



Part of Absolent
Air Care Group



5000V
10000V
20000V
30000V

Installation, Operation and Maintenance AirMaid V Series Ozone Cleaning System (NORTH AMERICAN 120 VAC)



AIRMAID[®] OZONE CLEANING SYSTEM

INNOVATIVE AIR TREATMENT

AIRMAID[®] PRODUCT
REGISTRATION



WARNINGS AND SAFETY CONSIDERATIONS

This guide describes a typical installation in a commercial kitchen exhaust duct. The product can also be used in other applications as long as the specific requirements according to the guide are fulfilled.

The device may not be used by children or by persons with diminished physical, sensory or mental capacity or lack of experience and knowledge unless supervised or having received instruction. Supervise children to ensure that they do not play with the device.

General

This installation and service guide contains important instructions and safety information for the AirMaid® Ozone Generator (hereafter referred to as "The Generator"). Read this guide fully before attempting to install, operate, or perform maintenance on The Generator.

The Generator is for commercial use and intended for the treatment of air extracted from the exhaust ducts of new or existing commercial kitchens and building ventilation systems that exhaust to the outdoors. The completed installation must meet all local, state and national building, electric and fire safety codes.

A typical installation into a commercial kitchen exhaust duct is described. Other applications for treating extraction air may also be possible, but only for air which is released into the outside environment and never into working or living spaces. In all cases, the specific requirements according to this guide must be fulfilled.

The device may not be used by children or by persons with diminished physical, sensory or mental capacity or lack of experience and knowledge unless supervised or having received instruction. Supervise children to ensure that they do not play with the device.

Always disconnect the electric power source from The Generator before performing any service or maintenance.

The Generator, Alarm Panel and connections to inlet air and extraction ducts must be installed by qualified personnel, in compliance with all manufacturer instructions as well as local, state and national building, electric and fire safety codes.

Troubleshooting & Requesting Service

In the event of operational difficulties with The Generator please contact your reseller.

Repairs must only be performed by trained and authorized service personnel unless prior written consent has been given. Only original repair parts provided by the manufacturer may be used when servicing The Generator.

If damage has occurred during shipping, notify the freight carrier at once so that a claim can be filed with the carrier.



Electrical Shock Hazard! Disconnect power before servicing. Replace all parts and panels before operating. Failure to do so can result in electrical shock, burns or death.



This equipment is heavy! See product specifications for rated weight. Always exercise extreme caution when mounting or dismounting The Generator to assure it cannot be dropped. Use only approved work platforms to access The Generator. Never stand on cooking equipment as falls can result in serious injuries. Wear industry-prescribed work clothing, gloves and eye protection while mounting, dismounting or servicing The Generator.



This unit emits low levels of ozone into the exhaust duct. If improperly used by unqualified personnel extended exposure to ozone can result in irritation to eyes, skin and lungs. Always observe industry guidelines and safety precautions when working with equipment that generates ozone.

LIMITED WARRANTY FOR ABSOLENT CKV EQUIPMENT

This warranty is subject to the following conditions.

A new product is warranted to be free from defects and/or workmanship for a period of 3 years provided that the product registration form is submitted.

Follow the instructions from the QR-code printed on the right bottom of the cover.

The product must be installed according to the specifications described in the product Installation and Service Guide.

Circumstances which can void the warranty include, but are not limited to:

1. If the installation of the generator does not follow all requirements stated in the product Installation and Service Guide;
2. If the airflow or pressure are not kept to the product specifications;
3. If any foreign matter such as water or other cleaning agents are sprayed into the generator;
4. If the regular inspection and cleaning maintenance for the product are not followed;
5. Any other damage resulting from accident, alteration, misuse, if the serial number is removed or defaced, or any other external influences.

A spare part is warranted to be free from defects and/or workmanship for a period of ninety (90) days from the date of its installation. The warranty covers only the repair or replacement of the part itself and does not include any labor, travel or other incidental charges related to its replacement.

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1. CHECK PRODUCT

Check that the shipment includes the components below and that there is no visible damage. Remove the service hatch and carefully inspect the CGC Ozone Cells that none of the glass tubes are damaged. Any damage must be reported immediately to the distributor or manufacturer. Read this guide completely before beginning the installation.

1 x AirMaid® Ozone Generator



1 x AirMaid® Alarm Panel



2. PLANNING YOUR INSTALLATION

Selecting the Correct AirMaid®

Choose the AirMaid model from the following table based upon the total duct airflow for the application. If the duct has several branches, equip each branch with the correctly sized model for its airflow. In this way we maintain a consistent concentration of ozone throughout all sections of the duct system. For larger airflows, simply install several units in parallel. For restaurants with a higher than average grease or odor discharge, please consult with your nearest AirMaid® sales representative for recommendations for your specific application.

AirMaid	Ozone Capacity Up to	Max Exhaust Treated Use parallel units for higher airflow	Makeup Airflow Specification	Target	Pressure Drop (ΔP @ Target Bleed rate)
5000V	5000 mg/h	1500 cfm	30–50 cfm	40 cfm	0.40 inH ₂ O
10000V	10000 mg/h	3000 cfm	45–85 cfm	75 cfm	0.75 inH ₂ O
20000V	20000 mg/h	6000 cfm	90–170 cfm	150 cfm	0.48 inH ₂ O
30000V	30000 mg/h	9000 cfm	135–255 cfm	225 cfm	0.59 inH ₂ O

Inlet Air Supply: Adjust to the "Target Makeup Airflow" when able

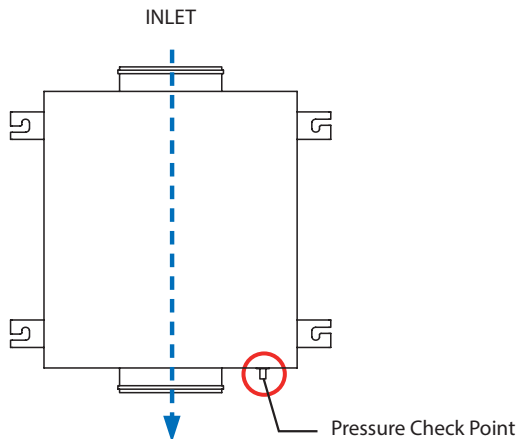
Filtered Air. The air supplied through the AirMaid® generator is the "fuel" to create its ozone and must be filtered. To minimize equipment maintenance, use an air source with the least pollutants. Inlet air is preferred taken from a filter box or ceiling filter grille satisfying at least class MERV5/EU3, positioned to enable easy access for inspection and filter replacement. Filter box inlet air can be taken from above an inner ceiling, or preferably from an adjoining space. If air must be taken from inside a kitchen space, please position its intake the farthest distance possible from preparation or cooking areas. Air may alternatively be taken from a conditioned and filtered ventilation supply duct, but then correct air balancing must be ensured so that the generator always has its static pressure and makeup airflow within manufacturer's specifications at all ventilation speeds. Air may never be taken directly from the outdoors. The temperature of the inlet air shall never exceed 104°F.

Makeup Airflow. With the extraction fan running the airflow through each inlet pipe must always fall within the specification: 45–85 cfm per inlet pipe (Models 10000V and 20000V), 30–50 cfm (Model 5000V), 135–225 cfm (Model 30000V).

