



V SERIES HDR GAS RANGES

Customer Maintenance Manual

SPECIFICATION SHEETS

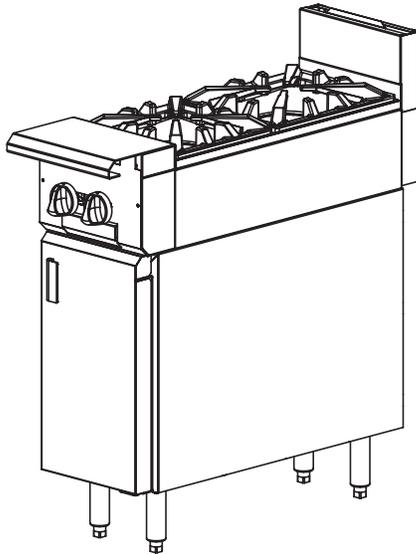
INSTALLATION / OPERATION MANUALS

ADDITIONAL RESOURCES

SERVICE MANUALS

HOBART SERVICE PARTS STORE

CATALOG OF REPLACEMENT PARTS

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
12" WIDE, 2-BURNER**

Model V2B12B
(shown on cabinet base)

**SPECIFICATIONS**

12" wide heavy duty gas range, Vulcan Model No. V2B12 (modular) and V2B12B (cabinet base) or V2BU12 (modular) and V2BU12B (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, and stub back and 6" adjustable legs. 1/4" diameter front gas manifold. Heavy cast aeration bowls with removable cast top grates. Front grate: 11½" x 11½", rear grate: 11½" x 14". Two 35,000 BTU/hr. heavy cast, two-piece open burners with individual pilots and controls for each burner. Total input 70,000 BTU/hr.

Exterior Dimensions:

36¾"d x 12"w x 36"h on 6" adjustable legs

- V2B12** 2-Burner / Modular
- V2B12B** 2-Burner / Cabinet Base
- V2BU12** 2-Burner Set-Up / Modular
- V2BU12B** 2-Burner Set-Up / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold (not available with rear gas)
- 35,000 BTU/hr. open top burners with lift off heads
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base units (no legs for modular models)
- Stainless steel cabinet base door
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold, left or right only, not both
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Banking strip
- "S" Grates
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

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



HEAVY DUTY GAS RANGE

12" WIDE, 2-BURNER

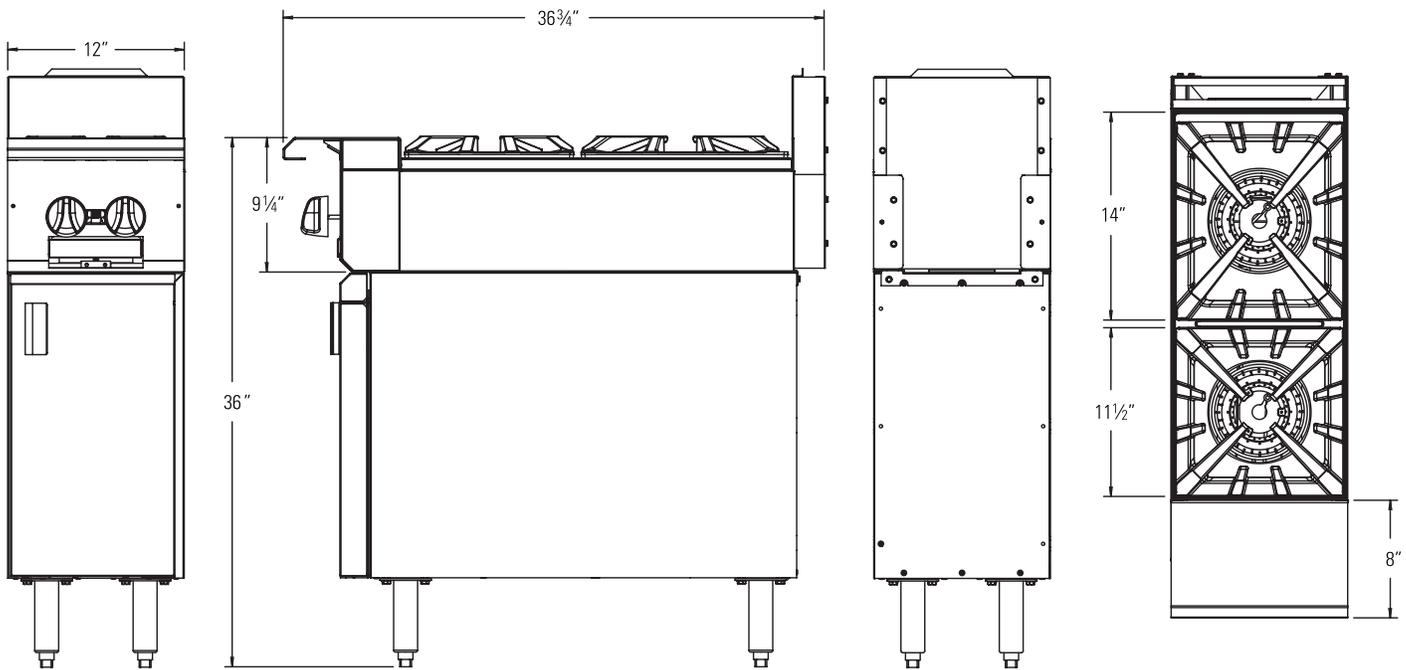
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V2B12	2-Burner / Modular	70,000	110 / 50
	V2B12B	2-Burner / Cabinet Base	70,000	160 / 73
	V2BU12	2-Burner / Step-Up / Modular	70,000	110 / 50
	V2BU12B	2-Burner / Step-Up / Cabinet Base	70,000	160 / 73

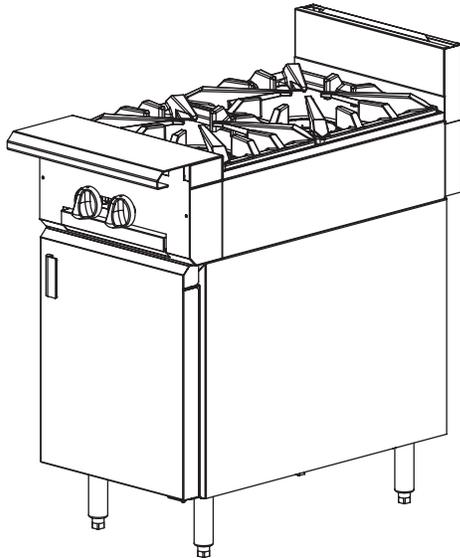
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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
2-BURNERS / 18" WIDE GAS RANGE**

Model V2B18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. V2B18 (modular) and V2B18B (cabinet base) or V2BU18 (modular) and V2BU18B (cabinet base). Stainless steel front, sides, plate ledge, front top ledge with pull-out condiment rails, stub back, and 6" adjustable legs. 1 1/4" diameter front gas manifold and 1 1/4" rear gas connection, capped. Heavy cast aeration bowls with removable cast top grates. Front grate: 11 5/16" x 17 3/8", rear grate: 14" x 17 3/8". Two 35,000 BTU/hr. heavy cast, two-piece open burners with individual pilots and controls for each burner. Total input 70,000 BTU/hr.

Exterior Dimensions:

36 3/4" d x 18" w x 36" h on 6" adjustable legs

- V2B18** 2-Burners / Modular
- V2B18B** 2-Burners / Cabinet Base
- V2BU18** 2-Burners Set-Up / Modular
- V2BU18B** 2-Burners Set-Up / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 1/4" diameter front gas manifold with 1 1/4" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)
- Dolly frames

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HEAVY DUTY GAS RANGE
2-BURNERS / 18" WIDE GAS RANGE

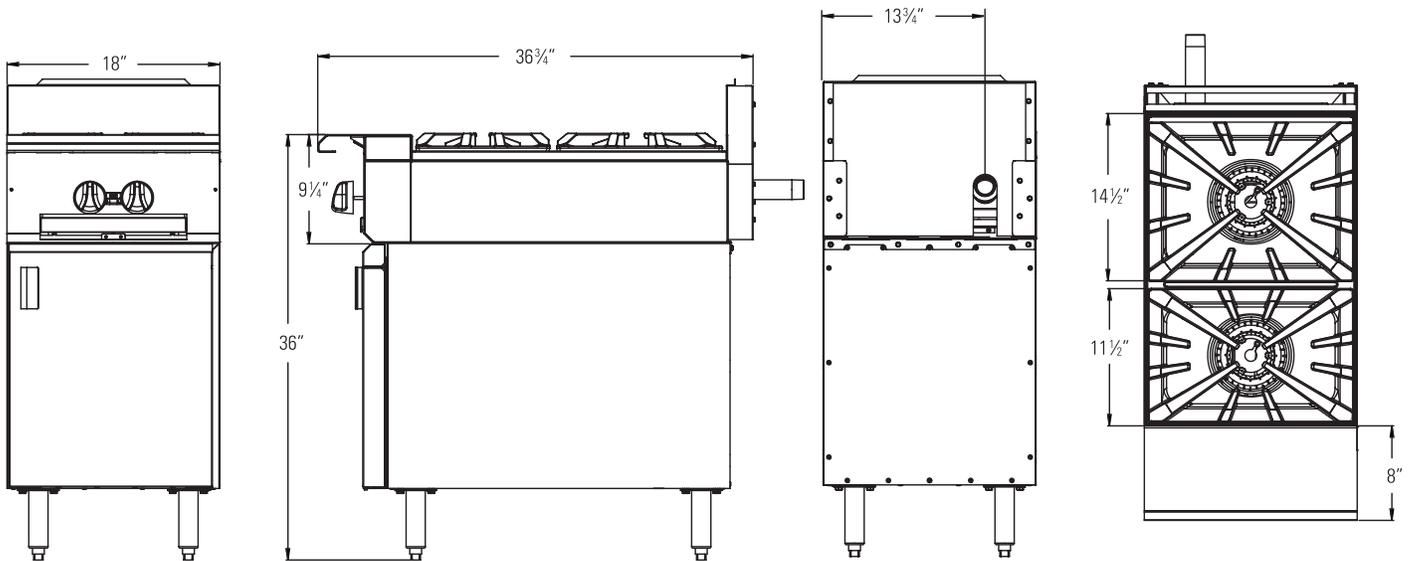
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V2B18	2-Burners / Modular	70,000	165 / 75
	V2B18B	2-Burners / Cabinet Base	70,000	225 / 102
	V2BU18	2-Burners / Step-Up / Modular	70,000	165 / 75
	V2BU18B	2-Burners / Step-Up / Cabinet Base	70,000	225 / 102

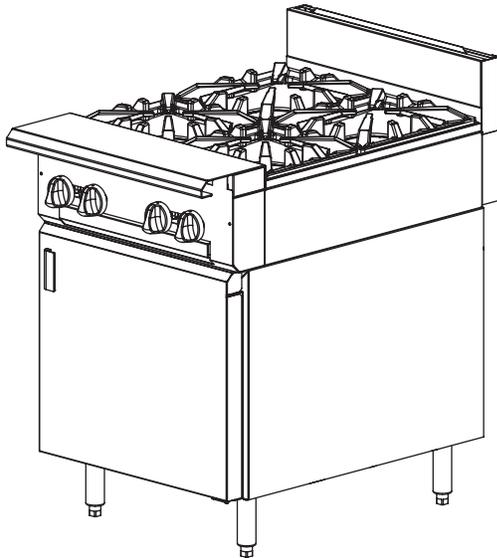
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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
4-BURNERS / 24" WIDE GAS RANGE**

Model V2B24B
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. V4B24 (modular) and V4B24B (cabinet base) or V4BU24 (modular) and V4BU24B (cabinet base). Stainless steel front, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs. 1/4" diameter front gas manifold and 1/4" rear gas connection, capped. Heavy cast aeration bowls with removable cast top grates. Front grate: 11 1/2" x 11 1/2", rear grate: 11 1/2" x 14". Four 35,000 BTU/hr. heavy cast, two-piece open burners with individual pilots and controls for each burner. Total input 140,000 BTU/hr.

Exterior Dimensions:

36 3/4"d x 24"w x 36"h on 6" adjustable legs

- V4B24** 4-Burners / Modular
- V4B24B** 4-Burners / Cabinet Base
- V4BU24** 4-Burners Set-Up / Modular
- V4BU24B** 4-Burners Set-Up / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold with 1/4" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base units (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- "S" Grates
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)

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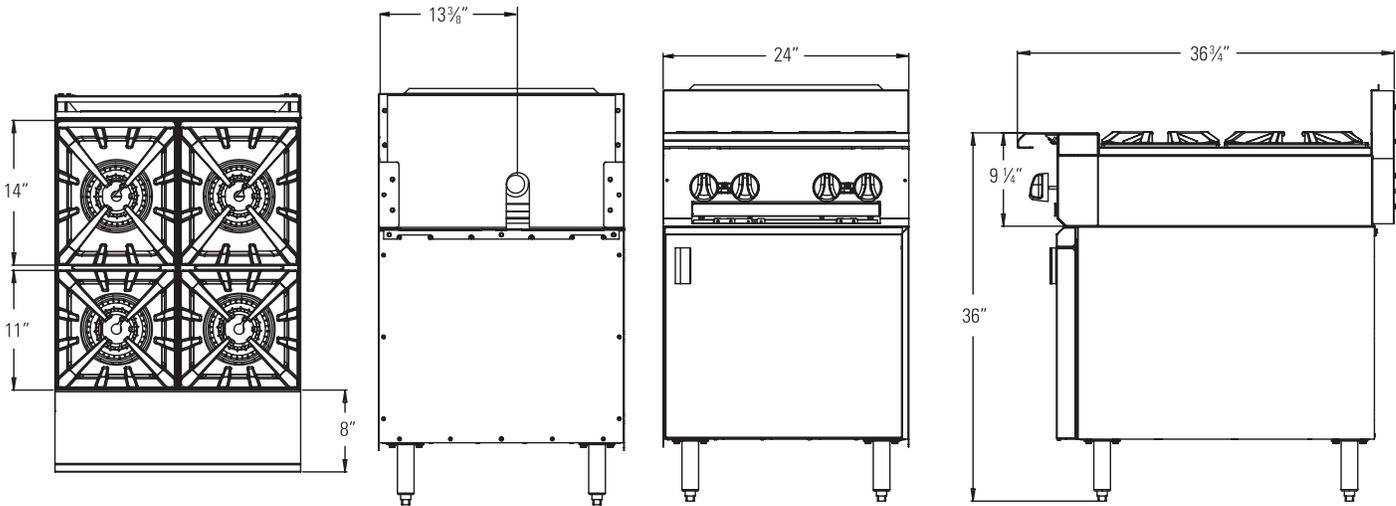
HEAVY DUTY GAS RANGE
4-BURNERS / 24" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
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Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V4B24	4-Burners / Modular	140,000	220 / 100
	V4B24B	4-Burners / Cabinet Base	140,000	295 / 134
	V4BU24	4-Burners / Step-Up / Modular	140,000	220 / 100
	V4BU24B	4-Burners / Step-Up / Cabinet Base	140,000	295 / 134

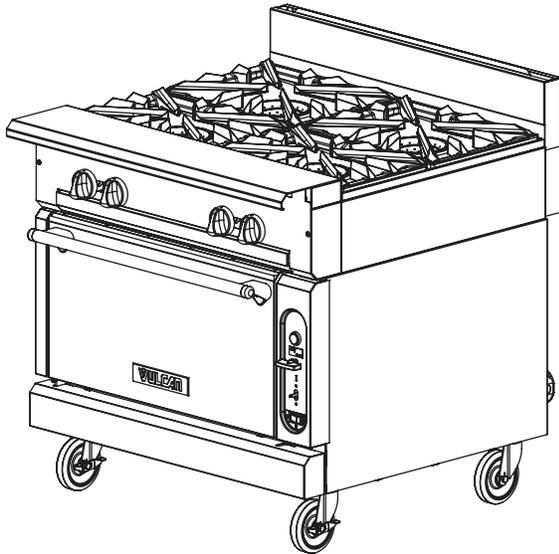
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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
4-BURNERS / 36" WIDE GAS RANGE****Model V4B36C**

shown on a convection oven base

**SPECIFICATIONS**

36" wide heavy duty gas range, Vulcan Model No. V4B36 (modular) and V4B36B (cabinet base) or V4B36S (standard oven base) and V4B36C (convection oven base). Modular construction for ease of installation. Stainless steel front, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs on all "B", "S", & "C" models. Stainless steel extra deep crumb tray. Four 35,000 BTU/hr. cast burners with lift-off burner heads. Individual pilots and controls for each burner. Heavy duty cast burner grates, easy lift-off 11" x 17" in front, 14" x 17" in rear. Grates are separate from aeration bowl for ease of cleaning. **Standard Oven:** 50,000 BTU/hr. with porcelain oven bottom, sides and indoor panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides and interior door panel (115v-1 phase blower motor, 4 amps, 6' cord and plug). Oven measures 27"w x 27"d x 13"h. Standard oven thermostat adjusts from 150°F – 550°F. Convection oven adjusts from 175°F – 550°F and the optional finishing oven for standard ovens adjusts from 300°F – 650°F. Standard oven supplied with one rack, convection oven with two racks. Both ovens allow for three rack positions. Oven door is heavy duty with counter weight door hinges. 1 1/4" diameter front gas manifold and 1 1/4" rear gas connection, capped. Total input 140,000 BTU/hr.

Exterior Dimensions:

36 3/4"d x 36"w x 36"h on 6" adjustable legs

- V4B36** 4-Burners / Modular
- V4B36B** 4-Burners / Cabinet Base
- V4B36S** 4-Burners / Standard Oven
- V4B36C** 4-Burners / Convection Oven

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 1/4" diameter front gas manifold with 1 1/4" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Porcelain oven cavity
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "S", "C", and "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Stainless steel oven cavity
- 650°F oven thermostat and steel hearth ("S" models)
- Fan cooling package ("C" models)
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting for "S", "C", and "B" models
- 3" high toe base for curb mounting
- Common condiment type, telescoping plate rails

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for "S", "C", and "B" models
- Extra removable shelves for use with Universal rack guides (for cabinet base)
- Banking strip
- Common condiment type, telescoping plate rails (starting at 24" length)
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Flexible gas hose - quick disconnect & restraining device

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HEAVY DUTY GAS RANGE

4-BURNERS / 36" WIDE GAS RANGE

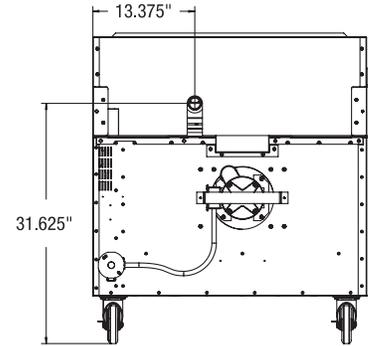
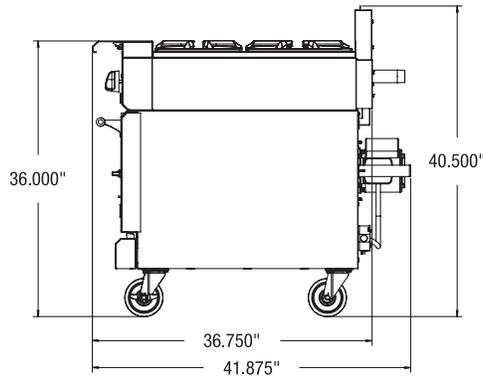
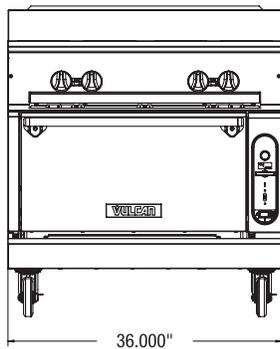
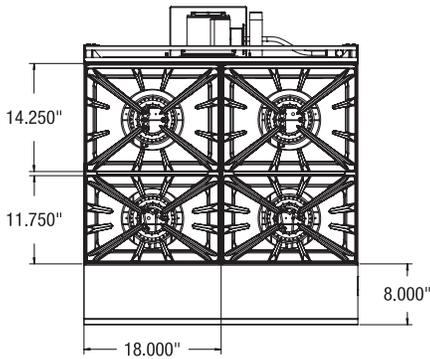
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

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**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V4B36	4-Burners / Modular	140,000	261 / 119
	V4B36B	4-Burners / Cabinet Base	140,000	380 / 171
	V4B36S	4-Burners / Standard Oven Base	190,000	675 / 304
	V4B36C	4-Burners / Convection Oven Base	172,000	715 / 322

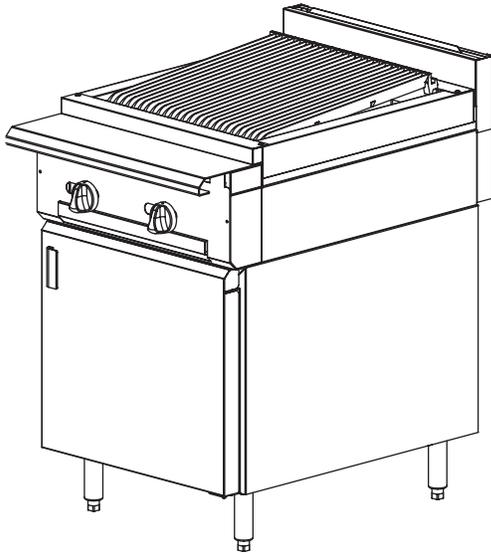
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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
24" WIDE CHARBROILER GAS RANGE**

Model VCBB24B
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. VCBB24 (modular) or VCBB24B (cabinet base). Stainless steel front, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs. 1 $\frac{1}{4}$ " diameter front gas manifold. Four burners, totaling 65,000 BTU/hr. Cast burners and char-radiants with stainless steel super-charger burner dividers. Individual pilots and controls for each burner. Heavy duty cast slant grates, easy lift-off of 4 each for 24" wide units. Total input 65,000 BTU/hr.

Exterior Dimensions:

36 $\frac{3}{4}$ "d x 24"w x 36"h on 6" adjustable legs

- VCBB24** 24" Charbroiler / Modular
- VCBB24B** 24" Charbroiler / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 $\frac{1}{4}$ " diameter front gas manifold with $\frac{3}{4}$ " rear gas connection (capped)
- 65,000 BTU/hr. (4 burners)
- Individual pilots for each burner
- Heavy-duty slant cast grates and char-radiants
- Stainless steel supercharger burner dividers
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting for "S", "C", & "B" models

ACCESSORIES (Packaged & Sold Separately)

- $\frac{3}{4}$ ", 1", or 1 $\frac{1}{4}$ " gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)

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HEAVY DUTY GAS RANGE

24" WIDE CHARBROILER GAS RANGE

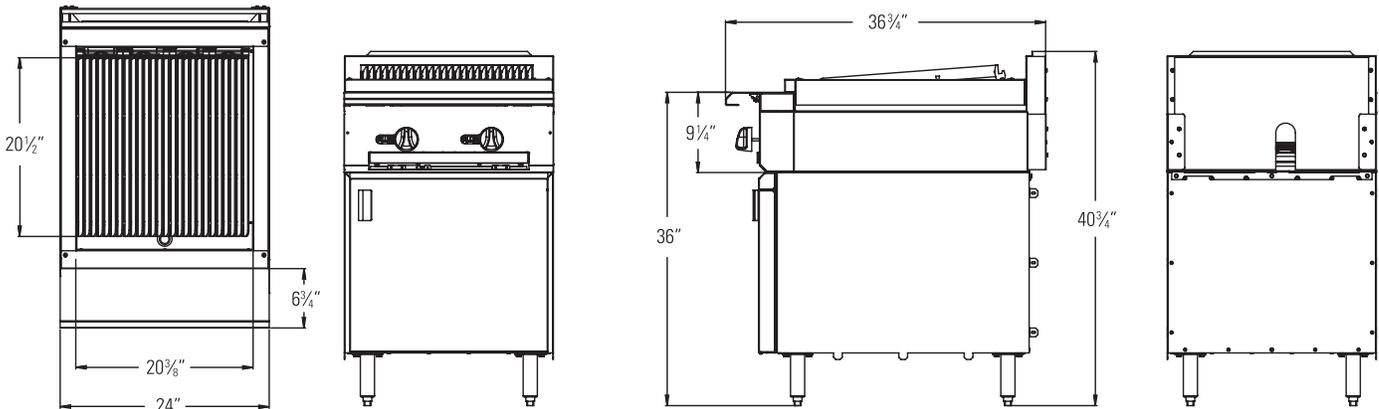
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1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"



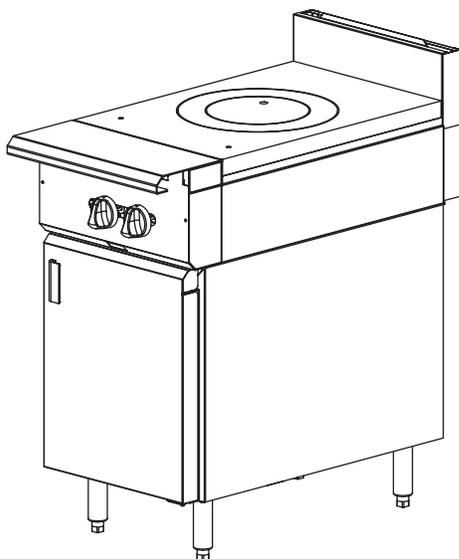
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VCBB24	24" Charbroiler / Modular	65,000	305 / 139
	VCBB24B	24" Charbroiler / Cabinet Base	65,000	405 / 184



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
FRENCH TOP / 18" WIDE GAS RANGE**

Model V1FT18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. V1FT18 (modular) and V1FT18B (cabinet base). Stainless steel front, sides, base, plate ledge, front top ledge with pull-out condiment rails, and stub back. 1¼" diameter front gas manifold and 1¼" rear gas connection, capped. Heavy polished cast iron French plate. 25,000 BTU/hr. heavy cast burner, two ring burners with individual pilots and controls for each burner. Total input 25,000 BTU/hr.

Exterior Dimensions:

36¾"d x 18"w x 36"h on 6" adjustable legs

- V1FT18** 18" French Top / Modular
- V1FT18B** 18" French Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- 25,000 BTU/hr. burner (2 ring burner)
- Individual pilots and controls for each burner
- Polished cast iron French Top
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base units (no legs for modular model)
- Stainless steel cabinet base door
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting
- Universal rack guides, with one shelf (shelf is removable)

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rails (starting at 24" length)
- Dolly frames

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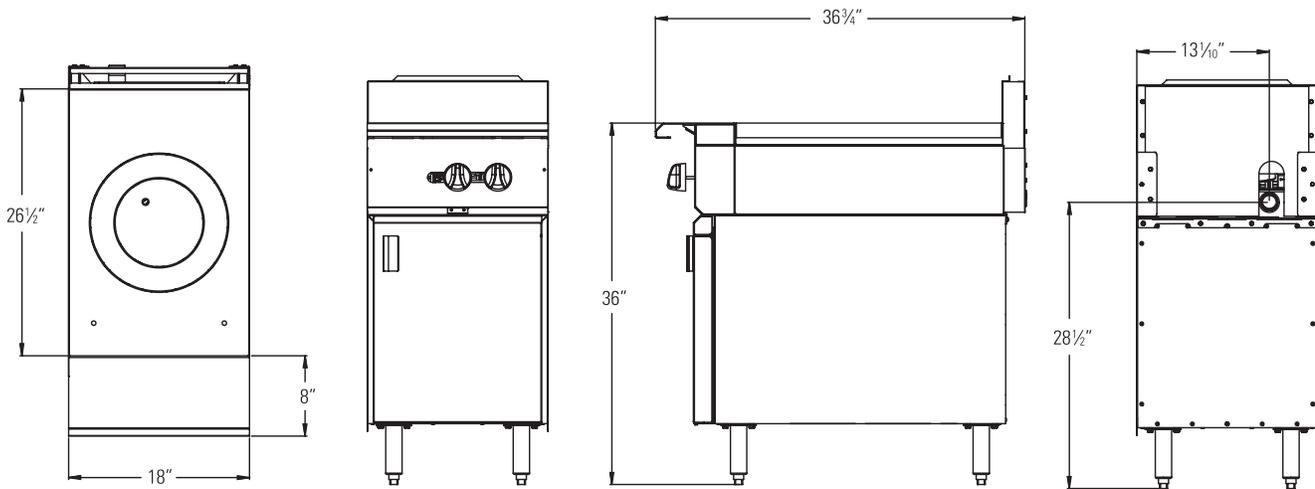
HEAVY DUTY GAS RANGE
FRENCH TOP / 18" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



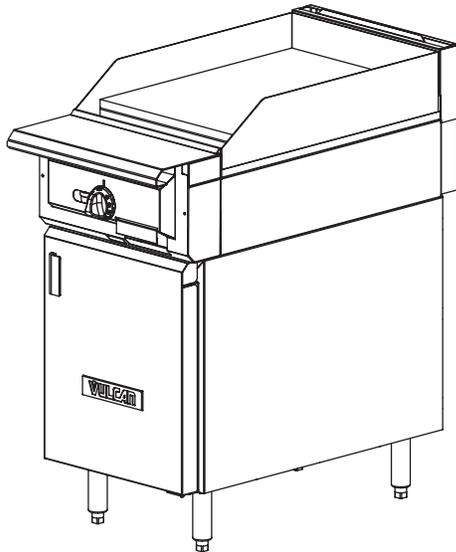
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V1FT18	18" French Top / Modular	25,000	220 / 110
	V1FT18B	18" French Top / Cabinet Base	25,000	285 / 129



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
18" WIDE THERMOSTATICALLY
CONTROLLED GAS RANGE**

Model VGT18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. VGT18 (modular) or VGT18B (cabinet base). Stainless steel front, sides, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back, and 6" adjustable legs. 1/4" diameter front gas manifold and 1/4" rear gas connection, capped. 30,000 BTU/hr. burners (1 each). One snap action thermostat. 3/4" polished steel griddle plate with 4" high side splashes. Total input 30,000 BTU/hr.

Exterior Dimensions:

36³/₄"d x 18"w x 36"h on 6" adjustable legs

- VGT18** 18" T-Stat Griddle / Modular
- VGT18B** 18" T-Stat Griddle / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold with 1/4" rear gas connection (capped)
- 30,000 BTU/hr. burners (1 each)
- Snap-action thermostat
- Temperature range from 150° - 450°F
- 3/4" polished steel griddle plate
- 4" high side splashes
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)

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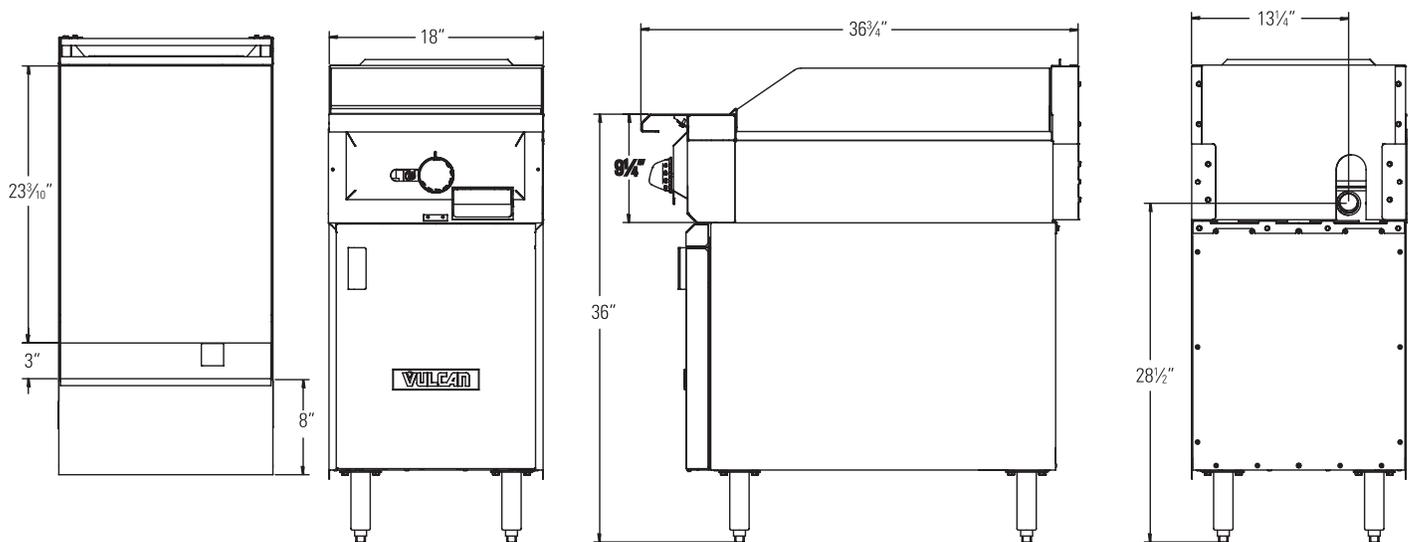
HEAVY DUTY GAS RANGE
18" WIDE THERMOSTATICALLY
CONTROLLED GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



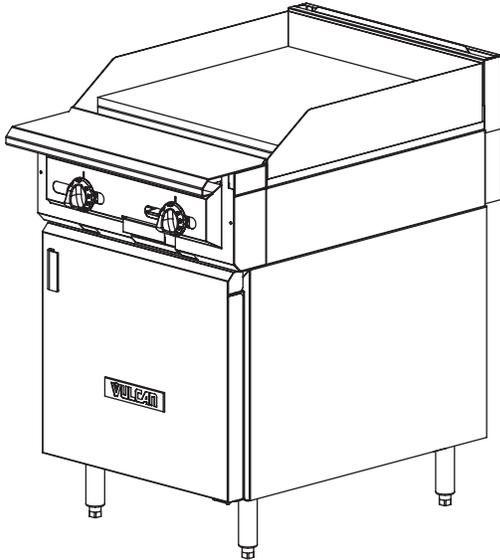
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VGT18	18" T-Stat Griddle / Modular	30,000	255 / 116
	VGT18B	18" T-Stat Griddle / Cabinet Base	30,000	315 / 143



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
24" WIDE THERMOSTATICALLY
CONTROLLED GAS RANGE**

Model VGT24B
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. VGT24 (modular) or VGT24B (cabinet base). Stainless steel front, sides, plate ledge, front top ledge with pull-out condiment rails, and stub back. 1 1/4" diameter front gas manifold and 1 1/4" rear gas connection, capped. Two 30,000 BTU/hr. burners. Two snap-action thermostats, individual pilots and controls for each burner. 3/4" polished steel griddle plate with 4" high side splashes (3/4" composite plate with stainless cooking surface with Rapid Recovery™ option). Total input 60,000 BTU/hr.

Exterior Dimensions:

36 3/4" d x 24" w x 36" h on 6" adjustable legs

- VGT24** 24" T-Stat Griddle / Modular
- VGT24B** 24" T-Stat Griddle / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 1/4" diameter front gas manifold with 1 1/4" rear gas connection (capped)
- 30,000 BTU/hr. burners (2 each)
- Snap-action thermostats
- Temperature range from 150° - 450°F
- Individual pilots and controls for each burner
- 3/4" polished steel griddle plate
- 4" high side splash
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 3/4" Rapid Recovery™ griddle plate
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)

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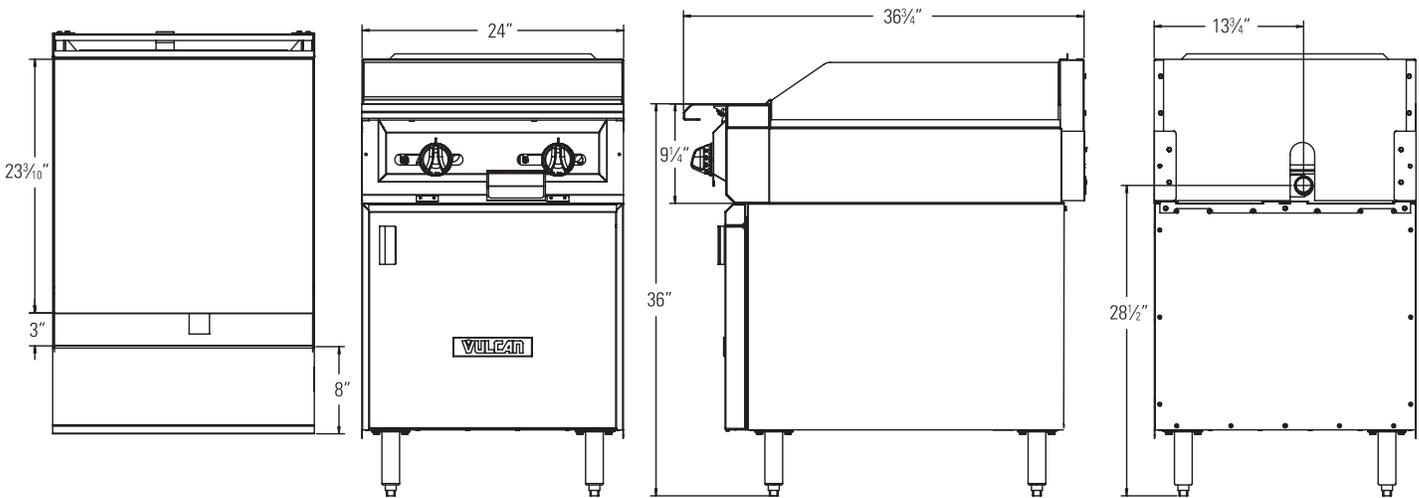
HEAVY DUTY GAS RANGE
24" WIDE THERMOSTATICALLY
CONTROLLED GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



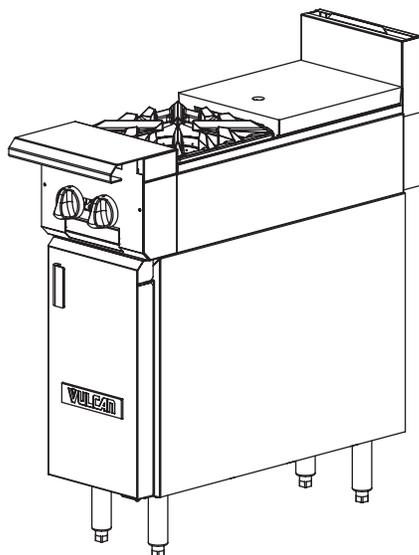
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VGT24	24" T-Stat Griddle / Modular	60,000	285 / 130
	VGT24B	24" T-Stat Griddle / Cabinet Base	60,000	360 / 164



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
1-BURNER FRONT / 1-HALF HOT TOP REAR
12" WIDE GAS RANGE**

Model V1BH12B
(shown on cabinet base)

**SPECIFICATIONS**

12" wide heavy duty gas range, Vulcan Model No. V1BHT12 (modular) and V1BH12B (cabinet base). Stainless steel front, sides, plate ledge, front top ledge with pull-out condiment rails, and stub back. 1¼" diameter front gas manifold. Heavy cast aeration bowls with removable cast top grates. Front grate: 11½" x 11½", rear grate: 11½" x 14". One 33,000 BTU/hr. heavy cast, two-piece open burners with individual pilots and one 18,000 BTU/hr. half hot top burners with individual pilots. Total input 51,000 BTU/hr.

Exterior Dimensions:

36¾"d x 12"w x 36"h on 6" adjustable legs

- V1BHT12** 1-Burner / 1-Half Hot Top / Modular
- V1BH12B** 1-Burner / 1-Half Hot Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides base, and stub back
- 1¼" diameter front gas manifold (Not available with rear gas)
- 33,000 BTU/hr. open top burners with lift off heads
- 18,000 BTU/hr. half-hot top burners
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold, left or right only, not both
- 4" adjustable feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE
1-BURNER FRONT / 1-HALF HOT TOP REAR
12" WIDE GAS RANGE

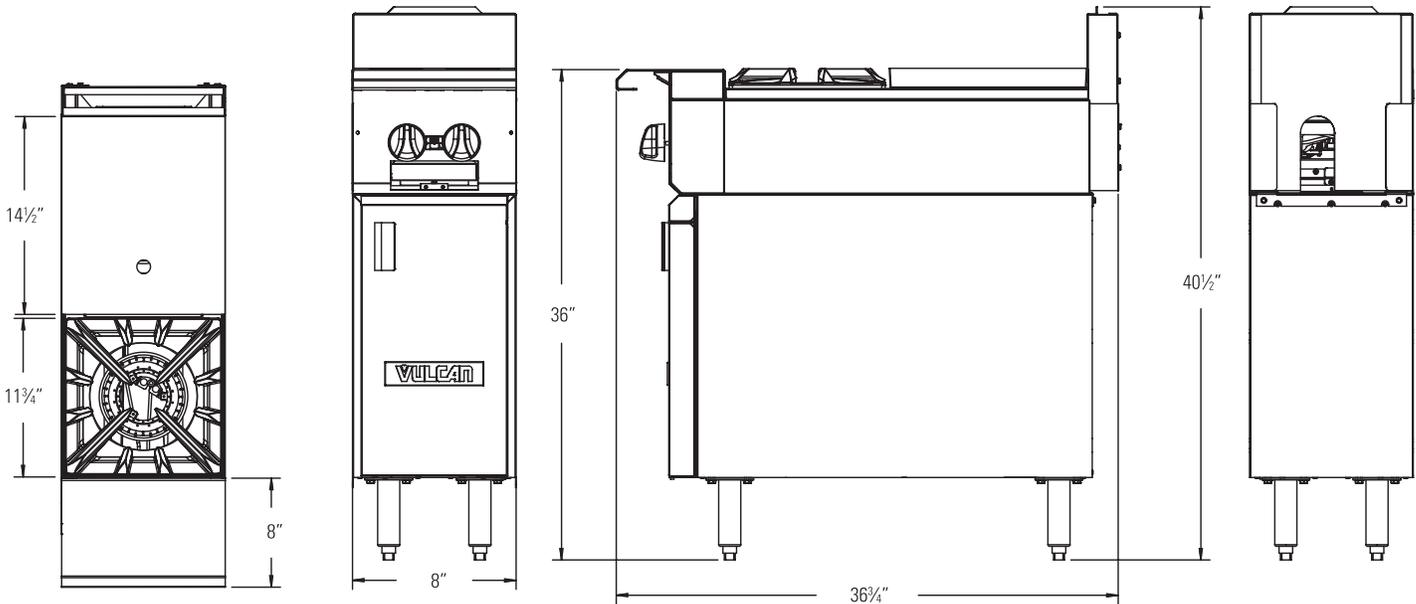
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"



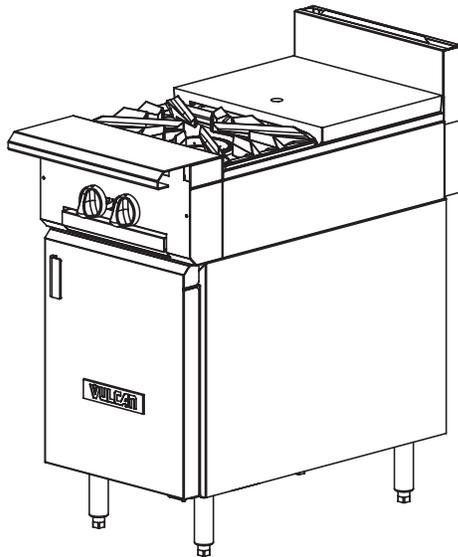
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V1BHT12	1-Burner / 1-Half Hot Top Rear / Modular	51,000	220 / 100
	V1BH12B	1-Burner / 1-Half Hot Top Rear / Cabinet Base	51,000	285 / 129

This appliance is manufactured for commercial use only and is not intended for home use.



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
1-BURNER FRONT / 1-HALF HOT TOP REAR
18" WIDE GAS RANGE**

Model V1BH18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. V1BHT18 (modular) and V1BH18B (cabinet base). Stainless steel front, sides, base, plate ledge, front top ledge with pull-out condiment rails, and stub back and 6" adjustable legs. 1/4" diameter front gas manifold and 1/4" rear gas connection, capped. Heavy cast aeration bowls with removable cast top grates. Front grate 11 1/2" x 11 1/2", rear grate 11 1/2" x 14". One 33,000 BTU/hr. heavy cast, two-piece open burners and one 18,000 BTU/hr. half hot top burners with individual pilots and controls for each burner. Total input 51,000 BTU/hr.

Exterior Dimensions:

36 3/4" d x 18" w x 36" h on 6" adjustable legs

- V1BHT18** 1-Burner / 1-Half Hot Top / Modular
- V1BH18B** 1-Burner / 1-Half Hot Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold with 1/4" rear gas connection (capped)
- 33,000 BTU/hr. open top burners with lift off heads
- 18,000 BTU/hr. half-hot top burners
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE
1-BURNER FRONT / 1-HALF HOT TOP REAR
18" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

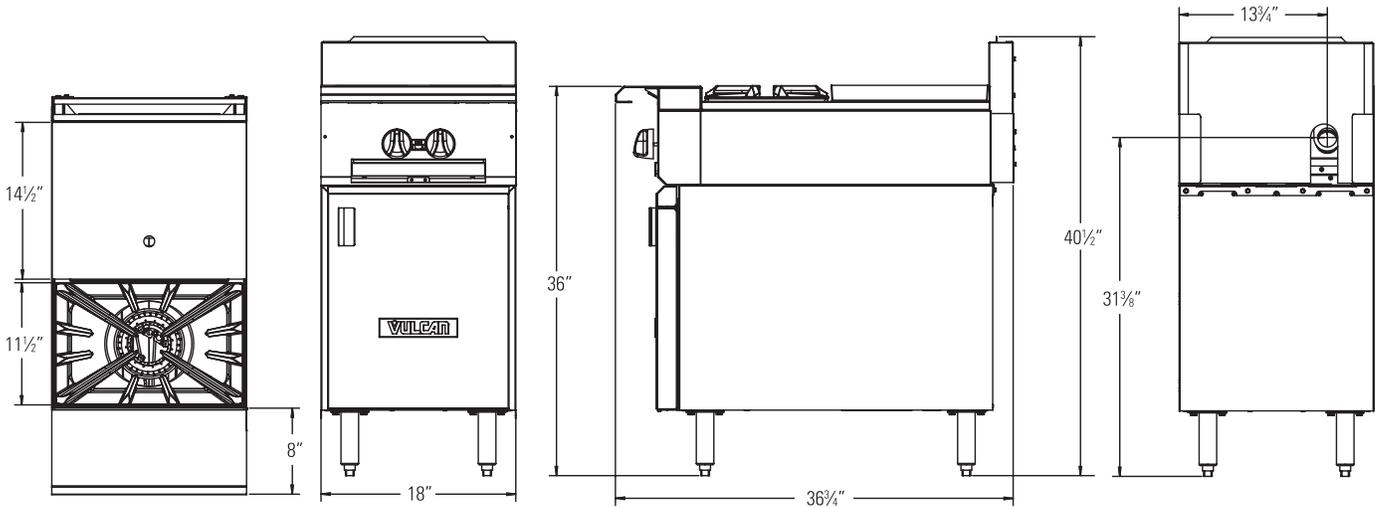
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2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.

5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

4. Clearances	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V1BHT18	1-Burner / 1-Half Hot Top Rear / Modular	51,000	220 / 100
	V1BH18B	1-Burner / 1-Half Hot Top Rear / Cabinet Base	51,000	285 / 129

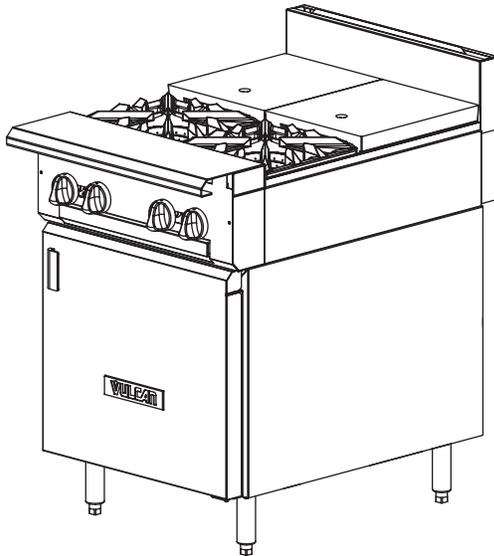
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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
2-BURNER FRONT / 2-HALF HOT TOP REAR
24" WIDE GAS RANGE**

Model V2BHT2B
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. V2BHT24 (modular) and V2BHT2B (cabinet base). Stainless steel front, sides, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs. 1¼" diameter front gas manifold and 1¼" rear gas connection, capped. Heavy cast aeration bowls with removable cast top grates. Front grate: 11½" x 11½", rear grate: 11½" x 14". Two 35,000 BTU/hr. heavy cast, two-piece open burners two 18,000 BTU/hr. half hot top burners with individual pilots and controls for each burner. Total input 106,000 BTU/hr.

Exterior Dimensions:

36¾"d x 24"w x 36"h on 6" adjustable legs

- V2BHT24** 2-Burners / 2 Half-Hot Top / Modular
- V2BHT2B** 2-Burners / 2 Half-Hot Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- 18,000 BTU/hr. half-hot top burners
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

VULCAN

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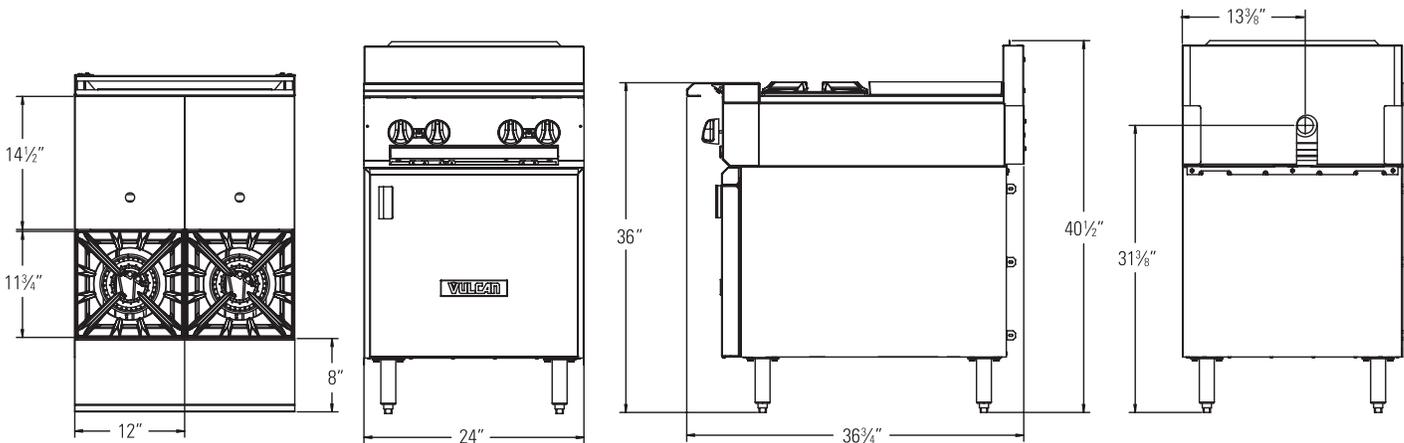
HEAVY DUTY GAS RANGE
2-BURNER FRONT / 2-HALF HOT TOP REAR
24" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"



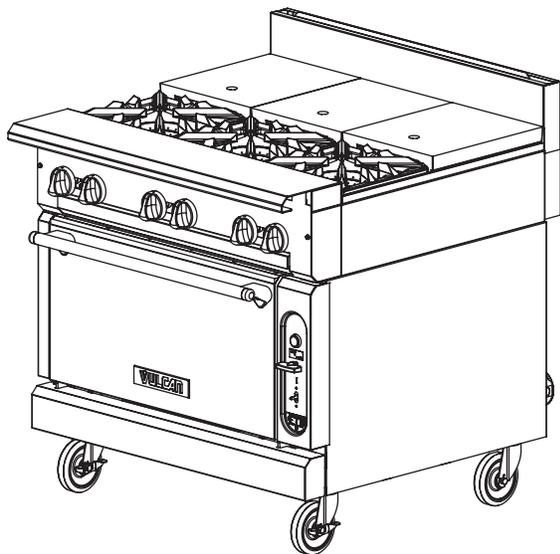
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V2BHT24	2-Burner / 2-Half Hot Top Rear / Modular	106,000	300 / 136
	V2BHT2B	2-Burner / 2-Half Hot Top Rear / Cabinet Base	106,000	400 / 182



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
3-BURNER FRONT / 3-HALF HOT TOP REAR
36" WIDE GAS RANGE****Model V3B3HTC**

(shown on a convection oven base)

**SPECIFICATIONS**

36" wide heavy duty gas range, Vulcan Model No. V3B3HHT (modular), V3B3HTB (cabinet base), V3B3HTS (standard oven base) and V3B3HTC (convection oven base). Modular construction for ease of installation. Stainless steel front, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs on all "B", "S", & "C" models. Stainless steel extra deep crumb tray. Three 35,000 BTU/hr., cast burners with lift-off burner heads and three 18,000 BTU/hr., half hot top burners. Individual pilots and controls for each burner. Heavy duty cast burner grates, easy lift off 11" x 17" in front, 14" x 17" plates in rear. Grates and plates are separate from aeration bowl for ease of cleaning. **Standard Oven:** 50,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel (115v-1 phase blower motor, 4 amps, 9' cord & plug). Ovens measure 27"w x 27"d x 13"h. Standard oven thermostats adjust from 150° – 550°F. Convection oven adjusts from 175° – 550°F and the optional finishing oven for standard ovens adjusts from 300° – 650°F. Standard oven supplied with one rack, convection oven with two. Both ovens allow for three rack positions. Oven door is heavy duty with counter weight door hinges. 1¼" front manifold and 1¼" rear gas connection, capped. Total input 159,000 BTU/hr.

Exterior Dimensions:

36¾"d x 24"w x 36"h on 6" adjustable legs

- V3B3HHT** 3-Burners / 3-Half Hot Top / Modular
- V3B3HTB** 3-Burners / 3-Half Hot Top / Cabinet Base
- V3B3HTS** 3-Burners / 3-Half Hot Top / Standard Oven
- V3B3HTC** 3-Burners / 3-Half Hot Top / Convection Oven

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- 18,000 BTU/hr. half-hot top burners
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Porcelain oven cavity
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Stainless steel oven cavity
- 650° F oven thermostat and steel hearth. ("S" models)
- Fan cooling package. ("C" models)
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (for cabinet base)
- Banking strip
- Common condiment type, telescoping plate rails (starting at 24" length).
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Flexible gas hose with quick disconnect & restraining device

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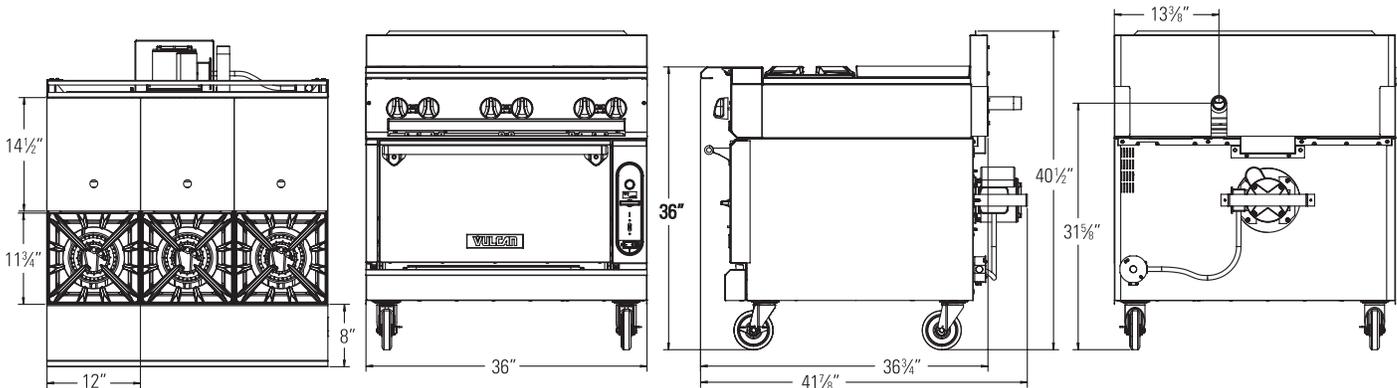
HEAVY DUTY GAS RANGE
3-BURNER FRONT / 3-HALF HOT TOP REAR
36" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



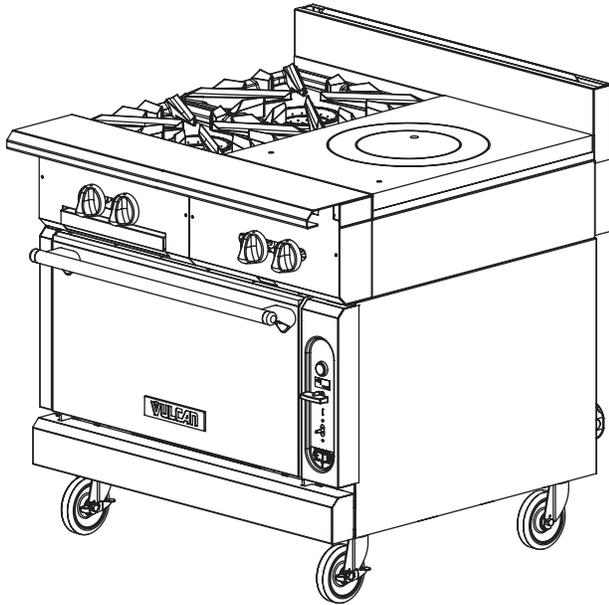
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V3B3HHT	3-Burners / 3-Half Hot Top Rear / Modular	159,000	386 / 174
	V3B3HTB	3-Burners / 3-Half Hot Top Rear / Cabinet Base	159,000	420 / 191
	V3B3HTS	3-Burners / 3-Half Hot Top Rear / Standard Oven	209,000	586 / 264
	V3B3HTC	3-Burners / 3-Half Hot Top Rear / Convection Oven	191,000	626 / 282



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
2 BURNER / 18" FRENCH TOP
36" WIDE GAS RANGE**

Model V2B1F
shown on a cabinet base

**SPECIFICATIONS**

36" wide heavy duty gas range, Vulcan Model No. V2B1F (modular) and V2B1FB (cabinet base), V2B1FS (standard oven base) or V2B1FC (convection oven base). Modular construction for ease of installation. Stainless steel front, front top ledge, sides, burner box, plate ledge, stub back, and 6" adjustable legs on all "B", "S", & "C" models. Stainless steel extra deep crumb tray. Two 35,000 BTU/hr. cast burners with lift-off burner heads and one 25,000 BTU/hr. 2 ring French top burner. Individual pilots and controls for each burner. Heavy duty cast burner grates, easy lift off 11" x 17" in front, 14" x 17" plates in rear. Grates and plates are separate from aeration bowl for ease of cleaning. Polished cast iron French top. **Standard Oven:** 50,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel (115v-1 phase blower motor, 4 amps, 9' cord & plug). Ovens measure 27" w x 27"d x 13"h. Standard oven thermostats adjust from 150° – 550°F Convection oven from 175° – 550°F, and the optional finishing oven for standard ovens, 300° – 650°F. Standard oven supplied with one rack, convection oven with two. Both ovens allow for three rack positions. Oven door is heavy duty with counter weight door hinges. 1¼" diameter front manifold and 1¼" rear gas connection, capped. Total input 95,000 BTU/hr.

Exterior Dimensions:

36¾"d x 36"w x 36"h on 6" adjustable legs

- V2B1F** 2 Burners / 18" French Top / Modular
- V2B1FB** 2 Burners / 18" French Top / Cabinet Base
- V2B1FS** 2 Burners / 18" French Top / Standard Oven
- V2B1FC** 2 Burners / 18" French Top / Convection Oven

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base and stub back
- 1¼" diameter front gas manifold
- 1¼" rear gas connection (capped)
- 35,000 BTU/hr. open top burners with lift off heads
- 25,000 BTU/hr. French top burners (2 ring burner)
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Porcelain oven cavity
- Individual pilots and controls for each burner
- Heavy-duty cast grates
- Polished cast iron French top
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "S", "C", and "B" models
- Stainless steel cabinet base doors for "B" models
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Stainless steel oven cavity
- 650°F oven thermostat and steel hearth. ("S" models)
- Fan cooling package ("C" models)
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting for "S", "C", and "B" models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for "S", "C", and "B" models
- Extra removable shelves for use with Universal rack guides (for cabinet base)
- Banking strip
- Common condiment type, telescoping plate rails (starting at 24" length).
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Flexible gas hose with quick disconnect & restraining device

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HEAVY DUTY GAS RANGE
2 BURNER / 18" FRENCH TOP
36" WIDE GAS RANGE

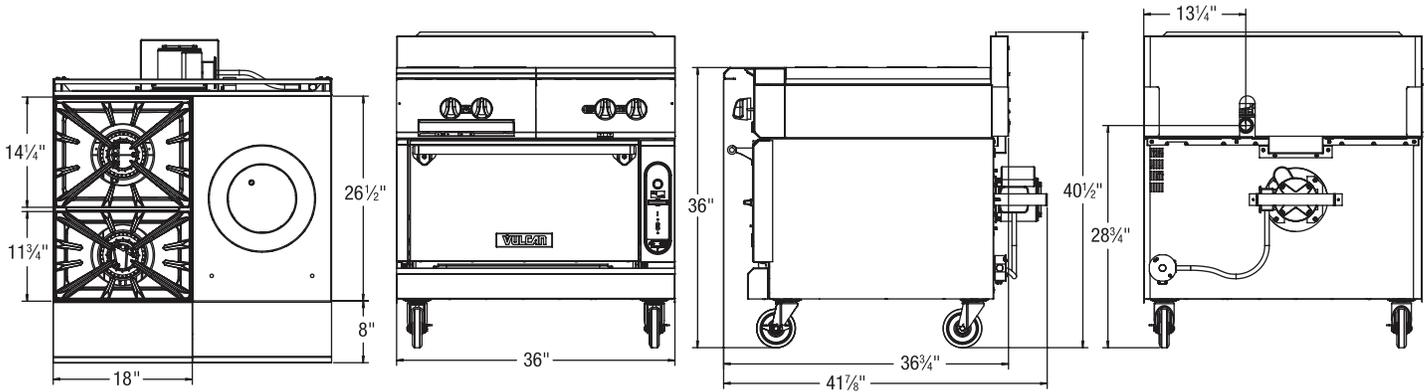
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



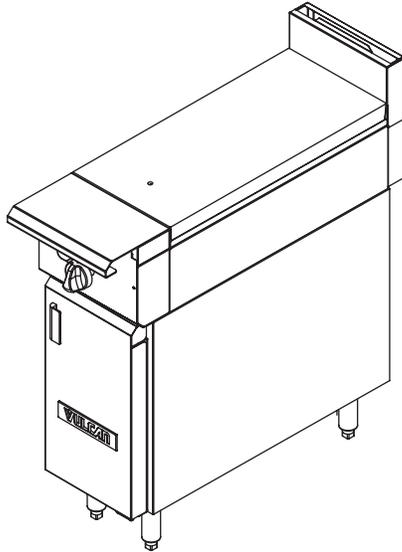
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V2B1F	2 Burners / 18" French Top / Modular	95,000	332 / 151
	V2B1FB	2 Burners / 18" French Top / Cabinet Base	95,000	432 / 196
	V2B1FS	2 Burners / 18" French Top / Standard Oven	145,000	613 / 279
	V2B1FC	2 Burners / 18" French Top / Convection Oven	127,000	691 / 314



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
12" WIDE FULL HOT TOP GAS RANGE**

Model V112HB
(shown on cabinet base)

**SPECIFICATIONS**

12" wide heavy duty gas range, Vulcan Model No. V112H (modular) and V112HB (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, and stub back. 1/4" diameter front gas manifold. Heavy hot top castings. Individual pilot and control for burner. Total input BTU/hr. 30,000.

Exterior Dimensions:

36³/₄"d x 12"w x 40¹/₂"h on 6" adjustable legs

- V112H** 12" Wide Full Hot Top / Modular
- V112HB** 12" Wide Full Hot Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold (not available with rear gas)
- 30,000 BTU/hr. burner
- Individual pilot and control for burner
- Heavy-duty top castings
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base units (no legs for modular model)
- Stainless steel cabinet base door
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold, left or right only, not both
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting for cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect & restraining device

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HEAVY DUTY GAS RANGE
12" WIDE FULL HOT TOP GAS RANGE

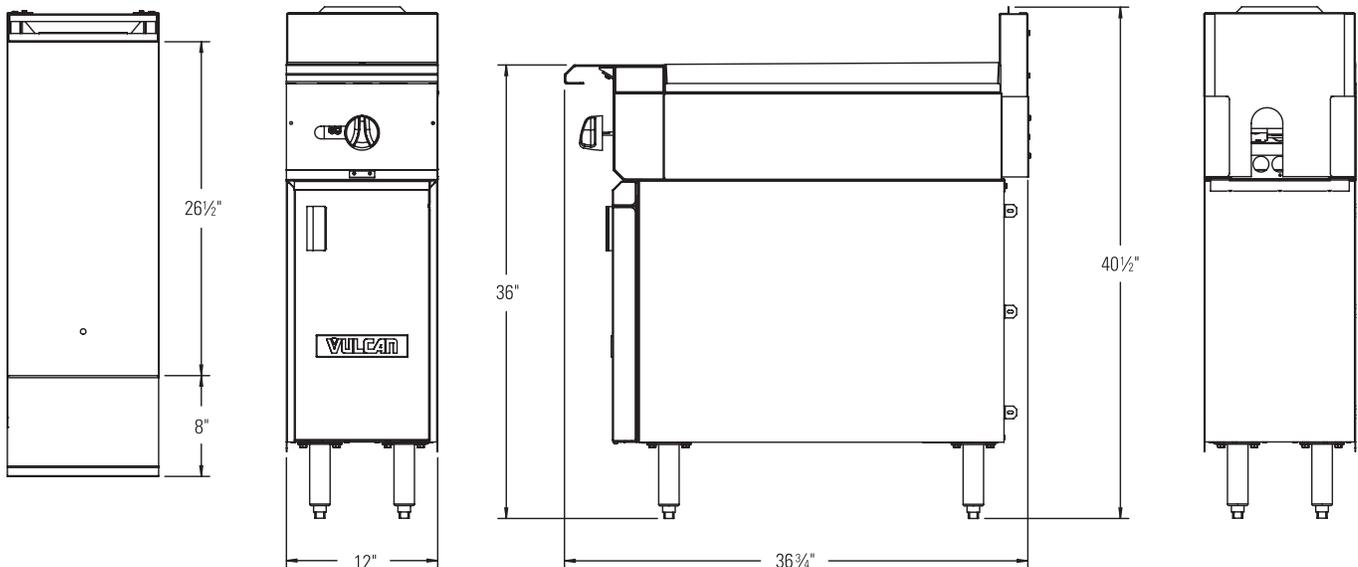
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V112H	12" Wide Full Hot Top / Modular	30,000	165 / 75
	V112HB	12" Wide Full Hot Top / Cabinet Base	30,000	225 / 102

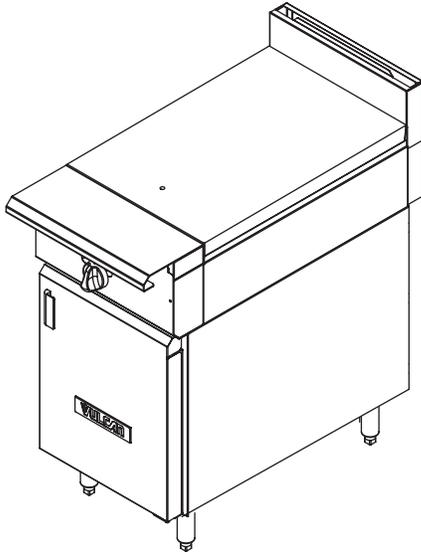
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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
18" WIDE FULL HOT TOP GAS RANGE**

Model V118HB
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. V118H (modular) and V118HB (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, stub back and 6" adjustable legs. 1/4" diameter front gas manifold and 1/4" rear gas capped. Heavy hot top castings. Individual pilots and controls for each burner. Total input 30,000 BTU/hr.

Exterior Dimensions:

36³/₄"d x 18"w x 40¹/₂"h on 6" adjustable legs

- V118H** 18" Wide Full Hot Top / Modular
- V118HB** 18" Wide Full Hot Top / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold and 1/4" rear gas connection (capped)
- 30,000 BTU/hr. burner
- Individual pilot and control for burner
- Heavy-duty top castings
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for cabinet base units (no legs for modular models)
- Stainless steel cabinet base door
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting for cabinet base units

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE

18" WIDE FULL HOT TOP GAS RANGE

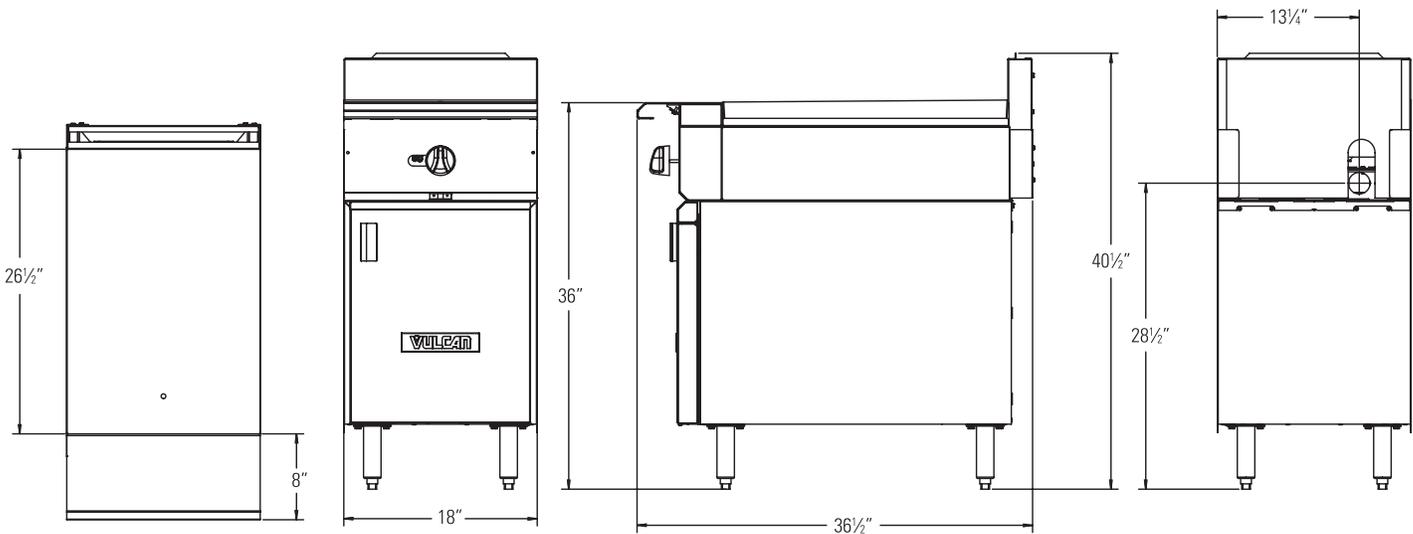
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



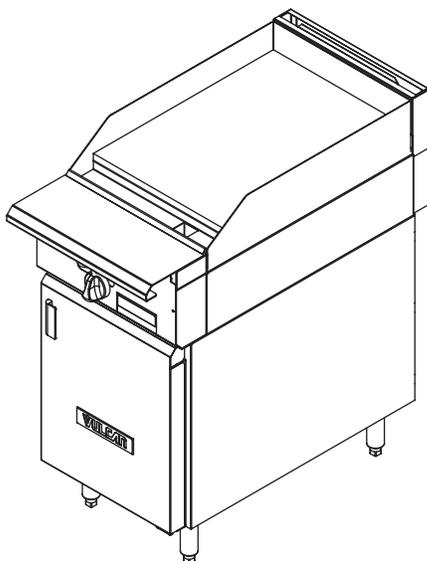
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V118H	18" Wide Full Hot Top / Modular	30,000	220 / 100
	V118HB	18" Wide Full Hot Top / Cabinet Base	30,000	285 / 129



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
18" WIDE MANUAL GRIDDLE GAS RANGE**

Model VGM18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan Model No. VGM18 (modular) and VGM18B (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, stub back and 4" adjustable legs. 1 $\frac{1}{4}$ " diameter front gas manifold and 1 $\frac{1}{4}$ " rear gas, capped. One 30,000 BTU/hr. burner with individual pilots and controls for each burner. $\frac{3}{4}$ " ground steel griddle plate with 4" high side splashes. Total input 30,000 BTU/hr.

Exterior Dimensions:

36 $\frac{3}{4}$ "d x 18"w x 40 $\frac{1}{2}$ "h on 4" adjustable legs

- VGM18** 18" Wide Manual Griddle / Modular
- VGM18B** 18" Wide Manual Griddle / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 $\frac{1}{4}$ " diameter front gas manifold with 1 $\frac{1}{4}$ " rear gas connection (capped)
- 30,000 BTU/hr. burner
- Individual pilots and controls for each burner
- $\frac{3}{4}$ " ground steel griddle plate
- 4" high side splash
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models
- Universal rack guides, with one shelf (shelf is removable)

ACCESSORIES (Packaged & Sold Separately)

- $\frac{3}{4}$ ", 1", or 1 $\frac{1}{4}$ " gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

VULCAN

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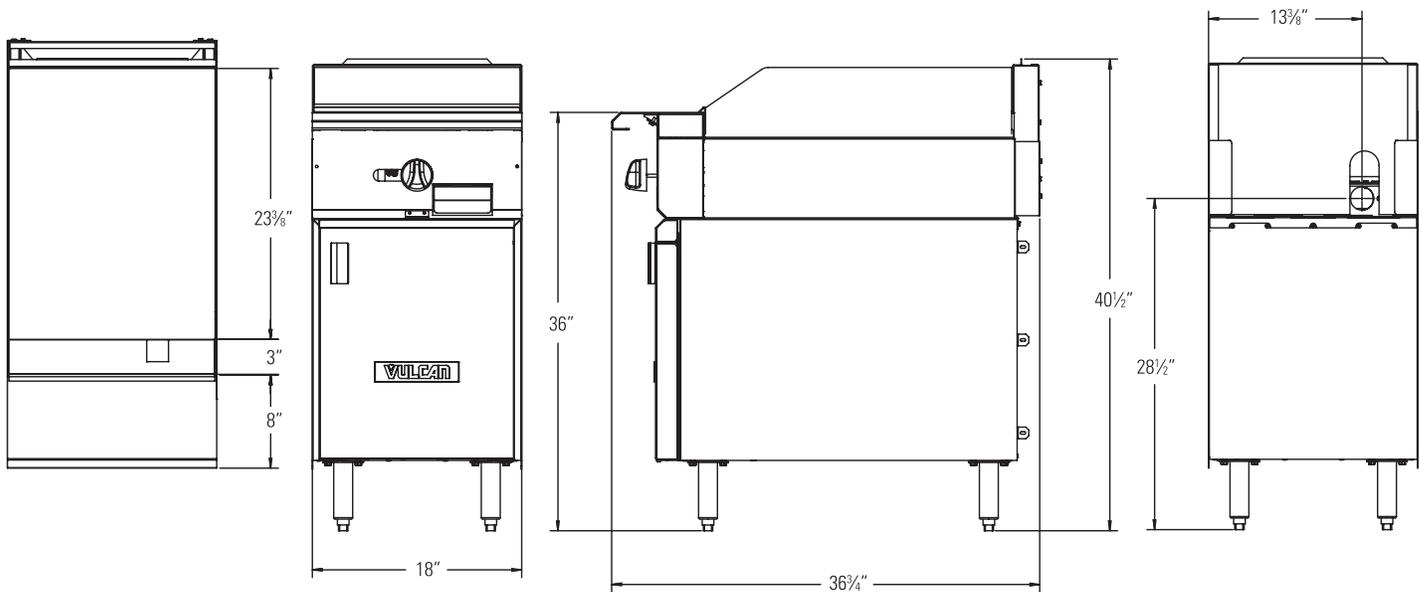
HEAVY DUTY GAS RANGE
18" WIDE MANUAL GRIDDLE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



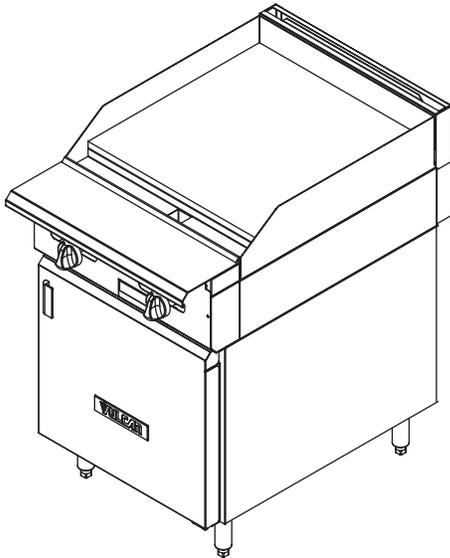
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VGM18	18" Wide Manual Griddle / Modular	30,000	220 / 100
	VGM18B	18" Wide Manual Griddle / Cabinet Base	30,000	285 / 129



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
24" WIDE MANUAL GRIDDLE GAS RANGE**

Model VGM24B
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. VGM24 (modular) and VGM24B (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, and stub back. 1 $\frac{1}{4}$ " diameter front gas manifold and 1 $\frac{1}{4}$ " rear gas, capped. Two 30,000 BTU/hr. burners with individual pilots and controls for each burner. $\frac{3}{4}$ " ground steel griddle plate with 4" high side splashes. 1 $\frac{1}{4}$ " rear gas connection. Total input 60,000 BTU/hr.

