



## VENTLESS EXHAUST HOOD

### OPERATORS MANUAL AND PARTS LIST

REV. NOVEMBER 2021



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## SPECIFIC SAFETY PRECAUTIONS

For your safety, please observe the following precautions when operating or servicing your ventless exhaust hood. Read the following important safety information carefully to avoid personal injury and/or damage to the equipment.

### CAUTION/WARNING!

- Consult a qualified electrician to ensure all of the following guidelines are met:
  - All electrical specifications and codes are followed.
  - Circuit breakers and wiring are of sufficient rating and gauge.
  - The unit is properly grounded and all electrical specifications were followed during installation.
- Improper installation, adjustment, alteration, service or maintenance could result in death or serious injury and/or equipment/property damage, and will void the warranty.
- **DO NOT** use or store gasoline, other flammable liquids or vapors in the vicinity of this or any other appliance.
- Failure to comply with **DANGER** notices may result in death or serious injury and/or equipment/property damage, and will void the warranty.

### WARNING

- **DO NOT** operate the unit unless you understand the components and the intended use.
- The unit must remain in the upright position.
- Exercise care when removing the wooden crate from around the unit.
- Failure to comply with WARNING notices could result in death or serious injury and/or equipment/property damage and will void the warranty.

### CAUTION

- Ensure the unit is positioned to maintain **18” of clearance above the hood body** (excluding dampers), and **30” clear to the left** (side with the pull station when equipped with Fire System), 0” to the rear, and 0” to the right. If the pull station is on the right per special request, maintain 30” clearance on the right side and 0” on the left. Failure to maintain safe distances may result in fire.
- The unit must be adequately and properly grounded. Improper grounding may result in electrical shock.
- Consult an electrician to ensure all electrical specifications have been met and the unit is properly grounded.
- The wiring diagrams contained in this manual should aid your electrician in the installation of your unit.
- Exercise care around the Control Panel to maintain proper operation. The electronic components of the Control Panel are impact-sensitive.
- Turn off the unit and unplug the power cord before cleaning or performing maintenance.

**DO NOT** hose down the unit's interior or exterior with water.

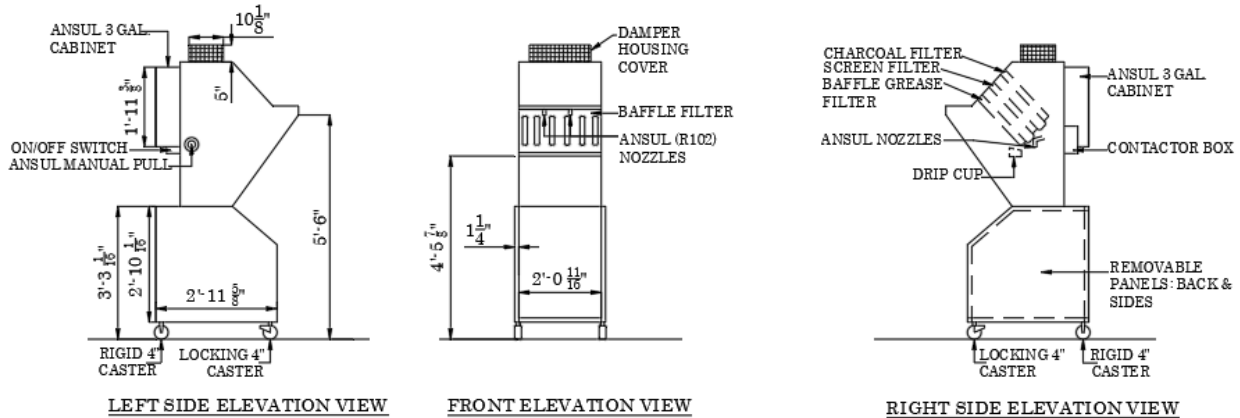
During cleaning of the unit:

- **DO NOT** steam clean.
- **DO NOT** use products containing chlorine.
- **DO NOT** use abrasive products, steel wool or scouring pads.
- **DO NOT** modify, alter or add attachments to this equipment!
- Failure to comply with these **CAUTION** notices may result in equipment/property damage and will void the warranty.

**NOTE:**

- If the crate is damaged upon receipt, **immediately** inspect the unit and notify the carrier of any damage to the unit.
- To aid the electrician, an electrical wiring diagram is contained in this manual. Refer to the wiring diagram during installation or servicing.
- Comply with all appropriate state and/or local health regulations regarding the cleaning and sanitation of this equipment.

## DIMENSIONS



## MODEL VH-24

### **REGULATORY LISTINGS (CERTIFICATIONS):**

The Ventless System shall be built in accordance to NFPA96, be UL listed, and comply with UL710B Standards. Hoods shall be tested to comply with NSF Sanitation Mark.

Remote Pull Station is  $4\frac{1}{4}"$  round and 1" deep.

Mounting is 60" AFF and  $2\frac{1}{2}"$  from rear of hood body ( $10\frac{1}{2}"$  off of the rear of the unit)

Unit Weight: 565 lbs.

### **UNPACKING:**

Your unit will arrive enclosed in a wooden crate. The Hood is secured to a wooden platform inside of the enclosure.

