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MODE

Stainle: Power Electric





THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

# **WARNING**

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.







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CAUTION: STAND AWAY FROM THE HOT WATER WHILE TILTING THE PAN TO

EMPTY IT.

WARNING: DO NOT HEAT AN EMPTY PAN FOR MORE THAN FIVE MINUTES AT A

**SETTING HIGHER THAN 300° F.** 

WARNING: AVOID ANY EXPOSURE TO THE STEAM ESCAPING FROM THE COVER

VENT. DIRECT CONTACT COULD RESULT IN SEVERE BURNS

WARNING: AVOID ALL DIRECT CONTACT WITH HOT EQUIPMENT SURFACES. DIRECT

SKIN CONTACT COULD RESULT IN SEVERE BURNS.

WARNING: AVOID ALL DIRECT CONTACT WITH HOT FOOD OR WATER IN THE

BRAISING PAN. DIRECT CONTACT COULD RESULT IN SEVERE BURNS.

WARNING: IF THE PAN CONTAINS ITEMS IN SAUCE OR MELTED FAT, THEY COULD

SLIDE FORWARD SUDDENLY DURING TILTING AND CAUSE THE HOT

LIQUID TO SPLASH OUT.

WARNING: USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY

GROEN OR ITS AUTHORIZED DISTRIBUTORS VOIDS ALL WARRANTIES AND MAY CAUSE BODILY INJURY AND/OR EQUIPMENT DAMAGE.
SERVICE PERFORMED BY OTHER THAN FACTORY AUTHORIZED

PERSONNEL WILL VOID ALL WARRANTIES.

WARNING: ALWAYS TURN OFF ELECTRIC POWER BEFORE WORKING ON INTERNAL

COMPONENTS.

WARNING: BEFORE ANY CLEANING OPERATION, TURN THE THERMOSTAT TO "OFF"

TO CUT OFF POWER TO THE HEATING ELEMENTS. BEFORE CLEANING ANY PART OTHER THAN THE INSIDE OF THE PAN DISCONNECT THE ELECTRICAL SUPPLY AT THE CIRCUIT BREAKER OR FUSE BOX.

WARNING: BE CAREFUL TO AVOID CONTACT WITH THE CLEANER IN ACCORDANCE

WITH SUPPLIER AND MANUFACTURER RECOMMENDATIONS. MANY CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. READ THE WARNINGS AND FOLLOW DIRECTIONS ON

THE CLEANER LABEL.

CAUTION: NEVER LEAVE A CHLORINE SANITIZER IN CONTACT WITH STAINLESS

STEEL FOR LONGER THAN 30 MINUTES. LONGER CONTACT CAN CAUSE

CORROSION.

WARNING: DO NOT USE ANY FUSE WITH A HIGHER AMP RATING THAN THE RATING

SPECIFIED FOR THAT CIRCUIT.

## IMPORT/ . . . . . . 3 **REFEREI** . . . . . . 3 **EQUIPME** . . . . . . 4 INSTALL . . . . . . 5 **INITIAL S** . . . . . . 6 OPERAT . . . . . . 6 **SEQUEN** . . . . . . 8 **CLEANIN** . . . . . . 9 MAINTEN . . . . . 10 TROUBLESHOOTING ...... 11

NFPC

# References

ECONOMICS LABORATORY, INC. St. Paul, Minnesota 55102

NATIONAL FIRE PROTECTION ASSOCIATION 60 Battery March Park Quincy, Massachusetts 02269

NFPA/70 The National Electrical Code

NATIONAL SANITATION FOUNDATION 3475 Plymouth Rd. Ann Arbor, Michigan 48106

UNDERWRITERS LABORATORIES, INC. 333 Pfingsten Rd. Northbrook, Illinois 60062

ZEP MANUFACTURING 1390 Lunt Avenue Elk Grove Village, Illinois 60007

exterior fill of the from stainless

The Groe heated Br integratec mechanis cover. Th	trol of nostat le pan ction is
unit, gridc	
food warn	nless
for use as	shield on
Construct duty stain has a poli	ig Pan. A iter e opened the back.

electrical nearing elements. The elements are positioned to ensure uniform heat transfer over the entire surface. The pan is mounted on an open-leg frame which is fabricated from tubular stainless steel.

