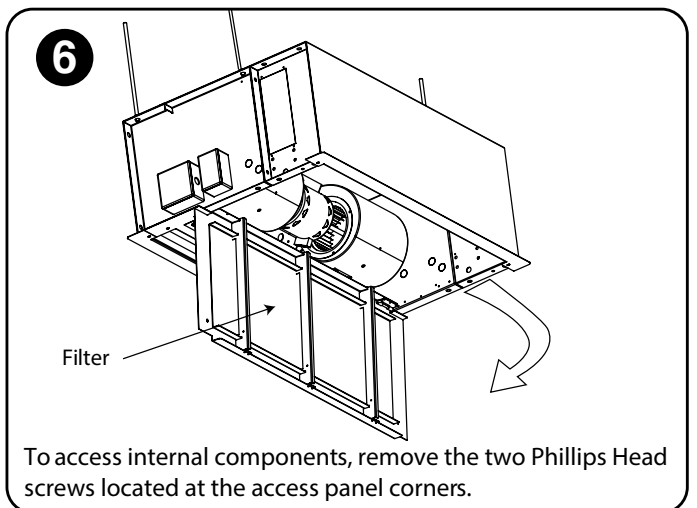
For more information see page 4



For more information see page 5



For more information see page 5



For more information see page 9

## II. MOUNTING PREPARATION

### INDOOR MOUNTING ONLY

To achieve optimum protection, the air curtain 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 the 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 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 air curtain, check the supporting structure to verify that it has sufficient load-carrying capacity to support the weight of the air curtain(s). The mounting hardware (supplied by others) should be capable of supporting a minimum of three (3) times the weight of the air curtain.

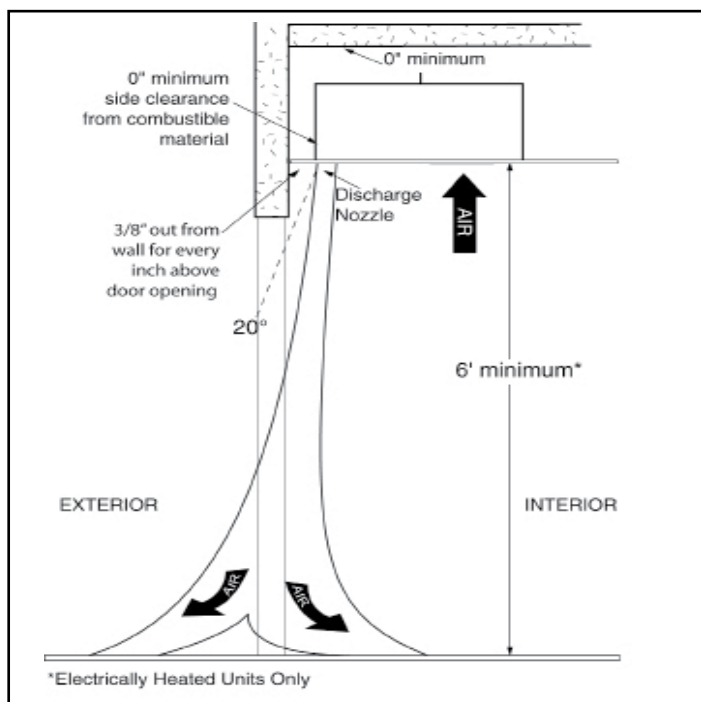
**See Table 1.**

- 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 2.**
- B. For optimum performance, the bottom of the discharge nozzle should be located in such a manner that it is spaced out from the wall 3/8" for every inch the unit is above the door opening.
- C. Do not block (obstruct) the air intake screen. Insufficient airflow can cause the unit to overheat.
- D. Electric heated unit(s) shall:
  1. Have a minimum clearance of at least 6' between the bottom of the unit and the floor.
  2. Be installed Indoors Only.
- E. The unit is shipped without the front and back trim installed to protect it from shipping damage. This trim need not be installed until after the unit is hung. **See Figure 3.**

Model	TOTAL NET WEIGHT		
	Ambient	Electric Heat	Steam/Hot Water Heat
ARE12-1036	101	105	126
ARE12-1042	108	112	136
ARE12-1048	114	118	145
ARE12-1060	134	138	177
ARE12-2060	171	179	214
ARE12-2072	182	190	229
ARE12-2078	188	196	238
ARE12-2084	194	202	247
ARE12-2096	205	213	264
ARE12-3096	245	257	304
ARE12-3108	273	285	337
ARE12-3120	285	297	354
ARE12-3132	297	309	376
ARE12-3144	308	320	393
ARE12-4144	364	380	449

Model	TOTAL NET WEIGHT (kgs)		
	Ambient	Electric Heat	Steam/Hot Water Heat
ARE16-1036	47	49	59
ARE16-1042	50	52	68
ARE16-1048	53	55	73
ARE16-1060	62	64	85
ARE16-2060	80	84	103
ARE16-2072	85	89	110
ARE16-2078	88	92	115
ARE16-2084	91	94	119
ARE16-2096	96	99	126
ARE16-3096	115	120	146
ARE16-3108	127	133	160
ARE16-3120	133	139	168
ARE16-3132	138	144	178
ARE16-3144	143	149	185
ARE16-4144	170	177	212

