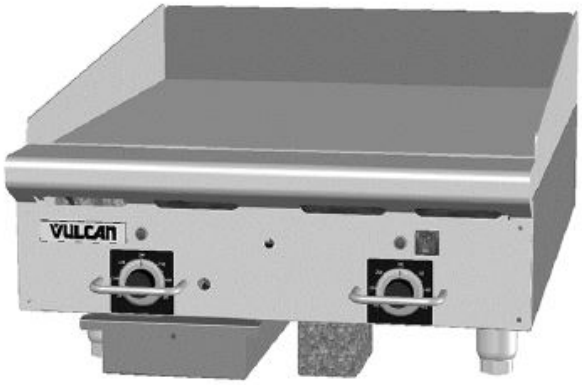
HOBART

SERVICE



RRG SERIES HEAVY DUTY GAS GRIDDLE

Customer Maintenance Manual

SPECIFICATION SHEETS

INSTALLATION / OPERATION MANUAL

SERVICE MANUAL

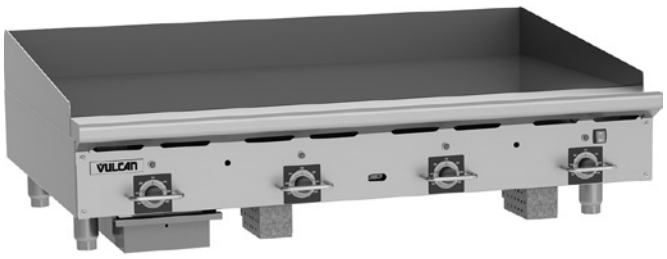
HOBART SERVICE PARTS STORE

CATALOG OF REPLACEMENT PARTS

F48038

VULCAN

RRG SERIES
HEAVY DUTY GAS GRIDDLES



Model 48RRG

- ☐ **24RRG** 24" w x 24" d griddle plate
- ☐ **36RRG** 36" w x 24" d griddle plate
- ☐ **48RRG** 48" w x 24" d griddle plate
- ☐ **60RRG** 60" w x 24" d griddle plate

STANDARD FEATURES

- Stainless steel front, sides and 4" front top ledge.
- Fully welded stainless and aluminized steel chassis frame.
- 11" low profile cooking height on 4" adjustable legs.
- ¾" composite griddle plate with stainless steel cooking surface.
- Top and bottom plate seam welded.
- 4" backsplash with tapered side splashes.
- One 27,500 BTU/hr. "U" shaped burner for every 12" of griddle width.
- One solid state thermostat with embedded thermocouple for each burner.
- Thermostat knob guards
- Temperature adjust from 150° to 450° F.
- Electronic ignition with pilot safety system.
- 3½" wide stainless steel front grease trough.
- Large capacity 6⅞" wide x 30" deep x 2½" high stainless steel grease drawer.
- ¾" rear gas connection and gas pressure regulator.
- 120V 50/60Hz 1 Amp single phase with NEMA 5-15 USA plug.
- One year limited parts and labor warranty.

SPECIFICATIONS

Low profile heavy duty gas griddle, Vulcan-Hart Model No. _____. Stainless steel front, sides and front top ledge. Fully welded stainless and aluminized steel chassis frame. 11" low profile cooking height on 4" legs. ¾" composite griddle plate with stainless steel cooking surface welded to stainless steel back and tapered side splashes. One 27,500 BTU/hr. "U" shaped aluminized steel burner and solid state thermostat for each 12" of griddle width. Temperature adjusts from 150° to 450°. Electronic ignition with pilot safety system. 3½" wide stainless steel front grease trough. 120V 50/60Hz 1 amp single phase with NEMA 5-15 USA plug. Large capacity 6⅞" wide x 30" deep x 2½" high stainless steel grease drawer. ¾" rear gas connection and gas pressure regulator.

SPECIFY TYPE OF GAS WHEN ORDERING.
SPECIFY ALTITUDE WHEN ABOVE 3,999 FT.

OPTIONS

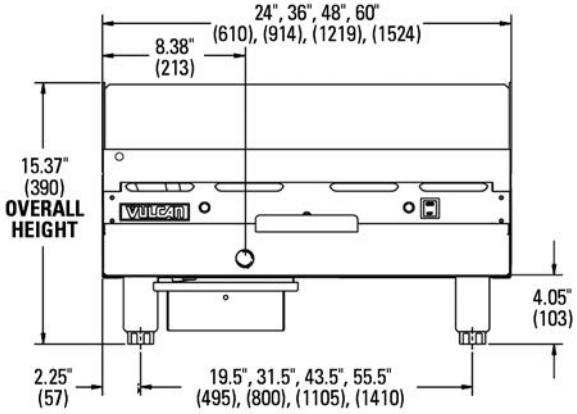
- ☐ Stainless steel stand with marine edges and casters.
- ☐ Stainless steel, hinged thermostat cover with magnetic latch.
- ☐ Cutting board, condiment rail, plate rail and towel bar accessories.

VULCAN
a division of ITW Food Equipment Group LLC
P.O. Box 696 ■ Louisville, KY 40201 ■ Toll-free: 1-800-814-2028 ■ Local: 502-778-2791 ■ Quote & Order Fax: 1-800-444-0602

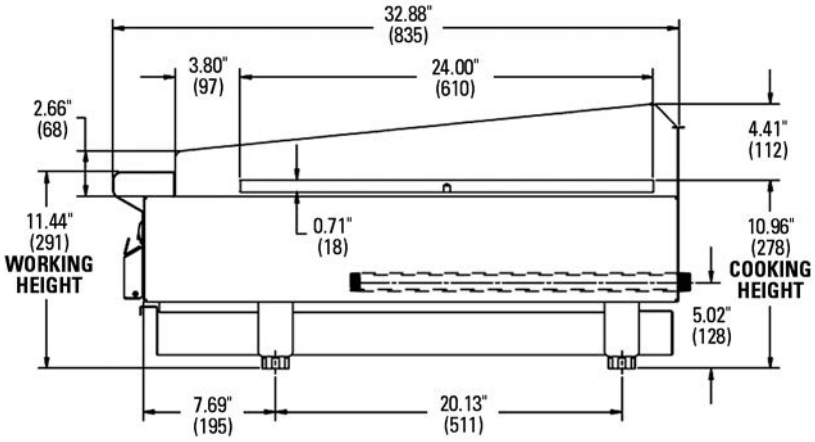
RRG SERIES
HEAVY DUTY GAS GRIDDLES

INSTALLATION INSTRUCTIONS

1. A gas pressure regulator supplied with the unit must be installed;
   Natural Gas 5.0" (127 mm) W.C.
   Propane Gas 10.0" (254 mm) W.C.
2. All models require a 6" (152 mm) clearance at both sides and rear adjacent to combustible and 0" from non-combustible constructions. All models require a 4" (102mm) bottom clearance and must be installed with minimum 4" legs.
3. These units are manufactured for installation in accordance with ANSI/NFPA-70, National Electrical code.
   An adequate ventilation system is required for Commercial Cooking Equipment (NFPA No. 96). Information may be obtained by writing to the National Fire Protection Association, Batterymarch Park, Quincy, MA 02169.
4. These units are manufactured for installation in accordance with National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association, Accredited Standards Committee Z223 @ 400 N. Capital St. NW, Washington, DC 20001, or the Secretary Standards Council, NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471.
   NOTE: In The Commonwealth of Massachusetts
   All gas appliances vented through ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.
5. This appliance is manufactured for commercial installation only and is not intended for home use.



FRONT VIEW



SIDE VIEW

MODEL	WIDTH	DEPTH	OVERALL HEIGHT*	WORKING HEIGHT*	NO. OF BURNERS	TOTAL BTU/HR.	NO. OF DRAWERS	APPROX. SHIP. WT.
24RRG	24"	33"	15½"	11⅜"	2	55,000	1	200 lbs./91 kg.
36RRG	36"	33"	15½"	11⅜"	3	82,500	1	255 lbs./116 kg.
48RRG	48"	33"	15½"	11⅜"	4	110,000	1	320 lbs./145 kg.
60RRG	60"	33"	15½"	11⅜"	5	137,500	2	380 lbs./172 kg.

*These are nominal dimensions and can vary by +1.75" with adjustable legs.

**All rear grease option griddles have only one (1) grease drawer on the left side.

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INSTALLATION & OPERATION MANUAL
RRG Heavy Duty Gas Griddles

48RRG

MODEL	*MLS*
24RRG	ML-135339-00024
36RRG	ML-135340-00036
48RRG	ML-135341-00048
60RRG	ML-135342-00060

For additional information on Vulcan or to locate an authorized parts and service provider in your area, visit our website at www.vulcanequipment.com

3600 North Point Blvd.
Baltimore, MD 21222

RETAIN THIS MANUAL FOR FUTURE USE

FORM F-36981 (9-15)

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

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

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

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

INSTALLATION, OPERATION AND CARE OF HEAVY DUTY GAS GRIDDLES
GENERAL

Heavy Duty Gas Griddles are produced with quality workmanship and materials. Proper installation, usage and maintenance of your griddle will result in many years of satisfactory performance.

Thoroughly read this entire manual and carefully follow all of the instructions provided

Model	Number of Burners	BTU/hr Input Rating
24RRG	2	55,000
36RRG	3	82,500
48RRG	4	110,000
60RRG	5	137,500

INSTALLATION

Before installing, verify that the type of gas supply (natural gas or propane) agree with the specifications on the rating plate located inside the griddle front panel. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer immediately.

UNPACKING

This griddle was inspected before leaving the factory. The carrier assumes full responsibility for the safe delivery upon acceptance of the shipment. Check for possible shipping damage immediately after receipt.

If the griddle is found to be damaged, complete the following steps:

1. Carrier must be notified within 5 business days of receipt.
2. Carrier's local terminal must be notified immediately upon discovery (note time, date, and who was spoken to), and follow up and confirm with written or electronic communication.
3. All original packing materials must be kept for inspection purposes.
4. The griddle cannot have been moved, installed, or modified.
5. Notify Vulcan Customer Service immediately at 800-814-2028.

Carefully unpack your griddle and make sure that no parts are discarded with packaging material. A pressure regulator designed to operate with the griddle has been supplied and must be installed before the griddle is placed into service (Refer to GAS PRESSURE REGULATOR INSTALLATION in this manual).

LOCATION

The installation location must be kept free and clear of combustibles. When installing, never enclose the bottom of the griddle with a raised curb or other constructions that would obstruct flow of air into or out of the griddle. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room to replace air taken out by the ventilation system.

Do not permit air to blow directly at the griddle. Avoid open windows next to the griddle wherever possible. Avoid wall-type fans which create air cross-currents within the room.

This griddle is Design Certified for installation on a non-combustible counter with 4" legs, or combustible floor with 25" high stand.

INSTALLATION CLEARANCES

	COMBUSTIBLE CONSTRUCTION	NON-COMBUSTIBLE CONSTRUCTION
Back:	6"	0"
Right	6"	0"
Left Side	6"	0"

INSTALLATION CODES AND STANDARDS

The griddle must be installed in accordance with:

In the United States of America:

1. State and local codes.
2. National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). This shall include but not be limited to: NFPA #54 Section 10.3.5.2 for Venting. Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471

   NOTE: In the Commonwealth of Massachusetts

   All gas appliances vented through a ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.
3. NFPA Standard # 96 *Vapor Removal from Cooking Equipment*, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CSA-B149.1 Natural Gas Installation (latest edition)
3. CAN/CSA-B149.2 Propane Installation Code (latest edition), available from the Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3

GRIDDLES MOUNTED ON STANDS WITH CASTERS

NOTICE Griddles mounted on stands with casters must use a flexible connector (not supplied) that complies with the Standard for Connectors for Movable Gas Appliances ANSI Z21.69•CSA6.16, and a quick-disconnect device that complies with Gas Fuel, ANSI Z21.3•CSA6.9. In addition, adequate means must be provided to limit movement of the appliance without depending on the connector and the quick-disconnect device (or its associated piping) to limit appliance movement. Attach the restraining device at the rear of the griddle as shown in Fig. 3.

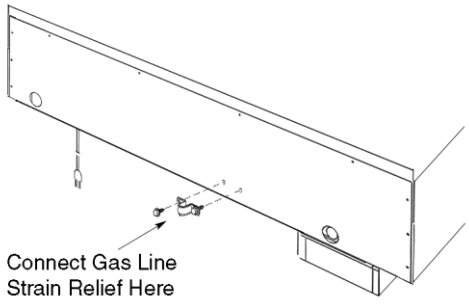


Fig. 3.

If disconnection of the restraint is necessary, turn off the gas supply before disconnecting. Reconnect the restraint prior to turning the gas supply on and returning the griddle to its installation position.

Casters are only supplied on a griddle stand. If the griddle is moved for any reason the griddle should be re-leveled (see LEVELING in this manual).

FLUE CONNECTIONS

Do not obstruct the flow of flue gases from the flue, located at the rear of the griddle. It is recommended that flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

From the termination of the flue to the filters of the hood venting system, a minimum clearance of 18" must be maintained.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment", NFPA No. 96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

STANDS

The griddle has an optional 25" high by 30" deep by 24", 36", 48" or 60" wide stainless steel stand with casters. The two front casters lock. The stand includes a top shelf with marine edges style lip and a lower shelf.

GAS CONNECTIONS

NOTICE Gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

Use a ¾" NPT gas supply line for the griddle inlet, located at the rear of the griddle. All of flexible and semi-rigid gas supply lines must comply with the applicable ANSI standard. To ensure maximum operating efficiency this appliance must be connected with a gas supply line of solid pipe or a commercial type Flexible Connector with the net inside diameter (I.D.) as large as or larger than the gas pipe inlet on this appliance. Codes require that a gas shutoff valve must be installed in the gas line upstream of the griddle.

⚠ WARNING Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

After checking for leaks all lines receiving gas should be fully purged to remove air.

TESTING THE GAS SUPPLY SYSTEM

When the gas supply pressure exceeds ½ psig (3.45 kPa), the griddle and its individual shutoff valve must be disconnected from the gas supply piping system.

When the gas supply pressure is ½ psig (3.45 kPa) or less, the griddle should be isolated from the gas supply system by closing its individual manual shutoff valve.

GAS PRESSURE REGULATOR INSTALLATION

Gas regulator pressure is preset at 5” Water Column (W.C.) for natural gas, and 10” W.C. for propane gas. No further adjustment should be required.

Install the regulator as close to the griddle on the gas supply line as possible. Make sure that the arrow on the underside of the regulator is oriented in the direction of gas flow to the griddle (Fig. 1) and the regulator is positioned with the vent plug and adjustment screw upright (Fig. 2).

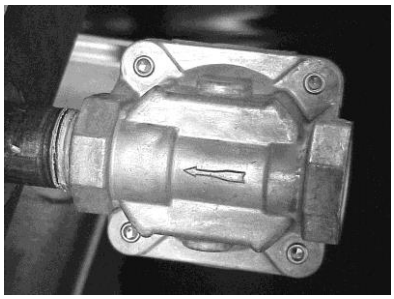


Fig. 1

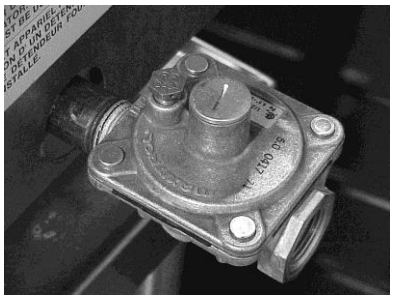


Fig. 2

The supply pressure (upstream of the regulator) should be 7-9” W.C. for natural gas and 11-12” W.C. for propane gas. At no time should the griddle be connected to supply pressure greater than ½ psig (3.45 kPa) or 14” W.C.

