INSTRUCTION MANUAL

addendum

Montague Vectaire 5

Gas Convection Ovens
with
Solid State Electronic Controls

Models:

SE70, SE115, SE2-70 and SE2-115 Series

This manual is meant as a suppliment to the Gas Vectaire manual. The contents herein describe the function and operation of the Solid State Electronic Controls. For information on Gas Vectaire Oven installation, operation, maintenance, service and parts, refer to the Gas Vectaire manual part no. 4520-9.

These instructions should be read thoroughly before attempting installation. Set up and installation should be performed by qualified installation personnel.

Keep area around appliances free and clear from combustibles.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.



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IMPORTANT

WARNING:

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

FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE USER SMELLS GAS MUST BE POSTED IN A PROMINENT LOCATION. THIS INFORMATION MAY BE OBTAINED BY CONSULTING THE LOCAL GAS SUPPLIER.

SHIPPING DAMAGE CLAIM PROCEDURE

For your protection, please note that equipment in this shipment was carefully inspected and packed by skilled personnel before leaving the factory. The transportation company assumed full responsibility for safe delivery upon acceptance of this shipment.

If shipment arrives damaged:

1.VISIBLE LOSS OR DAMAGE - Be certain this is noted on freight bill or express receipt, and signed by person making delivery.

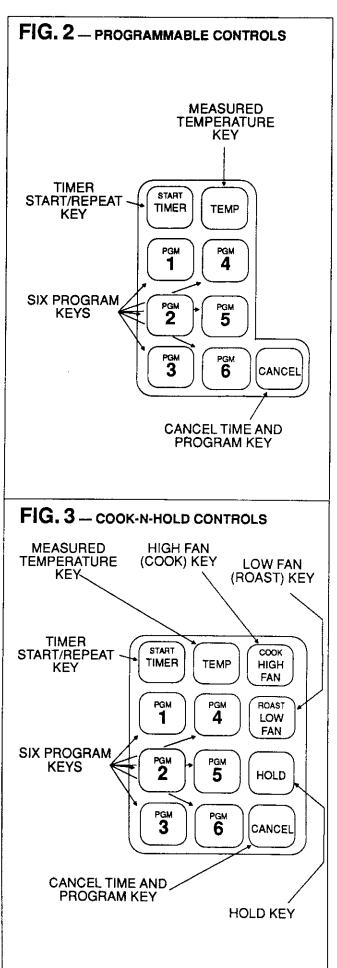
2.FILE CLAIM FOR DAMAGES IMMEDIATLY - Regardless of the extent of damage.

3.CONCEALED LOSS OR DAMAGE - If damage is unnoticed until merchandise is unpacked, notify transportation company or carrier immediatly, and file "concealed damage" claim with them. This should be done within fifteen (15) days of date that delivery was made to you. Be sure to retain container for inspection.

We cannot assume responsibility for damage incurred in transit. We will, however, be glad to furnish you with

FIG. 1- STANDARD CONTROLS CONTROL 0 POWER SWITCH CYCLE INDICATOR LIGHT FAN _IGHT INTERIOR OFF LIGHT SWITCH OFF COOL FAN ON/COOL-DOWN **SWITCH** 88:88 TIME, TEMPERATURE AND MODE Vectaire-SE DISPLAY TIME TEMP TIME SET DIAL **TEMPERATURE** SET DIAL > TIMER START START/CANCEL TIMER **TEMP KEY** CANCEL **MEASURED TEMPERATURE KEY** OFF MAIN GAS SHUT-OFF VALVE

SAFETY PILOT BUTTON — (EXCEPT "EI" MODELS)



INTRODUCTION

The SE series Vectaire gas convection ovens are very similar to the Vectaire ovens Montague has produced for years. The most significant difference is that solid-state electronic controls are used instead of the electro-mechanical ones commonly used. The result is the most accurate, responsive and predictable ovens we have ever offered with the recognized dependability of solid-state components.

