TECHNICIAN TESTED

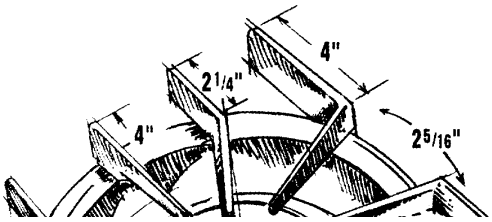
TECHNIQUES

BY

Viking Preferred Service

Oct.2003

Q & A



VIKING®
Preferred Service

F90586A

TABLE OF CONTENTS

1. GENERAL

NOTES:

X. OUTDOOR GAS GRILLS (BBQ)

NOTES:_____

OUTDOOR GRILLS (BBQ)

Q. What is the freezing temperature of the Grill Valve Grease?
A. The temperature range of the Valve Grease is from -20 to +300 F.

Q. Is the Rotis Motor approved for outdoor use?
A. The Rotis Motor is approved for outdoor use and the Motor is water proof.

Q. Is the painted Canopy Stainless Steel with the regular powder coat paint?
A. The Canopy is painted Stainless Steel.

Q. What is the minimum BTU's on the BBQ burner set at the lowest setting?
A. The Max. BTU 's for Nat. Gas is 25,000--the min.BTU's for Nat. Gas is 1,250.
The Max. BTU 's for L.P. Gas is 22,500--the min. BTU's for L.P. Gas is 1,125.

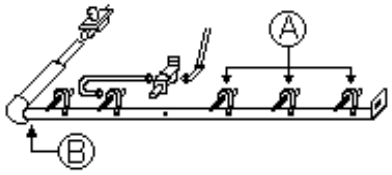
- Outdoor grill burner: Low 400 degrees--High 750 degrees.
- The temperature for outdoor grills using infrared grill burners will range from 1000 / 1650 degrees F.

- **VGSB121--**Side Burner Cover part #B2003756

- High Altitude Orifices for:

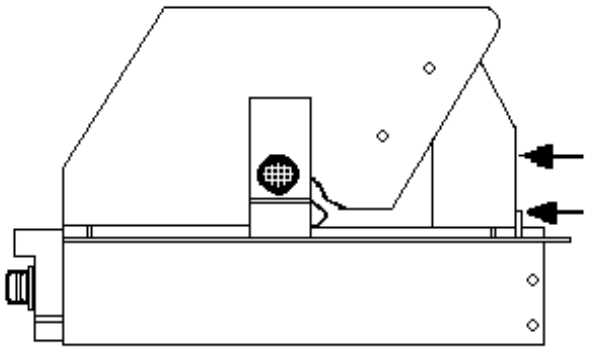
	Stock		4000'		6000'		8000'	
	NG	LP	NG	LP	NG	LP	NG	LP
Grill Burners	#41	#54	#42	#55	#43	#55	#44	#56
Smoker Burner	#58	#74	#60	#75	#62	#75	#63	#75
Side Burners	#49	#57	#50	#59	#51	#60	#52	#62
Small I/R Bur.	#52	#62	#53	#64	#53	#65	#54	#66
Large I/R Bur.	#49	#57	#50	#59	#51	#60	#52	#62

For unexplained GAS ODORS check the position of the orifice (A) in relationship to the burner venturi. The orifice should lood straight down the venturi tube. Also the burner valve control shaft should be level and in the center of the control panel cutout. The rotation of the manifold may have been rotated too far at the elbow (B).



- **"H" Burner replacement assembly G3204547 Includes:**
  "H" Burner
  Shield
  Spacers
  Screws
  "H" burner mounting screw

FLASHBACK IN THE CONTROL AREA



Correction: (Prior to April 1998)
Parts: Two (2) PD 040048 1/4" X 2" Stainless Key Stock.

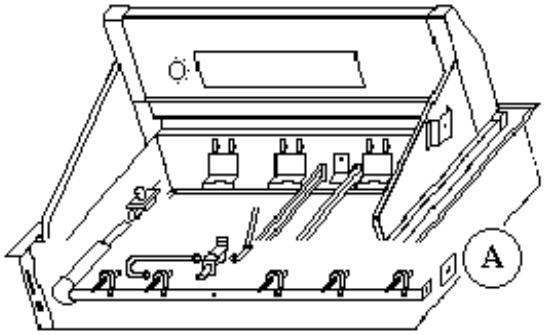
1. Push Grill Forward
2. Insert 1/4" Spacer (one on each side) Between Grill Head and Rear Trim

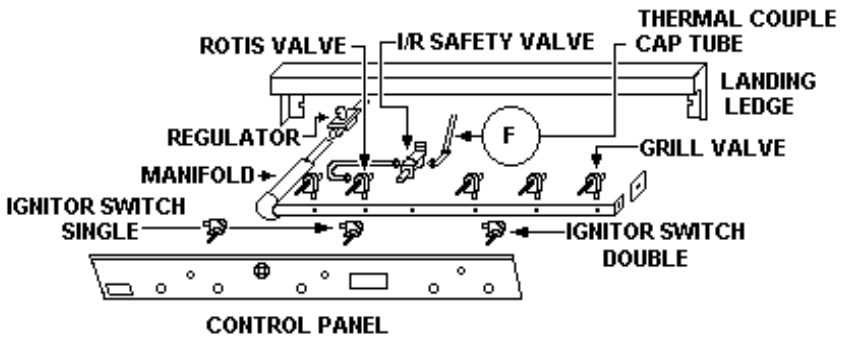
FLASHBACK IN THE CONTROL AREA

We have discovered the "flashback" may occur in our gas grills if the burner box is pushed to the rear of the grill.

The screw holding the Manifold to the Grill frame (A) on the right side may be loose or missing. The Manifold is attached to the Control Panel in the middle which pulls the Manifold forward. Pulling the Manifold forward moves the valve on the right Burner away from the Orifice Hood.

Remove the Control Panel and inspect the mounting bracket screw. Position the Manifold so the Burner Orifice is correctly positioned in the Burner. Tighten the mounting screw and replace the Control Panel.

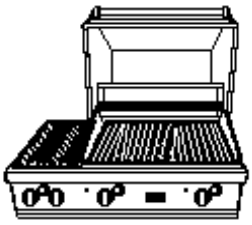




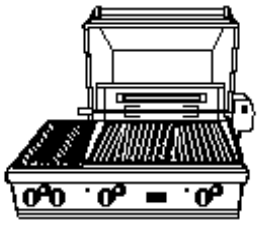
OUTDOOR GAS GRILL CANOPY

30" W. Grill

30" W. Grill / Rotisserie



41" W. Grill / Side Burner



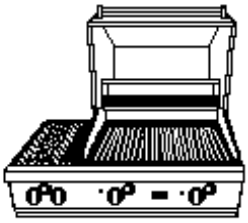
41" W. Grill / Side Burner / Rotisserie

GRILL CANOPY ASSEMBLY NUMBER - G3203216 (ADD COLOR - SS - FG - VB - SSBR - FGBR - VBBR)

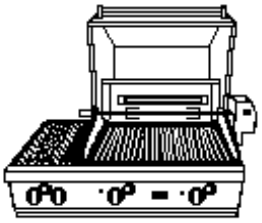
30" W. Grill and 41" W. Grill with Side Burners Use the Same Size Canopy

41" W. Grill

41" W. Grill / Rotisserie



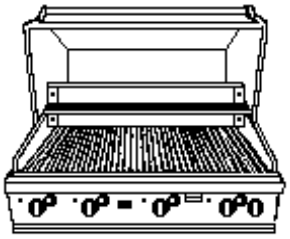
53" W. Grill / Side Burners



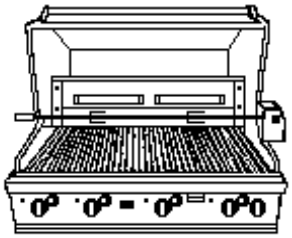
53" W. Grill / Rotisserie / Side Burners

GRILL CANOPY ASSEMBLY NUMBER - G3203333 (ADD COLOR SS - FG - VB - SSBR - FGBR - VBBR)

41" W.Grill and 53" W. Grill with Side Burners Use the Same Size Canopy



53" W. Grill



53" W. Grill / Rotisserie

GRILL CANOPY ASSEMBLY NUMBER - G3205739 (ADD COLOR - SS - FG - VB - SSBR - FGBR - VBBR)

53" W. Grill (No Side Burners) Use Same Size Canopy

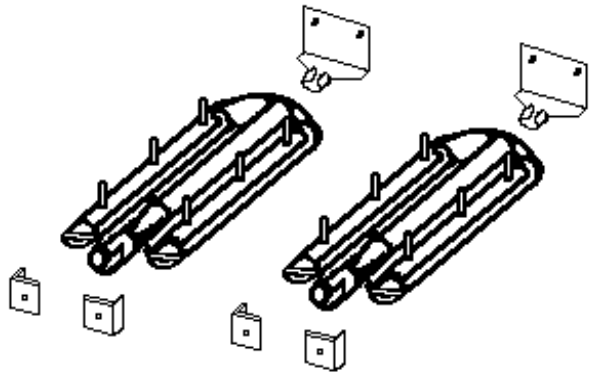
“S” SERIES OUTDOOR GAS GRILL

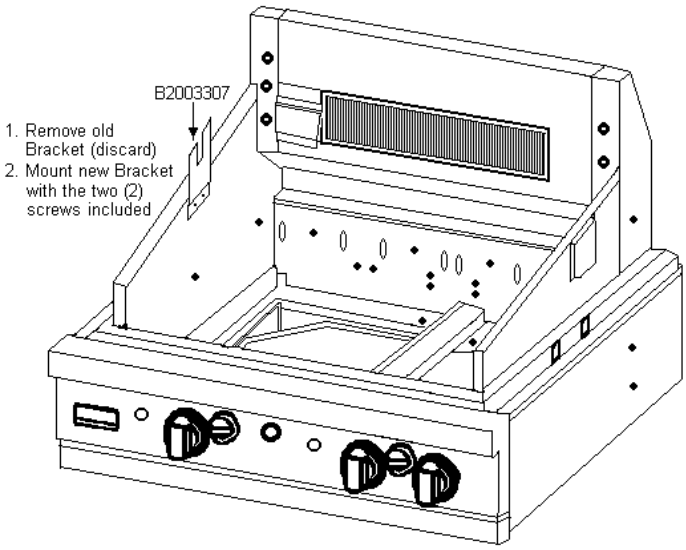
- Features Stainless Steel “H” Burners. Replacement Burner Assembly (“H” burner kit) #G3204548. {Burner and mounting brackets.}

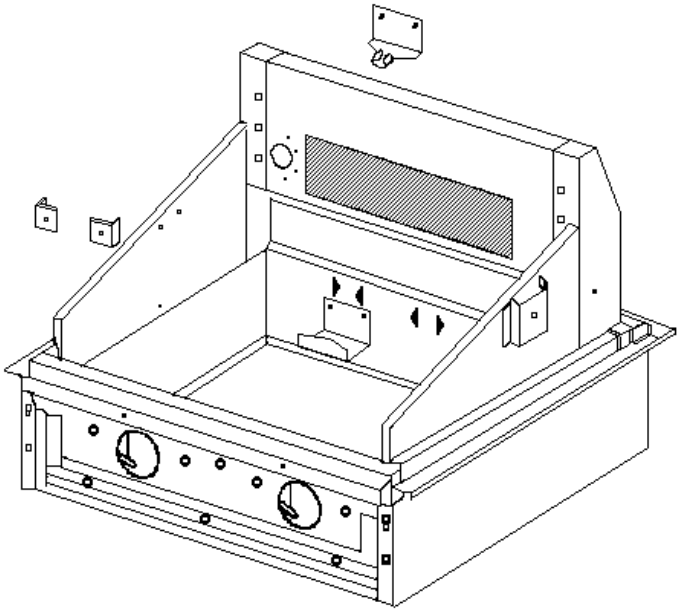
- Conversion kits for the “S” Series grill introduced in Feb. ‘99 will be a sales item.
  - LPK-VGBQ (Nat -- LP)
  - NK-VGBQ (LP -- Nat)

**Order through sales.*

- **“S” Series Grill Carts Model Numbers**
  SCS31SS (30" W)
  SCS41SS (41" W)
  SCS53SS (53" W)







Has a **NEW RETISSERIE MOTOR ASSEMBLY** (G3204910). The assembly includes the same motor assembly with changes to the external housing. Replaces (G3203346).

- The replacement rotisserie includes a rotisserie bracket.
- PE070184—motor only
- G3204910—complete rotisserie
- B2003307—rotisserie bracket
- “S” Series models shipped after 3/07/99 will have the new bracket.

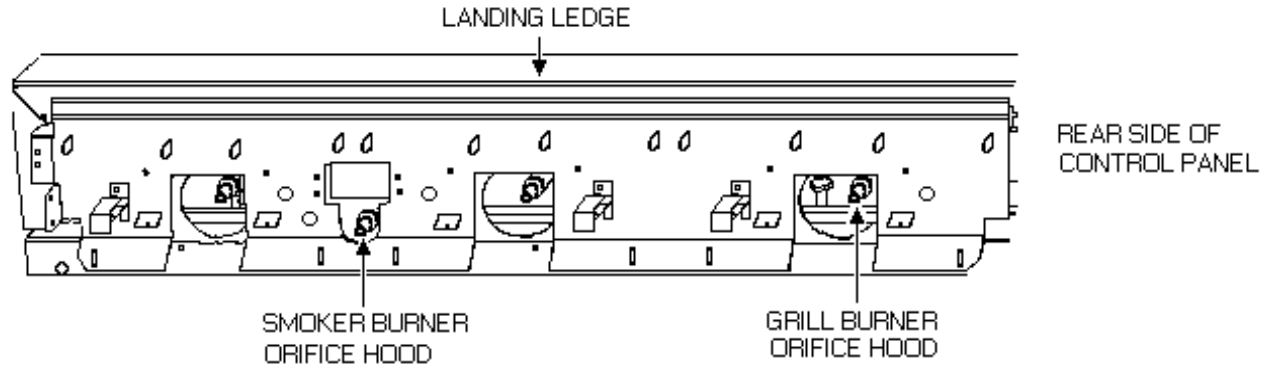
VGBQ SERIES CONVERSION KIT

GAS CONVERSION: To convert a grill from natural to LP/Propane gas or LP/Propane to natural, you must use the conversion kit supplied by the manufacturer. When converting to Natural Gas, use NK-VGBQ conversion kit. When converting to LP/Propane, use the LPK-VGBQ conversion kit. Conversions should only be done by an authorized service technician.

To convert grill burners and smoker burner:

1. Remove all grates, flavor generators and Steel burners from the unit.
2. Look into the burner box back toward the Control panel in order to locate the orifice Hoods. Remove the gas orifice hoods located On the grill from burner valves.
3. Replace the orifice hoods with the gas orifice hoods supplied in the conversion kit.
4. Replace the stainless steel burners, flavor Generators and grates.

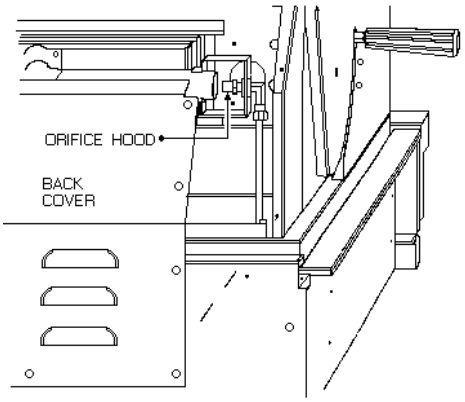
	Natural Orifice Hood	LP/Propane Orifice Hood
Grill Burner	(4) #40	(4) #53
Smoker Burner	(1) #58	(1) #74



To convert the infrared burner:

1. Remove the back cover from the unit to Expose the orifice hood to the infrared Burner.
2. Remove the gas orifice hood located on The grill.
3. Replace the gas orifice hood supplied in The conversion kit.
4. Replace the back cover.

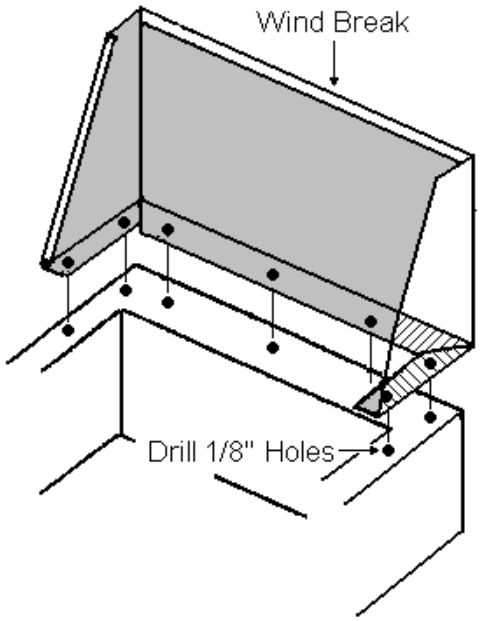
Infrared burner	Natural Orifice Hood	LP/Propane Orifice Hood
15”	(2) #51	(2) #63
20”	(1) #49	(1) #57



WIND BREAK INSTALLATION

VGBQ Wind Break Assemblies

G5004562	**Wind Break Assembly 30"**	**Quantity**
B2005277	Wind Breaker - 30"	1
PD020055	#10 X 1/2" Pan. Phil SMS Tek *SS*	7
F1808	Wind Break Installation Sheet	1
G5004563	**Wind Break Assembly 41"**	
B2005276	Wind Breaker - 41"	1
PD020055	#10 X 1/2" Pan. Phil SMS Tek *SS*	7
F1808	Wind Break Installation Sheet	1
G5004564	**Wind Break Assembly 53"**	
B2005275	Wind Breaker - 53"	1
PD020055	#10 X 1/2" Pan. Phil SMS Tek *SS*	7
F1808	Wind Break Installation Sheet	1



(1) Mount wind break to rear of grill. (2) Drill (7) holes on each side. (3) Install screws securing wind break to grill.

SB99-02 (4/12/99)

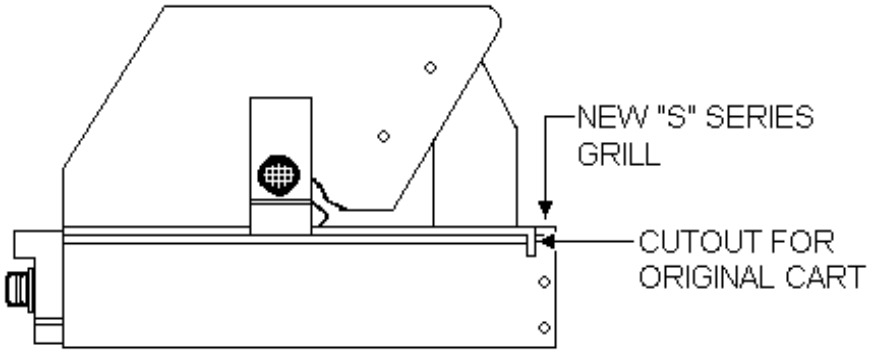
Modification to SC30"/41"/53" Grill Carts

In order to improve the stability of grill / cart installations, modifications have been made to the “S” series grill and cart. Extra support has been added to the outside trim of the grill head to provide more stability around the perimeter of the unit. A slot has been added to the cart to provide a positive fit / location for the grill head. This gives the grill head a more secure seat and provides solid support.

IMPORTANT: Both grills (non “S” models and “S” models) will fit on the new “S” series carts; the “S” series grills (manufactured before 3/05/00) will fit non “S” carts when modified as illustrated below.

All “S” series 30" grills manufactured after 3/19/99 and all 41" / 53" grills manufactured after 3/05/99 will fit both carts without modifications.

MODIFICATIONS: For copied of the templates needed for modifications call Viking Preferred Service.
There is a slot to be cut in the cart to allow for the added support to the outside trim.



Viking Preferred Service
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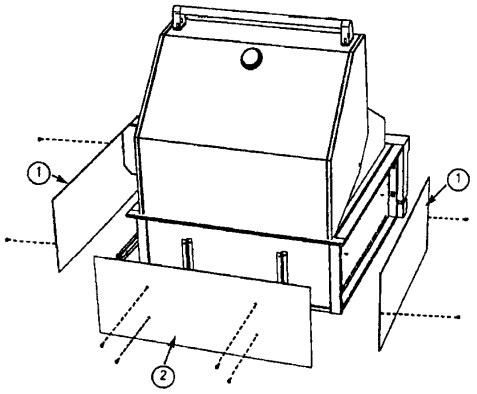
Service Bulletin

No: **2001-05**

Date: **5/15/2001**

Model Numbers

All VGBQ "T" Series Grills



Installation of the grills onto the carts

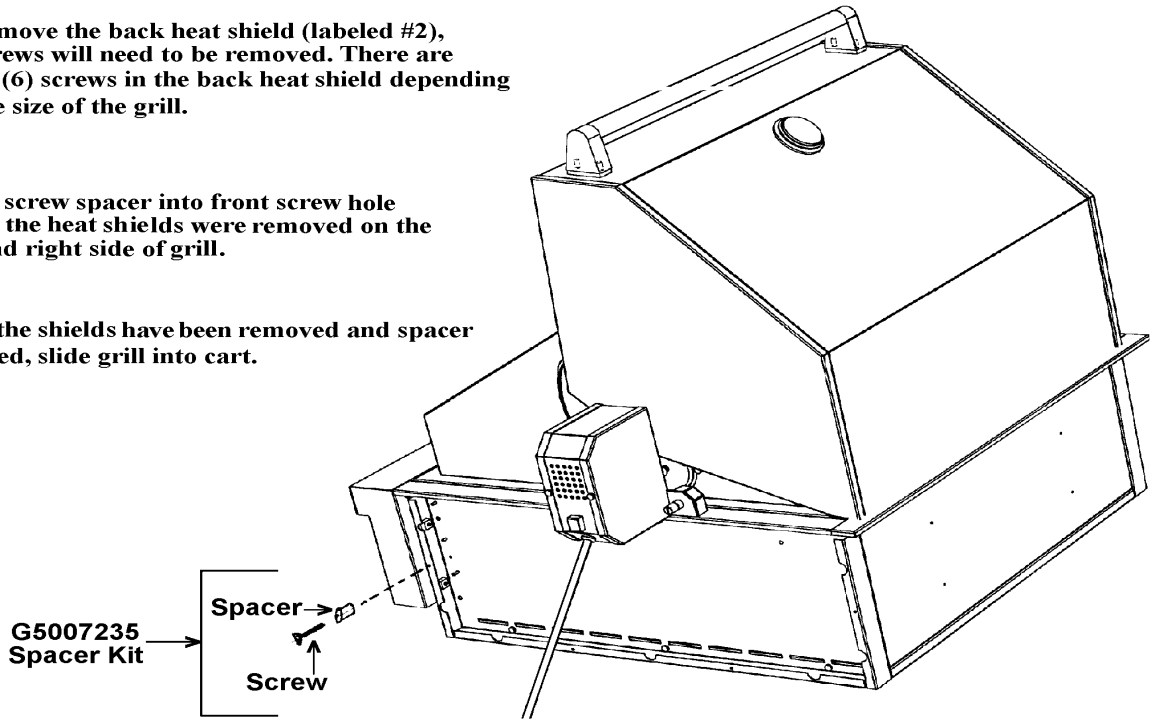
To install the grill on the cart, remove the side heat shields and back heat shield on the grill as illustrated below.

1. **To remove the side heat shields (Labeled #1), remove the two (2) screws - one in front and one in back.**

2. **To remove the back heat shield (labeled #2), all screws will need to be removed. There are (4) to (6) screws in the back heat shield depending on the size of the grill.**

3. **Insert screw spacer into front screw hole where the heat shields were removed on the left and right side of grill.**

4. **After the shields have been removed and spacer installed, slide grill into cart.**



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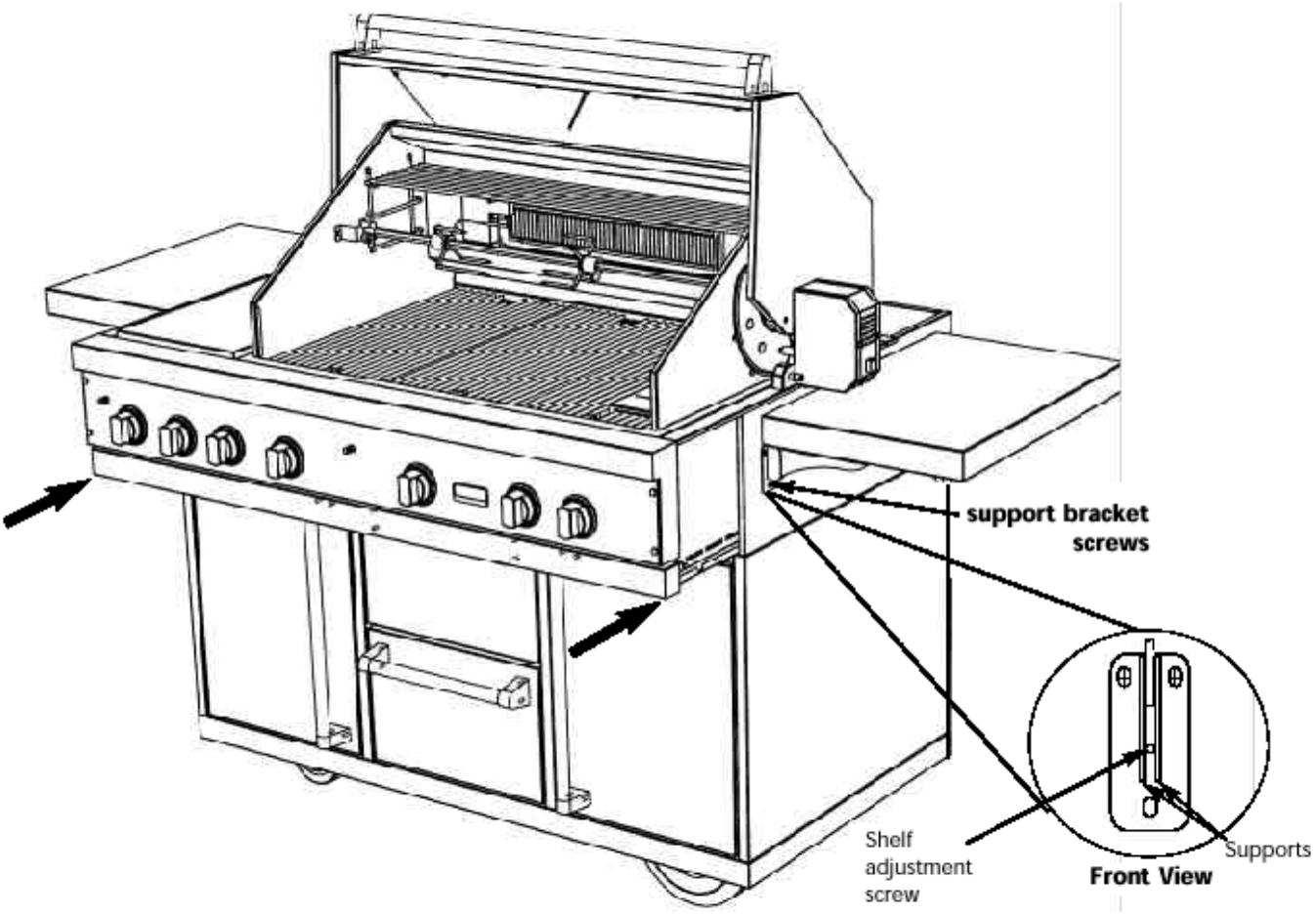
website: http://www.vikingrange.com.

VGBQ "T" SERIES GRILL

To mount grill to cart:

Always wear gloves when handling the gas grill. Although the grill is deburred prior to shipment, some edges may still be sharp enough to cause injury during handling. With a minimum of two (2) people, place the grill in the cart with about 3 to 4 inches hanging out the front making sure that the male fitting on the bottom of the grill is inside the cart. Push the grill back until the front sides of the cart are flush with the back of the landing ledge on the grill. **Be careful: the grill unit is very heavy!**



To remove side shelves:

The side shelves on the cart can be removed if needed. This **must** be done before installing the grill on the cart. With the shelf in the up position, remove the screws in the shelf support bracket. This will allow you to remove both the brackets and the shelf.

Leveling Side Shelves

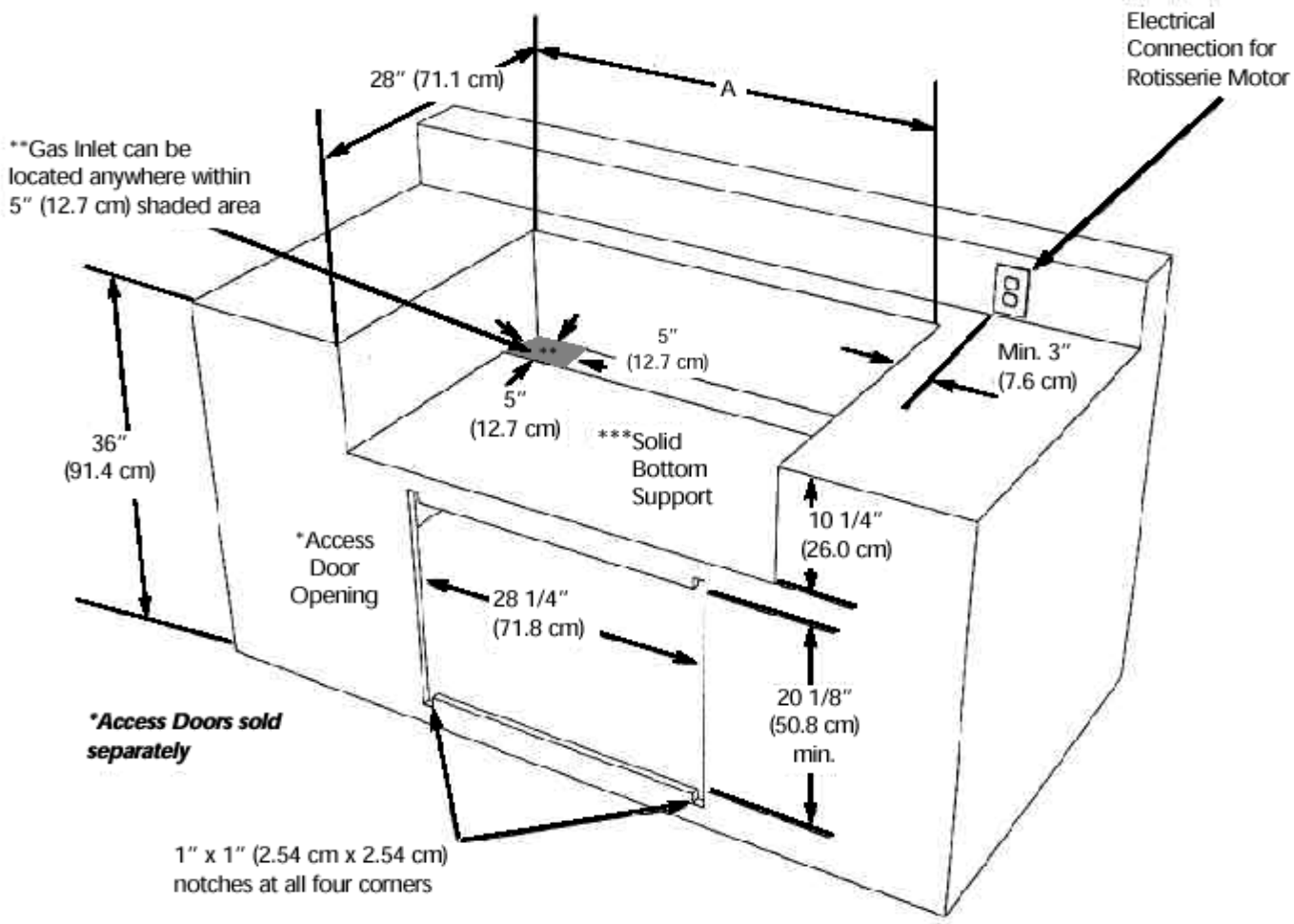
To level the side shelves, lift the shelf so that the shelf adjustment screw is visible between the two supports on the shelf brackets. Turn the screw with a 3/32" (.2 cm) alan wrench counter clockwise to raise the shelf and clockwise to lower the shelf.

CENTER GRATE KITS

PART NUMBER	DESCRIPTION	LIST PRICE	DISTRIBUTOR COST
G5004568AL	CENTER GRATE KIT *AL*		
G5004568BK	CENTER GRATE KIT *BK*		
G5004568BT	CENTER GRATE KIT *BT*		
G5004568BU	CENTER GRATE KIT *BU*		
G5004568CB	CENTER GRATE KIT *CB*		
G5004568EP	CENTER GRATE KIT *EP*		
G5004568FG	CENTER GRATE KIT *FG*		
G5004568GG	CENTER GRATE KIT *GG*		
G5004568LE	CENTER GRATE KIT *LE*		
G5004568MJ	CENTER GRATE KIT *MJ*		
G5004568SG	CENTER GRATE KIT *SG*		
G5004568VB	CENTER GRATE KIT *VB*		
G5004568WH	CENTER GRATE KIT *WH*		

VGBQ "T" SERIES GRILLS

Cutout Dimensions



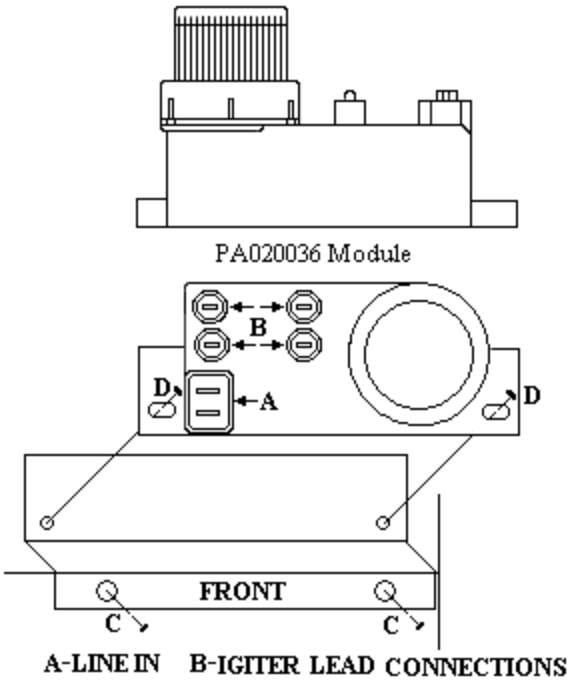
***Important: Cabinet cutout must have a solid bottom to support the full weight of the unit.

Model	A
VGBQ300T	28 5/8" (72.7 cm)
VGBQ410T	40 1/4" (102.2 cm)
VGBQ412T	40 1/4" (102.2 cm)
VGBQ530T	52 1/4" (132.7 cm)
VGBQ532T	52 1/4" (132.7 cm)

OUTDOOR GRILLE "T" MODEL
KIT # 5007971

Kit consists of:

PA020036 Module	**1**
B2009896 Bracket – Spark Module	**1**
PD020055 Mounting Screws	**2**
F90134 Instruction Sheet	**1**



1. Remove burner control knobs.

2. Remove the four (4) screws that hold the control panel in place.

3. Remove the lower bezel screw that aligns the control panel to the manifold.

4. Disconnect the wires to the push button igniter switch.

5. Lay aside the control panel being careful not to scratch the panel or mar the customers property.

6. For easy access to the Spark module and bracket, remove the drip tray.

7. Remove the two (2) screws holding the Spark module to the mounting bracket. Pull the module toward you and disconnect the wires.

8. Bend the existing mounting bracket down toward the front of the BBQ to gain access to the screws that hold the bracket to the burner box.

9. Using a stubby Phillips screwdriver or an offset Phillips screwdriver to remove the two (2) screws. Remove the bracket and discard.

10. Mount the new bracket in the same location as the discarded bracket. Drill two (2) holes (C) to secure the bracket to the burner box.

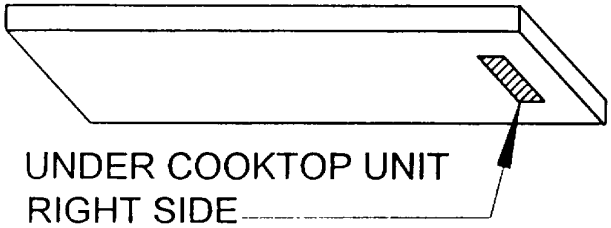
11. Mount the new Spark module on the bracket using the longer screws packed with the kit.

12. Place the igniter wires on the new Spark module. (B) Spark igniter lead connection and (A) Line connection. (Pressing any Spark button causes all igniters to spark.)

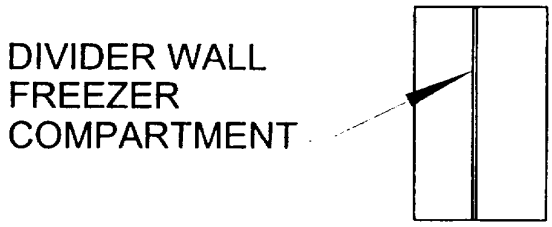
13. To restore grille to working condition. Reverse disassembly procedures.

Note: The green ground wire must be attached beneath one of the screws that mount the module to the mounting bracket.

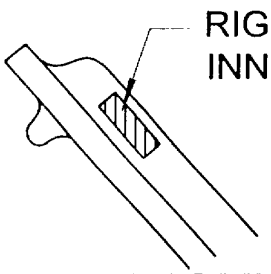
VIKING PRODUCTS
SERIAL LABEL LOCATIONS



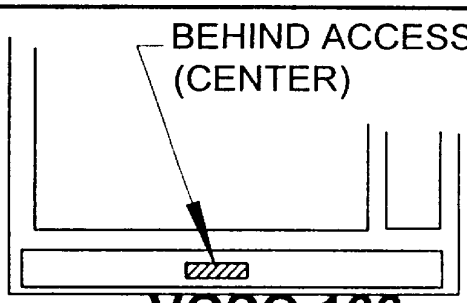
VGSU 101/160/161



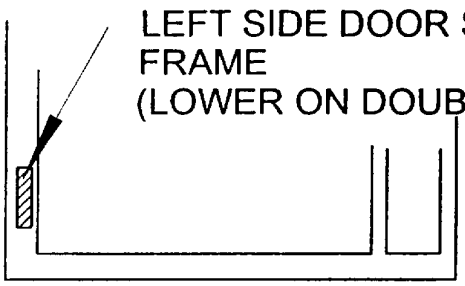
REFRIGERATOR



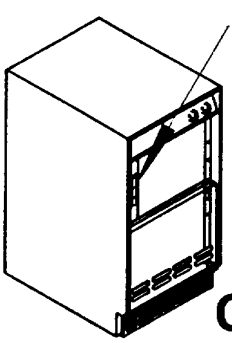
DISHWASHER



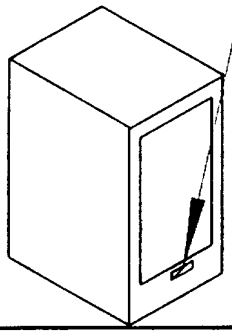
VGSO 166



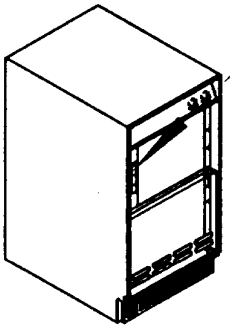
VEDO/VGDO 27" WALL OVEN



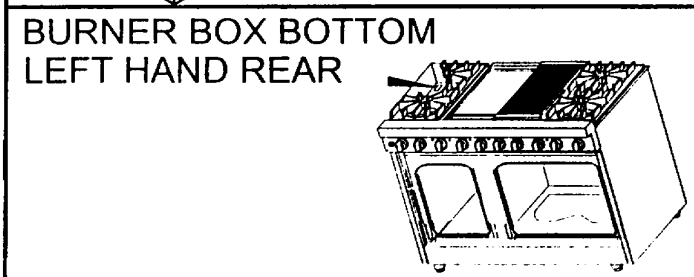
COMPACTOR



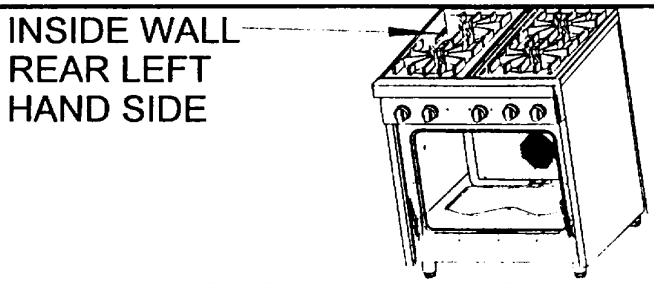
WINE COOLER



ICE MAKER

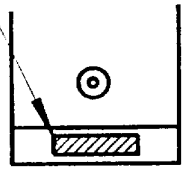


DUEL-FUEL 48"



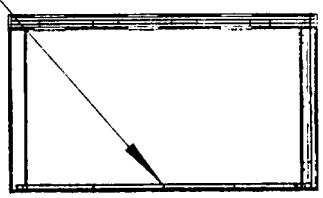
DUEL-FUEL 30"/36"

LABEL LOCATED BELOW RESET BUTTON



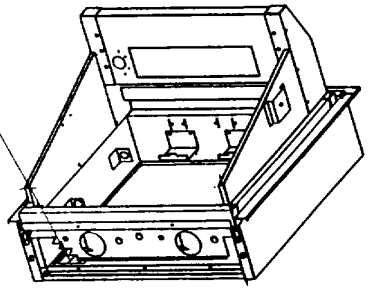
DISPOSER

OPEN DOORS, LABEL IS LOCATED BOTTOM,CENTER, FRONT



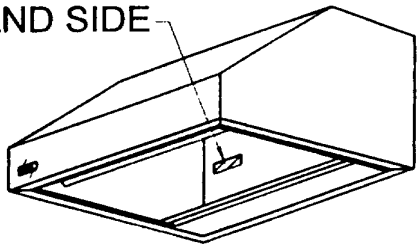
MICRO CHAMBER

REMOVE DRIP TRAY LOCATED LEFT FRONT



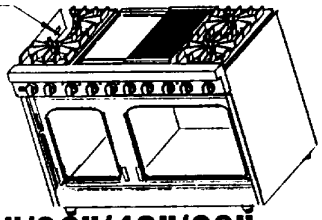
BBQ GRILLS

BACK WALL LEFT HAND SIDE



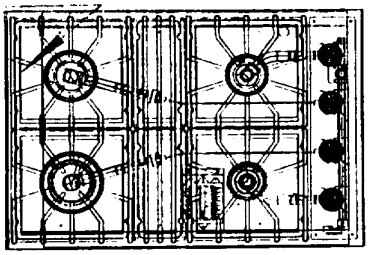
VIKING PRODUCED HOODS

BURNER BOX BOTTOM LEFT HAND REAR



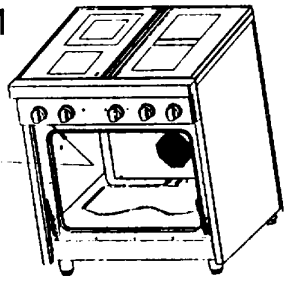
ALL GAS 30"/36"/48"/60" RANGES

INSIDE BURNER BOX LEFT SIDE



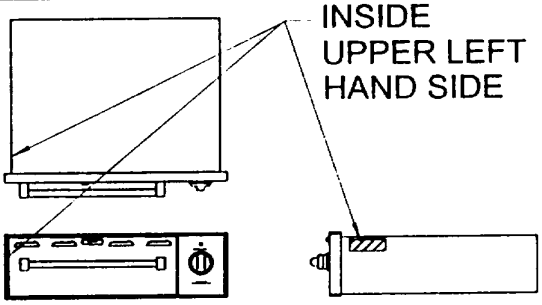
30"/36"/48"/60" RANGETOPS

UNDERNEATH TRIM ABOVE THE DOOR OPENING (LEFT SIDE)



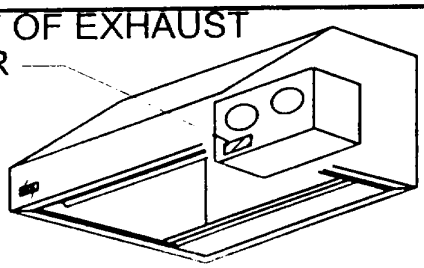
VESC 30"

INSIDE UPPER LEFT HAND SIDE



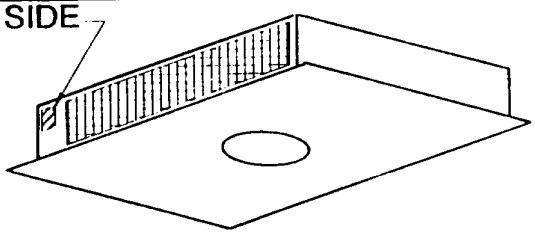
WARMING DRAWER

FRONT OF EXHAUST MOTOR

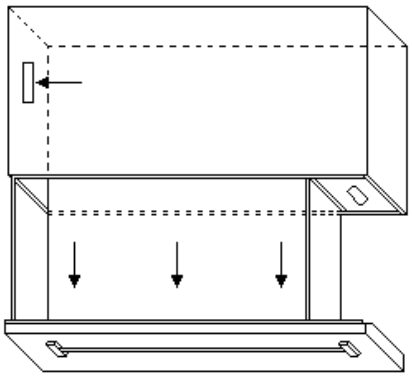


INTERIOR POWERED HOODS

VENT SIDE

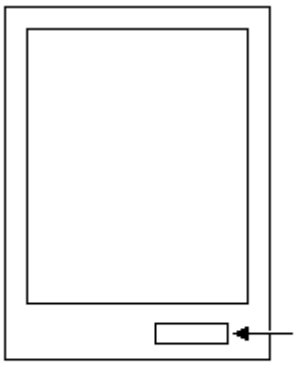


EXTERIOR POWERED VENTILATOR



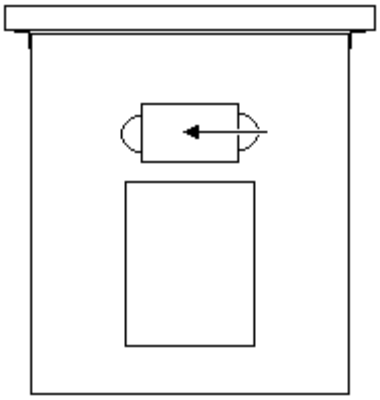
Pull Drawer Out to Stop
Lift out Inner Liner Serial
Label Left Side Rear

DESIGNER SERIES
WARMING DRAWER



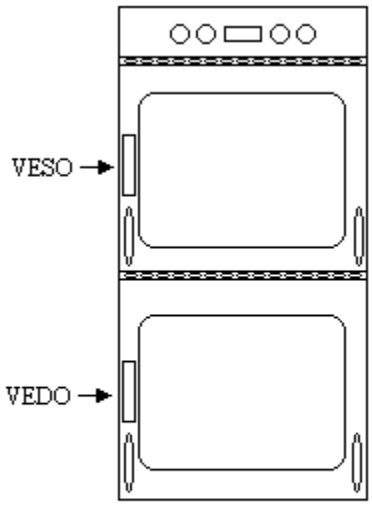
Lower Right Side Front Frame

Beverage Dispenser
Wine Cooler
Undercounter Refer.



