



Food Service  
Systems

# Service Manual

*The Customer's Company*®

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***About NU-VU®***

NU-VU® has been in existence as a product line for over twenty-one years. Its units are in use throughout the United States and Canada, and have been exported to other parts of the world. NU-VU® continually modifies and updates its equipment to improve the capabilities, as innovations become available. This enables the user to obtain better and more useful results as well as simplifying installation and repair. NU-VU® currently manufactures an entire line of equipment in Menominee, Michigan. All of the equipment is tested under anticipated operating conditions prior to shipment.

NU-VU® Food Service Systems offers the widest range and variety of equipment through the varied use of heat, moisture, steam and smoke options. NU-VU® has, over a period of time, developed a series of Ovens, Proofers, Steamers, Smokers and Warmers designed to provide maximum performance with minimum energy requirements and care by the operator.

### Equipment Warranty Policy

NU-VU®'s products are warranted against defects in workmanship and materials. No other express warranty, written or oral, applies. No person is authorized to give any other warranty or assume any other liability on behalf of NU-VU®, except by written statement from an officer of NU-VU®.

### Warranty Period

The warranty period begins on the day that the equipment ships from the NU-VU® factory in Menominee, Michigan. There is a thirty-day grace period for installation, so a product with a one-year labor / two-year parts warranty would actually receive thirteen months labor and twenty-five months parts warranty. Refer to *Table 1 Equipment Warranty Period* for NU-VU® equipment warranty periods.

Table 1 Equipment Warranty Periods

MODEL	LABOR WARRANTY	PARTS WARRANTY	OLD MODEL
AMP-12	1 Year	2 Years	
AMP-18	1 Year	2 Years	AMP-18
ASMP-36	1 Year	2 Years	ASMP-36
COMBI-12S	1 Year	1 Year	UB-12S
COMBI5/5EZ	1 Year	2 Years	UB-E5/5EZ
COMBI5/5EZG	1 Year	1 Year	UB-E5/5EZG
COMBI-5EZ	1 Year	2 Years	
COMBI-5EZG	1 Year	1 Year	
COMBI-6S	1 Year	1 Year	XO6-S
COMBI-6S/SC-6	1 Year	1 Year	XOP-4S
CS-6M	1 Year	1 Year	
CTW-1	1 Year	1 Year	
CUB-12R	1 Year	2 Years	
CUB-12RG	1 Year	1 Year	
CUB-16	1 Year	2 Years	
DCW-1	1 Year	1 Year	
ES-13	1 Year	2 Years	ES-3
ES-6	1 Year	2 Years	ES-1
ES-6/SC-7	1 Year	2 Years	ES-EG
ESH-400	1 Year	1 Year	ESH-400
ESR-1000	1 Year	1 Year	ESR-1000
ESR-500	1 Year	1 Year	ESR-500
HO-1	1 Year	1 Year	HO-1
MCS-1	1 Year	1 Year	
MDO-1/2	1 Year	1 Year	MD-1
MDO-1/3	1 Year	1 Year	MD-2
MDO-1/3G	1 Year	1 Year	
MDO-2/4 PRO-6	1 Year	1 Year	OP-4DX

<b>MODEL</b>	<b>LABOR WARRANTY</b>	<b>PARTS WARRANTY</b>	<b>OLD MODEL</b>
MDO-5/10	1 Year	1 Year	BO-10DX
MDO5/15	1 Year	1 Year	BO-15DX
OP-2FM	1 Year	2 Years	
OP-3FM	1 Year	2 Years	
PCO-20E	1 Year	2 Years	CEP-20
PCO-20G	1 Year	1 Year	CGP-20
PCO-32E	1 Year	2 Years	CEP-32
PCO-32G	1 Year	1 Year	CGP-32
PCO-44E	1 Year	2 Years	CEP-44
PCO-44G	1 Year	1 Year	
PMA-5/12	1 Year	2 Years	CO-3PZ
PMA-5/18	1 Year	2 Years	CO-5PZ
PMC-14	1 Year	1 Year - Excluding Lamps	
PMC-18	1 Year	1 Year - Excluding Lamps	
PO-1	6 Months	1 Year	PO-1
PO-2	6 Months	1 Year	PO-2
PO-3	6 Months	1 Year	PO-3
PO-5	6 Months	1 Year	PO-5
PRO-10	1 Year	2 Years	
PRO-16	1 Year	2 Years	P-16/W-16
PRO-8	1 Year	2 Years	P-8/W-8
PROLB	1 Year	2 Years	
PROW-16	1 Year	2 Years	PAM-16/WAM-16
PROW-32	1 Year	1 Year	
QC-4T	1 Year	1 Year	XO4-C
QC-6T	1 Year	1 Year	XO6-C
QC-6W	1 Year	1 Year	XO6-CW
RPW-1	1 Year	1 Year	
RPZW-1	1 Year	1 Year	
RT-1	1 Year	2 Years	
RTS-MA3/3	1 Year	1 Year	
RTS-MA-6	1 Year	1 Year	XBQ-3
RTS-TS7	1 Year	1 Year	XBQ-3B
RTS-TS7-7	1 Year	1 Year	XBQ-3BDC
RTS-TS7G	1 Year	1 Year	XBQ-3B(G)
RTS-TS7GX	1 Year	1 Year	XBQ-5B(G)
SSW-1	1 Year	1 Year	
STM-1 & STM-2	1 Year	1 Year	
TA-16	1 Year	2 Years	
TA-8	1 Year	2 Years	
TMC-14	1 Year	1 Year - Excluding Lamps	
TMC-18	1 Year	1 Year - Excluding Lamps	
UB-12	1 Year	2 Years	
UB-12/18	1 Year	2 Years	COP-12