This special manual is meant to be used as a suppliment to the main "Vectaire Gas Convection Ovens" instruction manual, which should be referenced first for special instructions.

INSTALLATION

Montague's general installation instructions should be followed. In addition, since solid-state components have a very short life span when exposed to temperatures above 185°F, (85°C), certain installation precautions are necessary. The SE ovens have been designed to operate well below this temperature when installed properly, and the following cautions are observed:

Caution

- 1. Do not obstruct the air out the vent holes at the top of the oven, or the flow of fresh room air to the oven bottom or lower front portion of the burner access cover.
- 2. Do not mount the oven on a solid curb unless it has been modified at the factory for this type of operation.
- 3. When stacking ovens, never reverse the top and bottom ovens.
- 4. Never stack an SE convection type oven with a standard Vectaire, or any other type of oven without first consulting the factory. Certain ovens are not compatible, or a stacking kit may be required.

Special Caution

DO NOT PLACE HIGH HEAT PRODUCING EQUIPMENT ADJACENT TO THE RIGHT SIDE OF AN "SE" VECTAIRE CONVECTION OVEN. EXCEEDING 185°F, (85°C), SURFACE TEMPERATURE CAN CAUSE PREMATURE COMPONENT FAILURE NOT COVERED UNDER MANUFACTURERS WARRANTY. THE OVENS NEED 6" MINIMUM CLEARANCE ON THE RIGHT SIDE BETWEEN SIMILAR OVENS OR OTHER COOKING EQUIPMENT. OPTIONAL INSTALLATION KITS ARE AVAILABLE THAT REDUCE THE MINIMUM CLEARANCE BETWEEN SIMILAR OVENS TO 1" AND BETWEEN OTHER EQUIPMENT TO 2". CONSULT FACTORY.

COOKING with Solid State Controls

ALL SE SERIES MODELS — See Fig. 1

The "I" portion of the control power switch must be depressed for the oven to operate. The oven display will illuminate (allow for a short time delay).

The fan side of the "FAN/OFF/COOL" switch should be depressed in order to begin cooking. The COOL side is only used to cool down the oven with the doors open and the fan on.

STANDARD MODELS with SUFFIX A

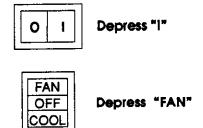
Select the desired cook time by turning the "TIME" set dial clockwise until the correct time appears in the control display. The display shows minutes and seconds up to an hour ("MN" will appear in the display), and automatically switches to hours and minutes up to a maximum of 24 hours, ("HR" will appear in the display). Before starting, the time digits will flash in the display. Start the timer by momentarily depressing the "TIMER START/CANCEL" key. The time digits will now count down while only the colon will flash. When the timer reaches zero, a repeating beep will sound until the "TIMER START/CANCEL" key is depressed. Time can be adjusted, if desired, during a timed cycle simply by rotating the "TIME" set dial.

Select the desired cook temperature by turning the "TEMP" set dial clockwise until the correct temperature appears in the upper right hand portion of the diplay window. A temperature from 150°F to 500°F can be selected in 5°F increments.

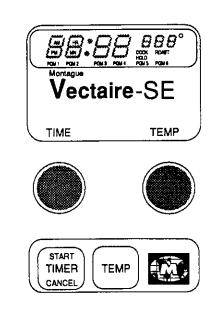
Once a temperature has been selected, the fan will come on, a "COOK" symbol will show in the display window, the red cycle indicator light will come on and the oven will begin preheating to the set temperature. The set temperature will flash in the display window until the oven has reached temperature, at which time it will become constant and the cycle indicator light will go out.

To change the set temperature at any time, simply turn the "TEMP" set dial until the new temperature appears in the display window. To turn the oven off, turn the "TEMP" set dial counterclockwise until the temperature display shows 000°.

