Operations and Service Manual

Models CF 400/500 and CF 400/500-VH

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Form No. 60202 (5/98)

Safety Precautions

FOR YOUR SAFETY

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance!

Warning!!

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

POST IN A PROMINENT LOCATION

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Introduction

I Introduction

Congratulations on the purchase of your new Chester Fried Electric Fryer. The Chester Fried Models CF 400, 400 VH, 500 and 500 VH fryers are equipped with a high quality cooking computer which is covered by a two year warranty. This new "User friendly" easily programmable cooking computer incorporates extensive design detail by its manufacture WATLOW, and extensive cooking application by the "Chester Fried" engineering team. The new cooking computer along with the Chester Fried fryer is truly a "world class" product.

To help protect your investment in this state-of-the-art cooking equipment, we recommend you take a few moments to familiarize yourself with the installation, cleaning and maintenance procedures contained in this manual. Adherence to these recommended procedures minimizes the potential for costly "Down-Time" and equipment repairs.

Parts Ordering and Service Information

If you require repair or assistance, please contact your local independent distributor. If you require further assistance please contact our corporate office in Montgomery, Alabama at 1-800-288-1555.

Please have the following information available when calling for assistance. It may be helpful to record this information in the blanks provided below for a quick reference.

1. Model Number: _____
2. Serial Number: _____
3. Phase: _____
4. Voltage: _____
5. Nature of Problem: _____

The above information can be found on the Rating Plate located on the fryer's back.

Installation Instructions

1 - 1 Installation Instructions

This section provides a summary of the procedures necessary for proper installation of your new Chester Fried Electric Fryer. To prevent personal injury or equipment damage, please ensure the following steps are taken:

1. ***For your safety DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliances!***

2. Keep the appliance and surrounding area free and clear from combustible materials; 3" (7.5cm) for regular fryers, 18" (46cm) for ventless hoods.

3. Please retain this manual for future reference.

4. Please note wiring diagrams for this appliance are located in the rear of this manual. Ensure the wiring diagram which you consult corresponds to the model being operated.

5. Please ensure appliance is electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA NO. 70-1984.

6. Please provide adequate room for servicing and proper operation of this appliance. Also, provide adequate ventilation in the operating area where necessary.

7. Always consult with an electrician or other qualified individual prior to installation.

8. Ensure voltage and amperage supplied to the unit are as specified on the fryer's rating plate.

9. Make sure this unit is in a secure position and will not move. Locking casters are supplied on this unit-use them!

* 10. Based on local codes, room size and appliances in use, exhaust ventilation may be required. This often can be accomplished by the installation of an exhaust fan, which exhausts 200 cfm/lineal ft. of hood, in the room in which the hood is installed. To determine the requirements for your installation, supply the HVAC dealer the following information:

   * a. The hood exhaust between 510 to 680 cfm of air.

   b. The average temperature of the air being exhausted from the hood after four hours of continuous frying, is approximately 90°F (32°C).

* 11. This appliance is to be installed, used and maintained in accordance with the Standard for Ventilation Control, and Fire Protection of Commercial Cooking Operations, NFPA 96-1994.

IMPORTANT NOTE
The decibel level of the hood when operating is approximately 65 dB's. *

* 12. DO NOT obstruct the exhaust air outlet. (Maintain a minimum clearance of 12" (30.5cm) of exhaust outlet and ceiling or obstructions, (18" /46cm is recommended).

13. The NFPA recommends a Smoke Detector be installed above a recirculating Hood System.

* Ventless hood models only.

Installation Instructions

IMPORTANT NOTE
The exhaust fan in your ventless hood should be lubricated at least every six (6) months. Call Technical Services at 1-800-288-1555 for instructions.

DO NOT Modify, Alter or Add Attachments to This Equipment!

The previous steps will help to ensure safe and proper installation of your fryer. If you have any questions concerning these procedures, contact your local Chester Fried distributor or other qualified service person.

1 - 2 Removal of Fryer from Crate

Your Chester Fried Fryer may arrive enclosed by a wooden crate. If your unit arrived uncrated, go to Section 1-3. The Fryer is secured to a wooden platform by means of high-tensile strength strapping.

1. Carefully cut and remove the plastic shipping wrap and the strapping mentioned above.

2. Use pliers to loosen wire hooks which secure the wooden crate around the fryer. CF 400 VH and CF 500 VH fryers are enclosed in a two-piece crate. Remove the wooden crate(s).

3. Carefully remove the fryer from the shipping platform. Your new fryer is extremely heavy and great care should be taken in lifting or moving the unit to prevent personal injury or equipment damage.

1 - 3 Ventilation of Fryers

Your new Chester Fried Electric Fryer has been designed either for operation beneath a traditional exhaust hood or in the case of Ventless Hood Fryers, as a self-contained unit requiring no hood or duct system. We strongly recommend you consult a professional ventilation or heating and air conditioning company for assistance in designing a hood for those models which require an exhaust system.

IMPORTANT NOTE
Guidelines for proper ventilation system requirements may differ. Always consult with local authorities to ensure compliance.

Installation Instructions

1 - 4 Electrical Requirements

WARNING

Fryers 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 or 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.

Chester Fried Fryers are available from the factory wired for 208 or 240 volts, and single or three phase, 50/60HZ. service. Check the rating plate on the rear of the fryer to determine the correct power supply.

Operating Instructions

2 - 1 Operating Instructions

For your safety, please observe the following precautions when operating your Chester Fried Fryer:

1. Ensure the fry kettle is positioned in a secure, safe location with the casters in the locked position.

2. 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 fryer.

3. Due to the high temperature of shortening in your fryer during cooking, it is extremely important the user exercise caution in operating this equipment to avoid personal injury.

Operating Instructions

Fryer Components and Their Functions

3 Fryer Components and Their Functions Models CF 400/500 and 400/500-VH

The following section is designed to introduce you to the controls used in operating this equipment.

DO NOT attempt operation of this unit until you have located each control discussed and fully understand their intended function. Failure to do so may result in improper operation resulting in equipment damage or personal injury to the operator.

Please review this section carefully before proceeding any further.

Refer to the accompanying photographs for the location of the components discussed.

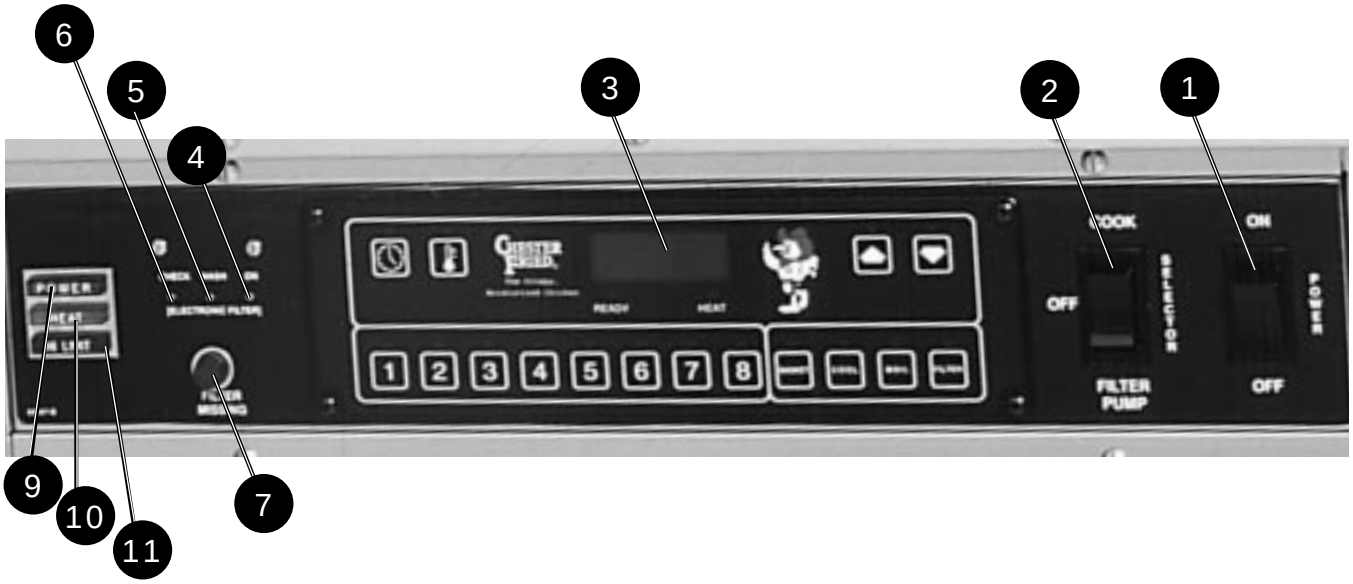
ITEM	DESCRIPTION	FUNCTION
1. Fig. 1	Power Switch	The Power Switch is a two-position switch. Move the switch upward to the "ON" position for operation.
2. Fig. 1	Selector Switch	The Selector Switch is a three-position switch which is used to select either the cook, off or filter mode of operation. The fryer's heating elements will only operate in the "COOK" position. The switch should be placed in the "FILTER"position to filter the shortening which will allow the pump to operate.
3. Fig. 1	Cooking computer	The Cooking Computer is used to select oil temperatures, cooking times and basket lift operations. Programming of the cooking computer is covered later in the manual.
* 4. Fig. 1	"ON" Indicator Light	The "ON" Indicator Light is on when the Electronic Air Cleaner (EAC) power supply is on.
* 5. Fig. 1	"Wash" Indicator Light	The "Wash" Indicator Light is on when the EAC becomes excessively dirty. Do not use the wash light as a signal for routine cleaning of the EAC. This practice will significantly decrease the life of the charcoal filter. Clean the EAC daily for best performance and extended charcoal filter life.
* 6. Fig. 1	"Check" Indicator Light	The "Check" Indicator Light is on when the EAC becomes shorted. (EAC needs cleaning or repair.)
* 7. Fig. 1	Filter Missing Light	The Filter Missing Light is on when the Grease Baffle Filter or the Charcoal Filter are not properly positioned.
* 8 Fig. 1	"HOLD to START" Button (Not Shown)	After the Power Switch is in the "HOLD" position, push and hold for 5 seconds to start the operation of the Hood. (Los Angeles Hoods only—not shown.)

* Provided only on units which employ a Ventless Hood (VH).

Control Panel Components and Their Function

3 - 1 Control Panel

Figure 1



ITEM	DESCRIPTION	FUNCTION
9. Fig. 1	Power Indicator Light	The Green Power Light is on whenever the fryer's Master Power Switch is in the "ON" position.
10. Fig. 1	Heat Indicator Light	The Orange Heat Indicator Light will be on when the fryer's heating elements are operating. When the selected operating temperature is reached, the light will go off.
11. Fig 1	High-Limit Indicator	The High-Limit Indicator Light is illuminated as a result of power being shut off to the fryer's heating elements by the built-in solid-state control circuit. If it comes on during operation, refer to the trouble-shooting section of this manual. NEVER cook in a fryer with the High-Limit Light on!

Fryer Components and Their Function

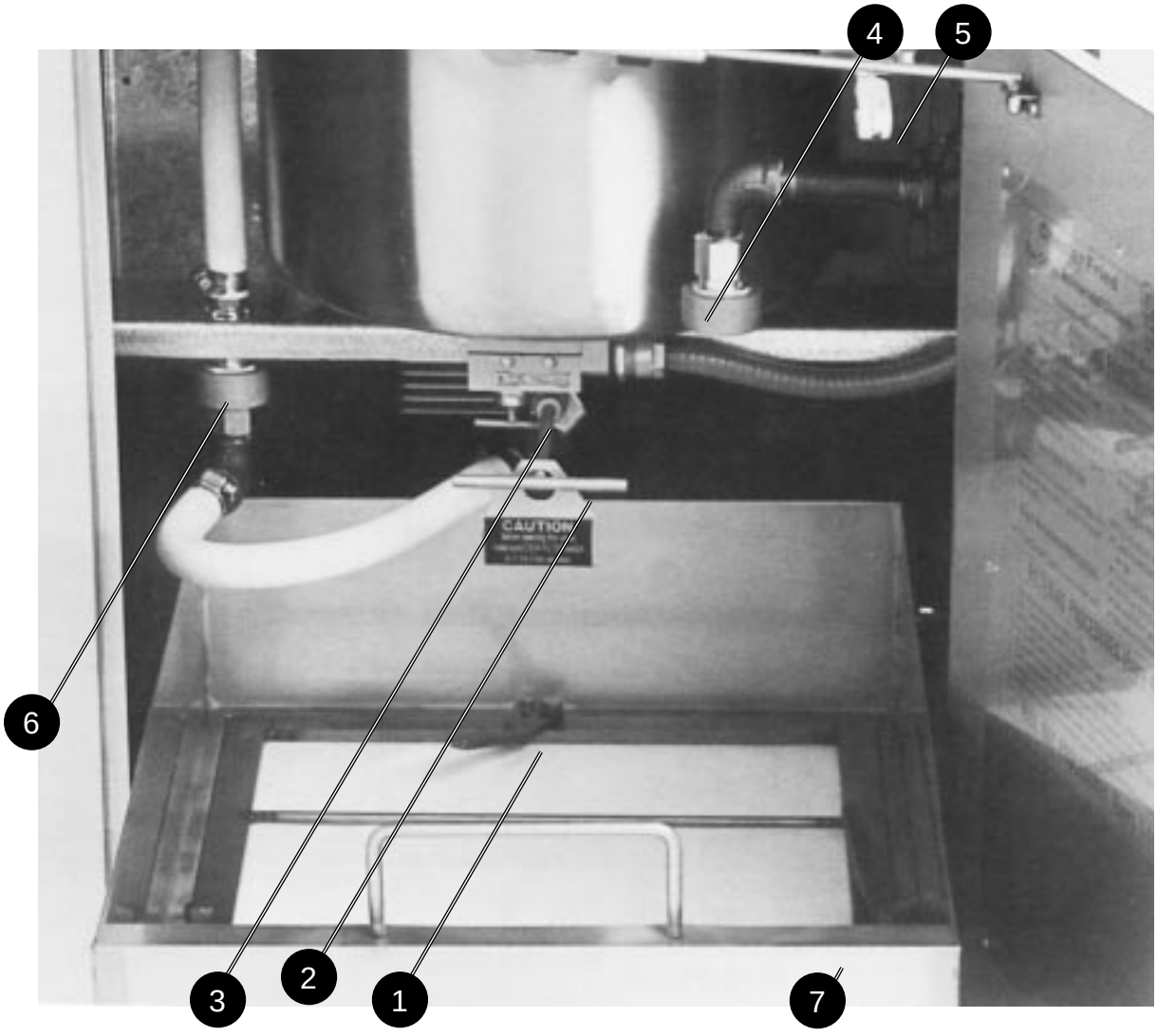
3 - 2 Lower Cabinet Area

ITEM	DESCRIPTION	FUNCTION
1. Fig. 2	Filter Pan Hold-Down Bracket and Latches	The Hold-Down Bracket is contained in the Filter Pan and serves to ensure the filter paper is held tightly in place by means of the four locking latches. The fryer's filtering action will be reduced or eliminated if these latches are not properly secured.
2. Fig. 2	T-Handle/Drain Valve	Turning this T-Handle counter-clockwise allows shortening to drain from the frying vessel into the Filter Pan. Open the valve slowly to avoid burns from splashing of hot oil. Always ensure the valve is closed prior to adding shortening. Your fryer will not operate if this drain valve is not completely closed. (i.e., clockwise)
3. Fig. 2	Drain Valve Pipe-Drain	This Pipe-Drain attaches to the drain valve and helps to minimize splashing of hot oil when the fry-kettle is filtered or drained. The Pipe-Drain must be removed before sliding the Filter Pan out of the fryer. Always use insulted gloves to remove this hand tightened pipe.
4. Fig 2	Quick Disconnect for Oil Discharge Wand	This Quick-Disconnect Fitting is used in conjunction with the oil discharge wand to remove oil from the fryer that is to be discharged.
5. Fig 2	Diverter Valve	The Diverter Valve may be identified by its colored lever-type handle. During a normal operation it should be positioned so it points outward toward the operator. For removal of oil with the discharge hose connected, the Diverter Valve handle should be turned inward and counter-clockwise. After removal of oil for discard it should be returned to its normal position pointing toward the operator. Details of the oil procedure are covered in the operations of this manual.
6. Fig 2	Quick Disconnect For Filter Pan	This Quick Disconnect fitting serves to connect the hose from the Filter Pan to the fryer's oil return lines. The hose must be disconnected at this fitting prior to sliding the Filter Pan outward for cleaning or removal. The fitting is operated by pushing upward on the insulating ring and exerting downward pressure on the connecting end of the hose. For reconnection, push upward on the insulating ring while inserting the hose. Release the insulating ring when the hose fitting is fully inserted to lock it in position.

Fryer Components and Their Function

ITEM	DESCRIPTION	FUNCTION
7. Fig. 2	Filter Pan	The Filter Pan contains the filter paper which serves to remove breading and other impurities from the oil during the filtering procedure. Oil is drained into the Filter Pan where the fryer's pumping action draws it through the filter paper and returns it to the cooking vessel by way of the Filter Pan Hose.
8.	Manual Pull (Not shown, VH series only)	The Manual Pull can be used to manually operate the fryer's built-in fire extinguishing system.