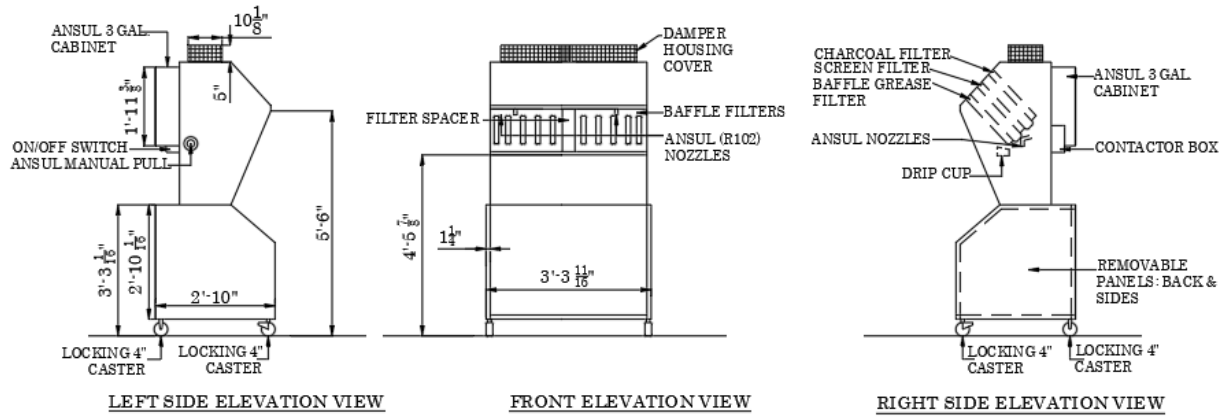
### **NOTE:**

- If the crate is damaged, immediately inspect the unit and notify the carrier of any damage to the unit.
- Exercise care when lifting or moving the unit.
- Exercise care when removing the wooden crate from around the unit.

### **LOCATE AND IDENTIFY THE FOLLOWING COMPONENTS AFTER UNPACKING:**

- Hood and Fire Suppression System
- Floor Stand and Contactor Box
- ANSULEX ® Fire Suppressant, 3.0 Gallon
- Drip Cup
- Grease (baffle) Filter, Air (Mesh) Filter, Charcoal Filter

## DIMENSIONS



## MODEL VH-42

### **REGULATORY LISTINGS (CERTIFICATIONS):**

The Ventless System shall be built in accordance to NFPA96, be UL listed, and comply with UL710B Standards. Hoods shall be tested to comply with NSF Sanitation Mark.

Remote Pull Station is 4¼" round and 1" deep.

Mounting is 60" AFF and 2 1/2" from rear of hood body (10½" off of the rear of the unit)

Unit Weight: 845 lbs.

### **UNPACKING:**

Your unit may arrive enclosed by a wooden crate. The Hood is secured to a wooden platform by means of high-tensile strength strapping.

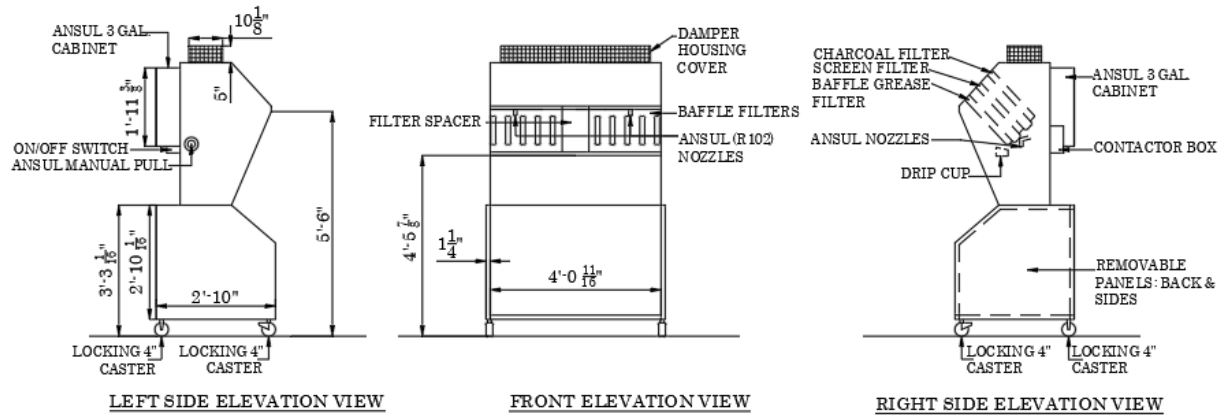
### **NOTE:**

- If the crate is damaged, immediately inspect the unit and notify the carrier of any damage to the unit.
- Exercise care when lifting or moving the unit.
- Exercise care when removing the wooden crate from around the unit.

### **LOCATE AND IDENTIFY THE FOLLOWING COMPONENTS AFTER UNPACKING:**

- Hood and Fire Suppression System
- Floor Stand and Contactor Box
- ANSULEX ® Fire Suppressant, 3.0 Gallon
- Drip Cup
- Grease (baffle) Filter, Air (Mesh) Filter, Charcoal Filter

## DIMENSIONS



## MODEL VH-48

### **REGULATORY LISTINGS (CERTIFICATIONS):**

The Ventless System shall be built in accordance to NFPA96, be UL listed, and comply with UL710B Standards. Hoods shall be tested to comply with NSF Sanitation Mark.

Remote Pull Station is 4 1/4" round and 1" deep.

Mounting is 60" AFF and 2 1/2" from rear of hood body (10 1/2" off of the rear of the unit)

Unit Weight: 985 lbs.

### **UNPACKING:**

Your unit may arrive enclosed by a wooden crate. The Hood is secured to a wooden platform by means of high-tensile strength strapping.

### **NOTE:**

- If the crate is damaged, immediately inspect the unit and notify the carrier of any damage to the unit.
- Exercise care when lifting or moving the unit.
- Exercise care when removing the wooden crate from around the unit.

### **LOCATE AND IDENTIFY THE FOLLOWING COMPONENTS AFTER UNPACKING:**

- Hood and Fire Suppression System
- Floor Stand and Contactor Box
- ANSULEX ® Fire Suppressant, 3.0 Gallon
- Drip Cup
- Grease (baffle) Filter, Air (Mesh) Filter, Charcoal Filter

## **ELECTRICAL REQUIREMENTS**

- Consult a qualified electrician to ensure all electrical specifications have been met.
- The unit must be adequately and properly grounded. Improper grounding may result in electrical shock. Always refer to your local electrical code to ensure proper grounding of this and any other electrical equipment. Always consult with an electrician or other qualified service person to ensure breakers and wiring are of sufficient rating and gauge for the equipment being operated.
- Improper installation, adjustment, alteration, service or maintenance could result in death or serious injury and/or equipment/property damage, and void the warranty.

