

# **Operators Manual**

# EVent<sup>®</sup> Ventless Recirculating System For Electric Cooking Equipment Model - Open Canopy Hood<sup>™</sup>

( US & Canada Version)

#### IMPORTANT: DO NOT DISCARD THIS MANUAL

This manual is considered to be part of this equipment and is to be given to the OWNER or MANAGER of the food service establishment, or to the person responsible for TRAINING OPERATORS of this equipment. Additional manuals are available from Evo America.

THIS MANUAL MUST BE READ AND UNDERSTOOD BY ALL PERSONS USING OR INSTALLING THIS EQUIPMENT. Contact Evo America if you have any questions concerning installation, operation or maintenance of this equipment.



#### LIMITED EQUIPMENT WARRANTY

Evo America, LLC. warrants to the original commercial foodservice purchaser that the EVent® - Open Canopy Hood™ system will be free from defects in material and workmanship for a period of one (1) year from the original installation date, or 90 days after shipment, whichever is earlier. Evo's obligation under this warranty shall be limited to replacing or repairing, at its option, any part found to be defective within the specified warranty period. Any labor expense or part failure incurred after the warranty period will be the responsibility of the end user. This warranty is non-transferable and applies only to the original purchaser/owner to whom the EVent® - Open Canopy Hood system was delivered. Any such transfer shall void the warranty.

The end-user purchasing an Evo product to which this warranty applies is urged to register their product online at <a href="https://www.evoamerica.com/EVent open canopy hood care/">https://www.evoamerica.com/EVent open canopy hood care/</a>.

Upon registration, the warranty period will commence as provided above.

This ventilation system includes (13) thirteen filters that must be monitored and cleaned regularly to prevent grease infiltration that will impede the efficient operation of the unit and may cause damage to components. Cleaning and maintenance instructions are included in the Operators Manual. Service calls and/or part replacement resulting from lack of maintenance will not be covered under this warranty.

#### CONTACT:

If you need any help with operating or maintaining your Evo equipment, please feel free to reach out to our service department through writing, calling, faxing, or emailing. When contacting us, remember to include the model and serial number of your unit, as well as the electrical specifications to which you have connected the equipment.

Evo America, LLC

20360 SW Avery Ct, Tualatin, Oregon 97062 USA

Telephone: (503) 626-1802 Toll-Free (866) 626-1802 Fax: (503)-213-5869

Email: Support@evoamerica.com

www.evoamerica.com

Business hours are 8:00 a.m. to 5:00 p.m. Pacific Standard Time (PST)

#### WARRANTY EXCLUSIONS

- Any product which has not been used, cleaned, maintained, or installed in accordance with the directions published in the appropriate installation sheet and/or owner's manual as well as national and local codes, including incorrect electrical, or water connection. Evo is not liable for any unit which has been mishandled, abused, misapplied, subjected to high-pressure water spray, harsh chemicals, or caustic cleaners, damaged from exposure to hard water, modified by unauthorized personnel, damaged by flood, fire, or other acts of nature [or God], or which have an altered or missing serial number.
- Installation, labor, and job checkouts, calibration of fan and airflow controls, or electrical system checks, voltage and phase conversions, cleaning of equipment, or any maintenance associated with fire suppression equipment.
- Replacement of fuses or resetting of circuit breakers, safety controls, or reset buttons.
- Replacement of broken or damaged display components, ionizer wires, and LED light elements.
- Labor charges for all equipment setup, disassembly, positioning or repositioning.
- Any labor or material charges incurred for building premise HVAC system.
- Any labor charges incurred by delays, waiting time, or operating restrictions that hinder a service technician's ability to perform service.
- Replacement of items subject to normal wear or items that can easily be replaced during a daily cleaning routine, such as but not limited to filters and water sump detergent.
- Components that should be replaced when damaged or worn, but have been field-repaired instead [eg. a repaired filter].
- Any loss of business or profits.
- Ansul fire suppression deployments are not covered under warranty.

#### ADDITIONAL WARRANTIES

• Specific versions may also have additional and/or extended warranties.

PRODUCTS	PARTS	LABOR
EVent® - Open Canopy Hood™	1 Year	1 Year
Evo parts sold to repair equipment	90 Days	

## EVent® - Open Canopy Hood™



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#### **INTRODUCTION**

The Evo EVent®, model, Open Canopy Hood™, is a self-contained ventilation system designed for electric cooking equipment, including fryers, griddles, combi-ovens, and an automatic chain-broiler. With an internal open canopy hood width of 112" (2845mm) and an internal side wall depth of 55" (1397mm), it efficiently captures and processes cooking vapor. This system features a modular aluminum chassis, a stainless steel ventilation duct with washable grease baffle, vaporizer, scrubber, and particulate filters. It utilizes an advanced air filtration system using ozone and water air scrubbing, maintaining ozone levels below 0.1ppm which is constantly monitored by a UV absorption sensor. To reduce the proliferation of bacteria, mold, and mildew on the under-canopy stainless steel surfaces, this ventilation system incorporates BrightShield™ with Vyv™ Antimicrobial Light Technology. Additionally, it includes a pre-engineered Ansul® fire suppression system with electric fire detection and ten nozzles for continuous fire protection.

#### **FLECTRICAL SPECIFICATIONS**

Model	Volts	Amps A	Hz	Phase	HP	Typical Airflow	Max Grease Clearance to Combustiables		Sound Level dBa Average	Under Hood LED Lighting	
Open Canopy Hood ( US & Canada Version )	208V	30	60	3NAC	2.6	1500 CFM 2549 M³/hr	2.70 mg/m³	Zero	85	34W 34J/s	

## EVent® - Open Canopy Hood™



#### WARNINGS - ENGLISH

#### **IMPORTANT:**

#### DO NOT DISCARD THIS MANUAL

This manual is considered to be part of the appliance and is to be given to the OWNER or MANAGER of the restaurant, or to the person responsible for TRAINING OPERATORS of this equipment. Additional manuals are available from your EVO DEALER.

THIS MANUAL MUST BE READ AND UNDERSTOOD BY ALL PERSONS USING OR INSTALLING THIS EQUIPMENT. Contact your EVO DEALER if you have any questions concerning installation, operation or maintenance or this equipment.



#### FIRE HAZARD

The Fire suppression system must be charged and certified by an authorized Ansul® distributor.

DO NOT attempt to modify or bypass the fire suppression & filter systems. Doing so will void all warranty and create an unsafe operating condition. An uncontrolled fire can cause serious injury or death.

#### WARNING:

If the fire suppression system is discharged, a buzzer will sound continuously. The unit will remain inoperable until the fire suppression system is serviced, recharged and reset by an authorized Ansul® distributor. Should the fire suppression system discharge, contact the Evo Support Team: (866) 626-1802. All lines and nozzles must be thoroughly cleaned prior to recharging the system. Ansul Deployments are not covered under warranty. Technical service needs to be contacted immediately and a deployment kit of parts needs to be replaced before unit is put back in service. Evo Ansul Deployment Kit VC-XX-XXXX.

#### NOTE:

If there the Ansul fire suppression REMOTE MANUAL PULL STATION has been installed and is armed, moving this ventilation system for any reason may cause the Ansul® system to discharge. It is required the Ansul system be disarmed before attempting to move or reposition this ventilation system system.



DO NOT BLOCK ACCESS TO THE FIRE EXTINGUSHING MANUAL PULL STATION WHICH IS LOCATED ON THE FRONT OF THIS VENTILATION SYSTEM



#### SUFFOCATION HAZARD

Do not attempt to use this ventilation system with gas-fired units. This ventilation system will not remove products of combustion. Unventilated exhaust gases can be deadly.



#### FIRE HAZARD

There is a fire hazard if the duct and filters are not cleaned according to the instructions in the manual. There is no flambé open flame cooking allowed.

#### WARNING! SHOCK HAZARD

All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.

DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.

#### WARNING! RISK OF INJURY

Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical codes. Failure can result in personal injury and property damage.

#### **WARNING:**

#### SLIP AND FALL HAZARD

DO NOT operate any grease-producing cooking appliance unless the grease cup is properly installed. Oil will drip onto floor creating a slipping hazard.

#### **WARNING:**

DO NOT attempt to pressure spray the inside of any duct surface. Water will damage the ozone mitigation filters and render the filter unusable. Only use wet towels with soap and water to clean inside duct surfaces.

WASH THE RECTANGULAR PARTICULATE FILTERS in a sink with hot soap and water or a dish machine. ONLY WASH THE FOAM CONE FILTER in a sink with hot soap and water. IF THE FILTERS BECOME WORN, replace with new filters. available from Evo Authorized Service Parts (866) 626-1802. Keep spare filter packs on hand to avoid disruptions.

Exposed surfaces inside the canopy hood can be hot to the touch and may cause burns. Allow the ventilation system to cool before cleaning or servicing.



#### WARNINGS - ENGLISH



#### WARNING! NOT FOR CONTINUOUS OPERATION

This equipment is not intended for continuous mass production of food. This equipment is designed for medium to heavy-duty cooking with daily breaks for maintenance and cleaning.



THIS EQUIPMENT MUST BE CONNECTED TO AN **ELECTRICAL DISCONNECT SWITCH.** 

The inlet power line shall be supplied by the electrical contractor. The input power line shall have an electrical disconnect switch installed.



USE ONLY NEW WATER HOSES. DO NOT REUSE PREVIOUSLY USED HOSES.

This equipment must be connected to a fresh water supply by a plumber contractor. Only new hose sets must be used with this appliance. Water hoses which have been previously used must not be reused.



THIS EQUIPMENT MUST BE CONNECTED TO A WATER SUPPLY WITH MINIMUM AND MAXIMUM PRESSURES.

This equipment must be connected to a fresh water source with a minimum of 50 PSI (345 kPa) and a maximum of 80 PSI (552) which is used to cool the airflow and to remove oxidized byproduct of the ozone filtration system.

## EVent® - Open Canopy Hood™



#### WARNINGS - FRENCH

#### IMPORTANT:

#### **NE JETEZ PAS CE MANUEL**

Ce manuel est considéré comme faisant partie de l'appareil et doit être remis au PROPRIÉTAIRE ou au DIRECTEUR du restaurant, ou à la personne responsable de la FORMATION DES OPÉRATEURS de cet équipement. Des manuels supplémentaires sont disponibles auprès de votre REVENDEUR EVO. CE MANUEL DOIT ÊTRE LU ET COMPRIS PAR TOUTES LES PERSONNES UTILISANT OU INSTALLANT CET ÉQUIPEMENT. Contactez votre CONCESSIONNAIRE EVO si vous avez des questions concernant l'installation, le fonctionnement ou l'entretien de cet équipement.



#### DANGER RISQUE D'INCENDIE

Le système d'extinction d'incendie doit être chargé et certifié par un distributeur Ansul® agréé. NE PAS tenter de modifier ou de contourner les systèmes d'extinction d'incendie et de filtrage. Cela annulerait toute garantie et créerait des conditions de fonctionnement dangereuses. Un incendie incontrôlé peut provoquer des blessures graves, voire la mort.

#### WARNING:

Si le système d'extinction d'incendie est déchargé, un signal sonore retentit en continu. L'unité restera inutilisable jusqu'à ce que le système d'extinction d'incendie soit entretenu, rechargé et réinitialisé par un distributeur Ansul® agréé. Si le système d'extinction d'incendie se décharge, contactez l'équipe d'assistance Evo: (866) 626-1802. Toutes les conduites et buses doivent être soigneusement nettoyées avant de recharger le système. Les déploiements Ansul ne sont pas couverts par la garantie. Le service technique doit être contacté immédiatement et un kit de déploiement de pièces doit être remplacé avant que l'unité ne soit remise en service. Kit de déploiement Evo Ansul VC-XX-XXXX.

#### NOTE:

Si la STATION DE TIRAGE MANUELLE À DISTANCE d'extinction d'incendie Ansul v a été installée et est armée, le déplacement du EVent® pour quelque raison que ce soit peut provoquer la décharge du système Ansul®. Il est nécessaire que le système Ansul soit désarmé avant essayer de déplacer ou de repositionner le système EVent®.



DANGER - NE BLOQUEZ PAS L'ACCÈS À LA STATION À TRACTION MANUELLE D'EXTINCTION D'INCENDIE QUI EST SITUÉE À L'AVANT DE L'UNITÉ EVent®.



#### **DANGER RISQUE DE SUFFOCATION**

N'essayez pas d'utiliser ce système de ventilation avec des unités alimentées au gaz. Ce système de ventilation n'éliminera pas les produits de combustion. Les gaz d'échappement non ventilés peuvent être mortels.

## WARNING! RISQUE DE CHOC

Tout entretien nécessitant l'accès à des composants électriques non isolés doit être effectué par un technicien agréé par l'usine.

N'ouvrez AUCUN panneau d'accès nécessitant l'utilisation d'outils. Le non-respect de cet avertissement peut entraîner un choc électrique grave.

## WARNING! RISQUÉ DE BLESSURE

Les procédures d'installation doivent être effectuées par un technicien qualifié connaissant parfaitement tous les codes électriques applicables. Une défaillance peut entraîner des blessures corporelles et des dommages matériels.

#### RISQUE DE GLISSEMENT ET DE CHUTE

NE PAS faire fonctionner un appareil de cuisson produisant de la graisse à moins que le bac à graisse ne soit correctement installé. L'huile coulera sur le sol, créant un risque de glissade.

NE PAS tenter de pulvériser sous pression l'intérieur d'une surface de conduit. L'eau endommagera les filtres d'atténuation de l'ozone et rendra le filtre inutilisable. Utilisez uniquement des serviettes mouillées avec de l'eau et du savon pour nettoyer les surfaces intérieures des conduits

LAVER LES FILTRES À PARTICULES RECTANGULAIRES dans un évier avec de l'eau et du savon chaud ou au lave-vaisselle.

LAVER LE FILTRE À CÔNE EN MOUSSE UNIQUEMENT dans un évier avec de l'eau et du savon chaud SI LES FILTRES SONT USÉS, remplacez-les par des filtres neufs, disponibles auprès des pièces de service agréées Evo (866) 626-1802.

Gardez des packs de filtres de rechange à portée de main pour éviter les perturbations.

Les surfaces exposées à l'intérieur de la hotte peuvent être chaudes au toucher et provoquer des brûlures.

Laissez le système de ventilation refroidir avant de le nettoyer ou de l'entretenir.



WARNINGS - FRENCH



## WARNING! PAS POUR UN FONCTIONNEMENT CONTINU

Cet équipement n'est pas destiné à la production continue et massive d'aliments. Cet équipement est conçu pour une cuisson moyenne à intensive avec des pauses quotidiennes pour l'entretien et le nettoyage.