ELECTRICAL CONNECTIONS

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local electrical codes.

⚠ WARNING Disconnect the electrical power to the griddle and follow lockout / tagout procedures.

⚠ WARNING Appliances equipped with a flexible electric supply cord are provided with a three-prong grounding plug. It is imperative that this plug be connected into a properly grounded three-prong receptacle. If the receptacle is not the proper grounding type, contact an electrician. Do not remove the grounding prong from this plug.

Power supply for electric ignition is 120 volts, 1 amp, 50/60 Hertz, 1 phase.

Do not connect the griddle to electrical supply until after gas connections are made.

OPERATION

⚠ WARNING The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle.

⚠ WARNING Disconnect power supply before cleaning and servicing the appliance.

BEFORE FIRST USE

It is recommended that you clean your VULCAN RRG griddle thoroughly with a mild soap and water. Rinse the griddle surface thoroughly with water and wipe dry with a soft clean cloth.

SEASONING THE GRIDDLE

Before turning the unit ON, apply a high temperature oil– about one ounce per square foot of surface. DO NOT use plain vegetable oil as it is not stabilized for high heat and may cause food stick and result in improperly cooked food. Turn the griddle ON and with a regular wipe cloth; work the oil into the whole griddle surface for two minutes.

After cleaning your griddle with chemicals, you should repeat the seasoning procedure for proper cooking.

DO NOT use hardened steel spatulas. Use mild steel spatulas with rounded corners.

CONTROLS

There is at least one pilot for every two burners. The 36” and 60” models have an odd number of main burners, therefore one of the sets of pilots and one of the electronic safety-ignition modules in these models will control only one main burner. The pilot burners are aligned with pilot sight holes. The pilot burners are inset 12” from the front panel.

This model features an electronic safety-ignition system that is controlled by the power switch. Turning the power switch ON is all that is required to put the unit into service. The power switch turns the pilot valve, the temperature controllers, the indicator lamps and the electronic safety-ignition modules. When the unit turned ON, electronic safety-ignition modules start generating sparks until the detection of a proven flame at the pilot burner. Upon the flame rectification, electronic safety-ignition module energizes the solenoid gas valve(s) for that specific zone(s).

The pilots are monitored by flame detection through igniters. If the pilot goes out, the igniter will immediately reignite the pilot. If the pilot does not achieve reignition in a short period of time, the electronic safety-ignition module will shut-off the gas supply to the main burners and keeps generating sparks at the pilot burner.

Each 12” section of the griddle is independently controlled by a solid state temperature controller and an embedded thermocouple. The temperature controllers have an operating range of 150 to 450 degrees.

USING THE GRIDDLE

To preheat, set the temperature controllers for the desired temperatures and turn on the power switch 10-12 minutes before cooking.

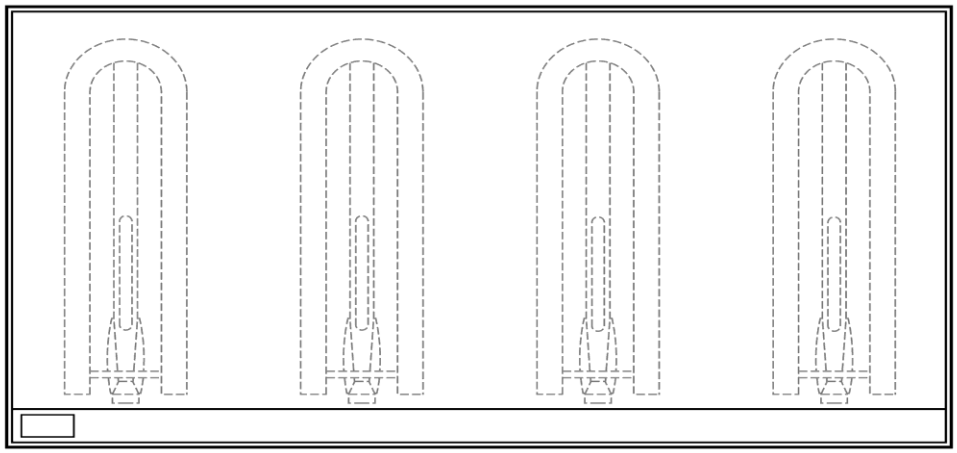
A uniform and systematic approach to loading the griddle will produce the most consistent product results.

The griddle plate is a composite material which is engineered to provide a high heat transfer rate to the food. The top surface is stainless steel and can be scored or dented by careless use of a spatula or scraper. Be careful not to dent, scratch, or gouge the plate surface. Do not try to knock off loose food that may be on the spatula by tapping the corner or the edge of the spatula on the griddle surface.

ZONE COOKING

This griddle features a tubular U-shaped burner in 12” sections, each controlled by independent temperature controllers. Each 12” section is a separate cooking zone, and allows cooking a wide variety of products over a single griddle plate. The chart below is a suggested usage of zone cooking.

When zone cooking, it is suggested that you start with your lowest temperature setting at either side of the griddle, increasing the zone temperature as you move up the zone line. These zone cooking guidelines will vary depending on product temperatures, size and shape. This guide should be adjusted to suit your product and operational cooking preference.



ZONE 1 (300°F)	ZONE 2 (350°F)	ZONE 3 (350°F)	ZONE 4 (400°F)
PRODUCT	**PRODUCT**		**PRODUCT**
Sausage Eggs (Hard Fried) Eggs (Scrambled) Burger (Well Done) Steak (Well Done) Chicken Breast Frozen Foods Pork Chops	Pancakes French Toast Bacon Eggs (Sunny Side Up) Boiled Ham Steak (Medium Well) Fresh Burger (Medium Well) Small Frozen Burger (Medium Well)	Omelet Hash Browns Canadian Bacon	Steak (Rare) Stir Fry Vegetables Salmon Fish Cakes Lobster Scampi

CLEANING THE GRIDDLE

Empty the grease drawer as needed throughout the day and regularly clean at least once daily.

Clean the griddle regularly. A clean griddle always looks better, lasts longer and performs better. To produce evenly cooked, perfectly browned griddle products keep the griddle plate clean and free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to the food, resulting in spotty browning and loss of cooking efficiency. Carbonized grease tends to cling to griddle foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean and operating at peak efficiency, follow these procedures:

AFTER EACH USE

Clean the griddle with Nemco Easy Grill Scraper™ or similar type of scraper during the work shift.

ONCE PER DAY

Thoroughly clean the griddle back splash, sides and front. Turn the griddle off and allow it to cool down between 275°F-300°F, apply some water and clean it with a heavy scraper. Remove, empty and wash the grease drawer in the same manner as an ordinary cooking utensil.

ONCE PER WEEK

Clean the griddle surface thoroughly with water, Scotch-Brite™ Quick Clean Griddle System or Ecolab Grease Express High-Temp Grill Cleaner.

After removal of detergent the surface of the plate the griddle should be seasoned according to the instructions in this manual.

Clean stainless steel surfaces with a damp cloth and polish with a soft dry cloth. To remove discoloration, use a griddle cleaner.

If the griddle usage is very high, consider conducting this weekly cleaning procedure more than once per week.

DO NOT use a brick or griddle stone for cleaning.

DO NOT use water-jet to clean the griddle.

DO NOT use chlorine sanitizer in contact with griddle. Contact can cause discoloration, corrosion and permanent damage.

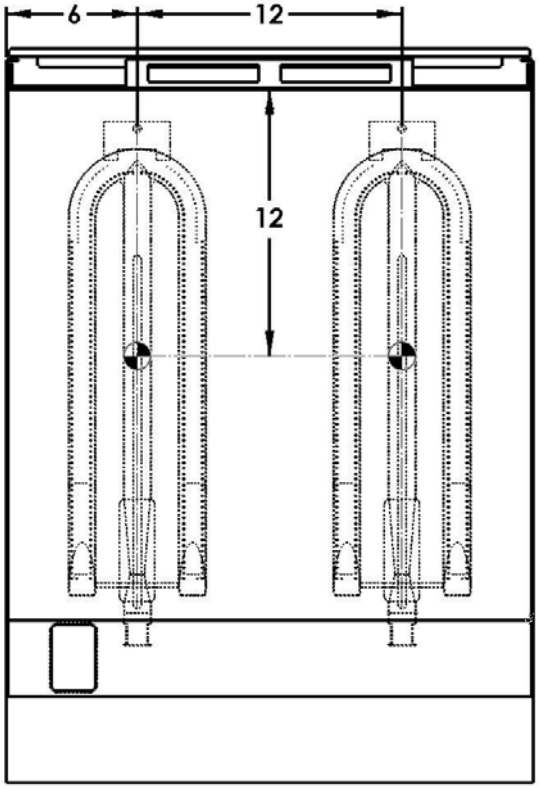
DO NOT use cleaning agents including Sodium Hydroxide, which is common in household oven cleaners.

ADJUSTMENTS

CALIBRATION

1. Each temperature controller controls a 12” zone of the griddle. Using a Surface Probe temperature measurement device, observe the temperatures at the center points of the cooking zones. These points are located by starting 6” from the side splash (left or right) and every 12” across the width of the griddle, with all points located 12” back from the front edge of the griddle plate.

   NOTE: Use of infrared thermometers is not recommended. These devices are highly sensitive to surface color (clean or dirty), angle of reading and distance from the unit.



2. Set thermostats to 350°F and allow to stabilize, allowing the indicator light to cycle ON and OFF at least two times.

3. Watch for indicator light to cycle OFF, then measure the temperature for that zone. The temperature should be 350°F ±5°F. If not, continue to Step 4.

4.

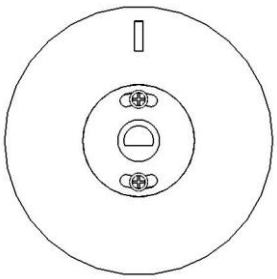
   a. Decide on the temperature adjustment needed for the temperature controller. DO NOT allow the knob to turn. Carefully remove the knob from the temperature controller shaft.

   b. Loosen screws on the back of knob and turn the transparent ring around the black knob to the desired position. Knob will have to be placed back on the shaft to verify adjustment.

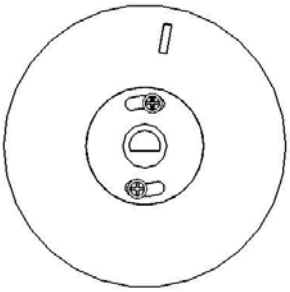
   IMPORTANT: NEVER ADJUST THE SCREW ON THE BACK SIDE OF THE TEMPERATURE CONTROLLER. This will ruin the factory calibration; the temperature controller will no longer operate properly and will need to be replaced.

5. Once calibration is achieved, tighten the knob screws.

Step 4a. Set knob & check Temperature. Remove knob



Step 4b. – Adjust the position of outer knob ring relative to black knob body & verify temperature setting



Step 4c. –Replace knob and verify the reading. Carefully remove the knob & tighten screws

LEVELING

The griddle must be level (side-to-side and front-to-back) during operation to ensure proper performance. Improper leveling can result in uneven temperature distribution, cold spots, and possibly damage electrical components.

1. Place a level on the griddle.
2. Adjust legs by turning the bullet feet at the bottom of each leg. Using pliers or a crescent wrench, turn the feet counter-clockwise to increase height, and clockwise to decrease height until leveling is achieved. Do not extend the legs more than 1-¾".

PILOT ADJUSTMENT

Using a flathead screwdriver, turn the slotted hex-head pilot adjustment screw clockwise to decrease the flame, and counterclockwise to increase the flame. Pilot adjustments should only be performed by Service Personnel.

SHUTDOWN OF GRIDDLE WITH ELECTRIC IGNITION SYSTEM

1. Push the power switches to OFF. This will shuts down the griddle completely.

EXTENDED SHUTDOWN

1. Shut off the main gas supply valve.

2. Unplug the griddle electrical supply cord.

3. Apply a heavy coat of vegetable oil over the griddle plate to inhibit rust.

MAINTENANCE

⚠ WARNING The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle.

LUBRICATION

There are no parts on this unit that require lubrication.

VENT

Daily, when the griddle is cool, check the flue and clear any obstructions.

SERVICE AND PARTS INFORMATION

Contact the Service Contractor in your area to obtain service and parts information. For a complete listing of Service and Parts depots or refer to www.vulcanequipment.com.

When calling for service the following information should be available from the appliance serial plate: Model Number, Serial Number and Gas Type.

ACCESSORIES

STANDS

The griddle has an optional 24” high by 30” deep by 24”, 36”, 48” or 60” wide stainless steel stand with casters or flanged legs. The front casters lock, and flanged legs may be bolted to the floor. The stand includes a top shelf with marine edges style lip and a lower shelf. When mounted on a stand with standard legs and properly leveled, the griddle plate cooking surface should approximately 36” from the floor.

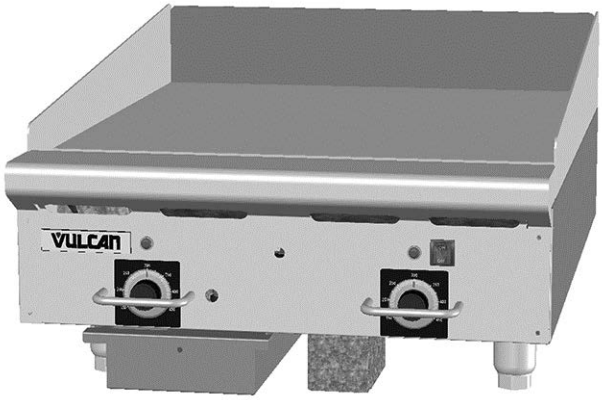
CUTTING BOARDS & TOWEL BARS

Refer to the installation instructions provided with the cutting board or towel bar kit.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
Heat does not come on when the temperature controller is turned on	1. Problem with temperature controllers. (Call for service) 2. Problem with safety-ignition module. (Call for service) 3. Problem with burner solenoid valves. (Call for service) 4. Problem with thermocouple. (Call for service) 5. Pilot burner not lit. (Call for service)
Pilot burner will not light	1. Obstructed pilot orifice. (Call for service) 2. Problem with safety-ignition module. (Call for service) 3. Problem with pilot safety valve. (Call for service) 4. ON/OFF switch not in the ON position
Pilot burner will not stay lit	1. Low gas pressure - problem with regulator or system gas pressure. (Verify or Call for Service) 2. Obstructed or wrong size pilot orifice. (Call for service) 3. Gas supply not purged of air. (Call for service) 4. Air blowing pilot out. (Call for service) 5. Problem with pilot safety valve. (Call for service)
Fat appears to smoke excessively	1. Temperature set too high. 2. Moisture in food may be turning into steam
Food sticks to griddle or burned around edges or contains dark specs	1. Temperature set too high. 2. Griddle surface requires cleaning and/or seasoning. 3. Surface under food not covered with enough cooking oil.
Food under-cooked inside	1. Temperature set too low. 2. Food not cooked for long enough time.
Food tastes greasy or has objectionable off-flavor	1. Food itself may have off-flavor. 2. Food stored improperly before cooking. 3. Too much griddle fat used. 4. Temperature set too low.
Noticeable build-up of gum on griddle	1. Temperature set too high. 2. Griddle surface needs cleaning and/or seasoning. 3. Too much griddle fat used.