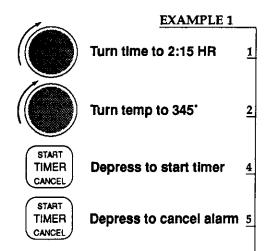
The actual measured oven temperature can be checked by depressing and holding the "TEMP" <u>key</u>. The actual oven temperature will be displayed in the set temperature window until the "TEMP" key is released, and the display will again show the previously set temperature.



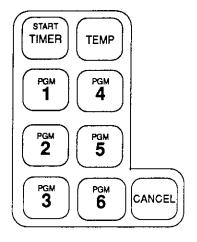
Standard Control Panel







Programmable Control Panel Keypad



EXAMPLE 1 — Cook at 345°F for 2 hours and 15 minutes:

- 1. Turn "TIME" set dial clockwise (past 59:55 MN) until 2:15 HR appears in the display.
- 2. Turn "TEMP" set dial clockwise until 345° appears in the display.
- 3. The oven will come on and begin preheating. The display will flash.
- Once at temperature, the oven can be loaded and the "TIMER START/CANCEL" key pushed.
- 5. When time has expired, push the "TIMER START/CANCEL" key to turn off the beep alarm.

PROGRAMMABLE MODELS with SUFFIX AP

Programmable models have all of the manual operation features of the standard models plus the ability to store up to six different cook times and temperatures for future use. The key pad is shown in Fig. 2. In addition to the six program keys, there is a separate "TIMER START" and "CANCEL" key. The "CANCEL" key is now used to cancel the timer beep alarm and to clear out any preprogrammed information on the display.

In addition, these models also include a repeat feature that resets the prior time period when the "TIMER START" key is used to cancel the beep alarm instead of the "CANCEL" key.

To program a time and temperature, depress and hold down the desired "PGM" key. The program number of the key depressed will appear in the bottom of the display window. With your other hand, turn the "TIME" set dial until the correct time appears in the display window. Do the same with the "TEMP" set dial until the correct temperature appears in the upper right hand corner of the display window. Release the program key and this information is now stored.

Upon releasing the "PGM" key, the oven will automatically begin preheating to the set temperature. If you do not wish to cook at this time, simply push the "CANCEL" key to clear the program from the display and then zero out the temperature display by turning the "TEMP" set dial counterclockwise. The oven will then shut off.

EXAMPLE 2 — Program a 325°F bake for 35 minutes into program 1:

- 1. Depress and HOLD "PGM 1" key.
- 2. Turn "TIME" set dial clockwise until 35:00 MN appears in the display.
- 3. Turn "TEMP" set dial clockwise until 325° appears in the display.
- 4. Release "PGM 1" key. Time and temperature are now stored in "PGM 1" key for future use. Display should read "35:00 MN, PGM 1, COOK, and 325".
- 5. To shut off oven instead of preheating, zero out the temp and time displays with the set dials and press the "CANCEL" key.

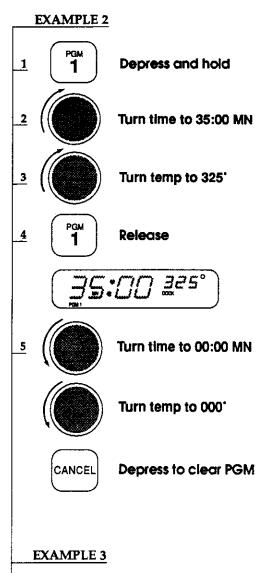
To recall a program for future use, simply depress the desired "PGM" key. The stored time and temperature will appear in the display along with the number of the program selected, and the oven will begin preheating.

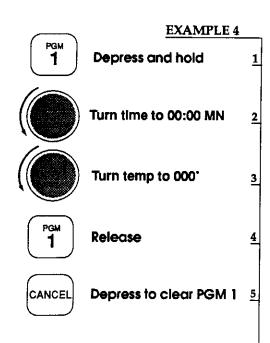
EXAMPLE 3 — Recall program 1:

- 1. Depress "PGM 1" key.
- 2. Display window will show "PGM 1, 35:00 MN, 325" and COOK".
- 3. Oven will begin preheating.