An electrically powered mechanism tilts the pan forward. A three position switch on the front of the control console gives the operator positive, smooth-acting control of tilt.

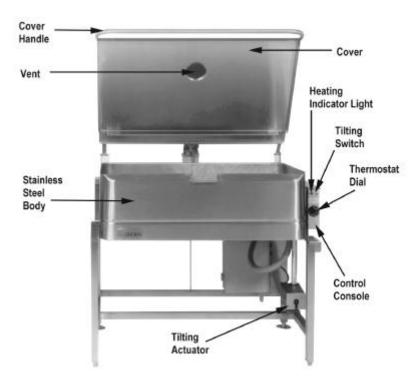
Heating elements and other electrical components are enclosed for safety. The thermostat, heating indicator light, and tilting switch are contained in a compact control console which is mounted to the right of the pan body.

The following moders and options are available:

Model	Pan Dimensions, Inches			
	Left to Right Depth		Front to Back	
NFPC-3	31 <b>e</b>	7 or 9	25¼	
NFPC-4	41 <b>e</b>	7 or 9	25¼	

#### Optional Equipment (Either Model)

- 1. Fill faucet with swing spout and water hose
- 2. Model REJ Steamer Insert
- 3. Casters



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#### Installatio

1. Set the mei pos

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spiratever on the bottom of the pan. The unit must be level to avoid uneven cooking across the pan.

WORK WITH ELECTRICITY. IMPROPER INSTALLATION COULD RESULT IN PERSONAL INJURY OR EQUIPMENT DAMAGE.

 At the electrical service entrance in the bottom of the control box, make a waterproof connection with the incoming power line. A BX connection is not recommended.

4. Any mechanical or electrical change must be approved by the Groen Food Service Engineering Department.

ELECTRICAL DATA*				
Voltone	Phase	Power and Current Draw		
Voltage		NFPC-3	NFPC-4	
208	1	11.4 KW - 54.8 AMP	14.25 KW - 68.5 AMP	
208	3	11.4 KW - 31.6 AMP	14.25 KW - 39.6 AMP	
240	1	12 KW - 50 AMP	15 KW - 62.5 AMP	
240	3	12 KW - 28.9 AMP	15 KW - 36.1 AMP	
380	3	12 KW - 18.2 AMP	15 KW - 22.8 AMP	
480	1	12 KW - 25 AMP	15 KW - 31.25 AMP	
480	3	12 KW - 14.5 AMP	15 KW - 18 AMP	
Power tile motor draws 6 AMP at 120 Volts, Single Phase				

<sup>\*</sup>All data at 60 Hz.

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properly leveled.

# Operation

Operator Controls on the Braising Pan are the thermostat dial and power tilt switch on the console to the right of the pan body. The dial turns electric power for the pan on or off, and sets the pan's operating temperature. The power tilt switch is used to raise or lower the pan body. Press the switch **down to raise** the pan or **up to lower** it.

#### A. Start-up Procedure

- Set the thermostat dial to the desired temperature between 100 and 400° F. The glowing Heat Indicator Light shows that the pan is heating. When the light cycles on and off, it indicates that the pan is being held at the set temperature. Once in each of these cycles you may hear the contactors in the control box make a clicking sound.
- For best results when braising or frying, preheat the pan before putting in any food. For an even temperature across the pan, reheat at a setting of 300° F or less for 15 minutes, or through several on/off cycles of the thermostat.

WARNING DO NOT HEAT AN EMPTY PAN FOR MORE THAN FIVE MINUTES AT SETTINGS ABOVE 300°F. DAMAGE TO THE PAN COULD RESULT.

#### **B.** Cooking

- To simmer or slowly heat an item, set the dial at about 210° F or lower. Put the cover down to keep moisture loss at a minimum, or leave it up to help dry the product. Set the thermostat higher to cook or drive moisture off faster. The thermostat may be adjusted to any setting in its range to cook exactly as you wish.
- 2. Leave the cover vent open to allow excess steam to escape. For longer simmering, you may wish to close the vent.