**TABLE 1 - Weight Charts**



**Figure 2 - General Mounting**

### III. MOUNTING INSTRUCTIONS (General)

- A. The Architectural Recessed 12/16 series air curtain enclosure is equipped with four 1/2" holes on the top of the unit for suspended mounting. **See Figure 4.**  
**For lighter lifting the blower assembly may be removed so that the enclosure can be easily installed.**  
**See Section VII: SERVICE** for instruction on removing the blower assembly.
- B. The electrical junction box(s) is located on the outside of the enclosure on the left side (standard) of the unit.
- C. Determine the exact mounting location of the air curtain unit.
- D. Create structural attachment points to suspend the unit above the ceiling so that the unit is centered and parallel with the door opening.
- E. Suspend air curtain cabinet by attaching threaded rods to the unit and support structures. Adjust unit position so the bottom of the cabinet is flush with the underside of the ceiling.
- F. Install the front and back trim using the provided fasteners.  
**See Figure 4.**
- G. Finish off ceiling edge as required.  
**NOTE: Finishing materials must not overlap the bottom of the cabinet to allow the intake screen to operate freely.**
- H. If the blower assembly was removed, re-install it along with nozzle surround and bottom access cover.
- I. Proceed to **Section IV – ELECTRICAL CONNECTIONS**

### IV. ELECTRICAL CONNECTIONS

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

**MAKE SURE THE CORRECT VOLTAGE AS MARKED ON THE UNIT IS USED.**

- A. Check the rating nameplate on the unit 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 unit. A disconnect switch for each branch circuit is a required part of this installation. See the voltage label on the unit for circuiting and total electrical load.
- 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.
- C. Electric, steam and hot water heated air curtains are factory equipped with an air curtain mounted solid state temperature sensor cable located in the j-box. Depending on where the temperature is to be measured, the sensor may be left on the end plate or positioned elsewhere. Do not put any clamps on the rubber coated tip.
- D. Remove the junction box cover.
- E. Connect all supply and control circuit wires according to the wiring diagram provided.

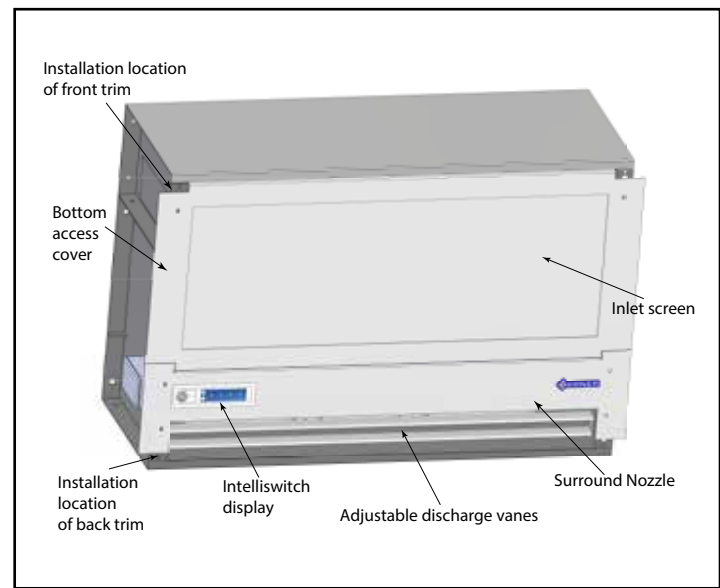


Figure 3

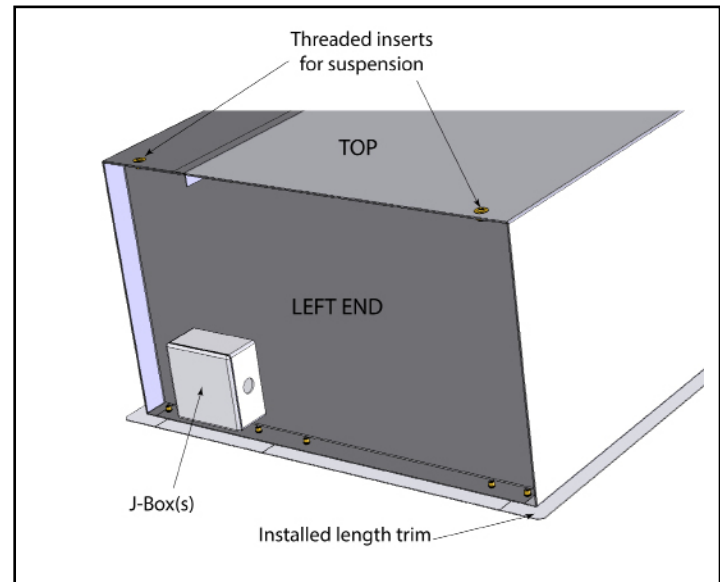


Figure 4

**NOTE: For Electric, Steam and Hot Water heated air curtains** provided with an optional remote thermostat, mount and wire the thermostat according to thermostat instructions and wiring diagram.

**For Programming multiple air curtains from a single source, there are two options:**

1. **Interconnect Connection (aka daisy chain) via physical connection**, see **Appendix A**. **NOTE:** The air curtain must have been ordered from the factory with the Interconnect physical data link option.
2. **Grouping via the Berner AIR app**, see **Section VII - Operating Instructions**.  
**NOTE:** All Architectural Recessed air curtains include the Berner AIR smart control & app.

**For Remote Mounted Intelliswitch™ Touchscreen Display or Touchscreen Tablet** (ordered separately), see **Appendix B**.

**NOTE:** The air curtain must have been ordered from the factory with Remote Mounted Intelliswitch™ Touchscreen Display or with the factory installed PoE for connection to a touchscreen tablet.

**For BACnet or Modbus Integration, see Appendix C.**

**For Electric, Steam and Hot Water air curtains, see Section VI - Field Connections, otherwise proceed to Section VII - Operating Instructions**

## V. FIELD CONNECTIONS

### A. ELECTRICALLY HEATED MODELS

The heater circuit may be controlled by an optional remote thermostat or through the built-in Intelliswitch™ temperature probe located on top of the air curtain. Overheating protection is provided by auto reset thermal cutouts built into the heater coil assembly (see the wiring diagram attached to the screen in a small bag).