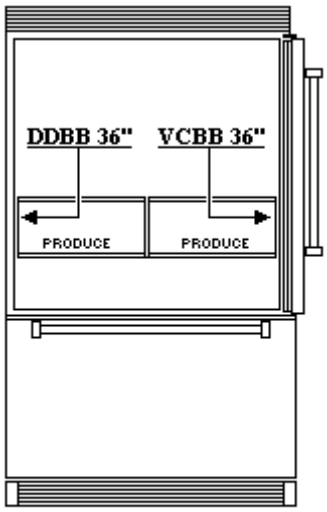
Located on the Motor Cover

Down Draft



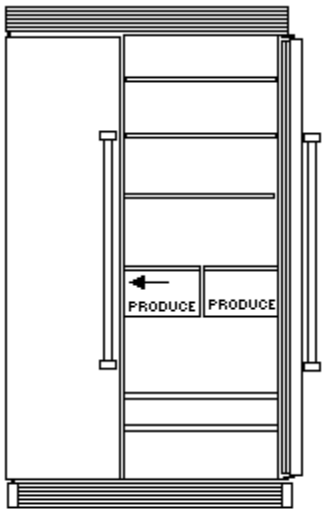
Left Side Front Frame

VESO105
VEDO205



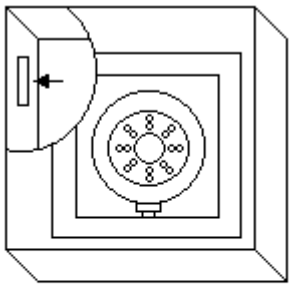
Remove Produce Drawer

Bottom Mount
Refrigerators



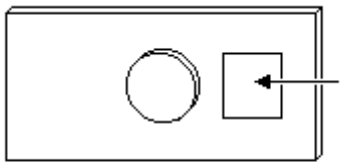
Remove Produce Drawer

Side by Side
Refrigerators



Left Side Burner Box
(Lift Grates and Grate
Supports to Locate)

VGWT240



Ventilator Kit (Rough-in Plate)

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGIC/IS300/ VDSC	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGIC/IS360	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGIC/IS480	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Grill burner	#48 (PB040061)	18K	#50 (PB040034)	#51 (PB040035)	#52 (PB040063)
	12" Griddle burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	24" Griddle burner	#50 (2) (PB040034)	15k (2)	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGIC/IS	Broil burner	#47 (PB040040)	18K	#49 (PB040103)	#50 (PB040065)	#51 (PB040104)
VGIC/IS300	Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)
VGIC/IS360	Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)
	48" R.H. Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)
	48" L.H. Oven burner	#49	15K	#51	#51	#52

L. P. (PROPANE) GAS

Model #	Burners	Pin/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGIC/IS300/ VDSC	Top burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
VGIC/IS360	Top burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
VGIC/IS480	Top burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	Grill burner	#57 (PB040061)	15K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	12" Griddle burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	24" Griddle burner	#57 (2) (PB040036)	12.5k (2)	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
VGIC/IS	Broil burner	#56 (PB040027)	15K	#57 (PB040066)	#59 (PB040108)	#60 (PB040109)
VGIC/IS300	Oven burner	#54 (PB040059)	12.5K (2)	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)
VGIC/IS360	Oven burner	#54 (PB040059)	15K (2)	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)
	48" R.H. Oven burner	#54 (PB040059)	15K (2)	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)
	48" L.H. Oven burner	#57 (PB040036)	15K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSC305	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040065)	#53 (PB040067)
	Bake burner	#46 PB040057)	30K	#48 (PB040061)	#49 (PB040060)	#50 (PB040034)
	Broil burner	#47 (PB040040)	18K	#49 (PB040103)	#50 (PB040065)	#51 (PB040104)

L.P. (PROPANE) GAS

Model #	Burners	Pin/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSC305	Top burner	#57 (PB040034)	13.5K	#60 (PB040035)	#62 (PB040065)	#63 (PB040067)
	Bake burner	#54 (PB040059)	30K	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)
	Broil burner	#56 (PB040027)	16K	#57 (PB040066)	#59 (PB040108)	#60 (PB040109)

NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSC306/366	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063	#53 (PB040067)
	Oven burner	#31 (PB040180)	30K	#33 (PB0400)	#36 (PB040072)	#38 (PB040074)
	Broil burner	#47 (PB040040)	18K	#49 (PB040103)	#50 (PB040065)	#51 (PB040104)
	Griddle burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Grill burner	#49 (PB040060)	18K	#51 (PB040035)	#52 (PB040063)	#52 PB040063)

L.P. (PROPANE) GAS

Model #	Burners	Pin/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSC306/366	Top burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	Oven burner	#31 (PB040180)	30K	#31 (PB040180)	#36 (PB040072)	#38 (PB040074)
	Broil burner	#56 (PB040027)	16K	#57 (PB040166)	#59 (PB040108)	#60 (PB040109)
	Griddle burner	#57 (PB040036)	12.5K	#51 (PB040082)	#52 (PB040084)	#53 (PB040085)
	Grill burner	#57 (PB040036)	16K	#51 (PB040082)	#52 (PB040084)	#52 PB040085)

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGRC365	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGRC485	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGRC605	Top burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Grill burner	#49 (PB040061)	18K	#51 (PB040035)	#52 (PB040063)	#52 (PB040063)
	12" Griddle burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	24" Griddle burner	#50 (2) (PB040034)	15k (2)	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGRC36".48" 60"	Broil burner	#47 (PB04040)	18K	#49 (PB040103)	#50 (PB040065)	#51 (PB040104)
VGRC365	Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)
48" 60" R.H.	Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)
48" L.H.	Oven burner	#49 (PB040061)	15K	#51 (PB040035)	#51 (PB040063)	#52 (PB040063)
60" R.H	Oven burner	#46 (PB040057)	15K (2)	#49 (PB040060)	#50 (PB040034)	#51 (PB040035)

L.P. (PROPANE) GAS

Model #	Burners	Pin/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGRC365	Top burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
VGRC485	Top burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
VGRC605	Top burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
	Grill burner	#57 (PB040036)	16K	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
	12" Griddle burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
	24" Griddle burner	#57 (2) (PB040036)	12.5k (2)	#60 (PB040082)	#62 (PB040083)	#63 (PB040085)
VGRC36"/48"/ 60"	Broil burner	#56 (PB040027)	16K	#57 (PB040066)	#59 (PB040108)	#60 (PB040109)
VGRC365	Oven burner	#46 (PB040057)	15K (2)	#48 (PB040061)	#49 (PB040060)	#50 (PB040034)
48" 60" R.H.	Oven burner	#54 (PB040059)	15K (2)	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)
48" L.H.	Oven burner	#57 (PB040036)	15K	#60 (PB040082)	#61 (PB040083)	#62 (PB040084)
60" L.H	Oven burner	#54 (PB040059)	15K (2)	#55 (PB040068)	#56 (PB040062)	#56 (PB040062)

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGRT300, VGRT380, VGRT420, VGRT480, AND VGRT600						
VGRT 36"	(6) Top Burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGRT 48"	(8) Top Burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
VGRT 60"	(10) Top Burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	(1) Grill Burner	#49 (PB040060)	18K	#51 (PB040035)	#52 (PB040063)	#52 (PB040067)
12" Griddle	(1) Burner	# 50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
24" Griddle	(2) Burner	#50 (PB040034)	15K(2)	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)

L. P. PROPANE GAS

Model #	Burners	Pin/Spud Size	BTU's	4-6,000'	6-8,000'	8-10,000'
VGRT 36"/ 42"	(6) Top Burners	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
VGRT 48"	(8) Top Burners	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
VGRT 60"	(10) Top Burners	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	(1) Grill Burner	#57 (PB040036)	16K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
12" Griddle	(1) Griddle Burner	# 57 (PB040036)	12.5K	#60 ([B040082)	#62 (PB040084)	#63 (PB040085)
24" Griddle	(1) Griddle	#57 (2) (PB040036)	12.5K(2)	#60 (2) (PB040082)	#62 (2) (PB040084)	#63 (2) (PB040085)

NATURAL GAS

Model #	Burners	Hood Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGWT240	WOK	#37 (PB040073)	27.5K	#40 (PB040076)	#42 (PB040077)	#43 (PB040033)

L. P. PROPANE GAS

Model #	Burners	Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGWT240	WOK	#52 (PB040063)	27.5K	#53 (PB040067)	#54 (PB040059)	#54 (PB040059)

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL GAS

Model #	Burners	Hood Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
"S" Series VGBQ AND VGSB122						
	Side burner	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Grill burner	#40 (PB040076)	25K	#42 (PB040077)	#43 (PB040033)	#45 (PB040067)
	Smoker burner	#58 (PB040064)	5K	#61 (PB040083)	#63 (PB040085)	#64 (PB040086)
	15" Rotis burner	#52 (PB040063)	12K	#53 (PB040067)	#54 (PB040059)	#54 (PB040059)
	20" Rotis burner	#49 (PB040060)	15K	#51 (PB040035)	#52 (PB040063)	#52 (PB040063)

L. P. (PROPANE) GAS

Model #	Burners	Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
"S" Series VGBQ AND VGSB122						
	Side burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	Grill burner	#53 (PB040067)	22.5K	#54 (PB040059)	#55 (PB040068)	#55 (PB040068)
	Smoker burner	#74 (PB0400)	3.5K	#75 (PB0400)	#76 (PB0400)	#76 (PB0400)
	15" Rotis burner	#62 (PB040084)	10.5K	#64 (PB040086)	#66 (PB040088)	#67 (PB040089)
	20" Rotis burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040068)

NATURAL GAS

Model #	Burners	Hood Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
"T" Series VGBQ AND VGSB152						
	Side burner	#50 (PB040034)	13.5K	#51 (PB040035)	#52 (PB040063)	#52 (PB040063)
	Grill burner	#40 (PB040076)	22.5K	#42 (PB040077)	#44 (PB040078)	#45 (PB040079)
	Smoker burner	#50 (PB040034)	3.5K	#51 (PB040035)	#52 (PB040063)	#52 (PB040063)
	Rotis burner	#49 (PB040060)	10.5K	#51 (PB040035)	#52 (PB040063)	#52 (PB040063)

(Con't)

ORIFICE CHART FOR VIKING GAS PRODUCTS
L. P. (PROPANE) GAS

Model #	Burners	Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
"T" Series VGBQ AND VGSB152 (Con't)						
	Side burner	#57 (PB040036)	13.5K	#61 (PB040083)	#63 (PB040085)	#64 (PB040086)
	Grill burner	#53 (PB040067)	22.5K	#54 (PB040059)	#55 (PB040068)	#55 (PB040068)
	Smoker burner	#57 (PB040036)	3.5K	#61 (PB040083)	#63 (PB040085)	#64 (PB040086)
	15" Rotis burner	#57 (PB040036)	10.5K	#61 (PB040083)	#63 (PB040085)	#64 (PB040086)

NATURAL GAS

Model #	Burners	Spud Size	Jet Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSU101, VGSU160, AND VGSU161							
Right Front	burner	#58 (1.07)	0.58	6.0 - 9.5K	#61	#63	#64
Right Rear	burner	#55 (1.32)	0.58	1.2 –9.1K	#56	#56	#57
Center Front	burner	#53 (1.50)	0.62	1.7 –12K	#54	#55	#55
Center Rear	burner	#53 (1.50)	0.62	1.7 –12K	#54	#55	#55
Left Front	burner	#53 (1.50)	0.67	1.7 –12K	#54	#55	#55
Left Rear	burner	#52 (1.50)	0.62	1.2 –9.1K	#53	#54	#54

L. P. (PROPANE) GAS [Sales Kit]

Model #	Burners	Spud Size	Jet Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSU101, VGSU160, AND VGSU161							
Right Front	burner	#69 (0.74)	0.36	6.0 - 9.5K	#70	#71	#72
Right Rear	burner	#65 (0.90)	0.39	1.2 –9.1K	#66	#68	#69
Center Front	burner	#60 (1.02)	0.42	1.7 –12K	#63	#64	#65
Center Rear	burner	#60 (1.02)	0.42	1.7 –12K	#63	#64	#65
Left Front	burner	#60 (0.45)	0.45	1.7 –12K	#63	#64	#65
Left Rear	burner	#59 (0.42)	0.42	1.2 –9.1K	#62	#64	#65

ORIFICE CHART FOR VIKING GAS PRODUCTS
NATURAL –L.P. (PROPANE) GAS

Model # DGCU105

Burner	Spud Size Nat	Spud Size L.P.	Color Code Nat	Color Code L.P.
Right Front burner	109MM	#71	RED	DARK BLUE
Right Rear burner	118MM	#68	BLACK	WHITE
Left Front burner	170MM	#59	BROWN	DARK GREEN
Left Rear burner	151MM	94MM	YELLOW	ORANGE

Model # DGCU165

Burner	Spud Size Nat	Spud Size L.P.	Color Code Nat	Color Code L.P.
Right Front burner	109MM	#71	RED	DARK BLUE
Right Rear burner	118MM	#68	BLACK	WHITE
Center burner	170MM	#59	BROWN	DARK GREEN
Left Front burner	151MM	94MM	YELLOW	PINK
Left Rear burner	140MM	89MM	RUBY	ORANGE

Model # DGCU155

Burner	Spud Size Nat	Spud Size L.P.	Color Code Nat	Color Code L.P.
Right Front burner	118MM	#68	BLACK	WHITE
Right Rear burner	109MM	#71	RED	DARK BLUE
Left Center burner	140MM	89MM	RUBY	ORANGE
Right Center burner	170MM	#59	BROWN	DARK GREEN
Left Front burner	151MM	94MM	YELLOW	PINK
Left Rear burner	140MM	89MM	BLACK	WHITE

NATURAL GAS

Model #	Burners	Hood Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VDSC 305/365/ 485	Top Burners	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Griddle	#50 (PB040034)	15K	#51 (PB040035)	#52 (PB040063)	#53 (PB040067)
	Grill	#49 (PB040060)	18K	#50 (PB040034)	#52 (PB040063)	#53 (PB040067)

ORIFICE CHART FOR VIKING GAS PRODUCTS

L.P. (PROPANE) GAS

Model #	Burners	Pin Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VDSC365/485	Top Burner	#57 (PB040036)	13.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
	Grill Burner	#57 (PB040036)	12.5K	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)
12" / 24"	Griddle Burner	#57 (PB040036)	16K(2)	#60 (PB040082)	#62 (PB040084)	#63 (PB040085)

NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSO166	Oven Burner	#46 (PB040057)	15K(2)	#48 (PB040061)	#49 (PB040060)	#50 (PB04003)
	I/R Broiler	#47 (PB040040)	18K	#49 (PB040103)	#50 (PB040065)	#51 (PB040104)

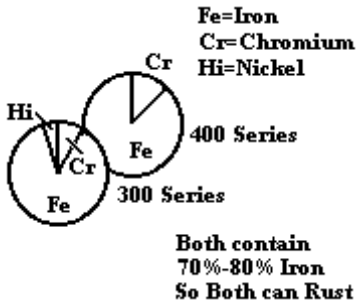
L.P. (PROPANE) GAS

Model #	Burners	Pin/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
VGSO166	Oven Burner	#54 (PB040059)	12.5K	#55 (PB040068)	#56 (PB040062)	#57 (PB040036)
	I/R Burner	#56 (PB040027)	17.5K	#57 (PB040066)	#59 (PB040103)	#60 (PB040109)

NATURAL GAS

Model #	Burners	Hood/Spud Size	BTU's	4 – 6,000	6 – 8,000	8 – 10,000
SVGIC306	R. F.	#55 (PB040068)	8K	#56 (PB040062)	#56 (PB040062)	#57 (PB040036)
	R. R.	#55 (PB040068)	8K	#56 (PB040062)	#56 (PB040062)	#57 (PB040036)
	L. R.	#55 (PB040068)	8K	#56 (PB040062)	#56 (PB040062)	#57 (PB040036)
	L. F.	#53 (PB040067)	12k	#54 (PB040059)	#55 (PB040068)	#55 (PBO40068)

Contrary to popular belief,
Stainless Steels "are" susceptible to rusting.



Corrosion on metal is everywhere. We recognize it quickly on iron and steel as unsightly **yellow/orange** rust. Such metals are called "active" because they actively corrode in the natural environment.

Stainless steels are passive metals because they contain other metals, like chromium and nickel. 400 series stainless steels contain chromium while 300 series contain both chromium and nickel.

Metals are crystalline solids made up in atom arrangements like tinker toys. With 12-30% chromium, and invisible passive film covers the steel's surface acting as a shield against corrosion. The metal becomes "passive" toward corrosion.

As long as the film is intact; not broken or contaminated, the metal is passive and stain-less.

- Raw iron has no protective coating.
- Stainless steel, when alloyed with other metals, has a protective film. But keep in mind that the film is only millionths of an inch thick!

Passive film breakdown

If the passive film of your stainless steel has been broken, your equipment will begin the long walk down the dark road of corrosion. At it's end; **RUST.** The first signs are on the microscopic level. If you were to look at them under a microscope or through a magnifying glass, you would see small pits and cracks staring back at you. Given time, these pits and cracks will grow and deepen while all the time exuding unsightly, red-orange rust. More severe and visible cracking can also take place.

Enemies of Stainless Steel

There are three basic things which can break down your stainless steel's passive layer and allow corrosion to rear it's ugly head.

- **MECHANICAL ABRASION**
- **DEPOSITS OF WATER**
- **CHLORIDES**

Mechanical abrasion means those things that will scratch the steel's surface. Steel pads, wire brushes, and scrapers are prime examples.

Water comes out of our taps in varying degrees of hardness. Depending on what part of the country you live in, you may have hard or soft water. Hard water may leave spots. Also, when heated, hard water leaves deposits behind that if left to sit, will break down the passive layer and rust your stainless steel. Other deposits from food preparation and service must be properly removed.

Chlorides are found nearly everywhere. They are in water, food, and table salt. One of the worst perpetrators of chlorides can come from household and industrial cleaners.

So, what does all this mean?

At this very moment you're gritting your teeth and saying,

> "Well, what am I supposed to do now? The only way to get that crusted lasagna off my stainless steel is to use some kind of scouring pad, and I certainly need to use a cleaner, and the water in this town is hard enough to cut diamonds."

Don't despair! Here are a few steps that can help prevent stainless steel rust.

1. Use the proper tools. When cleaning your stainless steel products, take care to use non-abrasive tools. Soft cloths and plastic scouring pads will not harm the steels passive layer. **Stainless steel** pads can also be used but the scrubbing motion must be in the direction of the manufacturers' polishing marks. Step 2 tells you how to find the polishing marks.

2. Clean with the polish lines. Some stainless steels come with visible polishing lines or "grain." When visible lines are present, you should always scrub in a motion that is parallel to them. **When the grain cannot be seen, play it safe and use a soft cloth or plastic scouring pad.**

3. Use alkaline, alkaline chlorinated or non-chloride containing cleaners. While many traditional cleaners are loaded with chlorides, the industry is providing and ever increasing choice of non-chloride cleaners. If you are not sure of your cleaner's chloride content contact your supplier. If they tell you that your present cleaner contains chlorides, ask if they have an alternative. They probably will. Also avoid cleaners containing quaternary salts as they also can attack stainless steel and cause pitting and rusting.

4. Treat your water. Through this is not always practical, softening hard water can do much to reduce deposits. There are certain filters that can be installed to remove distasteful and corrosive elements. Salts in a properly maintained water softener are your friend. If you are not sure of the proper water treatment, call a treatment specialist.

5. Keep your food equipment clean. Use alkaline, alkaline chlorinated or non-chloride cleaners at recommended strength. Clean frequently to avoid build-up of hard, stubborn stains. If you boil water in your stainless steel equipment, remember the single most likely cause of damage is chloride in the water. Heating cleaners that contain chlorides has a similar effect.

6. Rinse, Rinse, Rinse. If chlorinated cleaners are used you must rinse, rinse, rinse and wipe dry immediately. The sooner you wipe off standing water, especially when it contains cleaning agents, the better. After wiping the equipment down, allow it to dry for the oxygen helps maintain the stainless steel's passive film.

7. Never use hydrochloric acid (muriatic acid) or stainless steel.

8. Regularly restore / passivate stainless steel.

RECOMMENDED CLEANERS FOR SPECIFIC SITUATIONS
(Recommended by North American Association of Food Equipment Manufacturers)

JOB	CLEANING AGENT	COMMENTS
Routine cleaning	Soap, ammonia, detergent Medallion	Apply with cloth or sponge
Fingerprints and Smudges	Areal 20, Lac-O-Nu Echoshine	Provides Barrier Film
Stubborn stains & discoloration	Cameo, Talc, Zud` First Impression	Rub in direction of polish lines
Grease & fatty acids Blood, burned on food	Easyoff, Degrease It, Oven Aid	Excellent removal on all finishes
Grease & Oil	Any good commercial Detergent	Apply with sponge or cloth
Restoration / Passivation	Benefit, Super Sheen	

REVIEW

- **Stainless steels do rust when:**
  - **Passivity (film-shield) breaks down**
  - **By scrapes or scratches**
  - **By deposits and chlorides**
- **Stainless steel rusts starts with pits and cracks.**
- **Use proper tools. Do not use steel pads, wire brushes or scrapers. (Step 1)**
- **Use non-chlorinated cleaners at the recommended concentrations. Use only chloride free cleaners. (Step 3)**
- **Soften your water. Know the hardness of your water. Use filters and softeners whenever possible. (Step 4)**
- **Wipe off cleaning agent(s) and standing water ASAP. Prolonged contact will cause eventual problems. (Step 6)**

An Overview of Off –the- Shelf Cleaners

Listed below are 21 cleaning products purchased from local stores, OFF-THE-SHELF products. The source stores were 2 grocery stores and Walmart. I have listed the product name, the manufacturer's name, basic ingredients, primary cleaning, and cautions as listed on the product information sheet. Each product manufacturer listed a telephone number. When there is a question as to the proper use on any surface, such as laminates, aluminum, porous metals, wall or floor coverings, imitation marble or synthetic counter tops, etc. call the manufacturer for clarification. Also ask about personal hazards when using the product that may be caused be the active ingredients.

If unsure about using the product on any surface, apply cleaner on an inconspicuous or hidden area before general usage.

As you read the product information (fine print) it will become very apparent that before any cleaning product is used, **ALL WRITTEN INSTRUCTIONS MUST BE READ THOROUGHLY and the instructions carried out.**

1. **AJAX** **(Colgate-Palmolive)**
   INGREDIENTS: Calcium Carbonate, Sodium Carbonate, Anionic surfactants, Bleach, QC Agents, Fragrance and Colorants.
   Primary Cleaning: General Household Cleaner.
   Cautions: Eye Irritants. Use on small area first on delicate surfaces (fiberglass, Formica, imitation marble, plastics, and enameled appliance). Use plenty of water, rub gently, and rinse well. **Not recommended for use on silver, fabrics, or painted surfaces.**

2. **BON AMI** **(Faultless Starch / BonAmi)**
   INGREDIENTS: Calcium Carbonate
   Primary Cleaning: General Household Cleaner.
   Cautions: Test small area, rinse thoroughly. Use plenty of water and rub gently.

3. **BAR KEEPERS FRIEND**
   INGREDIENTS: Oxalic Acid
   Primary Cleaning: Stainless steel, porcelain, fiberglass, glass cooktops, copper, tile, and brass.
   Cautions: Eye irritants. May etch some finishes (old porcelain). Test small area. May discolor some colored grout. **DO NOT** use on gold, silver or lacquered surfaces. For BRUSHED finishes polish in the direction of the BRUSH LINES. **DO NOT** mix with other household chemicals, including detergents or bleach.

4. **BRASSO** **(Reckitt & Coleman)**
   INGREDIENTS: Petroleum Distillate and Ammonia.
   Primary Cleaning: Metal polish
   Cautions: **DO NOT** use on Aluminum, silver or lacquered finishes. Test on hidden area.

5. COMET (Colgate-Palmolive)

INGREDIENTS: Sodium dichlore-s-Triazine, Trione Dihydrate, and Surfactants (inert ingredient).

Primary Cleaning: General Household cleaner.

Cautions: Eye Irritants. On delicate surfaces like plastics, imitation marble, and appliance enamel, use plenty of water, rub gently and rinse thoroughly.

6. COMET LIQUID GEL (Proctor & Gamble)

INGREDIENTS: Cleaning agents, Sodium Hypochlorite, Bleach, Process Aids, Perfume, colorants and water.

Primary Cleaning: Stove tops.

Cautions: Eye irritants. Avoid contact with painted surfaces. Rinse immediately after cleaning porous (cast iron) metals. Test on a small area before general use. Use with adequate ventilation. **DO NOT** mix with Acidic cleaners or products that contain Ammonia.

7. DOW HEAVY DUTY OVEN CLEANER (Dow Brands)

(See EASY-OFF HEAVY DUTY OVEN CLEANER / MR. MUSCLE OVEN CLEANER FOR CAUTIONS.)

8. EASY-OFF SELF SCRUBBING KITCHEN CLEANER (Pecitt & Coleman)

INGREDIENTS: Water, Surfactants, Grease Cutting Agents, Sodium Hydroxide, Water Conditioning Agents and Fragrance. Contains no Phosphates.

Primary Cleaning: Baked on enamel, stainless steel, or painted surfaces. Test on small hidden area prior to use.

Cautions: Eye irritants. **NOT** recommended for use on microwave ovens, aluminum, soft vinyl, varnishes, marble or granite.

9. EASY-OFF HEAVY DUTY CLEANER (Peckitt & Coleman)

INGREDIENTS: Sodium Hydroxide (LYE)

Primary Cleaning: Ovens, broilers, barbecue grills, and stainless steel.

Cautions: Recommended for use **ONLY** on:

1. Porcelain enamel
2. Iron
3. Stainless Steel
4. Ceramic and glass surfaces

DO NOT USE ON:

1. Exterior oven surfaces
2. Self-Clean
3. Continuous clean ovens

AVOID spraying:

1. Oven pilot light
2. All electrical connections
3. Heating elements
4. Thermostat bulb receptacles
5. Light switch
6. Oven gaskets or seals

AVOID contact with:

1. Skin (will burn)
2. Eyes
3. Mucous membranes

DO NOT INJEST / WEAR RUBBER GLOVES

10. **LYSOL ANIBACTERIAL KITCHEN CLEANER (Rickett & Coleman)**
INGREDIENTS: Biodegradable cleaning agents. Contains no Phosphates.
Primary Cleaning: Non-porous surfaces, such as sinks, counters, appliances, and stovetops.
Cautions: Hazardous to humans and domestic animals. Eye irritants.

11. **MR. MUSCLE OVEN CLEANER (Johnson & Son)**
INGREDIENTS: 4% Sodium Hydroxide (LYE)
Primary Cleaning: Oven windows, broilers and grills.
Cautions: (See Easy-Off Heavy Duty Oven Cleaner).
    1. Spread paper to protect floors.
    2. Remove oven racks and clean separately
    3. Place paper towel between oven door and oven bottom to prevent seeping on painted surfaces (kickplate) and floor.

12. **PARSONS AMMONIA ALL-PURPOSE CLEANER (The Dial Corp)**
INGREDIENTS: Ammonia Hydroxide Solution, Anionic Surfactant, Non-ionic Surfactants, Perfume, Color, Clarifying Agent, and Salt (inert).
Primary Cleaning: General kitchen cleanup, stovetop and appliances.
Cautions: Eye and skin irritants, **DO NOT** mix with other cleaners. **DO NOT** take internally. **DO NOT** breath fumes.

13. **PRO 409 DEGREASER & MULTI-PURPOSE CLEANER (Clorox)**
INGREDIENTS: Not listed. Contains no Phosphorous.
Primary Cleaning: Kitchen grease, outdoor grills, & porcelain fixtures.
Cautions: Eye and skin irritants.

14. **409 GLASS & SURFACE CLEANER (Clorox)**
INGREDIENTS: Isopropanol, Grease cutters, Surfactants, and Fragrance. Contains no Phosphorus.
Cautions: Eye irritants.

15. **SHOPPERS VALUE (All Purpose Cleaner) (Preferred Products Inc.)**
INGREDIENTS: Water, Solvents, Builders, Anionics, and Non-Anionics, Surfactants, Fragrance, and Colorants.
Primary Cleaning: Kitchen grease, outdoor grills, and porcelain fixtures.
Cautions: Eye irritants.

16. **SOFT SCRUB / LEMON CLEANER (Clorox)**
INGREDIENTS: calcium Carbonate & Detergents. Contains no Bleach.
Primary Cleaning: Cuts through grease without harsh scratching.
Cautions: Eye irritants.
(Use power cleaners sparingly and rub gently with damp sponge and **rinse, rinse, rinse.**)

17. SOFT SCRUB / BLEACH (Clorox)
INGREDIENTS: Calcium Carbonate, Hypochlorite Bleach, and Detergents.
Primary Cleaning: (See SOFT SCRUB / LEMON CLEANER)
Cautions: Avoid prolonged contact on plastic laminate countertops. **DO NOT** use on silver.

18. ULTRA MR. CLEAN (Proctor & Gamble)
INGREDIENTS: Cleaning Agents (Nonionic and Ionic Surfactants) QC Agents, Perfume, Colorants, water, and Alcohol Ethoxylates. Contains no bleach, ammonia and no phorphorus.
Primary Cleaning: Appliances. Not recommended for carpets, upholstery, aluminum, or glass. **DO NOT** mix with bleach or ammonia.
(Some appliance trim pieces are extruded aluminum.)

19. WRIGHTS ALL PURPOSE BRASS POLISH (J.A. WRIGHT & CO.)
INGREDIENTS: Ammonia.
Primary Cleaning: Brass, copper, chrome, stainless steel, bronze and pewter.
Cautions: Eye irritants.

20. ZUD (RECKITT & COLEMAN)
INGREDIENTS: Oxalic Acid.
Primary Cleaning: Porcelain sinks, stainless steel, countertops, ceramic cookware, pots and pans, copper, brass, bronze, chrome, aluminum, iron and pewter. Cleans rust and corrosions from B-B-Q grills.
Cautions: Eye irritants. May be harmful to painted and lacquered surfaces. Requires very gentle rubbing for use on fiberglass and plastics (use plenty of water).

21. LIQUID ZUD (RECKITT & COLEMAN)
(SEE ZUD FOR DETAILS)
Cautions: (1) Avoid prolonged contact on metal surfaces.
(2) May discolor or etch some older sinks or tubs.
(3) Use sparingly, rub gently with damp sponge.]
(4) Use on hidden spot to test.
(5) Avoid contact with marble and painted surfaces.

CONCLUSION

1. THERE DOESN'T APPEARS TO BE ONE PRODUCT FOR ALL CLEANING REQUIREMENTS.

2. READ THE LABELS (FINE PRINT) CAREFULLY.

3. ON POWER CLEANERS, USE PLENTY OF WATER, RUB GENTLY AND RINSE WELL.

4. INSTRUCT YOUR DOMESTIC HELP ON THE PROPER USAGE OF ANY PRODUCT, (EVEN IF THE HELP IS A HUSBAND)

5. WHEN USING A SPRAY CLEANER, USE ONLY ON THE SURFACE YOU INTEND TO CLEAN. PROTECT ALL OTHER SURFACES FROM THE OVER SPRAY.

6. WHEN USING A CLEANER ON A "GRAINED METAL" FINISH, ALWAYS RUB IN THE DIRECTION OF THE GRAIN MARKS.

GLOSSARY OF TERMS

Alcohol Ethoxylates:

Ammonia: (NH3-Nitrogen and Hydrogen) A colorless pungent gas extensively used to manufacturer fertilizers and a wide variety of nitrogen-containing organic and inorganic chemicals. (2) A solution of Ammonia in water, Ammonia Hydroxide.

Ammonia Hydroxide: A chemical compound containing the Hydroxyl group. Hydroxyl, characteristic of bases, certain acids, *phonels*, alcohols, *carboxylic*, and sulfonic acids, and *amphoteric* conpounds.
(Phenols: [carbonic acid] A caustic, poisonous white crystalline compound derived from benzene)
(Carboxylic: A univalent radical characteristic of all organic acids)
(Amphoteric: Capable of re-acting either as an acid or base)

Anionics: A negatively ion that migrates to an Anode, as in electrolysis. To go up.

Biodegradable: Capable of being decomposed by natural biological processes.

Bleach: To remove the color be means of sunlight, chemical agents or the like.

Calcium Carbonate: A colorless or white crystalline compound occurring naturally as chalk, lime stone, marble, and other forms and used in a wide variety of manufactured products including commercial chalk, medicines, and dentifrices.

Chloride: Any binary compound of chlorine.

Chlorine: A highly irritating, greenish-yellow gaseous *halogen*, capable of combining with nearly all other elements, produced principally by electrolysis of sodium (common salt) and used widely to purify water, as a disinfectant, a bleaching agent, and in manufacture of many important compounds including chloroform and carbon tetrachloride.
(Halogen: Any of a group of five chemically related nonmetallic elements that includes fluorine, chlorine, bromine, iodine and astatine.)

Detergents: A cleaning substance, especially one that acts as a wetting agent and *emulsifier* and is made from chemical compounds rather then fats and lye.
(Emulsifier: A suspension of small globules on one liquid in a second liquid with which the first will not mix, such as milk fat and milk.)

Hypochlorite: A salt or *ester* of Hypochlorous acid.
(Ester: Any of a class of organic compounds corresponding to the inorganic salts formed from an acid by the replacement of Hydrogen be an alkyl radical.)

Isopropanol: A clear, colorless, mobile flammable liquid used in anti-freeze compounds, lotions, and as a solvent for gums, shellac, and essential oils.

Non-Anionics: No negatively charged ions.

Oxalic Acid: A poisonous crystalline organic acid, used as a cleaning agent for automobiles radiators and for metals in general, as a laundry bleach, and in textile finishing and cleaning.

Petroleum Distillate: The liquid condensed from vapor while refining crude oil.

Phosphorus (Phosphate): Any salt or ester of phosphorus acid containing mainly pentavalent phosphorus and oxygen.

Salt (Inert): Sodium chlorite.

Sodium Hydroxide: A strongly alkaline compound used in the manufacture of chemicals and soaps and in petroleum refining. Also called “caustic soda”, “lye”.

Sodium Hypochlorite: An unstable salt usually stored in solution and used as a fungicide and oxidizing bleach.

Solvent: Capable of dissolving another substance.

Surfactants: Creates a film.

Trione Dihydrate:

FOOD QUALITY

FOOD DRIED OUT OR DEHYDRATED

POSSIBLE CAUSES:

Packages not wrapped or sealed properly. In the refrigerator, foods should be wrapped in foil, self-sealing bags, plastic wrap or stored in covered dishes or air tight containers. When storing frozen foods, use freezer wraps of freezer bags that are air, moisture and vapor proof or select freezer proof air tight containers. Be sure all packages are tightly sealed.

Crisper or meat / cheese drawer not tightly closed.

Food stored too long.
Check food storage chart on pages 6, 7 & 8.

VEGETABLES ARE DRY OR WILTED.

POSSIBLE CAUSES:

Vegetables not stored in crisper. Vegetables will dry out and wilt prematurely when stored on and open shelf of the refrigerator instead of in a crisper. Vegetables need high-humidity storage to stay fresh and crisp. For best results, store fresh vegetables in the crisper and keep it tightly closed. If the crisper is full store vegetables in a closed container or plastic bag to reduce moisture loss.

Crisper drawer not closed of moisture control set too low. Close the crisper drawer to seal in moisture. If using a moisture controlled crisper, check the User's Guide for the appropriate setting.

Certain vegetables not wrapped. Storage in the crisper slows the dehydration of fresh vegetables. In addition leafy vegetables, such as lettuce and spinach, should be placed in plastic bags of airtight containers to reduce moisture loss.

Excessive moisture . Vegetables need a certain amount of moisture to maximize freshness. However, too much moisture can shorten the storage of vegetables, especially lettuce. Drain lettuce well before storing. Place a layer of paper towel in the bottom of the bag to absorb excess moisture; replace towling occasionally. Some storage containers feature a special drainage device to raise the lettuce off the bottom and keep it from sitting in accumulated moisture.

Incorrect refrigerator temperatures. The fresh food compartment of a refrigerator should be kept between 34°F and 40°F with and optimum temperature of 37°F. refrigerator temperatures can be checked by using and appliance thermometer. Lower temperatures could cause vegetables to freeze. Freezing damages cell structure and vegetables can turn brown and become limp.

Vegetable quality. Vegetable quality affects the length of storage. Quality can vary from item to item, variety to variety and season to season. For example, a rainy growing season can cause lettuce to be brown when purchased, or brown more quickly. Sort vegetables before storage and use bruised or soft vegetables first. Discard those showing evidence of decay.

Storage length too long. Check food storage chart on pages 6, 7 & 8 for suggested storage times. Use vegetables within recommended refrigerator storage time. Vegetables, stored longer than recommended will also turn brown and lose their crispness.

MEAT HAS DARK SPOTS OR HAS TURNED BROWN

POSSIBLE CAUSE:

Oxidation. It is natural for meat to darken with time due to the natural effects of oxidation. Meat should be stored in the freezer if it will not be used within a few days.

FREEZER BURN Food with freezer burn has a white-gray area that's dry, tough and sometimes off –flavored.

POSSIBLE CAUSES:

Improper wrapping method. Use air, moisture, or vapor-proof containers or packaging material such as heavy duty aluminum foil, freezer plastic wrap, polyethylene-coated freezer wrap or freezer bags. Pad protruding bones and other sharp corners with extra wrap when packaging food to avoid puncturing the wrap.

Freezer control set too warm. Turn freezer control to next succeeding letter. Do not change the control more than one letter at a time. Allow 24 hours for the temperature to stabilize before making further adjustments.

Freezing of partial thawed food. Avoid adding too much food to freezer at once. Do not place warm packages directly against the surface of already frozen food.

Food stored too long. Refer to the food storage chart pages 6, 7 &8 for recommended storage.

INCORRECT TEMPERATURES

OUTSIDE OF REFRIGERATOR FEELS WARM TO THE TOUCH

POSSIBLE CAUSES:

THIS IS NORMAL: The surface of the area around the freezer section of the cabinet may be warm to the touch. This helps prevent moisture from condensing on the cabinet This condition will be more noticeable when the refrigerator is first started, during hot weather and after excessive or prolonged door openings.

Improper clearance around the refrigerator. A space of about ½" should be left between the refrigerator and adjacent walls or cabinets.

REFRIGERATOR COMPARTMENT TOO WARM OR TOO COLD

POSSIBLE CAUSES:

Refrigerator control set incorrectly. Adjust refrigerator control to next to next number (higher number will make refrigerator colder, lower number will make it warmer). Do not change the control more than one number at a time. Allow 24 hours for the temperature to stabilize before making further changes.

Freezer control set at coldest position. An unnecessarily cold setting in the freezer can result in a warm refrigerator temperature. The coldest freezer setting is recommended for short term use only.

Prolonged or frequent door openings. Food items should be removed from the unit as quickly as possible without lingering. Try to get several items at one time rather than opening the door several times.

MEAT/CHEESE DRAWER TOO WARM OR TOO COLD

The temperature control on the meat keeper drawer allows the consumer to regulate the amount of cold air entering the drawer. Refer to the User's Guide for recommended settings.

FROST/ICE CRYSTALS FORMING IN OR ON FOOD PACKAGES

POSSIBLE CAUSES:

Too much air left in package. Remove as much air as possible from freezer bags, rigid plastic containers and wrapped packages before sealing and putting into the freezer. Air space in the package lets moisture evaporate from the food, then condenses as ice crystals.

Prolonged door openings or door not closed securely. Freezer items should be removed as quickly as possible without lingering. Try to get several items at one time rather than opening the door several times. Move any package blocking the door open.

FREEZER COMPARTMENT TOO WARM

POSSIBLE CAUSES:

Freezer control set too warm. Turn freezer control to next succeeding letter. Do not change the control more than one letter at a time. Allow 24 hours for the temperature to stabilize before making further adjustments.

Prolonged door openings or door not closed securely. Avoid leaving the door open for longer than necessary and move any package blocking the door open.

Hard to freeze items stored on freezer door shelf. Do not store items such as ice cream and orange juice on the door shelves. These hard to freeze items are best stored against the freezer bottom or sides where the temperature varies the least with door openings.

Condenser needs cleaning. The condenser should be cleaned for efficient

operation. Follow the cleaning instructions given in the User's Guide.

Too much food added at one time. Adding too much warm food overloads the freezer, slows the rate of freezing and lowers food quality. As a general rule, no more than three pounds of food per cubic foot of freezer space should be added in a 24 hour period.

ODORS IN REFRIGERATOR OR FOOD HAS OFF TASTE OR ODOR

POSSIBLE CAUSES:

Odor producing foods not covered or wrapped. In the refrigerator, fresh meats, fish, poultry, luncheon meats and cheeses can be left in the store wrapping and placed in the meat keeper drawer. Once opened, these items should be removed from store wrapping and wrapped in foil, self-sealing bags or plastic wrap. Odorous vegetables such as onions should also be wrapped before placing them in the crisper. When storing frozen foods, use freezer wrap or freezer bags that are air, moisture and vapor proof. Be sure the wraps are tightly sealed.

Food spoiled from being stored too long. Throw out spoiled food and any food that is suspected unsafe for consumption. Refer to the Food Storage Chart pages 6, 7 & 8 for recommended storage times.

Interior needs cleaning. Clean according to the instructions in the User's Guide. Open boxes of baking soda can be used to absorb odors from foods inside the refrigerator and freezer.

Defrost pan needs cleaning. Defrost water drains into a shallow pan beneath the cabinet and evaporates. This pan should be cleaned periodically with warm, sudsy water. Check the User's Guide for instructions on removal and replacement of the defrost pan.

ICE CUBES HAVE ODOR OR OFF TASTE

POSSIBLE CAUSES:

Odors absorbed by ice in uncovered bin. Use ice rapidly or store in covered container to help prevent odor pick-up. Wrap all foods for the refrigerator and freezer in moisture proof, vapor proof packaging material to prevent odor transfer to ice.

Water quality. Use a filter to remove minerals, such as sulfur, which leaves a strong taste or odor.

Old ice. Dispose of ice that has developed an odor and make a new supply.

Metallic taste. A metallic taste can result if a freezer with an automatic icemaker is hooked up to an infrequently used water pipe. Double check installation instructions for proper hookup of water to icemaker. The first few loads of ice from a new icemaker may have an off taste and should be dumped, readying the unit to make a new supply

WATER FROM DISPENSER HAS ODOR OR OFF TASTE

POSSIBLE CAUSE:

Water dispenser used infrequently. Draw several glasses of water to discard stale water and freshen supply in the reservoir.

Old filter in water line. Replace the filter and replenish water dispenser with fresh water.

OPERATION

REFRIGERATOR RUNS TOO LONG OF TOO FREQUENTLY.

PROBABLE CAUSES:

This is normal when comparing the run time of a new refrigerator to that of an older model. Today's refrigerators are smaller, more efficient compressors that run more frequently. This provides more stable temperatures within the refrigerator.

Condenser needs cleaning or poor air circulation around the condenser. The condenser must be clean for efficient operation. Follow the instructions for cleaning given in the User's Guide.

Temperature control set too cold. Use the firmness of ice cream and coldness of milk as guides for good temperature settings. Turn refrigerator control to next lower number. Do not change the control more than one number at a time. Allow 24 hours for the temperature to stabilize before making further adjustments.

Prolonged or frequent door openings. Food items should be removed from the unit as quickly as possible without lingering. Try to get several items at one time rather than opening the door several times.

Room temperature excessively high. Lower room temperature if possible. At high room temperatures, it is normal for a refrigerator to run longer or more often.

Recent addition of warm food. It is normal for the unit to run more if a quantity of warm food has recently been added. As a general rule, no more than three pounds of food per cubic foot of freezer space should be added in a 24 hour period.

NOISY OPERATION / UNFAMILIAR SOUNDS

Today's refrigerators have smaller, more efficient compressors that are not louder than older refrigerator compressors, but do have a higher pitched sound which can be amplified in certain installations. If the kitchen is not carpeted, it may help to place a small square of carpet under the refrigerator to absorb some of the sounds. Also additional motors and controls are used to provide the improved performance of larger capacity refrigerators. Therefore, normal operating sounds may be more noticeable than on the model it replaced.

POSSIBLE CAUSES:

Fan operation required for normal air flow in and around the refrigeration unit.

Defrost pan not positioned correctly. Check the User's Guide for correct removal and replacement of the defrost pan.

Cabinet vibration can occur if the refrigerator is not level. For leveling information, check the refrigerator's User's Guide. You may also notice vibration on a weak floor.

A sizzling sound in the freezer compartment is normal and is caused by defrost water dripping on the defrost mechanism.

Popping or cracking sounds may be heard as metal parts expand and contract. These are normal operating sounds.

Bubbling or gurgling sounds like water boiling results when the refrigerant boils off as it circulates. This is normal.

A dripping sound will occur as water drips into the defrost pan beneath the refrigerator during the defrost cycle. Heat from the compressor will evaporate this water. This sound will only occur during the defrost cycle.

Operation of automatic ice maker may produce several sounds;

A. **Buzzing** of the water valve.
B. **Running of water** as the tray fills.
C. **Rattling** of ice cubes falling into the empty ice bin.

A clicking noise can sometimes be heard as the defrost timer begins and ends the defrost cycle.

EXCESSIVE MOISTURE

BEADS OF MOISTURE APPEAR AROUND THE DOOR FRAME OR ON CABINET EXTERIOR

POSSIBLE CAUSES:

Hot, humid weather increases the likelihood of moisture condensing (sweating) on the refrigerator's cool surface.

Installing refrigerator in a hot, humid location near a heater, clothes dryer, range or sunny window.

WATER ON FLOOR UNDER CABINET

Defrost pan missing or not positioned properly. Defrost water drains into a shallow pan beneath the cabinet and evaporates. Check the User's Guide for instructions on removal and replacement of the defrost pan.

WATER IN CRISPER DRAWERS

Condensation from vegetables stored in the crisper is normal. Wipe away any water pools. If the water is excessive, wash and dry vegetables before storing in the crisper.

WATER IN REFRIGERATOR AT BOTTOM

POSSIBLE CAUSES:

Refrigerator cabinet not level. For leveling information check the refrigerator's User's Guide.

Drain tube plugged. Check defrost drain hole and tube if too much water accumulates. Remove drain plug, flush drain line with baking soda and hot water. This water will drain into the defrost pan and need to be emptied.

ICEMAKER

ICE MAKER DOES NOT MAKE ICE:

POSSIBLE CAUSES:

New freezer still warm. Allow enough time for freezer to cool to appropriate temperature. This may take up to 24 hours.

Control level in OFF position. The wire lever should be in the down or ON position.

The control lever blocked into OFF position by lodged ice cubes. Remove frozen cubes from area and reposition wire lever to the ON or down position.

ICEMAKER DOES NOT MAKE ENOUGH ICE.

This can result if the freezer temperature is set too warm. Turn freezer control to next succeeding letter. Do not change the control more than one letter at a time. Allow 24 hours for the temperature to stabilize before making further adjustments.

ICE CUBES TOO SMALL

Small ice cubes can result from an inadequate water supply or clogged water line. Check the water supply first. If no problem exists, check the water line.

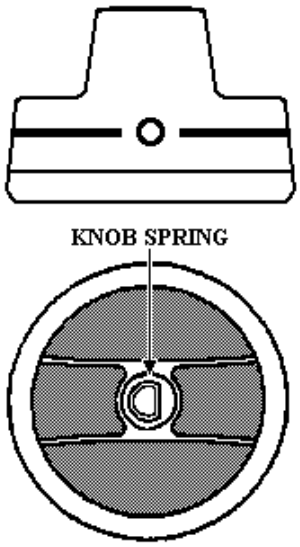
FOR CLEANING INSTRUCTIONS FOLLOW THE USER'S GUIDE.

FOODS	REFRIGERATOR Time	FREEZER Time	STORAGE TIPS
DAIRY PRODUCTS			
Butter	**1 – 2 weeks**	**6 – 9 months**	Store only enough for Immediate use in Dairy Compartment. Wrap tightly or cover.
Milk & Cream	**1 week**	**Not recommended**	Check carton dating. Milk should be closed tightly. Don't return unused portions to original container. Don't freeze cream unless it's whipped.
Cream cheese, cheese Spread & cheese food	**1 – 2 weeks**	**Not recommended**	Wrap tightly. Some cheese foods can be stored for longer periods.
Cottage cheese	**5 – 7 days**	**Not recommended**	Store in original carton. Check carton dating.
Hard cheese (Swiss, Cheddar & Parmesan)	**1 – 2 months**	**May become crumbly**	Wrap tightly. Cut off mold if it Develops on the surface.
Sour cream	**10 days**	**Not recommended**	Store in original carton. Check carton dating..
EGGS			
Eggs in the shell	**1 week**	**Not recommended**	Refrigerate small ends down.
Leftover yolks or whites	**2 – 4 days**	**9 – 12 months**	For each yolk to be frozen, add I tsp. sugar for use in sweet, or 1 tsp. salt non sweet dishes.
FRESH FRUITS	Ripening of fruits is slowed be refrigeration. Except where needed, store fruits in a moisture-Controlled crisper. (Check the User's Guide for the appropriate settings.)		
Apples	**1 month**	**6 – 12 months**	May also store unripe or hard apples At 60° - 70°F.
Bananas, pears, & Avocados	**3 –5 days**	**6 –12 months**	Ripen at room temperature before refrigerating. Bananas and avocado will darken when refrigerated.
Berries & cherries	**2 – 3 days**	**6 – 12 months**	Store covered or in sealed crisper to Prevent moisture loss.
Citrus fruit	**1 – 2 weeks**	**Not recommended**	May also store at 60°- 70°F. if refrigerated, store uncovered.
Grapes	**3 – 5 days**	**6 – 12 months**	Store covered or in sealed crisper To prevent moisture loss.