WARNING
AVOID ANY EXPOSURE TO THE STEAM
ESCAPING FROM THE COVER VENT.
DIRECT CONTACT COULD RESULT IN
SEVERE BURNS

3. To check cooking progress when the cover has been closed, grasp the plastic handle of vent cover and lift it slightly while moving it quickly to either side. Standing at one side of the pan to avoid the steam that will be released, grasp the nearest corner of the cover handle and raise the cover. The cover will stay in the open position until you put it down.

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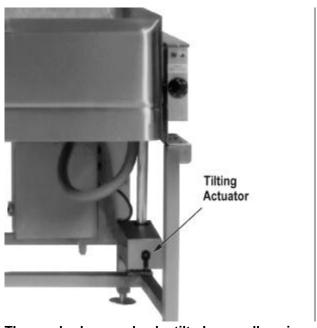
AVOID EQUIPN CONTA BURNS.

AVOID ALL DIRECT CONTACT WITH HOT FOOD OR WATER IN THE BRAISING PAN. DIRECT CONTACT COULD RESULT IN SEVERE BURNS.

IF THE PAN CONTAINS ITEMS IN SAUCE OR MELTED FAT, THEY COULD SLIDE FORWARD SUDDENLY DURING TILTING AND CAUSE THE HOT LIQUID TO SPLASH OUT.

#### C, Routine Clean Up

After each use, turn the thermostat to "OFF" and clean all food contact surfaces to ensure proper sanitation. At the end of the day, or at least once every 24 hours, turn off the heat and shut off electric power to the unit and clean both the interior and exterior of the pan. See Page 9 for more detailed cleaning instructions.



The pan body may also be tilted manually using a hand crank on the slotted shaft of the actuator motor.

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When you thermosta the therm contactor: the heatin

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As soon as the thermostat senses that the pan is cooling below the set temperature, the thermostat closes, the contactors close, and the heaters and indicator light come on again.

This on and off cycle continues, maintaining the pan at the set temperature. This is why the indicator light on and off cycling is seen during normal operation.

If the pan temperature exceeds 425° F for any reason, a high-limit thermostat shuts off the power until the pan cools. At that point, the thermostat automatically resets to permit normal operation to start again.

Turning the thermostat to "OFF" shuts down all control and heating circuits.

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le motor hen the e ody rests it tilts

reaches its vertical limit.

If the tilting motor gets too hot during operation, an overheat protection switch will open and stop the motor. When the motor has cooled sufficiently, the switch will automatically reset and permit tilting to begin again.

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- b. B
- c. C
- d. C
- e. H

#### 2. Proce



#### **WARNING**

BEFORE ANY CLEANING OPERATION, TURN THERMOSTAT DIAL TO "OFF" TO CUT ANY POWER TO THE HEATING ELEMENTS. BEFORE CLEANING ANY PART OTHER THAN THE INSIDE OF THE PAN, DISCONNECT ELECTRICAL SUPPLY AT CIRCUIT BREAKER OR FUSE BOX.

a. Clean all food-contact surfaces soon after use. It is best to clean the pan before it has completely cooled. If the unit is in continuous use, completely clean and sanitize both the inside and outside at least once every 12 hours.

#### **CAUTION**

KEEP WATER AND SOLUTIONS OUT OF CONTROLS AND ELECTRICAL EQUIPMENT. DO NOT SPRAY OR HOSE THE CONTROL BOX OR OTHER ELECTRICAL CONNECTIONS. THEY ARE NOT WATER-PROOF.

b. To remove any large amount of food left in the pan, tilt the pan all the way up and flush it with lukewarm water. Do not damage the surface of the pan by scraping it with a metal tool.



to clean



Scrapers or steel wool can harm the pan surface.



#### CAUTION

MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES, AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN. WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. READ THE WARNINGS AND CAREFULLY FOLLOW THE DIRECTIONS ON THE CLEANER LABEL.