**See Figure 8.**

**NOTE: Maximum mounting distance between the Display Faceplate and the air curtain is 20'.**

1. When the remote faceplate option is ordered from the factory, the air curtain comes equipped with the blank faceplate already installed and the 20' ribbon cable attached. The Display Faceplate is shipped loose, ready for field installation.
2. Locate the male end of the conductor ribbon cable and run it to the remote display location. The cable is minimum CL2 rated and should not need to be in conduit.
3. Connect the female end of the ribbon cable to the 14-pin socket on the back of the display board with the cable approaching from the top and the red ribbon indicator to the right (when facing the front of the display board).
4. Mount Display Faceplate to the wall.



## B. STEAM AND HOT WATER HEATED MODELS

An optional water coil solenoid valve (by others or Berner) may be controlled through the Intelliswitch™ or independently. The Intelliswitch™ is capable of providing the same voltage used for the motor to power a solenoid load up to 5 amps. This call for heat may be controlled by an optional remote thermostat or through the built-in Intelliswitch™ thermostat probe located on top of the air curtain. Piping should be done in accordance with local codes, regulations and standard practices. Connect the building system to the (1"-ARE12 or 1-1/4"- ARE16) MNPT supply and return header connections. **See Figure 5.**

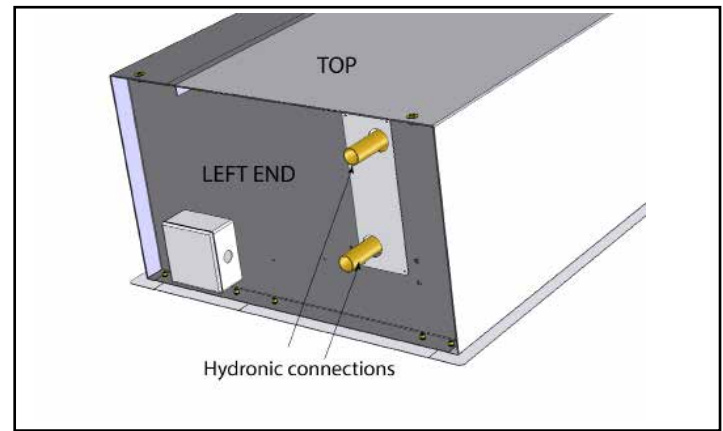


Figure 5 - Steam / Hot Water Connections

## VI. OPERATING INSTRUCTIONS

This air curtain comes with a built-in **Intelliswitch™** digital controller with touchscreen display and the **Berner AIR® BASIC** smart control and app to control and schedule fan activation, fan speed selection, heat activation, and more. **The Berner AIR® BASIC** also includes features such as grouping, and adaptive settings. The air curtain must be properly installed before it can be used.

### A. GENERAL OPERATION

1. To operate using the **built-in touchscreen display**, located on the bottom of the air curtain, follow the guided prompts on the touchscreen. For more information, proceed to the **Quick Start Operation Guide, page 12.**
2. To operate using the **Berner AIR® App**, download the app and follow the prompts. After setting up an account, continue to follow the prompts to add the air curtain to the app. The app allows air curtain(s) to be programmed & operated via smart phone, and requires an on-site, secure internet connection. Berner recommends having the on-site user(s) set-up the Berner AIR app on his/her smart phone.
  - a. **Grouping:** To group more than one air curtain together, all air curtains to be grouped must be connected to the Internet and have been added to the operator's Berner AIR app account. Then within the app, select "Group", and follow the prompts.
3. Unheated units will have the fans activated by a door switch or sensor. The fan speed can be selected via the app or the Intelliswitch™ touchscreen display.
4. Heated units will have fans activated by a door switch or sensor, but may also be activated by the thermostat in Comfort + Mode. The fan speed can be selected via the Berner AIR app or the Intelliswitch display.

**For Building Management System (BMS) Integration via BACnet or Modbus integration capabilities** (ordered separately), **see Appendix C.**

### Connect with BERNER AIR

- ▶ SET UP
- ▶ CONTROL
- ▶ TROUBLESHOOT



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### USING THE BERNER AIR® APP TO OPERATE THE AIR CURTAIN

#### Before you begin:

- Download the Berner AIR® app, and set up your account.
- Make sure that the air curtain you're connecting to is nearby, powered on, and within Bluetooth and Wi-Fi range.
- Check that you have Wi-Fi and Bluetooth turned on.

#### How to add (pair) an air curtain to the Berner AIR®:

- Make sure the air curtain is close to your smart device.
- On the app home screen, click the giant plus sign, located in the upper right.
- The air curtain(s) will appear in the app and be identified by the Unit ID, which can be found across the top of the Intelliswitch home screen. Tap the air curtain with the Unit ID that you wish to pair.
- As a security precaution, on-site confirmation is then required. Go to the Intelliswitch display, and select "Yes" to pair.
- Once the air curtain is paired, follow the prompts on the app to set up the air curtain.

**NOTE:** The air curtain can be paired and operated via the app, using Bluetooth only, if the air curtain is within Bluetooth range of the smart device. To control from further distances, the air curtain must be connected to the internet.

## B. AIR STREAM ADJUSTMENT

1. With the air curtain operating and the door in its full open position, check to see that nothing is obstructing the airflow 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. **See Figure 6.** The split location is indicated where the handkerchief is vertical with minimal or no fluttering.
3. The split location should be approximately 3" outside the doorway. If necessary adjust the discharge nozzle vanes by de-energizing the unit, loosening the nozzle vane locking screws and adjusting vanes.

