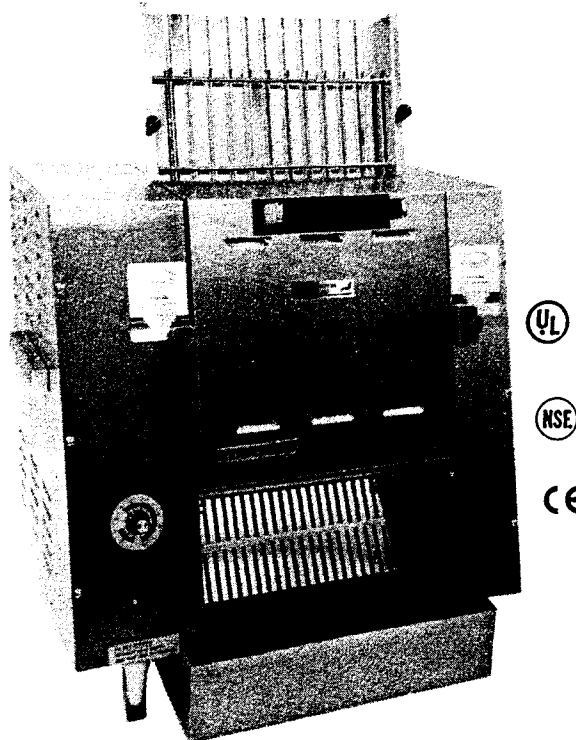


**roundup**  
FOOD EQUIPMENT DIVISION

**OWNER'S  
MANUAL**



**VERTICAL  
HAMBURGER BROILER**

**Model VHB-B**



**A.J. ANTUNES & CO.**

180 KEHOE BLVD. • CAROL STREAM, ILLINOIS 60188  
Telephone (630) 784-1000 • FAX (630) 784-1650  
1-877-392-7854  
[www.ajantunes.com](http://www.ajantunes.com)

P/N 1010571 REV. B [96056]

PLEASE READ THIS MANUAL CAREFULLY  
AND KEEP IT FOR FUTURE REFERENCE!

## IMPORTANT INFORMATION

Congratulations on your purchase of this Roundup product. This unit is manufactured from the finest materials available, and is assembled to Roundup's strict quality standards.

This unit has been tested at the factory to ensure dependable trouble-free operation.

This manual is provided to help you become familiar with the unit and contains all the information necessary to properly install, operate and maintain this unit. Following the instructions in this manual will result in many years of reliable service.

## Problems? Questions?

Please Call the Factory at  
**1-800-253-2991**

## WARRANTY INFORMATION

**NOTE: The statements below are only representative of the Limited Warranty. Please read the full text of the Limited Warranty on the back page.**

This unit is warranted to be free of mechanical and electrical defects for a period of one year. This unit is designed to operate on single-phase circuits.

This warranty does not include overtime charges of work done by unauthorized service agencies or personnel. Because of the unit's compact size and portability, travel time and mileage charges are not included in warranty repair payment.

The warranty on the unit does NOT extend to:

1. Damages caused in shipment or damage as a result of improper use.

**NOTE: IF UNIT ARRIVES DAMAGED, contact the carrier immediately and file a damage claim with them. Save all packing materials when filing a claim.**

2. Installation of electrical service.
3. Installation of Plumbing or Water Supply, or water pressure regulator (if applicable).
4. Normal maintenance as outlined in this manual.
5. Malfunction resulting from improper maintenance.
6. Damage caused by abuse or careless handling.
7. Damage from tampering with, removal of, or changing any preset control or safety device.
8. Damage from moisture into electrical components (if applicable).

## WARRANTY REGISTRATION

Fill in the information in the blanks below now to ensure speedy response should your unit ever require service.

Date of Purchase \_\_\_\_\_

Purchased from \_\_\_\_\_

Phone No. \_\_\_\_\_

P.O. No. \_\_\_\_\_

Invoice No. \_\_\_\_\_

Serial No.\*\* \_\_\_\_\_

Authorized Service Agency\*\*\*  
\_\_\_\_\_

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

\*\*Serial Number can be found on the specification plate on the rear of the unit.

\*\*\*Locate the nearest Authorized Service Agency in the directory enclosed with the unit.

## SERVICE PARTS

Use only genuine Roundup replacement parts in this unit. Use of replacement parts other than those supplied by the manufacturer will void the warranty.

Your Authorized Service Agency has a parts price list and will be glad to inform you of the cost of your parts order.

## PARTS IDENTIFICATION

To find items you want to order from the parts list, proceed as follows:

- Look at the exploded view parts drawing to locate the part that is needed.
- Use the item number from the parts drawing to locate the correct parts in the parts list. This section will have the Roundup part number and a description of the part.

## ORDERING INFORMATION / TECHNICAL ASSISTANCE

After finding the parts you want to order in the parts list, have the following information available before contacting the Authorized Service Agency:

(IF THE UNIT IS LESS THAN ONE YEAR OLD, INFORM THE AGENCY OF WARRANTY STATUS.)

Manufacturer: Roundup Food Equipment

Model No.: \_\_\_\_\_

\*Serial No.: \_\_\_\_\_

\*Manufacturing No.: \_\_\_\_\_

\*Installation Date: \_\_\_\_\_

\*Fill in your records. It may help to include the invoice number and the seller's name.

Commonly replaced items are stocked by your Roundup Authorized Service Agency and will be sent out when your order is received. Other parts will be ordered by the agency from Roundup Food Equipment.

If technical help is needed, feel free to contact the Factory Service Department. Please have Manufacturer, Model Number, Manufacturing Number, Serial Number and Installation Date handy when you call the Factory Service Department. Also be prepared to describe the nature of the problem or symptoms and give any other information that might prove helpful in solving your problem.