SERVICE MANUAL



24RRG Shown

RRG SERIES HEAVY DUTY GAS GRIDDLE

24RRG	**ML-135339-00024**
36RRG	**ML-135340-00036**
48RRG	**ML-135341-00048**
60RRG	**ML-135342-00060**

- NOTICE -

This Manual is prepared for the use of trained Vulcan Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Vulcan Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Vulcan Service Technician.

The reproduction, transfer, sale or other use of this Manual, without the express written consent of Vulcan, is prohibited.

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TABLE OF CONTENTS

GENERAL

INTRODUCTION

This Service Manual covers specific service information related to the models listed on the front cover. Procedures in this manual will apply to all RRG Heavy Duty Gas Griddles unless otherwise specified. Raising of the griddle plate is not required for servicing the griddle components. Griddle components are serviced through the front and rear. Pictures and illustrations can be of any model unless the picture or illustration needs to be model specific.

The RRG, Rapid Recovery Griddle, plate is a composite material which is engineered to provide a high heat transfer rate to the food. The top surface can be scored or dented by careless use of a spatula or scraper. The center of the of the plate is an aluminum core with sheets of stainless steel laminated to the top and bottom exterior surfaces.

INSTALLATION

Generally, installations are made by the dealer or contracted by the dealer or owner. Detailed installation instructions are included in F-36981 Installation & Operation Manual that is sent with each unit.

It should be noted that an improperly installed unit, especially an unlevel unit can lead to premature electrical component failures. A unit that is higher in the front will cause the flue gases to vent improperly and gather in the front near the electrical components.

All RRG models must be installed with an externally mounted regulator.

The models, number of burners and BTU/HR input rating are listed under GENERAL in the Installation & Operation Manual.

OPERATION

Detailed operation instructions are included in the Installation & Operation Manual sent with each unit. The manual is also available online at www.vulcanequipment.com.

The operation of the griddle controls, pilots and burners are outlined under CONTROLS in the Installation & Operation Manual.

SPECIFICATIONS

Electrical

- 120VAC 50/60Hz 1 Amp single phase.

- 6 foot corded plug with ground supplied.

Gas Manifold Pressure:

- Natural Gas 5.0" W.C.

- Propane Gas 10.0" W.C.

- Gas pressure regulator supplied with the unit must be installed.

Incoming Gas Pressure:

- 7" to 9" W.C. Natural Gas

- 11" to 12" W.C. Propane Gas.

- Incoming pressure should not exceed 14.0" W.C. (0.5 PSI) for either gas type.

Burners

- One 27,500 BTU/HR “U” shaped aluminized steel burner for each 12" of griddle width.

Controls

- One Solid State thermostat with embeded thermocouple for each 12" of griddle width.

- Temperature adjustment range 150°F to 450°F.

- Electronic ignition module with pilot safety system.

- There is one pilot for every two burners. A flash tube mounted between two burners is used to light the ignition ports on the burners.

- On 36” and 60” griddles there is an odd number of burners to light. One pilot and one electronic ignition module on these griddles will control a single burner only.

TOOLS

Standard

- Standard set of hand tools.
- VOM and meter leads rated CAT III 600v or higher. Meter must also have a certification.
- Temperature tester (K type thermocouple preferred) with surface probe.
- U-Tube or Digital Manometer.

- Thread sealant suitable for use with natural or propane gas.

Special

- Torque wrench capable of measuring at least 25 in-lbs. for tightening thermocouple probe to griddle plate. Bolt size 5/16"-18.
- Safekote 60 or equivalent Heat Transfer and Anti-Seize Compound rated for 600°F (purchase locally). Apply to thermocouple probe.
- Clear silicone sealant

REMOVAL AND REPLACEMENT OF PARTS

CONTROL PANEL

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

The Control Panel holds the thermostats, indicator lights and power switch.

1. Remove four screws securing the front of control panel to frame.

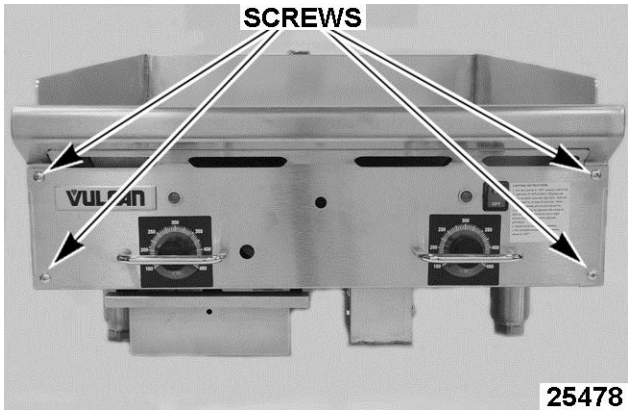


Fig. 1

2. Remove screw(s) that secure the bottom lip of the control panel to the frame. The total number of screws depend on the width of the griddle.
3. Pull control panel forward and lay face down in front of the unit while servicing.
4. Reverse procedure to install.

BACK PANEL

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

NOTE: Remove the back panel when changing a burner, temperature probe or to remove excessive grease build up from the flue area.

1. Disconnect gas supply at griddle.
2. Remove GAS PRESSURE REGULATOR.
3. Remove all screws from rear of griddle securing the back panel.

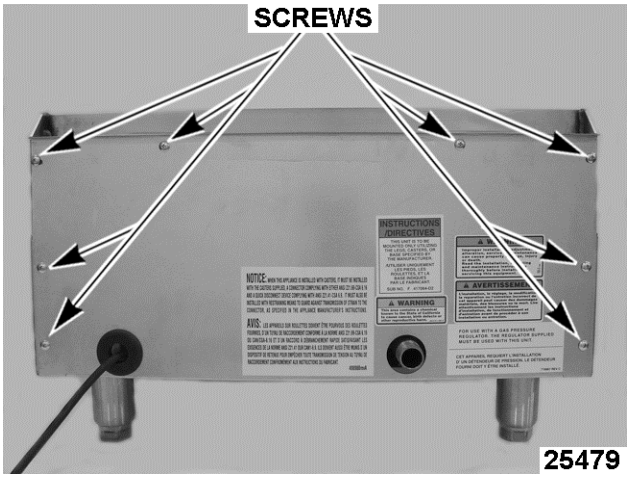


Fig. 2

4. Reverse procedure to install.

BULL NOSE

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Remove CONTROL PANEL.
2. Remove all screws securing bull nose to griddle. The total number of screws depend on the width of the griddle.

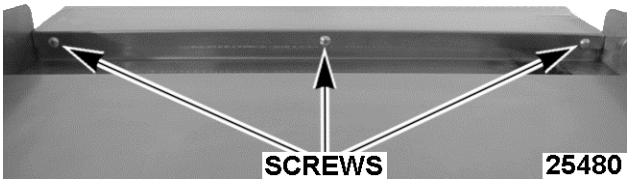


Fig. 3

3. Lift bull nose off griddle.
4. Reverse procedure to install.

THERMOCOUPLE

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

Removal

1. Remove CONTROL PANEL.
2. Note thermocouple connections then disconnect from temperature controller.

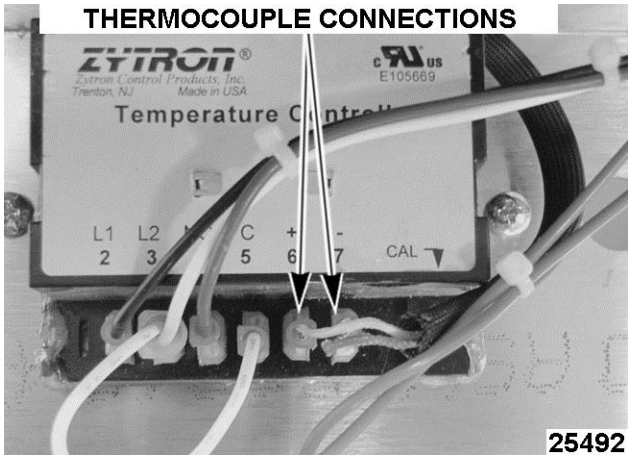


Fig. 4

3. Remove BACK PANEL.
4. From rear of griddle, loosen mounting nut and remove probe from bottom of griddle plate.

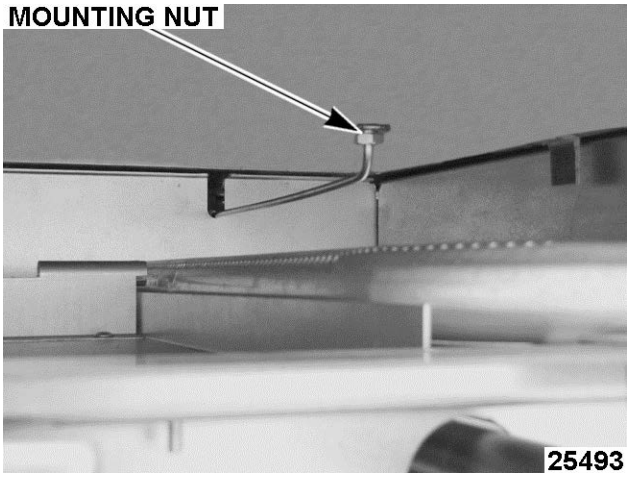


Fig. 5

Installation

1. Apply a thin coating of heat transfer and anti-seize compound to the probe tip and mounting nut threads.
2. From rear of griddle, route thermocouple wires and probe through the opening in heat shield.
3. Thread temperature probe into the mounting hole in griddle plate and stop when probe tip touches the plate. Torque the mounting nut to a maximum of 25 in-lbs.

NOTICE Do not over tighten or damage to the thermocouple probe may occur. Due to the aluminum plate core, It is also possible to create a raised area over the probe if overtightened.

4. Check TEMPERATURE CONTROL CALIBRATION.

TEMPERATURE CONTROLLER

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Remove CONTROL PANEL.
2. Note wire connections then disconnect them from temperature controller.

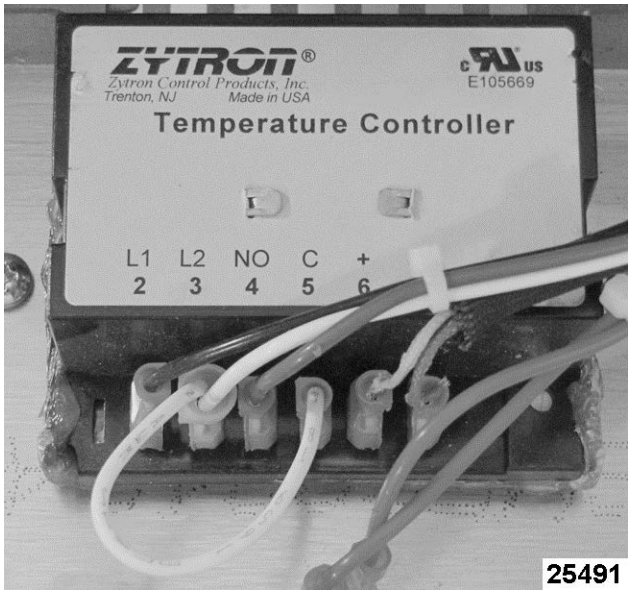


Fig. 6

3. Remove knob from temperature control shaft.
4. Note temperature control orientation as mounted to control panel. Remove mounting nut from temperature control shaft and remove control from panel.

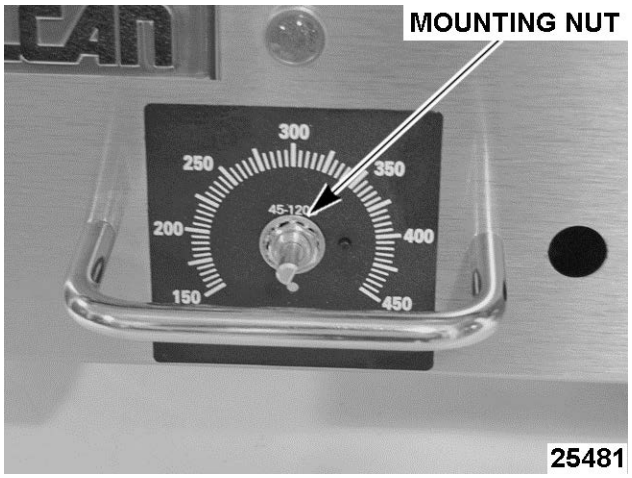


Fig. 7

5. Reverse procedure to install.
6. Check TEMPERATURE CONTROL CALIBRATION.

BURNER

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

1. Remove BACK PANEL.
2. Remove the nut that is securing burner.

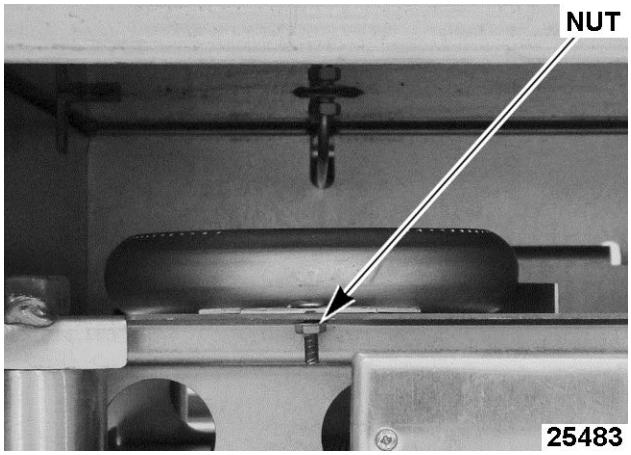


Fig. 8

3. Lift back of burner until locating pin clears hole and pull out burner.
4. Reverse proceedure to install.

PILOT BURNER

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

1. Remove GAS PRESSURE REGULATOR.

2. Access ignition module, and disconnect high voltage spark wire.

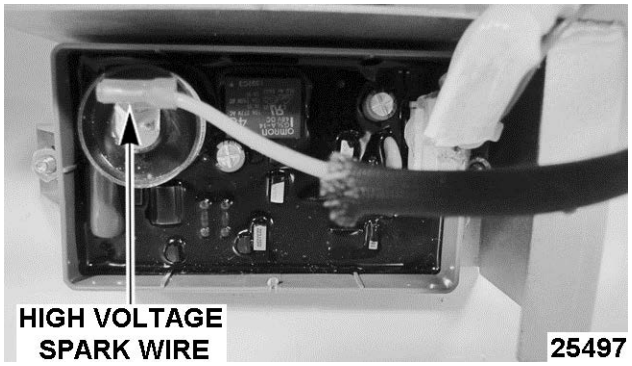


Fig. 9

3. Remove CONTROL PANEL.
4. Lift griddle at the front and support it from underneath for access to the pilot. (Be aware of the main gas line at the rear when tilting)
5. Remove pilot bracket retaining screw.