When used in conjunction with VAV/VSD systems, if the total makeup airflow through the AirMaid® generator drops below the minimum specification at the lowest extraction fan speed then power to AirMaid® must then be cut off.

40 CFM TARGET

5000V

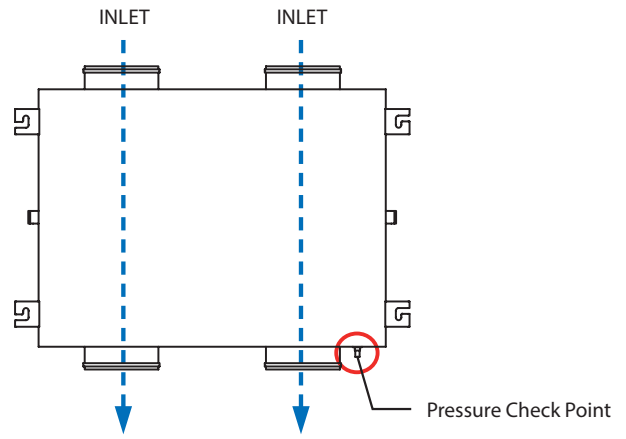


75 CFM TARGET

10000V

150 CFM / 225 CFM TARGET

20000V / 30000V



Static Pressure: -0.1 inH₂O to -2.0 inH₂O

With the extraction fan running the Static Pressure inside the generator, when measured at the Pressure Check Point (locations marked in RED), must always fall within the specification: -0.1 inH₂O to -2.0 inH₂O. This is necessary for correct and reliable operation of the internal Pressure Safety Switch.

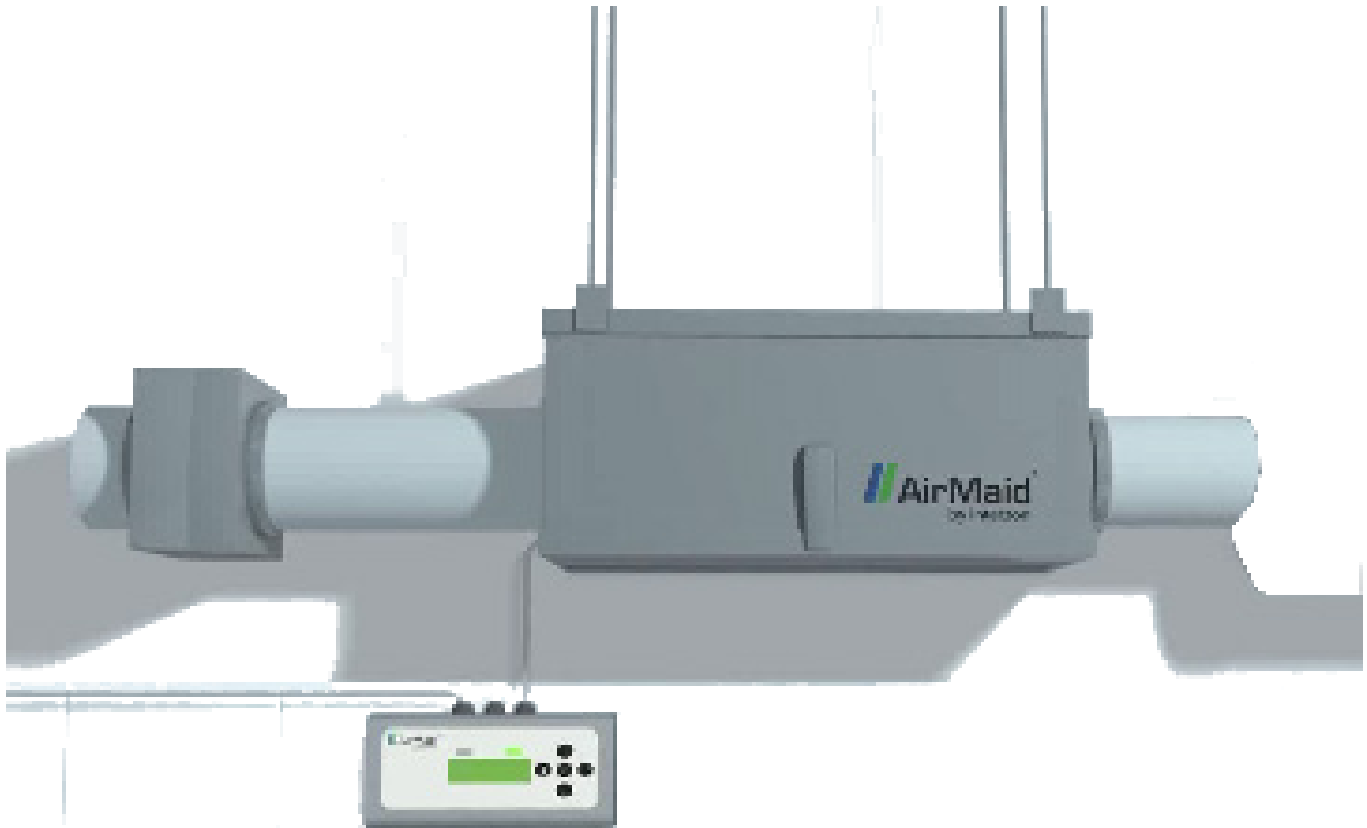
When used in conjunction with VAV/VSD systems, the Static Pressure must fall within specifications even at the lowest extraction fan speed or the power to AirMaid must then be cut off.

3-Second Minimum Dwell Time for Odor Reduction

Ozone is an effective oxidant for reducing cooking odor within grease ducts of commercial kitchens. Please note that ozone does not treat smoke from solid fuel / open fire applications.

To obtain good odor reduction results with AirMaid® it is important that the ozone have enough time to react with the odor particles in the duct airstream. We call this “reaction time” or “dwell time” and is measured from the point where the ozone gas is mixed in with the exhaust airstream ahead of the hood connection. With multiple hoods in the duct-work, this is instead measured from the hood closest to the point of exhaust.

With this in mind we recommend a minimum dwell time of 3 seconds to obtain “good” results for the reduction of cooking odor. However, please keep in mind that a longer dwell time will often provide even better results.



Clean the Exhaust Ducts

When AirMaid® is retrofit into existing exhaust systems, the exhaust ducts must be swept clean of grease and soot at the time of installation. This is required to achieve the desired results from the ozone cleaning.