<b>Model #</b>	<b>Voltage</b>	<b>Hz</b>	<b>Phase</b>	<b>Amps</b>
VH-24	208-240	60	1-3	75

**NOTE: 3 AMPS FOR HOOD**

<b>Model #</b>	<b>Voltage</b>	<b>Hz</b>	<b>Phase</b>	<b>Amps</b>
VH-42	208-240	60	1-3	75

**NOTE: 4.5 AMPS FOR HOOD**

<b>Model #</b>	<b>Voltage</b>	<b>Hz</b>	<b>Phase</b>	<b>Amps</b>
VH-48	208-240	60	1-3	75

**NOTE: 6 AMPS FOR HOOD**

### **CONNECT HOOD POWER:**

- Apply AC power to the Contactor box.
- The power requirement of the fryer will determine the input.
- Remove plug (if present) from the AC power cord of the fryer; connect the fryer power cord to the contactor output
- All connections should be made by a qualified electrician to ensure all electrical specifications have been met and comply with all local codes.

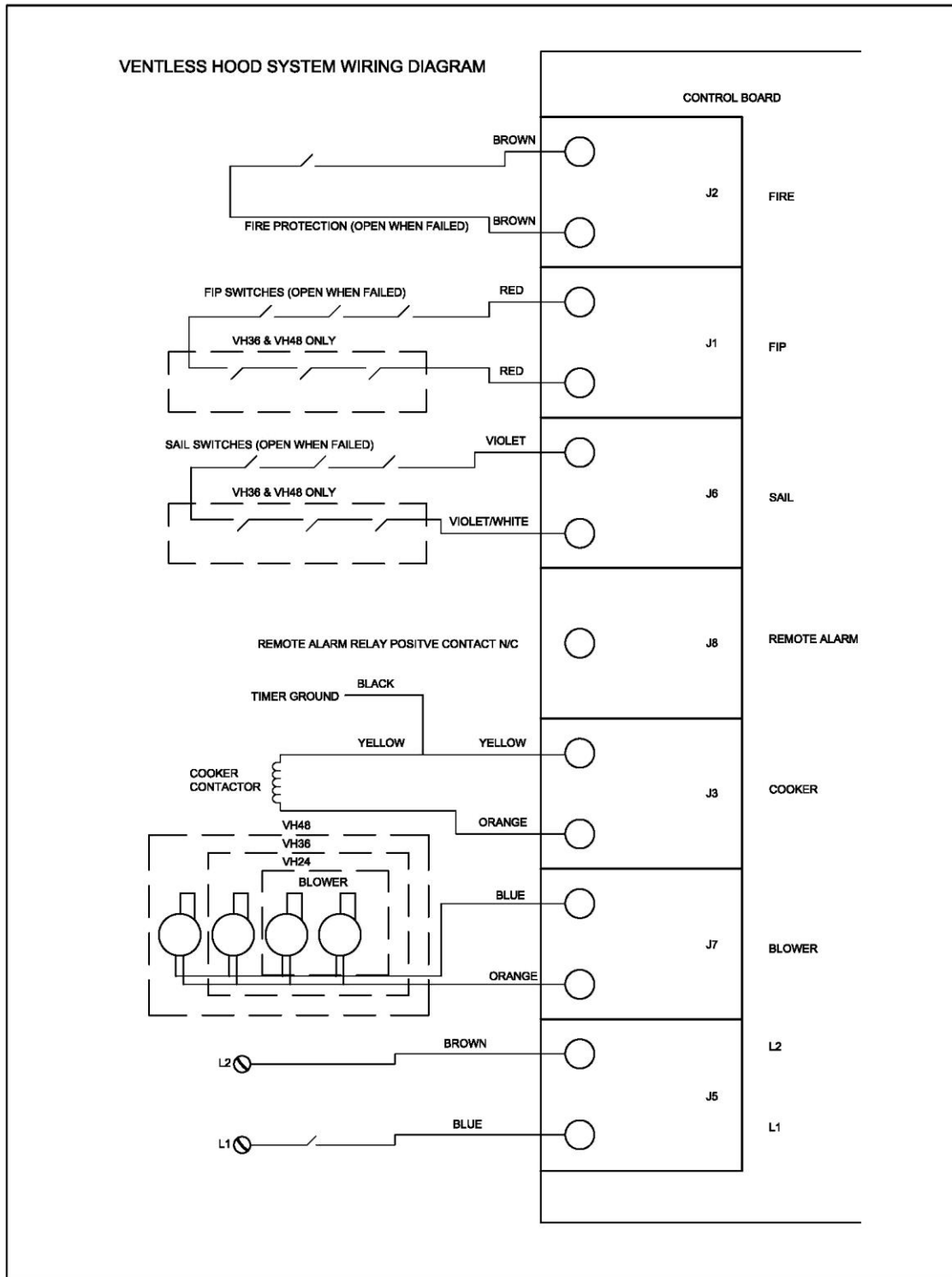
### **HOOD AND APPLIANCE INTERLOCK CONNECTION**

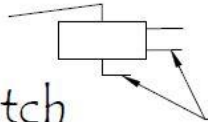
This connection will cause the appliance below the hood to shut down if any of the following occurs:

- Any filter becomes excessively dirty and does not allow proper airflow through the hood.
- Any filter is missing or not installed properly.
- Fire Extinguisher System is activated.