Figure 2 Lower Cabinet Area



Fryer Components and Their Function

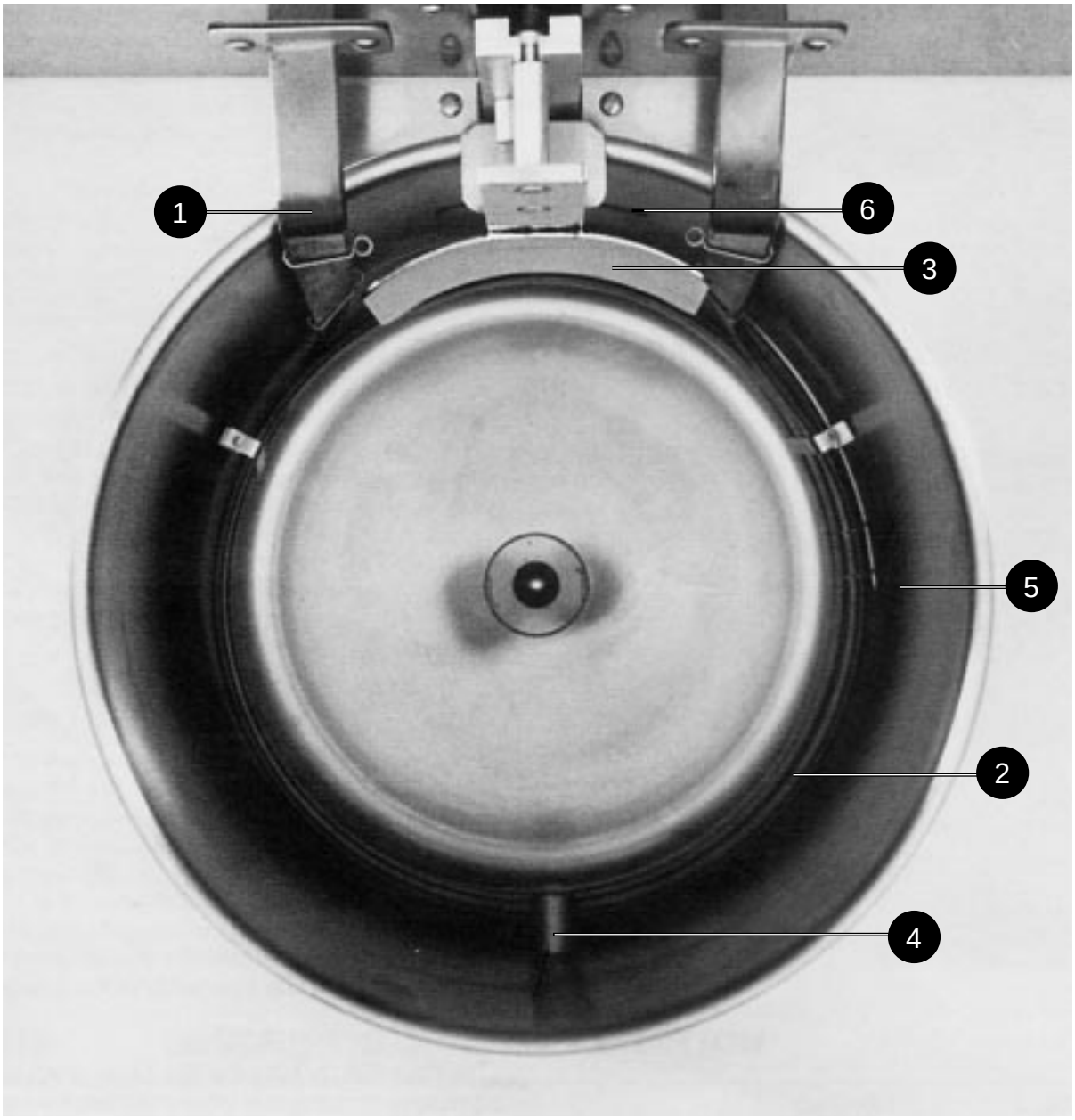
3 - 3 Cooking Vessel

ITEM	DESCRIPTION	FUNCTION
1. Fig. 3	Oil Temp Probe	The Oil Temp Probe senses oil temperature during fryer operation for temperature control. It's signal is directed to the fryer's control unit for comparison with the temperature selected by remote set-pot on the operator control panel.
2. Fig 3.	Heating Element	The Heating Element heats the shortening to the selected temperature. Always maintain the oil level above the heating elements to prevent oil fires!
3. Fig 3	Basket Carrier	The Basket Carrier is inserted into the elevator shaft and allows for positioning and control of the basket in the fryer using the elevator lift.
4. Fig 3	Oil Return Inlet	The Oil Return Inlet serves to return oil to the frying vessel following filtering.
5. Fig 3	High-Limit Probe	The High-Limit Probe senses oil temperature during fryer operation for oil overheating. If the sensor detects an oil temperature in excess of 424°F (218°C), the solid state control system will turn off power to the heating elements.
6. Fig 3	Oil Level Line	The Oil Level Line marks the proper level of HOT shortening. When COLD, the shortening will be approximately ¾" (1.9cm) below the Oil Level Line. The proper shortening level is important and should be checked a minimum of once per day.

Fryer Components and Their Function

Cooking Vessel

Figure 3



Fryer Components and Their Function

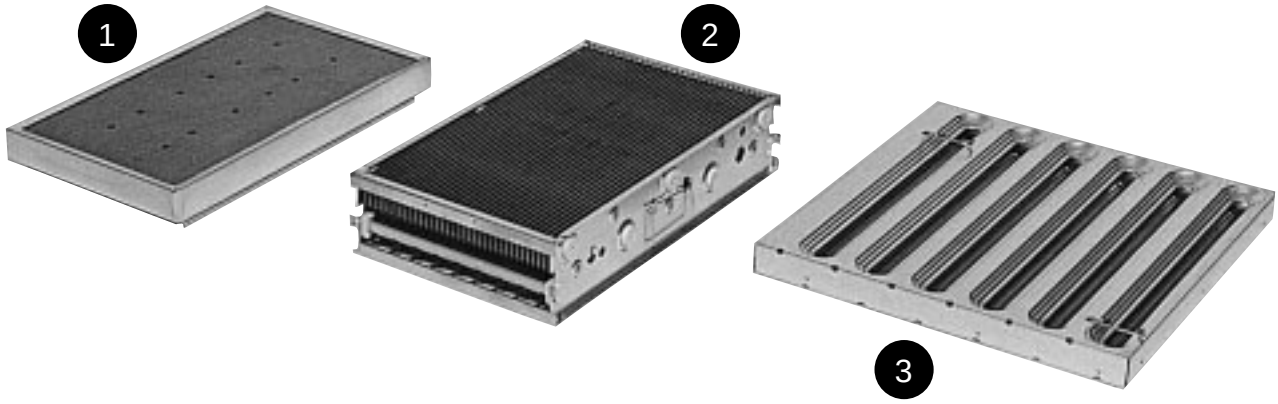
Air Cleaning Components Shown in their operative positions with Hood Access Panel removed.
(VH) models only

Figure 4

Fryer Components and Their Function

3 - 4 Air Cleaning Components. (Use with VH models.)

Figure 5



ITEMS	DESCRIPTION	FUNCTION
1. Fig. 4 & 5	Charcoal Filter Replaced at least MONTHLY	The Charcoal Filter helps to remove odor generated during cooking. This comprises the third and final stage of the air filtration system used in the Ventless Hood System. It is mounted in a slide-rack directly above the EAC. Disconnect fryer power before removing this filter. NEVER attempt to clean a Charcoal Filter. Keep a spare filter on hand (part # 30248) for quick change-out when needed!
2. Fig. 4 & 5	Electronic Air Cleaner (EAC) Cleaned DAILY	The EAC is an electrical device which removes grease vapor and smoke generated by the fryer during cooking. The access panel on the front of the upper hood portion must be removed to allow for access to the cell. Power must be turned OFF to the fryer before removing the EAC for cleaning. The EAC should be cleaned daily.
3. Fig. 4	Baffle Filter Cleaned DAILY	The Baffle Filter is the first stage of the three-part grease extraction and air-cleaning system found on these units. It is easily removed for daily cleaning. DO NOT remove the Baffle Filter while the fryer is operating to prevent contact with electrical parts and avoid electrical shock.

Fryer Components and Their Function

3 - 4 Cooking Computer Features

To help you understand the many programming features of the cooking computer, we strongly suggest you read the following:

MELT CYCLE

This melt cycle is shipped to you OFF and must be turned ON for those fryer users who occasionally or regularly use SOLID SHORTENING. (Shortening which is slushy at room temperature is not considered solid.)

For SOLID SHORTENING users, the melt cycle typically increases a 335°F (168°C) initial daily preheat time to 45 minutes. The ON melt cycle with SOLID SHORTENING prevents solid shortening from scorching and greatly reduces the chance of a solid shortening oil fire on initial preheat.

It is the responsibility of you, the end user to tell your equipment supplier/installer of any solid shortening use so they can program your melt cycle "ON".

In the event your equipment supplier cannot be reached to set up your controller for melt cycle operation, you can call our factory service department toll free at 1-800-288-1555 and we will tell you how to set the controller to the melt cycle mode.

COOL DOWN CYCLE

After any of your 8 menu time cycles end (00.00) and your fryer is not required for use for an hour or more, you can reduce energy costs by pressing the "COOL" key. This key will allow the hot oil to cool down to 275°F (135°C) for stand by use. When your fryer is required for use after being in the "cool cycle", merely press the COOL key again and the fryer will go back to the last lighted menu key's programmed temperature. When the orange heat light goes off in approximately 3-4 minutes, stir the oil vigorously until the orange heat light comes on again. When the light goes off for a second time, the oil will be ready for use.

FILTER CYCLE AND ALARM

The Chester Fried chicken program recommends you filter your oil after every 4th full load of chicken. Filtering cleans the breading sediment out of the fry pot and removes contaminants from the oil. The filtering process can greatly extend the oil life. At the end of every 4th load, "FILT" will flash up on the display and a repeating 2 sec on / 2 sec off sound alarm will be heard. The filter alarm indicates it is time to filter the oil.

NOTE:
The sound alarm can be silenced by pressing the "FILTER" key.

Fryer Components and Their Function

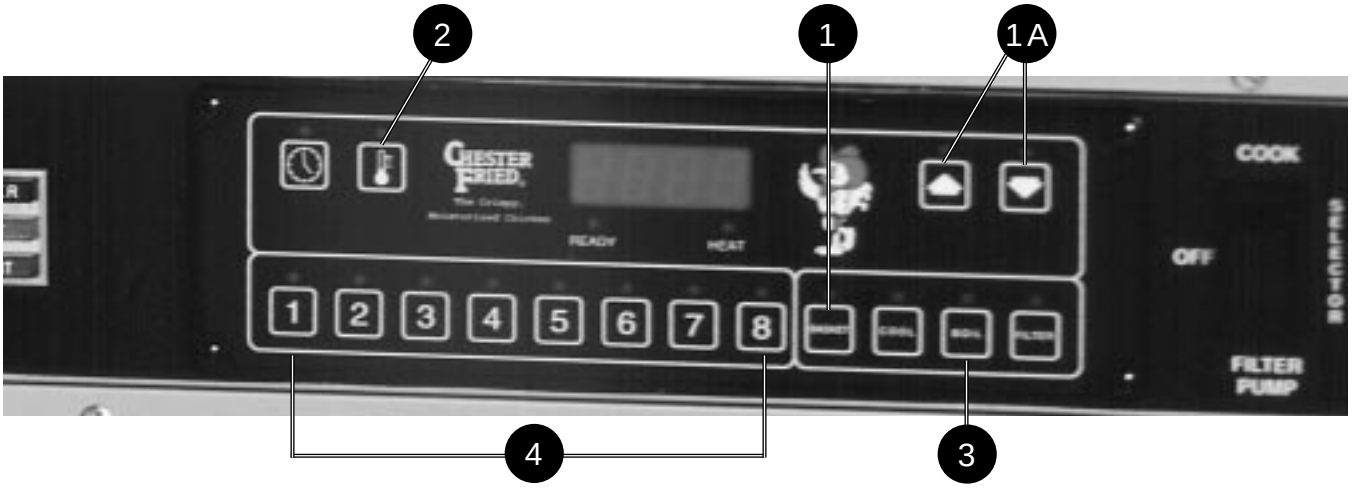
STIR CYCLE AND ALARM

Your fryer is equipped with a stir message and a repeating one second on / one second off sound alarm telling you it's time to stir your product. This feature is a Chester Fried preset time of 62% of each of the 8 menu times previously set to prevent the chicken from sticking to itself. When the stir alarm sounds, stir the chicken and then silence the alarm by pressing the lighted menu key once.

END OF MENU ALARM

At the end of each of 8 menu key times (00.00), the fry basket will come up and a 10 second continuous sound alarm will be heard. To silence the alarm before 10 seconds are up, merely press the lighted menu key once.

3 - 5 Computer Function Keys



The following is a description of the basic function and operation of your cooking computer's key pad.

1. Basket key
   When the basket is pressed once, the up and down arrow keys blink. If the basket is up, it can only be lowered using the down arrow (▼) key. Once the basket key is pressed, you have 20 seconds to select your basket arrow direction or you must push it again after the basket key light goes off. Once the basket key is pressed, and the proper arrow key is pressed within 20 seconds, the basket travels either up or down. Any menu cycle can be started while the basket is in motion. **The basket cannot be stopped during its up or down travel.** Allow 20 seconds for the basket travel time to change basket direction of travel if required.

2. Temperature Bulb Key
   To check the temperature setting of any lighted menu key, simply press the Temperature Bulb Key and for 3 seconds the temperature will display and then return to 00:00 or the time remaining in that menu countdown.

Fryer Components and Their Function

3. Boil Cycle Key
   (For use with boil out procedure portion of this manual only!)
   The boil cycle feature is used for cleaning the fryer by using fryer heated cold water & Chester Clean (part #71425). When the Boil key is pressed and held for 5 seconds, and no menu is active (00:00), the red boil light will come on and the display will alternately flash boil and 00:00 This activates a fixed temperature setting of 200°F (93°C). The water and Chester Clean will not boil at 200°F (93°C), but it will clean the fry pot and keep the Boil-out solution from possibly boiling over on the floor.
   a. When this cycle is considered complete (fryer clean), turn off the fryer power rocker switch.
   b. Drain, wash out and dry the fry pot.
   c. Refill with room temperature oil to ¾" (1.9cm) below the oil line before turning fryer on!
   When the fryer is turned on, the computer will heat the oil to the menu 1 key temperature. To heat it to a different menu key temperature, merely press your desired menu key twice.

4 Menu Keys 1 Through 8
   At the end of any menu 1-8, the 10 second long continuous alarm can also be silenced prior to the 10 second ending by pressing the lighted menu key. When counting down time without the alarm sounding, pressing the lighted menu key will reset that menu key to 00:00. You cannot raise the basket when canceling out a menu in progress by pressing the lighted menu key! The basket can only be raised by pressing the basket key and then the up arrow.

Your cooking computer has many various capabilities to meet may special end user needs. Our service department at 1-800-288-1555 stands ready to answer special questions. We can adjust the end of menu alarm, both loudness and sound pattern. We can also easily give you time compensation, as well as several other special performance items only a world lass computer can perform!

3 - 6 Cooking Computer Programming

The first step is to determine the time and temperature for each product. The CF 400 and 500 recommended times and temperatures for fried chicken are 335°F (168°C) for 13:00 minutes. Channel 1 is the only menu key programmed for 335°F (168°C) and 13:00 minutes when you receive your fryer. All other menu keys will require programming or reprogramming. Menu keys 2 through 8 will be preset to 200°F (93°C) for 00:00 time and cannot be accessed to cook on until programmed (details on following page) with a product time and temperature.

How to Program Menu Temperatures & Times on Menu Keys 1 thru 8

1. Press power rocker switch to on. (Green indicator light comes on)

2. Press  &  keys simultaneously for (6) seconds until **SP 1** flashes alternately with the preset menu temperature.

3. Press desired menu key to be programmed. (Red light comes on over key)

4. Press  &  keys to desired menu temperature.

5. Press lighted menu key again **t 1** flashes alternately with set time.

6. Press  &  keys to desired menu time in **min:sec**

7. Press next menu key for programming if desired & repeat steps 4 thru 7.

8. When menu keys are programmed press  & **LOC** appears. If you want all entered menu temperatures & times secured press  & **1** will be displayed. If you don't want program security press  & **0** will be displayed.

9. Press  once more & you will exit program mode & **00:00** appears.

10. After orange heat light goes off, pressing any programmed menu key will start that menu temperature/time cycle. **Always press the menu key after last piece per load is dropped in the basket.**

IMPORTANT NOTE:
During the above process, if no keys are pressed for 60 seconds the computer will jump out of the program mode & you will have to start over if your programming is not complete. Any of your programmed temperatures & times will be retained unless reprogramming occurs.

Testing the Fryer

We at Chester Fried take pride in the quality of our workmanship. Every effort has been made to ensure your unit is in good operating condition when you receive it. Each unit must pass a rigorous quality control test prior to shipment. To further ensure optimum operation of your new unit, we recommend a brief operational check-out of your new fryer.

CAUTION

Before attempting to operate the unit, refer to Section 3 to familiarize yourself with the various control functions. Once you have read and fully understand Section 3, please follow the steps below precisely in order to prevent equipment damage or malfunction.

4 - 1 Proper Control Settings for Check-Out

1. Place all switches in the "OFF" position.
2. Remove Fryer lid.
3. Remove the baskets or other accessory items from the fry-kettle.
4. Turn on the circuit breaker which supplies power to the unit.
5. Place the fryer's main Power Switch to "ON". The green power light should be illuminated. If the power light fails to illuminate, refer to the appropriate section of the troubleshooting guide. If the green power light illuminates, proceed to the next step.

4 - 2 Operational Check of Heating Elements

This step is designed to ensure your fryer's heating elements are functioning.

WARNING

DO NOT touch the heating elements during this portion of the check-out. The heating elements are very hot and skin contact with them may result in severe burns.

1. Wipe the dry cool heating elements with a wet sponge.

CAUTION

This portion of the check-out requires the elements be activated. DO NOT operate the elements for more than 10 seconds without them being fully covered by shortening. Failure to observe this precaution may result in damage to the heating elements.

2. With the fryer's lid removed, briefly turn the Selector Switch to the COOK position (max. 10 sec.). Then return it to the OFF position.

Testing the Fryer

3. The wet element should dry within 15 seconds after fryer element shut-off signifying heat.

4. If the elements do not appear operational, refer to the troubleshooting guide.

5. If the heating elements are operational, clean the fryer as described under instructions for the boil-out procedure described in this manual.

6. After thorough cleaning, fill fry pot to proper level with shortening.

4 - 3 Operational Check-Out of the Filter Pump

1. Open the fryer's front door.

2. Disconnect the filter-pan hose by lifting the insulating ring on the quick-disconnect and pull the hose out of this fitting

CAUTION

The following step requires starting of the fryer's filter pump in a "DRY" condition. The pump should only be operated for a few seconds in this manner or damage to the unit will occur.

3. Place the fryer's Power Switch to the "ON" position.

4. Place your palm over the quick-disconnect at the point where the nose from the filter-pan connects.

5. Briefly place the Selector Switch in the "FILTER" position. If suction is felt on the hand covering the quick-disconnect, the pump is operational. If the above steps are followed and no suction is felt, consult the troubleshooting guide.

Preparing the Fryer for Operation

Your new fryer should be cleaned thoroughly before actual cooking takes place. To accomplish this, follow the procedure described in the following Boil-Out Procedure section.

5 - 1 Fryer Boil-Out Procedure

This section describes the cleaning process for your fryer known as the "Boil-Out". A "Boil-Out" should be performed on the new equipment prior to actual cooking and every time shortening is removed from the fryer for cleaning of the fry-kettle and refill with fresh shortening.

WARNING

Please perform the steps of this procedure as described to avoid possible equipment damage, violation of warranty provisions or personal injury.

1. Always use thermal oven mitts during this procedure to protect skin from burns due to splashing of hot liquids.

2. If you are performing a "Boil-Out" on a new fryer which DOES NOT contain shortening, go to Step 19, otherwise proceed to Step 3.

3. If the shortening in the fryer is not in a heated state (at least 200°F) (93°C), go to Step 4. If the fryer has been in operation and the shortening is in a heated state, place the Selector Switch in the "OFF" position and allow the shortening to cool for 2 minutes before continuing.

4. If the shortening in the fryer is "cold", that is at room temperature, you must first heat the shortening briefly so it is liquid enough to be removed by the fryer's filter system. To do this, turn the main Power Switch to "ON" and the Selector Switch to "COOK". Set the Controller temp. to 200°F (93°C) and heat the oil until the orange heat indicator light goes on. Stir the shortening well to ensure it is fully dissolved. Stirring may cause the orange heat light to come on again briefly. When the orange light goes off again, place the Selector Switch in the "OFF" position and go to Step 5.

5. Ensure the Selector Switch is in the "OFF" position before proceeding.

WARNING

The next step of this procedure requires the shortening be drained from the fry-kettle into the fryer's Filter Pan. Failure to ensure the fryer's Selector Switch is in the "OFF" position prior to draining, may result in fire on the exposed heating elements. Always ensure the Selector Switch is in the proper position and the operator is wearing insulated oven gloves.