Exterior Dimensions:

36 $\frac{3}{4}$ "d x 24"w x 40 $\frac{1}{2}$ "h on 4" adjustable legs

- VGM24** 24" Wide Manual Griddle / Modular
- VGM24B** 24" Wide Manual Griddle / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 $\frac{1}{4}$ " diameter front gas manifold with 1 $\frac{1}{4}$ " rear gas connection (capped)
- Two 30,000 BTU/hr. burners
- Individual pilots and controls for each burner
- $\frac{3}{4}$ " ground steel griddle plate
- 4" high side splash
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- $\frac{3}{4}$ ", 1", or 1 $\frac{1}{4}$ " gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Common condiment type, telescoping plate rails (starting at 24" length)
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE

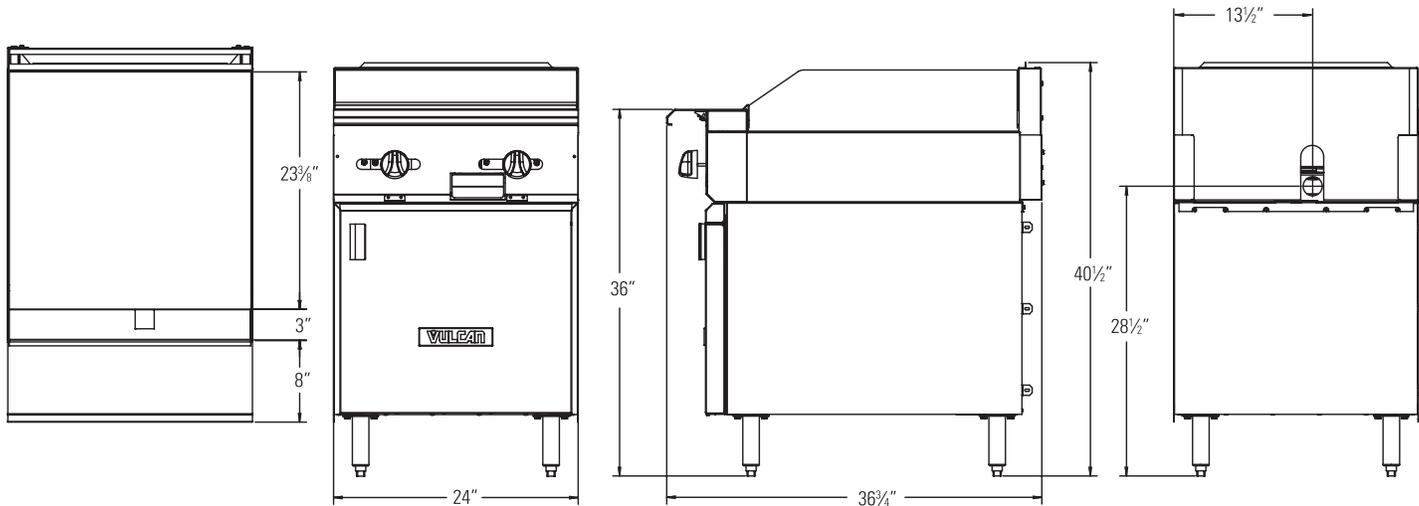
24" WIDE MANUAL GRIDDLE GAS RANGE

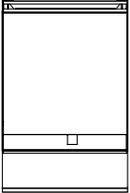
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



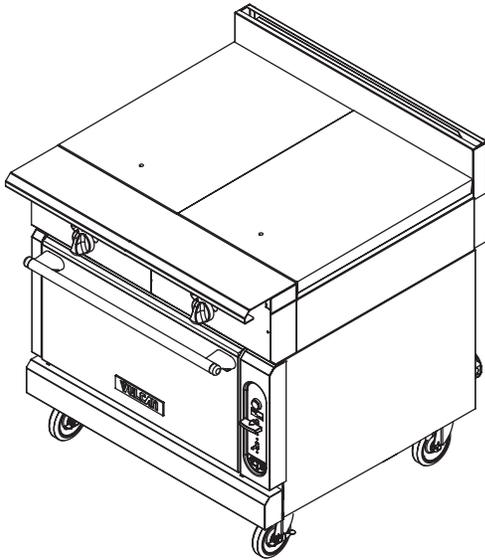
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VGM24	24" Wide Manual Griddle / Modular	60,000	285 / 130
	VGM24B	24" Wide Manual Griddle / Cabinet Base	60,000	360 / 164



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE**
2 - 18" WIDE FULL HOT TOPS
36" WIDE GAS RANGE**Model V236HC**

(shown on a convection oven base)

**SPECIFICATIONS**

36" wide heavy duty gas range, Vulcan Model No. V236H (modular), V236HB (cabinet base), V236HS (standard oven base) or V236HC (convection oven base). Modular construction for ease of installation. Stainless steel front, front top ledge, plate ledge, sides, base, burner box, stub back, and 6" adjustable legs on all "B", "S", & "C" models. Stainless steel extra deep crumb tray. Two 30,000 BTU/hr. burners with individual pilots and controls for each burner. Heavy duty cast hot-top plates. Grates and plates are separate from aeration bowl for ease of cleaning. 18" ground steel griddle plate. **Standard Oven:** 50,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel (115v-1 phase blower motor, 4 amps, 9' cord & plug). Ovens measure 27"w x 27"d x 13"h. Standard oven thermostats adjust from 150° – 550°F. Convection oven adjusts from 175° – 550°F and the optional finishing oven for standard ovens adjusts from 300° – 650°F. Standard oven supplied with one rack, convection oven with two. Both ovens allow for three rack positions. Oven door is heavy-duty with counter weight door hinges. 1¼" front manifold connection and 1¼" rear gas, capped. Total input 60,000 BTU/hr.

Exterior Dimensions:

41⅞"d x 36"w x 40½"h on 6" adjustable legs

- V236H** 2 - 18" Full Hot Tops / Modular
- V236HB** 2 - 18" Full Hot Tops / Cabinet Base
- V236HS** 2 - 18" Full Hot Tops / Standard Oven
- V236HC** 2 - 18" Full Hot Tops / Convection Oven

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- 30,000 BTU/hr. hot top burners (2 each)
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Porcelain oven cavity
- Individual pilots and controls for each burner
- Heavy-duty cast hot top plates
- ¾" ground steel griddle plate
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "S", "C", and "B" models
- Stainless steel cabinet base doors for "B" units
- Universal rack guides, one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Stainless steel oven cavity
- 650°F oven thermostat and steel hearth. ("S" models)
- Fan cooling package. ("C" models)
- 4" adjustable flanged feet for modular units
- Less legs for dolly mounting for "S", "C", and "B" models
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for "S", "C", and "B" models
- Extra removable shelves for use with Universal rack guides (for cabinet base)
- Banking strip
- Common condiment type, telescoping plate rails (starting at 24" length)
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Flexible gas hose with quick disconnect & restraining device

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HEAVY DUTY GAS RANGE
2 - 18" WIDE FULL HOT TOPS
36" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

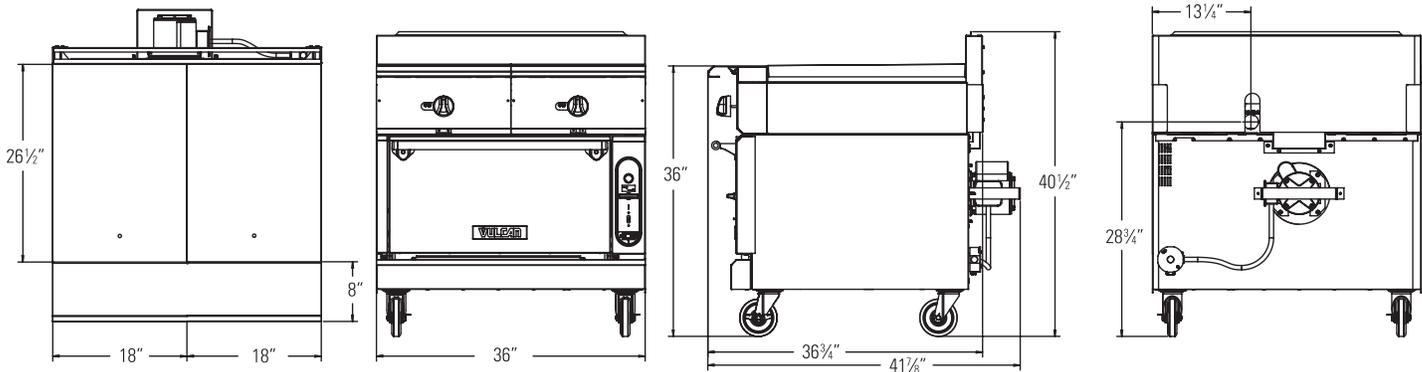
1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.

4. Clearances	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"

5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



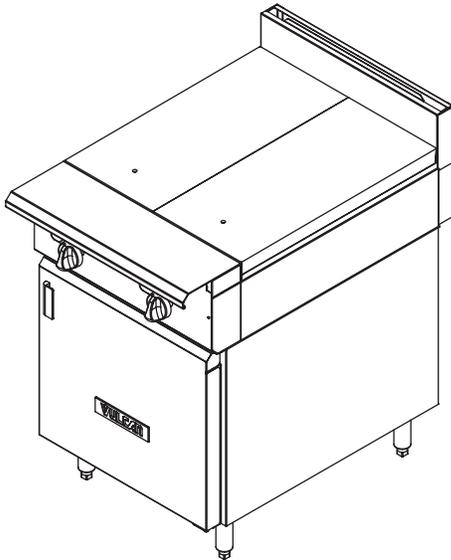
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V236H	2 - 18" Wide Full Hot Tops / Modular	60,000	280 / 127
	V236HB	2 - 18" Wide Full Hot Tops / Cabinet Base	60,000	550 / 250
	V236HS	2 - 18" Wide Full Hot Tops / Standard Oven	110,000	615 / 280
	V236HC	2 - 18" Wide Full Hot Tops / Convection Oven	92,000	655 / 298



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
2 HOT TOPS / 24" WIDE GAS RANGE**

Model V224HB
(shown on cabinet base)

**SPECIFICATIONS**

24" wide heavy duty gas range, Vulcan Model No. V224H (modular) and V224HB (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, stub back and 4" adjustable legs. 1¼" diameter front gas manifold and 1¼" rear gas, capped. Two 30,000 BTU/hr. burners, individual pilots and controls for each burner. Heavy-duty hot-top castings. Total input 60,000 BTU/hr.

Exterior Dimensions:

36¾"d x 24"w x 40½"h on 4" adjustable legs

- V224H** 24" Wide - 2 Hot Tops / Modular
- V224HB** 24" Wide - 2 Hot Tops / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- Two 30,000 BTU/hr. burners
- Individual pilots and controls for each burner
- Heavy duty hot top castings
- ¾" ground steel griddle plate
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for floor models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Common condiment type, telescoping plate rails (starting at 24" length)
- Flexible gas hose with quick disconnect and restraining device

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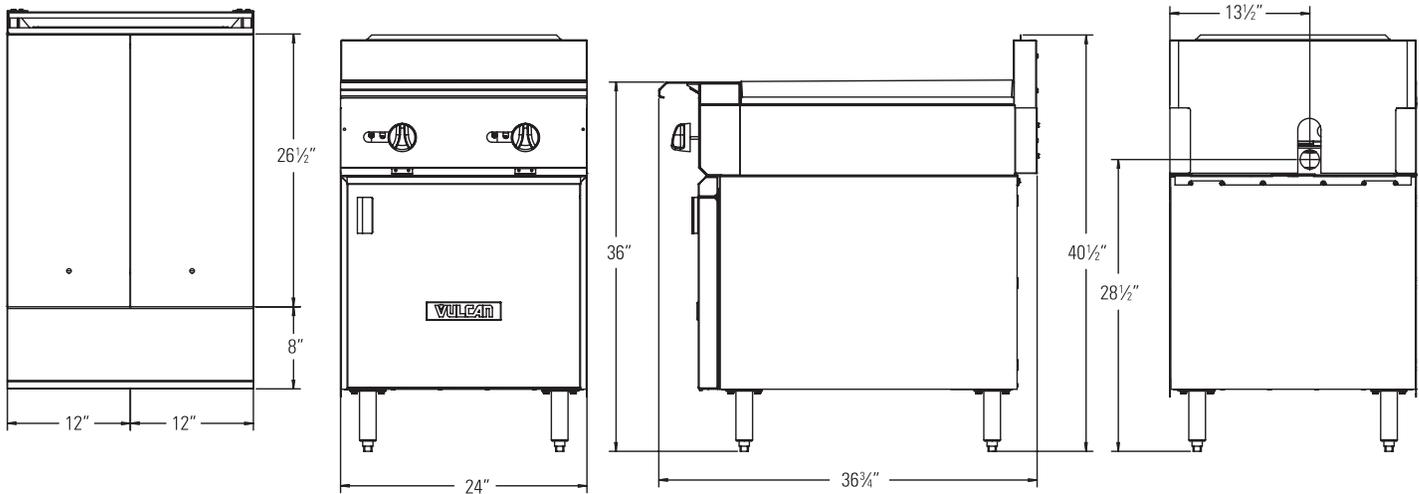
HEAVY DUTY GAS RANGE
2 HOT TOPS / 24" WIDE GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"



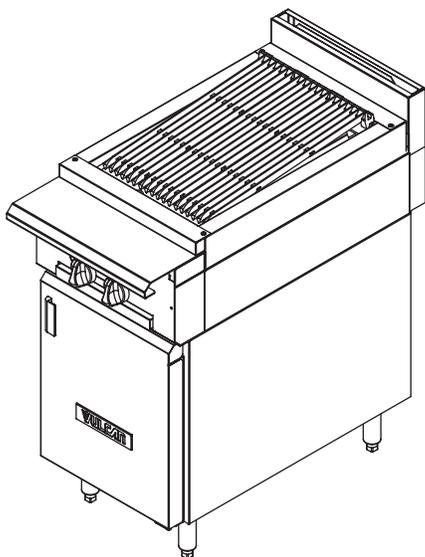
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V224H	24" Wide - 2 Hot Tops / Modular	60,000	350 / 159
	V224HB	24" Wide - 2 Hot Tops / Cabinet Base	60,000	340 / 155



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
18" WIDE CHARBROILER GAS RANGE**

Model VCBB18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan model No. VCBB18 (modular), VCBB18B (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, stub back and 4" adjustable legs. 1/4" diameter front gas manifold. Three burners, totaling 49,000 BTU/hr. Cast burners and char-radiants with stainless steel supercharger burner dividers. Individual pilots and controls for each burner. Heavy duty cast slant grates, easy lift-off of 3/each for 18" wide models, 3/4" rear gas connection. Total input 49,000 BTU/hr.

Exterior Dimensions:

36 3/4" d x 18" w x 40 1/2" h on 4" adjustable legs

- VCBB18** 18" Wide Charbroiler / Modular
- VCBB18B** 18" Wide Charbroiler / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold with 3/4" rear gas connection (capped)
- 49,000 BTU/hr. (3 burners)
- Individual pilots and controls for each burner
- Heavy-duty slant cast grates and char-radiants
- Stainless steel supercharger burner dividers
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models
- Universal rack guides, with one shelf (shelf is removable)

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Common condiment type, telescoping plate rails (starting at 24" length)
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE

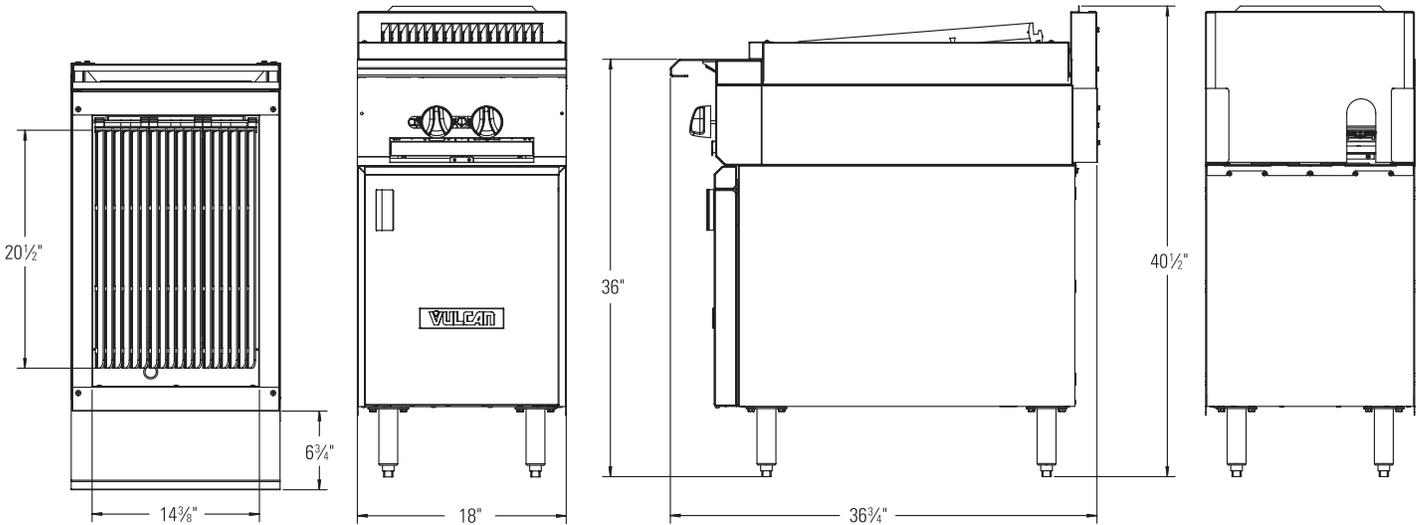
18" WIDE CHARBROILER GAS RANGE

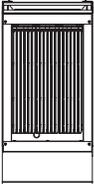
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



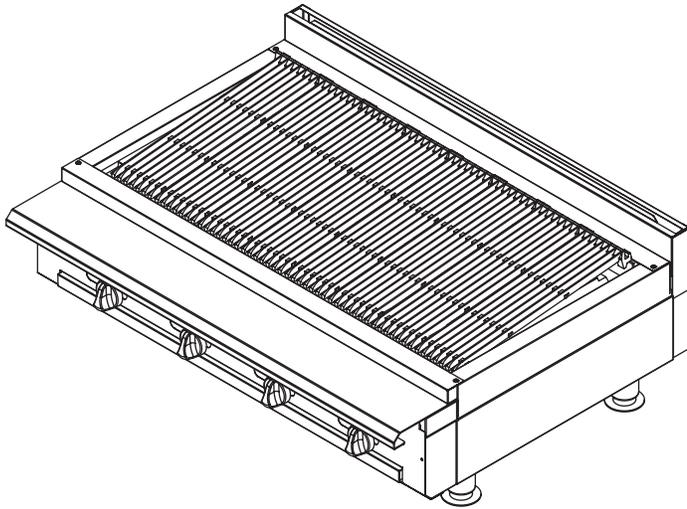
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VCBB18	18" Wide Charbroiler / Modular	49,000	245 / 111
	VCBB18B	18" Wide Charbroiler / Cabinet Base	49,000	255 / 116



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
48" WIDE CHARBROILER GAS RANGE**

Model VCBB48

**SPECIFICATIONS**

48" wide heavy duty gas range, Vulcan model No. VCBB48 (modular). Stainless steel front, front top ledge, burner box, sides, and stub back. 1 $\frac{1}{4}$ " diameter front gas manifold. Eight burners, totaling 130,000 BTU/hr. Cast burners and char-radiants with stainless steel supercharger burner dividers. Individual pilots and controls for each burner. Heavy duty cast slant grates, easy lift-off of 6/each for 48" wide units. $\frac{3}{4}$ " rear gas connection. Total input 130,000 BTU/hr.

Exterior Dimensions:

36 $\frac{3}{4}$ "d x 48"w x 36"h on 4" adjustable legs

- VCBB48 48" Wide Charbroiler / Modular

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, and stub back
- 1 $\frac{1}{4}$ " diameter front gas manifold with $\frac{3}{4}$ " rear gas connection (capped)
- 130,000 BTU/hr. (8 burners)
- Individual pilots and controls for each burner
- Heavy-duty slant cast grates and char-radiants
- Stainless steel supercharger burner dividers
- 4" stainless steel stub riser
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models

ACCESSORIES (Packaged & Sold Separately)

- $\frac{3}{4}$ ", 1", or 1 $\frac{1}{4}$ " gas pressure regulator (specify gas type – pack loose)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Common condiment type, telescoping plate rails (starting at 24" length)
- Flexible gas hose with quick disconnect and restraining device

VULCAN

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HEAVY DUTY GAS RANGE

48" WIDE CHARBROILER GAS RANGE

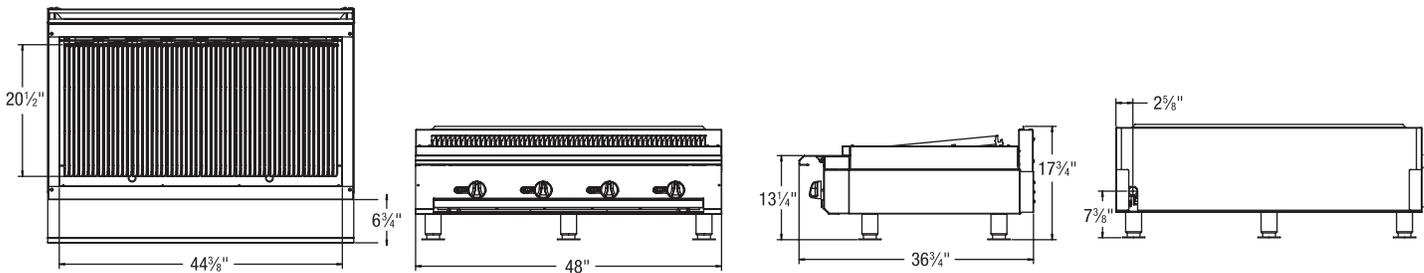
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VCBB48	48" Wide Charbroiler / Modular	130,000	525 / 239



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NOTE: In line with its policy to continually improve its products, Vulcan reserves the right to change materials and specifications without notice.

HEAVY DUTY COOKING**VULCAN****HEAVY DUTY RANGES**
VERSATILE CHEF STATION – MULTIFUNCTION COOKER

Model VCS36D Shown

**SPECIFICATIONS**

V-Series Heavy Duty Range Match Versatile Chef Station. 18" wide Vulcan Model No. VCS18 (single tank), 36" wide VCS36 (single tank), or 36" wide VCS36D (double tank). Stainless steel front, plate ledge, front top ledge with pull-out condiment rail, sides, tank surface, stub back, and 6" adjustable legs on all models. The VCS incorporates 10 different cooking methods into one space saving station: Braise, Sear, Boil, Shallow Fry, Sauté, Steam, Reheat, Simmer, Poach, and Melt. The VCS utilizes Intelligent Heating Technology (IHT) with 6 ultra-thin printed heating elements (1500W ea / 9000W total) to rapidly (2.7° per sec.) and accurately (+/- 2° up to 250°, +/-5° above 250°) heat the 8mm Stratinox tri-metallic tank surface for precise and immediate cooking. The printed heating elements are each monitored by individual temperature probes that actively monitor and manage the tank surface to ensure accuracy and optimize energy use with minimal overshoot. An additional in-tank probe directly senses cooking liquid temperature in Boil and Fry modes for further accuracy. Integral 2.5" in-tank drain allows three collection options: interior 1/2 or 1/3 hotel pans (up to 8" deep) for reserving cooking fluids, direct drain to a floor drain for disposal, or drain to optional drain caddy accessory for remote disposal.

Requires 208 or 240 volt. 3 phase only.
Requires 3/4" GHT cold water hookup.

Exterior Dimensions:**VCS18:** 36¾"d x 18"w x 36"h on 6" adjustable legs**VCS36:** 36¾"d x 36"w x 36"h on 6" adjustable legs**VCS36D:** 36¾"d x 36"w x 36"h on 6" adjustable legs

- VCS18** 18" Wide / Single Tank (front-to-back)
- VCS36** 36" Wide / Single Tank (left-to-right)
- VCS36D** 36" Wide / Double Tank (front-to-back)

STANDARD FEATURES

- Stainless steel front, front top ledge, tank, top surface, sides, and stub back
- 4" stainless steel stub riser
- Stainless steel tank covers (two per tank) and service handle
- Stainless steel cabinet door
- Stainless steel drain plug
- 5 gallon tank capacity
- 2.5" diameter tank drain opening
- 3" x 17" stainless steel detachable drain pipe
- 6 reactive heating elements (1500W-ea / 9000W-total)
- Tank temperature ranges from room temperature to 450°
- Temperature accuracy (+/- 2°) up to 250°, (+/- 5°) above 250°
- Water dispenser with integrated safety valve
- 6" adjustable stainless steel legs
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Less legs for dolly mounting
- 3" high toe base for curb mounting
- 1¼" diameter front gas manifold

ACCESSORIES (Packaged & Sold Separately)

- Set of 4 adjustable casters, 6" high (two locking)
- Banking strip
- Manifold joint strip
- Common condiment type, telescoping plate rail overlapping (starting at 24" length)
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Drain caddy
- Starch skimmer drain plug, for use as a pasta cooker

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HEAVY DUTY RANGES
VERSATILE CHEF STATION – MULTIFUNCTION COOKER

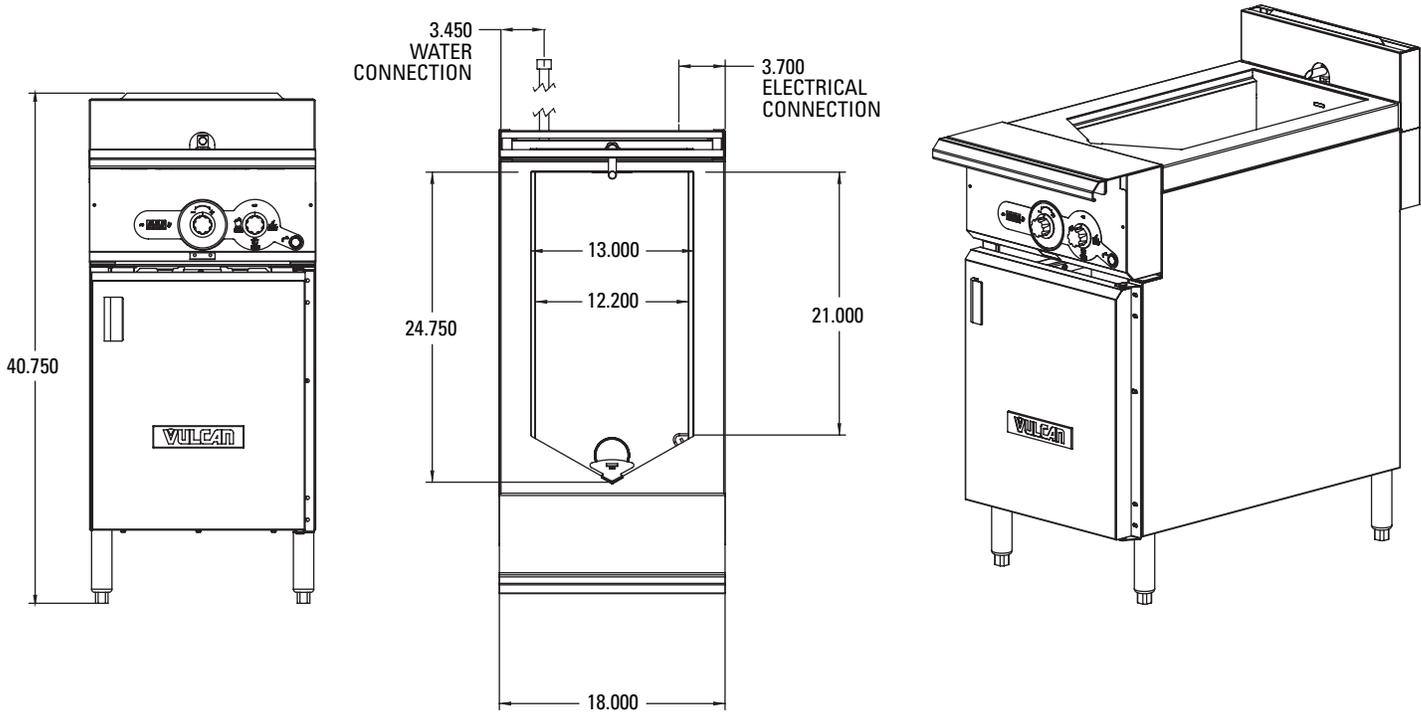
INSTALLATION INSTRUCTIONS

1. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
2. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
3. Cannot be battered with GH series equipment.
4. This appliance is manufactured for commercial installation only and is not intended for home use.
5. 3/4" GHT water connection is required. Damage as a result of poor water quality or lack of maintenance is the responsibility of the owner/operator.

Clearances	Rear	Sides
Combustible	1"	1"
Non-combustible	0"	0"

NOTE: VCS36D will require 2 electrical hookups and 2 water connection hookups.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.



MODEL NUMBER	DESCRIPTION	VOLTAGE	TOTAL KW	KW PER PHASE			AMPS PER LINE WIRE		
				X-Y	Y-Z	X-Z	X	Y	Z
VCS18	18" Single Tank (front-to-back)	208/240	9.0	3000	3000	3000	25	25	25
VCS36	36" Wide Single Tank (left-to-right)	208/240	9.0	3000	3000	3000	25	25	25
VCS36D	36" Wide Double Tank (front-to-back)	208/240	LH Tank - 9.0	3000	3000	3000	25	25	25
			RH Tank - 9.0	3000	3000	3000	25	25	25

This appliance is manufactured for commercial use only and is not intended for home use.



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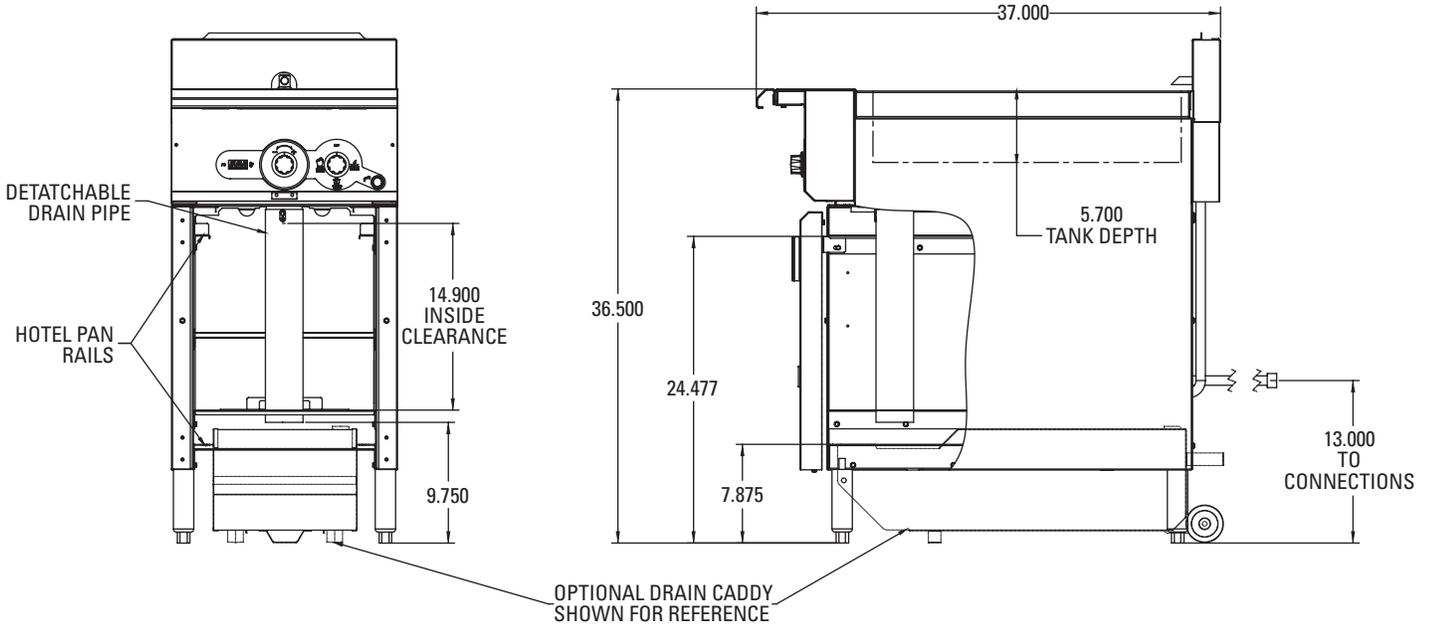
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HEAVY DUTY COOKING



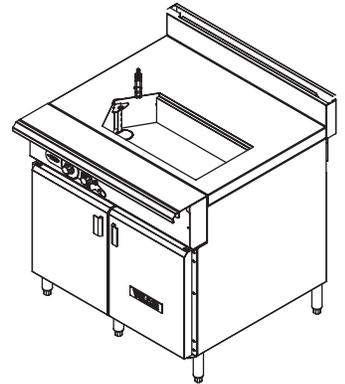
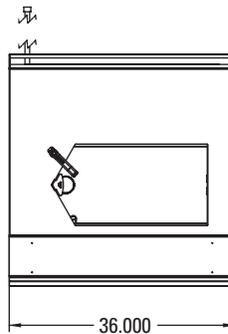
HEAVY DUTY RANGES
VERSATILE CHEF STATION – MULTIFUNCTION COOKER

ADDITIONAL DIMENSION INFORMATION



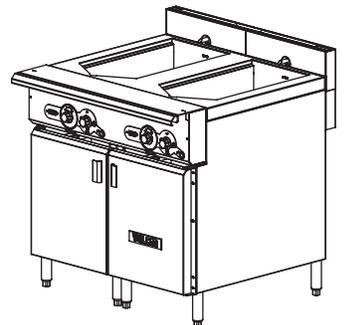
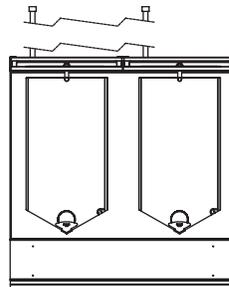
VCS36

Includes one tank that is oriented left to right.
 This unit requires one electrical connection and one water connection.

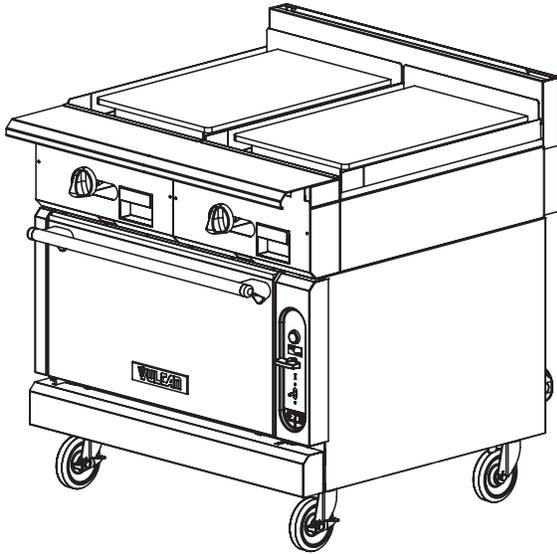


VCS36D

Includes two tanks that are oriented front to back.
 This unit requires two electrical connections and two water connections.



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE**
36" Wide Dual Plancha Gas Range**V2P36C**

(shown on convection oven base)

**SPECIFICATIONS**

36" wide heavy duty gas range, Vulcan model No. V2P36 (modular), V2P36B (cabinet base), V2P36S (standard oven base) or V2P36C (convection oven base). Modular construction for ease of installation. Stainless steel front, front top ledge, plate ledge, sides, base, burner box, stub back, and 6" adjustable legs on all "B", "S", & "C" models. Stainless steel extra deep crumb tray. Two 17,500 BTU/hr burners. Individual pilots and controls for each burner. 1/2" polished steel griddle plate with 3 sided grease trough. **Standard Oven:** 50,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel (115v-1 phase blower motor, 4 amps, 9' cord & plug). Ovens measure 27"w x 27"d x 13"h. Standard oven thermostats adjust from 150° – 550°F. Convection oven adjusts from 175° – 550°F and the optional finishing oven for standard ovens adjusts from 300° – 650°F. Standard oven supplied with one rack, convection oven with two. Both ovens allow for three rack positions. Oven door is heavy-duty with counter weight door hinges. 1/4" front manifold connection and 1/4" rear gas, capped.

Exterior Dimensions:36³/₄"d x 36"w x 40¹/₂"h on 4" adjustable legs

- V2P36** 36" Wide Dual Plancha / Modular
- V2P36B** 36" Wide Dual Plancha / Cabinet Base
- V2P36S** 36" Wide Dual Plancha / Standard Oven
- V2P36C** 36" Wide Dual Plancha / Convection Oven

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1/4" diameter front gas manifold with 1/4" rear gas connection (capped)
- 17,500 BTU/hr. burners (2 each)
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Individual pilots and controls for each burner
- 1/2" polished steel plate
- 3 sided grease trough
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base doors
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

Optional Features (Factory Installed)

- Cap and cover front manifold
- 650°F oven thermostat and steel hearth ("S" models)
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models
- Universal rack guides, with one shelf (shelf is removable)

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for "S", "C", and "B" models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- Common condiment type, telescoping plate rails (starting at 24" length)
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Dolly frames
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE

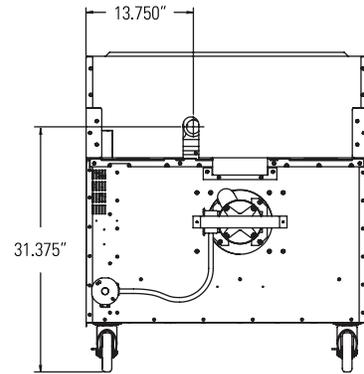
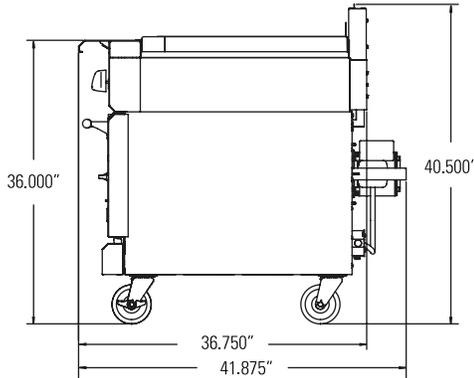
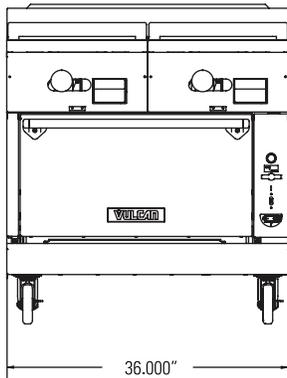
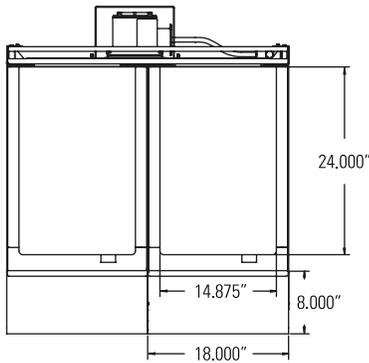
36" Wide Dual Plancha Gas Range

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3/2" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



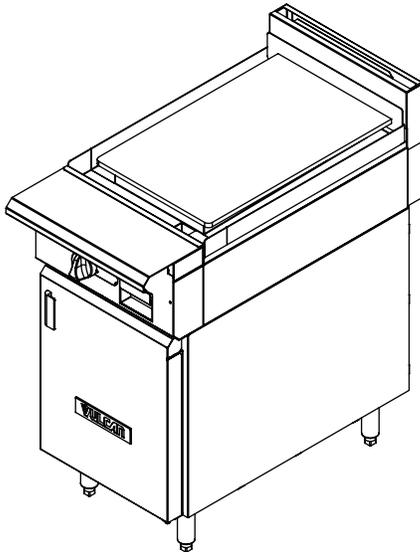
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V2P36	36" Wide Dual Plancha / Modular	35,000	404 / 183
	V2P36B	36" Wide Dual Plancha / Cabinet Base	35,000	504 / 229
	V2P36S	36" Wide Dual Plancha / Standard Oven	85,000	685 / 311
	V2P36C	36" Wide Dual Plancha / Convection Oven	67,000	763 / 346

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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
18" WIDE PLANCHA GAS RANGE**

Model V1P18B
(shown on cabinet base)

**SPECIFICATIONS**

18" wide heavy duty gas range, Vulcan model No. V1P18 (modular) and V1P18B (cabinet base). Stainless steel front, front top ledge, burner box, sides, base, stub back and 4" adjustable legs. 1 1/4" diameter front gas manifold and 1 1/4" rear gas, capped. One 17,500 BTU/hr. burner with individual pilots and controls for each burner. 1/2" polished steel plate with 4" high side splashes. 1/4" rear gas connection. Total input 17,500 BTU/hr.

Exterior Dimensions:

36 3/4" d x 18" w x 40 1/2" h on 4" adjustable legs

- V1P18** 18" Wide Plancha / Modular
- V1P18B** 18" Wide Plancha / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 1/4" diameter front gas manifold with 1 1/4" rear gas connection (capped)
- 17,500 BTU/hr. burner
- Individual pilots and controls for each burner
- 1/2" polished steel plate
- 3 sided grease trough
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models (no legs for modular model)
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

Optional Features (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting of cabinet base models
- Universal rack guides, with one shelf (shelf is removable)

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device

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HEAVY DUTY GAS RANGE
18" WIDE PLANCHA GAS RANGE

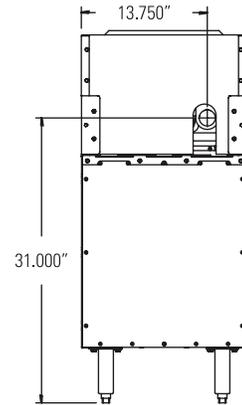
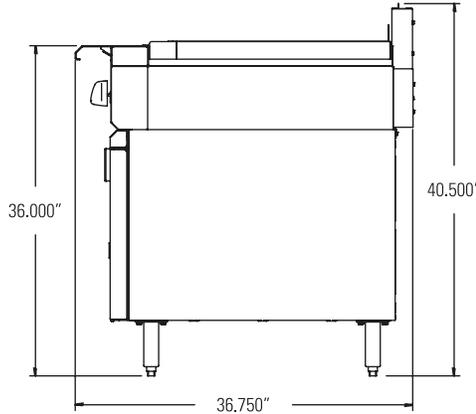
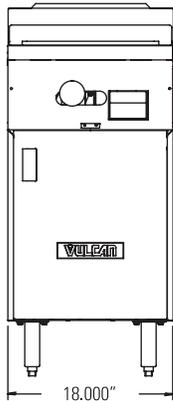
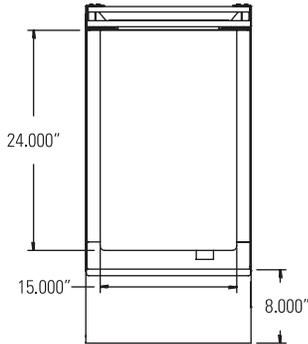
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

Specify type of gas when ordering.
Specify altitude when above 2,000 feet.



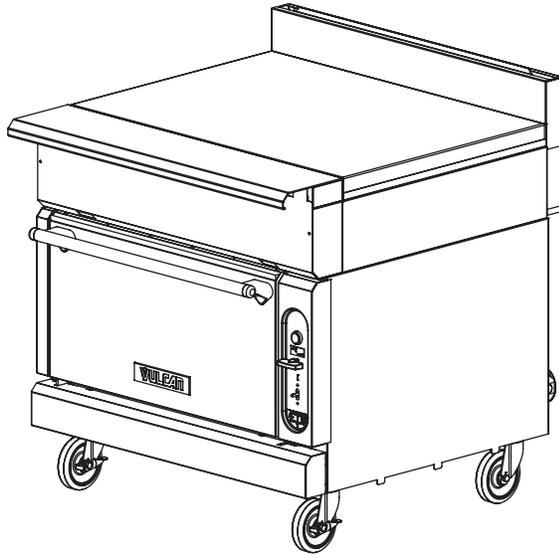
TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	V1P18	18" Wide Plancha / Modular	17,500	220 / 100
	V1P18B	18" Wide Plancha / Cabinet Base	17,500	285 / 129

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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
OVEN BASE FULL BODY SPREADERS**

Model VWT36C

**SPECIFICATIONS**

Full body work top spreader, Vulcan Model No. VWT36S (36" wide with standard oven base) and VWT36C (36" wide with convection oven base). Full body work top spreader of 20 gauge stainless steel with 16 gauge stainless steel work surface, 6" adjustable stainless steel legs and 4" high stub riser. Stainless steel work surface, front, front top ledge, sides, base and stub back and 6" adjustable legs. **Standard Oven:** 50,000 BTU/hr with porcelain oven bottom, sides, and interior door panel. **Convection Oven:** 32,000 BTU/hr. with porcelain oven bottom, sides, and interior door panel. (115v-1 phase blower motor, 4 amps, 6' cord and plug). Oven measures 27"w x 27"d x 13"h. Standard oven thermostats adjust from 175°F – 550°F. Convection ovens adjust from 300°F – 650°F. Standard oven supplied with one rack, convection oven with two racks. Both ovens allow for three rack positions. Oven doors is heavy duty counter weight door hinges. 1¼" diameter front gas manifold and 1¼" rear gas connection, capped.

Exterior Dimensions:

36¾"d x 12"w x 36"h on 6" adjustable legs

- VWT36S** 36" Standard Oven Base Spreader
- VWT36C** 36" Convection Oven Base Spreader

STANDARD FEATURES

- Stainless steel work surface, front, front top ledge, sides, base, and stub back
- 1¼" diameter front gas manifold with 1¼" rear gas connection (capped)
- 50,000 BTU/hr. standard oven burner
- 32,000 BTU/hr. convection oven burner
- Porcelain oven cavity
- Pilot with millivolt safety system
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- Stainless steel oven cavity
- 650°F oven thermostat and ½" steel hearth ("S" models)
- Fan cooling package ("C" models)
- Less legs for dolly mounting
- 3" high toe base for curb mounting

ACCESSORIES (Packaged & Sold Separately)

- ¾", 1", or 1¼" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rails (starting at 24" length)
- Dolly frames

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HEAVY DUTY GAS RANGE OVEN BASE FULL BODY SPREADERS

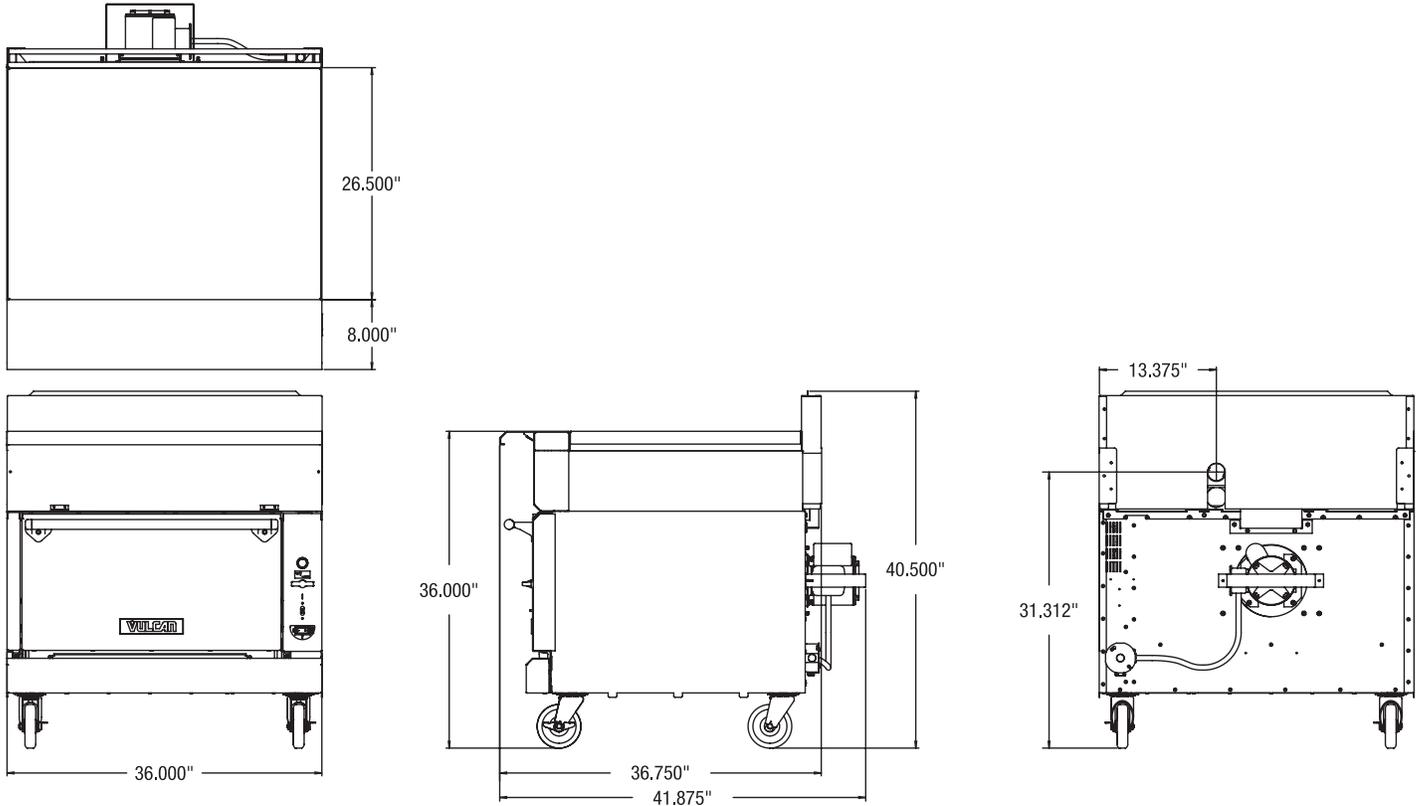
INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
6. Cannot be battered with GH series equipment.
7. This appliance is manufactured for commercial installation only and is not intended for home use.

NOTE: In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
VWT36S	36" Wide Standard Oven Base Spreader	Standard Ovens 50,000 BTU	590/268
VWT36C	36" Wide Convection Oven Base Spreader	Convection Ovens 32,000 BTU	590/268

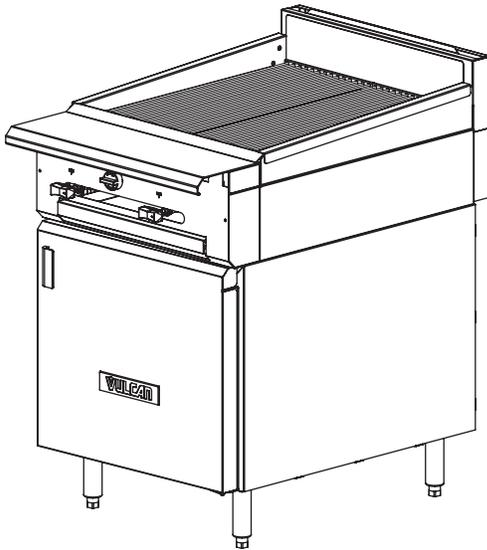
This appliance is manufactured for commercial use only and is not intended for home use.



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HEAVY DUTY COOKING**VULCAN****HEAVY DUTY GAS RANGE
24" WIDE INFRARED CHARBROILER GAS RANGE**

Model VTC24B
(shown on cabinet base)

**SPECIFICATIONS**

High efficiency gas infrared charbroiler, Vulcan Model No. VTC24 (modular) or VTC24B (cabinet base). Stainless steel front, plate ledge, front top ledge with pull-out condiment rails, sides, base, stub back and 6" adjustable legs. 1 1/4" diameter front gas manifold. Full width, stainless steel crumb tray. Heavy duty, steel infrared emitter panels. 11" x 25" stainless steel cooking grids. One 22,000 BTU/hr. patented infrared burner system for each cooking grid. Direct ignition piezo spark igniters. One high range heat control valve for each burner. Chrome burner knobs. 4" adjustable legs. 1/4" NPT rear gas connection. Total input 44,000 BTU/hr.

Exterior Dimensions:

36 3/4" d x 24" w x 36" h on 6" adjustable legs

- VTC24** 24" Infrared Charbroiler / Modular
- VTC24B** 24" Infrared Charbroiler / Cabinet Base

STANDARD FEATURES

- Stainless steel front, front top ledge, burner box, sides, base, and stub back
- 1 1/4" diameter front gas manifold with 1 1/4" rear gas connection (capped)
- Heavy duty steel infrared emitter panels
- Energy efficient 22,000 BTU/hr., patented infrared burner system in each cooking zone
- Direct ignition piezo spark igniters
- One high range heat control valve for each burner
- Chrome burner control knobs
- 4" stainless steel stub riser
- 6" adjustable stainless steel legs for "B" models.
- Stainless steel cabinet base door
- Universal rack guides, with one removable shelf (cabinet base)
- One year limited parts and labor warranty

OPTIONAL FEATURES (Factory Installed)

- Cap and cover front manifold
- 4" adjustable flanged feet for modular models
- Less legs for dolly mounting of cabinet base models
- 3" high toe base for curb mounting for "S", "C", & "B" models

ACCESSORIES (Packaged & Sold Separately)

- 3/4", 1", or 1 1/4" gas pressure regulator (specify gas type – pack loose)
- Set of 4 casters, 6" high (two locking)
- 6" adjustable flanged feet for cabinet base models
- Extra removable shelves for use with Universal rack guides (cabinet base)
- Banking strip
- 10", 22", or 34" high back risers (no shelf)
- 22" single deck solid or flo-thru high shelf risers
- 34" double deck solid or flo-thru high shelf risers
- Flexible gas hose with quick disconnect and restraining device
- Common condiment type, telescoping plate rail (starting at 24" length)

VULCAN

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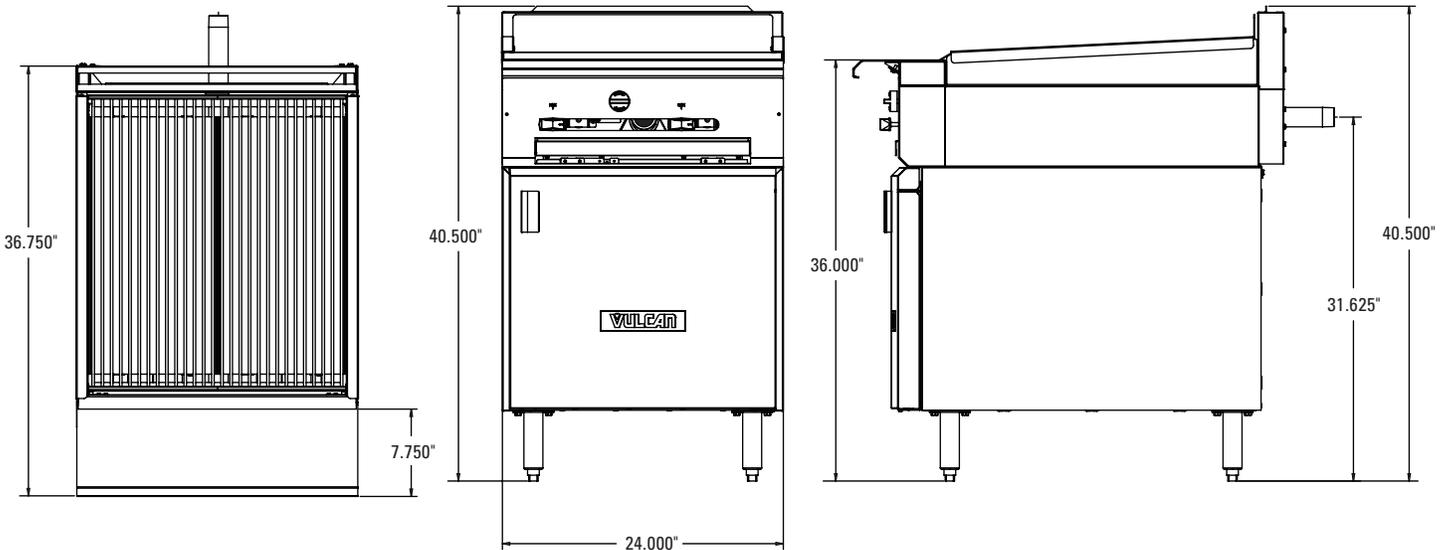
HEAVY DUTY GAS RANGE 24" WIDE INFRARED CHARBROILER GAS RANGE

INSTALLATION INSTRUCTIONS

1. A properly sized gas pressure regulator suitable for battery or single unit application must be furnished and installed. Natural gas 6.0" W.C., propane gas 10.0" W.C.
 2. An adequate ventilation system is required for commercial cooking equipment. Information may be obtained by writing to the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, www.NFPA.org. When writing, refer to NFPA No. 96.
 3. These units are manufactured for installation in accordance with ANSZ223.1A (latest edition), National Fuel Gas Code. Copies may be obtained from The American Gas Association, 400 N Capitol St. NW, Washington, DC 20001, www.AGA.org.
 4. **Clearances**

	Rear	Sides
Combustible	10"	10"
Non-combustible	0"	0"
 5. For proper combustion, install equipment on adjustable legs or casters. On curb or platform, allow 3½" front overhang. Toe base with leveling bolts are required for curb installation. Specify when ordering.
 6. Cannot be battered with GH series equipment.
 7. This appliance is manufactured for commercial installation only and is not intended for home use.
- NOTE:** In line with its policy to continually improve its product, Vulcan reserves the right to change materials and specifications without notice.

**Specify type of gas when ordering.
Specify altitude when above 2,000 feet.**



TOP CONFIGURATION	MODEL NUMBER	DESCRIPTION	TOTAL INPUT BTU / HR	SHIPPING WEIGHT LBS / KG
	VTC24	24" Infrared Charbroiler / Modular	44,000	305 / 139
	VTC24B	24" Infrared Charbroiler / Cabinet Base	44,000	405 / 184



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VULCAN

INSTALLATION & OPERATION MANUAL

V SERIES HEAVY DUTY SECTIONAL GAS RANGE WITH STANDARD OVEN OR SNORKEL® CONVECTION OVEN

MODELS

V36 Standard Oven W/ Standing Pilot	ML-44905Z
V36 Standard Oven W/ Spark Ignition	ML-44906Z
V36 Convection Oven	ML-44907Z



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 OR MODIFICATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

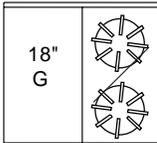
IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

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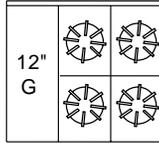
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CONFIGURATIONS OF MODEL "V" SERIES HEAVY DUTY RANGES WITH STANDARD AND CONVECTION OVENS AND MODULAR RANGES.

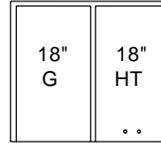
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V1G236M
V1G236S



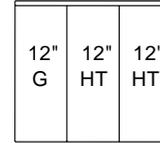
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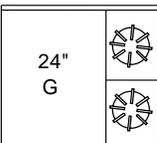
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V1G1H36M
V1G1H36S



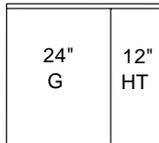
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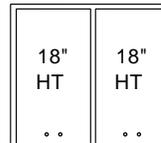
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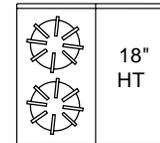
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V2G1H36M
V2G1H36S



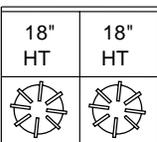
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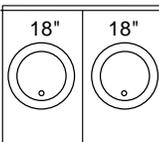
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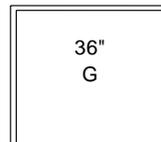
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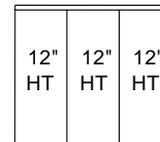
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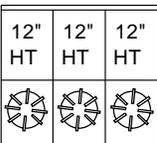
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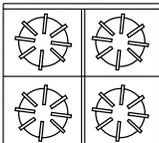
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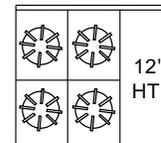
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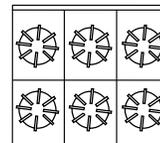
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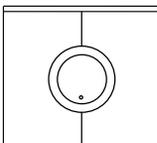
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V41H36M
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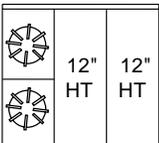
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V636S



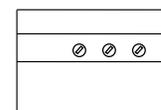
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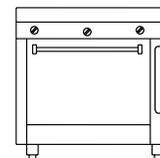
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V22H36S



"V" SERIES
MODULAR RANGE



"V" SERIES
FULL BODY
36" WIDE

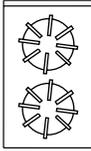


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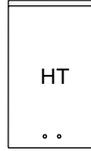
CONFIGURATIONS OF MODEL "V" SERIES 12" & 18" HEAVY DUTY EXPANDO & MODULAR RANGES

MODEL "V" SERIES EXPANDO RANGES WITH CABINETS

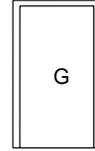
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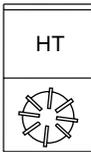
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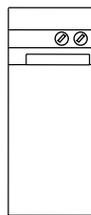
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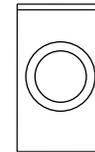
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"V" SERIES 18" WIDE
FULL BODY WITH
CABINET

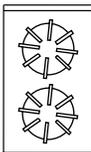


V13018S



MODEL "V" SERIES MODULAR EXPANDO RANGES

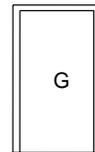
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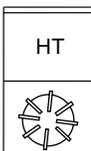
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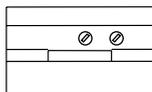
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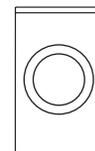
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18" WIDE
MODULAR RANGE



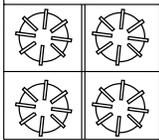
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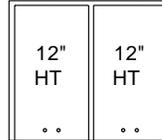
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CONFIGURATIONS OF MODEL "V" SERIES 24" HEAVY DUTY EXPANDO AND MODULAR RANGES

V424S
V424M



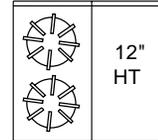
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V2H24M



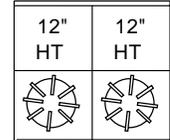
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V1G24M



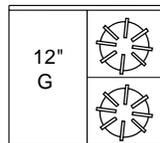
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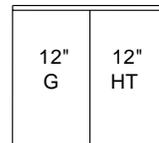
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V2HT24M



V1G224S
V1G224M



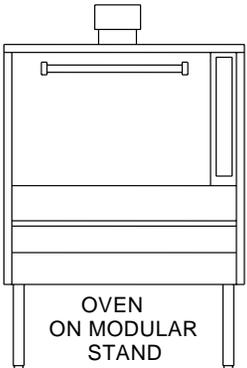
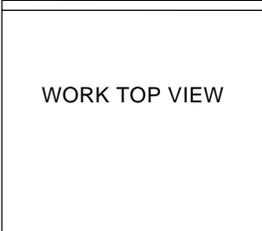
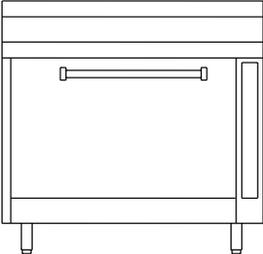
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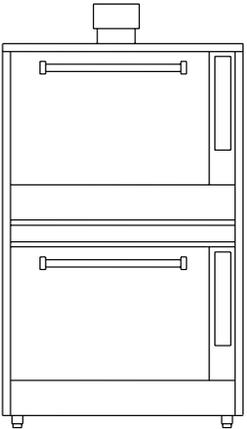
PL-53600

CONFIGURATIONS OF "V" SERIES HEAVY DUTY OVENS

VO36
SINGLE
OVEN



OVEN
ON MODULAR
STAND



VO236
DOUBLE
STACKED
OVEN

PL-53601

Installation, Operation and Care Of MODEL V SERIES HEAVY DUTY SECTIONAL GAS RANGES WITH STANDARD OVEN OR SNORKEL® CONVECTION OVEN

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

GENERAL

Vulcan ranges and ovens are produced with quality workmanship and material. Proper installation, usage and maintenance of your range will result in many years of satisfactory performance.

The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

INSTALLATION

UNPACKING

This range was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the range is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Carefully unpack range(s) and place in the approximate installation position, whether as a battery or single stand-alone range.

Remove parts (packed in a cardboard box) from oven cavity, or cabinet body, or on top of modular range(s).

Remove wire or nut from rear of each burner before installing the range.

Before installing, check the electrical service (Convection Oven Models only) and type of gas supply (natural or propane) to make sure they agree with the specifications on the rating plate located on the inside of the burner box lower panel. The rating plate will show the voltage, phase, cycle, full load ampere, BTU, as well as the type of gas. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or Vulcan-Hart Company immediately.

LOCATION

CAUTION: The equipment area must be kept free and clear of combustible substances.

The minimum installation clearances from combustible and noncombustible construction for ranges using inputs of 30,000 Btu/Hr per open top burner are:

	Combustible	Noncombustible
Sides	20" (51 cm)	0"
Rear	2" (5 cm)	0"

The minimum installation clearances from combustible and noncombustible construction for ranges using inputs of 20,000 Btu/Hr per open top burner are:

	Combustible	Noncombustible
Sides	6" (15 cm)	0"
Rear	2" (5 cm)	0"

The ranges are suitable for installation on combustible floors when 6" (15 cm) adjustable legs are used. When legs are removed, use only on noncombustible floors, curb, or platform, with front appliance projecting 3" (8 cm) beyond curb or platform.

Ranges with Snorkle ovens should be installed on 6" (15 cm) legs or casters, allowing 6" (15 cm) clearance from the rear of the range. If ranges with Snorkle ovens are installed directly on curbs, without legs, or in back-to-back installations, provisions **must** be made for adequate air circulation, and these provisions **must** be approved by Vulcan-Hart Company Service Department. Contact Vulcan-Hart Company at the address or phone number shown on the front cover of this manual.

All modular ranges are to be installed only on non-combustible floors.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 35" (88 cm) is required.

The range(s) must be installed so that the flow of combustion and ventilation air will not be obstructed. Adequate clearance for air openings into the combustion chamber(s) must be provided. Make sure there is an adequate supply of air in the room to allow for combustion of the gas at the burners.

INSTALLATION CODES AND STANDARDS

Your Vulcan range(s) must be installed in accordance with:

In the United States:

1. State and local codes.
2. National Fuel Gas Code, ANSI/Z223.1 (latest edition), available from American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.
3. National Electrical Code ANSI/NFPA-70 (latest edition). Copies available from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CGA-B149.1 Natural Gas Installation Code (latest edition).
3. CAN/CGA-B149.2 Propane Installation Code (latest edition), available from The Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.
4. Canadian Electrical Code, CSA C22.2 No. 3 (latest edition). Copies may be obtained from The Canadian Standard Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.

RANGES MOUNTED ON CASTERS

When ranges are mounted on casters, you must use a connector (available from Vulcan-Hart) that complies with the Standard for Connectors of Movable Gas Appliances, ANSI-Z21.69 (latest edition), and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices Complying With Gas Fuel, ANSI-Z21.41 (latest edition) or CAN 1-6.9 (latest edition).

Provide a gas line strain relief to limit movement of the range(s) without depending on the connector and/or any quick-disconnect device or its associated piping to limit movement of the range(s). Attach the strain relief to the rear of the range (Fig. 1).

Should it be necessary to disconnect the strain relief, turn off the gas supply before disconnection. Reconnect the strain relief before turning the gas supply on and returning the range(s) to their installation position.

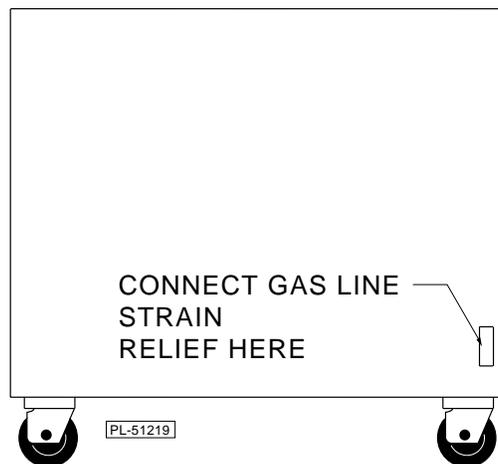


Fig. 1

LEVELING

Curb Installation

Ranges must overhang curb 3" (8 cm) in front. To level each range, remove oven bottom. Adjust four corner leveling bolts as required to level the appliance on all sides.

Snorkel Oven

Remove lower front kick plate. Remove two screws holding electric gas valve and move valve off to the side. Pull oven burner out of compartment through opening. Adjust four corner bolts to level range. Replace burner valve and kick plate.

Floor Installation on Legs

The 6" (15 cm) adjustable legs must be tightened securely. Level each range by turning the foot portion of the adjustable legs.

Lining up Range Battery

In batteries of ranges, it is recommended that the center range be installed and leveled first. Level each range, one at a time, to line up high shelf and roll front with adjacent range. Bolt the high shelves and roll fronts together.

CONNECTION OF MANIFOLDS IN BATTERY

Two or more ranges can be coupled together at the manifold by removing the front control panel to make necessary connections. Be sure to cap open ends. To connect:

1. Adjust manifold by loosening U-bolts. In a large battery of eight or more ranges, gas should be fed from both ends of the battery. "T" gas connections can be installed whenever necessary for increased gas supply. For further details, consult your gas company. The top roll front may also be removed for your convenience.
2. Bolt risers together at top rear.
3. If risers have high shelves, bolt the high shelf brackets together. Replace the high shelves.
4. Use clamp to pull ranges together at the rear. (There is a slotted hole in the top frame side at the rear that can be used to bolt ranges together if necessary. Run a $\frac{5}{16}$ " diameter drill through the slotted hole, drilling from inside out on each range.) Use $\frac{1}{4}$ "-2 x 2" bolt that is provided.
5. Replace all top sections. Make manifold union connections at the front. Do not allow manifold pipe to turn.
6. Bolt the roll front ends together at the front. (Make sure roll fronts match.) Use $\frac{1}{4}$ "-20 x 1" bolts provided.
7. Tighten the front roll front bolts after the roll front ends have been properly bolted together.
8. Before replacing manifold panels, check all gas connections for leaks. (See GAS CONNECTIONS in this manual.)

If appliance has rear gas connection, carefully check for open gas lines.

The gas pressure regulator must have proper outlet pressure capacity for this battery application.

INSTALLING OVERLAPPING GRIDDLE TOP

1. Bolt ranges together and level per instructions in this manual.
2. Remove chrome bull noses from ranges receiving overlapping griddle tops. Bull noses are held by bolts on the bottom side.
3. **MANUAL CONTROLS ONLY** — Set griddle tops in place and level with bolts located under the griddle top in both rear corners. Should you desire griddle plate to slope forward, adjust accordingly. Make sure hole in front gutter fits into cast iron drain in range. Reinstall bull noses.
4. **THERMOSTAT CONTROL ONLY** — Set griddle top in place and support front with 4" to 6" (10 cm to 15 cm) blocks. Insert thermostat probe into smaller of two angles on bottom of griddle top (bend probe slightly while inserting to hold in place). Slide insulation sleeving around probe lead up to angle on griddle top. Coil excess lead near thermostat, leaving as little as possible in burner area. Make sure that thermostat probe lead is not over burner or pilot flame. Remove supporting blocks and lower griddle top in place.

Level griddle top with bolts located under both rear corners. Should you desire griddle plate to slope forward, adjust accordingly. Make sure hole in front gutter fits into cast iron drain in range. Reinstall bull noses.

Leveling bolts are provided under each griddle plate at the rear, should you desire griddle plate to slope forward. Top frame sealing channels are supplied to seal off any space between two or more ranges.

GAS CONNECTIONS

CAUTION: All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases.

This appliance must be connected with a gas supply line as large or larger ID (net inside diameter) than the gas pipe inlet provided on the rear of the appliance. Connect gas supply to the range(s). Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

Codes require that a gas shutoff valve be installed in the gas line ahead of the range(s).

Ranges manufactured for use with propane gas are equipped with fixed orifices.

A gas pressure regulator must be furnished by the installer or plumber at the time of installation. The regulator must be listed by a nationally recognized testing agency. These appliances are rated at the following pressure: Natural Gas - 5" W.C. (Water Column) (1.25 kPa); Propane Gas - 10" W.C. (2.49 kPa).

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 piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

TESTING THE GAS SUPPLY SYSTEM

When test pressures exceed $\frac{1}{2}$ psig (3.45 kPa), the range and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are $\frac{1}{2}$ psig (3.45 kPa) or less, the range must be isolated from the gas supply system by closing its individual manual shutoff valve.

FLUE CONNECTIONS

DO NOT obstruct the flow of flue gases from the flue duct located on the rear of the range. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

A minimum of 18" (45 cm) must be maintained between the ventilation system and the cooking surface.

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.

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 ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE YOU ARE WORKING ON THE CIRCUIT.

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.

Do not connect the range to electrical supply until after gas connections have been made.

LIGHTING AND SHUTTING DOWN PILOTS

Open Top, Griddle Top, Hot Top, Broiler and Cheesemelter Pilots

1. Turn the main burner valve to the ON position.
2. Turn all burner valves and pilot adjustment valves to the OFF position. Wait 5 minutes.
3. Turn pilot adjusting valve screw counterclockwise, then light the pilot adjacent to each burner. Adjust each pilot screw until the pilot flame is $\frac{1}{4}$ " (0.6 cm) high.
4. If pilot fails to light, repeat steps 1-3 above.
5. For a complete shutdown, turn all burner valves to the OFF position. Turn all pilot valve screws clockwise until the pilot flames go out. Turn gas shut-off valve OFF.

Standard Oven With Standing Pilot (Fig. 2)

1. Turn Thermostat and Shut-off Valve to the OFF position.
2. Wait 5 minutes.
3. Remove lower panel.
4. Depress Red Button on safety valve and light pilot through observation hole.
5. Hold down Red Button for at least 30 seconds.
6. When button is released, pilot should remain lit. Pilot flame may be adjusted with screw on pilot adjustment valve on pilot supply tubing located behind the control panel. There should be only a slight amount of yellow in the properly adjusted pilot flame.
7. Replace lower panel.
8. Turn Shut-off Valve to the ON position and turn the Thermostat to the desired temperature.
9. If pilot flame becomes extinguished, repeat the above procedure.
10. For a complete shutdown, turn the Thermostat, Shut-off Valve, and gas shut-off valve to the OFF position.

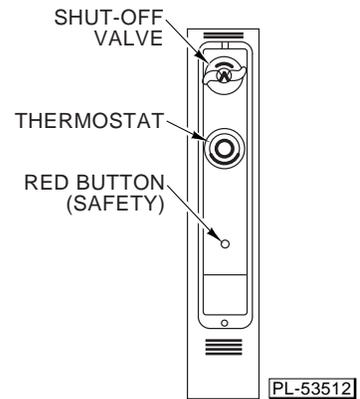


Fig. 2

Standard Oven with Electric Ignition (Fig. 3)

1. Turn Thermostat and Shut-off Valve to OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Turn Thermostat to desired setting.
4. Oven burner lights automatically.
5. For a complete shutdown, turn the Thermostat, Shut-off Valve, and gas shut-off valve to the OFF position.

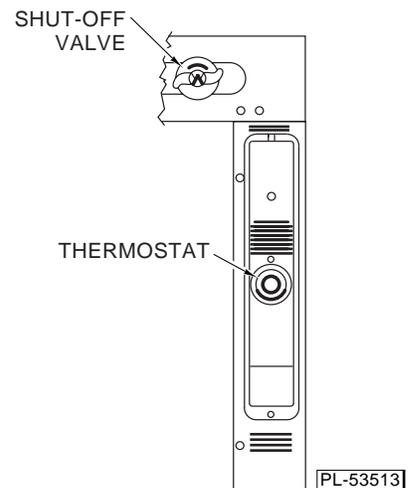


Fig. 3

Snorkle Convection Oven with Standing Pilot (Fig. 4)

1. Turn Thermostat and Shut-off Valve to OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Remove the lower front panel. Flip up the window that covers the pilot lighting hole and light the pilot with a lit taper. Flip window back in place and replace lower front panel.
4. Turn Thermostat to desired setting.
5. Turn Fan Switch to ON position.
6. Oven burner lights automatically.
7. For a complete shutdown, turn Thermostat, Shut-off Valve, Fan Switch, and gas shut-off valve to the OFF position.

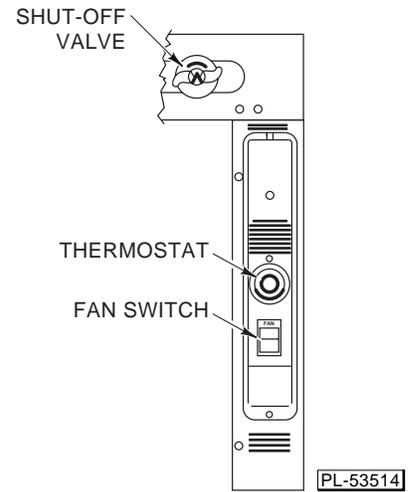


Fig. 4

Snorkle Convection Oven with Electric Ignition (Fig. 5)

1. Turn Thermostat and Shut-off Valve to the OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Turn Fan Switch to ON.
4. Turn Thermostat to desired setting.
5. Oven burner lights automatically.
6. For a complete shutdown, turn Thermostat, Fan Switch, Shut-off Valve, and gas shut-off valve to the OFF position.

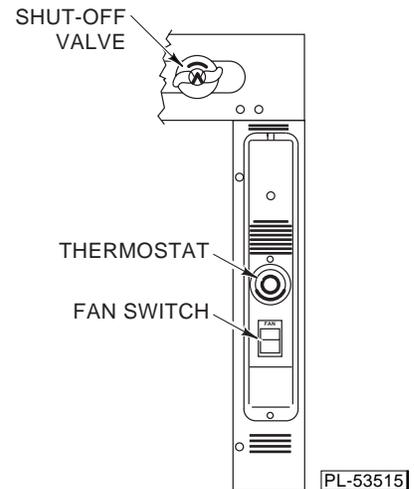


Fig. 5

OPERATION

WARNING: THE RANGE AND ITS PARTS ARE HOT. BE CAREFUL WHEN OPERATING, CLEANING OR SERVICING THE RANGE.

BEFORE FIRST USE

Griddle Tops: Before using your Vulcan griddle, the protective coating that was applied at the factory **must be completely removed** with a commercial degreaser. After a thorough cleaning, apply a high temperature, salt-free frying oil and you are ready to use your Vulcan griddle.

The griddle requires no "breaking-in" or "seasoning."

CONTROLS

Range Top Valve	Allows gas to flow to the range section. To open valve, turn knob counterclockwise. To close valve, turn knob clockwise.
Oven Shut-off Valve	Allows gas to flow to the oven burner. To open valve, turn knob counterclockwise. To close valve, turn knob clockwise. (See Fig's. 2, 3, 4, and 5.)
Red Button (Standard Oven Only)	Allows gas to flow to the oven pilot. To operate, push button in and follow pilot lighting instructions (See Fig. 2).
Thermostat	Regulates the oven temperature. The thermostat temperature range is from 150°F to 500°F (65°C to 260°C). Turn thermostat counterclockwise to increase temperature and clockwise to decrease temperature. (See Fig's. 2, 3, 4, and 5.)
Fan Switch	Turns fan on and off. (See Fig's. 4 and 5.)