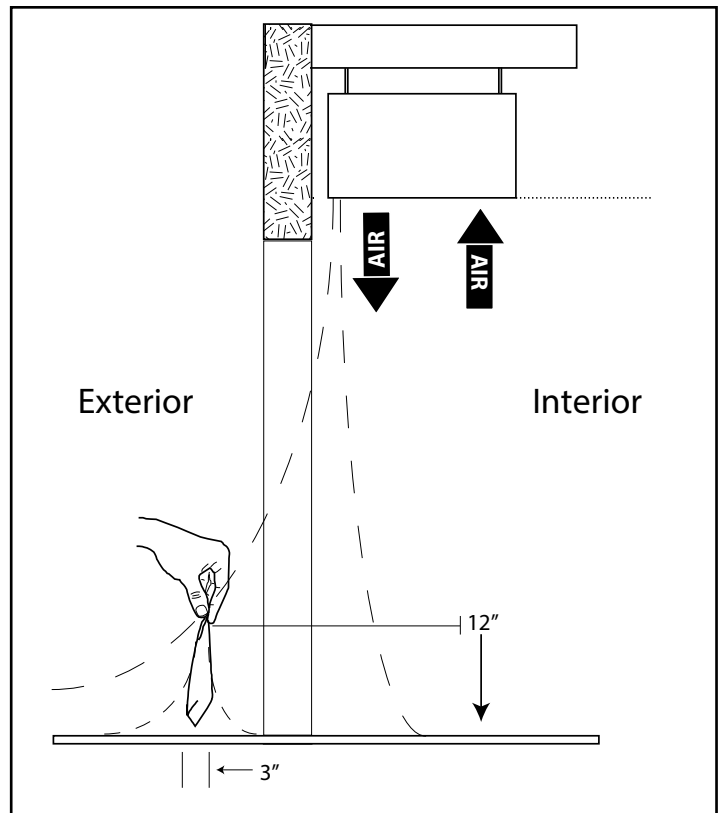


Figure 6 - Air Stream Adjustment



## VII. MAINTENANCE & CLEANING

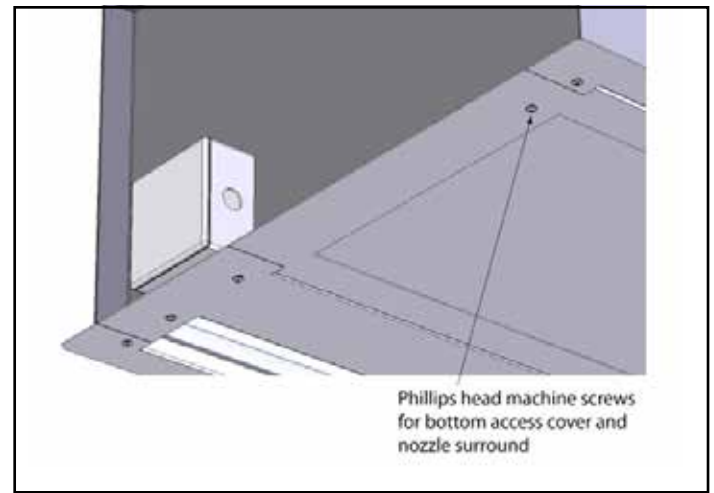
**CAUTION: ELECTRIC SHOCK HAZARD** Disconnect power whenever servicing unit. More than one disconnect may be required to de-energize unit.

Keep your air curtain operating at peak efficiency by cleaning the blower wheels, motor(s) and intake grille. 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 where the unit is operating.

Dirty, dusty or greasy environments could require a cleaning schedule of once every two months. Otherwise, the unit(s) should be scheduled for cleaning a minimum of once every (6) months. To access the interior of the unit:

- A. Disconnect and lockout power to the unit. If necessary remove the blower assembly. **See Section VIII SERVICE** for instructions on how to remove blower module.
- B. Remove the bottom access cover by removing (2) Phillips head machine screws located at the cover's corners.  
**See Figure 7.**
- C. Vacuum and scrape (if necessary) to remove the buildup of dirt and debris from the interior of the air curtain. The motor(s) are permanently lubricated and require no additional lubrication.
- D. Pull the filter out from underneath the struts of the bottom access cover. It is easiest to work from the middle, pulling one side out and then the other. Spray the filter with warm, soapy water, rinse, and pat dry.
- E. Replace Filter.
- F. Reinstall the bottom access cover.
- G. Switch the power on after cleaning.

**CAUTION: STAND CLEAR of the unit or wear safety goggles as loose debris may be present and may exit the nozzle.**



**Figure 7**

## VIII. SERVICE

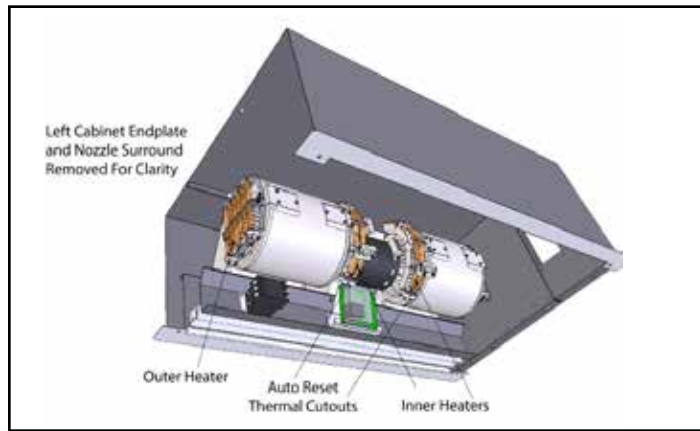
**CAUTION: ELECTRIC SHOCK HAZARD** Disconnect power whenever servicing unit. More than one disconnect may be required to de-energize unit.