#### CET ÉQUIPEMENT DOIT ÊTRE CONNECTÉ À UN INTERRUPTEUR ÉLECTRIQUE.

La ligne électrique d'entrée doit être fournie par l'entrepreneur en électricité. La ligne électrique d'entrée doit être équipée d'un sectionneur électrique.



UTILISEZ UNIQUEMENT DES TUYAUX D'EAU NEUFS. WARNING! NE PAS RÉUTILISER LES TUYAUX PRÉCÉDEMMENT UTILISÉS.

Cet équipement doit être raccordé à une alimentation en eau douce par un plombier entrepreneur. Seuls des jeux de tuyaux neufs doivent être utilisés avec cet appareil. Les tuyaux d'eau qui ont déjà été utilisés ne doivent pas être réutilisés.

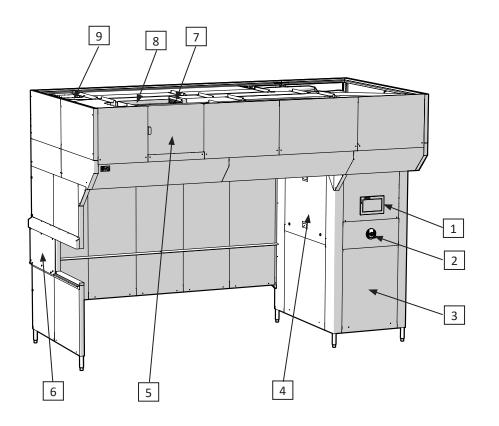


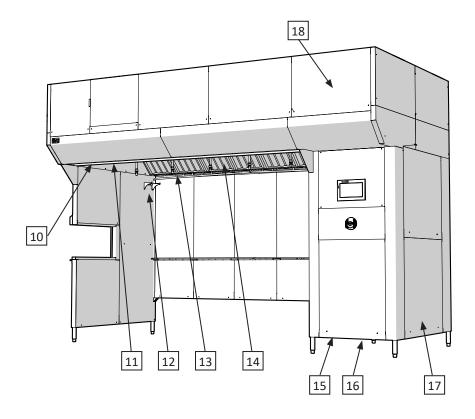
CET ÉQUIPEMENT DOIT ÊTRE RACCORDÉ À UNE WARNING! ALIMENTATION EN EAU AVEC DES PRESSIONS MINIMUM ET MAXIMUM.

Cet équipement doit être connecté à une source d'eau douce avec un minimum de 50 PSI (345 kPa) et un maximum de 80 PSI (552) qui est utilisée pour refroidir le flux d'air et pour éliminer les sous-produits oxydés du système de filtration d'ozone.



#### **FEATURES & OPERATIONAL CONTROLS**







## FEATURES AND OPERATING CONTROLS

#### **FEATURES & OPERATIONAL CONTROLS**

ITEM#	DESCRIPTION	COMMENT
1	FRONT TOUCH-CONTROL DISPLAY PANEL	Graphic user interface for power On/Off, system notification and control.
2	ANSUL® FIRE SUPPRESSION SYSTEM PULL STATION	ANSUL® fire pull stattion for emergency fire system trigger.
3	ACCESS FOR SERVICING ANSUL® & ELECTRIC / WATER CONNECTIONS	Panel enclosing ANSUL® system, electrical terminals, and water connections.
4	ACCESS FOR AIR SCRUBBER AND DETERGENT RESERVOIR	Panel enclosing the air scrubber foam filter, water nozzle system.
5	ACCESS FOR PARTICULATE FILTERS	Panel enclosing the particulate filters.
6	PASS-THROUGH DOOR	Pass-Through door on momentary manual switch.
7	FIRE DAMPER	Fire damper with fuse link.
8	EXHAUST DISCHARGE	Vertical exhaust discharge duct.
9	DUCT SERVICE PANEL	Service panel for cleaning duct in the event of a fire system discharge.
10	AIR CURTAIN	Front mounted air curtain across the full length of the 9' canopy hood.
11	BRIGHTSHIELD™ LIGHTING WITH VYV™ ANTIMICROBIAL LIGHTING	Front mounted lighting across the length of the 9' canopy hood.
12	GREASE CUP	Two grease cups, one left and one right under the canopy hood.
13	GREASE BAFFLE FILTERS	Seven washable grease baffle filters in a continuous upper and lower track.
14	VAPORIZER FILTERS	Panel enclosing three washable particulate filters.
15	ELECTRICAL INPUT JUNCTION BOX	Junctios for input power terminals and equipment contactor control.
16	WATER INLET AND OUTLET CONNECTIONS	Water connections, 3/4" Male garden hose type, inlet and outlet.
17	ACCESS FOR OZONE AND WATER COLLECTION SUMP	Secondary service panel for ozone and water collection sump.
18	PANEL FOR MAIN VENTILATION FAN	Pan enclosing the main ventilation fan.



## PRECAUTIONS AND GENERAL INFORMATION

This ventilation system is engineered specifically for use in commercial establishments for the preparation of food for human consumption.

No other use is recommended or authorized by the manufacturer or its agents. Operators of this equipment must be familiar with the equipment use, limitations and associated restrictions. Operating instructions must be read and understood by all persons using or installing this equipment. This ventilation system is designed to reduce odor emissions, but will not completely eliminate all cooking odors.

Air exchange rates at the installation site must comply with those given in this manual and the requirements of the local jurisdictional authority. To ensure that heat and humidity do not accumulate, it is recommended that a minimum of 1500 CFm (2549 M³/hr) of fresh air and exhaust is supplied to the area where this ventilation system is installed. Actual airflow requirements may vary by the cooking equipment heat load calculation as determined by a licensed mechanical engineer.

This ventilation system is intended for use with light to heavy-duty electric cooking appliances only. Cooking appliances placed under this ventilation hood must comply with the restrictions set forth in the Installation section of this manual.

Do not connect or energize this appliance until all installation instructions are read and understood. Property damage or bodily injury may result if these instructions are not followed. Disconnect this appliance from electrical power before performing any maintenance or servicing.

Cleanliness of this appliance is essential to good sanitation. Read and follow all included cleaning instructions and schedules to ensure the safety of the food product.

Do not jet steam clean this ventilation system. Do not clean unit using direct water jet or steam jet at this appliance, or at any control panel or wiring. Do not splash or pour water on, in or over any controls, control panel or wiring.

Avoid storing flammable or combustible materials in, on or near this ventilation system or any cooking appliance which is used with this system.

The technical content of this manual, including any wiring diagrams, schematics, parts breakdown illustrations and/or adjustment procedures, is intended for use by qualified technical personnel.

Any procedure which requires the use of tools must be performed by a qualified technician.

All provided instructions, diagrams, schematics, parts breakdown illustrations, notices, and labels must accompany this ventilation system in the event of its sale or relocation.

This appliance is made in the USA. Unless otherwise noted, this appliance has American sizes on all hardware.

#### **IMPORTANT**

The ventilation system is disabled when the filters are clogged to the point of insufficient airflow for proper operation. Also, power to the cooking appliances is interrupted if any filters or service panel are not properly installed.

It is the responsibility of the operator to maintain sufficient clean filters to avoid prolonged shutdown due to a dirty or clogged filter. Filters can be washed; however, if filters become worn because of excessive washing they will not function properly and must be replaced.

Evo America, LLC assumes no liability for loss of business due to a filter related shutdown. Spare filters can be purchased from any authorized Evo servicer or by calling Evo America at (866) 626-1802.



#### **DANGER - SUFFOCATION HAZARD**

Do not attempt to use this ventilation system with gas-fired units. This ventilation system will not remove products of combustion. Unventilated exhaust gases can be deadly.



All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.

DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.



# **evo** AGENCY LISTINGS & UNPACKING INFORMATION

#### AGENCY LISTING & COMPLIANCE INFORMATION

The EVent Open Canopy Hood is listed to the UL710B, UL 710B - Standard for Safety Recirculating Systems under report # MH66622 in the United States and Canada for Safety and Sanitation by the United Underwriters Laboratory.









#### UNPACKING INFORMATION

Carefully remove the appliance from the carton. Remove all protective plastic film, packing materials and accessories from the appliance before connecting electrical power or otherwise performing any installation procedure.

Read all instructions in this manual and any other documents packed with the appliance before starting any installation. All documentation should remain with the equipment operator for future reference. Read and understand all labels and diagrams attached to this ventilation system.

Carefully account for all components and accessories before discarding packing materials.

#### **COMPONENTS:**

Grease Baffle Filters - Stainless Steel	Qty 7 / 15.75" x 15.75" (400mm x 400mm)
Vaporizer Filters - Stainless Steel	Qty 3 / 13.375" x 13.375" (340mm x 340mm)
Particulate Filters - Aluminum & Fiber	Qty 3 / 13.75" x 15.75" (340mm x 400mm)
Scrubber Cone Filter - Black Foam	Qty 1 / 30" tall x 16" diameter (762mm x 406mm)
Grease Cup - Stainless Steel	Qty 2 / Ninth pan
Sump Water Detergent	Qty 3 / Gallons (11.36 L)

Ansul® components listed below must be installed by an authorized Ansul® agent.

Fire Suppression Tank 3gal Part#429862	Qty 3 / Supplied by Evo
Fire Suppression Agent 3gal Part#079372	Qty 3 / Suppled by Ansul® agent.
Charging Cartridge LT30R Part#423435	Qty 1 / Suppled by Ansul® agent.
Charging Cartridge N2 Part#428446	Qty 1 / Suppled by Ansul® agent.
Burst Disk Part# 417911	Qty 2 / Suppled by Ansul® agent.



Installation procedures must be performed by a qualified technician with full knowledge of all applicable electrical codes. Failure can result in personal injury and property damage.

#### **EXHAUST DISCHARGE**

This ventilation system is equipped with a vertical exhaust discharge.

This exhaust discharge requires a minimum space of 24" (610mm) above the top surface of the ventilation system.

A minimum of 1500 CFM (2549 M³/hr) makeup air exhaust must be provided within the same space of this ventilation system to remove any cooking aroma, heat and humidity caused from cooking. The 1500 CFM (2549 M³/hr) makeup air exhaust duct must be located 10 feet (3 m) from this ventilation system to avoid the disruption of the ventilation system airflow.

#### IMPORTANT FIRE SUPPRESSION INFORMATION

This ventilation system contains a pre-engineered Ansul® Autopulse Z-10 fire suppression system which is electrically controlled to monitor three electric fire detection probes mounted behind the grease baffle filters.

This Ansul® Autopulse Z-10 system must be charged and certified by an authorized Ansul® distributor which is the responsibility of the owner/operator of this ventilation system.

Subsequent servicing of the ventilation system is also the responsibility of the owned/operator. This ventilation system will not operate and cooking appliance will not be energized until the Ansul® fire suppression system has been charged.

After cooking appliances are positioned under the hood, swivel nozzles must be positioned per Ansul® recommendations.



#### UNDER HOOD COOKING EQUIPMENT LIMITATIONS

#### PLEASE REFER TO THE FOLLOWING ILLUSTRATIONS

- 1) Cooking equipment must be installed in accordance with the manufacturer's recommended instructions.
- 2) Only electrically powered cooking equipment is permitted for use with this ventilation system. Gas appliances are strictly prohibited.
- 3) All appliances positioned under the hood must be integrated with the hood's appliance interlock circuit.
- 4) All appliances must comply with the requirements specified in the Evaluated Cooking Appliances and Restrictions chart below.

EVALUATED COOKING APPLIANCES AND RESTRICTIONS										
Туре	Qty	Max kW Per Appliance	Restrictions	Capacity Per Appliance	Cooking Surface Area	Max Input Temp F	Dimension "A" Note (I) Minimum	Dimension "B" Note (II) Minimum	Dimension "B" Note (II) Maximum	Dimension "C" Note (I) Minimum
Automatic Broiler *, **	1	21	Cart <=31.25" <sup>1</sup>	N/A	Dual Chain 13" <sup>2</sup>	550	21.25" <sup>3</sup>	18" <sup>4</sup>	N/A	4"
Fryer - Auto Lift **	4	22	N/A	45 lbs / 20.41 kg / 22L <sup>5</sup>	N/A	400	31.25"	26"	50"	2"
Fryer - Open **	4	22	N/A	45 lbs / 20.41 kg / 22L <sup>5</sup>	N/A	400	31.25"	26"	50"	2"
Fryer - Pressure **	4	17	N/A	75 lbs / 34.02 kg / 36.6L <sup>5</sup>	N/A	375	31.25"	26"	50"	2"
Fryer - Donut **	1	18.7	N/A	96 lbs / 43.54 kg <sup>6</sup>	N/A	390	21"	26"	42"	2"
Griddle - Flat **	2	12.26	N/A	N/A	24" x 36"	475	31.25"	30"	42"	2"
Griddle - Clamshell **	2	26	N/A	N/A	12" x 24" <sup>7</sup>	475	31.25"	30"	42"	2"
Sandwich Grill **	4	5	N/A	N/A	15" x 15"	550	31.25"	30"	42"	2"
Tilt Brasing Skillet **	2	25	N/A	30 gal	33.88" x 23.5"	475	30.25"	30"	42"	2"
Ranges & Hotplates **	2	25	N/A	N/A	13" x 13" <sup>8</sup>	475	26"	30"	42"	2"
Wok **	4	8	N/A	N/A	11.75" dia	N/A 9	31.25"	30"	42"	2"
Steam Jacketed Kettle **	4	25	N/A	10 gal <sup>10</sup>	N/A	N/A	21"	25"	42"	2"
Ovens - Convection **	4	25	N/A	N/A	N/A	N/A	15" <sup>11</sup>	2" <sup>12</sup>	40" <sup>13</sup>	2"
Ovens - Combination **	4	25	N/A	N/A	N/A	N/A	15" <sup>11</sup>	2" <sup>12</sup>	40" <sup>13</sup>	2"
Ovens - Conveyor **	2	25	N/A	N/A	N/A	N/A	15" <sup>11</sup>	2" <sup>12</sup>	40" <sup>13</sup>	2"
Ovens - Rotisserie **	4	25	N/A	N/A	N/A	N/A	15" <sup>11</sup>	2" <sup>12</sup>	40" <sup>13</sup>	2"
Ovens - Deck **	4	25	N/A	N/A	N/A	N/A	15" <sup>11</sup>	2" <sup>12</sup>	40" <sup>13</sup>	2"

Notes: \* Automatic Broiler shall be the Nieco FH94E or Nieco MV-series electric broilers, MV74, MV64, MV63, MV62. Automatic Broiler is measured from the top of the chassis at the catalyst exhaust discharge.

\*\* All appliances positioned on the inside right of the Open Canopy Hood must be movable to facilitate access for servicing the Wet Scrubber filter (refer to instructions beginning on page 27).