NOTE: IF FIRE SYSTEM IS FIELD INSTALLED, WIRING MUST BE VERIFIED BY LICENSED ANSUL SYSTEM INSTALLER AND PERFORMED TO MEET ALL STATE AND LOCAL CODES.

### WIRING DIAGRAM

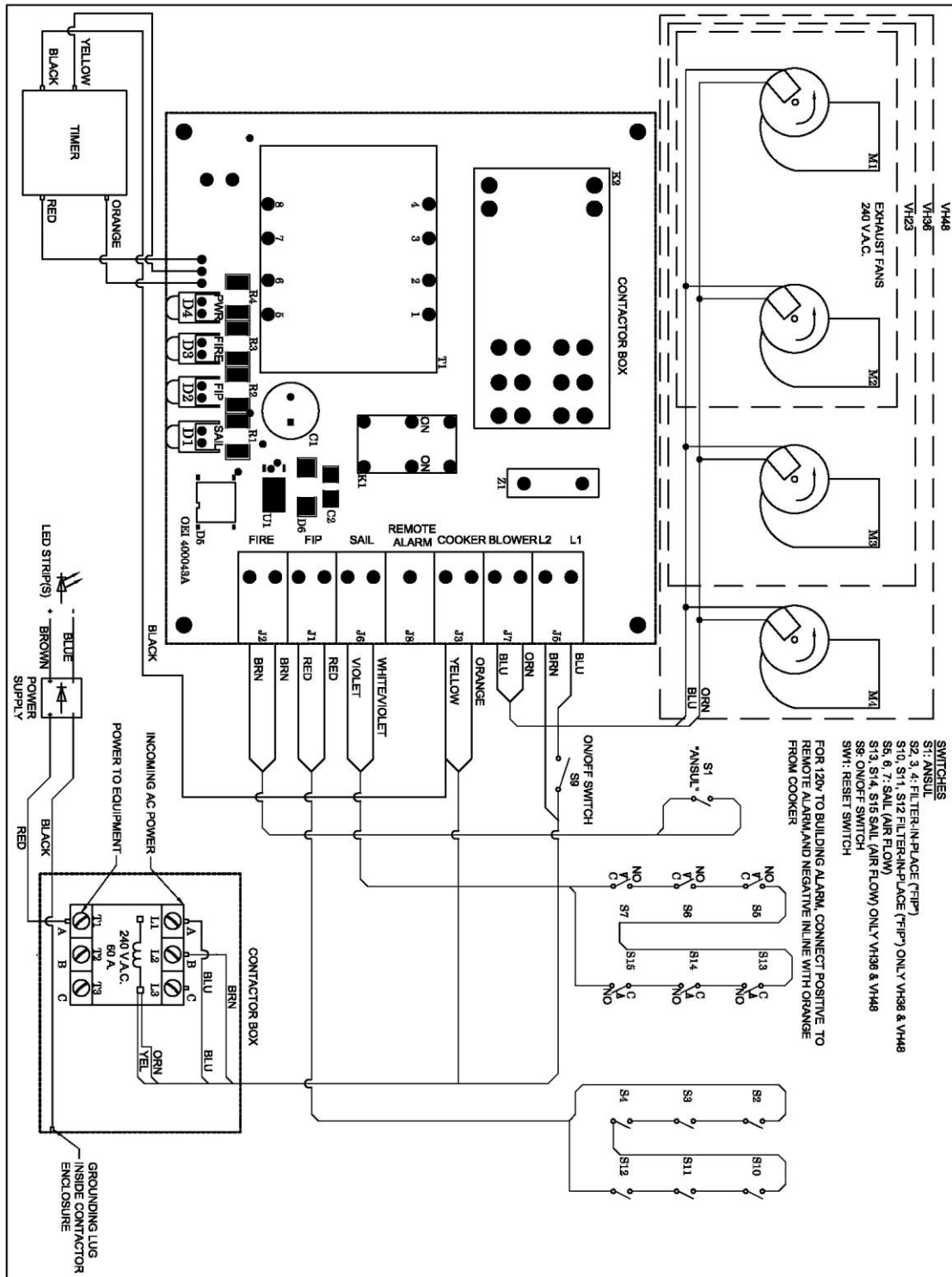


Ansul  
 Microswitch  Wires



**NOTE: PRIOR TO INSTALLATION, POWER MUST BE DISCONNECTED.  
 WIRING DIAGRAM TO BE FOLLOWED IN ORDER TO INTEGRATE INTO FIRE SYSTEM.  
 INSTALLATION SHALL BE PERFORMED TO MEET ALL STATE AND LOCAL CODES.  
 ALL WIRING TO BE PER PAGES 8 & 9 OF THE INSTALLATION MANUAL.**

**WIRING DIAGRAM CONT.**



Clearances and Coverage:

- Ceiling 18” and Pull Station side 30”

Model	Surface Nozzles	Tank Size
VH-24	1N	3.0
VH-42	290	3.0
VH-48	290	3.0

Note: Coverage for Fryers, Griddles, & Ranges - Cooking surface of each appliance cannot exceed **480 square inches**.