Any service performed on the ARCHITECTURAL Recessed Series air curtain **MUST** be done by qualified personnel.

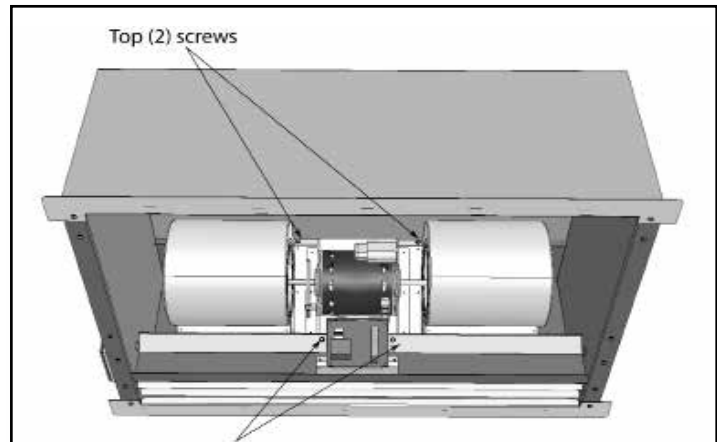
Berner air curtains require very little servicing. All parts are easily accessible for periodic inspection and maintenance. Units should be cleaned at least twice a year. Your particular application (the amount of dirt and dust in the air) and location of the unit(s) will determine how often your unit(s)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

A. To remove the blower module and clean or replace the fans and motor:

1. Disconnect and lockout power to the unit.
2. Remove the bottom access cover by removing (4) Phillips head machine screws located at the cover's corners. **See Figure 7.**
3. If desired, the nozzle surround may be removed to provide more working room. To remove the nozzle surround, remove the (4) Phillips head machine screws from the corners. The Intelliswitch® ribbon cable must also be disconnected from the back of the display circuit board before the nozzle surround can be set aside.
4. Disconnect motor power wires/harness from motor.
5. If the unit has electric heat, the heaters need to be disconnected from supply wiring. Each fan housing will have a heating element on both of its sides, spanning the inlet venturi. Each heating element will have (2) ¼" quick disconnects for power supply wiring. In addition, the heating elements located on the inside of the module will have (2) ¼" quick disconnects for the auto reset thermal cutouts. Label and separate all of those connections. **See Figure 8.**
6. Using a 5/16" hex driver, loosen and remove the (4) self drilling screws that hold the blower plate to the frame of the unit. Remove the two screws at the top of the product last, as after they are removed, the module will be free to drop out of the cabinet. **See Figure 9** for location of all screws.
7. Wearing protective gloves, hold the module by the motor, and rotate the module top forward and drop it down through the bottom of the unit. **See Figure 10.**
8. To remove the fans and/or motor, loosen the set screws in the fan wheel hubs by using a 5/32" Allen wrench that is at least 6" long. The set screw can be accessed up through the fan's discharge.
9. Next, remove the two blower housings by removing the (8) screws that attach the fan housings to the blower plate. When the fan housings are free, slide them and their fan wheels off to each side.
10. Remove the motor clips from the motor mounts, disconnect the motor ground wire if necessary, and lift the motor up and out of its cradle.
11. Reinstall in reverse order of removal.