OPERATING SUGGESTIONS

Standard Oven: If you have a standard oven, use your normal recipe times and temperatures.

Snorkel® Convection Oven: The Vulcan Snorkle® Oven does everything a regular oven can do, but with less energy consumption. The oven pre-heats faster, and baking time, temperature settings, and shrinkage are reduced.

In general, reduce temperature 25°F (10°C) from conventional recipes.

- Bakery Products: Reduce temperature 25°F. Reduce time by 25% to 33%.
- Casserole Cookery: Reduce temperature about 25°F, and time by 25% to 50%.
- Meat Roasting: Reduce temperature to 275-300°F (135-149°C). Use meat thermometer. Cooking time may be reduced up to 50%.

Use fan for preheating and baking.

Place open-face pies with thin filling mixture in preheated oven 2 to 3 minutes before turning on fan switch.

Check product at half the time of the regular recipe.

Level pans bake more evenly; warped pans will give uneven baking results.

A GUIDE FOR COOKING TIME & TEMPERATURES

The following lists are suggested cooking times and temperatures for convection and standard ovens. These guidelines, which will vary depending on product temperature, size, shape, etc., are suggestions only and should be adjusted to suit your operation.

(CONVECTION OVEN ONLY)

	Suggested Time	Suggested Temperature °F (°C)	Your Time	Your Temp. °F (°C)
MEAT, POULTRY, FISH				
Roasting	10-15 min./lb (.45 kg)	250-300 (121-149)	_____	_____
Braising	20-25 min./lb (.45 kg)	300 (149)	_____	_____
Cafeteria Beef Rounds (45 lb./20 kg)	9 hours	225 (107)	_____	_____
Steaks (1 1/2" [4 cm] thick)	10-14 min.	450 (232)	_____	_____
Meat Loaf (4 1/4" x 9" / 11 x 23 cm)	45-60 min.	300 (149)	_____	_____
Hamburger Patties	4-8 min.	400 (204)	_____	_____
Bacon	6-10 min.	400 (204)	_____	_____
Sausage Links	8-12 min.	400 (204)	_____	_____
Turkey (24 lb. / 11 kg)	2 1/2-3 hours	300 (149)	_____	_____
Oven Browned Chicken Parts	40-45 min.	350 (177)	_____	_____
Fish Fillets (4 oz. [.1 kg] frozen)	20-25 min.	475 (246)	_____	_____
Fish Sticks (1 oz. [28 gr.] frozen)	10 min.	400 (204)	_____	_____
BAKED PRODUCTS				
Sheet Cakes (18" x 26"/46 x 66 cm)	20 min.	325 (163)	_____	_____
Bar Cookies	15-20 min.	325 (163)	_____	_____
Drop Cookies	8-12 min.	350 (177)	_____	_____
Pie Crust	8-10 min.	400 (204)	_____	_____
Fruit Pies	30 min.	375 (190)	_____	_____
Custard-type Pies	30-45 min.	300-325 (149-163)	_____	_____
Meringue, topping for pies	8-10 min.	325 (163)	_____	_____
Fruit Cobbler	30-45 min.	350 (177)	_____	_____
Cornbread	20 min.	350 (177)	_____	_____
Biscuits	8-10 min.	375-400 (190-204)	_____	_____
Muffins	12-15 min.	300 (149)	_____	_____
Yeast Rolls	10-15 min.	300-325 (149-163)	_____	_____
Danish Rolls	10 min.	350 (177)	_____	_____
Sweet Rolls	10-15 min.	300 (149)	_____	_____
Hamburger Buns	20 min.	325 (163)	_____	_____
Yeast Bread	20-30 min.	325 (163)	_____	_____
MISCELLANEOUS PRODUCTS				
Baked Potatoes (200, 6-8 oz. [.2kg])	45-60 min.	450 (232)	_____	_____
Toasted Cheese Sandwiches	8-10 min.	350 (177)	_____	_____
Toasty Dog Sandwiches	12 min.	350 (177)	_____	_____
Casseroles (12 x 20 x 2" / [39 x 51 x 5 cm] pan)	20 min.	350 (177)	_____	_____
Casseroles (12 x 20 x 4" / [30 x 51 x 10 cm] pan)	30 min.	275 (135)	_____	_____
Rice, covered (3 lb. [1.4kg] per 12x20x2" / [30 x 51 x 5 cm] pan)	30 min.	325 (163)	_____	_____
FROZEN FOOD PRODUCTS				
Fruit Pies	30 min.	400 (204)	_____	_____
Pot Pies, individual	20-30 min.	400 (204)	_____	_____
Casseroles, covered (12 x 20 x 2" / [30 x 51 x 5 cm] pan)	45 min.	400 (204)	_____	_____
Casseroles, refrigerator thawed (12 x 20 x 2" / [30 x 51 x 5 cm] pan)	30 min.	450 (232)	_____	_____
Dinners, individual, covered	10-15 min.	350 (177)	_____	_____
Vegetables, covered (5 lb. [2kg] per 12 x 20 x 2" / [30 x 51 x 5 cm] pan)	20-30 min.	400 (204)	_____	_____

A GUIDE FOR COOKING TIME AND TEMPERATURES

Baking Times at Preheated Oven Temperatures

PRODUCT	TEMPERATURE Standard Oven		TEMPERATURE Convection Oven		TIME Roasting Period
	°F	(°C)	°F	(°C)	Total Minutes
MEAT					
Braised Meats	350	(177)	325	(163)	20-22
Meat in Casserole	330	(166)	300	(149)	20-22
Meat Pie with Crust (meat previously cooked)	450	(232)	425	(218)	30-35
	Oven Temp.		Oven Temp.	Internal Temp.	Min. per lb. beef
Rare	300	(149)	275	(135)	140 (60)
Medium	300	(149)	275	(135)	160 (71)
Well Done	300	(149)	275	(135)	170 (77)
Pork					
Fresh (always well done)	350	(177)	325	(163)	185 (85)
Smoked	300	(149)	275	(135)	170 (77)
Lamb and Mutton					
Medium	300	(149)	275	(135)	175 (79)
Well Done	300	(149)	275	(135)	180 (82)
Veal					
	325	(163)	300	(149)	170 (77)
Poultry					
Chicken	325-350	(163-177)	300-325	(149-163)	22-30 (covered)
Duck, Goose	325-350	(163-177)	300-325	(149-163)	20-25 (covered)
Turkey	325-350	(163-177)	300-325	(149-163)	15-25 (covered)
Fish					
Small or Fillets	350-375	(177-190)	325-350	(163-177)	15-25 (covered)
Large	350	(177)	325	(163)	20-25
Lobster, Stuffed	350	(177)	325	(163)	15-20
VEGETABLES					
Beans with Pork	250-350	(121-177)	225-325	(107-163)	30-35
Eggplant, Stuffed	325	(163)	300	(149)	6-8 hours
Mushrooms	400-450	(204-232)	375-425	(190-218)	60
Onions, Whole (Stuffed)	400-450	(204-232)	375-425	(190-218)	15
Onions, Sliced	400-450	(204-232)	375-425	(190-218)	60
Peppers, Stuffed	350-375	(177-190)	325-350	(163-177)	30
Potatoes, White, in Skins, Large	425	(218)	400	(204)	30
Small to Medium	425	(218)	400	(204)	30-60
Scalloped	350-400	(177-204)	325-375	(163-190)	30-45
Sweet Potatoes, in Skins	350	(177)	325	(163)	60-90
Squash	325	(163)	300	(149)	30-40
BREADS					
Baking Powder Biscuits	450	(232)	400	(204)	30-40
Cornbread	425	(218)	400	(204)	12-15
Muffins	400-425	(204-218)	375-400	(190-204)	20-30
Nut and Fruit Breads	350-375	(177-190)	325-350	(163-177)	20-25
Yeast Bread - Loaf	375-400	(190-204)	350-375	(177-190)	60-75
Yeast Coffee Cake	350-375	(177-190)	325-350	(163-177)	45-60
Yeast Rolls - Plain	400-425	(204-218)	375-400	(190-204)	25-30
Yeast Rolls - Sweet	375	(190)	350	(177)	15-25
COOKIES					
Drop	325-400	(163-204)	300-375	(149-190)	20-25
Rolled	375	(190)	350	(177)	8-15
Bar	350-400	(177-204)	325-375	(163-190)	8-10
Refrigerator	400	(204)	375	(190)	20-40
CAKES					
Angel and Sponge	350-375	(177-190)	325-350	(163-177)	8-10
Shortening Type					30-45
Cup Cakes	350-375	(177-190)	325-350	(163-177)	15-25
Layer Cakes	350-375	(177-190)	325-350	(163-177)	20-35
Loaf Cakes	350	(177)	325	(163)	45-60
PIES					
Pastry Shell	450	(232)	425	(218)	10-12
Double Crust - Berry or Fruit	425	(218)	400	(204)	30-45
Frozen - Berry or Fruit (50 oz./1.4kg)	400	(204)	375	(190)	60-75
Custard or Pumpkin	400-425	(204-218)	375-400	(190-204)	30-45

CLEANING

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING.

Open Top Burners

Daily

Remove grates and clean under and around open burners.

Weekly

1. Clean each burner thoroughly. Clean stainless steel or chromed surfaces with a damp cloth and polish with a soft dry cloth. A detergent may be used for cleaning. To remove discolorations, use a non-abrasive cleaner, always rubbing with the grain of the metal.
2. Clean bottom drip pan. To remove drip pan, reach under and lift rear of pan about 1" (2.5 cm), slide pan to the rear about 1/2" (1.3 cm), and drop front end of pan free. Slide pan forward between the front legs. To replace pan, reverse this procedure.
3. Burner air shutter openings must be kept clean.
4. Main burner ports and throats must be thoroughly cleaned. Venturi must be free from grease and lint. To clean burners, boil them in a strong solution of lye water for 15-20 minutes, then brush with a wire brush. **DO NOT** insert pick in burner port hole.
5. Open burner pilot flash tubes and burner ignition port must be clear for burners to ignite properly from the pilot.

Griddle Top

Empty grease daily. Clean griddle top regularly.

KEEP GRIDDLE PLATE SURFACE CLEAN. To produce evenly cooked, browned products, keep griddle free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to food. This results in spotty browning and loss of cooking efficiency, and carbonized grease tends to stick to the griddled foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean, follow these simple instructions:

After Each Use

Clean griddle with a wire brush or flexible spatula.

Daily

1. Thoroughly clean backsplash, sides and front. Remove grease drawer, empty it and wash it out in the same manner as any ordinary cooking utensil.
2. Clean griddle surface thoroughly. Use a griddle stone, wire brush or stainless steel wool on the surface. Rub with the grain of the metal while the griddle is still warm. A detergent may be used on the plate surface to help clean it, but you must ensure the detergent is thoroughly removed.
3. Clean stainless surfaces with a damp cloth and polish with a soft dry cloth. To remove discolorations, use a non-abrasive cleaner.

Exterior

Daily

Clean exterior finish with a mild solution of soap or grease-dissolving cleaner.

Range Tops

Daily

1. Wipe top while still warm with a soft cloth.
2. Clean drip pan under burners.

Weekly

Boil open top grates and burners in a solution of washing soda and water.

Range Ovens

Daily

Clean oven and door daily.

Do not use scouring powder on finishes. Scouring powder is extremely difficult to remove completely. It can build up accumulations that will damage the oven or remove corrosion resistant finishes.

STAINLESS STEEL

Here are a few simple cleaning procedures that have been found effective for keeping stainless steel equipment clean, sparkling and bright.

General Cleaning

Use ordinary soap or detergent and water for routine cleaning of stainless steel. To prevent water spots and streaks, rinse thoroughly with warm water and wipe dry with a soft clean cloth. The addition of a rinsing agent will also help prevent spotting.

Fingerprints

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.

To use these cleaners, simply wipe on and remove excess with a soft dry cloth. After using, subsequent fingerprints will usually disappear when wiped lightly with a soft cloth or with a cloth containing a little of the cleaner. If the surface is especially dirty to start, wash first with soap or detergent and water.

Burned-On Foods and Grease

Soaking with hot soapy water will help greatly to remove burned-on foods and grease.

Heat Tint

Straw-colored or slightly darkened areas may appear on stainless steel in and around ovens and ranges where temperatures reach 500°F (260°C) or more. This "heat tint" is caused by a slight oxidation of the stainless steel and is not harmful.

To control or minimize this condition, never use more heat than is absolutely necessary.

Commercial heat tint remover products may be used.

Precautions

When scraping off heavy deposits of grease or oil from stainless steel equipment, never use ordinary steel scrapers. Particles of ordinary steel may become embedded in, or lodge on, the surface of the stainless steel. These will rust, causing unsightly stains and possible contamination of food. Where it is necessary to scrape, use stainless steel, wood, plastic or rubber tools.

MAINTENANCE

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE OPERATIONS.

PILOT LIGHTS

Pilot lights are to be adjusted at the proper flame height.

LUBRICATION

All moving parts must be checked for wear and lubricated. Contact your local Vulcan authorized servicer.

All valves and controls should be lubricated by your local Vulcan authorized servicer, using a high-temperature grease.

Motors in Vulcan convection ovens are permanently lubricated and require no additional maintenance.

FLUE

Annually check the flue when it is cool to be sure it is free of obstructions.

SERVICE FREQUENCY

Frequency of service maintenance will be largely dependent on customer usage. Recommended service frequency is as follows:

- | | |
|---|----------------------|
| 1. 10-12 hours operation per day, 7 days a week | Every 30-60 days |
| 2. 4-6 hours a day, 5 days a week | Every 120 days |
| 3. Limited daily usage | Every 180 days |
| 4. All equipment | At least once a year |

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning this range, contact the Vulcan Service Agency in your area (refer to listing supplied with the range), or Vulcan-Hart Company Service Department at the address or phone number shown on the front cover of this manual.

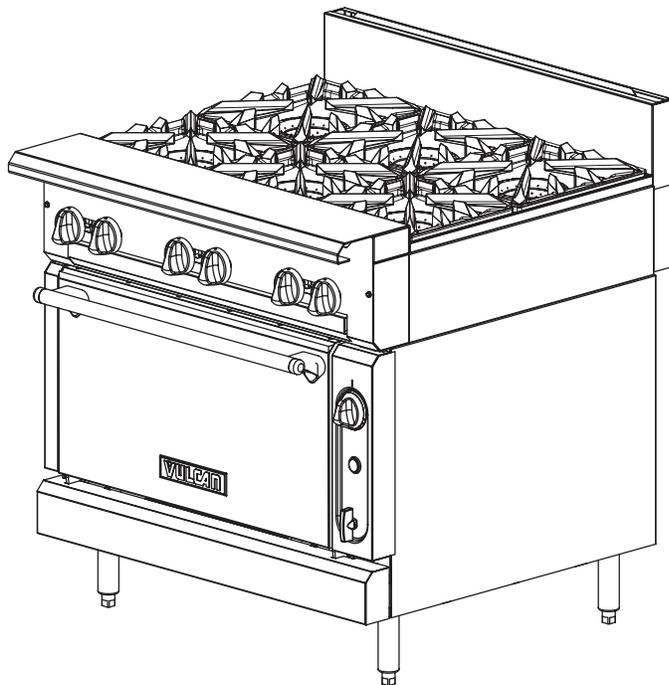
TROUBLESHOOTING

OVEN

PROBLEM	PROBABLE CAUSES
<p>Too Much Bottom Heat.</p> <p>Uneven Bake</p> <p>Side Burning</p>	<p>Insufficient heat input.</p> <p>Overactive flue.</p> <p>Too low temperature.</p> <p>Improper operation.</p> <p>Improper bypass setting.</p> <p>Fluctuating gas pressure.</p>
<p>Too Much Top Heat</p>	<p>Too high temperature.</p> <p>Faulty ventilation.</p> <p>Excessive heat input.</p> <p>Thermostat needs calibration.</p>
<p>Uneven Bake - Side to Side</p>	<p>Range not level side to side.</p> <p>Oven burner, bottom or baffles improperly installed.</p>
<p>Pulling to Edge of Pan</p>	<p>Warped pans.</p> <p>Oven not level.</p>
<p>Uneven Bake - Front to Rear</p>	<p>Overactive flue.</p> <p>Range not level front to back.</p> <p>Door not closing properly.</p>
<p>Dried Out Products</p>	<p>Too low temperature.</p> <p>Too long baking time.</p> <p>Thermostat calibration.</p>
<p>Pilot Outage</p>	<p>Gas supply not sufficient.</p> <p>Pilot flame too low.</p> <p>Restriction in pilot orifice.</p> <p>Problem with check valve.</p> <p>CONVECTION OVEN MODELS ONLY:</p> <p>Cavity leaking.</p> <p>Gasket problems.</p> <p>Snorkel tube blocked.</p> <p>Blower running backwards.</p>
<p>Excessive Meat Shrinkage</p>	<p>Roasting temperature too high.</p>

TOP BURNER OPERATION

PROBLEM	PROBABLE CAUSES
Improper Burner Combustion Excessive Valve Handle Temperatures Sticking Top Burner Valves	Improper ventilation. Poor door fit. Oven door left open.
Poor Ignition	Insufficient gas input. Poor air-to-gas adjustment. Restriction in pilot orifice. Restriction in main burner ignition port. Restriction in control valve. Restriction in gas orifice.



V SERIES HDR GAS RANGES

TOPS

Open Top
Hot Top
Griddle Top
Work Surface

BASES

Standard Oven
Convection Oven
Cabinet Base

- NOTICE -

This manual is prepared for use by trained service technicians and should not be used by those not properly qualified. If you have attended a service school for this product, you may still be qualified to perform the procedures described in this manual. This manual is not intended to be all encompassing. If you have not attended a 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 service technician.

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

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.

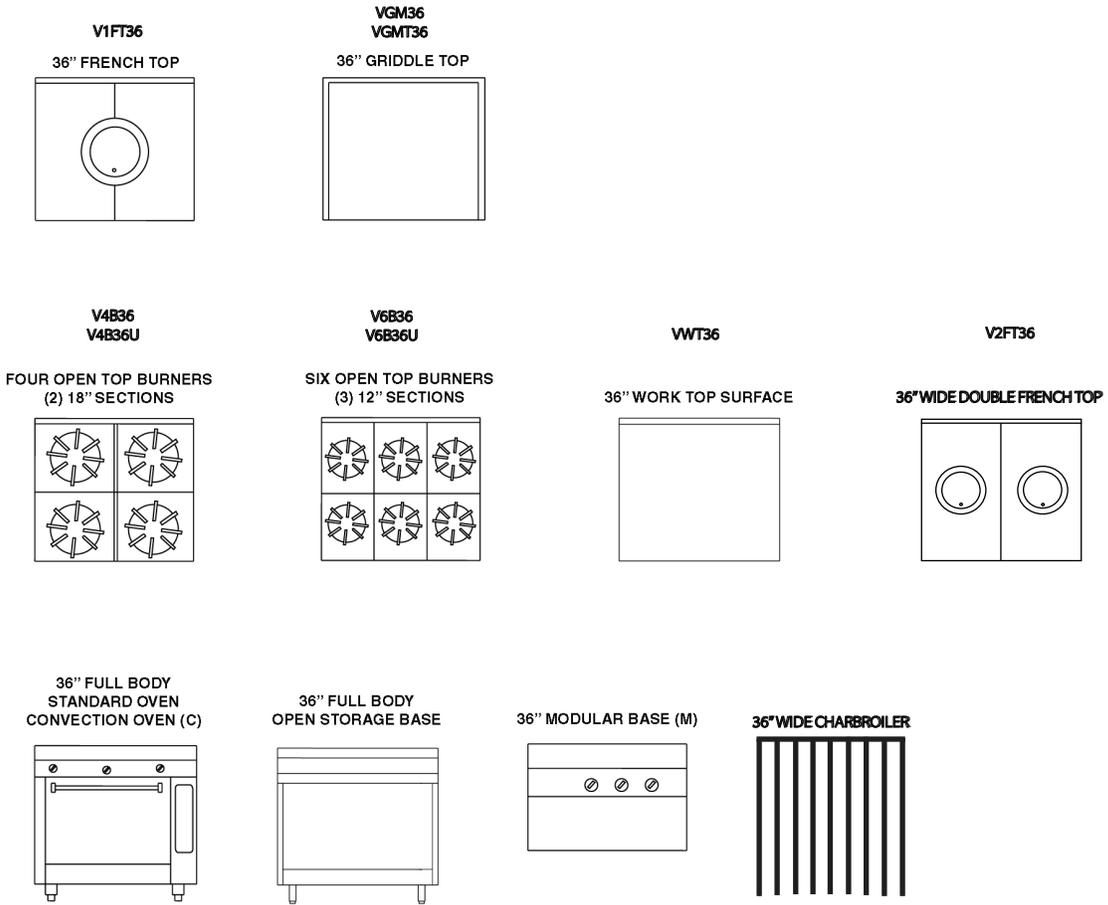
WARNING

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

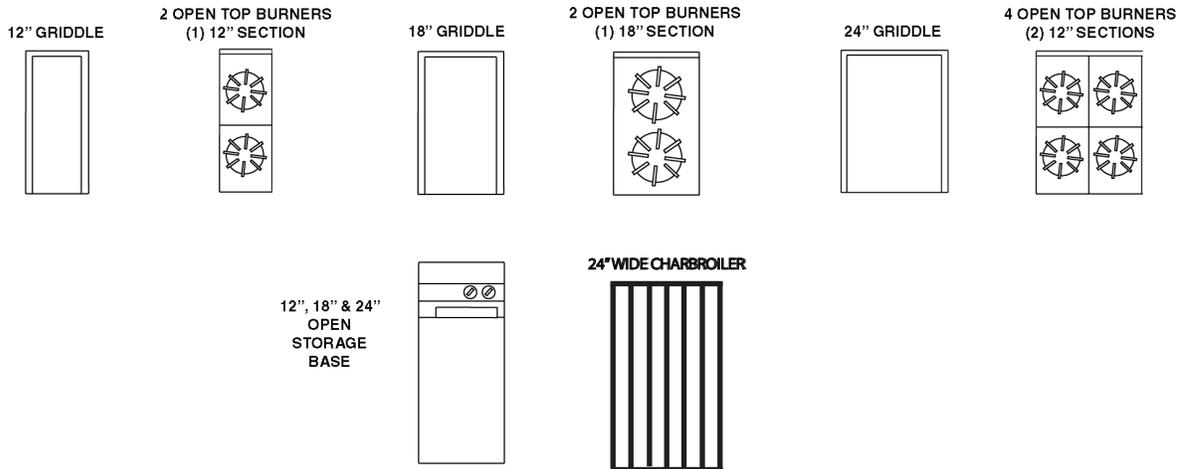
IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE

CONFIGURATION OF HEAVY DUTY RANGES

36" WIDE RANGES



12", 18" & 24" WIDE EXPANDO RANGES



Installation, Operation and Care Of HEAVY DUTY SECTIONAL GAS RANGES

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

GENERAL

Heavy duty sectional ranges are produced with quality workmanship and material. Proper installation, usage and maintenance of your range will result in many years of satisfactory performance.

The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

INSTALLATION

UNPACKING

This range was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the range is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Carefully unpack range(s) and place in the approximate installation position, whether as a battery or single stand-alone range.

Remove parts (packed in a cardboard box) from oven cavity, or cabinet body, or on top of modular range(s).

Remove wire or nut from rear of each burner before installing the range.

Before installing, check the electrical service (Convection Oven Models only) and type of gas supply (natural or propane) to make sure they agree with the specifications on the rating plate located on the inside of the burner box lower panel. The rating plate will show the voltage, phase, cycle, full load ampere, BTU, as well as the type of gas. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or manufacturer.

LOCATION

The equipment area must be kept free and clear of combustible substances.

The minimum installation clearances from combustible and noncombustible construction for ranges using inputs of 30,000 BTU/Hr. per open top burner are:

	Combustible	Noncombustible
Sides	10"	0"
Rear	10"	0"

The ranges are suitable for installation on combustible floors when 6" (152 mm) adjustable legs are used. When legs are removed, use only on noncombustible floors, curb, or platform, with front appliance projecting 3" (76 mm) beyond curb or platform.

Ranges with convection ovens should be installed on 6" (152 mm) legs or casters, allowing 6" (152 mm) clearance from the rear of the range. If ranges with convection ovens are installed directly on curbs, without legs, or in back-to-back installations, provisions must be made for adequate air circulation, and these provisions must be approved by the manufacturer's Service Department. Contact the Service Department at the address or phone number shown on the front cover of this manual.

All modular ranges are to be installed only on non-combustible floors.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 35" (889 mm) is required.

The range(s) must be installed so that the flow of combustion and ventilation air will not be obstructed. Adequate clearance for air openings into the combustion chamber(s) must be provided. Make sure there is an adequate supply of air in the room to allow for combustion of the gas at the burners.

INSTALLATION CODES AND STANDARDS

Your range(s) must be installed in accordance with:

In the United States:

1. State and local codes.
2. 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 2001 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. Vapor Removal From Cooking Equipment, NFPA #96 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy MA 02169-7471.
4. National Electrical Code, ANSI/NFPA-70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02169-7471.

In Canada:

1. Local codes.
2. CSA B149.1 Natural Gas and Propane Installation Code.
3. CSA C22.1 Canadian Electrical Code (latest edition).

The above are available from The Canadian Standard Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6.

RANGES MOUNTED ON CASTERS

Ranges mounted on casters must use a flexible connector (not supplied by manufacturer) that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16 and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI-Z21.41 • CSA 6.9. 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 range as shown in Fig. 1.

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

Separate instructions for installing casters to the range are included with the casters.

Note: If the range is installed on casters and is moved for any reason, it is recommended that the range be leveled front to back and side to side.

LEVELING

Curb Installation

Ranges must overhang curb 3" (76 mm) in front.

Convection Oven

Remove lower front kick plate. Remove two screws holding electric gas valve and move valve off to the side. Pull oven burner out of compartment through opening. Adjust four corner bolts to level range. Replace burner valve and kick plate.

Floor Installation on Legs

The 6" (152 mm) adjustable legs must be tightened securely. Level each range by turning the foot portion of the adjustable legs.

Lining up Range Battery

In batteries of ranges, it is recommended that the center range be installed and leveled first. Level each range, one at a time, to line up high shelf and roll front with adjacent range. Bolt the high shelves and roll fronts together.

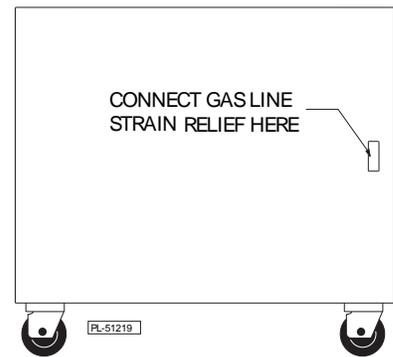


Fig. 1

CONNECTION OF MANIFOLDS IN BATTERY

Two or more ranges can be coupled together at the manifold by removing the front control panel to make necessary connections. Be sure to cap open ends. To connect:

1. In a large battery of eight or more ranges, gas should be fed from both ends of the battery. "T" gas connections can be installed whenever necessary for increased gas supply. For further details, consult your gas company.
2. Align the front edge of the ranges and adjust the legs to bring the manifolds together inline for connection. Clamps may be used to pull the ranges together.
3. Connect the unions between the gas manifolds.
4. Use the battery clip at the back of the range base to hold the units together.
5. Before replacing the manifold covers, check all gas connections for leaks. (See GAS CONNECTIONS in this manual.)

If appliance has rear gas connection, carefully check for open gas lines.

The gas pressure regulator must have proper outlet pressure capacity for this battery application.

GAS CONNECTIONS

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

This appliance must be connected with a gas supply line as large or larger ID (net inside diameter) than the gas pipe inlet provided on the rear of the appliance. Connect gas supply to the range(s). Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

Codes require that a gas shut-off valve be installed in the gas line ahead of the range(s).

An external gas pressure regulator must be installed on the unit at the time of installation. The regulator must be listed by a nationally recognized testing agency. These appliances are rated at the following pressure: Natural Gas - 5" W.C. (Water Column) (1.25 kPa); Propane Gas - 10" W.C. (2.49 kPa).

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.

- A. Check all joints prior to the gas valve (solenoid) before lighting unit.**
- B. Check all joints beyond gas valve (solenoid) after unit is lit.**

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

TESTING THE GAS SUPPLY SYSTEM

When test pressures exceed $\frac{1}{2}$ psig (3.45 kPa), the range and its individual shut-off valve must be disconnected from the gas supply piping system.

When test pressures are $\frac{1}{2}$ psig (3.45 kPa) or less, the range must be isolated from the gas supply system by closing its individual manual shut-off valve.

FLUE CONNECTIONS

DO NOT obstruct the flow of flue gases from the flue duct located on the rear of the range. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

A minimum of 18" (457 mm) must be maintained between the ventilation system and the cooking surface.

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 02169-7471.

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

Do not connect the range to electrical supply until after gas connections have been made.

LIGHTING AND SHUTTING DOWN PILOTS

Open Top, Griddle Top, and Hot Top

1. Turn the main gas supply ON.
2. Turn all top burner valves to ON to purge gas line of air. (Length of time to purge air will vary.)
3. Turn top burner valve knobs to OFF.
4. Wait 30 seconds.
5. Using a taper, light the pilot(s).
6. If pilot fails to light, wait 5 minutes and repeat Steps 1 through 5.

Nightly Shutdown: Turn burner valve OFF; pilot will remain lit.

Complete Shutdown: Turn burner valve OFF; pilot will remain lit. Turn main gas valve OFF.

Standard Oven - "S" Model (Fig. 2)

1. Turn Thermostat and Shut-Off Valve to the OFF position.
2. Wait 5 minutes.
3. Remove lower panel to locate pilot cutout.
4. Using a taper, light oven pilot by depressing the red ignition button located on the side control panel below the thermostat knob.
5. Continue to hold down Red Button for at least 30 seconds.
6. When Red Button is released, Pilot should remain lit.
7. Turn Shut-Off Valve to the ON position and turn the Thermostat to the desired temperature.
8. Replace lower panel.
9. If pilot flame becomes extinguished or does not light, repeat Steps 1 through 6.

Nightly Shutdown: Turn Thermostat to OFF; pilot will remain lit.

Complete Shutdown: Turn Thermostat and Shut-Off Valve to OFF. Turn main gas valve OFF.

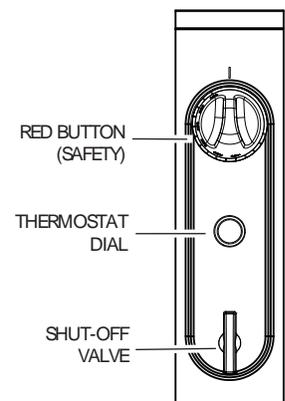


FIG 2

Convection Oven - "C" Model (Fig. 3)

1. Connect range to main electrical supply.
2. Turn Thermostat and Shut-Off Valve to the OFF position.
3. Turn Fan Switch to OFF position.
4. Wait 5 minutes.
5. Remove lower panel to locate pilot cut out.
6. Using a taper, light oven pilot by depressing the red ignition button located on the side control panel above the Shut-Off Valve.
7. Continue to hold down the Red Button for at least 30 seconds.
8. When Red Button is released, Pilot should remain lit.
9. Turn Shut-Off Valve to the ON position and turn the Thermostat to the desired setting.
10. Replace lower panel.
11. If pilot flame becomes extinguished or does not light, repeat Steps 1 through 8.

Nightly Shutdown: Turn Thermostat to OFF; pilot will remain lit.

Complete Shutdown: Turn the Thermostat, Shut-Off Valve, and Fan Switch to OFF. Turn main gas valve OFF.

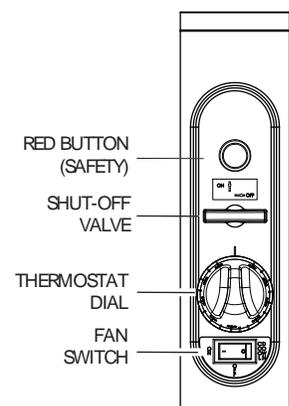


FIG 3

OPERATION

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

BEFORE FIRST USE

Griddle Tops: Before using your griddle, the protective coating that was applied at the factory must be completely removed with a commercial degreaser. After a thorough cleaning, apply a high temperature, salt-free frying oil and you are ready to use the griddle.

The griddle requires no “breaking-in” or “seasoning”.

OPERATING SUGGESTIONS

Standard Oven: If you have a standard oven, use your normal recipe times and temperatures.

Convection Oven: The convection oven does everything a regular oven can do, but with less energy consumption. The oven pre-heats faster, and baking time, temperature settings, and shrinkage are reduced.

In general, reduce temperature 25°F (10°C) from conventional recipes.

Check product at half the time of the regular recipe.

Level pans bake more evenly; warped pans will give uneven baking results.

CLEANING

⚠ WARNING Turn off gas supply to the machine.

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

Open Top Burners

Daily

Remove grates and clean under and around open burners.

1. Clean bottom drip pan. To remove drip pan, reach under and lift rear of pan about 1" (25 mm), slide pan to the rear about 1/2" (13 mm), and drop front end of pan free. Slide pan forward between the front legs. To replace pan, reverse this procedure.

Weekly

1. Clean each burner thoroughly. Clean stainless steel or chromed surfaces with a damp cloth and polish with a soft dry cloth. A detergent may be used for cleaning. To remove discolorations, use a non-abrasive cleaner, always rubbing with the grain of the metal.
2. Burner air shutter openings must be kept clean.
3. Main burner ports and throats must be thoroughly cleaned. Venturi must be free from grease and lint. To clean burners, run through a dish washer. Stand on air shutter end to air dry. DO NOT insert pick in burner port hole.

Griddle Top

Empty grease daily. Clean griddle top regularly.

KEEP GRIDDLE PLATE SURFACE CLEAN. To produce evenly cooked, browned products, keep griddle free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to food. This results in spotty browning and loss of cooking efficiency, and carbonized grease tends to stick to the griddled foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean, follow these simple instructions:

After Each Use

Clean griddle with a wire brush or flexible spatula.

Daily

1. Thoroughly clean backsplash, sides and front. Remove grease drawer, empty it and wash it out in the same manner as any ordinary cooking utensil.
2. Clean griddle surface thoroughly. Use a griddle stone, wire brush or stainless steel wool on the surface. Rub with the grain of the metal while the griddle is still warm. A detergent may be used on the plate surface to help clean it, but you must ensure the detergent is thoroughly removed.
3. Clean stainless surfaces with a damp cloth and polish with a soft dry cloth. To remove discolorations, use a non-abrasive cleaner.

Exterior

Daily

Clean exterior finish with a mild solution of soap or grease-dissolving cleaner.

Range Tops

Daily

1. Wipe top while still warm with a soft cloth.
2. Clean drip pan under burners.

Weekly

Boil open top grates and burners in a solution of washing soda and water.

Range Ovens

Daily

Clean oven and door daily.

Do not use scouring powder on finishes. Scouring powder is extremely difficult to remove completely. It can build up accumulations that will damage the oven or remove corrosion resistant finishes.

STAINLESS STEEL

Here are a few simple cleaning procedures that have been found effective for keeping stainless steel equipment clean, sparkling and bright.

General Cleaning

Use ordinary soap or detergent and water for routine cleaning of stainless steel. To prevent water spots and streaks, rinse thoroughly with warm water and wipe dry with a soft clean cloth. The addition of a rinsing agent will also help prevent spotting.

Fingerprints

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.

To use these cleaners, simply wipe on and remove excess with a soft dry cloth. After using, subsequent fingerprints will usually disappear when wiped lightly with a soft cloth or with a cloth containing a little of the cleaner. If the surface is especially dirty to start, wash first with soap or detergent and water.

Burned-On Foods and Grease

Soaking with hot soapy water will help greatly to remove burned-on foods and grease.

Precautions

When scraping off heavy deposits of grease or oil from stainless steel equipment, never use ordinary steel scrapers. Particles of ordinary steel may become embedded in, or lodge on, the surface of the stainless steel. These will rust, causing unsightly stains and possible contamination of food. Where it is necessary to scrape, use stainless steel, wood, plastic or rubber tools.

MAINTENANCE

⚠ WARNING Turn off gas supply to the machine.

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

LUBRICATION

All moving parts must be checked for wear and lubricated. Contact your local Vulcan authorized servicer.

All valves and controls should be lubricated by your local Vulcan authorized servicer, using a high-temperature grease.

Motors in these convection ovens are permanently lubricated and require no additional maintenance.

FLUE

Annually check the flue when it is cool to be sure it is free of obstructions.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning this model, contact the Authorized Service Agency in your area (refer to the manufacturer's website for a complete listing of Authorized Service and Parts depots) or contact 1-800-814-2028 for Technical service and parts assistance.

When calling for service, the following information must be available: model number, serial number, manufacture date (MD) and voltage.

TROUBLESHOOTING

OVEN

PROBLEM	PROBABLE CAUSES
<p>Too Much Bottom Heat</p> <p>Uneven Bake</p> <p>Side Burning</p>	<p>Insufficient heat input. (Call Service)</p> <p>Overactive burner. (Call Service)</p> <p>Too low temperature.</p> <p>Improper operation.</p> <p>Improper bypass setting. (Call Service)</p> <p>Fluctuating gas pressure. (Call Service)</p>
<p>Too Much Top Heat</p>	<p>Too high temperature.</p> <p>Faulty ventilation. (Call Service)</p> <p>Excessive heat input. (Call Service)</p> <p>Thermostat needs calibration. (Call Service)</p>
<p>Uneven Bake - Side to Side</p>	<p>Range not level side to side.</p> <p>Oven burner, bottom or bases improperly installed.</p>
<p>Pulling to Edge of Pan</p>	<p>Warped pans.</p> <p>Oven not level.</p>
<p>Uneven Bake - Front to Rear</p>	<p>Overactive burner. (Call Service)</p> <p>Range not level front to back.</p> <p>Door not closing properly.</p>
<p>Dried Out Products</p>	<p>Too low temperature.</p> <p>Too long baking time.</p> <p>Thermostat calibration. (Call Service)</p>
<p>Pilot Outage</p>	<p>Gas supply not sufficient. (Call Service)</p> <p>Pilot flame too low. (Call Service)</p> <p>Restriction in pilot orifice. (Call Service)</p> <p>Problem with safety valve. (Call Service)</p> <p>CONVECTION OVEN MODELS ONLY:</p> <p>Cavity leaking. (Call Service)</p> <p>Gasket problems. (Call Service)</p> <p>Convection oven tube blocked.</p> <p>Blower running backwards. (Call Service)</p>
<p>Excessive Meat Shrinkage</p>	<p>Roasting temperature too high.</p>

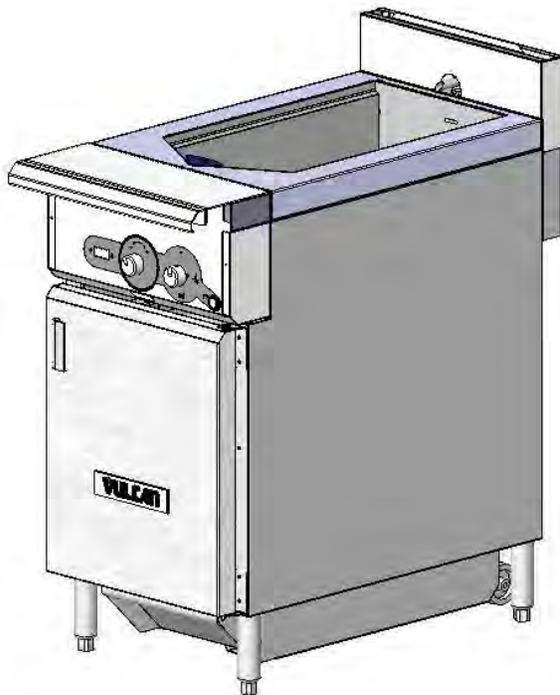
TOP BURNER OPERATION

PROBLEM	PROBABLE CAUSES
Improper Burner Combustion Excessive Valve Handle Temperatures Sticking Top Burner Valves	Improper ventilation. (Call Service) Poor door fit. (Call Service) Oven door left open.
Poor Ignition	Insufficient gas input. (Call Service) Poor air-to-gas adjustment. (Call Service) Restriction in pilot orifice. (Call Service) Restriction in main burner ignition port. (Call Service) Restriction in control valve. (Call Service) Restriction in gas orifice. (Call Service)

INSTALLATION & OPERATION MANUAL

VERSATILE CHEF STATION VULCAN MULTIFUNCTION COOKER Heavy Duty Units

ITW Food Equipment Group



MODELS:
VCS18
VCS36
VCS36D

www.vulcanequipment.com

www.wolfequipment.com

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

RETAIN THIS MANUAL FOR FUTURE USE

FORM F47674 Rev. F (5-19)

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL ELECTRICAL AND 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 OF AN ELECTRICAL ISSUE OR IF THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL UTILITY COMPANY.

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 VULCAN MULTIFUNCTION COOKER UNITS

PLEASE KEEP THIS MANUAL FOR FUTURE USE

GENERAL

Vulcan Equipment is produced with quality workmanship and material. These units are designed with efficiency in cooking performance, sanitation and ease of cleaning ability in mind. Proper installation, usage and maintenance of your equipment will result in many years of satisfactory performance.

The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

CAUTION

- These appliances are for professional use only, only persons with appropriate and adequate training should use them.
- Cooking appliances reach high temperatures. USE CARE AT ALL TIMES as burns may occur if handling utensils or components without adequate protection. Especially when handling the drain plug and drain pipe as they are in direct contact with the hot fluids and will get equally hot.
- Do not manually pour water into an empty tank when unit is hot. Water should only ever be introduced to the tank using the built in controls of the unit.
- Do not install unit next to open flames as grease laden vapors produced during cooking operations can be flammable and could ignite. If such installation can not be avoided, a fryer shield must be used between the units.
- Do not use the unit in Fryer or Boil modes unless the tank is filled with liquid between the minimum and maximum markings.
- Never drain the tank if the fluid temperature is above 125°F
- Oils should never be drained into a water drainage system. Always dispose of oils and other cooking effluent in proper disposal containers. DO NOT ALLOW WATER AND HOT OIL TO MIX IN ANY RECEPTACLE, DAMAGE AND INJURY CAN RESULT.
- NEVER clean this unit with high pressure jets or wash systems.
- ALWAYS disconnect unit from power supply before performing any kind of maintenance.
- PROBLEMS CAUSED BY FAILURE TO COMPLY WITH THE INSTRUCTIONS CONTAINED IN THIS MANUAL WILL NOT BE COVERED BY WARRANTY.

INSTALLATION

UNPACKING

This equipment was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the unit is found to be damaged, save the packaging material and contact the carrier within 5 days of delivery.

Carefully unpack unit(s) and place in the approximate installation position. Make sure to retain parts packed separately in their own boxes or shipped separately in finishing kit.

Before installing, verify that the electrical service agrees with the specifications on the rating plate located inside the front door of the unit. If the supply and equipment requirements do not agree, contact your dealer immediately.

LOCATION

The equipment area must be kept free and clear of combustible substances.

Installation clearances:	<u>COMBUSTIBLE CONSTRUCTION</u>	<u>NON-COMBUSTIBLE CONSTRUCTION</u>
Back:	2"	0"
Right Side:	1"	0"
Left Side:	1"	0"

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 35" (889 mm) is required.

The unit is suitable for installation on combustible floors when 6" (152 mm) adjustable legs or casters are used. When legs or casters are removed, use only on noncombustible floors, curb, or platform, with front appliance base projecting 3" (76 mm) beyond curb or platform.

The unit(s) must be installed so that the flow of ventilation air will not be obstructed.

The unit requires connection to a fresh water supply. The unit is provided with a 48" connection hose with standard 3/4" GHT threaded faucet adapter. Do not attempt to modify or replace this hose as it is part of the safety systems of this unit. If hose is not long enough to reach the water supply, a short hose extension may be used, or the water supply may be piped to the location of the unit by a licensed plumber.

PURGE AIR FROM LINE PRIOR TO OPERATION TO PREVENT WATER SURGE AND SPLATTER.

This unit may be supplied with an optional gas manifold for insertion into a battered range lineup. In this case, ensure that all gas connections are leak free before operations and that only a licensed gas plumbing technician performs service to the unit.

INSTALLATION CODES AND STANDARDS

Your Vulcan Unit must be installed in accordance with:

In the United States of America:

1. State and local codes.
2. National Electrical Code ANSI/NFPA-70 (latest edition) available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
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. Canadian electrical code C22.1 Part 1 (latest edition).

LEG/CASTER ASSEMBLY

The unit is provided with 6"(152 mm) adjustable stainless steel legs (hardware included). A set of 6"(152 mm) casters (adjustable or non- adjustable) are available as an optional field installable accessory.

Installation of Legs/Casters:

1. Carefully tip unit on its side.
2. Thread leg/caster mounting stem into weld nuts provided on the bottom of unit located in each of the four corners.
3. After all legs/casters have been installed, carefully return the unit to its upright position.
(For additional leg information, see -LEVELING section of this manual).

A permanently connected appliance mounted on casters and intended to be secured to the building structure should adhere to the following:

- Adequate means must be provided to limit the movement of the appliance without depending on or transmitting stress to the electrical conduit
- The location(s) where restraining means are to be attached to the appliance needs to be on the outside rear parts of the chassis frame. Use the connection points provided.
- The appliance shall be installed using a flexible conduit.

If the unit is installed on casters and is moved for any reason, it is recommended that it be re-leveled front to back and side to side before resuming operation.

LEVELING

To level the unit, place a carpenter's level on the unit top and check leveling of the unit side to side and front to rear. Achieve leveling by turning each foot section of the unit's leg as needed. Turning the foot in a counter clockwise direction will increase height and clockwise will decrease.

DRAIN

Unit comes equipped with a drain pipe for emptying the contents of the tank for disposal. A catch basin for this drain must be put in place before attempting to use the unit. This can be accomplished through the use of the optional Drain Caddy, a standard $\frac{1}{2}$ or $\frac{2}{3}$ size hotel pan, or through connecting the unit to a floor drain. If using a floor drain, ensure that plumbing and waste effluent are in compliance with all local codes. **DO NOT DISPOSE OF USED GREASE OR OIL THROUGH A FLOOR DRAIN.**

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 machine and follow Lockout / Tagout procedures.

The unit is designed for 208 or 240 volt, three phase power supply only. Do not attempt to connect the unit to any other type of power supply, the unit will not operate on a single phase supply. The unit has a current draw of 25 amps per leg, make sure to use the appropriate size disconnect for your locality.

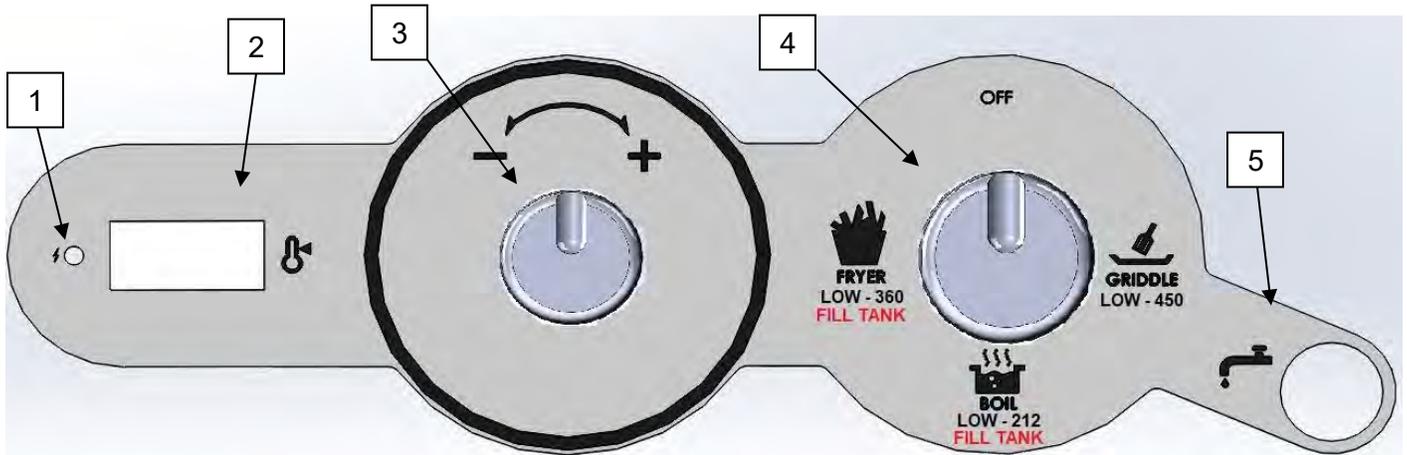
Position the unit in its final location. Bring conduit containing the proper supply wire to the unit through the knock out located on the back of the unit. Select the size and type of field wire in accordance with the National Electrical Code suitable for carrying the equipment's rated amps and voltage. Use field wires suitable for 75°C (167°F).

Connect supply leads to field terminal block and grounding lead to the labeled ground lug. The supply wire should be anchored through the access hole with a bulkhead fitting.

OPERATION

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

CONTROLS



1. Power Indicator — Green LED light is on when the unit is connected to power.

2. Temperature Display — Displays current temperature (in degrees F) of the tank surface when in Griddle mode, or of the cooking fluid when in Boil or Fryer modes. Will momentarily display current set point when Temperature Adjustment Knob is pressed.

3. Temperature Adjustment Knob — Allows the operator to adjust the cooking temperature of the unit. In Griddle mode, this adjusts the temperature of the tank surface. In Boil and Fryer Modes, this adjusts the temperature of the cooking fluid. Pressing this knob will cause the current unit set point to be displayed for 3 seconds. Turn clockwise to increase temperature, counterclockwise to decrease temperature. Temperature will adjust in single degree increments below 220°F and five degree increments above 220°F.

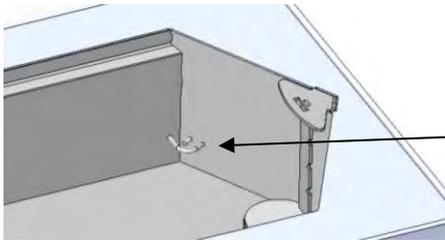
4. Selector Knob — Activates unit for use and allows operator to choose the cooking mode.

Griddle Mode – Allows unit to be used as a griddle, with temperatures adjustable from Room Temperature to 450°F. Temperatures displayed in this mode are those of the tank surface.

Boil Mode – Allows unit to be used for steaming, boiling, bain marie, and water bath cooking. Temperatures are adjustable from Room Temperature to 212°F. Temperatures displayed in this mode are those of the water in the tank.

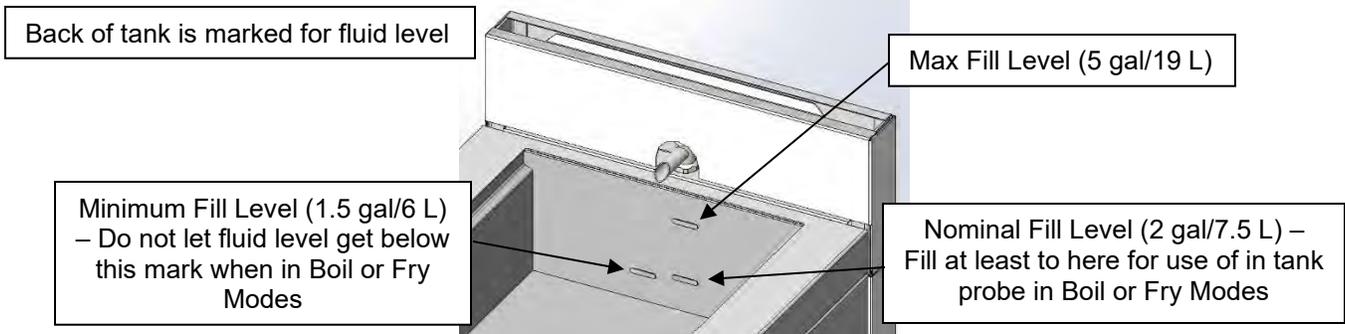
Fryer Mode – Allows unit to be used for shallow frying and tempura. Temperature defaults to 360°F, but is adjustable from Room Temperature to 360°F. Temperatures displayed in this mode are those of the cooking fluid in the tank.

OFF – Deactivates the unit at the end of the operating day. DOES NOT CUT POWER TO THE UNIT, NOT AN ADEQUATE DISCONNECT FOR UNIT SERVICE.



In Tank Probe – used to provide temperatures in BOIL and FRYER modes. TANK MUST BE FILLED AT LEAST TO MINIMUM FILL MARKING IN THESE MODES FOR PROPER OPERATION

5. Water Button — Activates water flow from built in unit faucet. Single press will activate a continuous flow of water, press again to end. Continuous press will activate a flow of water that ends when the button is released. FOR SAFETY PURPOSES, the button is not active during Fryer Mode and when tank surface temperature is above 260°F.



BEFORE FIRST USE

Remove all protective paper from the unit before turning on. Paper is left in place to protect the finish and help prevent scratches during shipping and placement of the unit. Failure to remove the paper before heating can result in permanent marking of the finish and/or the inability to fully remove the paper.

Clean all cooking surfaces thoroughly with water and a non-chlorinated soap. Rinse to remove all soap residue.

NOTICE The tank surface is stainless steel. Chlorinated cleaners can corrode this surface, as can prolonged exposure to salt. Do not use chlorinated cleaners on the unit and always clean the tank thoroughly to remove salt residue after use.

SEE “CLEANING” ON PAGE 10 FOR FULL INSTRUCTIONS ON HOW TO PROPERLY CARE FOR UNIT

FIRST OPERATION

Unit comes equipped with a drain plug and a drain pipe for emptying of the tank. Ensure that both are in place before attempting to use the unit. Failure to do so may result in effluent flooding the interior of the unit. In the event that this occurs, turn the unit off and disconnect from power source. Clean the interior of the unit thoroughly and ensure that no standing liquid remains before reconnecting and resuming operation.

Tank surface is stainless steel and does not require seasoning prior to use, although it is recommended to apply a thin coat of oil or other non-stick spray whenever using the unit in Griddle mode.

To begin use, ensure that drain plug and drain pipe are in place and that an adequate catch basin is in place for effluent. This can be the optional Drain Caddy, a standard hotel pan of ½ or ¾ size, or a dedicated floor drain. Ensure that unit door is closed securely and that water supply is turned on and purged of air.

Unit is ready to use.

NORMAL OPERATION

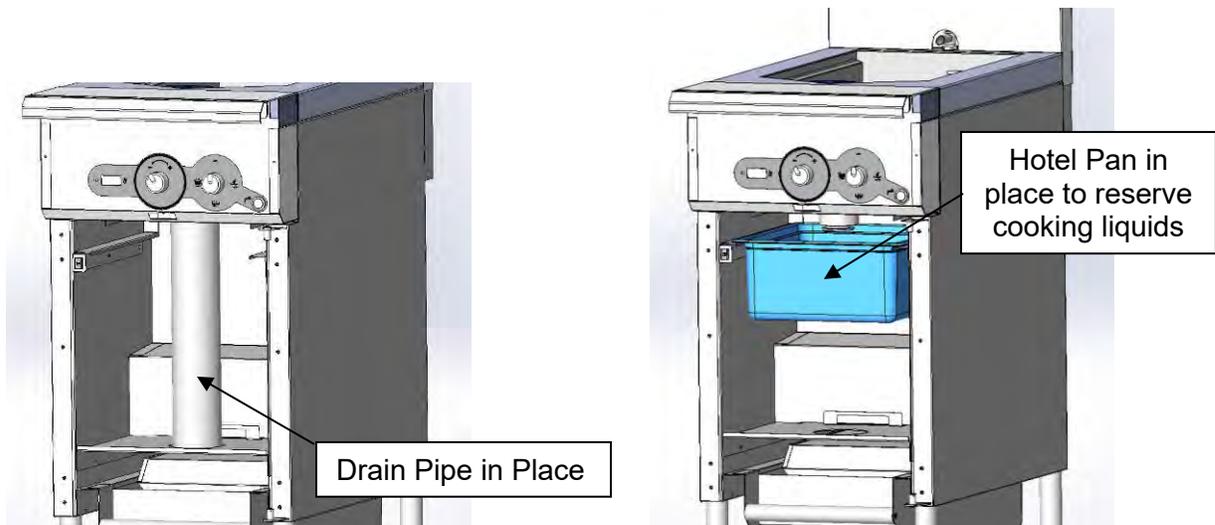
GRIDDLE MODE

Griddle mode can be used to perform sauté work, braising, griddle cooking, melting (sugar, chocolate, etc), and hot plate work. Griddle mode is entered by turning the Selector Knob to GRIDDLE and turning the Temperature Adjustment Knob to the desired cooking temperature. Any temperature between Room Temperature and 450°F can be selected.

All cooking in Griddle mode will be performed directly on the bottom surface of the tank and the temperature displayed while in this mode is the temperature of this surface. On initial heat up, unit will reach desired temperature in five minutes or less. When desiring to cook at a lower temperature than the current setting, adjust the Temperature Adjustment Knob to the desired lower temperature and allow the unit adequate time to cool before beginning next operation.

HINT: When performing multiple cooking operations requiring different temperatures, for the most efficient use of time and energy, start with the lowest temperature first and move to higher temperatures in progressive order. Stage changes to lower cooking temperatures to coincide with cleanout of the tank so that the use of water can help bring the temperature down quickly.

HINT: When using the unit for braising, it is possible to retain and reserve the liquid for use in sauces. To do so, ensure that the unit drain is clean and free from contaminating substances. Ensure that drain plug is in place and firmly seated. Open the front door of the unit and remove the drain pipe. Place a ½ or ¾ size hotel pan on the rails provided, ensuring that the pan is positioned under the tank drain and is of adequate size to hold the amount of liquid being used. When braising is complete, lift drain plug and catch liquid in pan. Replace drain plug, carefully remove pan with liquid, then replace drain pipe, ensuring that pipe is securely fastened in place before closing front door and resuming normal operations.

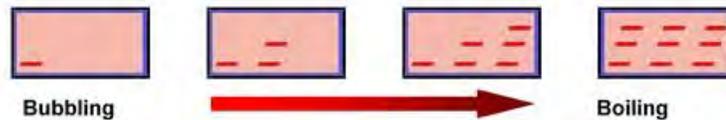


BOIL MODE

Boil mode can be used to steam, boil, poach, and water bath cooking as well as be used as a bain marie. When the unit is in Boil mode, the tank **MUST** be filled with water at least to the minimum marking. Failure to do so may result in damage to the unit. While the unit is in Boil mode, the water button is active and can be used at any time. The temperature displayed will be the temperature of the water itself.

To begin using Boil mode, ensure that the tank is clean of any contaminating substances and ensure that the drain plug is firmly seated in place to close the drain. Turn the Selector Knob to the BOIL setting and begin filling the tank for use.

- To steam – fill the tank to a point between the minimum and maximum markings. Set the temperature for the amount of steam desired. 170°F for a gentle steam, 212°F for a vigorous steam. Place items to be steamed into a standard steam pan and place so that pan sits on upper ledges of tank. Cover tank with the covers provided with the unit. **USE PROVIDED HANDLES TO PLACE AND REMOVE COVERS, AS COVERS WILL BECOME HOT WITH USE AND MAY CAUSE BURNS.** Be sure to periodically check the water level and add fresh water as needed to prevent level from falling below minimum.
- To boil – fill the tank to a point at or just below the maximum marking. Set the temperature for 212°F, or use the duty settings (shown below) to set the vigor of the boil. Refill tank as necessary.



- To poach or cook with a water bath – fill the tank to a point between the minimum and maximum markings. Set the temperature for the desired water temperature. Unit can be covered using the provided covers to conserve energy, or left open, the unit will maintain the water temperature as set.

FRYER MODE

Fryer mode can be used for shallow frying and tempura. When the unit is in Fryer mode, the tank **MUST** be filled with oil at least to the minimum marking. Failure to do so may result in damage to the unit. While the unit is in Fryer mode, the water button is **NOT** active and **CANNOT** be used at any time. The temperature displayed will be the temperature of the oil.

To begin using Fryer mode, ensure that the tank is clean of any contaminating substances and ensure that the drain plug is firmly seated in place to close the drain. Fill the tank with oil for use to at least the minimum level marking, then turn the Selector Knob to the FRYER setting and set desired oil temperature. **WATER SYSTEM IS DISABLED IN FRYER MODE, INTRODUCTION OF WATER TO HOT OIL CAN RESULT IN INJURY FROM SPLATTER. DO NOT ATTEMPT TO INTRODUCE WATER TO TANK WHILE FILLED WITH OIL.**

WHEN FINISHED FRYING:

Allow oil to cool to a safe temperature before attempting to drain. **ENSURE THAT APPROPRIATE RECEPTACLE IS IN PLACE AND THAT RECEPTACLE DOES NOT CONTAIN ANY WATER BEFORE OPENING DRAIN, FAILURE TO DO SO CAN RESULT IN DAMAGE AND INJURY.** Once appropriate receptacle is in place, open drain and allow oil to drain completely into receptacle. Very carefully remove receptacle and dispose of oil according to local regulations. **DO NOT PUT USED OIL DOWN A DRAIN INTENDED FOR WASTE WATER.**

Tank may then be cleaned as normal and prepared for next use.

POWER OUTAGE

If a power outage occurs, the unit will cease to function. When power is restored, the unit will automatically resume normal functions if controls are still in an active configuration. In order to prevent damage or injury, turn Selector Knob to OFF during the power outage. When power is restored, resume operation as normal.

The unit controls include a temperature sensor that will automatically stop the cooking cycle if high temperatures are detected in the cabinet. In this event, the display will briefly show error code "EE1", then if the overheat condition persists, it will show "EE2" and shut down the elements. The display will continue to show the temperature of the tank, but all heating will cease. In order to reset the controls and resume cooking, the unit must be allowed to cool sufficiently, then switched off before selecting the desired cooking mode and setting the desired temperature. If this occurs repeatedly, the unit is in too hot an environment and steps must be taken to isolate it from heat sources.

CLEANING

⚠ WARNING ENSURE THAT UNIT IS TURNED OFF AND POWER SUPPLY IS DISCONNECTED BEFORE CLEANING.

DO NOT use Dawn® dish detergent to clean the unit. This detergent contains chlorine and is harmful to stainless steel.

DO NOT use scouring powders. It is very difficult to remove completely and can cause build ups that will damage the unit.

DO NOT use cleaning products containing TSC or sodium hydroxide.

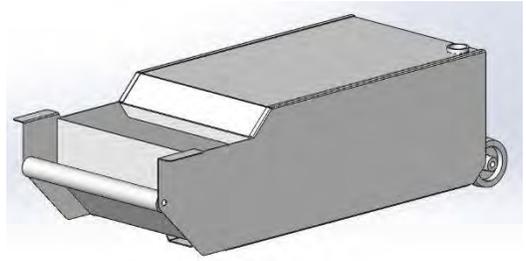
All cooking components of the unit are stainless steel and should be cleaned thoroughly with warm water and a mild detergent at the end of each cooking shift.

For changeovers from one cooking type to another during a cooking shift, the degree of cleaning must be commensurate with the needs of the cooking type. Cooked on debris can be scraped loose from the tank surface with a spatula or scouring pad. Use only stainless or plastic utensils to avoid degrading the stainless steel of the tank and unit body. Only use the built in water to rinse, **DO NOT POUR WATER ONTO THE UNIT** using a bucket or other means.

Drain plug with attached trap should be removed and cleaned at least once per day. Take care not to damage or dislodge the O-ring seal on the drain plug. Damage to the O-ring will cause the drain plug to leak.

If any spills occur inside the unit, immediately disconnect the unit from power and clean thoroughly. **DO NOT REMOVE THE PROTECTIVE COVER**, doing so will increase the risk of electric shock or damage to the unit. Use a squeegee or towel to push standing liquids through the drain hole into an acceptable receptacle or drain and clean any stains or food items from the inside of the cabinet. Failure to do so can result in corrosion or unsanitary conditions.

OPTIONAL DRAIN CADDY: If you have purchased the optional Drain Caddy, it is designed to hold approximately the same volume of liquid as the tank. Therefore, it has only enough capacity to catch one full emptying of the tank before it will need to be emptied itself. If disposing of small amounts of liquid at a time, open the unit door and check the fluid level in the Caddy often to avoid overflow conditions.



When Drain Caddy is ready to be emptied, open the unit door and grasp Caddy handle firmly. Use caution when pulling the Caddy out from the unit, as Caddy can be hot and Caddy handle can be slippery from moisture or fluid splash. Lift the Drain Caddy into an angled or full upright position as you draw it out from the unit so that the contents do not splash out of the Caddy. Use the handle to wheel the Caddy to a proper disposal area. The Drain Caddy can be emptied by either tipping it to allow fluid to pour out of the main opening, or by removing the drain plug while Caddy is in upright position. **DO NOT DISPOSE OF OILS IN A WATER DRAINAGE SYSTEM,** always use the appropriate disposal container for the effluent in use.

To clean the Drain Caddy, use warm water and a mild detergent to thoroughly clean the inside and outside of the body. The Drain Caddy is stainless steel, but food residue left in place can cause corrosion. Rinse Drain Caddy thoroughly and allow to dry before replacing drain plug and returning to service.

MAINTENANCE

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

⚠ WARNING Always disconnect unit from power supply and follow lockout/tagout procedures before servicing the appliance.

Due to the electronic nature of the controls, there are no user serviceable items on the unit. Please contact the Vulcan-Hart Service Department in your area to schedule any required service or repairs.



Following you will find instructions on how to shut down your Vulcan cooking equipment for an extended period, and how to safely restart equipment after idle.

Always refer to the procedures as instructed in the Installation & Operation manual for your specific model. Manuals may be found by visiting the Vulcan website and clicking on RESOURCES at the top right of the home page.

Always remember that cooking equipment and its parts are hot. Use care when operating, cleaning or performing maintenance.

For additional product resources, please visit <https://www.vulcanequipment.com/>.

RANGES AND BROILERS

EXTENDED SHUTDOWN – ALL MODELS

1. Disconnect.
 - a. Gas equipment: disconnect from gas, if possible.
 - b. Electric equipment: disconnect from electrical connection/shut off breaker.
2. Once disconnected from gas line: open valves to bleed gas and tighten after five minutes.
3. Oil cast iron parts to prevent rusting.
4. Oil griddle plate and cover with wax paper to prevent rusting.
5. Clean out, empty and wipe down crumb trays and burner box areas of food or debris. Removal of food is imperative to prevent attraction of vermin.
6. Wipe down all surfaces and remove any spills or stuck on food.
7. Empty and wash out grease catch on griddles.
8. If possible, cover the equipment with plastic bag to prevent dust from settling on equipment while not in service.



Model 36S-6B
Shown with optional casters

RESTART FROM EXTENDED SHUTDOWN – ALL MODELS

1. Schedule a qualified gas service technician to be onsite upon restart if kitchen has been down for more than 30 days.
 - a. Check all gas equipment in kitchen for gas leaks.
2. Refer to the instructions in your model's Installation & Operation manual.



V SERIES HDR GAS RANGES

TOPS	Open Top
	Hot Top
	Griddle Top
BASES	Work Surface
	Standard Oven
	Convection Oven
	Cabinet Base

- NOTICE -

This Manual is prepared for the use of trained Hobart 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 Hobart 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 Hobart Service Technician.

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

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SERVICE UPDATES

SERVICE UPDATES

February, 2019

- Service Manual moved into TIS from Multimedia at Rev 2 (12/09). Photos added to service manual. Up to revision C.

TIS DOCUMENT LIST - V SERIES HDR GAS RANGES

SERVICE TAB	
Document Title	Document Type
V SERIES HDR GAS RANGES Service Manual	Service Manual
V SERIES HEAVY DUTY GAS RANGES WITH OPEN TOP BURNERS - PILOT ASSEMBLY CHANGE	Technical Service Bulletin (TSB)

SERVICE TAB (Multimedia)	
Document Title	Document Type
Wolf Heavy Duty Gas Operated Taco Range Instruction Manual	Instructions
FD-0 Field Information Bulletin	Misc
Repair Flood-Damaged Equipment	Misc
V Series Gas Ranges	Operator
HDR Top Section Removal & Installation Instructions	Service Instructions
Pilot and Burner Problems on Units Without Powered Burners Service Information	
Vulcan Ranges (Gas) Service Information	Service Instructions
Rating Plate Locations on Current Vulcan-Hart/Wolf Range Equipment	
Fundamentals of Gas	Technical Service Bulletin (TSB)
SB 1027 V Series HD Ranges Oven Pilot Baffle Installation	Technical Service Bulletin (TSB)
SB 1028 V Series Heavy Duty Ranges Griddle Bulb Placement	Technical Service Bulletin (TSB)
SB 1039 D300 & V1401 Splash Guard & Latch Assembly Enhancement	Technical Service Bulletin (TSB)
SB750 Endurance Range Oven Control Valve Pel Valve Calibration Test Procedure	Technical Service Bulletin (TSB)
TSB 0842 4 Position/3 Heat Switch - Ranges, Ovens, Broilers	Technical Service Bulletin (TSB)
TSB 1037A Hobart to Vulcan "Common" Model Cross Reference List	Technical Service Bulletin (TSB)
TSB 1240 HOBART AND VULCAN GAS RANGES - SAFETY SHUTOFF VALVE CHANGE	Technical Service Bulletin (TSB)
TSB 1311 Hobart & Vulcan Medium Gas Ranges with Electronic Ignition - Enhanced Ignition Modules	Technical Service Bulletin (TSB)
TSB 1328A Hobart & Vulcan Medium Gas Ranges - BASO Safety Shutoff Valve Changes	Technical Service Bulletin (TSB)

SERVICE TAB (Multimedia)	
RobertShaw FS Flane Switch Recall Vulcan & Wolf Equipment Effected - PN 713933	Temporary Service Instructions (TSI)
Thermostat Capillary Installation Video	Instructions

PARTS TAB	
Document Title	Document Type
V Series HDR Gas Ranges Parts Catalog	Parts Catalog

GENERAL

INTRODUCTION

Procedures in this manual will apply to all models unless specified. Pictures and illustrations can be of any model unless the picture or illustration needs to be model-specific. Before performing maintenance on the equipment, thoroughly read this manual and carefully follow the instructions in the order given.

INSTALLATION, OPERATION AND CLEANING

For detailed installation, operation and cleaning instructions, refer to Installation and Operation Manual available online at www.vulcanequipment.com.

TOOLS

Standard

- Standard set of hand tools.
- VOM with minimum of NFPA-70E CATIII 600V, UL/CSA/TUV listed. Sensitivity of at least 20,000 ohms per volt and the ability to measure DC micro amps. Meter leads must also be rated at CAT III 600V.
- Clamp on type amp meter with minimum of NFPA-70E CAT III 600V,UL/CSA/TUV listed.
- Temperature tester (thermocouple type).
- ESD (Electrostatic discharge) Protection Kit.

Special

- Hazardous gas leak tester.
- Manometer.
- Thermocouple Adaptor (Closed circuit DC voltages (purchased locally) Adaptors vary between manufacturers.

SPECIFICATIONS

ELECTRICAL			
Models	Voltage	Amps	Frequency
Convection Models	120/60/1 OR 208/60/1 (Optional)	15	50/60

GAS LINE PRESSURES		
Pressure	Natural (in W.C.)	Propane (in W.C.)
Inlet Supply	7.0 min.	11.0 min.
Operating	6.0 min.	10.0 min.

REMOVAL AND REPLACEMENT OF PARTS

PILOT SAFETY VALVE AND TEMPERATURE CONTROL ASSEMBLY (S MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN CONTROL PANEL COVER.
3. Remove thermocouple (1, Fig. 1).

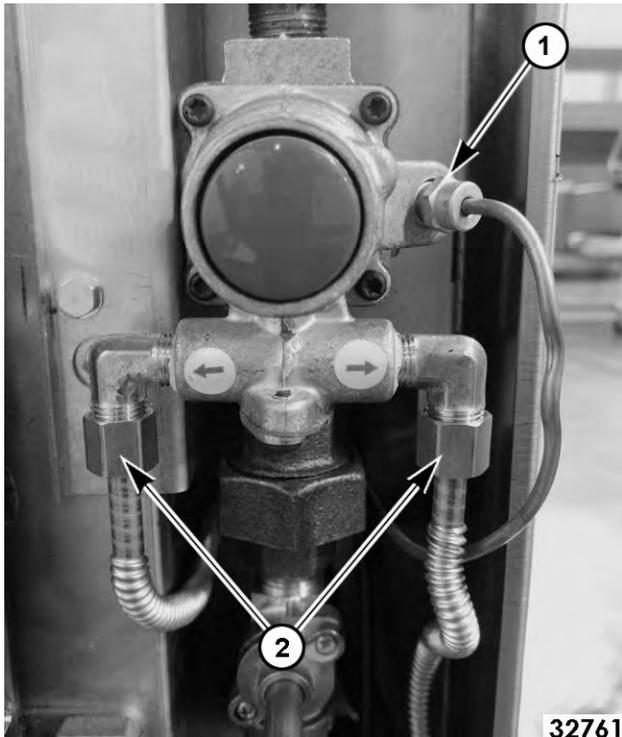


Fig. 1

4. Disconnect flex lines (2, Fig. 1) from pilot safety valve.
5. Disconnect flex line (1, Fig. 2) from top of temperature control.

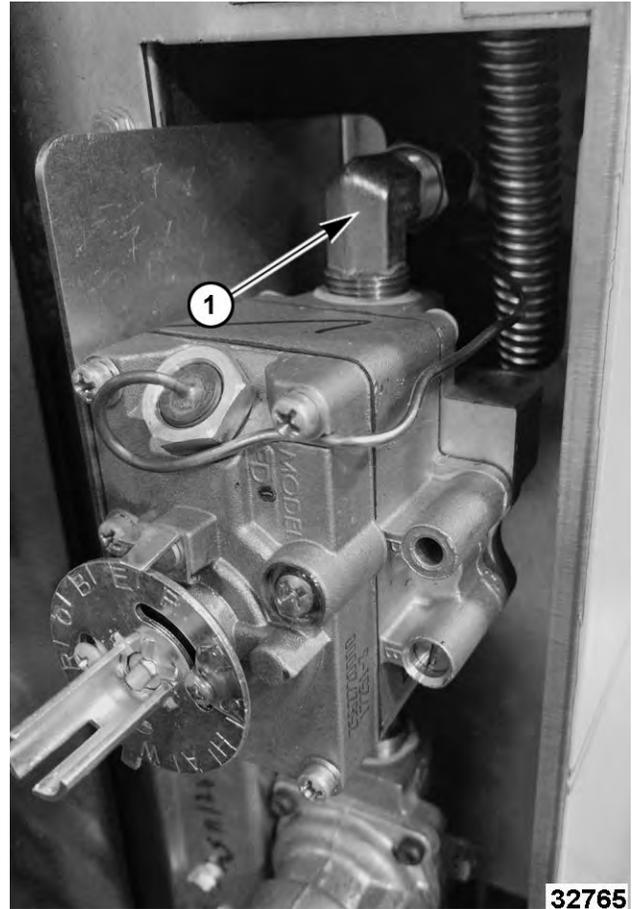


Fig. 2

6. Remove screws (Fig. 3) securing gas mount bracket to oven.

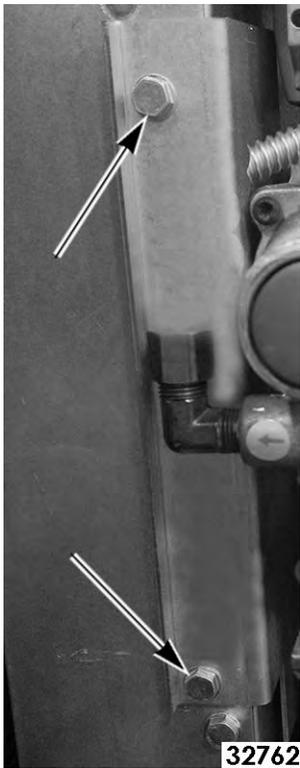


Fig. 3

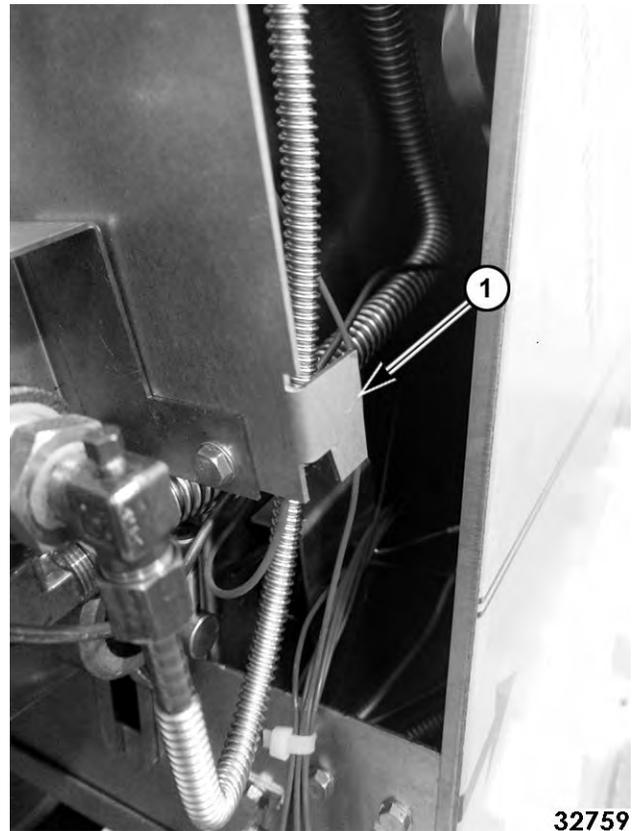


Fig. 4

7. Lift up gas mount bracket to release hook (1, Fig. 4) off inner tab (1, Fig. 5). Pull out pilot safety valve and temperature control bracket assembly from oven.