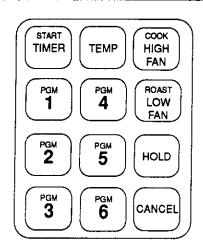
During a programmed cook, once the timer has been started, the "TIME" and "TEMP" set dials become inoperable to prevent accidental tampering until the programmed cook cycle has been completed.

To remove or purge a program from memory, simply depress and hold the desired "PGM" key while turning the "TIME" and "TEMP" set dials counterclockwise until these displays show zero. Release the "PGM" key and momentarily depress the "CANCEL" key to clear the program from the display window.

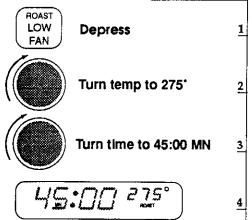




Cook-n-Hold Control Panel Keypad



EXAMPLE 5



EXAMPLE 4 - Clear "PGM 1" for other use:

- 1. Depress and HOLD "PGM 1" key.
- 2. Turn "TIME" set dial counterclockwise until zeroed.
- 3. Turn "TEMP" set dial counterclockwise until zeroed.
- 4. Release "PGM 1" key.
- 5. Depress "CANCEL" key.

COOK-N-HOLD MODELS with SUFFIX AH

Cook-n-Hold models have all the standard and programmable model features plus the option of selecting the fan speed and cooking mode. A continuous high speed fan is used during the COOK mode, a continuous low speed fan is used for the ROAST mode and an intermittent low speed fan is used during the HOLD mode.

The Cook-n-Hold key pad is shown to the left. The "COOK/HIGH FAN", "ROAST/LOW FAN" and "HOLD" keys are positioned on the right side.

An important difference with the Cook-n-Hold control is that you must first select the cooking mode before you dial your desired temperature. This is done by momentarily depressing the "COOK/HIGH FAN", "ROAST/LOW FAN" or "HOLD" key and then immediately (within 3 to 5 seconds) begin turning the "TEMP" set dial until the correct temperature appears in the display window. The cook time is set in the normal manner.

EXAMPLE 5 — Set a roast temp of 275'F for 45 minutes at low fan:

- 1. Depress the "ROAST/LOW FAN" key.
- 2. Immediately turn the "TEMP" set dial clockwise until 275° appears in the display window. The oven will begin preheating.
- Turn the "TIME set dial clockwise until 45:00 MN appears in the display.
- 4. The display will show "45:00 MN, ROAST and 275".

If no cooking mode is selected or if more than 3 to 5 seconds elapse after depressing the "ROAST/LOW FAN" key the control will automatically revert to the "COOK/HIGH FAN" mode and the word "COOK" will appear in the display window.

To program either a COOK or ROAST time and temperature into memory, proceed as with the programmable models only select the cooking mode before depressing the program key.

EXAMPLE 6 — Program 225°F bake at low fan for 40 mins into PGM 2:

- 1. Depress the "ROAST/LOW FAN" key. The word "ROAST" will appear in the display.
- 2. Immediately depress and HOLD the "PGM 2" key. The word "PGM 2" will appear in the display.
- 3. Turn the "TEMP" set dial clockwise until 225' appears in the display.
- Turn the "TIME" set dial clockwise until 40:00 MN appears in the display.
- 5. Release the "PGM 2" key. This time and temperature are now stored in "PGM 2" for future use.
- To shut off the oven instead of preheating, zero out the temp and time displays with the set dials and press the "CANCEL" key as previously described.