## AUTHORIZED RETURN POLICY

No product may be returned without Roundup's prior written approval. Transportation charges are to be prepaid by the Buyer. Returned goods are subject to Roundup's inspection and acceptance. Roundup may, at its discretion, replace any or all returned items within a reasonable time after Roundup determines the returned goods are not in accordance herewith; and in such event Roundup shall not be liable for any damages arising from the defective delivery or delay caused thereby. When expressly authorized by Roundup in writing, unused products may be returned to Roundup. All returned products are subject to service, handling, restocking and other charges necessary to restore the product to "as new" condition.

## GENERAL DESCRIPTION

The following is a general description of operation of the Vertical Hamburger Broiler.

The Roundup Vertical Hamburger Broiler (VHB-B) is designed to cook frozen hamburger patties to a uniform consistency, with a minimum of labor, in approximately 4 1/2 minutes.

After initial adjustments for patty thickness and conveyor speed are made, the operator simply puts frozen patties into the hamburger chute at the top of the unit and removes cooked patties from the slide tray at the bottom. No further adjustments are needed, and the operator is free to perform other duties. Cooked patties may be kept warm in the slide tray for up to 10 minutes.

The VHB-B will cook approximately 240 frozen 2 oz. (56.7 grams), 4" (102 mm) hamburger patties per hour; approximately 180 frozen 4 oz. (113.4 grams), 4" (102 mm) patties per hour; approximately 120 frozen 4 oz. (113.4 grams), 5" (127 mm) patties per hour. Capacity may differ due to thickness and fat content of hamburger patties used.

The VHB-B is designed to be easy to use. Normal wear and tear, however, may require that certain parts be replaced after prolonged use. If the need for parts, service, or repairs does arise, use ONLY Roundup parts (Available from our Authorized Service Agencies).



**CAUTION**  
Installation must meet all local and national electrical, ventilation and safety codes.

## SPECIFICATIONS

### VHB-B

**DIMENSIONS:** 23" (584 mm) wide, 15" (381 mm) deep, 28 1/2" (724 mm) high

**ELECTRICAL:** 3200 watts, 220-240 VAC~, 50/60 Hz. Grounded power cord with NEMA #L6-20P plug supplied (Standard)

*3200 watts, 220-240 VAC~, 50/60 Hz, Grounded power cord (H07RNF3G1.50) supplied with CEE 7/7 plug (export)*

**CAPACITY:** Approximately 240 frozen 2 oz. (56.7 grams), 4" (102 mm) hamburger patties per hour,

Approximately 180 frozen 4 oz. (113.4 grams), 4" (102 mm) hamburger patties per hour,

Approximately 120 frozen 4 oz. (113.4 grams) 5" (127 mm) hamburger patties per hour.

Capacity may differ due to thickness and fat content of hamburger patties used.

**SHIPPING WEIGHT:**

90 lbs. (41 kilos)

## SITE PREPARATION

Several items should be considered prior to installing your Roundup Vertical Hamburger Broiler:

### 1) Adequate counter space -

Place this assembled unit on a counter at least 30" (76.2 cm) deep to prevent equipment overhang.

**NOTE:** Equipment hanging out over the edge of a counter can be struck accidentally and may cause serious injuries.



### DANGER

Do not allow this unit to stick out over the edge of the counter!

Also allow several inches of clearance on both sides for adequate air circulation. The VHB-B is approximately 23" (58.4 cm) wide, so a counter width of 30" (77.2 cm) is desirable.

### 2) Adequate height -

Fully assembled, the VHB-B stands 23" (58.4 cm) tall. Add this figure to height of your counter and be sure the combined height is reachable by the operator.

### 3) Adequate power supply -

The VHB-B requires a 20 amp, 220-240 volt power source. Be sure the proper receptacle is available at time of installation.



### WARNING

### ELECTRICAL SHOCK HAZARD

- Electrical ground is required on this appliance.
- Do Not modify the power supply cord plug. If it does not fit the outlet, have a proper outlet installed by a qualified electrician.
- Do Not have a fuse in the neutral or grounding circuit. A fuse in the neutral or grounding circuit could result in an electrical shock.
- Do Not use an extension cord with this appliance.
- Check with a qualified electrician if you are in doubt as to whether the appliance is properly grounded.

Failure to follow these instructions could result in serious injury or death.

**NOTE:** Cost of installing the VHB-B is a separate expense, and is NOT included in purchase price of unit.

### 4) Countertop strength -

Fully assembled, the VHB-B weights almost 90 lbs. (41 kilos). Be sure the site you choose can support this weight, plus the weight of any other equipment that may be placed on the counter.

## SEQUENCE OF OPERATION

*(Provided to guide the user through the normal functioning of this unit)*

When the Power Switch (Item 48) is "ON", power flows to the Solid State Relay (Item 75), then to both the Grill Thermostat (Item 63) and Door Heaters (Item 30). When Grill temperature reaches 375°F (190.5°C), the Grill Thermostat turns off. When the Thermocouple (Item 82) reaches 410°F (210°C), the temperature control portion of the Temperature and Watt Regulator Board (Item 73) turns off the Solid State Relay, which turns off the Door Heaters.

