



# Air curtain NAC



## Maintenance and installation guide



### WARNING



**IN ORDER TO MINIMIZE THE RISK OF FIRE AND  
ELECTRIC SHOCK OR PERSONAL INJURIES, RESPECT THE FOLLOWING:**

-A-

Use this unit in a manner intended by the manufacturer. If you have any questions, contact the manufacturer at 1 (866) 531-1739.

-B-

Before repairing or cleaning unit, cut power at the source and padlock to prevent accidental restoration of power. If padlocking power source is not an option, tag power source with marker indicating ongoing work on unit.

### KEEP THIS GUIDE



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## NAC-H Horizontal installation

The NAC-H air curtain is installed below the door rails as indicated on illustrations 1 & 4. Make sure the installation does not impede the operation of the door.

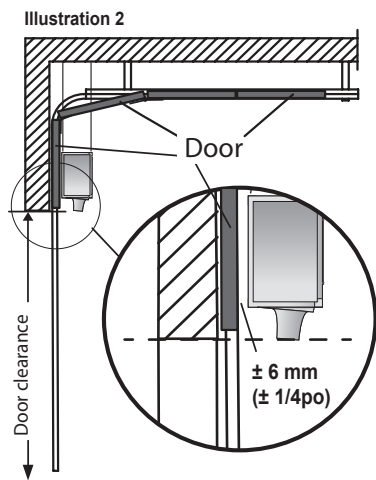
### Installation using threaded rods

**Determine** with precision the spacing between the anchoring rivets situated on top of the air curtain (Illustration 3).

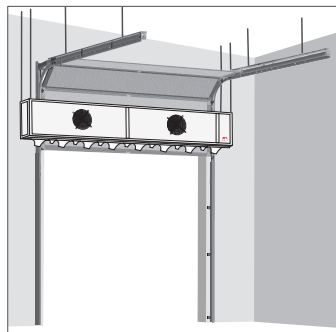
**Transpose** these measurements onto the ceiling and **secure** the pre-measured  $\varnothing 9.5\text{mm}$  (3/8 in) threaded rods. In order to determine the proper length of the rods, **make sure** the base of the nozzles is equal to the door clearance (Illustration 2).

The air curtain should be centered in the door opening and level.

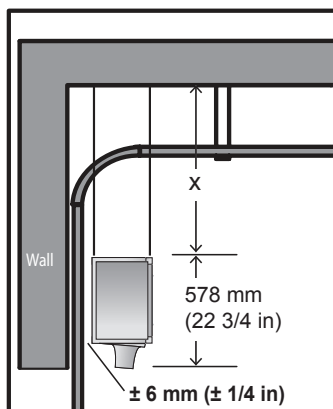
For air curtain installation see page 3



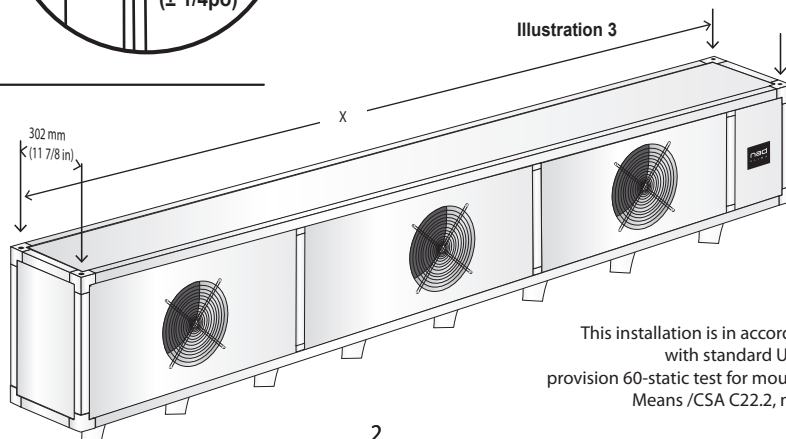
**Illustration 1**



**Illustration 4**

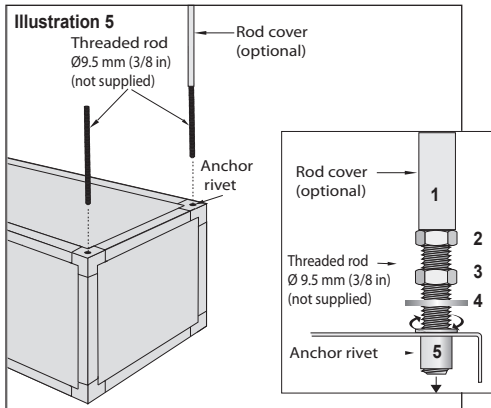


**IMPORTANT :**  
Allow for a clearance of  $\pm 6\text{ mm}$  ( $\pm 1/4\text{ in}$ ) between the air curtain and the door rail.