Educate the Chimney Sweep

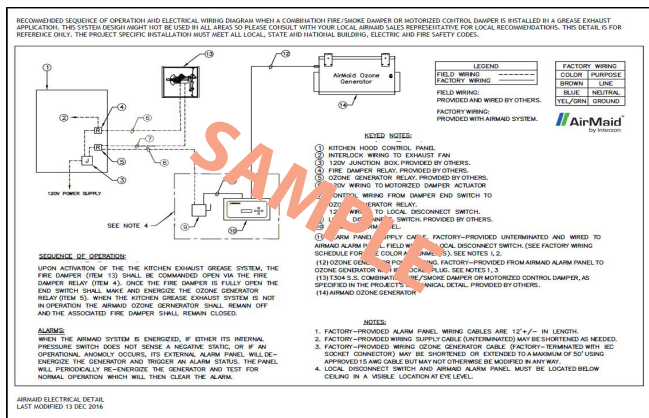
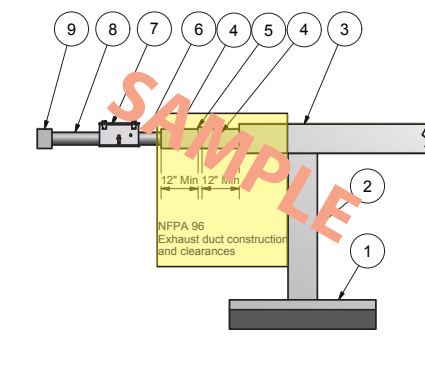
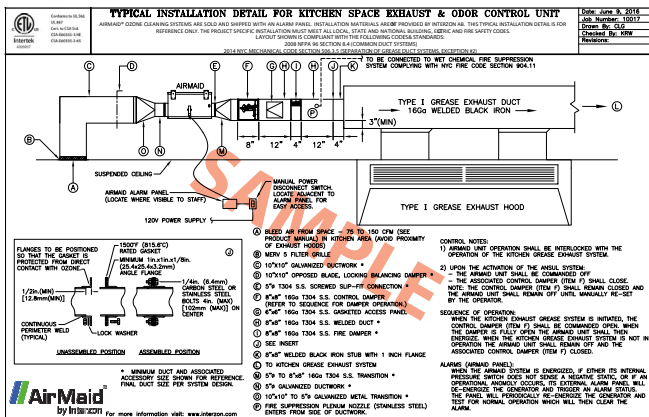
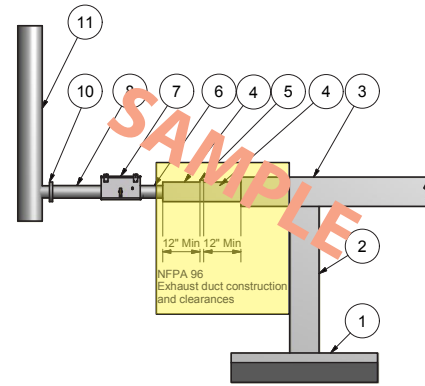
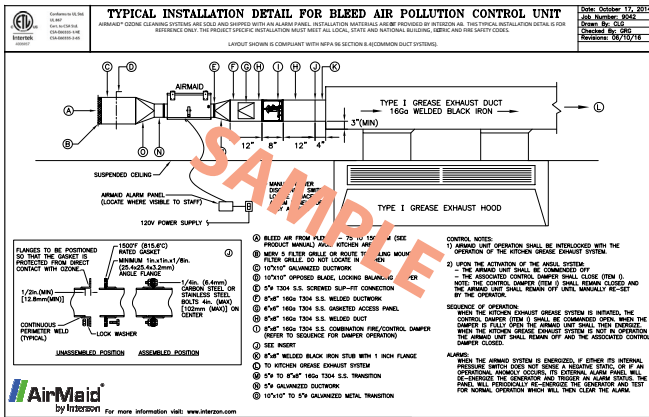
AirMaid® is an electrical device, and as such must be protected from exposure to water, chemicals and duct waste when exhaust ducts are cleaned. Damage due to external influences such as these is not covered under the product warranty. It is therefore highly recommended that the duct cleaning company be informed about the AirMaid® installation so care is taken not to expose the duct connection such materials.

3. SAMPLE INSTALLATIONS

Important note regarding code-compliant installation

Installation requirements can vary widely between jurisdictions, or change over time. The project engineer and installing contractor are responsible to ensure an installation complies with all local, state and national building, electric and fire safety codes. The diagrams shown below are sample documents available to assist an engineer or architect in designing a code-compliant installation. Contact the manufacturer or your local AirMaid® representative for sample detail recommended for your area.

Note: As shown below, in grease exhaust applications it is common a stainless steel fire damper is installed in the connection appendage between the generator and main exhaust duct. Due to the potential for corrosion in this small section of duct, be sure to add regular inspections/replacement of any non-stainless components such as fusible links or sensors accompanying it (twice/year recommended) to the regular maintenance schedule for the facility.

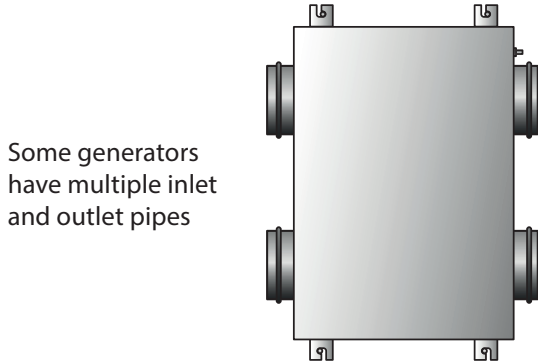


- 1 Kitchen Hood
- 2 Kitchen Duct Riser
- 3 Main Exhaust Duct
- 4 18 Ga T304 SS Welded Duct
- 5 Fire Damper
- 6 T304 SS Outlet Pipe
Ø 3-5 in.
- 7 AirMaid® Ozone Generator
- 8 Inlet Pipe Ø 5 in.
- 9 Filter Box (MERV5/EU3)
- 10 Air Damper
- 11 Central Air Supply

4. INSTALLATION DETAIL

Multiple Connections Unnecessary

At times there are misconceptions regarding our sample installation detail available as shown on the previous page, as it only shows a “general case” side view of an AirMaid® generator. Since certain models of AirMaid® have multiple pipes, sometimes an engineer or contractor has unnecessarily drawn/constructed multiple inlet and outlet connections to the supply air and main exhaust duct:

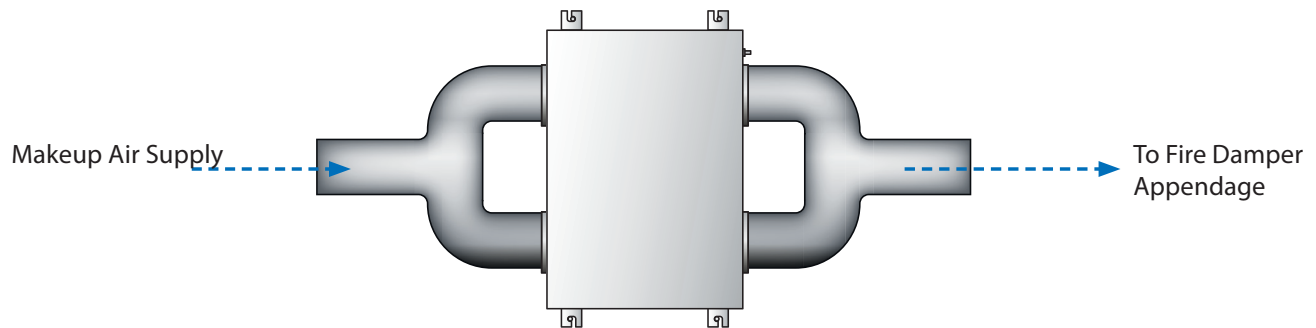


Some generators have multiple inlet and outlet pipes



Multiple duct connections are unnecessary

As long as you have sufficient static pressure to obtain the correct bleed airflow through the generator, then multiple connections to the supply and exhaust ducts like shown above is unnecessary.