**Figure 8**

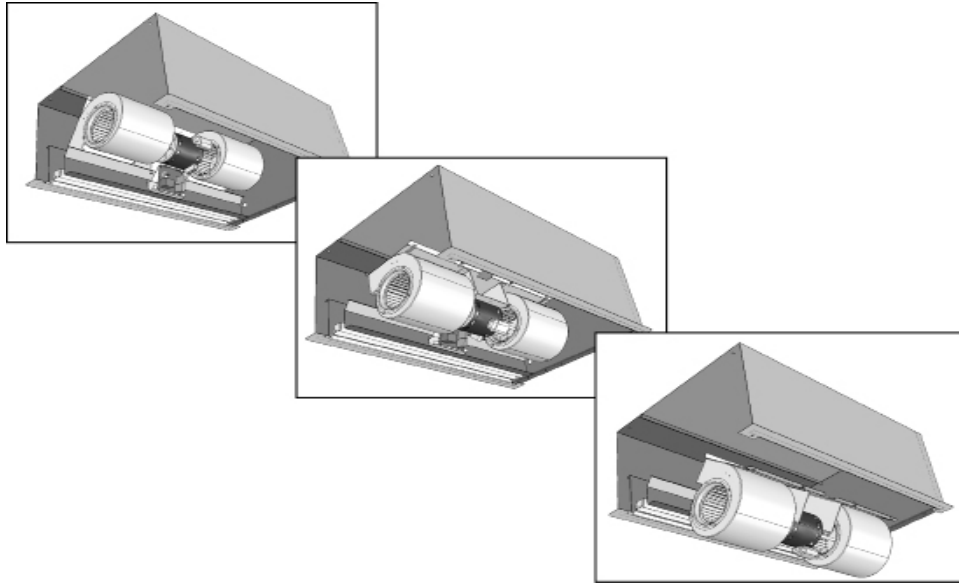


**Figure 9**

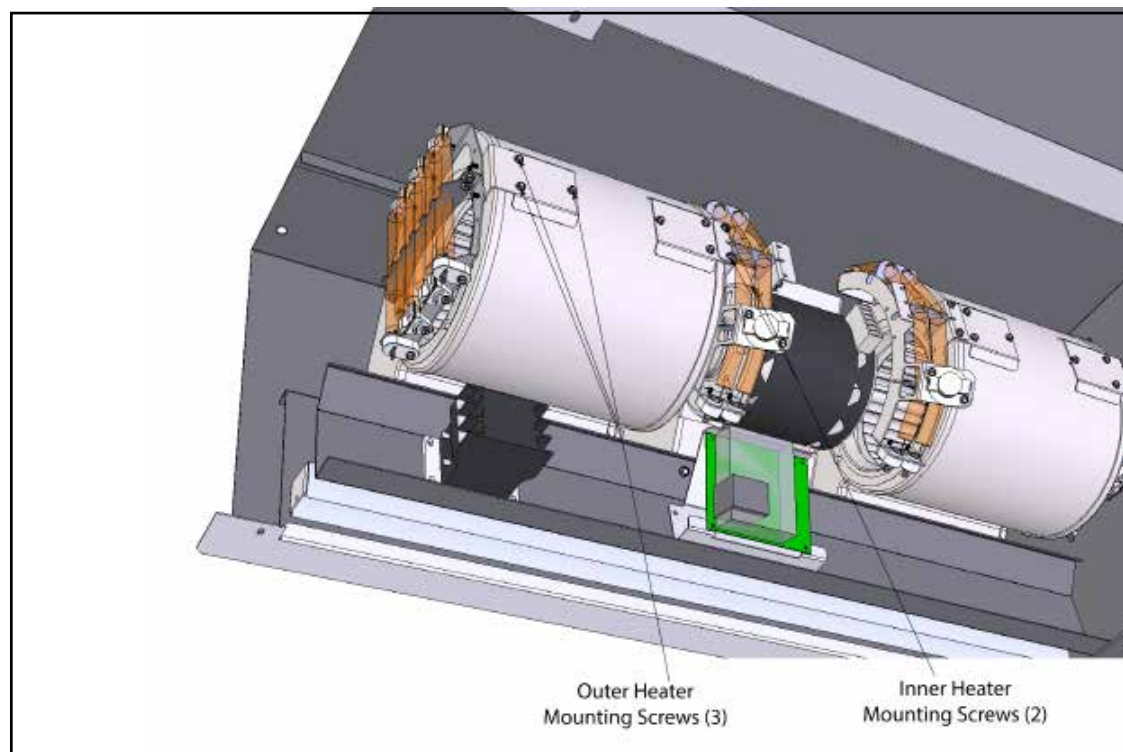
B. To replace the electric heater sub assembly :

1. Disconnect and lockout power to the unit.
2. Remove the bottom access cover.
3. The blower module does NOT need to be removed from the unit to replace an electric heater.
4. Label and detach the connections for supply power and for the auto reset thermal cutouts located on both inner heaters. **See Figure 8.**
5. To remove the outer heaters, remove the (3) self drilling screws from the mounting plate that is attached to the fan. **See Figure 11.**
6. To remove the inner heaters, remove the (2) self tapping screws from the mounting plate. **See Figure 11.**
7. Install new heaters. When installing the new outer heaters, be careful not to strip the holes in the thin gauge steel used on the fan housing.
8. Reconnect supply power and thermal cutout wiring.

**See the following pages for information on the Intelliswitch™, including: Quick Start Operation Guide, and Serial Network Connection**