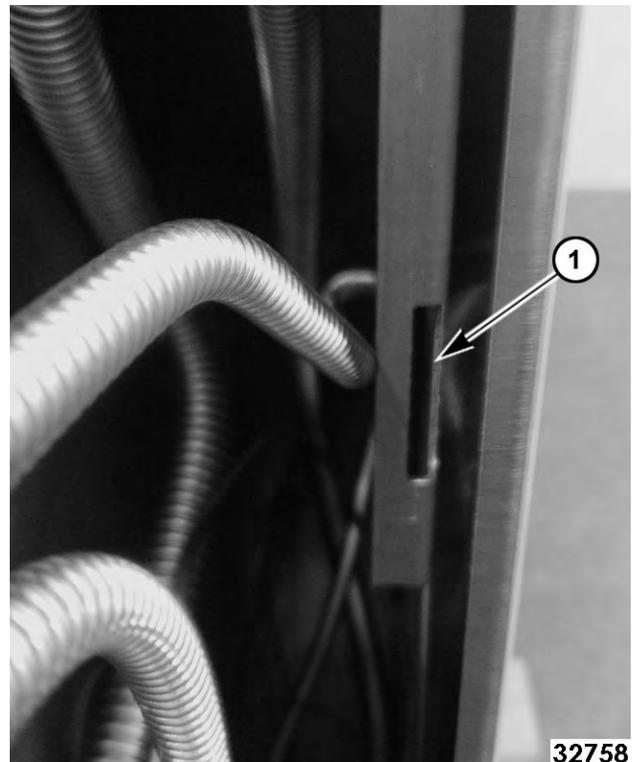


Fig. 5

⚠ 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.

8. Reverse procedure to install.
9. Verify proper oven operation.

MANIFOLD COVER



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Loosen setscrews (1, Fig. 6) in burner control knobs and remove knobs.

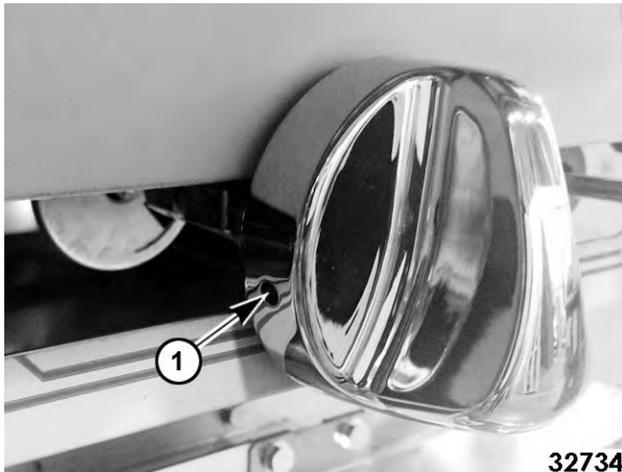


Fig. 6

3. Remove drive screws (1, Fig. 7) on both sides securing manifold cover in place and remove cover.

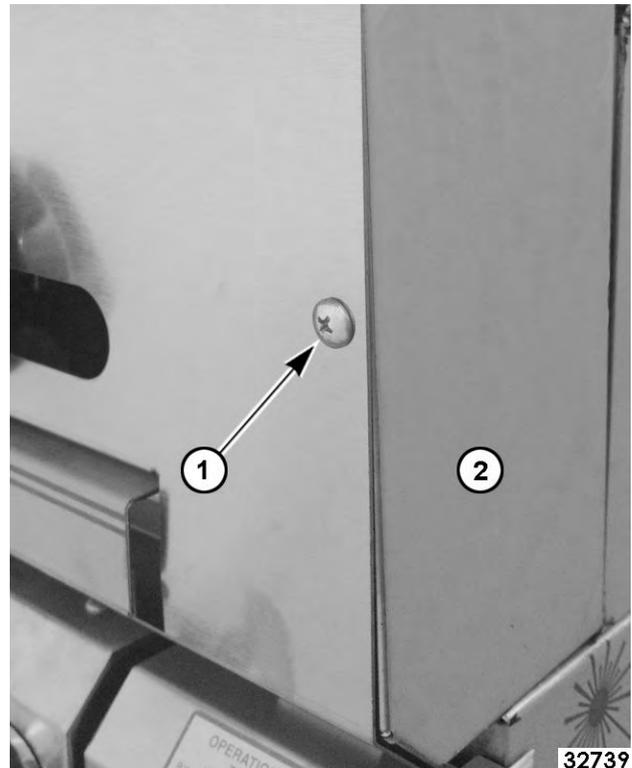


Fig. 7

4. Remove end caps (2, Fig. 7), if applicable.
5. Remove both front ledge support screws on angled brackets.

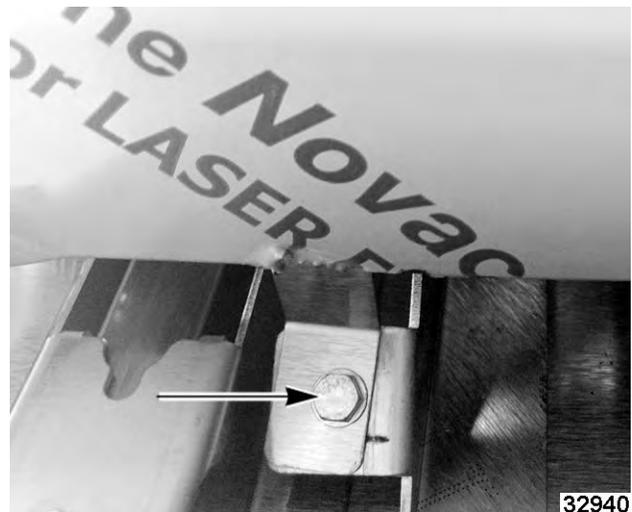


Fig. 8

6. Remove screws along bottom under crumb tray.

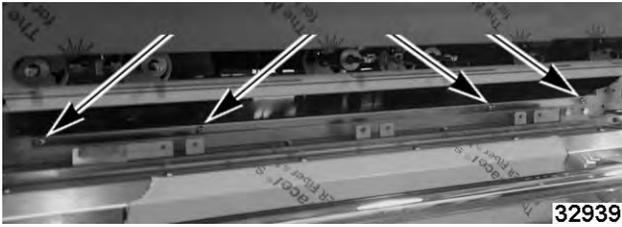


Fig. 9

- Reverse procedure to install.

BULL NOSE



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

- Turn top burners and griddle off.
- Remove front row of top burner grates on ranges with open top burners.
- Remove all screws securing bull nose to range.



Fig. 10



Fig. 11

NOTE: Fig. 11 Each side.

- Lift bull nose off range.
- Reverse procedure to install.

KICK PANEL



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Lift up and tilt kick panel forward to open.



Fig. 12

3. Remove bottom screw and loosen screw on top, on one side.

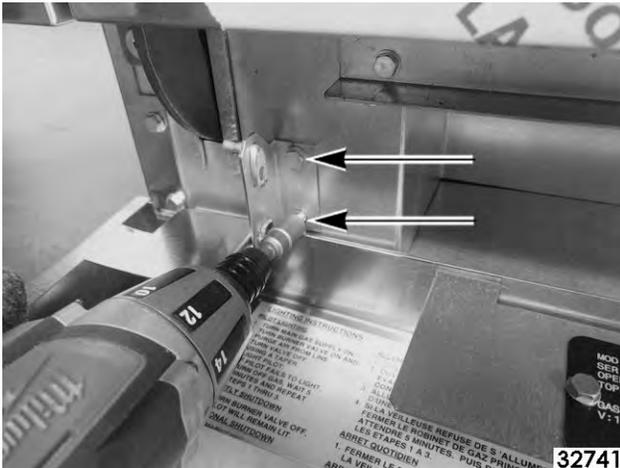


Fig. 13

4. Slide kick panel to other side to disengage pin from hinge to remove kick panel from range.



Fig. 14

5. Reverse procedure to install.

OVEN CAVITY BOTTOM PANEL (S MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Open oven door.
3. Remove racks (1, Fig. 15).

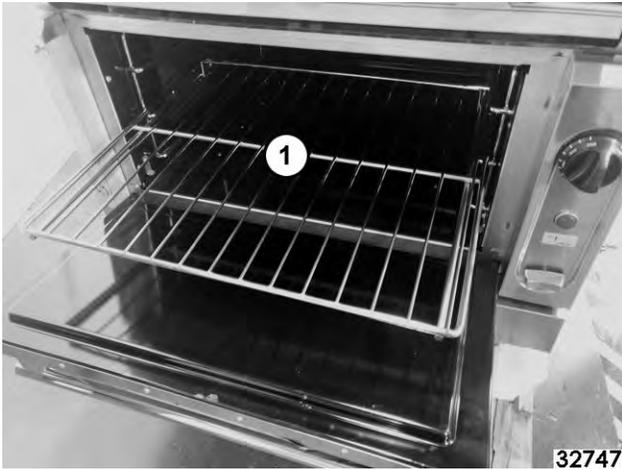


Fig. 15

4. Lift and pull out rack guides (1, Fig. 16).



Fig. 16

5. Slide retaining latches around so they rest against setscrew.



Fig. 17

6. Lift bottom panel up slightly and pull forward to remove.
7. Reverse procedure to install.
8. Verify proper oven operation.

OVEN CONTROL PANEL COVER



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Open kick panel.
3. Loosen setscrews (5/32 allen wrench) from gas shut-off knob (1, STANDARD MODEL, CONVECTION MODEL) and temperature control knob (2, STANDARD CONVECTION) and remove.



Fig. 18



Fig. 19

4. Remove control panel mounting screw (1, [Fig. 20](#)).



Fig. 20

- Remove control panel by lifting up bottom and releasing from tab (1, Fig. 21) on top of panel.

NOTICE

CONVECTION MODELS: Carefully remove cover, wiring connections exist between back of panel and control panel bracket.



Fig. 21

- Reverse procedure to install.
- Verify proper oven operation.

PILOT SAFETY VALVE (S MODEL)



WARNING

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



WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

- Disconnect supply power and gas.
- Remove PILOT SAFETY VALVE AND TEMPERATURE CONTROL ASSEMBLY (S MODEL).
- Remove union fitting (1, Fig. 22) and pipe fitting (2, Fig. 22) from top and bottom of pilot safety valve.



Fig. 22

4. Remove pilot safety valve from gas mount bracket.

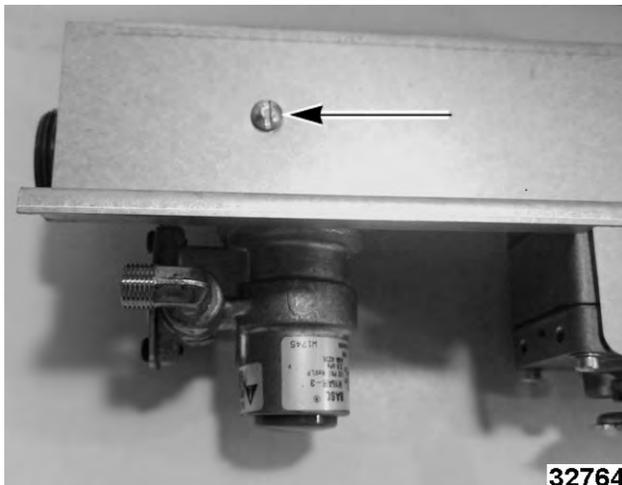


Fig. 23

5. Remove residual tape from fitting and pipe nipple.
6. Apply new gas-rated Teflon tape to pipe nipple and fitting.

⚠ 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.

7. Reverse procedure to install.
8. Verify proper oven operation.

SOLENOID, PILOT SAFETY AND GAS SHUT-OFF VALVE ASSEMBLY (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN CONTROL PANEL COVER.
3. Disconnect flex line from tee fitting (1, Fig. 24) below manual gas shut-off valve.

PREVIOUS PRODUCTION



Fig. 24

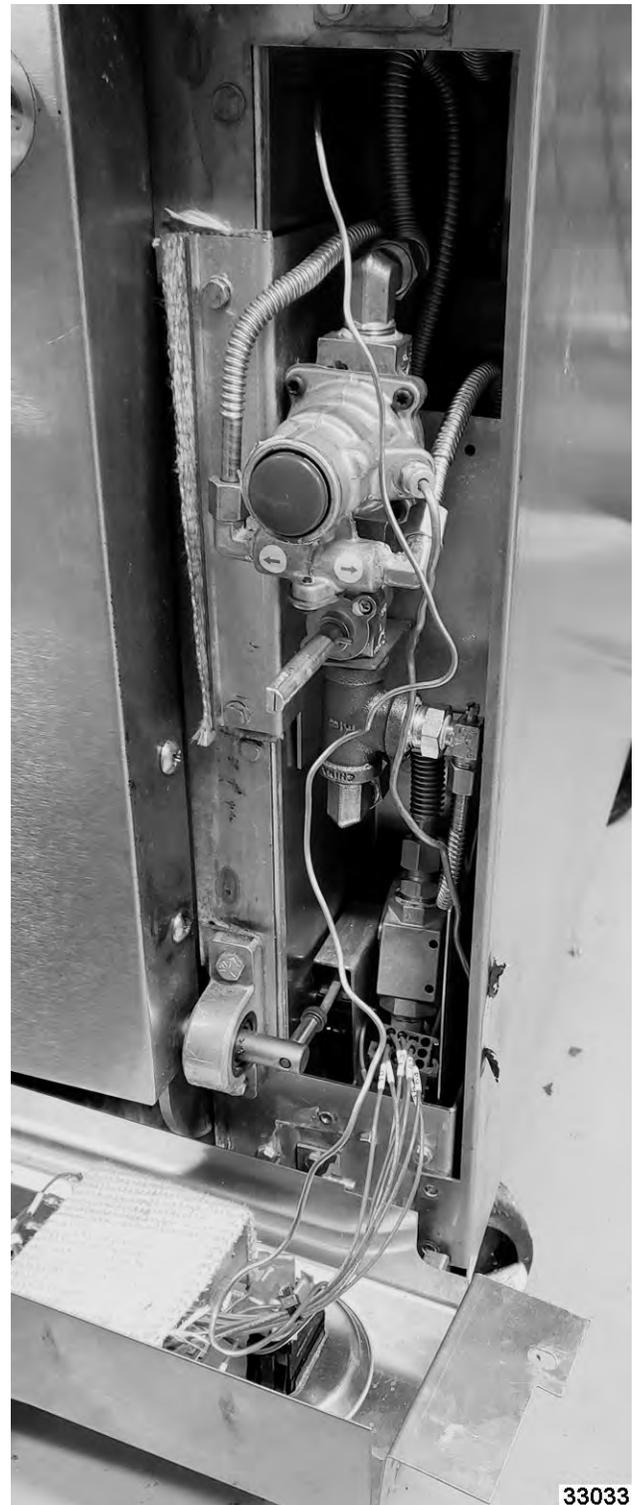


Fig. 25

CURRENT PRODUCTION

4. Disconnect flex line (2, Fig. 24) from top of solenoid.
5. Remove screws (3, Fig. 24) securing gas mount bracket.

6. Remove gas mount bracket with solenoid, pilot safety and manual gas shut-off valve assembly from oven.
7. Remove residual tape from fittings and pipe nipples.
8. Apply new gas-rated thread sealant to pipe nipples and fittings.

⚠ 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.

9. Reverse procedure to install.
10. Verify proper oven operation.

PILOT SAFETY VALVE (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove SOLENOID, PILOT SAFETY AND GAS SHUT-OFF VALVE ASSEMBLY (C MODEL).
3. Remove fitting (1, Fig. 26) and flex line (2, Fig. 26) from pilot safety valve.

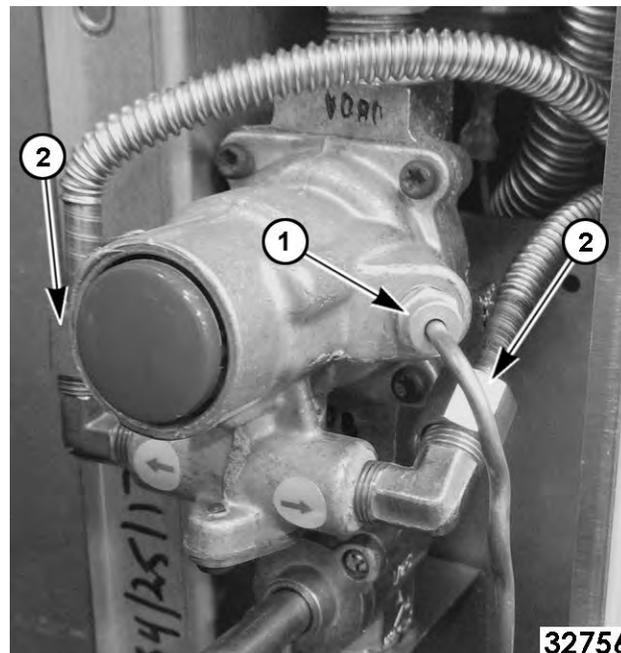


Fig. 26

4. Remove pilot safety valve from gas mount bracket.

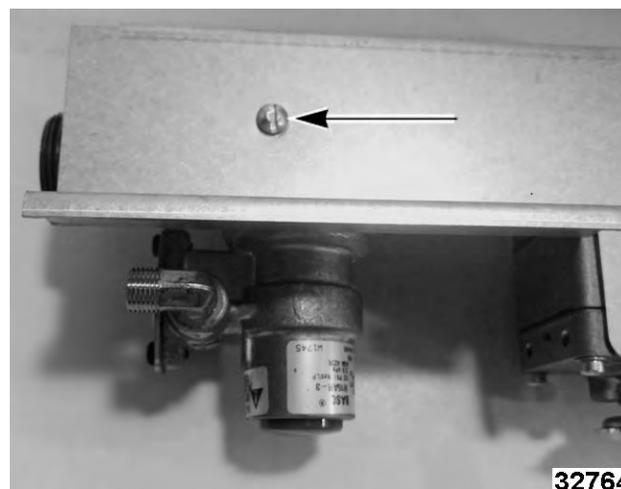


Fig. 27

5. Remove pipe nipple and manual gas shut-off valve from pilot safety valve.
6. Remove residual tape from fittings and pipe nipples.
7. Apply new gas-rated thread sealant to pipe nipples and fittings.

⚠ 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.

8. Reverse procedure to install.

- Verify proper oven operation.

TEMPERATURE CONTROL (THERMOSTAT) (S MODEL)



⚠ WARNING

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

⚠ 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.

- Disconnect supply power and gas.
- Remove PILOT SAFETY VALVE AND TEMPERATURE CONTROL ASSEMBLY (S MODEL).
- Remove screw (1, Fig. 28) securing temperature control to gas mount bracket.

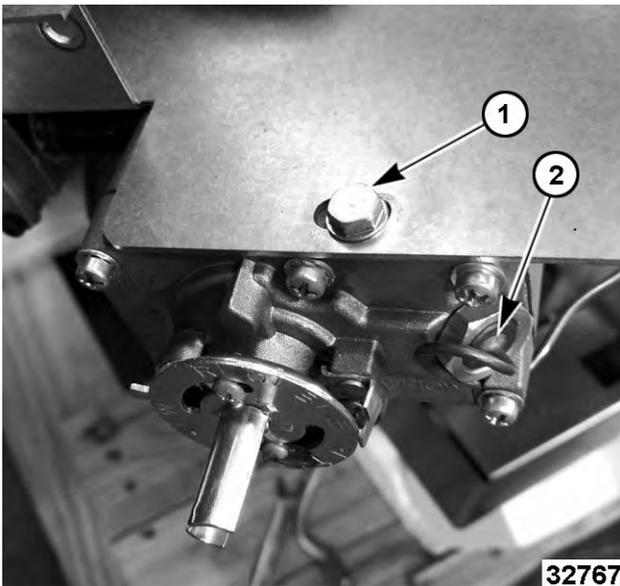


Fig. 28

Remove capillary (2, Fig. 28).

- Remove temperature control from pipe nipple.

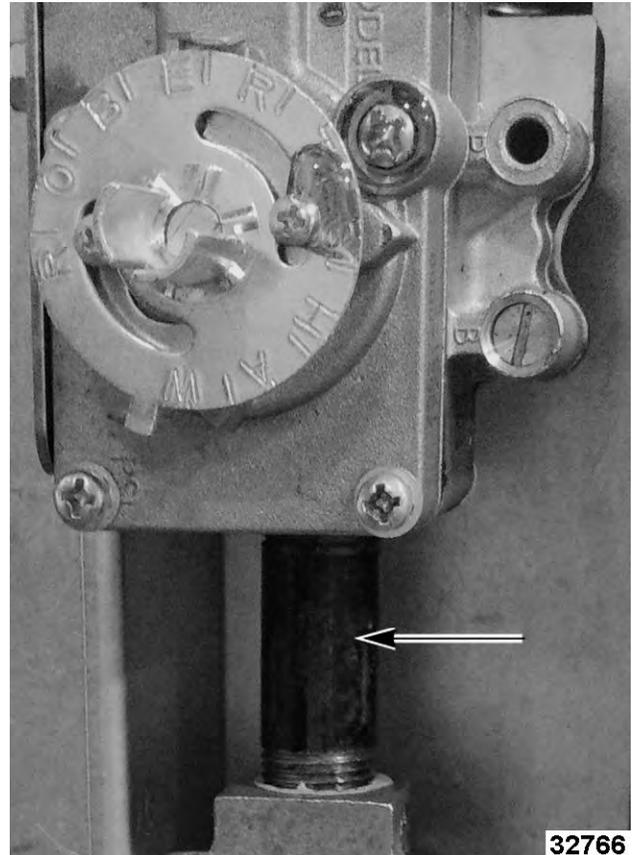


Fig. 29

- Remove residual tape from fitting and pipe nipple.
- Remove capillary.
 - Remove capillary bracket in oven cavity.



Fig. 30

- Route capillary through oven cavity wall.
 - Reverse Step 6 to replace capillary.
- Apply new gas-rated thread sealant to pipe nipple and fitting.

⚠ 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.

8. Reverse procedure to install.
9. Verify proper oven operation.

**TEMPERATURE CONTROL
(THERMOSTAT) C MODEL**



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN CONTROL PANEL COVER.
3. Remove temperature control from mount bracket.



Fig. 31

4. Remove electrical cover (1, Fig. 32). Note and disconnect temperature control electrical connectors (2, Fig. 32).

NOTE: Shield (1, Fig. 32) is installed on previous production units, not on current production.

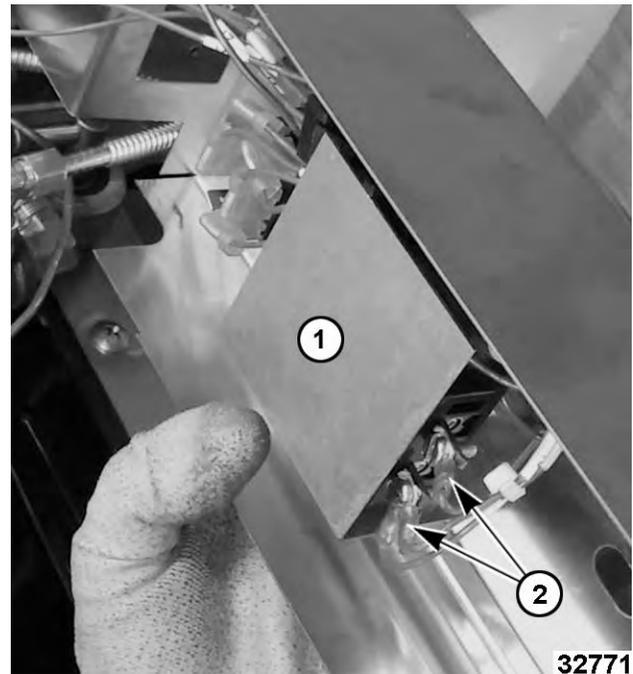


Fig. 32

5. Remove screws securing gas mount bracket to oven.

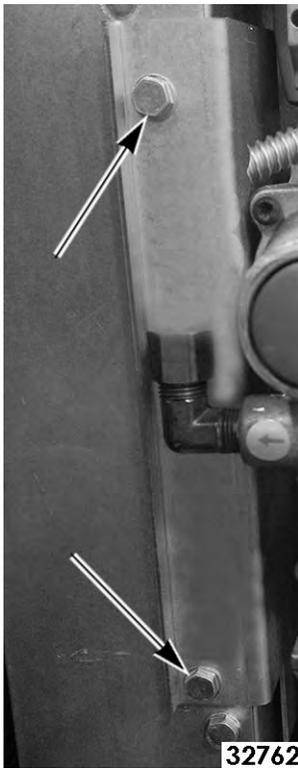


Fig. 33



Fig. 34

6. Lift up gas mount bracket to release hook (1, Fig. 34) off inner tab (1, Fig. 34). Pull out pilot safety valve and temperature control bracket assembly from oven.

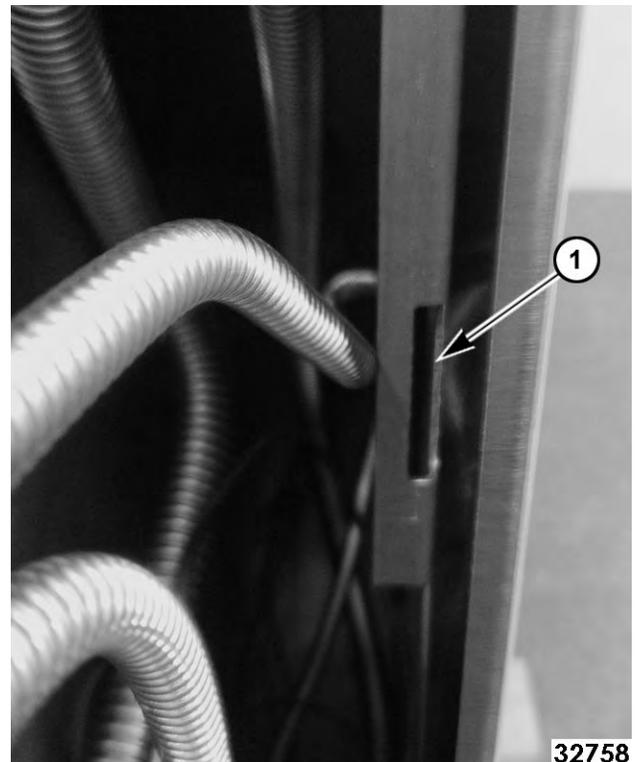


Fig. 35

7. Flex heat shield and pull out.



Fig. 36

8. Remove capillary bracket and access panel in oven cavity.

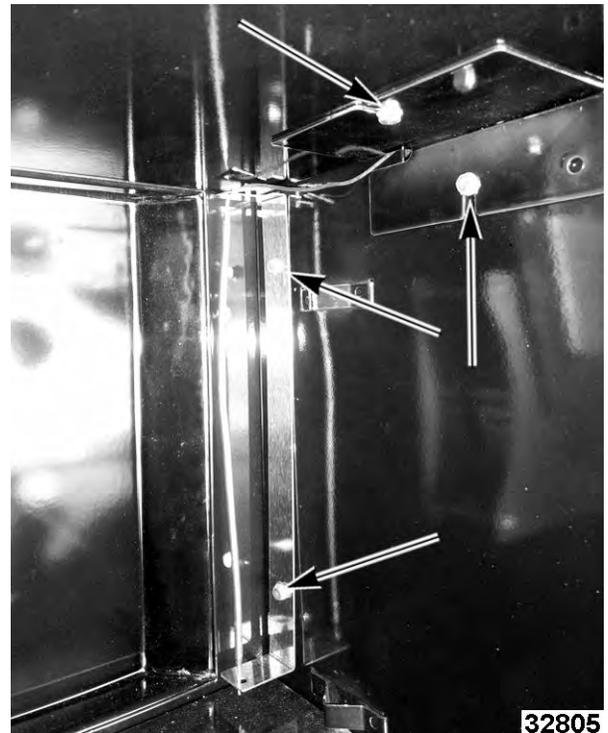


Fig. 37

9. Tape flexible cord to end of capillary in two places.

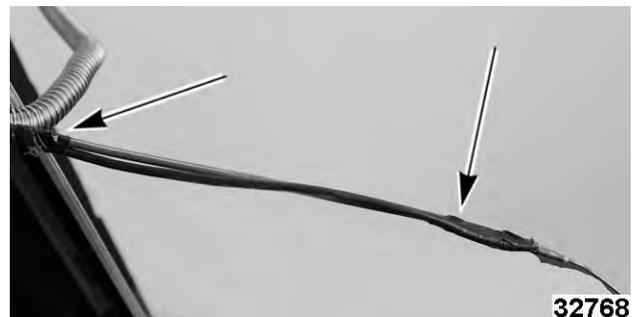
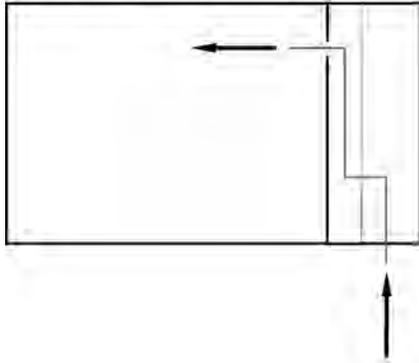


Fig. 38

10. Route capillary through oven side panels.

TOP VIEW OF THERMOSTAT
CAPILLARY ROUTING
(CONVECTION OVEN SHOWN)



AI4928

Fig. 39

NOTE: Link to video of removal and installation of capillary ([THERMOSTAT CAPILLARY](#)).

11. Disconnect flexible cord from capillary and tape to replacement capillary.
12. Reverse procedure to install.

⚠ 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.

13. Verify proper oven operation.

SOLENOID (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove SOLENOID, PILOT SAFETY AND GAS SHUT-OFF VALVE ASSEMBLY (C MODEL).
3. Remove solenoid (1, [Fig. 40](#)) from pipe nipple.

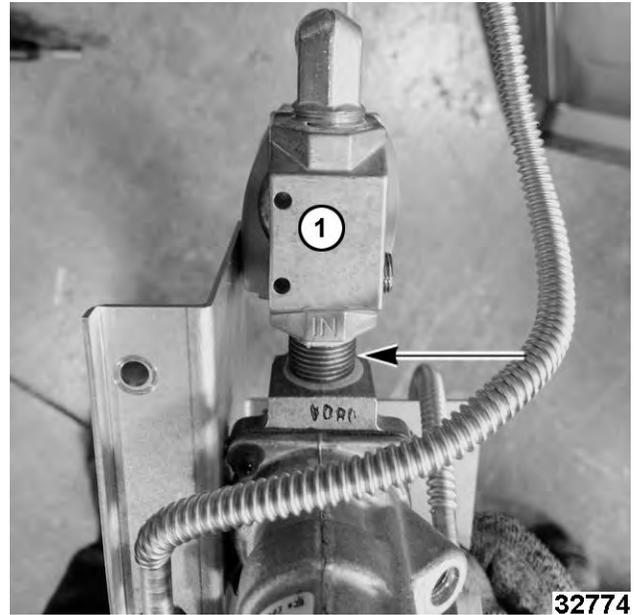


Fig. 40

32774

4. Remove residual tape from fittings and pipe nipples.
5. Apply new gas-rated Teflon tape to pipe nipples and fittings.

⚠ 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.

6. Reverse procedure to install.
7. Verify proper oven operation.

MANUAL GAS SHUT-OFF VALVE (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.

2. Remove SOLENOID, PILOT SAFETY AND GAS SHUT-OFF VALVE ASSEMBLY (C MODEL).
3. Remove flex line and tee fitting (1, Fig. 41) from bottom of manual gas shut-off valve (2, Fig. 41).

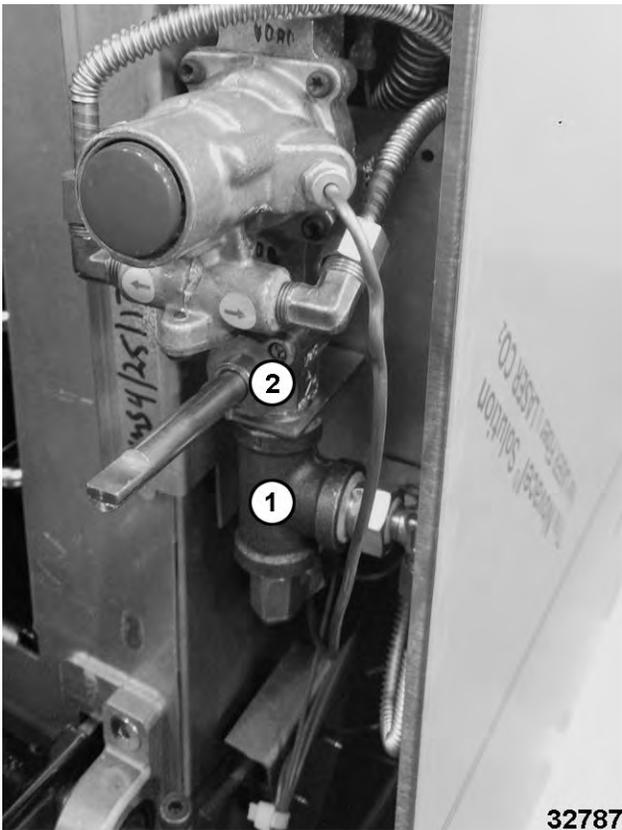


Fig. 41

4. Remove screw securing manual gas shut-off valve to gas mount bracket.
5. Remove manual gas shut off valve from pilot safety valve.
6. Remove residual tape from fittings and pipe nipples.
7. Apply new gas-rated thread sealant to pipe nipple and fitting.

⚠ 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.

8. Reverse procedure to install.
9. Verify proper oven operation.

OVEN PILOT ASSEMBLY (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove KICK PANEL.
3. Remove exhaust baffle.



Fig. 42

NOTICE

Oven can experience nuisance drop outs of the pilot if exhaust baffle is not reinstalled.

4. Remove gas flex line to burner nozzle.

PREVIOUS PRODUCTION SHOWN

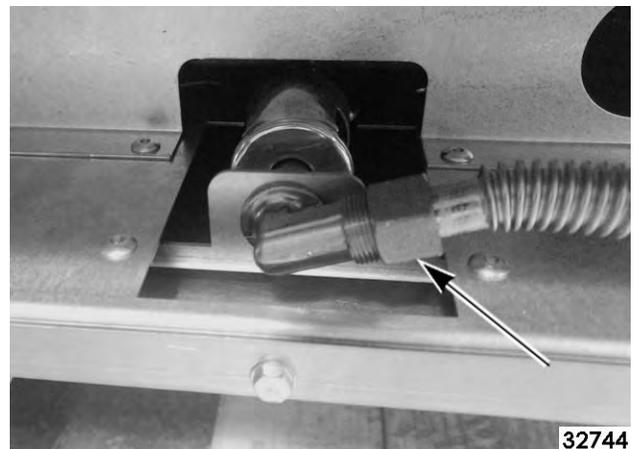


Fig. 43

CURRENT PRODUCTION SHOWN

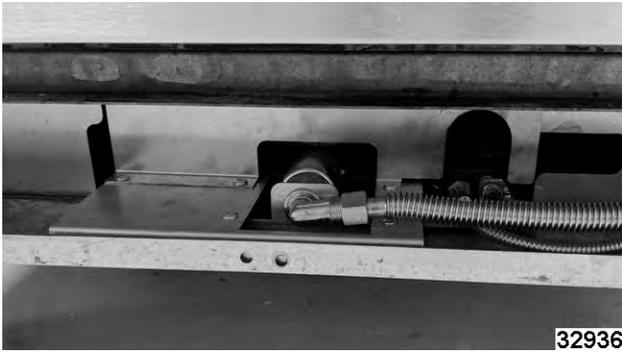


Fig. 44

5. Remove bolts securing burner drawer box to oven.
6. Pull burner drawer box (1, Fig. 45) out from the oven.

PREVIOUS PRODUCTION SHOWN

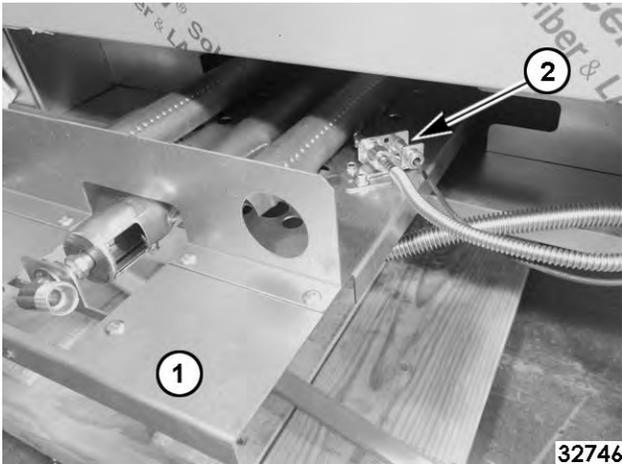


Fig. 45

7. Remove pilot assembly (2, Fig. 45) from oven deflector.

PREVIOUS PRODUCTION SHOWN

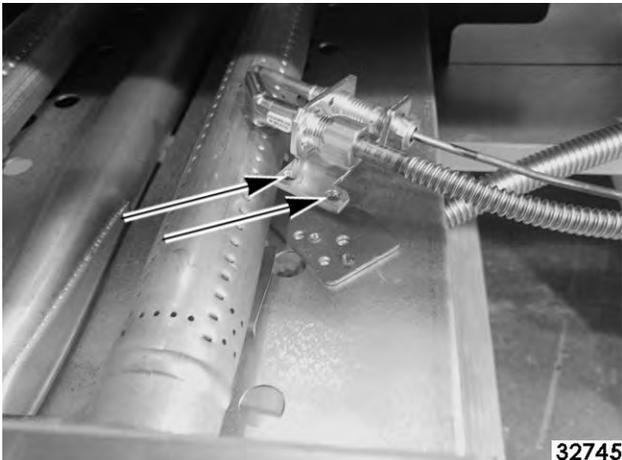


Fig. 46

CURRENT PRODUCTION SHOWN

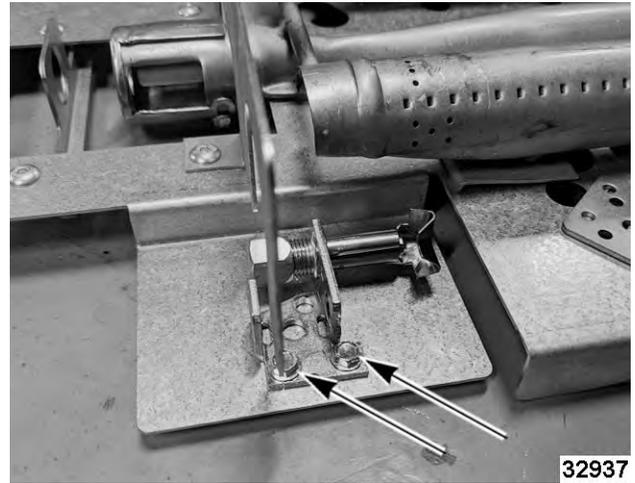


Fig. 47

⚠ 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.

8. Disconnect gas flex line and capillary nuts from pilot assembly.
9. Reverse procedure to install.
10. Verify proper oven operation.

OVEN PILOT ASSEMBLY (S MODELS)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN CAVITY BOTTOM PANEL.
3. Remove pilot burner assembly mounting screws.

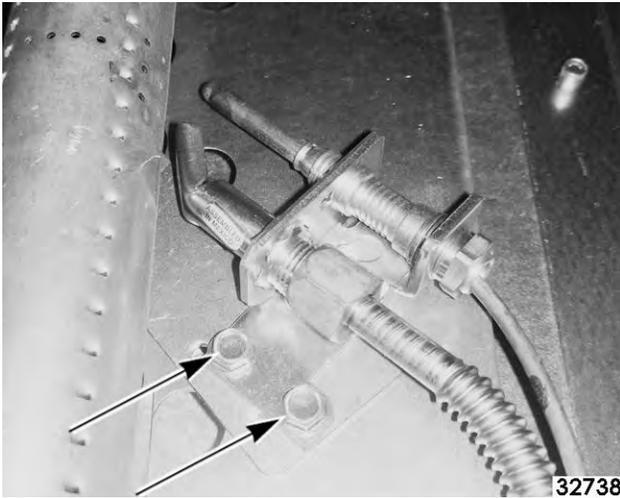


Fig. 48

4. Disconnect gas flex line and capillary nuts from pilot assembly.
5. Reverse procedure to install.

⚠ 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.

6. Verify proper oven operation.

OVEN BURNER ASSEMBLY



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

NOTE: In standard ovens you can remove oven cavity bottom panel for servicing burner and pilot assembly. Convection ovens do not have a removable oven cavity bottom panel. Refer to: OVEN CAVITY BOTTOM PANEL (S MODEL).

1. Disconnect supply power and gas.
2. Remove KICK PANEL.

3. Remove exhaust baffle.



Fig. 49

NOTICE

Oven can experience nuisance drop outs of the pilot if exhaust baffle is not reinstalled.

4. Remove gas flex line to burner nozzle.

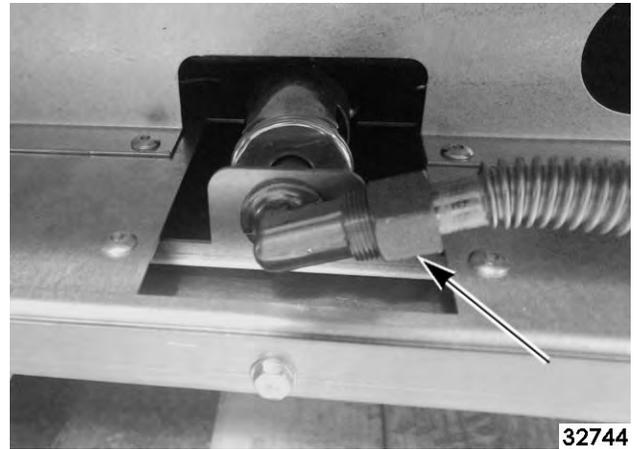


Fig. 50

5. Remove screw securing burner drawer box to oven.

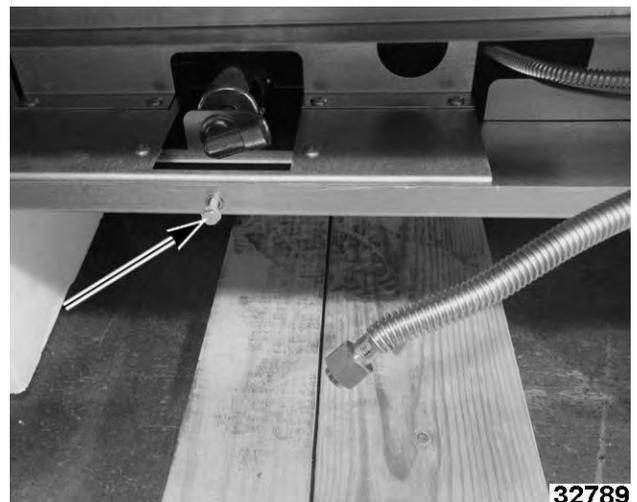


Fig. 51

6. Lift and pull burner drawer box (1, Fig. 52) out from oven until pilot burner is accessible.

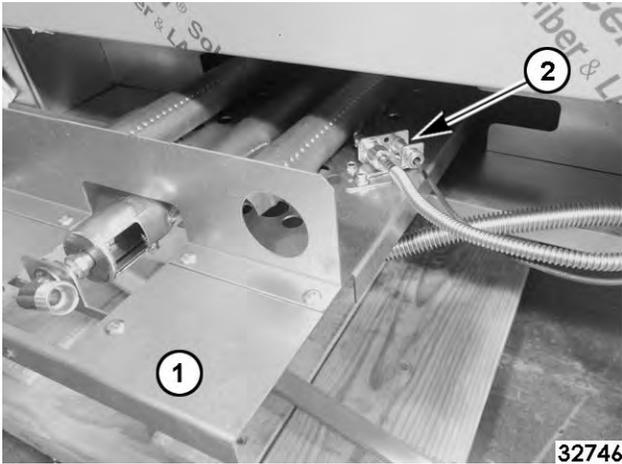


Fig. 52

7. Remove over burner assembly from oven.
8. Pull burner out and disconnect pilot gas tubing and thermocouple (2, Fig. 52).
9. Remove orifice elbow.

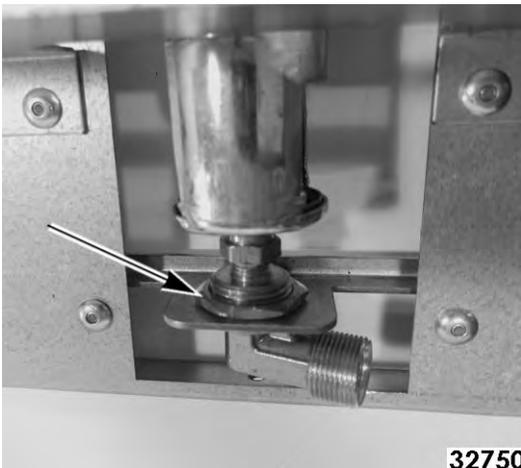


Fig. 53

10. Pry four tabs up to remove burner.

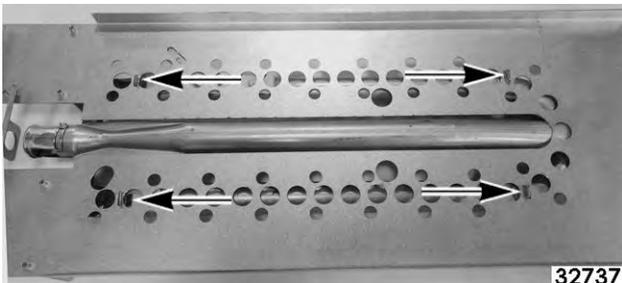


Fig. 54

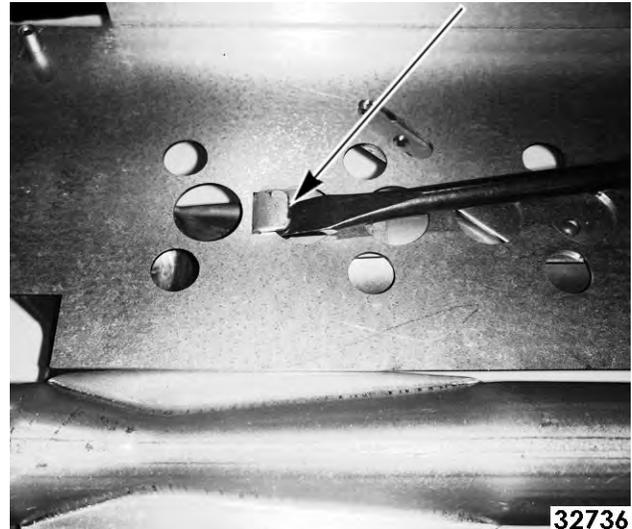


Fig. 55

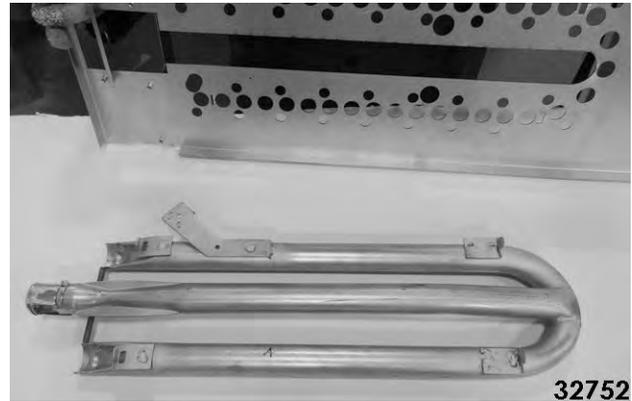


Fig. 56

11. Reverse procedure to install.

⚠ 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.

12. Verify proper oven operation.

PILOT QUICK DISCONNECT VALVE



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

NOTE: There are three generations of pilot designs on open top burners. If servicing open top burners with first or second generation pilot design, use third generation replacement kit. Third generation is backwards compatible with form, fit and function.

1. Disconnect supply power and gas.
2. Remove MANIFOLD COVER.
3. Remove top burner grates and defectors.



Fig. 57

4. Disconnect pilot coupler from the pilot valve.

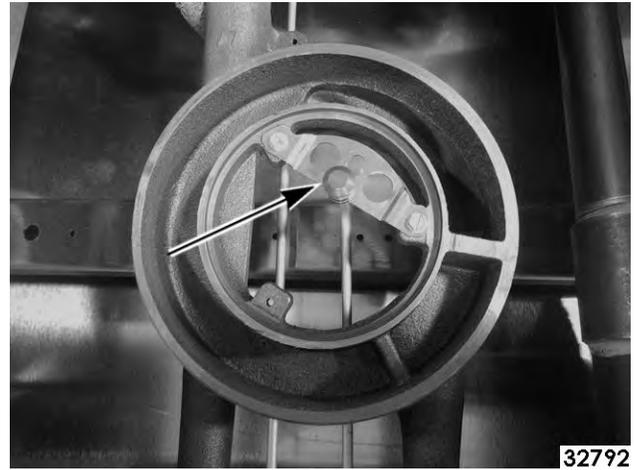


Fig. 58

5. Disconnect pilot valve from the gas manifold.

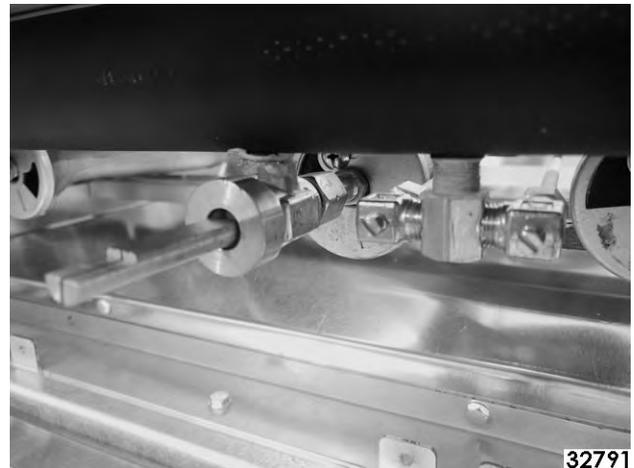


Fig. 59

6. Remove residual tape from fittings.
7. Apply new gas-rated thread sealant.

⚠ 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.

8. Reverse procedure to install.
9. Verify proper oven operation.

TOP SECTION BURNER (OPEN TOP)



⚠ WARNING

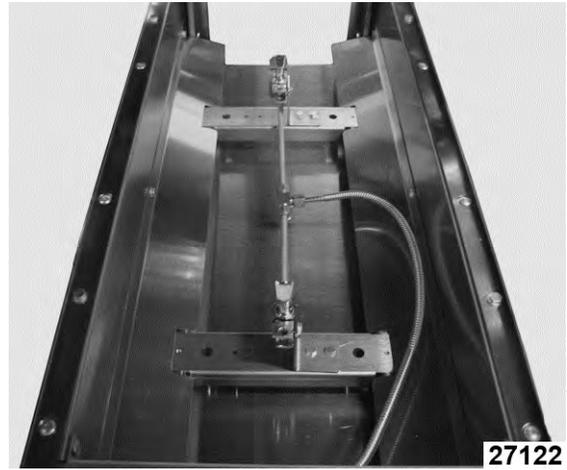
Disconnect the electrical power to the machine and follow lockout / tagout procedures.



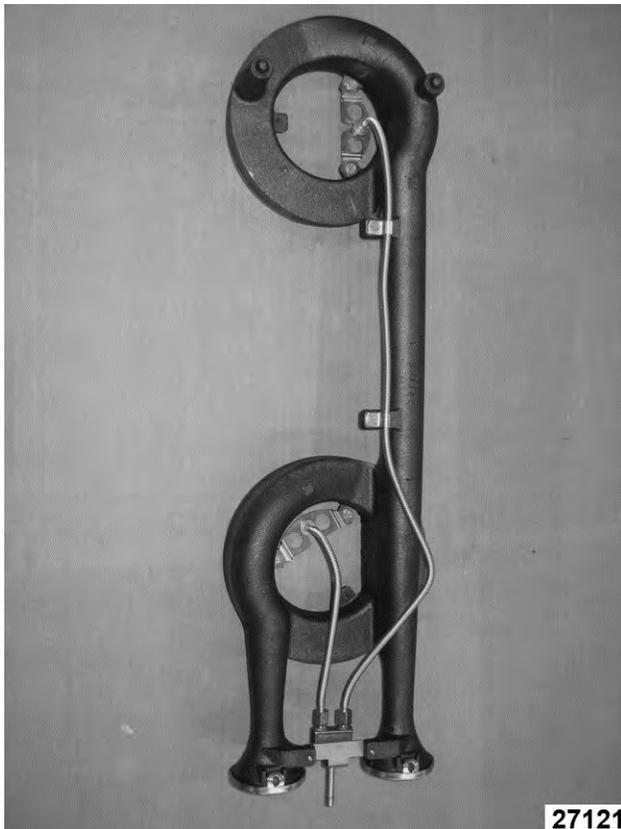
⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

NOTE: There are three generations of pilot designs on open top burners. If servicing open top burners with first or second generation pilot design, use third generation replacement kit. Third generation is backwards compatible with form, fit and function.



2nd GENERATION



1st GENERATION



3rd GENERATION

1. Disconnect supply power and gas.
2. Remove MANIFOLD COVER.
3. Remove burner grates and deflectors. (optional)



Fig. 63

4. Remove burner heads.
5. Remove (unsnap) pilot burner from front and rear burner.



Fig. 64

6. Lift rear of burner, slide burner back, and lift to disengage from control valves.

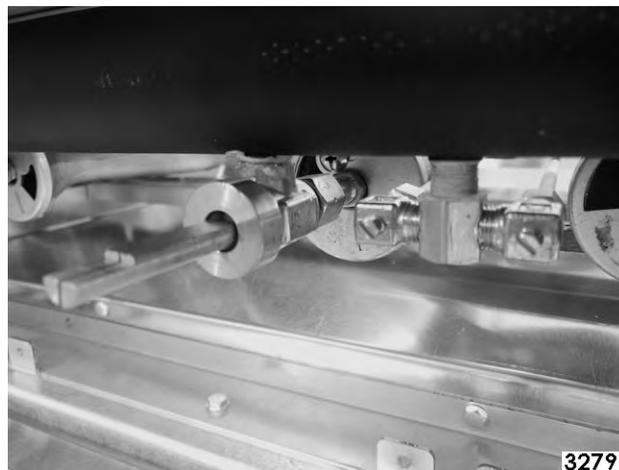


Fig. 65

7. Repeat Step 3 through Step 6 for each burner.
8. Remove residual tape from fittings.
9. Apply new gas-rated thread sealant.

⚠ 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.

10. Reverse procedure to install.
11. Verify proper oven operation.

TOP SECTION BURNER (CHAR BROILER)



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.



⚠ WARNING

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

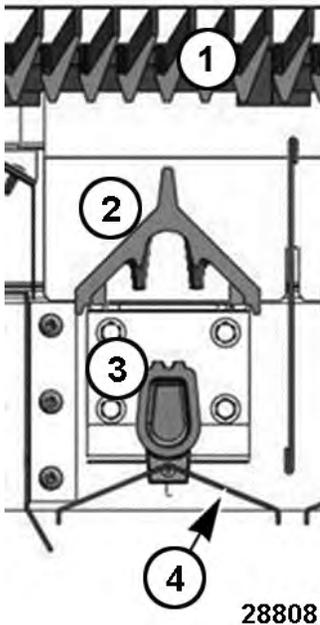


Fig. 66

Charbroiler Burner Components - Front View

- [1] Grate
- [2] Radiant
- [3] Burner
- [4] Deflector

1. Remove MANIFOLD COVER.
2. Remove grate (1, Fig. 67) from charbroiler.

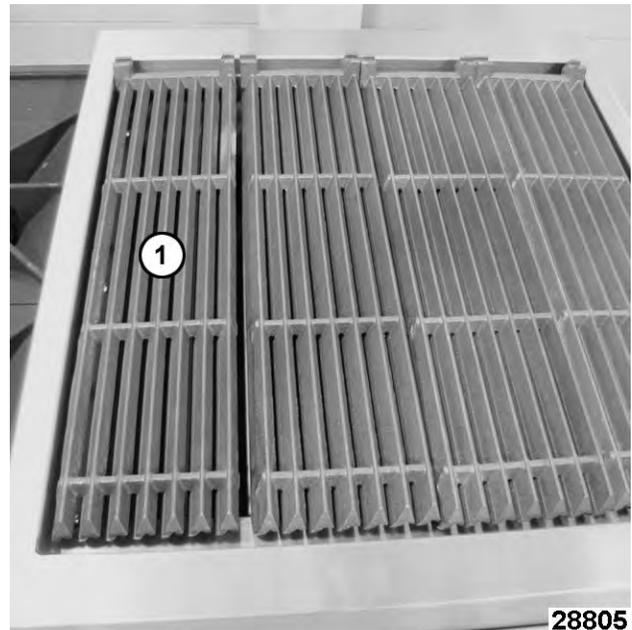


Fig. 67

3. Remove radiant (1, Fig. 68) to access burner.



Fig. 68

4. Remove burner (1, [Fig. 69](#)) and deflector (2, [Fig. 69](#)) by lifting at the rear of burner.

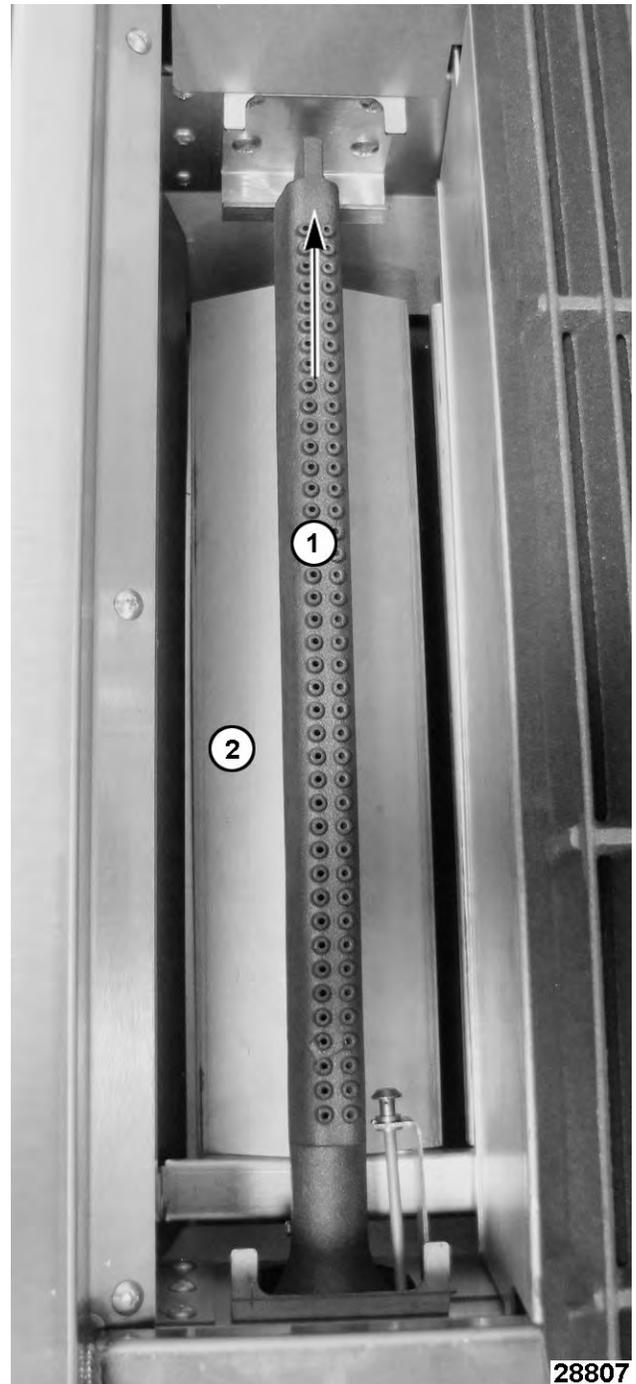


Fig. 69

5. Remove burner rod (1, [Fig. 70](#)) securing deflector (2, [Fig. 70](#)) to burner.

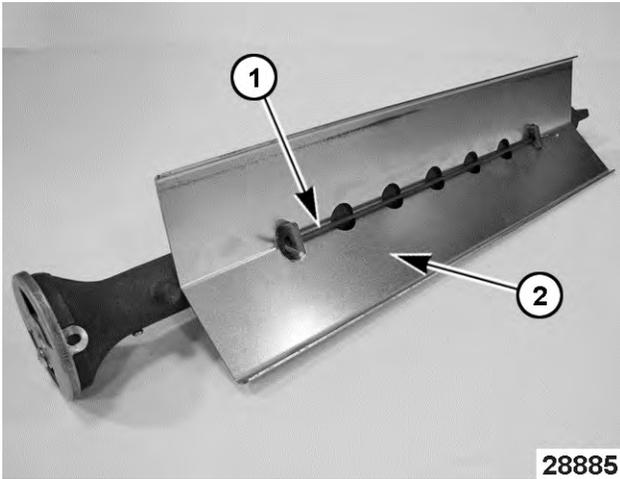


Fig. 70

6. To Install:
 - A. Install deflector onto replacement burner.
7. Verify BURNER AIR SHUTTER ADJUSTMENT.
8. Install radiant above the burner.
9. Install grate.
10. Check for proper operation.

CHARBROILER PILOT



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.



⚠ WARNING

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

1. Remove TOP SECTION BURNER (CHAR BROILER).
2. Remove crumb tray.



Fig. 71

3. Remove MANIFOLD COVER to access pilot.

4. Remove compression nut from pilot valve then remove pilot tube assembly from valve.

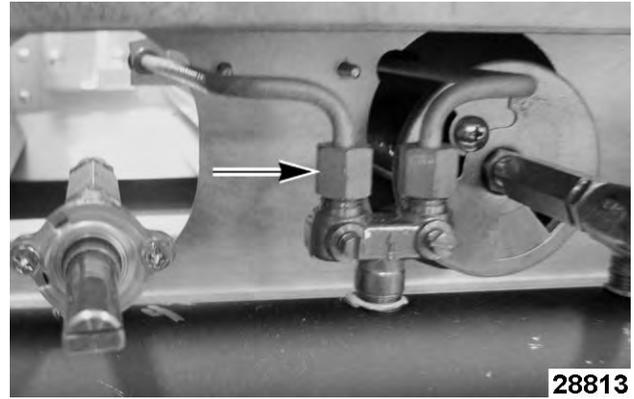


Fig. 72

5. Remove pilot tube assembly (1, Fig. 73) from pilot bracket (2, Fig. 73). Use pliers to separate as needed.

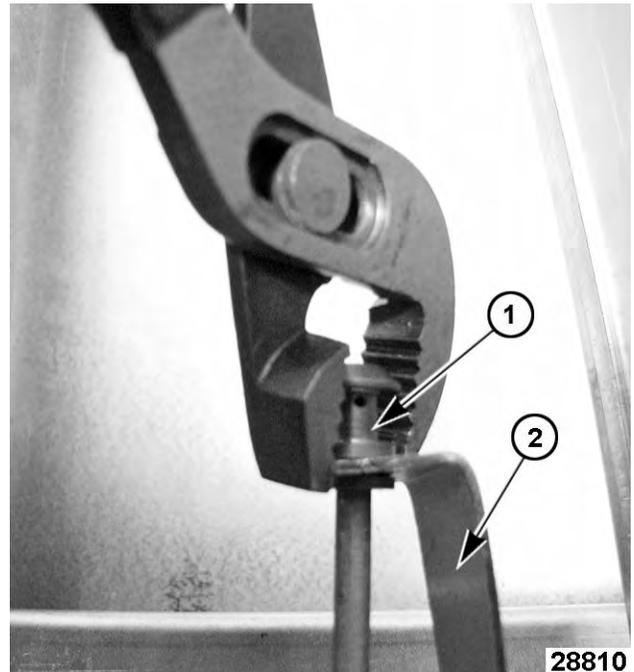


Fig. 73

⚠ 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.

6. Reverse procedure to install.

NOTE: If replacing pilot and tubing, ensure a compression nut and ferrule are installed on the end of tubing that connects to pilot valve.

TOP SECTION BURNER (FRENCH/ HOT TOP)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove MANIFOLD COVER.
3. Remove burner top plate (1, Fig. 74).

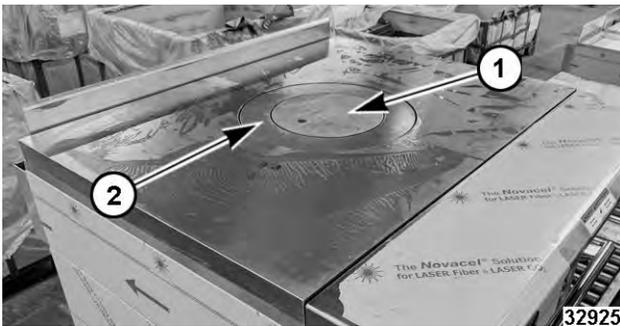


Fig. 74

4. Remove burner head 2, Fig. 74).
5. Remove burner plate(s).



Fig. 75

6. Note and remove burner insulation.

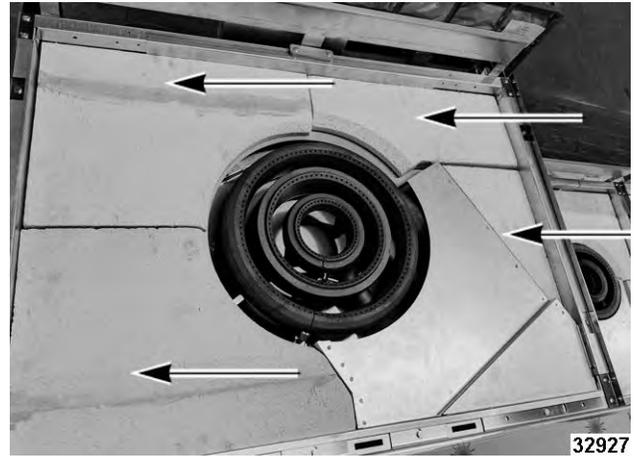


Fig. 76

NOTE: On production units build after April 2019, bricks were replaced with lava rocks. Bricks can be replaced with lava rocks if necessary.



Fig. 77

7. Remove burner gas flex lines (1, Fig. 78) in three places.

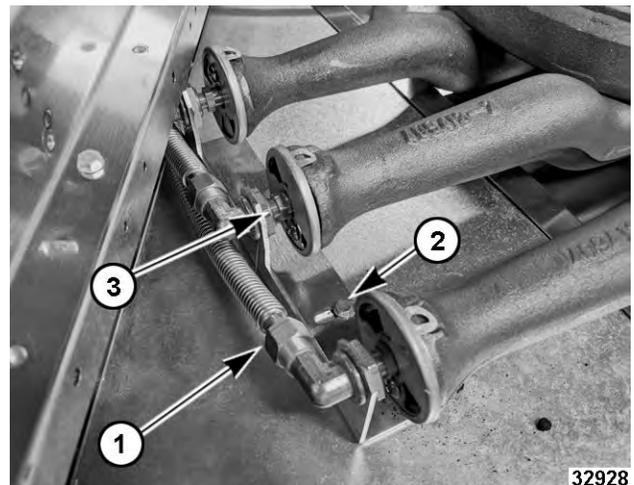


Fig. 78

8. Remove screws (2, Fig. 78) in two places securing burner nozzle mount bracket.

9. Remove burner nozzle bracket and burner nozzles (3, Fig. 78).
10. Remove outer, middle and inner burner rings.



Fig. 79

11. Remove residual tape from fittings.
12. Apply new gas-rated Teflon tape to fittings.

⚠ 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.

13. Reverse procedure to install.
14. Verify proper oven operation.

TOP SECTION BURNER CONTROL VALVE

3. Remove BURNER.
4. Unscrew top burner control valve (1, Fig. 80) from gas manifold.

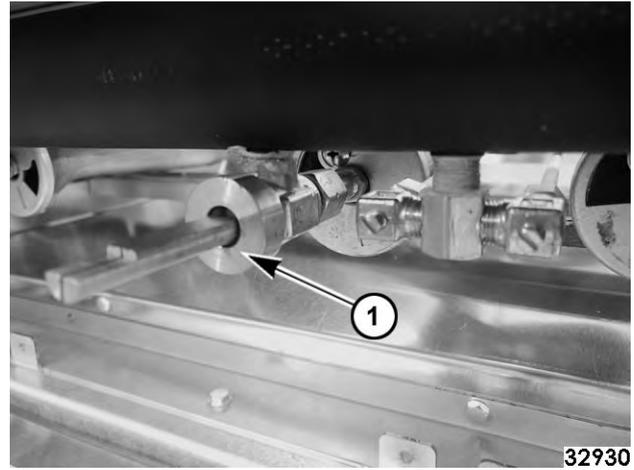


Fig. 80

5. Remove residual tape from fittings.
6. Apply new gas-rated Teflon tape.

⚠ 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.

7. Reverse procedure to install.
8. Verify proper oven operation.

CONVECTION MOTOR FAN CONTROL SWITCH (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove MANIFOLD COVER.



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN CONTROL PANEL COVER.

- Note and disconnect fan control switch wiring on back of cover.

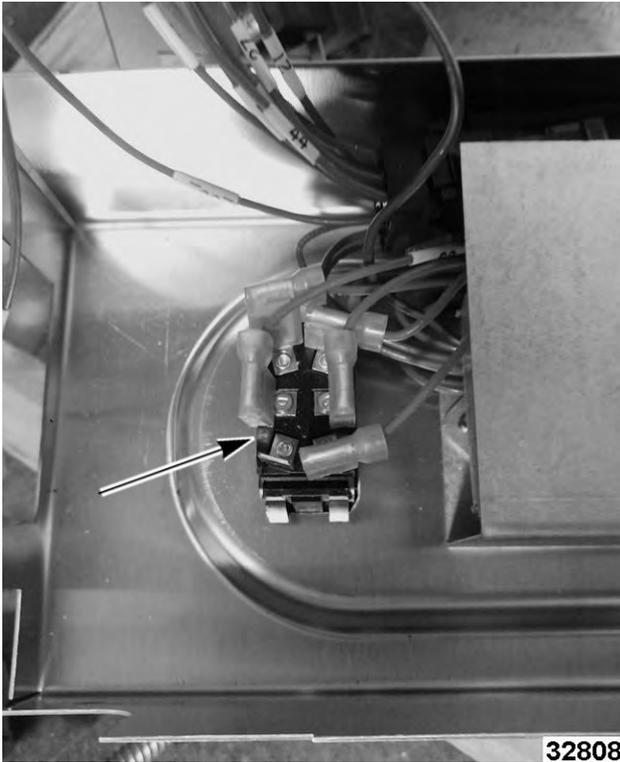


Fig. 81

- Press lock tabs on sides of switch together to release from cover.
- Reverse procedure to install.
- Verify proper oven operation.

CONVECTION MOTOR (C MODEL)



⚠ WARNING

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

⚠ WARNING

Allow oven to cool completely before attempting to change convection motor.



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

NOTICE

Place clean cardboard on bottom panel of oven cavity to protect surface when pulling motor in through cavity.

- Disconnect supply power and gas.
- Remove pans, oven racks and side racks inside oven.
- Remove flue intake assembly from inside oven.



Fig. 82

- Remove fan guard.

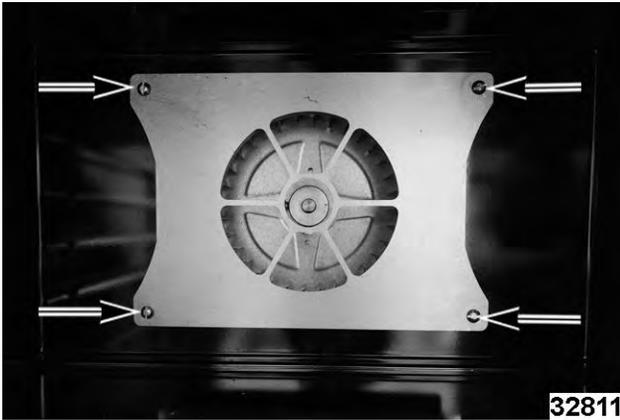


Fig. 83

NOTE: Set fan guard screw spacers (1, Fig. 84) aside.

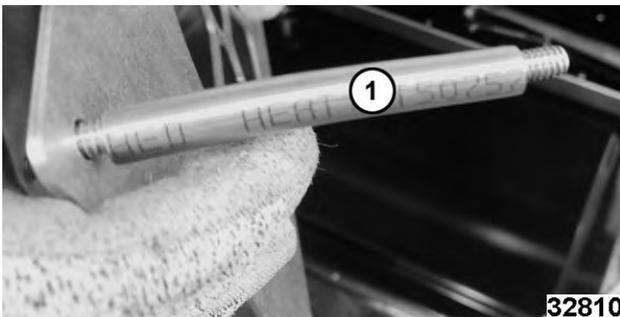


Fig. 84

- Remove convection fan blower.

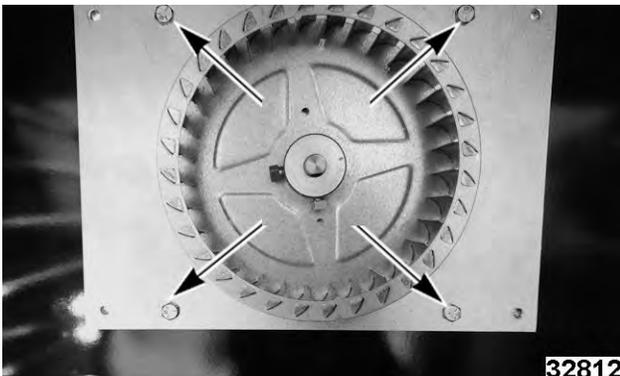


Fig. 85

- Remove motor mount plate bolts and pull motor into oven cavity onto cardboard.

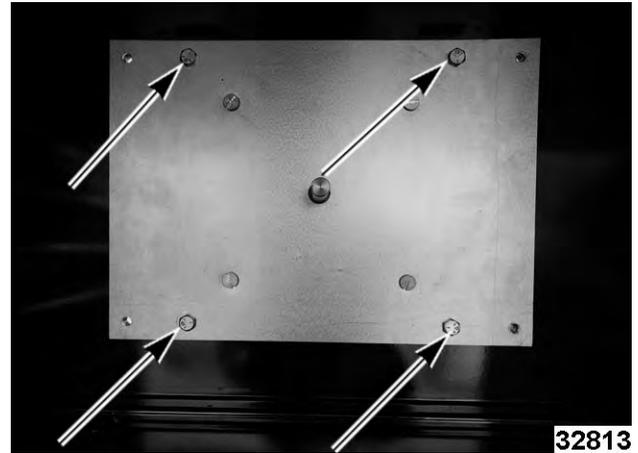


Fig. 86

- Remove motor insulation.
- Remove convection motor from brackets.
- Remove screws securing junction box cover.
- Note and disconnect convection motor electrical wires at junction box.
- Reverse procedure to install.
- Verify proper oven operation.

OVEN DOOR



WARNING

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



WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

- Remove KICK PANEL.
- Remove OVEN CONTROL PANEL COVER.
- Remove left hinge access cover mounting screw.



Fig. 87

4. Pull out at bottom of door and lift up to disengage at top. Raise door up and pull off.



Fig. 88

OVEN DOOR COUNTER WEIGHT AND BEARING BLOCK



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Remove OVEN DOOR.
2. Remove bearing block screws.

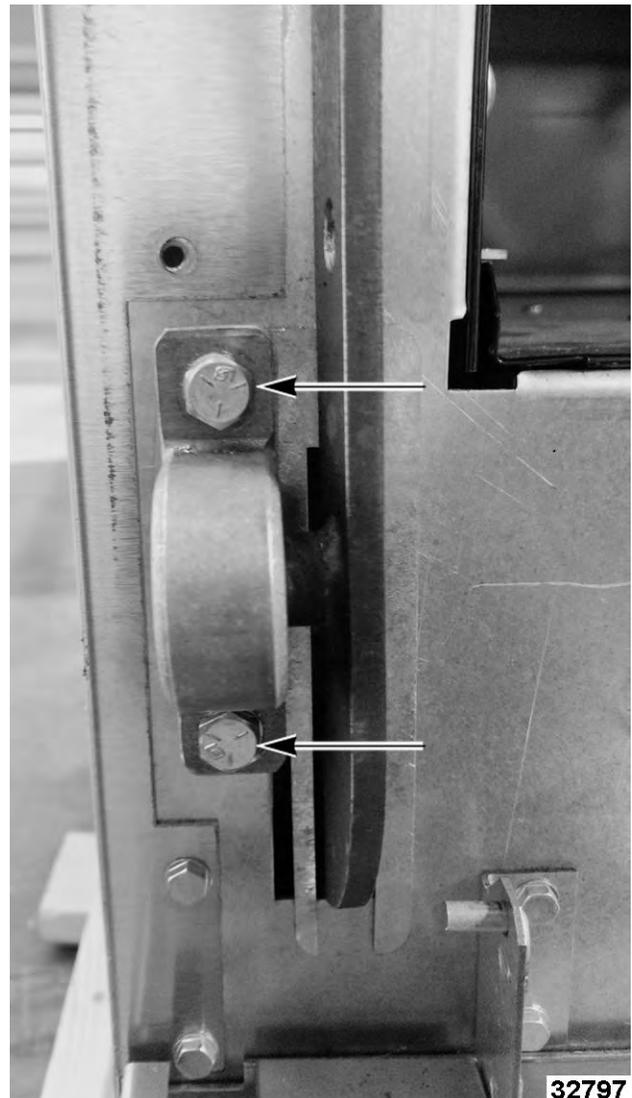


Fig. 89

NOTICE

Shims (1, Fig. 90) are present behind bearing block. They must be replaced when installing bearing block.