- Following the supplier's directions, make up a warm solution of the cleaner.
   Carefully wash the inside and outside of the pan body with the cleaning solution.
- d. Use a cloth moistened with cleaning solution to clean controls, the control console, and electric conduit.
- e. Rinse the pan very well with lukewarm water, and drain it completely.
- f. As part of the daily cleaning program, clean all inside and outside surfaces that may have been soiled. Remember to

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the surface of the unit can cause rusting and pitting.

- The outside of the unit may be polished with a recognized stainless steel cleaner such as Zepper from the Zep Manufacturing Company.
- i. When the equipment needs to be sanitized, use a sanitizing solution equivalent to one that supplies 100 parts per million available chlorine. Get advice about the best sanitizing agent from you supplier of sanitizing products. Following supplier instructions, apply the sanitizing agent after the unit has been cleaned and drained. Thoroughly drain off the sanitizer.

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cleaner to remove any mineral deposits or film left by hard water or foods. Follow the supplier's directions very carefully, and rinse the unit off thoroughly as soon as cleaning is finished.

m. If especially difficult cleaning problems persist, contact your cleaning product supplier for help. The supplier has a trained technical staff with laboratory facilities to serve you.

### **Maintenance**

#### **WARNING**

USE OF REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY GROEN OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES. SERVICE PERFORMED BY OTHER THAN FACTORY-AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.

Your Braising Pan is designed to require minimum maintenance, but certain parts may require replacement after prolonged use. After installation, no user adjustment should be necessary. If a service need arises, only authorized personnel should perform the work.

Service personnel should check the unit at least once a year. This should include inspecting electrical wires and connections and cleaning inside of the control console. A Maintenance and Service Log is provided at the rear of this manual. Each time work is performed, enter the date on which it was done, what was done, and who did it.

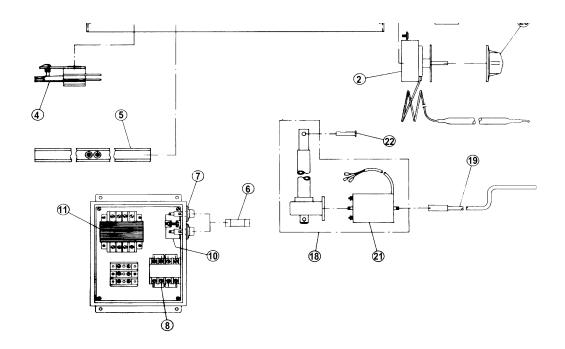


WARNING
ELECTRICAL POWER MUST BE SHUT OFF
BEFORE WORK IS DONE ON INTERNAL
COMPONENTS.

Your Grod
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SY			
Pan will not heat, but indicator light comes on.	Auth Service Rep Only	a.	Heating elements for short circuit.x
Pan will not heat, and indicator light will not light	User	a. b.	That power supply is on. Fuses, accessible by removing caps on the side of the control box.
	Auth Service Rep Only	c. d. e.	For loose or broken wire.x Thermostat functioning, by listening for a click when the switch opens or closes.x Contactor functioning.x
Pan continues to heat	User	a.	Thermostat dial setting
after it reaches desired temperature	Auth Service Rep Only	b. c. d.	Thermostat functioning, by listening for a click when the switch opens or closes.x Thermostat calibration.x Contactor, to determine if it is de-energized.x
Pan does not reach desired temperature.	User	a.	Thermostat dial setting.
	Auth Service Rep Only	b. c. d. e.	Heating elements for ground short or open (burned out) element.x  Thermostat functioning, by listening for a click when the switch opens or closes.x  Thermostat calibration.x  Contactor functioning.x
Rapid clicking noise	User	a.	For low voltage.
(chattering)	Auth Service Rep Only	b.	Contactor for dirt or corrosion on the contacts.x
Uneven cooking due to "hot spots."	User	a.	That the pan body is level
Uneven cooking due to "cold spots."	Auth Service Rep Only	a.	For open (burned out) heating element.x
Pan will not tilt	User	a. b.	That electrical power supply is on. For overheated actuator motor. Wait 15 minutes or less for motor to cool, then operate the power tilt. (For instructions on manual operation see Page 7.
	Auth Service Rep Only	C.	For burned out capacitor or motor.x