- (I) Measured from the front edge of the canopy to the front edge of heated cooking area.
- (II) Measured from the underside of the front edge of the canopy (located 76" from the floor, or 86.75" with the optional riser) to the top surface of the heated cooking area.
- 1) Cart height is a mandatory requirement.
- 2) There may be a maximum of two belts per automatic broiler.
- 3) Measured from rear of the chassis to the front of the heat shield, which corresponds to the distance from the rear of the chassis to the front edge of the chain.
- 4) Measured diagonally from the bottom edge of the grease baffle filters to the top center of the chassis.
- 5) Measured as liquid frying oil.
- 6) Measured as vegetable shortening.
- 7) Each upper platen measured individually, with no more than 36" wide bottom platen.
- 8) The number of hotplates is determined by total kW.
- 9) Wok cooking temperatures must not create combustion.
- 10) Up to two 10 gallon kettles per appliance.
- 11) Measured from the face of the appliance chassis to the front of the canopy (See measurement "A").
- 12) For a canopy hood equipped with an optional riser, the height is raised from 76" to 86.75"; therefore, Dimension 'B' for units with riser are calculated from 86.75" (the shortest distance to the top of dimension B).
- 13) For a canopy height of 86.75", an additional 10.75" shall be added to the specified dimensions (the farthest distance from the top of dimension B).



#### **UNDER HOOD COOKING EQUIPMENT LIMITATIONS**

Intended For Installation In Accordance With:

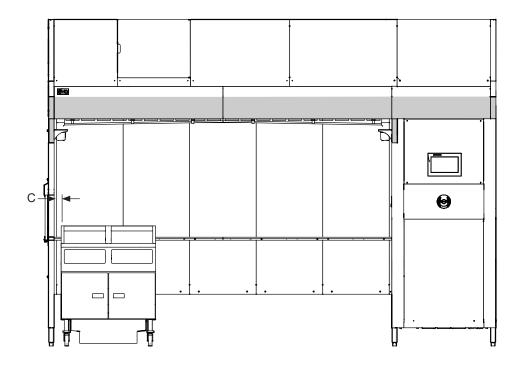
The standard for ventilation control and fire protection of commercial cooking operations NFPA 96, the National Electric Code NFPA 70 and local codes where applicable.

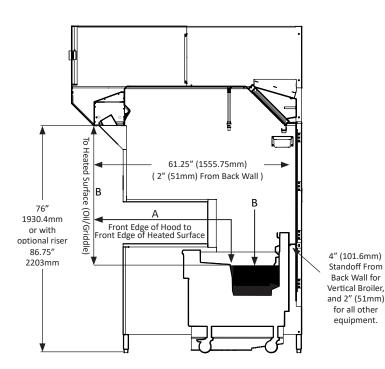
Only electrically heated cooking equipment is acceptable for installation under the canopy of this ventilation system.

This ventilation system requires the Fire Suppression system be setup, charged and certified by an authorized ANSUL® distributor.

The airflow monitoring system will prevent appliance operation if insufficient airflow is detected or all filters are not in place.

All service access panels must be in place and latched for the ventilation fan to operational.

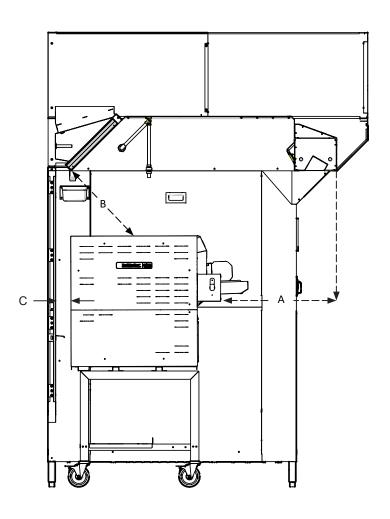






**UNDER HOOD APPLIANCE LIMITATIONS (continued)** 

#### PLEASE REFER TO THE TABLE ON PAGE 10 FOR AUTOMATIC CHAIN BROILER





#### SERVICE TECHNICIAN INSTALLATION NOTES

- 1) Cooking equipment must be installed per the recommended manufacturer instructions. This ventilation system is to be used with light-duty and medium-duty electrically powered cooking appliances only.
- DO NOT attempt to use this ventilator hood with gas-fired units.
- DO NOT use this ventilation system with electrical appliances whose dimensions or wattage characteristics exceed those defined in the Under Hood Cooking Appliance Limitations, pages 10-12.

Installation and start up must be performed by an Evo Authorized Installation Company.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO verify that this VENTILATION SYSTEM installation is in compliance with the specifications listed in this manual, with local code requirements, and in accordance with European codes.

NOTE: Certain codes require FRYERS to be restrained with a TETHER or other RESTRAINT DEVICE. If this ventilation system is to be used with a fryer, it is the RESPONSIBILITY OF THE INSTALLER to check with the AUTHORITY HAVING JURISDICTION, in order to ascertain the applicability of this requirement to this specific installation.

#### **SETUP**

Setup this ventilation system only on a firm, level, non-combustible floor surface. Verify local codes for requirements. Concrete, tile, terrazzo or metal surfaces are recommended. Metal over combustible material may not meet code for non-combustible surfaces. Verify vertical clearances. Ceiling height shall be no less than 132" (3353mm) to accommodate the vertical discharge of airflow from the unit. Verify that the unit sits firmly on ALL LEGS. With a spirit level, check that the unit is level front-to-back and side-to-side. With the adjustable legs, adjust as required to level the unit. In order to prevent tipping or deflection, legs must be adjusted such that all legs are in firm contact with the floor.

NOTE: To ensure that heat and humidity do not accumulate in the space where this ventilation system is installed, and if this ventilation system is used with cooking appliances that create smoke during the cooking process, for example, an Automatic Broiler, it is recommended that a minimum of 1500 CFM (2549 M³/hr)of makeup air exhaust is provided.



### **DANGER** - SUFFOCATION HAZARD

DO NOT attempt to use this ventilation system with gas-fired units. This ventilation system will not remove products of combustion. Unventilated exhaust gases can be deadly.



# WARNING: SHOCK HAZARD

All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.

DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.



#### CAUTION: RISK OF DAMAGE

DO NOT connect or energize this appliance until all installation instructions are read and followed. Property damage or bodily injury could result if these instructions are not followed.

#### **IMPORTANT:**

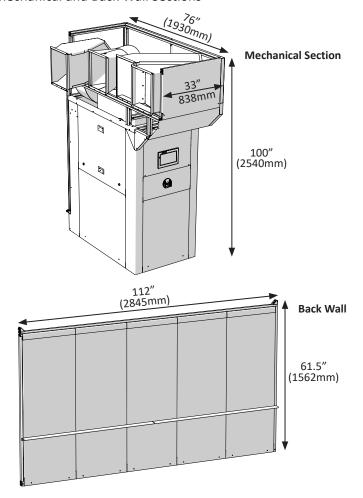
All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.

DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.

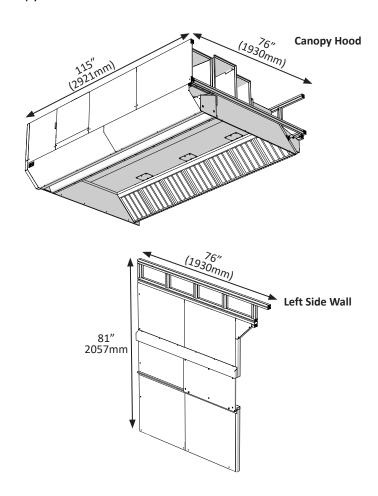


#### INSTALLATION - MAIN COMPONENT PARTS - ASSEMPLY OVERVIEW

#### Mechanical and Back Wall Sections



#### **Hood Canopy and Left Side Wall Sections**



#### **IMPORTANT:**

This ventilation system ships in two large crates and a palletized skid containing duct segments, filters, and fasteners. Assembly requires the use of one Genie<sup>®</sup> Superlift Contractor<sup>®</sup>lift or a similar mechanical lift with a capacity of 650lbs (296kg) and a 12' (3.65 m) lift height, or a suitable motorized fork lift. The Mechanical and Back Wall Sections weight 1750 lbs (794kg) and the Hood Canopy and Left Side Wall Sections weigh 1640 lbs (744kg). Additionally, there is an Accessory Pallet with fire suppression and fastener parts which weighs 190 Lbs (86kg). Nylon Lifting Straps must be used to hoist the Mechanical Section upright, and the Canopy Hood upward. Assembly requires three individuals and approximately 3 days work.



#### **ELECTRICAL INSTALLATION**

Refer to the nameplate on this ventilation system and verify the ELECTRICAL SERVICE POWER.

Voltage and phase must match the nameplate specifications, and available electrical service amperage must meet or exceed the listed amperage. Refer to specifications listed on page 3 of this manual.

The ground lug of this ventilation system must be connected to a suitable building ground.

Remove the right front panel below the control panel display to access the cooking appliance contactor and building alarm relay. Remove the appropriate knockout, then wire the cooking appliance control circuit to the terminal block per Fig on the following page.

**NOTE:** It is the responsibility of the electrical contractor to provide suitable wiring, flexible or rigid conduit, and an appropriate strain relief.

#### **ELECTRICAL CONNECTION**

**NOTE:** This ventilation system requres a 208V, 3NAC, 30A electrical supply. When connecting line voltage to the unit's terminal block, use a minimum of #12 AWG (2mm diameter) copper wire only, suitable for 167°F (76°C) ambient temperature.

#### **APPLIANCE CONNECTIONS**

All under hood appliances are required to be interlocked with the ventilaiton systems cut-off circuit, through a customer supplied definate-purpose contactor. These connections provide an automatic shutdown of the connected appliance when the ventilation system is OFF, or in the event of a malfunction or fire system discharge.



## **DANGER - SUFFOCATION HAZARD**

DO NOT attempt to use this ventilation system with gas-fired units. This ventilation system will not remove products of combustion. Unventilated exhaust gases can be deadly.



#### WARNING: SHOCK HAZARD

All servicing requiring access to non-insulated electrical components must be performed by a factory authorized technician.

DO NOT open any access panel which requires the use of tools. Failure to follow this warning can result in severe electrical shock.



#### CAUTION: FIRE HAZARD HEALTH HAZARD

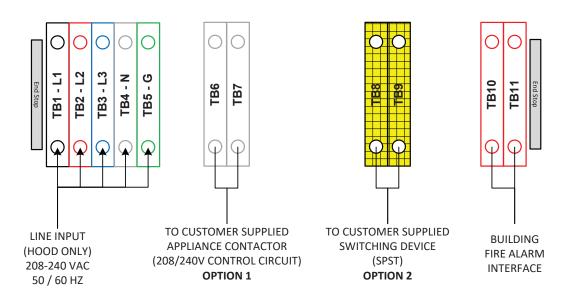
All cooking appliances must be connected to the cooking appliance contactor, the control circuit of which is controlled by the ventilation system. Note: Shunt trip breakers are not an authorized control circuit. All appliances must be installed per the under hood limitations. Failure to control cooking appliances will provide no protection in the event of a fire, nor will cooking vapors and odors be contained in the event of ventilation system malfunction.

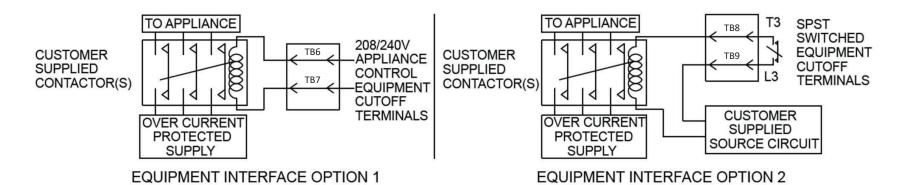


#### **ELECTRICAL INSTALLATION - EQUIPMENT CUTOFF CONNECTIONS**

Opt 1: Use TB1-L1, TB2-L2, TB3-L3, TB4 - N, TB5-G for 208V - 240V, 50/60Hz, 208V, 60Hz, 3NAC control circuit, or 240V, 50Hz, 3Ø control circuit. The contacts TB6 through TB9 will be de-energized when the ventilation system is OFF or if the fire suppression system is triggered or discharged.

Opt 2: Use TB8, TB9 as a Normally Closed SPST relay connection for equipment control circuits with voltages other than 208V, 60Hz, 3NAC, including 240V, 50Hz, 3Ø. These contacts remain closed when the ventilation system is ON and open when the ventilation system is OFF or if the fire suppression system is triggered or discharged.

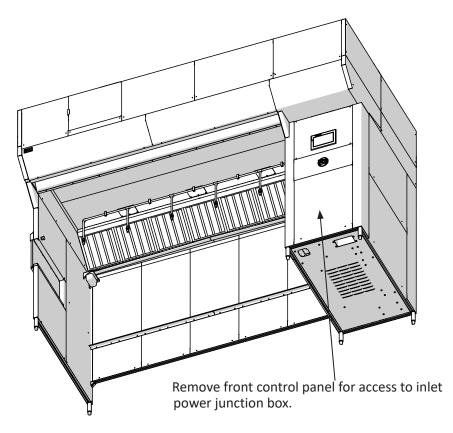


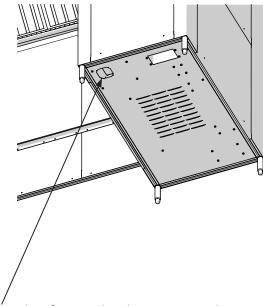




#### **INLET POWER CONNECTION LOCATION**

The electrical power connections are located behind the front panel below the display controller. Unfasten the two phillips head screws and remove the front lower panel.





Direct the power line from under chassis an into the junction box and connect to the terminal block at this location.



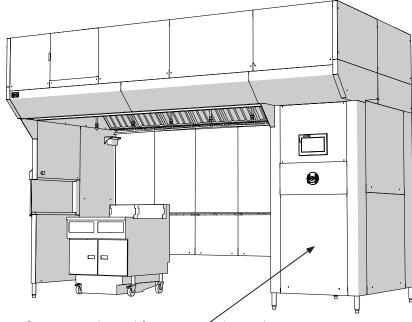
TURN POWER OFF TO THIS VENTILATION SYSTEM BEFORE REMOVING THE FRONT ACCESS PANEL.

Note: The inlet power line shall be supplied by the electrical contractor. The input power line shall have an electrical disconnect switch installed.

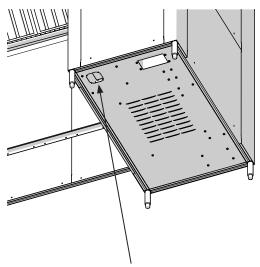


#### COOKING EQUIPMENT CONTACTOR TERMINAL BLOCK LOCATION

The cooking equipment contactor terminal block is located behind the front panel below the display controller. Unfasten the two phillips head screws and remove the front lower panel.



Remove front control panel for access to the cooking equipment contactor terminal block.



Direct the definite-purpose contractor(s) control line(s) line from under chassis an through the junction box and connect to the terminal block at this location. Refer to page 17 for the terminals detail.