This installation is in accordance with standard UL507, provision 60-static test for mounting Means /CSA C22.2, no 113

## NAC-H Air curtain installation



### Threaded rod installation (not supplied)

**Insert** if required, a rod cover (1).  
**Secure** with nut (2).  
**Insert** a second nut (3).  
**Insert** washer (4).  
**Insert** threaded rod in anchor rivet (5).  
**and tighten** until desired height is achieved.  
**Tighten** second nut (3).

### Installation with brackets (not supplied)

The NAC-H air curtain is installed below the door rails as indicated on illustrations 1 & 4 page 2.

**Make sure** the installation does not impede the operation of the door.

**Determine** with precision the spacing between the anchoring rivets situated on top of the air curtain (see Illustration 3).

**Secure** the brackets (not supplied) to the wall. The lower part of the bracket must be at 578 mm (22 ¾ in) from the opening of the door. It must extend approximately 508 mm (20 in).

Using Ø 9.5mm (3/8 in) bolts **secure** the air curtain in the anchor rivets located on top of the air curtain (illustration 6).

The air curtain must be level.

**Note: the brackets and threaded rods are not supplied by the manufacturer.**

Illustration 6

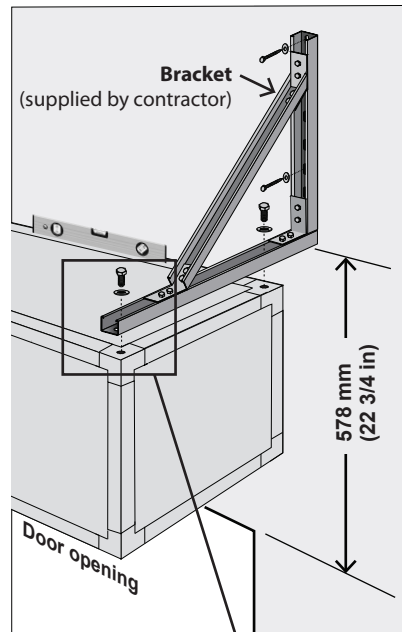
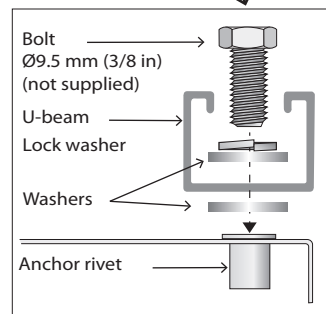


Illustration 7



## NAC-V Vertical Installation

### The base

**Position the base** at a minimum of 25.4 mm (1 in) from the wall and at 12.7 mm (1/2 in) from the front of the door rail (Illustration 1).

- **Identify, mark and drill** 4 anchor holes on the floor.
- **Insert** the  $\varnothing 9.5$  mm (3/8 in) anchor bolts (not supplied) in the floor.
- **Make sure** the base is leveled and then **secure** it (Illustration 2).

### Air curtain installation

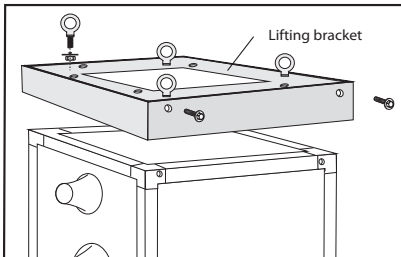
- **Carefully lift** the air curtain and **insert** it into the base.
- Using the hardware supplied, **secure** the air curtain to the base (Illustration 3).

### Wall mounting system

- **Attach** brackets on the top of the air curtain with supplied bolts, as illustrated in Illustration 4.
- **Verify** that return brackets are facing the wall.
- **Secure** the return brackets with threaded rods (not supplied) to the wall (Illustration 4).
- **Make sure** the air curtain is leveled.

### Superimposing 2 air curtains

- **Attach** lifting brackets on top of the second air curtain with supplied bolts, as illustrated below.