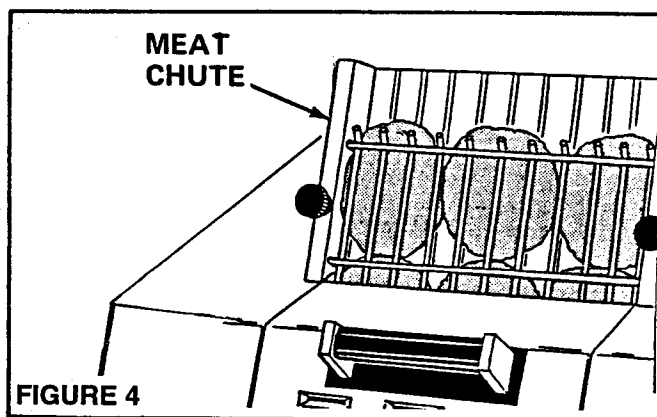
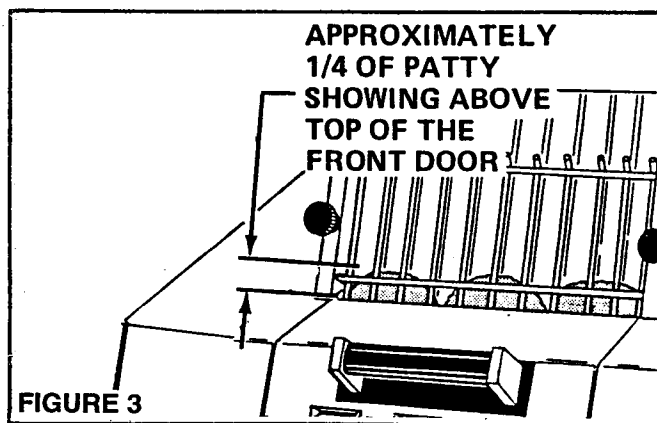
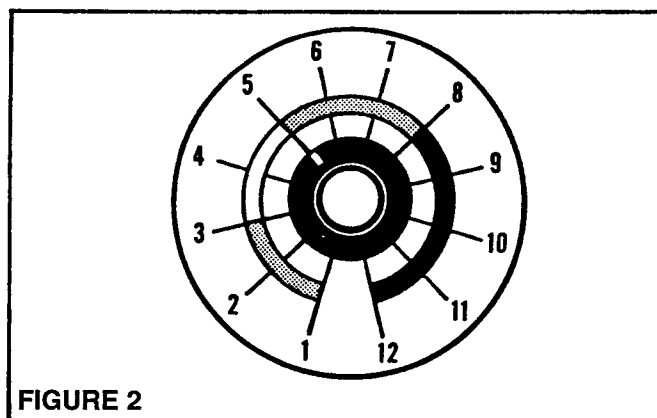
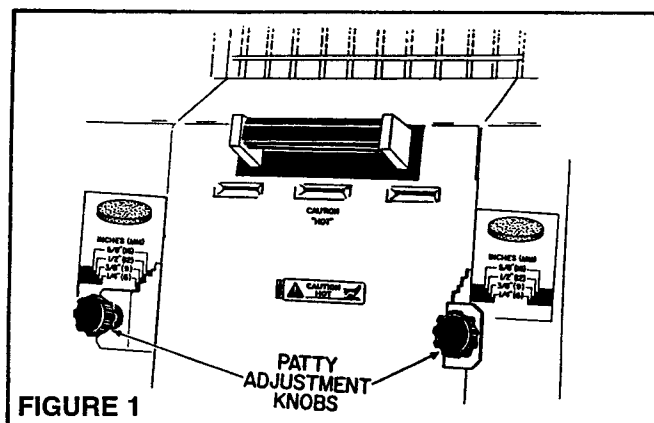
When the VHB-B is idle, the Door Heaters cycle on and off, as needed, to maintain cooking temperatures.

# OPERATING INSTRUCTIONS

This unit must be assembled and adjusted according to the instructions, before operation.

The Roundup Vertical Hamburger Broiler is designed to cook frozen hamburgers. Pressure from the conveyor belt may cause non-frozen hamburgers to shred.

- 1) Adjust conveyor belt for correct patty thickness by turning both black patty adjustment knobs in or out until correct setting is indicated on both knobs (See Fig. 1). This adjustment is found on the front of the broiler.
  - 2) Turn the unit on and allow 15-20 minutes for warm-up.
  - 3) Set the conveyor speed control according to your needs. Suggested starting points are; #9 for 4 to a pound hamburger, #7 for 6 to a pound, #5 for 10 to a pound. Turn the control to a higher number for more doneness and to a lower number for less doneness (See Fig. 2). Once the conveyor speed control is adjusted, the Roundup Vertical Hamburger Broiler will deliver a consistently cooked product time after time.
  - 4) Drop frozen hamburger patties into the meat chute. If the conveyor is properly adjusted, the first patty will stop with approximately one quarter of the patty showing above the top of the front door (See Figure 3).
  - 5) Place frozen hamburger patties in meat chute. Tighten or loosen the adjustment knobs so that patties move freely and stack on top of each other, edge to edge (See Figure 4).
- \*DO NOT ALLOW PATTIES TO OVERLAP\***
- 6) Expect the first patty in 2 1/2 to 3 1/2 minutes, depending on the conveyor speed control setting. After cooking, patties will drop onto slide tray ready for serving.



## DAILY CLEAN UP

- 1) Remove stripper bar, (Item 35), by pushing it up and out of brackets on each side, then lower it, and set the stripper bar in the drip tray (Item 27) (See Figure 5).
- 2) Lower the front door and remove the conveyor belt (Item 33).
  - A) Unscrew patty adjusters to the 5/8" (15 mm) setting.
  - B) Locate the master link (See Figure 6).

**NOTE:** The master link has a "notched" appearance (See inset, Figure 16). This master link allows simple unhooking of the conveyor belt without using tools.

Squeeze the master link and the link above it together, then move the master link to release it.

- C) Notice that the conveyor belt is installed with the "loops" facing in and the end of the "loop" pointing down (See Figure 16). The conveyor belt **MUST** be installed properly before operating the VHB-B.