Peaches, nectarines, Plums & apricots	**3 – 5 days**	**6 – 12 months**	Ripen at room temperature before refrigerating.
Pineapples, cut	**2 – 3 days**	**6 – 12 months**	Will not ripen after purchase. Use Quickly to avoid further deteriation.
FRESH VEGETABLES	Since vegetables remain fresh longest in a moist environment, they should be stored in a sealed crisper or in a moisture controlled crisper (check the User's Guide for the appropriate settings.) If the crispers are full, store vegetables in plastic bags or plastic containers to prevent moisture loss.)		
Asparagus	**2 – 3 days**	**8 – 12 months**	Do not wash before refrigerating. Store in crisper.
Cabbage & celery	**1 – 2 weeks**	**not recommended**	Wrap odorous foods & refrigerate in crisper.
Cauliflower & snap Beans	**1 week**	**8 – 12 months**	Wrap odorous foods & refrigerate in crisper.
Carrots, parsnips, beets, Radishes & turnips	**2 weeks**	**8 – 12 months**	Remove tops. Wrap odorous foods & refrigerate in crisper.
Green peas & lima beans	**3 – 5 days**	**8 – 12 months**	Leave in pods and refrigerate in crisper.
Lettuce & other salad Greens	**1 week**	**not recommended**	Wash, drain well. Refrigerate in crisper
Onions, green	**3 – 5 days**	**8 – 12 months**	Wrap odorous foods & refrigerate in crisper.
Peppers & cucumbers	**1 week**	**8 – 12 months**	Wrap odorous foods & refrigerate in crisper.
FRESH POULTRY & FISH			
Chicken	**1 – 2 days**	**6 – 12 months**	Can be kept in its original packaging for refrigeration. Place in meat keeper drawer with control on "Coldest" setting. When freezing longer than 2 weeks, over wrap with suitable freezer wrap.
Turkey, duck & goose	**1 – 2 days**	**4 – 6 months**	
Fish	**1 – 2 days**	**1 – 2 months**	
FRESH MEATS			
Beef, ground	**1 – 2 days**	**4 – 6 months**	
Beef, roast & steak	**3 – 5 days**	**9 – 12 months**	Can be kept in original packaging for Refrigeration. Place in meat keeper drawer (check the User's Guide for
Pork	**3 – 5 days**	**6 – 9 months**	

Veal	**3 – 5 days**	**4 – 6 months**	the appropriate setting). When freezing longer than 2 weeks over wrap with suitable freezer wrap.
Sausage, ground	**1 – 2 days**	**1 – 3 months**	
Lamb	**3 – 5 days**	**9 – 12 months**	
PROCESSED MEATS			
Bacon	**7 days**	**1 – 3 months**	Processed meats should be tightly wrapped and stored in meat keeper drawer (check the User's Guide for the appropriate settings)
Frankfurters	**7 days**	**2 weeks**	
Ham, whole	**7 days**	**1 – 3 months**	
Half	**5 days**	**1 – 3 months**	
Slices	**3 days**	**1 – 2 months**	
Luncheon meats	**3 – 5 days**	**not recommended**	Unopened, vacuum-packed luncheon meats may be kept up to 2 weeks.
Sausage, smoked	**7 days**	**not recommended**	

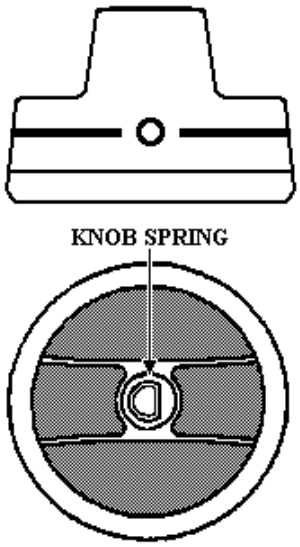
KNOBS USA (11/09/01)



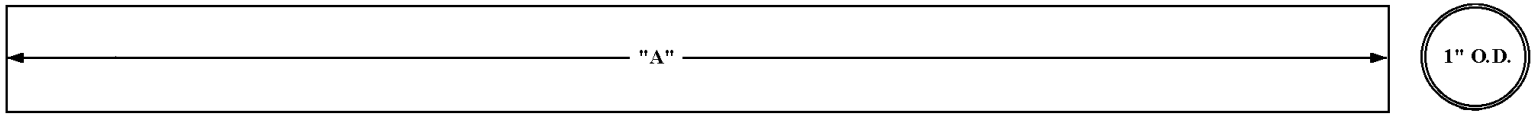
MODEL NUMBERS	**DESCRIPTION**	**PART NUMBER**	**COLOR**
VGSC, VGRC, VGRT	Top Burner Knob	PA010034	Black
		PA010035	White
VGRC, VGRT	Top Grill Knob	PA010039	Black
		PA010040	White
VEWD	Moisture Selector Knob	PA010072	Black
		PA010073	White
SELFCLEAN	Selector Knob	PA010080	Black
		PA010081	White
ROTISIERIE	Burner Knob	PA010088	Black
GRILL	Burner Knob	PA010097	Black
THERMOSTAT KNOB	Bake / Broil	PB010099	Black
		PB010100	White
THERMOSTAT KNOB	Bake	PB010101	Black
		PB010102	White
THERMOSTAT KNOB	Griddle	PB010103	Black
		PB010104	White

VGSO166	Selector Knob	PB010117	Black
		PB010118	White
VGRC / IC / RT	Grill Knob	PA010122	Black
		PA010123	White
OUTDOOR GRILL	Burner Knob	PA010126	Black
THERMOSTAT KNOB	Bake	PB010129	Black
		PB010130	White
SELECTOR KNOB (BAKE)	Oven – Electric	PB010131	Black
		PB010132	White
THERMOSTAT	Bake/Broil Knob	PB010137	Black
THERMOSTAT	Bake	PB010138	Black
VDSC48L SELECTOR KNOB	5 Position– Electric	PB010139	Black
		PB010140	White
THERMOSTAT	Bake/Broil	PB010141	Black
		PB010142	White
DUAL INFINITE SWITCH	Knob	PB010143	Black
		PB010144	White
SINGLE INFINITE SWITCH	Knob	PB010145	Black
		PB010146	White
VEDO, 30" WALL OVEN	Selector Knob	PB010148	Black
		PB010149	White
VEDO, 30" WALL OVEN	Thermostat Knob	PB010150	Black
		PB010151	White
VGSU101	Top Burner Knob	PB010154	Black
		PB010155	White
THERMOSTAT KNOB	Bake	PB010177	Black
		PB010178	White
THERMOSTAT KNOB	Gas Self clean	PB010187	Black
		PB010188	White
VDSC307 (Sealed)	Selector Knob (Electric)	PB010230	Black
		PB010231	White

KNOBS European (CE) [11/09/01)]



MODEL NUMBERS	DESCRIPTION	PART NUMBER	COLOR
TOP BURNER KNOB	"CE" Models	PA010056 PA010057	Black White
TOP BURNER KNOB	"CE" Models	PA010064 PA010065	Black White
TOP BURNER KNOB	"CE" Models	PA010124 PA010125	Black White
GRILL BURNER KNOB	"CE" Models	PA010134	Black
SELECTOR KNOB (ELECT)	"CE" Oven	PB010173 PB010174	Black White
VDSC48L (ELECT)	5 pos. Oven Selector Knob	PB010175 PB010176	Black White
TOP BURNER KNOB	"D" Mod. Thermocouple Valve	PB010189 PB010190	Black White



* STAINLESS STEEL ONLY

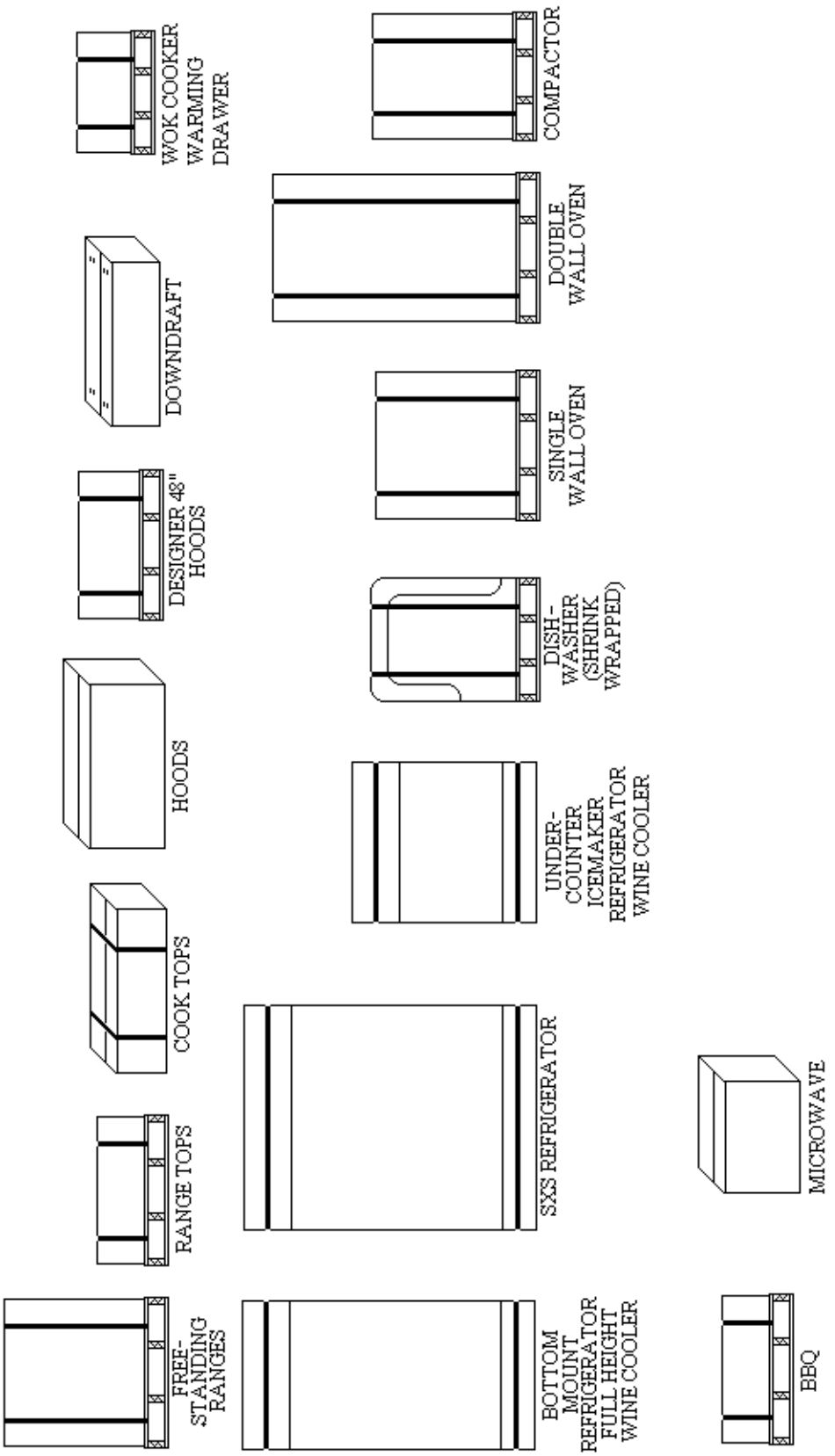
PART #	MATERIAL	DIM "A"	MODEL	
PE030002	20 GA. 304 SS	20.187	VGR48	
PE030029	BRASS			
PE030028	COLD ROLL			
PE030003	20 GA.304 SS	24.437	VGR30	
PE030004	20 GA.304 SS	28.562	VGR36	
PE030005	20 GA.304 SS	26.125	VGSO165	VESC305
PE030012 #	BRASS	26.125	* VGSS30	
PE030015	POLISHEDSS	26.125	VGSC30	
			VGRC48 R	
			VGRC60	
			*VGSS48R	
			VDSC305	
			VDSC48 R	
PE030006	304 SS	32.125	VGRC36	
PE030013	BRASS	32.125	* VGSS36	
PE030016	POLISHEDSS	32.125	VDSC365	
PE030008	304 SS	15.312	VGRC48L	
PE030014	BRASS	15.312	VGSS48L	
PE030017	POLISHEDSS	15.312	*VDSC48L	
PE030009	304 SS	16.312	VUC180	
F0002577#	BRASS			
PE030010	304 SS	19.187	VEWD100	
F0002575#	BRASS			
PE030022	304 SS		VEDO	
F0002576#	BRASS		VGDO	
PE030025	304 SS	17.250	VUD140	
F0002574#	BRASS			
PE030031	304 SS	25.250	VGSO166	
PE030032	BRASS	25.250		
PE030033	COLD ROLL	25.156	VCSB48 *	
F0002573#	BRASS	22.093	VUD141	
PE030036	304 SS	27.185	VEDO205	
PE030038	BRASS	27.185	VESO105	
PE030037	COLD ROLL	27.091		

PART #	MATERIAL	DIM "A"	MODEL
PE030040	20 GA. 304 SS	35.437	VGBQ41
PE030044	BRASS	35.437	VGBQ53
PE030046	POLISHEDSS	35.437	VGBQ65
PE030041	20 GA. 304 SS	23.625	VGBQ30
PE030045	BRASS	23.625	VGBQ412B
PE030047	POLISHEDSS	23.531	
PE030060	20 GA. 304 SS	18.594	VEWD172
PE030061	BRASS		
PE030062	20 GA. 304 SS	21.594	VEWD102
PE030063	BRASS		
PE030064	20 GA. 304 SS	26.437	VEWD162
PE030065	BRASS		
PE030070	COLD ROLL	15.406	VEWD172
PE030071	COLD ROLL	21.406	VEWD102
PE030072	COLD ROLL	26.250	VEWD162
PE030073	COLD ROLL	24.091	VEDO275 VESO176
PE030074	304 SS	24.185	VEDO275 VESO176
PE030075	BRASS	24.185	VEDO275 VESO176
PE030084	POLISHEDSS	36	VCBB36
PE030084PVD	BRASS PVD	36	VCBB36
PE030086	304 SS	26.314	VMWC101
PE030086PVD	PVD BRASS	26.314	VMWC101
PE030087	304 SS	31.938	VMWC161
PE030087PVD	PVD BRASS	31.938	VMWC161
PE030088	304 SS	23.376	VMWC171
PE030088PVD	PVD BRASS	23.376	VMWC171

PART #	MATERIAL	DIM "A"	MODEL
PE930093	304 SS	36.000	VCBB36*
PE939994	304 SS	32.437	VCBB36*
PE930093	304 SS	17.757	BQC41/ 53OTSS
PE030095PVD	PVD BRASS	17.757	BQC41/ 53OTSS
PE030096	304 SS	16.494	BQT410TSS
PE030096PVD	PVD BRASS	16.494	BQT410TSS
PE030097	304 SS	14.122	BQC530TSS
PE030097PVD	PVD BRASS	14.122	BQC530TSS
PE930101	304 SS	25.260	VCSB48
PE030113	304 SS	31.750	SD160SS
PE030113PVD	PVD BRASS	31.750	SD160SSBR
PE030114	304 SS	26.000	SD100SS
PE030113PVD	PVD BRASS	26.000	SD100SSBR
PE030115	304 SS	23.000	SC170SSBR
PE030115PVD	PVD BRASS	23.000	SC170SSBR
PE030117	304 SS	19.750	VCIC24
PE030117PVD	PVD BRASS	19.750	VGIC24

#ALL CUT TO SIZE HANDLES (F000----) SHOULD BE MADE OUT OF PE030012

PRODUCT PACKAGING



SERIAL NUMBER LOGIC

VIKING MANUFACTURED PRODUCTS

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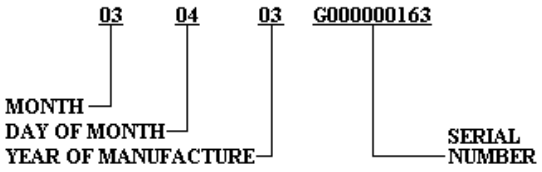


OEM PRODUCTS

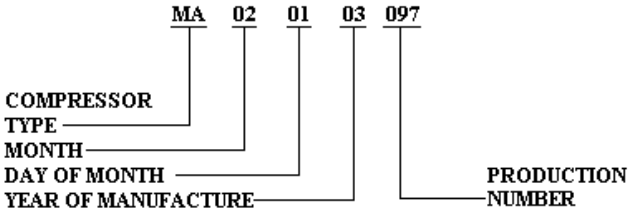
MICROWAVES

Serial No: 6 numeric characters -- does not include manufacturing date

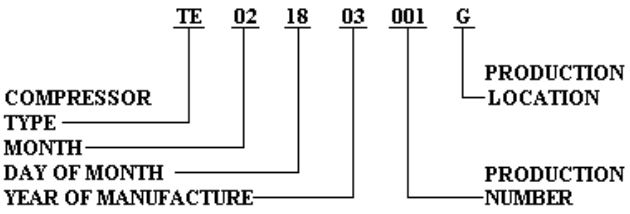
Manufacturing Date: Month -- year is listed on label independently of the serial.

UNDERCOUNTER REFRIGERATION PRODUCTS

Serial No: MA020103097

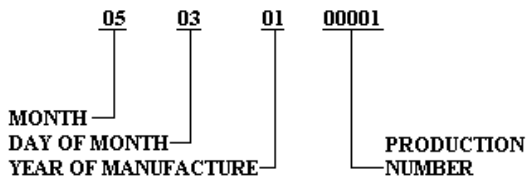


Serial No: TE021803001G



DOWNDRAFTS

Serial No: D05030100001



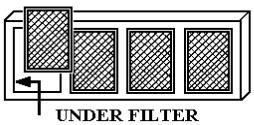
DISHWASHERS

12 DIGITS

Serial No: 024080867710

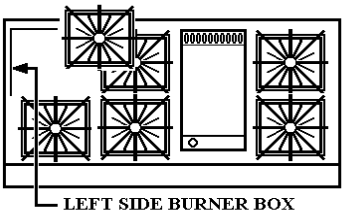
SERIAL PLATE LOCATION

RANGE HOODS



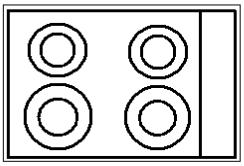
UNDER FILTER

RANGES AND RANGETOPS



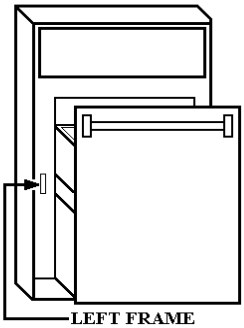
LEFT SIDE BURNER BOX

COOKTOPS



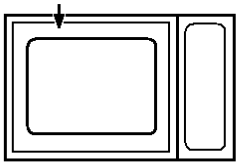
UNDER BURNER
BOX RIGHT SIDE

COMPACTOR



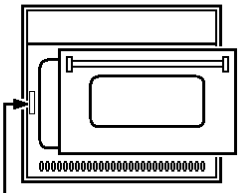
LEFT FRAME

BEHIND DOOR
TOP FRONT OVEN CAVITY



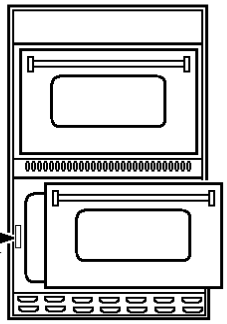
MICROWAVE

PRO/DESIGNER
SINGLE WALL OVEN



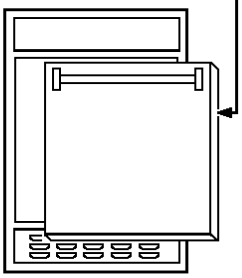
LEFT SIDE OVEN
CAVITY

PRO/DESIGNER
DOUBLE WALL OVEN



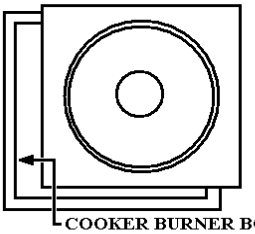
LEFT SIDE
LOWER OVEN
CAVITY

RIGHT SIDE OF DOOR



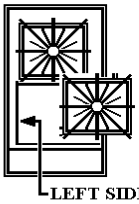
DISHWASHER

WOK COOKER



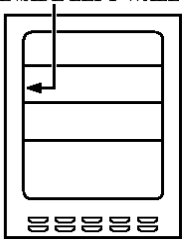
COOKER BURNER BOX

SIDE
BURNER



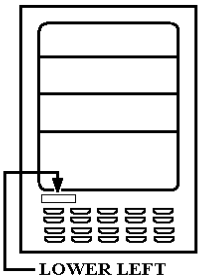
LEFT SIDE
BURNER BOX

INSIDE LEFT WALL



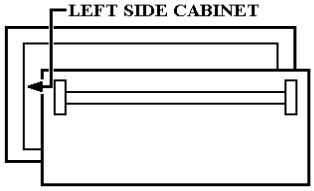
UNDERCOUNTER
WINE COOLER

UNDERCOUNTER:
–WINE COOLER
–REFRIGERATOR
–BEVERAGE DISPENSER



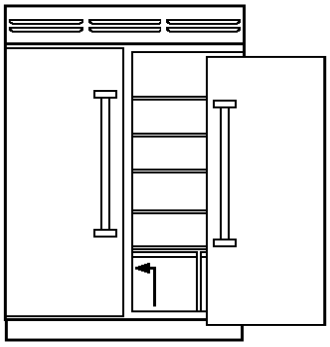
LOWER LEFT
FRONT FRAME

LEFT SIDE CABINET



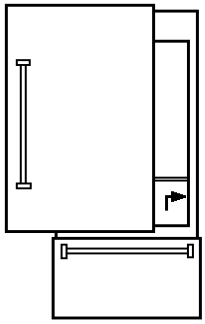
WARMING DRAWER

SIDE BY SIDE REFRIGERATOR



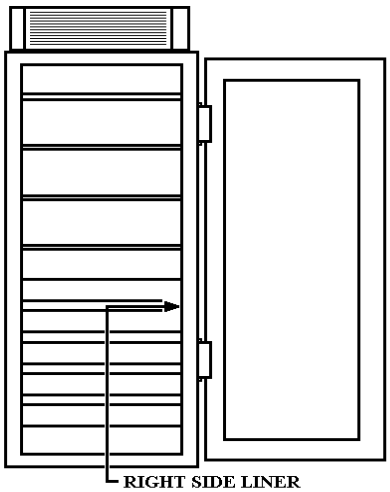
REMOVE LEFT CRISPER–
LEFT SIDE REFER WALL

BOTTOM MOUNT
REFRIGERATOR



REMOVE RIGHT CRISPER
RIGHT SIDE REFER WALL

TALL WINE COOLER



RIGHT SIDE LINER

10/6/03

II. RANGES

NOTES:_____

SERVICE QUESTIONS AND ANSWERS

RANGES:

Q. What is the repair for the 48" oven doors that open beyond the 90 °?

A. Replace the hinges and return the old hinges to Viking for inspection.
The hinge for the 36" range can be used on one side to help support the weight of the door.
The part number for the 48" hinge is PC020009
The part number for the 36" hinge is PC020013

Q. Is Viking manufacturing using a solid inner side liner?

A. The inner side liners were changed on the following dates.
30" VGIS / VGSC last week of August 1997. (Ser # 08--97000000)
36" / 48" VGIS first week of Sept. 1997. (Ser # 09--97000000)
VGRC models changed first week Dec. 1997. (12--97000000)

- With the introduction of the solid inner side panel the hinges can be removed through the front.
- The new "non removable" inner side panels part #s are E9103425 (right hand) and E9103426 (left hand)

VGIS Ranges equipped with automatic re-ignition:
Model numbers affected are VGIS300 - VGIS360 - VGIS480. Beginning Serial Number is **R1107914480.**

The following parts were changed in production for re-ignition on the VGIS models.

OLD PART #	NEW PART #	DESCRIPTION
PA010003	PA010014	Top Burner Valve
PA020011	PA020015	Spark Ignition Switch
PA020016	PA020013	Spark Module
PA010037	PA010034	Knob, Top Burner - Black
PA010038	PA010035	Knob, Top Burner - White
PA010041	PA010039	Knob, Grill Valve - Black
PA010042	PA010040	Knob, Grill Valve - White

Q. Carbon Monoxide detectors sound off when the gas appliance is turned on.

A. AGA (American Gas Association) REQUIREMENTS: Gas cooking products are allowed up to 800 parts per million (ppm) for emission of carbon monoxide products (CO). Carbon monoxide detectors are activated at 50 ppm. The carbon monoxide detector should not be located in the kitchen area.

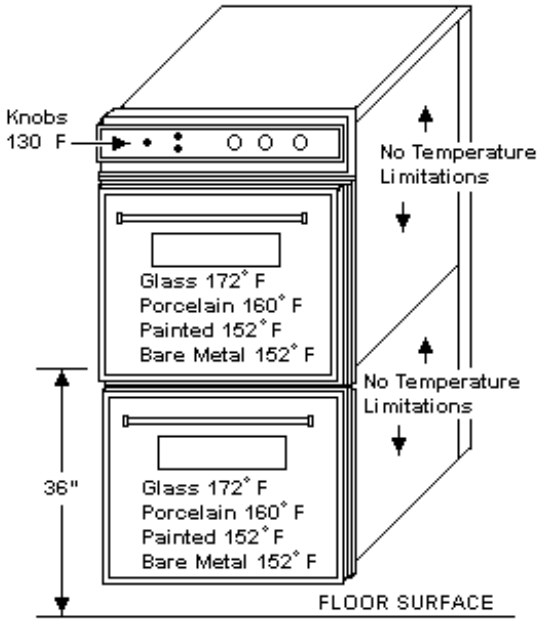
Q. UL / AGA Approvals?

A. Through consolidation, standardization and other industry changes, we can now receive approval for electric or gas products from numerous agencies. They still test to the appropriate standards. In other words, if AGA approves an electric product, the product is AGA approved to UL standards. NOTE: The VESO / VEDO rating labels states the product "____design certified under UL858_____".

Q. What type of insulation is used in the product?

A. Two types have been used: 1) Manville #SGR3 Foil Faced Fiberglass. Temperature rated ("K" factor) 0 to 1000 F. Density of 2 LBS. per cubic foot.1 ½ " thick, uncompressed. 2) Owens Corning HT26 Fiberglass. Temperature rated ("K" factor) 0 to 1000 F.

ALLOWABLE TEMPERATURES



MAXIMUM SURFACE TEMPERATURES AND HEIGHT OF SURFACE ABOVE FLOOR

Surface Material	3 Feet (0.9m) or less		Over 3 feet to 5 feet (1.47m)	
	*F	*C	F*	C*
Bright or Painted Metal	152	67	182	84
Porcelain Enamel	160	71	190	88
Glass	172	78	202	95
Plastic*	182	84	212	100

* Includes plastic with metal plating not more than 0 005" (0.127mm) thick and metal with a plastic covering not less than 0.005" (0.127mm) thick.

MAXIMUM ALLOWABLE KNOB, HANDLE, AND KNOB SKIRT TEMPERATURES

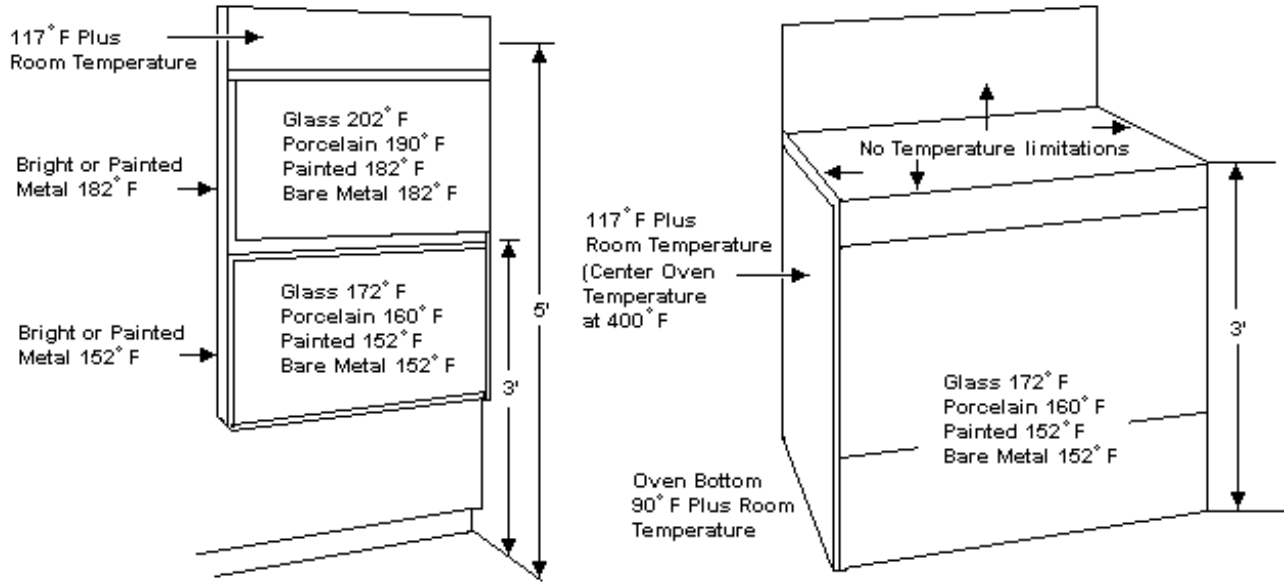
Temperatures shall be measured on all portions of handles and knobs grasped during normal use, and shall not exceed the temperatures specified in chart #2.
Temperatures of knob shirts 1 inch or more from the end of the knob shall not exceed the temperatures in chart #2.

CHART #2

MAXIMUM ALLOWABLE SURFACE TEMPERATURES				
	KNOB AND HANDLES		SKIRTS	
	PLASTIC*	METAL	PLASTIC*	METAL
Conventional Gas and Electric	167 F (75 C)	131 F (55 C)	182 F (84 C)	152 F (67 C)
Self-clean Gas at Self-clean Temperature	167 F (75 C)	131 F (55 C)	182 F (84 C)	152 F (67 C)
Self-clean Electric at Self-clean Temperature	167 F (75 C)	131 F (55 C)	182 F (84 C)	152 F (67 C)

* Includes plastic with metal plating not more than 0.005" (0.127mm) thick and metal with a plastic or vinyl covering not less than 0.005" (0.127mm) thick.

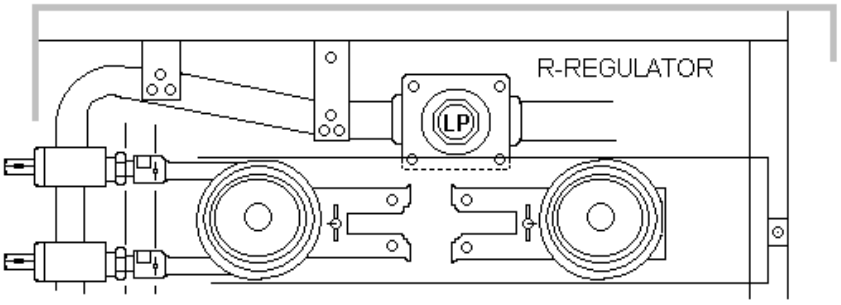
THE FOLLOWING DRAWINGS SHOW EXAMPLES OF SPECIFIC SURFACE TEMPERATURE LIMITATIONS ON MOST OF THE VARIOUS MODELS OF RANGES.

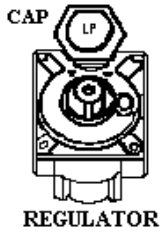


NATURAL TO LP / PROPANE CONVERSION INSTRUCTIONS

This product is manufactured and adjusted for operation with natural gas as shipped from the factory. To operate with LP/Propane gas, the following adjustments must be made.

A pressure regulator is located in the left rear corner of the burner box. To gain access to the pressure regulator, remove the two left grates, two burner bowls, and the left grate support. Convert the regulator by removing the cap marked "NAT" and reverse it to read "LP". **Be sure not to disturb or remove the spring beneath the cap.**





BEFORE PLACING THE BACKGUARD ("A") ON THE RANGE AND BEFORE PLACING THE RANGE INTO THE CABINET, THE INFRARED BURNER SPUD MUST BE PHYSICALLY CHANGED.

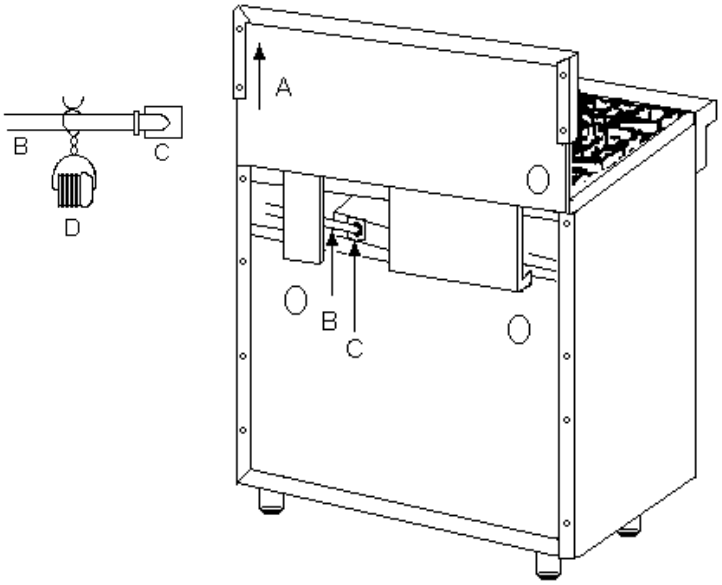
- Remove the #47 orifice spud (located at point "C").

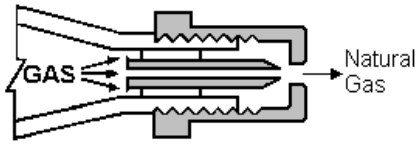
- Locate the LP orifice spud ("D") attached to the gas supply tubing ("B").

- Insert the LP orifice spud ("D") into the elbow ("C") from which you removed the #47 Natural Gas orifice spud.

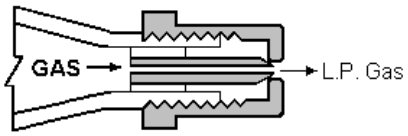
- Attach the Natural Gas orifice spud to the gas supply tubing for future use should the product need to reconverted to natural gas.

- To convert SURFACE, GRIDDLE, GRILL, BAKE, AND TUBULAR BROIL burners to LP/Propane, trun the burner orifice hoods clockwise until they become snug against the internal LP/Propane pin orifice. **NOTE: DO NOT OVERTIGHTEN**.





Surface and Tubular
Burner Orifice Hood



Surface and Tubular
Burner Orifice Hood

BURNER PROBLEMS

Lifting Flames (Blowing Flames)

When lifting flames occur, part of the flame lifts or "dances" on the port. Lifting flames may occur on a few or all of the ports of a burner. Lifting burner flames result when the flow velocity of the air- gas mixture from a port exceeds the flame velocity. The flame cannot stabilize on or just slightly above the burner port, as in normal operation.

How to Recognize

Lifting flames rise from the ports to burn some distance above the port. In some cases, these flames will drop back to the port and lift again intermittently. If flames lift from a number of ports they may create a distinct flame noise.

Results of Lifting Flames

Lifting flames which create a roaring noise in an appliance can lead to a customer complaint. Of a more serious nature, products of incomplete burning may escape the flames if the flame cones break. Unburned gas also may escape, reducing appliance efficiency.

Corrections for Lifting Flames

The simplest way to stop burner flames from lifting is to reduce primary air. However before doing this check the appliance input rate and reduce it if necessary. Lifting may be observed with only one of several burners in an appliance. Check the orifice size of that burner against the other to make sure the burner is not operating over rated input. When reducing primary air to prevent lifting flames, make sure yellow tipping does not occur.

Contamination of primary or secondary air by combustion products may cause flames to lift. A typical example of this condition is when oven combustion products leak into a range top burner box. Lifting of flames or pilot flames caused be contamination of secondary air is more likely to be a case of smothering of the flames because of a lack of enough air. In extreme cases this problem can cause simmer flame outages and top pilot outages. To cure this situation, eliminate any leakage of combustion products from an oven into the top section.

Flashback

How to Recognize Flashback

When flashback occurs in a burner the air-gas mixture ignites inside the burner to burn near the orifice. This burning in the mixing tube usually creates a roaring noise like a blowtorch.

Results of Flashback

Any flashback condition should be avoided. The burning action inside the mixer tube does not get enough air. Combustion is incomplete and produces carbon monoxide and aldehydes. This incomplete burning also can produce free carbon (soot) which clogs the inside of the burner. Prolonged burning inside the burner can cause damage.

Corrections for Flashback

Flashback on ignition or during burner operation usually can be eliminated be reducing primary air to the burner. Make sure that the air adjustment does not produce yellow tipping of flames. The burner may be under rated, so check input rate and adjust it to its correct value if necessary. The orifice size may be enlarged, or gas pressure increased if rate is found to be too low. Sometimes only one burner of several in an appliance flashes back, such as in a multi section furnace. Check the orifice size of that burner against those of the other burners. If flashback occurs with the burner valve in an off position, the valve probably is leaking. Replace the burner, or burners, if the above corrections fail to eliminate flashback.

Extinction Pop (Flashback on Extinction)

How to Recognize Extinction Pop

Sometimes a small explosion of gas in the burner head occurs when the burner is shut off. Under these conditions, flashback on extinction has taken place. This problem is commonly called "extinction pop".

Extinction pop, as the name implies, creates a noise or a "bang". Ordinarily it is not followed by burning in the burner head or mixer tube, since the gas supply is turned off. The pop occurs at the time the gas supply to the burner is shut off. Sometimes it may be delayed for a few seconds.

Results of Extinction Pop

Ordinarily, extinction pop is not unsafe nor hazardous , and will not damage the appliance. It may result in a customer complaint because of the noise created. However, the resultant concussion may blow out the pilot flame. If an automatic pilot safety device is used, it will act to shut off gas supply to the appliance.

Correction for Extinction Pop

It may be possible to eliminate extinction pop by reducing primary air supply to the burner. Make sure that this air adjustment does not cause yellow tipping during normal burner operation. It also may help to increase gas pressure and decrease gas orifice size. These changes provide a faster flow of the final air-gas mixture, and allow the air shutter to be closed more than with a larger gas orifice and lower gas pressure. If these actions fail to correct the problem, replace the burner.

Yellow Tipping (Yellow Flames)

How to Recognize Yellow Tipping

Bunsen-type flames should be completely blue. If not enough primary air is supplied yellow tips appear in the flames. Do not confuse yellow tips with red or orange streaks which sometimes appear in flames. These color streaks usually are due to dust in the air supply and should create no problems. There also have been some reports of humidifiers, operating with softened water, causing orange flames on burners. The use of some tinted glasses, such as brazing goggles, will eliminate those discolorations from view, leaving true yellow tips still visible.

Results of Yellow Tipping

Yellow tipped flames indicate incomplete combustion in appliances designed for blue flame operation. This condition is aggravated if the flames impinge on cool surfaces. Yellow flames which produce soot (carbon) can be a nuisance. Sooting presents a serious problem if it collects to block flueways. Plugged flueways impede venting of combustion products and reduce the amount of air drawn into the combustion chamber. Incomplete combustion can then take place.

Correction for Yellow Tipping

Yellow tipping is caused be a lack of enough primary air. This condition may be due simply to an incorrect air shutter adjustment. If this is the case, open air shutters to get rid of the yellow tips. Make sure that this added primary air does not cause lifting flames or flashback.

Lint and dust may block primary air openings, or collect inside the burner tube or on the underside of burner ports to reduce primary air injection, causing yellow tipping. If so, clean and adjust the burner.

A burner orifice spud out of line will reduce primary air injection. Faulty drilling or a dirty orifice can have the same effect. Check the orifice, clean it, realign it or replace it if necessary.

Fluctuating Flames

How to Recognize Fluctuating Flames

Length of burner flames may fluctuate or shorten over a period of time with no readjustments of the burner. This condition usually indicates a non-uniform gas pressure at the orifice.

Results of Fluctuating Flames

Fluctuating flames usually do not create any immediate problems, such as incomplete combustion, unless flames impinge on cool surfaces. This condition should be corrected, however, since it warns of possible future problems.

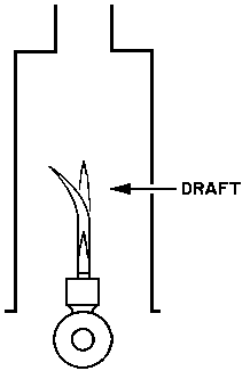
Correction for Fluctuating Flames

Unsteady gas pressure causes flames to fluctuate. Usually this condition indicates problems with the gas pressure regulator, the gas meter or other gas supply problems. Burner flames may shorten, with no change
in gas pressure or primary air adjustment. Check the orifice for blockage by dust or dirt from supply lines. Very small pilot orifices are quite prone to blockage. Occasionally, too much grease in pilot valve restricts gas flow to pilot burners. Remove any excess greases.

Unstable or Wavering Flames

How to Recognize Wavering Flames

Drafts across burners may cause flames to waver or appear to be unstable. This condition should not be confused with lifting or floating flames.



Wavering flames caused by drafts

Results of Wavering Flames

Wavering burner flames can lead to incomplete burning if flames impinge on cool surfaces. Pilot flames under drafts may go out, or they may be diverted from heating the sensing element of the automatic pilot device. In either case the automatic pilot will shut off gas supply to the appliance.

Correction for Wavering Flames

Drafts affecting pilot flames may be simply external drafts, such as across the floor. Protect the pilot flames with suitable baffles. Draft-blown main burner flames may indicate a more serious problem, such as a cracked heat exchanger. Replace or repair a cracked of defective heat exchanger without delay.

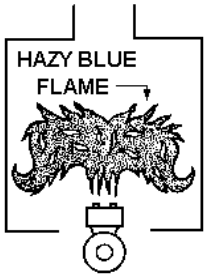
Floating Flames

How to Recognize Floating Flames

The difference between floating flames and lifting (or blowing) flames should be clearly understood. Both conditions are undesirable, but the causes and corrective steps are different in each case.

Lifting or blowing flames are well defined and **hard,** and may create a blowing noise. Cutting back on primary air usually stops flames from lifting.

Floating flames are lazy looking. They do not have well defined cones, and appear to be "reaching" for air. They are long, ill defined, quiet flames which roll around in the combustion chamber sometimes completely off the ports. Usually a strong aldehyde odor is present.



Floating Burner Flames

Results of Floating Flames

Floating flames almost always indicate incomplete combustion. They point to a dangerous condition which requires prompt correction.

If secondary air supply is reduced too far burner flames will float. Combustion products above the burner recirculate lower in the chamber. These products contaminate the air supply, adding to the problem. Often an automatic pilot flame near the port level smothers and goes out. The pilot then acts to shut off the gas supply to the appliance. In doing so the pilot performs a useful service. The shutoff of gas stops further incomplete combustion. It also shows that there is a problem which should be corrected.

Correction for Floating Flames

A lack of combustion air causes burner flames to float. Several conditions, or a combination of these conditions, can be the cause. The appliance may be overrated. If so, the flue outlet area provided for the rate input may be too small for the increased gas rate. Check appliance rate and reduce it if necessary.

Other conditions may cause poor venting and lead to floating flames. Soot or dust may be blocking flueways. Check flueways and clear and blockage found.

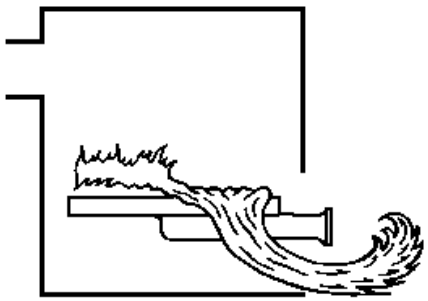
Determine, if possible, the reason the flueways blocked up. Check for blockage of burners, and clean them if necessary. Adjust primary air to get rid of any yellow tipping which may have produced soot to block the flueways. Make sure secondary air inlet openings are not blocked.

Reduced natural draft (venting) through an appliance may take place when it is operated from a cold start. Some floating flames may appear for a brief time until draft is established. When the appliance heats up it should operate in a normal manner.

Flame Rollout

How to Recognized Flame Rollout

When the condition known as flame rollout occurs, flames roll out of the combustion chamber openings when the burner is turned on.



Flame Rollout

Results of Flame Rollout

Flame rollout may create a fire hazard, or scorch appliance finishes, burn wire, or damage controls. The gas in the burner mixer may be ignited, producing flash back.

Corrections for Flame Rollout

Flame rollout is actually a variation of floating flames, with flames reaching for air outside the combustion chamber. Again, the basic cause is a lack of combustion air. This lack of air may be due to over rating of burners, poor draft or blockage in flueways. Apply the corrections for these problems listed earlier for floating flames.

Some appliances use step-type controls. These controls limit initial gas flow to the burner to establish natural

draft in the appliance before full gas rate is allowed to flow. Check the operation of this control, and replace the control if it is faulty.

Gas Odor at Primary Air Openings

Under normal burner operation, a negative pressure (vacuum) should exist inside the primary air openings of a burner, drawing in air. If all gas fed to the burner by the orifice does not flow to the burner head, some gas may spill from the primary air openings. If this condition is found, check the orifice to make certain it is not out of line.

Corrosion of Appliances

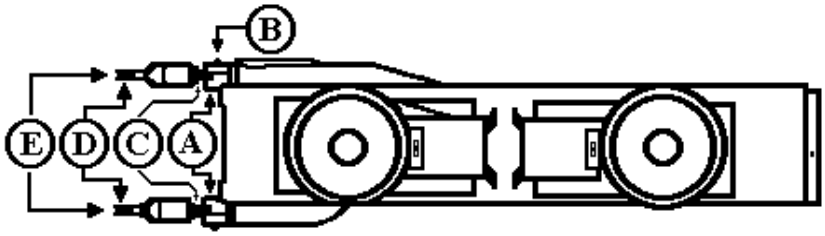
Gas appliances are designed and built to give long dependable service life. In some installations recently, unusually severe corrosion has occurred resulting in customer complaints. This corrosion is attributed to the extensive use of aerosol propellants, hydrocarbons which contain the elements fluorine and chlorine. These are called halogens. Halogens in their free state are very corrosive.

When the propellants pass through a flame, they break down and the halogen gases are released. In combination with the water vapor in the flue gases they cause corrosion in heat exchangers, flueways and other appliance parts. Some of the worst cases of this corrosion have been in beauty shops where hair sprays are used and in dry cleaning plants where halogen containing materials are used as cleaning fluids.

[Excerpts from *FUNDAMENTALS OF GAS COMBUSTION* published by American Gas Association (AGA).]

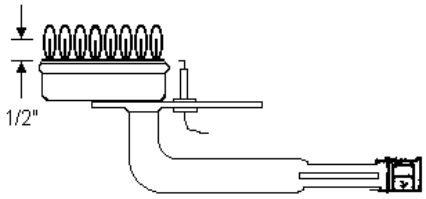
SURFACE BURNER ADJUSTMENT

- Remove the grates, burner caps, burner bowls, and grate supports.
- Locate the air shutter "A" and loosen screw "B" that holds the air shutter in place.
- Remove the drip tray, allowing you work space to adjust the orifice hood "C" from beneath the control panel.
- Replace the grate supports and burner bowls (this allows for correct air flow, as in normal use).
- Light each burner by rotating the burner valve shaft "D" to the light position.

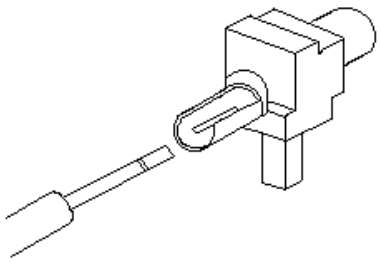


A. Air Shutter
B. Air Shutter Set Screw
C. Orifice Hood
D. Burner Valve Shaft
E. Adjusting Screw

- Using a ½" open end wrench, adjust the flame so the inner blue cone is approximately ½" in height. This adjustment is accomplished by the orifice hood adjustment. Turn clock-wise to decrease the flame and counter clock-wise to increase the flame.



- With the proper flame height, adjust the air shutter "A" to obtain a blue flame (with no yellow tips) that sits on the burner at the burner ports.
  A) Open the air shutter gap to eliminate yellow tipping.
  B) Close the air shutter gap to prevent a noisy flame that lifts off the burner ports.
- Turn the surface burners off.
- Remove the drip tray.
- Remove the grate supports, burner bowls, burner caps (if applicable) and grates.
- Turn the lighted burners to the low flame setting.
- Insert a narrow, flat blade screw driver into the hollow shaft of the surface burner valve, and engage the slotted low flame adjustment screw. The low flame should be a small flame that comes just to the top of the burner. Rotate the adjustment screw "E" clockwise to lower the flame or counter clockwise to increase the flame. Turn the burner off and relight several times, turning to the low position. The low flame should light at every burner port each time. Readjust as needed.



OVEN TUBULAR GAS BURNER ADJUSTMENTS

Check the gas supply, and set the regulator to the proper supply of gas. A properly adjusted burner should be stable and quiet. The flame should have a sharp, well defined blue inner cone with no yellow tipping. The flame should also be stable and uniform with no flames lifting off the burner ports.

To gain access to the oven burner adjustments:

1. Remove the kick plate - remove screw from each side of the kick plate and tilt the top of the kick plate forward.
2. Locate the air shutter (illustration #1, item "1") and loosen the set screw (illustration #1, item "2") that holds the air shutter in place.
3. Light the burners by rotating the thermostat to a baking temperature.
4. Using a ½" open end wrench, adjust the orifice hood (illustration #1, item "3") to obtain a sharp well defined blue inner cone approximately ½" long. The flame should be contacting the burner at each burner port opening. THE FLAME SHOULD NOT EXTEND INTO THE OVEN BOTTOM VENT SLOTS.
5. With a proper flame height, adjust the air shutter (illustration #1, item "1") to obtain a blue flame with no yellow tipping that contacts the burner at the burner ports.
    a) Open the air shutter gap (illustration #1, item "1") to eliminate yellow tipping.
    b) Close the air shutter gap (illustration #1, item "1") to prevent a noisy flame that lifts off the burner ports.
6. Recheck the orifice hood (illustration #1, item "3") adjustment for proper gas flow.
7. Turn the thermostat control to off.
8. Tighten the air shutter set screw (illustration #1, item "2").
9. Relight each burner and observe the flame for proper adjustments. If necessary, repeat the above.
10. Turn the convection fan on and observe that the flame does not lift off the burner ports, readjust the air shutter gap with the convection fan running.
11. Replace the kick plate.

IMPORTANT: Conditions that cause odors:

a) Floating flames are lazy looking and do not have a well defined inner cone. They are long, ill defined, quiet flames that sometimes lift completely off the burner ports and cause a strong and pungent odor.
b) Lifting flames are well defined, hard and noisy that lift completely off the burner ports.
c) An orifice that is out of line with the burner venturi.