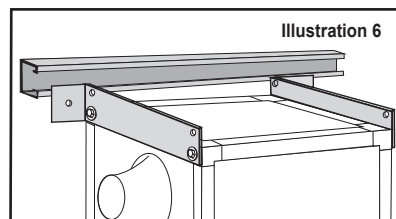
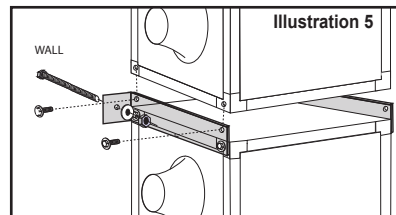
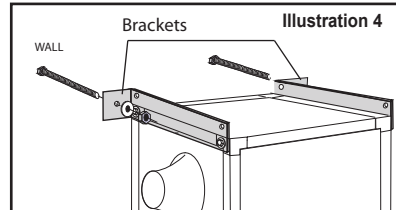
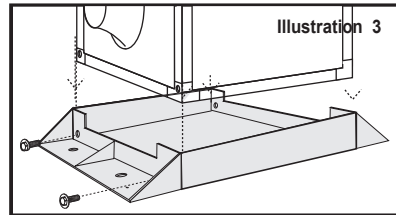
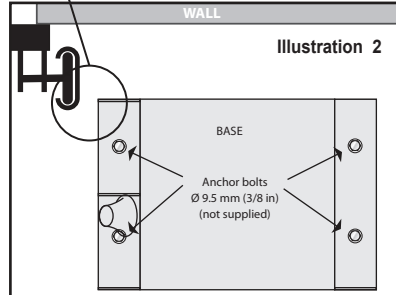
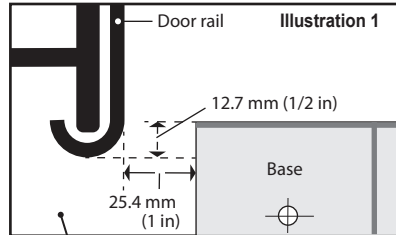


- **Verify** that return brackets are facing the wall.
- **Carefully lift** the second unit into place, using empty holes in brackets if necessary.
- **Place** unit on top of the first unit, inside the brackets (Illustration 5).
- **Secure** the air curtain to the brackets using the bolts supplied.
- **Verify** that return brackets are facing the wall.
- **Make sure** the air curtain is leveled and then **secure** the brackets with threaded rods (not supplied) to the wall.

### OPTION (suggestion)

#### Installation of wall rail

- **Align** wall rail (not included) to the holes of the return brackets (Illustration 6).
- **Make sure** the rail is parallel.
- **Secure** the rail to the wall or any solid structure.
- **Secure** the return brackets to the rail.

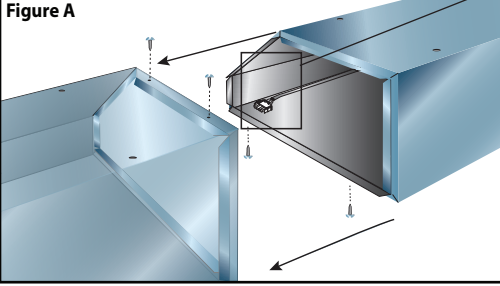


## NAC-S Horizontal installation

### Joining the two modules

The three sections of the NAC-S are assembled inside each other. They are secured together with four (4) screws supplied by the manufacturer.

Figure A



- **Place** both sections side by side on the floor. The section with the NAD logo must be on your right (illustration F)
- **Connect** the white nylon terminals (illustration B)
- **Apply** a bead of silicone sealant to the exterior fold of the section on the right. (illustration C)
- The silicone will ensure the proper seal of the air curtain.
- **Slowly slide** both sections together. (illustration D)
- **Secure** using the screws supplied. You will find two pre-drilled holes on top of the unit and two on the bottom.

### Installation of the suspension rails

- **Place** the rails on the top of the air curtain allowing 152 mm (6 in) to extend on both sides of the unit. (Illustration F)
- **Align** with the (8) anchor rivets on the unit.
- **Secure** the rails to the air curtain by using the 9.5 mm (3/8 in) bolts (illustration E) making sure to insert a locking washer and flat washer.