#### THE GROUND LUG OF THIS APPLIANCE MUST BE CONNECTED TO A SUITABLE BUILDING GROUND.

#### **IMPORTANT:**

Contact a licensed electrician to install and connect electrical power to this equipment.

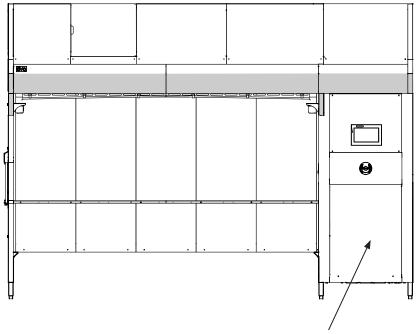
#### **IMPORTANT:**

Damage due to being connected to the wrong voltage or phase is NOT covered by warranty.



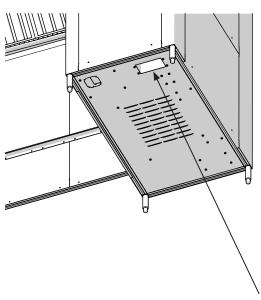
#### WATER LINES LOCATION

The ventilation system must be connected to a water source with a minimum of 50 PSI (345 kPa) and a maximum of 80 PSI (552) which is used to cool the airflow and to remove oxidized byproduct of the ozone filtration system. Additionally, there must be a connection to expel service water to a sanitary drain. This expelled service water does not require a grease trap.



Remove front control panel for access to the inlet and outlet water connections.

Note: Only new hose sets must be used with this appliance which are to be supplied by the installing contractor. Water hoses which have been previously used must not be reused.



Direct the inlet water hose and a separate drain hose from under chassis into the 3/4" (19mm) Female Garden Hose connections box at this location.



#### FIRE SUPPRESSION INSTALLATION

#### FIRE SUPPRESSION SYSTEM INSTALLATION

The hood is supplied with a field installed MANUAL PULL STATION, which must be set-up at the time of installation by an authorized Ansul® distributor.

The MANUAL PULL STATION allows for for manual emergency shutdown of cooking appliance power, and actuation of the fire suppression system.

Ten NOZZLES disperse the fire suppression media. Two inner nozzles protect the fan and plenum. The appliance nozzles are swivel mounted, and must be directed toward the cooking surface of the installed cooking appliance.

If the ventilation system is situated such that the supplied manual pull station cannot be installed or is not readily accessible, a REMOTE MANUAL PULL STATION may be required by local codes. Any such remote manual pull station must be installed by an authorized Ansul® distributor in accordance with the AUTHORITY HAVING JURISDICTION.

The fire detection system utilizes five electronic thermal detectors with an actuation set point of 225°F (107°C). The signaling from any of these detection devices will automatically discharge the fire suppression media through all nozzles, disable the cooking appliances and cause the alarm to sound.

Fire suppression media will form an emulsion designed to both smother and cool the fuels in/on the cooking appliance.

**NOTE:** If the fire suppression system is discharged, a buzzer will sound continuously. The unit will remain inoperable until the fire suppression system is serviced, recharged and reset by an authorized Ansul® distributor. Charging of the Ansul® Fire Suppression system must be in accordance with Ansul® Design, Installation, Recharge and Maintenance Manual, #418087.

The MANUAL PULL STATION and any similar REMOTE MANUAL PULL STATION will activate the fire suppression system when the ring on the pull station is pulled to its full extent.

**NOTE:** If a REMOTE MANUAL PULL STATION is installed, moving the ventilation system for any reason may cause the Ansul® system to discharge.

**IMPORTANT:** Should the fire suppression system discharge: all nozzles must be replaced, and all lines thoroughly cleaned, prior to recharging the system. Residual fire suppression media may compromise the flow and dispersion of fire suppression media in any subsequent activation.

The alarm relay is activated by the Ansul® fire detection system. If the installation includes a building alarm system, connect to terminals T7 & T8 of the terminal block in supply connection box. These terminals are configured from the factory for normally open operation.

The ventilation system will operate properly, and the appliance control relay will be energized, only when:

- 1. The ventilation system POWER SWITCH is "ON".
- 2. The Ansul® Fire Suppression System is charged and armed.
- 3. All filters are in position and serviceable, and the ventilation system air flow system is satisfied.



DO NOT attempt to use this ventilation system with gas-fired units. This ventilation system will not remove products of combustion. Unventilated exhaust gases can be deadly.

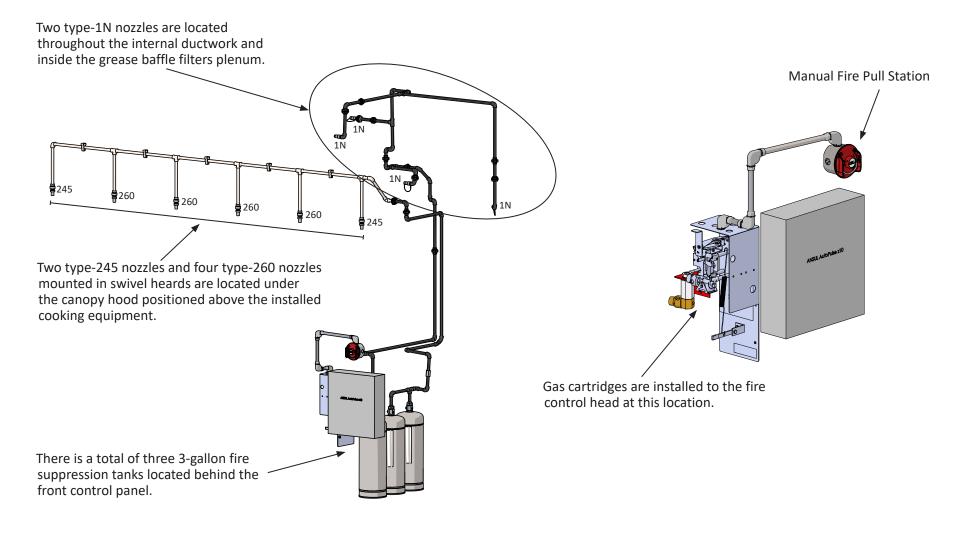


Any additional remote pull station must NOT be installed on the front of the cooking appliances, Discharge of the fire extinguishing system into hot grease or oil may cause hot foam to spill over from the cooking surface or frypot. Serious burns and other injuries can result from contact with hot oil and from slipping in spilled oil.



#### FIRE SUPPRESSION INSTALLATION (continued)

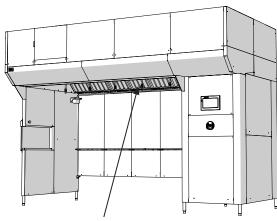
This ventilation system is equipped with a pre-engineered Ansul® Autopulse Z-10 Fire Suppression System, which, upon initial delivery, must be configured for use by an Authorized Ansul® Fire Distributor. This configuration involves performing a system performance check, filling the three Ansul® suppressant tanks with Ansulex® fire suppression solution, installing compressed gas cylinders, adjusting the fire pull station's tension, and coordinating with the Local Authority Having Jurisdiction's Fire Inspector to obtain the necessary permits for system use within the jurisdiction.





#### FILTERS INSTALLATION - VAPORIZER FILTERS

This ventilation system is shipped with its filters uninstalled. There are four filter groups, the Vaporizer filters, the Grease Baffle filters, the Particulate filters, and the Scrubber Cone filter. This filters installation section will show the best method for installing each of these filter groups.



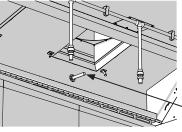
Three vaporizer filters are to be installed behind the section housing the grease baffle filters. Prior to installing the grease baffle filters, it is necessary to install the vaporizer filters.



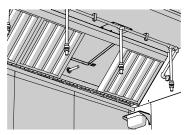
The vaporizer filter measures 13.375" x 13.375" x 2" (340mm x 340mm x 51mm) with a stainless steel frame and multiple layers of stainless steel screeen.



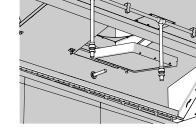
Exercise caution during the installation of the vaporizer filters to avoid any damage to the Fire Detection Probes.



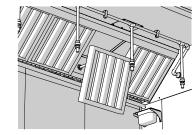
1) The vaporizer filters are installed in three designated locations.



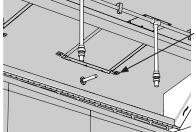
3) Move the filter into the top ledge and upward from the bottom.



2) Place the vaporizer filter at the opening's lower base and then tilt it upward.



4) With the filter resting on the top ledge, push up from the bottom and hold in place.



5) After positioning the filter, firmly secure it in place by closing the two latches. Repeat this procedure for each of the three vaporizer filters.

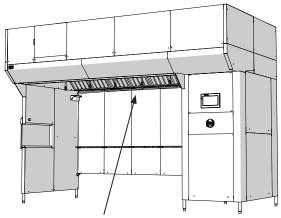


Fire Detection

probe.



#### FILTERS INSTALLATION - GREASE BAFFLE FILTERS



Seven Grease Baffle Filters are installed in a continuous upper and lower filter rack at the rear of the canopy hood, positioned in front of the vaporizer filters.

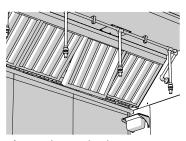


The grease baffle filters measure 15.75" x 15.75" x 2" (400mm x 400mm x 51mm) with a stainless steel frame and stainless steel baffles.

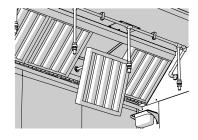


Continuous filter rack.

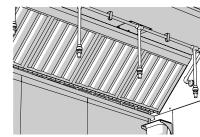
1) Note the position of the upper and lower filter track.



3) Gently tip the bottom forward, ensuring the filter rests evenly in both the upper and lower tracks.



2) Place the grease baffle filter into the slot of the upper track.



4) Slide each successive filter to one side until all seven filters are in place.



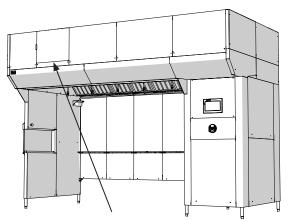
Exercise caution when dealing with the grease baffle filters as the stainless steel edges may be sharp.

**IMPORTANT:** Please be aware that an interlock plunger switch extends from the right side wall of the filter track. To ensure proper operation of the ventilation system, it is necessary for all grease baffle filters to be correctly installed, activating this interlock switch.

Filter Removal Is The Opposite Of Installation



#### FILTERS INSTALLATION - PARTICULATE FILTERS



There is three Particulate Filters installed in filter tracks which are held in place when the filter access door is securely closed.



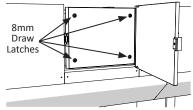


Hex Key 8mm

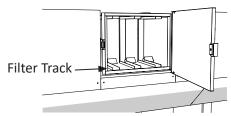
The particulate filters measure 13.75" x 13.75" x 2" (340mm x 340mm x 51mm) with an aluminum frame and expanded aluminum mesh over a washable fabric filter. There is an 8mm Hex Key included with the ventilaiton system for opening and closing the access panels.



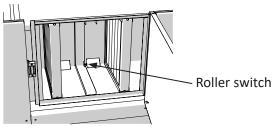
To safely access the particulate filters in the ventilation system's upper access panel, you will need a step ladder. Please exercise caution when accessing and removing this panel during filter servicing.



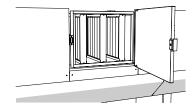
1) Open the Filter Access Door, then using an 8mm hex key, turn all four draw latches and remove the access panel.



2) Place each particulate filter in its filter track and slide it forward.



3) When pushing the filter forward, ensure it is making contact with the roler switch and pushing it closed.



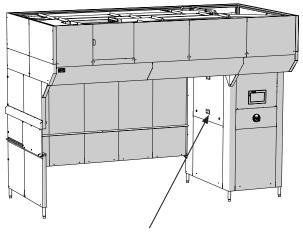
4) Once all three filters are properly installed, secure the access panel by fastening all four draw latches and then close the outer access door.

**IMPORTANT:** Each particulate filter is fitted with an interlock switch positioned at the rear of its track to confirm proper installation. To maintain the proper operation of the ventilation system, it is crucial that all three particulate filters are correctly installed, ensuring the activation of all three interlock switches.

Filter removal is the opposite of installation.



#### FILTERS INSTALLATION - CYCLONE FOAM FILTER



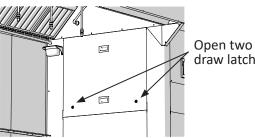
There is one Cyclone Foam Filter installed onto the center tube inside the air scrubber. To access this filter, the right inside panel must be removed.



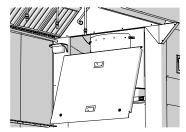
The cyclone foam filter measures 30" (762mm) Tall x 16" (406mm) Diameter at the top opening. It is constructed from a special filter foam that is designed to be hand-washed in a sink with dish soap and warm water.



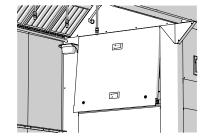
There is an 8mm Hex Key supplied with this ventilation system which is used to open the right inside panel and the particulate filter access panel.



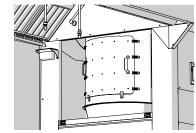
1) Using an 8mm hex key, turn all four draw latches and remove right-side access panel.



3) When the panel releases from the top channel, move the panel outward and set it aside.



2) Raise the access panel and pivot it outward from the bottom.

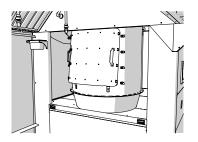


4) With the panel removed, the air scrubber door is visable with 8 pull latches securing the door.

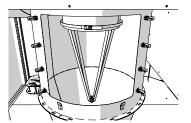
**IMPORTANT:** Please note that each particulate filter is equipped with an interlock switch located at the back of its track, which detects the proper placement of the filter. To ensure the ventilation system functions correctly, it is essential that all particulate filters are installed correctly, activating all three interlock switches.

draw latches.

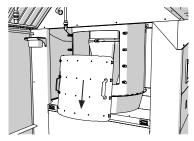
#### FILTERS INSTALLATION - CYCLONE FOAM FILTER (continued)



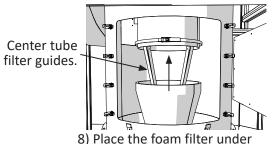
5) Open all eight pull latches and tilt the door outward from the top.



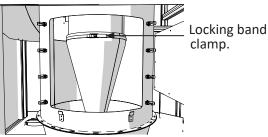
7) With the panel removed, the center tube of the air scrubber is visible.



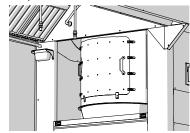
6) Remove the cyclone door and set it aside.



the center tube guides and gently pull the filter upward.

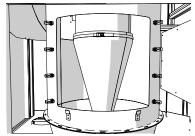


9) After sliding the filter onto the center tube, position the locking band clamp over the top of the filter.