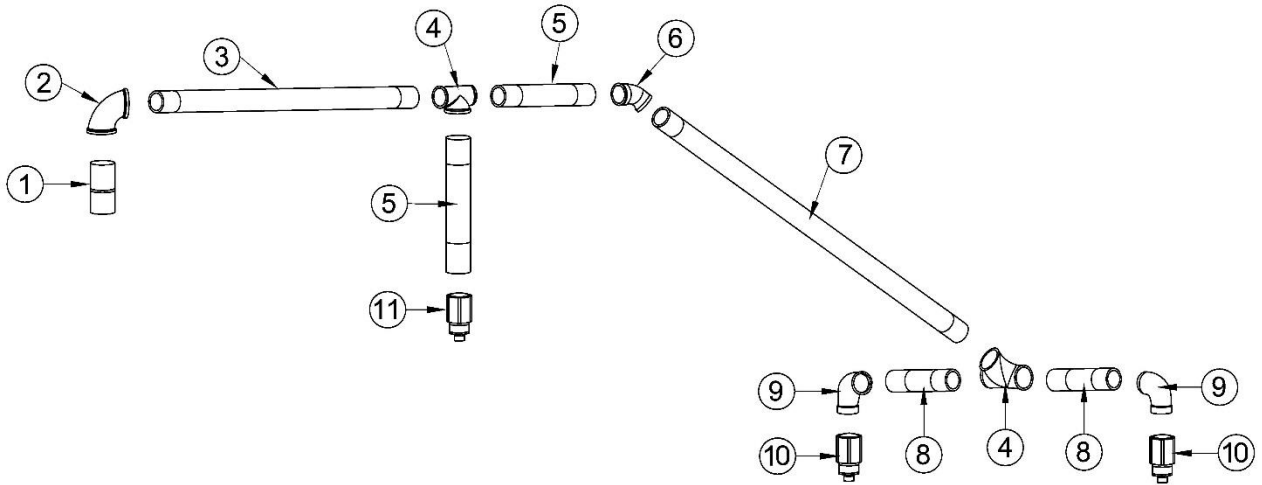
### **FIRE SUPPRESSION SYSTEM**

The fire suppression system used in your Ventless Hood System is an Ansul R-102 Restaurant Fire Suppression System (Standard UL 300 Listed).

- In accordance with the system’s listing, an authorized Ansul distributor must perform final installation, charging and testing of the system.
- The fire suppression system is designed and UL-listed to provide fire protection for cooking appliances such as fryers. It automatically protects your unit 24 hours per day.
- The integrated ANSUL system contains piping and nozzles.
- All nozzles have been factory installed in the proper operating position. **DO NOT MOVE OR ADJUST.**

This Hood also requires use of a Manual Pull System. The Manual Pull System is already integrated into your system if fire suppression system is factory installed.

NOTE: If Field installed, fire suppression system to be installed per the Field Installation Diagram for Conduit/Piping supplement attached to this manual



<u>Item</u>	<u>Part No.</u>	
1	11-20018	10 5/8", 3/8" Black Pipe
2	11-20109	Elbow, 3/8" Black Pipe
3	11-20111	Pipe, 3/8"x 8 5/8" Black Pipe
4	11-20094	Tee, 3/8" Black Pipe
5	11-20110	Pipe, 3/8"x 6" Black Pipe
6	11-20097	45 Elbow, 3/8" Black Pipe
7	11-20112	Pipe, 3/8" x 16" Black Pipe
8	11-20013	Nipple, 3/8" x 2" Black Pipe
9	11-20096	Elbow, 3/8" Black Pipe
10	11-20120	Nozzle, Chromed (Ansul)
11	11-20121	Nozzle, Chromed (Ansul) (2 required for 3 & 4 Foot)

## **FIELD INSTALL SUPPRESSION DIRECTIONS**

All Fire System Components to be installed by an **AUTHORIZED ANSUL INSTALLER**

COMPONENTS FOR INSTALLATION MUST INCLUDE ANSUL PARTS AS FOLLOWS:

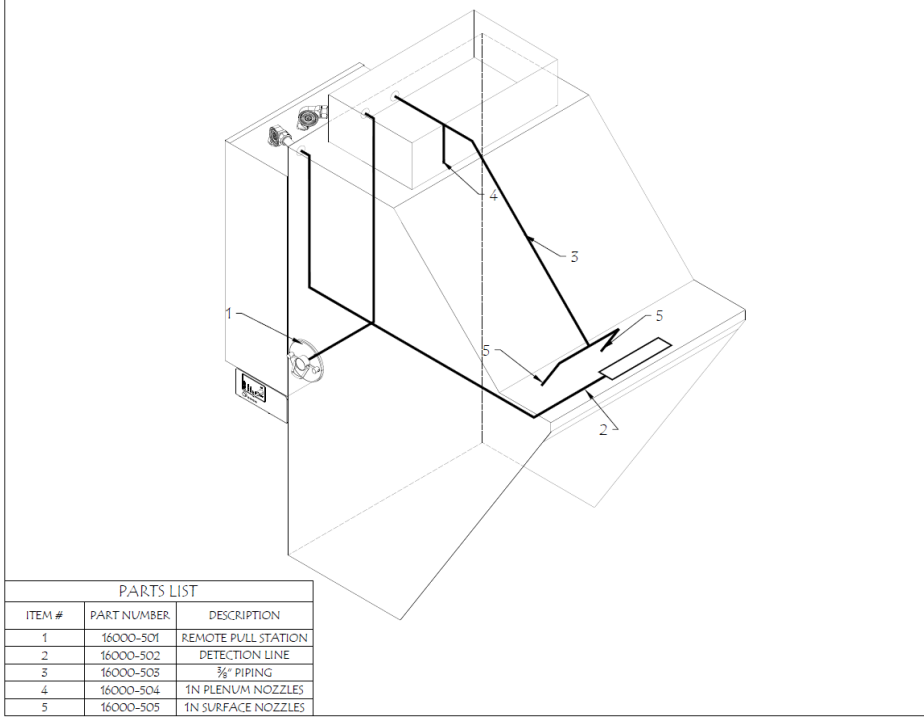
- SINGLE TANK NITROGEN CARTRIDGE 34 OZ OR LT-20-R
- TERMINAL DETECTOR P/N 6538
- PULL ELBOWS - 7 REQUIRED, P/N 7423250
- PULL STATION P/N 4835
- ELECTRIC SWITCH P/N 423878
- FUSIBLE LINK 439245
- ANSUL TANK - 3 GALLON
- FIRE SUPPRESSION SYSTEM ENCLOSURE:
  - STAINLESS STEEL, 0.026" IN. THICK MIN, 23-1/2" X 16-1/2" X 7-1/2"