### CAUTION

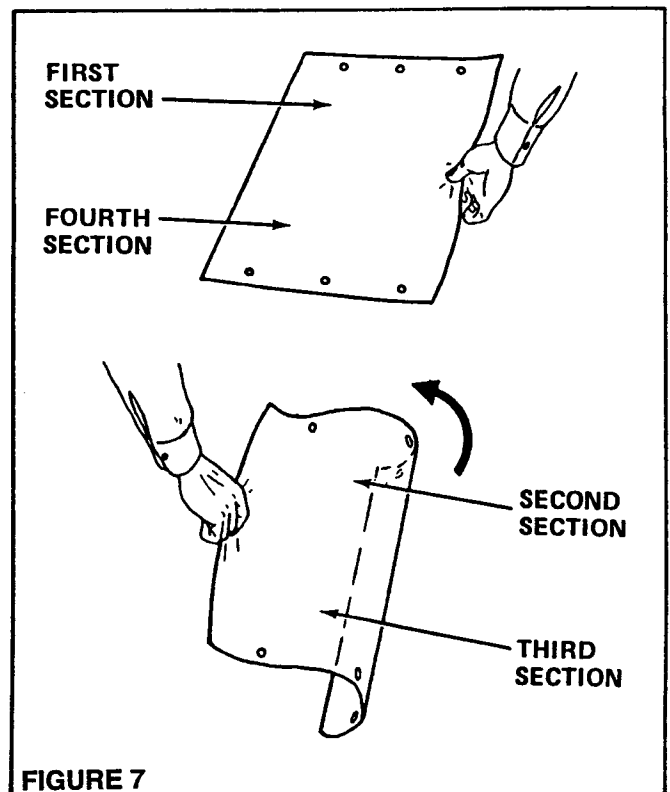
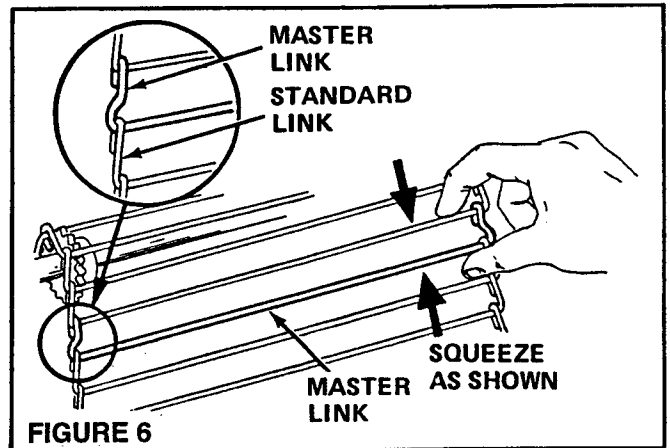
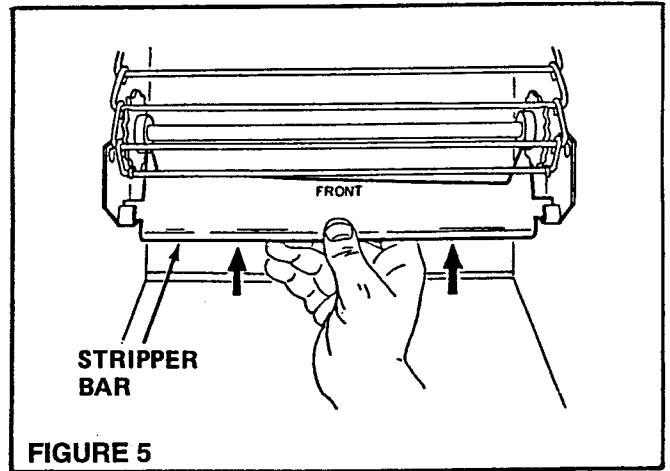
Failure to install the Conveyor Belt properly may cause jamming or other malfunctions

- 3) Remove meat chute (Item 1), grill cover (Item 2), drip tray (Item 27), slide (Item 29), and stripper bar (Item 35) from machine. Take these items to the sink for cleaning.

**NOTE:** The grill cover is made of a non-stick material and must be cleaned carefully for longest serviceability. Heavy deposits can be removed by: a.) soaking in hot detergent water, then b.) place the grill cover on a flat surface, and c.) scrub lightly with a soft nylon brush or nylon cleaning pad.

**NOTE:** Each grill cover can be used in four (4) separate sections.

When a portion of the grill cover shows wear, turn the grill cover over to use the second section of the grill cover. The third and fourth sections can be used by turning the grill cover end for end, (move the top section to the bottom). Note that both ends of the grill cover have holes for mounting on the retaining pins (See Figure 7).



- 4) Clean meat chute, slide, drip tray and stripper bar in dishwasher or hot detergent water. If hot detergent water is used, allow parts to soak for easier clean up. Rinse in clear water and allow to air dry.
- 5) Wipe all cabinet surfaces using moist sudsy cloth. Pay special attention to top surfaces and hard-to-reach areas. Wipe again with moist cloth and allow to air dry.
- 6) Allow all parts to dry and reverse above procedures to re-assemble (See Figures 8 and 9).
- 7) Push stripper bar in horizontally between conveyor belt assembly and stripper brackets until bar contacts grill surface (See Step 1).