Illustration B

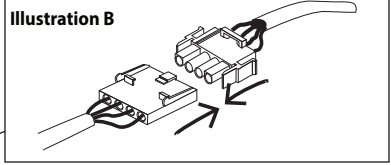


Illustration C

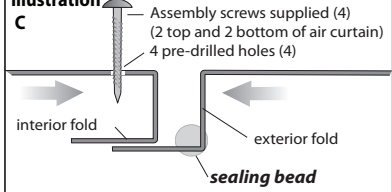


Illustration D

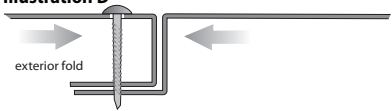


Illustration E

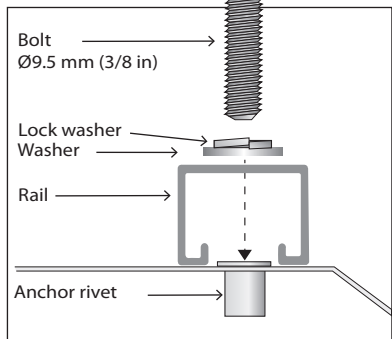
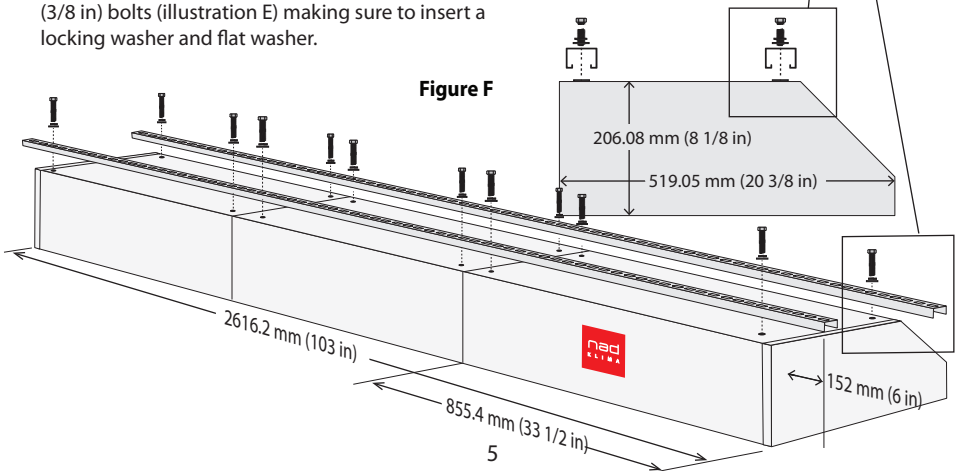


Figure F



## NAC-S Horizontal Installation

### Installation using threaded rods

(not supplied)

The air curtain should be installed below the door rails and its base should be at the same height as the door clearance (illustration E)

- **Make sure** the installation does not impede the operation of the door.

The air curtain is suspended by  $\varnothing 9.5$  mm (3/8 in) threaded rods (not supplied) at the extremity of the rail and outside the door rails (illustration F & G).

Illustration E

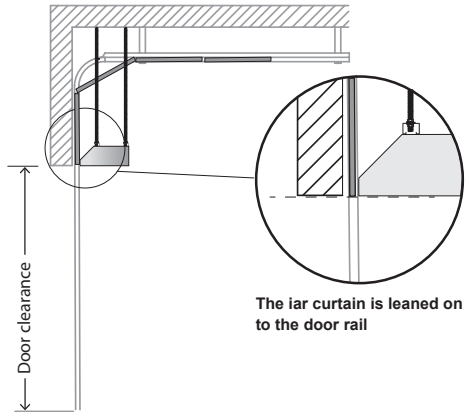
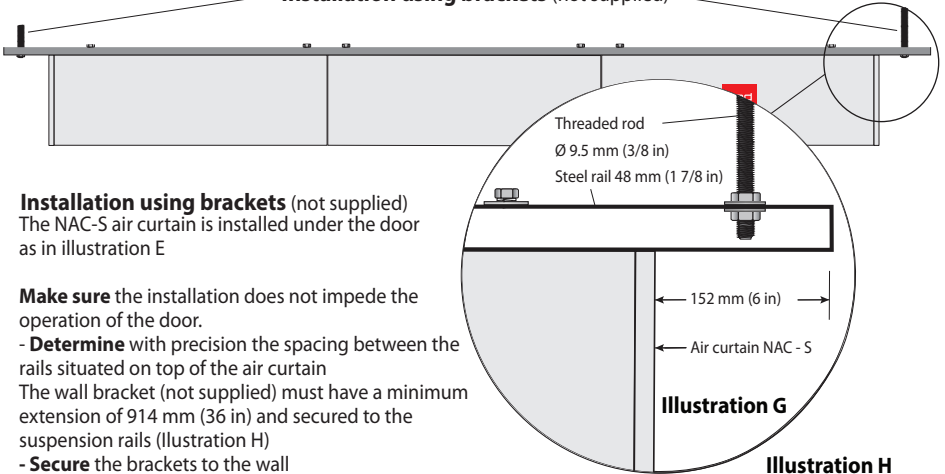