Key	Description	Part No.	Key	Description	Part No.
1	Control Box	050377	13	Actuator Cover Model 51 9"pan	014085
2	Thermostat	002180	14	Spring	012533
3	Switch, Toggle	002664	15	Cover Assembly, Vent	017494
4	Thermostat, High Limit	012840	16	Hinge Bracket	013485
5	Heater, Strip*	_	17	Bracket	004556
6	Fuse, 6 Amp	003982	18	Actuator	045880
7	Fuse Holder	004326	19	Crank, Manual, Actuator	050242
8	Contactor (Units after 1/1/85)	006950	20	Thermostat Knob	003908
	Contactor (Units pre-1/1/85)*	_	21	Actuator Motor	054716
9	Indicator Light	002986	22	Support Pin	056909
10	Capacitor	050384		Optional Spray Unit	003283
11	Transformer	051469		Adapter	003284
12	Actuator Cover Model 51 7"pan	014052		*See Electrical Parts Chart	

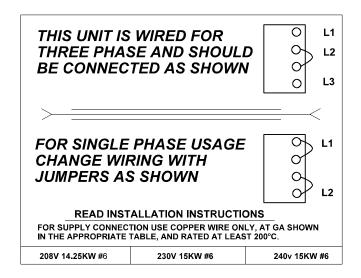
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NFPC-4 NFPC-4	240V, 1PH 240V, 3PH	15 15	012843 012843	1 1	006950 013432*
NFPC-4	380V, 3PH	15	012843	1	013432*
NFPC-4 NFPC-4	480V, 1PH 480V, 3PH	15 15	012908 012908	1 1	013432* 013433*

<sup>\*</sup>Before Jan 1, 1985. All units built after that date used Part No. 006950

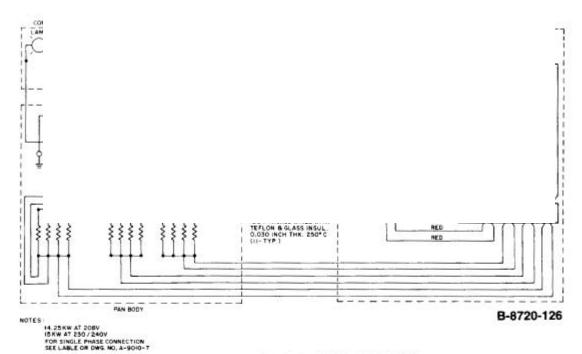
# **Wiring Diagrams**

For certain models of NFPC, all units manufactured after January 1, 1985, have been wired for three phase power supply. The models affected are:

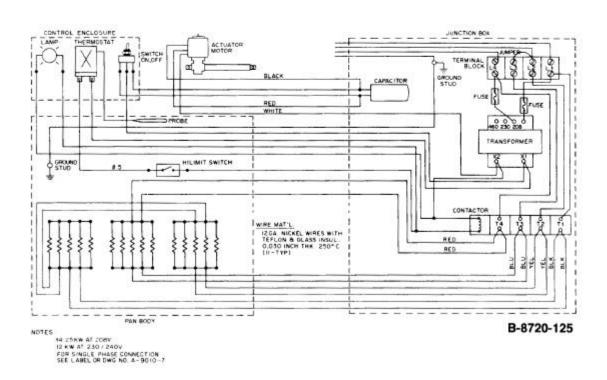
If one of these Braising Pans will be used with single phase supply, it must be field converted as shown below:



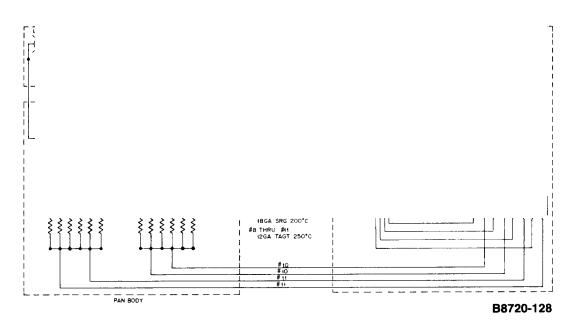
Phase Conversions for NFPC Sizes 3 and 4, 208 and 240 Volts manufactured <u>after</u> January 1, 1985.