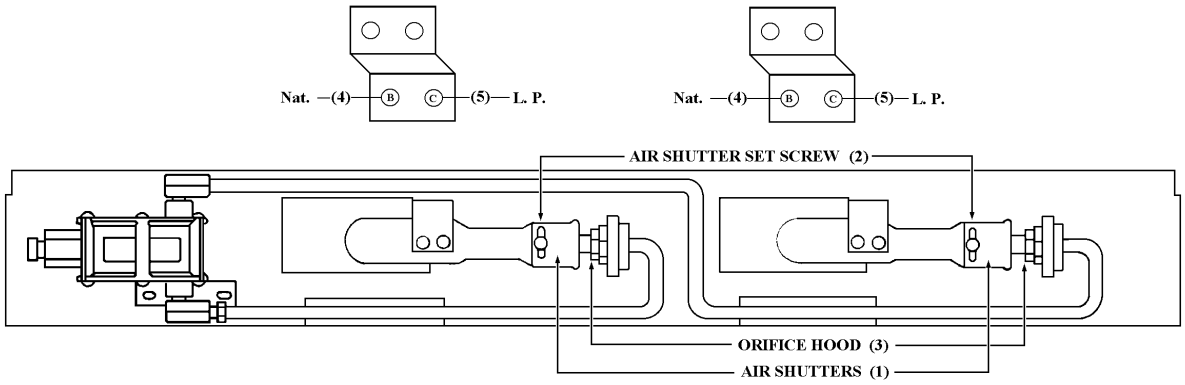
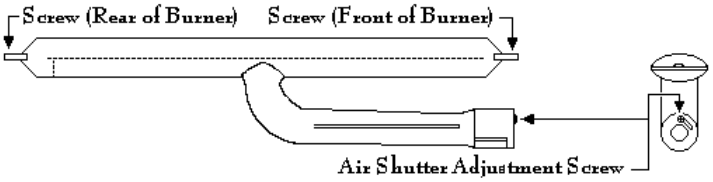


Illustration #1

GRILL / GRIDDLE BURNER ADJUSTMENT

GRILL BURNER

1. The grill burner orifice and air shutter are located beneath the front end of the grill assembly. To gain access to the adjustments, remove the grill grate, grate support, flame spreader and burner shield.
2. Remove the screw at the front and rear of the burner.
3. Lift the burner off the orifice and locate the air shutter adjustment screw at the end of the burner.
4. Loosen the screw and adjust the air shutter to the desired setting (for natural gas open the air gap approximately ⅞ for LP/Propane gas open the air gap approximately 9/16").
5. Tighten the screw, then replace burner on the orifice.
6. Check flame for desired height before replacement of the above parts.
7. The flame adjustments are the same as the surface burners. Use a ½" deep socket to adjust the orifice hood on natural
   gas only (LP tighten to the fixed orifice pin); turn clockwise to decrease the flame and counter clockwise to increase the flame.

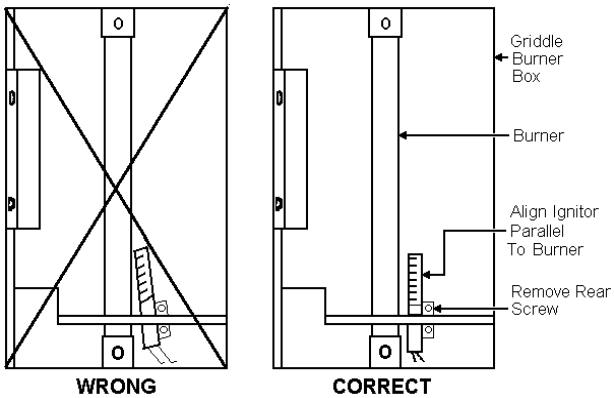


GRILL BURNER

GRIDDLE BURNER

1. To gain access to the burner orifice and air shutter, remove grates and grate supports located on either side of the griddle. Lift and remove griddle plate.
2. Carefully remove ignitor and put to one side.
3. Remove the metal plate located below the burner.
4. Remove the screws at the front and rear of the burner. Remove the burner tube and locate the air shutter adjustment screw at the end of the burner tube.
5. Flame adjustments are the same as the grill (see #4 and #7 under grill).
6. Replace the griddle plate and grate supports.


GRIDDLE BURNER



SB00-03(4/12/99)
GRIDDLE BURNER FLASHBACK

COMPLAINT: We have received complaints from the field about flashback in the griddle burners adjusted for LP gas. The flames ignites inside the burner creating a blowing or puffing sound. Tests have shown the ignitor is installed at an angle when replaced after removed for LP adjustment.

CORRECTION: Align the ignitor parallel with the griddle burner to eliminate the flashback and blowing sound.

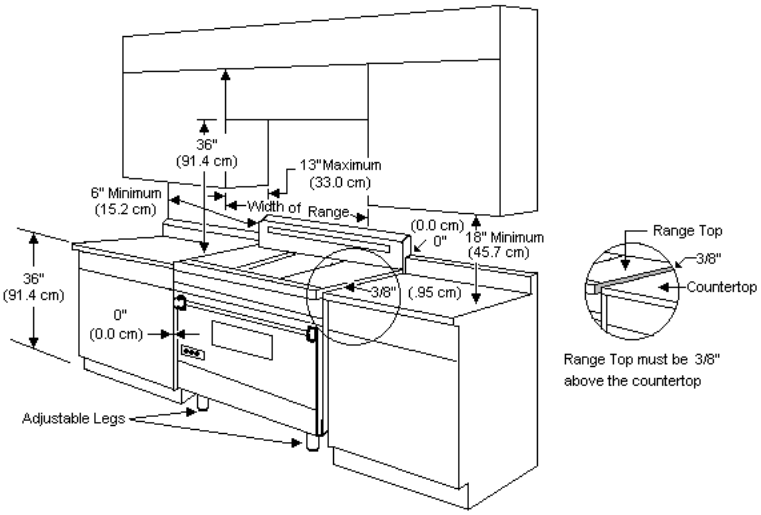
A. Remove rear screw from ignitor mounting bracket.
B. Align ignitor parallel to griddle burner.
C. Tighten front screw to secure mounting bracket.

PROXIMITY TO SIDE CABINET INSTALLATION

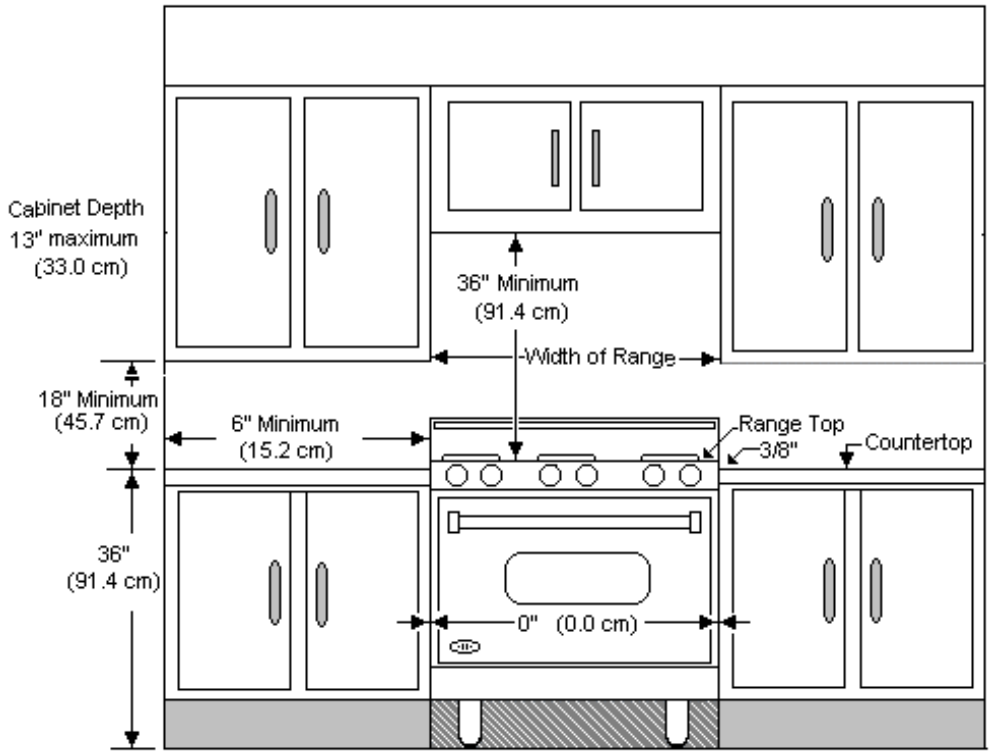
1. This range may be installed directly adjacent to existing 36" high base cabinets. IMPORTANT the top grate support MUST be above 3/8" above the adjacent base cabinet countertop. This may be accomplished by raising the unit using the adjustment spindles on the legs.

2. The range CANNOT be installed directly adjacent to sidewalls, tall cabinets, tall appliances, or other side vertical surfaces above 36" high. There must be a minimum of 6" side clearance from the range to such combustible surfaces above 36" counter height.

3. Within the 6" side clearance to combustible vertical surfaces above 36", the maximum wall cabinet depth must be 13" and wall cabinets within this 6" side clearance must be 18" above the 36" high countertop.



4. Wall cabinets above the range must be a minimum of 36" above the range cooking surface for the full width of the range.



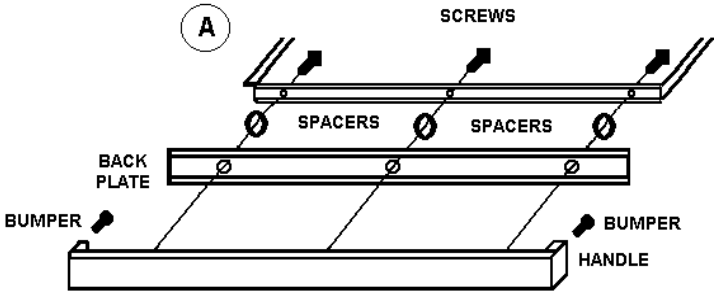
	30" W. Models	36" W. Models	48" W. Models	60" W. Models
Overall Width	20 7/8" (75.9cm)	35 7/8" (91.1cm)	47 7/8" (121.6cm)	59 7/8" (151.1cm)

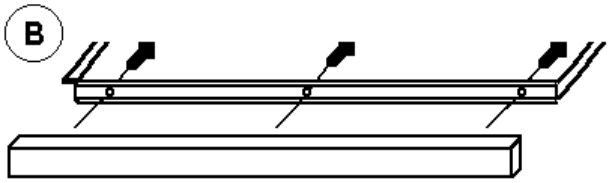
DRIP TRAY HANDLES

Ranges / Rangetops with handles, spacers and back plates (A).
VESO305 – VDSC305 – VERT300 – VDSC365 – VDSC485 – VGRT36" – VGRT48"

- 30" Back plate B2002589
- 30" Handle G3002584 SS
  G9302585 BR
- 36" Handle Kit G3203146 SS
  G3203145 BR
- 48" Handle Kit G3203148 SS
  G3203147 BR

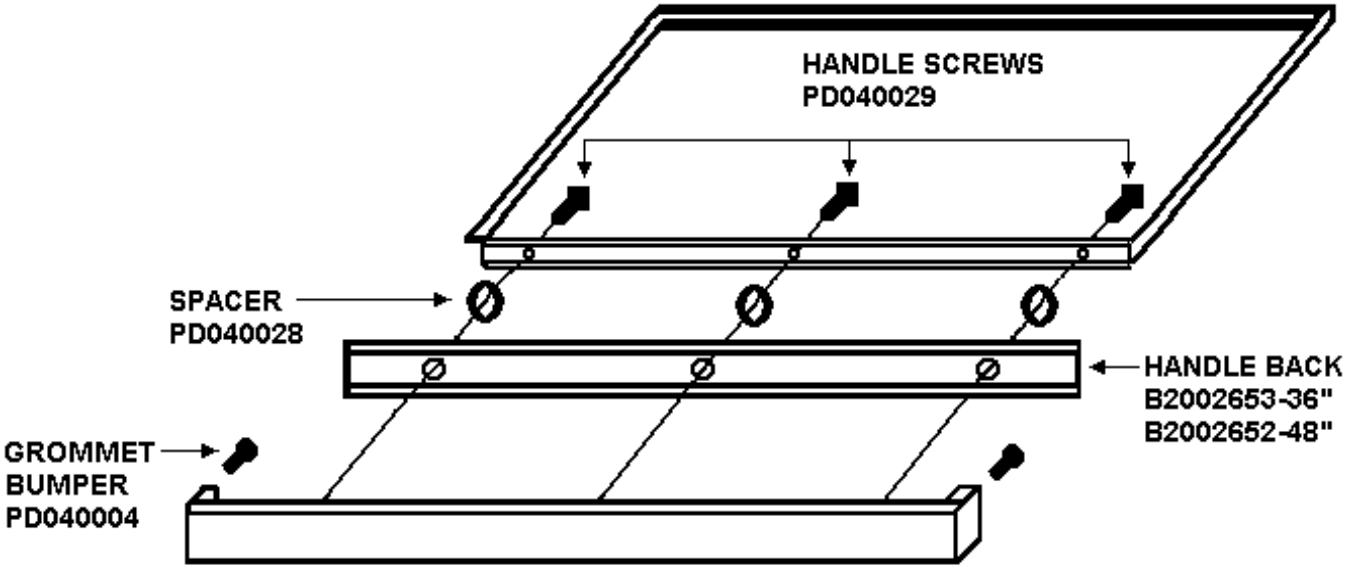
- Handle kits consists of: Handle (1); Back plate (1); Spacers (3); and Screws (3).





30" Handle	B2001840 SS C9301840 BR
36" Handle	B3001150 SS C9301850 BR
48" Handle	B3001149 SS C9301149 BR
60" Handle	B2001840 SS (requires 2) C9301840 BR (requires2)

DRIP TRAY HANDLE REPLACEMENT FOR THE GRIDDLE REPAIR KITS



DRIP TRAY HANDLE

G3002582 36" SS	G3002580 48" SS
G9302583 36" BRASS	G9302581 48" BRASS

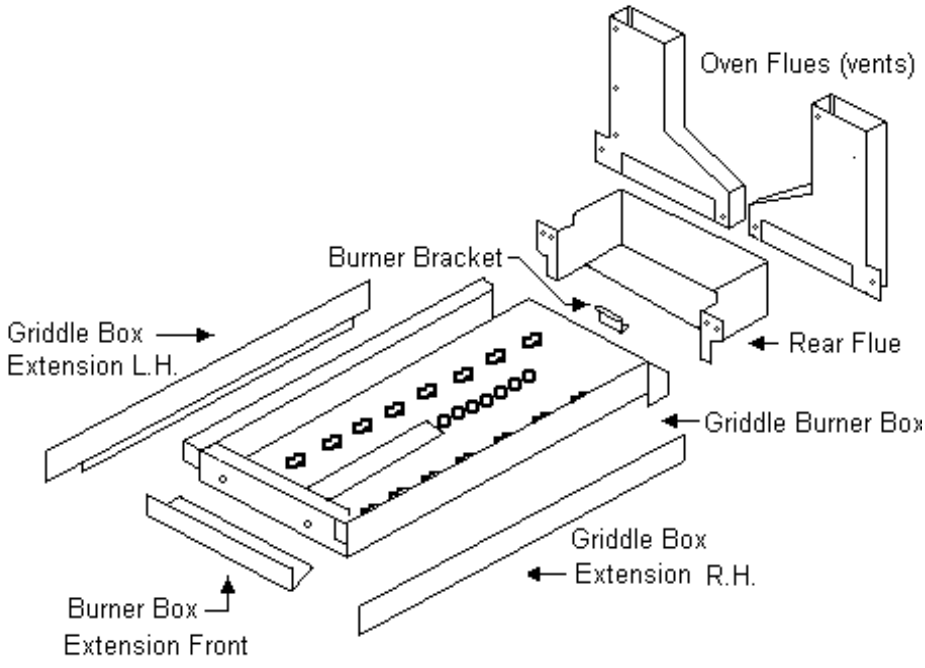
MARCH 15, 2003

G5004542	VGIS/VGIC 12" GRIDDLE KIT	
A2002847	SUPT - GRIDDLE BURNER	1
A2002897	GRIDDLE BOX EXTENSION LH	1
A2002896	GRIDDLE BOX EXTENSION RH	1
A2002898	GRIDDLE BOX EXTENSION FRONT	1
A2002895	GRIDDLE BOX	1
A2002899	GRIDDLE FLUE BOX	1
G3204544	OVEN FLUE ASSY LH VGIS	1
G3204543	OVEN FLUE ASSY RH VGIS	1
A1001949	THERMAL BULB SHIELD BRACKET	1

A2004545	GRIDDLE BOX EXTENTION RH	VGIS	OBSOLETE
A2004546	GRIDDLE BOX EXTENTION LH	VGIS	OBSOLETE

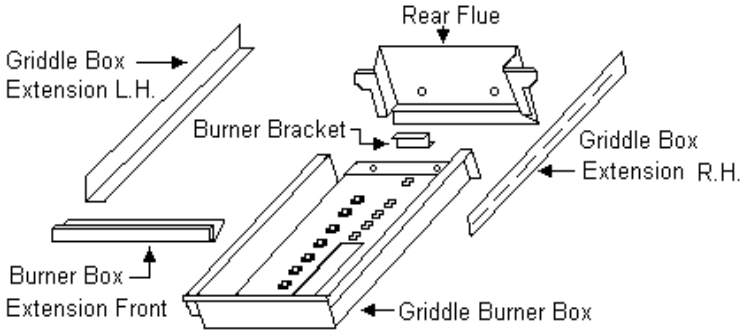
VGIS/VGIC
Griddle Repair Kit
12" #G5004542
(Does not require handle Kit)

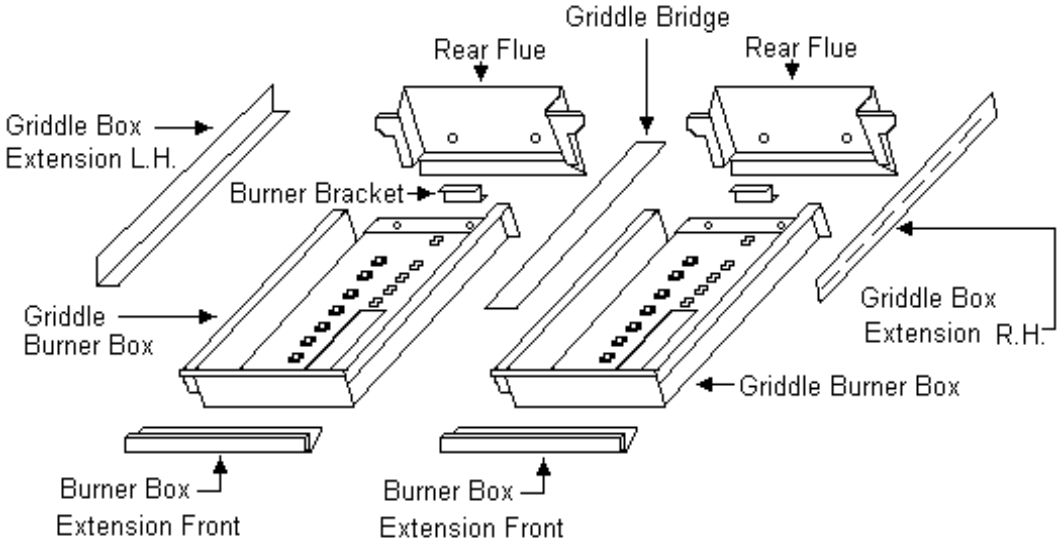
NOTE: When installing the Griddle Kit, adjust the air shutter opening to 3/8" instead of the factory setting of 1/2" opening.



GRIDDLE REPAIR KITS

VGRT RANGETOP GRIDDLE REPAIR KIT 12" #G3203168 (Requires Handle Kit)
Before Sept.9, 1999



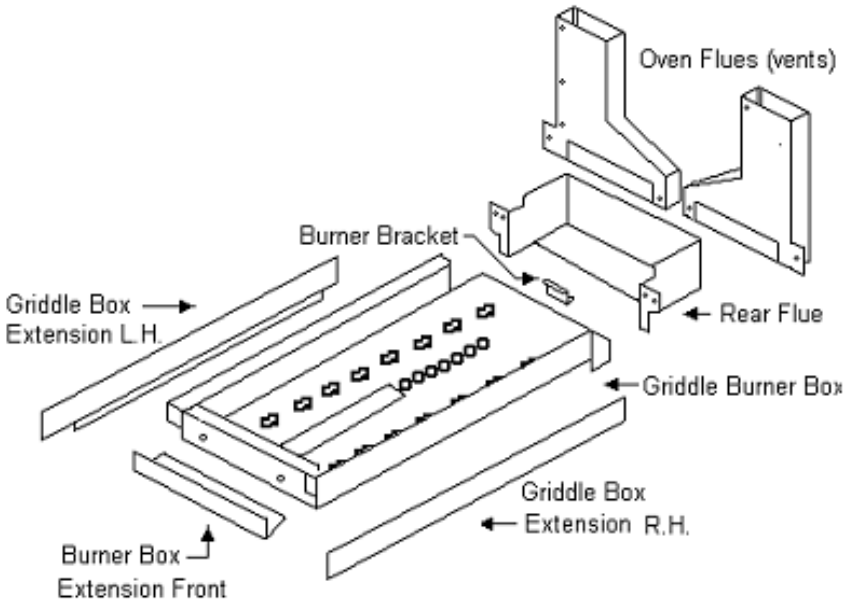


VGRT RANGETOP GRIDDLE REPAIR KIT 24" #G3203149 (REQUIRES HANDLE KIT)
Before Sept.9, 1998

VGRC (27" Deep) MODELS GRIDDLE REPAIR KIT 12" #G3204528 (Does not require a Handle Kit)

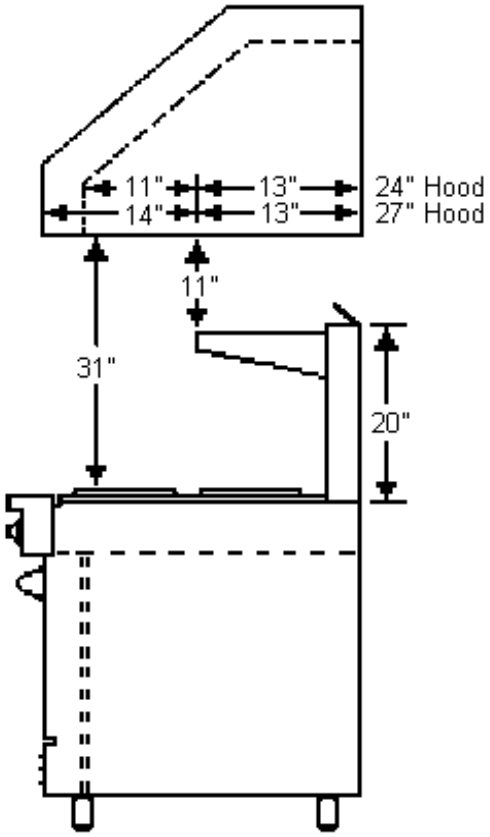
VGIS/VGIC MODELS 12" GRIDDLE KIT #G5004542 (Does not require a Handle Kit)

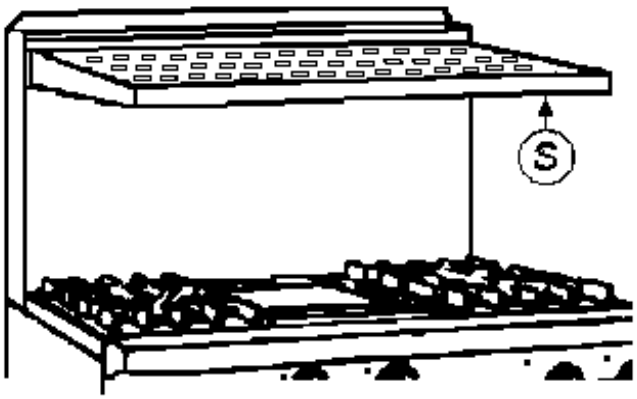
NOTE: When installing the Griddle Kit, adjust the air shutter opening to 3/8" instead of the factory setting of 1/2" opening.



BY-PRODUCT EXHAUSTING SOLUTIONS

FOR THE INSTALLATION OF THE HOOD THAT DOES NOT LEAVE ADAQUATE SPACE TO REMOVEN THE BY-PRODUCTS FROM THE COOKING SURFACE, VIKING HAS MADE AVAILABLE A SLOTTED HIGHT-SHELF SHELF. THIS WILL ALLOW THE COOKING BY-PRODUCTS TO PASS THROUGH THE HIGH-SHELF SHELF AND BE CAPTURED BY THE HOOD CANOPY AND THEN EXHAUSTED TO THE OUTSIDE. (THE COST OF THE HIGH-SHELF SHELF WILL BE THE RESPONSIBILITY OF THE END USER.)





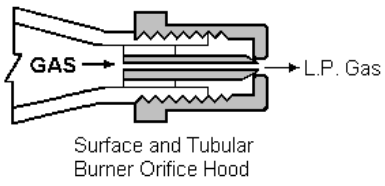
HIGH SHELF BACKGUARD WITH SLOTTED LOUVERS FOR AIR PASSAGE.

30” SHELF	B3004877
36” SHELF	B3002674
48” SHELF	B3002673
60” SHELF	B3002672

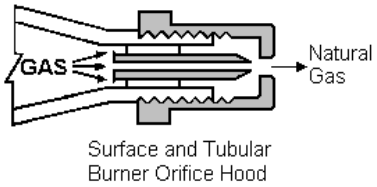
Viking Range Corp. Master List (Hoods and Spuds)

Part Numbers (Hoods and Spuds) Sept. 12,1998

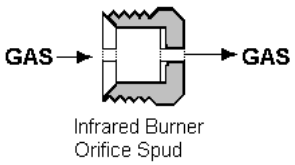
Part No.	Part Name	Part Usage
PB040026	Orifice Spud - I/R Broiler (Nat.) #48	VGSO165 / VGSO166
PB040027	Orifice Spud - I/R Broiler (L.P.) #56	VGSC / VGIS / VGRC30-36-48-60
PB040029	Orifice Spud - I/R Broiler (Nat.) #55	VGSO165 / VGSO166
PB040032	Orifice Hood - Oven Burner (Nat.) #41	All VGR36
PB040033	Orifice Hood - Oven Burner (Nat.) #43	All VGR30
PB040034	Orifice Hood - Standard Broiler (Nat.) #50 -Top Burner Valve (Nat.) #50 -Griddle Burner Valve (Nat.) #51	VGSS30-36-48 All VGR Models All VGR Models
PB040035	Orifice Hood - Top Burner Valve (Nat.) #51 -Griddle Burner Valve (Nat.) #51	All VGR Models All Griddles VGRT / SS / IS / RC
PB040036	Orifice Hood - Standard Broiler (L.P.) #57 - Top Burner Valve (L.P.) #57 - Oven Burner (L.P.) #57 - Griddle Burner Valve (L.P.) #57	VGSS30-36 All VGR / VGRT / SS / IS / RC VGRT / VGSS / VGIS48 LH Oven All Griddles VGR/VGRT/SS/IS/ RC
PB040038	Orifice Spud - I/R Broiler (Nat.) #44	
PB040039	Orifice Spud - I/R Broiler (Nat.) #54	
PB040040	Orifice Spud - I/R Broiler (Nat.) #47	VGSC / VGIS / VGRC30-36-48-60
PB040052	Orifice Hood - Oven Burner (Nat.) #46	All VGR48/VGSS/VGSC/VGIS/VGRC Ovens (Except 48" Left Hand)
PB040054	Orifice Hood - Oven Burner (L.P.) #54	All VGR30 / VGSS / VGSC / VGIS /VGRC OVENS (Except 48" Left Hand)
PB040055	Orifice Hood - Oven Burner (Nat.) #49	VGRC / VGSS / VGIS48 LH Oven
PB040056	Orifice Hood - Grill Burner (Nat.) #48	All Grills VGRT / SS / IS / RC
PB040057	Orifice Hood - Grill Burner (L.P.) #56	All Grills VGRT / SS / IS / RC
PB040058	Orifice Hood - Oven Burner (Nat.) #52	VGSO165 / VGSO166
PB040059	Orifice Hood - Oven Burner (L.P.) #58	VGSO165 / VGSO166
PB040060	Orifice Hood - I/R Broiler (Nat.) #50	All VGR
PB040061	Orifice Hood - I/R Broiler (L.P.) #57	All VGR
PB040062	Orifice Hood - Oven Burner (L.P.) #53	All VGR36
PB040063	Orifice Hood - Oven Burner (L.P.) #55	All VGR48



Surface and Tubular Burner Orifice Hood



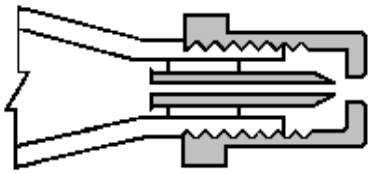
Surface and Tubular Burner Orifice Hood



Infrared Burner Orifice Spud

VIKING RANGE ORIFICE PART NUMBERS

SEPT. 12, 1998



PB040071	Orifice Hood - #35	PB040092	Orifice Spud - #35
PB040072	Orifice Hood - #36	PB040093	Orifice Spud - #36
PB040073	Orifice Hood - #37	PB040094	Orifice Spud - #37
PB040074	Orifice Hood - #38	PB040095	Orifice Spud - #38
PB040075	Orifice Hood - #39	PB040096	Orifice Spud - #39
PB040076	Orifice Hood - #40	PB040097	Orifice Spud - #40
PB040032	Orifice Hood - #41	PB040098	Orifice Spud - #41
PB040077	Orifice Hood - #42	PB040099	Orifice Spud - #42
PB040033	Orifice Hood - #43	PB040100	Orifice Spud - #43
PB040078	Orifice Hood - #44	PB040038	Orifice Spud - #44
PB040079	Orifice Hood - #45	PB040101	Orifice Spud - #45
PB040057	Orifice Hood - #46	PB040102	Orifice Spud - #46
PB040080	Orifice Hood - #47	PB040040	Orifice Spud - #47
PB040061	Orifice Hood - #48	PB040026	Orifice Spud - #48
PB040060	Orifice Hood - #49	PB040103	Orifice Spud - #49
PB040034	Orifice Hood - #50	PB040065	Orifice Spud - #50
PB040035	Orifice Hood - #51	PB040104	Orifice Spud - #51
PB040063	Orifice Hood - #52	PB040105	Orifice Spud - #52
PB040067	Orifice Hood - #53	PB040106	Orifice Spud - #53
PB040059	Orifice Hood - #54	PB040039	Orifice Spud - #54
PB040068	Orifice Hood - #55	PB040029	Orifice Spud - #55
PB040062	Orifice Hood - #56	PB040027	Orifice Spud - #56
PB040036	Orifice Hood - #57	PB040066	Orifice Spud - #57
PB040064	Orifice Hood - #58	PB040107	Orifice Spud - #58
PB040081	Orifice Hood - #59	PB040108	Orifice Spud - #59
PB040082	Orifice Hood - #60	PB040109	Orifice Spud - #60
PB040083	Orifice Hood - #61	PB040110	Orifice Spud - #61
PB040084	Orifice Hood - #62	PB040111	Orifice Spud - #62
PB040085	Orifice Hood - #63	PB040112	Orifice Spud - #63
PB040086	Orifice Hood - #64	PB040113	Orifice Spud - #64
PB040087	Orifice Hood - #65	PB040114	Orifice Spud - #65
PB040088	Orifice Hood - #66	PB040115	Orifice Spud - #66
PB040089	Orifice Hood - #67	PB040116	Orifice Spud - #67
PB040090	Orifice Hood - #68	PB040117	Orifice Spud - #68
PB040091	Orifice Hood - #69	PB040118	Orifice Spud - #69

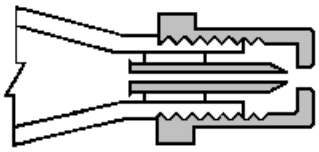
ORIFICE SIZE BY PRODUCT

Model Number	Burners	Hood Size	Pin Size	Nat. Rate	L.P. Rate	L.P 7,000'	L.P. 10,000'
VGSC/SS 30	(4) Top burners	#51	#57	15K@	13.5K@	#61	#63
(VGSS Broiler)	(1) Broil burner	#50	#57	15K	13.5K	#61	#63
(VGSC Broiler)	(1) Broil burner	#47	#56	18K	16K	#58	#60
	(2) Oven burners	#46	#54	15K@	15K@	#55	#56
VGRC36 (G)(Q)	(4) Top burners	#51	#57	15K@	13.5K@	#61	#63
	(1) Griddle	#51	#57	15K	12.5K	#61	#63
	(1) Grill	#48	#56	18K	16K	#58	#60
	(1) Broil burner	#47	#56	18K	16K	#58	#60
	(2) Oven burners	#46	#54	15K@	15K@	#55	#56
VGRC48 (G)(Q)	(4) Top Burners	#51	#57	15K@	13.5K@	#61	#63
	(1) Griddle	#51	#57	15K	12.5K	#61	#63
	(1) Grill	#48	#56	18K	16K	#58	#60
	(1) Broil burner	#47	#56	18K	16K	#58	#60
	(2) Right oven	#46	#54	15K@	16K@	#55	#56
	(1) Left oven	#49	#57	15K	15K	#61	#63

THE ORIFICES FOR THE OVEN BURNERS, BROIL BURNER, AND THE GRIDDLE BURNER SHOULD BE CHANGED FOR THE HIGH ALTITUDE. THE TOP BURNERS AND THE GRILL BURNER CAN BE REGULATED BY THE BURNER VALVE.

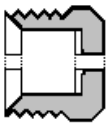
PART NUMBERS FOR THE ORIFICES ARE:

HOODS



#55	PB040068
#56	PB040062
#58	PB040064
#60	PB040082
#61	PB040083
#63	PB040085

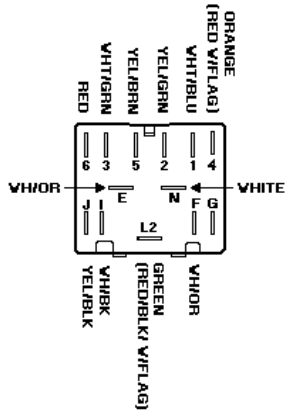
BROILER SPUD

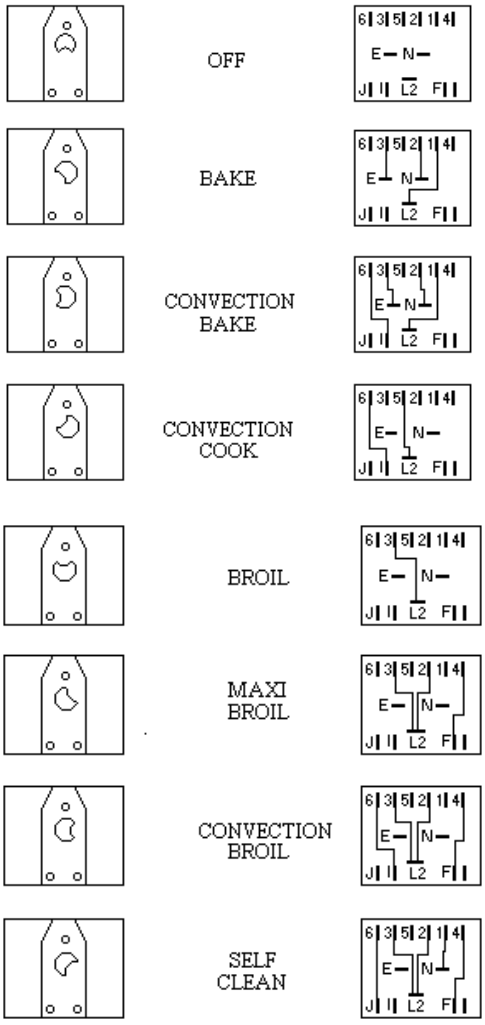


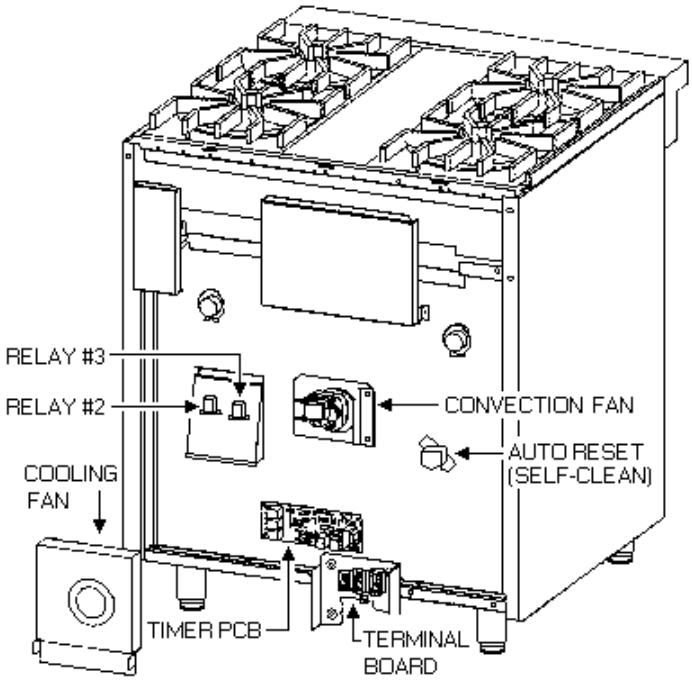
#58	PB940107
#60	PB040109

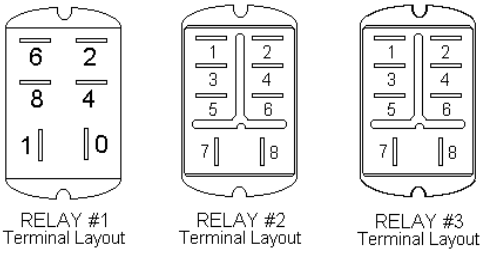
VDSC305 / 365 DUAL FUEL SELF-CLEAN

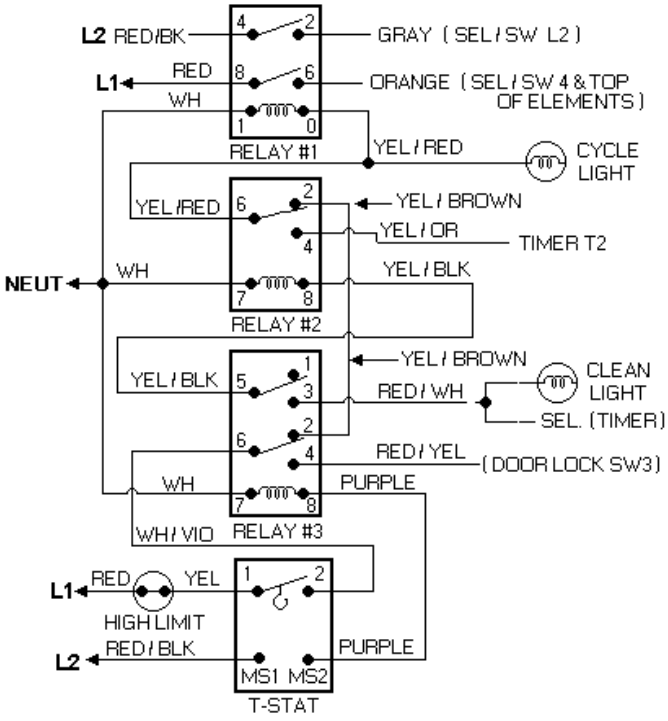
8 Position Selector Switch





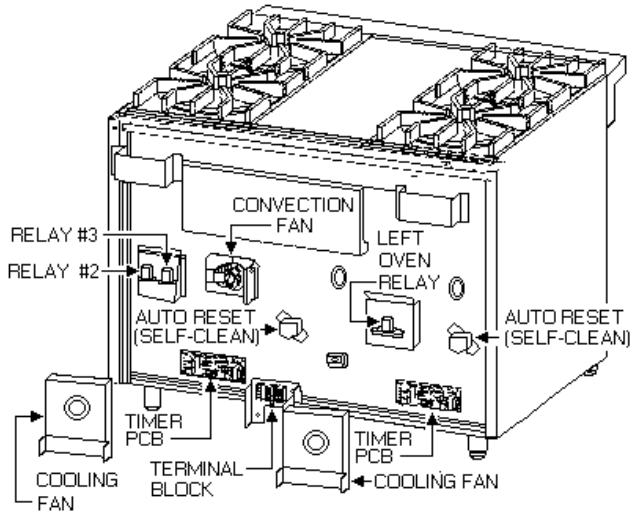






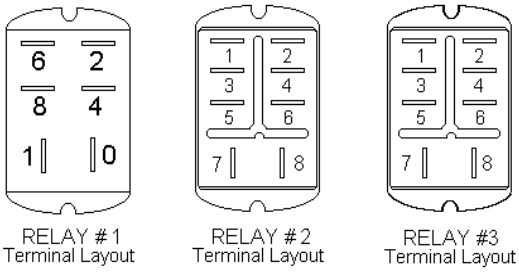
Viking Preferred Service
Tech - Notes

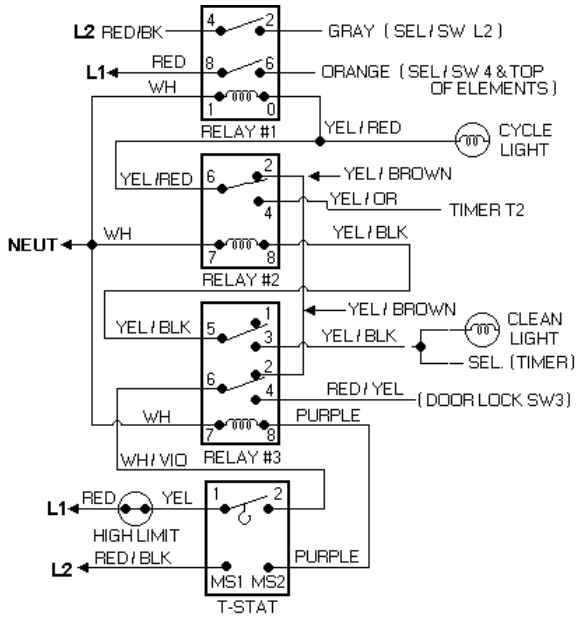
VDSC 485 DUAL FUEL SELF-CLEAN RANGES



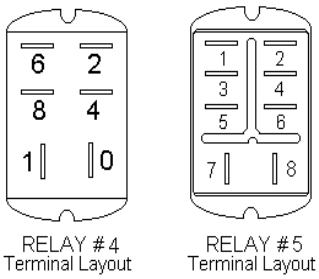
VDSC485 DUEL FUEL
Relay location and wiring connection