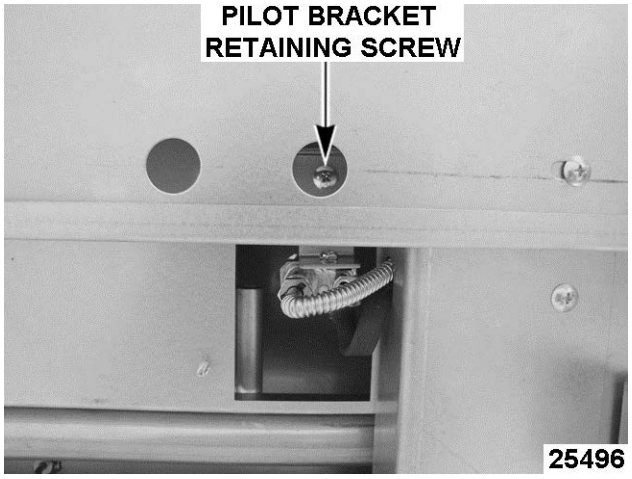


Fig. 10

6. Position pilot assembly to give you the easiest access to the compression fitting on the pilot assembly.

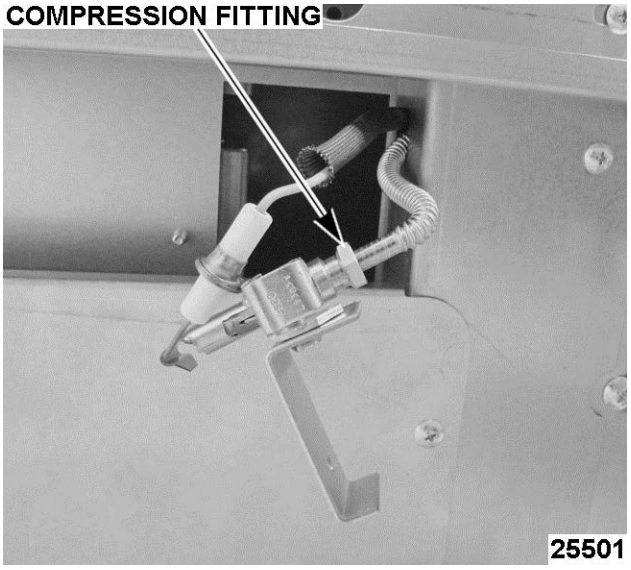


Fig. 11

7. Disconnect flex tubing from pilot burner assembly.
8. Pull high voltage spark wire through bottom of griddle.
9. Reverse procedure to install.

NOTE: When installing, verify spark gap is 1/8".

10. Check for proper operation.

IGNITION MODULE

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Remove grease tray
2. Remove two screws holding ignition module cover in place and pull it down.

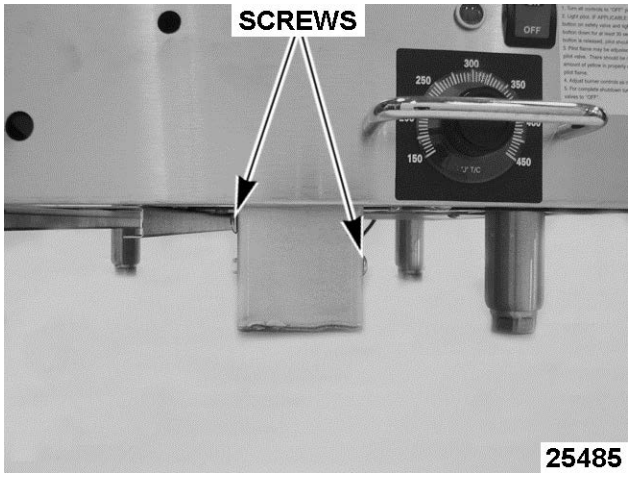


Fig. 12

3. Disconnect high voltage spark wire and control wire harness female connector.
4. Remove two mountingnuts and screws holding the ignigtion module to the cover.

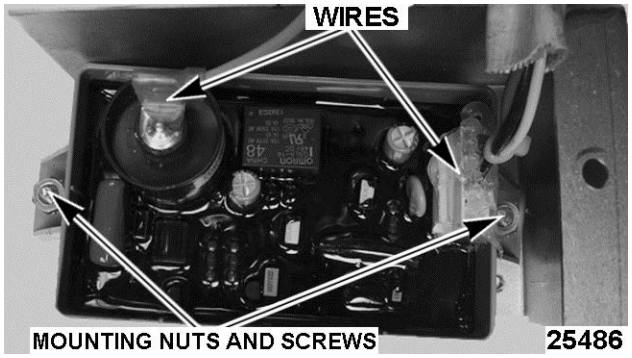


Fig. 13

5. Reverse proceedure for install and verify proper operation.

NOTE: Clear silicone sealant on the control wire harness female connector will need to be cleaned off. Apply clear silicone sealant around the connector to seal it before installation of new ignition module.

DUAL SOLENOID VALVES

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

1. Remove CONTROL PANEL.

NOTE: Plumbing and type of burner solenoid valves may vary slightly between different units.

2. Label and disconnect dual solenoid valve connectors.

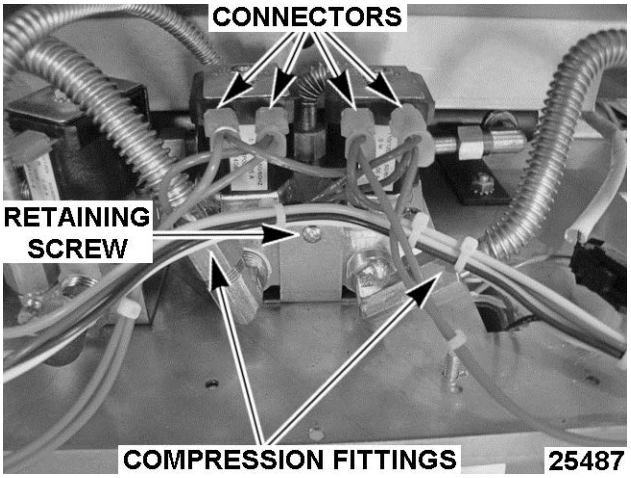


Fig. 14

3. Remove retaining screw that is holding dual solenoid valve body in bracket.
4. Disconnect compression fittings and remove flex tubing from front of dual solenoid valve.
5. Lift dual solenoid valve out of bracket and arrange it to access compression fitting in back.
6. Disconnect compression fitting in back of dual solenoid valve.

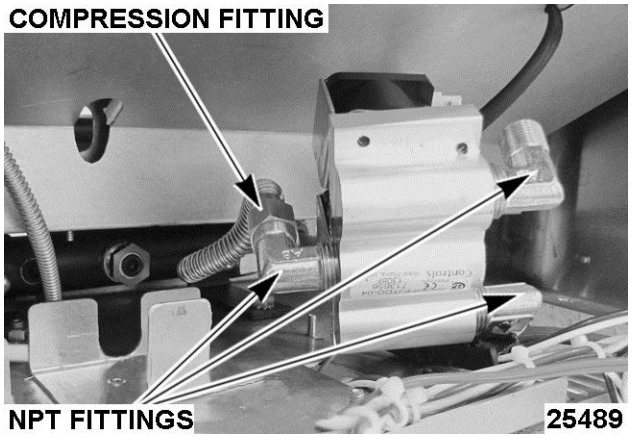


Fig. 15

7. Remove the three NPT elbows. Two on front and one on the back of dual solenoid valve.

NOTE: Be sure to note positioning of NPT elbows on dual solenoid valve.

8. Reverse proceedure for installation.

NOTE: When installing solenoid valves be sure that the coil valve clamp is placed correctly and that the valve clamp hold down nut is securely tightened.

⚠ WARNING Clean pipe threads and apply thread sealant that is suitable for use with propane gases.

9. Check for proper operation.

SINGLE SOLENOID VALVE

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

1. Remove CONTROL PANEL.

NOTE: Plumbing and type of Single Solenoid Valve may vary slightly between different units.

2. Label and disconnect connectors on single solenoid valve.

3. Remove retaining screws that are holding single solenoid valve body in bracket.

4. Disconnect compression fitting and remove flex tubing from front of single solenoid valve.

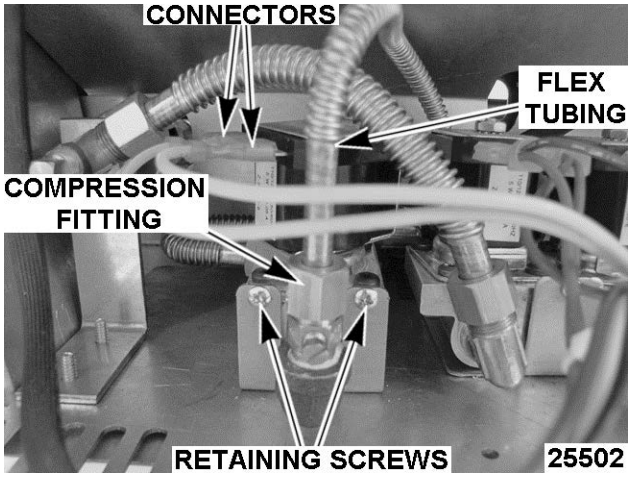


Fig. 16

5. Lift solenoid out of bracket and arrange it to access compression fitting in back of single solenoid valve.

6. Disconnect compression fitting in back of single solenoid valve.

7. Remove street elbow and NPT elbow from single solenoid valve.

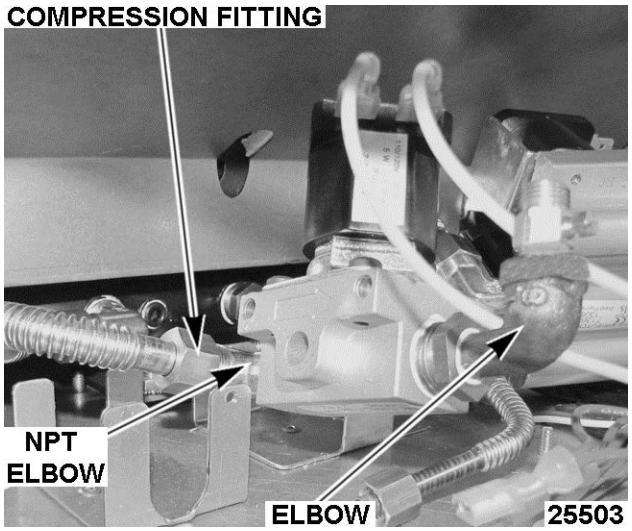


Fig. 17

NOTE: Be sure to note the positioning of the elbow.

8. Reverse proceedure for installation.

⚠ WARNING Clean pipe threads and apply thread sealant that is suitable for use with propane gases.

9. Check for proper operation.

GAS PRESSURE REGULATOR

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

⚠ WARNING Clean pipe threads and apply thread sealant that is suitable for use with propane gases.

Removal

1. Disconnect gas supply line from gas pressure regulator inlet.
2. Disconnect gas pressure regulator from back of griddle.

Installation

1. Thread regulator onto pipe hand tight with arrow pointing in direction of gas flow to the griddle.
2. Tighten regulator securely in horizontal position with the regulator closing nut facing upward.

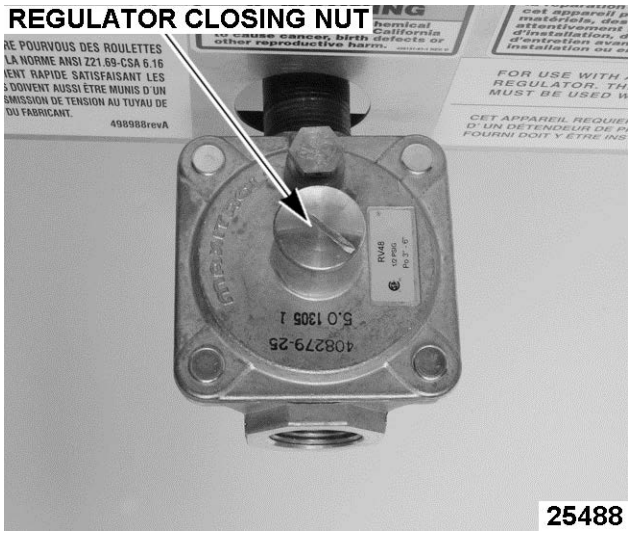


Fig. 18

NOTE: Regulator will not function properly without adjustment screw pointing upward.

3. Connect supply gas line to gas pressure regulator inlet.
4. Adjust regulator as outlined in REGULATOR ADJUSTMENT.

GRIDDLE PLATE ASSEMBLY

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

NOTICE For larger units, removal and replacement of the griddle plate weld assembly should be done by more than one service technician .

1. Remove BACK PANEL.
2. Remove THERMOCOUPLEfrom griddle plate. Leave thermocouple wires connected at temperature controller.
3. Remove CONTROL PANEL.
4. Remove BULL NOSE.
5. Cut a length of 2x4 appropriate for the griddle plate width, leaving additional length to grasp on each side of griddle plate.
6. Lift front of griddle plate and support with 2x4.
7. Lift back of griddle plate and support with 2x4.

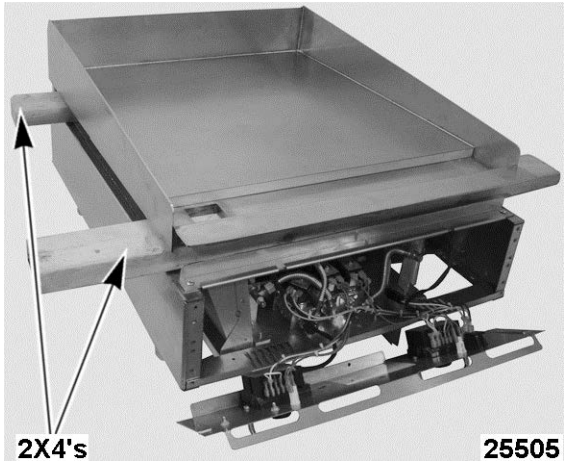


Fig. 19

8. Lift Griddle plate and remove from base of equipment.
9. Reverse procedure for installation.

SERVICE PROCEDURES AND ADJUSTMENTS

TEMPERATURE CONTROL CALIBRATION

NOTE: Ensure the griddle is level before performing calibration as outlined under LEVELING in the Installation & Operation Manual.

NOTE: Do not use an infrared thermometer for measuring griddle surface temperatures. These devices are highly sensitive to surface color (clean or dirty), angle of reading and distance from the surface. Use a temperature meter with surface probe for all griddle surface temperature measurments.

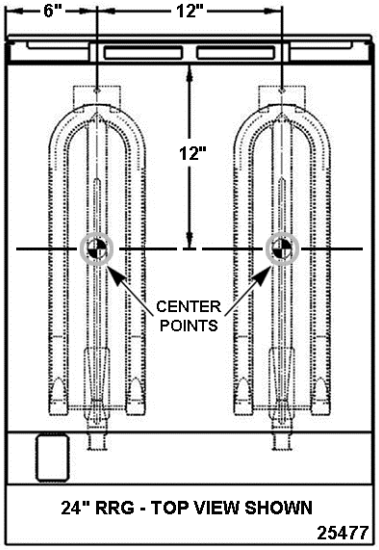


Fig. 20

1. Each temperature controller controls a 12" zone of the griddle. Center point area of cooking zones are located 6" from the side splash (left or right), every 12" across the width of griddle, and 12" back from the front of griddle plate.
2. Clean the center point areas of cooking zones to ensure good contact with surface probe.
3. Set thermostats to 350°F and allow the indicator light to cycle ON and OFF at least three times to stabilize griddle surface temperatures.
4. Monitor indicator light for the temperature controller calibration being checked. When the light cycles OFF, measure temperature for that zone and record.