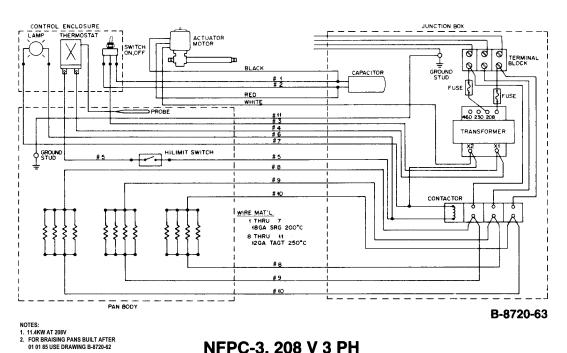
NFPC-3 208 V & 240 V, 1 & 3 PH manufactured <u>after</u> January 1, 1985



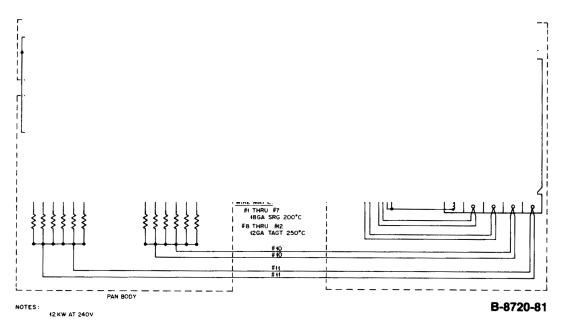
NFPC-4 208 V & 240 V, 1 & 3 PH manufactured after January 1, 1985



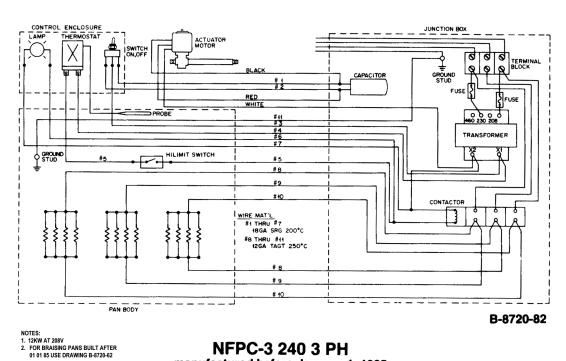
NFPC-3, 208 V 1 PH manufactured before January 1, 1985



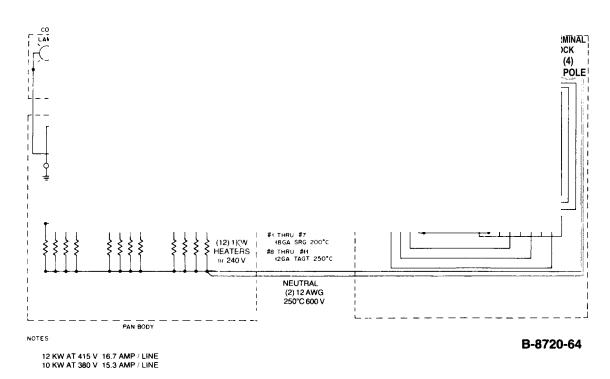
NFPC-3, 208 V 3 PH manufactured before January 1, 1985



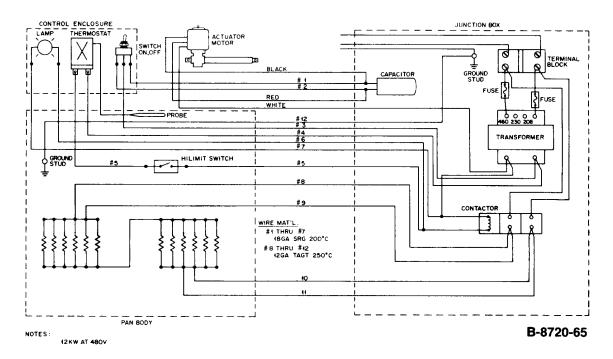
NFPC-3 240 V 1 PH manufactured before January 1, 1985