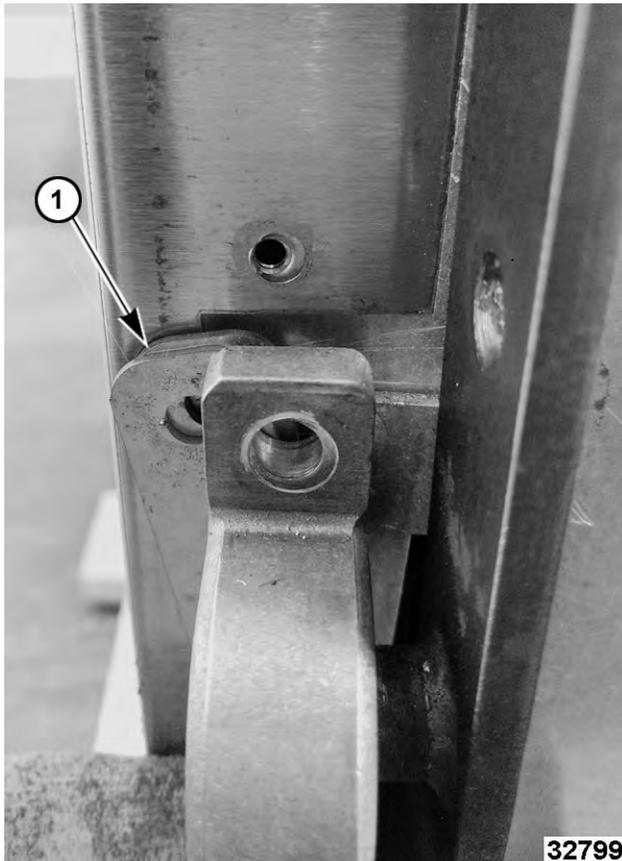


Fig. 90

3. Slide up heat shield to remove.
4. Slide bearing (1, Fig. 91) off axle shaft.

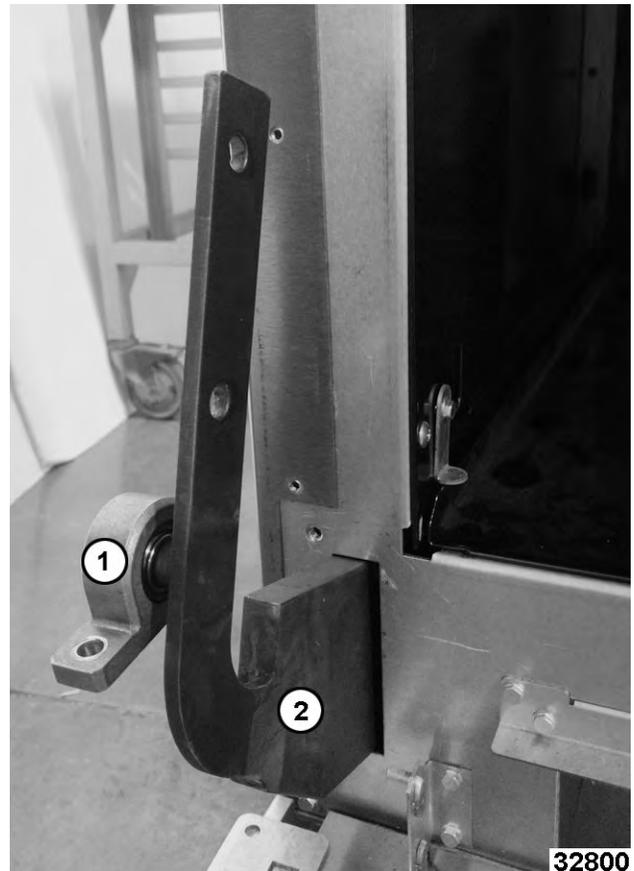


Fig. 91

5. Slide counterweight (2, Fig. 91) through opening.
6. **CONVECTION MODELS ONLY:** Remove right side shaft set screw.

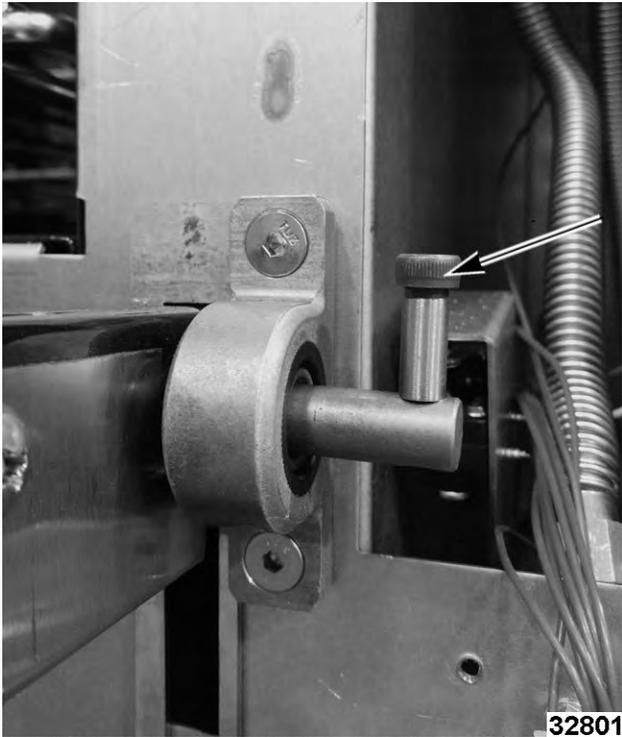


Fig. 92

OVEN DOOR MICROSWITCH (C MODEL)



WARNING

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

1. Disconnect supply power.
2. Remove OVEN CONTROL PANEL COVER.
3. Remove top two screws on switch mounting bracket and pull switch out of unit.

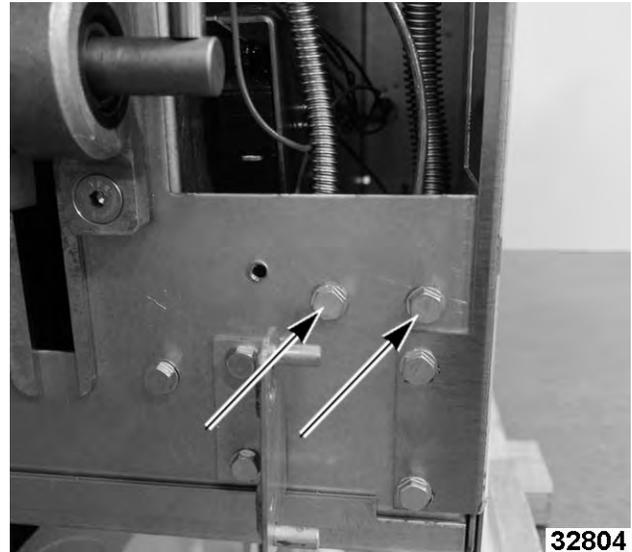


Fig. 93

4. Note and disconnect microswitch (1, Fig. 94) wiring.

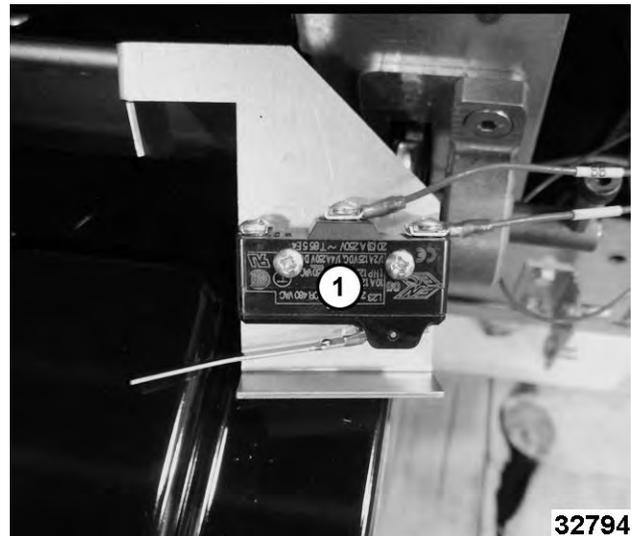


Fig. 94

5. Remove microswitch from mounting screws.
6. Reverse procedure to install.

NOTICE

Be cautious not to pinch wiring during installation.

7. Verify proper oven operation.

GRIDDLE THERMOSTAT-COMBO VALVE



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

⚠ 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 BULL NOSE.
2. Raise griddle plate from the front and support with wood blocks.



Fig. 95

3. Locate grooves and bulb shields on the bottom of the plate. Remove screws near front of bulb shield.

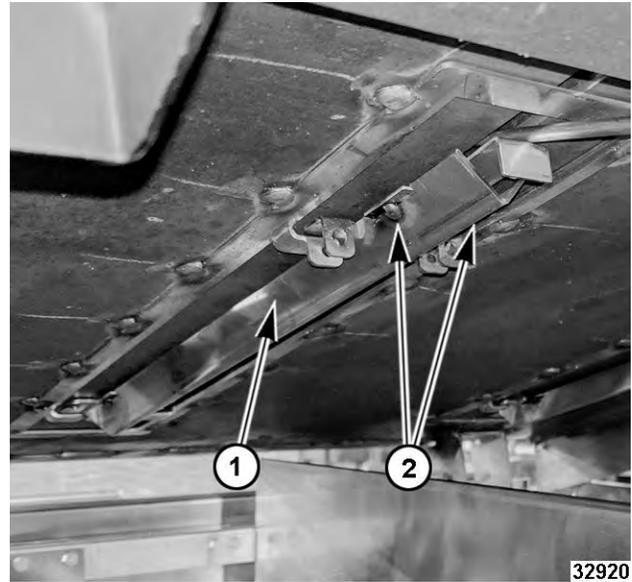


Fig. 96

4. Pull bulb shield forward slightly until front tabs disengage from the plate weldment. Drop bulb shield down in the front, keeping the rear tabs seated in weldment.
5. Remove MANIFOLD COVER.

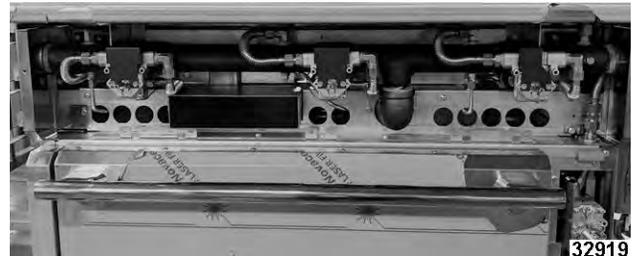


Fig. 97

6. Loosen inlet (1, Fig. 98) and outlet (2, Fig. 98) compression nuts.

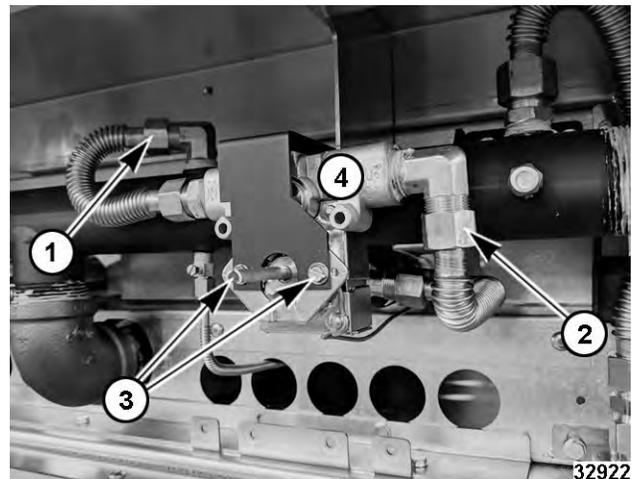


Fig. 98

7. Remove mounting screw (3, Fig. 98).

8. Remove thermostat body and capillary tube assembly (4, Fig. 98).

NOTE: Observe routing for installation purposes.

9. Mount new thermostat onto manifold and make all gas connections. Uncoil the bulb and capillary and feed through opening in unit front frame.

NOTICE

Ensure that installation is leak free.

10. Place bulb into groove on bottom of plate. Ensure that bulb is inserted all the way into groove so that tip is touching the back end. Gently use the capillary to press bulb up into groove so that it rests flat against the top.



Fig. 99

11. While still holding the bulb against the top and end of the groove using the capillary, lift the bulb shield up and slot back into place.

NOTICE

Spring clips should firmly press bulb up against the plate when shield is in place. If bulb slips off of spring clips or is not sitting flat against plate, lower shield and reseal bulb properly. Failure to seat bulb firmly against the top of the groove will result in thermostat not sensing temperature properly and the griddle will not heat properly.

12. Verify bulb is seated properly and shield (1, Fig. 100) is back in place, fasten tight with two screws (2, Fig. 100).

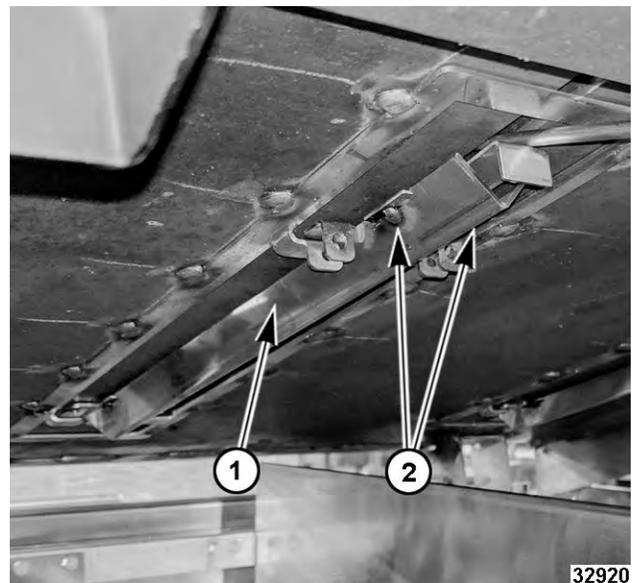


Fig. 100

13. Coil all excess capillary up in space between front frame and burner heat shield.

NOTICE

Only the length of capillary needed to reach from here to the bulb should be outside of this space. Excess capillary left outside of this space, either inside burner chamber or in manifold area around the thermostat, will be exposed to unwanted heat (from either griddle burner or range oven) and will give false readings to thermostat and cause poor heating.

14. Carefully lower griddle plate back into place.
15. Replace manifold cover and bullnose.

⚠ 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.

16. Perform TEMPERATURE CONTROL CALIBRATION.
17. Check for proper operation.

GRIDDLE PILOT ASSEMBLY



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Raise griddle plate from the front and support with wood blocks.



Fig. 101

2. Remove MANIFOLD COVER.
3. Disconnect pilot flex tube (1, Fig. 102).

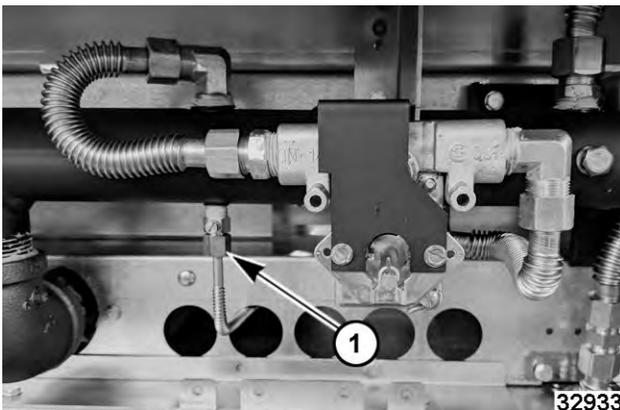


Fig. 102

4. Remove pilot (1, Fig. 103) from clip on burner.

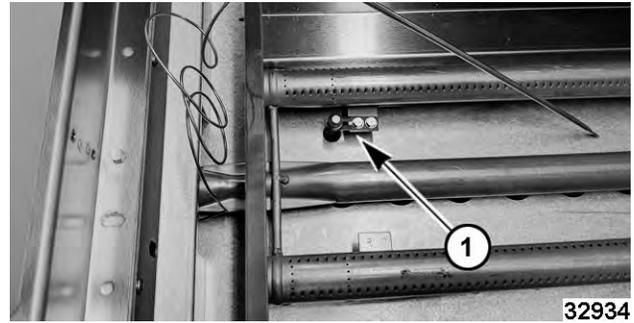


Fig. 103

⚠ 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.

5. Reverse procedure to install.
6. Verify proper operation.

GRIDDLE BURNER ORIFICE



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Remove MANIFOLD COVER.
2. Disconnect elbow to access burner orifice.



Fig. 104

3. Remove orifice.
4. Reverse procedure to install and check for proper operation.

⚠ 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.

NOTE: When installing, ensure orifice hood is aligned and centered in the burner assembly opening.

SERVICE PROCEDURES AND ADJUSTMENTS

GAS LEAK CHECK

⚠ 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.

After completing service on any gas equipment, all gas joints disturbed during service must be checked for leaks. DO NOT USE AN OPEN FLAME. Use a hazardous gas tester or use a soap and water solution as follows:

1. Apply a soap and water solution to gas joint and check for bubbles.
2. If bubbles are present, the joint is leaking and must be repaired before using equipment.

GAS PRESSURE CHECK



⚠ WARNING

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

1. Remove MANIFOLD COVER.
2. Turn off gas supply.
3. Remove one plug from gas manifold.

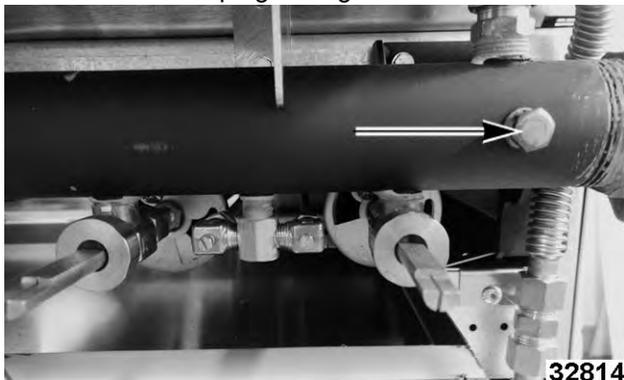


Fig. 105

4. Connect manometer to gas manifold.
5. Turn on gas supply.
6. Check manometer reading.

Reading should be...

- 5.0" W.C. for Natural Gas.
- 11.0" W.C. for Propane Gas.

NOTE: In a battery arrangement, connect manometer to center unit of the battery.

NOTE: If pressure reading is taken at the oven burner or anywhere other than the main gas manifold pipe, pressure reading will not be valid.

⚠ 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.

7. Perform either:
 - If pressure is correct, no adjustment is necessary. Remove manometer and replace manifold cover.
 - If pressure is NOT correct, perform GAS PRESSURE REGULATOR ADJUSTMENT (OPTIONAL).

GAS PRESSURE REGULATOR ADJUSTMENT (OPTIONAL)



⚠ WARNING

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

1. Check incoming gas line pressure. Refer to: GAS PRESSURE CHECK and leave manometer installed.
2. Remove regulator closing nut.
3. Turn adjusting screw with flat-edge screwdriver to adjust.
 - Clockwise to Increase Pressure.
 - Counterclockwise to Decrease Pressure.
4. Turn adjusting screw as needed for proper regulator outlet pressure.
 - 6.0" W.C. for Natural Gas.
 - 10.0" W. C. for Propane Gas.
5. Check for insufficient gas volume:
 - A. Fire up one burner and take a reading, then fire up all burners on the range and take a reading.
 - B. Fire up all gas appliances on that supply line and take a reading.

NOTICE

At no time should the pressure drop more than ½" W.C.

- C. If pressure drop is greater than ½" W.C., go to the next step.
- D. Turn off all gas valves. Adjust regulator to no more than ½" W.C. above specifications, which would be 6.5" W.C. for natural gas or 10.5" W.C. for propane.
- E. Repeat Step 1 and Step 2.
- F. If pressure drop is still greater than ½" W.C., there may be a lack of volume due to too small of a supply line. Check with gas provider about installing a larger size gas line.

⚠ 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.

6. Install regulator closing nut.
7. Remove manometer and reinstall plug.

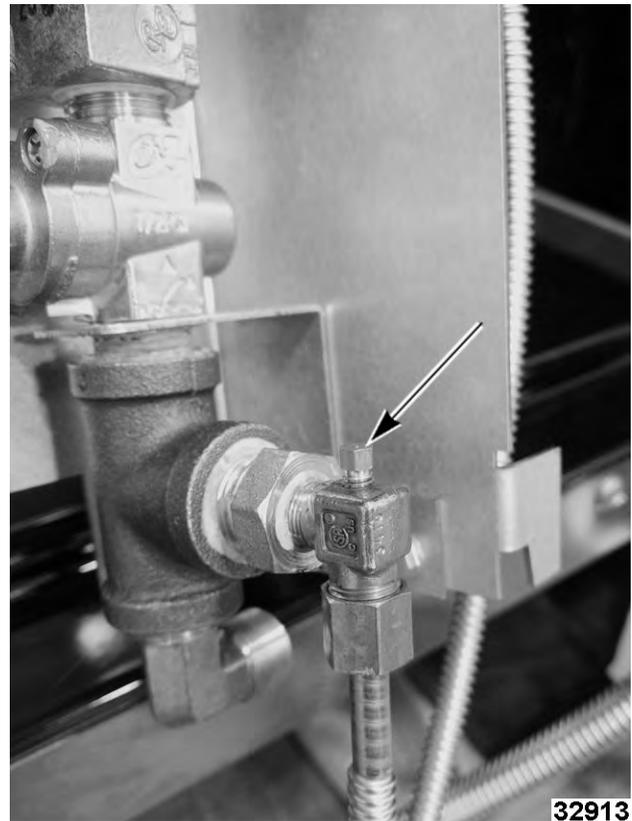
OVEN PILOT FLAME CHECK AND ADJUSTMENT

1. Verify pilot flame is:
 - A. Large enough to completely engulf the tip of the thermocouple/sensor and make the tip of thermocouple/sensor red hot.
 - B. A sharp, well-defined two-tone blue flame when burning natural gas.

NOTICE

When burning propane (LP) there may be a tiny yellow tip to the flame. This yellow tip should not be more than 10% of the total flame size.

2. Remove OVEN CONTROL PANEL COVER.
3. Locate pilot adjustment screw.



32913
Fig. 106

4. Rotate adjustment screw.
 - Clockwise to Decrease Flame Height
 - Counterclockwise to Increase Flame Height
5. Install OVEN CONTROL PANEL COVER.

TOP BURNER PILOT

1. Verify pilot flame is:
 - A. Large enough to completely engulf the tip of the thermocouple/sensor and make the tip of thermocouple/sensor red hot.
 - B. A sharp, well-defined two-tone blue flame when burning natural gas.

NOTICE

When burning propane (LP) there may be a tiny yellow tip to the flame. This yellow tip should not be more than 10% of the total flame size.

2. Remove MANIFOLD COVER.
3. Locate pilot adjustment screw (1-Rear, 2-Front, Fig. 107).

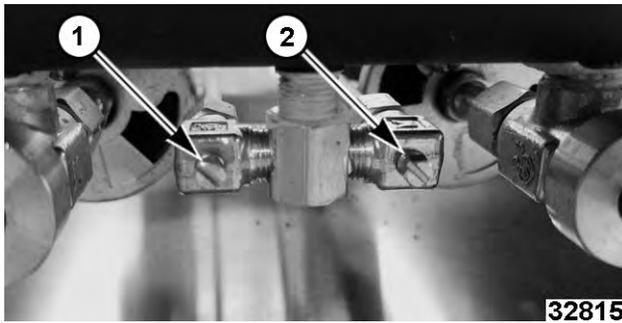


Fig. 107

4. Rotate adjustment screw.
 - Clockwise to Decrease Flame Height.
 - Counterclockwise to Increase Flame Height.
5. Install MANIFOLD COVER.

OVEN BURNER NOZZLE AND GAS ORIFICE CHECK

NOTICE

The oven burner nozzle is mounted between the oven gas manifold and u-burner assembly. If burner operation seems poor and other systems have been checked, remove burner nozzle and check for blockage or damage.



WARNING

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



WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Disconnect supply power and gas.
2. Remove OVEN BURNER NOZZLE AND GAS ORIFICE.
3. Remove burner hood.
4. Check for blockage or damage.

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.

5. Reverse procedure to install.

6. Verify proper oven operation.

AIR SHUTTER ADJUSTMENT

NOTICE

Burner efficiency depends on a delicate balance between air supply and the volume of gas. When this balance is disturbed, poor operating characteristics and excessive gas consumption will occur. An air shutter on the front of each burner controls the air-gas mixture. With natural gas, the air shutter will be approximately 50% open. On propane (LP) the air shutter will be approximately 90% open.

If flame is soft, lazy , or yellow, there is not enough primary air. To correct this condition:

1. Rotate air shutter open until burner flame begins to lift from the burner, then close shutter slightly.
2. If this does not solve the problem, check burner for obstructions and clear as necessary.

If flame is lifting off burner there is too much primary air.

1. Close air shutter slightly.
2. Retest.

NOTE: If grates, hot tops or oven bottoms have been removed, recheck flame adjustments with these items in place.

NOTICE

If burner operation still seems poor and other systems have been checked, refer to: OVEN BURNER NOZZLE AND GAS ORIFICE CHECK.

TOP BURNER ADJUSTMENT

1. Remove MANIFOLD COVER.
2. Loosen screw on air shutter. Fig. 108



Fig. 108

Standard Models Fig. 109

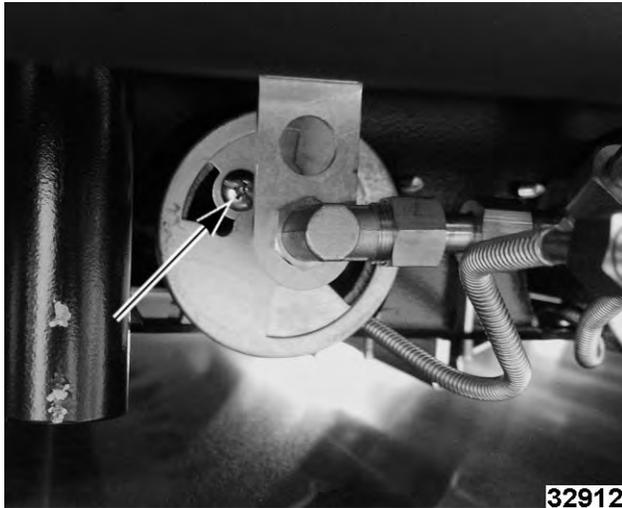


Fig. 109

3. Light burners and observe quality of the flame.
4. Adjust air shutter. Refer to: AIR SHUTTER ADJUSTMENT.
5. Repeat Step 2 through Step 4 for all remaining burners.
6. Tighten screw for air shutter.
7. Replace MANIFOLD COVER.
8. Verify proper oven operation.

OVEN BURNER ADJUSTMENT

1. Remove KICK PANEL.
2. Remove food deflector.



Fig. 110

3. Remove screw securing burner drawer box to oven.

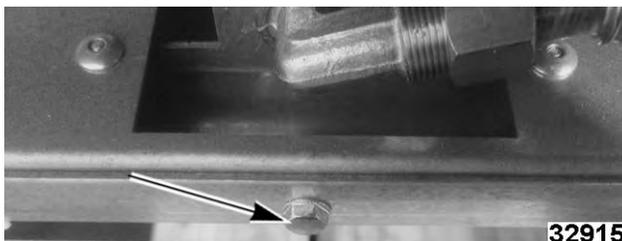


Fig. 111

4. Light the oven and observe quality of the flame.
5. Adjust burner.
 - Rotate Burner Hood Clockwise to Decrease Air.
 - Rotate Burner Hood Counterclockwise to Increase Air.
6. Tighten screw on burner hood.
7. Replace kick panel.
8. Verify proper oven operation.

OVEN DOOR MICROSWITCH TEST (C MODEL)



WARNING

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

NOTE: Oven door microswitch lever should be depressed when oven door is closed.

1. Verify pin attached to oven door hinge contacts the oven door microswitch lever when oven door is closed. An audible click should be heard when microswitch lever is depressed and the microswitch contacts close.
2. Remove OVEN DOOR MICROSWITCH.
3. Use a VOM to perform a continuity test on microswitch.
4. The rear contact on bottom of microswitch is the COMMON connector. The other two connectors are the NORM CLOSED and NORM OPEN connectors.
5. Check continuity between rear (COMMON) connector and one of the two other contacts. If it is open, (no continuity) depressing switch lever should close the connection. If it is closed (continuity) depressing the switch should cause the connection to open.
6. Repeat this procedure for the other microswitch contact.
7. If either contact fails to switch from open to closed (normally open contact) or fails to switch from closed to open (normally closed contact), replace the microswitch.
8. Install OVEN DOOR MICROSWITCH.
9. Verify proper oven operation.

FAN CONTROL SWITCH (C MODEL)



⚠ WARNING

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

1. Remove OVEN CONTROL PANEL COVER.
2. Use a VOM to perform a continuity test on fan control switch.
3. With fan control switch in OFF position, verify there is no continuity between contacts on either side of the switch.
4. Place fan control switch in ON position. Verify continuity is present between contacts for wires 62 & 13 and wires 63 & 64. Verify there is no continuity between wires 63 & 61.
5. Place fan control switch in the COOL DOWN position. Verify continuity is present between contacts for wires 63 & 61. Verify there is no continuity between wires 62 & 13 and wires 63 & 64.
6. If fan control switch fails any continuity tests, replace FAN CONTROL SWITCH.
7. Verify proper oven operation.

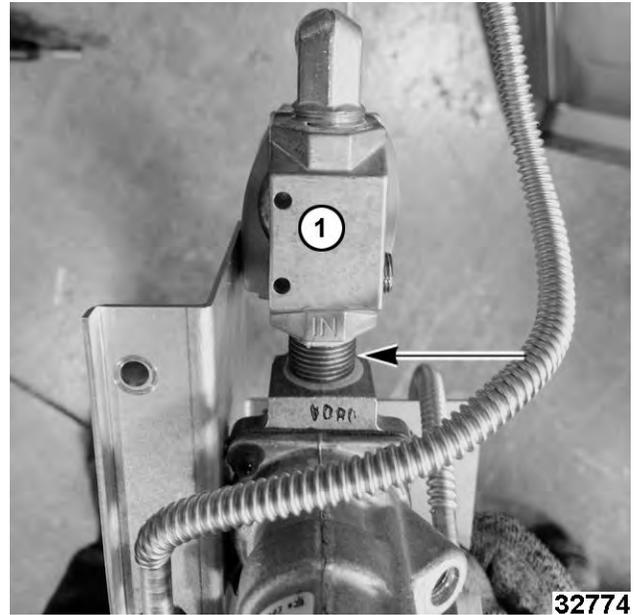


Fig. 112

CURRENT PRODUCTION

SOLENOID TEST (C MODEL)



⚠ WARNING

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



⚠ WARNING

Shut off the gas before servicing the unit and follow lockout / tagout procedures.

1. Remove OVEN CONTROL PANEL COVER.
2. Locate solenoid (1, PREVIOUS PRODUCTION - CURRENT PRODUCTION).

PREVIOUS PRODUCTION

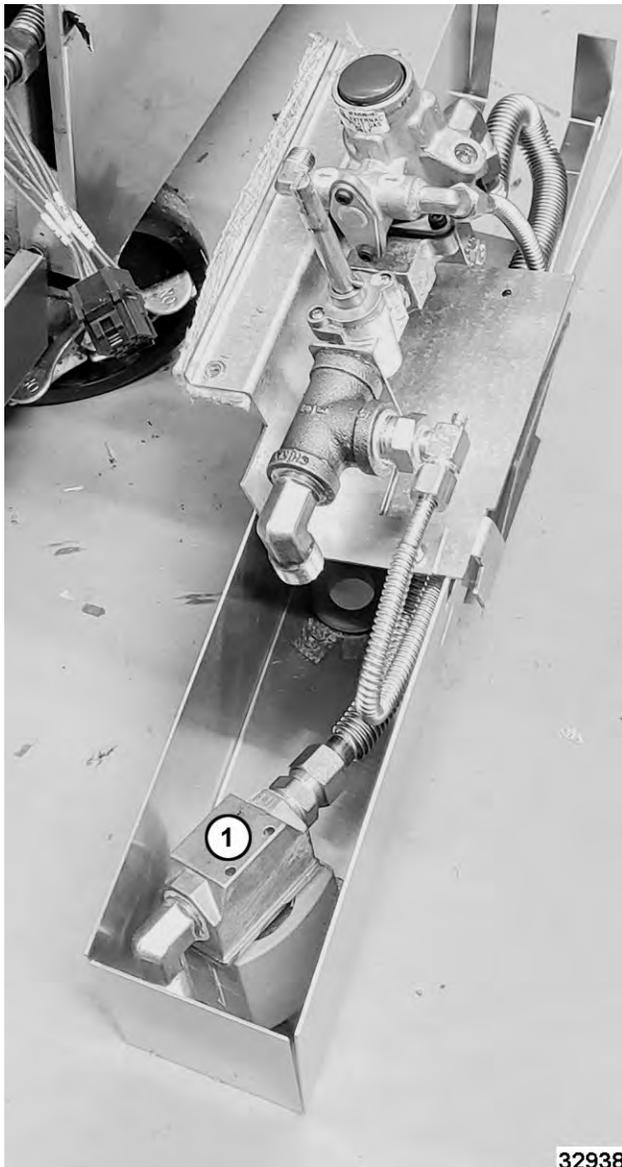


Fig. 113

3. Place fan control switch in the ON position. An audible click should occur when the switch is activated. If the solenoid does not cycle, check for proper voltage and ground at the solenoid as follows:
 - A. Place a multi meter in appropriate AC range (220 volts AC or 120 volts AC). Check for voltage at solenoid. If voltage is not available, shut off electrical power to oven and check continuity between the power switch and solenoid.
 - B. If voltage is available, shut off electrical power to the oven. Place multi meter in continuity range. Check for continuity between the solenoid ground connection and a ground. If continuity is not available, check and repair ground connections.

- C. If continuity is available, remove **SOLENOID** and check for solenoid orifice obstruction.

⚠ 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.

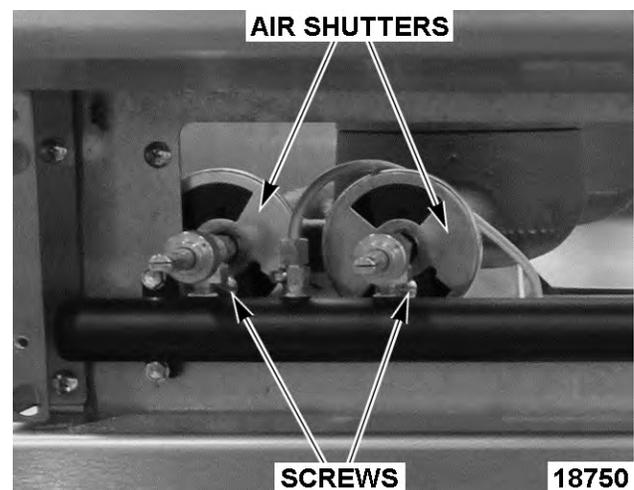
4. Reverse procedure to install solenoid.
5. Verify proper oven operation.

BURNER AIR SHUTTER ADJUSTMENT

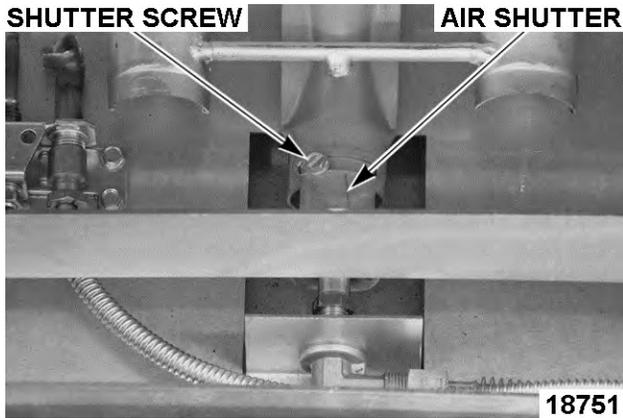
The efficiency of the burner depends on a delicate balance between the air supply and volume of gas. Whenever this balance is disturbed, poor operating characteristics and excessive gas consumption may occur. An air shutter on the front of the burner controls the gas mixer balance. A yellow streaming flame on the burner is an indication of insufficient primary air.

To correct this condition, loosen the shutter screw and rotate the air shutter open until the flame begins to lift from the burner, then close the shutter slightly and tighten the shutter screw. 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.

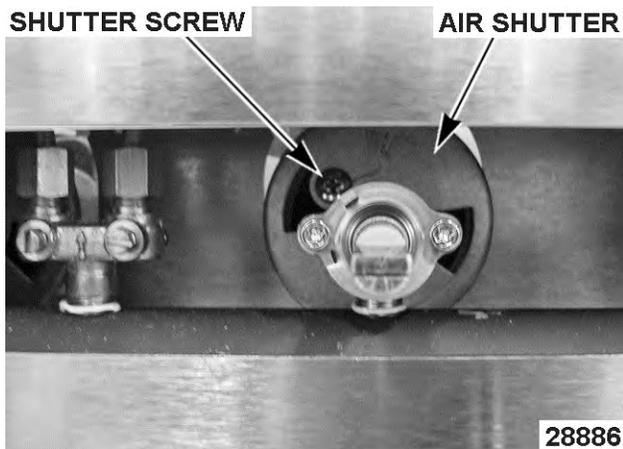
NOTE: The factory default air shutter positions are half open natural; full open propane.



Top Burner Air Shutters



Oven Burner Air Shutter



Charbroiler Burner Air Shutter

CHARBROILER PILOT ADJUSTMENT

Pilot Adjustment

- Turn pilot adjustment screw clockwise to decrease the flame.
- Turn pilot adjustment screw counter-clockwise to increase the flame.
- Pilot is in adjustment when it will stay on continually and lights the burner without delayed ignition.

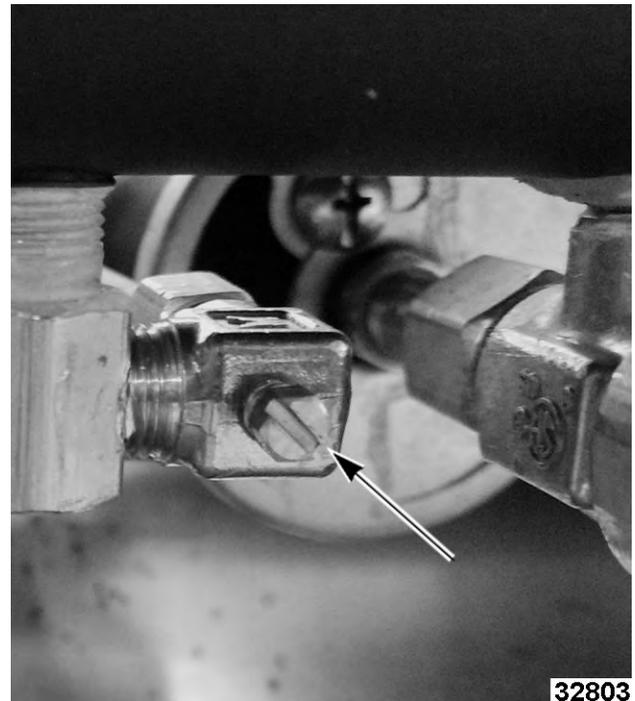


Fig. 117

GRIDDLE THERMOSTAT-COMBO VALVE CALIBRATION

Operation

The thermostat-combo valve is self-regulating and the thermostat is internally connected to the valve. When thermostat dial is set to 350°F and the griddle is below setpoint, the valve opens to allow gas flow and burner lights. As the griddle temperature rises, the pressure from the sensor bulb secured to the bottom of the griddle plate increases. Fluid in the capillary tube expands with the temperature increase and presses against a diaphragm in the thermostat. When the griddle temperature reaches setpoint, the internal valve closes to stop gas flow to burner.

When the griddle temperature decreases below setpoint, the pressure is reduced in the capillary which reduces the force on the diaphragm allowing the valve to open again.

Calibration

1. Clean temperature test area on griddle zone surface. Apply a small amount of clean cooking oil to the test area to ensure good surface probe contact.
2. Place a thermocouple surface probe in center of griddle zone to verify actual temperatures throughout adjustment. See TOOLS for thermocouple type. See table for proper testing locations according to griddle size.

NOTE: This procedure will need to be performed for each testing location on all griddle zones.

Griddle Size	Distance(s) From Left Edge of Griddle
12"	6"
24"	6", 18"
36"	6", 18", 30"

NOTE: All readings taken 12" from front of griddle.

3. Turn thermostat knob to 350°F and allow griddle to cycle 3 complete times.
 - A. If the customer has a preferred temperature setting that they always operate the oven at such as 325°, 375° or 400°, you may calibrate to that temperature instead.

NOTE: Most calibrations are made at 350°F. Thermostat tolerance will increase at higher temperature settings.

4. Observe burner flame. Note temperature tester reading when burner turns ON and OFF.
5. Add these two temperatures together, then divide the sum by 2 to obtain an average temperature. If the average temperature is more than ±25° from knob setting, calibrate as follows:
 - A. Pull off knob.

NOTE: Do not rotate knob during removal.

NOTICE

Do not turn the adjustment screw more than 3/8 turn or damage to the thermostat may occur.

- B. While holding outer shaft in place, turn inner screw using a small flat edge screwdriver 1/8 turn clockwise to decrease and counterclockwise to increase. 1/4 turn = 35°F.

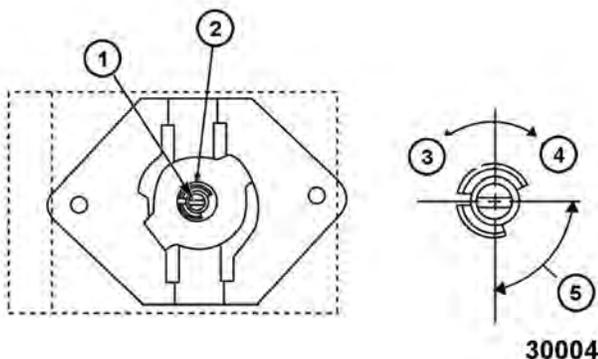


Fig. 118

FRONT OF THERMOSTAT SHOWN IN Fig. 118	
Item	Description
1	Inner screw for temperature adjustment.
2	Outer Shaft.
3	Direction to increase temperature.
4	Direction to decrease temperature.
5	1/4 turn equals 35°F.

- C. Verify temperature setting at 350°F (or customers preferred setting). Allow griddle to cycle 3 times.

NOTE: You must allow the griddle to cycle 3 times to stabilize oven temperature or the calibration adjustment may be invalid. **DO NOT TURN KNOB.**

- D. Take a temperature reading. If temperature is within acceptable limits, continue to next step. If temperature is not within ±25°F then readjust as outlined in this procedure. If 3 consecutive adjustments do not produce acceptable results, replace thermostat and verify calibration.
- E. Apply a small amount of a non permanent type sealer (preferably fast drying) such as nail polish or equivalent around the inner screw head to prevent movement during outer shaft rotation. Allow sufficient time for the applied sealer to dry then install knob. See TOOLS.
- F. If calibrating at 350°F, verify temperature at 400°F. If calibrating at a customer preferred temperature setting, select one temperature setting above the customer preferred setting. If the customers temperature setting is 450°F, then calibrate at that temp only. Allow oven to cycle 3 times at the temperature setting. If actual oven temperature is not within ±25°F of the setting, replace thermostat and verify calibration.

BY-PASS FLAME ADJUSTMENT

NOTE: This adjustment must be made with the burner pilot flame ignited.

1. Turn on oven valve.
2. Turn the thermostat dial to 200°F to ignite main burner.

3. With oven cool, turn dial counterclockwise slowly from "LOW STOP", until by-pass seat just snaps on.
4. Remove thermostat dial.
5. With a screwdriver, turn by-pass flame adjustment screw (1, Fig. 119) counterclockwise to increase by-pass flame or clockwise to decrease flame until the entire burner has 1/8" min. to 1/4" max. stable flame on each port.

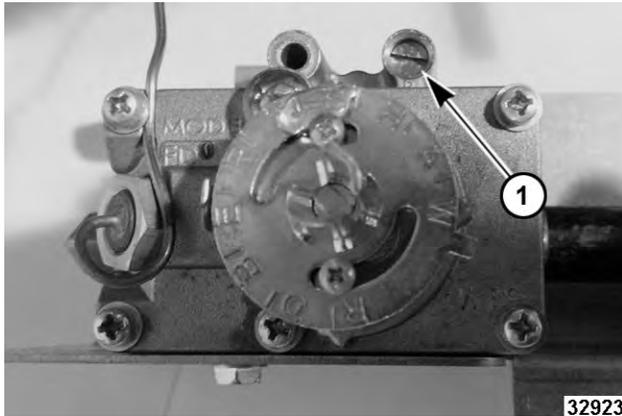


Fig. 119

6. Replace thermostat dial.

NOTE: While making adjustment, if oven becomes heated while dial is set at low range (below 350°), the by-pass flame will shut off completely. If this occurs, turn dial counterclockwise slowly until by-pass gas snaps on. Then check by-pass adjustment as stated above.

TEMPERATURE CONTROL CALIBRATION

NOTE: Field CALIBRATION is seldom necessary and should not be resorted to unless experience with cooking results definitely proves that the control is not maintaining set temperature. To check oven temperatures when calibrating, use a Robertshaw Test Instrument or a reliable mercury oven thermometer.

Standard Oven

1. Place thermocouple of test instrument or thermometer in middle of the oven. Close oven door.
2. Light main burner.
3. Turn dial to any temperature setting and allow oven to heat until flame cuts down to bypass. Let cycle several times.

4. After burner has been on sufficiently long enough to cut down the bypass flame, check oven temperature. Calibrate the control if your reading is not within 15°F of the dial setting.

If CALIBRATION is required, proceed as follows:

- A. Remove knob (1, Fig. 120).



Fig. 120

- B. Loosen both calibration screws (1, Fig. 121) until calibration plate moves independently of the control.

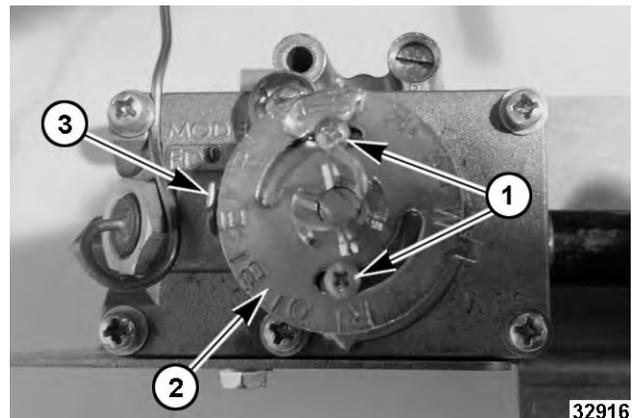


Fig. 121

- C. Turn calibration plate (2, Fig. 121) until mark corresponding to test instrument or thermometer reading is in line with center of pointer "A" (3, Fig. 121), and while holding in this position, tighten calibration screws firmly.
- D. Replace knob.

NOTE: If above adjustment is prevented by the loosened calibration screws being in contact with the

ends of the screw clearance slots in the calibration plate, remove screws, and after turning the calibration plate to proper location, reassemble screws in the other tapped holes designed for them.

Convection Oven

1. Place thermocouple of test instrument in middle of oven. Close oven door.
2. Light main burner by turning thermostat dial to any temperature setting.
3. Allow oven to heat until flame cuts off. After several cycles, check temperature. If temperature does not read within 15°F of the dial setting, calibrate as follows:
4. Pull dial straight off dial shaft without turning (Fig. 122).

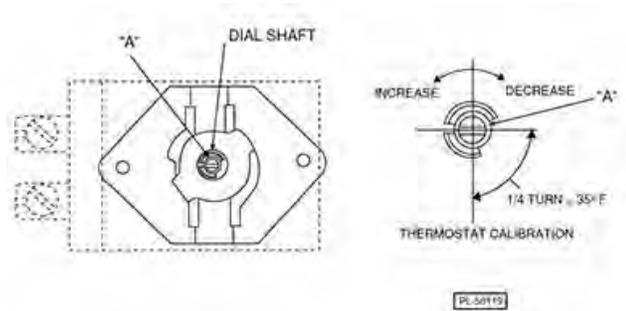


Fig. 122

5. Turn screw "A" clockwise to decrease temperature and counterclockwise to increase temperature (Fig. 122); 1/4 turn of Screw "A" represents a temperature shift of 35°F.

ELECTRICAL OPERATION

COMPONENT FUNCTION

Power Cord	A three-prong grounding plug that connects the oven to the electrical power source. The oven will not operate unless it is connected to an electrical power supply.
Convection Oven Solenoid	The solenoid is a normally closed switch that opens and closes the gas valve. When the electrical circuit is completed through the solenoids coil, a magnetic field is created, drawing on a spring-loaded plunger which opens the gas valve.
Oven Door Microswitch	Oven Door Microswitch The oven door microswitch is located behind the control panel. When the oven door opens, the door switch opens the circuit to the pilot solenoid and convection fan motor. NOTE: When the fan control switch is placed in the COOL DOWN position, the oven door microswitch is bypassed to allow the convection fan to run while the oven door is opened.
Fan Control Switch ...	The manually operated, 3-position fan control switch controls the convection motor. The switch is located on the control panel. When the fan control switch is placed in the ON position, the convection fan will come on when the oven door microswitch contacts are closed. When the fan switch is placed in the COOL DOWN position, the door switch is bypassed to allow the fan to run while the oven door is open to rapidly lower the oven temperature. When the fan switch is placed in the OFF position, the convection motor contacts are open preventing the fan from operating.
Junction Box	A junction box attached to the back of the oven is the connection point for the oven electrical wires.
Convection Oven Motor	The single-phase convection oven motor rotates a rotor blower that circulates oven-heated air. An internal centrifugal switch will close when the motor begins to rotate to complete the electrical circuit. The convection motor should operate when the door is closed and the fan control switch is placed in the ON position. The convection motor should shut off when the oven door is opened unless the fan control switch is placed to the COOL DOWN position. In the COOL DOWN position the oven door microswitch is bypassed so that the convection motor will run while the oven door is open to rapidly lower the oven temperature.
Standard Oven Thermostat	Controls temperature in standard oven. Temperature range 150° to 500°, utilizes by-pass flame.
Convection Oven Thermostat	Controls temperature in convection oven. Temperature range 150° to 500°.

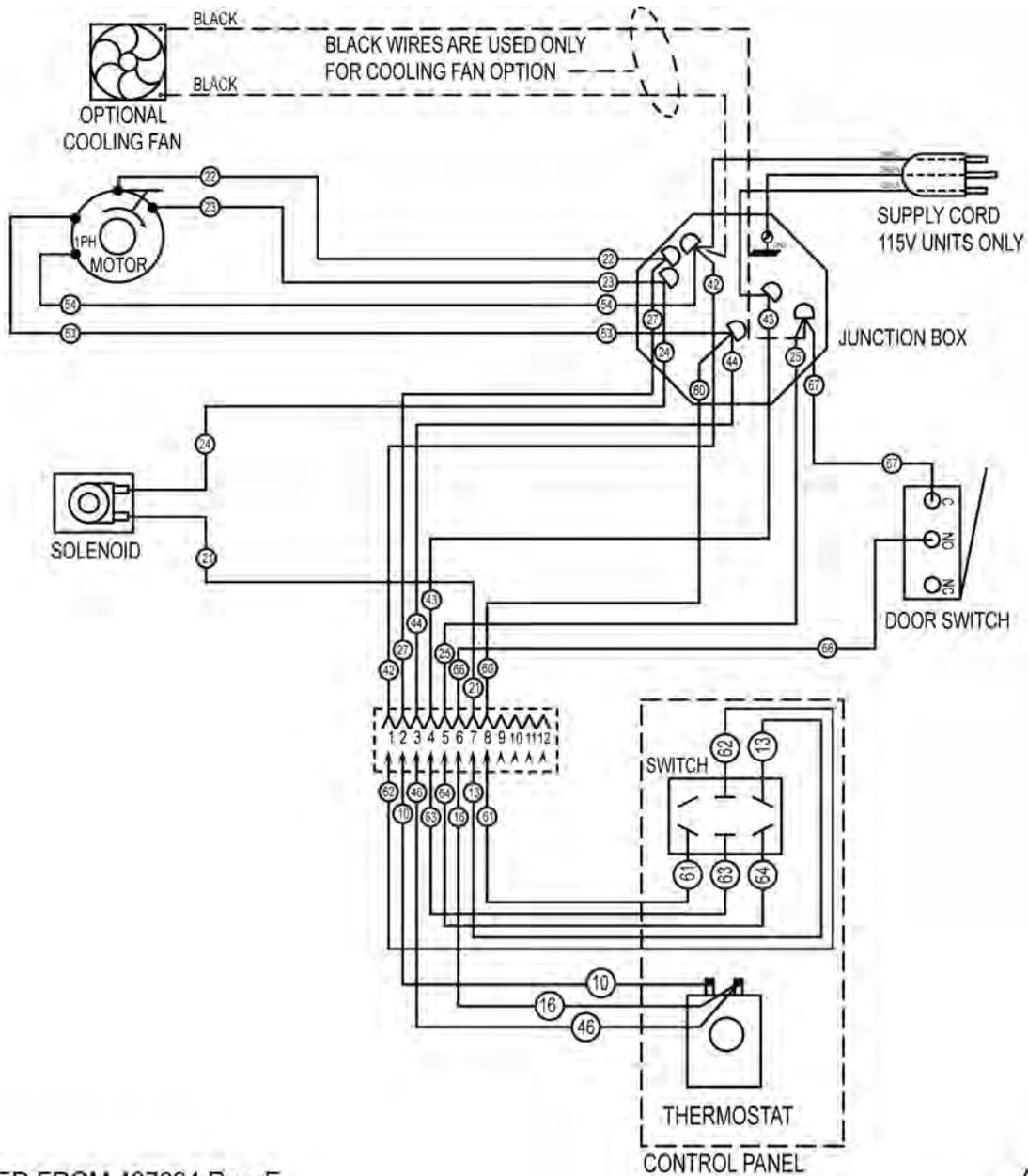
SEQUENCE OF OPERATION (C MODEL)

Refer to WIRING DIAGRAM.

Initial Conditions

1. Conditions
 - A. The oven has been properly installed and the power plug is plugged into a wall outlet that agrees with the required voltage on the rating plate.
 - B. The oven manual gas shutoff valve is in the OPEN position.
 - C. The oven door is open.
 - D. The oven pilot is lit.
 - E. The temperature control is set to the desired temperature.
2. Turn the fan control switch to ON.
 - A. Power is applied to one side of the convection motor.
 - B. Power is applied to one side of the solenoid.
3. Oven door closed.
 - A. Oven door microswitch contacts will close.
 - B. Power is applied to the other side of the convection motor and it will begin to rotate.
 - 1) The convection motor centrifugal switch will close.
 - 2) Power will flow to the solenoid and the thermostat.
 - 3) The solenoid will open the gas valve and gas will flow to the burner.
 - 4) Oven temperature will be controlled by the oven control valve.
4. Oven door opened.
 - A. With the fan control switch in ON, the oven door microswitch contacts will open and power will be removed from one side of the convection motor.
 - 1) The centrifugal switch will open and power will be removed from the solenoid and the thermostat.
 - 2) The solenoid will close the gas valve and shutoff the gas to the burner.
 - 3) Pilot remains lit.
 - B. With the fan control switch in COOL DOWN, the oven door microswitch is bypassed to the convection motor.
 - 1) The convection motor will continue to run.
 - 2) The oven door microswitch will remove power to one side of the thermostat and the solenoid.
 - 3) The solenoid will close the gas valve and shutoff gas to the burner.
 - 4) Pilot remains lit.
5. Fan control switch to OFF.
 - A. Power is removed from one side of the convection motor.
 - 1) The centrifugal switch will open and power will be removed from the solenoid and the thermostat.
 - 2) The solenoid will close the gas valve and shutoff the gas to the burner.
 - 3) Pilot remains lit.

WIRING DIAGRAM



DERIVED FROM 497694 Rev. E

AI4929

Fig. 123

TROUBLESHOOTING

TROUBLESHOOTING CHART

SYMPTOM	POSSIBLE CAUSES
Pilot does not remain lit.	<ol style="list-style-type: none"> 1. Oven front flueing. <u>Diverter (exhaust) baffle</u> is missing. 2. Low gas pressure. 3. Thermocouple not positioned correctly or malfunctioning. 4. Control valve malfunction.
Burner flame too yellow.	<ol style="list-style-type: none"> 1. Orifice incorrect size or obstructed. 2. Air Shutter not adjusted correctly. 3. Incorrect gas pressure. 4. Incorrect gas type.
CONVECTION OVENS ONLY	
Convection motor does not operate; Burner does not light.	<ol style="list-style-type: none"> 1. Main power supply not on. 2. Incorrect voltage. 3. Oven door switch open or inoperative. 4. Fan control switch open or inoperative.
Convection motor does not operate. Burner lit.	<ol style="list-style-type: none"> 1. Convection motor inoperative.
Convection motor operates but no gas flow to burner. Pilot lit.	<ol style="list-style-type: none"> 1. Thermocouple not positioned correctly or malfunctioning. 2. Solenoid malfunction. 3. Oven control valve malfunction.
Convection motor noisy.	<ol style="list-style-type: none"> 1. Fan mounting loose. 2. Blower loose on motor shaft. 3. Motor malfunction.



V-SERIES HEAVY DUTY BROILERS, DOUBLE DECK AND RANGE MATCH MODELS

For a complete listing of models, see the MODELS section.

- 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.

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GENERAL

INTRODUCTION

This manual is for the Vulcan V-Series Gas Broilers which include the double deck broiler models and the single broiler over the Heavy Duty Range (HDR) models. Procedures in this manual will apply to all models unless specified. Pictures and illustrations will be of model VIB2 - Infrared Broiler over Ceramic-Radiant Broiler unless otherwise noted.

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

MODELS

Range Match Broilers on Base (Ceramic-Radiant Burner)

- VBB1F - Modular (for refrigerated base mount only)
- VBB1BF - Cabinet Base
- VBB1SF - Standard Oven Base
- VBB1CF - Convection Oven Base

Range Match Broilers on Base (Infrared Burner)

- VIR1F - Modular (for refrigerated base mount only)
- VIR1BF - Cabinet Base
- VIR1SF - Standard Oven Base
- VIR1CF - Convection Oven Base

Double Deck Broilers

- VIR2 - Infrared Broiler over Infrared Broiler
- VBB2 - Ceramic-Radiant Broiler over Ceramic-Radiant Broiler
- VBI2 - Ceramic-Radiant Broiler over Infrared Broiler
- VIB2 - Infrared Broiler over Ceramic-Radiant Broiler

INSTALLATION, OPERATION AND MAINTENANCE

For detailed installation, operation and cleaning instructions, refer to [F38215](#) V-Series Heavy Duty range (HDR) Broilers Operations Manual sent with each unit. The manual is also available online at www.vulcanequipment.com.

RACK POSITION AND GAS SETTING

NOTE: Infrared burner models must use the full gas setting (knob fully counterclockwise) to achieve the best burner performance and highest broiler temperatures. Lower broiler temperatures can be achieved by using a lower gas setting (knob in the range just past off but less than fully counterclockwise). When using a lower gas setting, the flame should remain lit and be steady across the entire burner surface.

For information on rack position and gas setting, refer to [F38215](#) V-Series Heavy Duty range (HDR) Broilers Operations manual sent with each unit. The manual is also available online at www.vulcanequipment.com.

SPECIFICATIONS

GAS PRESSURES

- **Manifold/Operating Pressure**
 - Natural - 6" W.C.
 - Propane - 10" W.C.
- **Inlet Supply Pressure**
 - Natural - Recommended 7" - 9" W.C. with a minimum of 7" W.C.
 - Propane - Recommended 11" - 12" W.C. with a minimum of 11" W.C.
 - Maximum 14" W.C. (0.5 PSI) for Natural or Propane.

LUBRICATION

Anderson and Forrester (or comparable) valve grease for burner valve stems. Apply light coat to valve stems. Valve grease must be insoluble in propane and natural gas.

TOOLS

Standard

- Standard set of hand tools.
- Manometer.
- Gas leak detection equipment.
- Pipe thread sealant. Any sealant used must be resistant to the reaction of propane gases.

Special

- Pipe tee for checking gas manifold pressure after the regulator when a pressure tap is not available in the gas manifold (purchase parts locally). Assemble the parts and retain for future use on gas equipment:
 - Pipe tee sized for the gas line inlet connection and pipe fittings (pipe nipples, reducers etc.) for the connection as required.
 - Hose barb to install in the tee for connecting manometer hose.

REMOVAL AND REPLACEMENT OF PARTS

MANIFOLD COVER

1. Remove screws that secure manifold cover and remove the cover from broiler.
2. Reverse procedure to install.



Fig. 1

CONTROL VALVE COVER

⚠ 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 MANIFOLD COVER.

NOTE: When servicing the upper broiler on a double deck unit, the manifold cover on the lower broiler must also be removed.

2. Loosen set screw and remove knob from control valve.



Fig. 2

3. Remove screws securing the control valve cover [1] to broiler.



Fig. 3

4. Reverse procedure to install.

CONTROL VALVE

⚠ 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.

Accessing Control Valve

- Upper Broiler (double stack or single unit over range) - The side panel must be removed as outlined in the procedure. The rear of panel is secured to the broiler frame with screws. The bottom lip of the panel and the top lip of the panel at the both corners are an interference fit.
- Lower Broiler (double stack or finishing oven on top) - The side panel can only be pulled away from broiler at the bottom of panel. The rear of panel is secured to broiler frame with screws. The bottom lip of the panel at the front and rear are an interference fit. The top lip of the panel is secured to the broiler frame with screws.

NOTE: When servicing the upper broiler on a double deck unit, the manifold cover on the lower broiler must also be removed.

1. Remove MANIFOLD COVER.
2. Remove CONTROL VALVE COVER.
3. Remove side panel (left or right):
 - A. Loosen several screws securing brace [1] Fig. 4 to broiler frame near the side panel to remove. The upper front right of the broiler is shown in Fig. 4.

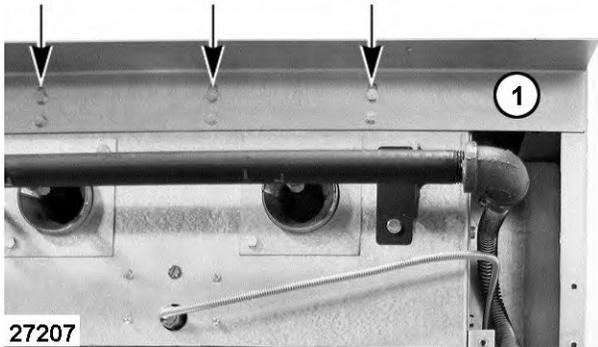


Fig. 4

- B. At rear of broiler, loosen screws securing the flue back panel [1] Fig. 5 to broiler frame then lift panel off broiler.

NOTE: The mounting holes in the flue back panel Fig. 5 are keyed to allow for easy panel removal without having to remove all the screws that are also securing the back panel Fig. 6 to broiler frame.

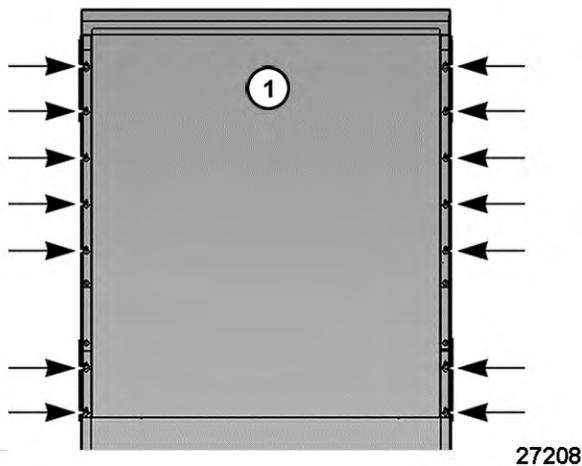


Fig. 5

- C. For the side panel being removed, remove screws at the rear that are securing the back panel [1] Fig. 6 and side panel to broiler frame. Arrows shown in Fig. 6 are pointing to the rear screw locations for right side panel removal.

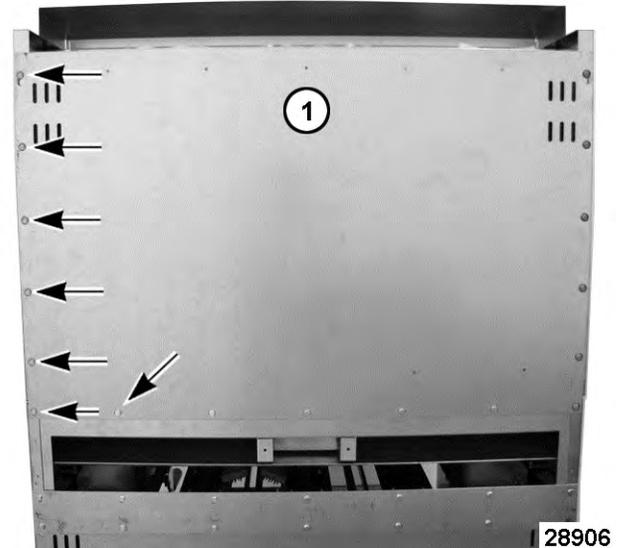


Fig. 6

- D. Remove side panel from broiler.
4. Disconnect compression nut [1] Fig. 7 above the control valve for the burner gas supply.
5. Disconnect flexible tubing compression nut [2] Fig. 7 from the pilot valve adjustment fitting.
6. Separate union fitting [3] Fig. 7 at the bottom of control valve to remove the valve.

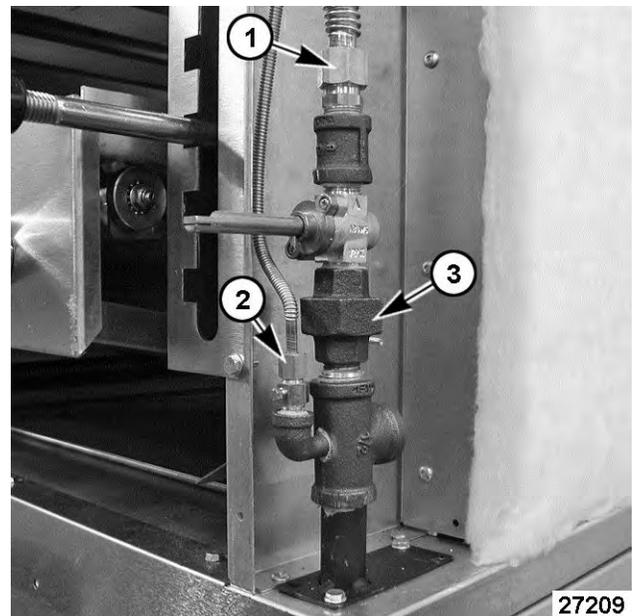


Fig. 7

7. Note locations then remove pipe fittings from control valve.

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

8. Install pipe fittings on replacement valve.

- Reverse procedure to install replacement valve.
- Check for proper operation.

PILOT TUBE (CERAMIC-RADIANT BURNER)

⚠ 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.

- Remove MANIFOLD COVER.
- Remove screws securing pilot tube mounting bracket to broiler.

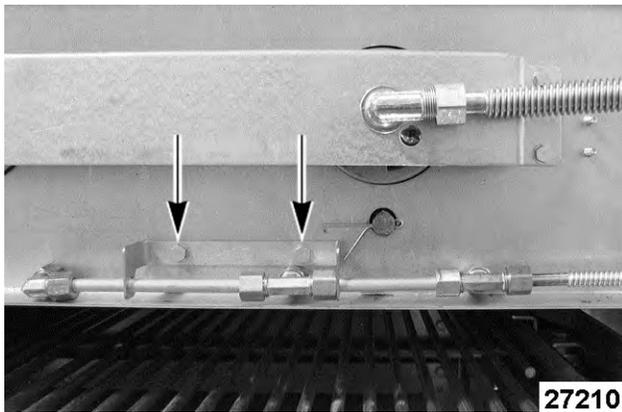


Fig. 8

- Pull the pilot tube assembly Fig. 9 away from broiler. There are 3 pilot tubes on each assembly.
- Disconnect compression nut Fig. 9 from the pilot tube fitting and remove the tube.

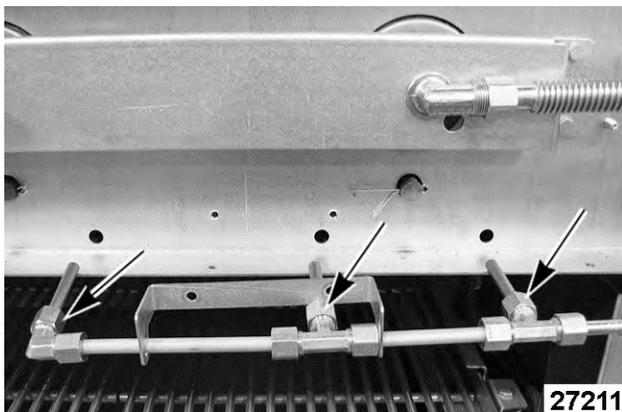


Fig. 9

NOTICE When disconnecting compression nut from the pilot tube fitting, support the fitting to prevent damage to pilot tubing.

- Reverse procedure to install and check for proper operation.

PILOT (INFRARED BURNER)

⚠ 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.

- Remove MANIFOLD COVER.
- Disconnect compression fitting [1] Fig. 10 for pilot gas tubing.
- Remove screw [2] Fig. 10 and lock washer nut [3] Fig. 11 securing pilot to mounting bracket.

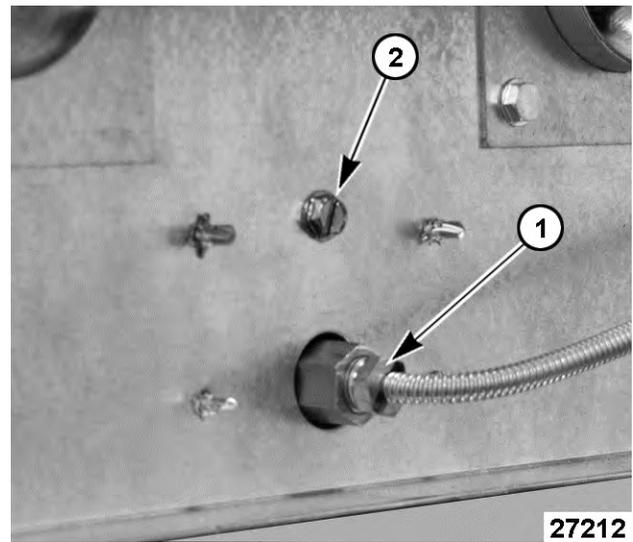


Fig. 10

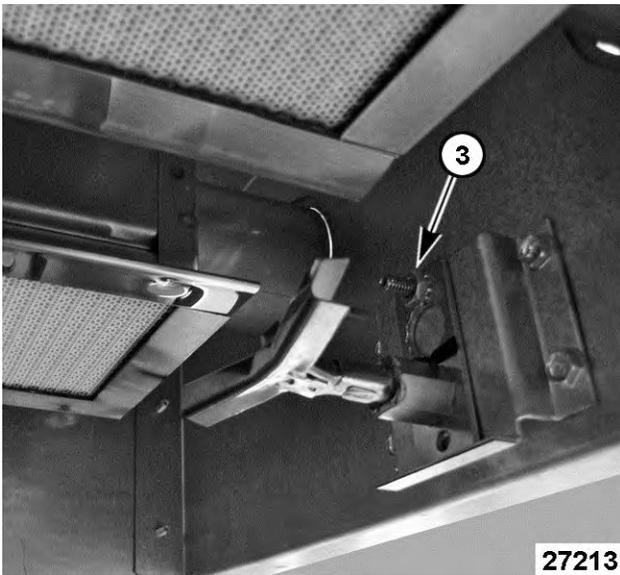


Fig. 11

4. Reverse procedure to install and check for proper operation.

CERAMIC-RADIANT BURNER

⚠ WARNING Shut off the gas before servicing the unit.

1. Remove MANIFOLD COVER.
2. Remove CONTROL VALVE COVER next to rack lift assembly handle.
3. Adjust rack assembly to the lowest position to access the burners.

NOTICE Ceramic bricks can easily be damaged. Use care when handling.

4. Lift ceramic bricks [1] Fig. 12 off the support rails [2] Fig. 12 for each burner [3] Fig. 12. There are 6 ceramic bricks for each of the 3 burners (18 bricks total).

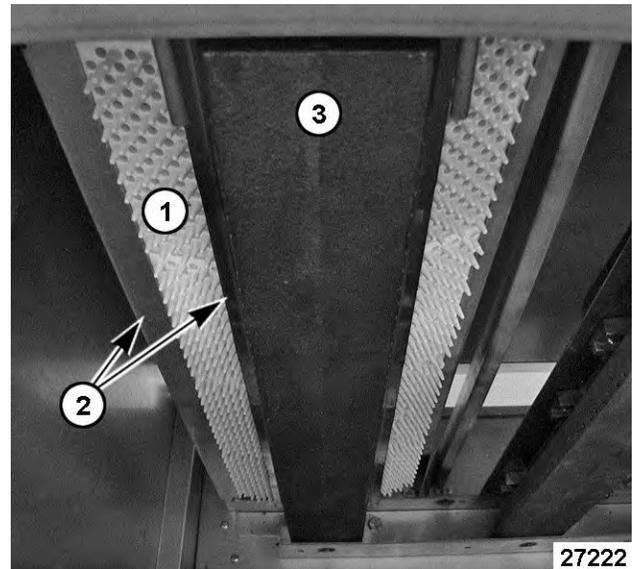


Fig. 12

5. Remove screws securing pilot tube mounting brackets [1] Fig. 13 to burner support [2] Fig. 13. Position pilot tube assemblies out of the way to the sides.

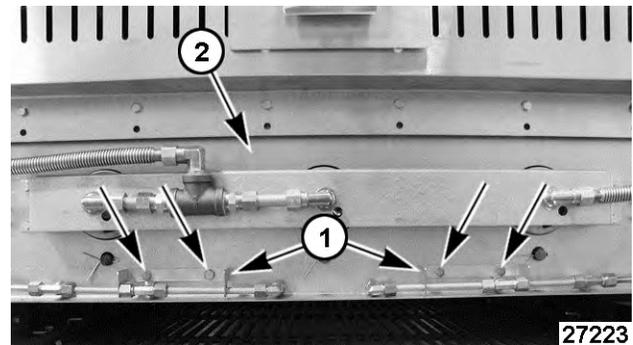


Fig. 13

6. Remove screws securing manifold bracket [1] Fig. 14 to burner support [2] Fig. 14. Allow bracket to drop down out of the way.

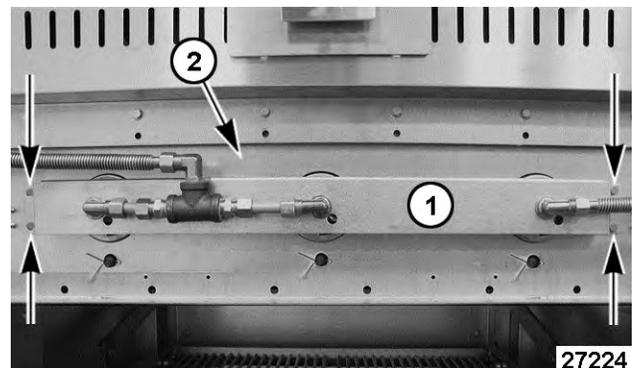


Fig. 14

7. Loosen screws [1] Fig. 15 (qty 6) by several turns that secure the burner support [2] and brace [3] Fig. 15 to broiler frame.

NOTE: Leave the burner support screws installed. The burner support is necessary to hold the burners in place during removal procedure.

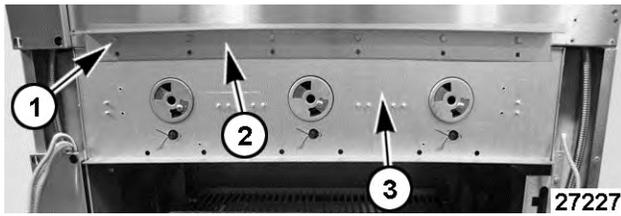


Fig. 15

8. Remove screws [1] Fig. 16 (qty 6) securing burner support [2] Fig. 16 to broiler frame.

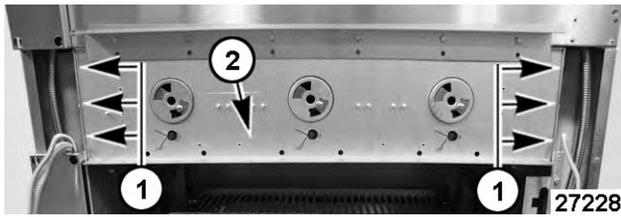


Fig. 16

9. Reach underneath burner support to access the support rails [1] Fig. 17 (qty 6) that hold the ceramic bricks in place. Remove screws (qty 2) Fig. 17 securing each support rail to the rear of burner support. Top view shown in Fig. 17.

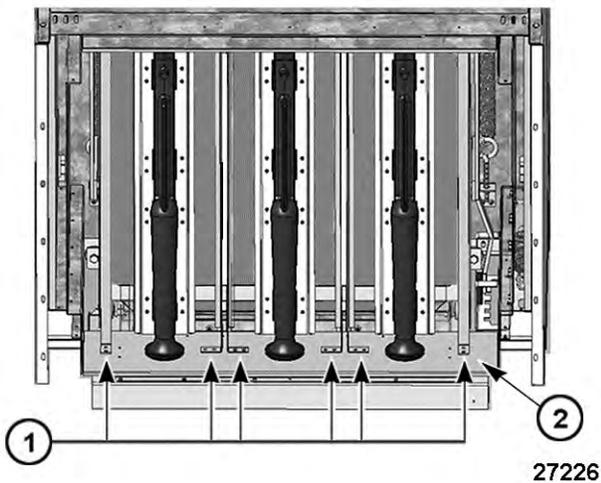


Fig. 17

10. Provide support for burners from inside the cooking area by stacking two 2 x 4's approximately 24" long onto the broiler grid. Position 2 x 4's underneath the burners near the front.

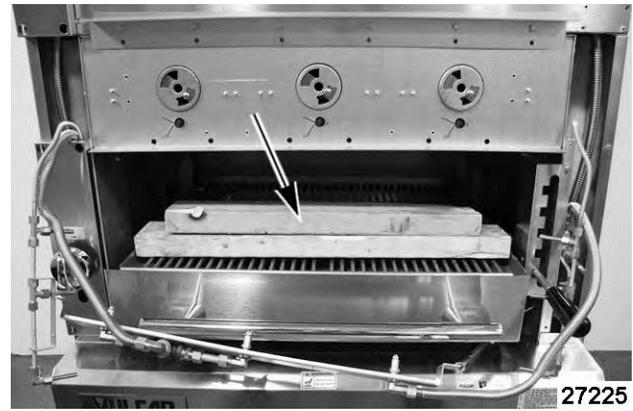


Fig. 18

11. Adjust rack assembly to the middle position.
12. Remove cotter pin from all three burners.

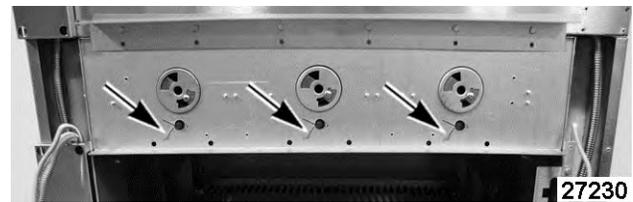


Fig. 19

13. Grasp the bottom of burner support in between the burners and pull out on the burner support to disengage burners. The front of burners will drop down onto the 2 x 4's. Ensure the burner air shutters are not catching in the burner support opening to prevent removal.