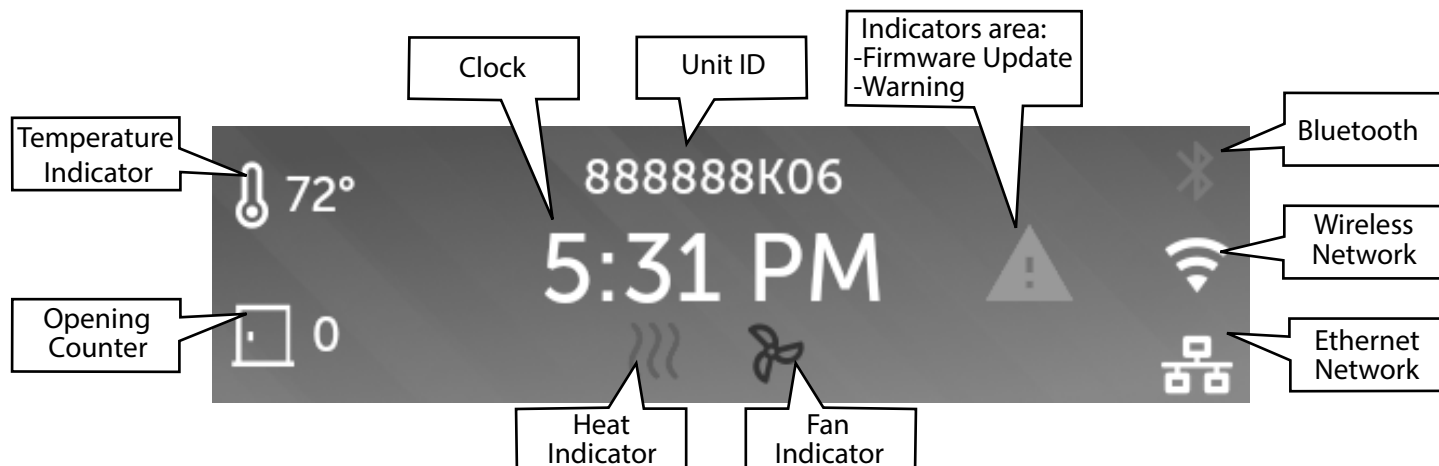
**Figure 10**



**Figure 11**

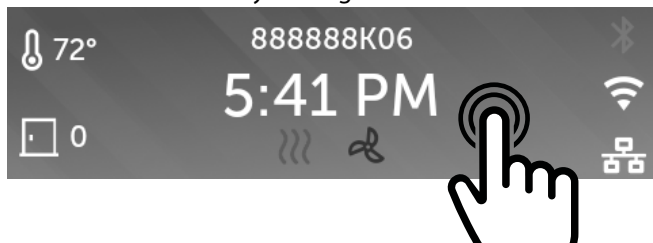
# QUICK START INSTRUCTIONS

## For your Berner Air Curtain with Intelliswitch™

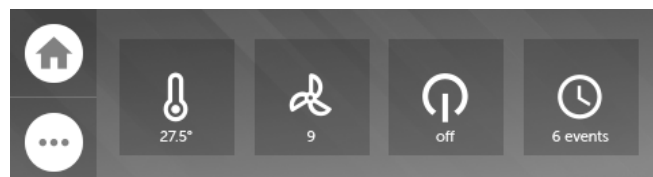


### HOME SCREEN

To reach the "HOME" Screen, touch the screen with your finger.



To access to the different panels, touch the related icon. Each panel can control a specific parameter of the air curtain.



- Button to return to the "HOME" screen.
- Button to access the advanced parameters.
- Button to access the temperature settings. (This button is only available if your unit is heated.)
- Button to access the fan speed settings.
- Button to access the mode settings.
- Button to access the Schedule. (See Events Configuration)
- Button to return to the previous panel.

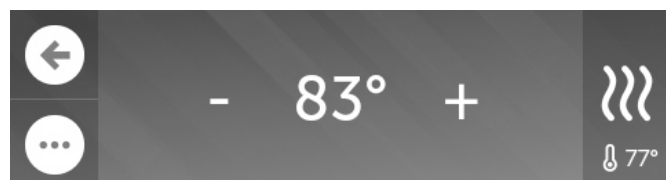
### FAN SPEED SETTINGS

You can adjust your settings by press the "+" or the "-" icons.



### TEMPERATURE SETTING

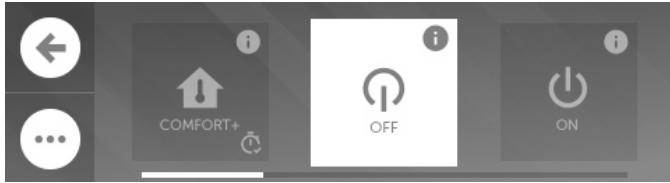
You can adjust your settings by press the "+" or the "-" icons.



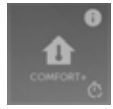
**NOTE:** The temperature value at the right corner indicates the ambient temperature around the air curtain sensor.



## MODE SETTINGS



Different modes are available:



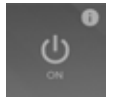
### COMFORT +

The air curtain and heater turn on when the door opens or the room temperature drops below the set temperature. The air curtain turns off when the door is closed, the time delay has expired, and the room temperature is above the set temperature.



### AUTO

The air curtain turns on when the door opens and turns off when both the door closes and the time delay expires.



### ON

The air curtain turns on when scheduled events are satisfied. If no events have been scheduled, the air curtain turns on.



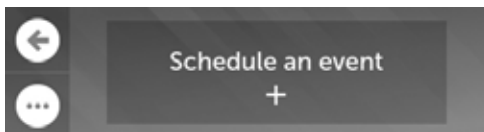
### OFF

The air curtain is off.

## EVENTS CONFIGURATION

The Intelliswitch™ is able to configure a schedule to automatically activate your air curtain. To do this, you need to activate the option, by executing the followings instructions:

1. On the "HOME" screen, push the button.
2. Select the button.
3. To reach the "SCHEDULE" option, by pushing the options on the top on each side of the screen.
4. To activate the schedule, just press the icon.
5. Return to the "HOME" screen by using the button.
6. On the "HOME" screen, press the tile.
7. For your first event, press the following tile.



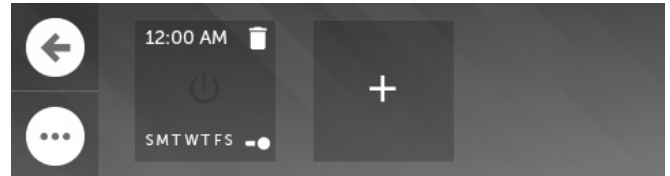
8. On the schedule panel, select the desired parameters among the following's options:



NOTE: You can use the button to cancel your action.

9. Use the button to save your settings.

10. After the settings of your first event, it appears as shown:



NOTE: You can deactivate an event by using the slider at the bottom right of the desired event. Alternatively, if you want to suppress the event, push the button.

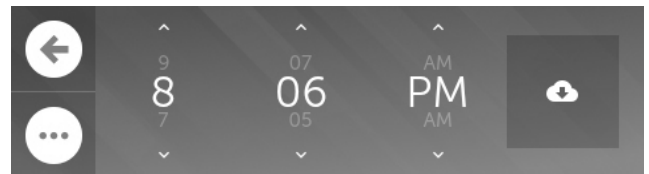
11. Press the tile to add another event.

NOTE: The schedule is fully operational with at least, 2 events.

## CLOCK CONFIGURATION

If the Intelliswitch™ is connected to internet, the date and time will be automatically synchronized. Otherwise you can manually configure them, by following the instructions below:

1. On the "HOME" screen, push the button.
2. Select the "clock parameters" button.
3. Select the "Time" button.



4. Set the time by using the arrows on the screen then push the button to save.

5. To change the date, repeat the same operations but on steps 3, select the button.

NOTE: Changing the date or time manually, will disable the automatic time synchronization if your unit is connected to internet.