- If tempereature measurement is 350°F ±5°F the control is propererly calibrated.
- If temperature measurement is outside of tolerance then temperature control **must** be calibrated.

CALIBRATING TEMPERATURE CONTROL

NOTICE Never adjust the screw on the back side of the temperature controller. This will ruin the factory calibration; the temperature controller will no longer operate properly and will need to be replaced.

1. Use the temperature scale on the overlay as a guide. Align the edge on a short piece of tape to the temperature recorded in STEP 4 and apply tape to knob as a reference point.
2. Remove knob from temperature control shaft. Do not rotate the knob during removal.
3. Loosen screws on the back of dial. With knob facing user, a *clockwise* rotation increases temperature and a *counterclockwise* rotation decrease temperature.
4. Hold the knob and rotate dial to the edge of the tape used for reference. This adjustment offsets the indicated temperature on the dial to the actual temperature measured.
5. Hold the dial and knob together to maintain the setting and tighten screws.
6. Install the knob back onto the temperature control shaft.
7. Repeat "TEMPERATURE CHECK." Adjust calibration until temperature is within tolerance.

BURNER AIR SHUTTER ADJUSTMENT

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING Clean pipe threads and apply thread sealant that is suitable for use with propane gases.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

The efficiency of the burner depends on a delicate balance between the air supply and volume of gas. Whenever this balance is disturbed, poor operating characteristics and excessive gas consumption may occur. An air shutter on the front of the burner controls the gas mixer balance. A yellow streaming flame on the burner is an indication of insufficient primary air. A proper flame should be blue in color, well-defined and seated on the burner port. A white-blue flame is a result of excessive primary air.

1. Remove BURNER.
2. Loosen the shutter screw and rotate the air shutter.

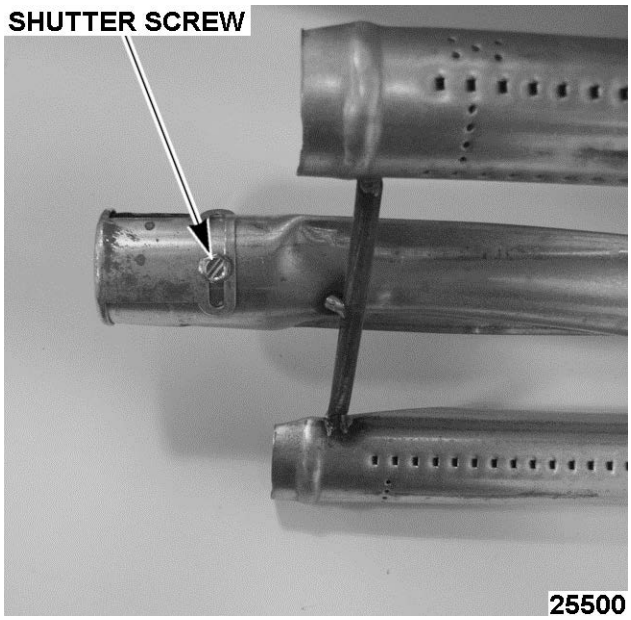


Fig. 21

3. Install burner.
4. Install GAS PRESSURE REGULATOR.
5. Connect power to machine.
6. Turn on power and rotate temperature controller to call for heat.
7. Observe flame from back of machine.
   A. If a proper flame is observed as described in the beginning paragraph, no further adjustment is necessary.
   B. If flame is yellow tipping and lifting from burner, continue with procedure to adjust.
8. Disconnect power.
9. Remove burner, being sure to keep shutter in the current position.
10. Open the shutter slightly and tighten the shutter screw.
11. Install BURNER.
12. Test machine to verify proper operation.

NOTE: The factory default air shutter positions are half open natural; full open propane.

REGULATOR ADJUSTMENT

⚠ WARNING Shut off the gas before servicing the unit.

⚠ WARNING All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

NOTE: Regulators come preset, but should be checked anytime one is installed. Before adjusting regulator, check incoming gas line pressure. Incoming pressure must be 7-14" W.C. for natural gas and 12-14" W.C. for propane gas. If incoming pressure is not correct, have the gas source checked and adjusted as necessary. Make sure the regulator is mounted in the horizontal position with the arrow pointing in the direction of gas flow. See unit data plate, riveted on right side panel towards front of unit, for manifold pressure setting information. Clean vent cap before adjusting.

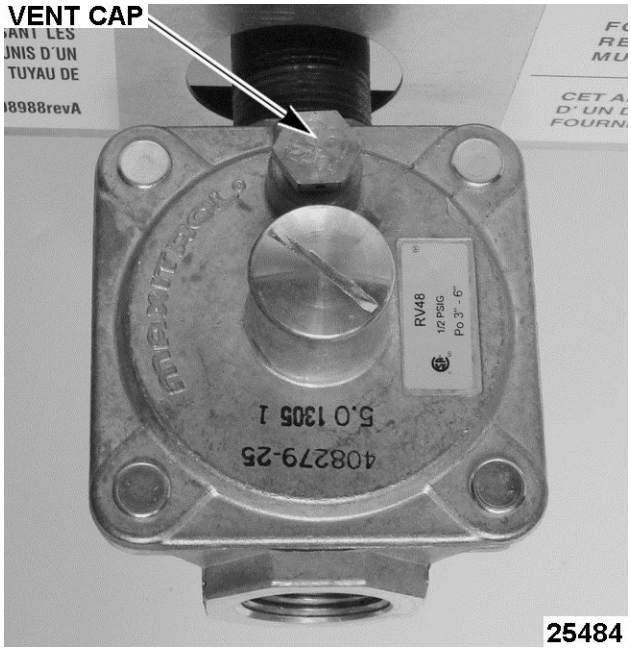


Fig. 22

1. Remove pressure tap plug and connect manometer to the pressure tap located on the far left burner port.

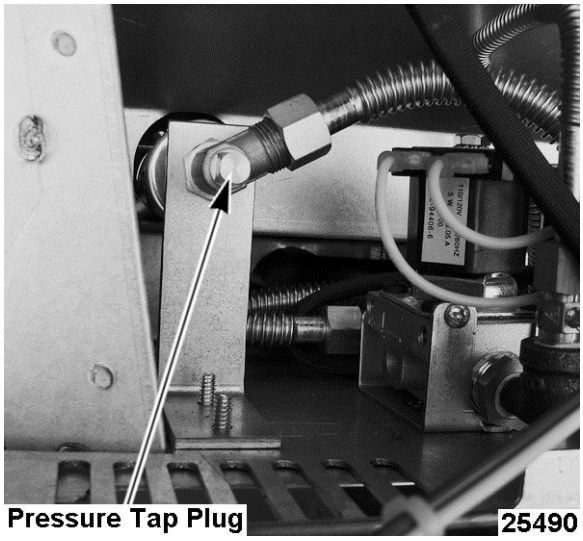


Fig. 23

2. Check manometer reading. The reading should be 5" W.C. for natural gas and 10" W.C. for propane gas. Tolerance is ±0.3" W.C.
3. If manifold pressure is not correct, adjust the regulator. Remove the regulator closing nut.

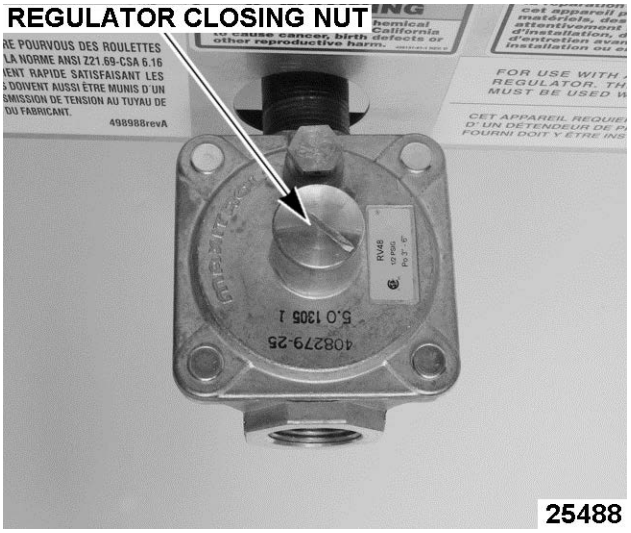


Fig. 24

4. Insert a flat edge screwdriver through the top of the regulator. While watching the manometer, turn the adjusting screw clockwise to increase pressure and counterclockwise to decrease pressure.
5. Install the regulator closing nut.

⚠ WARNING Clean pipe threads and apply thread sealant that is suitable for use with propane gases.

6. Reninstall pressure tap plug.

BURNER NOZZLE CHECK

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

⚠ WARNING Shut off the gas before servicing the unit.

The burner nozzle is mounted between the griddle gas supply tubing/mounting bracket and the u-burner assembly. If burner operation seems poor and other systems have been checked, access the burner for the griddle section being serviced and remove the burner nozzle.

1. Check for blockage or damage.

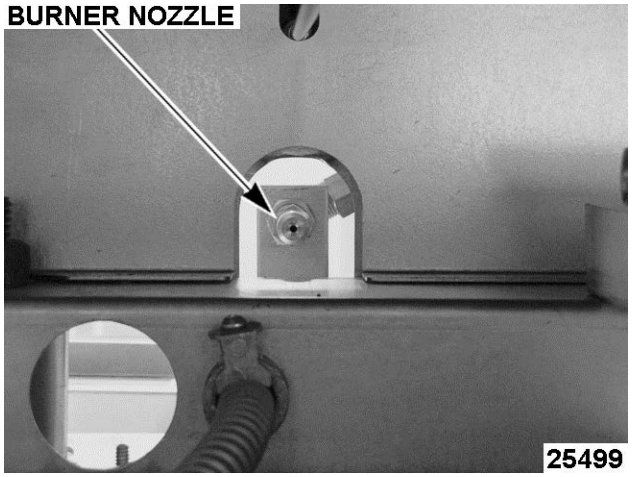


Fig. 25

2. Verify gas orifice hood is correct for the altitude. See Parts Catalog for Orifice Hood Chart.

THERMOCOUPLE TEST

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Access TEMPERATURE CONTROLLER.
2. Remove thermocouple connections from temperature controller.

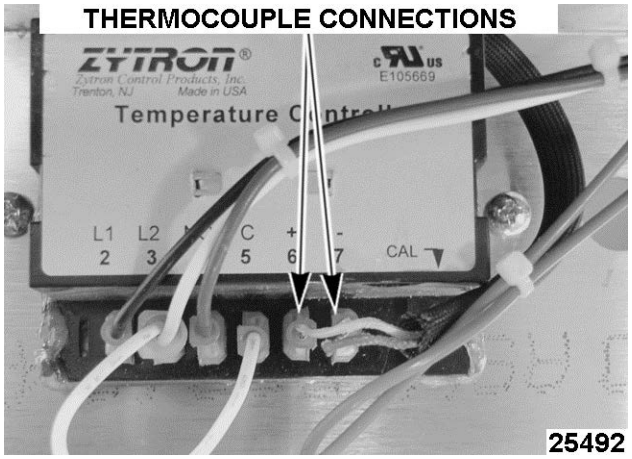


Fig. 26

3. Check the thermocouple for resistance.
   A. If meter reads an overload (OL) condition (open), or zero ohms (short) replace the thermocouple and check temperature controller for proper operation.
4. If resistance is measured, thermocouple is good.

TEMPERATURE CONTROLLER TEST

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Access the TEMPERATURE CONTROLLER.
2. Connect power to the machine.
3. Turn on the power switch.
4. Verify temperature controller is receiving 120VAC at terminals L1 & L2, polarity is correct and machine is properly grounded.

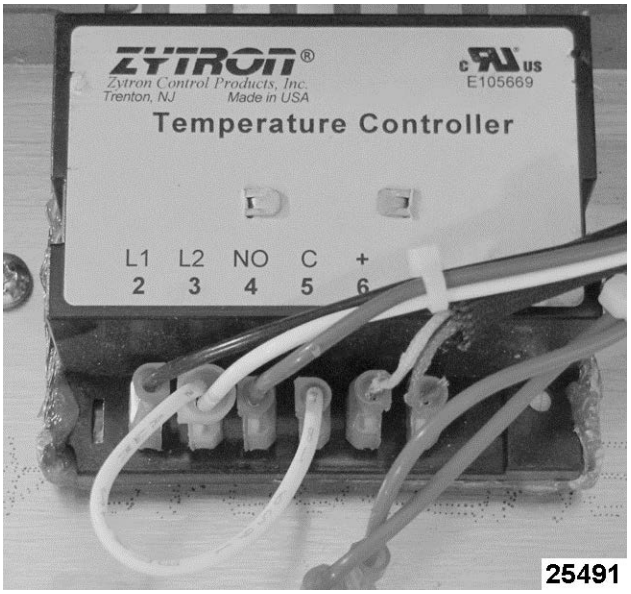


Fig. 27

5. Set temperature dial to 350°F.
6. Verify indicator light comes on and burner lights.
   A. If heat light and main burners come on but turn off within 10 seconds, Perform THERMOCOUPLE TEST .

NOTE: Temperature controller will de-energize internal relay if the circuitry detects an open thermocouple.

   B. If heat light and main burners do **not** come on, verify internal relay contacts are operating properly. Check for 120VAC dual solenoid valve.

IGNITION MODULE TEST

NOTE: Sparking will continue until pilot flame is established, at which point sparking will terminate. If no pilot flame is established the sparking will continue until power is removed from unit.

1. Turn on power switch.
2. Single solenoid valve energizes allowing gas to flow to pilot burner.
3. Ignition module is energized and ignition starts.
4. If there is no spark then check the following.
   A. Check for 120VAC at ignition module.
   B. Verify spark gap is set at 1/8".
   C. Inspect eletrode wire for damage and continuity.
   D. If component passes all above tests and is not sparking, then replace ignition module.

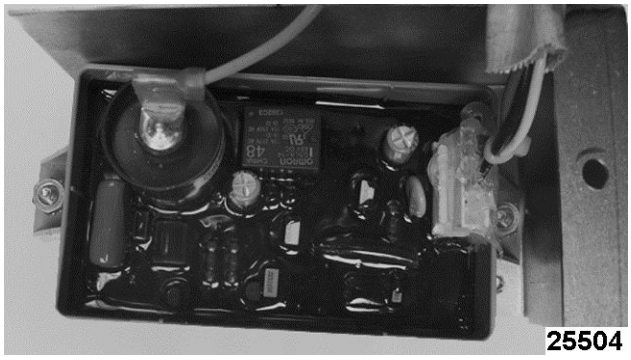


Fig. 28

5. Pilot burner lights and flame is sensed. If electrode continues to spark after pilot is lit then check the following.
   A. Verify the electrode is fully engulfed by pilot flame.
   B. Verify that ground wire from pin 1 is securely grounded to chassis.
6. As long as the ignition control module is sensing flame current, then the pilot will stay lit.

PILOT BURNER FLAME ADJUSTMENT

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

The RRG series griddle utilizes a solenoid valve and straight compression fitting with needle valve adjustment to control gas flow to pilot burners. One to three pilot burners can be fed by one valve. One leg of which may be branched.