<b>MODEL</b>	<b>LABOR WARRANTY</b>	<b>PARTS WARRANTY</b>	<b>OLD MODEL</b>
UB-12/18G	1 Year	1 Year	COP-12G
UB-12G	1 Year	1 Year	UB-12G
UB-12R	1 Year	2 Years	UB-12R
UB-12RG	1 Year	1 Year	UB-12RG
UB-16RG	1 Year	1 Year	UB-16RG
UB-24	1 Year	2 Years	UB-24
UB-24G	1 Year	2 Years	UB-24G
UB-4/2/8	1 Year	2 Years	UB-4
UB-5/10	1 Year	2 Years	UB-7
UB-6/6G	1 Year	1 Year	UB-6
UB-6/8	1 Year	2 Years	UB-3
UB-6TG	1 Year	1 Year	UB-3TG
UB-E3/9	1 Year	2 Years	UB-E1
UB-E4/8	1 Year	2 Years	UB-E2
UB-E4/8G	1 Year	1 Year	UB-1G
UB-E4T	1 Year	2 Years	UB-E2T
UB-E5/5	1 Year	2 Years	UB-E5/5
UB-E5/5G	1 Year	1 Year	
UB-E5TH	1 Year	2 Years	
UB-E6T	1 Year	2 Years	
VT-2, 3 & 5	1 Year	1 Year	
XO-1	1 Year	1 Year	
XO-1M	1 Year	1 Year	
XO-1MS	1 Year	1 Year	
XO-1P	1 Year	1 Year	

**Warranty Pre-Authorization**

All warranty work must be pre-authorized by NU-VU®. NU-VU® will provide a warranty authorization number for any warranty work. To receive an authorization number, the Model Number and Serial Number must be provided to NU-VU®. (Note: The Serial Number located near the terminal block will only appear on units manufactured after July 1995.)

**Warranty Conditions**

Products must be installed and maintained in accordance with NU-VU® instructions. Users are responsible for the suitability of the products to their application. There is no warranty against damage resulting from accident, abuse, alteration, misapplication, inadequate storage prior to installation, or improper specification or other operating conditions beyond NU-VU®'s immediate control. Claims against carrier damage in transit must be filed by the buyer; therefore, the buyer must inspect the product immediately upon receipt.

**Warranty Limitations**

NU-VU®'s warranty for parts and labor is subject to the following limitations:

- Wear and tear due to normal operation on the following parts:
  - ◆ Light Bulbs
  - ◆ Door Gaskets
  - ◆ Door Handles and Catches
- Any part that is damaged due to customer abuse, including the following:
  - ◆ Proofer Water Pan – customer allows proofer to operate with empty water pan
  - ◆ Proofer Fan Motor – customer does not follow proofer dry out procedure or regularly clean the bottom of the proofer which would remove excess moisture
- Power supply problems, including the following:
  - ◆ Insufficient voltage
  - ◆ Incorrect voltage
  - ◆ Damage to electrical components caused by a power surge or spike
  - ◆ Equipment incorrectly installed (Equipment not supplied with separate neutral and ground)(Incorrect location of High Leg, in the case of 240Volt 3Phase supply)
  - ◆ Damage to electrical components caused by incorrect power cord or breaker
- Procedural problems – customer did not follow proper procedures
- There is nothing found wrong
- Calibration – NU-VU® equipment is calibrated at the factory prior to shipment
- The equipment is moved from the initial place of installation, unless NU-VU® agrees in writing to continue the warranty after the relocation
- Adjustments due to changing environmental conditions or normal on-going use

**Warranty Time and Expenses Allowed**

The following are allowable charges related to completed warranty work:

- Use the “Standard Time Allowances for Warranty Repairs” **Table 2** to determine allowable time to perform the listed repairs

Table 2 Time Allowances for Warranty Repairs

<b>Standard Time Allowances for Warranty Repairs</b>			
<b>Repair Performed</b>	<b>Repair Time</b>	<b>Test Time</b>	<b>Total Time</b>
Solid State Thermostat	.5 Hour	.5 Hour	1 Hour
Solid State Sensor	.5 Hour	.5 Hour	1 Hour
Mechanical Thermostat	.75 Hour	.5 Hour	1.25 Hour
Oven Motor/Rebalance Fan	1 Hour	.5 Hour	1.5 Hour
Proofer motor Assembly	.5 Hour	5 Minutes	.5 Hour
Oven Heating Element (Quantity 1)	1 Hour	.5 Hour	1.5 Hour
Oven Heating Element (Quantity 2)	1.75 Hour	.5 Hour	2.25 Hour
Proofer Heating Element	.5 Hour	.5 Hour	1 Hour
Proofer Humidity Element	.5 Hour	.25 Hour	.75 Hour
Timer and/or Buzzer	.5 Hour	5 Minutes	.5 Hour
On/Off Power Switch	.25 Hour	5 Minutes	.25 Hour
Indicator Light	.25 Hour	5 Minutes	.25 Hour
Microswitch	.5 Hour	5 Minutes	.5 Hour
Contactator/Relay	.5 Hour	5 Minutes	.5 Hour
Hi-Limit Switch	.25 Hour	.25 Hour	.5 Hour