Illustration F

### Installation using brackets (not supplied)



### Installation using brackets (not supplied)

The NAC-S air curtain is installed under the door as in illustration E

**Make sure** the installation does not impede the operation of the door.

- **Determine** with precision the spacing between the rails situated on top of the air curtain

The wall bracket (not supplied) must have a minimum extension of 914 mm (36 in) and secured to the suspension rails (Illustration H)

- **Secure** the brackets to the wall

The lower part of the bracket must be at 208 mm (8 1/8 in) from the door clearance (illustration H)

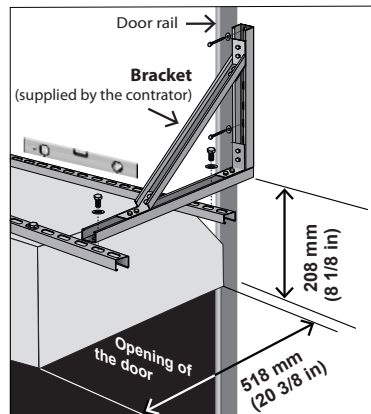
Lift the air curtain to its final position by using the door rails (illustration E)

- **Secure** the brackets to the rails on the section 152 mm (6 in) that extends outside the air curtain with  $\varnothing 9.5$  mm (3/8 in) bolts.

The air curtain must be level.

**NOTE: The brackets, threaded rods and bolts are not supplied by the manufacturer**

Illustration H



## CONTROL PANEL

The air curtain is supplied with a control panel equipped with warning light and a "MAN - Off - AUTO" switch.

In "MAN" (Manual) mode, the air curtain will remain in operation until the switch is moved to the "Off" position.

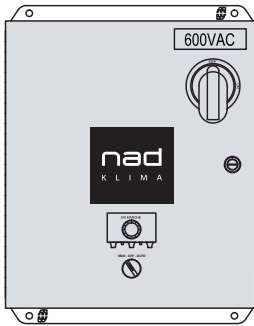
When in "Auto" (automatic) mode, the air curtain is turned on by the automatic switch detecting door opening. When the door is closed, the switch stops the air curtain.

## WARNING

**The installation, repair and maintenance of the control panel must be performed by an authorized qualified technician by virtue of law.**

**Before opening the access panel, make sure the power supply is in the "OFF" position and padlocked.**

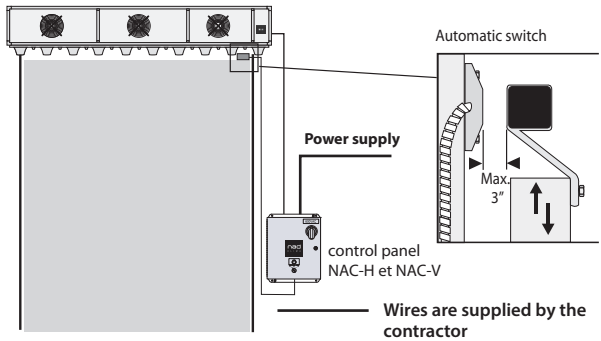
### Control panel



Control panel for NAC - H and NAC - V

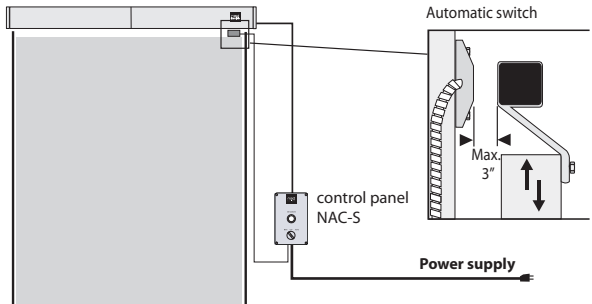
### Wiring diagram

NAC - H  
NAC - V



Control panel for NAC - S

NAC - S



## AUTOMATIC SWITCH

## CAUTION

This switch is designed for a virtually universal installation on any kind of door. It is composed of two parts, the switch and the magnetic trigger.

### Choosing the appropriate location

Make sure nothing interferes with system functioning.