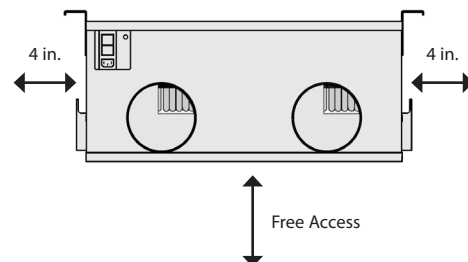
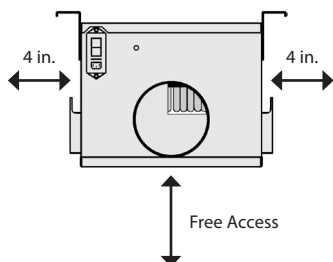


Instead, on models with multiple pipes you may manifold together the supply and discharge pipes to single connections as long as the resulting installation complies with the product specification for makeup air through the generator. Use large-radius bends to avoid pressure loss.

Access Requirements

Routine maintenance and service of all models is performed through the bottom service hatch. An internally-hinged electronics assembly allows electronic component access from the bottom as well. The entire underside of the generator must therefore always have free and easy access to the service technician. Nearby ceiling tiles shall be removable to facilitate service access. Please design your installation with sufficient clearance on all sides (minimum 4") to allow for the easy removal of the entire AirMaid® assembly, if there is insufficient space for on-the-spot repair by the technician.

Always use a safe, approved work platform while servicing the generator.



Construction Materials

All ventilation components between the outlet of the ozone generator to and including the connection to the main exhaust duct must meet stainless steel specification AISI 304.

Fire Damper Maintenance

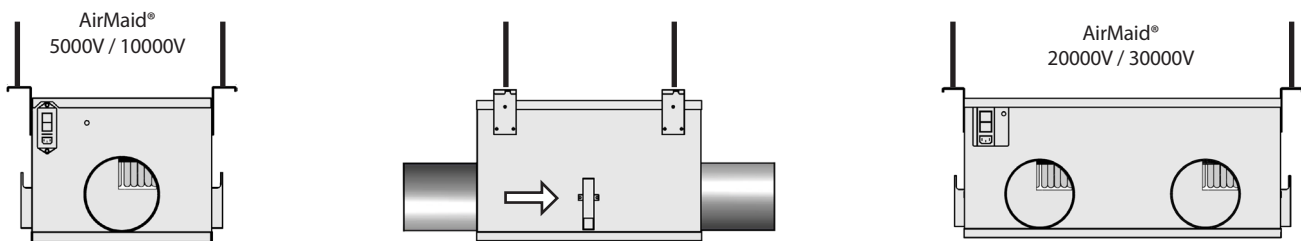
In grease exhaust applications it is common a stainless steel fire damper is installed in the connection appendage between the generator and main exhaust duct. Due to the potential for corrosion in this small section of duct, be sure to add regular inspections/replacement of any non-stainless components such as fusible links or sensors accompanying it (twice/year recommended) to the regular maintenance schedule for the facility.

Hanging the Generator

The ozone generator has 5" slip-fit gasketed connections. Lock connecting pipes to the generator flanges with stainless steel self-tapping screws. Never weld to or drill any holes in the generator. The outlet pipe (6) may have a maximum length of 15 ft. Make sure that your installation does not block any inspection hatches or other equipment in the facility.

1. Hang the ozone generator. (7)

The ozone generator must always be suspended horizontally by its brackets with the service hatch facing downward.



Note that the direction of the airflow ⇨ must correspond to the arrows on the generator and the pictures below.

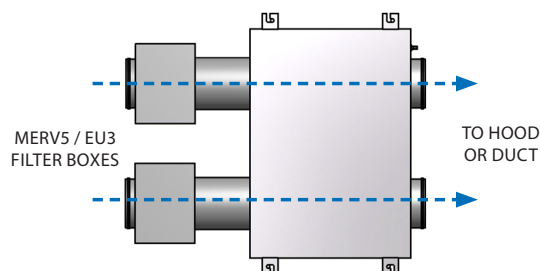
Never screw or drill through the generator. Hang using 5/16 in. threaded rods and anchor these with nuts on each side of the respective bracket.

2. Fasten the outlet pipe (6) between the ozone generator (7) and the eventual connecting point to the exhaust duct.
3. Connect the inlet pipe (8) and air damper (10) to the ozone generator (7), or use a filter box (9) with a MERV5/EU3 filter according to the pictures below.

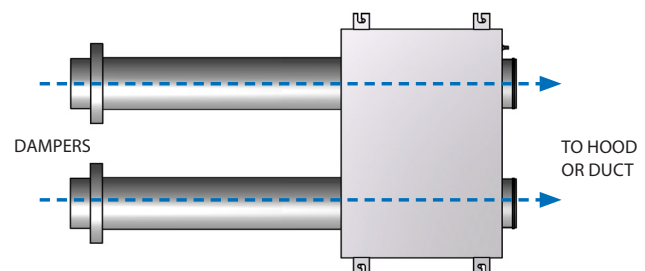
Make sure that all connections are properly fastened and sealed.

For Makeup Airflow rates, see section 2 "Planning Your Installation"

FILTER BOX INSTALLATION



CENTRAL AIR INSTALLATION



Filtered air is required. On models with multiple pipes, you may manifold together supply and discharge pipes to single connections as long as the resulting installation complies with the product specification for makeup air through the generator. Remember to add filter inspection/replacement to the maintenance schedule. With central air installations, dampers are usually necessary for balancing purposes.

5. ELECTRICAL INSTALLATION

First: Please read section 3, "Sample Installations" for information regarding code-compliant installation.

Alarm Panel Mounting

Remove the four screws that fasten the AirMaid Alarm Panel to its base. Fasten the base to the wall using devices suitable for the wall material. In commercial kitchens place the Alarm Panel at eye level where it will be visible to the staff but not to customers.