Ignitor	.5 Hour	.5 Hour	1 Hour
Ignition Module	.25 Hour	.25 Hour	.5 Hour
Water Solenoid	.5 Hour	5 Minutes	.5 Hour
Belt Speed Control (Conveyor Oven)	.5 Hour	.25 Hour	.75 Hour
Drive Motor (Conveyor Oven)	1 Hour	.5 Hour	1.5 Hour
Conveyor Belt	.5 Hour	.25 Hour	.75 Hour
Drive/Idler Shaft Assembly (Conveyor Oven)	.5 Hour	.25 Hour	.75 Hour
Cooling Fan	.5 Hour	5 Minutes	.5 Hour
Transformer	.5 Hour	.25 Hour	.75 Hour
Programmable Control	.5 Hour	.5 Hour	1 Hour

- NU-VU® will pay for 'Straight Time' **only**; the customer has the option to pay the difference between 'Straight Time' and 'Overtime' rates if emergency service is required.
- NU-VU® will pay a maximum of fifty miles or one hour of travel one way, or a total of one-hundred miles or two hours travel. Only one round trip will be paid. The customer will be billed by the local service agent for any travel charges in excess of the allowances listed above.
- The customer is required to place the service call with NU-VU® and the NU-VU® Service Department will determine what replacement parts may be necessary and provide these parts to the local service agent prior to the service call.
- NU-VU® will pay for 2<sup>nd</sup> Day Air UPS freight on critical parts such as: elements, thermostats, contactors, motors, and power switches; non-critical parts such as: timers, and buzzers will be sent Regular Ground UPS freight unless the customer agrees to pay the extra freight charges.
- NU-VU® will not pay 'Handling Charges'.

**Warranty Parts Return Procedure**

The following procedure shall be followed for the return of parts to the factory for credit consideration:

- All parts received by NU-VU® must have a completed RETURN AUTHORIZATION FORM which is supplied with the replacement parts (A copy appears in the appendix of this manual).
- Package all return parts securely so that in-transit damage cannot occur.
- Prepay shipment. Any parts returned collect will be refused by our Receiving Department.
- Package all invoices (including labor) in an envelope marked "WARRANTY PAPERS" inside the return parts package.
- As soon as parts are tested and confirmed to be defective, credit will be issued against them.

If the engineering test shows the component is not defective and is in good working condition, it may be returned to you along with your request for payment.

**Warranty Period on Replacement Parts**

Replacement parts will be warranted for a period of six months from the date of shipment from the NU-VU® factory located in Menominee, Michigan; the conditions applied to warranty parts listed above also apply to replacement parts.



## General Overview of Equipment Configurations

NU-VU® manufactures over one hundred different models of Commercial Kitchen Equipment. The most common equipment configurations will be described in this manual. If the piece of equipment being serviced does not match one of the configurations listed, refer to the model number's specific manual provided with the equipment. The NU-VU® Service Department is usually able to provide assistance over the telephone if provided with the model number and serial number. In certain cases, concerning very old equipment, it may be necessary to provide NU-VU® with general sketches of equipment or parts.

## Oven/Proofer Models

An Oven/Proofer is a combination of a convection oven on top of a proofer. There are several combinations of oven and proofer sizes available. The current model numbers used by NU-VU® contain the size of the oven and proofer; for example: the model number UB-6/8 indicates a six pan oven and eight pan proofer. Certain NU-VU® model numbers have been in use for such a long period of time that changing the model number would create confusion; for example; the model number OP-2 or OP-2FM, which is a six half-pan oven and eighteen half-pan proofer. Oven/Proofers can be categorized two different ways; Oven/Proofers with **Side Mounted Controls** and Oven/Proofers with **Top Mounted Controls**. There are several equipment options available with Oven/Proofers and these options are available in both configurations. These equipment options will be detailed following the overviews.

Photo 1 OP-2FM

### Side Mounted Controls

Oven/Proofers with side mounted controls have the controls mounted in an enlarged cornerpost alongside the Oven/Proofer. (Refer to Photo 1) The door hinging determines where the controls are mounted. The controls are mounted opposite the door hinges. This configuration uses more floor space, but places the controls within closer reach.