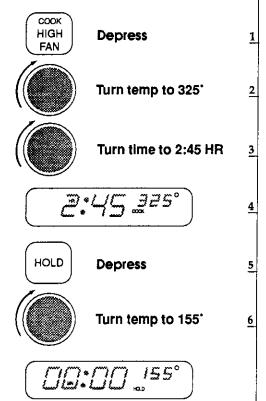
Programming in the COOK mode is identical except you would depress the "COOK/ HIGH FAN" key and the word "COOK" would show in the display. Either a "COOK/HIGH FAN" or a "ROAST/LOW FAN" temperature can be stored in any "PGM" key but not both in the same key.

The Cook-n-Hold feature can be used in either the manual or programmable modes. The HOLD mode cannot be used by itself but must be preceded by either a COOK or ROAST cycle.

A Cook-n-Hold cycle consists of three distinct cooking phases linked together. In the first phase, product is cooked at a selected time and temperature while the fan runs continuously at either high or low speed. The second phase begins as soon as the cook time reaches zero and continues until the oven reaches the HOLD set temperature. During this phase, neither the fan nor the burner is operating. The third phase begins as soon as the HOLD temperature is reached. Several intermittent beeps are signaled by the alarm and the timer will now begin counting up from zero to a maximum of 24 hours. During this phase, the fan speed automatically switches to low and only comes on when the burner ignites.

EXAMPLE 6 PGM Depress and hold Turn temp to 225' Turn time to 40:00 MN Release

EXAMPLE 7



To manually set a Cook-n-Hold cycle, first momentarily depress either the "COOK/ HIGH FAN" or "ROAST/LOW FAN" key and immediately begin turning the "TEMP" set dial until the desired temperature appears in the display window. Next, set the desired time using the "TIME" set dial. The oven will come on and begin preheating. The display will show either the word "COOK" or "ROAST" and the set time and temperature will flash.

Now momentarily depress the "HOLD" key and the word "HOLD" will appear in the display. Immediately begin turning the "TEMP" set dial until the desired HOLD temperature is displayed. HOLD time does not need to be set. The display will return to the COOK or ROAST information after a short delay. The word "HOLD" will blink on and off as a reminder that a HOLD temperature has been set. To review the HOLD set temperature momentarily depress the "HOLD" button at any time.

EXAMPLE 7 — Manually set a Cook-n-Hold cycle at 325°F on high fan for 2 hours and 45 minutes followed by a hold at 155°F:

- 1. Momentarily depress the "COOK/HIGH FAN" key.
- 2. Immediately begin turning the "TEMP" set dial clockwise until 325' appears in the display.
- 3. Turn the "TIME" set dial clockwise (past 59:55 MN) until 2:45 HR appears in the display.
- 4. The display will show the word "COOK", and "2:45" and "325" will be flashing. The oven will then begin preheating.
- 5. Momentarily depress the "HOLD" key.
- 6. Immediately turn the "TEMP" set dial clockwise until 155° appears in the display. The display will show "HOLD, 00:00 and 155°".
- 7. The display will automatically revert back to the COOK mode after a short delay and display the COOK time and set temperature. The word "HOLD" will blink on and off.

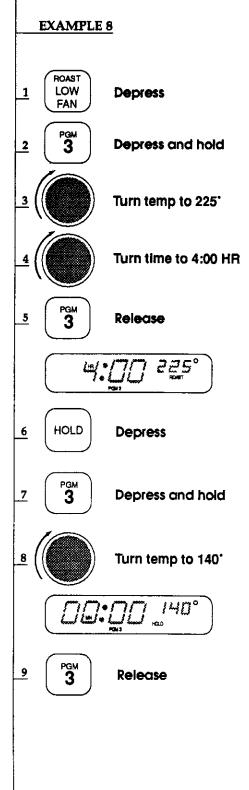
A Cook-n-Hold cycle can also be programmed into a program key. First momentarily depress either the "ROAST/LOW FAN" or "COOK/HIGH FAN" key. Immediately depress and hold the desired "PGM" key. With your other hand, turn the "TEMP" set dial clockwise until the desired temperature is displayed, and the "TIME" set dial until the desired time is displayed. Release the "PGM" key. The oven will now begin preheating and the display will show the program selected and either the word "COOK" or "ROAST" while the time and temperature selected will flash. To continue programming, next momentarily depress the "HOLD" key and then immediately depress and hold the same "PGM" key. Use the "TEMP" set dial to set your desired HOLD temperature in the display. The display should read, "00:00, PGM(#), HOLD, (and the HOLD temperature)". Now release the "PGM" key.