**PRIOR TO INSTALLATION, POWER MUST BE DISCONNECTED. WIRING DIAGRAM TO BE FOLLOWED IN ORDER TO INTEGRATE INTO FIRE SYSTEM. INSTALLATION SHALL BE PERFORMED TO MEET ALL LOCAL CODES.**

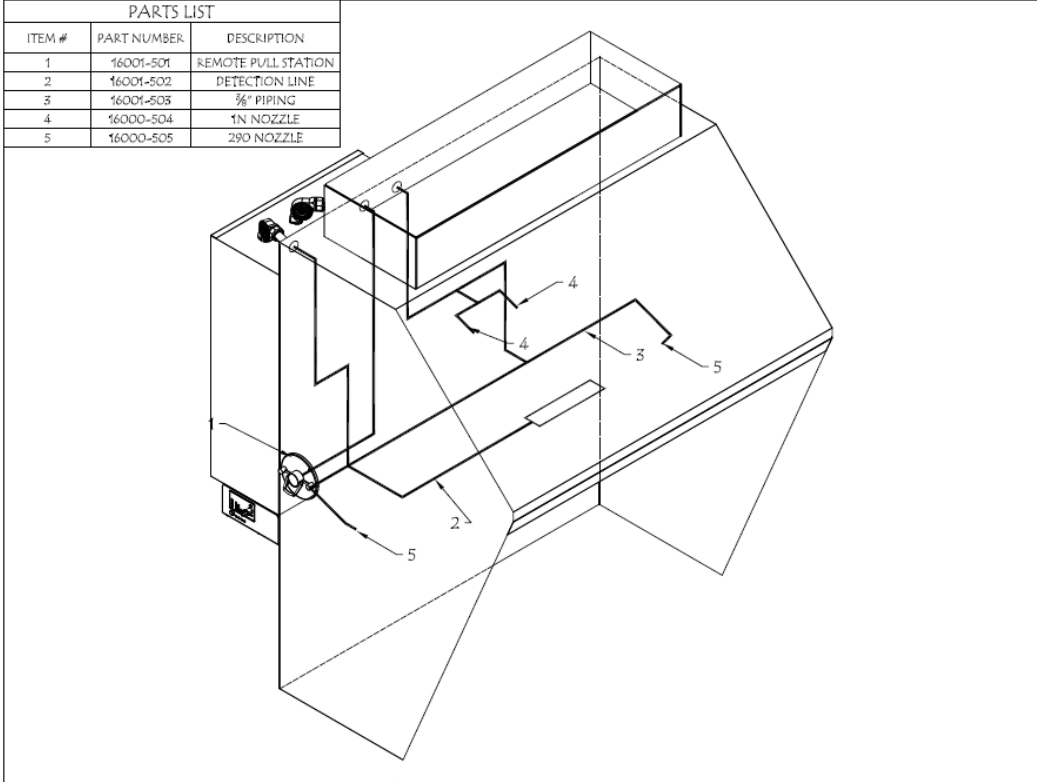
**ALL PIPING TO BE ROUTED AND INSTALLED PER THIS DIAGRAM AND PAGES 13 AND 14 OF THE INSTALLATION MANUAL.**

**FIRE SYSTEM ENCLOSURE TO BE INSTALLED ON THE REAR OF THE HOOD SYSTEM AS SHOWN ON THE DIAGRAMS.**

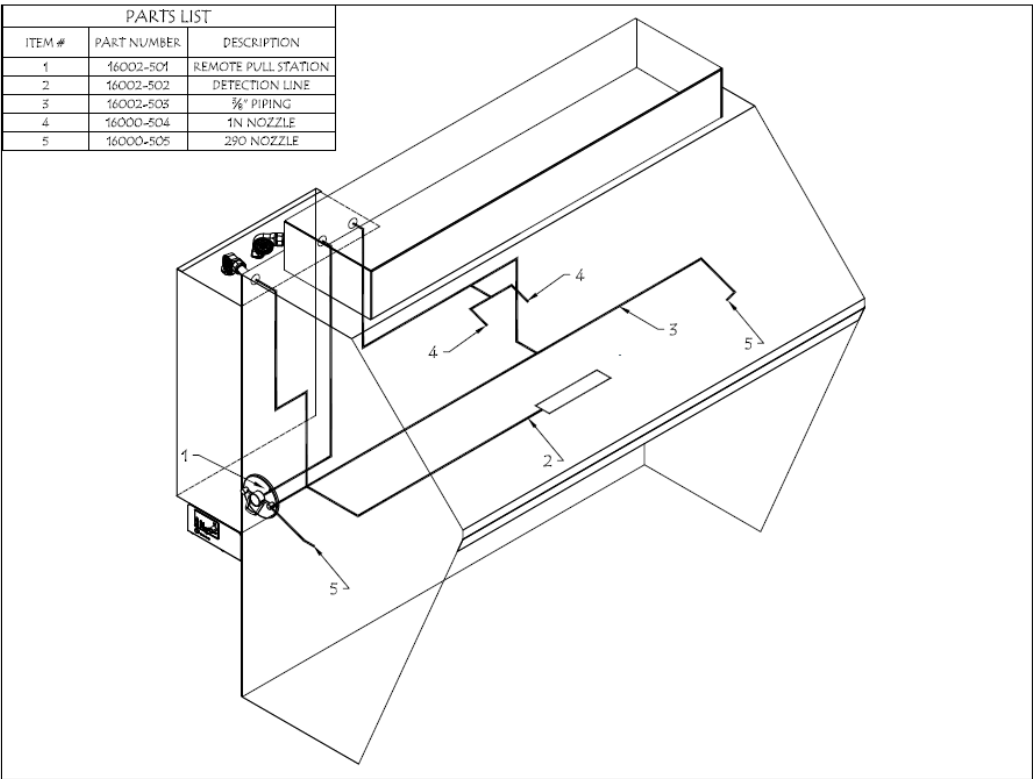
### VH-24 Ventless Diagram



### VH42 - Ventless Diagram



# VH48 - Ventless Diagram



## MAINTENANCE

Maintenance is necessary for your Ventless Hood System to maintain the unit's efficiency over time.