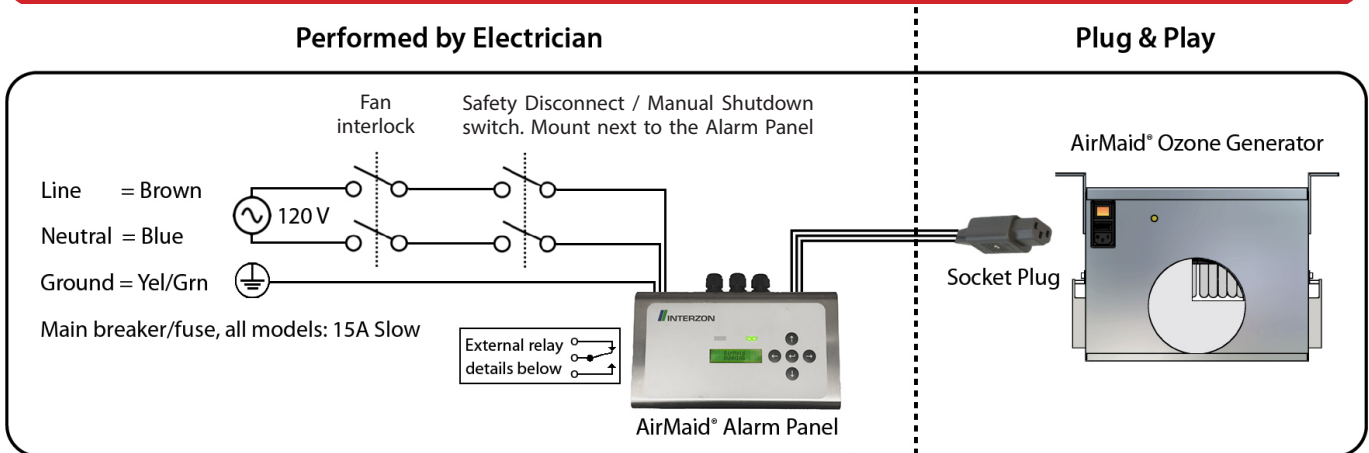
NOTE: Upon delivery the generator and Alarm Panel within the shipping carton are calibrated together and have matching serial numbers. Make sure that generators are always connected to their own Alarm Panel.

Electrical Connection

The installation must be performed by an authorized electrician and follow national standards and regulations. The fan interlock displayed on the diagram below is mandatory. The purpose of the fan interlock is to shut off the main power to the generator when the exhaust fan is turned off. Another example would be to remotely shut down the main power to the generator through BACnet. An all-pole safety disconnect switch with a break length of at least 3 mm must be installed next to the Alarm Panel and labeled "OZONE GENERATOR MANUAL SHUTDOWN". The electrical requirements for the ozone generator are 120V AC and 60 Hz. Every generator must be connected to its own main breaker/fuse.

Important Note!

Under no circumstances may the cable between the Alarm Panel and the Generator be tapped for any external electrical connections or control signaling.



External Relay Connection

If you desire to connect AirMaid to an external monitoring or alarm system, you can accomplish this by connecting it to the external alarm terminal block within the AirMaid Alarm Panel.

Important Note!

If the electrical cables are removed during installation, ensure the mains feed is properly reconnected to the "IN" L/N terminals.

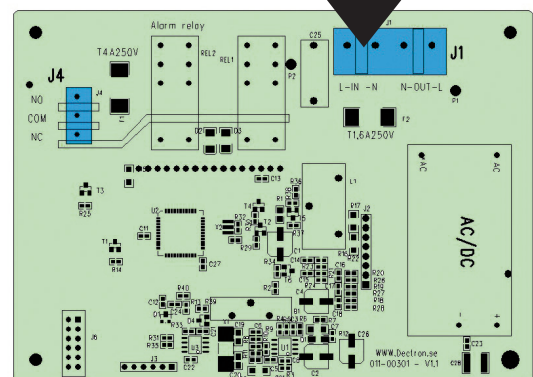
Voltage-free relay located inside AirMaid Alarm Panel chassis

NO = Normally open

COM = Common

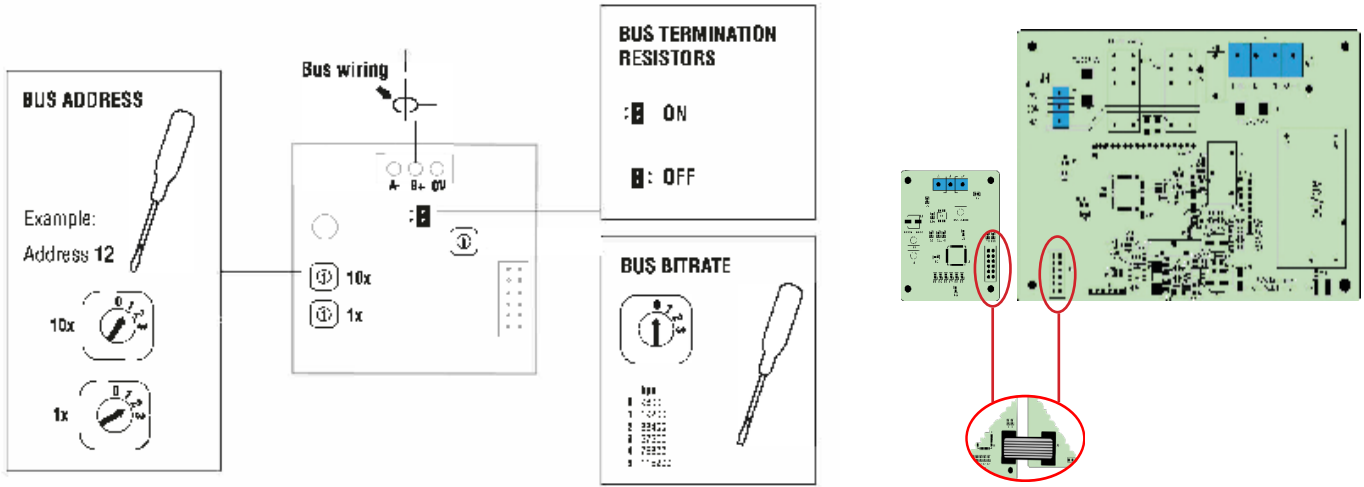
NC = Normally closed

Maximum load 120V/4A



6. BACNET CONNECTION AND SETTINGS (OPTIONAL)

BACnet MS/TP Setup



Vendor Name: Bithouse Oy

Product Name: AirMaid BACnet MS/TP Addon Card

Product Description:

This addon card receives data in JSON –form from the Airmaid panel and makes it visible to other BACNet devices in the same BACNet network.

BACnet Standardized Device Profile (Annex L):

BACnet Application Specific Controller (B-ASC).

List all BACnet Interoperability Building Blocks Supported (Annex K):

- Data Sharing-ReadProperty-B (DS-RP-B)
- Data Sharing-WriteProperty-B (DS-WP-B)
- Device Management-Dynamic Device Binding-B (DM-DDB-B)
- Device Management-Dynamic Object Binding-B (DM-DOB-B)
- Device Management-DeviceCommunicationControl-B (DM-DCC-B)

Standard Object Types Supported:

- Device Object
- Analog Value Object
- Binary Value Object
- Multi-State Value Object

Data Link Layer Options:

MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 76800, 115200.

Device Address Binding:

Is static device binding supported?

- No.

Networking Options:

Does the BBMD support registrations by Foreign Devices?

- No.

Does the BBMD support network address translation?

- No.

Network Security Options:

Non-secure Device - is capable of operating without BACnet Network Security!

Character Sets Supported:

ISO 10646 (UTF-8).