**Refer to Photos 2 through 6 for electrical component location.**



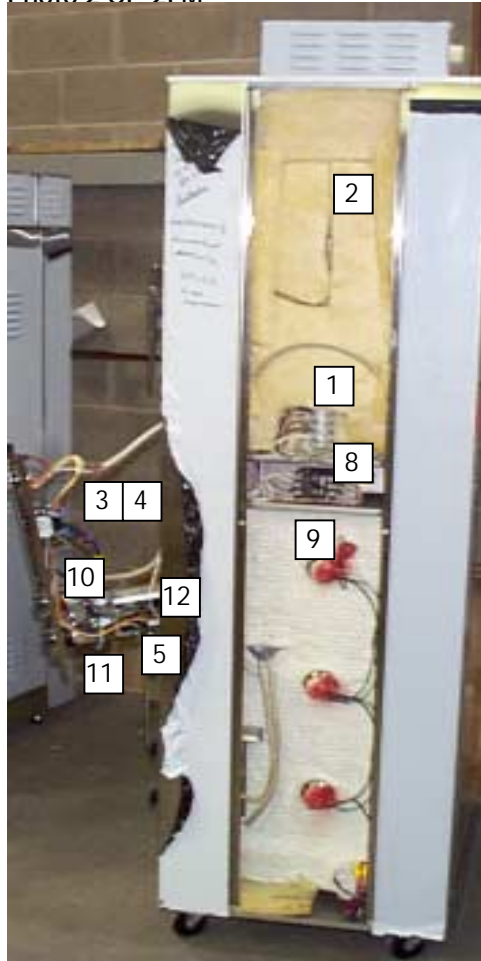
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Photo 2 OP-2FM



- |                           |                           |
|---------------------------|---------------------------|
| 1. Terminal Block         | 8. Contactor(s)           |
| 2. Hi-Limit switch        | 9. Serial Number Location |
| 3. ON/OFF Switch          | 10. Timer(s)              |
| 4. ON/OFF Switch          | 11. Buzzer(s)             |
| 5. Oven Thermostat        | 12. Oven Thermostat Fuse  |
| 6. Oven Elements          | 13. Oven Fan              |
| 7. Oven Thermostat Sensor |                           |

Photo 3 OP-2FM Oven Interior

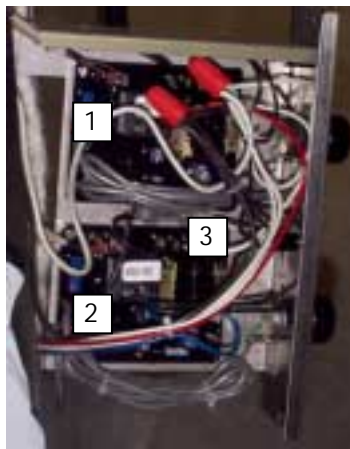


Photo 5 Manual Fill Proofer



1. Heat Elements
2. Humidity Element
3. Fan (Blade)
4. Sensors

Photo 4 Proofer Control Panel



1. Heat Thermostat
2. Humidity Thermostat
3. Fuses for Thermostats

Photo 6 Automist Proofer



1. Heat Elements
2. Fan (Squirrel Cage Blower Wheel)
3. Spray Nozzle
4. Sensor (Behind Panel)

**Top Mounted Controls**

Oven/Proofers with Top Mounted Controls have the controls mounted inside a header located on top of the Oven/Proofer. This configuration reduces the amount of floor space needed but places the controls further away from the user.

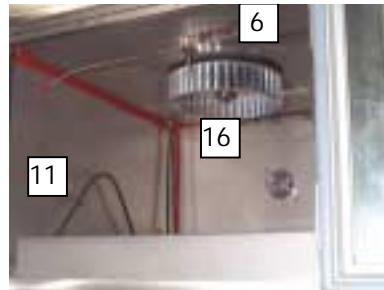
**Refer to Photos 7 through 9 for Control Component Location.**

The Top Mounted Control Oven/Proofer has the identical interior Proofer layout as the Side Mounted Control Oven/Proofer.