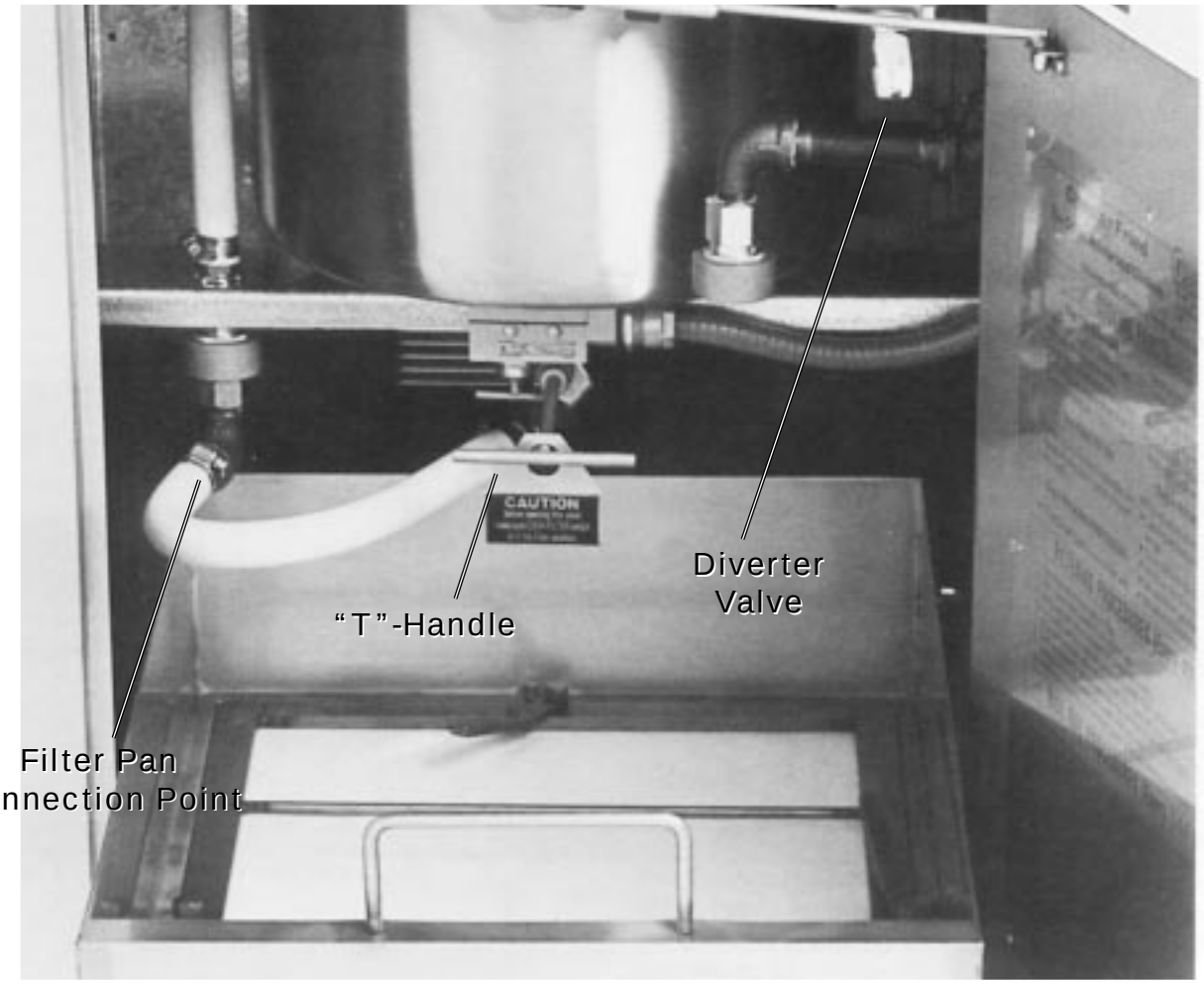
6. Slowly open the T-Handle located on the drain beneath the fry-kettle. The drain is opened by turning it counter-clockwise. Use care in opening this valve to avoid being splashed by hot oil. (You may find the drain requires insertion of the smaller brush enclosed with the fryer in order to free the valve of breading which may clog it. The brush should be inserted from above. Be careful not to puncture the filter paper when using this brush.)

7. Ensure the Diverter Valve is positioned so it's handle points toward the operator.

Preparing the Fryer for Operation

8. Place Pump Switch in the “ON” position and allow shortening to return to the fry-kettle and out through the drain. Use this opportunity to “Wash-Down” breading which has accumulated in the bottom of fry-kettle. Use the larger pot brush supplied with the fryer to help “Wash Down” this material into the filter-pan below. Use care to avoid being splashed and burned by the hot oil.

Lower Cabinet Area
Figure 6



Preparing the Fryer for Operation

9. After “Washing Down” all accumulated breading and crumbs from the bottom of the fry-kettle, place the Pump Switch in the “OFF” position and allow the shortening to drain into the Filter Pan.

10. Turn the T-Handle on the drain valve clockwise to close.

11. Position an appropriate receptacle for the oil you are to discard near the front of the fryer. Remember, you will be removing approximately 7 gallons (26.6L) of shortening. Please ensure the container which you have selected will contain all of the shortening. For ease in handling you may find it helpful to use more than a single container. The shortening you will remove weighs about 45lbs. (20.5k) and is still very hot. Placing the discarded shortening in two or more containers for removal makes for a lighter load and decreases the possibility of injury by splashing. We recommend our Oil Caddy (Part #79229A) for this purpose.

WARNING

Always ensure the containers which are used for this step will safely hold hot oil. Plastic is generally not safe as it may melt and break. Metal containers which do not leak are preferable to containers made of other materials. Failure to exercise the above precautions may result in serious injury.

12. Connect the discharge drain hose to the quick disconnect located beside the Diverter Valve. Always ensure the hose coupling is securely mated at the quick disconnected fitting.

13. Turn the handle on the Diverter Valve to the left (Clockwise).

14. Position the hand-held wand end of the discharge hose over the receptacle which you have positioned to receive the HOT waste oil from the fryer. Always grasp the discharge hose by the insulated sleeve near the wand end.

15. Place the Selector Switch in the “FILTER” position and allow the fryer filter system to pump the HOT waste oil out of the fryer through the drain hose.

16. When all waste oil has been removed from the fryer, return the Selector Switch to the “OFF” position.

17. Return the diverter handle to its normal position so it points towards the operator.

18. Disconnect the drain hose from the fryer at the quick disconnect fitting below the Diverter Valve. Always hold both ends of the drain hose in an upright position to avoid spillage of residual oil which may be trapped in the hose. Carefully drain the hose into the receptacle which contains the waste oil from the fryer.

19. Disconnect the Filter Pan from the fryer at the quick disconnect fitting located above and to-the-left of the Filter Pan.

20. Remove the pipe-drain from the fry-kettle drain valve threading it in a counter-clockwise direction.

21. Slide the Filter Pan forward and carefully remove it for cleaning.

NOTE:
We recommend you use Chester Clean or an alkaline based cleanser to clean the Filter Pan. Avoid liquid dish washing detergents as they may leave residues which reduce shortening life.

Preparing the Fryer for Operation

22. Ensure the drain valve is closed by turning the T-Handle fully clockwise.

23. Fill the fryer with water to the Oil Level Line.

24. Carefully add Chester Clean to the water following the directions on the container.

CAUTION

If you choose to use a cleaner other than Chester Clean to "Boil-Out" your fryer, pay close attention to the instructions listed on the container. Many commercially available cleaners are caustic chemicals which require special precautions for use. If used improperly, these chemicals may cause damage to your fryer and potential injury to the user.

25. Set Thermostat to 200°F (93°C).

CAUTION

Do not under any circumstances leave the fryer unattended during this procedure as heat must be carefully monitored to prevent the fry-kettle from overflow due to boiling. Overflow of the fry-kettle may result in serious equipment damage. In the event of near boil over, flip the Power Switch off!

26. Set the Selector Switch in the "COOK' position.

27. Heat the cleaning solution for 30 minutes. Scrub the interior of the fry-kettle with the large pot brush during this period to remove build-up.

28. Flip Selector Switch to the off position.

29. Position a heat resistant pail beneath the drain valve at the bottom of the fry kettle. Slowly open the valve by turning the T-Handle counter-clockwise. Drain the cleaning solution from the fryer. Be careful not to overfill the container which will hold the cleaning solution drained from the fryer.

30. Close the drain valve by turning the T-Handle fully in a clockwise position.

31. Rinse the inside of the fry-kettle with fresh water and repeat the drain procedure described in step 29.

32. Mop out excess water from the fryer pot with a dry cloth.

33. Close the drain valve again.

34. Replace Filter Pan after thorough cleaning.

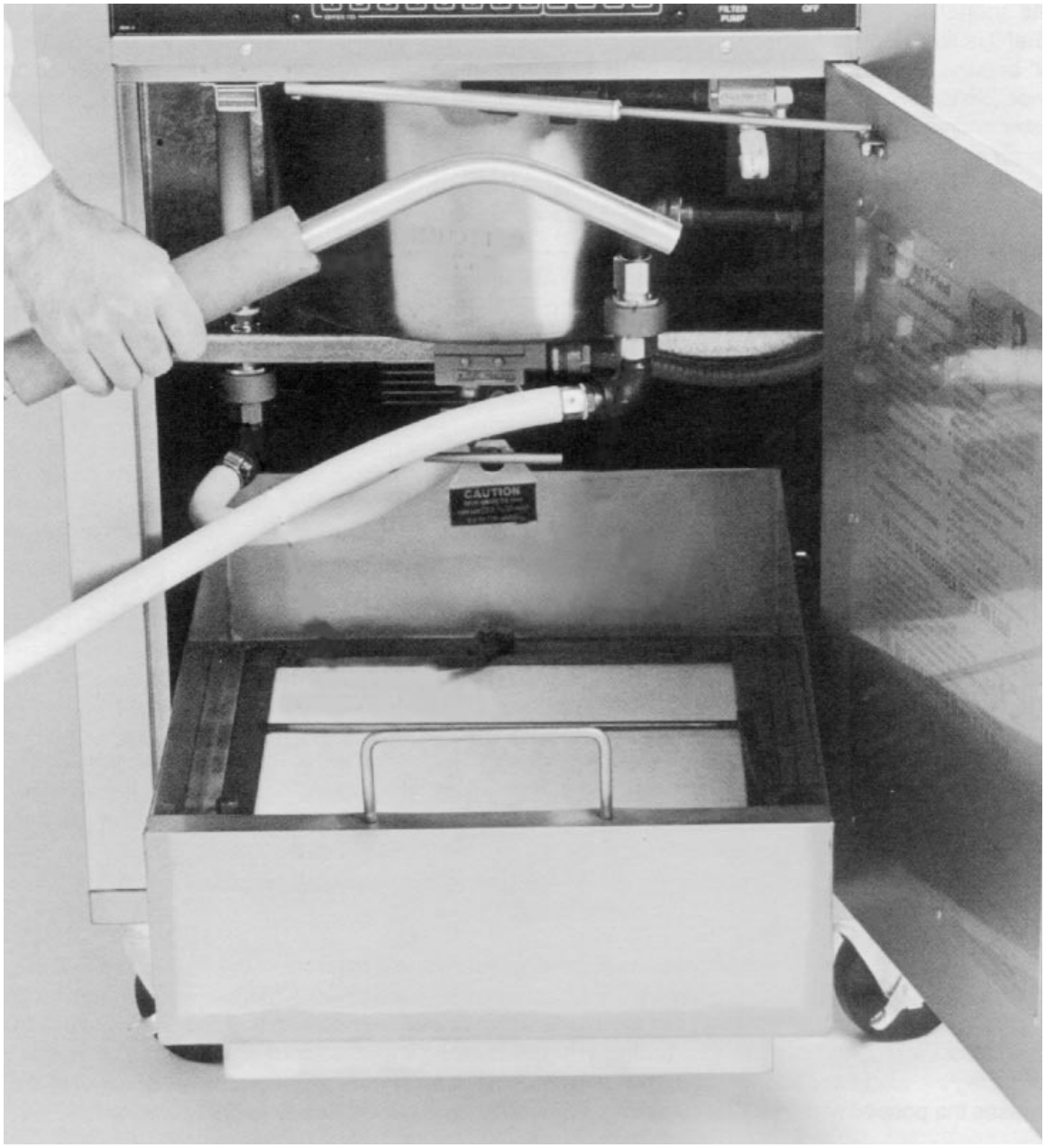
35. Fill fryer with shortening to the proper level. Shortening should reach the Oil Level Line when the oil is HOT.

CAUTION

Do Not pump "Boil-Out" through filter pump. Doing so can damage pump and void warranty.

Preparing the Fryer for Operation

Filter Pan Shown with Drain Hose Attached
Figure 7



Preparing the Fryer for Operation

5 - 2 Cleaning of Filter Pan/Replacement of Filter Paper

The following steps should be taken with the Filter Pan removed from the fryer. The Filter Pan should be thoroughly cleansed during each "Boil Out" procedure. Do not attempt to clean the Filter Pan when pan is still in fryer cabinet.

1. Remove accumulated breading and residue from the surface of the filter paper with the metal crumb shovel supplied with the fryer. Remove residue from the small edge which surrounds the Hold-Down frame.

2. Release the four Hold-Down latches which secure the frame which holds the filter paper in place.

3. Remove the Hold-Down frame from the Filter Pan and place it in the sink for cleaning.

NOTE:
Use only Chester Clean or a suitable alkaline based cleaner to clean the Hold-Down frame as well as the other interior surfaces and components of the Filter Pan. Liquid dish washing detergents may leave residues which reduce shortening life.

4. Beginning at one end of the Filter Pan, carefully roll up the filter paper and throw it away.

5. Remove the metal weave beneath the filter paper and place it in the sink for cleaning.

6. Drain any remaining oil from the bottom of the Filter Pan into a proper waste receptacle. You must lift and tilt the Filter Pan to accomplish this. The Filter Pan is heavy, so you should have assistance.

7. Clean the interior of the Filter Pan with one of the cleaners previously recommended. Clean beneath the oil pick-up tube located in the bottom of the Filter Pan with a knife blade or other similar thin, flat instrument. Rinse the pan interior and mop out excess water with a dry cloth or paper toweling.

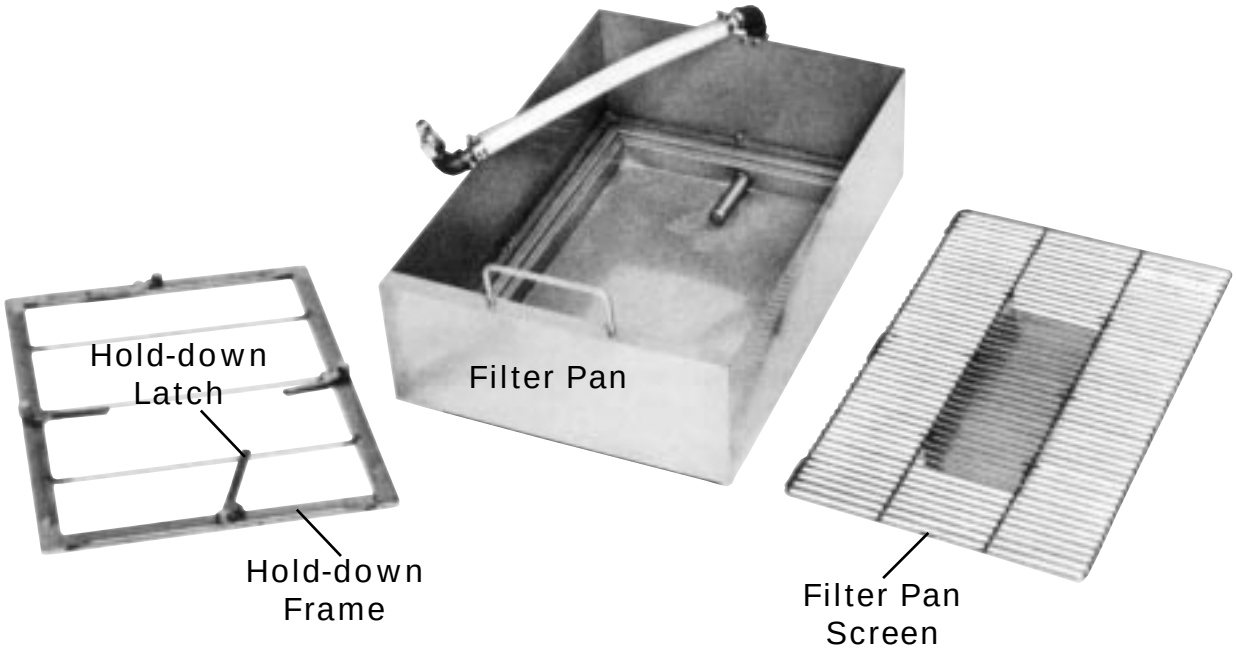
8. Clean and rinse the wire rack and Hold-Down frame which you placed in the sink earlier. Dry them. The Filter Pan is now ready for re-assembly and installation of new filter paper.

   Two sheets of paper are used in the Filter Pan. The Filter Pan must be removed from the fryer to change the filter paper. Both sheets should be changed following a "Boil-Out". During normal operation, the top sheet is discarded on a daily basis. The bottom sheet is then placed on top of a new sheet of filter paper and the filter paper is replaced in the Filter Pan with the Hold-Down frame. The following simple steps summarize the procedure for replacement of the filter paper on a daily basis.

   Daily filter paper replacement is recommended!

Preparing the Fryer for Operation

Disassembled View of Filter Pan; All Models
Figure 9



IMPORTANT NOTE:
DAILY Filter Paper Replacement is Recommended!

Instructions for changing the Filter Paper:

1. Remove the crumb and breading residue which surrounds the Hold-Down rack that secures the filter paper in place.
2. Remove crumbs and breading residue from the top sheet of filter paper with the metal crumb shovel supplied with the fryer.
3. Release the four Hold-Down latches on the frame assembly which secures the filter paper.
4. Remove the Hold-Down Frame.
5. Carefully remove the top sheet of filter paper by lifting its corner or edge and rolling it towards the other end. Discard the paper.
6. Lift the edge of the bottom sheet and slip a clean sheet of filter paper beneath it.
7. Replace the Hold-Down rack above the filter paper and secure it with the four latches.
8. Replace the filter in the fryer and secure its hose connection with the quick disconnect fitting.

Preparing the Fryer for Operation

5 - 3 Cleaning considerations for Chester Fried Ventless Hood System

Ventless hoods are designed to remove grease vapors from the cooking operations and re-circulate the cleaned air. The catch and hold principal of the recirculating system means you must perform daily cleaning of the EAC and baffle filter. In addition, the charcoal filter, which helps remove offensive odors associated with cooking, must be changed every 30 days. Failure to replace or clean these filters in a timely manner may result in unpleasant odors and poor performance by the air-cleaning section of the hood.

WARNING

Disconnect power before cleaning hood to prevent electrical shock or personal injury!

NOTE:
Empty the Grease Cup at least once DAILY.

Cleaning the Baffle Filter and Electronic Air Cleaner (EAC).

The most efficient air cleaning performance your new Ventless Hood can offer is yours when you clean the Baffle Filter and EAC after every days use! Costs when using the Chester Fried Portable Soak Tank System are massively reduced and speed is on your side. This small tank holds the EAC, cold water and degreaser. It only needs to be changed monthly in most cases.

Recommended Cleaning Procedures:

1. CLEAR MAGIC degreaser for the Portable Soak Tank System is available at your local retail store in the automotive department. A one-gallon container will last 60 days or more!

2. Empty ½ gallon (1.9L) of Clear Magic degreaser into your Chester Fried Soak Tank and add about 6.5 gallons (25L) of COLD WATER. CLEAR MAGIC/WATER mixture should cover EAC. Add additional water at this time to cover EAC.