SYSTEM STATUS

[1]	Unknown
[2]	Running
[3]	Please Call Service
[4]	Inspect / Clean
[5]	Offline: Not Connected
[6]	Offline: Pressure
[7]	Calibration Fail: Pressure
[8]	Remotely Disabled

OPTIONS

INSPECTION INTERVAL	Service and maintenance interval in months.
SET INSPECTION INTERVAL	Change Present Value between 1-12. Default 12 months.
TIME LEFT TO INSPECTION	Default 360 days.
ALARM DELAY	The delay time before we receive an alarm if a component failure occurs.
SET ALARM DELAY	Change Present Value between 2s-24h. Default 2s.
PFNC	The delay time before we receive an alarm about a pressure issue or that the unit is switched off.
SET PFNC	Change Present Value between 2s-24h. Default 5min.
EVENT LOG POSITION	The amount of events that have been logged.
POWER, CALIBRATED	The current value that the alarm panel is calibrated to.
POWER, ACTIVE	The actual value that the alarm panel has detected.

7. COMMISSIONING

1. Perform Visual Inspection Of CGC Ozone Cell(s)

- 1.1 Turn off the generator's main power switch and remove the bottom access hatch. Visually inspect all glass electrode tubes that they are all intact. If any are found to be cracked or damaged, contact your AirMaid® Authorized Service Company for assistance.
- 1.2 Reinstall the bottom access hatch and turn the generator's main power switch back on.

2. Confirm Airflow And Static Pressures

- 2.1 Ensure the ventilation system of the facility is running normally.
- 2.2 Confirm Airflow and Static Pressures as described in section 2, "Planning Your Installation".

3. Configure The Alarm Panel

- 3.1 Ensure the ventilation system of the facility is running normally.
- 3.2 Apply power to the Alarm Panel. The firmware will be displayed briefly, then "AIRMAID® STARTUP" will be displayed for approximately 15 seconds.
- 3.3 Enter the Settings Menu. Please refer to section 7, "The AirMaid® Alarm Panel".
- 3.4 Set and save the correct TIME and DATE.
- 3.5 Set and save the **ALARM DELAY**, **PF-NC DELAY** and **INSP/CLEAN** (inspection frequency) options to custom values, if you choose not to accept their factory defaults (ALARM DELAY: 2 seconds, PF-NC DELAY: 5 minutes, INSP/CLEAN: 12 months);

4. Perform Functional Check Of CGC Ozone Cell(s)

- 4.1 Ensure the ventilation system of the facility is running normally.
- 4.2 Ensure the AirMaid® system is powered on.
- 4.3 Next, open the service hatch just enough to see inside (be careful not to open the hatch too far as the static could then be too weak to start the generator). While viewing the CGC Ozone Cell modules (1 module for a model 5000V; 2 modules for a 10000V; 4 modules for a 20000V and 6 modules for a 30000V) each module should be generating a shimmering blue light between its six electrodes. Please note that this light has been deemed safe to look at with the naked eye. If any or all CGC Ozone Cell modules do not start up, please refer to section 10, "Troubleshooting".

5. Perform Recalibration

- 5.1 Once the functional check shows all CGC Ozone Cell modules are functioning properly, select the menu choice "PERFORM RECALIBRATION" and recalibrate the generator to your local line voltage.

6. Schedule Future Maintenance

6.1 Schedule in the recommended 3-month checkup.

At the 3-month checkup a Functional Check shall be performed and the cells cleaned. At that time you may determine if inspection/cleanings shall occur at the minimum frequency of once per year, or more often. Configure your desired service and maintenance interval (X months) into the INSP/CLEAN setting in the Alarm Panel.

When utilizing makeup air from an external filter box, remember to add filter inspection/replacement to the facility maintenance schedule.

7. Register the generator installation with Interzon

7.1 Register the generator online within 10 days installation at www.airmaid.com

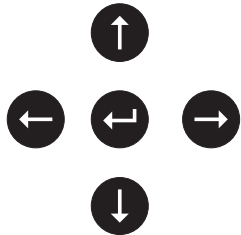
Registering the AirMaid® generator installation is important to both the reseller and end customer. Firstly, this allows us to more easily contact you regarding important product updates. Secondly, this determines the date the 3-year limited warranty will begin, otherwise the shipment date from our production plant will be used for warranty evaluation.

When registering the product installation you will need to have the Makeup Airflow and Static Pressure measurements handy as noted in section 2, "Planning Installation".

Remember: With the use of VAV/VSD systems, the Makeup Airflow and Static Pressure values will be needed at both normal and reduced exhaust fan operating speeds.

8. THE AIRMAID® ALARM PANEL

Once you have adjusted and confirmed the bleed airflow and static pressure requirements, you can then apply power to the generator. The first time the Alarm Panel is started the time and date must be configured.



Press ← or → to step through menu options or reposition the cursor.

Press ↑ or ↓ to change the value.

Press ↵ to select the current option.

Press ↵ for 5 seconds to save the displayed value.

STATUS OF OPERATION

RUNNING:	Green lamp is on solid. Normal operation.
INSPECT/CLEAN:	Green lamp is blinking. This reminder is automatically generated every X months based upon a user-defined setting. Contact your service company for a routine inspection and cleaning of the generator as described in this guide.
PLEASE CALL FOR SERVICE	The generator is operating, however it is not running at full capacity. <i>Partial failure:</i> Red lamp is blinking, green is on solid. <i>Severe failure:</i> Only the red lamp is blinking.
AIRMAID OFFLINE SYSTEM PRESSURE	Red lamp is blinking. The system has detected a problem with the static pressure. Kitchen hood filters might not be installed properly, or a fire damper or control damper, if installed, may not be open.
AIRMAID OFFLINE NOT CONNECTED	Red lamp is blinking. The generator is not detected as present. The main switch on the generator may be turned off, or perhaps the power supply cable from the Alarm Panel is not connected to the generator.
CALIBRATION FAIL NOT CONNECTED	Red lamp is blinking. A calibration was attempted while the generator was not detected as present. The main switch on the generator may be turned off, or perhaps the power supply cable from the Alarm Panel is not connected to the generator.
CALIBRATION FAIL AIRMAID PRESSURE	Red lamp is blinking. A calibration was attempted while the system detected a problem with the static pressure. Kitchen hood filters might not be installed properly, or a fire damper or control damper, if installed, may not be open.

If technical difficulties persist, please perform troubleshooting following the flow chart in this guide. Finally, contact your AirMaid Authorized Service Company for assistance.

ENTERING/EXITING THE SETTINGS MENU

To ENTER the settings menu:

Press ↵ once. "SETUP CODE" will be displayed. Enter 401 on the keyboard.

Press and hold ↵ for 5 seconds. At this time "SET TIME" will appear and you may use the ← and → keys to traverse within the settings menu to perform the necessary tasks.