1. Remove CONTROL PANEL.
2. Remove dual solenoid valve connectors.

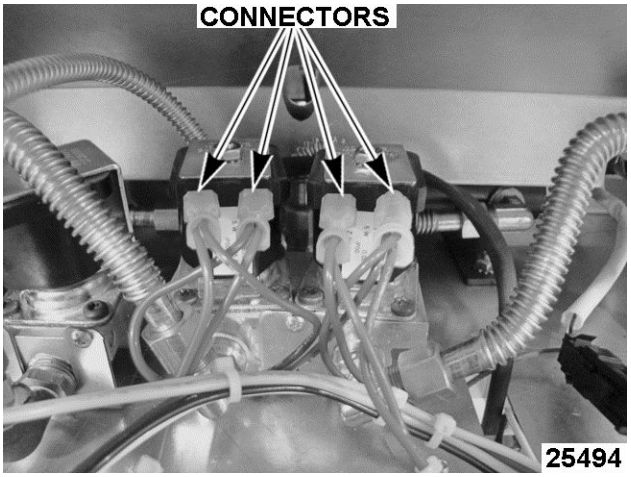


Fig. 29

NOTE: Removing the dual solenoid valve connectors will prevent the main burners from lighting.

3. Connect power to machine.
4. Turn on power switch, and adjust temperature control to call for heat.
   A. If flame envelops 3/8" to 1/2" of the ignitor/ flame sense electrode, pilot burner is adjusted properly.
   B. If flame is outside of specified range, continue with procedure.
5. Locate the proper needle valve and adjust.

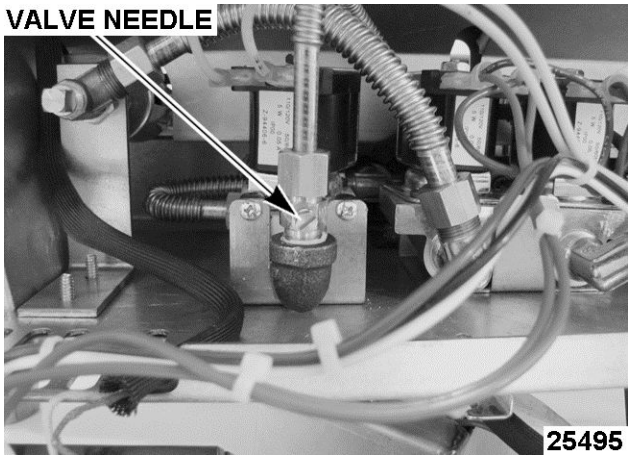


Fig. 30

A. To increase pilot flame turn valve needle *counterclockwise*. To decrease pilot flame, turn valve needle *clockwise*.

6. Once pilot flame is adjusted correctly, turn off power switch.
7. Connect dual solenoid valve connectors.
8. Install CONTROL PANEL.
9. Check for proper operation.

SOLENOID VALVE TESTS

⚠ WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Remove CONTROL PANEL.
2. Check for proper gas pressure.
3. Connect power to machine.
4. Turn on power switch and adjust temperature controls to call for heat.
5. Check for 120VAC between both terminals on each solenoid.

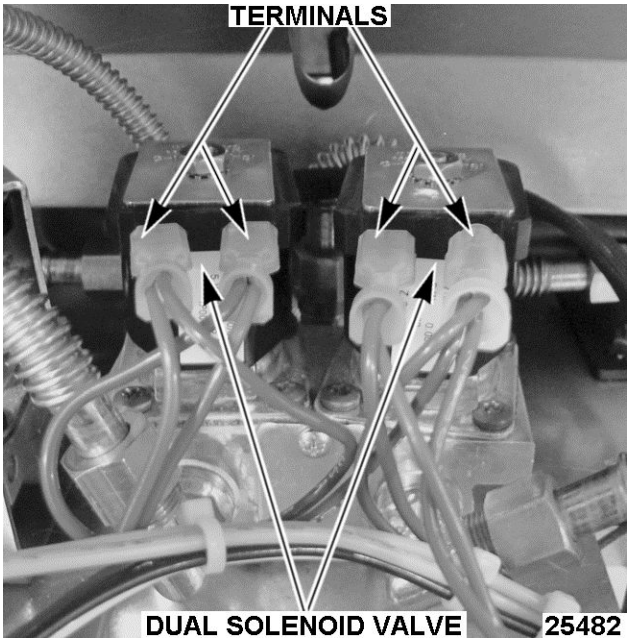


Fig. 31

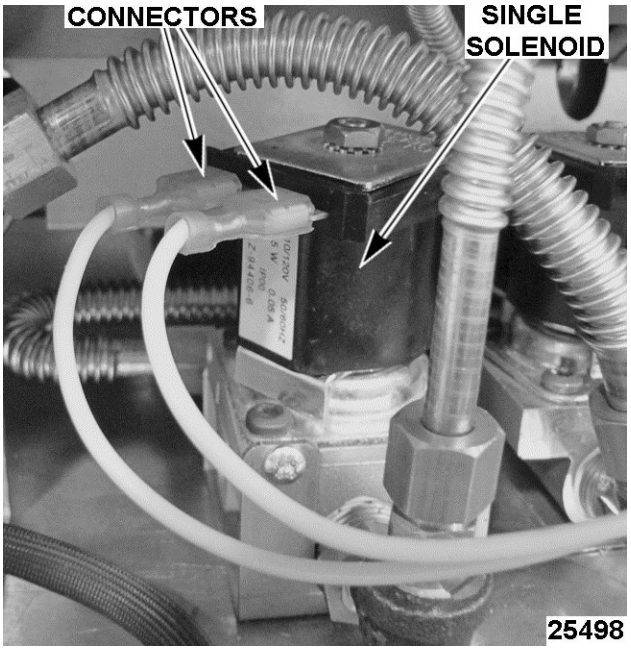


Fig. 32

A. On single solenoid valve, if no voltage - check wiring and on/off power switch.

B. On dual solenoid valve if no voltage - check wiring, IGNITION MODULE, and TEMPERATURE CONTROLLER.

6. If 120VAC is present between two terminals after performing previous steps, either the solenoid coil or valve is malfunctioning.
7. To determine if solenoid coil is malfunctioning, check resistance between both terminals on solenoid. Readings of 100 ohms or less indicate a shorted coil. Solenoid needs replaced.

ELECTRICAL OPERATION

COMPONENT FUNCTION

Temperature Control . . . Controls griddle surface temperature for the individual heat zone by monitoring thermocouple input (K type).

Temperature Probe . . . Senses griddle surface temperature for the heat zone using a K type thermocouple. Provides input to the temperature control.

Power Switch . . . . . Controls power to all electrical components (single solenoid valve, temperature control and ignition module) (SPST switch).

Indicator Light . . . . . When brightly lit, the light indicates temperature control is calling for heat (internal contacts closed) and ignition module output from pin 2 is on. Dual solenoid valve is energized (burner on).

The light will be dimly lit after the pilot burner is on.

The light is off during trial for ignition (pilot lighting) or when the pilot safety circuit is not satisfied (pilot not lit).

Ignition Module . . . . . Controls and monitors gas heating. Generates spark to light gas at the pilot burner, monitors the presence of flame and energizes the dual solenoid valve upon a call for heat from the temperature control (continuous try module).

Ignitor/Flame Sense Electrode . . . . . Ignites pilot burner and senses the presence of a flame. The Ignitor/Flame Sense is a component of the pilot burner.

Single Solenoid Valve . . . Controls gas to pilot burner. Single solenoid valve is energized when power switch is on. Depending on the width of the griddle, there may not be a single solenoid valve. The solenoid valve used to control gas flow to the pilot burner may be one of the dual solenoid valves. Valves that control gas flow to the pilot burner have an adjustment screw for pilot flame height at the output on the valve body.

Dual Solenoid Valve(s) . . Controls gas to burner. Dual solenoid valve is energized by the ignition module after pilot safety circuit is established (pilot lit) and temperature control is calling for heat. Depending on the width of the griddle, the dual solenoid valve can be used to control gas flow one of the main burners along with the pilot pilot burner.

SEQUENCE OF OPERATION

Operation is the same for all griddle models. Each 12" heat zone on the griddle plate has its own temperature controller, indicator light and ignition system components. Refer to the wiring diagram for the model being serviced.

- 24" GRIDDLE - WIRING DIAGRAM
- 36" GRIDDLE - WIRING DIAGRAM
- 48" GRIDDLE - WIRING DIAGRAM
- 60" GRIDDLE - WIRING DIAGRAM

1. Conditions.
   A. 120VAC connected to griddle and is properly grounded.
   B. Incoming neutral line (L2) is connected to power switch terminal 3 (non switching) and jumpered to one side of single solenoid valve; and each temperature controller at terminals - L2 and com; and each ignition module at pin 3.
   C. Incoming hot line (L1) is connected to power switch terminal 2.
   D. Power switch OFF (SPST).
   E. Temperature dials at lowest setting.
   F. Griddle temperature below 150°F.
   G. Gas supply on.
2. Turn power switch ON - 120VAC applied to the following components:

NOTE: Temperature control terminal L1 (hot) and ignition module pin 4 (hot) are "jumpered" between

each of the installed temperature controllers and ignition modules on the griddle.

   A. Single solenoid valve energized and gas flows to pilot burner.

   B. Temperature controllers are powered.

   C. Ignition modules are powered.

3. Ignition modules generate a spark voltage from the high voltage terminal to begin sparking at the ignitor/flame sense electrodes.

   A. Pilot burner lights, flame is sensed and ignitors stops sparking.

   B. Ignition modules output L1 (hot) from pin 2 on the connector to one side of dual solenoid valve and indicator lights.

   C. Indicator lights are dimly lit.

4. Turn temperature dials to 350°F.

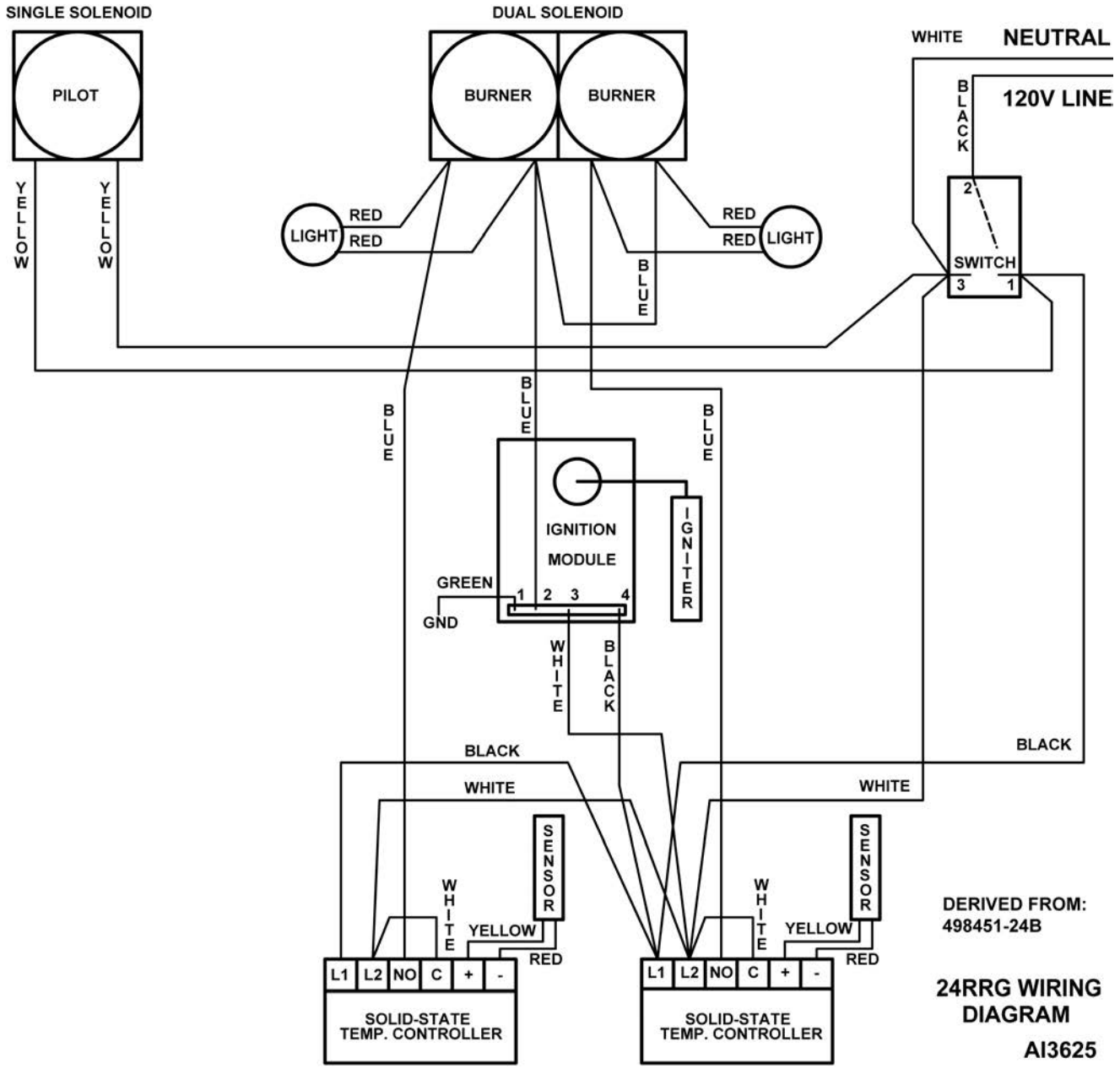
   A. Temperature controller N.O. contacts close and provide L2 (neutral) to the other side of dual solenoid valve.