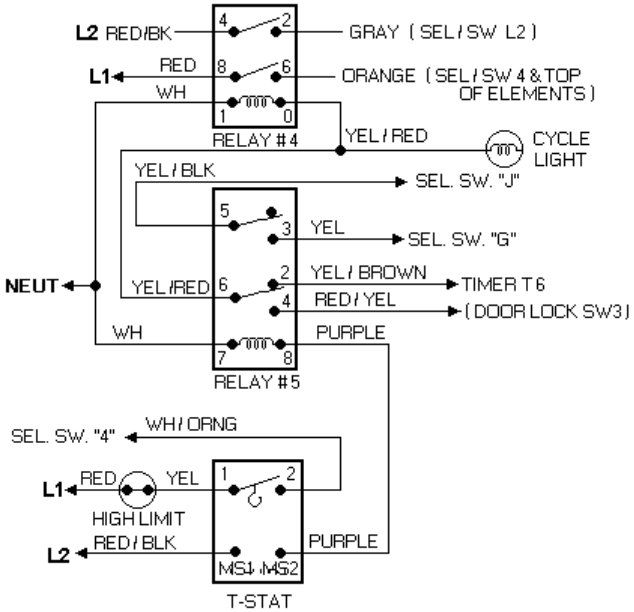
RIGHT HAND OVEN



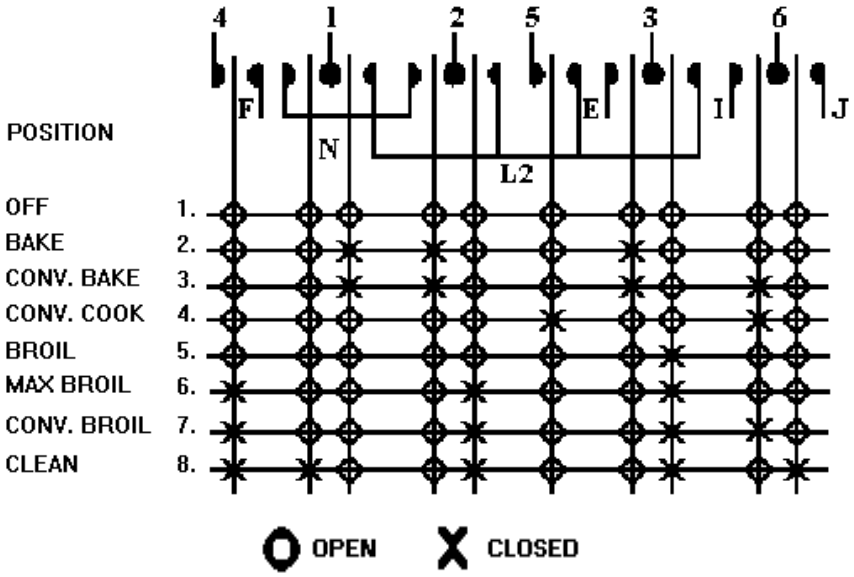


LEFT HAND OVEN

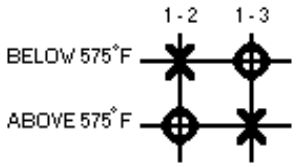




8 - POSITION SELECTOR SWITCH
DUAL FUEL RANGES 30"W. - 36"W. - 48"W.
30"W. ELECTRIC RANGE

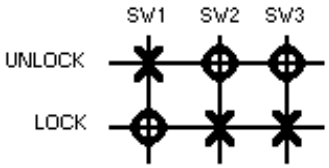


AUTO RESET



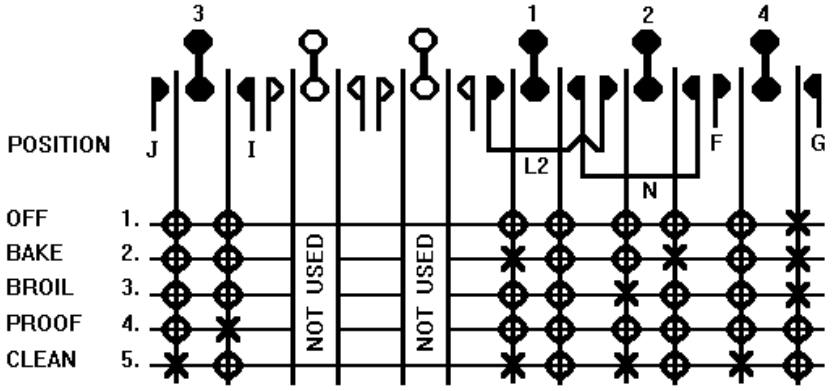
OPEN CLOSED

DOOR LOCK



OPEN CLOSED

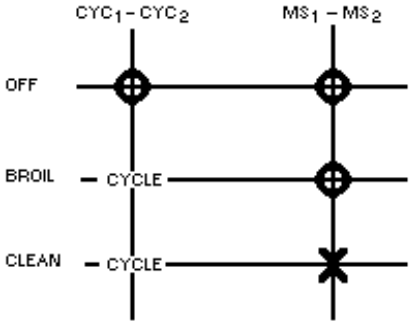
5 - POSITION SELECTOR SWITCH
DUAL FUEL RANGE 48"W. LEFT HAND OVEN



OPEN CLOSED

OPEN CLOSED

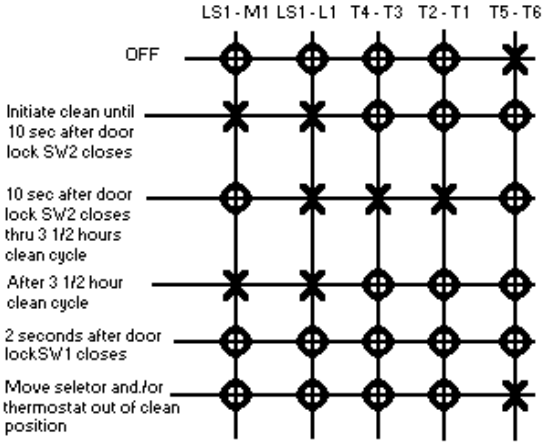
THERMOSTAT



DELAY 30 SECONDS AFTER T'STAT
MS1-MS2 CONTACT AND SELECTOR
8 - J CONTACT CLOSES

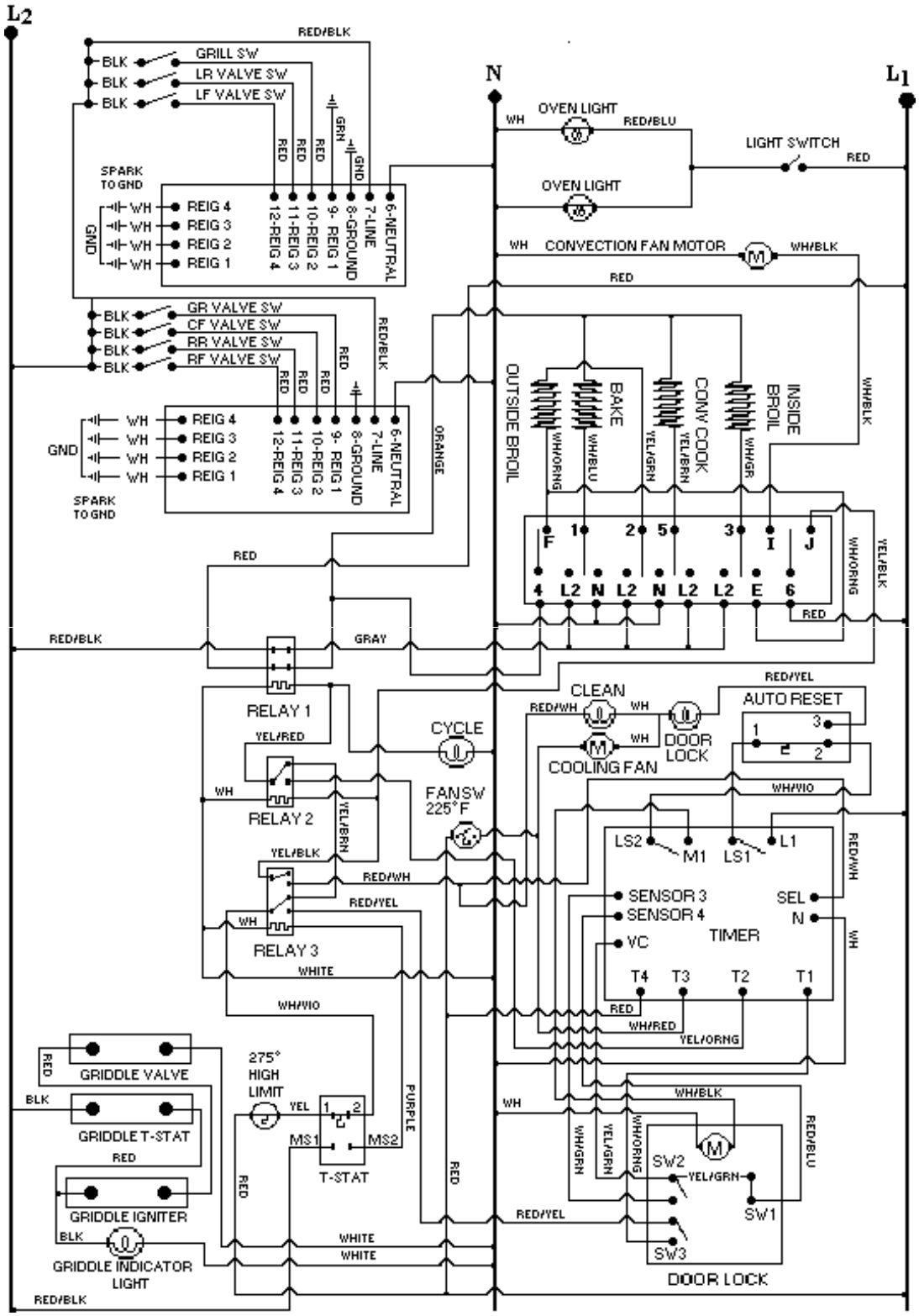
OPEN CLOSED

SELF CLEAN TIMER/BOARD

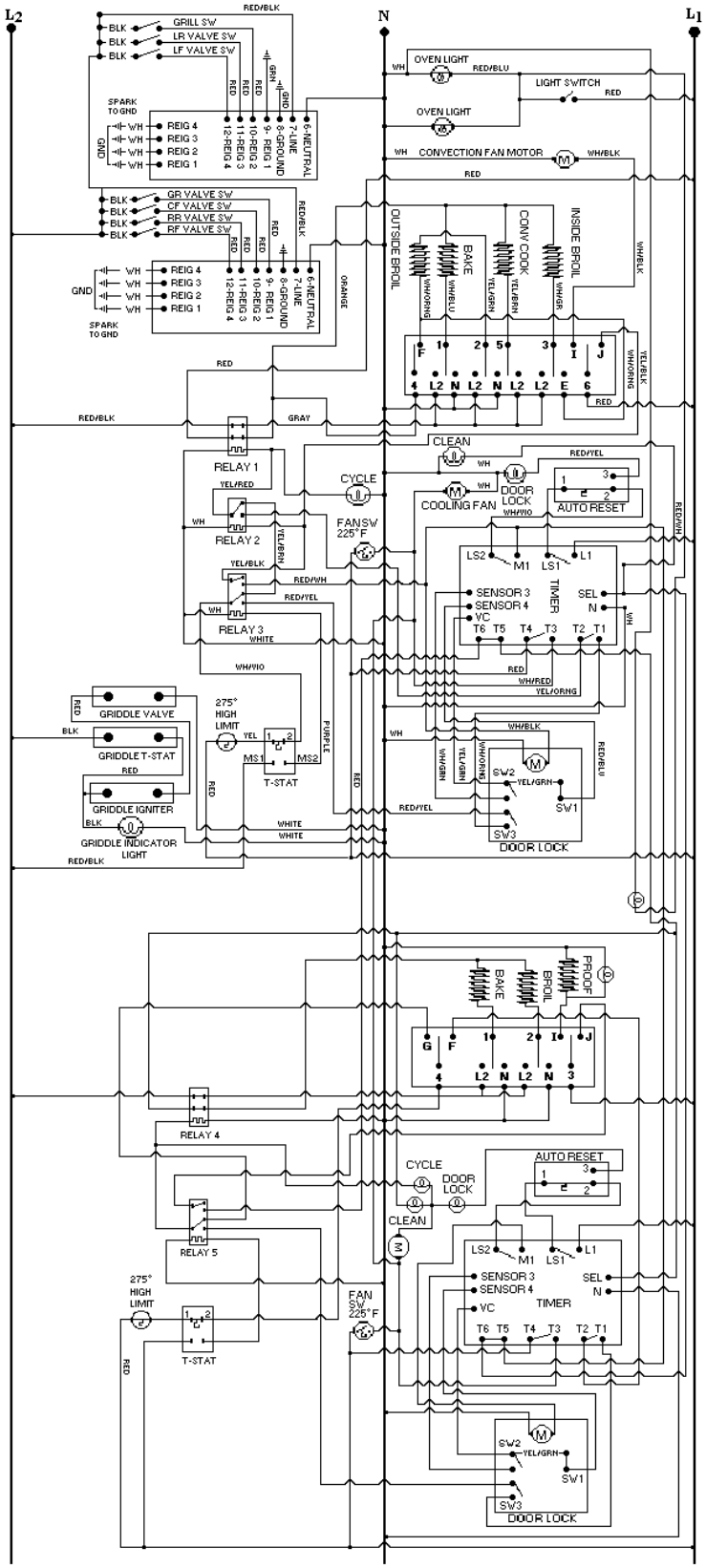


OPEN CLOSED

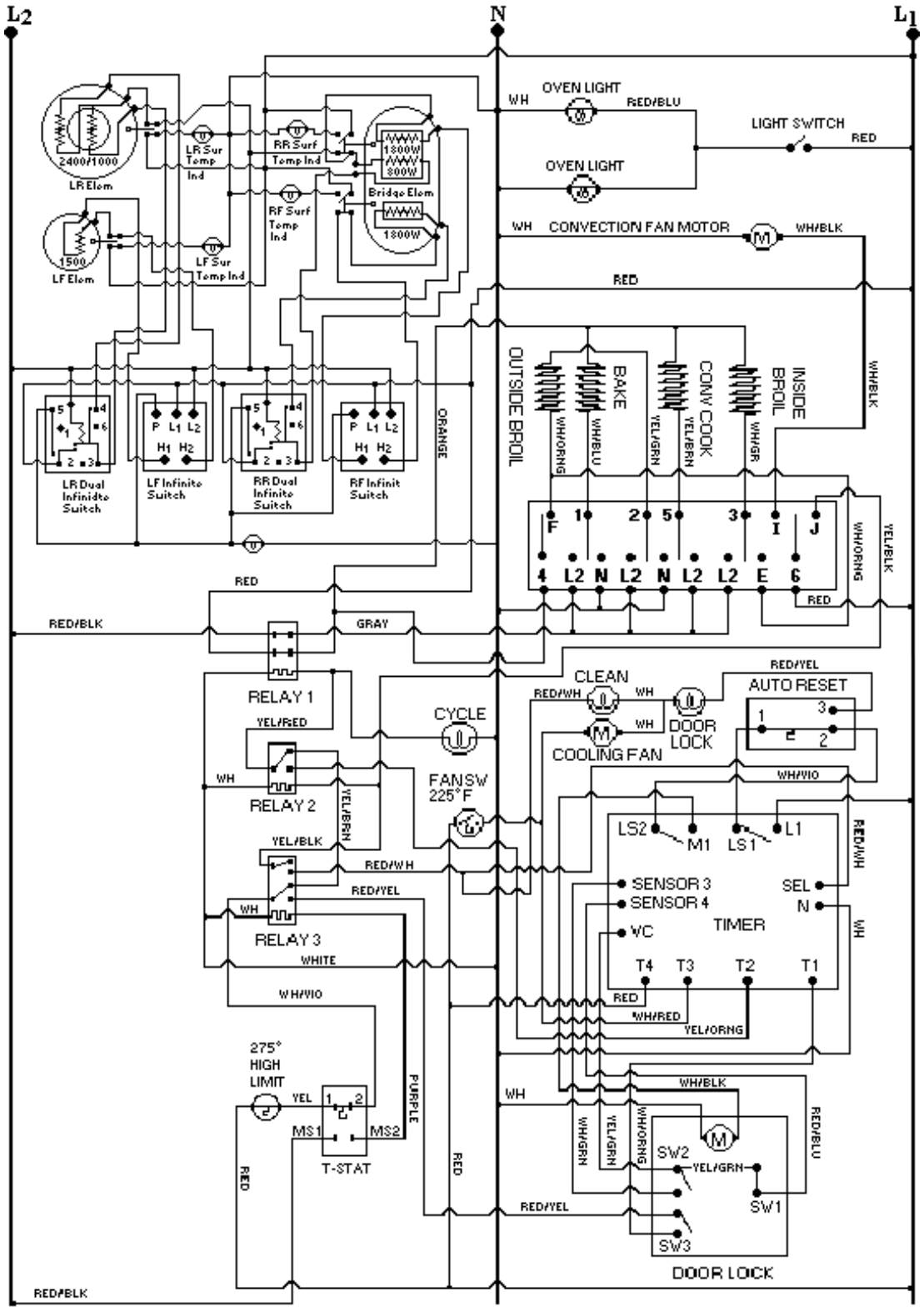
WIRING DIAGRAM
DUAL FUEL 30"W. &36" W. CONVECTION RANGES



WIRING DIAGRAM
DUAL FUEL 48”W. CONVECTION RANGES

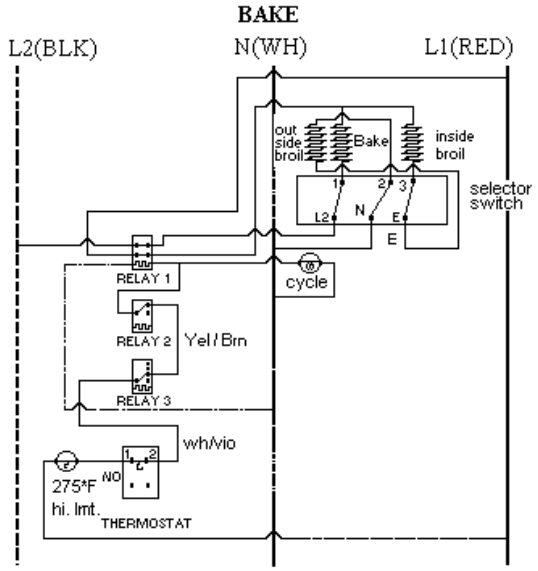


WIRING DIAGRAM
30” ELECTRIC RANGE

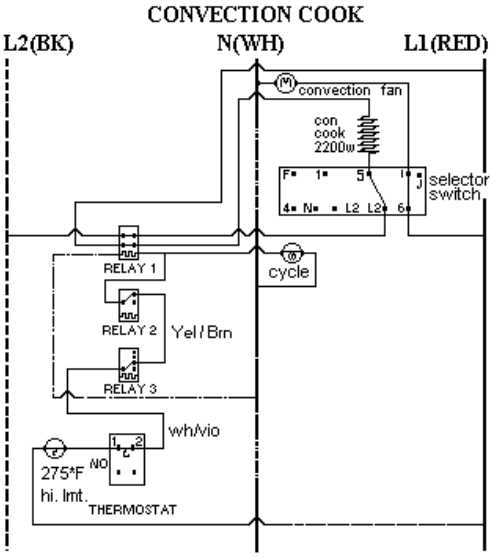


Viking Preferred Service
Tech - Notes

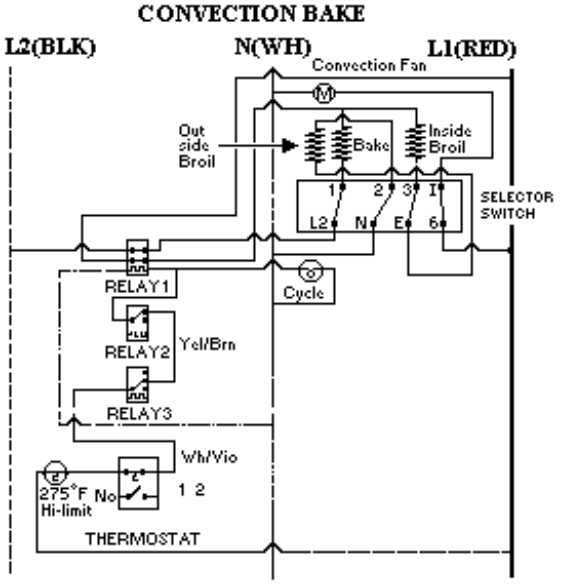
BREAKOUT DIAGRAMS FOR EACH FUNCTION



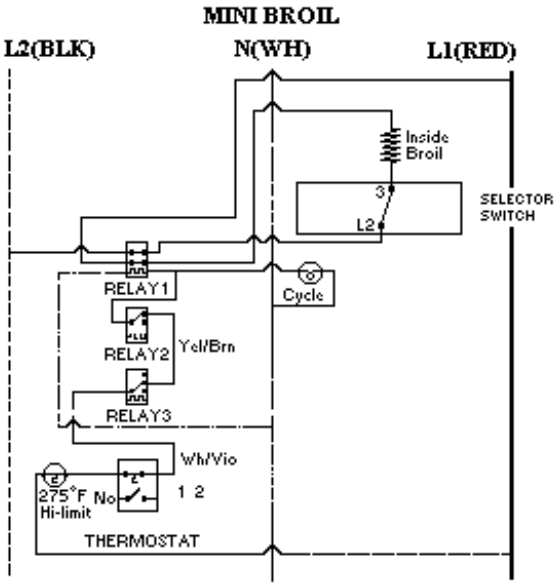
SELECT BAKE, position closes switches 1-L2, 2-N,and 3-E. The Thermostat closes Switches Cy1-Cy2, which cycles with oven Temperature powering Relay 1 and the Oven Cycle Light. When Relay 1 closes, it powers the Bake Element at 208/240VAC, and with the Broil Element in series across a 120VAC circuit it powers the inside Broil Element at 70VAC and the outside Broil Element at 50VAC.



SELECT CONVECTION COOK position closes Switches 5-L2 and 6-1. 6-1 powers the Convection Fan through L1 at 120VAC. The thermostat closes Switch Cy1-Cy2, which cycles the Oven temperature, powering relay #1 and the Oven Cycle Light. When Relay #1 closes, it powers the Convection Element at 208/240VAC



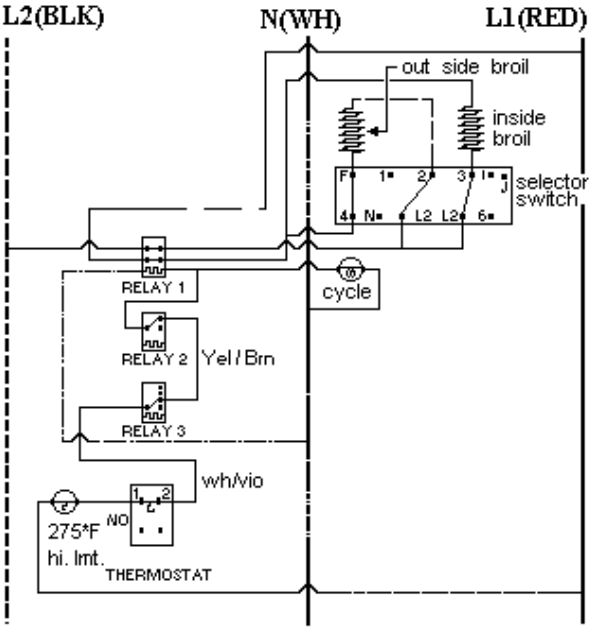
SELECT CONVECTION BAKE position closes Switches 1-L2, 2-N, 3-E, and 6-I. 6-I powers the Convection Fan through L1 at 120VAC. The Thermostat closes Switches Cy1-Cy2, which cycles with oven temperature powering Relay 1 and the Oven Cycle Light. When Relay 1 closes, it powers the Bake Element at 208/240VAC, and with the Broil Element in series across a 120VAC circuit, it powers the inside Broil Element at 760VAC and the outside Broil Element at 50VAC.



SELECT MINI BROIL position closes Switches 3-L2. The thermostat closes Switch Cy1-Cy2, powering Relay #1 and the Oven Cycle Light. When Relay #1 closes, it powers the inside Broil Element at 208/240VAC.

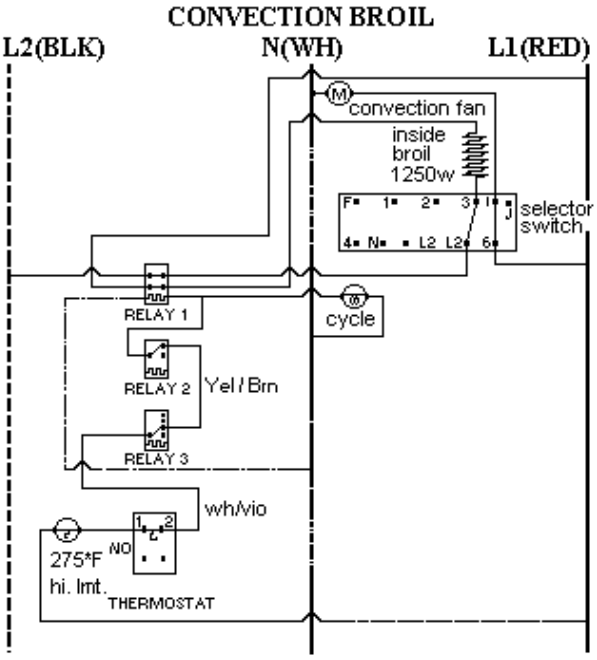
Viking Preferred Service
Tech - Notes
BREAKOUT DIAGRAMS FOR EACH FUNCTION

MAXI BROIL



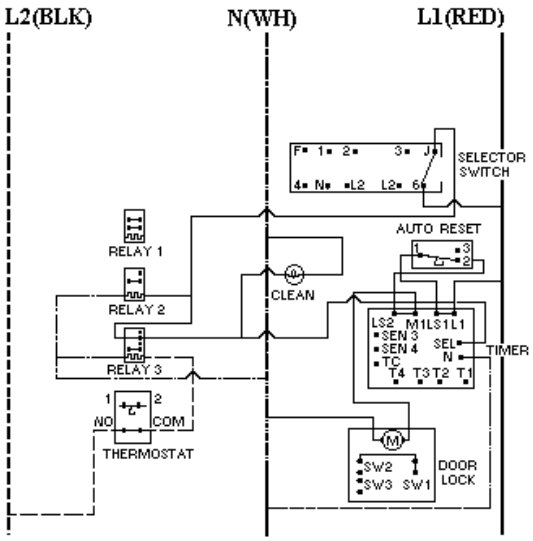
SELECT MAXI BROIL position closes Switches 4-F, 2-L2, and 3-L2. The thermostat closes Switch Cy1-Cy2, which cycles with the Oven temperature, powering Relay #1 and the Oven Cycle Light. When Relay #1 closes, it powers the inside Broil Element at 208/240VAC and the outside Broil Element at 208/240VAC

CONVECTION BROIL



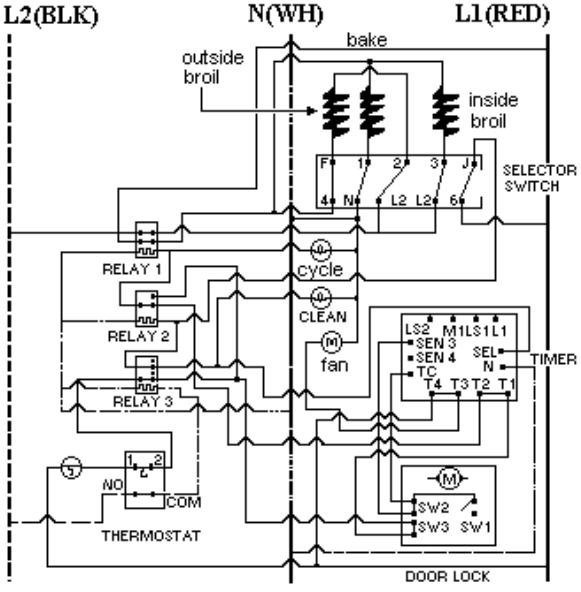
SELECT CONVECTION BROIL position closes Switches 4-F, 2-L2, 3-L2, and 6-1. 6-1 powers the Convection Fan through L1 at 120VAC. The thermostat closes Switch Cy1-Cy2, which cycles the Oven temperature, powering Relay #1 and the Oven Cycle Light. When Relay #1 closes it powers the inside Broil Element at 208/240VAC and the outside Broil Element at 208/240VAC.

CLEAN INITIATE UNTIL DOOR LOCK



SELECT CLEAN position closes Heating Elements circuits 4-F, 1-N 2-L2, 3-L2 and Door Lock Module / Timer circuit J-6 switches Relay #2. Thermostat clean position closes the Cycle Switch and Thermostat Clean Switch, which switches Relay #3. Switching Relay #3 allows circuit J-6 to turn on the Clean Indicator Light and enable the Door Lock Module / Timer which closes Relays LS1-L1 and LS2-M1. This powers the Door Lock Motor until 10 seconds after Sensor #3 is signaled by VC that the Door Lock Switch SW2 has been closed mechanically (along with

CLEAN DOOR LOCK BELOW 575˚F ± 25˚F



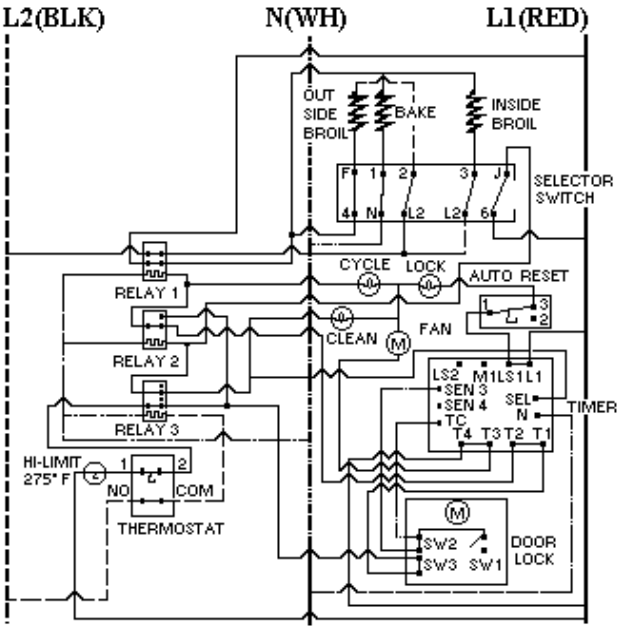
SW3) by the Door Lock

10 Seconds after the signal to Sensor #3, Switch LS2-M1 is opened, stopping the door lock motion and Switches T1-T2, and T3-T4 which switches Relay #1, powering the Cooling Fan, which closes Relay #1 powering the inside and outside Broil Elements to 208/240VAC and the Bake Element to 120VAC.

Viking Preferred Service
Tech - Notes

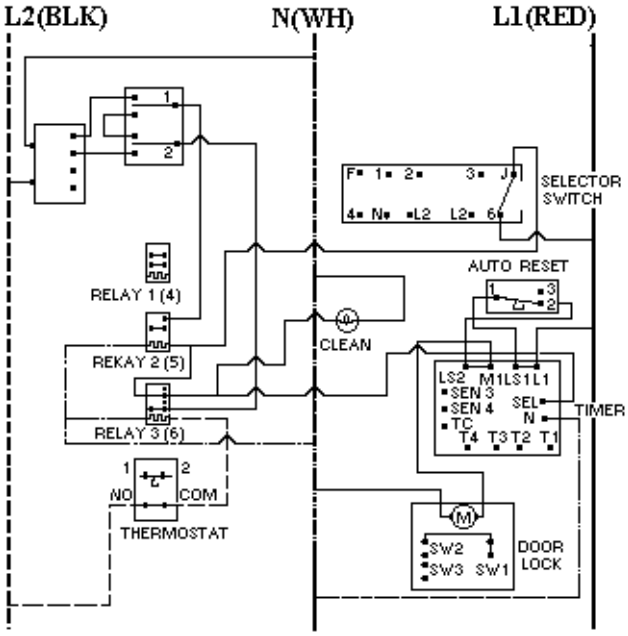
BREAKOUT DIAGRAMS FOR EACH FUNCTION

CLEAN DOOR LOCK ABOVE 575° F ± 25° F



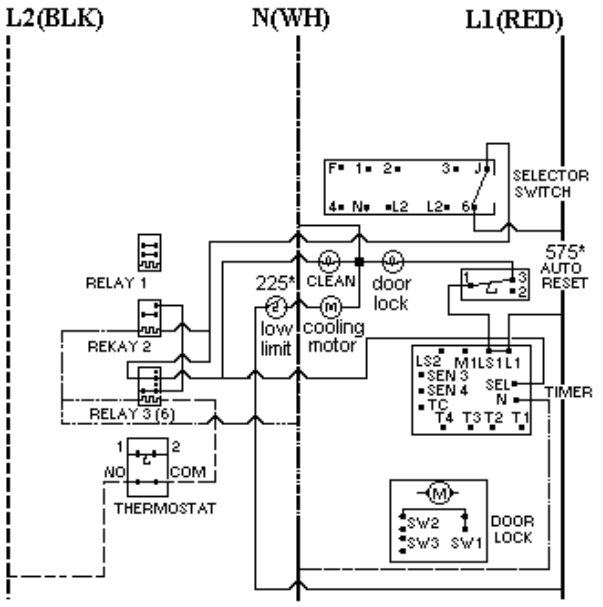
AUTO RESET switches to 1-3 which turns Door Lock Indicator Light on and disables Door Lock Motor circuit.

CLEAN FINISH DOOR LOCK BELOW 575 F 25 F

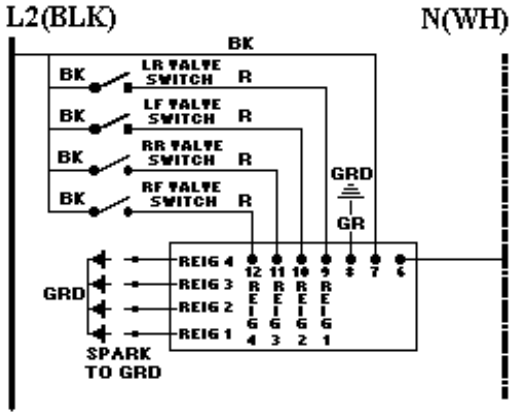


AUTO RESET switches 1-2 closed allowing Door Lock Motor to operate and turning the Door Lock Light off. The Door Lock Motor operates until 2 seconds after Sensor 4 is signaled by VC that the Door Lock SW1 has been closed mechanically by the Door Lock Bolt. The Door Lock / Timer switches LS2-M1 and LS1-L1 open and the Timer resets.

CLEAN FINISH DOOR LOCK ABOVE 575° F ± 25° F

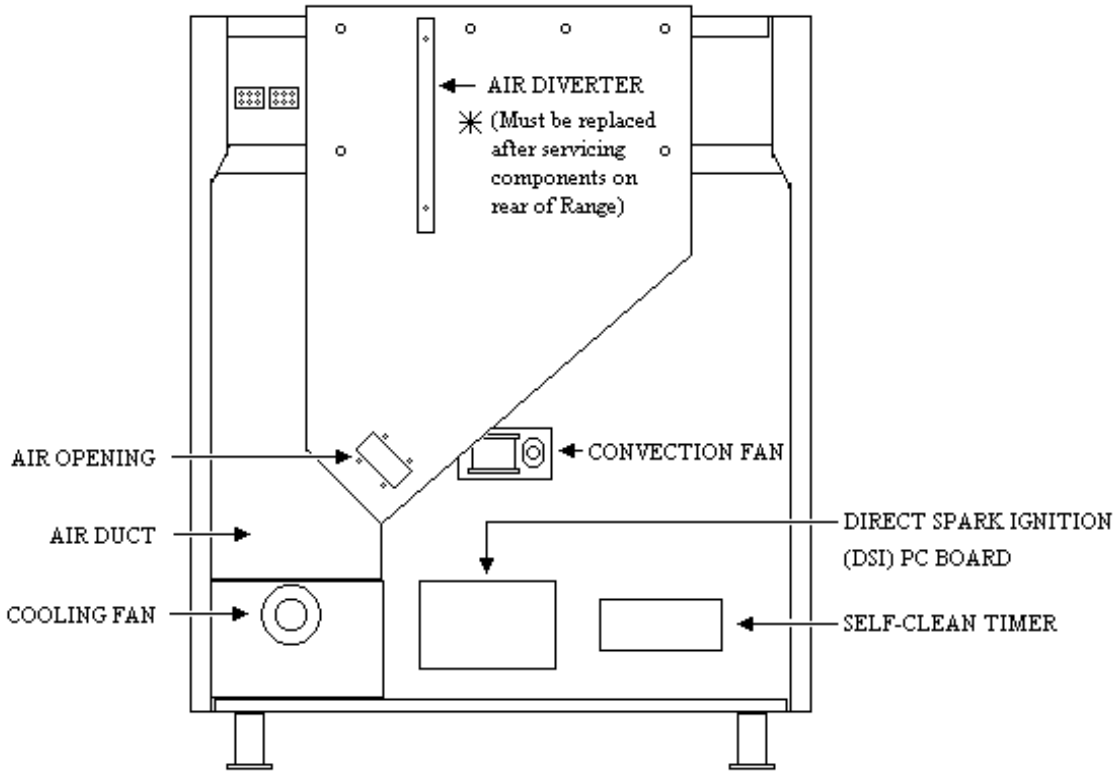


TIMER SWITCHES T3-T4, T1-T2 open, turning off the Cooling Fan which will then be powered at 120VAC by the Fan Limit Switch when needed, and opening the circuit to Relay #1 which disables the Heating Elements. Switch LS2-M1 closes to power the Door Lock Motor.



SURFACE BURNER SPARK MODULE AND SPARK ELECTRODE CIRCUITS. From L2 to Neutral.

CRITICAL AIR FLOW
VGSC MODELS



After servicing the VGSC ranges and during reassembling the back components be sure that the AIR DIVERTER (L bracket) is in place. Missing this AIR DIVERTER will cause over heating and can cause the over load protector to open.

To reset the over load protector you must disconnect power to the range for approximately 1 minute to allow the heater in the protector to cool sufficiently to allow the contacts to close.

OVEN TEMPERATURE CALIBRATION

A. Monitor house voltage during test.

1. **Must maintain at 117 VAC**
   From _____to_____

B. Monitor igniter (glo-coil) current during test.

1. **Must maintain 3.4 amps or greater.**
   From_____to_____

C. Monitor voltage across the thermal valve connectors.

1. **Must be between 3.03 and 3.3 volts A.C.**
   From _____to_____

D. Check gas pressure at the manifold (burner orifice). Light a burner during test to equalize pressure.

1. **Check to make sure 1/2" Inside Diameter (ID) supply line to the product.**
2. **NAT_____WCP must be 5" WCP.**
3. **L.P._____WCP must be 10" WCP.**

Supply pressure from the meter or L.P. tank must be at least 6" WCP for natural gas or 11" WCP for L.P. gas. Pressure should never exceed 14" WCP or 1/2 PSI.

E. Be sure the thermostat bulb is straight and properly spaced from the oven liner. The sensor bulb clips should be in place.

F. Place a weighted thermocouple in the center of the oven cavity.

G. Set oven temperature control to 350*F. Oven temperature should reach 350*F in 10 minutes.

H. Cycle oven 5 times: Average 3rd, 4th and 5th cycles. Temperature is acceptable if the average is 350*F - 15F +25*F.

TEMPERATURE; Conventional Oven

Cycle	1	2	3	4	5	Average
High	(XX)	(XX)	( )	( )	( )	( )
Low	(XX)	(XX)	( )	( )	( )	( )

I. For convection test lower temperature to 325*F. Pre heat oven with convection fan on.

TEMPERATURE: Convection Oven

Cycle	1	2	3	Average
High	(XX)	( )	( )	( )
Low	(XX)	( )	( )	( )

J. On conventional baking place pans in the center of the oven.

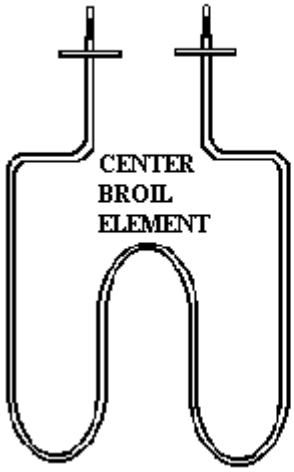
K. On convection baking place pans on rack positions 2 and 4.

L. Uneven temperatures left to right in oven.

1. **Check air shutter adjustment; sharp blue flame, no yellow tipping.**
2. **Check orifice hood adjustment.**

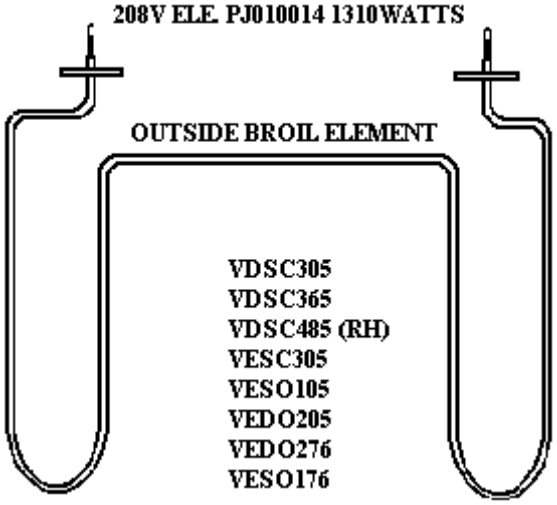
240 / 208 VOLT HEATING ELEMENTS

240V ELE. PJ010001 1250WATTS
208V ELE. PJ010013 940WATTS



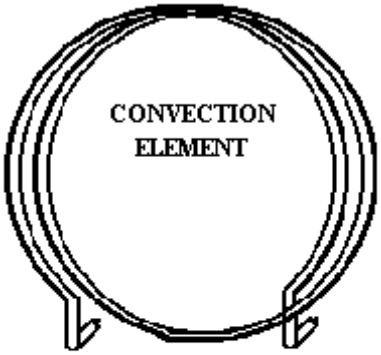
VDSC305
VDSC365
VDSC485 (LH)
VDSC485 (RH CENTER)
VESC305
VESO105
VEDO205
VESO176
VEDO276

240V ELE. PJ010002 1750WATTS
208V ELE. PJ010014 1310WATTS



VDSC305
VDSC365
VDSC485 (RH)
VESC305
VESO105
VEDO205
VEDO276
VESO176

240V ELE. PJ010003 2200WATTS
208V ELE. PJ010015 1650WATTS

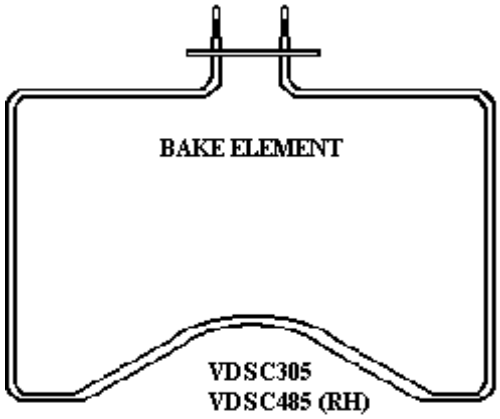


VDSC305
VDSC365
VDSC485
VDSC105
VDSC205
VDSC176
VDSC276
VEDO276

VESO105
VESO176
VEDO276

PE150005
VEDO273
VEDO275

240V ELE. PJ010004 2750WATTS
208V ELE. PJ010016 2060WATTS

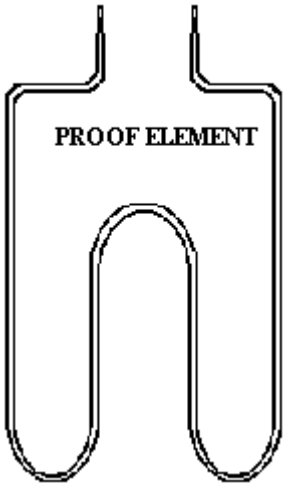


VDSC305
VDSC485 (RH)
VESC306
VESO105
VEDO205
VEDO275
VESO175

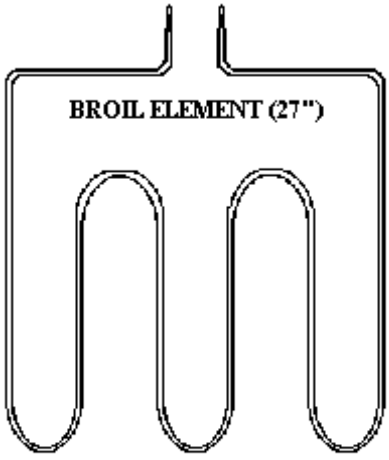
240 / 208 VOLT HEATING ELEMENTS

240V ELE. PJ010005 2065 WATTS
208V ELE. PJ010017 1550 WATTS

120V ELE. PJ010007 20 WATT

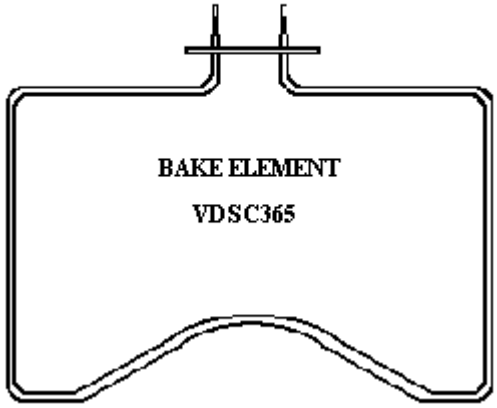


240V ELE. PE150003
208V ELE. PJ010020

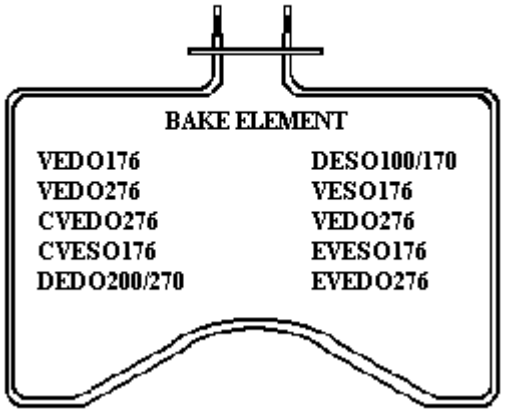


VEDO176 VEDO273
VEDO175 VEDO275
BAKE VPS00464 - PJ150004
BROIL VPS00505 - PE150003
CONVECTION VPS00465 - PE150005

240V ELE. PJ010006 3250 WATTS
208V ELE. PJ010018 2440 WATTS



240V ELE. PJ010012 2750 WATTS
208V ELE. PJ010021 2060 WATTS



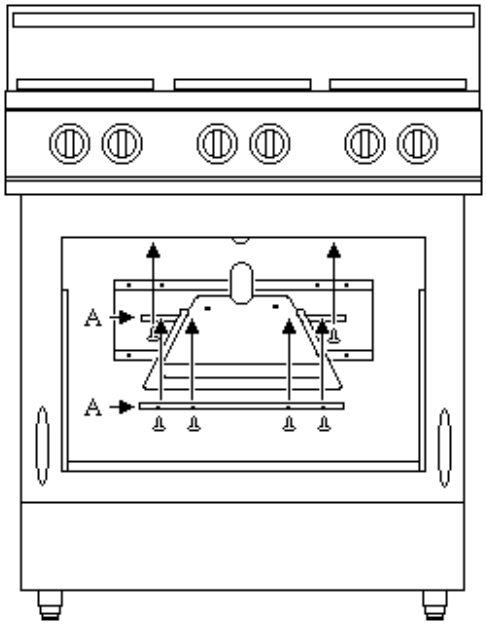
WARMING DRAWER 120V ELEMENTS

36" -- VEWD162 -- PJ010008 550WATTS
30" -- VEWD101/102 --PJ010009 450WATTS
27" -- VEWD172 -- PJ010010 425WATTS

VEWD100/160/161 --PW120002 450WATTS
VEWD161 (ROLL WARMER) -- PW120009

30" -- DEWD100 -- PJ010009 450WATTS
27" -- DEWD170 -- PJ010010 425WATTS

I/R BURNER CHANGE



VGIC / VGRC Ranges uses I/R Burner (Removal from inside the Oven Cavity) Beginning March 15, 2001

Remove Front and Rear Burner Supports (A)

Pull Front Edge of the I/R Burner Down and toward the Front of the Oven Cavity to Remove.

ORIGINAL I/R BURNER #G3001876
NEW I/R BURNER #3002211

ACCESS PANEL FOR SELF-CLEAN LATCH

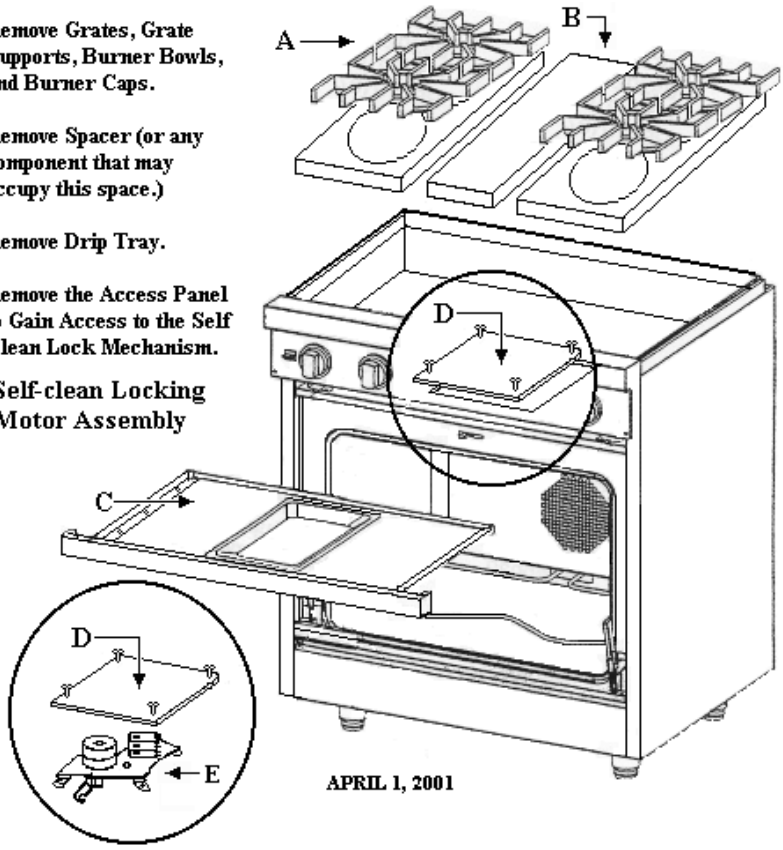
A. Remove Grates, Grate Supports, Burner Bowls, and Burner Caps.

B. Remove Spacer (or any component that may occupy this space.)

C. Remove Drip Tray.

D. Remove the Access Panel to Gain Access to the Self Clean Lock Mechanism.

E. Self-clean Locking Motor Assembly



APRIL 1, 2001

Service Bulletin

No: 2001-11

Date: 3/8/01

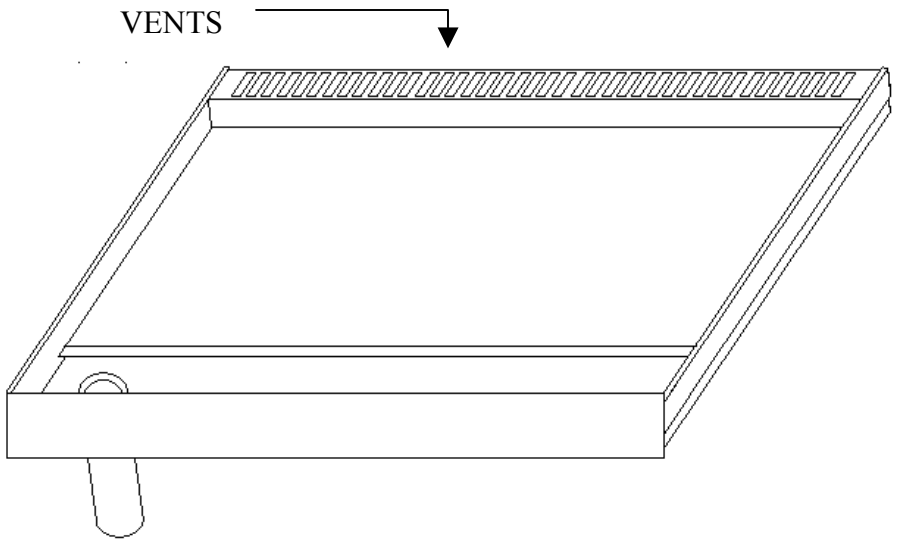
Models: VGRC / VGRT with 24" griddles

Complaint: Flames lift on top burners when griddle is in use.

Remove and replace griddle with new 24" vented griddle (part #G3005641 24" vented griddle).

G3005641 vented griddle is available from your local parts distributor.

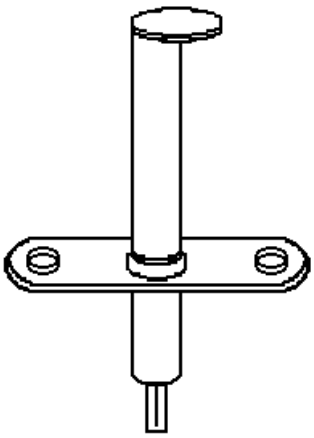
This griddle is the same as the standard 24" griddle but has vents in the rear cover similar to the Island Trim.



24" VENTED GRIDDLE (G3005641)

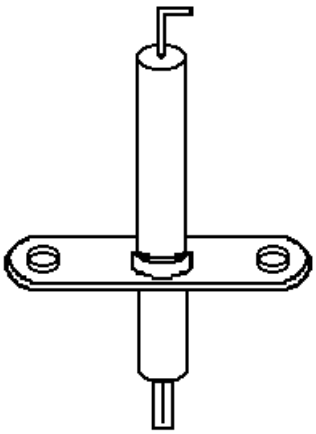
Beginning with Model Number VGIC305-4BSS, Serial Number RO6010111134 –SCH, the top burner **SPARK IGNITER** has been replaced with spark igniter #PA020028. Replacing spark igniter #PA020014. This will be a running change throughout the entire gas cooking product.

NEW



PART # PA020028

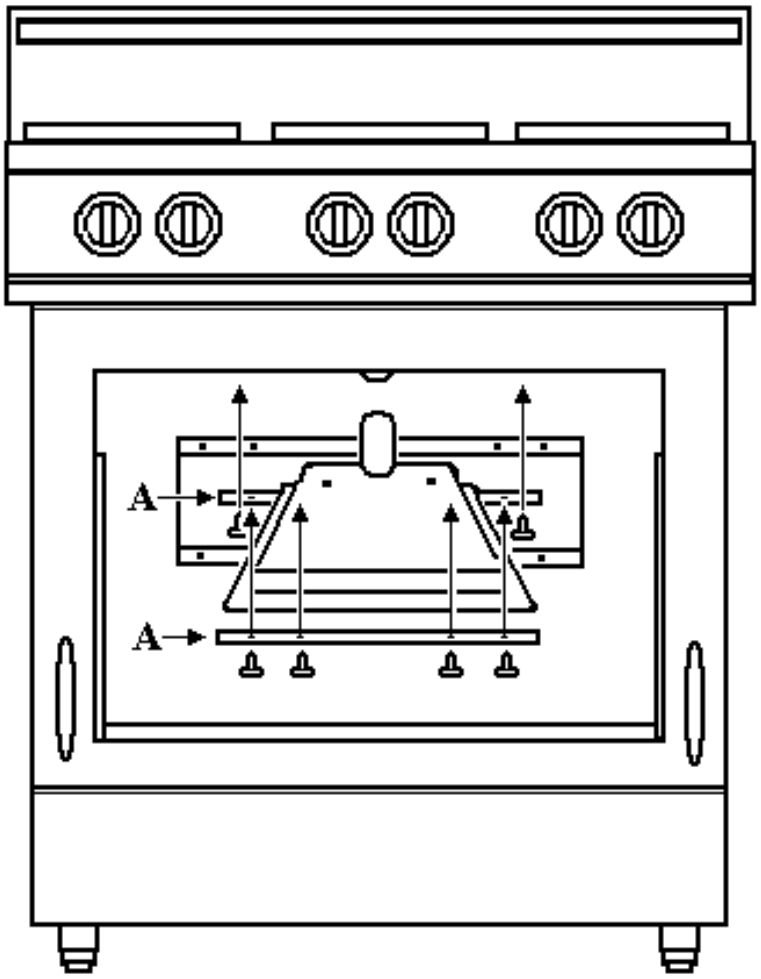
ORIGINAL



PART # PA020014

With this change **WARRANTY SERVICE WILL NO LONGER PAY FOR TOP BURNER IGINTER ADJUSTMENTS.** Visually check the spark igniter, or check the serial number on the VGIC305 to determine the status of the warranty claim.

Infrared Broiler Change



VGIC / VGRC Ranges Using I/R Burner.

Beginning with ranges manufactured after March 15, 2001 the I/R Broiler can be removed from inside the oven cavity.

Remove Front and Rear Burner Supports (A)

Pull Front Edge of the I/R Burner Down and toward the Frong of Oven Cavity to Remove.

Original I/R Burner G3001876
New I/R Burner G3002211

SELF-CLEAN LATCH ASSEMBLY

Self-Clean latch assembly was made accessible from the top burner box beginning with April 1, 2001 production. Beginning with the 30" ranges. The other products will follow.