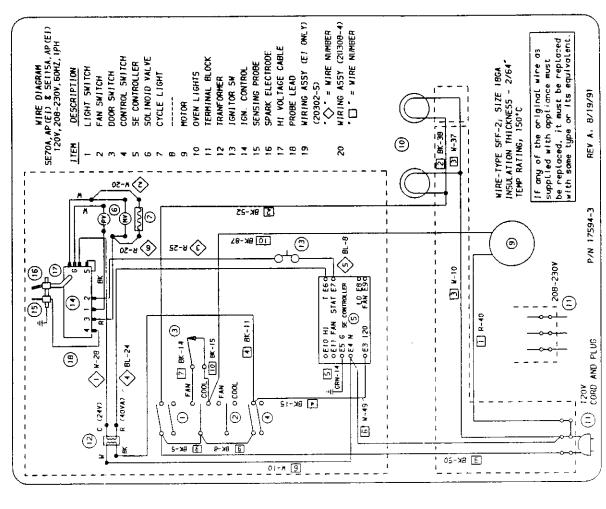
The Cook-n-Hold cycle programmed can now be used as soon as the oven is preheated and loaded, or recalled at any time in the future simply by depressing the same "PGM" key. To shut the oven off instead of using it, turn the "TEMP" and "TIME" set dials counterclockwise to zero out the temp and time displayed and press the "CANCEL" key. The oven will shut off after a brief delay. Now momentarily depress the "HOLD" key and immediately turn the "TEMP" set dial counterclockwise to zero out the HOLD temperature. If the timer has already been started on a programmed cook, the dials will not function to avoid accidental tampering. To shut the oven off, the "CANCEL" key must be depressed before the "TIME" and "TEMP" set dials can be zeroed out.

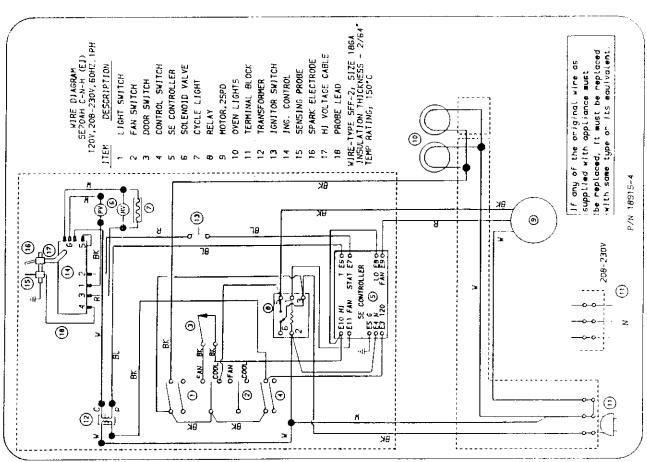
To purge or clear a program from memory, push and hold the "PGM" key while using the dials to zero out the time and temperature displayed. Release the "PGM" key. Push and release the "HOLD" key and immediately push in and hold the "PGM" key again. Use the "TEMP" set dial to zero out the HOLD temperature. Push the "CANCEL" key. The display should now only show zeroes.