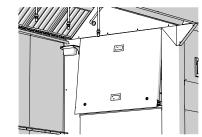


11) Replace the cyclone door and secure all eight pull latches to the door.

Note: Refer to the next page for additional information.



10) Ensure the band clamp is over the foam filter and then latch the band in place.



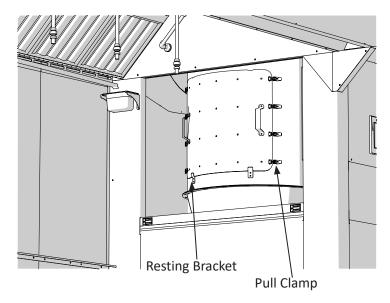
12) Replace the right-side access panel and close the draw latches using the 8mm hex key.

**IMPORTANT:** The foam filter is designed to easily fit over the center tube guides and onto the center tube. Please exercise care to not over stretch or tear the foam filter.

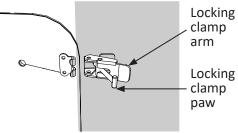
**IMPORTANT:** When installing the cyclone door, ensure all eight of the pull latches is fully attached to the door and that none of the latch paws is stuck under the door seal.



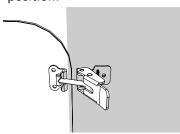
#### FILTERS INSTALLATION - CYCLONE FOAM FILTER ACCESS PANEL PULL CLAMPS



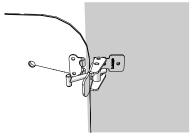
The cyclone access panel uses eight pull clamps to secure the panel to the cyclone outer wall. Additionally, at the bottom on the panel opening, there is two resting brackets for holding the access panel while securing the pull clamps.



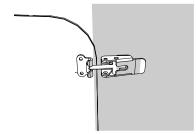
1) Ensure all eight of the clamp paws are folded back when placing the access panel into position.



3) With the paw inserted into the latch, ensure all eight set up the way.



2) Hold the clamp arm and place the paw into the latch on the access panel.

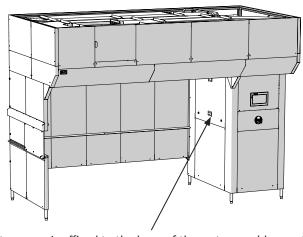


4) Close the clamp arm to secure the paw against the latch. Ensure there is an even amount of pressure on each clamp.

**IMPORTANT:** When installing the cyclone access panel, make sure the panel is centered on the resting clamps, and there is an even amount of tension on the right and left side pull clamps.



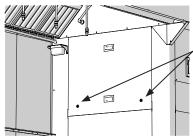
#### **DETERGENT - ADDING WATER SUMP DETERGENT**



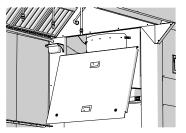
A permanent water sump is affixed to the base of the water scrubber system. Within this sump, there are three water level indicators that activate a pump to expel surplus water into a connected hose which is recommended to connect to a sanitary drain. A small amount of detergent is periodically added to the sump to ensure the proper functioning of the water float levels.

Located behind the right interior panel, the detergent fill cap can be accessed by removing this panel using the 8mm Hex Key provided with the ventilation system.

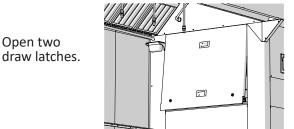




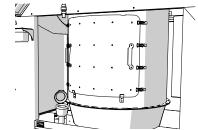
1) Using an 8mm hex key, turn all four draw latches and remove right-side access panel.



3) When the panel releases from the top channel, move the panel outward and set it aside.



2) Raise the access panel and pivot it outward from the bottom.



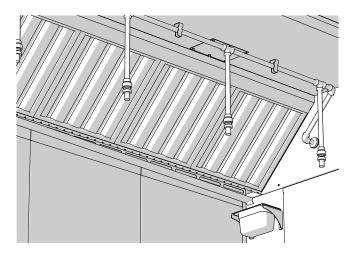
4) With the panel removed, open the detergent filler cap and add Evo Water Sump Detergent. A green light located next to the filler cap will illuminate to indicate the reservoir is full.

**IMPORTANT:** Only use Evo supplied Water Sump Detergent. The use of other detergent or cleaner products will damage the water level indicators.

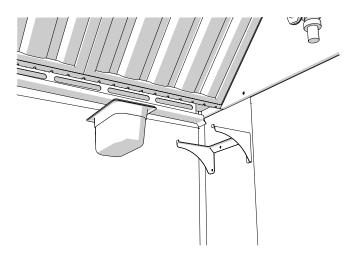
Open two



#### **GREASE CUPS INSTALLATION**



There is two Grease Cups on each right and left sides of the grease baffle filter track.



Slide the grease cup up and into the tray mounted onto the side wall.



All DO NOT operate any grease-producing cooking appliance (e.g. fryer or griddle) unless the grease cup is properly installed. Oil will drip onto floor creating a slipping hazard.



Exercise CAUTION - DO NOT operate any cooking appliance unless the grease cup is installed. Moisture dripping onto hot surfaces, oil or grease can cause splattering.

**IMPORTANT:** Failure to install the grease cups will allow grease and moisture from the BAFFLE FILTER to drop onto hot cooking surfaces, creating both a SAFETY HAZARD (hot oil splatter) and a HEALTH HAZARD (contamination of the cooking surface or cooking oil).



#### CLEANING PROCEDURE - WEEKLY, OR WITH INCREASED FREQUENCY BASED ON COOKING LOAD

**PRECAUTIONS:** From the front control panel display, select the power icon to the Off position, and allow the cooking equipment and the ventilation system to cool.

Cover fryers to prevent oil contamination.

**FREQUENCY:** Weekly

**TOOLS:** Mild detergent with warm water and terry-cloth towels. Use only non-abrasive towels on all surfaces.

**NOTE:** The areas nuder the canopy hood, particularly on the back and side walls are to be cleaned in conjunction with cooking equipment. Refer to the cooking equipment user instructions for their respective cleaning procedure.

- 1) TURN THE VENTILATION SYSTEM POWER ICON TO THE OFF POSITION. Cover cooking equipment and fryers to prevent oil contamination.
- 2) Remove BAFFLE FILTERS and VAPORIZER FILTERS, PARTICULATE FILTERS, and GREASE CUPS.
- 3) Wipe clean the entire area of the GREASE BAFFLE FILTER UPPER AND LOWER TRACKS.
- 4) Wipe clean the entire area behind the BAFFLE FILTERS and inside the three locations that holds the VAPORIZER FILTERS.
- 5) Wipe clean the entire area inside the enclosure that holds the PARTICULATE FILTERS.
- 6) Wash clean the BAFFLE FILTERS and PARTICULATE FILTERS in a sink or dishwasher using mild detergent and warm water.
- 7) Wash the GREASE CUPS in a sink or dishwasher using mild detergent and warm water.
- 8) Dry all parts with a clean terry-cloth towel or allow parts to dry overnight. Reinstall BAFFLE FILTERS, PARTICULATE FILTERS and GREASE CUPS in the ventilation system.
- 9) Wipe exterior of the ventilation system with a clean cloth moistened with warm water and mild detergent. Finish by wiping a dry clean cloth.
- **10)** Uncover the cooking equipment and select the power icon to the On position.

Procedure is complete.



All DO NOT operate any grease-producing cooking appliance (e.g. fryer or griddle) unless the grease cup is properly installed. Oil will drip onto floor creating a slipping hazard.



Exercise CAUTION - DO NOT operate any cooking appliance unless the grease cup is installed. Moisture dripping onto hot surfaces, oil or grease can cause splattering.

**IMPORTANT:** Failure to install the grease cups will allow grease and moisture from the BAFFLE FILTER to drop onto hot cooking surfaces, creating both a SAFETY HAZARD (hot oil splatter) and a HEALTH HAZARD (contamination of the cooking surface or cooking oil).



#### **CLEANING PROCEDURE - BI WEEKLY**

**PRECAUTIONS:** From the front control panel display, select the power icon to the Off position, and allow the cooking equipment and the ventilation system to cool.

**TOOLS:** Mild detergent with warm water and terry-cloth towels. Use only non-abrasive towels on all surfaces.

**NOTE:** There is a magnet at the base of the Foam Filter. Take case to not disturb the magnet or plastic packaging which hold the magnet.

FREQUENCY: Weekly.

- 1) FROM THE FRONT DISPLAY PANEL OF THE VENTILATION SYSTEM, SELECT THE POWER ICON TO THE OFF POSITION.
- 2) Remove CYCLONE FOAM FILTER.
- 3) Wash the CYCLONE FOAM FILTER in a dish sink with warm water and dish soap and let stand to dry.
- 4) Select power icon to the On position.

Procedure is complete.

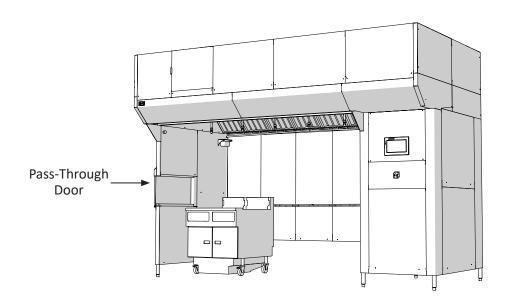


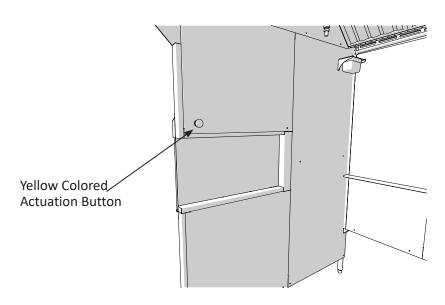
DO NOT tamper with or remove the magnet located at the bottom tip of the foam filter. Doing so may result in improper functioning of the foam filter interlock switch.



#### PASS-THROUGH DOOR OPERATION (door normally closed)

Located on the left side wall of the ventilation system is a pass-through door designed for transferring a single fryer basket from a fryer to a fry holding station positioned near the left outside wall. While normally in a closed position, this door opens for a brief 10 second period upon pressing the actuation button. To trigger the opening sequence, simply press the yellow activation button installed inside the left side wall, positioned at a convenient height of 48" (1219mm) from the floor.





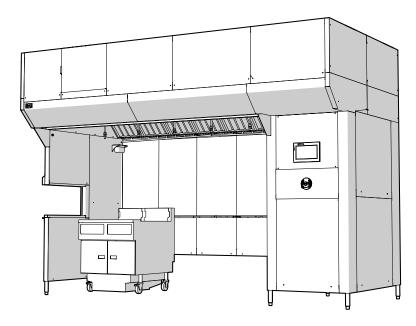


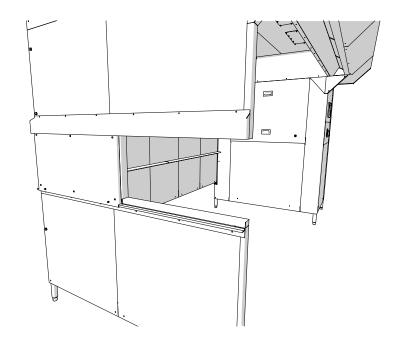
When the yellow activation button is pressed, the door will remain open for 10 seconds before it automatically closes.



#### PASS-THROUGH DOOR OPERATION (door open)

When the yellow activation button located on the left-side wall is pressed, the pass-through door opens for a brief 10-second period before automatically sliding forward to close. This pass-through door is designed for the purpose of transferring a single fryer basket from a fryer to a fry holding station positioned near the left outside wall. The pass-through door functions as a safety feature, designed to prevent fryer operators from navigating around the left-side wall with a dripping fryer basket.



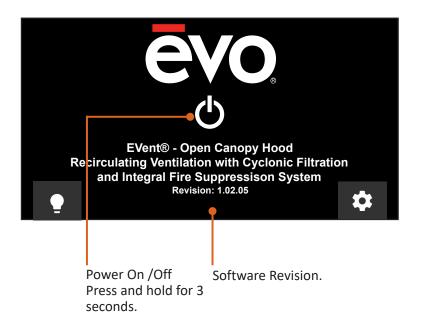




When the yellow activation button is pressed, the door will remain open for 10 seconds before it automatically closes.



#### CONTROL PANEL SCREENS - HOME SCREEN - POWER THE EVENT® VENTILATION SYSTEM



The Home Screen is displayed when the system is turned off.

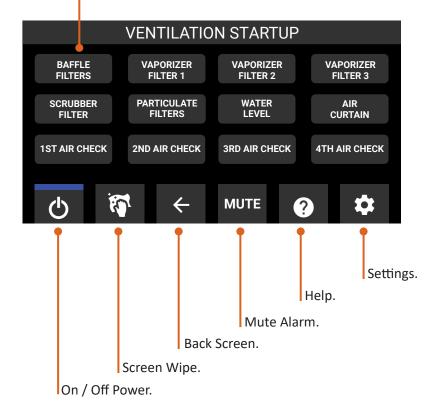
The Home Screen presents a power ON / Off button which when pressed for three (3) seconds will cause the system to start and the screen transitions to the Ventilation Startup screen.

The Home Screen also displays the type of EVent® model and the software revision.



#### CONTROL PANEL SCREENS - VENTILATION STARTUP SCREEN

Interlock switches are automatically checked at power up.



The Ventilation Startup screen is displayed immediately after the ventilation system is first turn On. As each safety interlock is checked and proven, its corresponding button will display green. If there is an interlock switch that is faulted, its corresponding button will display as red. The ventilation fan will not start until faults are cleared. When all interlocks show green, the ventilation fan will start.

There are five groups of interlock safety switches:

- 1) Baffle Filters indicates if the grease baffle filters inside the canopy hood are positioned and in place.
- 2) Vaporizer Filter 1,2&3 indicates if each of the three vaporizer filters, located behind the grease baffle filters, are positioned and in place.
- 3) Water Level signifies the presence of water in the reservoir and ensures there is adequate water pressure required for the proper functioning of the air scrubber water nozzles.
- 4) Air Curtain indicates the air curtain fan is operating properly.
- 5) 1st, 2nd, 3rd, and 4th Air Check indicates if differential air pressure inside the air duct is within operating limits.

There is six control buttons along the bottom of the display:

- 1) On/Off controls the start and stop of the ventilation system.
- 2) The Wipe icon deactivates all other buttons for wiping the screen clean.
- 3) Back Arrow allows moving back through screen selections.
- 4) Mute Silences the beeper alarm.
- 5) Question Provides information on system faults, and respective screens.
- 6) Settings allows the operator to check system settings.



# **CONTROL PANEL SCREENS - VENTILATION STARTUP SCREEN (continued)**

Interlock switches are automatically checked at power up.