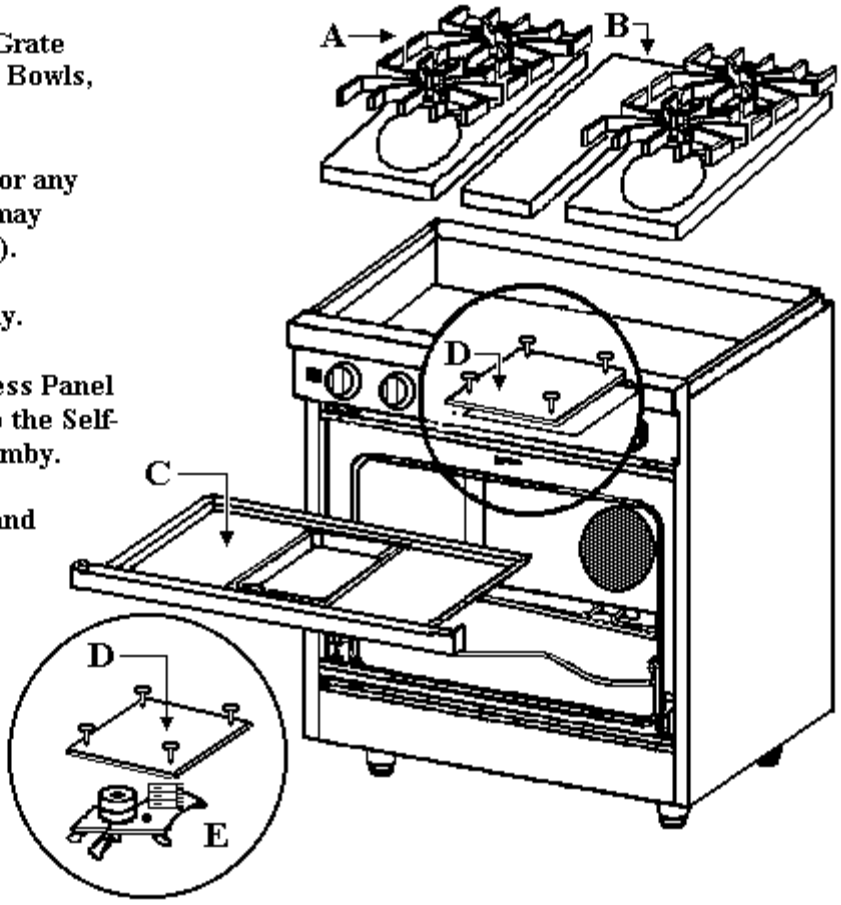
A. Remove Grates, Grate Supports, Burner Bowls, and Burner Caps.

B. Remove Spacer (or any Component that may occupy this space).

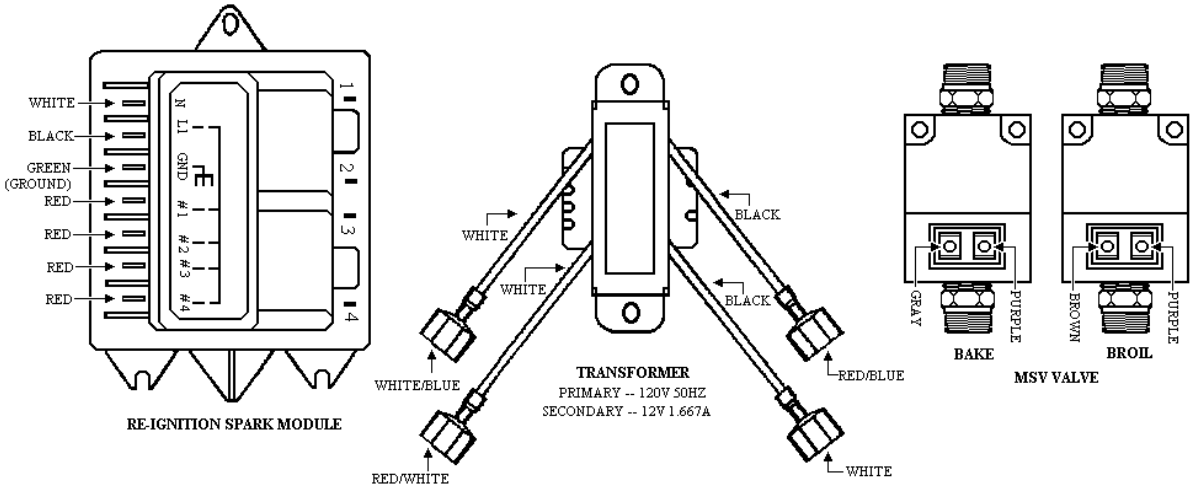
C. Remove Drip Tray.

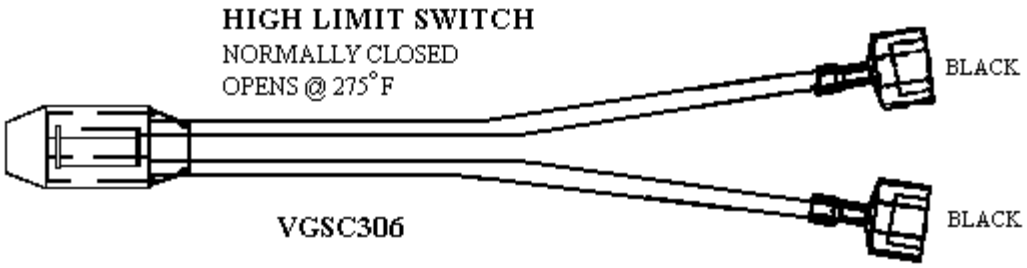
D. Remove the Access Panel to Gain Access to the Self-Clean Lock Assemby.

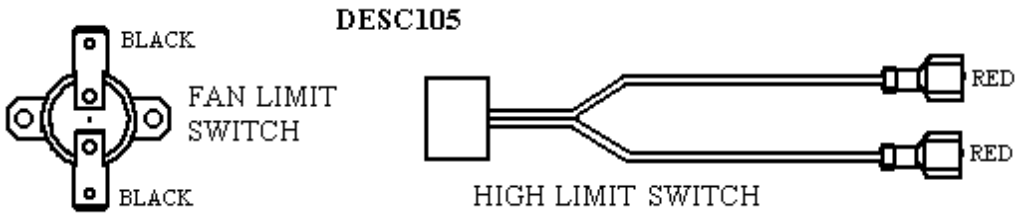
E. Self-Clean Lock and Motor Assembly.



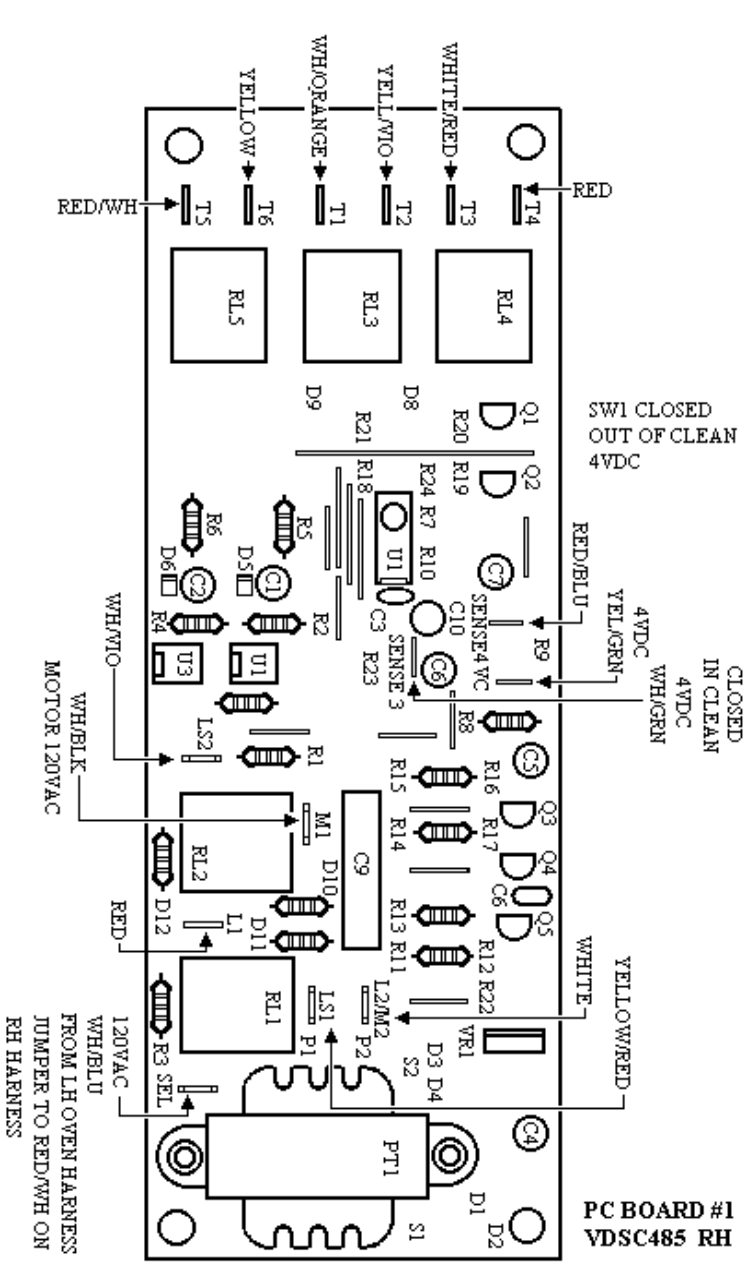
VGSC306 Component Wiring

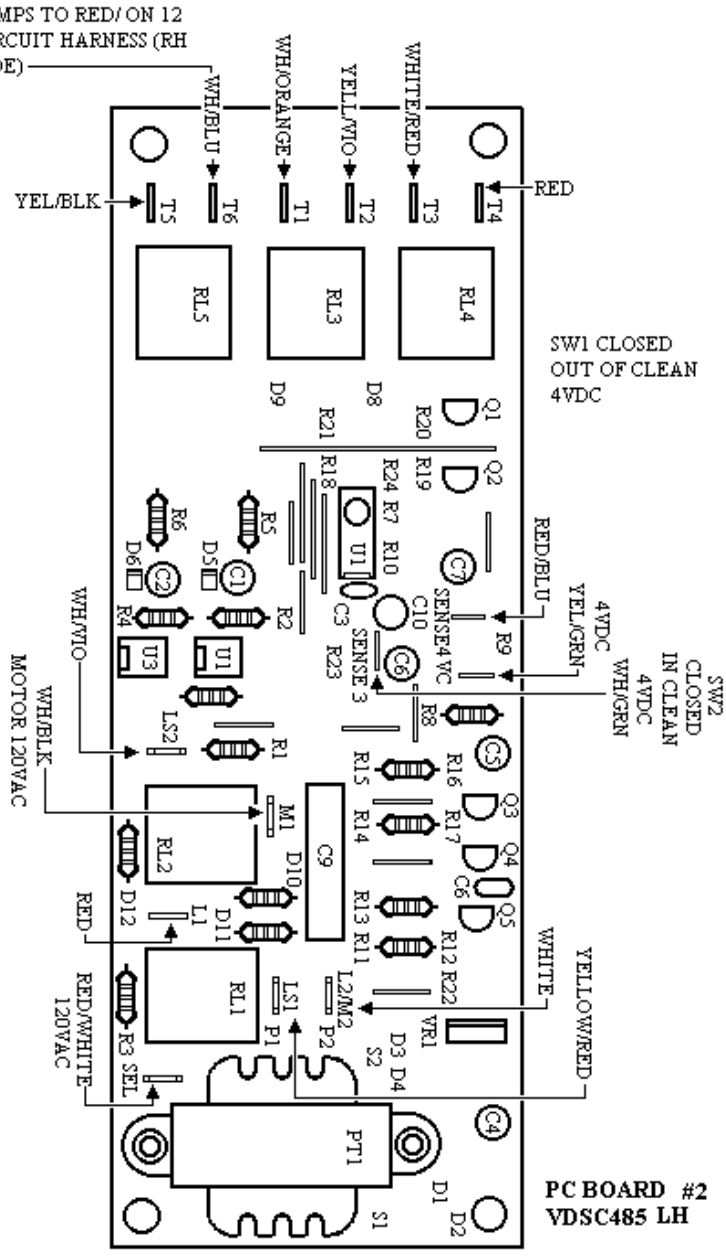






VIKING SELF-CLEAN DOOR LOCK

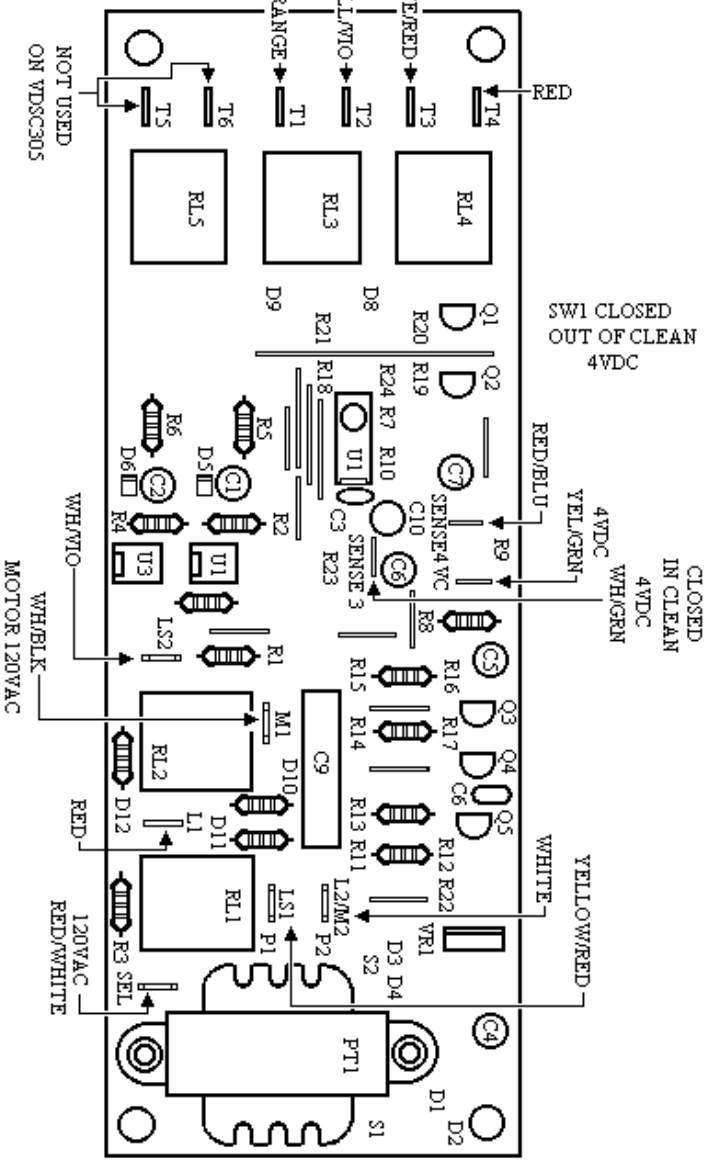




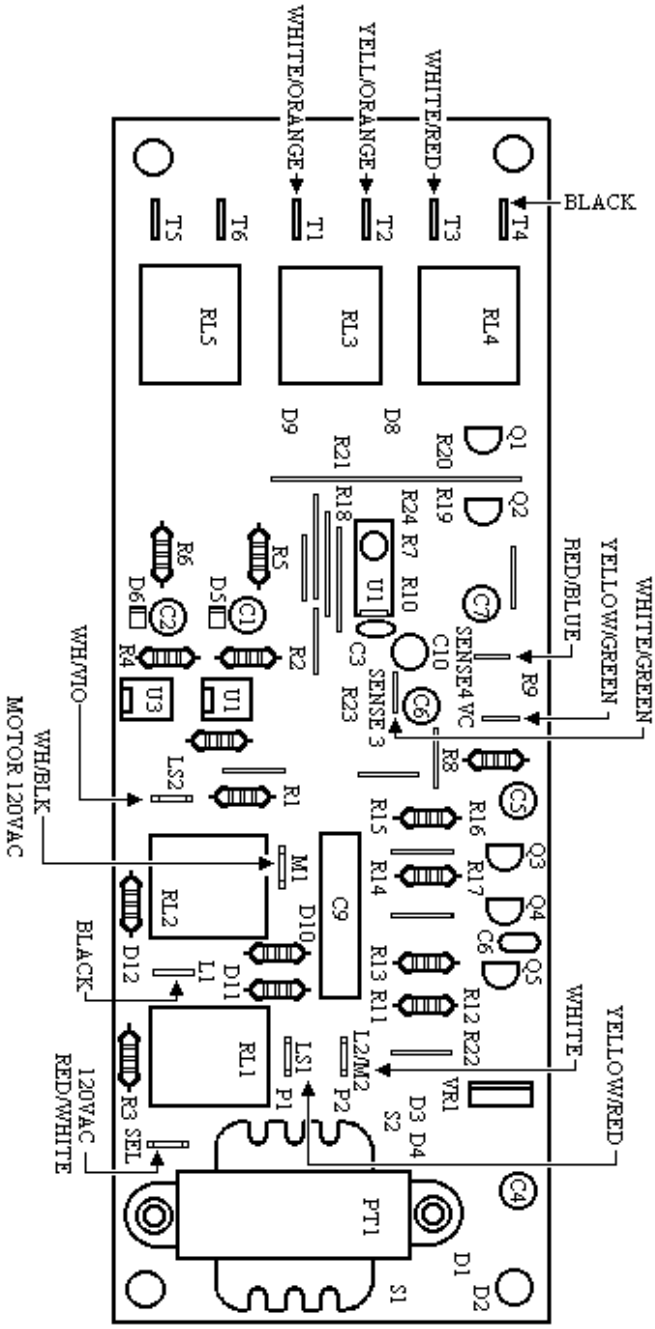
P. C. BOARD #1
VDSC485 RH

P. C. BOARD
VCSC485 LH

VIKING SELF-CLEAN DOOR LOCK

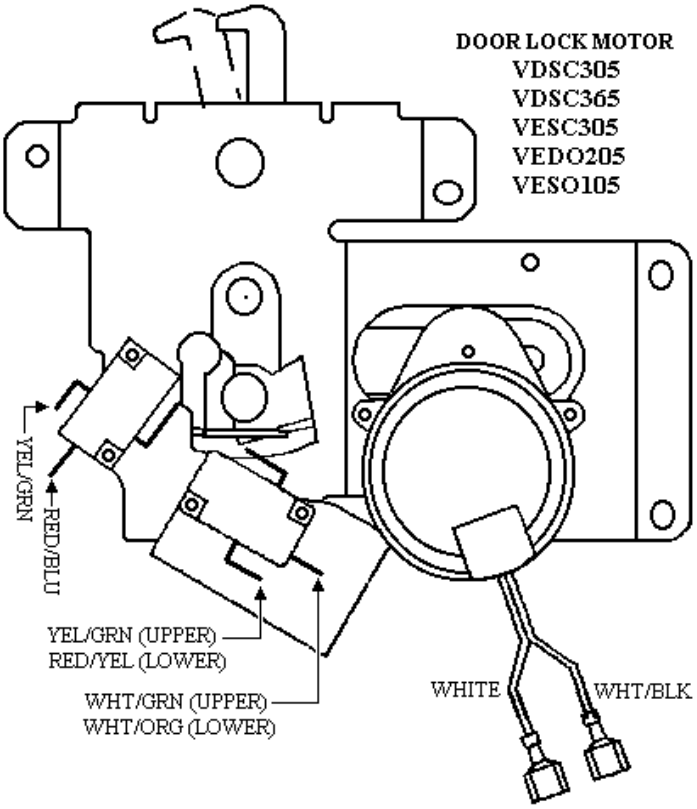


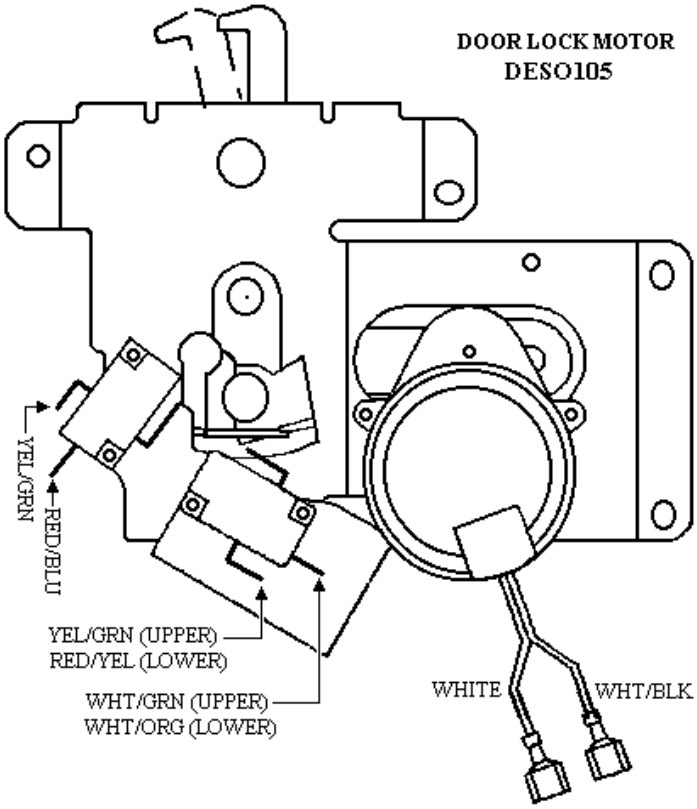
PC BOARD
VDSC305
VDSC365
VESC305

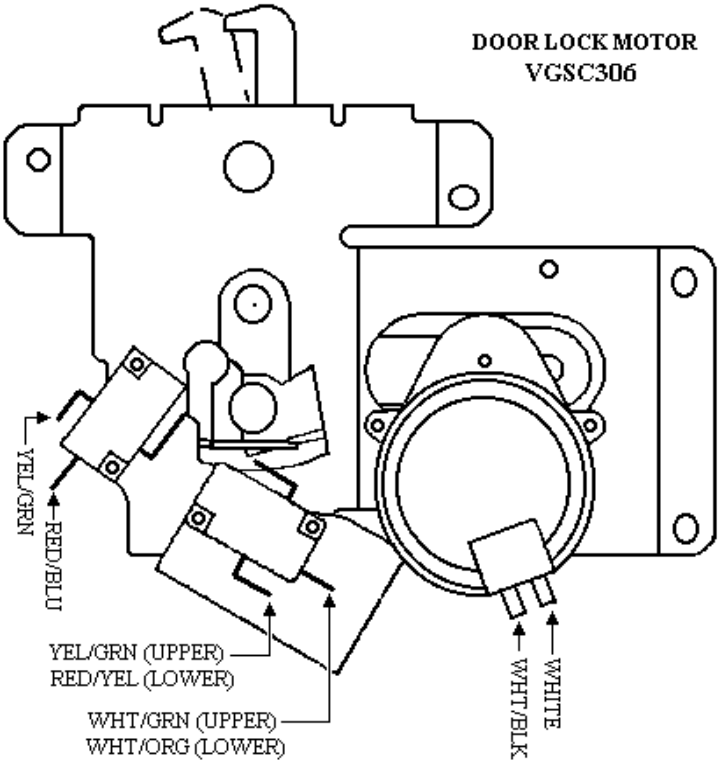


PC BOARD
VGSC306

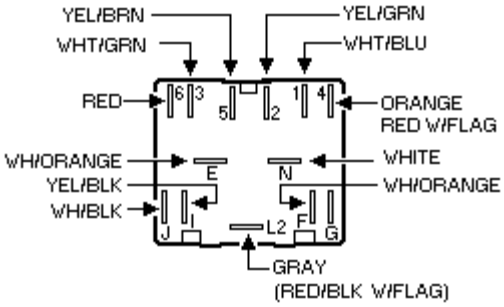
VIKING SELF-CLEAN DOOR LOCK MOTOR WIRING



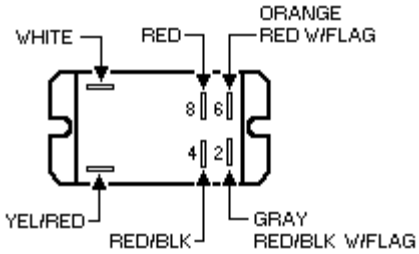




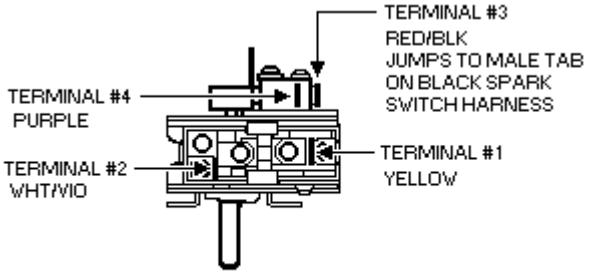
VDSC306 Component Wiring



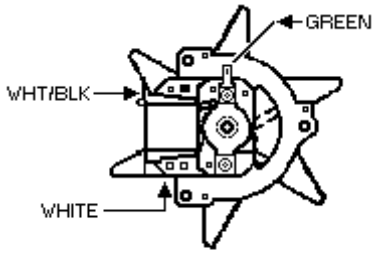
SELECTOR SWITCH



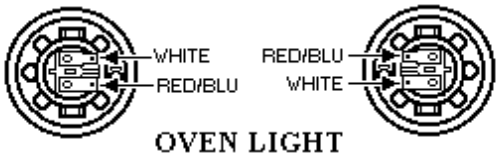
RELAY #1



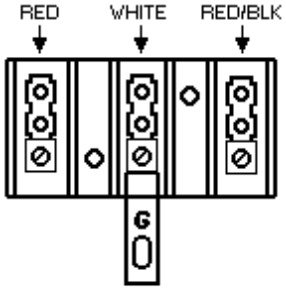
THERMOSTAT



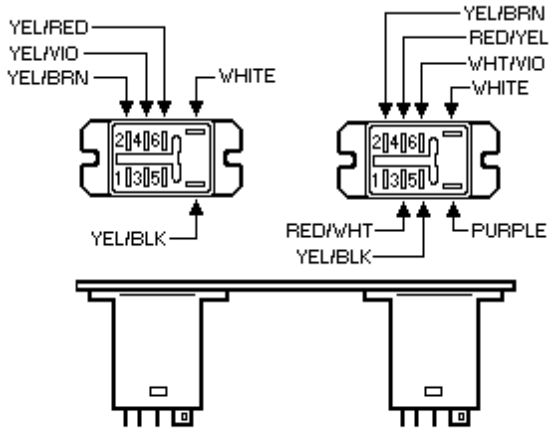
CONVECTION FAN



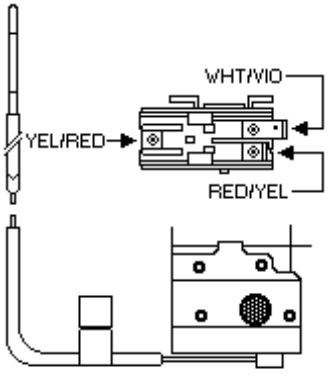
OVEN LIGHT



TERMINAL BLOCK

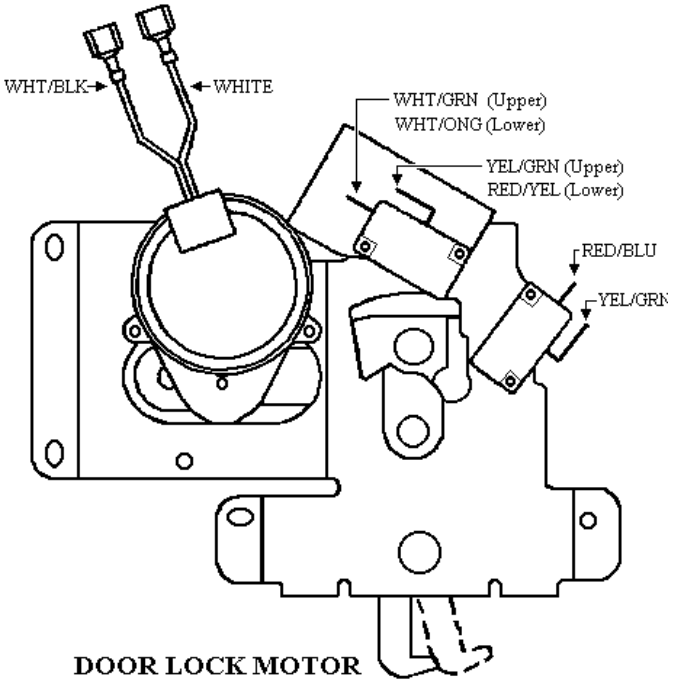


RELAY #2 RELAY #4 RELAY #3

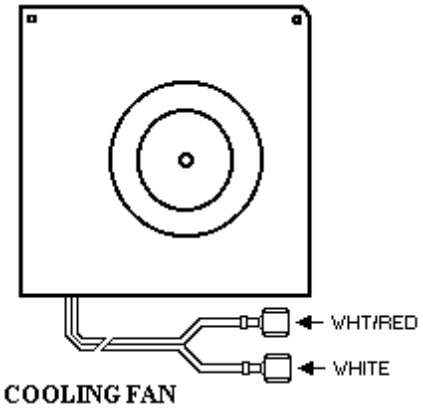


AUTO RESET

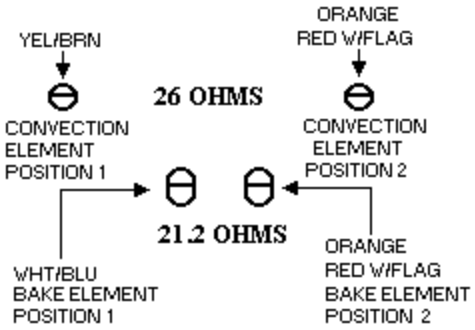
VDSC306 Component Wiring



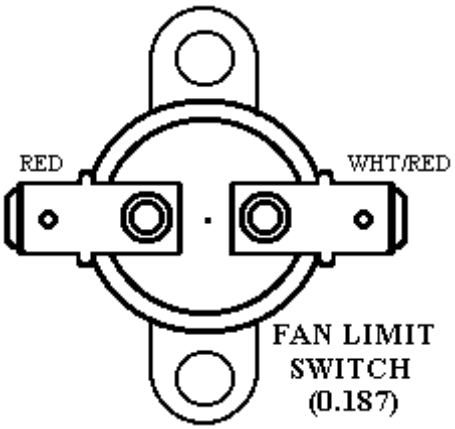
DOOR LOCK MOTOR



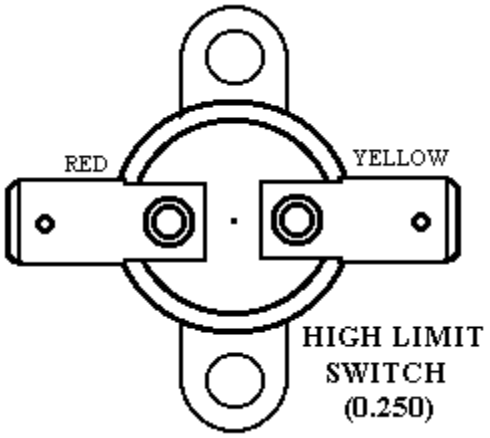
COOLING FAN



REAR WIRING
SCHEMATIC
VDSC305 / 365
VESC 305

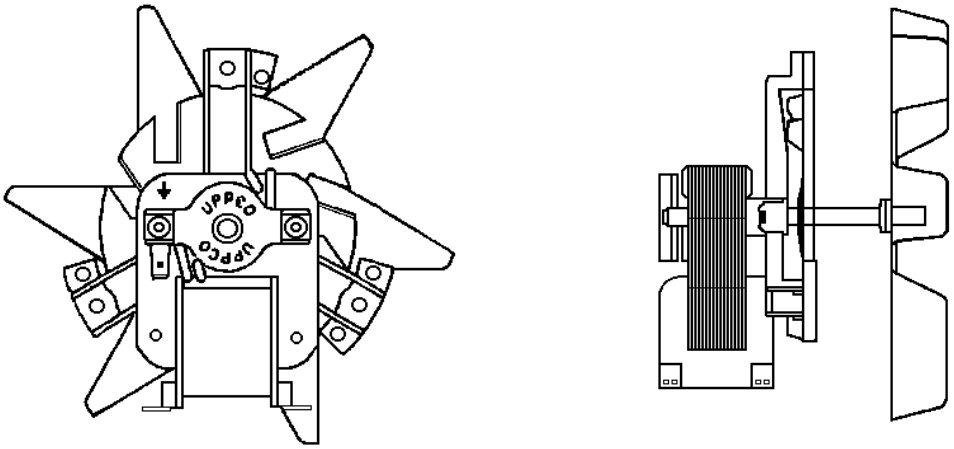


FAN LIMIT
SWITCH
(0.187)

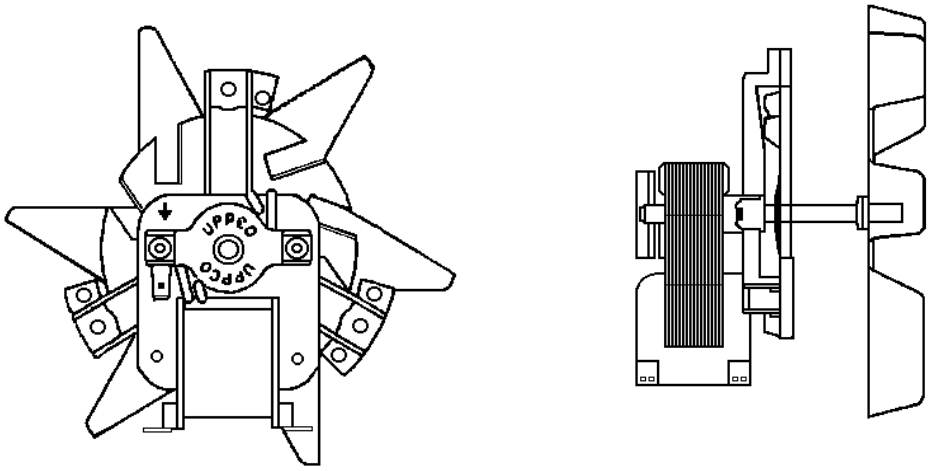


HIGH LIMIT
SWITCH
(0.250)

CONVECTION FAN UPDATE



PE050005 (Electric Ovens)
1700 – 1900 RPM



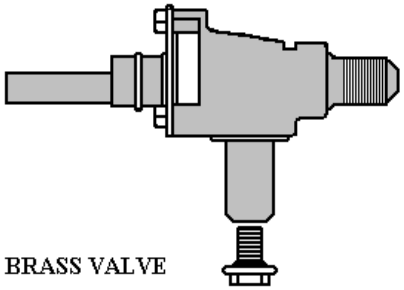
PE050057 (Gas Ovens)
620 RPM (approx. ¼ speed)

BRASS VALVES / NEW KNOBS

Models: VGRC / VGIC / VDSC / VGSC / VGRT

VGRC / VGIC beginning serial number RO809018539
VDSC / VGSC beginning serial number RO8090218249

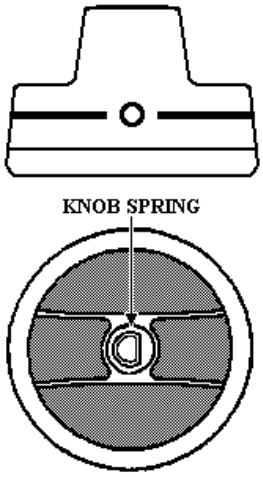
PA010096 replaces PA010024 – Top Burner Valve
PA020029 -- Switch Spacer -- is added, one per valve


BRASS VALVE

VGRT beginning serial number T12280110091

PA010096 replaces PA010024 – Top Burner Valve
PA010119 replaces PA010030 – Grill Valve
PA020029 – Switch Spacer – is added, one per valve

PB010206 replaces PB010034 – Top Burner Knob (Black)
PB010207 replaces PB010035 – Top Burner Knob (White)
PB010122 replaces PB010039 – Grill Knob (Black)
PB010123 replaces PB010040 – Grill Knob (White)
PC010007 – Knob Spring – is added, one per knob



OVEN DOORS

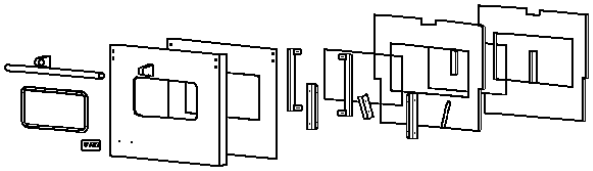
ALL MODELS.

Viking Range Corporation will no longer accept orders for complete doors under warranty. Check your parts books for the individual part needed to replace the bad part.

When ordering the needed part be sure to include the complete model and serial number to insure You receive the correct part.

Thanks for your cooperation in this matter.

Viking Preferred Service Department.



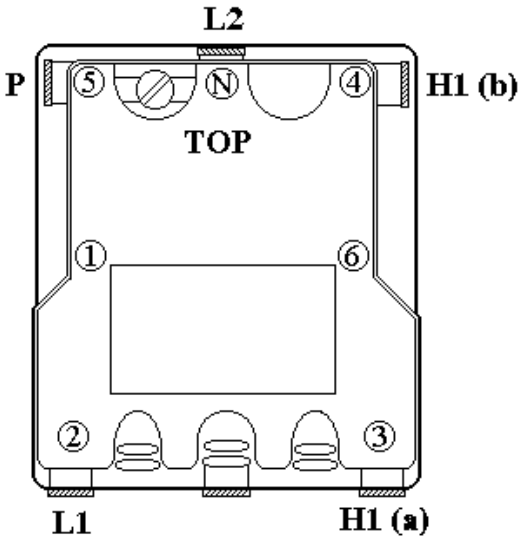
New Duel Infinite Switch

Models: **VESC Ceramic Top**
VERT Ceramic Range Top
VECU Ceramic Cook Top

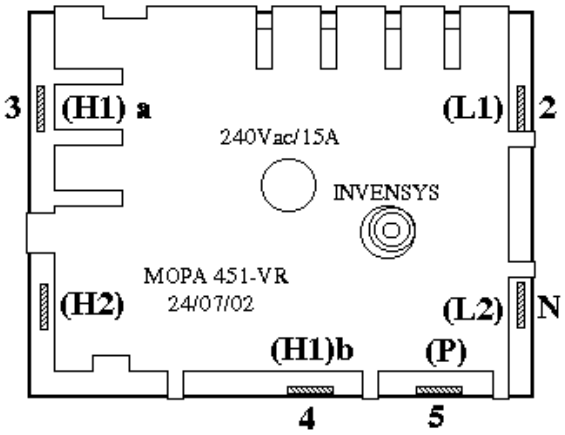
Switches being replaced are:

PJ030009 replaced by PJ030027
PJ030017 replaced by PJ030028
PJ030020 replaced by PJ030029

See drawings below for the connections for each switch that corresponds to the replacement switch.

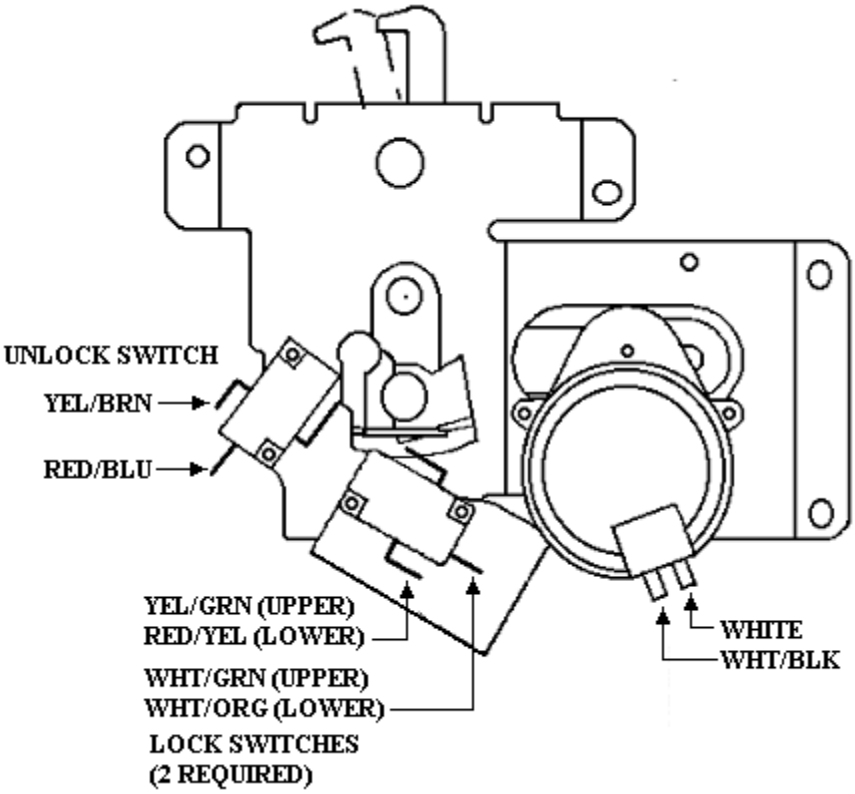


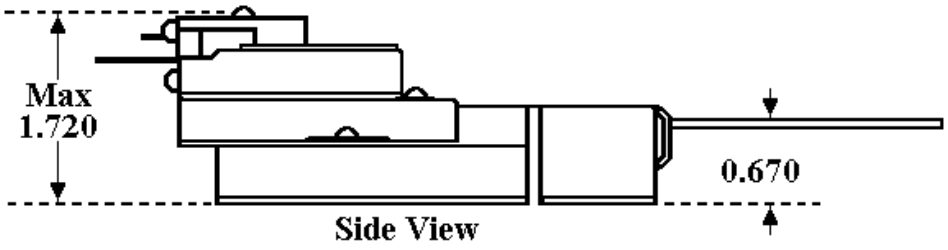
Old Duel Switch

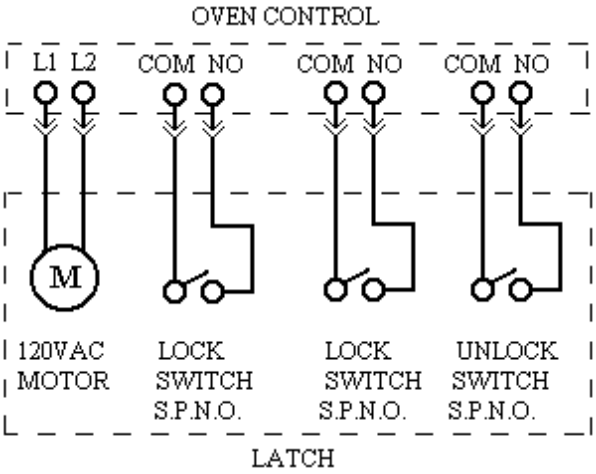


New Duel Switch

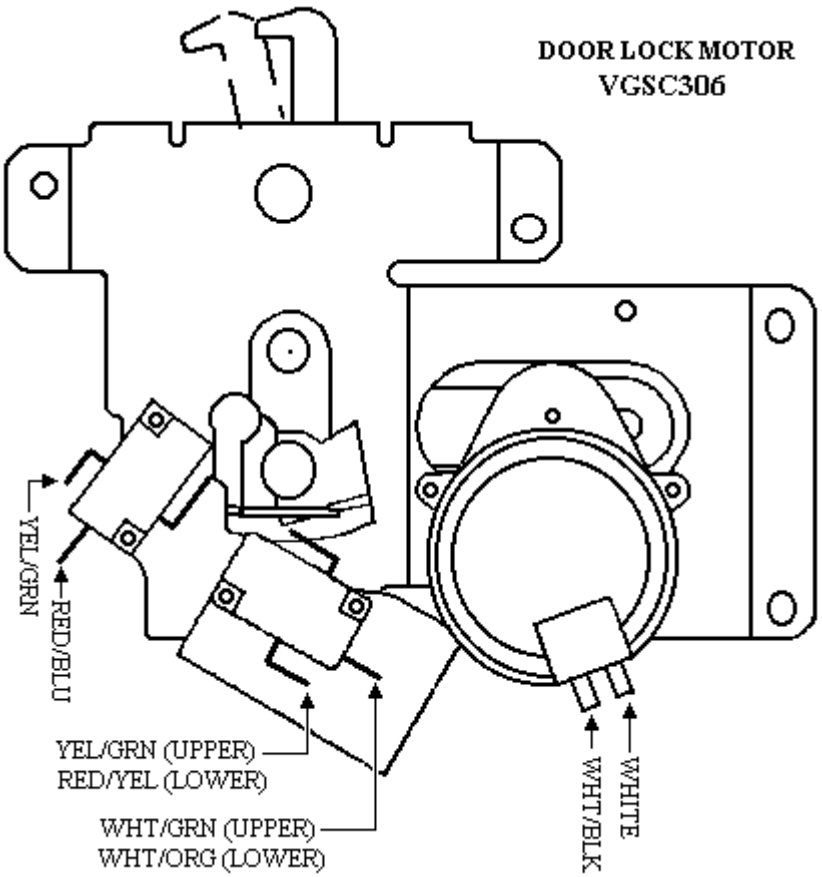
MOTORIZED LATCH
PE050053



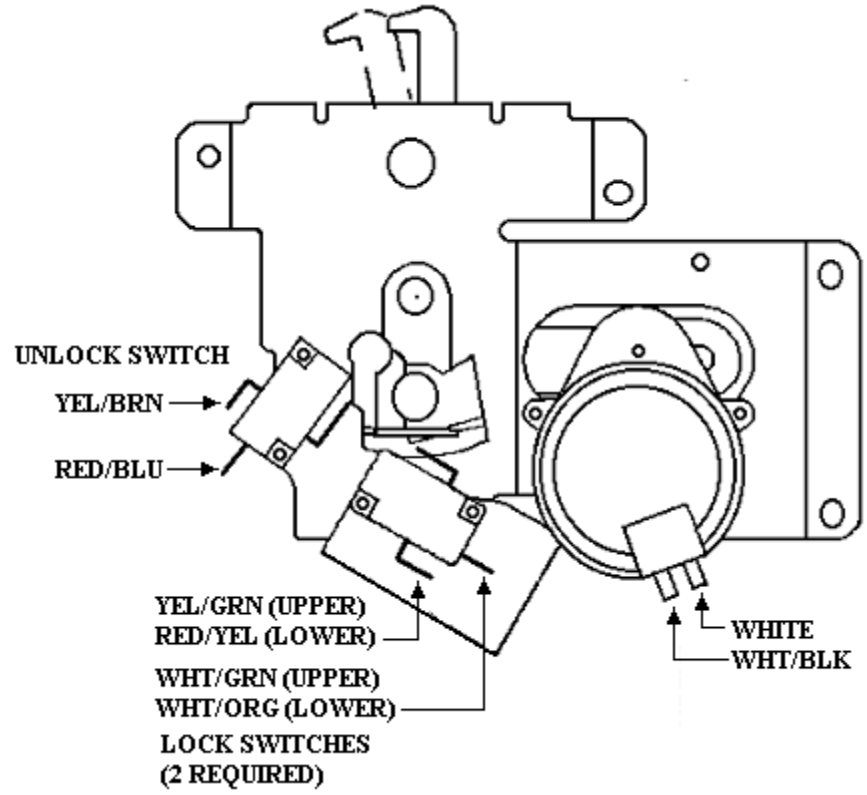


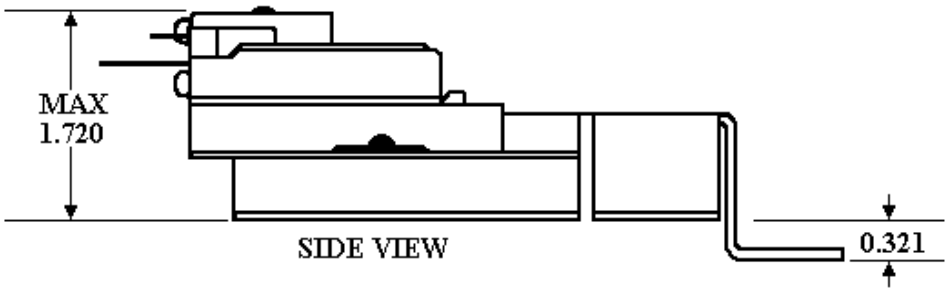


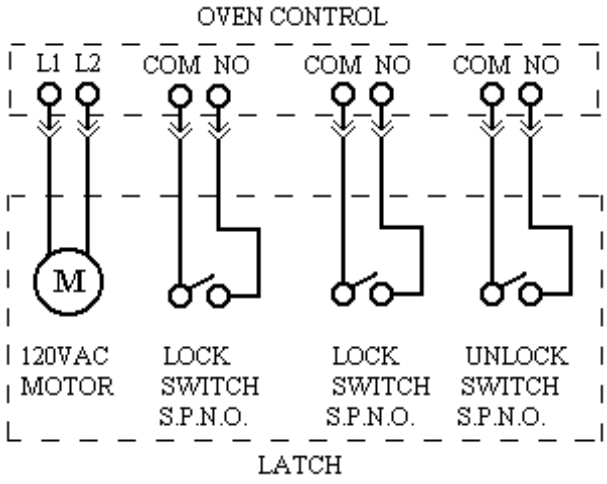
DOOR LOCK MOTOR
VGSC306



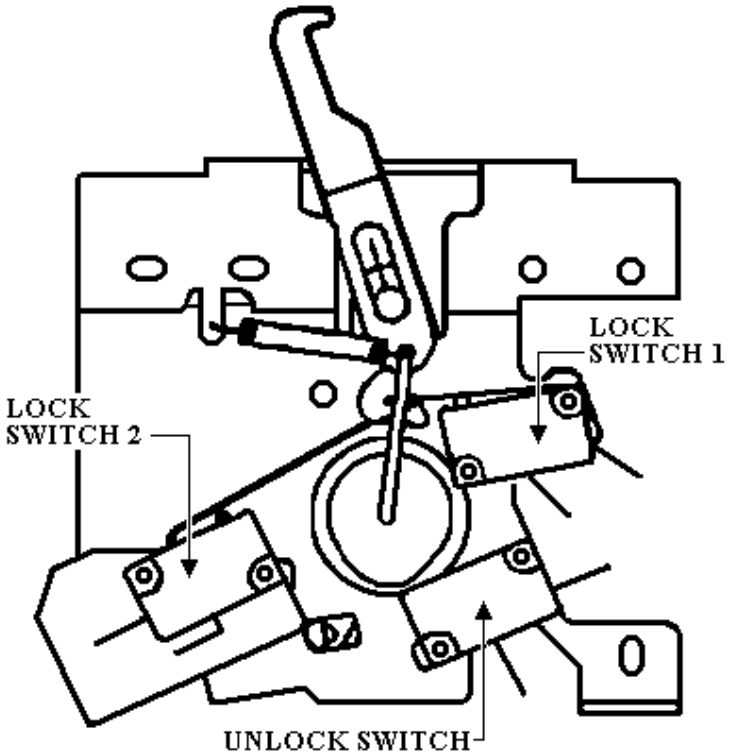
MOTORIZED LATCH
PE050112 (ALTERNATE VENDOR)