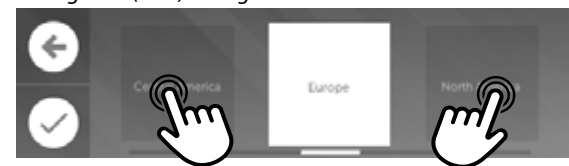
NOTE: The time zone affects the automatic synchronization, be sure your time zone is correctly selected (See Time Zone Configuration)

## TIME ZONE CONFIGURATION

To change your timezone, follow these instructions:

1. On the "Home" screen, push the button.
2. Select the button.
3. Select the "clock parameters" button.
4. Select the "TimeZone" button.
5. Select successively the options "Continent" → "Country" → "City". →
6. Once you finish your selection, press the button to save the time zone.

NOTE: If the date and time is automatically synchronized with the internet, it's mandatory to set the timezone correctly. If not connected, the appropriate timezone setting will help following the daylight-saving time (DST) changes.



Press the adjacent tiles on other sides to navigate through the menu.

## IX. TROUBLESHOOTING

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

### ELECTRICALLY HEATED MODELS

<b>NO HEAT</b>	<ul style="list-style-type: none"> <li>Switch turned to "ON" position</li> <li>Thermostat not set properly</li> <li>Coils burned out due to lack of air</li> <li>Automatic reset thermal cutout failed in open position</li> <li>Manual reset thermal cutout tripped (if supplied)</li> </ul>	<ul style="list-style-type: none"> <li>Replace switch or check wiring</li> <li>Change thermostat setting</li> <li>Correct airflow problem; replace coils</li> <li>Replace automatic thermal cutout</li> <li>Reset manual thermal cutout</li> </ul>
<b>MINIMAL HEAT</b>	<ul style="list-style-type: none"> <li>Thermostat in wrong location - thermostat too close to discharge</li> <li>Improper voltage</li> <li>Thermostat not set properly</li> <li>Low entering air temperature</li> </ul>	<ul style="list-style-type: none"> <li>Move thermostat away from air stream</li> <li>Supply proper voltage</li> <li>Change temperature setting</li> <li>Based on unit temperature rise, reduce speed</li> </ul>
<b>EXCESSIVE HEAT</b>	<ul style="list-style-type: none"> <li>Incorrect speed range</li> <li>Thermostat in wrong location</li> <li>Thermostat not set properly</li> <li>Insufficient air over coil</li> <li>Improper voltage</li> </ul>	<ul style="list-style-type: none"> <li>Check factory menu speed range matches diagram</li> <li>Move the thermostat closer to air stream</li> <li>Change temperature setting</li> <li>Remove restriction on intake</li> <li>Supply proper voltage</li> </ul>

### STEAM / HOT WATER HEATED UNITS

<b>EXCESSIVE HEAT</b>	<ul style="list-style-type: none"> <li>Too high steam/hot water pressure</li> <li>Inadequate air flow, fins plugged up, dirty coils</li> </ul>	<ul style="list-style-type: none"> <li>Reduce steam pressure / hot water flow</li> <li>Clean intake and coils</li> </ul>
<b>MINIMAL HEAT</b>	<ul style="list-style-type: none"> <li>Insufficient removal of condensation (steam)</li> <li>Not enough steam pressure/ water temperature too low</li> <li>Intake air below design temperature</li> </ul>	<ul style="list-style-type: none"> <li>Increase trap size</li> <li>Raise pressure for steam/increase water flow</li> <li>Increase steam pressure/increase water flow</li> </ul>



## X. APPENDIX

### A. Interconnect Connection (a.k.a. daisy chain) via physical connection

Used for programming multiple air curtains from a single Intelliswitch™ digital controller.

**NOTE:** The air curtain must have been ordered from the factory with the Interconnect physical data link option.

A wired ethernet connection (provided by others) must be made between all air curtains to be linked. Once air curtains are linked, all menu settings made through any air curtain Intelliswitch display or remote Intelliswitch display will transfer to all other linked air curtains. Parameter changes made on any linked air curtain will update all other Intelliswitch boards "live" upon menu selections.

**NOTE:** Low voltage ethernet cable (provided by others), maximum length, 300'.

### B. Remote Mounted Touchscreen Display or Tablet


1. Touchscreen Display: If the unit was ordered with a remote mounted Intelliswitch touchscreen display, the air curtain will come pre-wired with a USB-C connection in the wiring compartment and 20' of USB-C Cable to link and power the device.
2. Tablet: If the unit was ordered with a remote mounted tablet, the air curtain will come pre-wired with a power-over-ethernet (PoE) connection in the wiring compartment to power the devices. Connect a CAT 5 ethernet cable for low voltage power with a maximum length of 300' (provided by others).

### C. Building Management System (BMS) Integration (BACnet or Modbus)

This unit is equipped with the Berner AIR™ BMS smart control & app, and is BACnet and Modbus compatible.

1. To connect wirelessly to the Building Management System using **BACnet-IP, BACnet-MS/TP, Modbus-TCP, or Modbus-RTU** client, download the Berner AIR App, pair the air curtain to the app and then in the settings menu select the BACnet or Modbus option. Follow the prompts to configure.
2. To connect via wire: this air curtain includes an ethernet connection port in the wiring compartment to connect to the Building Management System (BMS) via BACnet-IP or Modbus protocols. Connect using a CAT 5 ethernet cable (provided by others).

Once wired, either:

- a. Download the Berner AIR™ App, pair the air curtain to the app and then in the settings menu select the BACnet or Modbus option. Follow the prompts to configure. Once configured to the BMS, the app can be disconnected.
- b. Tap the Intelliswitch touchscreen on the air curtain, and then tap on  to access the advanced parameters.

## 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. All warranted parts will be replaced at no charge for a period of six months from date the parts were shipped.

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**

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*Berner reserves the right to alter specifications without prior notice.*