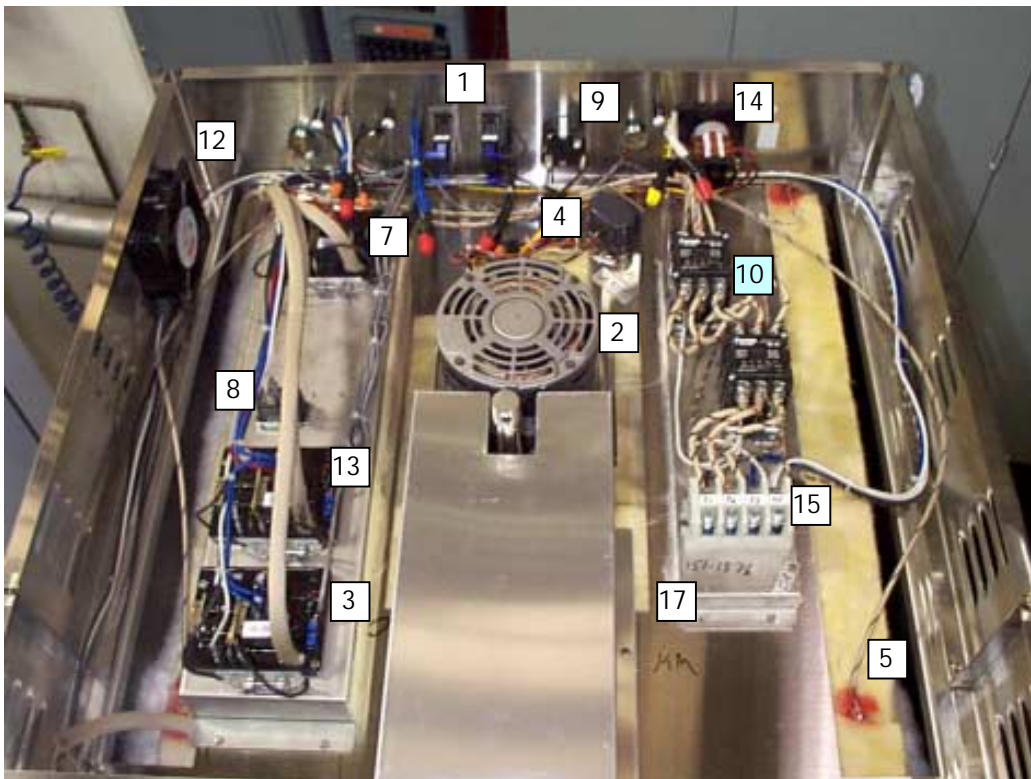
**Photo 7 UB-E4/8**



**Photo 8 UB-E3/9 Oven Interior**



**Photo 9 UB-E4/8 Top Header**



- |                               |                   |                            |
|-------------------------------|-------------------|----------------------------|
| 1.ON/OFF Switches             | 7.Oven Thermostat | 13.Proofer Heat Thermostat |
| 2.Oven Motor                  | 8.Buzzer          | 14.Fan Speed Switch        |
| 3.Proofer Humidity Thermostat | 9.Timer           | 15.Power Terminal Block    |
| 4.Motor Capacitor             | 10.Contactors     | 16.Oven Fan                |
| 5.Element Lead Connection     | 11.Oven Element   | 17.Serial Number Location  |
| 6.Oven Sensor                 | 12. Cooling Fan   |                            |

**Gas Oven Models**

NU-VU® gas ovens may be equipped in either the Side Mounted Control configuration or the Top Mounted Control Configuration. The majority of NU-VU® gas ovens are either reach-in or roll-in floor models with Top Mounted Controls.

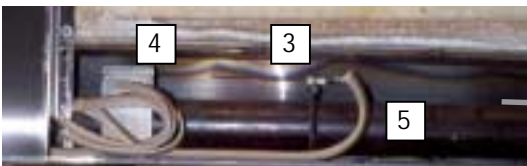
*Refer to Photos 10 through 12 for control component location.*

**Photo 10 Flue Assembly**



1. Inducer Motor
2. Inducer Monitor Switch
3. Flame Sensor
4. Ignitor
5. Burner

**Photo 12 Burner Assembly**



**Photo 11 CUB-12R**



## ***Troubleshooting***

This guide is designed to provide general troubleshooting procedures covering the majority of NU-VU® equipment. If there are systems in the particular unit being serviced that are not covered by this guide, refer to the specific owner's manual that was provided with that particular unit.

### **Electric Ovens**

#### **Oven has no Power**

- ✓ The power switch/circuit breaker (if the oven is so equipped) may be tripped. Set the switch all the way to the OFF position, then reset the switch to the ON position. If the oven is equipped with a rocker-type power switch, then check the 20-amp fuse located at the bottom front of the unit or located near the power supply inlet at the rear of the equipment. Replace the fuse with an SC20 Buss® fuse.
- ✓ The power supply circuit breaker or fuse may be tripped/blown. Reset the breaker or replace the fuse.
- ✓ Check to ensure that the power supply cord is properly attached to the unit's power terminal block.
- ✓ Check to ensure that the proper voltage is supplied to the unit's power terminal block (verify against the voltage requirements listed on the equipment label).
- ✓ Ensure that the wire connections to the power breaker/rocker switch are properly attached.
- ✓ Verify that the correct voltage is supplied to the input terminal of the breaker/rocker switch. If the correct voltage is supplied to the breaker/rocker switch and the switch does not close, then the breaker/rocker switch must be replaced.

**Note:** If the 20 amp fuse blows repeatedly upon start-up, set all the oven controls to their OFF positions and install a new fuse. Set the power/rocker switch to the ON position. If the fuse blows upon start-up, then check the oven lights or power rocker switch for a direct short. If the fuse does not blow upon start-up, set the oven controls to the ON position one at a time in order to determine which control is causing the fuse to blow.

#### **Oven will not Heat**

Conditions: Power indicator light is illuminated, and the interior oven lights are illuminated but the oven will not heat.