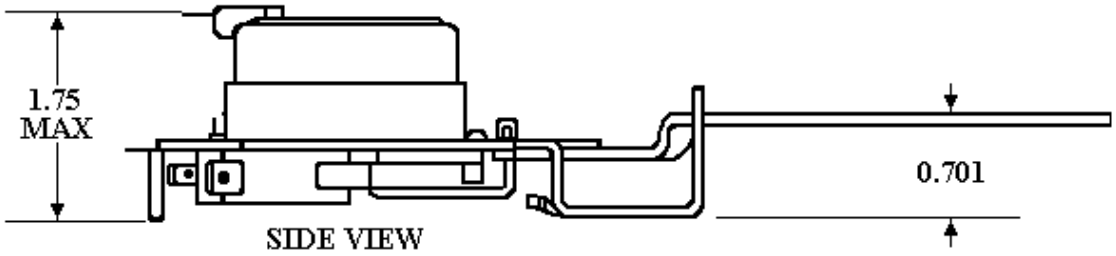


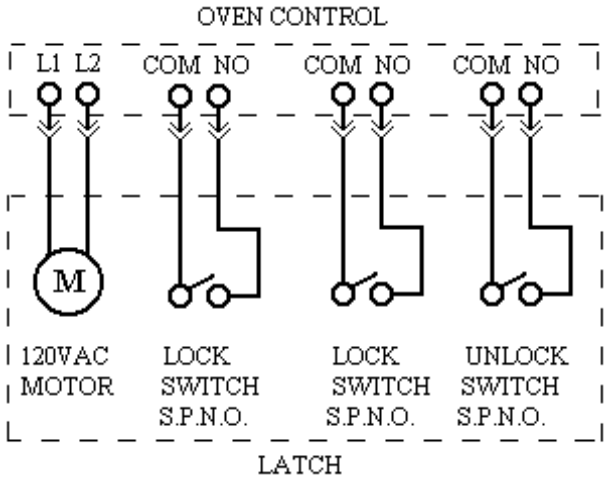




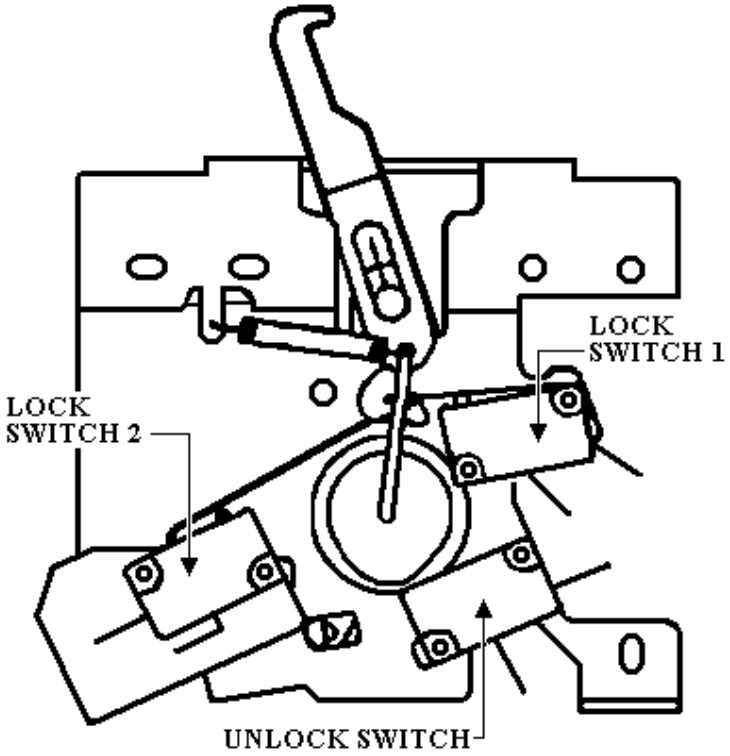
MOTORIZED LATCH
PE050053 (ALTERNATE VENDOR)

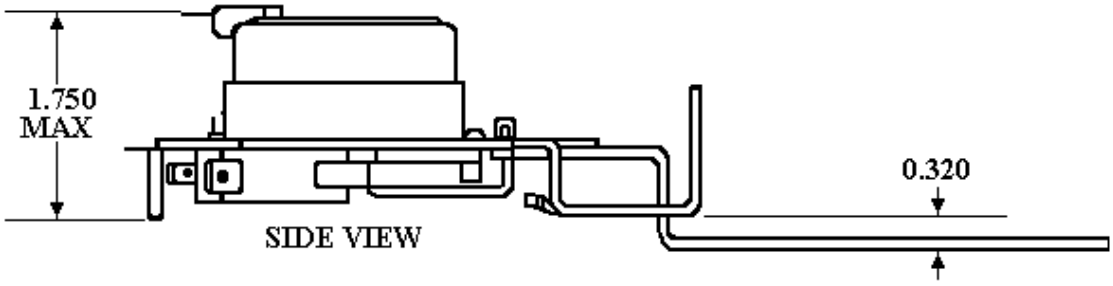


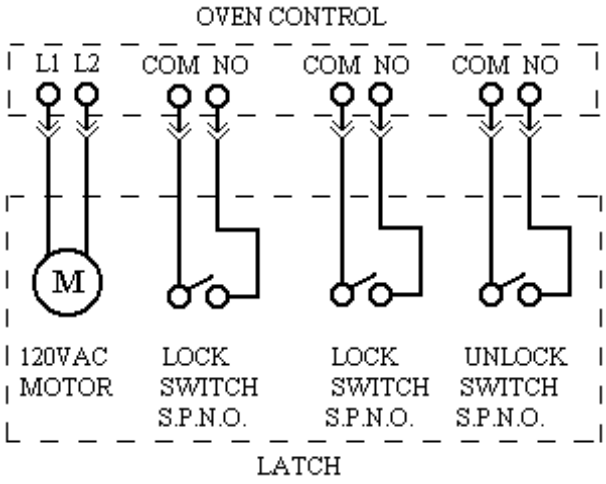




MOTORIZED LATCH
PE050112





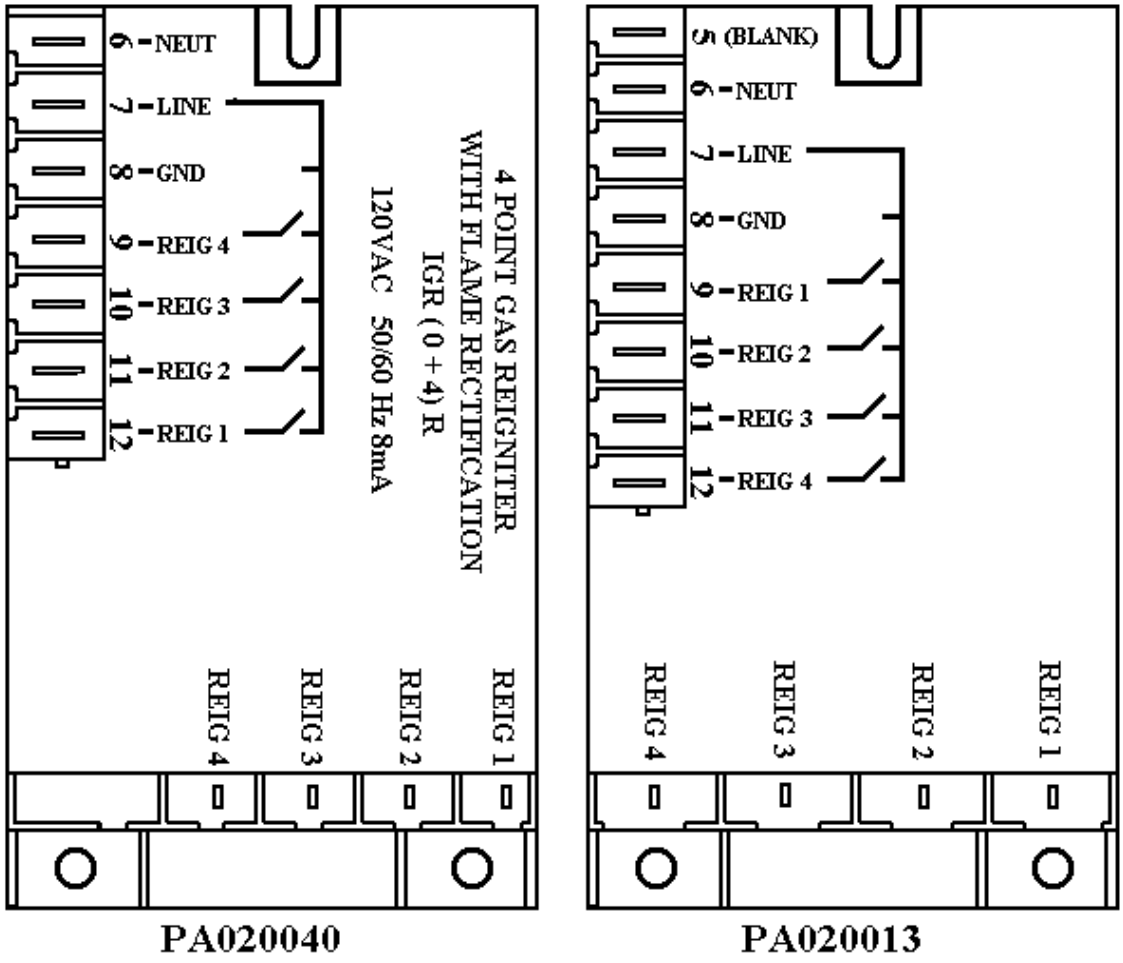


REIGNITION SPARK MODULE

PA020040 – TYTRONICS Part #IGR (0 + 4) R Used in VGSC307 Sealed Burner range top).

PA020013 – HARPER WYMAN Part # 6540

(Initial release ECN 1987 -- 1/22/02 Replaces PA020013)



111. RANGETOPS / COOKTOPS

♦ (For common problems with the cooking surface of the freestanding ranges see section 11.)

NOTES:_____

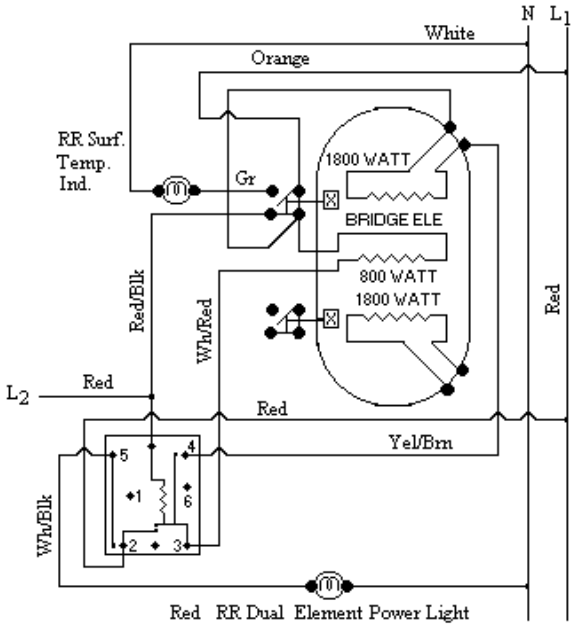
GLASS COOKTOPS

Q. What is the maximum temperature on the VERT VESC glass top?

A. 1300 degrees on the bottom of the glass.

Q. How long does it take for the glass to cool to a point that it is safe to clean?

A. The red light on top will remain on until the cooktop has cooled. Do not clean until the light is off and the unit has completely cooled.



VERT

Operating the Single Front or Rear Element.

Push in and turn the control knob **left** to the desired setting. The element will cycle on and off to maintain the desired heat setting. When finished, turn all controls to OFF.

Operating the Rear and Bridge Element.

Push in and turn the control knob **right** to the desired setting. The rear element and the bridge element will cycle on and off to maintain the desired heat setting. When finished, turn all controls to OFF.

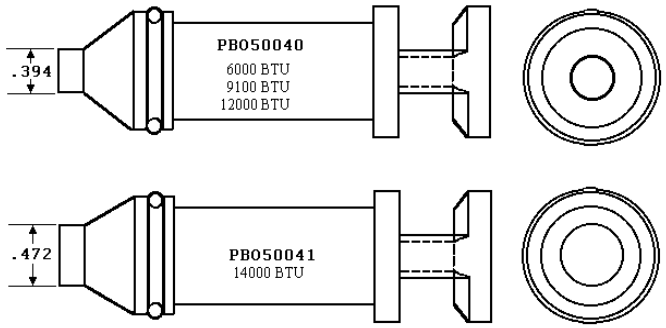
Complaint: Turning the RR Element to the **left** for the single element operation causes both the single element and the bridge element to come on.

Probable cause and cure: The RR control terminals #3 and #4 are reversed. Switch the yellow / brown (Yel/Brn) wire to terminal #4 and the White /red (Wh/Red) wire to terminal #3.

VGSU COOKTOPS

- VGSU (12,000 and 14,000 burner heads have been revised for the VGSU 101 / 160 / 161 cooktops.
- If you receive complaints for LIFTING / BLOWING noise on the VGSU unit replace the burner heads. The original part numbers was not changed.
- 12,000 Burner head PA080031---14,000 Burner head PA080033.

To distinguish between the old and new – the tip that hold the burner in place is now between the ports rather than directly below the port.



VGSU 101 VENTURI ASSY. LF/LR

- Check the Venturi for the 14,000 BTU burner. It should have a larger opening then the smaller burners.

IMPROPER INSTALLATION OF THE VGSU COOKTOP AND THE DUCTWORK LF A DOWN VENTILATOR (UNDER THE CABINET) WILL CAUSE FLAMES TO LIFT OFF THE BURNER AND CAN DRAW FLAMES AWAY FROM THE BURNERS. (TO CHECK FOR PROPER INSTALLATION SEE PAGE 302 FOR DETAILS). CHECK FOR THE PROPER SEAL PLACEMENT AND THE HOLD DOWN BRACKETS. THEY MUST BE IN PLACE.

- A TIGHTLY DEALED CABINET UNDER THE COOKTOP, WITHOUT SEALING THE COOKTOP TO THE CABINET CAN CAUSE FLAME PROBLEMS. TO CHECK OPEN THE CABINET DOORS AND WATCH THE BURNER FLAMES. IF THEY ARE STEADY WITHOUT LIFTING CHECK THE SEAL OR CABINET VENT.
- VGSU LP CONVERSION KITS ARE A SALES ITEM. ORDER KITS THROUGH SALES.

VGSU INSTALLATION

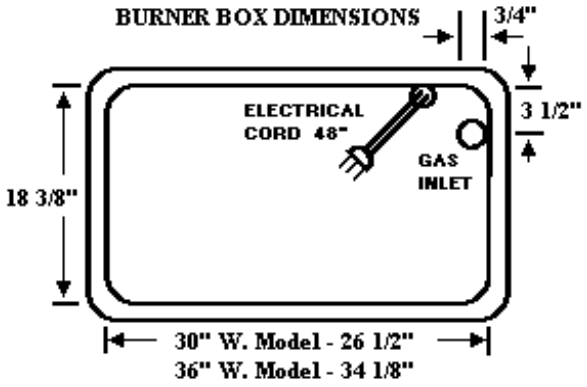
INSTALLATION OF COOKTOP

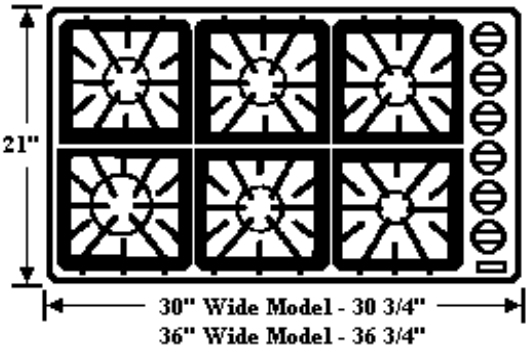
Before installing your cooktop, follow the instructions listed below.

1. Remove the roll of gasket material from your packed-with items.
2. Turn your cooktop upside down on a flat surface. Make sure to place some protective material between the cooktop and the surface.
3. Peel the plastic covering from the gasket material.
4. With the adhesive side down, stick the gasket material all the way around the burner flange.

Important: Make sure corners are covered completely, leaving "No Air Gaps".

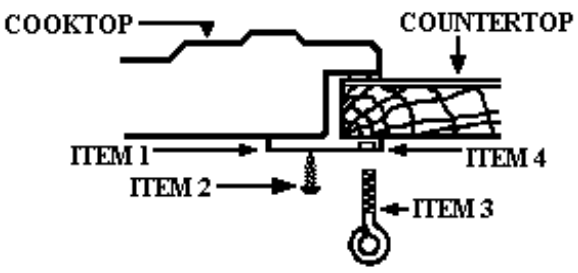
5. Turn the cooktop over and place into the counter top
   cutout.





INSTALLATION OF HOLD DOWN BRACKET

1. After installation of the cooktop, locate the two sheet metal screw holes on each end of the bottom (item 1) using the #10 x ½" sheet metal screw (item 2) to the burner box.
2. Screw the eye bolt (item 3) into the self -retaining nut (item 4) and tighten firmly against bottom of counter top.



VGSU 160
NATURAL GAS

Burner / Orifice Spud	Orifice Pin Size	Jet Pin Size	BTU's	KiloWatt (equivalent)
L. Front -D- #51 (green)	1.75	0.67	14K	4.1 kw.
L. Rear -C-#53 (pink)	1.50	0.62	12K	3.5 k
C. Front -C-#53 (pink)	1.50	0.62	12K	3.5 kw
C. Rear -C- #53 (pink)	1.50	0.62	12K	3.5 kw
R. Front -A- #58 (clear)	1.07	0.58	6K	1.8 kw
R. Rear -B- #55 (orange)	1.32	0.58	9K	2.6 kw

L. P. / PROPANE GAS

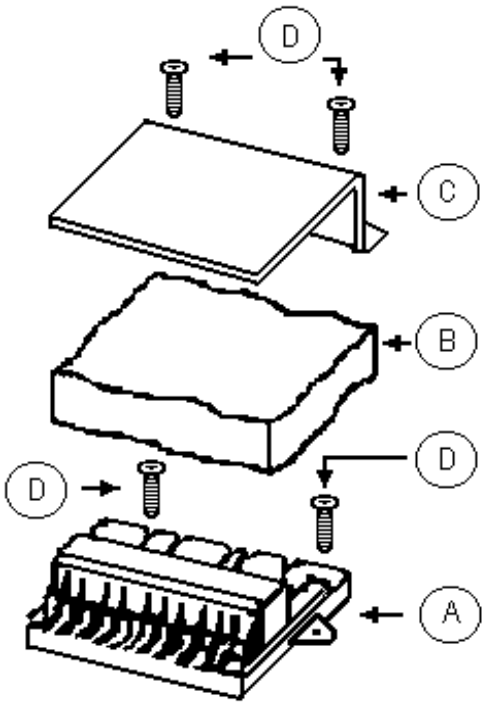
L. Front -D- #58	1.07	0.45	13.5K	4.0 kw
L. Rear -C- #60	1.02	0.42	11K	2.8 kw
C. Front -C- #60	1.02	0.42	11K	2.8 kw
C. Rear -C- #60	1.02	0.42	11K	2.8 kw
R. Front -A- #69	0.74	0.36	6K	1.8 kw
R. Rear -B- #65	0.90	0.39	9K	2.6 kw

ORIFICE SPUD SIZE FOR ALTITUDE CHANGE

Sea Level	2,000'		4,000'	6,000'	8,000'	10,000'
#51	**#51**	#52	#52	#53	#54	
#53	#54	#54	#54	#55	#55	
#55	#55	#55	#56	#56	#57	
#58	#59	#60	#62	#63	#64	
#60	#61	#62	#63	#64	#65	
#65	#65	#66	#67	#68	#69	
#69	#70	#70	#71	#71	#72	

BLACK DOT ON VALVE PIN INDICATES **NATURAL** GAS SETTING.
LP Kit orifice pins marked -A- 6,000 BTU, -B- 9,000 BTU, -C- 11,000 BTU, -D- 13,500 BTU.

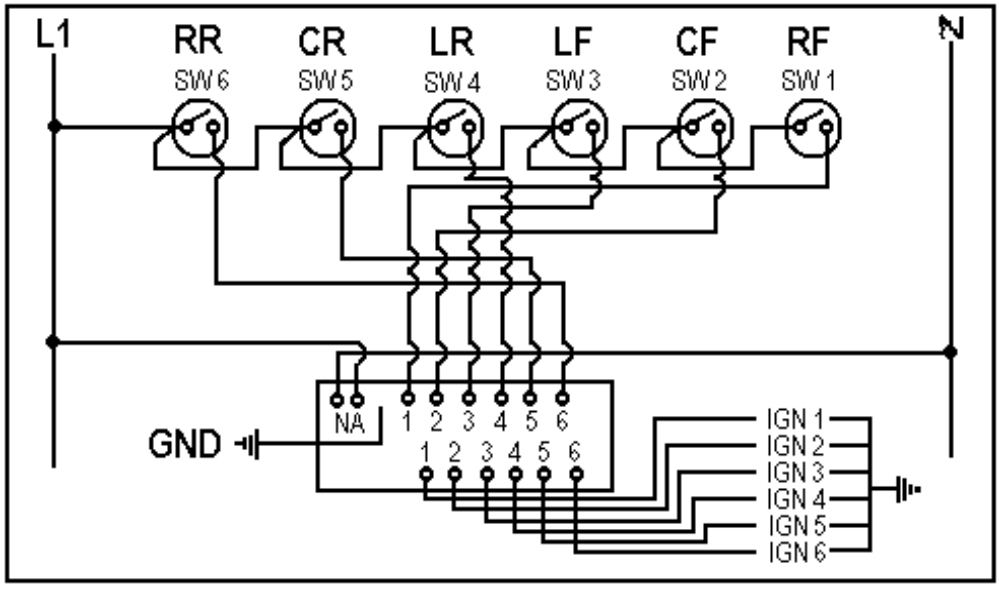
VGSU REPLACEMENT SPARK MODULE
ASSEMBLY NUMBER G5003081



- Remove two (2) screws (D) holding the module cover in place.
- Remove the module cover ©.
- Remove the insulation (B).
- Remove two (2) screws (D) holding the module to the chassis.
- Remove and replace the spark module (A).
- Using the wiring diagram (Fig. 2) wire the module terminals to the burner switches as illustrated.
- Make sure the module has a solid ground connection.

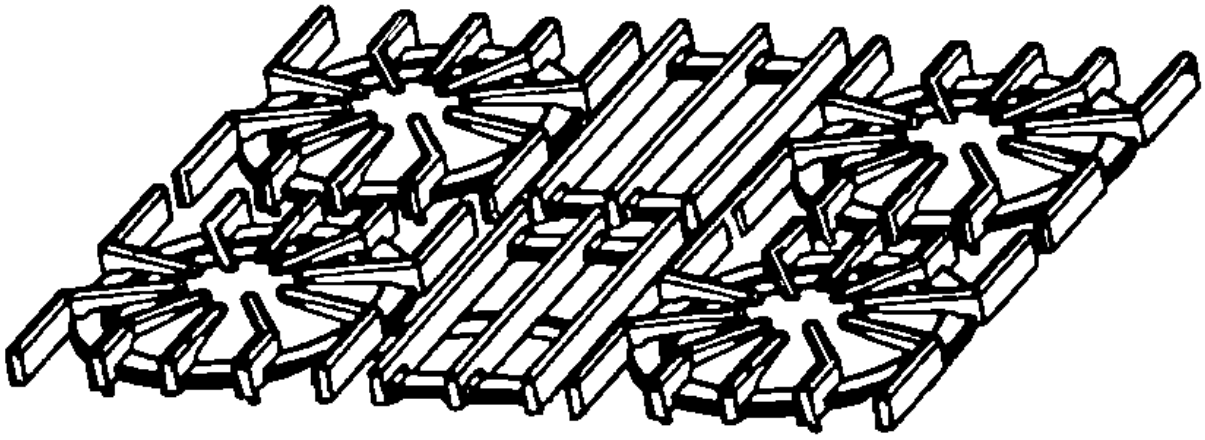
Note: The assembly kit G5003081 consists of:

PG220007 wire to RF switch
PG220008 wire to RF switch
PG220009 wire to LF switch
PG220010 wire to RR switch
PG220011 wire to RC switch
PG220012 wire to RR switch
PG220014 wire to LF & CF electrode
PG220015 wire to RF electrode
PG220016 wire to LF switch
PG220017 wire to CR electrode
PG220018 wire to RR switch
PG220021 six (6) point re-ignition spark module



- You may find two (2) four (4) point spark modules in some units. One of the modules will have two (2) of the terminals grounded. The six (6) point spark module will take the place of the Two (2) modules. There will not be any grounded terminals on the six (6) point module.
- The original spark module was blue in color. The replacement spark module is white.

CENTER GRATES



Center grates were added to all 30" ranges and rangetops on October 2, 2000. The cartons are being marked with a stamp to help distributors manage inventory.

To follow are the serial number breaks:

VGRT3004BSS	**TO9150007116**
VGIC3054BSS	**R09220021069**
VDSC3054BSS	**R10060022028**

DESIGNER COOKTOP

DECU / DGCU105-4B (30")
DECU / DGCU154-6B (36")
DECU / DGCU155-6B (46")

Four (4) to six (6) hold brackets will be provided with your unit depending upon the size of the cooktop. After cooktop has been installed into the countertop, locate the slots on the front, rear, and sides of the burner box (Figure 1). Place a bracket in the slots and lower until the bracket catches. (Figure 2). Use to tighten the cooktop to the countertop. (Figure 3).

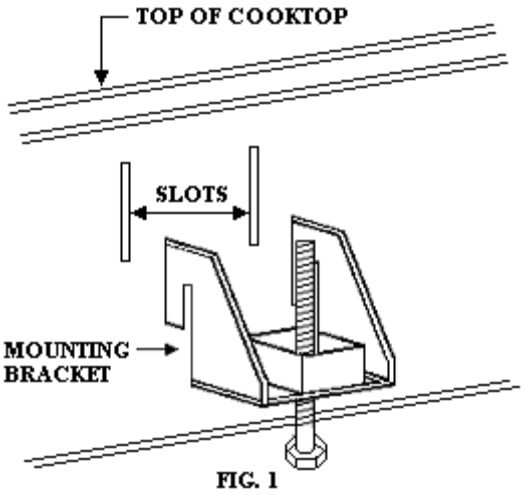


FIG. 1

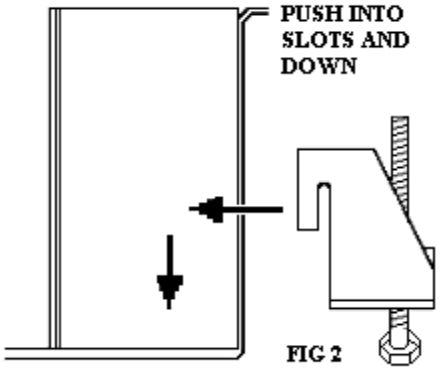


FIG 2

NOTE: If countertop is less than 1 ½ " (3.8cm) thick a filler block will have to be used for bolt to push against. (See Figure 4)

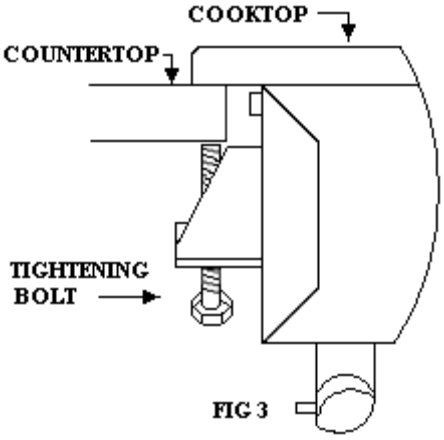


FIG 3

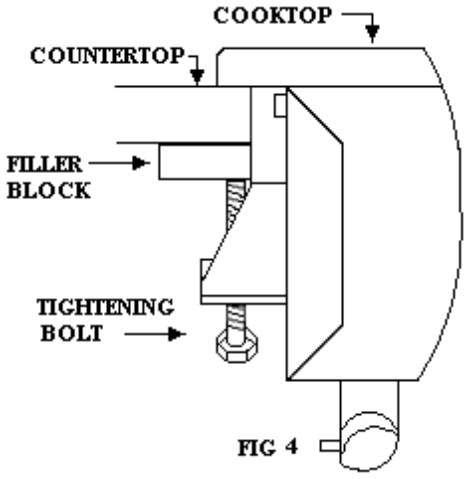
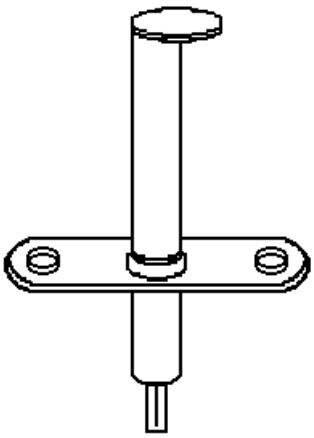


FIG 4

- There must be a 1" (2.5cm) clearance under counter on all 4 sides of the cooktop for pull down brackets to be attached.

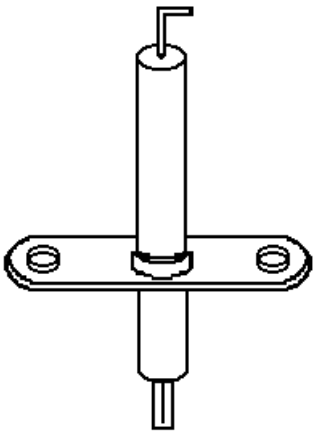
Beginning with Model Number VGIC305-4BSS, Serial Number RO6010111134 –SCH, the top burner **SPARK IGNITER** has been replaced with spark igniter #PA020028. Replacing spark igniter #PA020014. This will be a running change throughout the entire gas cooking product.

NEW



PART # PA020028

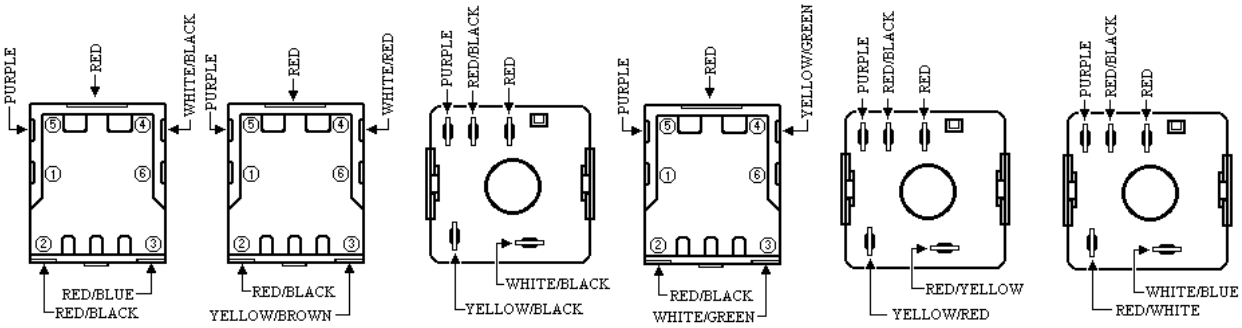
ORIGINAL



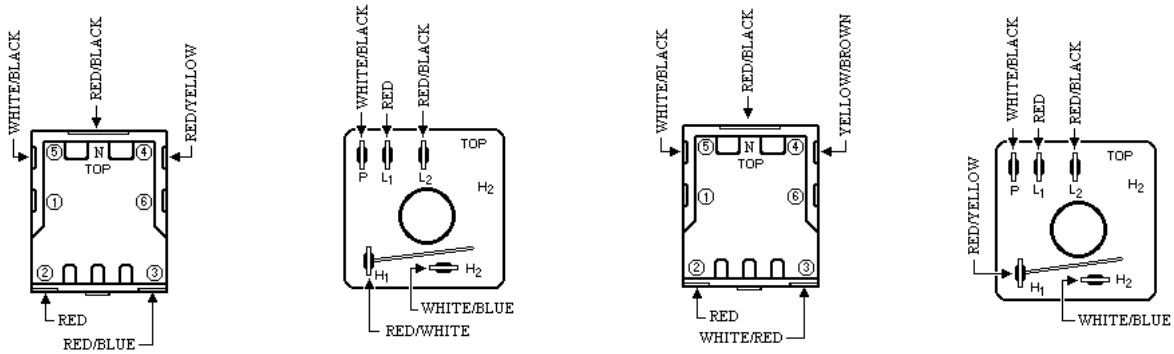
PART # PA020014

With this change **WARRANTY SERVICE WILL NO LONGER PAY FOR TOP BURNER IGINTER ADJUSTMENTS.** Visually check the spark igniter, or check the serial number on the VGIC305 to determine the status of the warranty claim.

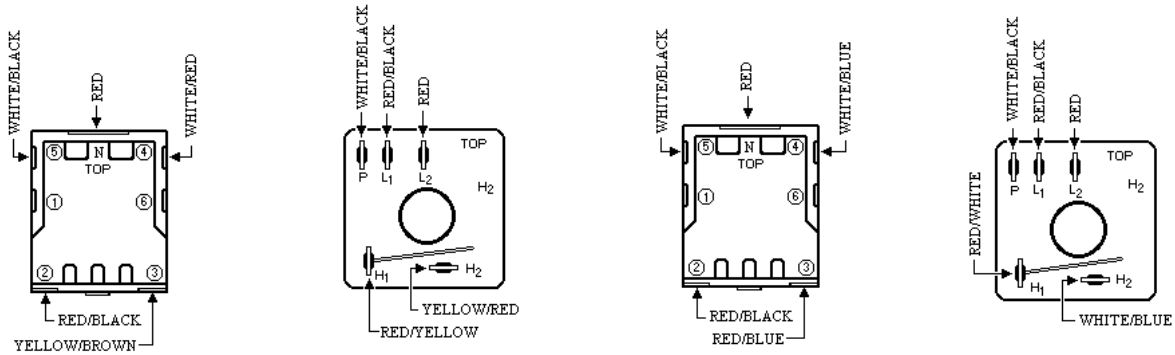
VECU160 CONTROL PANEL WIRING



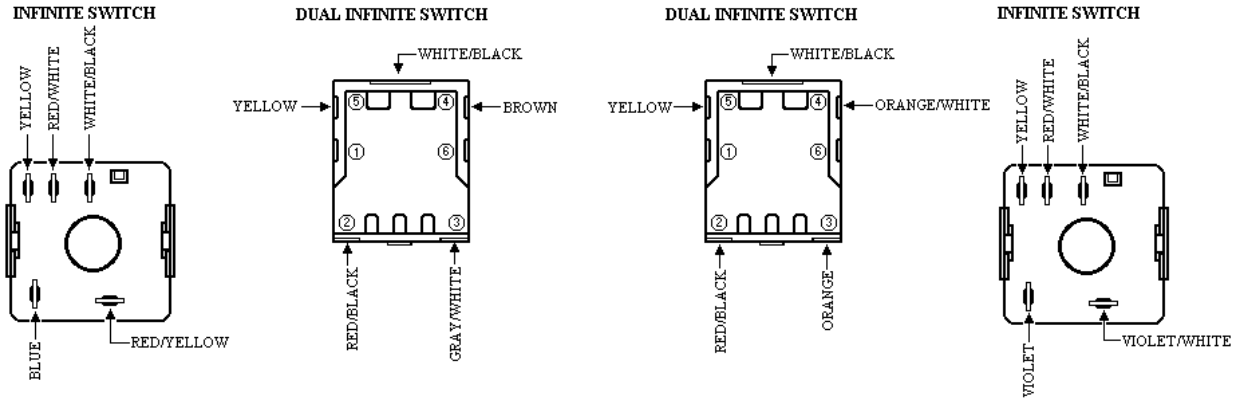
VERT300 CONTROL PANEL WIRING



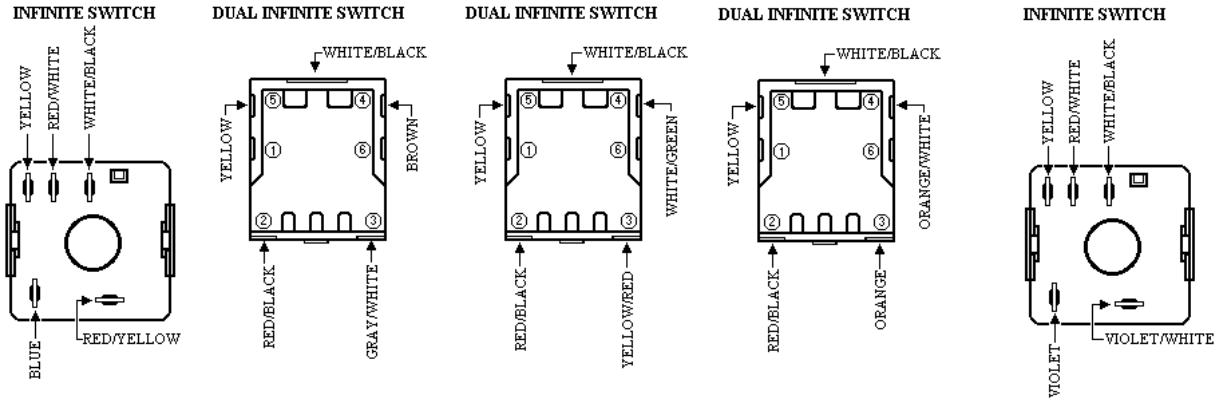
VECU CONTROL PANEL WIRING



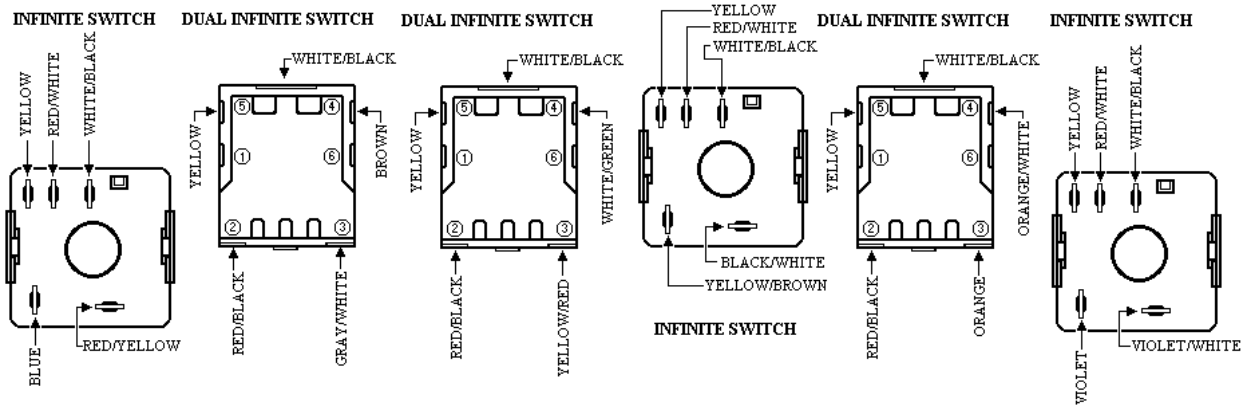
DECU100 CONTROL PANEL WIRING



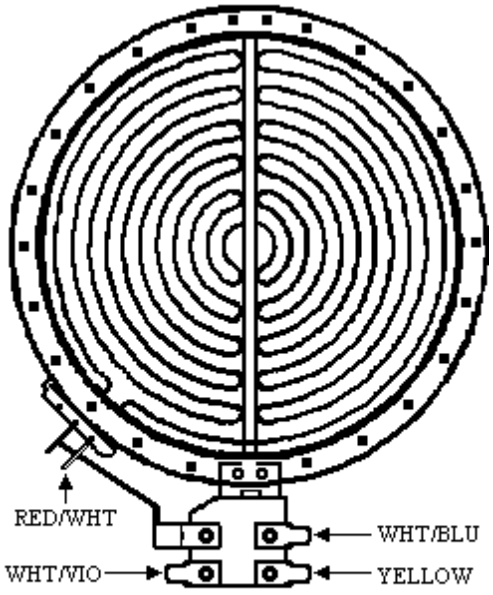
DECU160 CONTROL PANEL WIRING



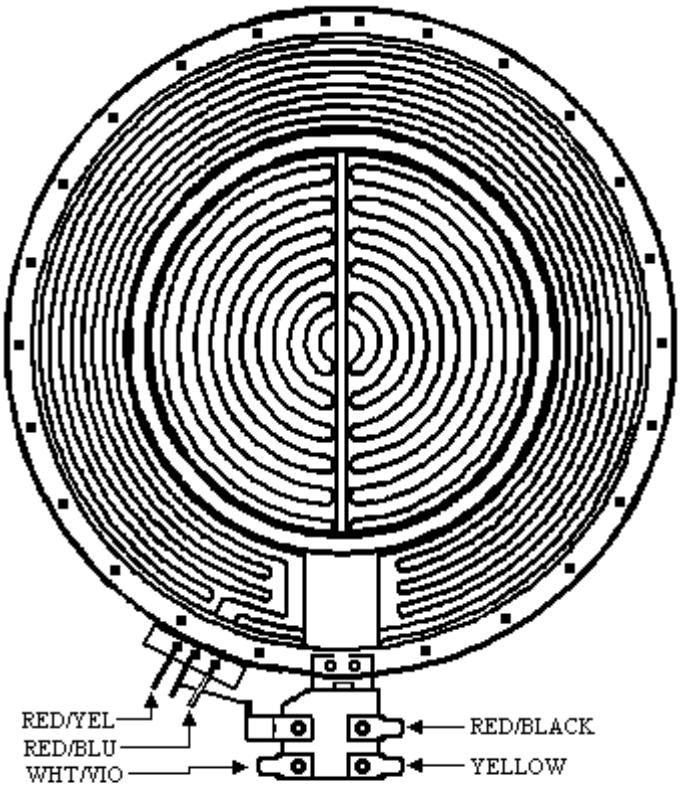
DECU150 CONTROL PANEL WIRING



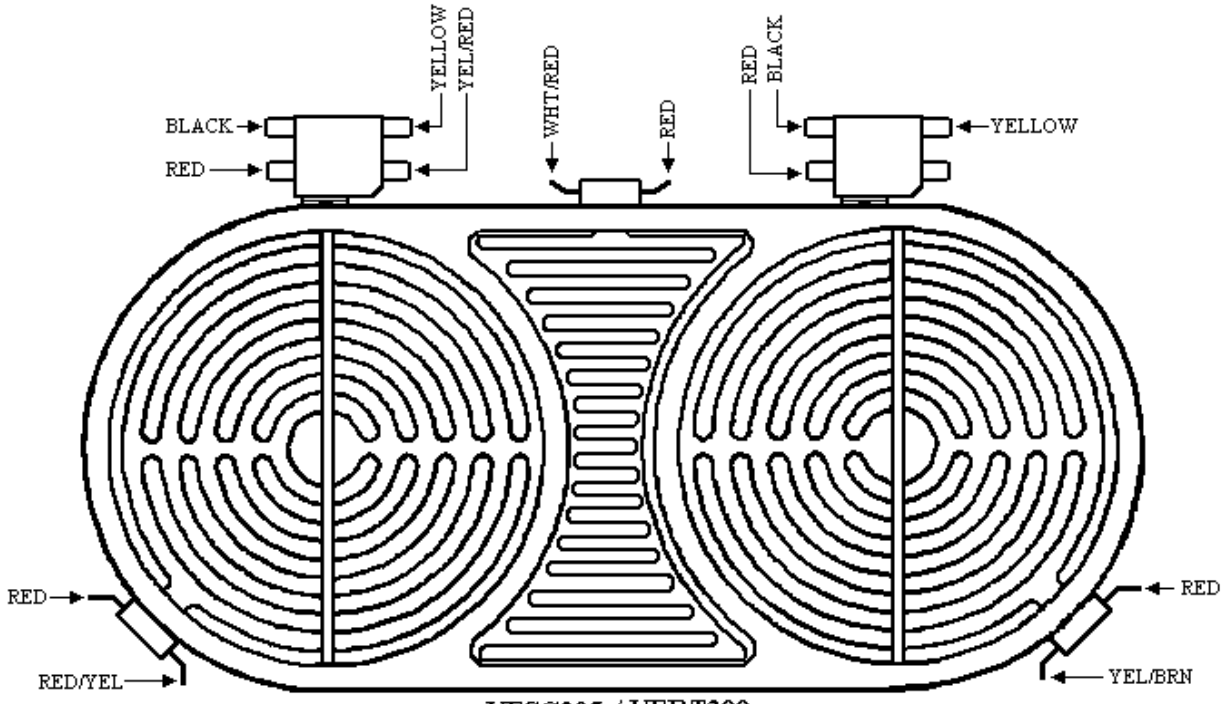
VESC305 / VERT300 ELEMENTS



VESC305 / VERT300
1500 WATT ELEMENT

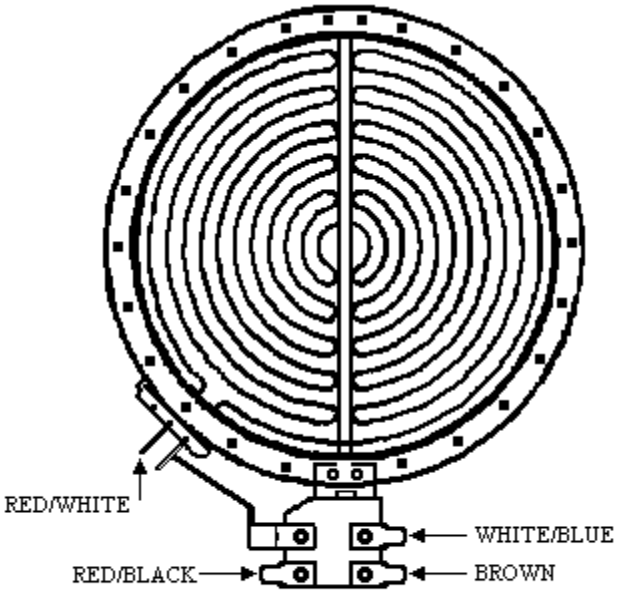


VESC305 / VERT300
2400 (1000) WATT ELEMENT



VESC305 / VERT300
(2) 1800 X 800 WATTS ELEMENT

VECU100 ELEMENTS



VECU100
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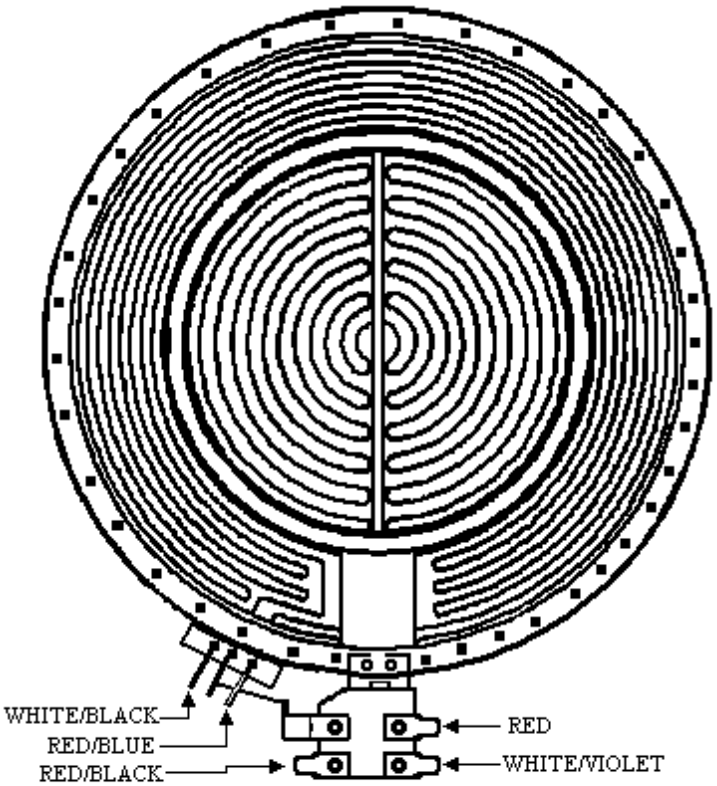
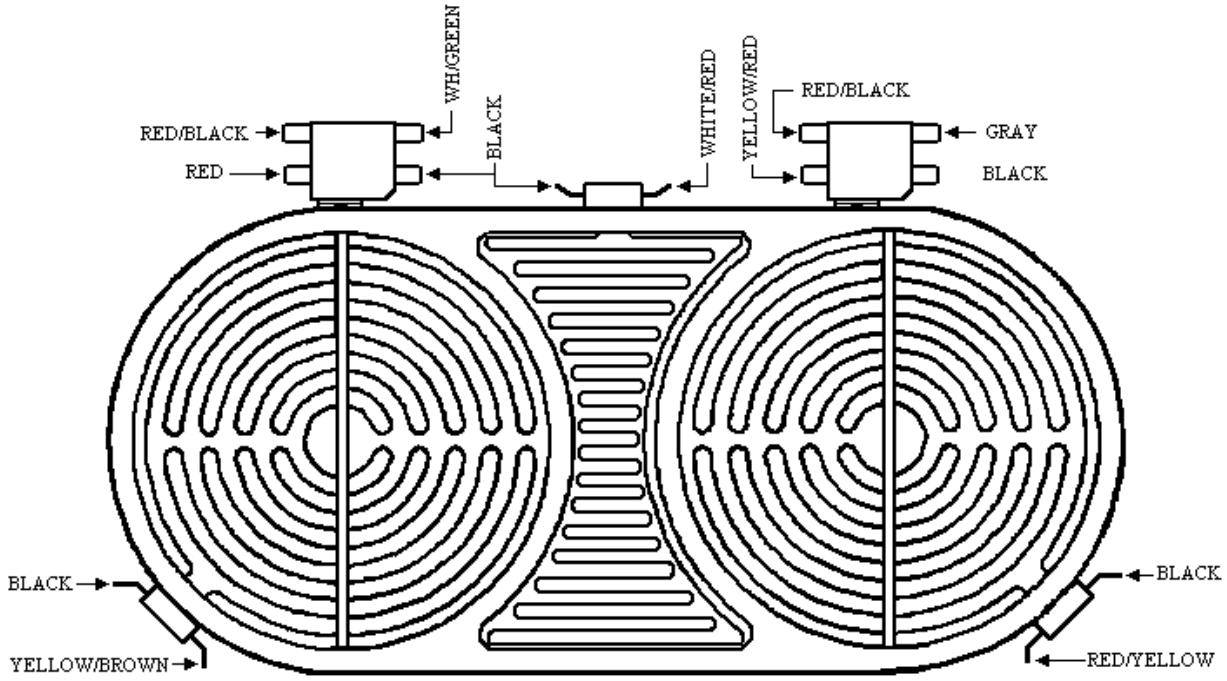
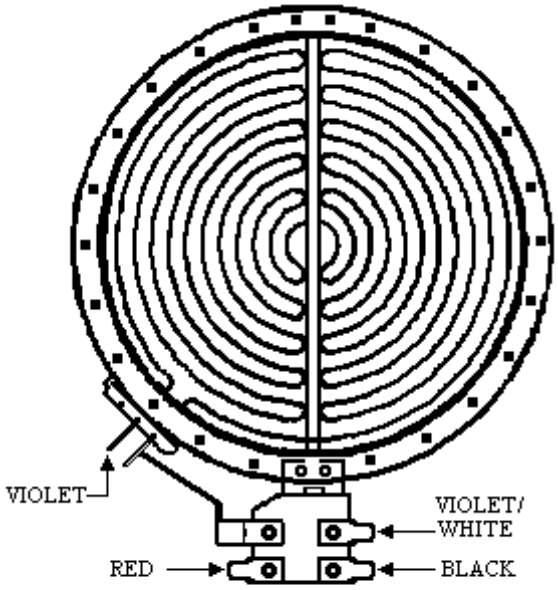