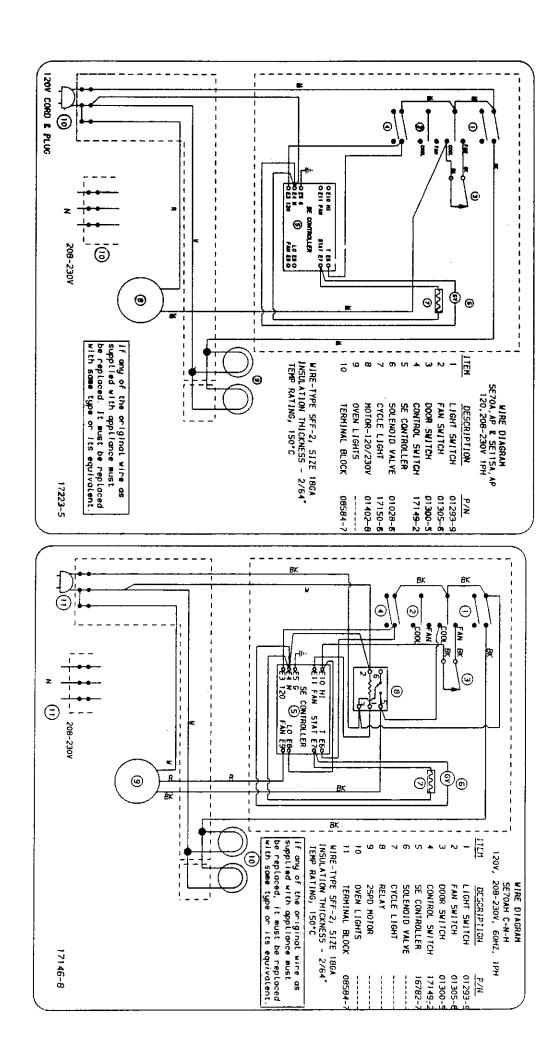
EXAMPLE 8 — Program a Cook-n-Hold cycle at 225°F on low fan for 4 hours followed by a 140°F hold. Use PGM 3:

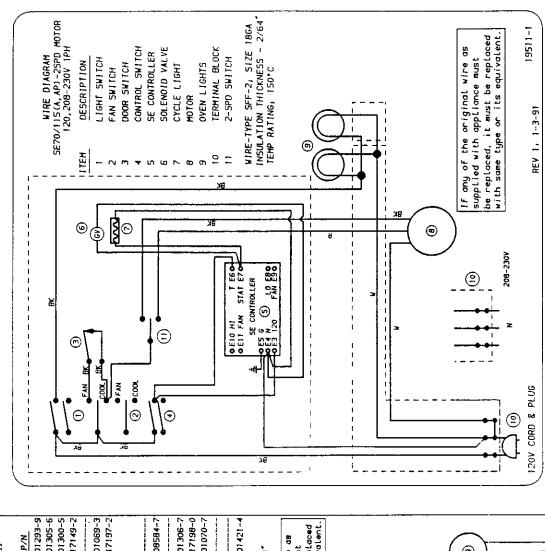
- 1. Momentarily depress the "ROAST/LOW FAN" key.
- 2. Immediately depress and hold the "PGM 3" key.
- 3. Turn the "TEMP" set dial clockwise until 225' appears in the display.
- 4. Turn the "TIME" set dial clockwise (past 59:55 MN) until 4:00 HR appears in the display.
- 5. Release the "PGM 3" key and the oven will begin preheating. The display will read, "4:00 HR, PGM 3, ROAST, and 225".
- 6. Next, momentarily depress the "HOLD" key.
- 7. Immediately depress and hold the "PGM 3" key again.
- 8. Turn the "TEMP" set dial clockwise until 140° appears in the display. The display will read, "00:00, PGM 3, HOLD and 140°".
- 9. Release the "PGM 3" key. The display will read as in step 5 above, except that the "HOLD" signal will blink on and off.
- 10. This Cook-n-Hold cycle is now stored into memory, and can be recalled for future use simply by depressing the "PGM 3" key.
- 11. To shut off the oven instead of preheating, zero out the "TIME" and "TEMP" set dials by turning counterclockwise, then depress the "CANCEL" key. Depress the "HOLD" key momentarily and zero out the temperature by turning the "TEMP" set dial counterclockwise.
- 12. To clear "PGM 3" from memory, depress and hold the "PGM 3" key while turning the "TIME" and "TEMP" dials counterclockwise until zeroed. Release the "PGM 3", momentarily depress the "HOLD" key and then depress and hold the "PGM 3" key again while turning the "TEMP" set dial counterclockwise until zeroed. The display should show all zeroes.