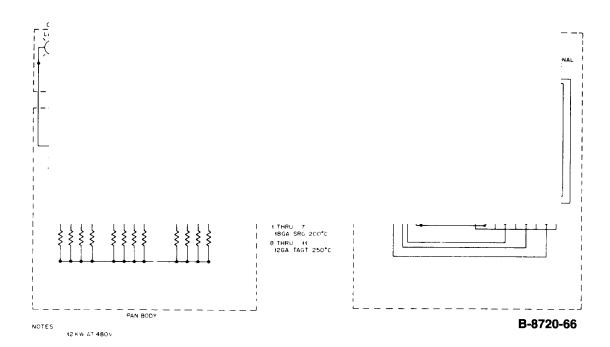
NFPC-3 240 3 PH manufactured before January 1, 1985



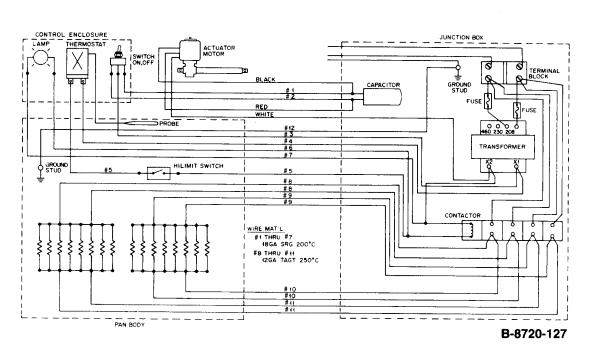
NFPC-3, 380 V 3 PH



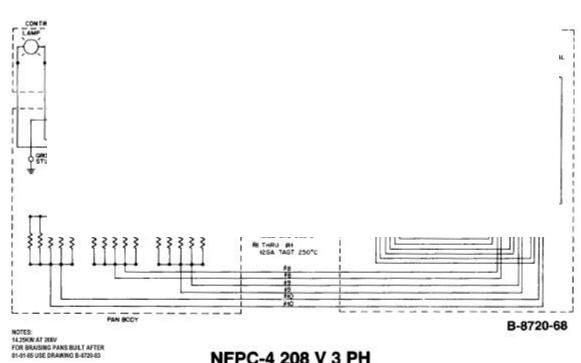
NFPC-3, 480 V 1 PH



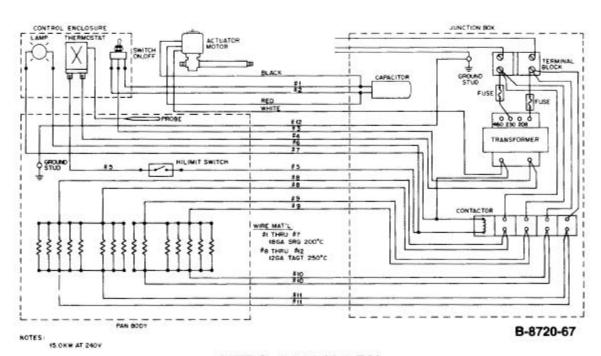
NFPC-3, 480 V 3 PH



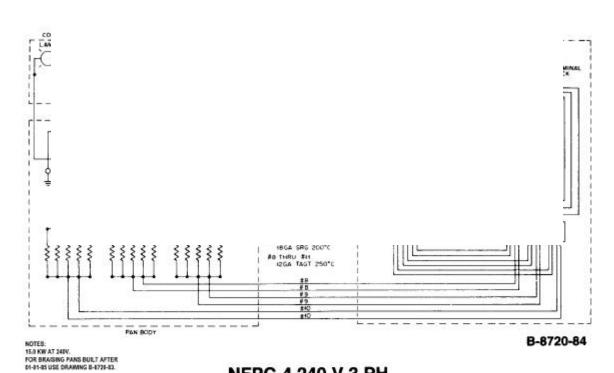
NFPC-4 208 V 1 PH manufactured before January 1, 1985