**CAUTION**

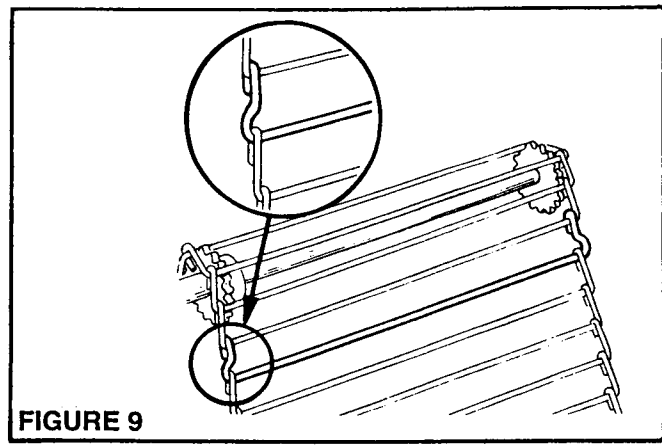
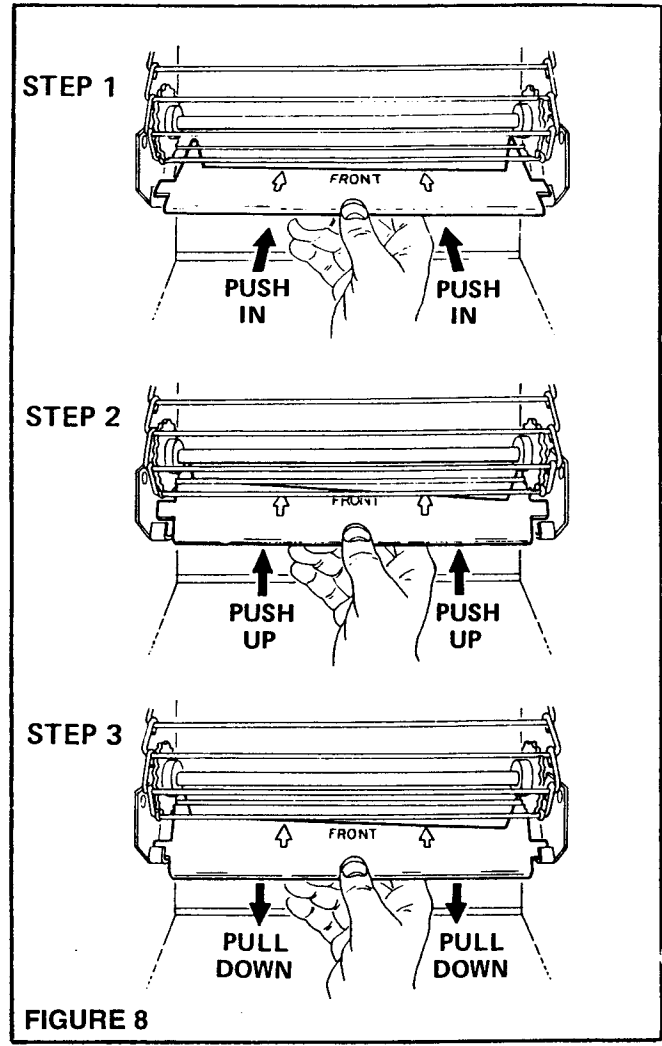
Pointed ends of Stripper Bar **MUST** be outside and below Conveyor Belt.

- 8) Push stripper bar up between conveyor belt assembly and grill surface (See Step 2).
- 9) Pull stripper bar down until end tabs rest securely in stripper brackets (See Step 3).
- 10) Notice that the conveyor belt is installed with the "loops" facing in and the end of the "loop" pointing down (See Figure 9). The conveyor belt **MUST** be installed properly before operating the VHB-B.