   B. Dual solenoid valve energized and gas flows to burners. Burners light and begin heating griddle.

   C. Indicator lights are brightly lit.

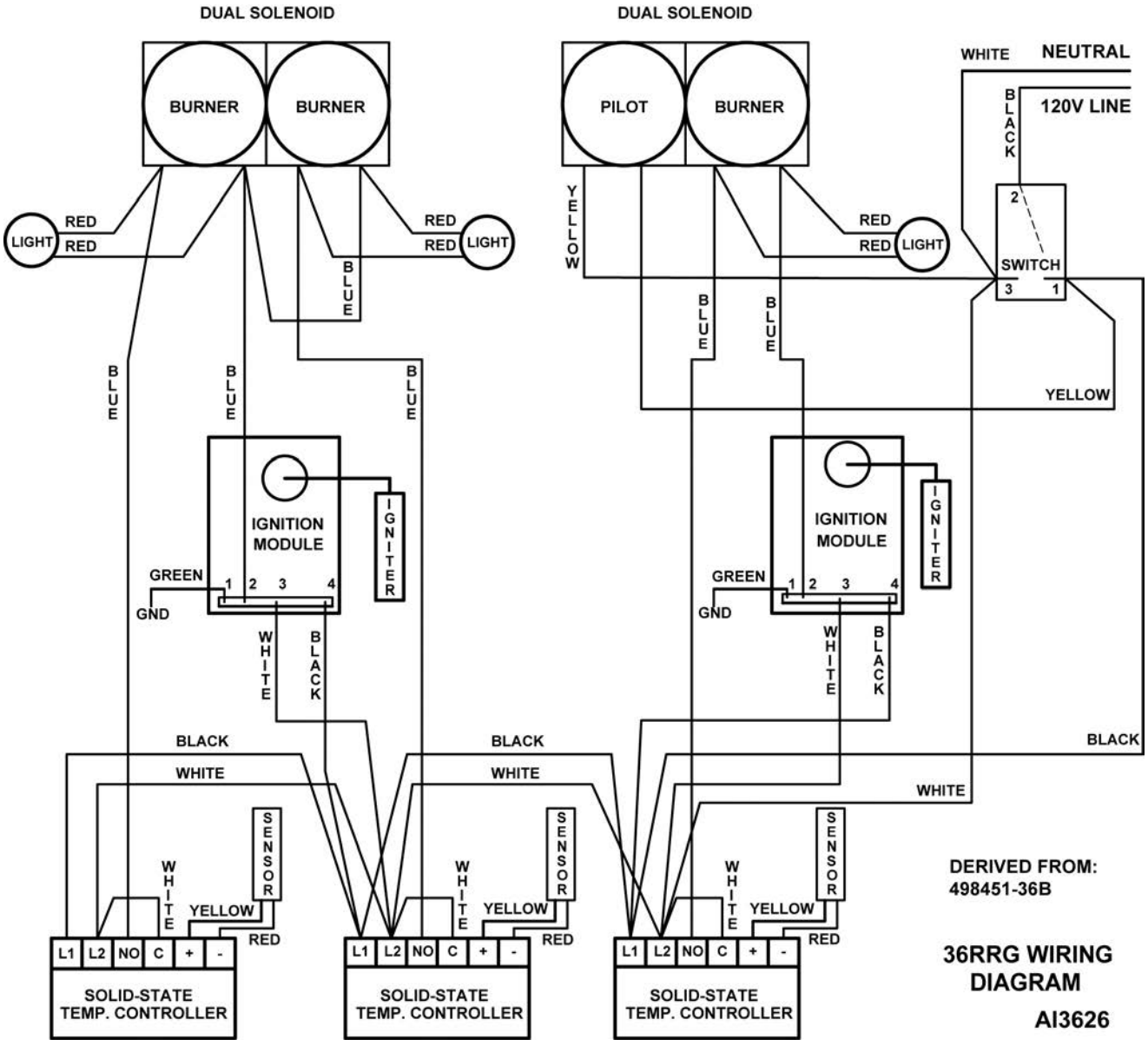
5. Griddle will continue to cycle with the temperature controllers until the temperature dial is turned down or the power switch is turned off.

24" GRIDDLE - WIRING DIAGRAM



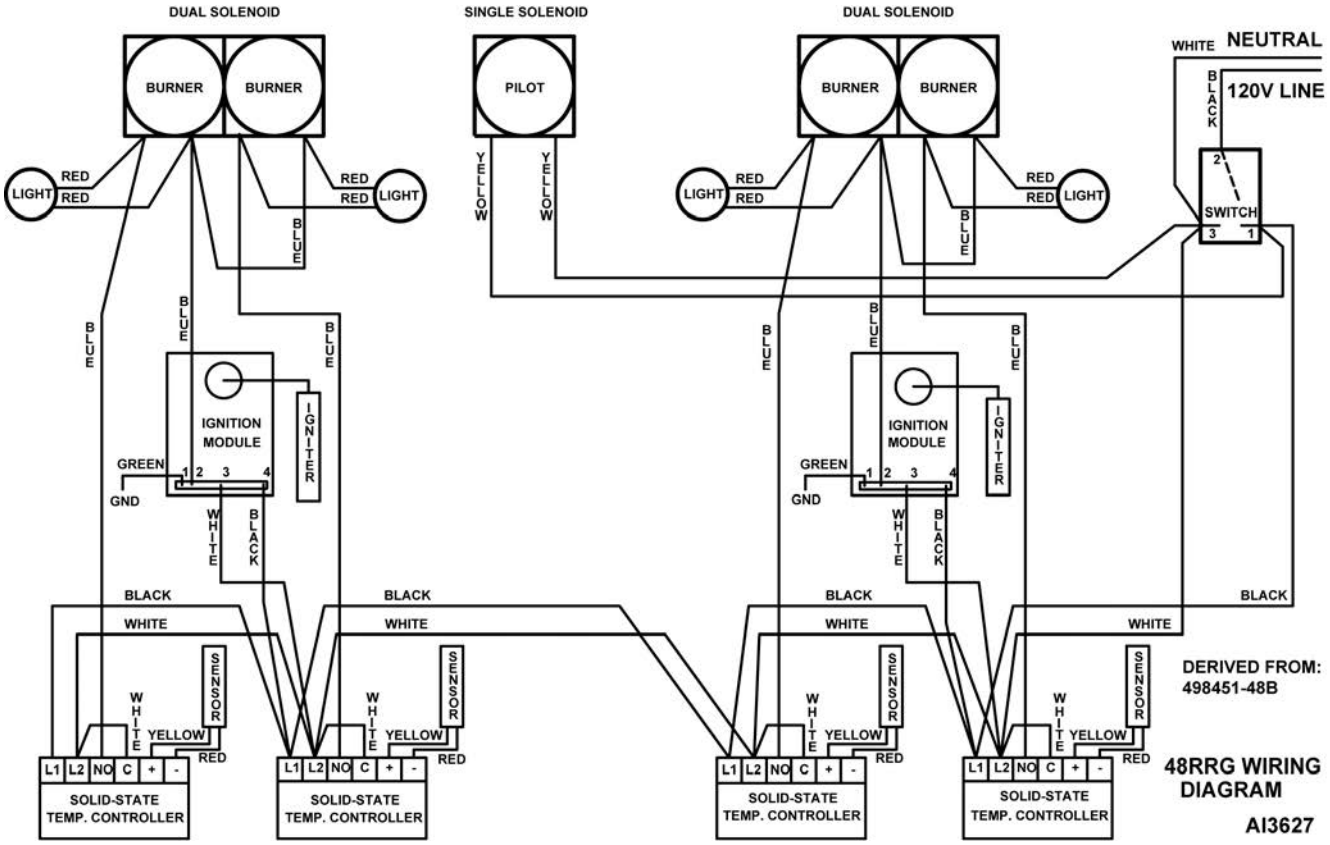
24" GRIDDLE - WIRING DIAGRAM

36" GRIDDLE - WIRING DIAGRAM



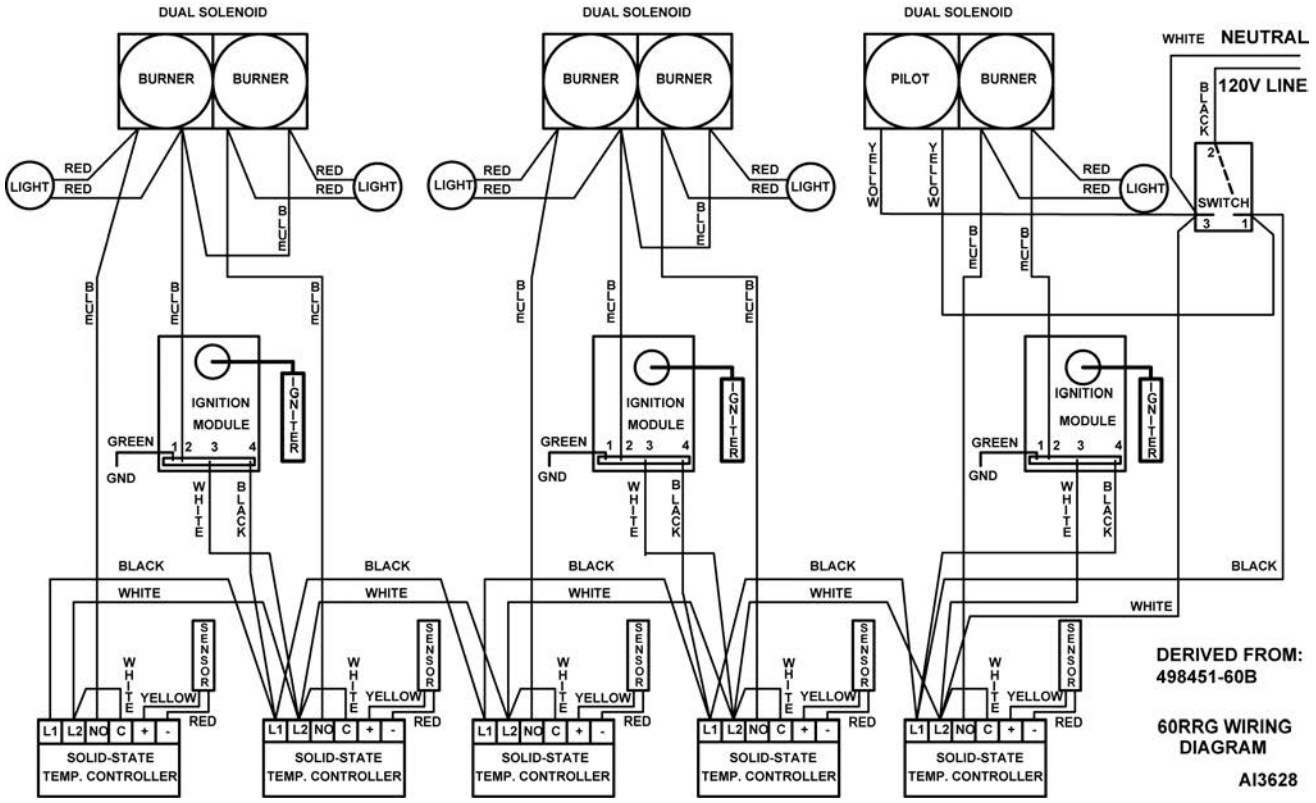
36" GRIDDLE - WIRING DIAGRAM

48" GRIDDLE - WIRING DIAGRAM



48" GRIDDLE - WIRING DIAGRAM

60" GRIDDLE - WIRING DIAGRAM



60" GRIDDLE - WIRING DIAGRAM

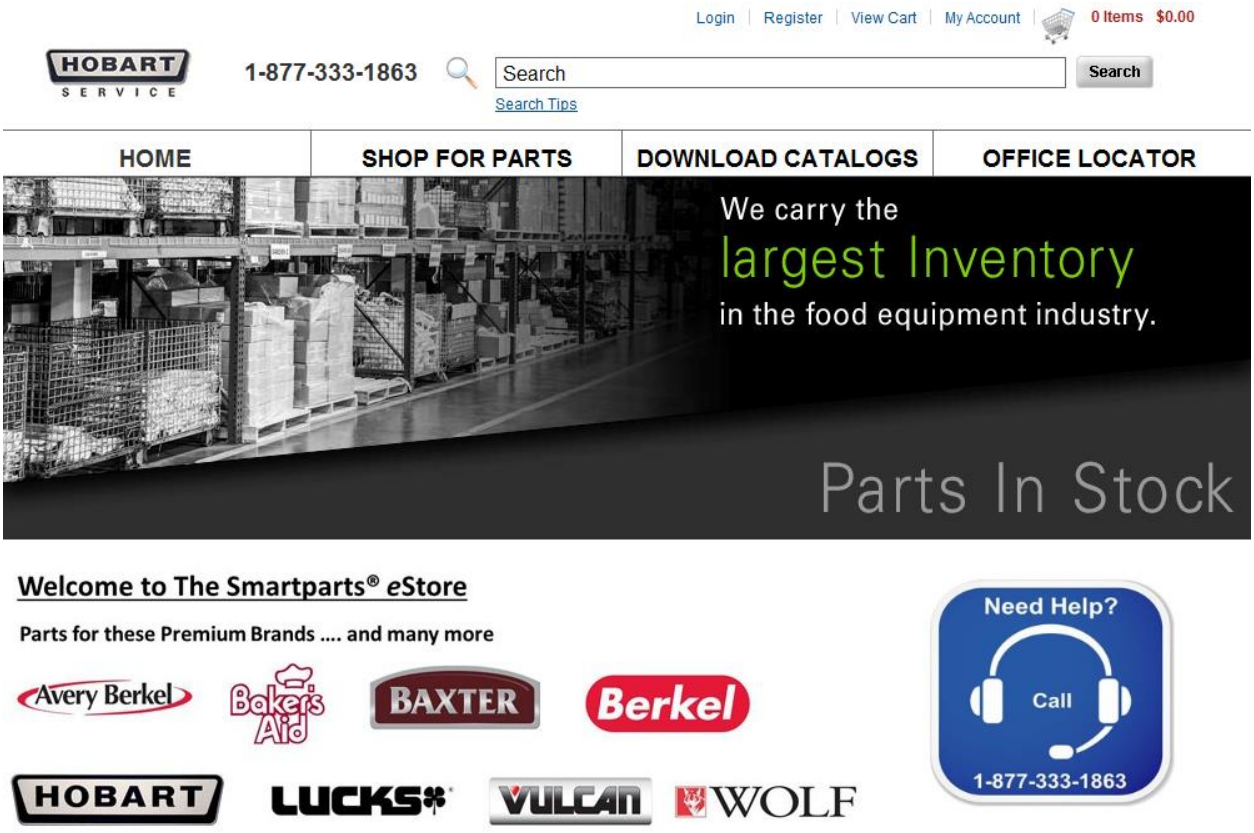
TROUBLESHOOTING

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
No spark to ignite pilot burner.	1. Power switch inoperative. 2. No power to ignition module. 3. Ignition module not properly grounded 4. Ignition module malfunction. 5. Spark gap incorrect. 6. Ignitor/flame sense wire inoperative.
Spark at ignitor but pilot burner does not light.	1. No power to single solenoid valve. 2. Single solenoid valve malfunction. 3. Gas supply off or insufficient.
Pilot burner will not stay lit.	1. Spark/flame sense wire connections incorrect. 2. Improper ground on pilot burner. 3. Ignitor/flame sense malfunction. 4. Gas pressure not within specified range. 5. Pilot flame needs adjusted.
Pilot burner is lit but main burners will not light or maintain flame.	1. Power to temperature controller incorrect. 2. Temperature controller not calibrated correctly. 3. Thermocouple malfunction. 4. Temperature controller malfunction. 5. Gas pressure incorrect. 6. Burner orifice obstructed or malfunction. 7. Power to dual solenoid valve incorrect. 8. Dual solenoid valve malfunction.
High/Low heat.	1. Gas pressure incorrect. 2. Burner orifice malfunction or incorrect. 3. Air shutter not properly adjusted. 4. Thermocouple malfunction. 5. Temperature controller not properly calibrated.