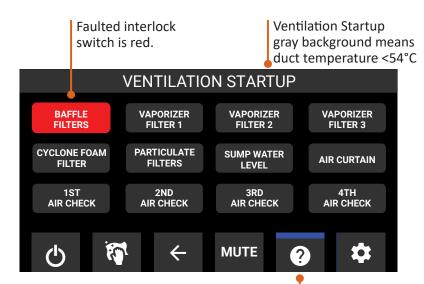
A blue bar appears on the button whenever it is selected.

The Ventilation Startup screen will check each safety interlock switch until all switches are proven and functioning correct.

When all switch buttons are green, the ventilation fan will begin its startup process.



## CONTROL PANEL SCREENS - INTERLOCK SWITCH FAULT - VENTILATION SYSTEM - COLD



For instruction to clear a interlock fault, press Help.

If a safety interlock switch is faulted during ventilation startup, the interlock button will turn red and ventilation startup will be suspended. If more than one safety interlock is faulted, each faulted button will be displayed red.

#### Note:

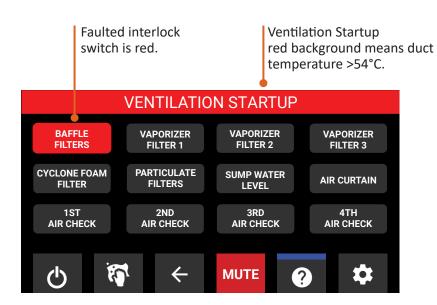
If the VENTILATION STARTUP banner is a gray, this means the internal duct temperature is less than 54°C, and the ventilation system can be shut off.

If the VENTILATION STARTUP banner is a red, this means the internal duct temperature is greater than 54°C and the ventilation system will continue running until the duct temperature is below 54°C.

If when the startup banner is red and the power button is selected for Off, the fan will continue to run until the syscools and the tem temperature is below 54°C, after which time the fan will automatically turn off.



## CONTROL PANEL SCREENS - INTERLOCK SWITCH FAULT - VENTILATION SYSTEM - HOT

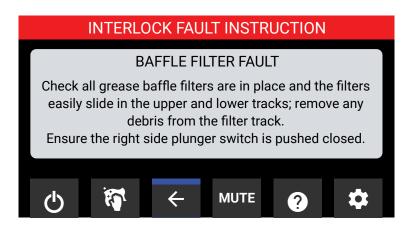


If a safety interlock switch is faulted during ventilation startup, and the startup banner is a red, this indicates the internal duct temperature is greater than 54°C and the ventilation system will continue running until the duct temperature has coole below 54°C.

If when the startup banner is red and the power button is selected for Off, the fan will continue to run until the system temperature is below 54°C, after which time the fan will automatically turn off.



## CONTROL PANEL SCREENS - INTERLOCK SWITCH FAULT - INTERLOCK FAULT INSTRUCTION



Whenever there is an interlock fault, the Help button may be pressed to show information on how to clear the fault.

#### Note:

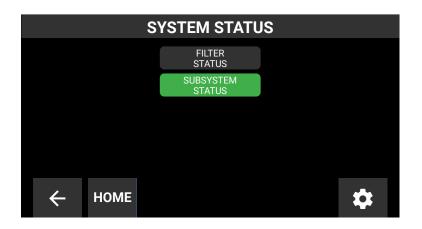
If additional information is required to resolve the fault, please refer to the operators manual, or call Evo America for assistance.

## Note:

There is instruction for each interlock fault with individual information respective to each switch.



CONTROL PANEL SCREENS - SYSTEM STATUS - FILTERS, DETERGENT, FIRE SYSTEM

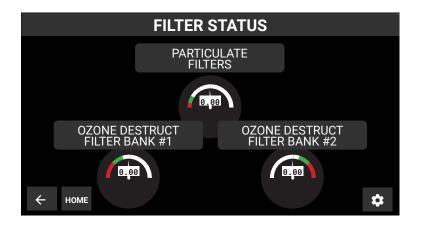


Selecting the Gear Icon from any page displays the System Status page, with the following selections:

- 1) Filter Status
- 2) Subsystem Status



CONTROL PANEL SCREENS - SYSTEM STATUS - FILTERS, DETERGENT, FIRE SYSTEM

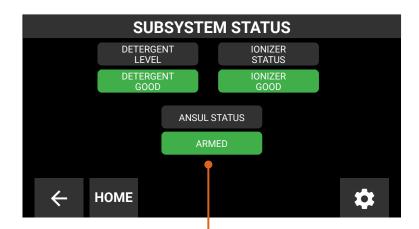


The Filter Status displays differential air pressure guages that indicate the condition of the following filters and digitially displays the pressure values for each filter:

- 1) Particulate Filter Status
- 2) Ozone Destruct Filter Bank #1
- 3) Ozone Destruct Filter Bank #2



# CONTROL PANEL SCREENS - SYSTEM STATUS - FILTERS, DETERGENT, FIRE SYSTEM



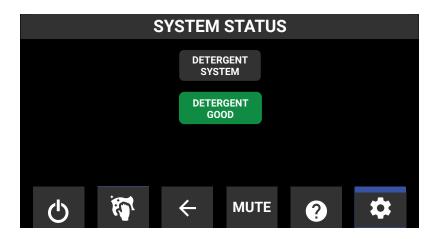
Green buttons indicate the subsystem is functioning normally, while red buttons signify that the system requires attention or maintenance.

The Subsystem Status page provides operating parameters for the following systems:

- 1) Detergent Level Displays the status of the detergent level sensor. A green indicator signifies that the detergent level is sufficient, while a red indicator signals the need for a refill.
- 2) Ionizer Status Displays the operational status of the ionizer system. A green indicator confirms the ionizer is active, while a red indicator indicates the need for maintenance or service.
- 3) Ansul Fire Suppression Status Displays the operational status of the fire suppression system. A green indicator confirms the fire system is armed and operational, while a red indicator indicates the system is nt armed or has been discharged.



## **CONTROL PANEL SCREENS - SYSTEM STATUS - DETERGENT RESERVOIR**



By selecting Detergent Status from the system status page, the system will show if the detergent level in the detergent reservoir is good or if it is low.

## Note:

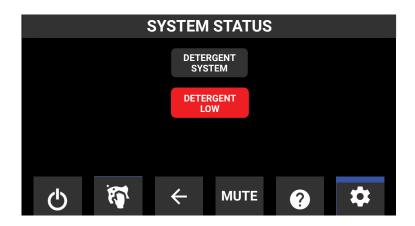
A small amount of detergent is dispensed into the water sump reservoir to keep the water level float indicators operating a peak efficiency.

Detergent is ordered through Evo America and is available in gallon containers.

Only Evo Authorized Detergent must be used.



**CONTROL PANEL SCREENS - SYSTEM STATUS - DETERGENT RESERVOIR (continue)** 



When the Detergent Status is low, the Detergent Low button will turn red to signal that the detergent reservoir contains insufficient detergent, requiring a refill to ensure the proper functioning of the water sump reservoir system.

## Note:

When the detergent is low, there will be a periodic audible alarm, and this page will be displayed until the detergent is filled to the normal level.

Pressing the Mute button will silence the alarm.



## **CONTROL PANEL SCREENS - SYSTEM STATUS - FIRE SYSTEM**



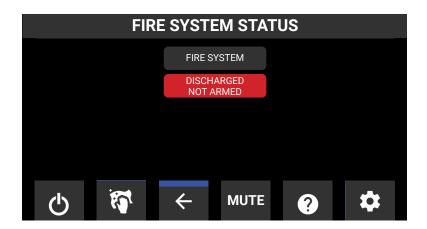
By selecting Fire System from the system status page, the system will indicate the Ansul® fire suppression system is operational or if the system has been discharged, or the Ansul® system is not armed.

## Note:

Only Ansul® Authorized Fire Distributors shall service the fire ssuppresstion system.



**CONTROL PANEL SCREENS - SYSTEM STATUS - FIRE SYSTEM (continued)** 



When the fire system is discharged or not armed, the Discharged Not Armed button will turn red to signal that the Ansul® fire suppression system requires service.

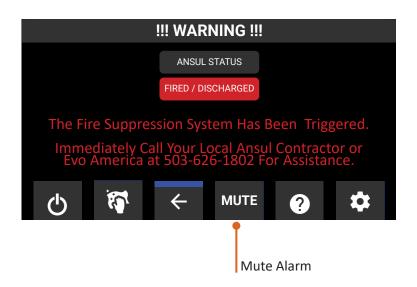
If the Ansul® fire suppression system is either not armed, or if the system has been discharged because of a fire or a nuisance discharge, there will be an audible buzzer to alert the operator. This buzzer may be silenced by pressing the Mute button.

#### Note:

This EVent® - Open Canopy Hood contains a pre-engineered Ansul® fire suppression system that shall be configured for use by an Authorized Ansul® Distributor.



**CONTROL PANEL SCREENS - SYSTEM STATUS - FIRE SYSTEM (continued)** 



If the fire system is has been discharged, this warning will be displayed on the control panel and a buzzer will sound. The buzzer may be silenced by pressing the Mute button.

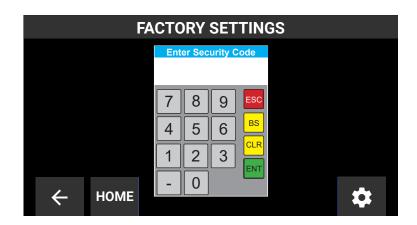
This warning will continue to display until the Ansul® Fire Suppression System is serviced.

## Note:

This EVent® - Open Canopy Hood contains a pre-engineered Ansul® fire suppression system that shall be configured for use by an Authorized Ansul® Distributor.



**CONTROL PANEL SCREENS - FACTORY SETTINGS** 



The Factory Settings Security Code screen enables Evo Authorized Service Technicians to input a factory-issued security code, granting access to configure the EVent Open Canopy Hood for initial setup and perform diagnostic tasks.



**CONTROL PANEL SCREENS - FACTORY SETTINGS (continued)** 



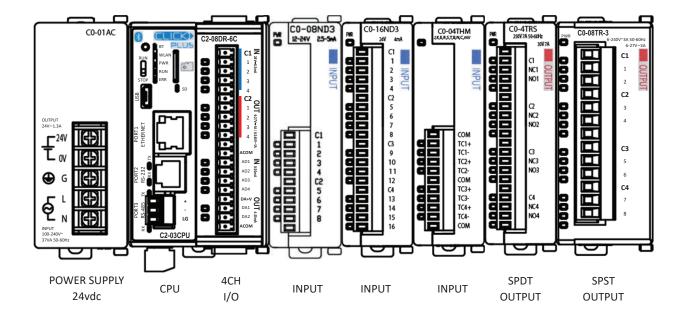
This Factory Setting Screen, accessible exclusively to Evo Authorized Service Technicians, offers a comprehensive overview of the key subsystems necessary for the initial setup and configuration of the EVent Open Canopy Hood



## PLC - PROGRAMMABLE LOGIC CONTROLLER LAYOUT

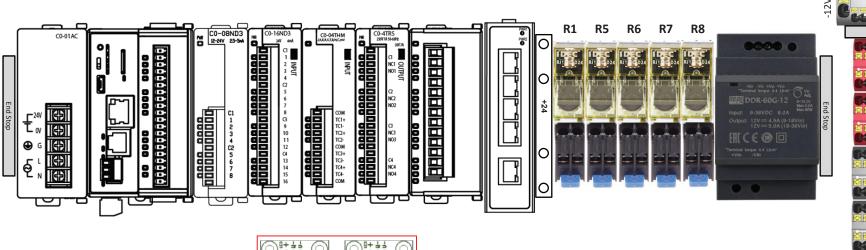
**APPENDIX A** 

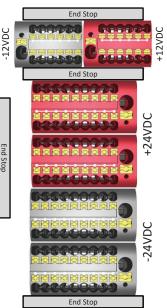
The ventilation system operates on a 208V, 60Hz, 3NAC electrical supply, providing power for both 208V and 120V components. A low-voltage programmable logic controller electronically regulates the system. The following pages outline the detailed component set that governs its operation.



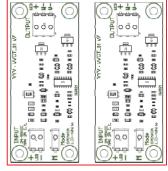


PLC PANEL LAYOUT - TOP ROW APPENDIX A





Panel components mounted to inside of left outer wall.

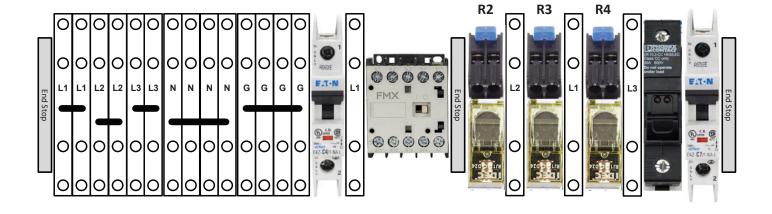




Panel components mounted to inside of right outer wall.