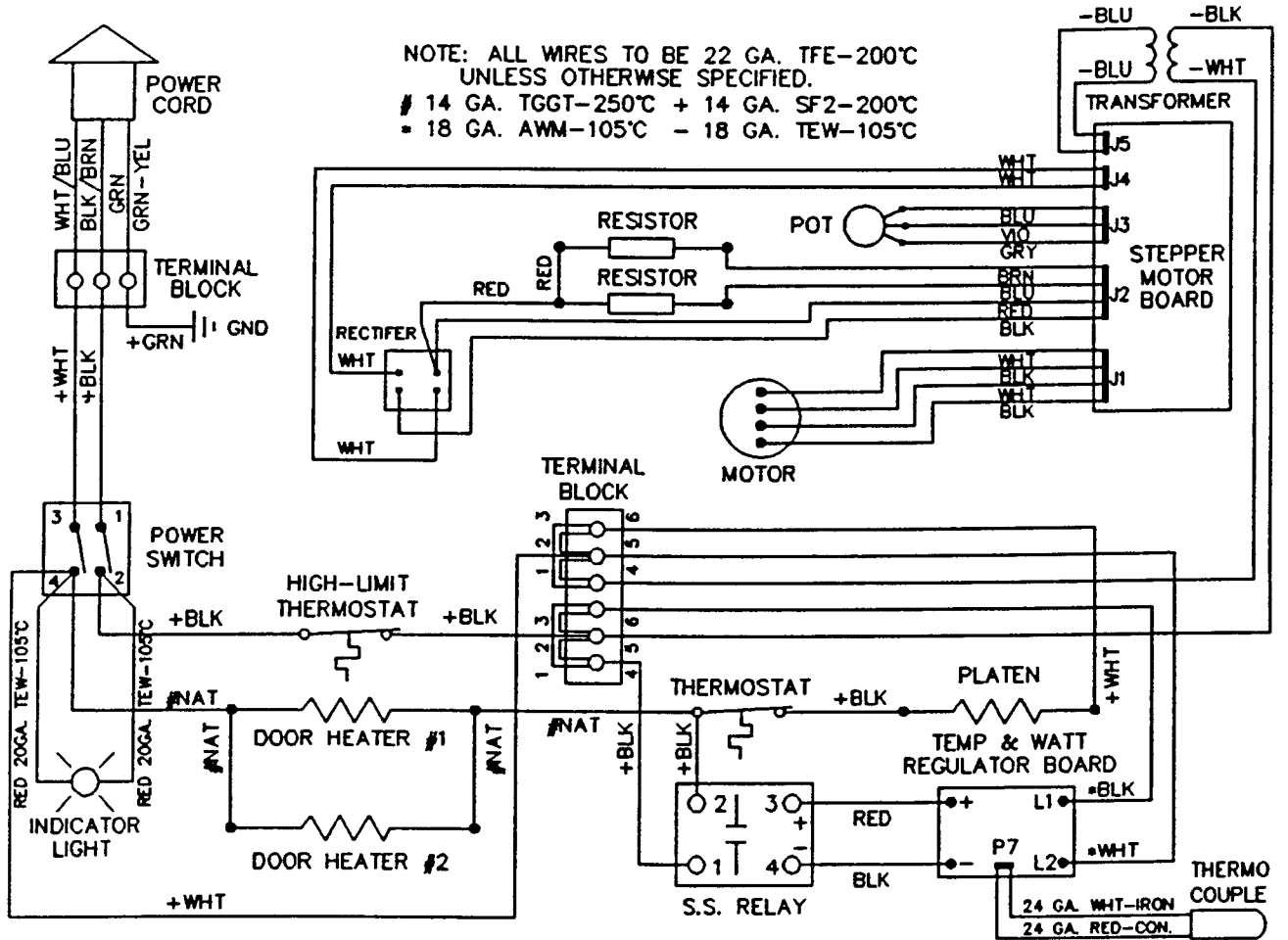


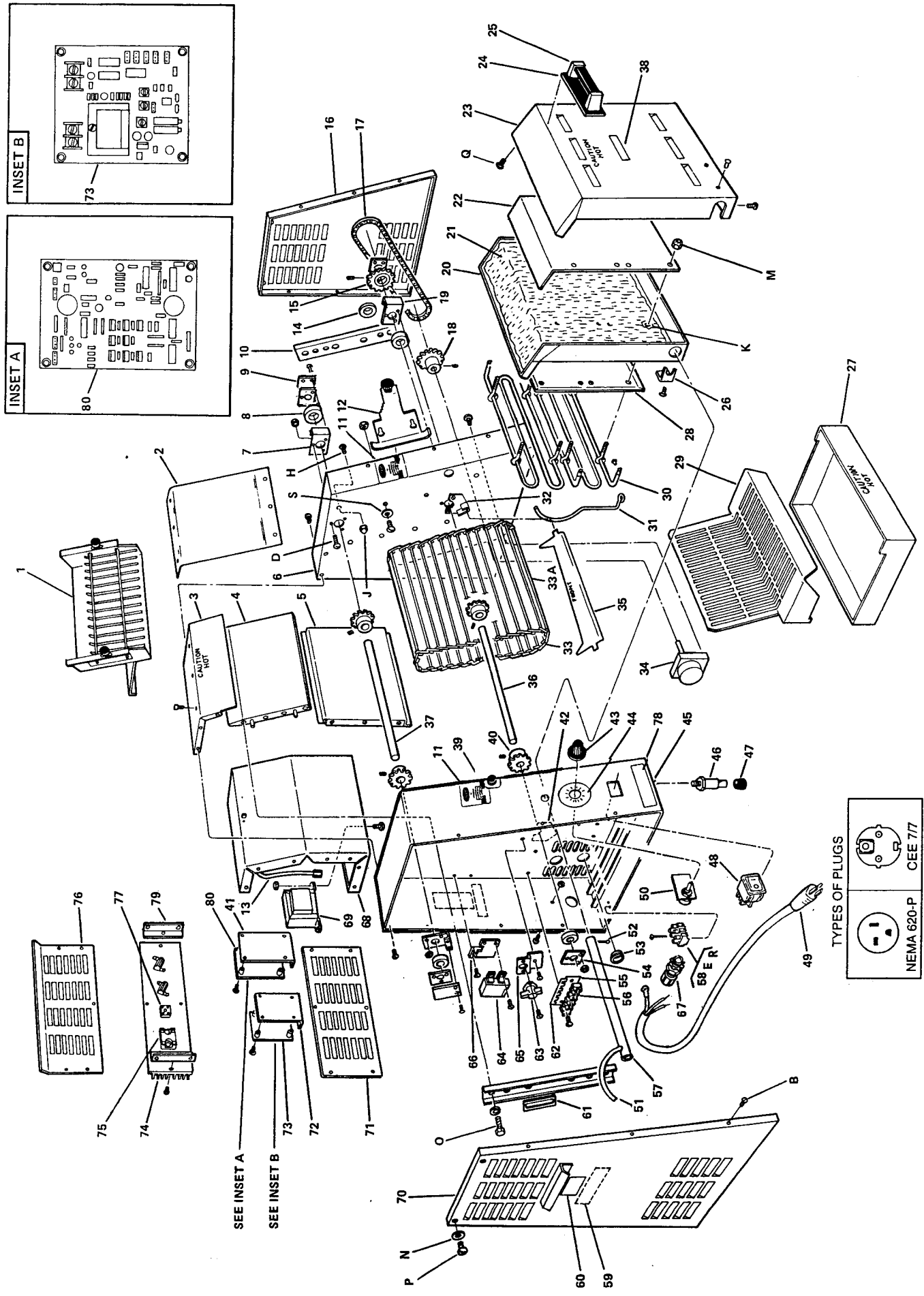
**CAUTION**

Failure to install the Conveyor Belt properly may cause jamming or other malfunctions.