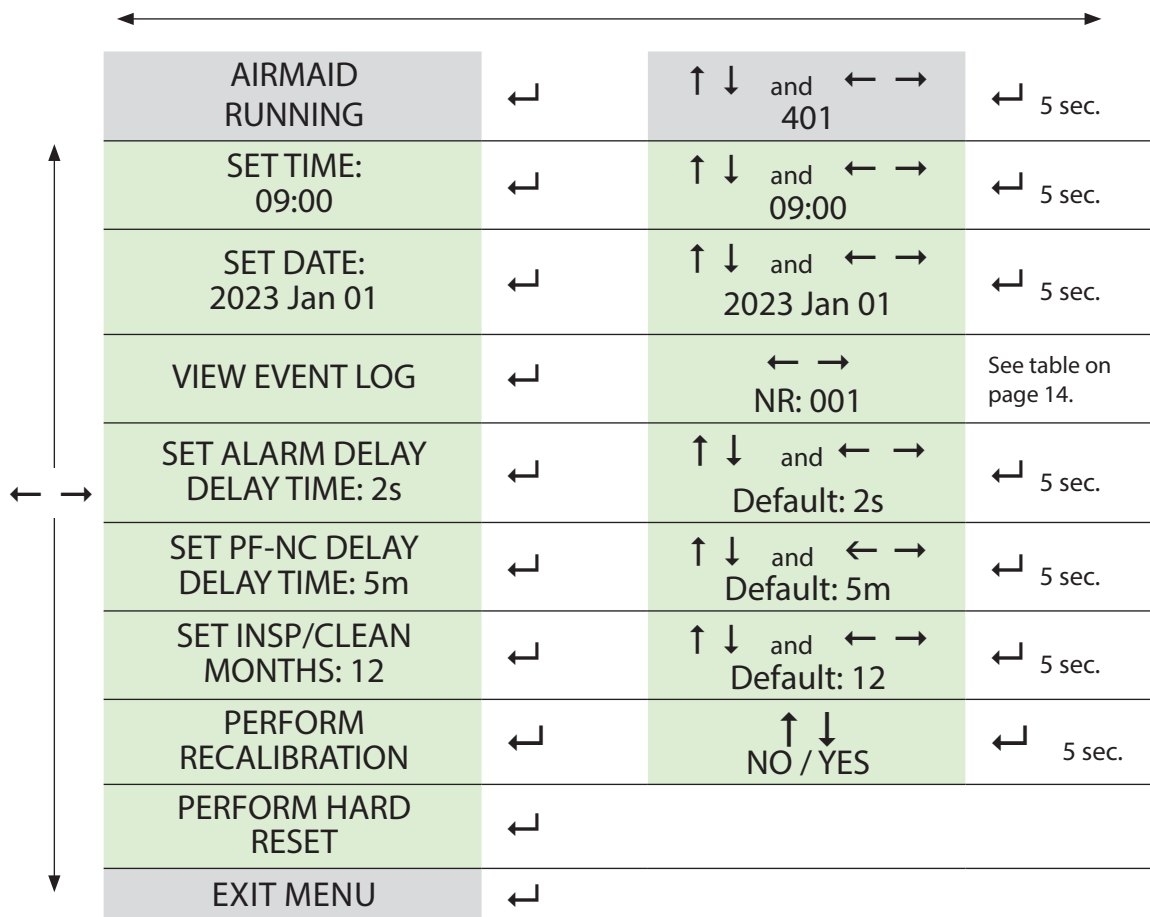
To EXIT the settings menu:

Press ← or → to go to "EXIT MENU", then press ↵ or wait 60 seconds and the menu will be exited automatically.

ALARM PANEL SETTINGS (* values that should be set at commissioning)

Text displayed	Description of the menu option
* SET TIME:	Set the time.
* SET DATE:	Set the date.
VIEW EVENT LOG:	View a list of historic events, including alarms and recalibration. The 100 most recent events will be displayed
SET ALARM DELAY:	This is the delay time before a deviation of the system power load is reported as an error. By default, this delay is set to 2 seconds.
SET PF-NC DELAY:	This is the delay time before detection of a disconnected generator or loss of system pressure is reported as an error. By default, this delay is set to 5 minutes.
SET INSP/CLEAN:	Service and maintenance interval in months. After this time period the Alarm Panel will blink the service reminder "Inspect/Clean".
PERFORM RECALIBRATION:	This menu option must be used after the generator has been repaired and electronic components have been replaced. Do not recalibrate at any other time unless instructed to do so by the manufacturer.
PERFORM HARD RESET:	Performs a power cycle on the generator and hard reset of the Alarm Panel.
EXIT MENU:	Exit the settings menu.

SETTINGS MENU FLOW DIAGRAM



EVENT LOG

1. 2. 3.
NR: 005P 00000h
2018AUG04 10:00
4. 5.

1: Event ID

2: Cause

A = Alarm, C = Calibration, P = Pressure Fault,

N = Not Connected (generator not detected)

D = System Remotely Disabled (Interlock by BACnet)

3: Event Duration

4: Event Date (Year/month/day)

5: Event Time (Military time)

KEYPAD FUNCTIONS

INSPECT/CLEAN REMINDER

AIRMAID
INPECT/CLN 360d

Press ↑ to display days how many days remain until the next inspection.

Dismiss Reminder:

Press and hold ↵ for 5 seconds to dismiss the reminder message on the display.

Reset Reminder:

Enter 222, then press and hold ↵ 5 seconds to reset the the reminder timer (perform this if cleaning is performed before the timed reminder is displayed).

VERSION INFORMATION

HARDWARE 2
FIRMWARE 3.01

Press ← to display Alarm Panel **Hardware** and **Firmware** versions.

SYSTEM LOAD INFORMATION

pCalib: 396
pActive: 394

Press → to display system load values **pCalib** and **pActive**. These are diagnostic values that can assist your AirMaid authorized service company to troubleshoot system errors.

RUN/ALARM TIME FUNCTIONS

RUN TIME 667h
ALARM TIME 12m

Press ↓ to display Run Time and Alarm Time since initial installation.

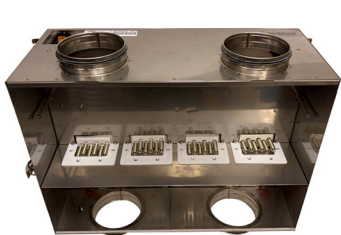
9. SERVICE AND MAINTENANCE

The ozone cells inside the ozone generator must be checked and if necessary cleaned at least once per year according to the instructions below. If a separate air filter is used for the makeup air, make sure the filter is changed at least once per year to ensure proper airflow through the generator. With a new installation it is recommended to perform a first inspection after three months.



If any work needs to be performed in the kitchen extraction ducts, the power to the ozone generator must be disconnected.

Switch **OFF** the main power to the ozone generator and then remove the service hatch from the bottom of the ozone generator.



Note: AirMaid® Model 5000V has one set of ozone cells to clean; the 10000V has two sets; the 20000V has four sets and the 30000V has six sets.

Make sure that the glass electrodes of the ozone cells are not damaged or cracked. A proper ozone cell should be clean and free from any mechanical damage according to the picture to the right above.



Wet a soft, durable cleaning cloth with your alcohol-based cleaning spirit. **Never spray directly onto the ozone cell!**

Caution! The glass tubes are fragile! Use only your hands and never any sort of tool to scrape or clean the ozone cell.



First clean the surfaces of the glass electrodes and then around the base of the cell. Using your fabric like dental floss, gently clean between the electrodes with a gentle sliding movement.



Finally, wipe clean the inside of the chassis.

Note: Remember to check the mesh filter(s) and wash them if necessary.

(Spare filter(s) can be ordered from Absolent CKV AB).