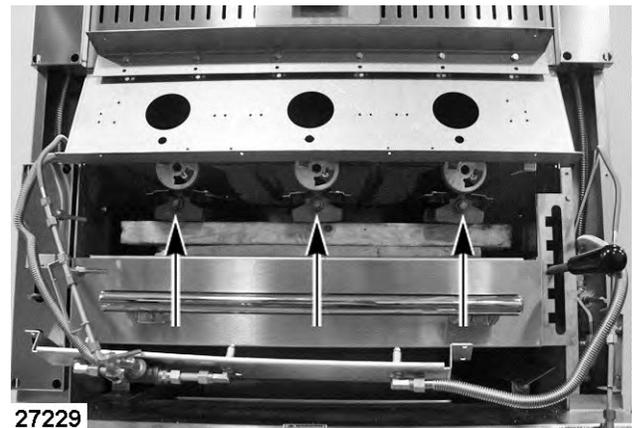


Fig. 20

14. Lift the burner being replaced off the rear pin and pull toward the front to remove from broiler.
15. Remove burner support rails [1] Fig. 21 from each side of burner [2] Fig. 21 being replaced.

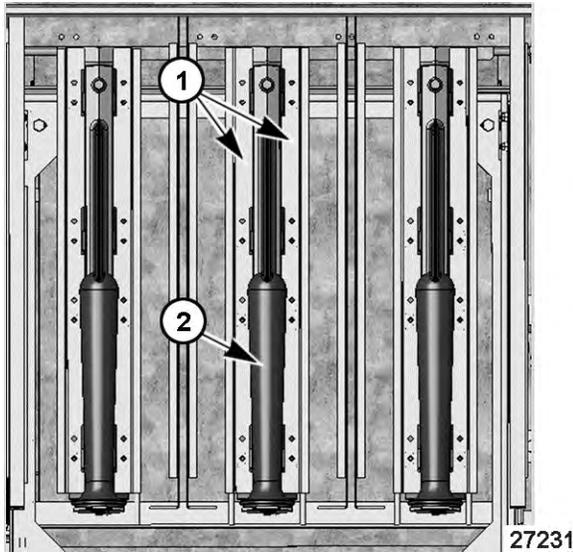


Fig. 21

16. Install burner support rails on replacement burner.
17. Reverse procedure to install.
18. Perform CERAMIC-RADIANT BURNER AIR SHUTTER ADJUSTMENT.

INFRARED BURNER

⚠ WARNING Shut off the gas before servicing the unit.

1. Remove MANIFOLD COVER.
2. Adjust rack assembly to the lowest position.
3. From inside the broiler cooking area, remove wire Fig. 22 securing burner to mounting bracket.

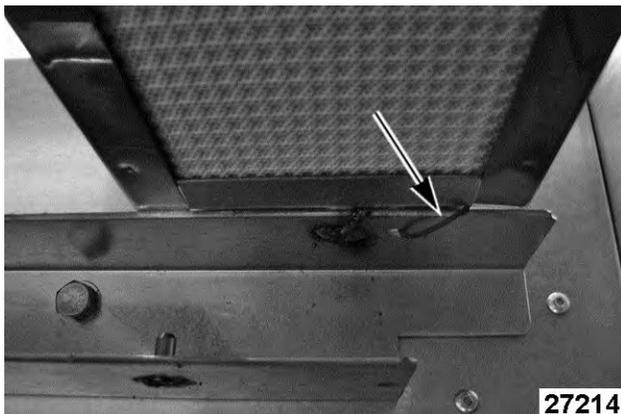


Fig. 22

4. Lift burner up at the rear and slide it away from gas orifice to remove from broiler.
5. Reverse procedure to install replacement burner.

NOTE: When installing, secure the burner with wire.

6. Check for proper operation.

GAS PRESSURE REGULATOR

⚠ 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.

NOTE: Gas pressure regulator should be installed as close to the broiler inlet gas connection as possible.

1. Thread regulator [1] Fig. 23 onto pipe hand tight with arrow on regulator pointing in direction of gas flow to the broiler.

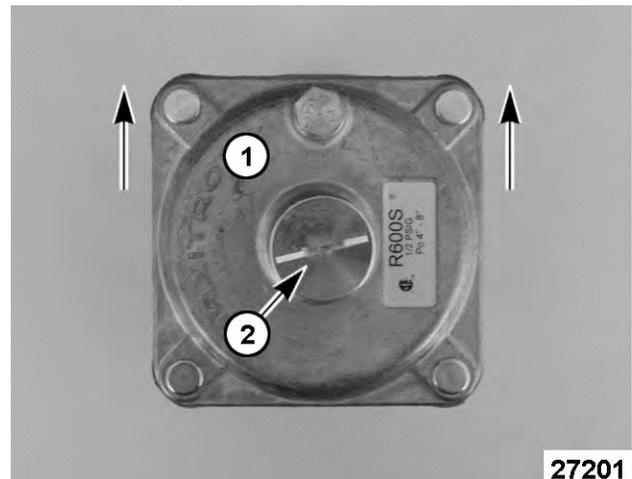


Fig. 23

2. Tighten regulator securely in horizontal position with the regulator adjustment upward [2] Fig. 23. Regulator adjustment is below the closing nut.

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

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

RACK SPRINGS

NOTE: Springs should be replaced in pairs for proper operation of the rack lift assembly.

1. Raise the rack lift assembly to its highest position on stop bracket to relieve spring tension.

2. Loosen spring tension adjusting nuts to remove any remaining tension on springs.



Fig. 24

3. Remove springs from the lifting arm mechanism and eye bolt.
4. Reverse procedure to install.
5. Perform RACK SPRING TENSION ADJUSTMENT.

SERVICE PROCEDURES AND ADJUSTMENTS

PILOT FLAME HEIGHT

1. Locate the pilot adjustment screws below the burner control knobs (one on each side) on the front of broiler. It is not necessary to remove the control valve cover as the adjustment access holes are provided in the panel.



Fig. 25

2. Locate the pilots at the top of the broiler heating area.
3. Monitor the pilots flame and burner lighting. Pilot is in adjustment when it will stay on continually and lights the burners without delayed ignition. Approximate pilot flame height:
 - A. Ceramic-Radiant Burner - 1/2" bubble extending from the end of pilot tube.
 - B. Infrared Burner - 3/4" from each side of the pilot tee.
4. If adjustment is necessary, rotate the screw clockwise to decrease and counterclockwise to increase flame height.

CERAMIC-RADIANT BURNER AIR SHUTTER ADJUSTMENT

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.

To correct this condition, loosen the shutter screw [Fig. 26](#) and rotate the air shutter [Fig. 27](#) open until the flame begins to lift from the burner, then close the shutter slightly and tighten the shutter screw. 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.

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

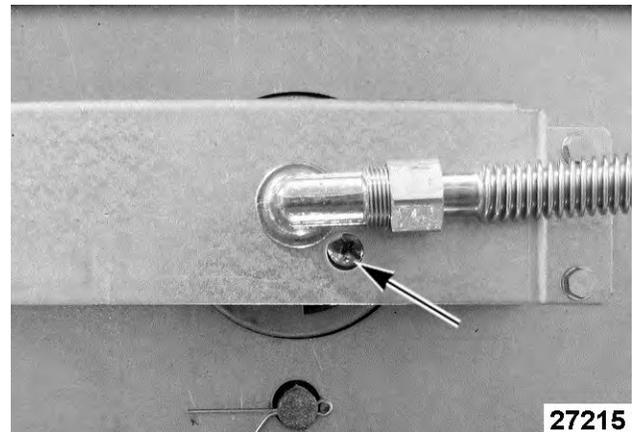


Fig. 26

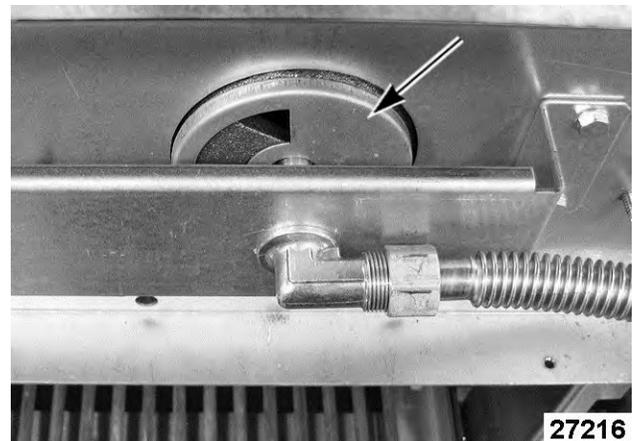


Fig. 27

REGULATOR ADJUSTMENT

⚠ WARNING Shut off the gas before servicing the unit.

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 11-14" 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 [GAS PRESSURE REGULATOR](#) under REMOVAL AND REPLACEMENT OF PARTS.

See data plate for manifold pressure setting information. Clean vent cap [1] [Fig. 28](#) before adjusting.

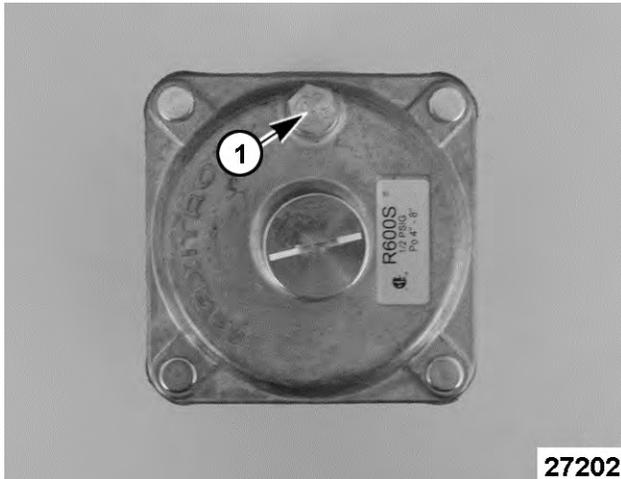


Fig. 28

1. Connect manometer to measure gas manifold pressure.
 - A. Install a tee with hose barb connection on the outlet side of the regulator. See [TOOLS](#). Connect the opposite end of tee to the incoming gas supply for the machine.
2. Turn gas supply on and light all pilots on the machine.
3. Open all valves to the full on position to light burners and check manometer reading. The reading should be 6" W.C. for natural gas and 10" W.C. for propane gas. Tolerance is ± 0.3 " W.C.
4. If manifold pressure is not correct, adjust the regulator as follows.
 - A. Remove the regulator closing nut [1] [Fig. 29](#).

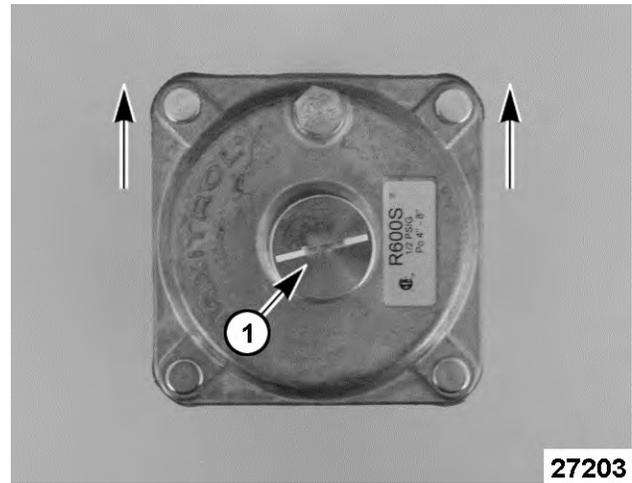


Fig. 29

- B. 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 until the proper gas pressure is achieved.
- C. Install the regulator closing nut.
- D. Turn gas supply off.
- E. Remove manometer and tee from gas line.

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

- F. Apply thread sealant to gas line pipe threads and re-install regulator.

INFRARED BURNER ADJUSTMENT

The only adjustment for the Infrared burner is the gas manifold pressure. Verify the pressure is set correctly as outlined under [REGULATOR ADJUSTMENT](#).

INFRARED BURNER FLAME APPEARANCE

When the Infrared burner first lights you should see a small rolling blue flame, which will clear up after the burner warms. Once warm, a low profile orange flame is the best description of the Infrared burner flame. In some cases, if the burner is operating correctly, you may not be able to see the actual flame. Instead you will see the glow of the ceramic bricks in the burner.

GAS ORIFICE CHECK

If burner operation seems poor and other systems have been checked, remove [MANIFOLD COVER](#) to access the gas and air inlet for the Ceramic-Radiant

burner Fig. 30 or Infrared burner Fig. 31. Inspect the following:

- Gas orifice alignment - orifice should be centered in the venturi opening and perpendicular to the burner.
- Check gas orifice for blockage or damage. If dirty, clean with air or water only.
- Verify gas orifice is correct for the altitude.

Ceramic-Radiant Burner Orifice



Fig. 30

Infrared Burner Orifice

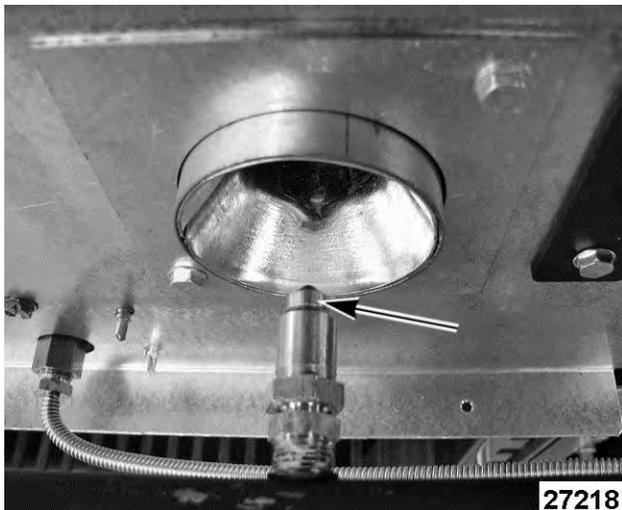


Fig. 31

CONTROL VALVE

⚠ WARNING Shut off the gas before servicing the unit.

Inspect the control valve for smooth rotation, noticeable wear and any possible damage. The burner flame should increase smoothly as the valve is opened (highest setting) and decrease smoothly as

the valve is being closed. When inspecting valve, always apply a light amount of valve grease at the base of the valve stem. See LUBRICATION. If valve grease does not improve rotation of the valve, or damage is found, replace the CONTROL VALVE as outlined under REMOVAL AND REPLACEMENT OF PARTS.

RACK SPRING TENSION ADJUSTMENT

1. Raise the rack lift assembly to its highest position on stop bracket to relieve spring tension.
2. Access spring tension adjusting nuts from the front of broiler.



Fig. 32

3. Tighten nut [1] to adjust rack spring tension. Adjust both springs equally so there is approximately 5/8" of thread above the nut. Spring tension is properly adjusted when the rack assembly can be comfortably raised and lowered by the operator using one hand.

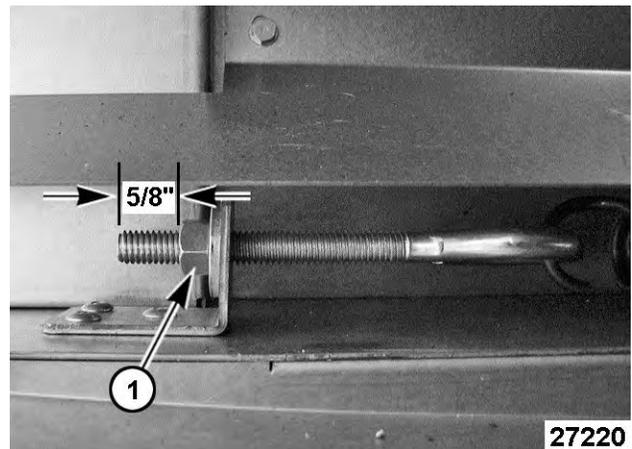


Fig. 33

4. If additional rack spring tension is required, tighten each nut an additional 2-3 turns and re-check.
5. Check for proper operation.

TROUBLESHOOTING

GENERAL (ALL MODELS)

GENERAL	
SYMPTOM	POSSIBLE CAUSE
Pilot does not remain lit.	<ol style="list-style-type: none"> 1. Incorrect gas type. 2. Incorrect gas pressure. 3. Pilot burner not adjusted properly. 4. Pilot burner blocked or Incorrect pilot orifice.
Slow to heat or not hot enough.	<ol style="list-style-type: none"> 1. Incorrect gas type. 2. Low gas pressure. 3. Regulator adjustment or malfunction. 4. Control valve malfunction.
Broiler temperature too hot.	<ol style="list-style-type: none"> 1. Incorrect gas type. 2. Regulator adjustment or malfunction due to high gas pressure. 3. Control valve malfunction.

CERAMIC-RADIANT BURNER

CERAMIC-RADIANT BURNER	
SYMPTOM	POSSIBLE CAUSE
Flame too yellow.	<ol style="list-style-type: none"> 1. Orifice incorrect size or dirty. 2. Air shutter not adjusted correctly or dirty. 3. Incorrect gas pressure. 4. Incorrect gas type. 5. Orifice not aligned properly in venturi. 6. Appliance not venting properly.
Low burner flame (all burners).	<ol style="list-style-type: none"> 1. Regulator adjustment or low gas pressure. 2. Incorrect gas type.
Low burner flame (individual burner).	<ol style="list-style-type: none"> 1. Air mixture incorrect.
Flame floats on burner.	<ol style="list-style-type: none"> 1. Inadequate air supply. 2. Restricted exhaust flue.

INFRARED BURNER

NOTE: Grease laden air is detrimental to the life of the Infrared burner. If a technician sees a broiler with Infrared burner mounted in a location close to a fryer or charbroiler, please recommend to the customer to move the broiler away from the grease laden air source to prolong the life of the Infrared burner.

INFRARED BURNER	
SYMPTOM	POSSIBLE CAUSE
Flame not orange.	<ol style="list-style-type: none"> 1. Orifice incorrect size or dirty. 2. Incorrect gas pressure. 3. Incorrect gas type. 4. Orifice not aligned properly in venturi. 5. Appliance not venting properly. 6. Clogged burner ports. 7. Burner malfunction.
Burner not lighting properly or incorrect burner flame appearance due to clogged ports.	<ol style="list-style-type: none"> 1. Broiler with Infrared burner is located too close to a fryer or charbroiler and the grease laden air is causing burner ports to clog. If burner ports are found to be clogged, install a replacement burner. See <u>NOTE</u> at top of page.
Tiles falling out of the burner.	<ol style="list-style-type: none"> 1. Burner ports are clogged from the broiler operating too close to a fryer or charbroiler that is creating grease laden air. Clogged burner ports create poor burner performance and cause the burner housing to overheat and warp allowing the tiles to fall out of burner. If tiles are missing, install a replacement burner. See <u>NOTE</u> at top of page.



VCS Series Multifunction Cooker Heavy Duty Range

VCS18	ML-137003-00018
VCS36	ML-137003-00036
VCS36D	ML-137003-0036D

32185

- 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.

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GENERAL

INTRODUCTION

This manual is applicable only to models listed on the cover page. Procedures in this manual will apply to all models unless specified. Pictures and illustrations can be of any model unless they need to be model specific.

INSTALLATION, OPERATION AND CLEANING

For detailed installation, operation and cleaning instructions, refer to [VCS Multifunction Cooker Installation and Operation Manual](#). The manual is also available online at www.vulcanequipment.com.

TOOLS

Standard

- Standard set of hand tools.
- Metric set of hand tools.
- VOM with measuring micro amp current tester. Any VOM with minimum of CAT III 600V, CE certified. Sensitivity of at least 20,000 ohms per volt can be used. In addition, meter leads must also be a minimum of CAT III 600V.
- Clamp on type amp meter with minimum of NFPA-70E CAT III 600V, UL/CSA/TUV listed.
- Temperature tester (thermocouple type).
- Field service grounding kit.
- Torque wrench with 3.7 ft. lbs (5 Nm) capacity.
- High temperature silicone caulk.

SPECIFICATIONS

Refer to [VCS Multifunction Cooker Specifications](#)

Electrical									
MODEL	DESCRIPTION	VOLTAGE	TOTAL KW	KW PER PHASE			AMPS PER LINE WIRE		
				X-Y	Y-Z	X-Z	X	Y	Z
VCS18	18" Wide / Single Tank (front to back)	208 / 240V	9.0	3000	3000	3000	25	25	25
VCS36	36" Wide / Single Tank (left to right)		9.0						

Electrical									
MODEL	DESCRIPTION	VOLTAGE	TOTAL KW	KW PER PHASE			AMPS PER LINE WIRE		
				X-Y	Y-Z	X-Z	X	Y	Z
VCS36 D	36" Wide / Double Tank (front to back)	208 / 240V	LH Tank - 9.0	3000	3000	3000	25	25	25
		208 / 240V	RH Tank - 9.0	3000	3000	3000	25	25	25

Water

- Cold water only.
- Pressure between 60-80psi.

REMOVAL AND REPLACEMENT OF PARTS

COVERS AND PANELS



WARNING

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

Control Panel

1. Open lower cabinet door.
2. Remove side (1), top (2) and inner (3) mounting screws (Fig. 1).

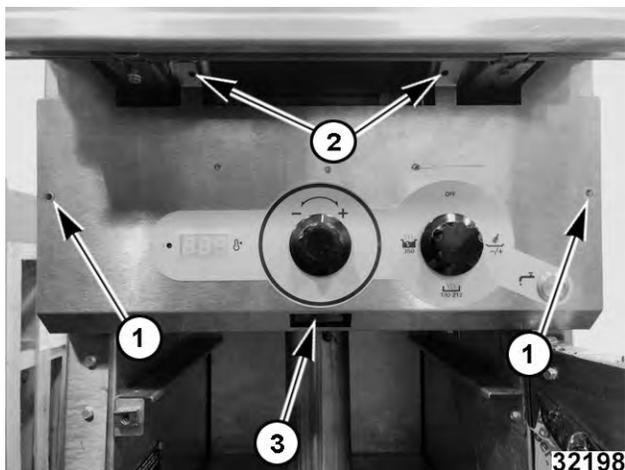


Fig. 1

3. Disconnect wiring to remove control panel.
4. Reverse procedure to install.

Inside Splash Cover

1. Lift tabs out of slot in front of inside splash cover.



Fig. 2

2. Tilt to release and lift out of slots to remove.
3. Reverse procedure to install.

Lower Access Panel (Fuses, Terminal Block)

1. Open lower cabinet door.
2. Remove drain tube (1, Fig. 3) by turning to align tabs (2, Fig. 3) with slots. Tube will drop free.

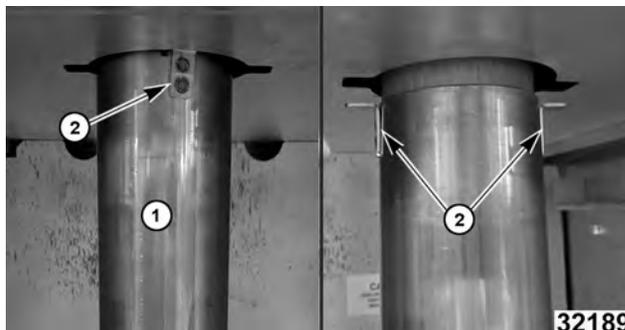


Fig. 3

3. Remove INSIDE SPLASH COVER.
4. Remove screws to lower access panel.



Fig. 4

5. Grasp bottom edge of panel, lift up to clear lip and tilt forward to remove.



Fig. 5

6. Reverse procedure to install.

Upper Access Panel (Contactor, Relay Board)

1. Open lower cabinet door.
2. Remove drain tube (1, Fig. 6) by turning to align tabs (2, Fig. 6) with slots. Tube will drop free.

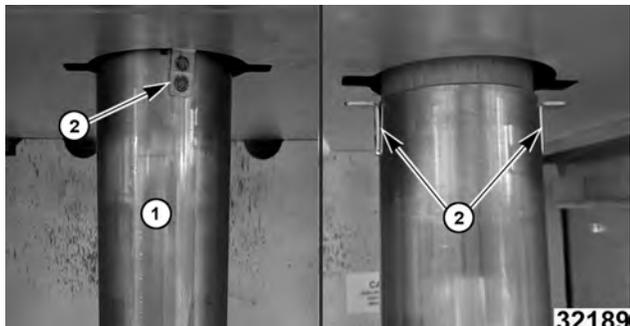


Fig. 6

3. Remove INSIDE SPLASH COVER.
4. Remove screws from upper access panel (1, Fig. 7).



Fig. 7

5. Lift from bottom and tilt forward to remove panel.
6. Reverse procedure to install.

Back Panel Access

1. Remove right and left side trim covers (1, Fig. 8).

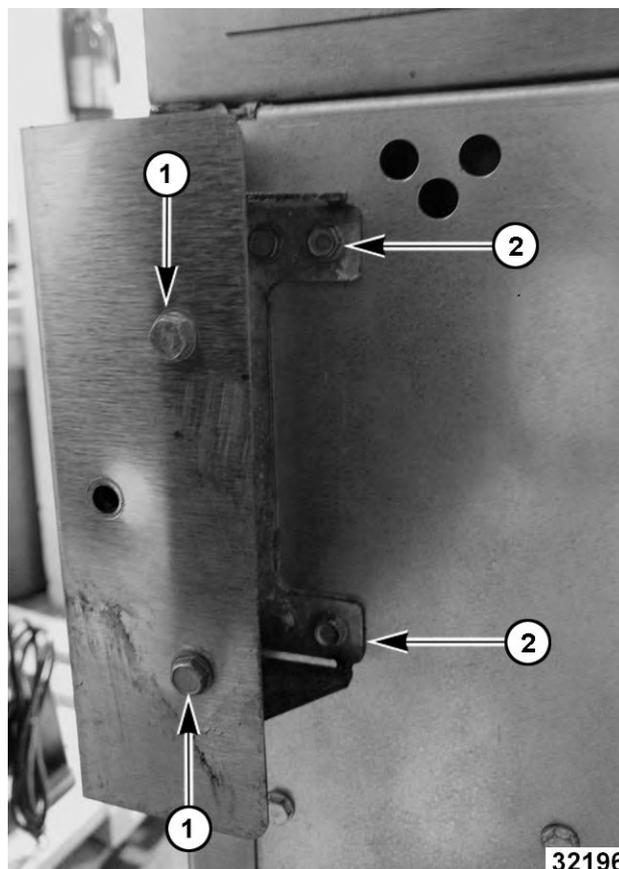


Fig. 8

2. Remove right and left side riser brackets (2, Fig. 8).
3. Remove back panel mounting screws.



Fig. 9

4. Lift panel up and off unit.
5. Reverse procedure to install.

NOTICE

Reseal top edge with high temperature silicone before replacing brackets.

FACIA (DISPLAY) BOARD



WARNING

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

1. Remove CONTROL PANEL.
2. Press release tab and pull down to disconnect the RJ45 data cable from facia board (1, Fig. 10).

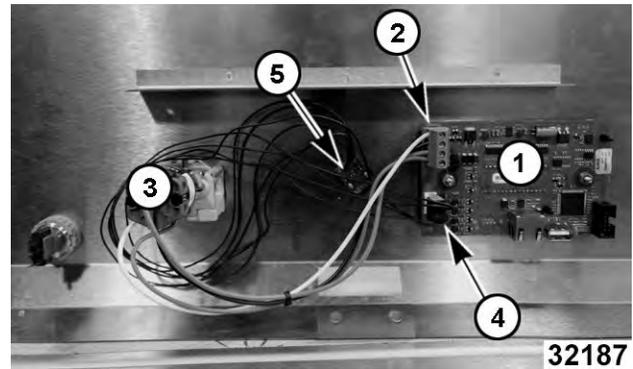


Fig. 10

3. Pull connector plug (2, Fig. 10) straight back to disconnect selector switch (3, Fig. 10) from Facia Board.
4. Pull plug (4, Fig. 10) up and slightly sideways to disengage potentiometer (5, Fig. 10) retention clip.
5. Remove facia board lock nuts to release.
6. Reverse procedure to install.
7. Verify operation.

WATER FILL BUTTON



WARNING

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

1. Remove CONTROL PANEL.
2. Disconnect water fill button (1, Fig. 11) control wires.

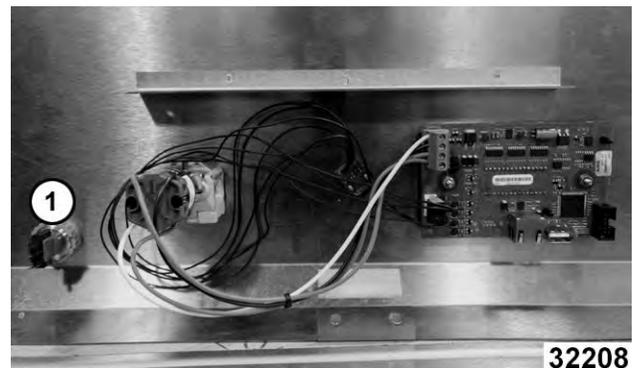


Fig. 11

3. Remove water fill button from control panel.
 - A. Remove plastic nut.

NOTICE

Retain rubber O-ring.

- B. Remove button from the front of control panel.

- 4. Reverse procedure to install.

NOTICE

Verify rubber O-ring is in place to keep moisture out.

- 5. Verify operation

CONTACTOR AND RELAY BOARD



WARNING

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

- 1. Remove UPPER ACCESS PANEL.
- 2. Remove retention screw (3, Fig. 12) to disconnect enclosure from support brackets.

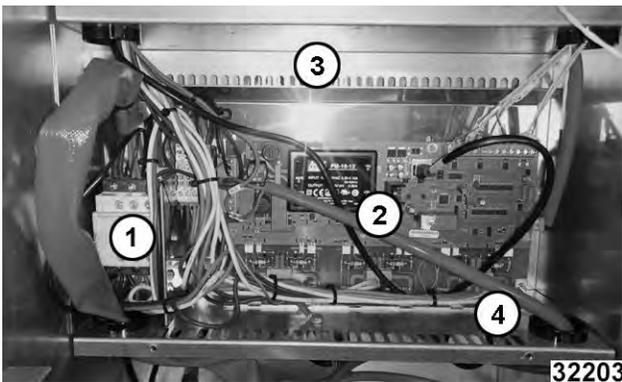


Fig. 12

- 3. Pull enclosure forward to disconnect or test contactor (1, Fig. 12) and or relay board (2, Fig. 12).

NOTICE

If disconnecting relay board, do not disconnect wire connections at the board. Instead, unplug wires from heating elements and fuse block to remove entire assembly. Replacement relay boards will include wire harnesses already attached.

NOTE: If relay board needs to be removed from enclosure do Step 4.

- 4. Disconnect heat sink (4, Fig. 12) attached to radiator bar on outside of enclosure, by removing three screws and lock nuts.
- 5. Reverse procedure to install

- 6. Verify operation.

DATA CABLE



WARNING

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

NOTICE

The RJ45 fiber optic patch, high temperature data cable can be damaged by pinching, tight bending, and excessive heat. In all of these cases, communication will be lost between the relay and facia boards, resulting in the unit not operating. Refer to TROUBLESHOOTING CHART for symptoms.

- 1. Remove CONTROL PANEL.
- 2. Remove UPPER ACCESS PANEL.
- 3. Remove data cable heat shield mounting screws.

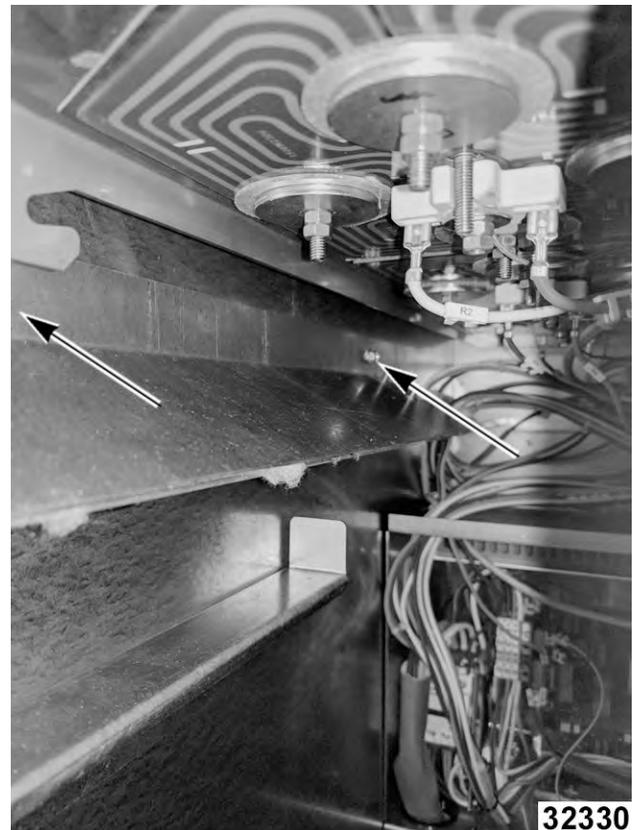


Fig. 13

- 4. Unplug data cable from facia board and relay board.
- 5. Remove data cable from unit.

- Route new data cable through forward bulkhead bushing, down left hand raceway, and left hand interior cable bushings into relay board enclosure.

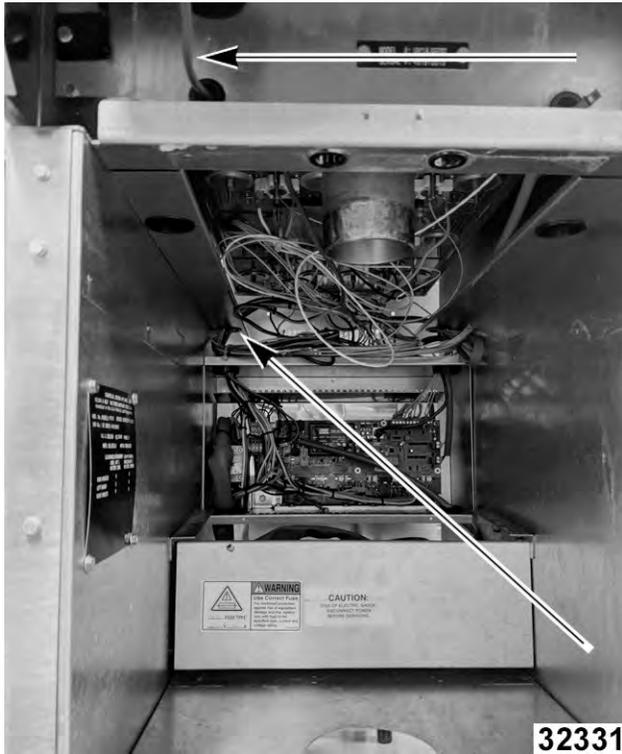


Fig. 14

- Leave enough length of cable protruding from forward bulkhead bushing to maneuver control panel. Pull excess data cable into relay board enclosure.
- Plug data cable into relay board and facia board.
- Verify proper operation of unit.
- Replace covers.
- Verify proper operation of unit.

FUSES AND POWER SUPPLY CONNECTION



WARNING

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

- Remove LOWER ACCESS PANEL.
- Fuses (1, Fig. 15) and power supply connection (2, Fig. 15) is located under the lower access panel.

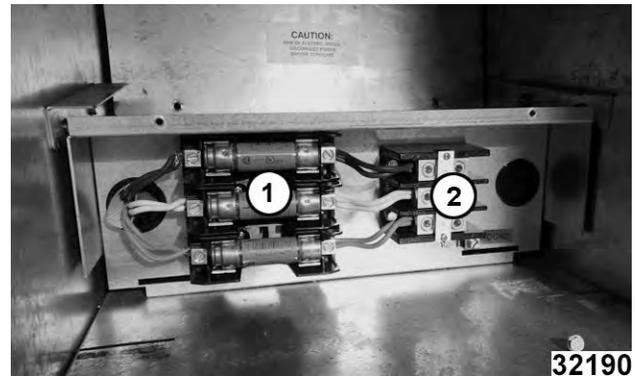


Fig. 15

- Disconnect fuses to replace.
- Reverse procedure to install.
- Verify operation.

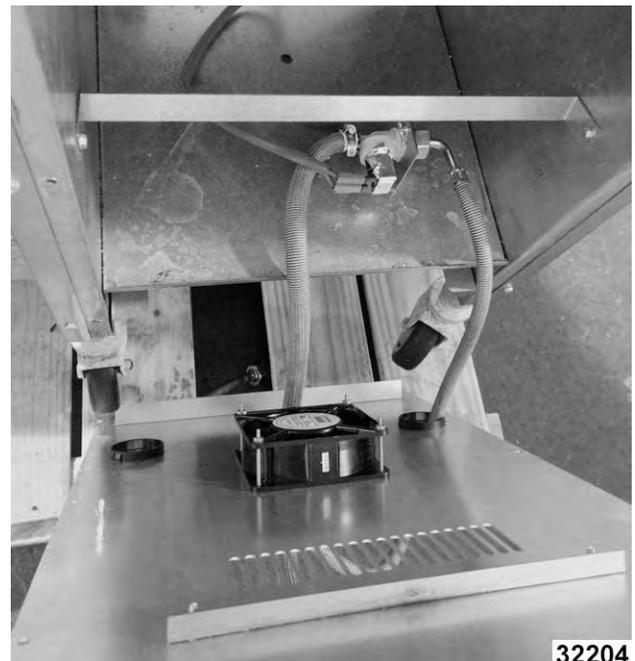
COOLING FAN & SOLENOID VALVE



WARNING

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

- Remove BACK PANEL.
- Cooling fan and solenoid are both accessible with back panel removed.



32204

NOTE: If back of unit is not accessible, fan and solenoid can be accessed from the front by first moving CONTACTOR AND RELAY BOARD ENCLOSURE forward and out of the way.

HEATING ELEMENT REPLACEMENT



WARNING

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

1. Access heating elements.

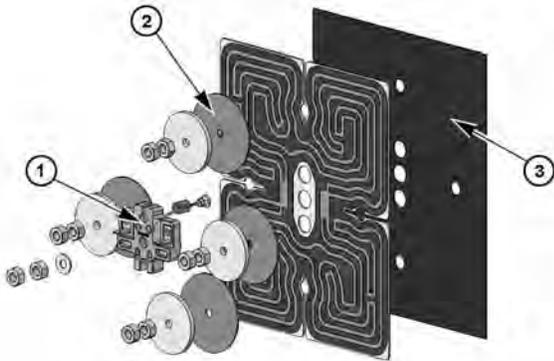
NOTICE

There are two methods to access heating elements. Interior access is the preferred method. In certain circumstances, it may be necessary to access the heating elements by removing the entire tank assembly, either because of a catastrophic failure of the material or inaccessibility through normal means.

- INTERIOR ACCESS TO HEATING ELEMENT (PREFERRED METHOD)
- EXTERIOR ACCESS - TANK REMOVAL

Change Heating Element

1. Disconnect power wires from porcelain block (1, Fig. 17).



32210

Fig. 17

NOTICE

The printed heating elements rely on perfect contact across their entire surface to operate. It is vital to use proper torque on all hardware and replace the graphite pad and mica washers whenever an element is removed. Rapid failure of the element will result if this is not done.

2. Remove porcelain block (1, Fig. 17) by removing two nuts and lowering entire block. Be careful to retain tension spring from thermocouple.

3. Remove heating element.
 - A. Remove eight nuts.
 - B. Remove four steel washers.
 - C. Remove four mica washers (2, Fig. 17). Discard and replace with new.
 - D. Remove graphite pad (3, Fig. 17). Discard and replace with new.
4. Reverse procedure to install. Torque all nuts to 3.7 ft-lb (5 Nm).

NOTICE

Verify graphite pad is flat and element has complete contact across entire surface.

NOTICE

Verify thermocouple is seated and held firmly against tank bottom by spring. If not, error code ESx will result (Refer to ERROR CODES).

NOTICE

Heating elements are position sensitive and must be hooked up in order. Power supply wires and temperature probes are marked for the element they belong to and must correspond or unit will not function and error codes will appear on display. Element positions are as noted in Fig. 18.

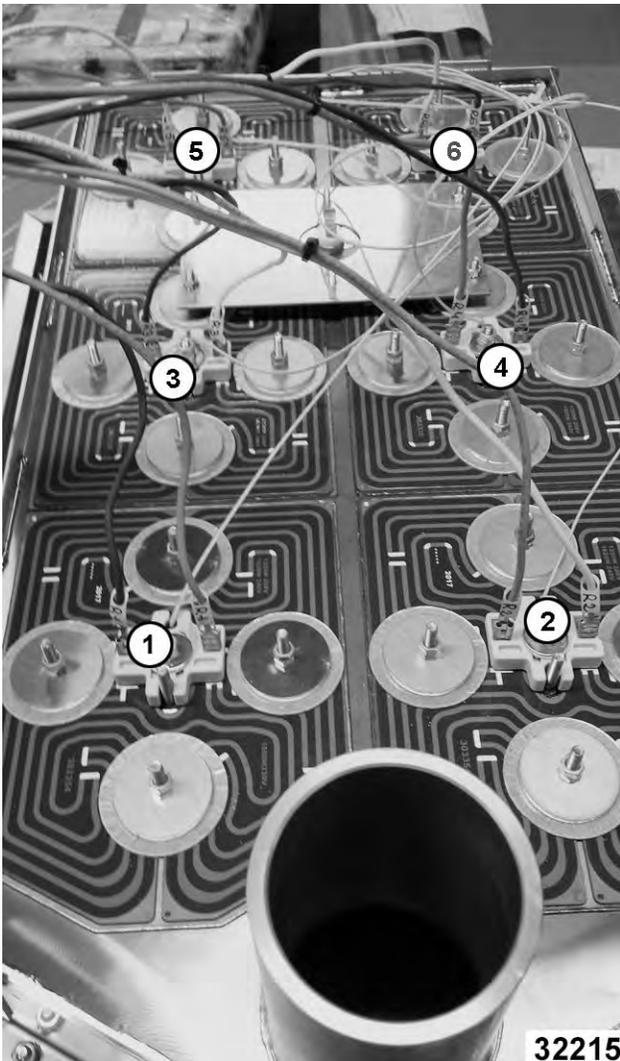


Fig. 18

INTERIOR ACCESS TO HEATING ELEMENT (PREFERRED METHOD)



WARNING

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

NOTICE

There are two methods to access heating elements, INTERIOR ACCESS and TANK REMOVAL. INTERIOR ACCESS is the preferred method. In certain circumstances, it may be necessary to access the heating elements by removing the entire tank assembly, either because of a catastrophic failure of the material or inaccessibility through normal means.

Interior Access to Heating Element (Preferred Method)

1. Remove drain tube (1, Fig. 19) by turning to align tabs (2, Fig. 19) with slots. Tube will drop free.

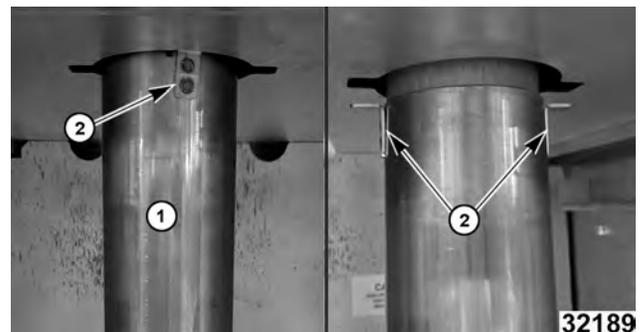


Fig. 19

2. Remove splash cover mounting screws (1, Fig. 20). Slide cover forward to remove.

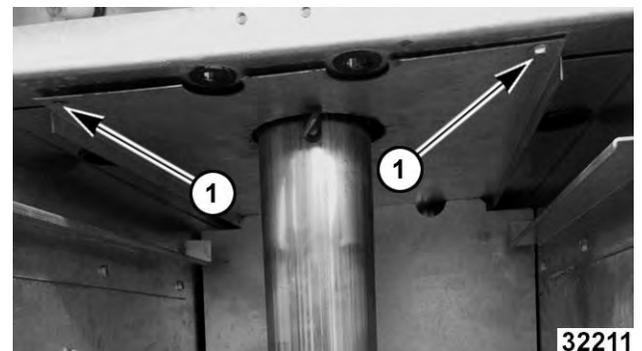


Fig. 20

3. Refer to HEATING ELEMENT RESISTANCE or HEATING ELEMENT REPLACEMENT.

TANK REMOVAL



⚠ WARNING

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

NOTICE

In certain circumstances, it may be necessary to remove or change the entire tank assembly, either because of a catastrophic failure of the material or inaccessibility through normal means. In this case, the following steps must be followed to ensure proper operation and to avoid damage of components.

NOTICE

To prevent water incursion into electronics, entire top frame is sealed at the factory with high temperature silicone caulk. This seal must be broken before tank can be removed.

1. Remove CONTROL PANEL, UPPER ACCESS PANEL, and LOWER ACCESS PANEL.
2. Mark and disconnect hi-limit wires.

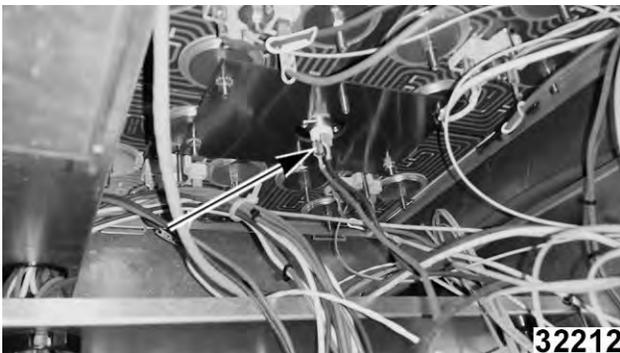


Fig. 21

3. Remove retention screws under front ledge.

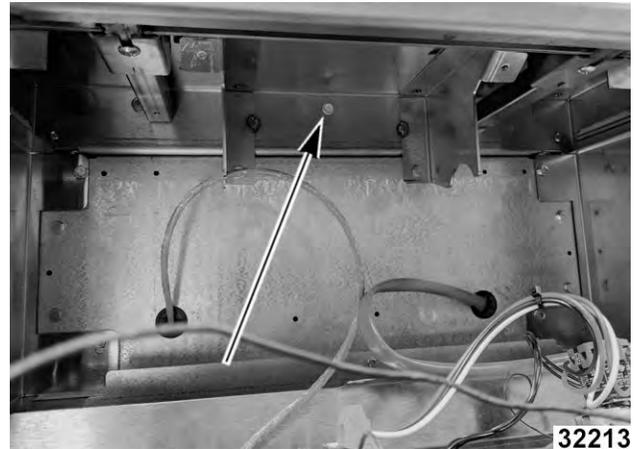


Fig. 22

4. Remove riser and spigot bracket, if accessible.

NOTE: Hose does not need to be disconnected.

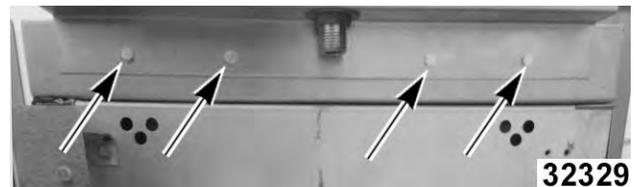


Fig. 23

5. Break top frame seal by running a utility knife or other short blade through all seams.
6. Lift tank and top frame straight up off unit frame.

NOTICE

Wiring has enough slack to allow tank to be lifted and turned over onto an adjacent surface. Use care to ensure no snags occur, especially with thermocouple wires as damage can cause unit to fail to operate. Bottom of tank can now be freely accessed to assess heating elements and wiring.

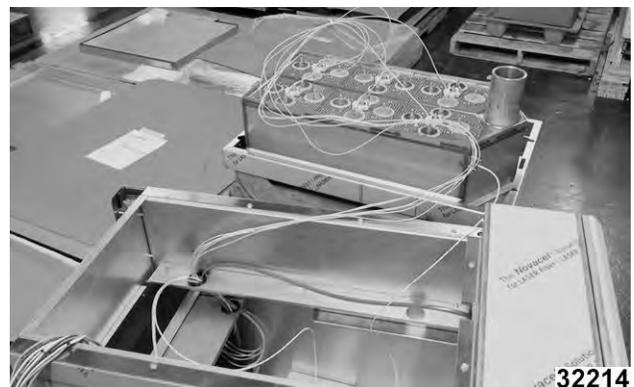


Fig. 24

NOTICE

Heating elements are position sensitive and must be hooked up in order. Power supply wires and temperature probes are marked for the element they belong to and must correspond or unit will not function and error codes will appear on display. Element positions are as noted in Fig. 25.

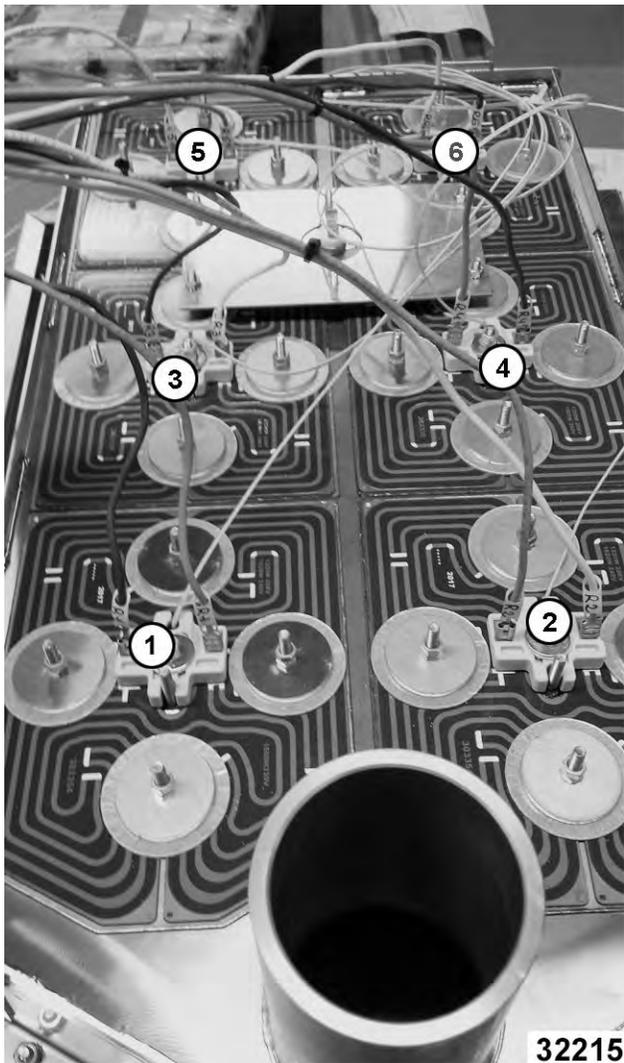


Fig. 25

7. Reverse procedure to install.

If replacing tank assembly:

- A. Disconnect wiring, nuts and break seal to lift tank from top frame.
- B. Install new tank with (15) 1/4-20 lock nuts.
- C. Seal tank to top frame with high temperature silicone sealant.

NOTICE

It is critical that all seams are resealed with high temperature silicone. Failure to do so will result in water incursion into electronics and failure of unit.

SERVICE PROCEDURES AND ADJUSTMENTS

CHECKING TEMPERATURE PROBES

Temperature probes are resistance sensors with the value of 100 ohms for a temperature of 0°F and 138.5 ohms for a temperature of 212°F. The variation of the resistance to temperature relationship is linear. The resistance reading is directly proportional to the measured temperature. The sensor is not polarized. The sensor can be extended using copper wire.

How to Read the Chart (Example) -

To find the resistance corresponding to a temperature of 372°F.

- Find row corresponding to 370°F and column corresponding to 2.

The intersection shows resistance of 171.76 Ohms.

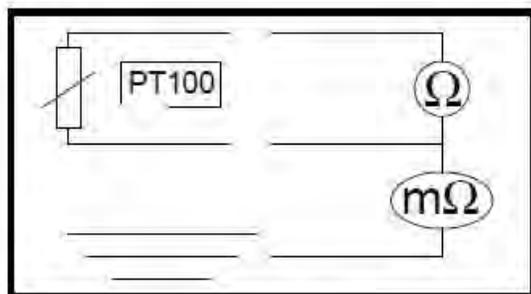
Check Resistance



⚠ WARNING

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

1. Check resistance with an ohmmeter set to 200 ohms (less than 107 ohms for 68°F).
2. Check insulation between one of the leads and the metal part with ohmmeter set at 20 mega ohms (a value over 15 mega ohms).
3. Check continuity between the feed and the metal part of sensor. Refer to chart below for readings (CHECKING TEMPERATURE PROBES).



32202

Fig. 26

Temperature in °F relative to Resistance in Ohms for PT100 sensor											
°F	0	1	2	3	4	5	6	7	8	9	10
50	103.90	104.12	104.34	104.55	104.77	104.98	105.20	105.42	105.36	105.85	106.07
60	106.07	106.28	106.50	106.71	106.93	107.15	107.36	107.58	107.79	108.01	108.23
70	108.23	108.44	108.66	108.87	109.09	109.30	109.52	109.73	109.95	110.17	110.38
80	110.38	110.60	110.81	111.03	111.24	111.46	111.67	111.89	112.10	112.32	112.53
90	112.53	112.75	112.96	113.18	113.39	113.61	113.82	114.04	114.25	114.47	114.68
100	114.68	114.90	115.11	115.33	115.54	115.76	115.97	116.18	116.40	116.61	116.83

Temperature in °F relative to Resistance in Ohms for PT100 sensor											
°F	0	1	2	3	4	5	6	7	8	9	10
110	116.83	117.04	117.26	117.68	117.68	117.68	118.11	118.33	118.54	118.76	118.97
120	118.97	119.18	119.40	119.61	119.82	120.04	120.25	120.47	120.68	120.89	121.11
130	121.11	121.32	121.53	121.75	121.96	122.18	122.39	122.60	122.82	123.03	123.24
140	123.24	123.67	123.67	123.88	124.09	124.31	124.52	124.73	124.95	125.16	125.37
150	125.37	125.59	125.80	126.01	126.22	126.44	126.65	126.86	127.08	127.29	127.50
160	127.50	127.71	127.93	128.14	128.35	128.56	128.78	128.99	129.20	129.41	129.62
170	129.62	129.84	130.05	130.26	130.47	130.68	130.90	131.11	131.32	131.53	131.74
180	131.74	131.96	132.17	132.38	132.59	132.80	133.01	133.23	133.44	133.65	133.86
190	133.86	134.07	134.28	134.50	134.71	134.92	135.13	135.34	135.55	135.76	135.97
200	135.97	136.19	136.40	136.61	136.82	137.03	137.24	137.45	137.66	137.87	138.08
210	138.08	138.29	138.51	138.72	139.14	139.14	139.35	139.56	139.77	139.98	140.19
220	140.19	140.40	140.61	140.82	141.03	141.24	141.45	141.66	141.87	142.08	142.29
230	142.29	142.50	142.71	142.92	143.13	143.34	143.55	143.76	143.97	144.18	144.39
240	144.39	144.60	144.81	145.02	145.44	145.44	145.65	145.86	146.07	146.28	146.49
250	146.49	146.70	146.91	147.11	147.32	147.53	147.74	147.95	148.16	148.37	148.58
260	148.58	148.79	149.00	149.21	147.32	149.41	149.83	150.04	150.25	150.46	150.67
270	150.67	150.88	151.08	151.29	151.50	151.71	151.92	152.13	152.33	152.54	152.75
280	152.75	152.96	153.17	153.38	153.58	153.79	154.00	154.21	154.42	154.62	154.83
290	154.83	155.04	155.25	155.46	155.66	155.87	156.08	156.29	156.49	156.70	156.91
300	156.91	157.12	157.33	157.53	157.74	157.95	158.15	158.36	158.57	158.78	158.98
310	158.98	159.19	159.40	159.61	159.81	160.02	160.23	160.43	160.64	160.85	161.05
320	161.05	161.26	161.47	161.67	161.88	160.09	162.29	162.50	162.71	162.91	163.12
330	163.12	163.33	163.53	163.74	163.95	164.15	164.36	164.57	164.77	164.98	165.18
340	163.18	165.39	165.60	165.80	166.01	166.21	166.42	166.63	166.83	167.04	167.24
350	167.24	167.45	167.66	167.86	168.07	168.27	168.48	168.68	168.89	169.09	169.30
360	169.30	169.51	169.71	169.92	170.12	170.33	170.53	170.74	170.94	171.15	171.35
370	171.35	171.76	171.76	171.97	172.17	172.38	172.58	172.79	172.99	173.20	173.40
380	173.40	173.61	173.81	174.02	174.22	174.43	174.63	174.83	175.04	175.24	175.45
390	175.45	175.65	175.86	196.06	176.26	176.47	176.67	176.88	177.08	177.29	177.49
400	177.49	177.69	177.90	178.10	178.30	178.51	178.71	178.92	179.12	179.32	179.53
410	179.53	179.73	179.93	180.14	180.34	180.55	180.75	180.95	181.16	181.36	181.56
420	181.56	181.77	181.97	182.17	182.38	182.58	182.78	182.98	183.19	183.39	183.59
430	183.59	183.80	184.00	184.20	184.40	184.61	184.81	185.01	185.22	185.42	185.62
440	185.62	185.82	186.03	186.23	186.43	186.63	186.84	187.04	187.24	187.44	187.65
450	187.65	187.85	188.05	188.25	188.45	188.66	188.86	189.06	189.26	189.46	189.67

HEATING ELEMENT RESISTANCE



⚠ WARNING

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

NOTICE

Resistance cannot be checked at the relay board due to wire routing. Readings will not be correct.

1. Access heating elements.

NOTICE

There are two methods to access heating elements. Interior access is the preferred method. In certain circumstances, it may be necessary to access the heating elements by removing the entire tank assembly, either because of a catastrophic failure of the material or inaccessibility through normal means.

- INTERIOR ACCESS TO HEATING ELEMENT (PREFERRED METHOD)
 - TANK REMOVAL
2. Check resistance directly at terminals on porcelain block after removing wires as shown in Fig. 27.



Fig. 27

- Rear elements (3, 4, 5, 6) resistance is between 26.5 and 27.5 ohms.
- Front elements (1, 2) resistance is between 28 and 29 ohms.

NOTICE

Heating elements are position sensitive and must be hooked up in order. Power supply wires and temperature probes are marked for the element they belong to and must correspond or unit will not function and error codes will appear on display. Element positions are as noted in Fig. 28.

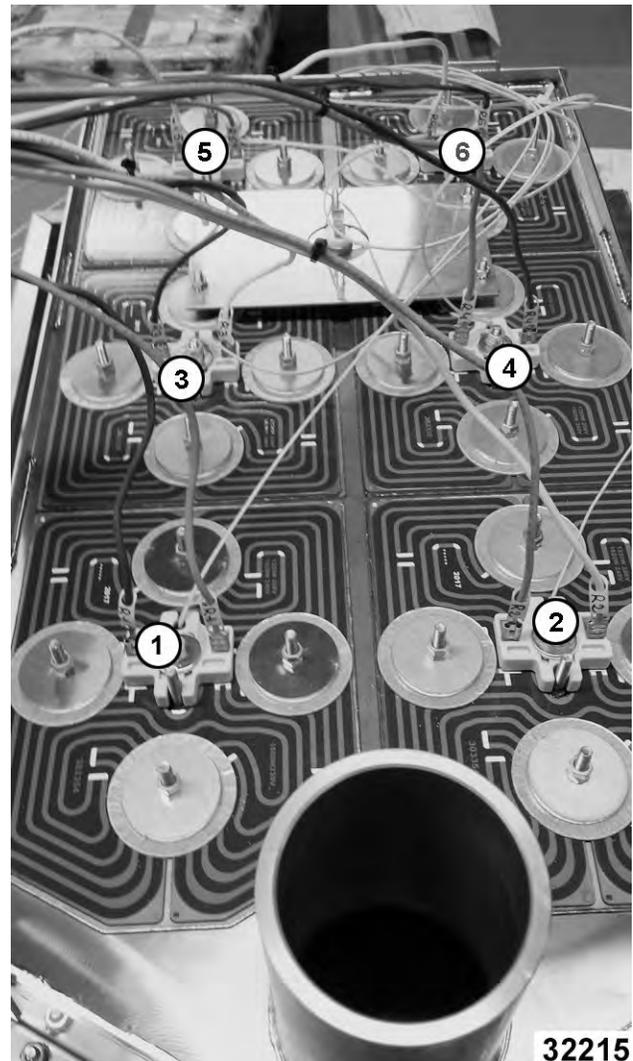


Fig. 28

ELECTRICAL OPERATION

SEQUENCE OF OPERATION

1. Conditions:

- Unit connected to correct supply voltage (208 or 240, 3 phase) and grounded.
- Unit connected to correct water supply and supply valves are on.
- Mode selection switch is in the OFF position.

NOTE: Cold water use only. Pressure between 60-80psi.

2. Voltage will be available through terminal block and fuse block. Relay Board will register supply voltage between terminals L1 and N. Green power LED on manifold cover will be lit, green power LED "LA" on Relay Board will be lit.

NOTE: If voltage is verified at the fuse block and fuses check good, but LEDs are not lit, or "LA" is weak or flickering, this indicates data cable is damaged or unplugged. Replace data cable before continuing, or unit will not operate.

3. Turn mode selection switch to one of the operating modes. Software will boot up (about 3 seconds), contactor will pull in, and unit cooling fan will come on. Unit will perform self-diagnostic to verify that all heating elements and temperature probes are connected properly.

NOTE: Operation modes are Griddle, Boil and Fryer. Reference [VCS Multifunction Cooker Installation and Operation Manual](#) for more information about operation modes.

NOTE: If unit detects a problem, an error code will be shown on the temperature display and the unit will not operate. Contactor will remain engaged and error code will be displayed until mode selector switch is turned to OFF position, but no other part of the unit will be operable. Refer to [ERROR CODES](#) for source of fault and troubleshooting.

4. Temperature display will come on and show the default Set Point for selected mode for 3 seconds, then shows current temperature as measured by the relevant probes. Red TRIAC LEDs on Relay Board will come on to indicate power to heating elements and heating elements will begin warming unit to reach set point temperature.

- GRIDDLE: default set point is 350°F, tank bottom surface temperature will be displayed.
- BOIL: default set point is 170°F, temperature of cooking fluid (as detected by in-tank probe) will be displayed.
- FRYER: default set point is 360°F, temperature of cooking fluid (as detected by the in-tank probe) will be displayed.

5. Temperature Adjustment control and Water Button (Griddle and Boil modes only) become active, water solenoid can now be actuated to dispense water.

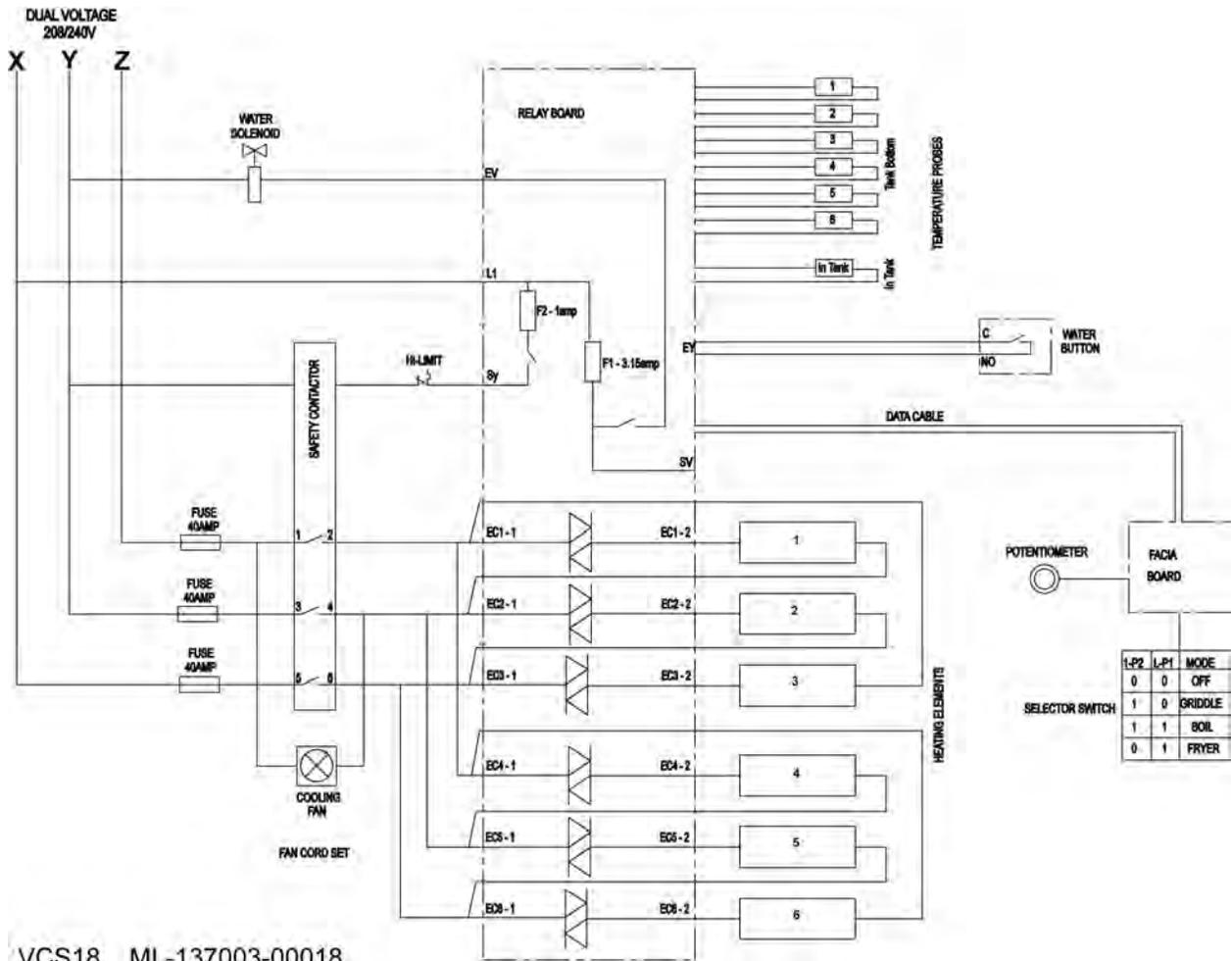
NOTE: If unit is in **FRYER** mode or tank surface temperature is detected to be above 260°F, the water solenoid will be locked out and unit will not dispense water. If unit is in **GRIDDLE** or **BOIL** mode and temperature is verified to be below 260°F, but water will not dispense, verify water button switch is seated properly in button housing and correct control wires are connected.

6. Unit will heat to set point temperature and throttle voltage to heating elements to maintain setting during cooking. Relay Board evaluates input from thermistor probes, TRIAC voltage output, and temperature safety devices (TA and TM on Relay Board, Hi-Limit on bottom of tank) during operation.

NOTE: If temperature inside cabinet is detected by TA or TM to exceed 170°F, temperature display will show error code EE1, but unit will continue to operate. If TA or TM exceed 185°F, error code EE2 will show and the heating elements will be de-energized. It will be necessary to turn unit off and back on again to resume operation.

NOTE: If temperature of heating elements exceeds 550°F, Hi-Limit will trip and de-energize Relay Board. It will be necessary to replace the Hi-Limit in order to resume operation.

WIRING DIAGRAM



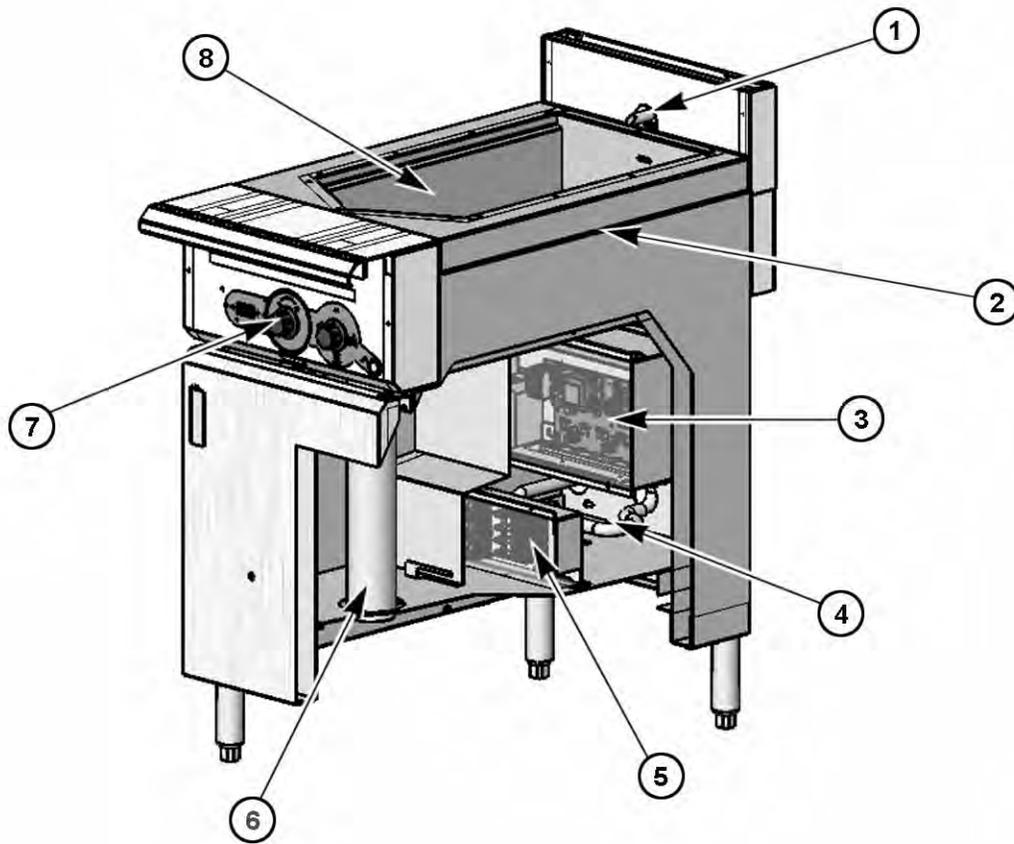
VCS18 ML-137003-00018
 VCS36 ML-137003-00036
 VCS36D ML-137003-0036D

Derived From 961926

AI4866

Fig. 29

COMPONENT LOCATION



32209

Fig. 30

ITEM	DESCRIPTION
1	Water Spigot
2	Heating Elements
3	Safety Contactor and Relay Board
4	Water Solenoid
5	Fuse Block and Main Electrical Connection
6	Drain Pipe
7	Control Panel
8	Tank

CONTROL PANEL

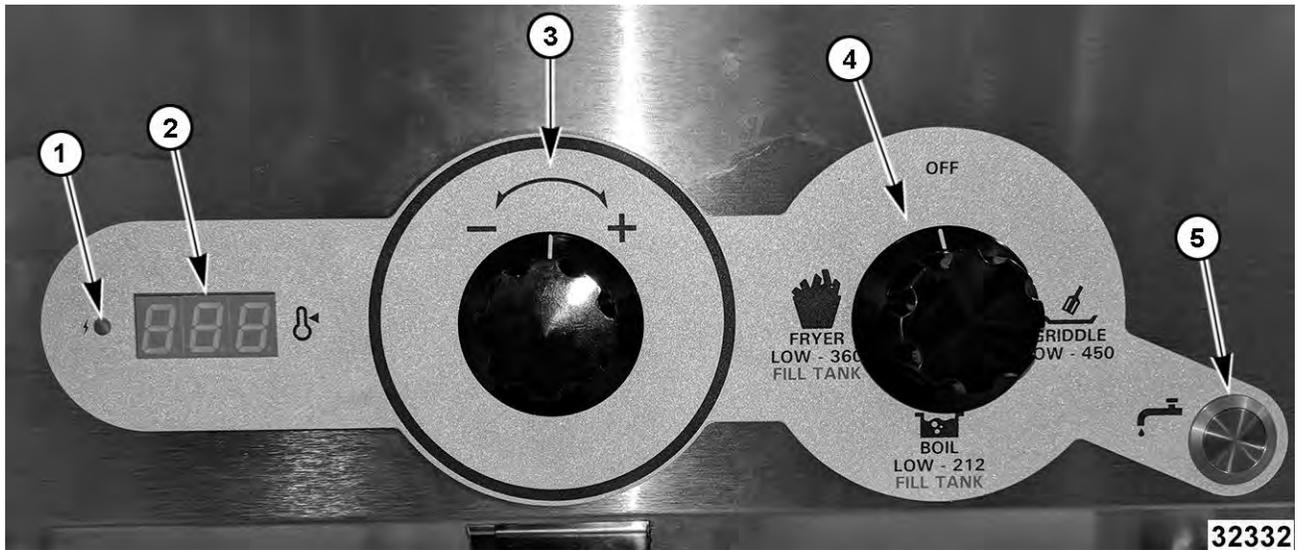


Fig. 31

ITEM	DESCRIPTION
1	Power LED
2	Temperature Display
3	Temperature Adjustment (Potentiometer)
4	Mode Selection Switch
5	Water Button

FACIA (DISPLAY) BOARD

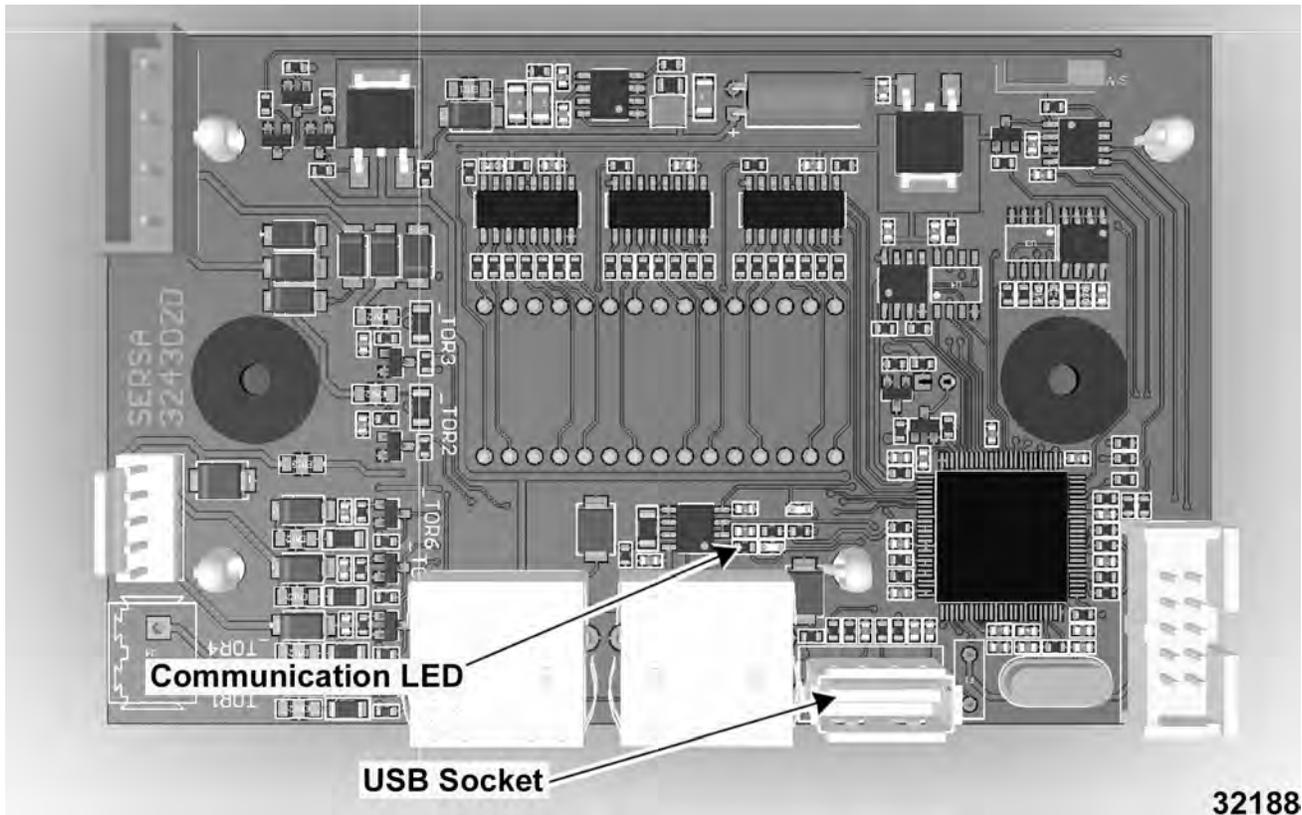


Fig. 32

RELAY BOARD

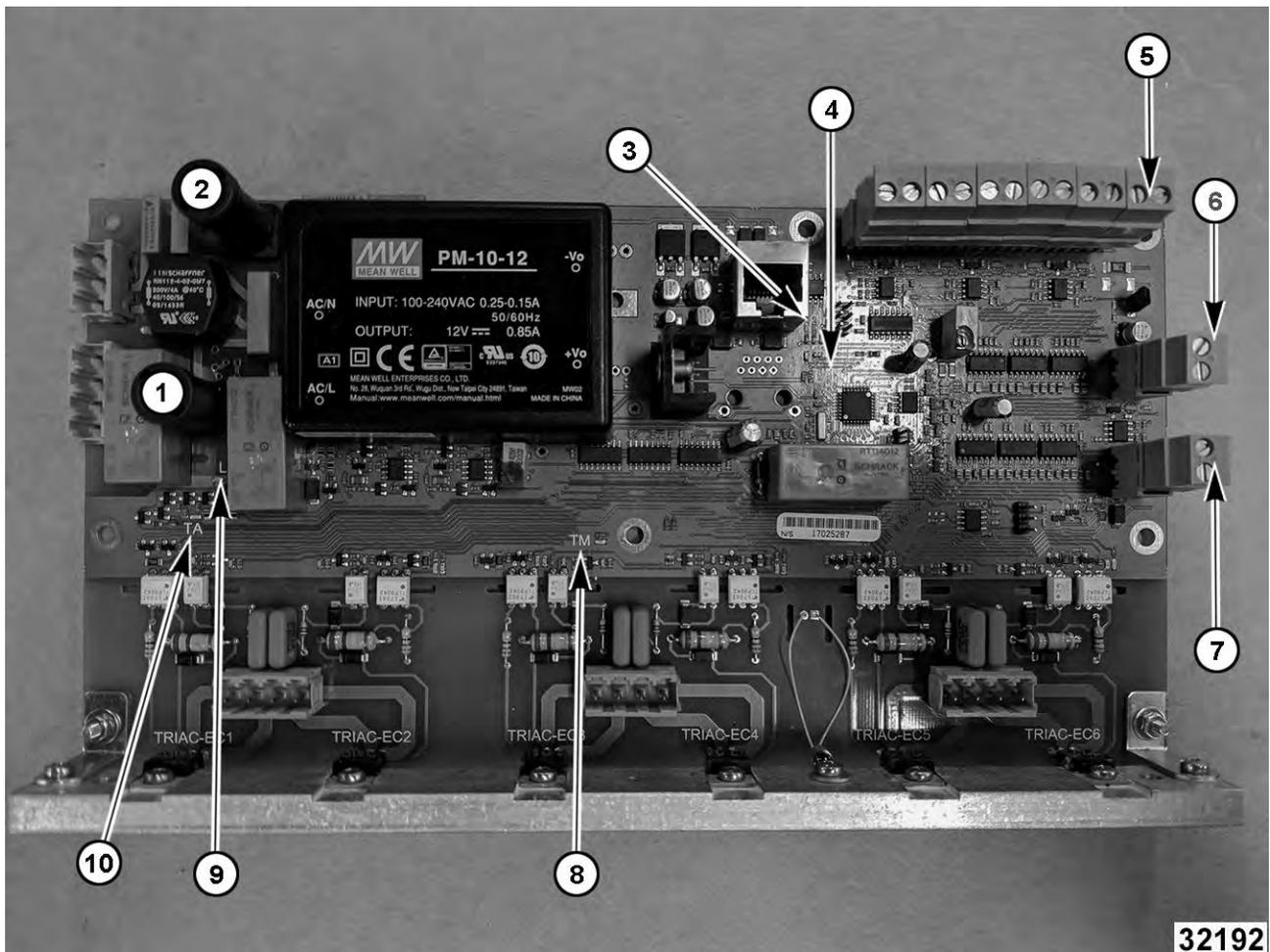


Fig. 33

32192

ITEM	DESCRIPTION
1	Rapid Fuse, 3.15 Amp, F1
2	Rapid Fuse, 1 Amp, F2
3	Communication LED
4	"Supply" LED, LA
5	Tank Bottom Thermocouple Connections
6	In-Tank Probe Connection
7	Water Button Connection
8	LED Temperature Safety, 1st Level (Microprocessor), TM
9	"Safety" LED, LS
10	LED Temperature Safety, 2nd Level (Analogue), TA

SOFTWARE

CHECKING SOFTWARE VERSION

NOTE: Current release software version is A31.