3. At the end of each cooking day, remove EAC and gently lower into the Soak Tank. Let soak for 10-20 minutes. Please note the EAC is lowered by holding the red or white terminal board instead of the metal or plastic front handle (i.e. the 20" (51cm). (EAC dimension goes vertical.)

4. After 10-20 minutes, lift EAC in the soak tank up and down 1-2" (2-5cm) in soak tank to help remove grease residue.

5. Slowly remove the EAC from the tank and rinse clean in sink using HOT WATER.

6. Leave EAC in the sink to dry on end as placed in the soak tank.

CAUTION

Be careful not to bend the fins or break the ionizer wires on the EAC as this will prevent the EAC from working properly and shut off the power to the appliance being used with the hood.

7. Re-install both parts at the beginning of each day.

8. CHANGE SOAK TANK SOLUTION AT LEAST MONTHLY by dipping it out and into the sink. NEVER LIFT THE SOAK TANK TO EMPTY.

9. Clean the Baffle Filter DAILY by simply spraying and rinsing residue from the filter with HOT water and letting it dry.

5 - 4 Removal and Replacement of Filters

To Replace the Charcoal Filter or clean the EAC, perform the following steps:

1. Place the Ventless Hood System's Power Switch in the "OFF" position.

WARNING

Failure to ensure the Selector Switch is in the "OFF" position during the procedure, may result in equipment damage, electrical shock and/or personal injury.

2. Release the catch which secures the access panel located on the lower front portion of the hood system. Remove the access panel.

3. The Charcoal Filter is located directly above the EAC. Remove the Charcoal Filter by grasping it by the edge and pulling outward. (See Figures 8 & 10.)

4. Discard the used Charcoal Filter and install the replacement filter with the blue side facing the EAC.

IMPORTANT NOTE:
Never attempt to clean the Charcoal Filter. Keep a spare filter on hand (part # 30248) for quick change-out when needed!

5. Remove the EAC by grasping the handle and pulling outward. (Care should be given not to bend the fins or break the ionizer wires.)

6. After cleaning, reinstall the EAC with the ionizer wires facing down.

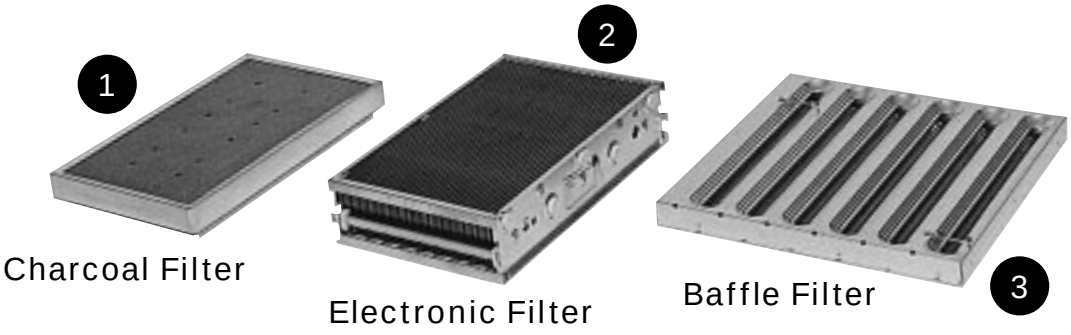
7. To remove the Baffle Filter, push the front end of filter upward and slide toward front of the hood. Let the back end of the filter down and remove filter from hood. (Use Caution when grasping filter by openings to prevent being cut by sharp edges.)

8. To replace Baffle Filter, reverse step 7. (Be sure to install filter so interlock arm is activated when the filter is in place. Failure to do so will prevent the appliance from operating.)

Preparing the Fryer for Operation

Upper Hood Area Showing Location of Components
Figure 8

Air Cleaning Components
Figure 10



Preparing the Fryer for Operation

5 - 5 Operating the Fryer's Controls for Cooking

Before cooking with the fryer, ensure you have read and fully understand the intended functions of each control used on the fryer. Detailed explanations are found in Section 3 of this manual.

1. Fill fryer with shortening approximately ¾" (1.9cm) below the oil level located at the back of the fry kettle. The oil level line is for Hot shortening and additional shortening can be added after heating if necessary.

2. Place the fryer's Power Switch in the "ON" position (the green power light should come on).

3. Place the Selector Switch in the "COOK" position.

4. Use the Cook keys to select the desired cooking temperature. The Orange Heat Light will glow as the oil is heated to the proper temperature. When the Orange Light goes out, stir the shortening vigorously to ensure it is completely heated. Stir the shortening until the Orange Light comes on again.

5. When the Orange Light goes out for the second time, the shortening will be at the selected cooking temperature.

6. Properly secure the fry basket to the Basket Carrier mounted to the fryer's Elevator Shaft.

7. Push the Elevator Down Key. This will lower the basket into the heated shortening.

8. Carefully drop breaded food product into Fry Basket. Avoid splashing hot shortening. Note - Food products should be placed in the fry basket after it is lowered into the hot oil. This prevents them from sticking together. If the products to be cooked are frozen, they can be placed in the fry basket before lowering it into the shortening.

9. Push the desired menu key on electronic timers to start the timing cycle.

10. Place the fryer lid in its proper position on the fry-kettle. Note - If you are cooking products which are not frozen, it is a good idea to remove the lid and stir the food with the stir paddle supplied with the fryer when the stir alarm sounds. This will help keep the food products from sticking together.

11. If you have removed the fryer lid to stir the food products, replace it and allow the cooking cycle to be completed.

12. At the expiration of the selected time, the basket will be automatically lifted from the fryer.

13. Remove the lid, dump the fry basket into a suitable container (LT-3. Pan Part #79592A), and prepare for the next load.

Preparing the Fryer for Operation

5 - 6 Filtering the Fryer

The fryer should be filtered after every 4th load.

1. Use thermal oven mitts during this procedure to prevent burns from hot oil and metal surfaces of the fryer.

2. Ensure filter paper (2 pieces) is properly positioned in the Filter Pan as described in Section 4-2 under the section detailing replacement of the filter paper.

3. Place the Selector Switch in the "OFF" position.

WARNING

Failure to ensure the Selector Switch is in the "OFF" position during procedure, may result in equipment damage and/or personal injury.

4. Spread 12 ounces (.34kg) of Chester Fried filter powder in the Filter Pan. The filter powder helps extend shortening life by removing impurities.

5. Slowly open the T-Handle on the drain valve beneath the fry-kettle. Be very careful to avoid being splashed by hot oil.

6. Use the smaller diameter brush included with the fryer to open any clogs which might develop as you drain the oil into the Filter Pan.

CAUTION

Be careful not to puncture the filter paper when using the brush to unclog the drain valve.

7. Ensure the lever-type handle which controls the Diverter Valve is in the proper position for the filtering operation. The handle should be positioned so it is pointed outward toward the operator.

8. Place the Selector Switch in the "FILTER" position.

9. Leave the drain valve open and allow the filtered shortening to return to the fry-kettle and drain out the bottom through the drain valve. Use the larger brush included with the fryer to "Wash-Down" the fry-kettle and heating elements with the hot shortening as it circulates through the fry-kettle. Continue this for 3 minutes.

10. Close the Drain Valve completely by turning the T-Handle in a clockwise direction. Failure to close down completely will prevent fryer from operating.

11. Allow the filtered shortening to return to the fry-kettle. The oil will begin to bubble as the pumping action is completed, and the air fills the oil return lines. Place the Selector Switch in the "OFF" position.

12. Ensure the fryer contains the proper shortening level (See Oil Level Line).

13. Place the Selector Switch in the "COOK" position, push a cook key and allow shortening to reach the proper cooking temperature.

Preparing the Fryer for Operation

5 - 7 Inspection and Testing of Safety Interlocks (VH Series Only)

Your Chester Fried Ventless Hood System incorporates an interlock system to ensure the unit is operated in a safe and effective manner. Testing of the interlock system should be conducted monthly in the following manner. Place a check in the box that corresponds to the test being performed. If a problem is found call your service representative.

1. With the Power Switch in the “OFF” position remove the grease baffle. Place the power in the “ON” position and the Selector Switch in the “COOK” position. The heat light should not come on. Turn the Power Switch in the “OFF” position and reinstall the grease baffle into the hood.

2. Remove the EAC and reinstall the access panel. Place the Power Switch in the “ON” position and the Selector Switch in the “OFF” position, wait two minutes then move the Selector Switch to the “ON” position. The heat light should not come on. Return Selector Switch to its “OFF” position. Reinstall the EAC.

3. Remove the charcoal filter following the procedure stated in the section entitled Replacement of the Activated Charcoal filter. Place the Power Switch in the “ON” position and the Selector Switch in the “COOK” position. The heat light should not come on. Return all switches to their “OFF” position. Reinstall the charcoal filter.

4. Place the Power Switch in the “ON” position and the Selector Switch in the “COOK” position. Place a piece of filter paper over the grease baffle. The heat light should not come on. A buzzer will sound in approximately two minutes if the paper is not removed. Return all switches to their “OFF” position. Remove the test paper.

5. For inspection and maintenance of the fire suppression system, refer to Section 6 of this manual.

6. Once every three months, the entire hood plenum and blower sections should be cleaned.

8. Semi-annual inspection should be performed by a qualified fire equipment company.

A Maintenance and Service Log form is provided in this Manual. (See page 35).

Preparing the Fryer for Operation

Check								Initial/ Date
EX: ✓1	✓2	✓3	✓4	✓6			*JQP*	
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1	2	3	4	6	7			
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Check								Initial/ Date
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1	2	3	4	6	7	8*		

1	Grease Baffle
4	Blocked Filter
8	Fire System Inspection
2	Collector Cell
6	Fusible Links
3	Charcoal Filter
7	Clean Plenum and Blower

The proper procedure for inspecting the interlock systems and performing routine cleaning is located in section 2-4 of this manual.

•Semi-annual inspection should be performed by a qualified fire equipment company.

Preparing the Fryer for Operation

Figure 11
VH Series

Fire Suppression System

6 Fire Suppression System

6 - 1 System Description

The fire suppression system used in your Giles Ventless Hood Fryer is an Ansul R-102 Restaurant Fire Suppression System (Standard UL 197 Listed). ***Final installation, charging and testing of the system is to be performed by an authorized Ansul distributor in accordance with the systems listing.***

The fire suppression system is designed and UL listed to provide fire protection for cooking appliances such as fryers. It protects your units, automatically 24 hours per day. The system contains piping, nozzles (both appliance and plenum), and conduit for routing the fusible link cable through the hood.

WARNING

To insure adequate fire protection, DO NOT attempt to cook on this fryer without the fire suppression system installed or serviced!

6 - 2 Installation

Factory Installed

1. Piping
2. Appliance and Plenum Nozzles
3. Tank and mounting bracket
4. Release Mechanism
5. Conduit for fusible links
6. Detector Brackets
7. Pulleys & elbows

Installed by Ansul Distributor

1. Fusible links
2. Wire Rope
3. R-102 Suppression agent
4. Charging cylinder
5. Remote pull station (if required)

Model No.	Prot. Area	Nozzle P/N	Quantity	Description	Fusible Link	Temp. Rating
CF-400 VH	Appliance	Ansul P/N 56929	2	½ N	Globe Tech 317135	135°F
	Plenum	Ansul P/N 56929	2	½ N	Ansul 56811	165°F
CF-500 VH	Appliance	Ansul P/N 56929	2	½ N	Globe Tech 317135	135°F
	Plenum	Ansul P/N 56929	2	½ N	Ansul 56811	165°F

IMPORTANT NOTE:
The appliance and plenum nozzles have been factory installed in the proper operating position. DO NOT MOVE OR ADJUST.

(If nozzles move during cleaning, re-set to the following locations)

Model	Nozzle Direction In Relation to the Front of the Cooking Vat
CF-400	Center of Vat
CF-500	Center of Vat

*Ansul is a registered trademark

Fire Suppression System

Install the fusible links listed below.

1. Fusible Link Installation, Cooking Surface

Model	Supplier	Part No.	Fusible Link Rating
CF-400 VH	Globe	317135	135°F (57°C)
CF-500 VH	Globe	317135	135°F (57°C)

1.a. The fusible link in the plenum area of the hood (in front of exhaust fan) should be Ansul part # 56811 (165°F/74°C).

Tank

A 1.5 gallon tank, Ansul part #415900 is to be used with the system.

Charging Cylinder

101 Model 20 CO_2 Cartridge, Ansul part #17492

Fire Damper

The fire damper has a 285°F (141°C) fusible link.

See the illustrations to help ensure safe and proper installation of your hood. If you have any questions concerning these procedures, contact your local representative or other qualified service persons.

6 - 3 Remote Manual Pull Station

A remote manual pull station for the fire system may be required by local regulations in a path of exit or egress. Ensure the pull station is clearly marked and easily accessible. Check with the authority having jurisdiction for the requirements in your area.

See Giles *Design Installation Recharge and Maintenance Manual* for R-102 Restaurant Fire Suppression System for complete installation instructions.

6 - 4 Maintenance

The fire extinguishing system should ne maintained as outlined in the *Standard for Wet Chemical Extinguishing Systems*, NFPA 17A and the instructions of the installer's systems.

Fire Suppression System

6 - 5 Service

Service of the fire suppression system is to be conducted by qualified fire equipment personnel. As a minimum, field inspection of the Fire Suppression System is to be accomplished semi-annually by qualified fire equipment service personnel. Such maintenance shall consist of the following **(Consult the Giles Enterprises Design Installation, Recharge and Maintenance Manual for complete servicing guidelines).**

Semi-Annual

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 replace 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

Same as above except the fusible links must be replaced.

12 Year

Same as above except for the following.

1. Replace R-102 fire suppression chemical.
2. Hydrostatically test the tank and cartridge.
3. Flow test the regulator

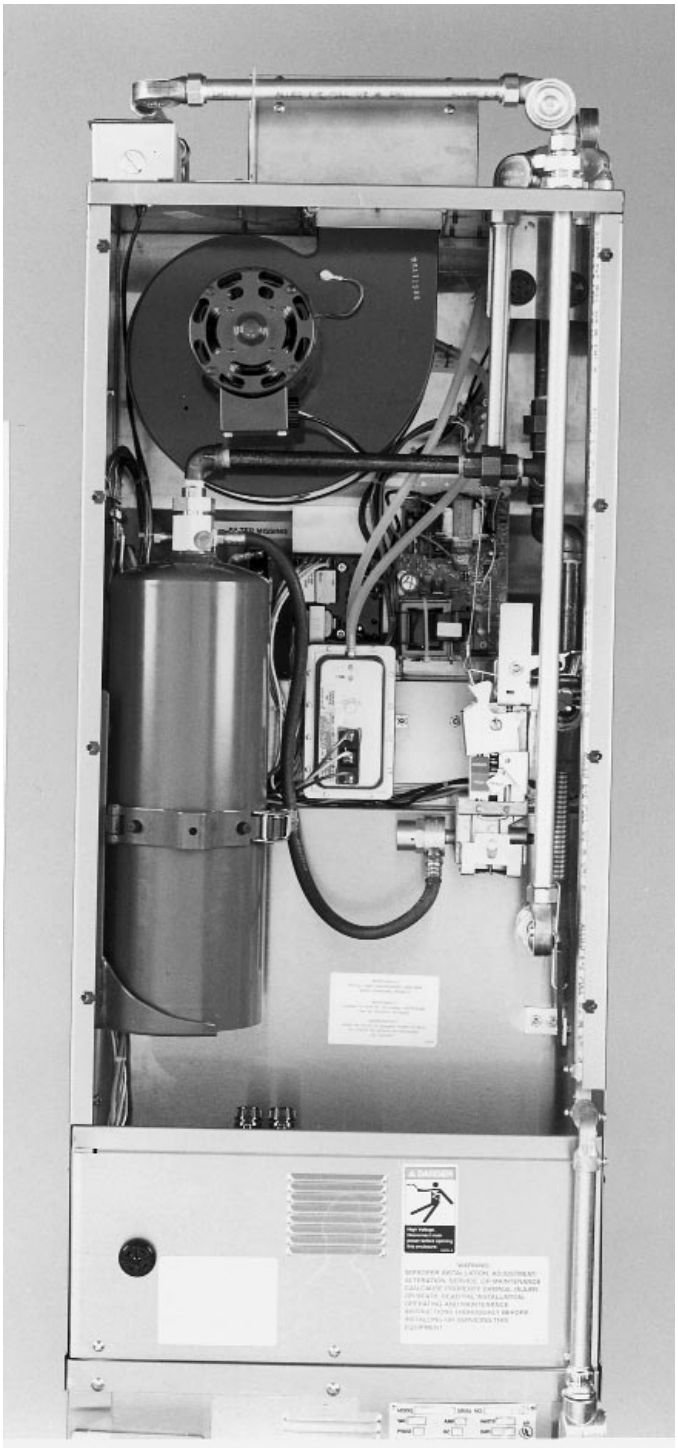
Place fire extinguishing system locking bar on fire system when servicing hood.

WARNING

To insure adequate fire protection, remove fire system locking bar before replacing back and placing unit back in service!