### **QUARTERLY HOOD CLEANING:**

During cleaning of the unit:

**DO NOT** steam clean.

**DO NOT** use products containing chlorine.

**DO NOT** use abrasive products, steel wool or scouring pads.

#### **Interior:**

Disconnect power from the unit! Remove all filters from the hood. Using a mild degreaser with a soft towel or sponge, clean the entire Hood Plenum and Blower Sections. The hood must be cleaned every 3 months.

#### **Exterior:**

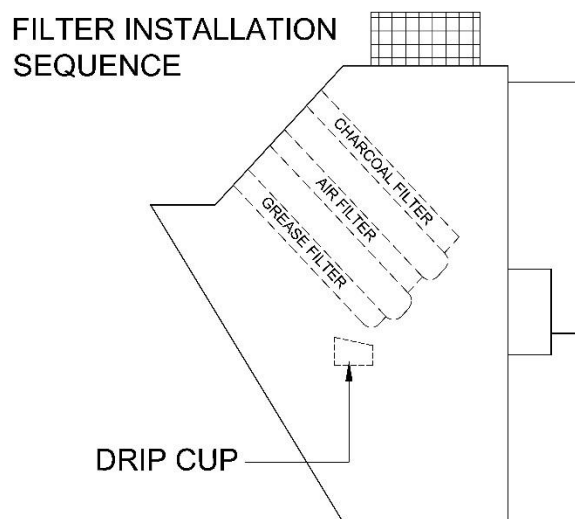
Disconnect power from the unit. Clean all external stainless-steel parts using a stainless-steel cleaner.

#### **Filters:**

**Baffle filter:** The Baffle Filter should be cleaned daily. Place the Baffle Filter in a sink and clean with a mild degreaser. Dry thoroughly, then reinstall in the unit.

**Mesh Filter:** Should be cleaned daily. Place the filter in a sink and clean with a mild degreaser. Dry thoroughly, then reinstall in the unit.

**Charcoal Filter:** Never attempt to clean the Charcoal Filter. Replace every 90 days. The reuse of a Charcoal Filter can cause damage to the unit.



## SEMI-ANNUAL FIRE SUPPRESSION SYSTEM SERVICING:

Service of the Fire Suppression System is to be conducted by qualified fire equipment personnel **ONLY!** Semi-annual (at minimum) servicing and inspections should be performed on the Fire Suppression System.

Such service shall consist of the following:

Place fire extinguishing system-locking bar on fire system when servicing hood.

1. Remove charging cartridge, inspect gasket for cuts and elasticity, coat gasket with extreme temperature grease and reinstall.
2. Remove tank, verify chemical is at proper level, clean and coat O-ring with extreme temperature grease and reinstall.
3. Check all nozzles to insure they are free of cooking grease buildup.
4. Test the remote manual pull station for activation and wear.
5. Install test link and cut to simulate automatic actuation.
6. Clean and inspect fusible links.
7. Inspect wire rope for wear at pulleys and detectors and replace if necessary.
8. Record maintenance date and maintain in a permanent file.

## ANNUAL FIRE SUPPRESSION SYSTEM SERVICING:

Same as Semi-Annual but all fusible links must be replaced with new fusible links.

### Maintenance Schedule

<b>MAINTENANCE LOG</b>				
<b>Procedure:</b>	<b>Daily</b>	<b>Quarterly</b>	<b>Semi-Annually</b>	<b>Annually</b>
<b>Clean baffle filter</b>	√			
<b>Clean wire mesh Filter.</b>	√			
<b>Replace Charcoal filter.</b>		√		
<b>Interior hood cleaning.</b>		√		
<b>Exterior hood cleaning.</b>		√		
<b>Fire suppression system servicing.</b>			√	√



## TERMS AND CONDITIONS OF SALE

**THESE TERMS AND CONDITIONS OF SALE (“TERMS”) CONTAIN VERY IMPORTANT INFORMATION REGARDING YOUR PURCHASE, AS WELL AS CONDITIONS, LIMITATIONS, AND EXCLUSIONS THAT APPLY TO YOU AND YOUR PURCHASE. PLEASE READ THEM CAREFULLY. YOUR PURCHASE IS EXPRESSLY LIMITED TO AND MADE CONDITIONAL UPON THE EXCLUSIVITY OF THESE TERMS. ANY PROPOSAL FOR DIFFERENT TERMS OR ANY ATTEMPT TO VARY, IN ANY DEGREE, ANY OF THESE TERMS IS EXPRESSLY REJECTED.**

1. **Acceptance.** These Terms govern any purchase made from North American Kitchen Solutions, Inc. (“**NAKS**”). These Terms, the Manual in which they are contained, installation and maintenance instructions, the applicable invoice, and any documents incorporated or referred to herein or therein, including any future paper or electronic releases issued by NAKS, constitute the “Order.” The Order is the entire contract between you, the buyer, and NAKS, the seller, for products purchased from NAKS. These Terms apply to the Order unless expressly modified or waived by an officer of NAKS. An Order may only be cancelled by you upon payment of reasonable cancellation charges for expenses incurred or commitments made by NAKS. Captions in these Terms are for convenience only.

2. **Pricing.** The price for NAKS’ goods, material, equipment, or items (“**Products**”) is complete, and no deductions, credits, or offsets may be made without NAKS’s express written consent. Prices are subject to change and surcharges in the event of cost increases in materials and transportation. All complete component accessory material manufactured by others and furnished with Products such as motors, drives, vibration equipment, controls, or other completely assembled component structures, are subject to adjustment to the price at time of shipment regardless of the date of original order entry.