1. Turn mode selection button to any mode other than "OFF" (Griddle, Boil, or Fryer) Refer to [Fig. 34](#).
2. Press temperature adjustment button for 20 seconds.
3. Temperature display indicates version of the software.
 - Letter from A to Z.
 - Number from 1 to 99.

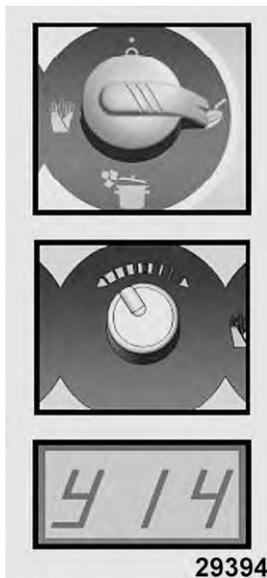


Fig. 34

2. Remove [CONTROL PANEL](#).
3. Insert USB drive containing updated software into control board.
4. Ensure selector switch is in "OFF" position, reapply power to unit.
 - Software will start to load.
 - Power indicator will flash
 - Temperature display will show USB ([Fig. 35](#)).

NOTE: Loading is finished when temperature indicator shows temperature again.

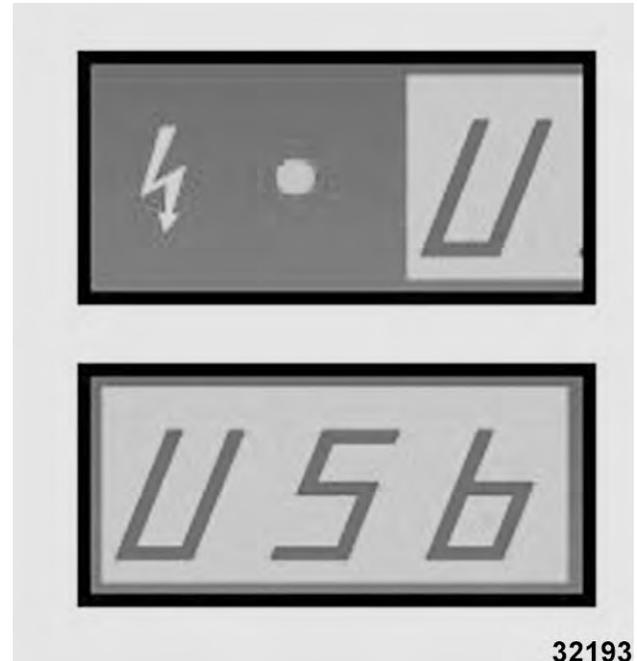


Fig. 35

UPDATING SOFTWARE



WARNING

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

NOTICE

It is vital the electrical supply is not turned off while loading software. The USB stick must not be removed while loading software

1. Disconnect unit from power.

5. Turn power off.
6. Remove USB drive.
7. Install [CONTROL PANEL](#).
8. Verify software version. Refer to [CHECKING SOFTWARE VERSION](#).

DATA LOGGERS

The software of the unit also contains data loggers that keep track of various aspects of operation, as well as a diagnostic mode that will scan components for errors.

DIAGNOSTIC MODE

1. Turn mode selector switch to FRYER.
2. Testing:
 - Heating Elements - set temperature to 34°F.
 - Temperature Probes - set temperature to 36°F.
3. Press and hold "Temperature Adjust Knob" for 10 seconds.

NOTE: The display will now cycle through six element channels. If they are operating normally, the display will show the channel number and "on". If there is an issue, the display will show the channel number and error code ECx (where X = number of the element or probe that is faulty).

4. Return to normal operation, turn selector switch to OFF, then to desired operation mode.



Fig. 36



Fig. 37

DATA LOGGERS

1. Turn the mode selector switch to FRYER.
2. Set temperature to 40°F
3. Press and hold "Temperature Adjust Knob" for 10 seconds.
4. Use "Temperature Adjust Knob" to select the Data Log you wish to see, refer to table below for listing.

NOTE: Individual logs can be reset by pressing "Temperature Adjust Knob" for 5 seconds while viewing the log value

5. Return to normal operation, turn Selector Switch to OFF, then to desired operation mode

C00	Number of hours under voltage.
C01	Number of hours switch on "Griddle mode".
C02	Number of hours switch on "Boil mode".
C03	Number of hours switch on "Fryer mode".
C05	Duration where the ambient electronic temperature is over 150°F.
C06	Number of microprocessor automatic resets.
C07	Number of hours that heating element 1 is on.

C08	Number of hours that heating element 2 is on.
C09	Number of hours that heating element 3 is on.
C10	Number of hours that heating element 4 is on.
C11	Number of hours that heating element 5 is on.
C12	Number of hours that heating element 6 is on.
C13	Number of "triac 1" commutations.
C14	Number of "triac 2" commutations.
C15	Number of "triac 3" commutations.
C16	Number of "triac 4" commutations.
C17	Number of "triac 5" commutations.
C18	Number of "triac 6" commutations.
C30	Number of times the ES1 message was displayed.
C31	Number of times the ES2 message was displayed.
C32	Number of times the ES3 message was displayed.
C33	Number of times the ES4 message was displayed.
C34	Number of times the ES5 message was displayed.
C35	Number of times the ES6 message was displayed.
C36	Number of times the EC1 message was displayed.
C37	Number of times the EC2 message was displayed.
C38	Number of times the EC3 message was displayed.
C39	Number of times the EC4 message was displayed.
C40	Number of times the EC5 message was displayed.
C41	Number of times the EC6 message was displayed.
C42	Number of times the ESb message was displayed.
C43	Number of times the EFr message was displayed.
C44	Number of times the EFc message was displayed.
C45	Number of times the EE1 message was displayed.
C46	Number of times the EE2 message was displayed.
C47	Number of times the EE3 message was displayed.
C48	Number of times the EE4 message was displayed.
<p>NOTE: If the value is more than 1000, the right dot is lighted. (Example: 3590 will be displayed as 359.) If the value is more than 10000, the right dot and middle dot are lighted. (Example: 78523 will be displayed as 78.5.)</p>	

TROUBLESHOOTING

TROUBLESHOOTING CHART

SYMPTOMS	POSSIBLE CAUSES
Unit trips circuit breaker.	1. Heating element grounded or shorted. <ul style="list-style-type: none"> • Check <u>HEATING ELEMENT RESISTANCE</u>.
No display, unit will not start.	1. Facility supply power malfunction. <ul style="list-style-type: none"> • Control board LED is not on. "LA" LED on relay card is not on. No power to supply terminals on safety contactor. <p>NOTE: If problem with facility power alert customer to contact electrician.</p> 2. Safety contactor malfunction. <ul style="list-style-type: none"> • Control board LED is not on. "LA" LED on relay card is not on. No power to supply terminals. • Fuse "F1" blown. 3. Cooking mode selection switch and or switch wiring malfunction. <ul style="list-style-type: none"> • Control panel LED is on. "LA" LED on the relay board is on. Wiring connection continuity between switch and the facia board is defective. • The switch contacts remain open no matter which position the switch is in. 4. Data cable that connects the relay board and facial board is defective or disconnected. <ul style="list-style-type: none"> • Control panel LED is not on. "LA" LED on relay board is not on, but unit has voltage through safety contactor. One or more of the communication LEDs do not light up. Refer to: <u>RELAY BOARD</u> and <u>FACIA (DISPLAY) BOARD</u> 5. Relay board is defective. <ul style="list-style-type: none"> • "LA" LED is lit but control board LED is not on. 6. Hi-Limit is tripped. <ul style="list-style-type: none"> • Voltage verified up through contactor, but no power to relay board, no LEDs are lit. • Check for continuity across Hi-Limit terminals, replace if circuit reads as open.

SYMPTOMS	POSSIBLE CAUSES
Unit doesn't heat.	<ol style="list-style-type: none"> 1. Safety contactor is defective. <ul style="list-style-type: none"> • "LS" LED on the relay board is on. There is power to the safety contactor coil but it doesn't engage. Safety contactor must be replaced. 2. No power to safety contactor even though relay board is working. <ul style="list-style-type: none"> • The "LS" LED on the electronic card is on. There is power present between terminals SY and N. Check wire connections on safety contactor. 3. Heating elements not getting power. <ul style="list-style-type: none"> • TRIAC control LEDs are not illuminated. One or more of the communication LEDs do not light up. relay board must be replaced. 4. Contactor control relay is not engaging. <ul style="list-style-type: none"> • The relay board "LS" LED is on. No power present between terminals SY and N. Relay board must be replaced. 5. Unit is overheated. <ul style="list-style-type: none"> • Error code EE1, EE2, EE3, or EE4 showing on display.
When pressing water fill button, water does not flow from the spout.	<ol style="list-style-type: none"> 1. Solenoid is dirty. 2. Solenoid's coil is burnt, short circuited or not connected. <ul style="list-style-type: none"> • Fuse "F2" is blown. • Check solenoid connection and voltage. 3. Water fill button is defective. <ul style="list-style-type: none"> • Disconnect and check continuity. 4. Unit is in FRY mode or tank surface is over 260°F. <ul style="list-style-type: none"> • Verify that software safety lockouts are not the issue.
Water flowing when not pressing water fill button.	<ol style="list-style-type: none"> 1. Solenoid is dirty. 2. Water fill button is defective. <ul style="list-style-type: none"> • Disconnect and check continuity. 3. Solenoid contacts shorted. <ul style="list-style-type: none"> • Verify 208/240V between terminal EV and N on the relay board.
Drain is leaking.	<ol style="list-style-type: none"> 1. Seal on drain damaged.
Unit not functioning correctly. Example: An area heats less than other areas, water takes longer to boil.	<ol style="list-style-type: none"> 1. Temperature probe defective or not properly seated. <ul style="list-style-type: none"> • Check each heating element temperature probe for good contact with tank surface, verify resistance from chart. 2. Heating element is not getting power from relay board. <ul style="list-style-type: none"> • Check element connections and resistance. If verified, replace relay board.
Potentiometer not working properly.	<ol style="list-style-type: none"> 1. Do a visual check of the copper traces on control board see if defective.

SYMPTOMS	POSSIBLE CAUSES
Mode selection switch not working properly.	<ol style="list-style-type: none"> 1. Defaulted wiring. <ul style="list-style-type: none"> • Control board LED is on. "LA" LED on the relay board is on. There is a continuity fault in the electrical wiring from the switch to the facia board. 2. Selector switch is defective. <ul style="list-style-type: none"> • Control board LED is on. "LA" LED on the electronic card is on. The switch contacts do not close as those indicated in the wiring diagram.

ERROR CODES

Error Code	Analysis / Diagnosis	Repair
	<ol style="list-style-type: none"> 1. Power interruption during cooking. Do not change settings during a power interruption. The cycle that was running will restart when power is restored. 	<ol style="list-style-type: none"> 1. To reset unit, turn cooking mode selection knob to "0" and select a cooking mode.
	<ol style="list-style-type: none"> 1. Fault in heating. Electrical supply to indicated element (X = number of element 1-6) has been interrupted. 2. Relay card deteriorated. 3. Heating element connector deteriorated. 	<ol style="list-style-type: none"> 1. Replace element. 2. Replace relay card. 3. Replace connector.
	<ol style="list-style-type: none"> 1. Tank base probe to indicated element (X = number of element 1-6) is disconnected or malfunctioning 	<ol style="list-style-type: none"> 1. Check that probes and elements are hooked up in proper order. 2. Replace defective probe.
	<ol style="list-style-type: none"> 1. In-Tank temperature probe is malfunctioning. 	<ol style="list-style-type: none"> 1. Disconnect the probe from the relay board and check it with an ohmmeter. Probes are "PT100" type. Check the state of the probe wires. Replace if defective.
	<ol style="list-style-type: none"> 1. Tank temperature over 401°F in fryer mode. 	<ol style="list-style-type: none"> 1. Wait for tank to cool to 260°F, then turn selector to "OFF" and restart.
	<ol style="list-style-type: none"> 1. Tank temperature >532°F 	<ol style="list-style-type: none"> 1. Wait for tank to cool to 260°F, then turn selector to "OFF" and restart. NOTE: If condition persists, check that probes and elements are hooked up in proper order and that no element is defective.
	<ol style="list-style-type: none"> 1. The electronics have reached 170°F. 	<ol style="list-style-type: none"> 1. Check for external heat sources, ensure cooling fan is functioning. Wait for unit to cool, then turn selector to "OFF" and restart.

Error Code	Analysis / Diagnosis	Repair
	1. The electronics have reached 185°F.	1. Check for external heat sources, ensure cooling fan is functioning. Wait for unit to cool, then turn selector to "OFF" and restart.
	1. The TRIACs are at 203°F.	1. Verify radiator (aluminum block attached to bottom of Relay Board enclosure) is correctly installed. After any repair work check that the radiator is correctly reinstalled and that there are no foreign bodies between radiator and Relay Board heat sink. 2. Wait for tank to cool to 260°F, then turn selector to "OFF" and restart.
	1. The TRIACs are at 221°F.	1. Verify radiator (aluminum block attached to bottom of Relay Board enclosure) is correctly installed. After any repair work check that the radiator is correctly reinstalled and that there are no foreign bodies between radiator and Relay Board heat sink. 2. Wait for tank to cool to 260°F, then turn selector to "OFF" and restart.

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OVEN STD IGNIT	ML-044905	V424M	V2H36
STD OVEN	ML-044906	V424S	V2H36M
CONVOVEN	ML-044907	V436	V2H36S
VS12T	ML-044912	V436M	V2H36C
VS12F	ML-044913	V436S	V3036
VS18T	ML-044914	V436C	V3036M
VS18F	ML-044915	V636	V3036S
VS24T	ML-044916	V636M	V3036C
VS24F	ML-044917	V636S	V3G36
VS36T	ML-044918	V636C	V3G36M
VS36F	ML-044919	V1G12M	V3G36S
VS12S	ML-044920	V1G12S	V3G36C
VS18S	ML-044921	V1G24M	
VS24S	ML-044922	V1G24S	
VS36S	ML-044923	V212M	
VS12M	ML-044924	V212S	
VS18M	ML-044925	V218M	
VS24M	ML-044926	V218S	
VS36M	ML-044927		
VO236	ML-044970		

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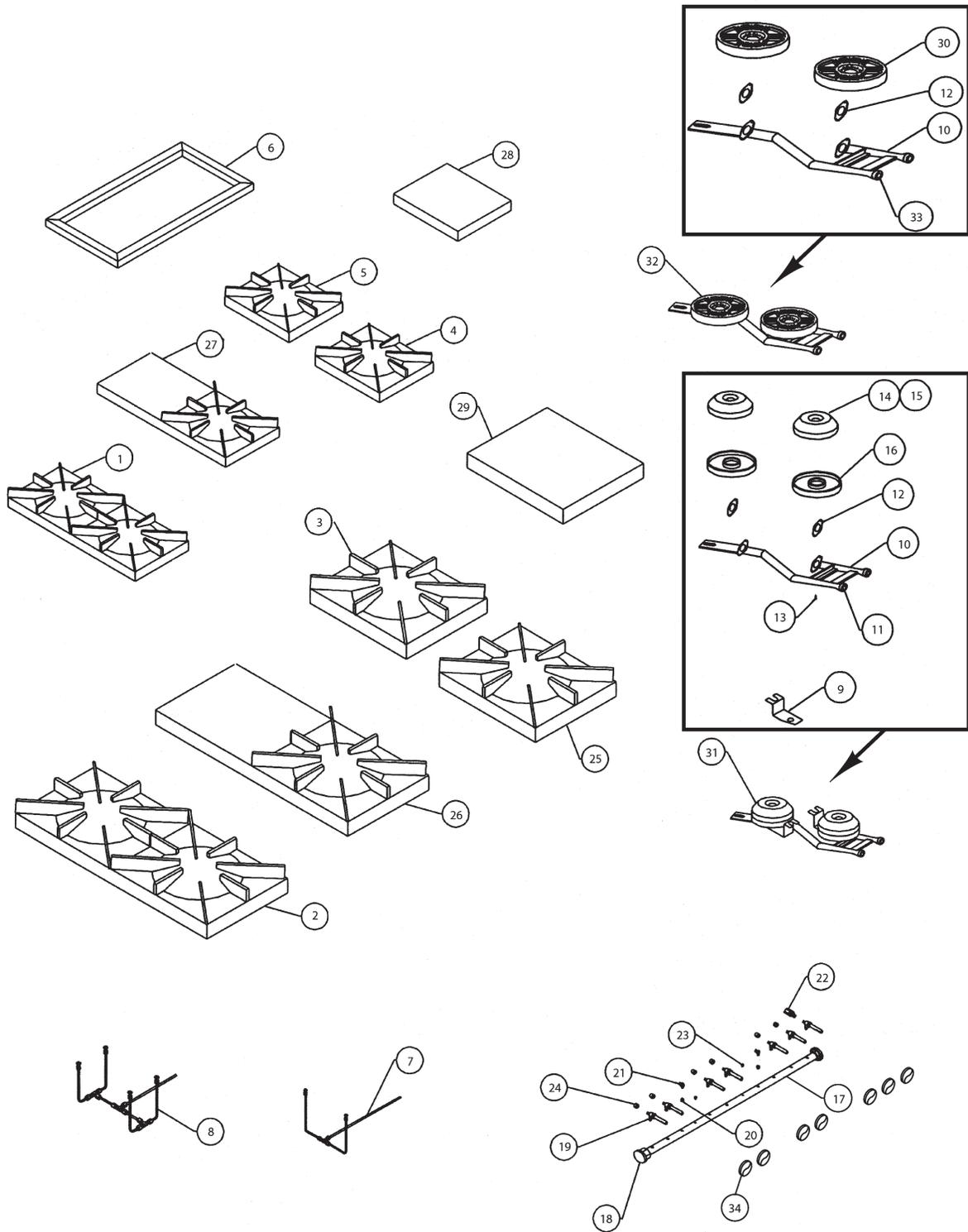


Fig. 1

Standard Burner Parts

ILLUS. Fig. 1	PART NO.	NAME OF PART	AMT.
1	00-720567	Open Top Grate (12" x 27")	1
2	00-720566	Open Top Grate (18" x 27")	1
3	00-720675	Rear Open Top 18"	1
4	00-765905-0000A	Front Grate Step Up Unit (12 3/8" x 11 7/8")	1
5	00-765904-0000A	Rear Grate Step Up Unit (14 3/8" x 11 7/8")	1
6	00-762330-0003A	4" Step Up Frame 36"	1
7	00-762971-0000A	Pilot Tube Assy (Double Burner)	1
8	00-762972-0000A	Pilot Tube Assy (4 Burners)	1
9	00-762346	Pilot Bracket	1
10	00-719708	Venturi (Cast Iron)	1
11	00-719241	Air Shutter	1
12	00-714910	Gasket	1
13	00-730028	Mounting Screw	1
14	00-715200-00001	Burner Cap	1
15	00-715200-00002	Burner Cap Slotted	1
16	00-715201-00001	Burner Base Plate	1
17	00-722326	Manifold Pipe	1
18	00-715008	Union 1 1/4"	1
19	00-715080	1/4 NPT Top Burner Valve	1
20	00-719063	1/4" to 1/8" Reducing Bushing	1
21	00-719187	1/8 NPT x 3/16cc Pilot Valve	1
22	00-719192	Straight Connector	1
23	00-719200	1/8 NPT Iron Pipe Plug	1
24	00-719951	Orifice	1
25	00-720674	Front Open Top 18"	1
26	00-720568	18" Half Hot Top	1
27	00-720565	12" Half Hot Top	1
28	00-788379-0000A	Rear Half Hot Top 12"	1
29	00-720676	Rear Half Hot Top 18"	1
30	00-719706	Open Top Burner, Head Only	1
31	00-762970-0000A	Burner Assy.	1
32	00-762968-0000A	Open Top Burner Assy.	1
33	00-719329	Air Shutter	1
34	00-426745-00001	Knob Control	1

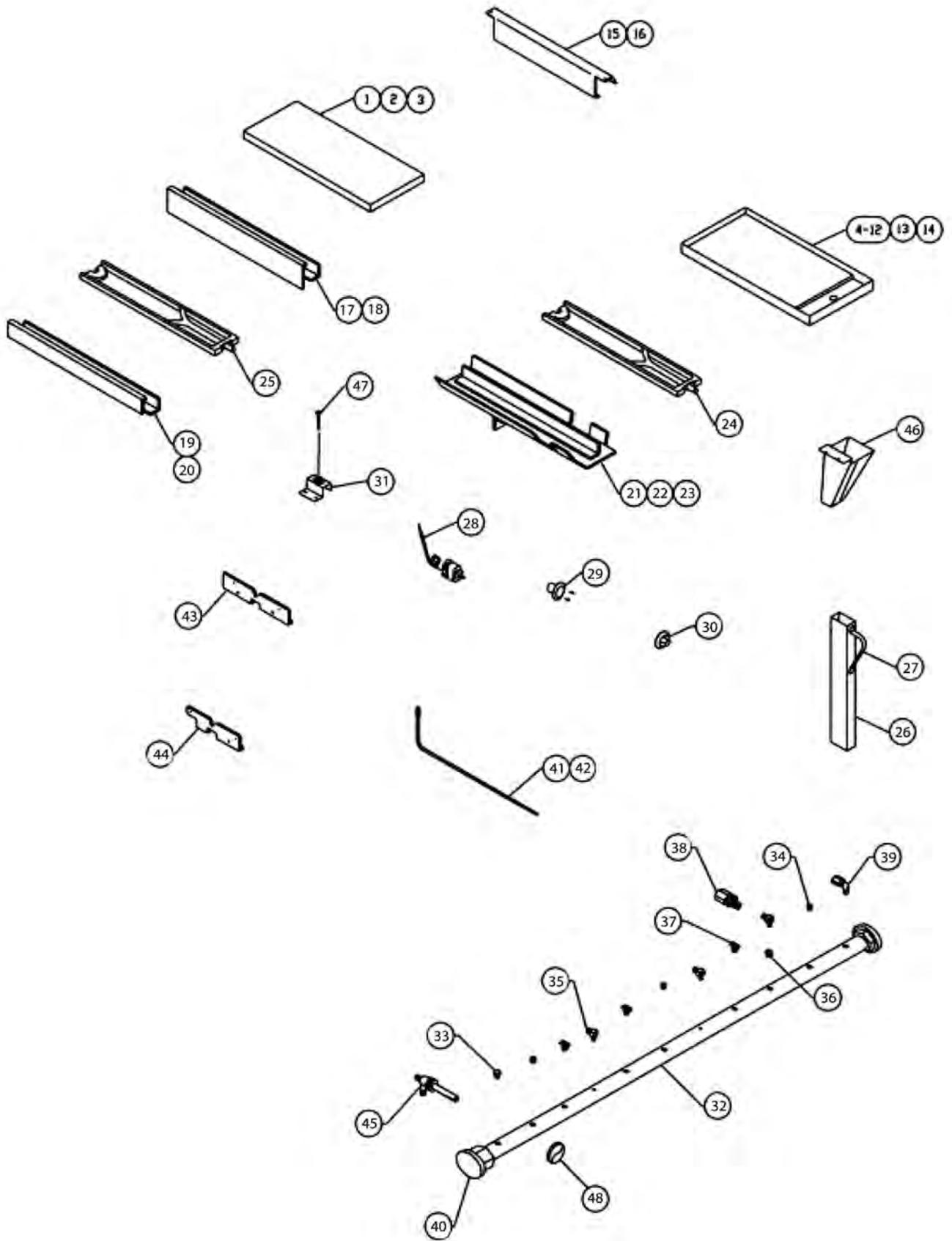


Fig. 2

Hot Tops/Fry Tops Parts

ILLUS. Fig. 2	PART NO.	NAME OF PART	AMT.
1	00-720605	Hot Top Plate (12" x 27")	1
2	00-720604	18" Half Hot Top	1
3	00-720605-000G2	12" Full Hot Top	1
4	00-707880-0000A	12" Fry Top 3/4" THK LH Drain	1
5	00-769066-0000A	24" Fry Top 3/4" THK LH Drain	1
6	00-707888-0000A	24" Fry Top 1" THK LH Drain	1
7	00-769098-0000A	36" Fry Top 3/4" THK LH Drain	1
8	00-766091-0000A	36" Fry Top 1" THK LH Drain	1
9	00-707883-0000A	48" Fry Top 3/4" THK (Specify Drain Loc.)	1
10	00-707890-0000A	48" Fry Top 1" THK (Specify Drain Loc.)	1
11	00-707891-0000A	60" Fry Top 1" THK (Specify Drain Loc.)	1
12	00-707892-0000A	72" Fry Top 1" THK (Specify Drain Loc.)	1
13	00-767164-0000A	18" Fry Top 1" THK LH Drain	1
14	00-767165-0000A	18" Fry Top T.G. 1" THK LH Drain	1
15	00-706081	RH End Plate FT	1
16	00-706080	LH End Plate FT	1
17	00-706078	Separation Plate Between O.B. & FT or HT (12" HP)	1
18	00-767180	Separation Plate Between O.B. & FT or HT (18" HP)	1
19	00-706079	End Plate HT	1
20	00-767179	End Plate 18" HT	1
21	00-707870-0000A	Aeration Plate CTR HT-FT	1
22	00-707871-0000A	Aeration Plate CTR - TG Grill	1
23	00-767170-0000A	Aeration Plate CTR 18" HT	1
24	00-707893-0000A	Fry Top Burner Assy., Cast Iron	1
25	00-707894-0000A	Hot Top Burner Assy., Cast Iron	1
26	00-707877-0000A	Grease Can, Range Unit	1
27	00-706084	Handle for Grease Can	1
28	00-719362	Griddle Thermostat	1
29	00-715075	Griddle Thermostat Bezil	1
30	00-715074	Griddle Thermostat Dial	1
31	00-705032-0000A	Griddle Adj. Bracket	1
32	00-757750-0000A	Manifold Pipe	1
33	00-719371	1/4 NPT Steel Pipe Hex Plug	1
34	00-719364	1/4 Steel Plug (Countersink)	1
35	00-719193	1/8 NPT x 3/16 Adj. Pilot Valve	1
36	00-719063	1/4" x 1/8" Reducing Bushing	1
37	00-715084	1/4 NPT Flange Nipple	1
38	00-719141	1/8 NPT x 3/16cc Straight Connector	1
39	00-719158	1/4 NPT x 7/16cc 90° Elbow	1
40	FP-088-89	Union 1 1/4"	1
41	00-706771-0000A	Pilot Stem & Tip Only 8"	1
42	00-706770-0000A	Pilot Stem & Tip Only 7"	1
43	00-706065	Baffle, Front - Center	1
44	00-706066	Baffle, Front - Left or Right	1
45	00-715080	1/4 NPT Top Burner Valve	1
46	00-763011-0000A	Grease Chute	1
47	00-730117	Leveling Bolt	1
48	00-426745-00001	Knob Control	1

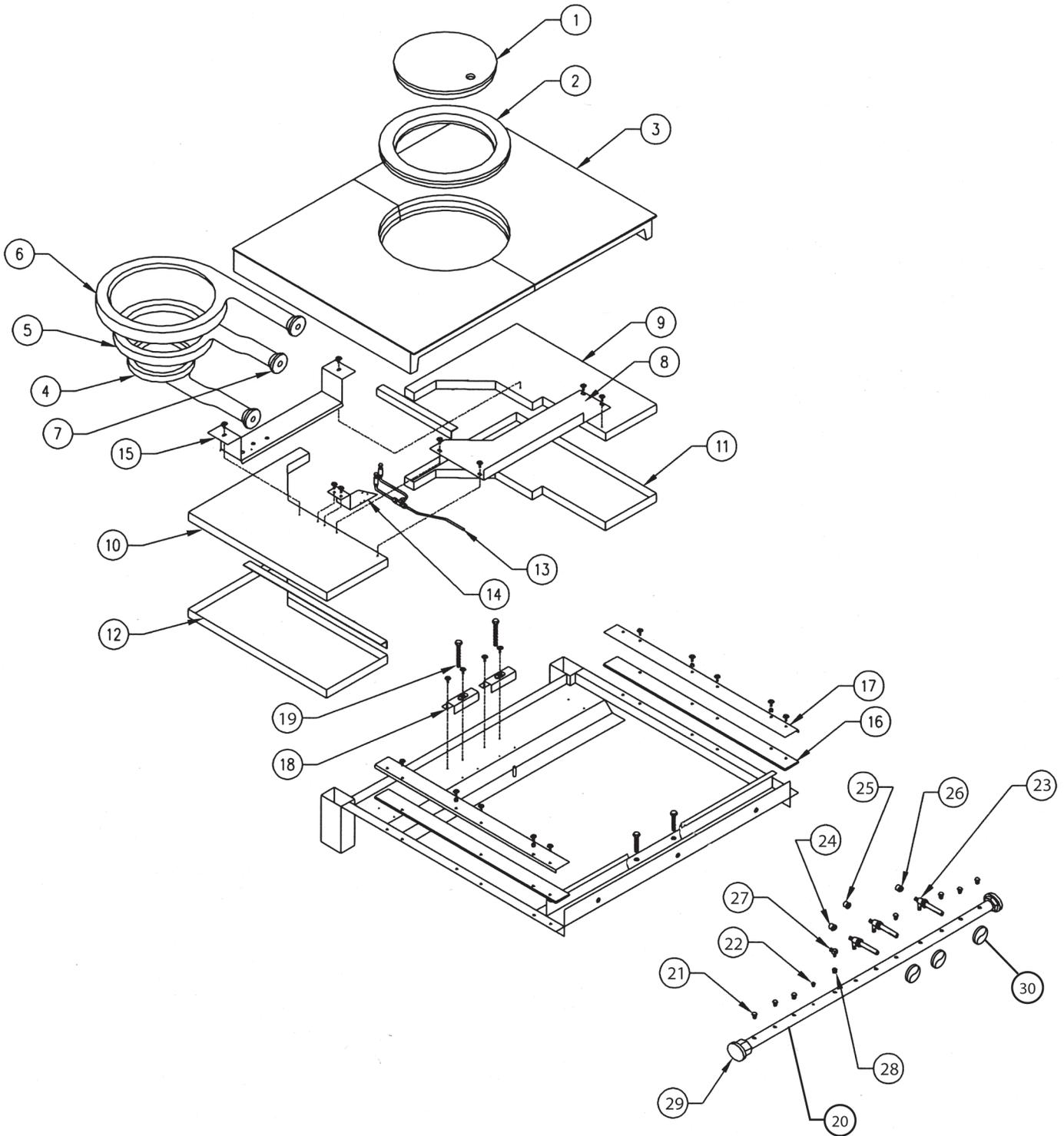
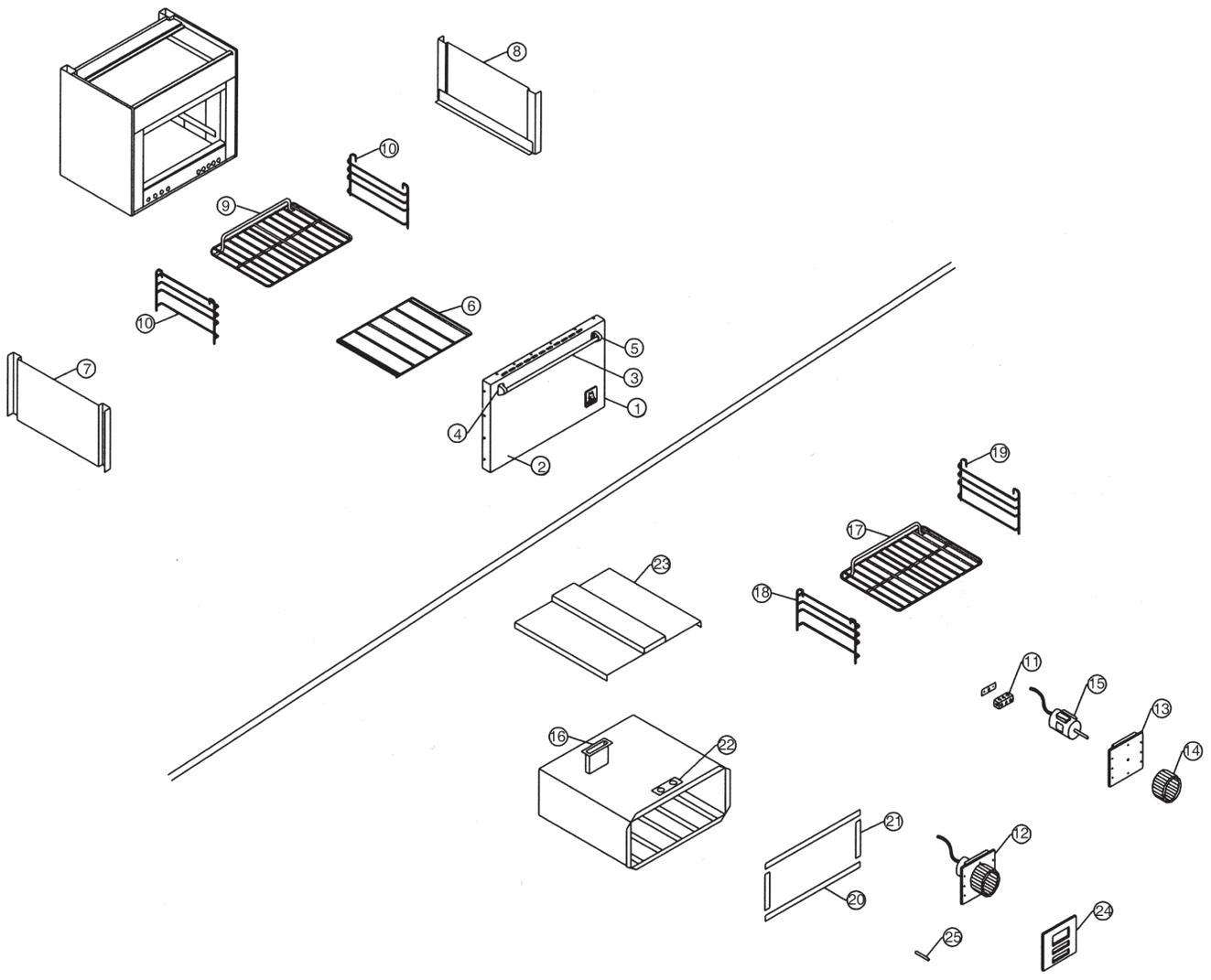


Fig. 3

French Top Parts

ILLUS. Fig. 3	PART NO.	NAME OF PART	AMT.
1	00-715211	Top Ring Casting	1
2	00-715210	Top Center Casting	1
3	00-715212	Top Radial Finned Casting	1
4	00-409414-000G1	Center Frenchtop Burner	1
5	00-409413-000G1	Middle Frenchtop Burner	1
6	00-409412-000G1	Outer Frenchtop Burner	1
7	00-719329	Air Shutter	1
8	00-764907	Center Heat Panel	1
9	00-764908	Top Insulation Panel - RH	1
10	00-764909	Top Insulation Panel - LH	1
11	00-764910	Bottom Insulation Panel - RH	1
12	00-764911	Bottom Insulation Panel - LH	1
13	00-764923-0000A	Pilot Tube Assembly	1
14	00-787223	Dual Pilot Bracket	1
15	00-764916	Burner Support Bracket.....	1
16	00-764919	Grate Support	1
17	00-764920	Grate Support Cover	1
18	00-705032-0000A	Leveling Bracket W/A	1
19	00-730117	Rear Leveling Bolts	1
20	00-757750-0000A	Manifold Pipe	1
21	00-719371	1/4" Plug	1
22	00-719370	1/8" Plug	1
23	00-715080	1/4 NPT Valve	1
24	00-719951-00053	Inner Burner Orifice (Nat. or LP. Gas)	1
25	00-719951-00052	Middle Burner Orifice (Nat. Gas)	1
	00-719951-00059	Middle Burner Orifice (LP. Gas)	1
26	00-719951-00043	Outer Burner Orifice (Nat. Gas)	1
	00-719951-00062	Outer Burner Orifice (LP. Gas).....	1
27	00-719193	Single Pilot Valve	1
28	00-719063	1/4 to 1/8 Reducing Bushing	1
29	FP-087-62	1 1/4" Union	1
30	00-426745-00001	Knob Control	1



Standard Oven

Convection Oven

Fig. 4

Oven Parts

ILLUS. Fig. 4	PART NO.	NAME OF PART	AMT.
1	00-788278-0000A	Oven Door Complete, Stainless	1
2	00-757522	Door Panel	1
3	00-715504	Door Handle	1
4	00-719621	Door Handle Bracket, Left	1
5	00-719622	Door Handle Bracket, Right	1
6	00-707859-000AP	Oven Bottom, Porcelain	1
7	00-707854-000AP	Oven Side Liner, Left	1
8	00-707855-000AP	Oven Side Liner, Right	1
9	00-715060-000A2	Oven Rack	1
10	00-715026-00002	Oven Rack Guide Assy., Left or Right	1
11	00-788596-0000A	Terminal Block	1
12	00-751316-0000A	Motor & Fan Assy. (115V)	1
13	00-751655-0000A	Motor Mounting Plate Assy.	1
14	00-715106	Fan Blower Wheel Only (8" x 2 1/2")	1
15	00-715107-00002	Motor Only (115V)	1
16	00-751341-0000A	Snorkler Tube	1
17	00-718341	Oven Rack (26 1/8" x 21")	1
18	00-714941	Oven Rack Guide, Left	1
19	00-714942	Oven Rack Guide, Right	1
20	00-720666	Top Door Seal	1
	00-720667	Bottom Door Seal	1
21	00-720668	Right Side Door Seal	1
	00-720669	Left Side Door Seal	1
22	00-751355-000A2	Vent Tube Assy.	1
23	00-751369-0000A	Flue Duct Assy.	1
24	00-751351	Fan Cover Front Shield	1
25	00-715138	Sleeve/Spacer	1
	00-715016	LH Counterweight Arm	1
	00-715017	RH Counterweight Arm	1
	00-715064	Hinge Pin	1
	00-715063	Hinge Pin Bushing	1
	00-707843-0000A	Flue Box (Standard Oven)	1
	00-751444-0000A	Flue Box (Convection Oven)	1

Control System • Convection Oven

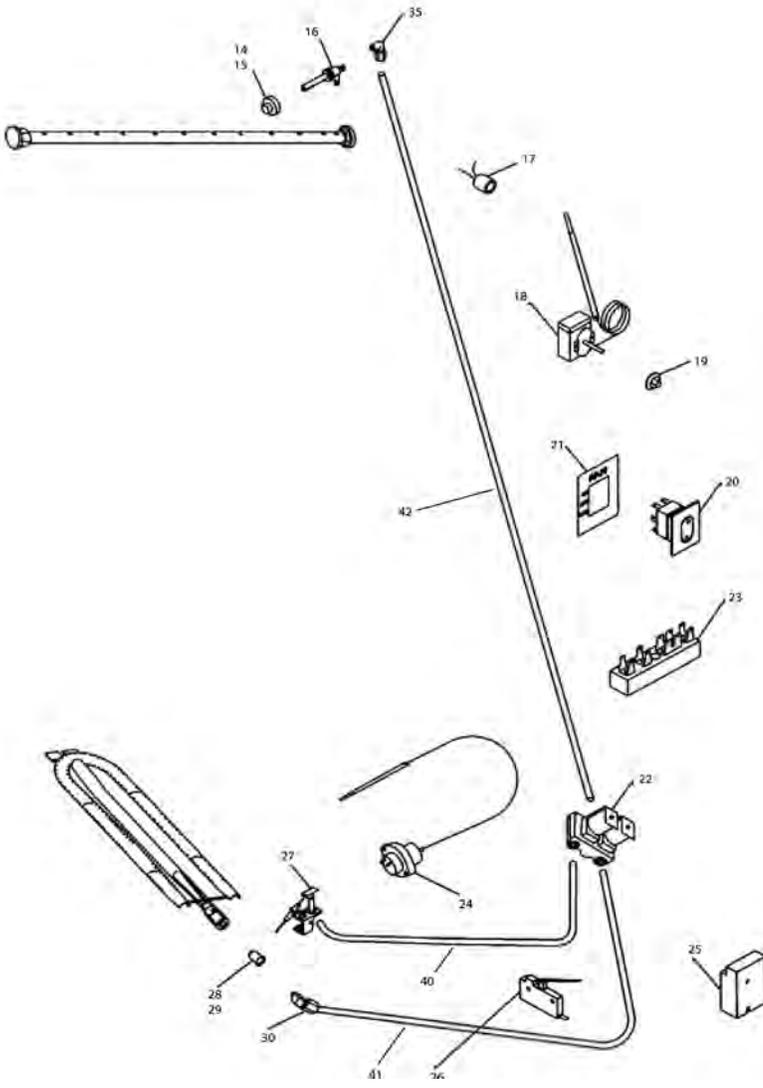


Fig. 5

Control System • Standard Oven

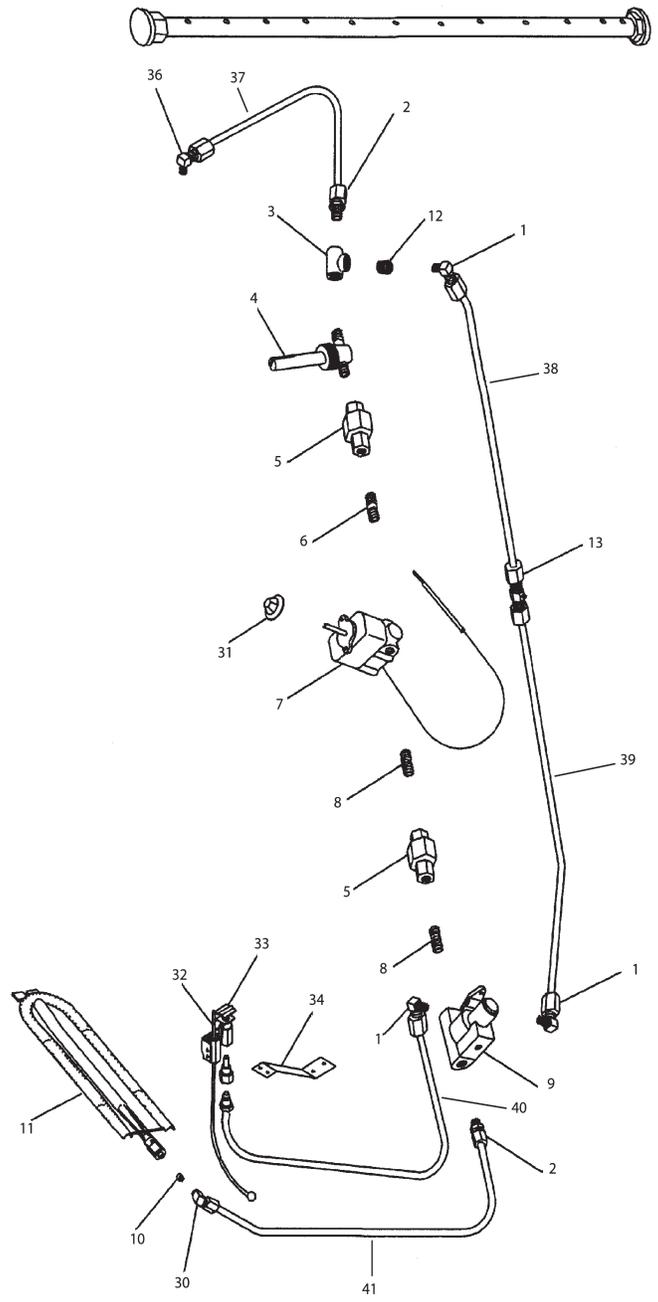


Fig. 6

Control System Parts List

ILLUS. Fig. 5, 6	PART NO.	NAME OF PART	AMT.
1	00-719156	1/8 X 1/4cc Brass Elbow	1
2	00-719377	3/8 NPT X 3/8 STR Brass Connector	1
3	00-719037	3/8 X 3/8 X 3/8 Tee	1
4	00-719971	Shut Off Valve (Standard Oven)	1
5	00-719032	Union 3/8	1
6	00-719055	Nipple 3/8 X 1 1/4	1
7	00-715048	Oven Thermostat (FDT0) (500°)	1
	00-715048-00002	Oven Thermostat (650°)	1
8	00-719074	Close Nipple 3/8	1
9	00-720719	Safety Valve (BASO)	1
10	00-719951-00035	Orifice	1
11	00-719737-00004	Oven Burner (Prior to April 17, 2006)	1
	00-497579-000G1	Oven Burner (April 17, 2006 to Present)	1
12	00-719066	Reducing Coupling 3/8 X 1/8	1
13	00-707648-0000A	Pilot Valve Assy.	1
14	00-402957-00003	Knob, Oven Valve (Black)	1
15	00-402957-00002	Knob, Oven Valve (Red)	1
16	00-715080	ON/OFF Oven Valve (Convection Oven)	1
17	00-720017	Temperature Indicator Light (Red).....	1
18	00-719202	Oven Thermostat (Convection Oven)	1
19	00-718224	Oven Thermostat Dial	1
20	00-715112	Fan Switch (3-Position Rocker)	1
21	00-715127	Label, Fan Switch	1
22	00-713656	Dual Solenoid	1
23	00-788596-0000A	Terminal Block	1
24	00-713933	Flame Switch	1
25	00-720385	Spark Module, Single (Blue)	1
26	00-715122	Switch, Door	1
27	00-714392-00042	Spark Pilot	1
28	00-720041	Pilot Orifice (Nat. Gas) (Use With 715004 Only)	1
29	00-712363	Pilot Orifice (LP. Gas) (Use With 715004 Only)	1
30	00-719385	Orifice Elbow, Oven Burner	1
31	00-715059	Oven Thermostat Dial (Knob) (500°)	1
	00-715059-00001	Oven Thermostat Dial (Knob) (650°)	1
32	00-715005	Oven Safety Thermocouple	1
33	00-715004	Oven Pilot (Nat. Gas) (Prior to April 17, 2006)	1
	00-412787-00001	Oven Pilot (Nat. Gas) (April 17, 2006 to Present)	1
	00-412782-00002	Oven Pilot (LP. Gas) (April 17, 2006 to Present)	1
34	00-706088	Mounting Bracket For Pilot	1
35	00-719393	Elbow 3/8 x 3/8cc	1
36	00-719376	Brass Elbow	1
37	00-722425	Flex Tubing 3/8 x 8"	1
38	00-722227	Flex Tubing 1/4 X 6"	1
39	00-722229	Flex Tubing 1/4 X 18"	1
40	00-722230	Flex Tubing 1/4 X 24"	1
41	00-722223	Flex Tubing 3/8 X 24"	1
42	00-722222	Flex Tubing 3/8 X 18"	1

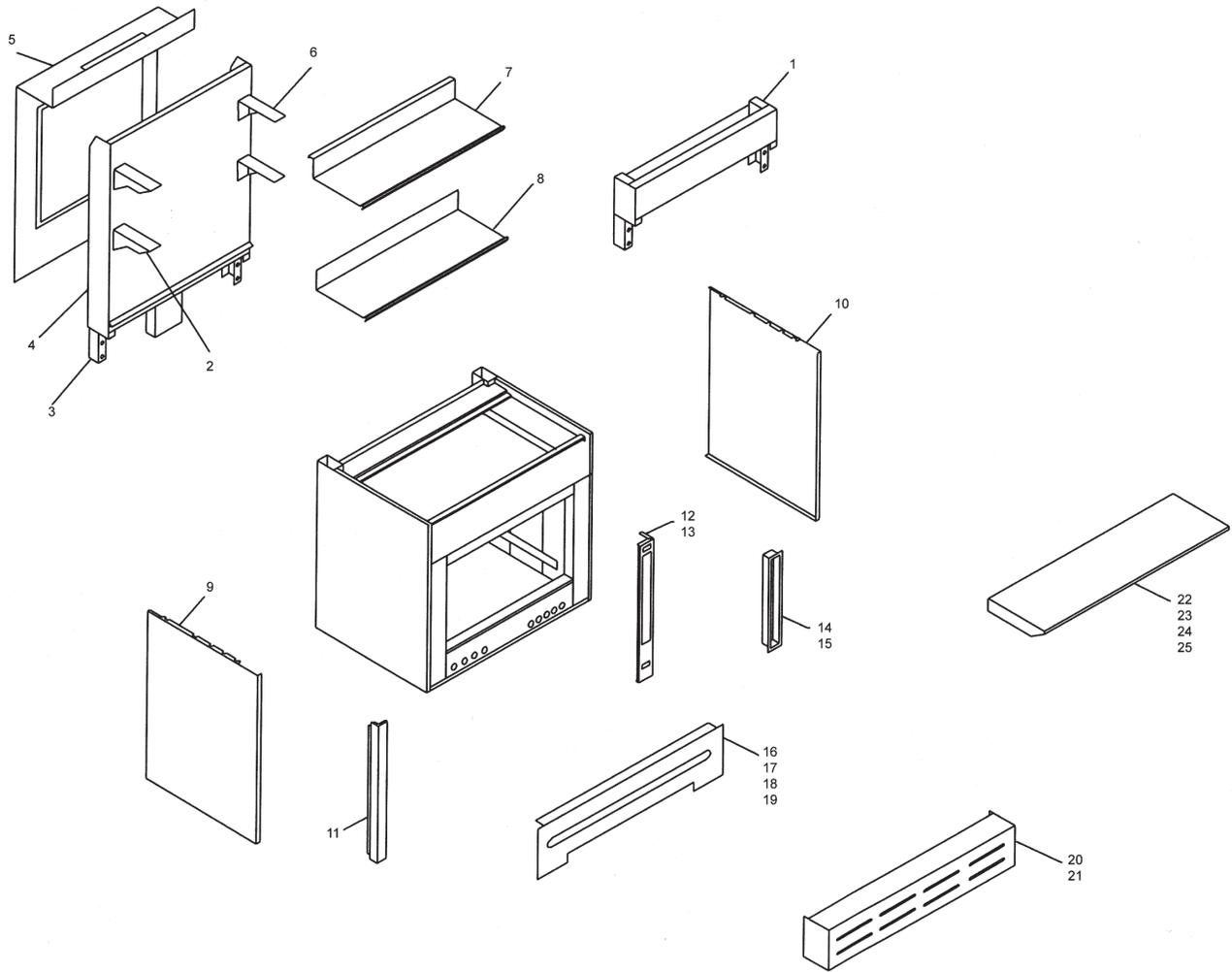


Fig. 7

Body Parts/Shelves Risers Parts List

ILLUS. Fig. 7	PART NO.	NAME OF PART	AMT.
1	00-769185-0000A	Riser, 36" SST Stub	1
2	00-715089	Shelf Bracket L-Plated	1
3	00-788577-0000A	Kit, Support Channels	1
4	00-767547-0000A	Double Deck Hi-Shelf Front	1
5	00-706252	Back Panel Double Deck	1
6	00-715090	Shelf Bracket R-Plated	1
7	00-706289	Top Shelf S/S 36"	1
8	00-707509-0000A	Lower Shelf S/S 36"	1
9	00-763698	Right Side Stainless Plant On	1
10	00-763699	Left Side Stainless Plant On	1
11	00-706393	Left Oven Post Cover, Stainless	1
12	00-706114	Oven Control Panel, Painted	1
13	00-706115	Oven Control Panel, Stainless	1
14	00-706117	Oven Control Panel Insert, Stainless	1
15	00-751609	Oven Control Panel Insert, Stainless - KFS	1
16	00-706129-00001	Manifold Cover 36" S/S	1
17	00-706361-00001	Manifold Cover 24" S/S	1
18	00-706359-00001	Manifold Cover 18" S/S	1
19	00-706357	Manifold Cover 12" S/S	1
20	00-706163	Burner Box Panel (Kick Plate) Painted	1
21	00-706164	Burner Box Panel (Kick Plate) Stainless	1
22	00-788768-00A12	Roll Front - Bull Nose 12"	1
23	00-788768-00A18	Roll Front - Bull Nose 18"	1
24	00-788768-00A24	Roll Front - Bull Nose 24"	1
25	00-788768-00A36	Roll Front - Bull Nose 36"	1

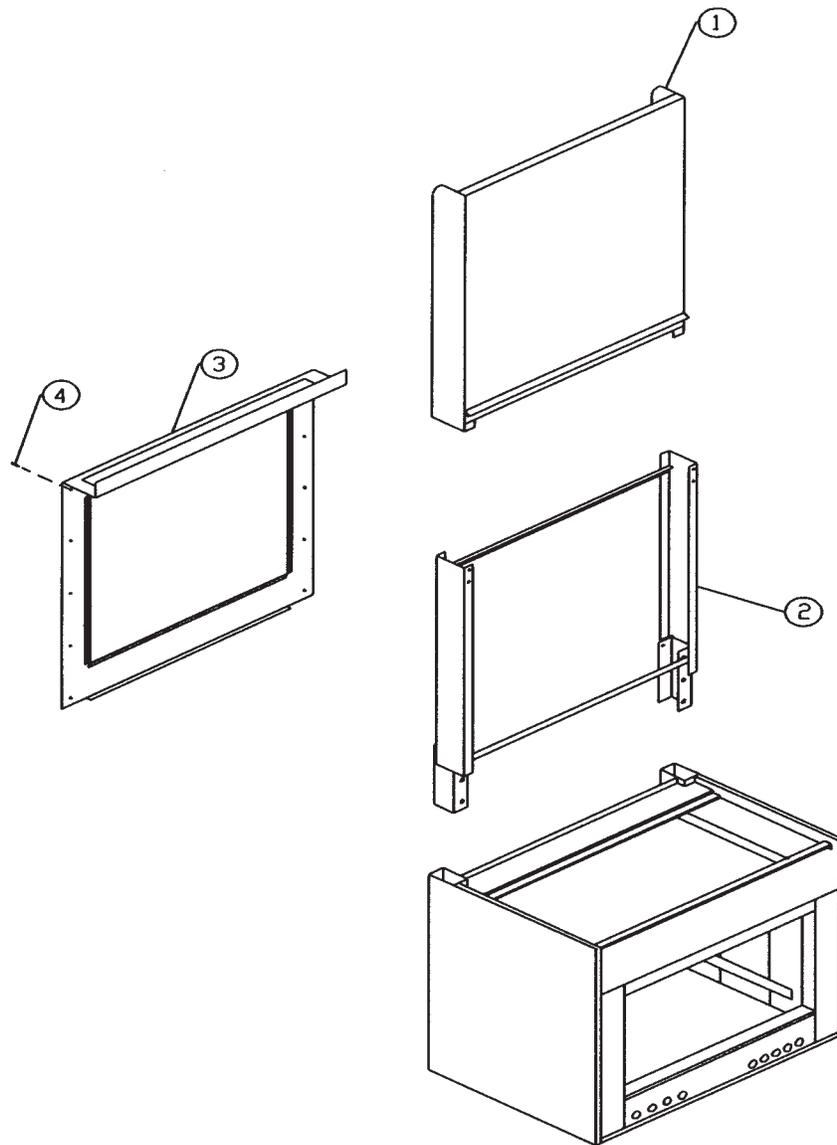


Fig. 8

Riser Kit Without Shelf Parts List

ILLUS. Fig. 8	PART NO.	NAME OF PART	AMT.
1	00-767548-0000A	Single Deck Riser Panel, SST	1
2	00-788576-0000A	Channel Support Kit	1
3	00-707514-0000A	Back Panel, Single Deck Assy.	1
4	00-730228	Screw, 10-24 X 1/2 Phil	14

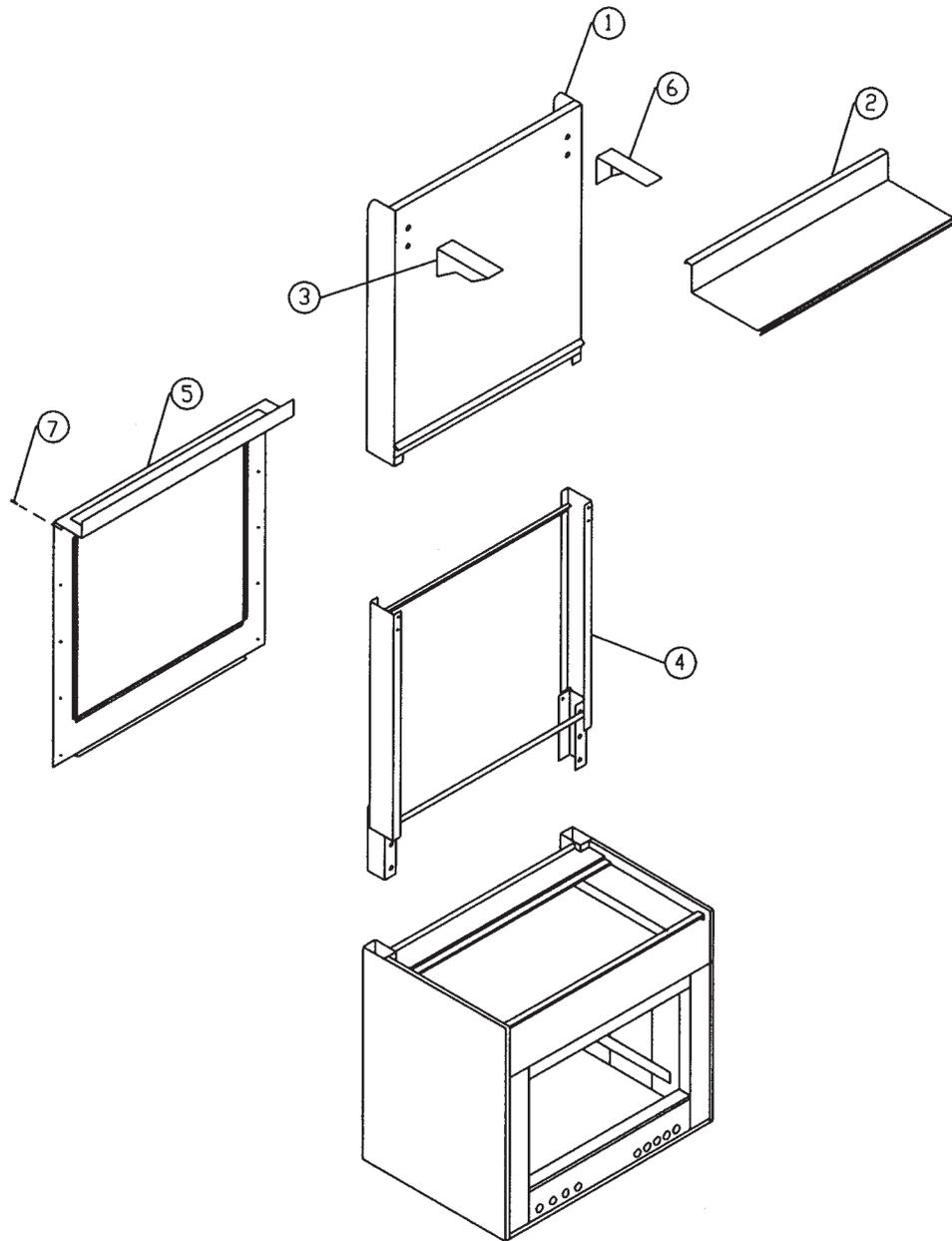


Fig. 9

Riser Kit With Single Shelf Parts List

ILLUS. Fig. 9	PART NO.	NAME OF PART	AMT.
1	00-767547-0000A	Single Deck Hi-Shelf Panel, SST	1
2	00-706289	Top Shelf S/S 36"	1
3	00-715089	Shelf Bracket L-Plated	1
4	00-788576-0000A	Channel Support Kit	1
5	00-707514-0000A	Back Panel Single Deck Assy.	1
6	00-715090	Shelf Bracket R-Plated	1
7	00-730228	Screw, 10-24 X 1/2 Phil	14

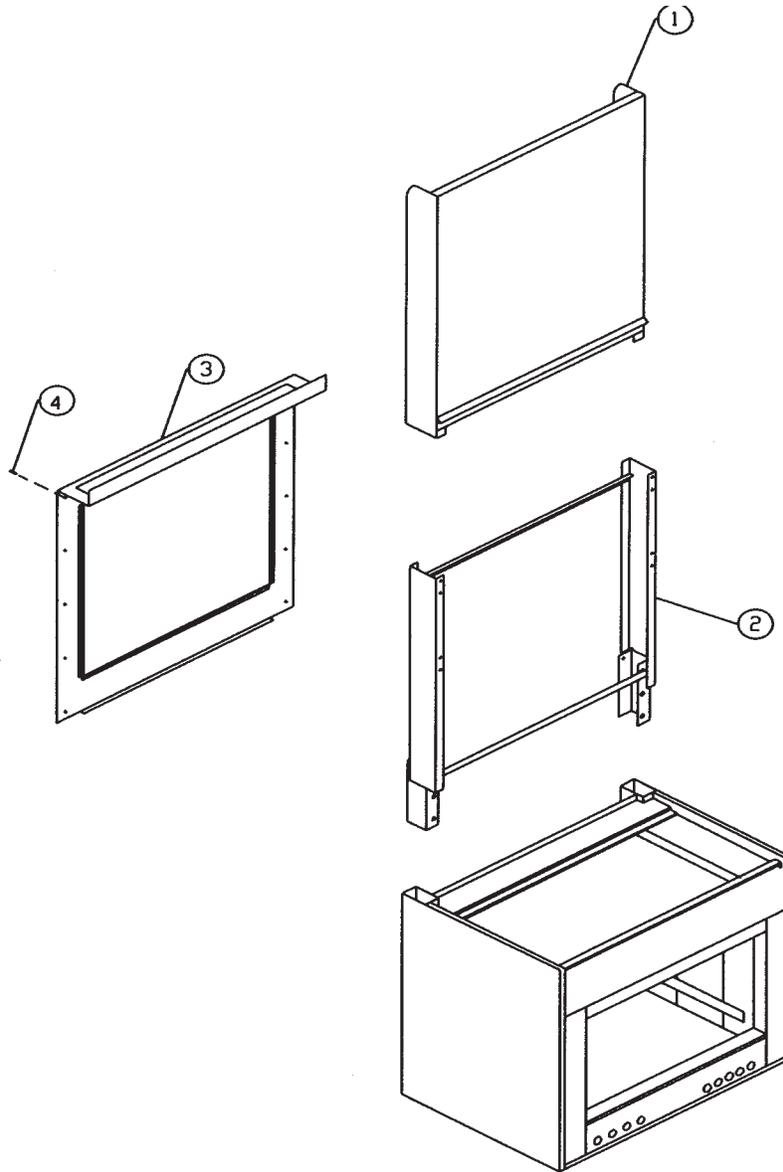


Fig. 10

Double Deck Riser Kit Without Shelves Parts List

ILLUS. Fig. 10	PART NO.	NAME OF PART	AMT.
1	00-767580-0000A	Double Deck Riser Panel, SST	1
2	00-788577-0000A	Channel Support Kit	1
3	00-707519-0000A	Back Panel Double Deck Assy.	1
4	00-730228	Screw, 10-24 X 1/2 Phil	16

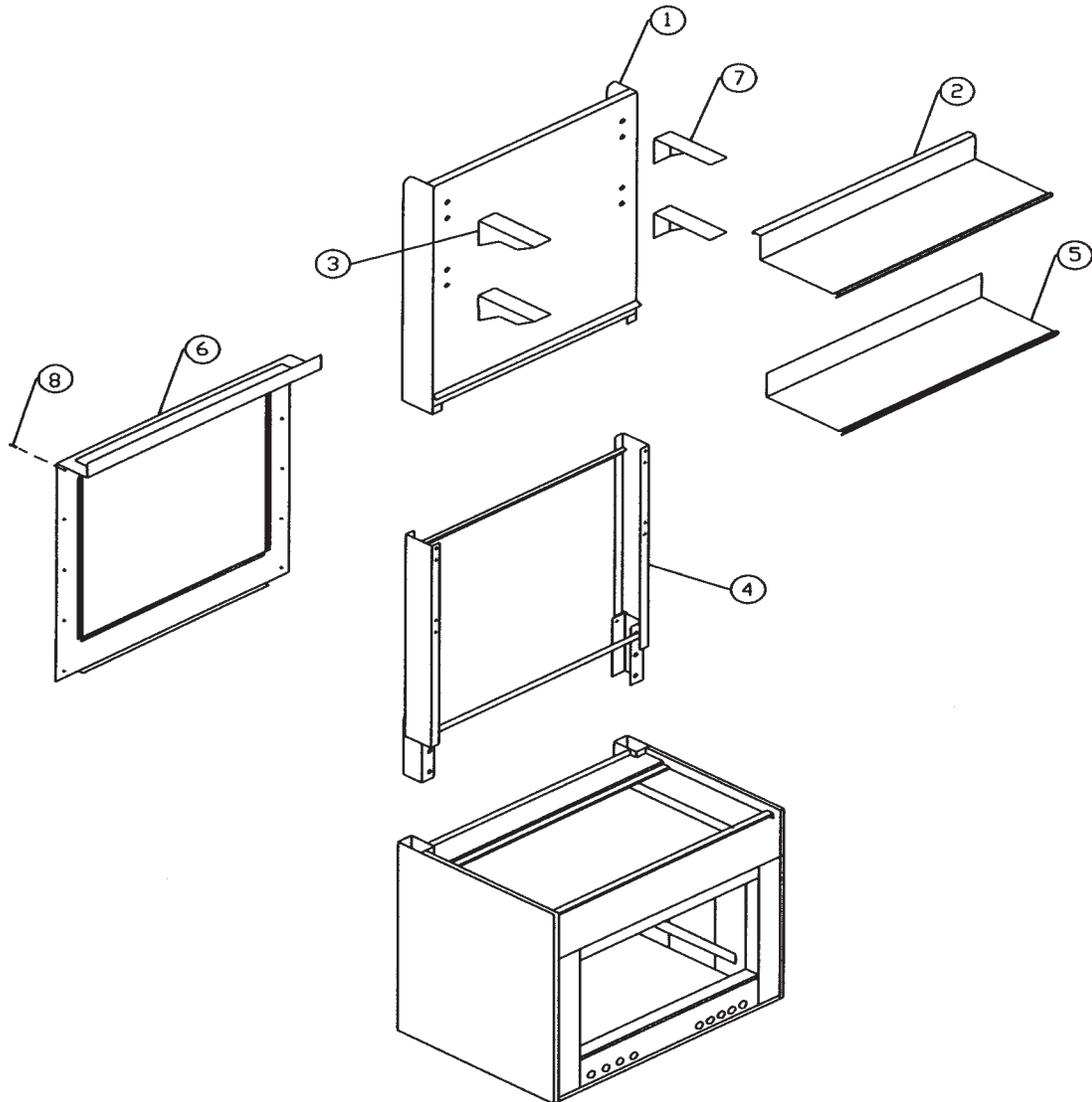


Fig. 11

Double Deck Riser Kit With Shelves Parts List

ILLUS. Fig. 11	PART NO.	NAME OF PART	AMT.
1	00-767579-0000A	Double Deck Hi-Shelf Panel, SST	1
2	00-706289	Top Shelf, S/S 36"	1
3	00-715089	Shelf Bracket L-Plated	2
4	00-788577-0000A	Channel Support Kit	1
5	00-707509-0000A	Lower Shelf, S/S 36"	1
6	00-707519-0000A	Back Panel Double Deck Assy.	1
7	00-715090	Shelf Bracket R-Plated	2
8	00-730228	Screw, 10-24 X 1/2 Phil	16

RECOMMENDED SPARE PARTS LIST

OPEN TOP/HOT TOP/GRIDDLE

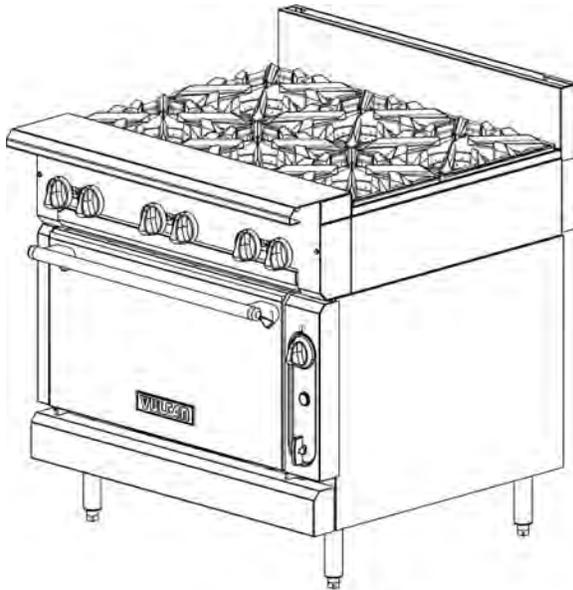
PART NO.	NAME OF PART	AMT.
00-762970-0000A	Double Burner Assy.	1
00-715080	Top Burner Valve	2
00-762971-0000A	Two Burner Pilot Assy.	2
00-719193	Pilot Valve	2
00-426745-00001	Top Control Knob	2
00-719951-00041	Open Top Burner Orifice (Nat. Gas) (#41)	2
00-719951-00052	Open Top Burner Orifice (L.P. Gas) (#52)	2
00-719362	Griddle Thermostat	1
00-715074	Griddle Thermostat Knob	1
00-706771-0000A	Pilot Assy. (Griddle/Hot Top)	1
00-720566	Double Open Top Grate (18")	1
00-720567	Double Open Top Grate (12")	1

STANDARD OVEN AND CONVECTION OVEN

PART NO.	NAME OF PART	AMT.
STANDARD OVEN		
00-714267	Safety Valve	2
00-715048	Thermostat (Oven) (500 Degrees)	2
00-715059	Thermostat Knob (500 Degrees)	2
00-715048-00002	Thermostat (Oven) (650 Degrees)	2
00-715059-00001	Thermostat Knob (650 Degrees)	2
00-715004	Oven pilot Assy. (Before April 17, 2006)	2
00-412787-00001	Oven pilot Assy. (After April 17, 2006) (Nat. Gas)	2
00-412787-00002	Oven Pilot Assy. (After April 17, 2006) (L.P. Gas)	2
00-408279-00025	Regulator (Nat. Gas)	2
00-408279-00021	Regulator (L.P. Gas)	2
CONVECTION OVEN		
00-713656	Double Solenoid Valve	2
00-720385	Spark Module	2
00-751316-0000A	Motor/Blower Assy.	1
00-713933	Flame Switch	2
00-714392-00042	Spark Pilot	2
00-718224	Thermostat Knob	2
00-719202	Electric Oven Thermostat	2
00-715112	Fan Switch	2
00-715122	Door Switch	2



CATALOG OF REPLACEMENT PARTS



V6B36S Shown

V SERIES HDR GAS RANGES

TOPS

Open Top
Hot Top
Griddle Top
Work Surface

BASES

Standard Oven
Convection Oven
Cabinet Base

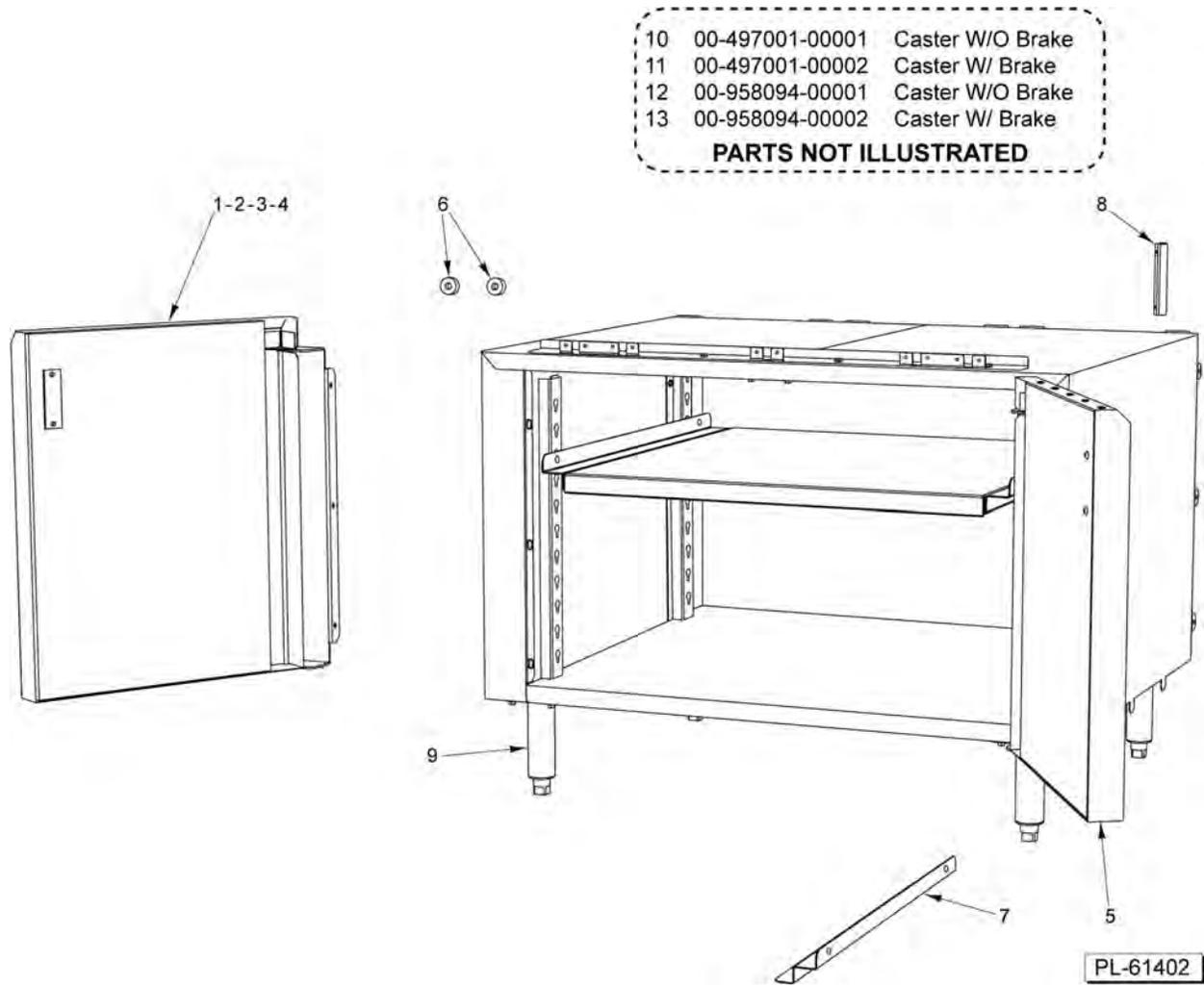
*Add "B" for Cabinet Base.

*Add "S" for Standard Oven Base on
36" Models.

*Add "C" for Convection Oven Base on
36" Models.