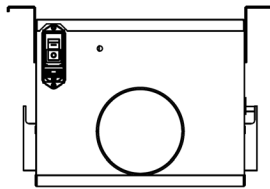
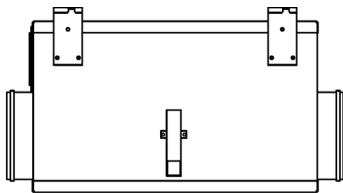
Replace the service hatch and flip the main switch on the generator to its **ON** position. Within a few minutes the switch will glow orange and the green indicator on the Alarm Panel should light up, indicating the generator is again running.

10. SPECIFICATIONS

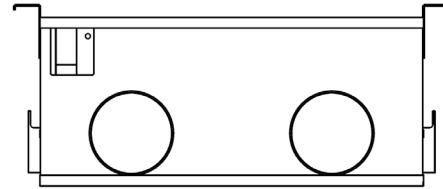
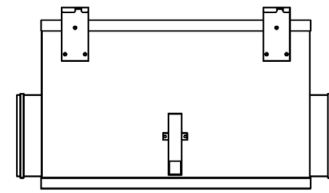
AirMaid®	Ozone Capacity	Power	Voltage	Main Breaker	Dimensions	Weight
	Up to					
5000V	5000 mg/h	100 W	120V/60Hz	15A Slow	12x16x10 in	20 lbs
10000V	10000 mg/h	200 W	120V/60Hz	15A Slow	12x16x10 in	22 lbs
20000V	20000 mg/h	400 W	120V/60Hz	15A Slow	25x16x10 in	40 lbs
30000V	30000 mg/h	500 W	120V/60Hz	15A Slow	37x16x11 in	61 lbs
Material: AISI 304 stainless steel		Operating temp: -13°F to 104°F				

For Airflow and Pressure specifications, please see section 2, "Planning Your Installation".

5000V/10000V



20000V / 30000V



The ozone generator is supplied with both pressure and thermal switches. The pressure switch ensures that the ozone generator only starts when the required negative pressure is established. The thermal switch prevents the ozone generator from overheating. The main switch is supplied with a thermal overload protection of 4A.



Conforms to UL Std.
UL 867
Cert. to CSA Std.
CSA-E60335-1/4E
CSA-E60335-2-65

Facts about Ozone

Ozone is a colorless gas with a pungent smell that can often be detected by any person at a concentration of 0.02ppm (0.4mg/m³). The smell of ozone is similar to chlorine like in a swimming baths. Always take corrective action and safety precautions if ozone is detected in an indoor environment.

Local protection legislations must be followed when using ozone. At acute exposure ozone can cause following injuries:

- On skin: Irritation and burning feeling
- In eyes: Hard irritation, burn injuries and reduced vision
- In lungs: Irritated effect on respiratory organs and breathing problems

11. TROUBLESHOOTING

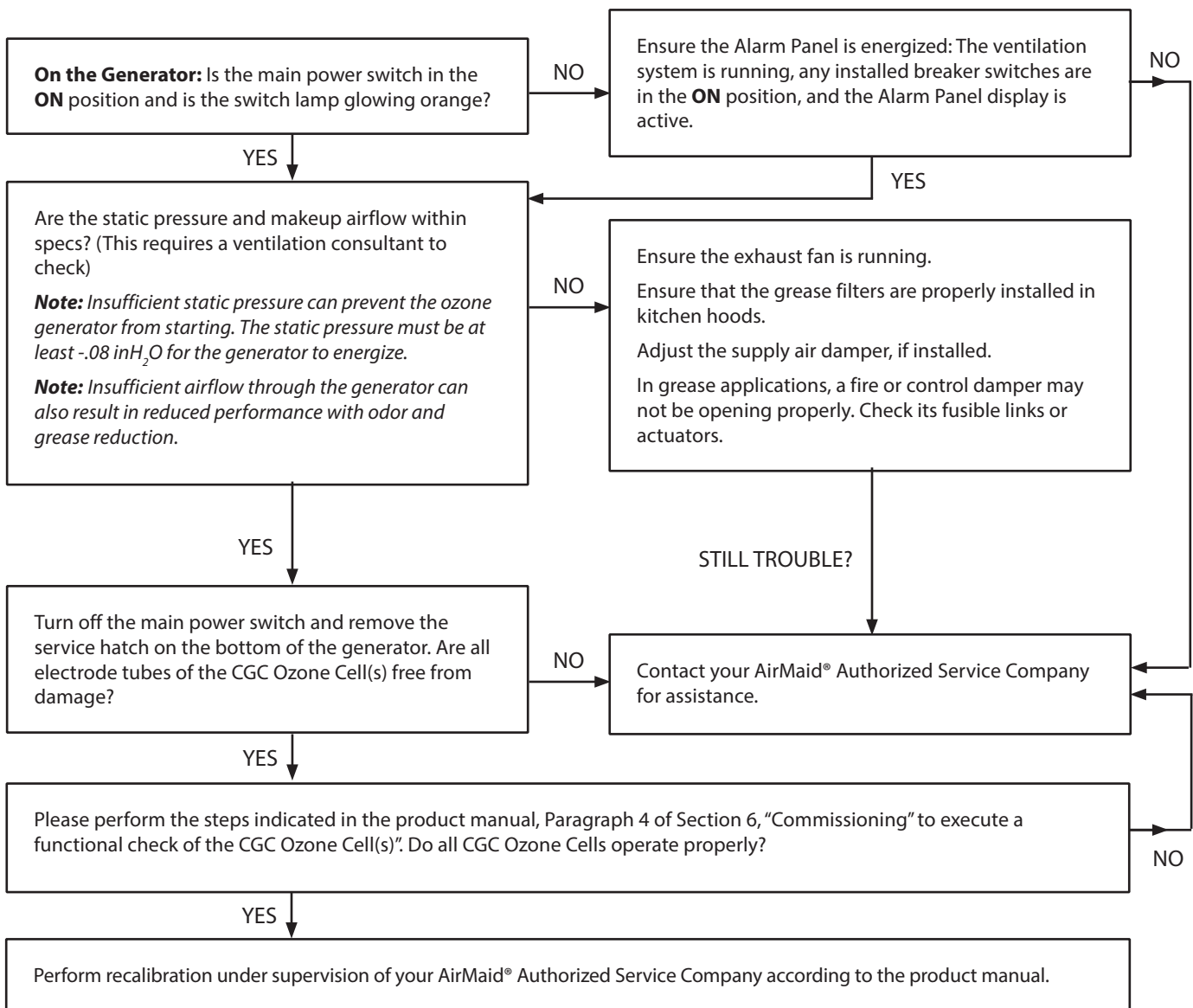
Basic Troubleshooting

Most common causes for display status message: "**AIRMAID PRESSURE**" or "**NOT CONNECTED**"

1. Hood filters are not sitting properly in place, thereby reducing the static pressure in the duct which can cause the generator's safety pressure switch to shut itself down.
2. The static pressure in the generator (and probably the makeup airflow through) are not within specifications. Check for the correct operation of any control or fire damper installed.
3. Check the static pressure in the exhaust duct. Verify that the generator has its minimum required negative static pressure by measuring the pressure at its test nipple.

For all other display messages, please refer to Section #8, "The AirMaid® Alarm Panel" and the troubleshooting chart below.

Advanced Troubleshooting Flowchart



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