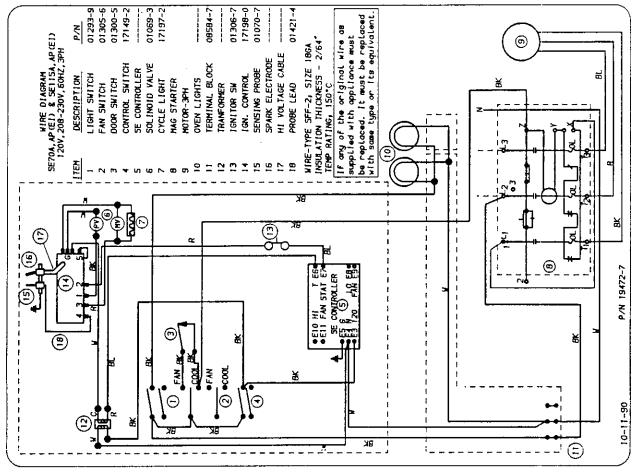












WARNING

If not installed, operated and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or in fuel combustion which can cause death or serious illness and which are known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California enacted the California Safe Drinking Water and Toxic Enforcement Act of 1986, (Prop. 65), which "prohibits any person in the course of doing business from knowingly and intentionally exposing any individual to a chemical known to the State of California to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individuals." The Governer's Scientific Advisory Panel added <u>carbon monoxide</u> to the list of hazardous chemicals known to cause reproductive harm.

In order to establish full compliance with Proposition 65, we attached a yellow warning label to each gas fired unit manufactured by the Montague Company.

Carbon monoxide would not be present in concentrations that would pose a "significant risk" to the consumer when the equipment is installed, operated and maintained as follows:

- 1. Installed in accordance with all local codes, or in the absence of local codes, with the current National Fuel Gas Code Z223.1.
- 2. Installed under a properly designed and operating exhaust hood.
- 3. Connected to the type of gas for which the unit is equipped.
- 4. Proper appliance pressure regulator installed on the gas supply line and adjusted for the manifold pressure marked on the rating plate.
- 5. Adequate air supply to the unit.
- 6. The equipment is operated in the manner intended using the proper utensil for that type of appliance.
- 7. Keep the equipment clean and have it checked periodically.
- 8. Burner air adjustments, mechanical maintenance and repairs should be performed by qualified service personnel.

If the equipment is not installed, operated and maintained in accordance with the above, concentrations of carbon monoxide in excess of the established limits could be present in the kitchen environment.

ALL PERSONNEL IN THE WORKPLACE WHO MAY BE SUBJECT TO ANY EXPOSURE OF CARBON MONOXIDE MUST BE WARNED OF SUCH POSSIBLE EXPOSURE. THIS WARNING SHOULD BE CONVEYED IN A MANNER SO THAT IT IS CLEARLY UNDERSTOOD BY THE EMPLOYEE, AND THE EMPLOYEE SHOULD BE ASKED IF IN FACT HE OR SHE UNDERSTANDS THE CORRECT METHOD OF OPERATION OF THE EQUIPMENT AND THAT A RISK OF EXPOSURE EXISTS IF THE EQUIPMENT IS OPERATED IMPROPERLY.



THE MONTAGUE COMPANY

1830 Stearman Avenue, P.O. Box 4954, Hayward, CA 94540-4954

IMPORTANT

Copy the following information from the rating plate for your records:

Model No.	
Serial No	
Change No	

When ordering parts, to eliminate mistakes and facilitate delivery, always give the above information.



THE MONTAGUE COMPANY

Manual Parl No. 17598-6 Rev. 1192