PLC PANEL LAYOUT - BOTTOM ROW APPENDIX A

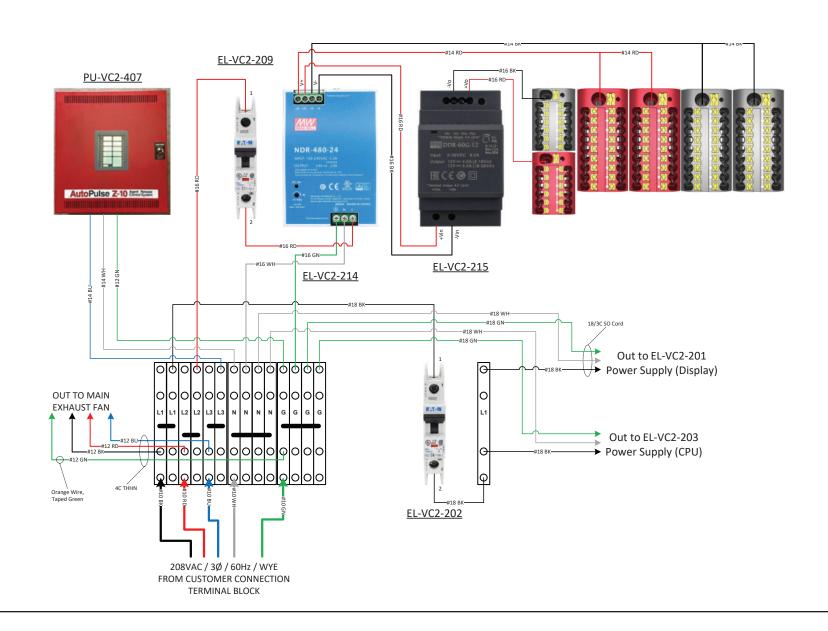






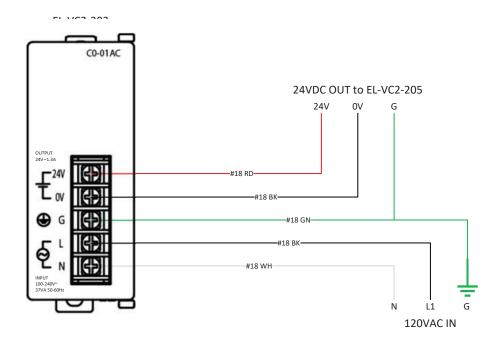
HIGH VOLTAGE BRANCH CIRCUIT

APPENDIX A





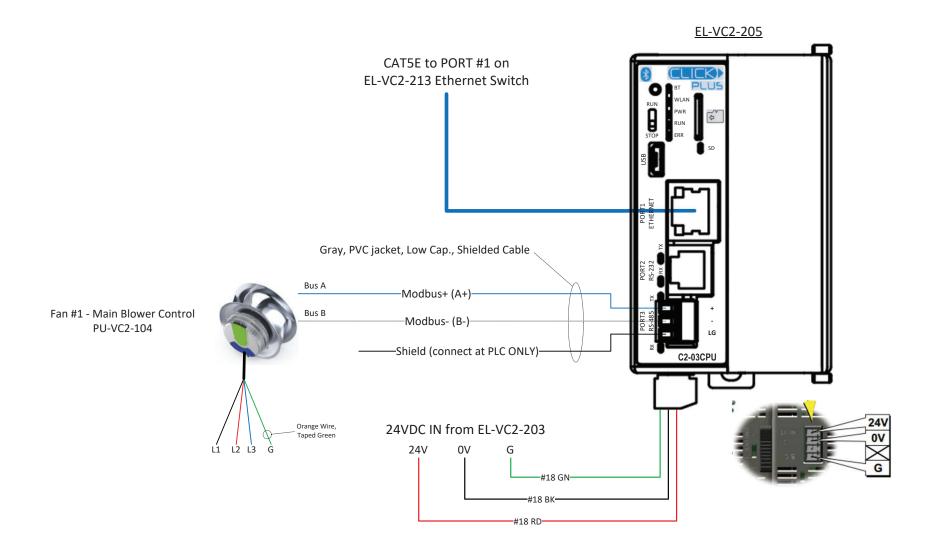
24VDC POWER SUPPLY APPENDIX A





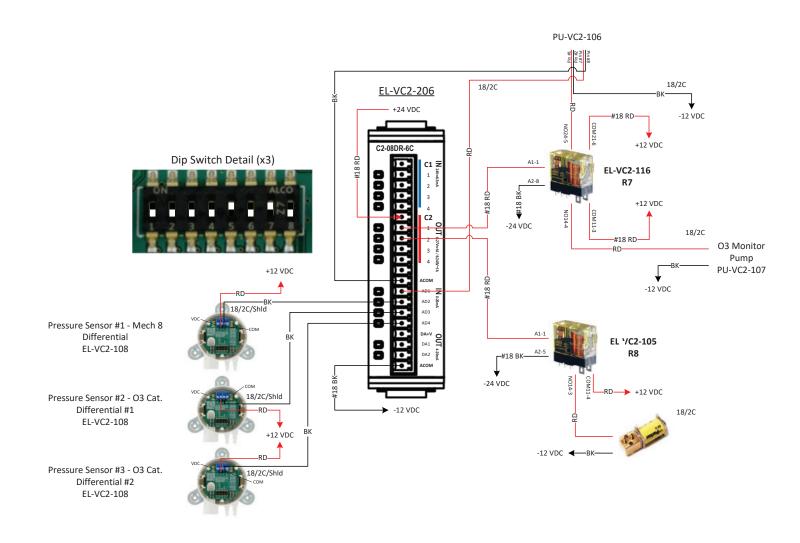
MAIN CENTRAL PROCESSING UNIT CONNECTIONS

**APPENDIX A** 



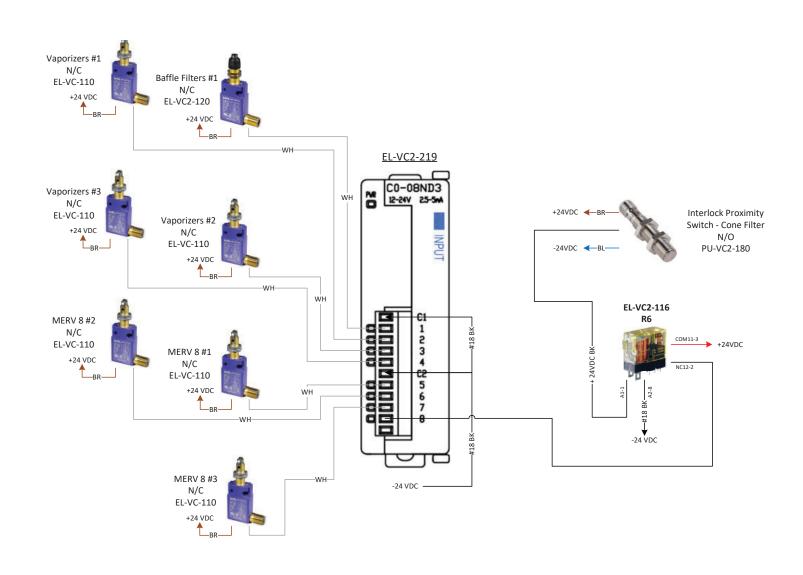


SYSTEMS I/O - SLOT 0 APPENDIX A



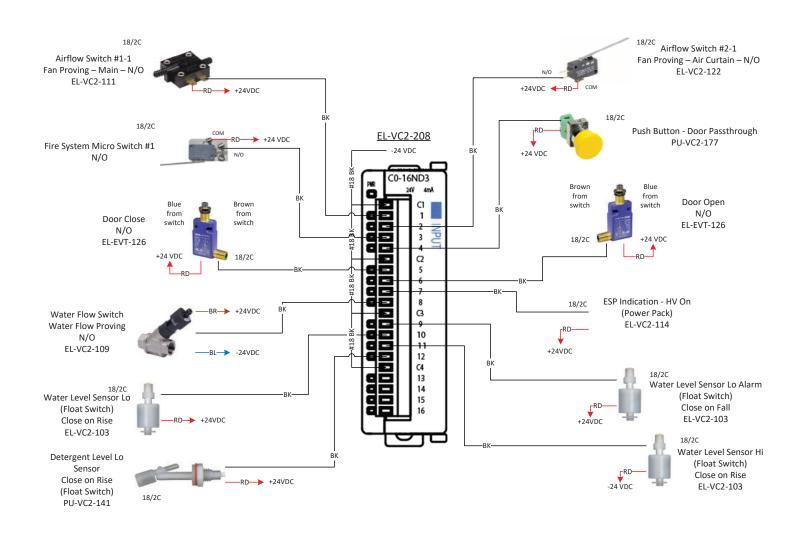


SYSTEMS I/O - 01 APPENDIX A



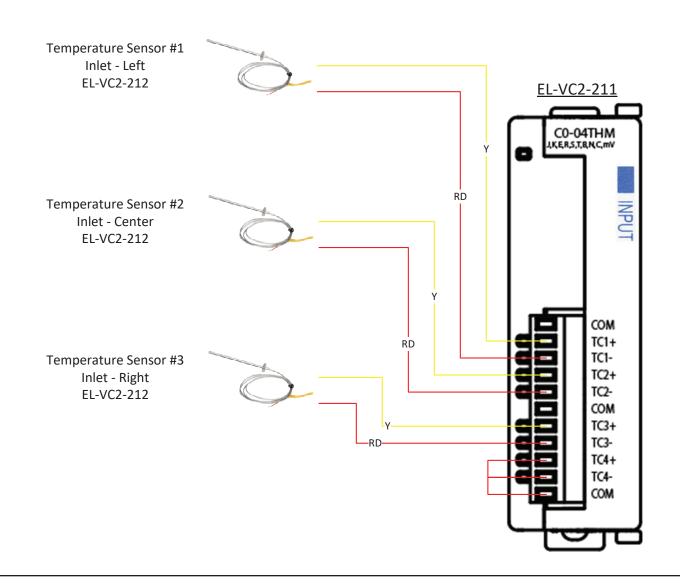


SYSTEMS I/O - 02 APPENDIX A



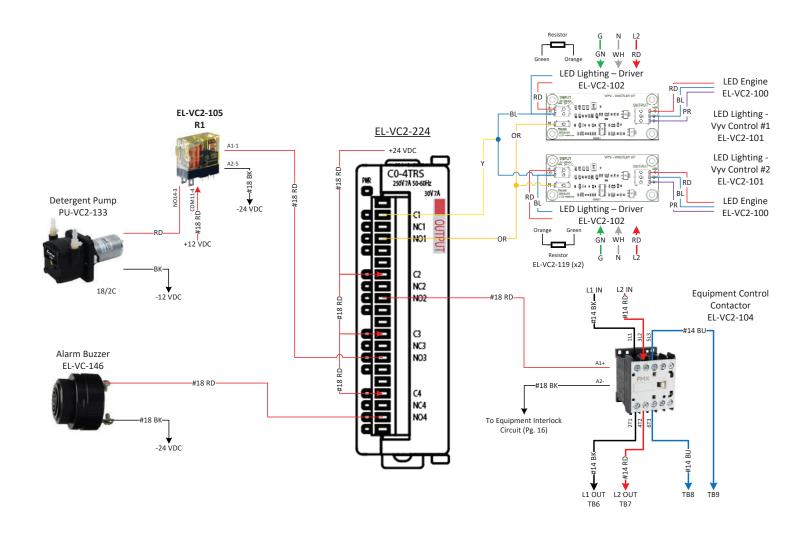


SYSTEMS I/O - 03 APPENDIX A





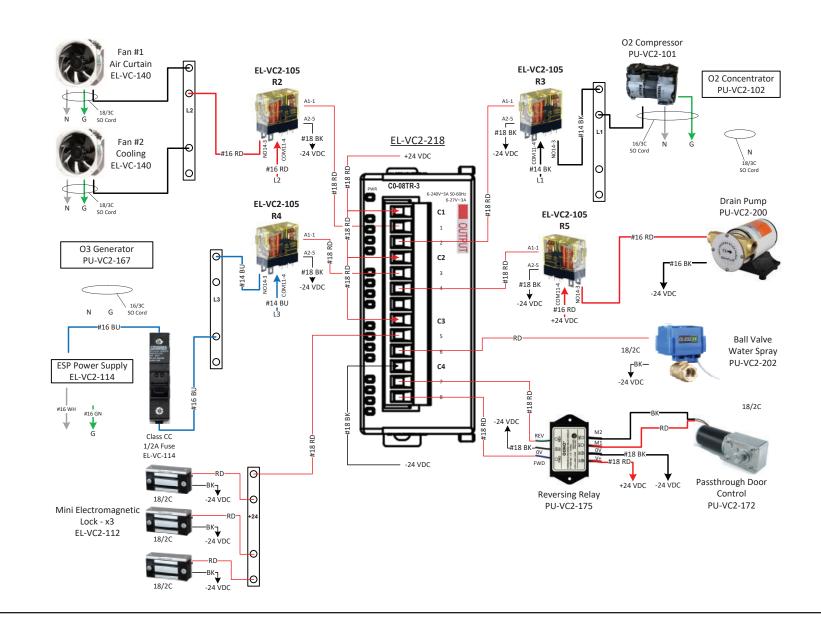
SYSTEMS I/O - 04 APPENDIX A





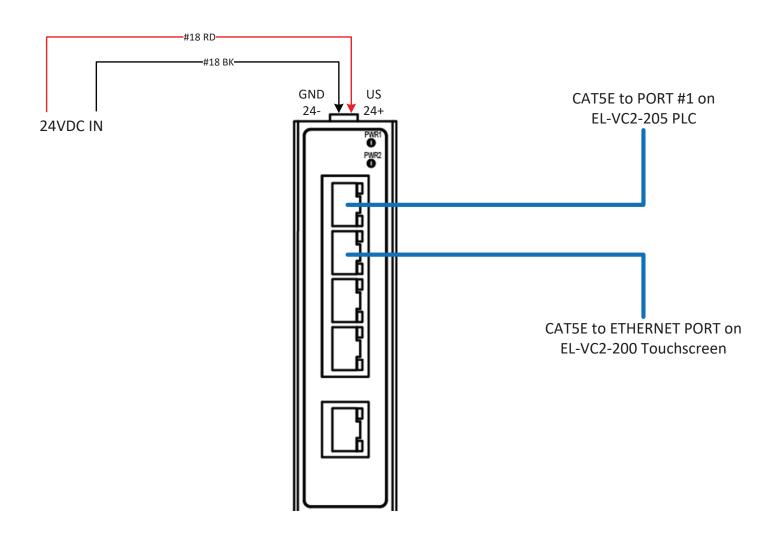
SYSTEMS I/O - 05

APPENDIX A



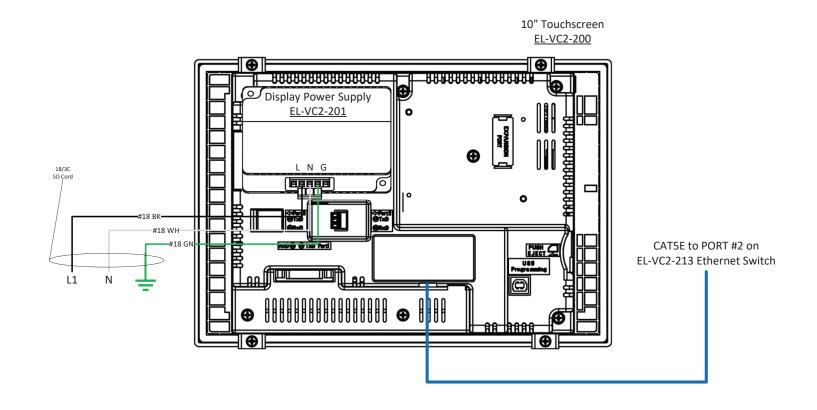


ETHERNET SWITCH APPENDIX A





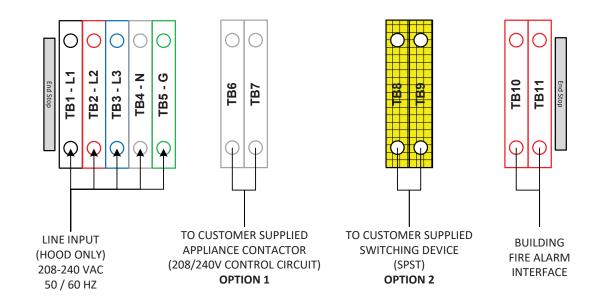
TOUCHSCREEN DISPLAY APPENDIX A

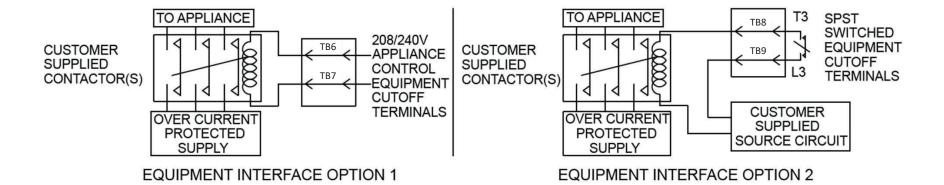




CUSTOMER CONNECTIONS TERMINAL BLOCK

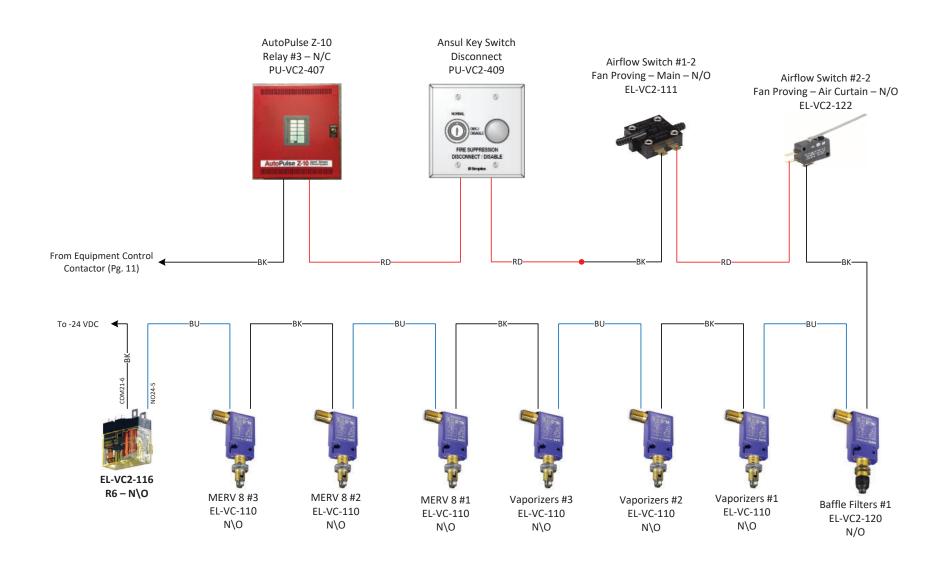
**APPENDIX A** 





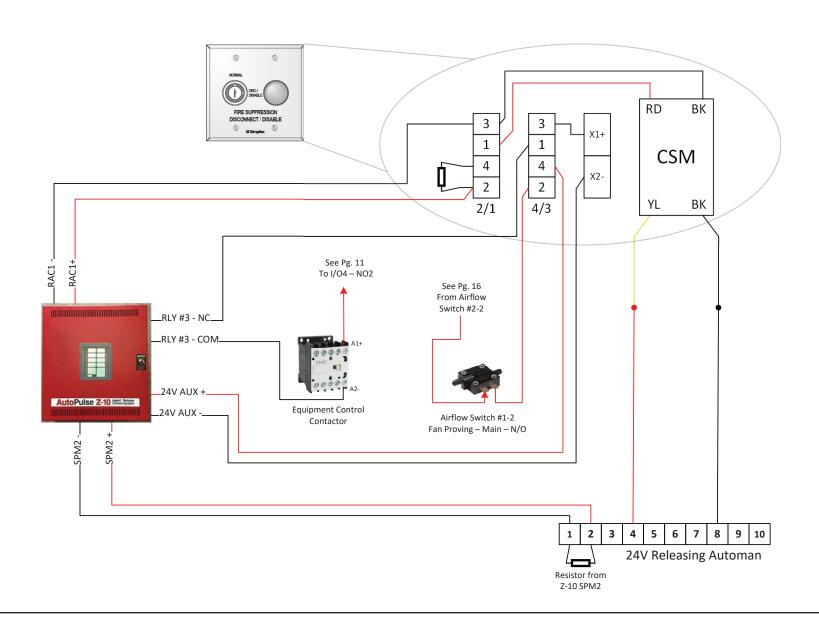


EQUIPMENT INTERLOCK CIRCUIT APPENDIX A



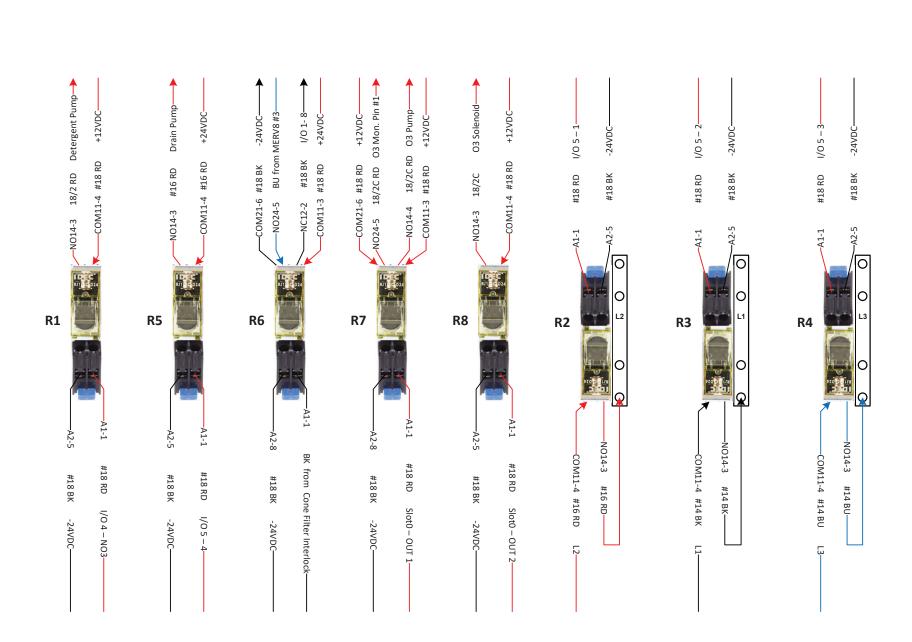


ELECTRONIC ACRUATION WIRING APPENDIX A



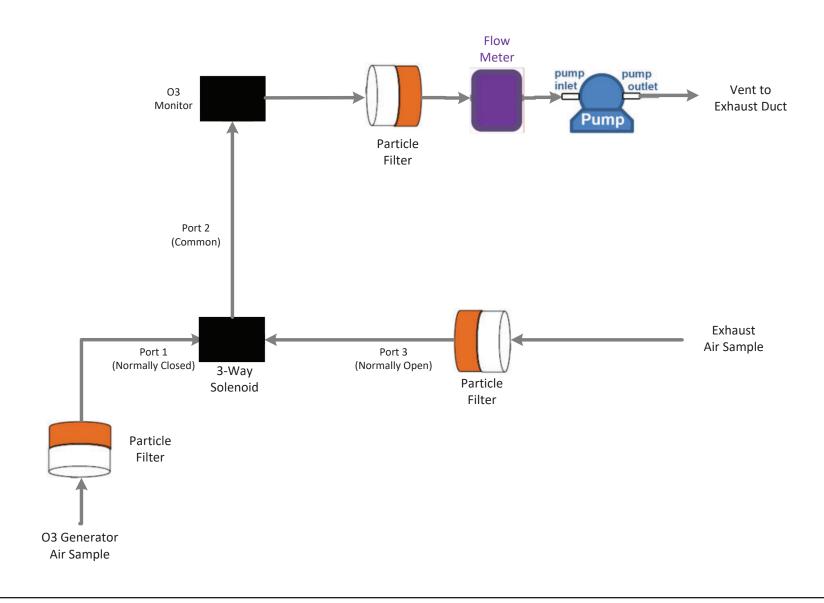


RELAY QUICK REFERENCE APPENDIX A





OZONE METER PIPING LAYOUT APPENDIX A





**APPENDIX B** 

# TROUBLESHOOTING ISSUES

This section describes how to solve common problems you may encounter when using your EVent® - Open Canopy Hood™ recirculating ventilation system.

#### #1 On/Off Button Will Not Respond

- 1. If the ventilation system is hot and the Off button is pressed once, there will be an audible alarm and a warning screen which says the system will automatically shut off when the duct temperature is less than 130F (54C)
- 2. If the Off button is inadvertently pressed, the back arrow button can be pressed to return to the status screen.
- 3. Ensure the unit is plugged into a correct voltage and amperage receptacle. Have a certified electrician check the cord wiring has not become dislodged from electrical panel thereby preventing a secure electrical connection.
- 4. Check the electrical breaker panel to ensure the circuit breaker has not tripped. If it has been tripped, reset the breaker by switching to the "On" position.
- #2 There Are Interlock Faults Which Cause The Ventilation System To Not Start.
- 1) Ensure all access panels are securely closed. Check the Vaporizer Filters, the Grease Baffle Filters, the Cyclone Foam Filter, and the Particulate Filters are properly in place and the interlock switch is closed and secure.
- 2. Check the air tubes for obstructions or grease build-up inside the tube preventing proper air sensing. If necessary, clean air tubes with a pipe-cleaner. Once clean, reinstall the rubber tubing.
- #3 The Cooking Equipment Installed Under The Canopy Hood Does Not Turn On.
- 1. Check the electrical breaker for each piece of cooking equipment powered On and the cooking equipment is individually connected to a 'definite-purpose contactor.' Ensure the definite-purpose contactor control cable is connected to the ventilation system's Equipment Cutoff Connections terminal (see page 17 for more information).



**APPENDIX C** 

# REQUIRED SYSTEM MAINTENANCE SCHEDULE

## 1-MONTH SYSTEM MAINTENANCE

Cleaning of the air scrubber chamber by removing the maintenance access panel and cleaning as necessary the chamber, and the outside of the water nozzles

#### 6-MONTH SYSTEM MAINTENANCE

Cleaning of the inside of the water reservoir to ensure the water level float sensors are clean.

Clean the inlet water filters screen.

## ANNUAL 12-MONTH SYSTEM MAINTENANCE

Inspection of the inside of the filtration duct and main ventilation fan.

To be conducted by an Authorized Evo Service Technician.

# AS GENERALLY REQUIRED BY THE LOCAL FIRE INSPECTOR AUTHORITY

## AT 6 MONTHS FROM DATE OF INSTALLATION - ANSUL FIRE SUPPRESSION SYSTEM MAINTENANCE

Inspection and testing of the fire suppression system as per the Ansul Service Guide Ansul® Fire Suppression System manual "System Inspection and Maintenance".