Fire Suppression System

Upper Rear Panel Removed Showing Location of Fire Suppression System
Figure 12



Fire Suppression System

6 - 6 Fire Suppression Illustrations

Assembly, Fire Suppression Plumbing
Assembly, Fusible Link Conduit
Assembly, Manual Pull Conduit
Assembly, Fire Suppression Conduit

Fire Suppression System

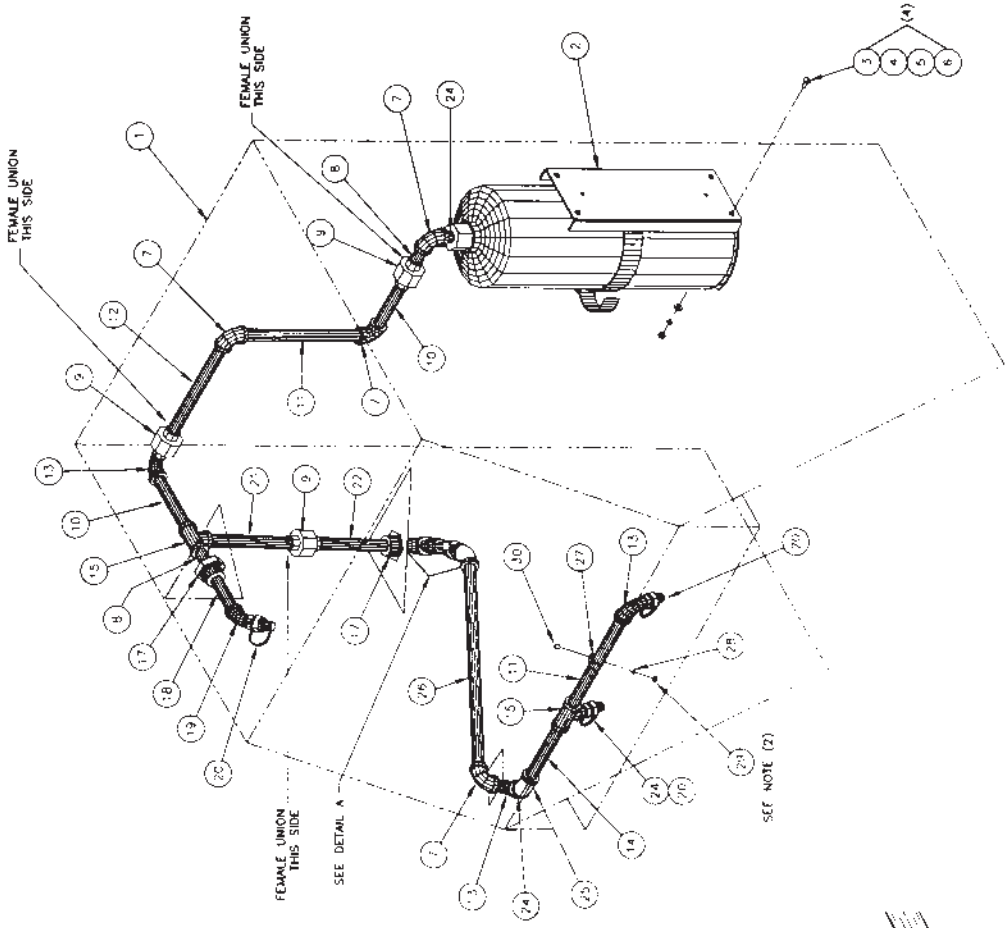
6 - 6 Assembly, Fire Suppression Plumbing

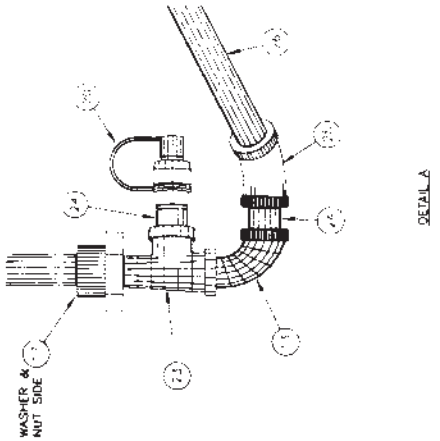
Item No.	Part No.	Description	No. Req'd	Remarks
1	34843	Assy., Elec Comp (Stage 2)	1	
2	40129	Assy., 1.5 Gal Tank w/ Adapter	1	
3	11575	Screw, 10-32 x 1/2 Truss SS	4	
4	11975	Washer, Flat #10	4	
5	12050	Washer, Lock #10	4	
6	11925	Nut, 10-32 Hex	4	
7	45089	Elbow, 3/8 90° Black	5	
8	34927	Pipe, Blk Npt. 3/8 x 1 1/2	2	
9	45576	Union, 3/8	3	
10	34928	Pipe, Blk Npt. 3/8 x 4 1/2	2	
11	30047-2	Pipe, Blk Npt. 3/8 x 7 1/2	2	
12	30929-2	Pipe, Blk Npt. 3/8 x 7	1	
13	42050	Elbow, 3/8 90° Street Black	4	
14	34933	Pipe, Blk Npt. 3/8 x 4 3/4	1	
15	45088	Tee, 3/8	2	
17	46450	Adapter, 3/8 Quickseal	2	
18	34929	Pipe, Blk Npt. 3/8 x 3 1/2	1	
19	46684	Elbow, 3/8 45° Street Black	1	
20	46426	Nozzle, Ansul 1/2 N	4	
21	34930	Pipe, Blk Npt. 3/8 x 6 1/2	1	
22	34931	Pipe, Blk Npt. 3/8 x 5	1	
23	46701	Tee, 3/8 Street Black	1	
24	34886	Pipe, Blk Npt. 3/8 x 1	5	
25	45087	Elbow, 3/8 45°	2	
26	34932	Pipe, Blk Npt. 3/8 x 15 3/4	1	
27	25351	Clamp, 1/2 Conduit	1	
28	11275	Washer, Lock #8	1	
29	11150	Nut, 8-32 Hex	1	
30	10152	Spacer, #6 x 0.250	1	

Fire Suppression System

6 - 6 Illustrations

Fire Suppression Plumbing Diagram





DETAIL A

NOTES.

1.) TAPE ALL PIPE THREADS. TAPE SHALL START (2) THREADS FROM PIPE END.

2.) FASTEN TO STUD LOCATED ON HEADER

Fire Suppression System

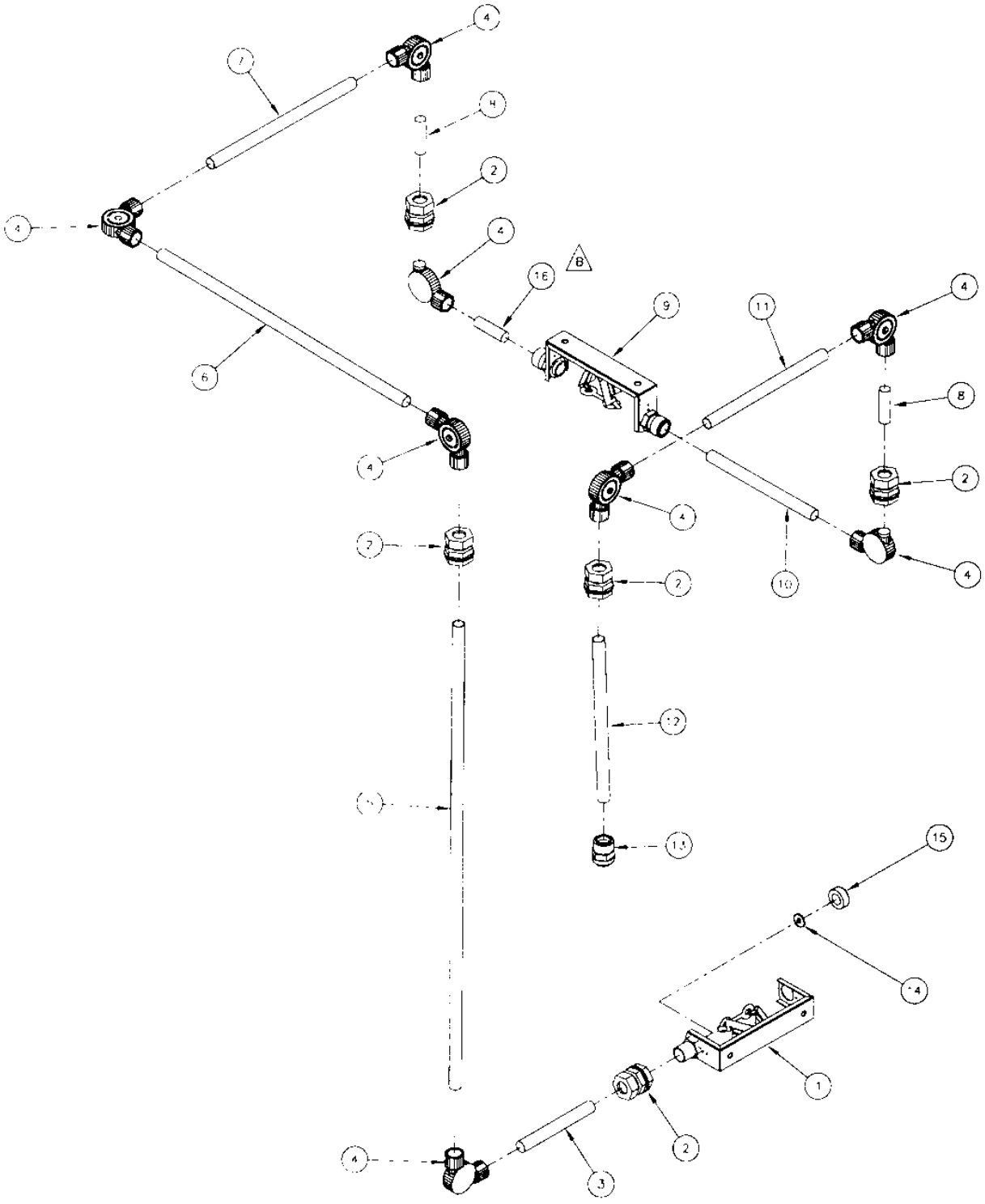
6 - 6 Assembly, Fusible Link Conduit

Item No.	Part No.	Description	No. Req'd	Remarks
1	40133	Detector, Terminal	1	
2	40130	Assy., Hood Seal Adapter	5	
3	30898	Conduit, 1/2 x 6	1	
4	46375	Elbow, 90° Pulley	8	
5	34924	Conduit, 1/2 x 28 1/2	1	
6	34923	Conduit, 1/2 x 18	1	
7	34922	Conduit, 1/2 x 10 5/8	1	
8	30227-7	Conduit, 1/2 x 2	2	
9	40629	Detector, Series	1	
10	34921	Conduit, 1/2 x 7	1	
11	32195	Conduit, 1/2 x 8 1/2	1	
12	34885	Conduit, 1/2 x 10	1	
13	24220	Connector, 1/2 EMT	1	
14	11225	Washer, #8 x 5/8 OD Flat ZN	1	
15	23780	Bushing, 1/2 Plastic Type (A)	1	
16	30893	Conduit, 1/2 x 1 3/4	1	

Fire Suppression System

6 - 6 Illustrations

Fusible Link Conduit Diagram



Fire Suppression System

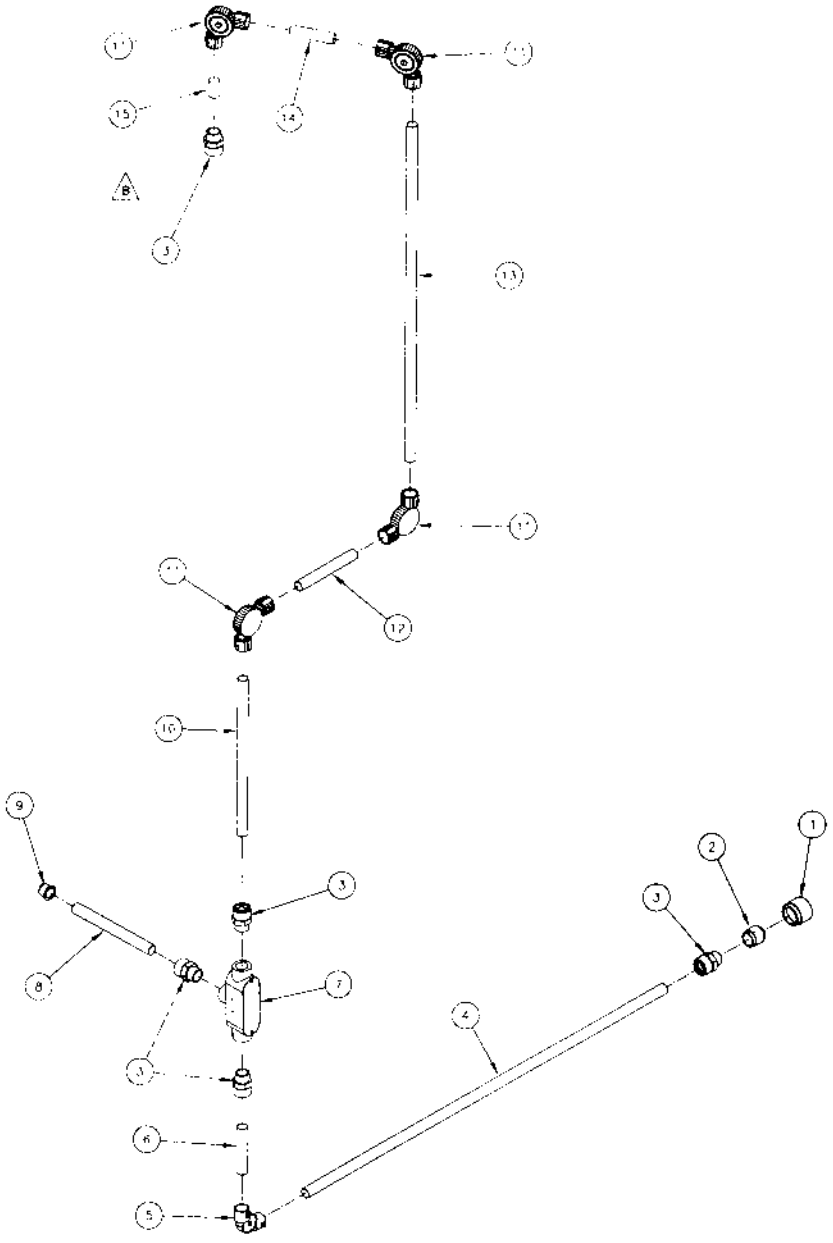
6 - 6 Assembly, Manual Pull Conduit

Item No.	Part No.	Description	No. Req'd	Remarks
1	41905	Coupling, 3/4" NPS Rigid 1		
2	22800	Coupling, Reducing 3/4 x 1/2	1	
3	24220	Connector 1/2 EMT	5	
4	30227-6	Conduit, 1/2 x 28 3/8	1	
5	46025	Pulley, Corner/Set Screw	1	
6	30895	Conduit, 1/2 x 3 1/8	1	
7	46400	Pulley, Pipe (T)	1	
8	30898	Conduit, 1/2 x 6	1	
9	21181	Cap, From Pump	1	
10	34922	Conduit, 1/2 x 10 5/8	1	
11	46375	Elbow, 90° Pulley	4	
12	34925	Conduit, 1/2 x 4 3/8	1	
13	34926	Conduit, 1/2 x 24 1/4	1	
14	30227-7	Conduit, 1/2 x 2	1	
15	34881	Conduit, 1/2 x 1	1	

Fire Suppression System

6 - 6 Illustrations

Manual Pull Conduit Diagram



NOTES:

1.) DEBURRING: PART TO BE FREE OF ALL BURRS & SHARP EDGES.

2.) CONDUIT MUST BE ASSEMBLED INTO FRYER AND HOOD ASSEMBLIES. SEE DWG 34787.

Fire Suppression System

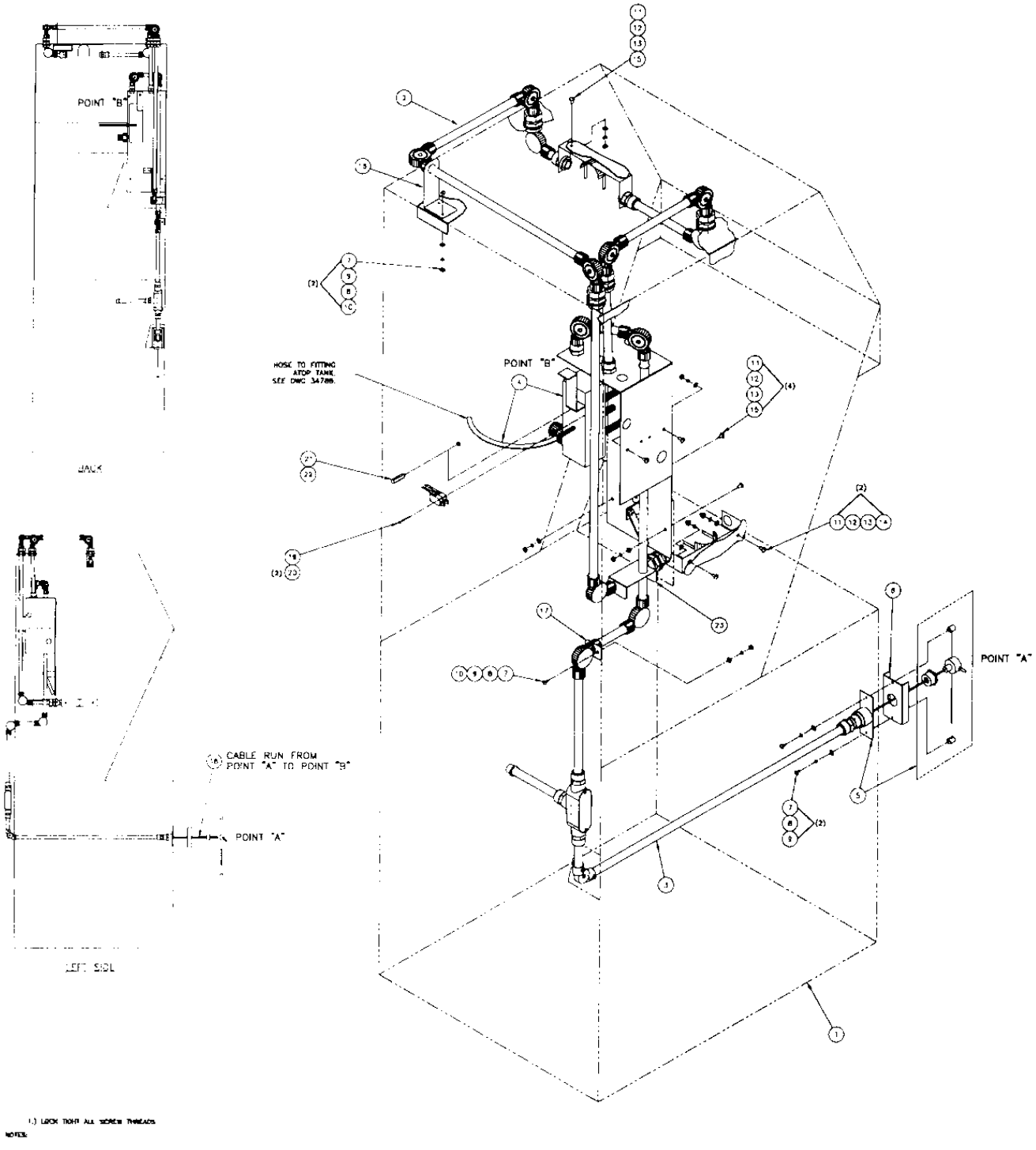
6 - 6 Assembly, Fire Suppression Conduit

Item No.	Part No.	Description	No. Req'd	Remarks
1	34865	Assy., Fire Suppress Plumbing	1	
2	34806	Assy., Fusible Link Conduit	1	
3	30227-6	Assy., Manual Pull Conduit	1	
4	40132	OEM Release/Bracket Assy	1	
5	46300	Remote Manual Pull Station	1	
6	30175	Shield, Manual Pull	1	
7	10800	Screw, 8-32 x 3/8 Trs Slt SS	4	
8	11275	Washer, #8 Lock	4	
9	11225	Washer, #8 Flat	4	
10	11150	Nut, 8-32 Hex	2	
11	11475	Screw, 10-32 x 3/8 Trs Slt SS	7	
12	11975	Washer, #10 Flat 2N	7	
13	12050	Washer, #10 Lock 2N	7	
14	10532	Nut, #10 Hex Head Cap	2	
15	11925	Nut, 10-32 Hex	5	
16	34771	Bracket, Ansul Conduit	1	
17	30756	Bracket, 1 3/4 Conduit	1	
18	20134	Cable, Wire Type 304 S/S (10 ft)	1	
19	20002	Switch, Dpdt 15A 120V	1	
20	- - - - -	Mtg, Bolt (comes w/ switch)	2	
21	- - - - -	Actuator, BRZ Hex Bar w/ thread	1	
22	- - - - -	Nut (comes w/ switch)	1	
23	34943	Bracket, Conduit	1	

Fire Suppression System

6 - 6 Illustrations

Fire Suppression Conduit Diagram



Cooking Instructions

7 - 1 Marinating Process

Marinating is the process by which salt and special spices are absorbed into the tissue to enhance the flavor of the chicken. This procedure is one of the primary factors that accounts for Chester Fried's remarkable taste appeal. Therefore, the marinating process must be implemented and with maximum efficiency.
The Marinating Procedure:

* Draws blood from the chicken.
* Tenderizes the meat.
* Raises the moisture content and the weight of the bird 10 to 12%.
* Allows the flavoring to be absorbed into the tissue of the meat in order to enhance the flavor of the chicken.
* Helps reduce bacteria build up.