# WIRING DIAGRAM





# VHB-B PARTS LIST

ITEM	PART NO	DESCRIPTION	QTY
1	0010305	MEAT CHUTE ASSEMBLY	1
2	040P155	GRILL COVER (PKG. OF 10)	1
3	0500995	CAP	1
4	0100164	GRILL CASTING	1
5	0500993	BASE PANEL	1
6	0020368	HOUSING WELDMENT-RIGHT	1
7	0500730	BEARING & THRUST RET.	2
8	2150150	BEARING, BRONZE W/GRV.	4
9	0500731	THRUST PLATE	3
10	0500735	CASTING CHANNEL	1
11	1000926	PATY ADJUSTMENT LABEL	1
12	0020340	SLIDE RAIL ASSY.-RIGHT	1
13	4050141	THERMOCOUPLE ASSY.	1
14	212P107	SPACER (PACKAGE OF 10)	1
15	2150143	SPROCKET	1
16	0020371	SIDE PANEL ASSY.-RH	1
17	2150142	DRIVE CHAIN	1
18	2150129	SPROCKET	1
19	0501041	BEARING RETAINER	1
20	0020369	REFLECTOR SUB-ASSY.	1
21	0400160	FRONT COVER INSULATOR	1
22	0501040	INSULATOR SHIELD	1
23	0500738	PANEL, FRONT	1
24	0400158	INSULATOR, HANDLE	1
25	2100106	HANDLE, GRIP-6"	1
26	0500796	TAB	2
27	0501033	TRAY, DRIP	1
28	0501032	DOOR REFLECTOR	1
29	0500744	CHUTE	1
30	4030191	HEATER, DOOR	2
31	0800169	CHAIN TENSIONER	2
32	0501239	STRIPPER BRACKET-RH	1
33	0010225	CONVEYOR BELT ASSY. (INCL. 33A)	1
33A	0800186	CONVEYOR MASTER LINK	4
34	4000120	MOTOR, STEPPER	1
35	0501237	STRIPPER	1
36	0020432	DRIVE SHAFT ASSY.	1
37	0020433	IDLER SHAFT ASSY.	1
38	1000864	LABEL-CAUTION HOT	1
39	0020339	SLIDE RAIL ASSY.-LEFT	1
40	2150108	SPROCKET	1
41	0501038	MOTOR BOARD MTG. BRKT.	1
42	0501238	STRIPPER BRACKET-LH	1
43	2100123	KNOB	1
44	1000509	LABEL-CONTROL	1
45	0020367	HOUSING WELDMENT-LEFT	1
46	0020434	LEG AND STUD SUB-ASSY.	4
47	210K108	RUBBER FOOT TIP KIT (SET OF FOUR)	1
48	4010137	SWITCH, ON/OFF	1
49	0700452	POWER CORD-STANDARD (6-20P)	1
	0700453	POWER CORD-EXPORT (CEE 7/7)	1
50	405K103	POT. AND HARNESS KIT	1
51	2010112	TUBE-6"	1
52	303P103	COTTER PIN (PKG. OF 10)	1

ITEM	PART NO	DESCRIPTION	QTY
53	040P147	BUSHING, SHORTY (PKG. OF 10)	1
54	0500464	BEARING RETAINER	3
55	0400177	TERM. BLOCK INSULATOR	1
56	4060195	TERMINAL BLOCK	1
57	2000122	HINGE TUBE	1
58	040P111	BUSHING, SHORTY	1
59	1000937	LABEL-WIRING DIAGRAM	1
60	1000900	LABEL-SERVICE	1
61	0500578	RETAINER-BULB THERM.	1
62	0501327	SCRAPER (NOT SHOWN)	1
63	4030189	THERMOSTAT 300°F (148.8°C)	1
64	403K157	THERMOSTAT 375°F (190.5°C)	1
65	0500694	BRACKET-HIGH LIMIT	1
66	215K101	HEX WRENCH KIT (NOT SHOWN)	1
67	0400258	STRAIN RELIEF KIT	1
68	0500992	WALL, REAR	1
69	4010126	TRANSFORMER, STEP DOWN	1
70	0020370	SIDE PANEL ASSY-LH	1
71	0500991	LOWER REAR PANEL	1
72	0501039	WATT REG. BOARD MTG. BRKT.	1
73	4020142	TEMPERATURE AND WATT REGULATOR BOARD	1
74	4050142	HEAT SINK	1
75	405K125	RELAY, SOLID STATE	1
76	0500989	UPPER REAR COVER	1
77	4050145	BRIDGE RECTIFIER	1
78	1000359	LABEL-DRIP TRAY	1
79	0500990	MTG. BRKT.-HEAT SINK	1
80	4020139	STEPPER MOTOR BOARD	1

THE FOLLOWING ITEMS ARE AVAILABLE ONLY IN  
PACKAGES OF TEN (10) EACH

ITEM	PART NO.	DESCRIPTION	QTY
A	306P104	SCREW	1
B	308P103	SCREW	6
C	308P104	SCREW	2
D	308P107	SCREW	2
E	N/A		
F	308P139	SCREW	1
G	308P143	NUT,"KEPS"	2
H	310P104	SCREW	1
I	310P108	SCREW	1
J	310P134	ACORN NUT	1
K	310P141	NUT	2
L	310P142	EYE BOLT	1
M	310P144	ACORN NUT	1
N	325P104	FLAT WASHER	1
O	325P109	BOLT	1
P	325P132	SCREW	1
Q	310P123	SCREW	1
R	303P105	COTTER PIN	1
S	325P132	SPACER	1

## TROUBLESHOOTING GUIDE

**NOTE:** Service is to be performed by qualified service personnel.



**WARNING**

Inspection, testing and repair of electrical equipment should be performed by qualified service personnel. The unit should be unplugged when servicing, except when electrical tests are required.



**DANGER**

Use extreme care during electrical circuit tests. Live circuits will be exposed



**DANGER**

Where testing indicates "with power OFF" BE SURE THAT POWER SWITCHES ARE OFF AND UNIT IS UNPLUGGED.

TO USE THIS GUIDE –

- 1) Locate the problem in the left column.
- 2) Read across to the right column and follow instructions.

**NOTE:** Numbers shown refer to parts function and testing list.

### VHB-B

PROBLEM	FOLLOW TEST PRECEDURE
No heat – No conveyor movement Indicator light off	① ② Damaged power cord or power cord plug.
No heat – No conveyor movement Indicator light on	②
Over or under done on grill side.	⑨ ⑩ ⑫ ⑬
Product over or under done on door side.	⑨ ⑪ ⑭
Product over or under done on both sides – Excessive heat – Product cooks too fast	⑤ ⑨ ⑪ ⑫ ⑬ ⑭
Conveyor speed will not change	④ ⑤ ⑧
Conveyor will not move	③ ④ ⑤ ⑧
Conveyor moves in wrong direction	Reverse connector J1 on ④
Motor runs at one speed only (#12 should be slowest – #1 should be fastest)	Reverse connector J3 on4 ⑤

## PARTS FUNCTION AND TESTING

**NOTE:** All #'s refer to parts in this list – Item numbers refer to Parts List for the unit.

- ① POWER SWITCH – Manual control to turn unit power on or off.
- ② HIGH LIMIT THERMOSTAT – Resettable safety device, turns VHB-B power off when overheated.