#### Step 1. Securing switch

Secure the switch to the wall above the door (figure 1) or to the floor (Figure 2). It is important to choose a location where the switch will not interfere with door functioning.

#### Step 2. Secure magnetic trigger

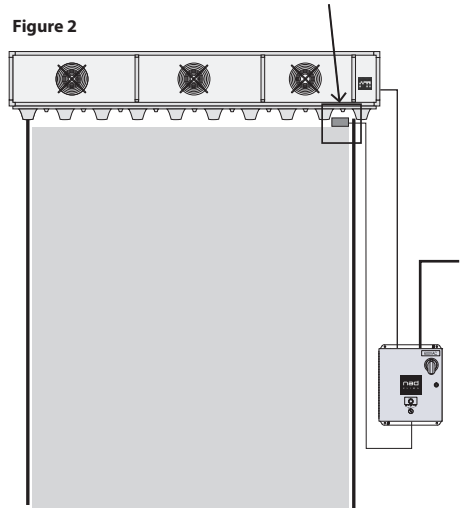
Attach the magnetic trigger in either position, within 76 mm (3 in) from the switch. It is important to choose a place where no object will interfere with the proper functioning of the switch.

#### Step 3. Connect switch wires

Connect the wires to the control panel and check that the air curtain operates in "AUTO" mode.

**All electrical wiring must be done by a qualified certified electrician. Before accessing the panel make sure the current is off and locked in that position.**

Figure 2



Power wiring is supplied by the installer

Figure 1

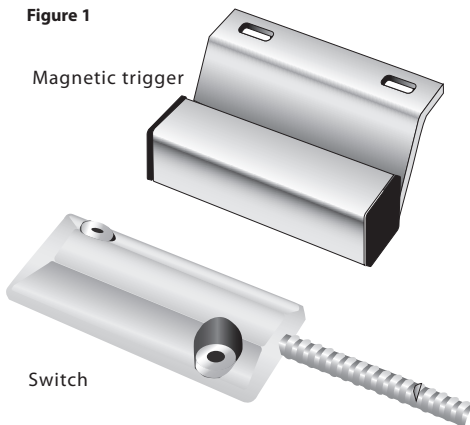
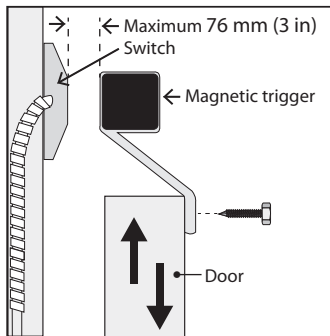


Figure 3



The wires connecting the switch to the control panel are supplied by the electrician.



## REPLACING DEFECTIVE MOTOR

Before undertaking the replacement of a motor, warn all users that a repair is underway.

A) Cut power supply and **make sure the air curtain is not under tension.**

B) **Make sure the power supply is secure, install a lock on the power supply to make sure the power is not accidentally turned on.**

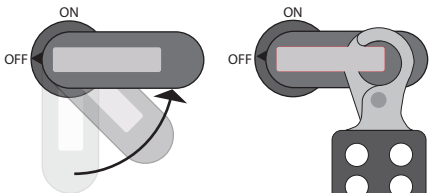


Illustration 1

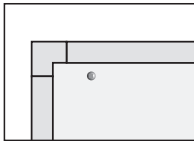
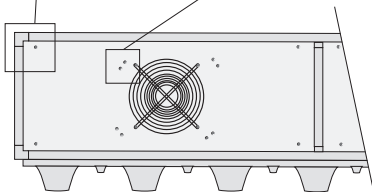
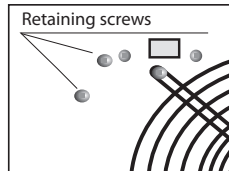


Illustration 2



## CAUTION

**Before opening panel, make sure power supply is OFF. Padlock power supply breaker.**

C) **Remove** the four (4) screws from the panel of the motor that needs replacement. (illustration 1) **Warning**, panel may be heavy

D) **Unplug** the motor from the circuit.

E) **Unscrew** the retention screws from the front of the panel to free the motor. (illustration 2)

F) **Install** new motor. **Important: Make sure the new motor has the same specifications as the old motor. We recommend you use motors supplied by NAD for replacement.**

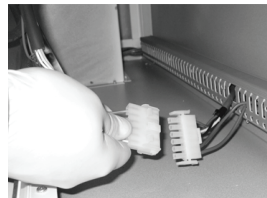
**Make sure** retention screws are all in place and well tightened.