Recommended Marinating Procedure

1. Take ¾ cup (177ml) of Chester Fried Marinade and mix thoroughly with 3 gallons (11.4L) of COLD water.
2. Always press the bone through the thigh and fold the wings before marinating them.
3. Place the chicken pieces in the solution and let them soak for 12 to 18 hours at 38°F (3.3°C).
4. Remove the chicken from the marinade water.
5. Rinse chicken with cold tap water and place in proper storage container with colander.
6. Place a thin layer of ice on top of the chicken and store at 38°F (3.3°C).

CAUTION

DO NOT allow the chicken to marinate over 18 hours.

7 - 2 Batter Dip Seasoning

The batter dip procedure is a very important bridge between marinating and breading. The batter seasoning accentuates the flavor of the meat and breading and ensures the breading will stay on the chicken during the frying process.

* Mix 3 cups (708ml) of Chester Fried Batter Dip with 3 gallons (11.4L) of COLD water.

NOTE:
When using the Chester Fried Bread and Batter Table, use 3 gallons (11.4L) of Batter Dip in the Dipper Well.

CAUTION

Change the batter after dipping 140 lb. (63.5kg) of the poultry.

Cooking Instructions

7 - 3 Breading

Breading is the final step before frying . Chester Fried Breadings have been blended according to strict standards and are formulated for great taste.

1. Lightly dust the chicken in the breading mix.

2. Place the chicken back in the Batter Dip Seasoning. Totally immerse the pieces in the Batter Dip two times coating the chicken with this solution. Allow the chicken a few seconds to drip and dump the pieces in the breading container.

3. Thoroughly roll the pieces in the Chester Fried Breading, coating every crevice. Then, place them on the Staging Tray.

CAUTION

NEVER allow the chicken to be breaded in advance of frying. Allowing the chicken to be pre-breaded and sit on a shelf, counter or staging tray of the batter table too far in advance will create and unfavorable hard exterior on the finished product. Excessive time between breading and frying the chicken allows the batter dip, which is water based to penetrate the exterior breading creating a shell effect which ultimately produces an offensively hard exterior.

Cooking Instructions

7 - 4 Loading the Chicken

The weight of the chicken will determine the quantity the cooker can accept and the specific cook time. If each bird weighs 2 ¾ lb. (1.2k). (See chart for product amount).

Piece	CF-400	CF-500
Thighs	10	12
Legs	10	12
Breast	10	12
Wings	10	12
Total	40	48

Dark meat has a higher moisture content than white meat. To guarantee proper cooking, load the dark meat ahead of the white meat. Dark meat is the Thigh (large) and the Leg (small). White meat is the Breast (large), and Wing (small). Place the chicken in the basket in this order: large dark pieces, small dark pieces, large white pieces, small white pieces.

Loading Sequence:

1. Thighs
2. Legs
3. Breast
4. Wings

NOTE:
Cook Time: 13 minutes Cook Temp: 335°F (168°C).

Cooking Instructions

7 - 5 Using IQF and Pre-Marinated Chicken

Good results can be obtained using a marinated IQF or a "pre-marinated" chicken product rather than fresh chicken. Use of a "pre-marinated" product eliminates the need for marinating at the store level. The IQF product should be thawed and processed in the same fashion as fresh chicken.

7 - 6 Stirring the Chicken

In order to protect the exterior coating desired by your customer, your fryer is equipped with a stir message and a repeating one second on/one second off sound alarm telling you it's time to stir your product. This time is a Chester Fried preset time of 62% of each of the 8 menu times to prevent sticking. When this time occurs:

1. Remove the Lid.

2. Take the Stirrer and gently, stir the chicken and then silence the alarm by pressing the lighted menu key once.

7 - 7 Preparing the Potatoes

The preparation for the potatoes plays a vital role in the success of your Chester Fried operation. We suggest you use a white Idaho potato ranging from a 80 count in size. The Idaho potato comes out of the fry-kettle as light and golden in color as your fried chicken. It has a longer shelf life and holds its color better in the Warmer than other potatoes, such as the Russet.

However, there are many different potatoes available on the market and local testing is the only sure way to satisfy your customers.

Potato Wedges

1. Scrub the potato and run it through the Slicer. We have found the potato is in its most desirable state for frying when cut into an eight piece wedge. Some have attempted to cut the potato into a four piece wedge, but our research has shown the eight-piece cut to be more desirable in texture and flavor.

2. Drop the wedges into a fresh marinating solution.

CAUTION

DO NOT marinate the chicken and potatoes in the same container. DO NOT use the same marinade solution more than once. The potatoes need to soak 12 to 18 hours in the solution to give it that Chester Fried flavor.

3. Remove the potato wedges from the marinade water.

Cooking Instructions

4. Lightly Dust the potato wedges in the Breading Mix.
5. Place the wedges in the Batter Dip Seasoning Mix. Totally immerse them in the Batter Dip two times.
6. Thoroughly coat the wedges with the Breading a second time and place on Staging Tray.
7. Place them in the fryer for 8 minutes at 335°F (168°C).

CAUTION

After marinating potatoes, add fresh water to potatoes until ready for use.

Troubleshooting

8 - 1 Temperature Control System with Cooking Computer

Problem	Probable Cause	Repair Procedure
FRYER WILL NOT TURN ON: No power light.	A. Not connected to power source. B. Bad fuse or circuit breaker. C. Fuse holder cracked. D. Power Switch bad. E. Improper supply voltage. F. Hood Cover not closed. G. Fire Suppression not armed. H. (Los Angeles only) "HOLD to START" button not held down for 5 seconds.	A. Connect to proper power source. B. Check fuse or breaker. C. Replace fuse holder. D. Replace Power Switch. E. Connect to proper voltage source. F. Close Hood cover. G. Call local Ansul Dealer to arm. H. Hold down "HOLD to START" button for 5 seconds.
FRYER WILL NOT HEAT: Power light on. Heat light not on.	A. Selector Switch not in cook position.	A. Place selector to switch in Power "COOK" position.
FRYER WILL NOT HEAT: Power light on. Selector Switch in cook position. Heat light not on.	A. Selected menu key programmed below present oil temperature. B. Drain valve open. C. Cooking computer faulty. D. Variable probe shorted or open. E. Loose wire. F. Contactor failure. G. Element bad. H. Selector Switch bad.	A. Set temperature controller to desired temperature. B. Close drain valve. C. Replace Cooking computer. D. Replace probe. E. Repair loose wire. F. Replace faulty contactor. G. Replace element. H. Replace Selector Switch.
FRYER WILL NOT HEAT: Power light on. Selector Switch in cook position. High Limit light On.	A. Power surge. B. Plug not completely in. C. Oil level too low. D. Sticking contactor. E. Bad high limit board. F. High limit probe short or open. G. Line spikes or noise.	A. Turn Power Switch off for 5 sec. B. Reconnect to power source. C. Fill to kettle oil level mark. D. Replace contactor. E. Replace high limit board. F. Replace High limit probe. G. Filter line or remove noise source.

Troubleshooting

8 - 1 Temperature Control System with Cooking Computer

Problem	Probable Cause	Repair Procedure
FRYER HEAT SLOW: (slow recovery) Heat light stays on.	A. Incorrect cooking procedures. B. Element failing. C. Contactor failing. D. Loose wire. E. Low supply voltage.	A. Consult operations manual for proper cooking procedure. B. Replace bad element. C. Replace contactor. D. Repair loose wire. E. Supply proper voltage.
FRYER HEATS SLOW: (short cycling) Heat light off and on continuously.	A. Low supply voltage. B. Variable probe touching element. C. Cooking computer faulty.	A. Supply proper voltage. B. Reposition variable probe. C. Replace Cooking computer.
OIL TEMPERATURE ERRATIC:	A. Probe bad. B. Contactor failing. C. Temperature controller faulty. D. Loose wire.	A. Replace probe. B. Replace contactor. C. Replace temperature controller. D. Repair loose wire.
OIL SMOKING:	A. Old oil. B. Over temperature. C. Dirty element. D. Element failure. E. Improper element voltage. F. Low oil level.	A. Change oil. B. Check temperature control system. C. Clean elements. D. Replace element. E. Supply proper voltage. F. Keep oil at oil level line.

Troubleshooting

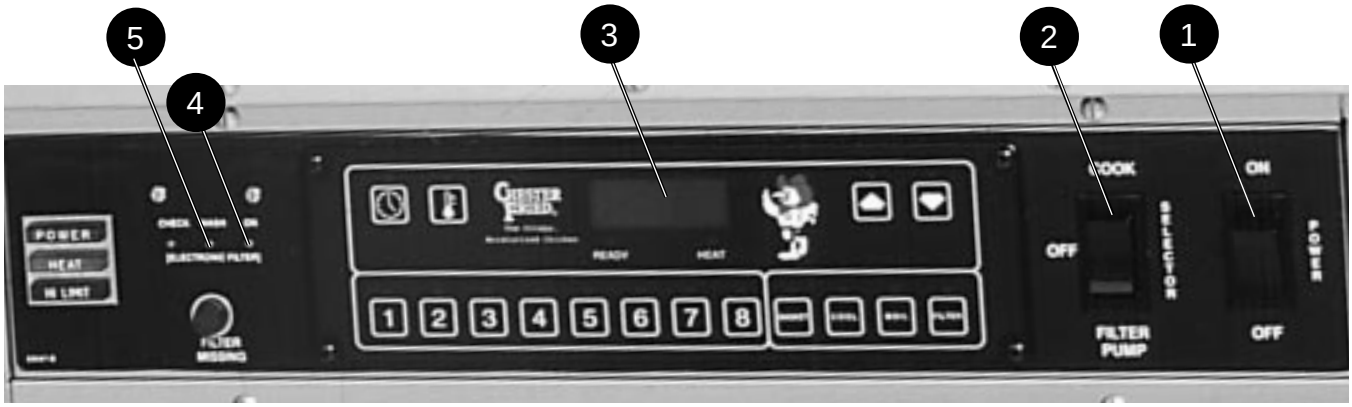
8 - 2 Automatic Basket Lift and Oil Filtration System

Problem	Probable Cause	Repair Procedure
BASKET WILL NOT GO UP OR DOWN: Elevator motor not on.	A. Power not on. B. Selector Switch not in cook position. C. Timer/Cooking computer faulty. D. Elevator micro switch out of adjustment. E. Elevator micro switch bad.	A. Turn Power Switch to on position. B. Place Selector Switch in cook position. C. Replace faulty Timer/Cooking computer. D. Adjust micro switch. E. Replace micro switch.
BASKET WILL NOT GO UP OR DOWN:	A. Basket over loaded. B. Elevator binding (slide bar dirty). C. Elevator motor gear box faulty. D. Drive sprocket set screw loose. E. Over tension on slide bar.	A. Put less product in basket. B. Clean slide bars. C. Replace elevator motor. D. Tighten drive sprocket set screw. E. Adjust slide bar tension.
BASKET GOES UP AND DOWN	A. Master link tab bent or broken. B. Micro switch out of adjustment. C. Improper tension on slide bar. D. Brake not engaging.	A. Replace master link. B. Adjust micro switch. C. Adjust slide bar tension. D. Check motor brake.
OIL NOT RETURNING TO VAT:	A. Cook/Filter switch not in “FILTER” position. B. Air leak (hose, fittings, filter paper). C. Bad pump motor capacitor. D. Pump motor is bad. E. Oil pump sticking.	A. Place Selector Switch in filter position. B. Repair air leak. C. Replace pump motor capacitor. D. Replace pump motor. E. Free stuck pump.
OIL PUMP STICKING:	A. Boil out being run through pump. B. Old oil allowed to sit in pump. C. Solid shortening allowed to sit in pump.	A. Disassemble and re-oil pump. B. Run clean oil through pump. C. Disassemble and re-oil pump and clean out plumbing.

Parts List

9 - 1 Front Control Panel - VH Fryer

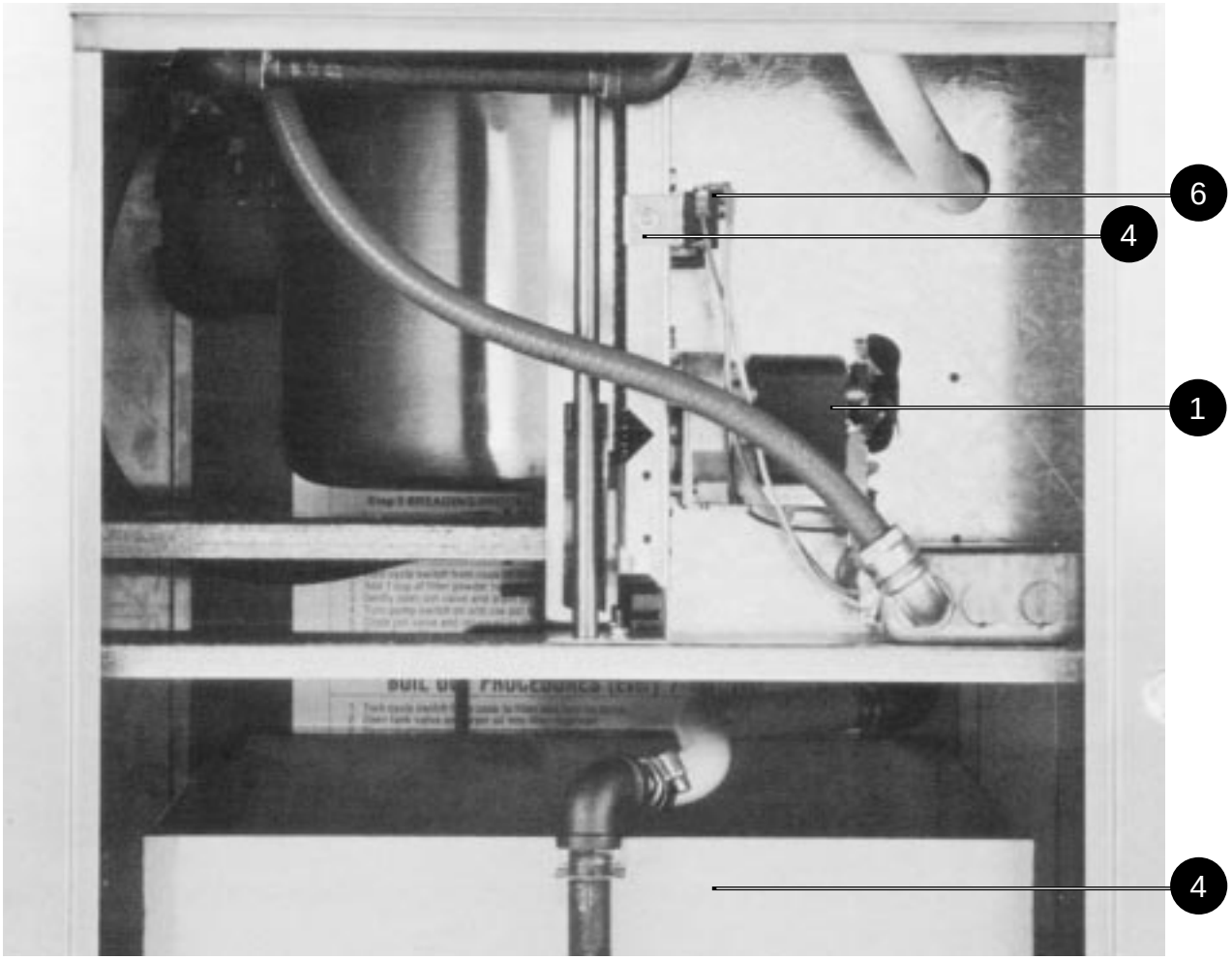
Item No.	Part No.	Description	No. Req'd	Remarks
1	21190	Power Switch		
2	21189	Selector Switch		
3	24241	Cooking Computer		
4	24209	On/Check/Wash Light		
5	22275	Power/Heat/High-Limit Light		



Parts List

9 - 2 Rear View of Lower Cabinet

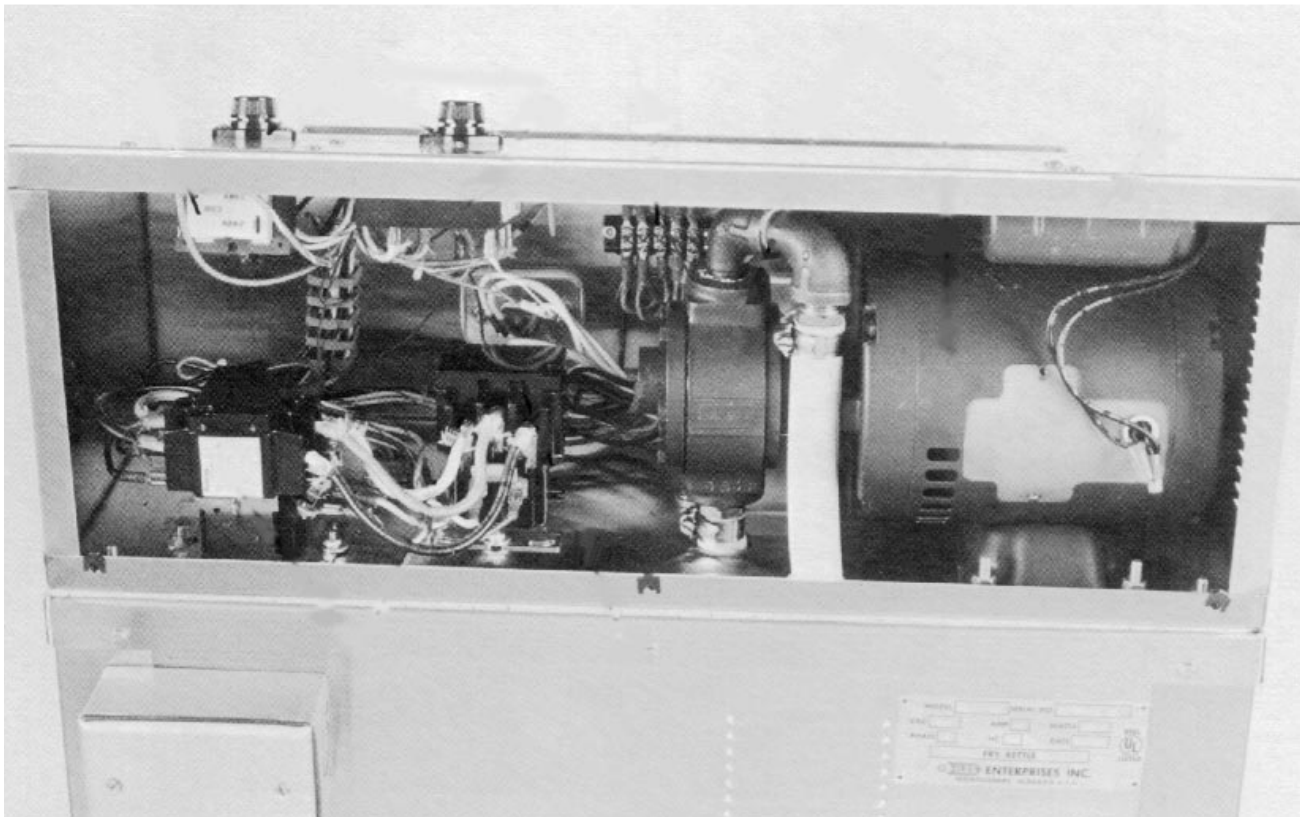
Item No.	Part No.	Description	No. Req'd	Remarks
1	32158	Elevator Motor		
2	23175	Micro Switch		
3	73225	Filter Pan(Complete Assemble) MGF 40		
*	73153	Filter Pan(Complete Assemble) MGF 50		
4	30028-8	Micro Switch Bracket		