### AT 12-MONTHS FROM THE DATE OF INSTALLATION - ANSUL FIRE SUPPRESSION SYSTEM MAINTENANCE

Inspection and testing of the Ansul® fire suppression system as per the Ansul® Fire Suppression System manual.



**APPENDIX D** 

# CONTINUOUS COOKING USE FILTER WASHING AND PARTS CLEANING SCHEDULE

- Uninterrupted Griddle Or Broil Cooking Of Burger Patties During An 8 Hour Period -

Wash Every Eight Hours	Clean End Of Day	Wash Every Three Days
Grease Baffle Filters	Stainless Steel Panels Behind Cooking Equipment	Cyclone Foam Filter
Vaporizer Filters	Floor Area Under The Cooking Equipment	
Particulate Filters	Pass-Through Door Lower Track and Wheels	
Grease Cups	Floor Area Under The Canopy Hood	

# WEEKLY AND BI WEEKLY FILTER WASHING AND PARTS CLEANING SCHEDULE OR WITH INCREASED CLEANING FREQUENCY BASED ON COOKING LOAD

Wash Each Week	Clean End Of Week	Wash Every Other Week
Grease Baffle Filters	Stainless Steel Panels Behind Cooking Equipment	Cyclone Foam Filter
Vaporizer Filters	Floor Area Under The Cooking Equipment	
Particulate Filters	Pass-Through Door Lower Track and Wheels	
Grease Cups	Floor Area Under Cooking Equipment	

# DO NOT USE STAINLESS STEEL CLEANERS OR DEGREASERS ON THE ELECTRONIC DISPLAY PANEL. ONLY CLEAN WITH DAMP TERRY CLOTH TOWEL USING WARM WATER AND SOAP

Filter	Item Number	Туре
Grease Baffle Filters	PU-VC2-118-VC2	Washable
Vaporizer Filters	PU-VC2-114-VC2	Washable
Air Scrubber Foam Filter	PU-VC2-119-VC112	Washable
Particulate Filters	PU-VC2-115-VC2	Washable

ONLY USE EVO SUPPLIED GREASE BAFFLE FILTERS, VAPORIZOR FILTERS, SCRUBBER FOAM FILTER, PARTICULATE FILTERS, AND SUMP DETERGENT WHICH ARE TESTED AND CERTIFIED FOR USE WITH THIS EQUIPMENT. THE USE OF OTHER FILTER AND DETERGENT PRODUCTS WILL ADVERSELY AFFECT AIR QUALITY AND SUMP PERFORMANCE VOID THE MANUFACTURER'S WARRANTY.



**APPENDIX E** 



This model includes BrightShield™ with Vyv™ Antimicrobial Light Technology.

#### **Directions for Use:**

The EVent Open Canopy Hood has BrightShield lighting in installed into four individual light bars located under the front edge of the canopy hood. These light bars dispense light throughout the hood canopy and onto the installed cooking appliances. When the EVent ventilation system is turned off and the fan is not operational, the system will automatically switch the lights into a violet blue color mode. When the EVent is turned On and the fan is operational, the system will automatically switch the lights into a white color mode. The operator can change the light color at any time by pressing the light bulb-shaped icon on the control panel, which will switch the light to a different color

### Maintenance:

To maintain the light bars, periodically wipe the plastic lens clean using a mild soap an water solution with a terry cloth towel. After cleaning the lens, wipe dry using a clean terry cloth towel.

# BrightShield™

- Kills\* and prevents the growth of viruses, bacteria, fungi, yeasts, mold, and mildew
- Provides continuous antimicrobial action to keep surfaces clean
- Is approved for continuous use around people, pets, & plants
- Reduces odors caused by bacteria, fungi, yeasts, mold, and mildew
- Creates a cleaner environment for food and food preparation.

\*Testing on a non-enveloped virus (MS2 bacteriophage) showed a 97.12% reduction in controlled laboratory testing in 8 hours on hard surfaces. Testing on SARS-CoV-2 (enveloped virus) showed a 98.45% reduction in controlled laboratory testing in 4 hours on hard surfaces. Testing on MRSA E. coli showed 90%+ reduction in controlled laboratory testing in 24 hours on hard surfaces. Results may vary depending on the amount of light that is reaching the surfaces in the space where the product is installed and the length of time of exposure. Use of Vyv™ Antimicrobial Light Technology is not intended to replace manual cleaning and disinfection practices.

BrightShield™ is most effective when used continuously. Your unit is factory-set to use BrightShield™ lighting whenever the door is closed and standard bright white when the door is open. See Control Operations sections for details and other options.

For more information about BrightShield™ visit www.evoamerica.com For more information about Vyv™ Antimicrobial Light Technology visit www.vyv.tech



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