**Re-connect** new motor to circuit (illustration 3)

G) **Install** panel on to air curtain (illustration 1)

H) **Remove** lock from power supply and turn power "On"

Illustration 3



### NAC-S Air curtain

The replacement of defective motors can only be done by the factory  
In this case contact **NAD Klima** at:  
**1 (866) 531-1739**

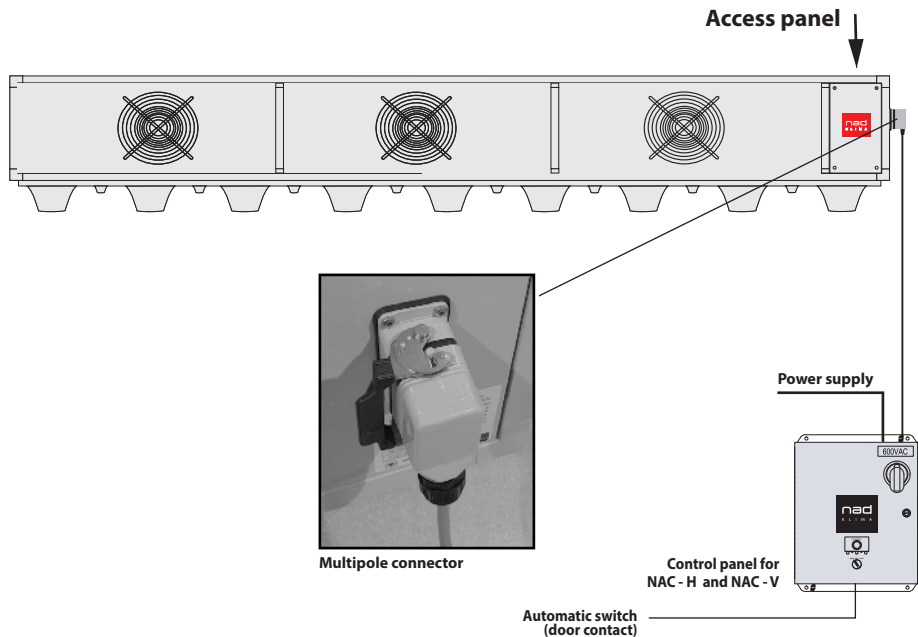
## Wiring of the NAC-H / V air curtain to the access panel

### NAC-H and NAC-V

The electrical connection of the air curtain to the control panels is made using a multipole connector (Heavy Duty Multipole Connectors). Connecting the plug is quick and easy. It contains 06 poles to supply the air curtain with current and to connect the thermal protection of the fans.

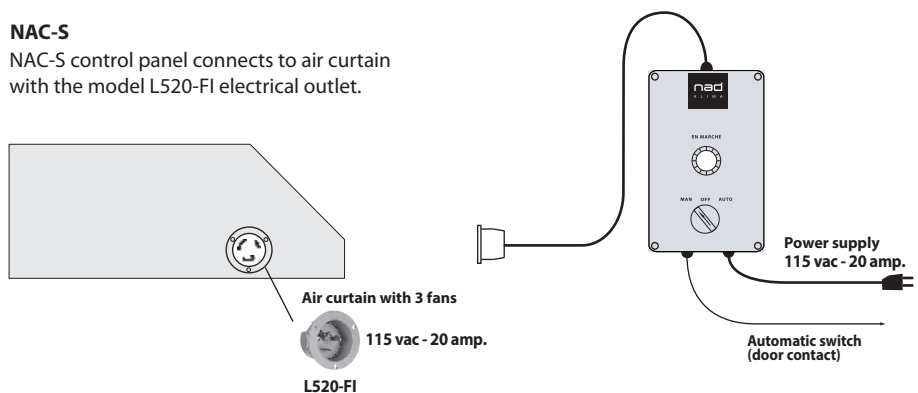
## WARNING

All electrical wiring must be done by a qualified certified electrician. Before accessing the panel make sure the current is off and locked in that position.