ONLINE PARTS CATALOG

Order parts online at our Hobart Service Parts store: http://thesmartpartsestore.hobartservice.com/



CATALOG OF REPLACEMENT PARTS

RRG SERIES
HEAVY DUTY GAS GRIDDLES

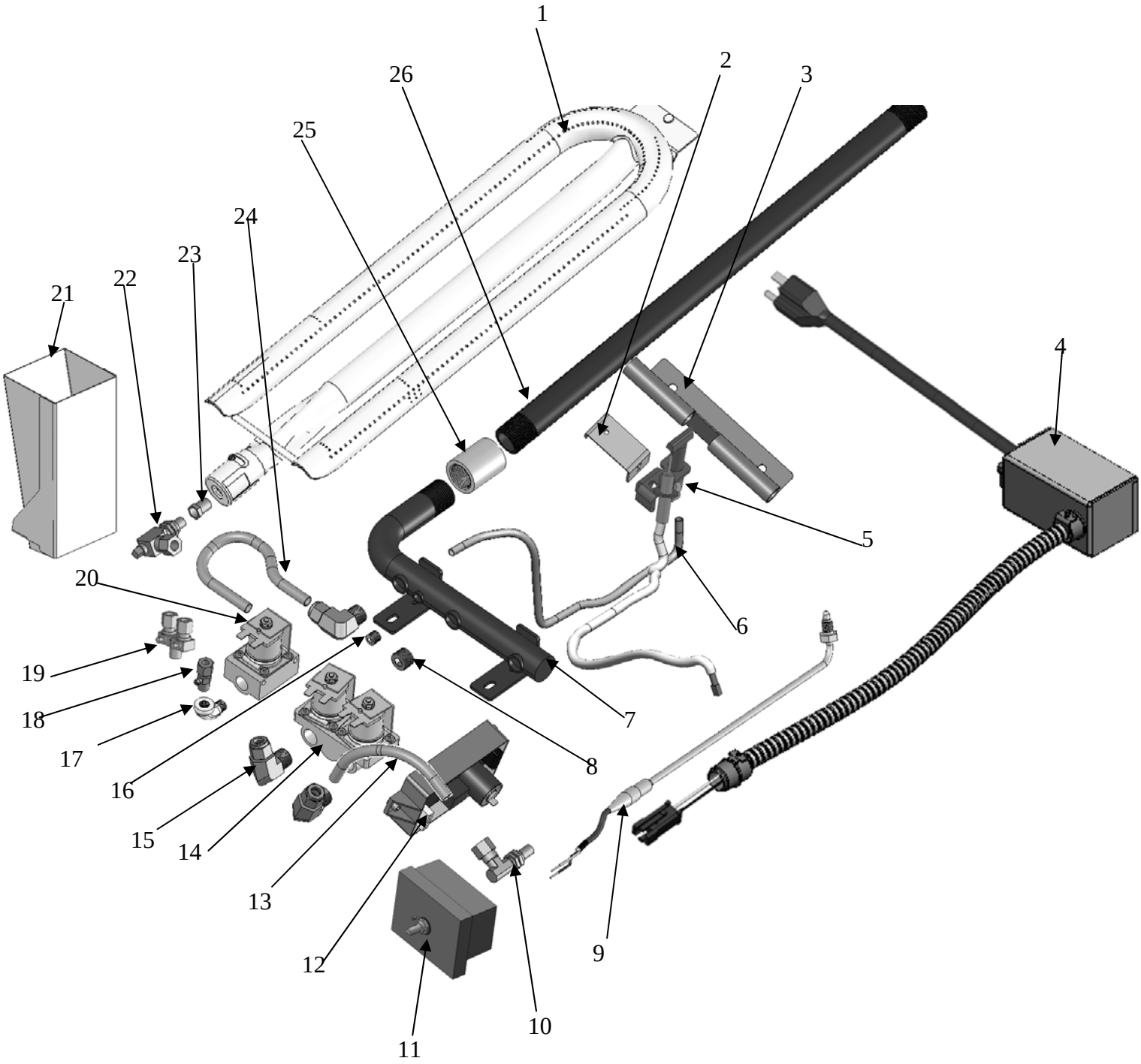
MODEL	
24RRG	ML-135339-00024
36RRG	ML-135340-00036
48RRG	ML-135341-00048
60RRG	ML-135342-00060

For additional information on Vulcan-Hart or to locate an authorized parts and service provider in your area, visit our website at www.vulcanequipment.com

ITW Food Equipment Group, LLC
3600 North Point Blvd.
Baltimore, MD 21222

FORM F-36984 REV.(7-10)

INTERNAL COMPONENTS



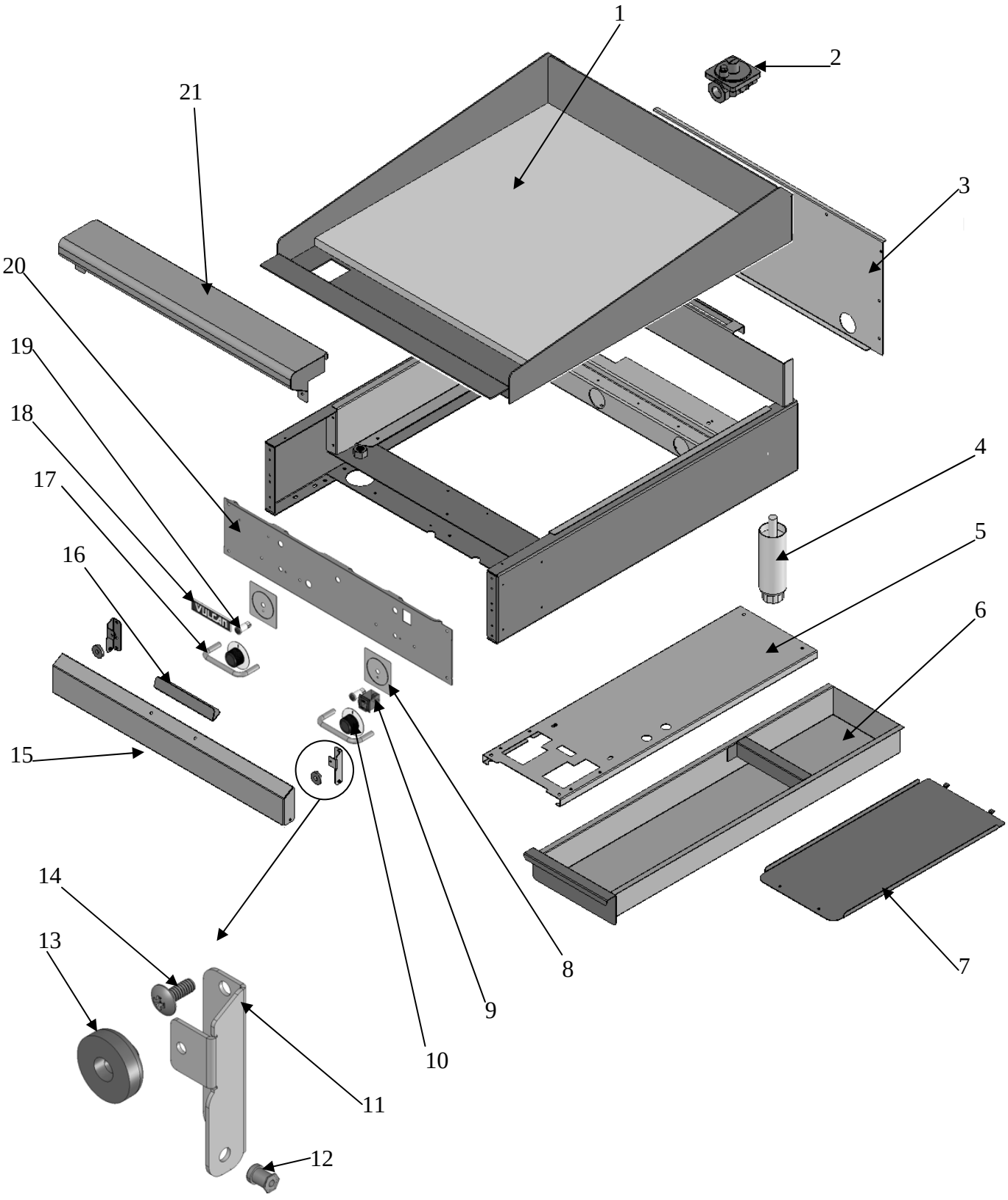
INTERNAL COMPONENTS

ILLUS.	PART NO.	NAME OF PART	24"	36"	48"	60"
1	00-719737-00005	GRIDDLE BURNER	2	3	4	5
2	00-790036	PILOT BRACKET	1	2	2	3
3	00-790035	FLASH TUBE	1	2	2	3
4	00-758567-000A1	J-BOX ASSEMBLY (W/ CORD,CONDUIT,LEADS)	1	1	1	1
5	00-498621-0000A	RRG PILOT SPARK ASSEMBLY(NAT GAS)	1	2	2	3
	00-720041	NATURAL GAS PILOT ORIFICE	1	2	2	3
	00-712363	LP GAS PILOT ORIFICE	1	2	2	3
6	00-722229	¼" X 18" FLEX TUBE	1	2	N/A	2
	00-722230	¼' X 24" FLEX TUBE	N/A	1	2	2
7	00-756947-0000A	MANIFOLD PIPE WELD ASSY. 24" AND 36"	1	1	N/A	N/A
	00-756292-0000A	MANIFOLD PIPE WELD ASSY. 48" AND 60"	N/A	N/A	1	1
8	00-719365	3/8" NPT COUNTERSINK PLUG	N/A	N/A	1	1
9	00-498432-0000A	THERMOCOUPLE ASSEMBLY	2	3	4	5
10	00-719383	3/8" CC ORIFICE ELBOW	1	2	3	4
11	00-498438	SS TEMP CONTROL	2	3	4	5
	00-498438-0000A	SS TEMP CONTROL KIT (CONTROL,KNOB,DIAL)	2	3	4	5
12	00-498443	IGNITION MODULE	1	2	2	3
13	00-722425	3/8" X 8" FLEX TUBE	1	1	2	3
14	00-713656	DUAL SOLENOID VALVE	1	2	2	3
15	00-719376	3/8" CC X 3/8" NPT ELBOW	6	7	10	11
16	00-719363	1/8" NPT COUNTERSINK PLUG	1	1	1	1
17	00-711368	1/8" STREET ELBOW	1	1	1	1
18	00-719179	¼" CC X 1/8" NPT SINGLE PILOT VALVE	1	N/A	N/A	N/A
19	00-719194	¼" CC X 1/8" NPT DUAL PILOT VALVE	N/A	1	1	1
20	00-770085-00002	SINGLE SOLENOID VALVE	1	N/A	1	N/A
21	00-498460-0000A	RRG GREASE CHUTE ASSEMBLY	1	1	1	2
22	00-719385	3/8" CC ORIFICE ELBOW WITH PLUG	1	1	1	1
23	00-719951-00041	BURNER ORIFICE (NATURAL GAS)	2	3	4	5
	00-719951-00053	BURNER ORIFICE (L.P. GAS)	2	3	4	5
24	00-722220	3/8" X 6" FLEX TUBE	4	4	6	5
	00-722425	3/8" X 8" FLEX TUBE	N/A	1	1	N/A
	00-722221	3/8" X 12" FLEX TUBE	1	2	2	1
	00-498622	3/8" X 15.5" FLEX TUBE	N/A	N/A	N/A	1
25	00-719004	¾" COUPLING	1	1	1	1
26	00-719990	NIPPLE, ¾" NPT X 19.75"	1	1	1	1

NOT SHOWN

00-498474-00024	24" WIRING HARNESS	1	N/A	N/A	N/A
00-498474-00036	36" WIRING HARNESS	N/A	1	N/A	N/A
00-498474-00048	48" WIRING HARNESS	N/A	N/A	1	N/A
00-498474-00060	60" WIRING HARNESS	N/A	N/A	N/A	1
00-719066	3/8" X 1/8" NPT BUSHING	1	1	1	1
00-719566	¼" FIBERGLASS SLEEVING	3	5	6	8

EXTERNAL COMPONENTS



EXTERNAL COMPONENTS

ILLUS.	PART NO.	NAME OF PART	24”	36”	48”	60”
1		GRIDDLE PLATE WELD ASSEMBLY (CONTACT FACTORY FOR PART # AND AVAILABILITY)……	1	1	1	1
2	00-408279-00025	REGULATOR (NATURAL GAS)……	1	1	1	1
	00-408279-00021	REGULATOR (LP GAS)……	1	1	1	1
3	00-788824	24” BACK PANEL……	1	N/A	N/A	N/A
	00-788825	36” BACK PANEL……	N/A	1	N/A	N/A
	00-788801	48” BACK PANEL……	N/A	N/A	1	N/A
	00-788826	60” BACK PANEL……	N/A	N/A	N/A	1
4	00-723532	6” GRIDDLE LEG……	4	4	4	4
5	00-498426	RRG CAN GUIDE BRACKET……	1	1	1	2
6	00-498082-0000A	GREASE CAN WELD ASSEMBLY..……	1	1	1	2
7	00-498466	BOTTOM BURNER DEFLECTOR PANEL……	1	2	3	4
8	00-498450	RRG GRIDDLE DIAL……	2	3	4	5
9	00-810280-00001	POWER SWITCH……	1	1	1	1
10	00-498438-00001	SS CONTROLLER KNOB……	2	3	4	5
11	00-498461	RRG RIGHT HINGE BRACKET……	1	1	1	1
	00-498459	RRG LEFT HINGE BRACKET……	1	1	1	1
12	00-498478	RRG HINGE STANDOFF……	2	2	2	2
13	00-770026	RRG ROUND MAGNET……	2	2	2	2
14	00-730228	10-24 X ½” SCREW……	AR	AR	AR	AR
15	00-498462-00024	24” FRONT COVER……	1	N/A	N/A	N/A
	00-498462-00036	36’ FRONT COVER……	N/A	1	N/A	N/A
	00-498462-00048	48” FRONT COVER……	N/A	N/A	1	N/A
	00-498462-00060	60” FRONT COVER……	N/A	N/A	N/A	1
16	00-498440	FRONT COVER HANDLE……	1	1	1	1
17	00-498690	WIRE KNOB GUARD……	2	3	4	5
18	00-417700-00003	VULCAN LOGO……	1	1	1	1
19	00-720017	RED INDICATOR LIGHT……	2	3	4	5
20	00-498556-00024	24” FRONT PANEL……	1	N/A	N/A	N/A
	00-498556-00036	36” FRONT PANEL……	N/A	1	N/A	N/A
	00-498556-00048	48” FRONT PANEL……	N/A	N/A	1	N/A
	00-498556-00060	60” FRONT PANEL……	N/A	N/A	N/A	1
21	00-498058-0024A	24” BULLNOSE……	1	N/A	N/A	N/A
	00-498058-0036A	36” BULLNOSE……	N/A	1	N/A	N/A
	00-498058-0048A	48” BULLNOSE……	N/A	N/A	1	N/A
	00-498058-0060A	60” BULLNOSE……	N/A	N/A	N/A	1

RECOMMENDED SPARE PARTS

PART NO.	NAME OF PART	AMT.
00-498432-0000A	THERMOCOUPLE ASSEMBLY	1
00-408279-00025	REGULATOR (NATURAL GAS)	1
00-408279-00021	REGULATOR (L.P. GAS)	1
00-498621-0000A	RRG PILOT SPARK ASSEMBLY	1
00-810280-00001	POWER SWITCH	1
00-498450	RRG GRIDDLE DIAL	1
00-498438-00001	SS CONTROLLER KNOB	1
00-720017	RED INDICATOR LIGHT	1
00-713656	DUAL SOLENOID VALVE	1
00-719194	¼" CC X 1/8" NPT DUAL PILOT VALVE	1
00-719376	3/8" CC X 3/8" NPT ELBOW	1
00-498443	IGNTION MODULE	1
00-498438	SS TEMPERATURE CONTROLLER	1
00-719951-00041	BURNER ORIFICE (NATURAL GAS)	1
00-719951-00053	BURNER ORIFICE (L.P. GAS)	1
00-770085-00002	SINGLE SOLENOID VALVE	1
00-719179	¼" CC X 1/8" NPT SINGLE PILOT VALVE	1
00-719951-00041	BURNER ORIFICE (NATURAL GAS)	1
00-719951-00053	BURNER ORIFICE (L.P. GAS)	1