3. **Sales and Similar Taxes.** NAKS’ prices do not include sales, use, excise, or similar taxes. Present or future sales, use, excise, or other similar tax applicable to the sale of Products shall be paid by you, unless an acceptable tax exemption certificate is provided to NAKS.

4. **Payment.** NAKS reserves the right to require full or partial payment in advance of any order if, in NAKS judgment, the financial condition of buyer does not justify continuation of manufacture or shipment. NAKS may require full or partial payment in advance. Pro-rata payments are due as shipments are made. Each shipment or delivery shall constitute a separate sale, and the default of any shipment or delivery shall constitute a separate sale, and the default of any shipment or delivery shall not vitiate the contract as to other shipments or deliveries.

5. **Return Policy – ALL SALES ARE FINAL.** Because we custom manufacture our hoods to each customer’s specifications, ALL SALES ARE FINAL. We may accept the return of non-custom goods at our discretion, but a restocking fee of 30% will apply and all shipping costs are the responsibility of the purchaser or end user. No merchandise may be returned without a Return Goods Authorization (RGA). Items returned for warranty replacement or exchange will not be eligible for credit if not received within 14 days of the issuance of a Return Goods Authorization.

6. **Delivery.** Shipping and delivery dates are estimates only. No delay in delivery will subject NAKS to any costs, damages or fees for late delivery. Delivery of Products is made F.O.B. point of shipment, unless otherwise stated. NAKS shall not be liable for delay due to causes beyond its reasonable control (i.e., force majeure events). In the event of such a delay, the date of delivery shall be extended for a period equal to the time lost by reason of the delay.

7. **Changes.** NAKS may make changes, including improvements and additions, in the technical requirements, specifications, designs, materials, packaging, and place of delivery, method of transportation, quantities, or delivery schedules of the Products by notifying you.

8. **Safety.** The Products may be designed to serve multiple applications. NAKS offers a range of safety equipment, including guards and other devices, as may be required to meet customer specifications. Without exception, NAKS recommends that all orders include applicable safety devices. Use of Products ordered without applicable safety devices is your sole responsibility. You warrant that you have determined and acquired any and all safety devices required for the Products. Weather covers and guards for motor and V-belt drives, couplings, shafts and bearings, along with inlet and outlet screens, are optional accessories noted in the price list.

9. **Title.** Title and right of possession of Products remains with NAKS until all payments (including deferred payments whether evidenced by notes or otherwise) shall have been received to the satisfaction of NAKS and you agree to do all acts necessary to perfect and maintain such title and right in NAKS and not to subject any Products to any liens or encumbrances until such payment is made in full.

10. **Governing Law.** This Order shall be governed by and construed according to the laws of the State of Ohio (excluding the conflict of law provisions thereof). At NAKS' discretion, any action relating directly or indirectly to the Order shall be brought exclusively in the Common Pleas Court of Cuyahoga County, Ohio or the United States District Court for the Northern District of Ohio, Eastern Division, and you irrevocably waive any objection to the jurisdiction of, or venue in, either of these courts and agree that the acceptance of the Order constitutes doing business in the State of Ohio.

11. **Arbitration.** At NAKS' discretion, any dispute arising under or in connection with any Order may be submitted to binding arbitration administered by the American Arbitration Association under its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The dispute shall be resolved by one neutral arbitrator who shall have no affiliation with either you as the buyer or with NAKS and shall be selected by the American Arbitration Association office, and held in, Cleveland, Ohio.

**WARNING.** NAKS' Products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the buyer and all end users. If Products are used in life support ventilation systems where failure could result in loss or injury, the buyer and all end users should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury. **DO NOT USE IN HAZARDOUS ENVIRONMENTS** where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments. Comply with all local and national safety codes including the National Electrical Code (NEC) and National Fire Protection Act (NFPA).

**CAUTION.** Guards must be installed when fan is within reach of personnel or within eight (8) feet (2.5 m) of working level or when deemed advisable for safety.

**DISCLAIMER.** NAKS has made a diligent effort to illustrate and describe the Products accurately in all materials; however, such illustrations and descriptions are for the sole purpose of identification and do not express or imply any warranty.

**LIMITATION OF LIABILITY.** NAKS' cumulative liability to you and any other persons for all claims in any way relating to or arising out of the Products, including, but not limited to, any cause of action sounding in contract, tort, or strict liability, shall not exceed the total amount of the purchase price paid for those Products which are the subject of any such claim. This limitation of liability is intended to apply without regard to whether other provisions of this agreement have been breached or have proven ineffective even if NAKS has been advised of the possibility of such claims or demands. In no event shall NAKS be liable to you or any other person for any loss of profits or any incidental, special, exemplary, or consequential damages for any claims or demands brought by you or such other persons. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THIS LIMITATION MAY NOT APPLY TO YOU.

**REPLACEMENT PARTS.** If replacement parts are ordered, purchaser warrants that the original components in which these replacement parts will be placed are in satisfactory working condition, and when said replacement parts are installed, the resultant installation will operate in a safe manner, at speeds and temperatures for which the original product was purchased.

**TECHNICAL ADVICE AND RECOMMENDATIONS, DISCLAIMER.** Notwithstanding any past practice or dealings or any custom of the trade, sales shall not include the furnishing of technical advice or assistance or system design. Any such assistance shall be at NAKS' sole option and may be subject to additional charge(s).

NAKS assumes no obligation or liability on account of any recommendations, opinions or advice as to the choice, installation or use of Products. Any such recommendations, opinions or advice are given and shall be accepted at your and the end-user's risk and shall not constitute any warranty or guarantee of such Products or their performance.

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