- ✓ Check the oven fan for operation (with the oven door closed). If the fan is not operating, check the door switch for proper operation.
- ✓ Ensure that the required voltage is present at the unit's power terminal block.
- ✓ With the oven door closed and the oven powered up, set the oven thermostat to 400°. Verify that the oven thermostat indicator light illuminates. If the indicator light illuminates, skip to the next step. If the indicator light does not illuminate, the 62ma thermostat fuse (for solid state thermostats only) located near the thermostat circuit board may be blown. If this fuse is blown, replace with a new fuse (spare fuses may be found in a bag located near the power terminal block). If the fuse is good, verify that there is proper voltage (ovens located in the U.S. will have 120 Volts to ground) to the COM and NO terminals on the thermostat circuit board. If there is not proper voltage at the NO terminal, the thermostat is faulty and requires replacement. If the oven thermostat is mechanical and the oven thermostat indicator light does not illuminate, verify the proper voltage into and out of the thermostat. If there is voltage into the mechanical thermostat but not out of the thermostat then the thermostat requires replacement.
- ✓ Ensure that the Hi-Limit switch is not 'Open'.

- ✓ With the oven thermostat activated (indicator light illuminated), verify the proper operation of the contactor. The coil of the contactor requires 120 Volts to operate. If there are 120 Volts to the coil of the contactor and the contactor does not engage, then the contactor is faulty and requires replacement. If the contactor engages and supplies the proper voltage across its poles to the elements, then skip to the next step.
- ✓ With the contactor engaged, check each element lead wire at the contactor for proper amp draw. Replace the necessary oven heating elements.

#### **Oven Motor will not Run**

- ✓ Ensure that the oven power switch is set to ON.
- ✓ Ensure that the fan speed switch (if so equipped) is in an operating position (not OFF).
- ✓ Ensure that the oven door is closed and that it is engaging the oven door switch. The oven door switch supplies power to both the oven thermostat and the oven motor. If the oven thermostat indicator light will come on when the oven thermostat is turned up, then the door switch is good.
- ✓ Check the motor wiring for proper wire connections.
- ✓ If the oven is currently hot, then let the oven cool down (power the oven down). NU-VU® motors are equipped with internal thermal protection. It is possible that the motor has shut down due to overheating. When the oven has cooled down, power the oven back up and watch the oven motor. If the motor runs but shuts down again when the oven reaches a temperature of 400°, then the thermal protector is faulty and the oven motor requires replacement.
- ✓ If the motor is supplied with the proper voltage, but will not run, then the motor is faulty and must be replaced.

#### **Oven Timer will not Time Down, or Sticks**

- ✓ The oven timer is a self-contained component without repairable parts. If the oven timer consistently sticks or stops, it requires replacement.

#### **Oven Timer Counts Down, but will not Sound the Buzzer**

- ✓ Ensure that the timer reaches the "0" position and does not stop prior to reaching "0".
- ✓ Ensure that the wire connections to the timer are secure.
- ✓ Verify that the proper voltage is supplied to the buzzer from the timer.
- ✓ If the proper voltage is supplied to the buzzer and the buzzer volume is turned all the way up, then the buzzer is faulty and requires replacement.
- ✓ If there is not proper voltage supplied from the timer and the timer is in the "0" position, then the timer is faulty and requires replacement.

## Gas Ovens

### Oven has no Power

- ✓ The majority of NU-VU® gas ovens operate using 120 Volts. Typically, there is a 120 Volt 15 amp cord provided with the oven; however, if the oven is combined with a proofer, the standard terminal block is used.
- ✓ The power switch/circuit breaker (if the oven is so equipped) may be tripped. Set the switch all the way to the OFF position, then reset the switch to the ON position. If the oven is equipped with a power rocker switch, then check the 20-amp fuse located at the bottom front of the unit or located near the power supply inlet at the rear of the equipment. Replace the fuse with an SC20 Buss® fuse.
- ✓ The power supply circuit breaker or fuse may be tripped/blown. Reset the breaker or replace the fuse.
- ✓ Check to ensure that the power supply cord is properly attached to the unit's power terminal block.
- ✓ Check to ensure that the proper voltage is supplied to the unit's power terminal block (verify against the voltage requirements listed on the equipment label).
- ✓ Ensure that the wire connections to the power breaker/rocker switch are properly attached.
- ✓ Verify that the correct voltage is supplied to the input terminal of the breaker/rocker switch. If the correct voltage is supplied to the breaker/rocker switch and the switch does not close, then the breaker/rocker switch must be replaced.

**Note:** If the 20 amp fuse blows repeatedly upon start-up, turn all the oven controls to their OFF positions and install a new fuse. Set the power rocker switch to the ON position. If the fuse blows upon start-up, then check the oven lights or power rocker switch for a direct short. If the fuse does not blow upon start-up, set the oven controls to their ON positions one at a time in order to determine which control is causing the fuse to blow.

### Oven will not Heat

**Conditions:** Power indicator light is illuminated, and the interior oven lights are illuminated but the oven will not heat.