Parts List

9 - 3 Rear View of Header Section

Item No.	Part No.	Description	No. Req'd	Remarks
1	21950	Fuse Holder		
*	21900	Fuse, 15 AMP SC-15		
2	30186	Transformer		
3	23754	Safety Board 425°F (218°C)		
4	23751	Terminal Block		
5	32123	Contactor MGF-40 1PH 50A		
*	32113	Contactor MGF-40 3PH 40A		
*	32193	Contactor MGF-50 1PH 75A		
*	32143	Contactor MGF-50 3PH 63A		
6	23756	Element (Firebar) 208V CF400		
*	23757	Element (Firebar) 240V CF400		
*	24226	Element #1 208V (CF500)		
*	24227	Element #2 208V (CF500)		
*	24228	Element #3 208V (CF500)		
*	21550	Element #1 240V (CF500)		
*	21575	Element #2 240V (CF500)		
*	21600	Element #3 240V (CF500)		
7	76925	Pump & Motor Assembly		
8	76923	Pump (Head Only)		
9	76924	Pump (Motor Only)		



Parts List

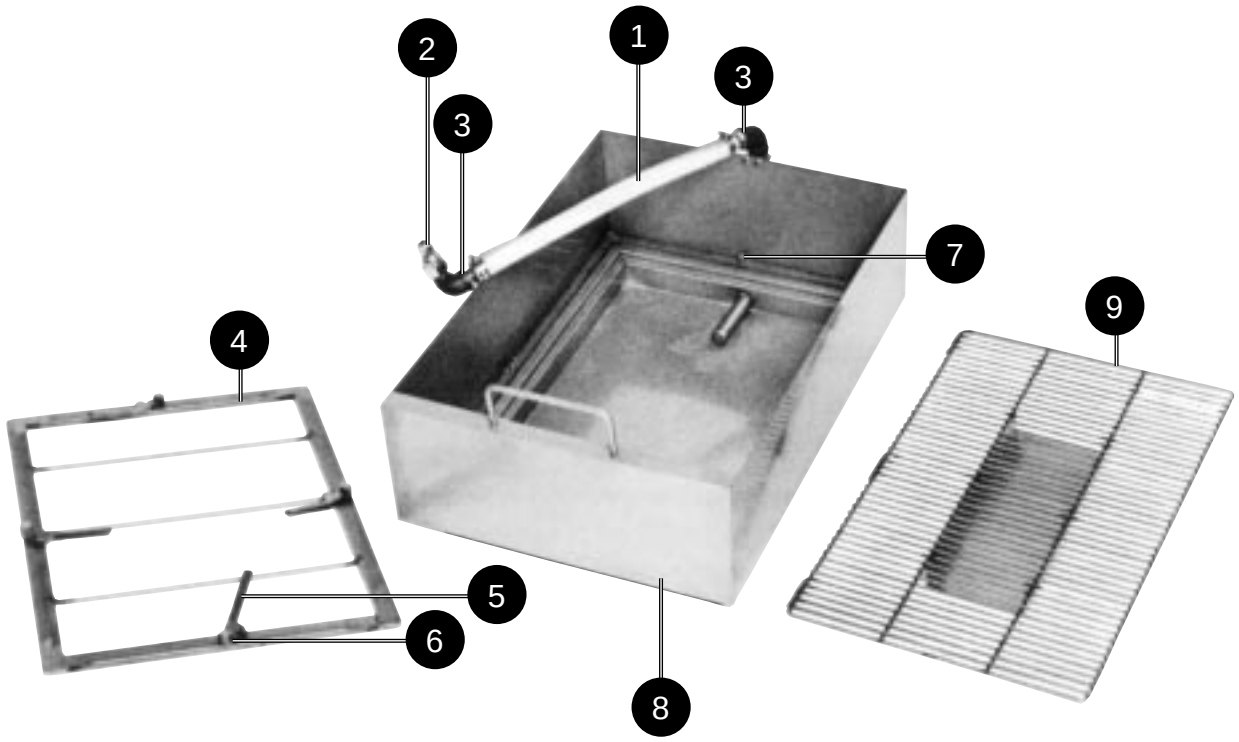
9 - 4 Rear View of Upper Hood Section (VH Models Only)

Item No.	Part No.	Description	No. Req'd	Remarks
1	21825	Fan		
2	24237	Switch, Plunger		
3	23001	Vacuum Switch		
4	23751	Terminal Block		
5	23782	Sonalert Clogged Filter		
6	22950	Sonalert		
7		LED Driver (Part of HV Supply)		
8	23776	Air Filter Module		
9	24208	HV Power Supply		
10	46575			
11	21182	Remote		
*	73304			

Parts List

9 - 5 Filter Pan Assembly

Item No.	Part No.	Description	No. Req'd	Remarks
1	43302	Hose Assembly for CF-400		
*	43301	Hose Assembly for CF-500		(Not Shown)
2	44150	½" (1.27cm) Brass Assembly/Male Quick Disconnect		
3	42250	90° (1.27cm) Street Ell		
4	73149	Hold Down Frame		
5	54526	Hold Down Lever		
6	30040-4	Hold Down Frame Stud		
7	30039-8	Filter Pan Stud		
8	30076	Filter Pan Only 40 pc		
9	77225	Filter Pan Screen		
*	41900	Female Quick Disconnect		(Not Shown)
*	30077	Filter Pan Only 50 pc		(Not Shown)



10 Wiring Diagrams

Wiring Diagram CF-400/500 (1 phase)
Wiring Diagram CF-400/500 (3 phase)
Wiring Diagram CF-400 VH (1 phase)
Wiring Diagram CF-400 VH (3 phase)
Wiring Diagram CF-500 VH (1 phase)
Wiring Diagram CF-500 VH (3 phase)

Wiring Schematic CF-400/500 (1 & 3 phase)
Wiring Schematic CF-400/500 VH (1 & 3 phase)

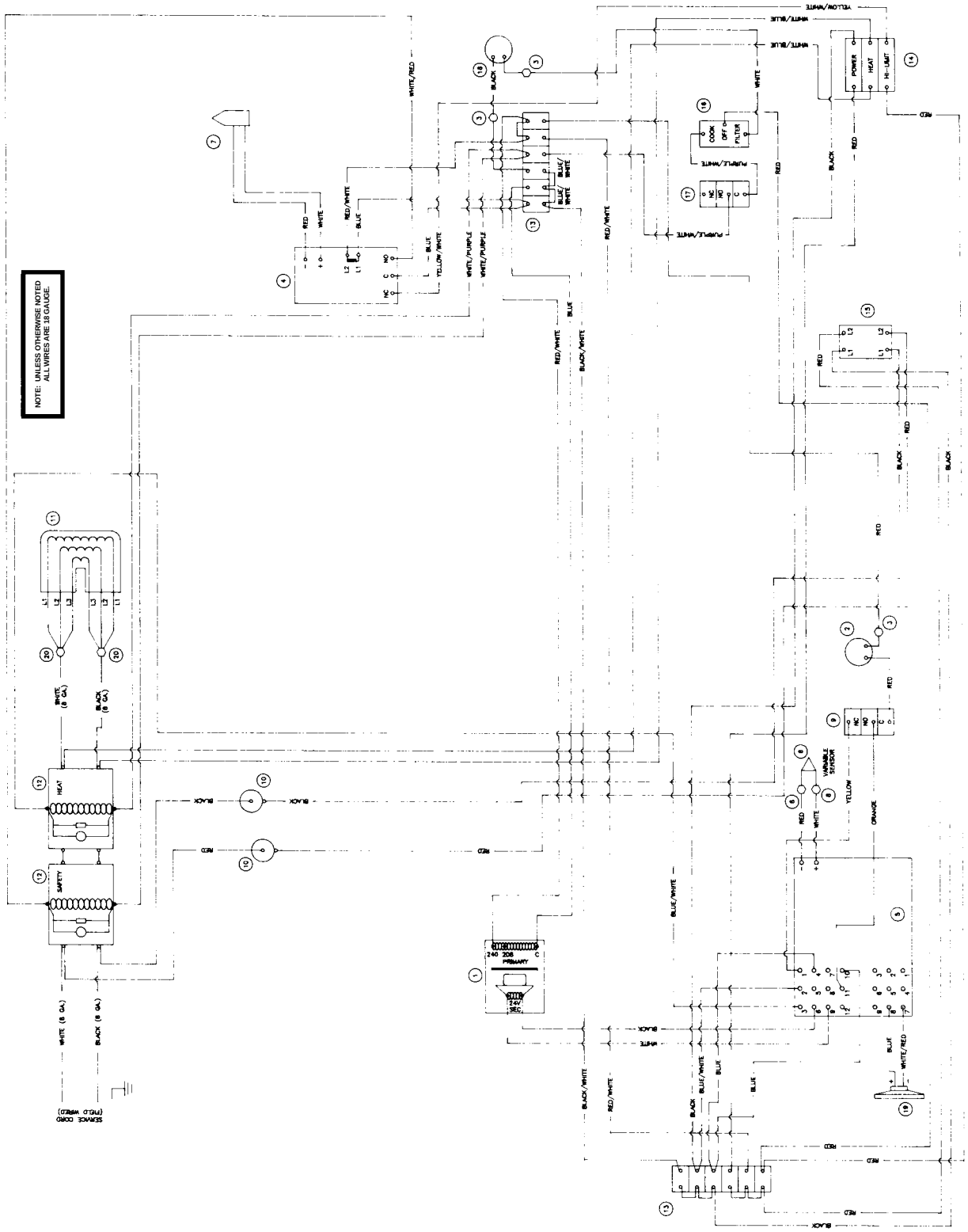
Wiring Model CF-400/500 (1 phase)

10 - 1

Item No.	Part No.	Description	No. Req'd	Remarks
1	30186	Transformer Assembly	1	
2	32158	Motor, Elevator	1	
3	25275	Wire Nut (Blue)	3	
4	23754	Safety Board, 425°F (218°C)	1	
5	24241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7*	24213	Sensor, Safety-CF400	1	
7*	21177	Sensor, Safety-CF500	1	
8	25250	Wire Nut (Gray)	2	
9	23175	Switch, Elevator Micro	1	
10	21950	Fuse Holder	1	
11	23757	Heating Element, 240V	1	CF-400
*	21550	Heating Element, 240V(1 of 3)	1	CF-500
*	21575	Heating Element, 240V (2 of 3)	1	CF-500
*	21600	Heating Element, 240V (3 of 3)	1	CF-500
11	23756	Heating Element, 208V	1	CF-400
*	24226	Heating Element, 208V(1 of 3)	1	CF-500
*	24227	Heating Element, 208V (2 of 3)	1	CF-500
*	24228	Heating Element, 208V (3 of 3)	1	CF-500
12	32123	Contactor Assembly (1 phase)	2	CF-400
*	32193	Contactor Assembly (1 phase)	2	CF-500
13	23751	Terminal Block	2	
14	22275	Pilot Light (PWR/Heat/ Hi-Limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	21157	Switch, Valve Limit	1	
18	76925	Pump & Motor Assembly	1	
19	22976	Sonalert	1	
20	25225	Wire Nut (Blue)	2	

Wiring Model CF-400/500 (1 phase)

10 - 2 Wiring Diagram



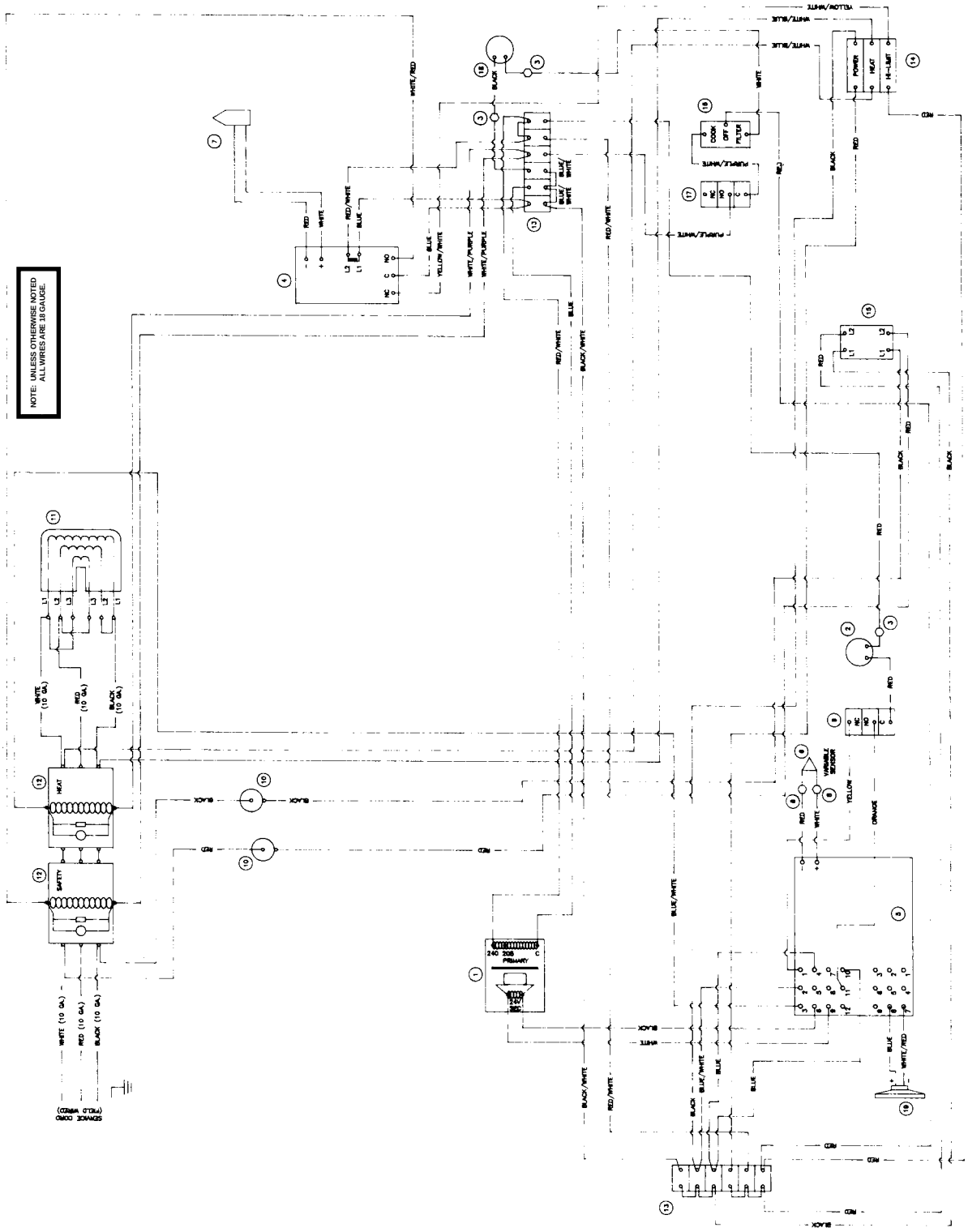
Wiring Model CF-400/500 (3 phase)

10 - 3

Item No.	Part No.	Description	No. Req'd	Remarks
1	30186	Transformer Assembly	1	
2	32158	Motor, Elevator	1	
3	25275	Wire Nut (Blue)	3	
4	23754	Safety Board, 425°F (218°C)	1	
5	24241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7	24213	Sensor, Safety CF-400	1	
7*	21177	Sensor, Safety-CF-500	1	
8	25250	Wire Nut (Gray)	2	
9	23175	Switch, Elevator Micro	1	
10	21950	Fuse Holder	1	
11	23757	Heating Element, 240V	1	CF-400
*	21550	Heating Element, 240V(1 of 3)	1	CF-500
*	21575	Heating Element, 240V (2 of 3)	1	CF-500
*	21600	Heating Element, 240V (3 of 3)	1	CF-500
11	23756	Heating Element, 208V	1	CF-400
*	24226	Heating Element, 208V(1 of 3)	1	CF-500
*	24227	Heating Element, 208V (2 of 3)	1	CF-500
*	24228	Heating Element, 208V (3 of 3)	1	CF-500
12	32113	Contactor Assembly	2	CF-400
*	32143	Contactor Assembly	2	CF-500
13	23751	Terminal Block	2	
14	22275	Pilot Light (PWR/Heat/ Hi-Limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	21157	Switch, Valve Limit	1	
18	76925	Pump & Motor Assembly	1	
19	22976	Sonalert, Watlow Timer	1	

Wiring Model CF-400/500 (3 phase)

10 - 4 Wiring Diagram



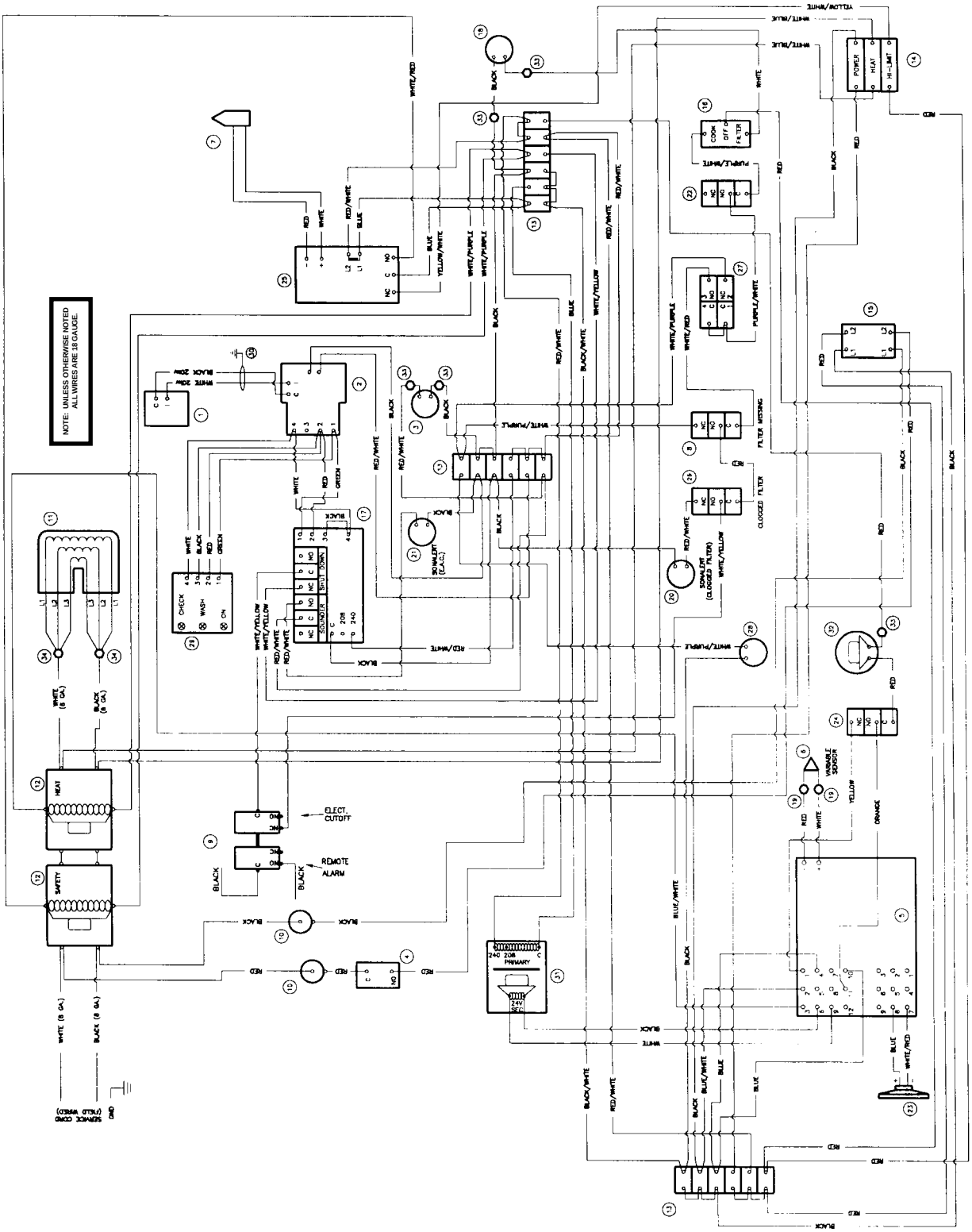
Wiring Model CF-400 VH (1 phase)