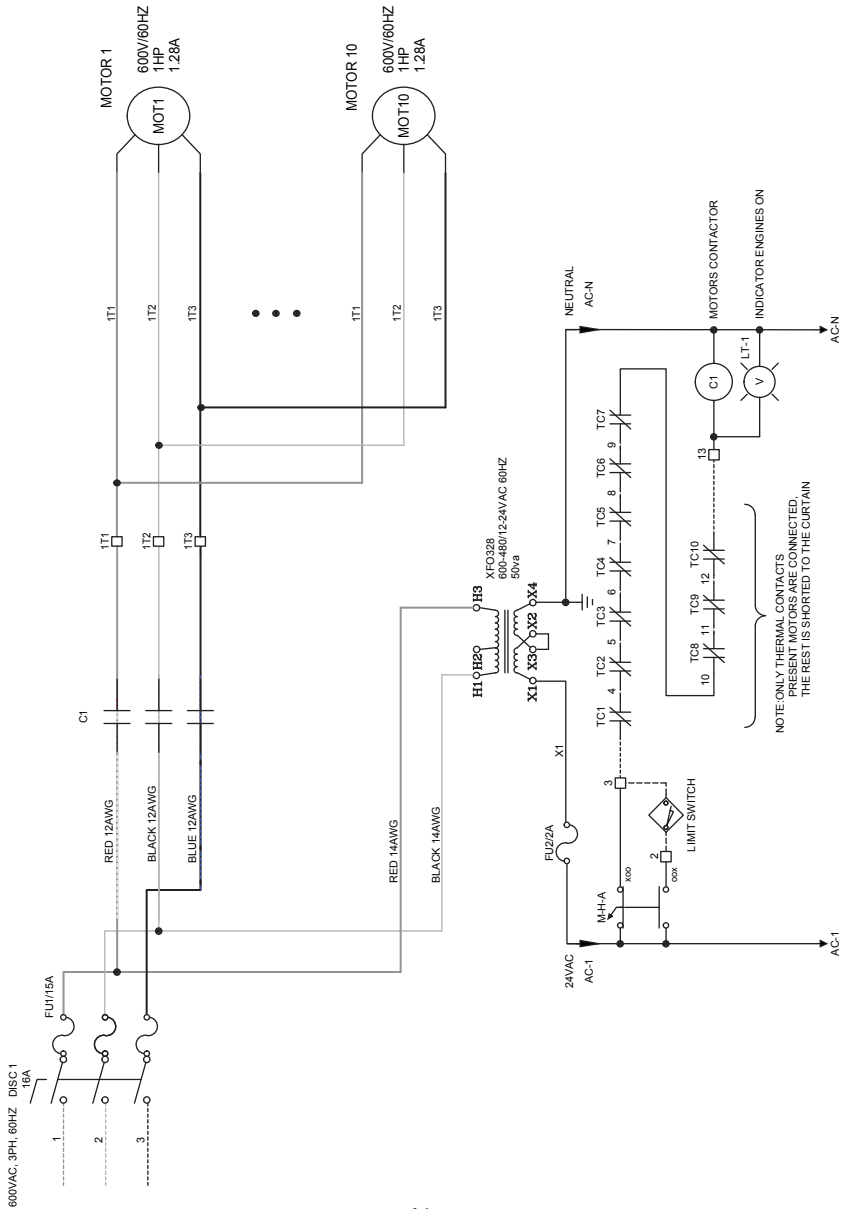
### NAC-S

NAC-S control panel connects to air curtain with the model L520-FI electrical outlet.



Example of a control panel electric circuit for an air curtain with several motors.

**Before opening panel,**  
**make sure power supply is OFF.**  
**Padlock power supply breaker.**



## MAINTENANCE

The NAD Klima air curtain doesn't require any maintenance except periodical cleaning. The power coated finish of the air curtain's outer casing allows for easy cleaning with a cloth or soft brush.



The protective grid prevents foreign objects from interfering with the motor. We recommend a periodic visual inspection of the air curtain to ensure that nothing blocks air intake (plastic bag, paper, etc.).

## WARNING

**Before repairing or cleaning unit, cut power at the source and padlock to prevent accidental restoration of power. If padlocking power source is not an option, tag power source with marker indicating ongoing work on unit.**

It is recommended that the interior of the control panel and the interior of the air curtain be inspected on a periodical basis.

### **When dust has accumulated:**

- A) Cut the power supply** and make sure the control panel is powered down.
- B) Install a padlock** to prevent accidental activation.
- D) Clean** unit with a brush or a vacuum cleaner.

### **DO NOT USE WATER OR AEROSOLS.**

Once cleaning is complete close air curtain and control panel, remove padlock and turn on power supply.



NAD Klima® NAC air curtains are the result of a manufacturing process in which our experts successfully meet your requirements and particular challenges.

Our goal is not only to supply air curtain, we to create outstanding results.

We are NAD Klima.