- ✓ Verify that all gas supply valves to the unit are in the open position.
- ✓ Verify that the gas supply valve located on the side of the oven is in the open position.
- ✓ Check the oven fan for operation (with the oven door closed). If the fan is not operating, check the door switch for proper operation.
- ✓ Ensure that the required voltage is present at the unit's power terminal block.
- ✓ Ensure that the exhaust inducer is operating correctly and that the inducer monitor switch is closed when the oven power switch is set to ON.
- ✓ With the oven door closed and the oven powered up, set the oven thermostat to 400°. Verify that the oven thermostat indicator light illuminates. If the indicator light illuminates, skip to the next step. If the indicator light does not illuminate, the 62ma thermostat fuse (for solid state thermostats only) located near the thermostat circuit board may be blown. If the fuse is blown, replace with a new fuse (spare fuses may be found in a bag located near the power terminal block). If the fuse is good, verify that there is proper voltage (ovens located in the U.S. will have 120 Volts to ground) to the COM and NO terminals on the thermostat circuit board. If there is not proper voltage at the NO terminal, the thermostat is faulty and requires replacement. If the oven thermostat is mechanical and the oven thermostat indicator light does not illuminate, verify the proper voltage into and out of the thermostat. If there is voltage into the mechanical thermostat but not out of the thermostat then the thermostat requires replacement.
- ✓ Ensure that the Hi-Limit switch is not 'Open'.

- ✓ Verify proper operation of the transformer. The LINE side of the transformer should be 120 Volts. The LOAD side of the transformer should be 24 Volts to ground. If there are not 24 Volts from the LOAD side of the transformer, then the transformer is faulty and requires replacement.
- ✓ Set the oven thermostat to 400°. At this point, the oven gas ignitor coils should begin to glow and the gas valves should open. There is a burner system for each side of the oven (unless the unit is a gas conveyor oven). The oven is safety wired. If one side fails to ignite, the ignition system will shut both sides down and initiate the protect mode. If the ignitor coil(s) do not glow and the gas valves do not open, then one of the HSI (Hot Surface Ignition) modules is faulty and requires replacement. If one side will not light then swap the modules and verify that the problem moved with the module.
- ✓ When the gas valves are open, there should be a minimum of five inches water column pressure for natural gas or eleven inches water column pressure for propane gas. If the gas valve(s) fails to open but 24 Volts DC is present at the valve, then the valve is faulty and requires replacement.
- ✓ Check the glow coil ignitors for proper operation. Ensure that there are 24 Volts between the ignitor and ground when the ignition module calls for ignition. Verify that the ignitors glow and that they are not cracked or broken. If the ignitor(s) is broken or will not glow, then the ignitor(s) is faulty and requires replacement.
- ✓ If the ignitors glow and the gas valves open but the burner(s) will not light, then the ignitor(s) placement may need to be adjusted. Gently bend the ignitor mounting bracket so that the ignitor(s) is closer to the burner.
- ✓ If the burners will light but shut down within a few seconds, then the flame sensor(s) may require adjustment or replacement. The flame sensor should be mounted so that the top of the inner blue flame crosses the flame sensor. Ensure that the flame sensor probe is not touching any metal parts including the burner or the chassis of the unit. If the flame sensor slides loosely inside the ceramic insulator then the flame sensor is faulty and requires replacement.

#### **Oven Motor will not Run**

- ✓ Ensure that the oven power switch is set to ON.
- ✓ Ensure that the fan speed switch (if so equipped) is in an operating position (not OFF).
- ✓ Ensure that the oven door is closed and that it is engaging the oven door switch. The oven door switch supplies power to both the oven thermostat and the oven motor. If the oven thermostat indicator light will come on when the oven thermostat is turned up, then the door switch is good.
- ✓ Check the motor wiring for proper wire connections.
- ✓ If the oven is currently hot, then let the oven cool down (power the oven down). NU-VU® motors are equipped with internal thermal protection. It is possible that the motor has shut down due to overheating. When the oven has cooled down, power the oven back up and watch the oven motor. If the motor runs but shuts down again when the oven reaches a temperature of 400°, then the thermal protector is faulty and the oven motor requires replacement.
- ✓ If the motor is supplied with the proper voltage, but will not run, then the motor is faulty and must be replaced.

#### **Oven Timer will not Time Down, or Sticks**

- ✓ The oven timer is a self-contained component without repairable parts. If the oven timer consistently sticks or stops, it requires replacement.



**Oven Timer Counts Down, but will not Sound the Buzzer**

- ✓ Ensure that the timer reaches the "0" position and does not stop prior to reaching "0".
- ✓ Ensure that the wire connections to the timer are secure.
- ✓ Verify that the proper voltage is supplied to the buzzer from the timer.
- ✓ If the proper voltage is supplied to the buzzer and the buzzer volume is turned all the way up, then the buzzer is faulty and requires replacement.
- ✓ If there is not proper voltage supplied from the timer and the timer is in the "0" position, then the timer is faulty and requires replacement.

## Proofers

### Proofer has no Power

- ✓ The power switch/circuit breaker (if so equipped) may be tripped. Set the switch all the way to the OFF position, then reset the switch to the ON position. If the proofer is equipped with a power rocker switch, check the 20-amp fuse located at the bottom front of the unit or located near the power supply inlet at the rear of the equipment. Replace the fuse with an SC20 Buss® fuse.
- ✓ The power supply circuit breaker or fuse may be tripped/blown. Reset the breaker or replace the fuse.
- ✓ Check to ensure that the power supply cord is properly attached to the unit's power terminal block.
- ✓ Check to ensure that the proper voltage is supplied to the unit's power terminal block (verify against the voltage requirements listed on the equipment label).
- ✓ Ensure that the wire connections to the power breaker/rocker switch are properly attached.
- ✓ Verify that the correct voltage is supplied to the input terminal of the breaker/rocker switch. If the correct voltage is supplied to the breaker/rocker switch and the switch does not close, then the breaker/rocker switch is faulty and requires replacement.