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15	12/24/36 IN OPEN TOP BURNER
17	36 IN - 4 & 18 IN - 2 OPEN TOP BURNER
19	24/36 IN CHAR BROILER
21	18/36 IN FRENCH TOP RADIAL FIN HOT TOP
23	18/24/36 IN THERMO CONTROL GRIDDLE TOP
25	18/24/36 IN MANUAL CONTROL GRIDDLE TOP
27	12/18/24/36 IN WORK TOP
29	18/36 IN STEP UP OPEN TOP BURNER
31	36 IN 6 OPEN TOP STEP UP BURNER
33	STEP UP BURNER ASSEMBLY



B MODEL 12/18/24/34 IN CABINET BASE

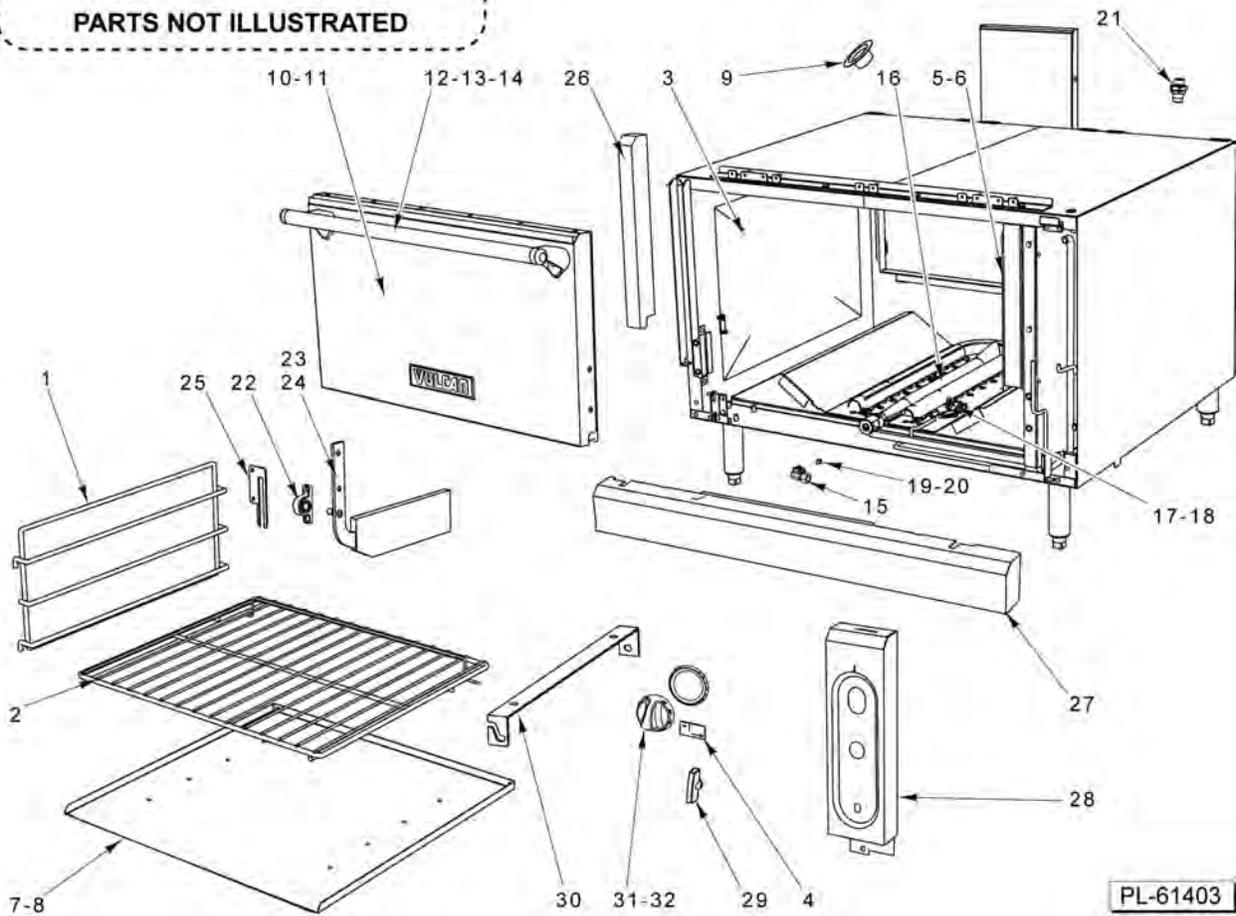
B MODEL 12/18/24/34 IN CABINET BASE

ILLUS.	PART NO.	NAME OF PART	AMT.
PL-61402			
1	00-959615-000G4	Door Assy. L/H (36" Base Cabinet Only).....	1
2	00-959615-000G3	Door Assy. (24" Base Cabinet Only).....	1
3	00-959615-000G2	Door Assy. (18" Base Cabinet Only).....	1
4	00-959615-000G1	Door Assy. (12" Base Cabinet Only).....	1
*5	00-958087-000G5	Door Assy. R/H.....	1
6	00-497296-000G1	Magnet Assy.....	2
*7	00-499744-000G1	Support - Shelf.....	2
8	00-959632-00001	Handle - Door Handle - Door Keeler R3122.....	2
9	00-413112-00012	Leg - Plate Mount (6 In.).....	4
10	00-497001-00001	Caster W/O Brake (5 In.).....	4
11	00-497001-00002	Caster W/ Brake, Swivel (5 In.).....	4
12	00-958094-00001	Caster W/O Brake (6 In.).....	4
13	00-958094-00002	Caster W/ Brake (6 In.).....	4

* (No Longer Available)

- | | | |
|----|-----------------|------------------|
| 33 | 00-413112-00012 | Leg |
| 34 | 00-497001-00001 | Caster W/O Brake |
| 35 | 00-497001-00002 | Caster W/ Brake |
| 36 | 00-499516-000G1 | Flue Assy. |
| 37 | 00-499667-00001 | Plate - Hearth |

PARTS NOT ILLUSTRATED

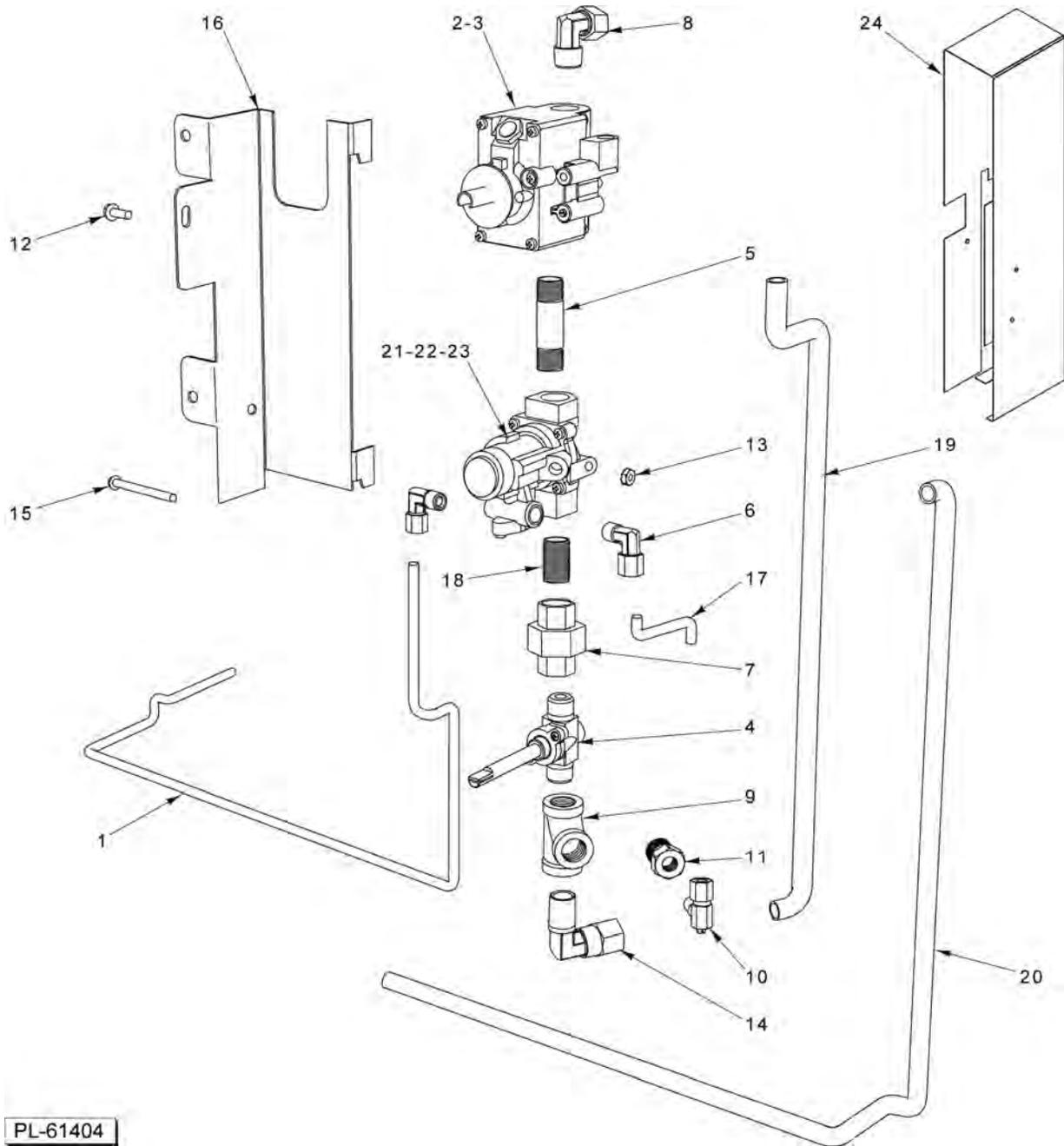


S MODEL OVEN

S MODEL OVEN

ILLUS. PL-61403	PART NO.	NAME OF PART	AMT.
1	00-499468-00001	Support - Wire Rack.....	2
2	00-499517-00002	Rack, Oven.....	1
3	00-499467-00001	Oven - Side Liner R/H (Porcelain).....	1
4	00-414708-00001	Plate - On-Off.....	1
5	00-499467-00002	Oven - Side Liner L/H (Porcelain).....	1
6	00-499467-00004	Oven - Side Liner L/H (SST).....	1
*7	00-499800-000G1	Bottom Liner (Porcelain).....	1
8	00-499800-000G2	Bottom Liner (SST).....	1
*9	00-405930-00001	Eyelet - Brass.....	1
10	00-499513-000G3	Door W/O Handle.....	1
11	00-499513-000G4	Door W/O Handle (SST).....	1
12	00-956635-00001	Handle - Oven Door.....	1
13	SD-032-07	Self-Tapping Screw 10-24 x 1/2 Hex Washer Hd., Type TT.....	2
14	NS-047-70	Lock Nut 10-24 Hex.....	2
15	00-404079-0000F	Nozzle, 90 Deg. Burner.....	1
16	00-497891-00001	Burner - Oven.....	1
17	00-412787-00001	Pilot - Oven (NAT).....	1
18	00-412787-00002	Pilot - Oven (LP).....	1
19	00-010901-00031	Orifice - Spud (31 Drill) (Sea Level - 2499 Ft.)(NAT).....	1
20	00-010901-00047	Orifice - Spud (47 Drill) (Sea Level - 2499 Ft.) (LP).....	1
21	00-499554-00001	Disconnect - Main Male Q.....	1
22	00-497906-00001	Bearing - Pillow Block.....	2
23	00-499512-000G3	Counterweight - Oven L.H.....	1
24	00-499512-000G4	Counterweight - Oven R.H.....	1
25	00-499452-00001	Coverplate.....	1
26	00-958353-00001	Cover - Moulian Panel.....	1
27	00-958470-000G1	Kick Panel.....	1
28	00-499507-00001	Panel - Oven Control.....	1
29	00-413157-00001	Knob - Shut Off.....	1
30	00-497883-00001	Bracket - Thermostat Bulb.....	1
31	00-499168-00001	Knob - Oven 650 Deg. F.....	1
32	00-922511	Knob.....	1
33	00-413112-00012	Leg - Plate Mount (6 In.).....	4
34	00-497001-00001	Caster W/O Brake (5 In.).....	AR
35	00-497001-00002	Caster W/ Brake, Swivel (5 In.).....	AR
36	00-499516-000G1	Flue Assy.....	1
37	00-499667-00001	Plate - Hearth.....	1

* No Longer Available

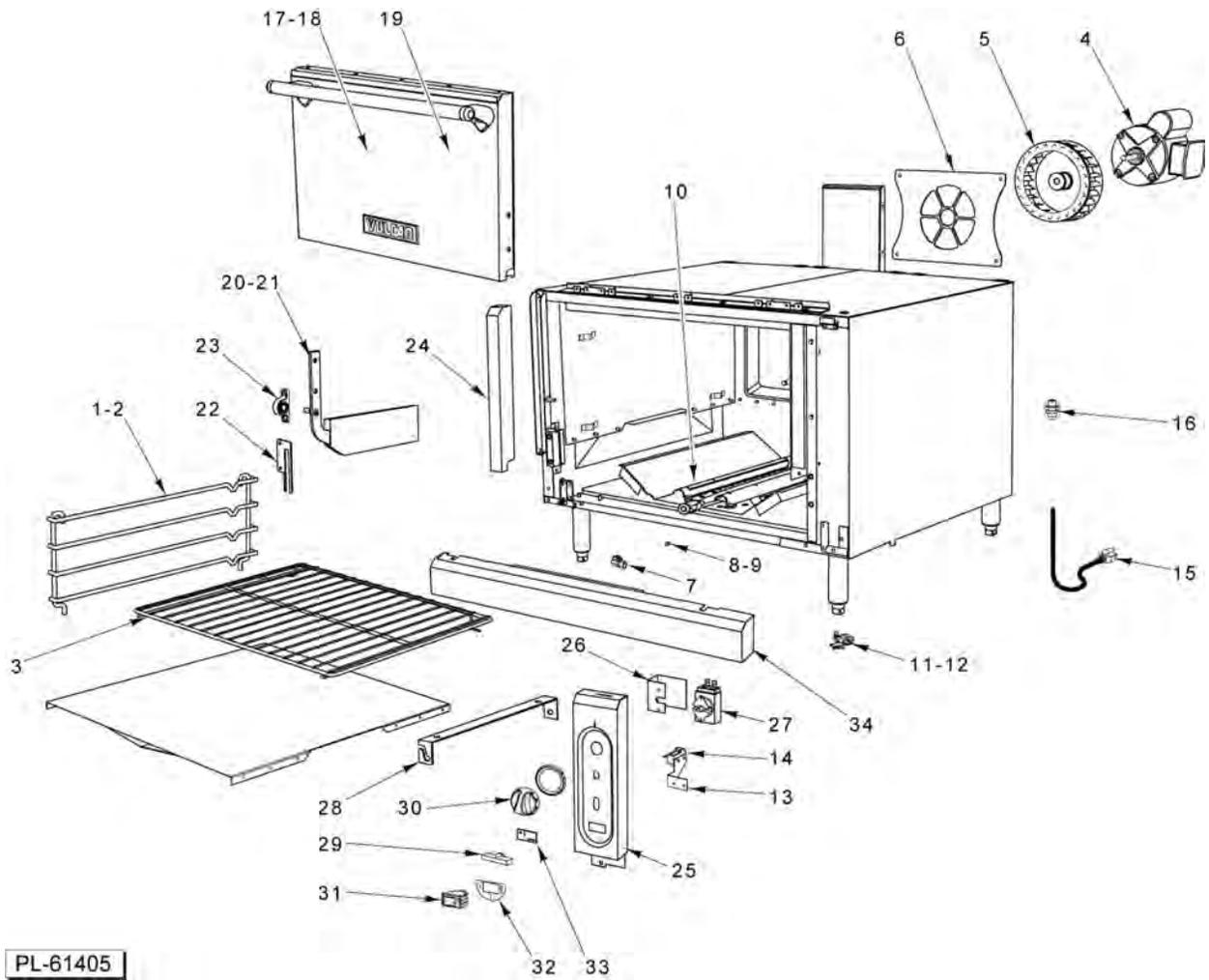


S MODEL GAS MANIFOLD ASSY

S MODEL GAS MANIFOLD ASSY

ILLUS.	PART NO.	NAME OF PART	AMT.
PL-61404			
1	00-426505-00036	Tube - Flex 1/4" O.D. 36" Lg.....	1
2	00-407522-00007	Thermostat - 550 Deg. F.....	1
*3	00-407522-00008	Thermostat - 400-650 Deg. F.....	1
4	00-719971	Valve - Gas Manual Shut-Off.....	1
5	FP-035-54	Pipe - 3/8 X 2.250 (BLKSTL) (TBE).....	1
6	FP-012-21	Elbow 90 Deg. (1/8 Male Pipe x 1/4 Tube).....	2
7	00-719032	Union.....	1
8	FP-085-68	Fitting- Elbow (7/16 TBG X 3/8 MPT).....	1
9	FP-019-10	Tee - 3/8 X 3/8 X 3/8 (BLKSTL).....	1
10	00-404193-00001	Valve - Pilot 260 BROILER.....	1
11	00-719066	Bushing - Pipe 3/8 -1/8.....	1
12	SD-032-07	Self-Tapping Screw 10-24 x 1/2 Hex Washer Hd., Type TT.....	1
13	NS-044-09	Nut Assy. 10-24 Hex KEPS.....	1
14	FP-012-03	Fitting - Elbow 1/2 TBG X 3/8 MPT.....	1
15	SC-060-38	Cap Screw 1/4-20 X 5/8 Hex Hd.....	1
16	00-499465-00001	Bracket - Gas Mounting.....	1
17	00-426505-00009	Tube - Flex 1/4" O.D. 9" Lg.....	1
18	FP-035-46	Pipe 3/8 x 1 Lg. TBE.....	1
19	00-426509-00024	Tube - Flex 1/2" O.D. 24" Lg.....	1
20	00-426508-00048	Tube - Flex 7/16" O.D. 48" Lg.....	1
21	00-962067-0KIT1	Kit - Safety Valve Service (Before 4/1/19).....	1
22	00-962067-00001	Valve - Safety (Starting 4/1/19).....	1
23	00-412788-00048	Thermocouple 48".....	1
24	00-962017-00001	Heat Shield Assy.....	1

* Item 3 when ordering 00-407522-00008 also order plug part number FP-090-24 or it can also be ordered as 00-958754-000G1.



C MODEL OVEN

C MODEL OVEN

ILLUS.	PART NO.	NAME OF PART	AMT.
1	00-499468-00002	Support - Wire Rack R.H.....	1
2	00-499468-00003	Support - Wire Rack L.H.....	1
3	00-499517-00002	Rack, Oven.....	2
4	00-419730-00001	Motor (1/6 Hp., 115/208-230 V., 50/60 Hz., 1 Ph.).....	1
5	00-415780-00008	Wheel - Blower (Incls. Set Screws).....	1
6	00-499641-00001	Grate - Motor Convection Oven.....	1
7	00-404079-0000F	Nozzle, 90 Deg. Burner.....	1
8	00-010901-00042	Orifice - Spud (Drill 42) (Nat.) (Sea Level - 2499 Ft.).....	1
9	00-010901-00051	Orifice - Spud (Drill 51) (Pro) (Sea Level - 2499 Ft.).....	1
10	00-497891-00001	Burner - Oven.....	1
11	00-412787-00001	Pilot - Oven (NAT).....	1
12	00-412787-00002	Pilot - Oven (LP).....	1
13	00-956633-00002	Bracket - Switch Door.....	1
14	00-411496-000F1	Switch - Micro Door.....	1
15	00-405016-00001	Cord - Electric Supply (120 V. Only).....	1
16	00-499554-00001	Disconnect - Main Male Q.....	1
17	00-499513-000G3	Door W/O Handle.....	1
18	00-499513-000G4	Door W/O Handle (SST).....	1
19	00-956635-00001	Handle - Oven Door.....	1
20	00-499512-000G6	Counterweight - Oven Convection R.H.....	1
21	00-499512-000G3	Counterweight - Oven L.H.....	1
22	00-499452-00001	Coverplate.....	1
*23	00-497906-00001	Bearing - Pillow Block.....	1
24	00-958353-00001	Cover - Mouliau Panel.....	1
25	00-499507-00003	Cover - Control Panel.....	1
26	00-957464-00001	Guard - Thermostat.....	1
27	00-411506-00015	Thermostat (200-550 Deg. F).....	1
28	00-497883-00002	Bracket - Thmostat Bulb.....	1
29	00-413157-00001	Knob - Shut Off.....	1
30	00-499168-00003	Knob - Oven 550F Convection.....	1
31	00-715112	Switch - Rocker, Lighted.....	1
32	00-957609-00001	Label - On - Off Cool Down.....	1
33	00-414708-00001	Plate - On-Off.....	1
34	00-499515-000G1	Kick Plate Assy.....	1

* Order with SC-037-87, Qty. 2

C MODEL GAS MANIFOLD ASSY

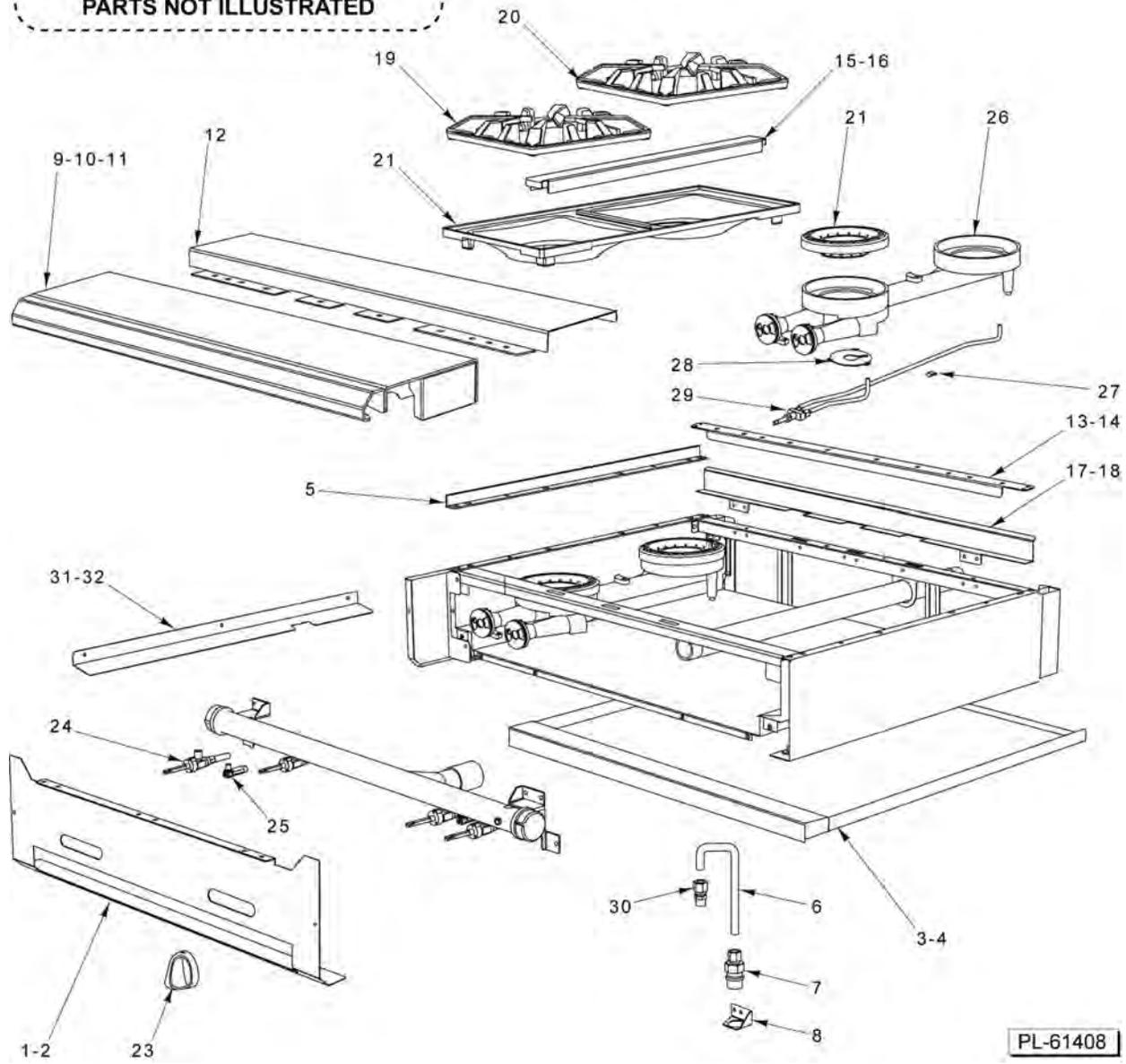
ILLUS.	PART NO.	NAME OF PART	AMT.
PL-61406			
1	00-499651-00003	Bracket - Mounting Gas (Convection).....	1
2	00-426505-00036	Tube - Flex 1/4" O.D. 36" Lg.....	1
3	FP-035-47	PIPE - 3/8 X 1.125 (TBE) (BLKSTL).....	1
4	00-428045-00001	Gas Solenoid Valve.....	1
5	00-719971	Valve - Gas Manual Shut-Off.....	1
6	FP-019-10	Tee - 3/8 X 3/8 X 3/8 (BLKSTL).....	1
7	FP-085-68	Fitting- Elbow (7/16 TBG X 3/8 MPT).....	1
8	00-956615-00002	Bracket - Manifold Support.....	1
9	SC-060-38	Cap Screw 1/4-20 X 5/8 Hex Hd.....	1
10	NS-044-09	Nut Assy. 10-24 Hex KEPS.....	1
11	SD-032-07	Self-Tapping Screw 10-24 x 1/2 Hex Washer Hd., Type TT.....	1
12	FP-012-03	Fitting - Elbow 1/2 TBG X 3/8 MPT.....	1
13	FP-012-21	Elbow 90 Deg. (1/8 Male Pipe x 1/4 Tube).....	1
14	00-404193-00001	Valve - Pilot.....	1
15	FP-026-04	Bushing - Pipe 3/8 to 1/8.....	1
16	00-426505-00006	Tube - Flex (1/4 x 6 In.).....	1
17	00-426509-00024	Tube - Flex 1/2" O.D. 24" Lg.....	1
18	00-426508-00048	Tube - Flex 7/16" O.D. 48" Lg.....	1
19	00-962067-0KIT1	Kit - Safety Valve Service (Before 4/1/19).....	1
20	00-962067-00001	Valve - Safety (Starting 4/1/19).....	1
21	00-412788-00048	Thermocouple (48 In.).....	1
22	00-962017-00001	Heat Shield Assy.....	1

12/24/36 IN OPEN TOP BURNER

ILLUS. PL-61407	PART NO.	NAME OF PART	AMT.
1	00-957575-00002	Cover - Manifold 36" (6 Open Top Burner).....	1
2	00-957570-00001	Cover Manifold 24" (4 Open Top Burner).....	1
*3	00-957559-00001	Cover - Manifold 12" (2 Open Top Burner).....	1
4	00-499006-000G2	Tray - Crumb (SST) 36" (6 Open Top Burner).....	1
5	00-956724-000G2	Tray - Crumb (SST) 24" (4 Open Top Burner).....	1
6	00-499969-000G2	Tray - Crumb (SST) 12" (2 Open Top Burner).....	1
7	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
8	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
9	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
10	00-499047-00001	Bracket - Disconnect.....	1
11	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
12	00-497984-00001	Retainer - Grate.....	2
13	00-957236-000G1	Front Top Assy. 36" (6 Open Top Burner).....	1
14	00-956705-000G1	Front Top Assy. 24" (4 Open Top Burner).....	1
15	00-499966-000G1	Front Top Assy. 12" (2 Open Top Burner).....	1
*16	00-957235-000G1	Front Top Assy - Condiment Rail 36" (6 Open Top Burner).....	1
17	00-957239-000G1	Front Top Slide Rail Assy. 36" (6 Open Top Burner).....	1
18	00-957357-000G1	Front Top Assy. - Condiment Rail 24" (4 Open Top Burner).....	1
19	00-499493-00001	Support - Grate (Alum.).....	1
20	00-499493-00002	Support - Grate (SST).....	1
21	00-499001-00002	Support - HD Burner (SST) 36" (6 Open Top Burner).....	1
22	00-956718-00002	Support - HD Burner (SST) 24" (4 Open Top Burner).....	1
23	00-499965-00002	Support - HD Burner (SST) 12" (2 Open Top Burner).....	1
24	00-499002-00003	Deflector - HD Splash L.H. (SST).....	1
25	00-499002-00004	Deflector - HD Splash R.H. (SST).....	1
26	00-499615-00002	Deflector - Rear (SST) 36" (6 Open Top Burner).....	1
27	00-956725-00002	Deflector - Rear (SST) 24" (4 Open Top Burner).....	1
28	00-499935-00001	Deflector - Rear (SST) 12" (2 Open Top Burner).....	AR
29	00-959325-00001	Grate - Front 12 In (New Construction).....	AR
30	00-959325-00001	Grate - Front 12 In (Previous Construction).....	AR
31	00-959325-00002	Grate - Rear 12 In (New Construction).....	AR
32	00-957369-00001	Grate - Rear 12" (Before S/N 481808643).....	AR
33	00-959325-00002	Grate - Rear 12 In (Starting S/N 481808643).....	1
34	00-957341-00001	Bowl - Rear 12" Double (Previous Construction).....	AR
35	00-499712-00001	Knob - HD Burner.....	AR
36	00-957367-00001	Valve - Burner.....	AR
37	00-959108-000G1	Pilot - Kit Open Top Burners (Standard Burners).....	AR
38	00-959108-000G2	Pilot Assy. - Step Up (Step Up Burners).....	AR
39	00-957343-00002	Burner - Head 6".....	AR
40	00-957342-00001	Venturi Assy.....	AR
41	00-402558-00004	Clip - Tubing.....	AR
42	00-958073-00002	Plate - Restrictor.....	AR
43	00-959108-000G1	Pilot - Kit Open Top Burners.....	AR
44	00-404060-00001	Mixer - Air.....	AR
45	00-497994-00001	Cap - End (RH).....	1
46	00-499803-00002	Cap - End (LH).....	1
47	00-957067-000G1	Riser - Stub 36" W/Alum. Back 36" (6 Open Top Burner).....	1
48	00-957066-000G1	Riser - Stub 24" W/Alum. Back 24" (4 Open Top Burner).....	1
49	00-957064-000G1	Riser - Stub 12" W/Alum. Back 12" (2 Open Top Burner).....	1
50	00-404060-00001	Mixer - Air.....	1

* No Longer Available

33 00-957067-000G1 Riser - Stub 36 In
 34 00-957065-000G1 Riser - Stub 18 In
PARTS NOT ILLUSTRATED

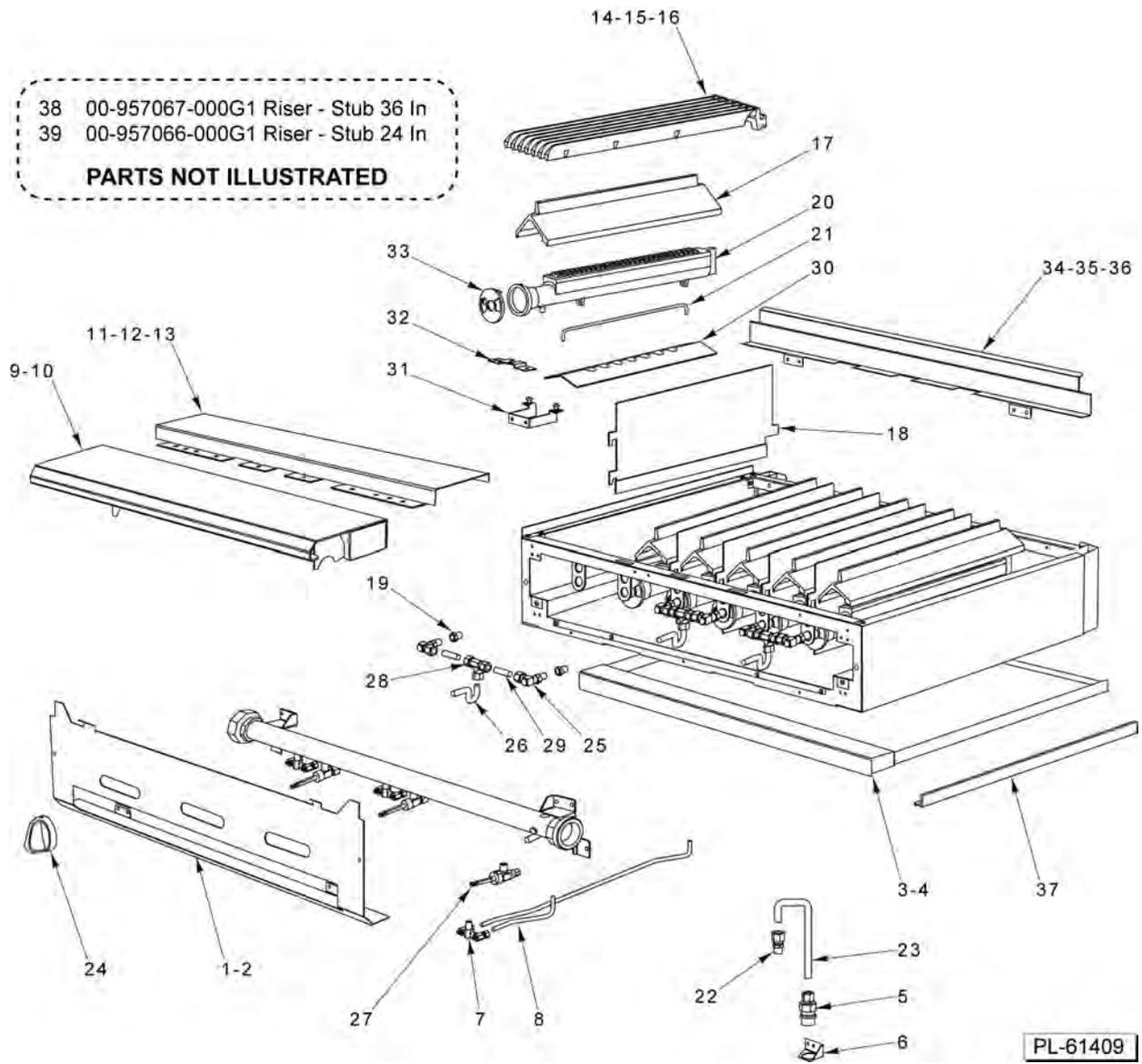


PL-61408

36 IN - 4 & 18 IN - 2 OPEN TOP BURNER

36 IN - 4 & 18 IN - 2 OPEN TOP BURNER

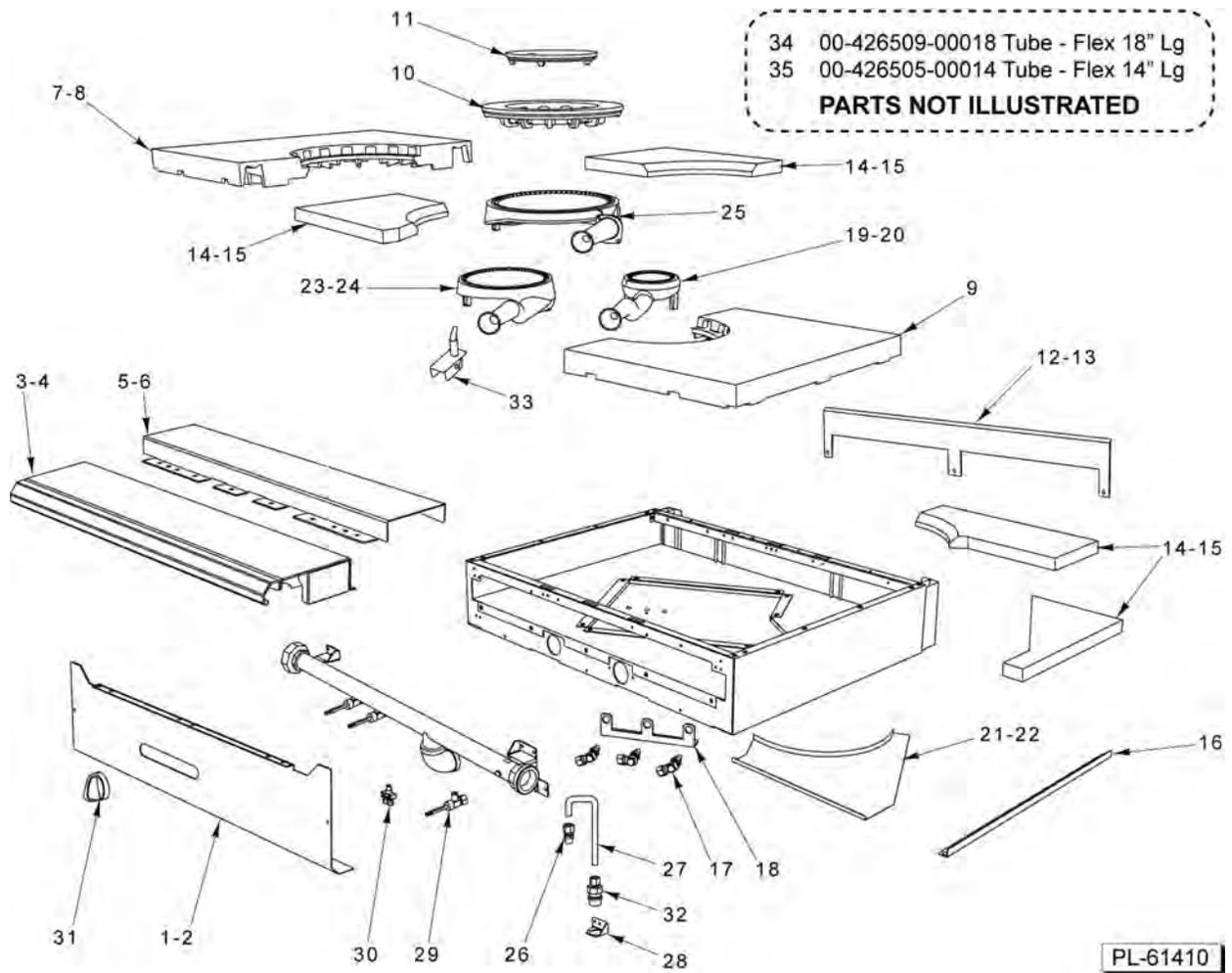
ILLUS. PL-61408	PART NO.	NAME OF PART	AMT.
1	00-957573-00001	Manifold Cover 36" (4 Open Top Burner).....	1
2	00-957564-00001	Manifold Cover 18" (2 Open Top Burner).....	1
3	00-499006-000G2	Tray - Crumb (SST) 36" (4 Open Top Burner).....	1
4	00-956696-000G2	Tray - Crumb (SST) 18" (2 Open Top Burner).....	AR
5	00-497984-00001	Retainer - Grate.....	2
6	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
7	00-499555-00001	Disconnect - Gas Female.....	1
8	00-499047-00001	Bracket - Disconnect.....	1
9	00-499425-000G1	Front Top Assy. 36" (4 Open Top Burner).....	1
10	00-957235-000G1	Front Top Assy - Condiment Rail 36" (4 Open Top Burner).....	4
11	00-956658-000G1	Front Top Assy 18" (2 Open Top Burner).....	AR
12	00-957239-000G1	Front Top Slide Rail Assy.....	4
13	00-499001-00004	Support - (4) OTB Burner (SST).....	1
14	00-956690-00001	Support - (2) OTB Burner (SST).....	1
15	00-499493-00001	Support - Grate (Alum.).....	1
16	00-499493-00002	Support - Grate (SST).....	1
17	00-499615-00002	Deflector - Rear (SST) 36" (4 Open Top Burner).....	1
18	00-956697-00002	Deflector - Rear (SST) 36" (4 Open Top Burner).....	1
19	00-959325-00001	Grate - Front 12 In.....	AR
20	00-959325-00002	Grate - Rear 12 In.....	AR
21	00-957372-00001	Bowl - 18" Double.....	AR
22	00-957343-00002	Burner - Head 6".....	AR
23	00-499712-00001	Knob - HD Burner.....	AR
24	00-957367-00001	Valve - Burner.....	AR
25	00-499970-00001	Valve - Pilot Quick Disconnect.....	AR
26	00-957398-000G1	Venturi Assy.....	1
27	00-402558-00004	Clip - Tubing.....	AR
28	00-958073-00001	Plate - Restrictor.....	1
29	00-959108-000G1	Pilot - Kit Open Top Burners.....	1
30	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
31	00-499002-00003	Deflector - HD Splash L.H. (SST).....	1
32	00-499002-00004	Deflector - HD Splash R.H. (SST).....	1
33	00-957067-000G1	Riser - Stub 36" W/Alum. Back 36" (4 Open Top Burner).....	1
34	00-957065-000G1	Riser - Stub 18" W/Alum. Back 36" (4 Open Top Burner).....	1



24/36 IN CHAR BROILER

24/36 IN CHAR BROILER

ILLUS. PL-61409	PART NO.	NAME OF PART	AMT.
1	00-957574-00001	Cover - Manifold 36" Char Broiler.....	1
2	00-957567-00001	Cover - Manifold 24" Char Broiler.....	1
3	00-499006-000G2	Tray - Crumb (SST) 36" Char Broiler.....	1
4	00-956724-000G2	Tray - Crumb (SST) 24" Char Broiler.....	1
5	00-499555-00001	Disconnect - Gas Female.....	1
6	00-499047-00001	Bracket - Disconnect.....	1
7	00-957814-00001	Valve - Dual Pilot.....	1
8	00-788541-0000A	Tube - Pilot, Flex (W/Tip).....	1
9	00-499425-000G1	Front Top Assy. 36" Char Broiler.....	1
10	00-956705-000G1	Front Top Assy. 24" Char Broiler.....	1
11	00-957235-000G1	Front Top Assy - Condiment Rail 36" Char Broiler.....	1
12	00-957239-000G1	Front Top Slide Rail Assy. 36" Char Broiler.....	1
13	00-957357-000G1	Front Top Assy. - Condiment Rail 24" Char Broiler.....	1
14	00-412852-00001	Grate - Top Straight.....	6
15	00-722131	Grate - Slanted 6-RIB 24" Char Broiler.....	2
16	00-710424	Grate - Slanted 7-RIB 24" Char Broiler.....	2
17	00-710407	Radiant.....	6
18	00-956614-00002	Supercharger.....	5
19	00-418051-0000F	Hood - Orifice.....	6
20	00-957413-00001	Burner Assy.....	6
21	00-710455	Burner Rod.....	6
22	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
23	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
24	00-499712-00001	Knob - HD Burner.....	3
25	00-719383	W/O Plug.....	6
26	00-722425	Tubing - Flex 3/8" X 8" Lg.....	3
27	00-957348-00001	Valve - Gas.....	3
28	00-714676	TEE, 3/8" UNION, TUBE TO TUBE.....	1
29	00-722468	NLA - Obsolete--3/8" Tube 1-1/4" Long.....	1
30	00-956748-00001	Heat Deflector.....	6
31	00-957412-00001	Bracket - Dual Pilot.....	AR
32	00-957335-00001	Stabilizer - Burner.....	6
33	00-719329	Air Mixer Assy.....	6
34	00-499615-00002	Deflector - Rear (SST) 36" Char Broiler.....	1
35	00-956725-00002	Deflector - Rear (SST) 24" Char Broiler.....	1
36	00-958442-00002	Deflector - Rear (SST) 48" Char Broiler.....	AR
37	00-499959-000G2	Retainer - Grate.....	2
38	00-957067-000G1	Riser - Stub 36" W/Alum. Back 36" Char Broiler.....	1
39	00-957066-000G1	Riser - Stub 24" W/Alum. Back 24" Char Broiler.....	1



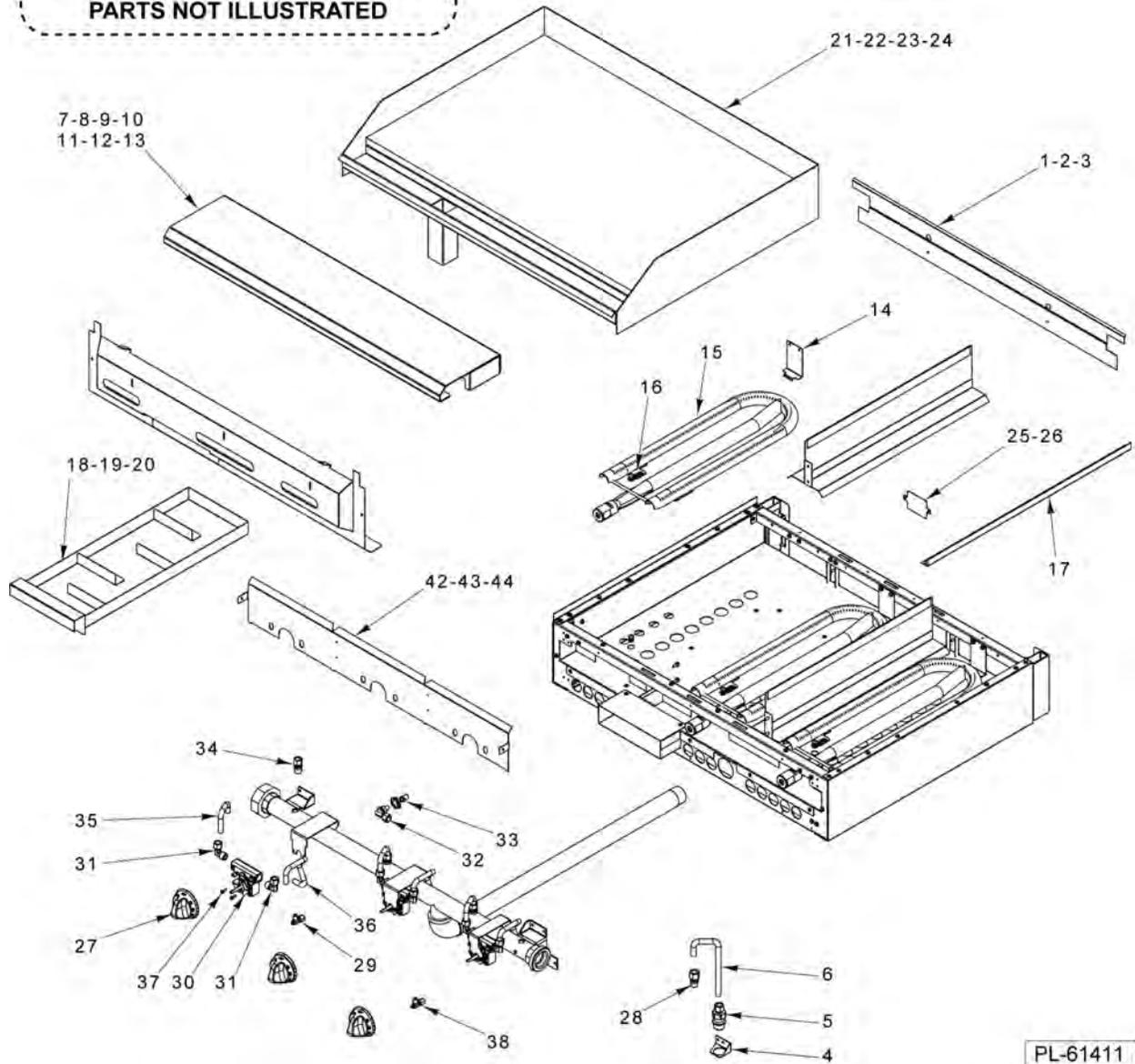
18/36 IN FRENCH TOP RADIAL FIN HOT TOP

18/36 IN FRENCH TOP RADIAL FIN HOT TOP

ILLUS. PL-61410	PART NO.	NAME OF PART	AMT.
1	00-957576-00001	Cover - Manifold W/Rail 36" Radial Fin. Hot Top.....	1
2	00-957563-00001	Cover Manifold 18" Radial Fin. Hot Top.....	1
3	00-499425-000G1	Front Top Assy. 36" Radial Fin. Hot Top.....	1
4	00-956658-000G1	Front Top Assy 18" Radial Fin. Hot Top.....	1
5	00-957235-000G1	Front Top Assy - Condiment Rail.....	1
6	00-957239-000G1	Front Top Slide Rail Assy.....	1
7	00-499814-00001	Casting - LH Radial Fin. 36" 36" Radial Fin. Hot Top.....	1
8	00-956800-00001	Casting - Radial Fin. 18" Radial Fin. Hot Top.....	1
9	00-499814-00002	Casting - RH Radial Fin. 36".....	1
10	00-400705-00001	Ring (Top).....	1
11	00-715211-000GR	Plate - Top.....	1
12	00-956809-00002	Deflector - Radial Fin. Rear 36" Radial Fin. Hot Top.....	1
13	00-956663-00001	Deflector - Radial Fin. 18" Radial Fin. Hot Top.....	1
14	00-956622-000G1	Brick Set 36" Radial Fin. Hot Top.....	1
15	00-956799-000G1	Brick Set 18" Radial Fin. Hot Top.....	1
16	00-497984-00001	Retainer - Grate.....	1
17	00-719383	Elbow 3/8 Orifice W/O Plug.....	1
18	00-499810-00002	Bracket - Pilot.....	1
19	00-957801-000G1	Burner - Inner, Radial Fin 36" Radial Fin. Hot Top.....	1
20	00-956794-00001	Burner - 18" Inner 18" Radial Fin. Hot Top.....	1
21	00-957946-000G1	Plate - Aeration Assy. 36" Radial Fin. Hot Top.....	1
22	00-957710-000G1	Plate - Aeration, Assy. 18" Radial Fin. Hot Top.....	1
23	00-409413-00001	Burner - Casting 36" Radial Fin. Hot Top.....	1
24	00-956793-00001	Burner - 18" Outer 18" Radial Fin. Hot Top.....	1
25	00-409412-000G1	Burner - Top Outer.....	1
26	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
27	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
28	00-499047-00001	Bracket - Disconnect.....	1
29	00-408379-00004	Valve - Burner (Top).....	3
30	00-957814-00001	Valve - Dual Pilot.....	1
31	00-499712-00001	Knob - HD Burner.....	3
32	00-499555-00001	Disconnect - Gas Female.....	1
33	00-409839-00003	Burner - Pilot.....	3
34	00-426509-00018	Tube - Flex 1/2" O.D. 18" Lg.....	3
35	00-426505-00014	Tube - Flex 1/4" O.D. 14" Lg.....	2

45 00-788541-0000A Tube - Pilot Flex
 46 00-956939-00002 Tube - Pilot Flex

PARTS NOT ILLUSTRATED

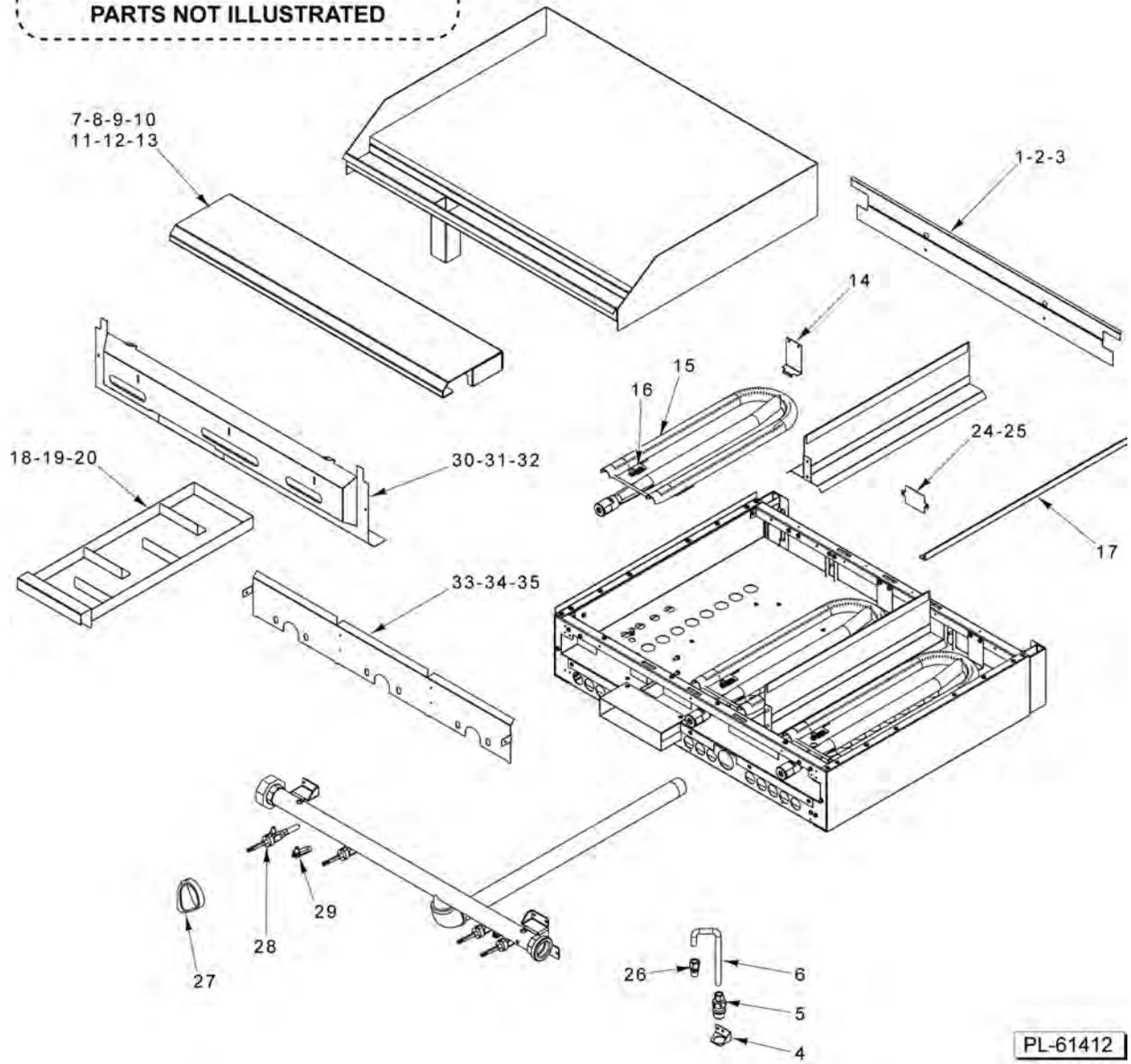


18/24/36 IN THERMO CONTROL GRIDDLE TOP

18/24/36 IN THERMO CONTROL GRIDDLE TOP

ILLUS. PL-61411	PART NO.	NAME OF PART	AMT.
1	00-957961-00001	Panel - Rear Closure 36" (Alum.) (36" Griddle Top).....	1
2	00-957989-00001	Panel - Rear Closure 24" (24" Griddle Top).....	1
3	00-957993-00001	Panel - Rear Closure 18" (18" Griddle Top).....	AR
4	00-499047-00001	Bracket - Disconnect.....	1
5	00-499555-00001	Disconnect - Gas Female.....	1
6	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
7	00-499425-000G1	Front Top Assy. (36" Griddle Top).....	1
8	00-956705-000G1	Front Top Assy. (24" Griddle Top).....	1
9	00-956658-000G1	Front Top Assy (18" Griddle Top).....	1
10	00-957235-000G1	Front Top Assy - Condiment Rail (36" Griddle Top).....	1
11	00-957239-000G1	Front Top Slide Rail Assy. (36" Griddle Top).....	1
12	00-957357-000G1	Front Top Assy. - Condiment Rail (24" Griddle Top).....	1
13	00-957235-000G1	Front Top Assy - Condiment Rail (18" Griddle Top).....	1
14	00-499112-00001	Bracket - Griddle Burner Support.....	3
15	00-499635-00001	Griddle Burner Assy.....	3
16	00-413302-00001	Clip - Pilot Mounting.....	3
17	00-497984-00001	Retainer - Grate.....	2
18	00-957982-000G4	Grease Drawer Assy. (36" Griddle Top).....	1
19	00-956709-000G4	Grease Drawer Assy. (24" Griddle Top).....	1
20	00-956677-000G4	Grease Drawer Assy. (18" Griddle Top).....	1
21	00-499622-000G2	36 In Griddle Assy.....	1
22	00-499957-000G2	24 In Griddle Assy.....	1
23	00-956674-000G2	18 In Griddle Assy.....	1
24	00-957170-000G1	Griddle Baffle Assy. Center.....	2
25	00-956662-00001	Cover - Rear Manifold.....	1
26	00-956710-00001	Cover - Hot Top 24" Griddle.....	1
27	00-499488-00002	Knob - Gas Thermostat.....	3
28	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
29	00-404193-00001	Valve - Pilot.....	3
30	00-499488-00001	Thermostat - Gas.....	3
31	FP-085-68	Fitting- Elbow (7/16 TBG X 3/8 MPT).....	6
32	00-404079-0000F	Nozzle.....	3
33	00-418051-0000F	Hood - Orifice.....	3
34	FP-085-42	Fitting - Tube (7/16 TBG X 3/8 MPT).....	3
35	00-426508-00006	Tube - Flex 7/16" O.D. 6" Lg.....	3
36	00-426508-00010	Tube - Flex 7/16" O.D. 10" Lg.....	3
37	SD-036-79	Self-Tapping Screw 6-32 x 1/2 Type TT Hex Hd. (SST).....	6
38	FP-085-53	Pipe Plug 1/8.....	1
39	00-957604-000G2	Cover - Manifold 36" Thermo Griddle (Condiment Rail).....	1
40	00-957602-000G2	Cover - Manifold 24" Thermo Griddle (Condiment Rail).....	1
41	00-957594-000G1	Cover - Manifold 18" Thermo Griddle.....	1
42	00-957396-00002	Baffle - Griddle.....	1
43	00-957988-00002	Baffle - 24" Forward Griddle.....	1
44	00-957992-00002	Baffle - 18" Forward Griddle.....	1
45	00-788541-0000A	Tube - Pilot, Flex (W/Tip).....	2
46	00-956939-00002	Tube - Pilot, Flex (W/Tip).....	1

36 00-957170-000G1 Griddle Baffle Assy.
 37 00-788541-0000A Tube - Pilot Flex
 38 00-956939-00002 Tube - Pilot Flex
PARTS NOT ILLUSTRATED

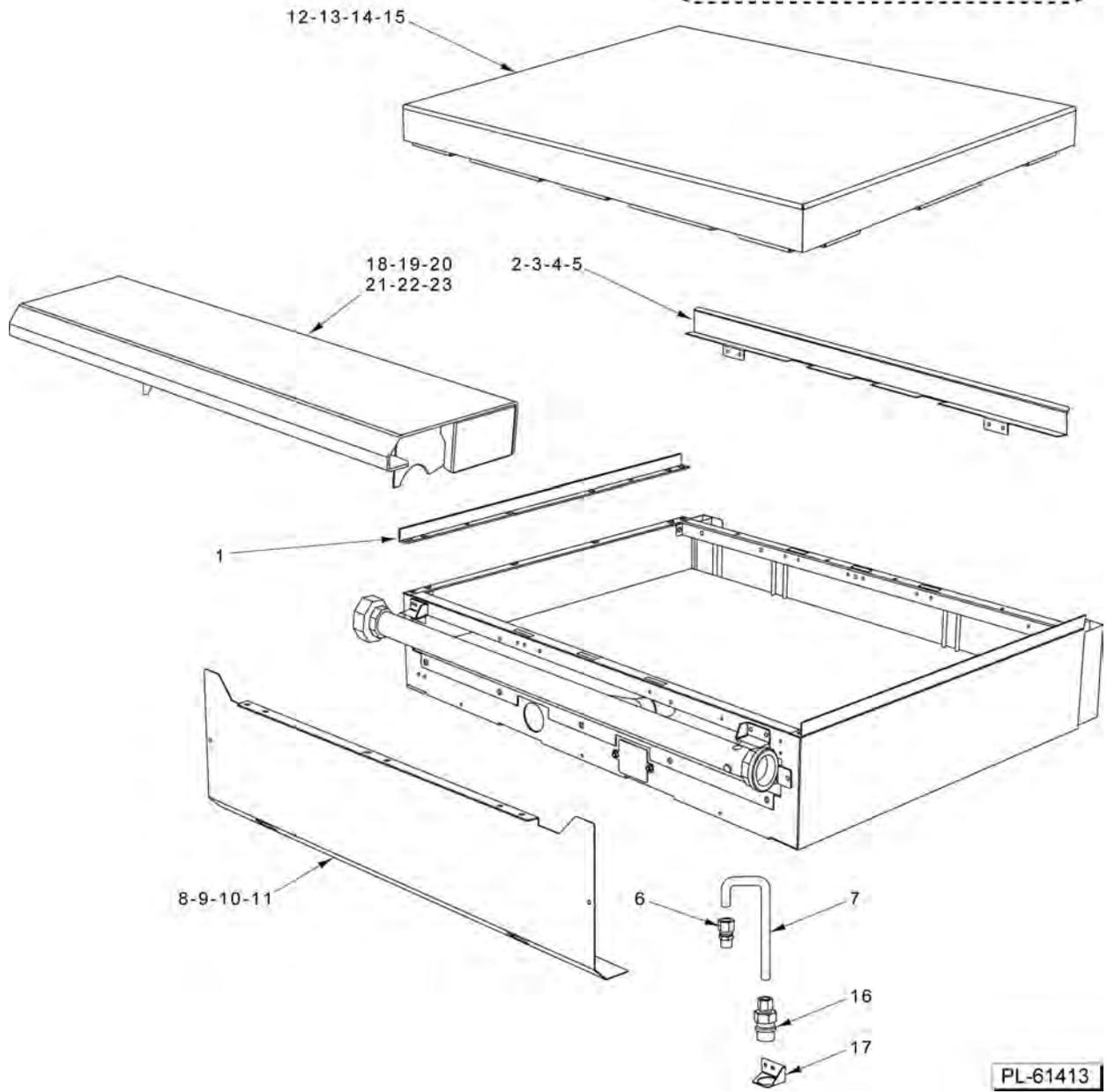


18/24/36 IN MANUAL CONTROL GRIDDLE TOP

18/24/36 IN MANUAL CONTROL GRIDDLE TOP

ILLUS. PL-61412	PART NO.	NAME OF PART	AMT.
1	00-957961-00001	Panel - Rear Closure 36" (Alum.) (36" Griddle Top).....	1
2	00-957989-00001	Panel - Rear Closure 24" (24" Griddle Top).....	1
3	00-957993-00001	Panel - Rear Closure 18" (18" Griddle Top).....	AR
4	00-499047-00001	Bracket - Disconnect.....	1
5	00-499555-00001	Disconnect - Gas Female.....	1
6	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
7	00-499425-000G1	Front Top Assy. (36" Griddle Top).....	1
8	00-956705-000G1	Front Top Assy. (24" Griddle Top).....	1
9	00-956658-000G1	Front Top Assy (18" Griddle Top).....	1
10	00-957235-000G1	Front Top Assy - Condiment Rail (36" Griddle Top).....	1
11	00-957239-000G1	Front Top Slide Rail Assy. (36" Griddle Top).....	1
12	00-957357-000G1	Front Top Assy. - Condiment Rail (24" Griddle Top).....	1
13	00-957235-000G1	Front Top Assy - Condiment Rail 18" Griddle Top.....	1
14	00-499112-00001	Bracket - Griddle Burner Support.....	3
15	00-499635-00001	Griddle Burner Assy.....	3
16	00-413302-00001	Clip - Pilot Mounting.....	3
17	00-497984-00001	Retainer - Grate.....	2
18	00-957982-000G4	Grease Drawer Assy. (36" Griddle Top).....	1
19	00-956709-000G4	Grease Drawer Assy. (24" Griddle Top).....	1
20	00-956677-000G4	Grease Drawer Assy. (18" Griddle Top).....	1
21	00-499622-000G2	36 In Griddle Assy.....	1
22	00-499957-000G2	24 In Griddle Assy.....	1
23	00-956674-000G2	18 In Griddle Assy.....	1
24	00-956662-00001	Cover - Rear Manifold.....	1
25	00-956710-00001	Cover - Hot Top 24" Griddle.....	1
26	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
27	00-499712-00001	Knob - HD Burner.....	AR
28	00-957367-00001	Valve - Burner.....	AR
29	00-499970-00001	Valve - Pilot Quick Disconnect.....	AR
30	00-957604-000G2	Cover - Manifold 36" Thermo Griddle (Condiment Rail).....	1
31	00-957602-000G2	Cover - Manifold 24" Thermo Griddle (Condiment Rail).....	1
32	00-957594-000G1	Cover - Manifold 18" Thermo Griddle.....	1
33	00-957396-00002	Baffle - Griddle.....	1
34	00-957988-00002	Baffle - 24" Forward Griddle.....	1
35	00-957992-00002	Baffle - 18" Forward Griddle.....	1
36	00-957170-000G1	Griddle Baffle Assy. Center.....	2
37	00-788541-0000A	Tube - Pilot, Flex (W/Tip).....	2
38	00-956939-00002	Tube - Pilot, Flex (W/Tip).....	1

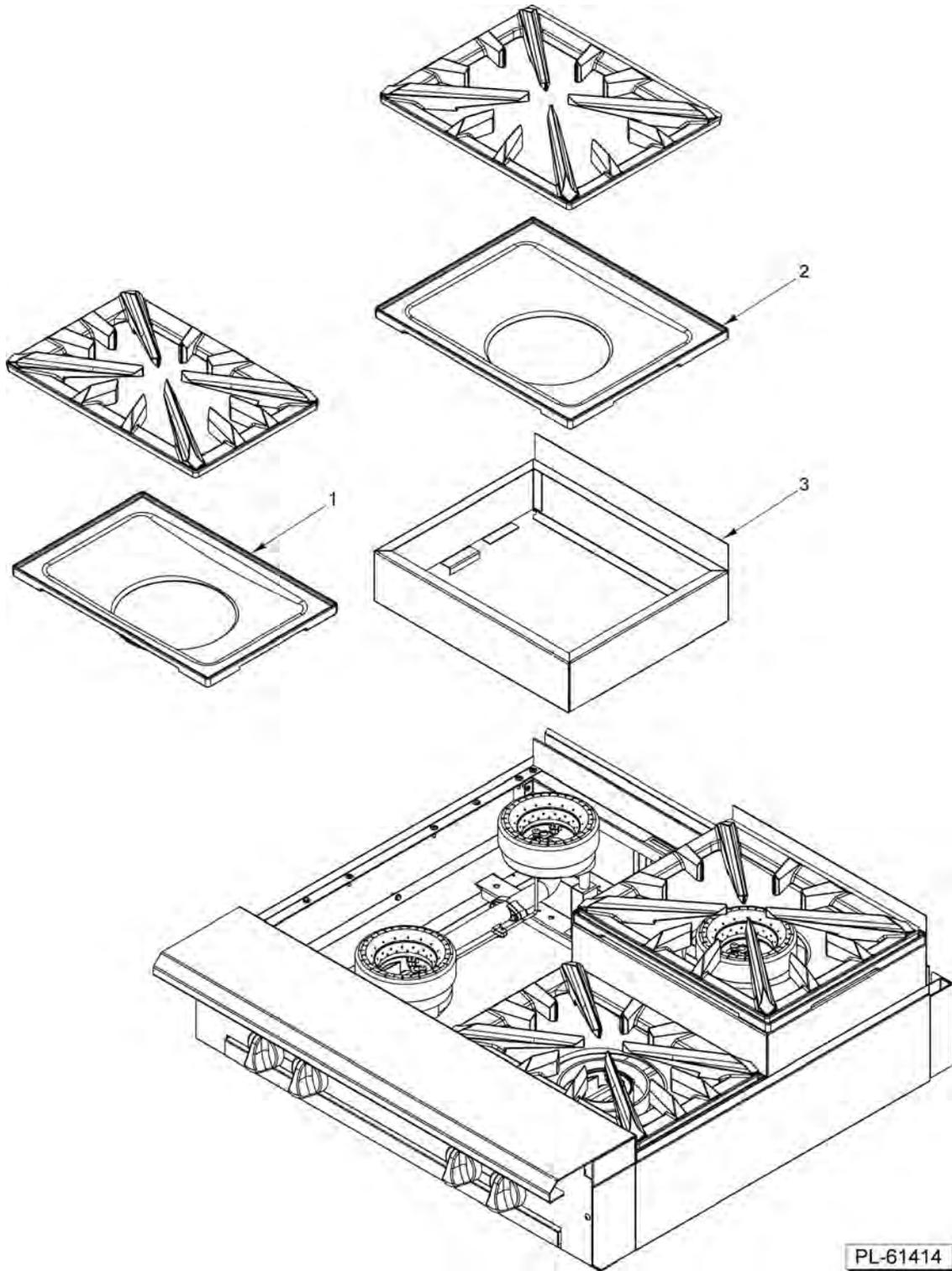
24 00-957067-000G1 Riser - Stub 36 In
 25 00-957066-000G1 Riser - Stub 24 In
 26 00-957065-000G1 Riser - Stub 18 In
 27 00-957064-000G1 Riser - Stub 12 In
PARTS NOT ILLUSTRATED



12/18/24/36 IN WORK TOP

12/18/24/36 IN WORK TOP

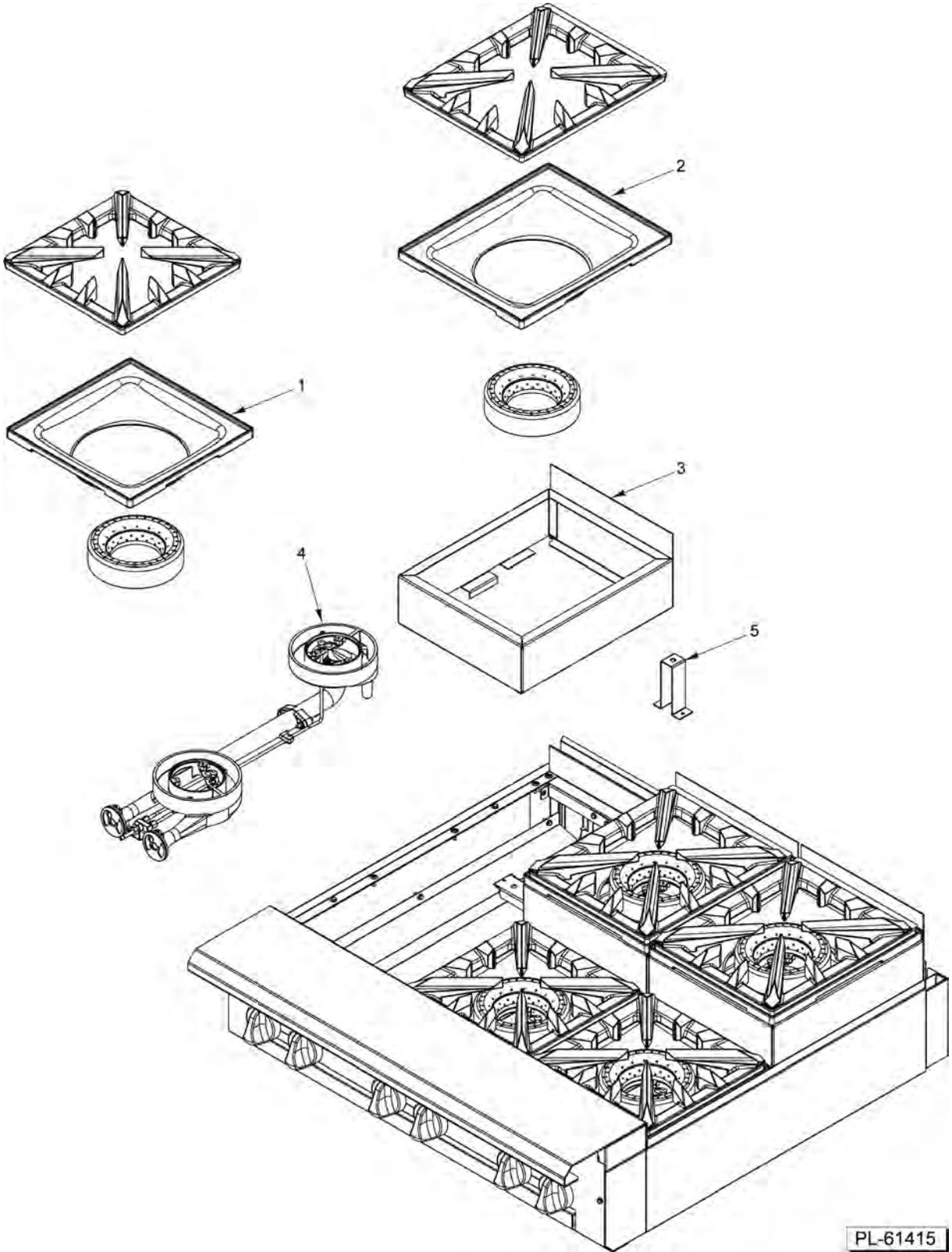
ILLUS. PL-61413	PART NO.	NAME OF PART	AMT.
1	00-497984-00001	Retainer - Grate.....	2
2	00-499615-00002	Deflector - Rear (SST) (36" Work Top).....	1
3	00-956725-00002	Deflector - Rear (SST) (24" Work Top).....	1
4	00-956697-00002	Deflector - Rear (SST) (18" Work Top).....	1
5	00-499935-00002	Deflector - Rear (SST) (12" Work Top).....	1
6	FP-012-02	Fitting - Tube 1/2 TBG X 3/8 MPT.....	1
7	00-426509-00010	Tube - Flex 1/2" O.D. 10" Lg.....	1
8	00-957590-00001	Cover Manifold (36" Work Top).....	1
9	00-957572-00001	Cover Manifold (24" Work Top).....	1
10	00-957566-00001	Cover - Manifold (18" Work Top).....	1
11	00-957558-00001	Cover - Manifold (12" Work Top).....	1
12	00-956639-000G1	Work Top Assy. 36".....	1
13	00-956639-000G2	Work Top Assy. 24".....	1
14	00-956639-000G3	Work Top Assy. 18".....	1
15	00-956639-000G4	Work Top Assy. 12".....	1
16	00-499555-00001	Disconnect - Gas Female.....	1
17	00-499047-00001	Bracket - Disconnect.....	1
18	00-499425-000G1	Front Top Assy. (36" Work Top).....	1
19	00-957235-000G1	Front Top Assy - Condiment Rail (36" Work Top).....	1
20	00-956705-000G1	Front Top Assy. (24" Work Top).....	1
21	00-957357-000G1	Front Top Assy. - Condiment Rail (24" Work Top).....	1
22	00-956658-000G1	Front Top Assy (18" Work Top).....	1
23	00-499966-000G1	Front Top Assy. (12" Work Top).....	1
24	00-957067-000G1	Riser - Stub 36" W/Alum. Back.....	1
25	00-957066-000G1	Riser - Stub 24" W/Alum. Back.....	1
26	00-957065-000G1	Riser - Stub 18" W/Alum. Back.....	1
27	00-957064-000G1	Riser - Stub 12" W/Alum. Back.....	1



18/36 IN STEP UP OPEN TOP BURNER

18/36 IN STEP UP OPEN TOP BURNER

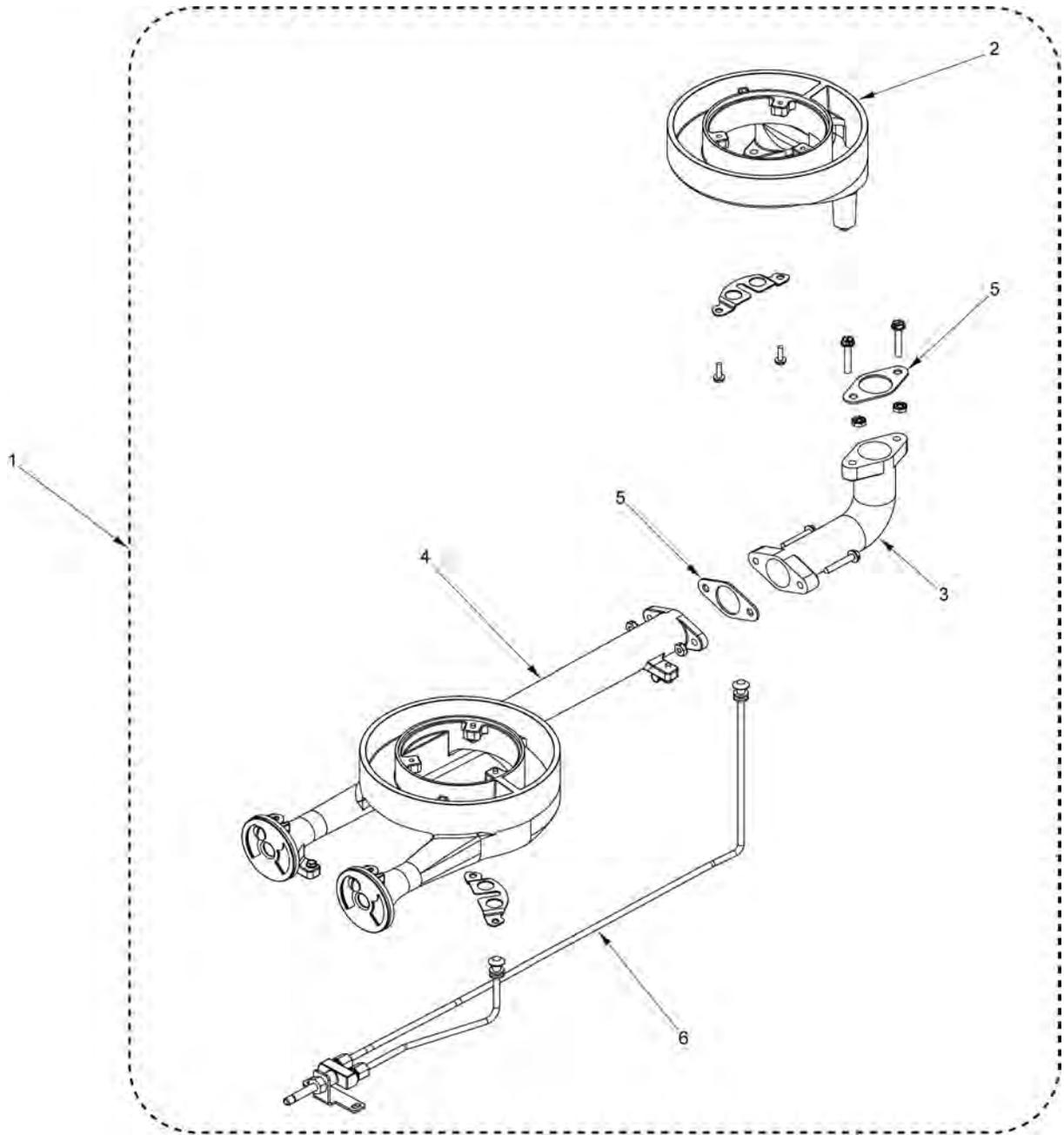
ILLUS.	PART NO.	NAME OF PART	AMT.
PL-61414			
1	00-957882-00001	Bowl - Front 18" Step Up.....	2
2	00-957881-00001	Bowl - Rear 18" Step Up.....	2
3	00-957877-000G1	Frame - 18" Step Up.....	2



36 IN 6 OPEN TOP STEP UP BURNER

36 IN 6 OPEN TOP STEP UP BURNER

ILLUS.	PART NO.	NAME OF PART	AMT.
PL-61415			
1	00-957878-00001	Bowl - 12" Front.....	1
2	00-958879-00001	Bowl - 12" Rear.....	1
3	00-957877-000G1	Frame - 18" Step Up.....	1
4	00-957817-000G1	Burner Assy. - Step Up.....	AR
5	00-957880-00001	Support - Burner Step Up.....	AR



PL-61416

STEP UP BURNER ASSEMBLY

STEP UP BURNER ASSEMBLY

ILLUS. PL-61416	PART NO.	NAME OF PART	AMT.
1	00-957817-000G1	Burner Assy. - Step Up.....1	1
2	00-957826-00001	Burner - Rear Step Up.....1	1
3	00-957825-00001	Elbow - Center Step Up.....1	1
4	00-957824-00001	Burner - Front Step Up.....1	1
5	00-957823-00001	Gasket.....1	1
6	00-959108-000G2	Pilot Assy. - Step Up.....1	1