## PARTS FUNCTION AND TESTING (Continued)

**NOTE:** If high limit thermostat must be reset, determine the cause of the overheat condition before resetting. To start the power again, turn power switch off, remove left cover panel (Item 29), then press the reset button on the high limit thermostat and install left cover panel.

**Testing** – With power OFF, remove wire from one or both sides, check continuity. If high limit thermostat has been reset but does not show continuity, replace.

- ③ TRANSFORMER – Supplies 12 - 14 VAC to motor speed control board.

**Testing** - With power ON, check input at primary (black and white) leads – should be line voltage. Check output at secondary (blue) leads. Should be 12 - 14 VAC. If input is correct but output is not, replace.

- ④ MOTOR SPEED CONTROL (MSC) BOARD - Controls motor speed by regulating the frequency of DC voltage applied to the motor.

**Testing** - With power ON, measure input power to board at two blue wires (terminal J5) – Should be 12 - 14 VAC from transformer (#11). Measure output to motor – Should be 12 - 14 VDC across each pair of black and white wires.

- ⑤ MOTOR SPEED CONTROL POTENTIOMETER – Adjustable control that regulates motor speed.

**Testing** – With power OFF, remove connector from MSC board terminal J3. With VOM, test for 0-2K Ohms resistance between violet-grey and violet-blue wires.

- ⑥ RESISTORS – Wired in series with the motor windings to provide overload protection.

**Testing** – With power OFF, remove connector from MSC board terminal J2. Check resistance from red to brown wire, then red to blue wire – should be 10 Ohms each.

- ⑦ RECTIFIER – Converts alternating current to direct current.

**Testing** – With power ON, test for 12 - 14 VAC at two white wires. Then check for 12 - 14 VDC at red (+) and black (-) wires.

- ⑧ DRIVE MOTOR - Drives conveyor through gear reduction. Motor is stepper type.

**Testing** – With power ON, check for voltage to motor – Should be 12 - 14 VDC. With power OFF, check resistance of each motor coil winding – Should be 1.6-2.1 Ohms, measured across each black and white wire pair.

- ⑨ TEMPERATURE AND WATT REGULATOR (TWR) BOARD – Controls overall cooking temperature by using thermocouple (#18) to read grill temperature, and adjusting wattage to heaters by rapidly cycling the solid state relay (#19) on and off. When correct grill temperature (410°F) is indicated by thermocouple (#18), TWR board turns off the solid state relay, thus turning off heaters. When grill temperature drops below 410°F, TWR board again turns on solid state relay and adjusts wattage.

**Testing** – With power ON, check for input power – should be line voltage at L1 and L2. Check for output power – should be 3-5 VDC at terminal P8 when grill temperature is below 410°F. If input is correct but output is not, replace.

## PARTS FUNCTION AND TESTING (Continued)

- ⑩ THERMOCOUPLE – Senses grill temperature, and sends the reading to the TWR board (#17).

**Testing** - With power OFF, remove thermocouple connector P6 from TWR board and test for continuity through thermocouple wires. Replace if testing shows open circuit.

- ⑪ SOLID STATE RELAY – Switches power to heaters on and off, according to commands from TWR board (#17).

**NOTE:** Before testing this part, perform test on #10, High Limit Thermostat.

**Testing** – With power ON, check for 3-5 VDC at terminals 3 and 4 when grill temperature is below 410°F. At grill temperatures above 410°F, check for line voltage at terminals 1 and 2.

- ⑫ GRILL HEATER – Provides a heated surface which grills the product on one side.

**Testing** – With power OFF, remove wire(s) from one of the grill heater terminals, then test resistance across both heater terminals – should be 36-38 Ohms.

- ⑬ GRILL THERMOSTAT – Turns on power to grill heater when grill temperature is below 375°F.

**Testing** – With power ON, check for 200 VAC at grill heater terminals when grill temperature is below 375°F, and 0 VAC when grill temperature is above 375°F. Replace if performance does not match specifications.

- ⑭ DOOR HEATING ELEMENTS – Provides radiant heat to broil product.

**Testing** – With power OFF, remove white wire with black stripe from grill thermostat (#21). Test resistance from that wire to white wire connection at top of power switch (#2). Correct resistance is approximately 20-25 Ohms. Note that this test is performed on two (2) door heaters in parallel. Door heaters tested individually will read approximately 40 Ohms.

**NOTES:**

## LIMITED WARRANTY

Equipment manufactured by Roundup Food Equipment Division of A. J. Antunes & Co. has been constructed of the finest materials available and manufactured to high quality standards. These units are warranted to be free from mechanical and electrical defects for a period of one year from date of purchase under normal use and service, and when installed in accordance with manufacturer's recommendations. To insure continued proper operation of the units, follow the maintenance procedure outlined in the Owner's Manual.

1. This warranty does not cover cost of installation, defects caused by improper storage or handling prior to placing of the Equipment. This warranty does not include overtime charges or work done by unauthorized service agencies or personnel. This warranty does not cover normal maintenance, calibration, or regular adjustments as specified in operating instructions, or manuals (see operating manual of specific product); and/or labor involved in moving adjacent objects to gain access to the Equipment. This warranty does not cover consumable items such as grill covers, gaskets, O-rings and bulbs. This warranty does not pay travel, mileage, or any other charges for a service to reach the equipment's location (unless stated in the Owner's Manual).
2. Roundup reserves the right to make changes in design or add any improvements on any product. The right is always reserved to modify equipment because of factors beyond our control and government regulations. Charges to update equipment do not constitute a warranty charge.
3. If shipment is damaged in transit the purchaser should make his claim directly upon the carrier. Careful inspection should be made of the shipment as soon as it arrives and visible damage should be noted upon the carrier's receipt. Damage should be reported to the carrier. This damage is not covered under this warranty.
4. Warranty charges do not include freight or foreign, excise, municipal or other sales or use taxes. All such freight and taxes are the responsibility of the purchaser.
5. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR 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 ROUNDUP BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.