**Note:** If the 20 amp fuse blows repeatedly upon start-up, turn all the proofer controls to their OFF positions and install a new fuse. Set the power rocker switch to the ON position. If the fuse blows upon start-up, check the proofer lights or power rocker switch for a direct short. If the fuse does not blow upon start-up, set the proofer controls to their ON positions one at a time in order to determine which control is causing the fuse to blow.

### Proofer will not Heat

Conditions: Power indicator light is illuminated, the interior proofer lights are illuminated, and the proofer fan motor is operating but the proofer will not heat.

- ✓ With the proofer powered up and running, set the proofer HEAT thermostat to 200°. Verify that the proofer HEAT thermostat indicator light illuminates. If the indicator light illuminates, skip to the next step. If the indicator light does not illuminate, the 62ma thermostat fuse (for solid state thermostats only) located near the thermostat circuit board may be blown. If the fuse is blown, replace with a new fuse (spare fuses may be found in a bag located near the power terminal block). If the fuse is good, verify that there is proper voltage (ovens located in the U.S. will have 120 Volts to ground) to the COM and NO terminals on the thermostat circuit board. If there is proper voltage to the COM terminal but not proper voltage at the NO terminal, the thermostat is faulty and requires replacement. If the proofer thermostat is mechanical and the proofer thermostat indicator light does not illuminate, verify the proper voltage into and out of the thermostat. If there is voltage into the mechanical thermostat but not out of the thermostat then the thermostat requires replacement.
- ✓ With the proofer HEAT thermostat turned up so the indicator light is illuminated, check each element lead wire for proper amp draw. Replace the necessary proofer heating elements.

### Proofer has no Humidity (Manual Fill Proofers)

Conditions: Power indicator light is illuminated, the interior proofer lights are illuminated, and the proofer fan motor is operating but the proofer will not heat.

- ✓ With the proofer powered up and running, set the proofer HUMIDITY thermostat to #10. Verify that the proofer HUMIDITY thermostat indicator light illuminates. If the indicator light illuminates, skip to the next step. If the indicator light does not illuminate, the 62ma thermostat fuse (for solid state thermostats only) located near the thermostat circuit board may be blown. If the fuse is blown, replace with a new fuse (spare fuses may be found in a

bag located near the power terminal block). If the fuse is good, verify that there is proper voltage (equipment located in the U.S. will have 120 Volts to neutral) to the COM and NO terminals on the thermostat circuit board. If there is proper voltage to the COM terminal but not proper voltage at the NO terminal, the thermostat is faulty and requires replacement. If the proofer HUMIDITY thermostat is mechanical and the proofer HUMIDITY thermostat indicator light does not illuminate, verify the proper voltage into and out of the thermostat. If there is voltage into the mechanical thermostat but not out of the thermostat then the thermostat requires replacement.

- ✓ With the proofer HUMIDITY thermostat activated (indicator light illuminated), check the HUMIDITY element lead wire for proper amp draw. If the HUMIDITY element does not heat then it is faulty and requires replacement.

Note: Humidity is relative to heat. Optimal proofing conditions are 105°F, and 90% humidity (typically a setting of #3). Hotter environments are capable of holding more moisture. Ensure that the proofer is not above 120° F; it may not be a case of too little humidity, but of excessive heat.

### Proofer has no Humidity (Automist Proofers)

The humidity function in NU-VU® proofers equipped with the Automist option operates on a timer. The Automist system consists of a repeat cycle timer, potentiometer, and solenoid valve. The repeat cycle timer cycles every 45 seconds. The amount of ON time is determined by the potentiometer; a control setting of #1 is about .5 seconds, a setting of #10 is about 3 seconds. The water enters the proofer through a spray nozzle located near the squirrel cage proofer fan.

- ✓ Ensure that all water supply valves are in the "open" position.
- ✓ Check the spray nozzle for clogging.
- ✓ Set the HUMIDITY control to the #3 setting and observe the HUMIDITY indicator light. The indicator light should illuminate every 45 seconds, and stay lit for about 1 second. If there is no resistance across the purple and red wires then the potentiometer is faulty and requires replacement. If the repeat cycle timer does not energize the solenoid valve, then the repeat cycle timer is faulty and requires replacement.
- ✓ If the indicator light illuminates every 45 seconds, and the spray nozzle is not clogged, then check the solenoid valve for proper operation. Replace the solenoid valve if necessary.

### Proofer Motor will not Run

Conditions: Power indicator light is illuminated, and the interior proofer lights are illuminated.

- ✓ Check the motor wiring for proper wire connections.
- ✓ If the motor is supplied with the proper voltage but will not run, then the motor is faulty and must be replaced