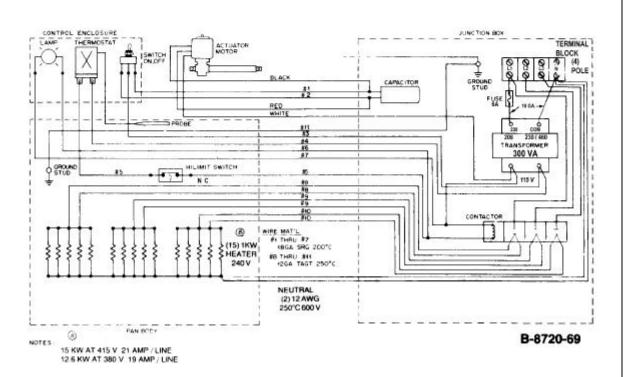
NFPC-4 208 V 3 PH manufactured before January 1, 1985



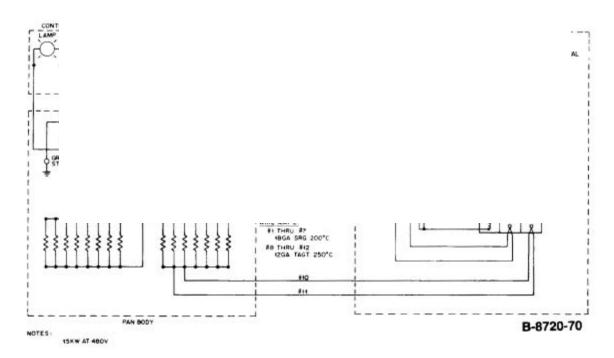
NFPC-4 240 V 1 PH manufactured before January 1, 1985



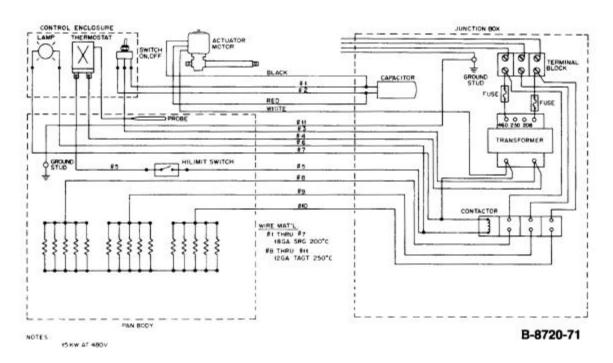
NFPC-4 240 V 3 PH manufactured <u>before</u> January 1, 1985



NFPC-4 380 V 3 PH



NFPC-4 480 V 1 PH



NFPC-4 480 V 3 PH

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Groen For packaged to meet rigid standards of excellence. Groen warrants its Equipment to be free from defects in material and workmanship for (12) twelve months with the following conditions and subject to the following limitations.

- This parts and labor warranty is limited to Groen Equipment sold to the original commercial purchaser/users (but not original equipment manufacturers), at its original place of installation in the continental United States, Hawaii and Canada.
- II. Damage during shipment is to be reported to the carrier, is not covered under this warranty, and is the sole responsibility of purchaser/user.
- III. Groen, or an authorized service representative, will repair or replace, at Groen's sole election, any Groen Equipment, including but not limited to, draw-off valves, safety valves, gas and electric components, found to be defective during the warranty period. As to warranty service in the territory described above, Groen will absorb labor and portal to portal transportation costs (time & mileage) for the first twelve (12) months from date of installation or fifteen (15) months from date of shipment from Groen.
- IV. This warranty does not cover boiler maintenance, calibration, periodic adjustments as specified in operating instructions or manuals, and consumable parts such as scraper blades, gaskets, packing, etc., or labor costs incurred for removal of adjacent equipment or objects to gain access to Groen Equipment. This warranty does not cover defects caused by improper installation, abuse, careless operation, or improper maintenance of equipment. This warranty does not cover damage caused by poor water quality or improper boiler maintenance.
- V. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL GROEN BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.
- VI. Groen Equipment is for commercial use only. If sold as a component of another (O.E.M.) manufacturer's equipment, or if used as a consumer product, such Equipment is sold AS IS and without any warranty.

<sup>\* (</sup>Covers All Foodservice Equipment Ordered After October 1, 1995)



1055 Mendell Davis Drive Jackson, MS 39212 Telephone 601 372-3903 FAX 601 373-9587