10 - 5

Item No.	Part No.	Description	No. Req'd	Remarks
1	21125	Contact Board	1	
2	24208	Power Pack w/ Driver Board	1	
3	21825	Fan Motor	1	
4	23200	Switch, Hood Interlock	1	
5	23241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7	24213	Sensor, Safety	1	
8	24237	Switch, Filter Missing	1	
9	20002	Switch Assy, Fire Ext. Actuator	1	
10	21950	Fuse Hldr w/ 15A Fuse (21900)	2	
11	23757	Heating Element, 240V	1	
11	23756	Heating Element, 208V	1	
12	32123	Contactor Assembly	2	
13	23751	Terminal Block	3	
14	22275	Pilot Light (Pwr/Heat/Hi-limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	23776	Module, Air Filter	1	
18	76925	Pump & Motor Assembly	1	
19	25250	Wire Nut (Gray)	2	
20	23782	Sonalert, Clogged Filter	1	
21	22950	Sonalert, E.A.C.	1	
22	21157	Switch, Valve Limit	1	
23	22976	Sonalert	1	
24	23175	Switch, Elevator Micro	1	
25	23754	Safety Board, 425°	1	
26	23001	Vacuum Switch	1	
27	32114	Switch Assembly, Baffle Filter	1	
28	22300	Light, Filter Missing	1	
29	24209	LED	1	
30	20298	Copper Braid Shield	1	
31	30186	Transformer Assembly	1	
32	32158	Assembly, Elevator Motor	1	
33	25275	Wire Nut (Blue)	3	
34	25225	Wire Nut (Blue)	2	

Wiring Model CF-400 VH (1 phase)

10 - 6 Wiring Diagram



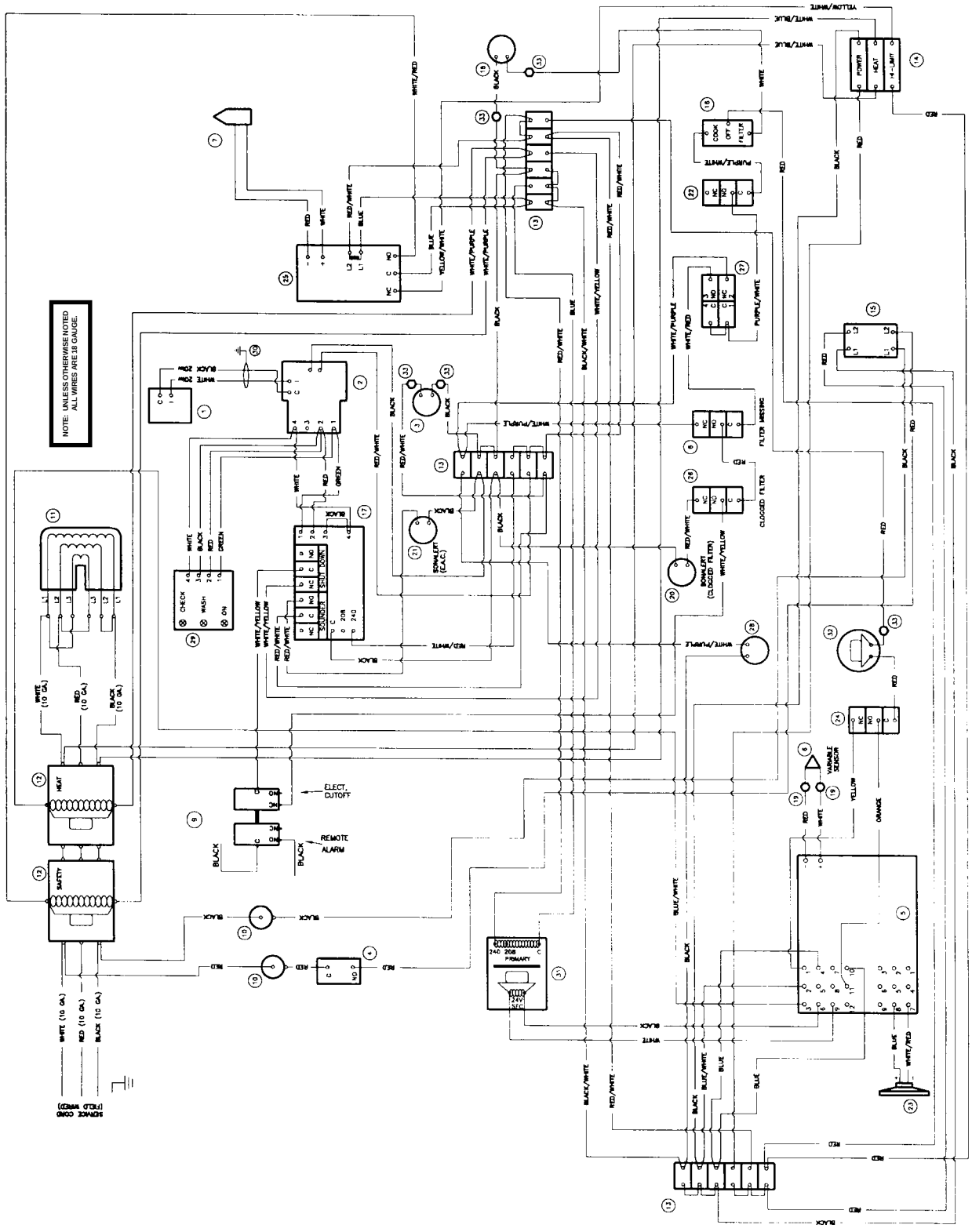
Wiring Model CF-400 VH (3 phase)

10 - 7

Item No.	Part No.	Description	No. Req'd	Remarks
1	21125	Contact Board	1	
2	24208	Power Pack w/ Driver Board	1	
3	21825	Fan Motor	1	
4	23200	Switch, Hood Interlock	1	
5	23241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7	24213	Sensor, Safety	1	
8	24237	Switch, Filter Missing	1	
9	20002	Switch Assy, Fire Ext. Actuator	1	
10	21950	Fuse Hldr w/ 15A Fuse (21900)	2	
11	23757	Heating Element, 240V	1	
11	23756	Heating Element, 208V	1	
12	32113	Contactor Assembly	2	
13	23751	Terminal Block	3	
14	22275	Pilot Light (Pwr/Heat/Hi-limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	23776	Module, Air Filter	1	
18	76925	Pump & Motor Assembly	1	
19	25250	Wire Nut (Gray)	2	
20	23782	Sonalert, Clogged Filter	1	
21	22950	Sonalert, E.A.C.	1	
22	21157	Switch, Valve Limit	1	
23	22976	Sonalert	1	
24	23175	Switch, Elevator Micro	1	
25	23754	Safety Board, 425°	1	
26	23001	Vacuum Switch	1	
27	32114	Switch Assembly, Baffle Filter	1	
28	22300	Light, Filter Missing	1	
29	24209	LED	1	
30	20298	Copper Braid Shield	1	
31	30186	Transformer Assembly	1	
32	32158	Assembly, Elevator Motor	1	
33	25275	Wire Nut (Blue)	5	

Wiring Model CF-400 VH (3 phase)

10 - 8 Wiring Diagram



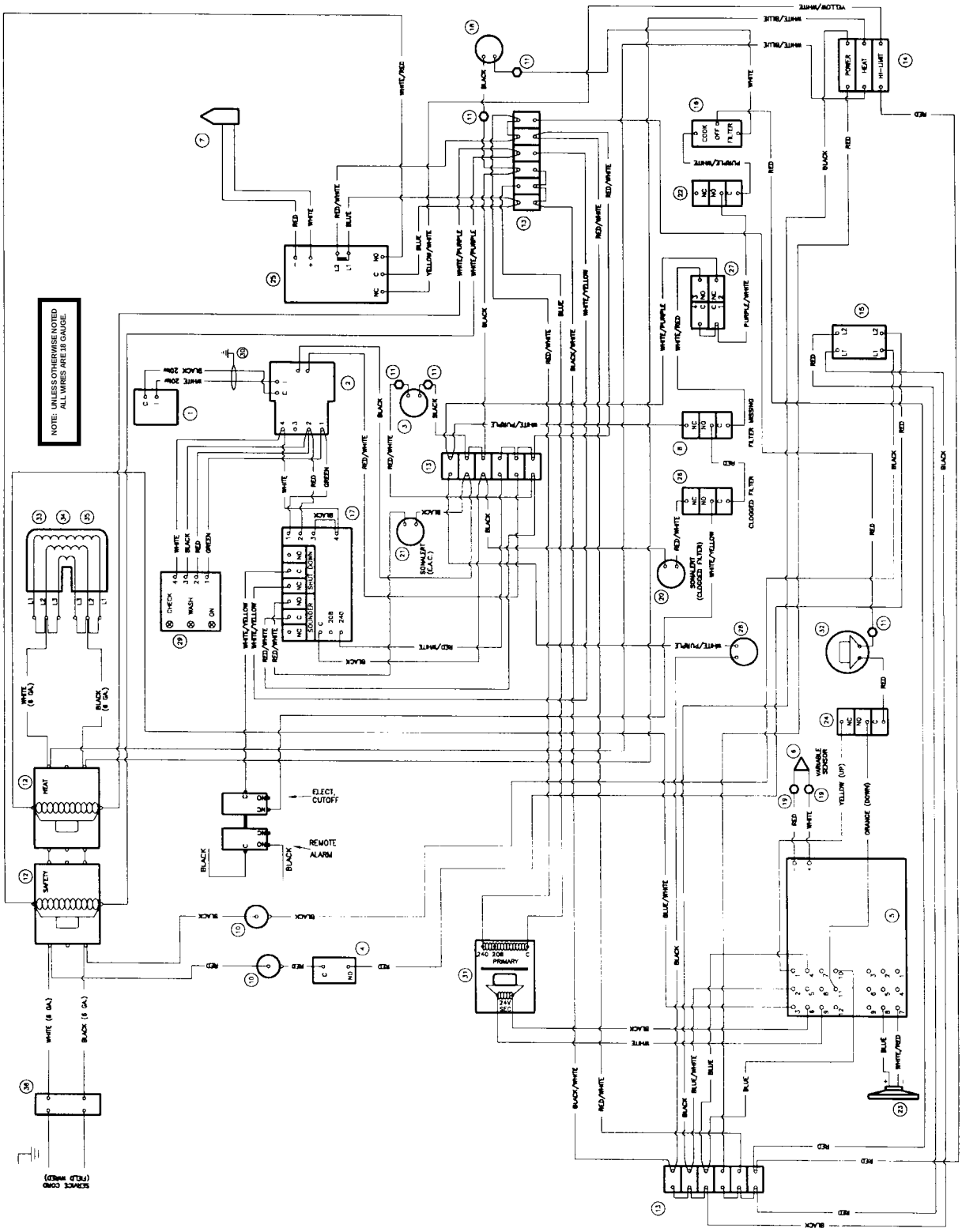
Wiring Model CF-500 VH (1 phase)

10 - 9

Item No.	Part No.	Description	No. Req'd	Remarks
1	21125	Contact Board	1	
2	24208	Power Pack w/ Driver Board	1	
3	21825	Fan Motor	1	
4	23200	Switch, Hood Interlock	1	
5	23241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7	21177	Sensor, Safety	1	
8	24237	Switch, Filter Missing	1	
9	20002	Switch Assy, Fire Ext. Actuator	1	
10	21950	Fuse Hldr w/ 15A Fuse (21900)	2	
11	25275	Wire Nut (Blue)	5	
12	32193	Contactor Assembly	2	
13	23751	Terminal Block	3	
14	22275	Pilot Light (Pwr/Heat/Hi-limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	23776	Module, Air Filter	1	
18	76925	Pump & Motor Assembly	1	
19	25250	Wire Nut (Gray)	2	
20	23782	Sonalert, Clogged Filter	1	
21	22950	Sonalert, E.A.C.	1	
22	21157	Switch, Valve Limit	1	
23	22976	Sonalert	1	
24	23175	Switch, Elevator Micro	1	
25	23754	Safety Board, 425°	1	
26	23001	Vacuum Switch	1	
27	32114	Switch Assembly, Baffle Filter	1	
28	22300	Light, Filter Missing	1	
29	24209	LED	1	
30	20298	Copper Braid Shield	1	
31	30186	Transformer Assembly	1	
32	32158	Assembly, Elevator Motor	1	
33	21550	Heating Element, 240V	1	
34	21575	Heating Element, 240V	1	
35	21600	Heating Element, 240V	1	
33	24226	Heating Element, 208V	1	
34	24227	Heating Element, 208V	1	
35	24228	Heating Element, 208V	1	
36	20510	Circuit Breaker	1	

Wiring Model CF-500 VH (1 phase)

10 - 10 Wiring Diagram



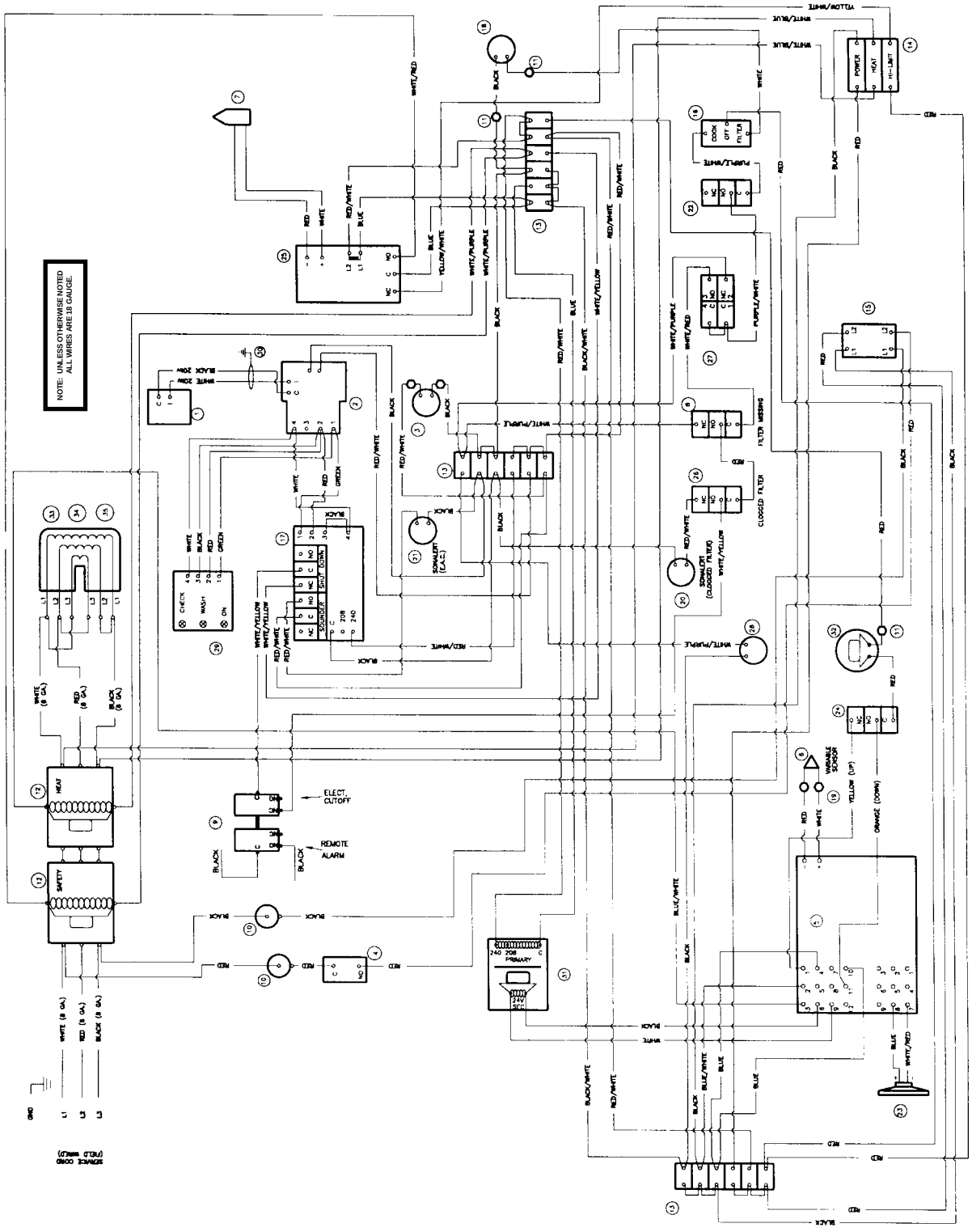
Wiring Model CF-500 VH (3 phase)

10 - 11

Item No.	Part No.	Description	No. Req'd	Remarks
1	21125	Contact Board	1	
2	24208	Power Pack w/ Driver Board	1	
3	21825	Fan Motor	1	
4	23200	Switch, Hood Interlock	1	
5	23241	Computer Controller (Watlow)	1	
6	24212	Sensor, Variable	1	
7	21177	Sensor, Safety	1	
8	24237	Switch, Filter Missing	1	
9	20002	Switch Assy, Fire Ext. Actuator	1	
10	21950	Fuse Hldr w/ 15A Fuse (21900)	2	
11	25275	Wire Nut (Blue)	5	
12	32143	Contactor Assembly	2	
13	23751	Terminal Block	3	
14	22275	Pilot Light (Pwr/Heat/Hi-limit)	1	
15	21190	Switch, Power (Rocker)	1	
16	21189	Switch, Selector (Rocker)	1	
17	23776	Module, Air Filter	1	
18	76925	Pump & Motor Assembly	1	
19	25250	Wire Nut (Gray)	2	
20	23782	Sonalert, Clogged Filter	1	
21	22950	Sonalert, E.A.C.	1	
22	21157	Switch, Valve Limit	1	
23	22976	Sonalert	1	
24	23175	Switch, Elevator Micro	1	
25	23754	Safety Board, 425°	1	
26	23001	Vacuum Switch	1	
27	32114	Switch Assembly, Baffle Filter	1	
28	22300	Light, Filter Missing	1	
29	24209	LED	1	
30	20298	Copper Braid Shield	1	
31	30186	Transformer Assembly	1	
32	32158	Assembly, Elevator Motor	1	
33	21550	Heating Element, 240V	1	
34	21575	Heating Element, 240V	1	
35	21600	Heating Element, 240V	1	
33	24226	Heating Element, 208V	1	
34	24227	Heating Element, 208V	1	
35	24228	Heating Element, 208V	1	

Wiring Model CF-500 VH (3 phase)

10 - 12 Wiring Diagram



Wiring Model *CF-400/500 (1 & 3 Phase)*

10 - 13 Wiring Schematic