VECU100
2500 (1000) WATT ELEMENT

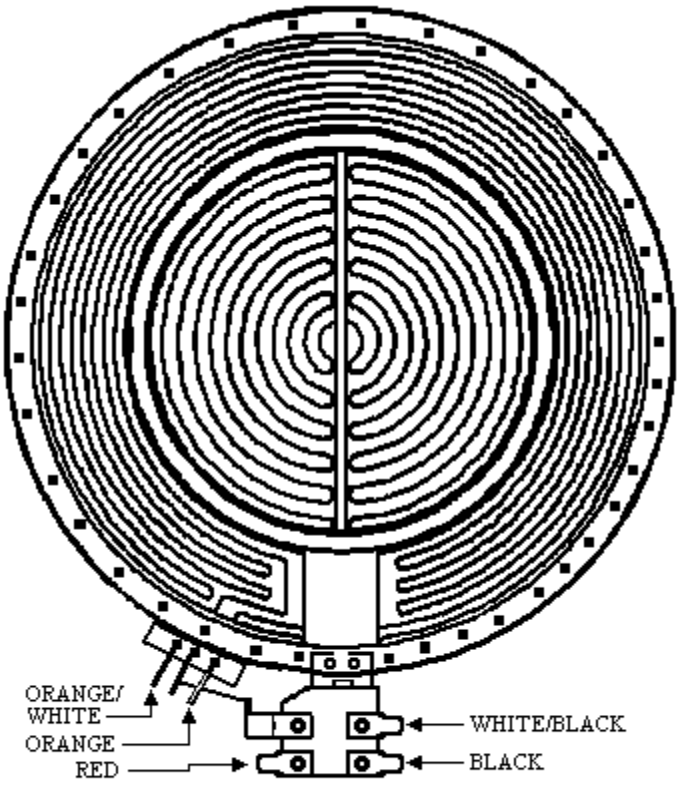


VECU100
(2) 1800 X 800 (BRIDGE) WATTS ELEMENT

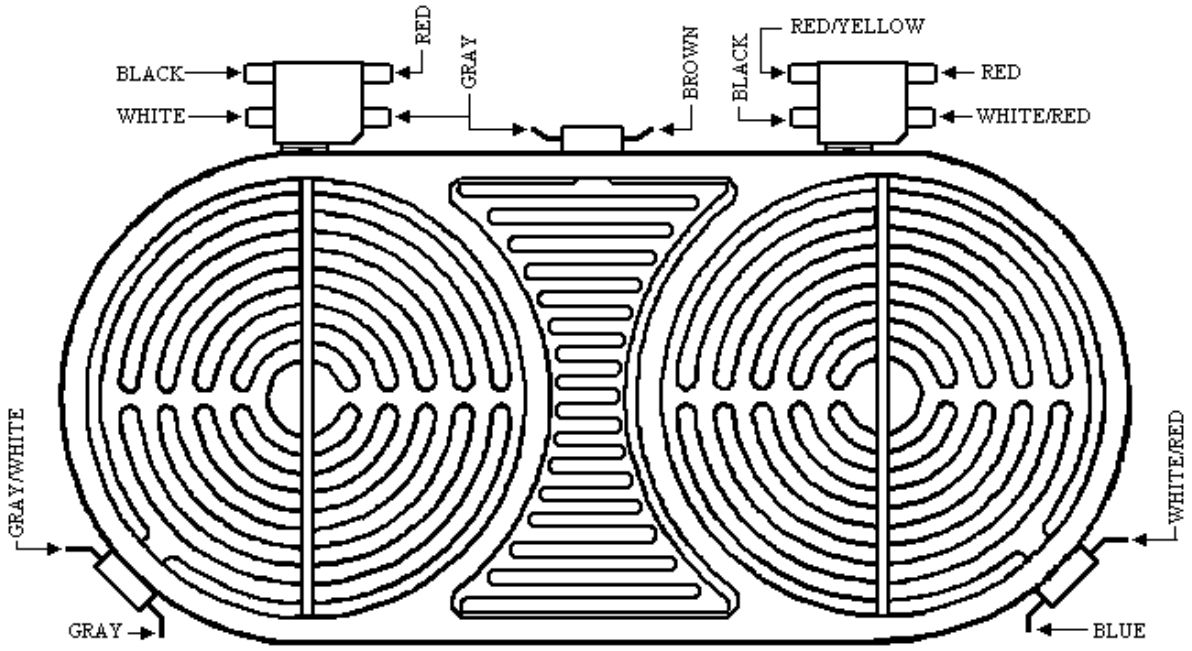
DECU100 ELEMENTS



DECU100
1500 WATT ELEMENT



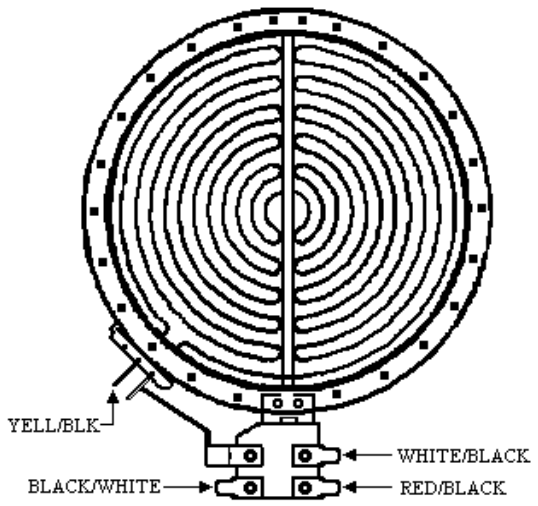
DECU100
2500 (1000) WATT ELEMENT



DECU100
(2) 1800 X 800 (BRIDGE) WATTS ELEMENT

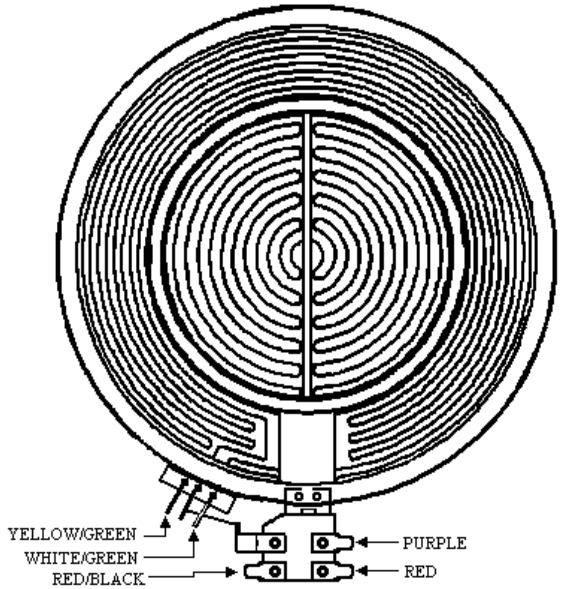
VECU160 ELEMENTS

UPPER LEFT BURNER

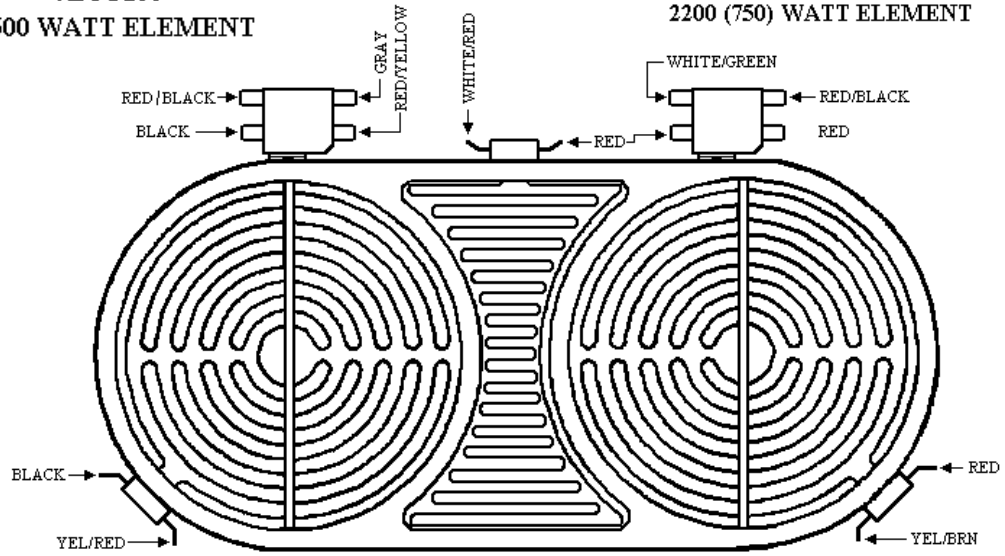


VECU160
1500 WATT ELEMENT

LOWER LEFT BURNER

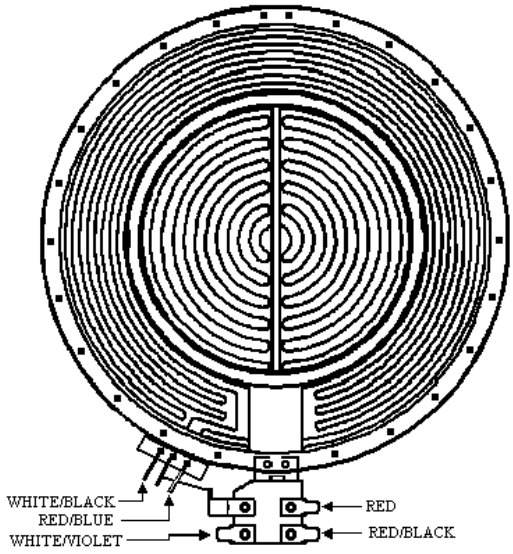


VECU160
2200 (750) WATT ELEMENT



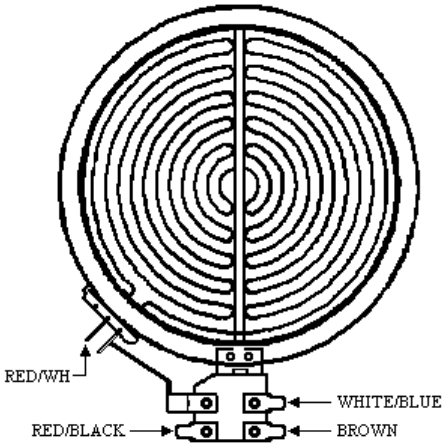
VESC305 / VERT300
(2) 1800 X 800 WATTS ELEMENT
CENTER BURNER

RIGHT REAR BURNER



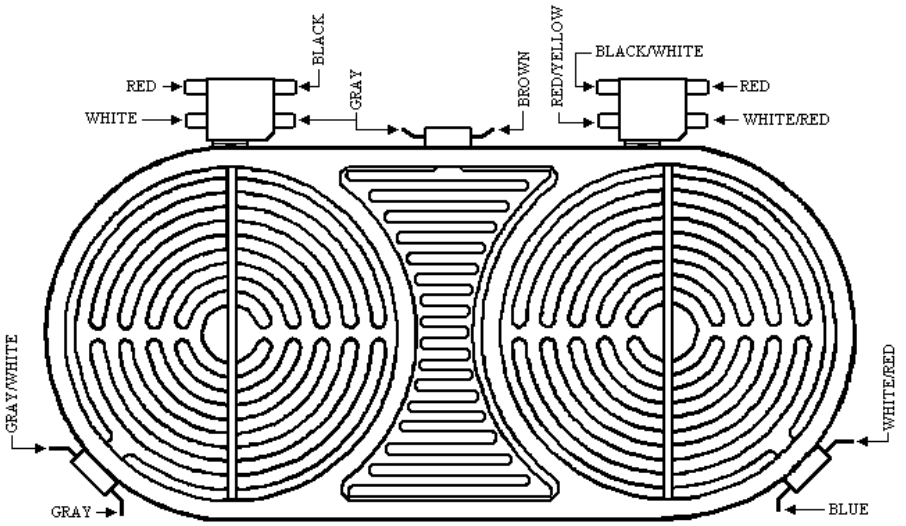
VECU160
2500 (1000) WATT ELEMENT

RIGHT FRONT BURNER

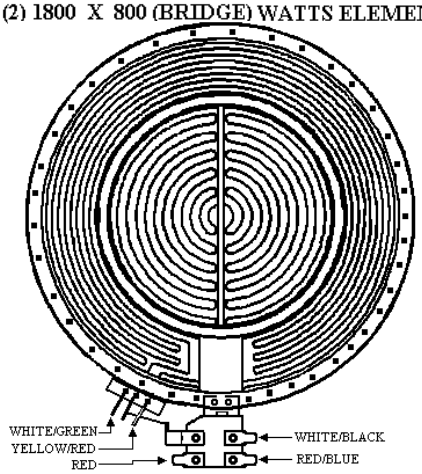


VECU160
1200 WATT ELEMENT

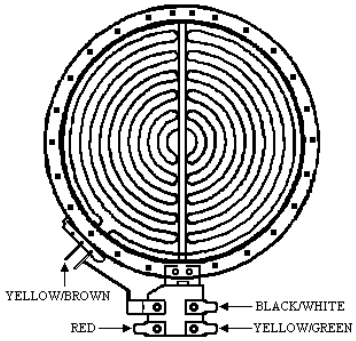
DECU150 ELEMENTS



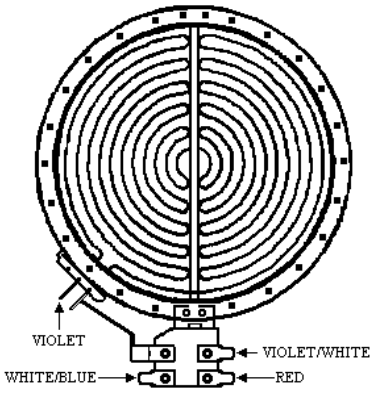
DECU150 LEFT BURNER
(2) 1800 X 800 (BRIDGE) WATTS ELEMENT



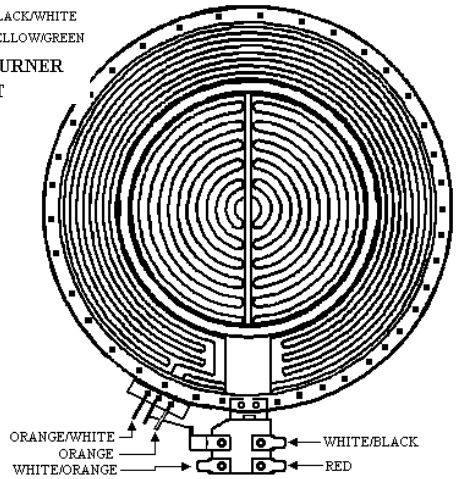
DECU150 LEFT CENTER BURNER
2500 (1000) WATT ELEMENT



DECU150 RIGHT CENTER BURNER
1200 WATT ELEMENT

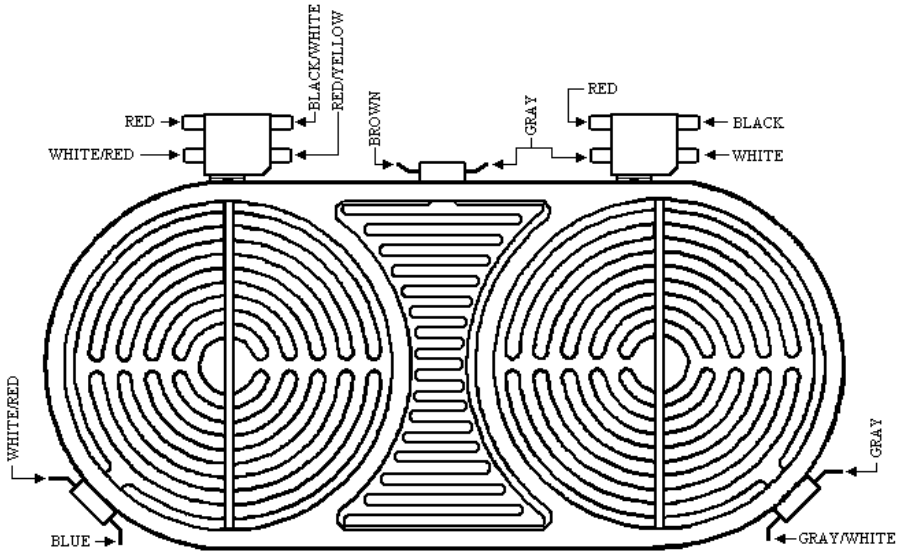


DECU150 RIGHT FRONT BURNER
1500 WATT ELEMENT

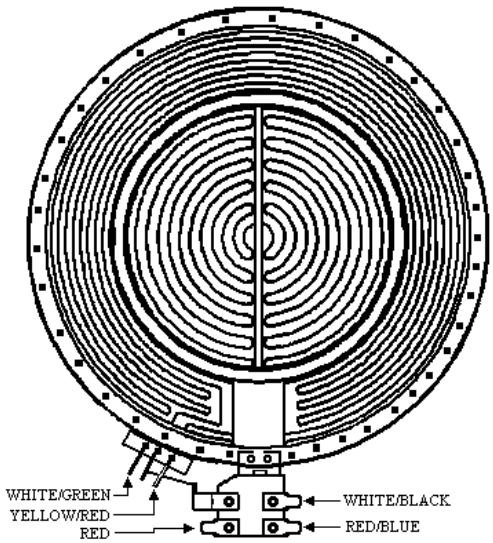


DECU150 RIGHT REAR BURNER
2200 (750) WATT ELEMENT

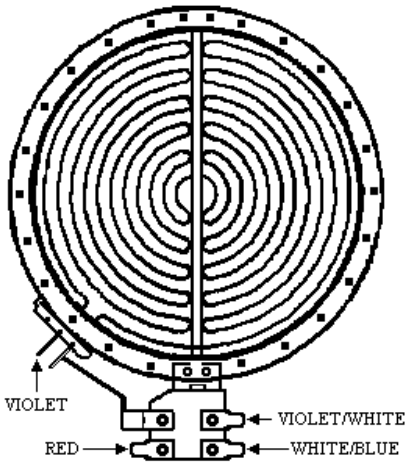
DECU160 ELEMENTS



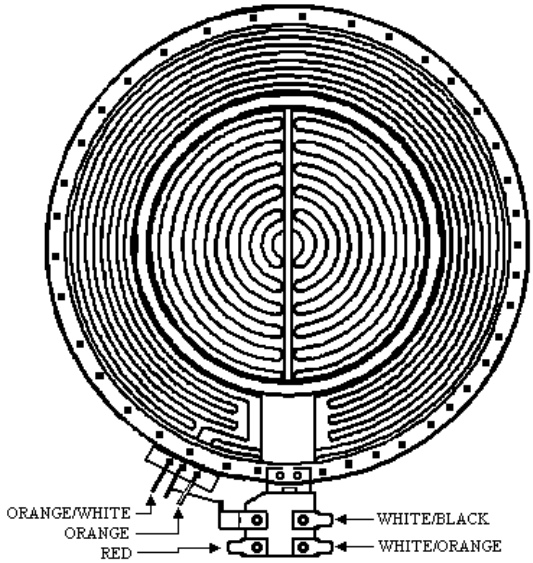
DECU160 LEFT BURNER
(2) 1800 X 800 (BRIDGE) WATTS ELEMENT



DECU160 CENTER BURNER
2500 (1000) WATT ELEMENT



DECU160 RIGHT FRONT BURNER
1500 WATT ELEMENT

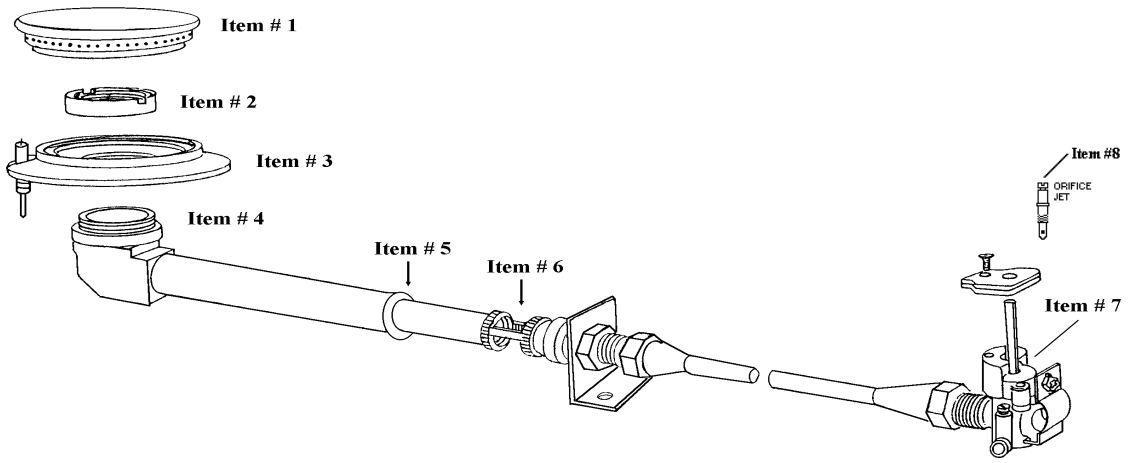


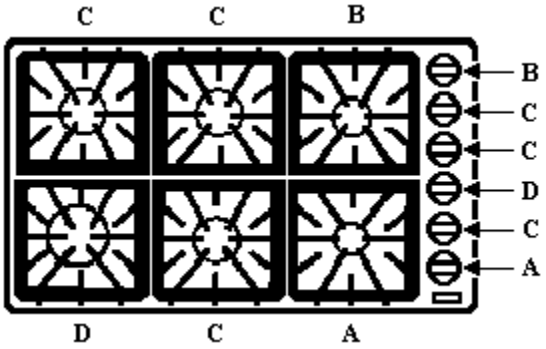
DECU160 RIGHT REAR BURNER
2200 (750) WATT ELEMENT

Viking Range Corporation • 5601 Viking Road-CR525 • Greenwood, Mississippi (MS) • 38930 • (662) 451-4133 • Fax: (662) 451-4386

INSTALLATION INSTRUCTIONS
VGSU REPAIR KIT

1. Turn gas off at supply line.
2. Disconnect electrical power to cooktop.
3. Remove the surface grates.
4. Remove burner caps (Item 1) by lifting up.
5. Using a large screw driver or flat piece of metal, turn the brass ring (Item 2) in the center of each burner counter clockwise, then remove.
6. Use caution when lifting the top as the ignition assemblies (Item 3) are not attached to the top assembly and will fall out causing a possible breakage of the igniter.
7. With caution, remove cooktop surface.
8. Remove the orifice jet and discard (Item #8) located on the valve (Item 7) screw counter clockwise to remove and replace with new orifice jet as labeled (A, B, C, D).
9. After replacing the orifice jet, it will be necessary to adjust the air shutters on all burners.
10. Replace cooktop surface.
11. Remove left front burner (14,000 BTU) and discard. Replace with new burner included with kit.





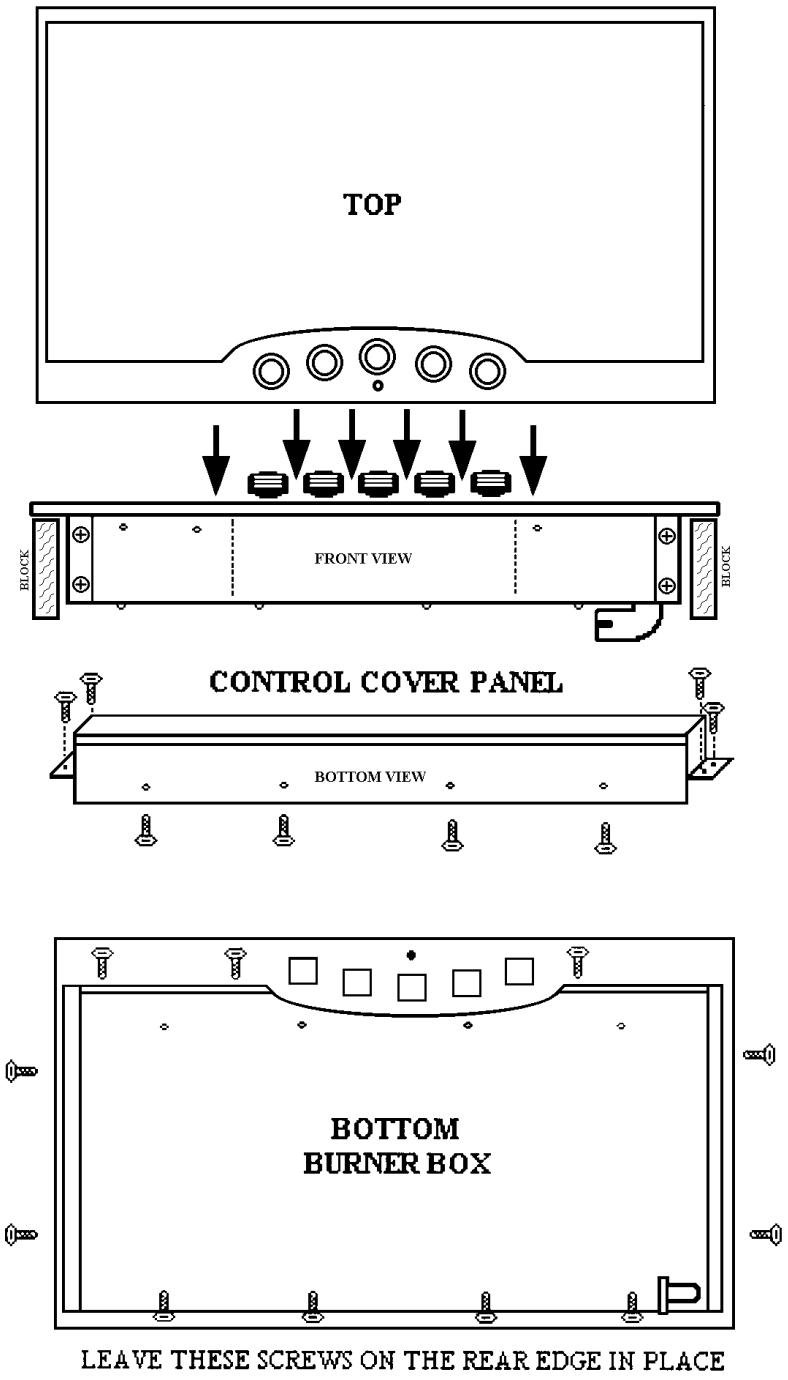
VGSU DRILL SIZES

BURNER	NATURAL	LP
A	73	77
B	71	77
C	70	76
D	64	76

DECU--Designer Cook-top Bowed at the control panel top.

To correct:

1. Remove the cook-top from the cabinet.
2. Remove the surface burner knobs.
3. Remove the screws holding the control cover panel to the burner box.
4. Turn the cook-top over and place on a protected surface.
5. Remove the screws from the front and both sides the hold the top to the burner box. (**Note**: loosen the screws along the back of the cook-top, do not remove.)
6. Place the cook-top right side up, placing blocks under the two front corners.
7. Apply downward pressure along the front edge of the cook top until the front edge is straight.
8. Reverse the procedure to restore the cook-top to the counter top.
9. Check operation to make sure the repair did not interrupt the operation.



INSTALLATION INSTRUCTIONS

VIKING RANGE CORPORATION
111 Front Street
Greenwood, Mississippi (MS) 38930 USA
(662) 455-1200

DLPKDGCU
DGCU LP/PROPANE CONVERSION KIT

IMPORTANT: PLEASE READ AND FOLLOW

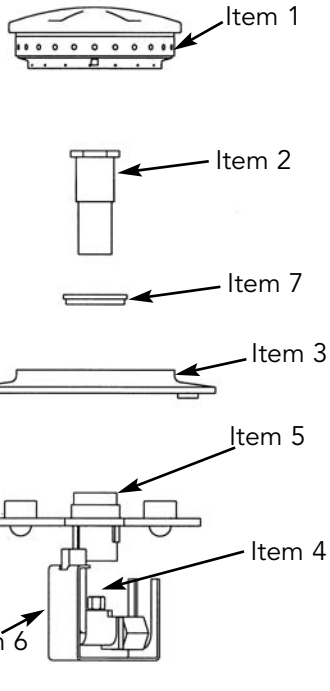
- Before beginning, please read these instructions completely and carefully.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.
- UNIT MUST BE REMOVED FROM COUNTER IF ALREADY INSTALLED BEFORE COMPLETING CONVERSION

Parts List		
(1) PA070005	LP Regulator	
		Drill
(1) PB040200	1.09mm Orifice	#57
(1) PB040201	0.99mm Orifice	#61
(1) PB040202	0.94mm Orifice	#63
(2) PB040203	0.89mm Orifice	#65
(1) PB040204	0.81mm Orifice	#67

WARNING

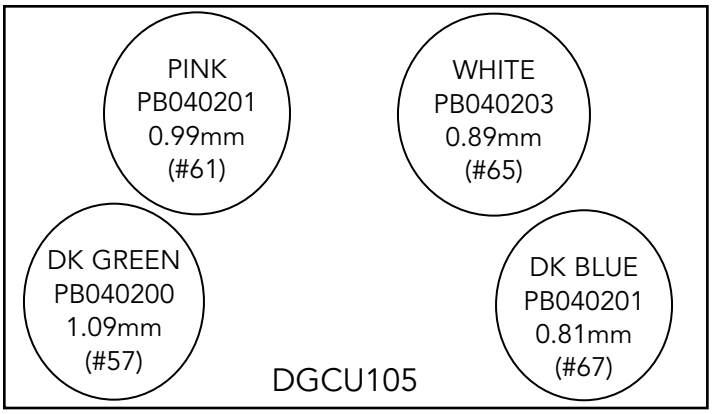
This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion, or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

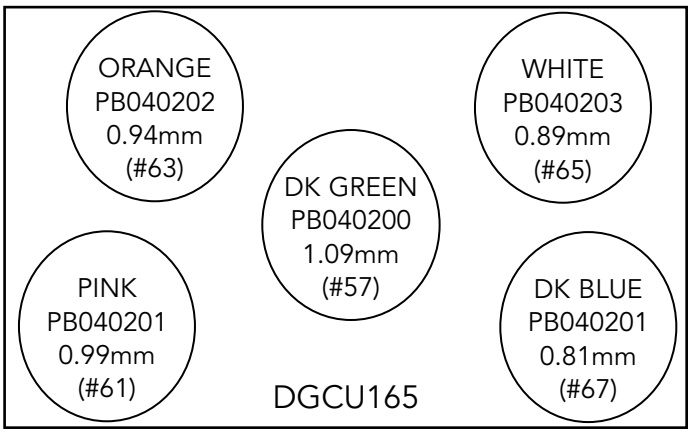
Natural to LP/Propane Gas Conversion

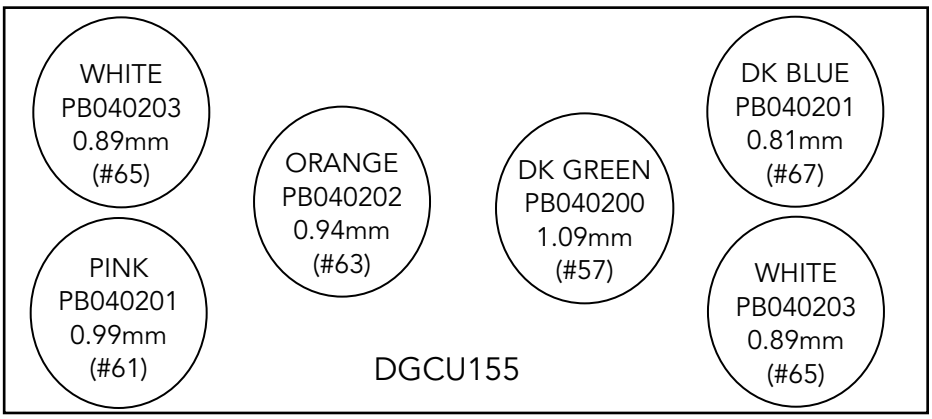


1. **Caution:** Before preceeding with the conversion, turn off gas supply to the appliance prior to disconnecting the electrical power.
2. Disconnect electrical power to cooktop
3. Remove the surface grates.
4. Remove the burner caps (Item 1) by lifting up.
5. Using an appropriately sized socket, remove the brass air shutter (item 2) counter clockwise and remove. Repeat as necessary for all burners. (note: mark the airshutters as they are removed so as to be able to identify which burner they go in when reassembling) Disconnect ignitor wire from burner base (item 3) and set all bases aside.
6. Remove knobs from the gas valve.
7. Remove front control panel cover from unit.
8. Remove all screws that are used to attach the top frame to the burner box and set the top frame aside. Make sure to keep the loose ignitor wires near the appropriate burner so as not to get the unit crosswired when reassembling.
9. Remove orifice (item 4) and replace as indicated in table. Save the natural gas orifice for future use.
10. Disconnect the flex line from the regulator. Remove the regulator by taking out the 4 screws that hold the outlet bracket in the rear right from underneath the unit. Then the whole regulator assembly can be lifted out of the unit for dissassembly. Replace the Natural gas regulator with the supplied LP regulator and reassemble. Sealant on all pipe joints must be resistive to LP/Propane gas.
11. **Caution:** Before placing the cooktop into operation, always check for gas leaks with a soapy water solution. **Do not use an open flame to check for leaks!**
12. Manifold pressure should be check with a manometer. LP/Propane requires 10.0" W.C.P. Incoming line pressure upstream from the regulator must be 1" W.C.P. higher than the manifold pressure in order to check the regulator. The regulator used on this cooktop can withstand a maximum input pressure of 1/2 PSI (14.0" WCP). If the line pressure is in excess of that amount, a step-down regulator will be required.
13. Before reassembling the top frame to the burner box, make sure all the burner jet holders (item 5) are in the bracket (item 6) and move freely up and down. Set the top frame back onto the burner box and while holding the front of the frame elevated, feed each ignitor wire through the corresponding ignitor hole in the glass. Then set top frame down and make sure it seats into the burner box completely. Reattach all the burner bases to the ignitor wire making sure the bases are back in their proper positions (Note, if a base is in the wrong position, the gas inlet hole in the glass will not align with the hole in the burner base (Item 3). Make sure all the burner jet holders (item 5) move freely up to meet the bottom of the glass by inserting your finger into the jetholder and pulling upwards. If the jetholder is stuck, do not attempt to tighten down the glass. Use your finger to move the jetholder around until it moves freely.
14. Replace all screws into the burner box that are used to hold the top frame.
15. Replace the air shutter (Item 2) in the appropriate burner. and tighten with socket until tight.
16. Replace the control panel cover, knobs, burners and grates.

Orifice Locations







PROPER LIGHTING AND SHUTDOWN INSTRUCTIONS

1. To ignite the surface burners, turn the knob counter clockwise to any position.
2. Upon ignition of the surface burner, turn the knob to the desired position, (HI, Med, or Low).
3. To shutdown the burner, turn knob clockwise to the OFF position.
4. In case of failure, shut the gas OFF using the installer supplied manual shut-off valve.

Burner Rating	30" W. Model	36" W. Model	45" Model
Left Front -	14,000 BTU Nat./13,500 BTU LP (4.1 KW Nat./4.0 KW LP)	12,000 BTU Nat./11,500 BTU LP (3.5 KW Nat./2.8 KW LP)	12,000 BTU Nat./11,500 BTU LP (4.1 KW Nat./4.0 KW LP)
Left Rear-	12,000 BTU Nat./11,000 BTU LP (3.5 KW Nat./2.8 KW LP)	10,000 BTU Nat./LP (3.5 KW Nat./LP)	8,000 BTU Nat./LP (2.1 KW Nat./LP)
Left Center	N/A	14,000 BTU Nat./13,500 BTU LP (4.1 KW Nat./4.0 KW LP)	10,000 BTU Nat./LP (3.5 KW Nat./LP)
Right Center	N/A	N/A	14,000 BTU Nat./13,500 BTU LP (4.1 KW Nat./4.0 KW LP
Right Rear	8,000 BTU Nat./LP (2.1 KW Nat./LP)	8,000 BTU Nat./LP (2.1 KW Nat./LP)	6,000 BTU Nat./LP (1.8 KW Nat./LP)
Right Front	6,000 BTU Nat./LP (1.8 LW Nat./LP)	6,000 BTU Nat./LP (1.8 KW Nat./LP)	8,000 BTU Nat./LP (2.1 KW Nat./LP)

*Burner rates will be lowered by 4% per 1000 ft. above altitudes of 2000 ft.

When the LP/Propane conversion is completed, complete the enclosed conversion label and place it next to the rating label. The rating label for your cooktop is located on the exterior bottom panel of the burner box in the right rear corner.

VIKING RANGE CORPORATION
111 Front Street • Greenwood, Mississippi (MS) 38930 USA • (662) 455-1200

For more product information, call 1-888-VIKING1 (845-4641), or visit our web site at http://www.vikingrange.com

IV. WALL OVENS

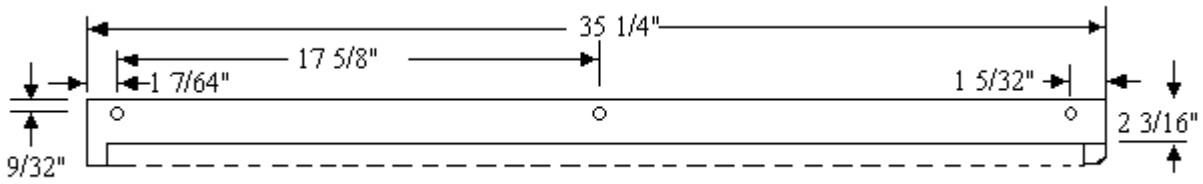
NOTES:_____

VGSO166 installation instructions states "To prevent possible damage to cabinets and cabinet finishes, use only material that will withstand temperatures up to 190 F. (within standard AGA requirements) and that are moisture resistant. When cabinets are covered with laminates, an appropriate heat resistant adhesive must be used. Consult your cabinet manufacturer for proper specifications."

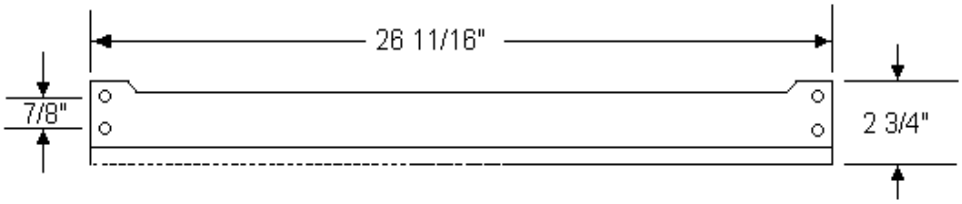
It is the responsibility of the home owner to insure the cabinet finishes will withstand the stated temperature of 190 F. Including laminated wood cabinets or painted surfaces that will discolor when heated for long periods of baking time.

For the questionable installations Viking Preferred Service has provided a heat shield with insulation that can be installed on the top trim.

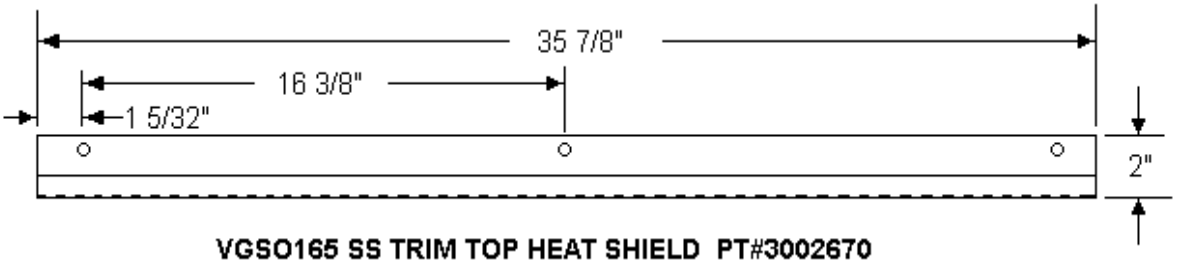
TOP TRIM HEAT SHIELDS



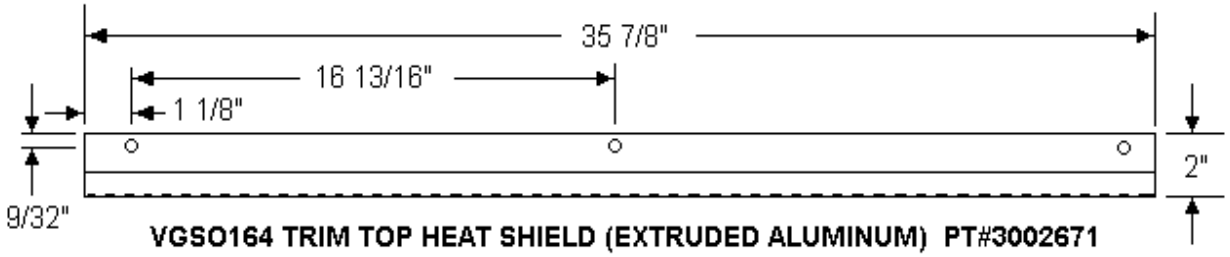
VGSO 166 TOP HEAT SHIELD (EXTRUDED ALUMINUM) PT # B3004500



VEDO / VGDO TRIM TOP HEAT SHIELD PT#B3002669



VGSO165 SS TRIM TOP HEAT SHIELD PT#3002670



VGSO164 TRIM TOP HEAT SHIELD (EXTRUDED ALUMINUM) PT#3002671

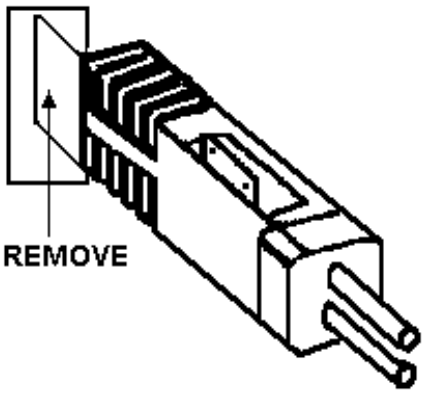
VGSO166 Oven Temperature Probe--Resistance Readings:

T (F)	R(ohms)	T (F)	R (ohms)
20.0	974.572	60.0	1050.124
21.0	976.693	61.0	1061,230
22.0	978.814	62.0	1063.336
23.0	980.934	63.0	1065.442
24.0	983.054	64.0	1067.547
25.0	985.173	65.0	1069.651
26.0	987.293	66.0	1071.756
27.0	989.411	67.0	1073.860
28.0	991.530	68.0	1075.963
29.0	993.648	69.0	1078.066
30.0	995.766	70.0	1080.169
31.0	997.883	71.0	1082.272
32.0	1000.000	72.0	1084.374
33.0	1002.117	73.0	1086.476
34.0	1004.233	74.0	1088.577
35.0	1006.349	75.0	1090.678
36.0	1008.464	76.0	1092.779
37.0	1010.579	77.0	1094.876
38.0	1012.694	78.0	1096.979
39.0	1014.808	79.0	1099.078
40.0	1016.922	80.0	1101.177
41.0	1019.036	81.0	1103.276
42.0	1021.149	82.0	1105.374
43.0	1023.262	83.0	1107.472
44.0	1025.375	84.0	1109.570
45.0	1027.487	85.0	1111.667
46.0	1029.598	86.0	1113.764
47.0	1031.710	87.0	1115.861
48.0	1033.821	88.0	1117.057
49.0	1035.932	89.0	1120.053
50.0	1038.042	90.0	1122.148
51.0	1040.152	91.0	1124.243
52.0	1042.261	92.0	1126.338
53.0	1044.370	93.0	1128.432
54.0	1046.479	94.0	1130.526
55.0	1048.588	95.0	1132.620
56.0	1050.696	96.0	1134.713
57.0	1052.803	97.0	1136.806
58.0	1054.911	98.0	1138.898
59.0	1057.018	99.0	1140.990

INFRARED BROIL BURNER (VGSO165): It has been brought to our attention that "delayed ignition" may occur in our infrared burner if the incorrect igniter is used in repairs. We have discovered the **PB040001** oven igniter has been used as the replacement igniter on the infrared broil burner on model VGSO165 wall ovens.

The **PB040001** oven igniter with a cover on the end is for ignition on the top rather then the end.

CORRECTION: The end of the igniter shield can be removed by bending forward and removing the end cap. When replacing the igniter, part number **PB040028** is the correct part number to order and will improve ignition.



VGSO 166 FAULT CODES: *SEO*--OPEN CIRCUIT FOR PROBE--CHECK PROBE RESISTANCE
***SEI*---SHORTED PROBE**

VESO105 / VEDO205

Originally the convection fans were mounted from the rear of the oven on the VESO / VEDO wall ovens.

Beginning with serial numbers **#B06269801537 (VEDO205)** and **#B06269801550 (VESO105)** the convection fan can be removed from the inside of the oven cavity.

Consumer Complaint: (VESO / VEDO) Rust appearing on the vent cover at the top of the unit. This part has been changed to a porcelain coated part. Part number **E2002908**. The part can be changed without completely removing the unit from the wall.

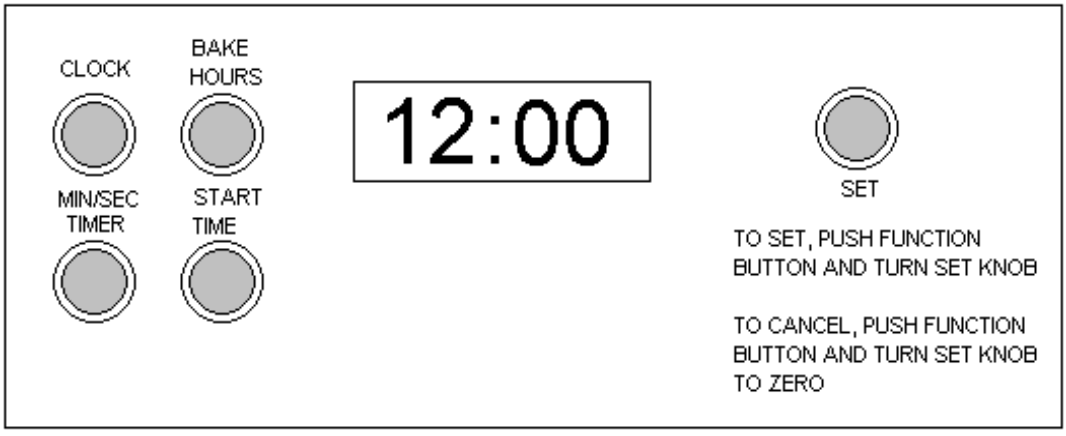
VESO105 / VEDO205 Electric 30" Wide Wall Ovens - Clock Improvements. The serial number break for this revision is **B04109800901.**

- Clock buttons have been added to the controls - to set the time of day the **Clock** button will be used instead of the **MIN/SEC TIMER** and **BAKE HOURS** button.
  - For timed bake, the start time will be entered using the **START TIME** button instead of entering the stop time.
  - All buttons are located to the left of the clock instead of under the clock; the **SET** knob will be on the right side (see graphics drawing above).

SB99-11 (11/04/99) VEDO205/VEDO276 ELECTRIC WALL OVENS

Complaint: Both ovens come on when the upper or lower oven is turned on
Correction: Replace the MANUAL / TIMED selector switch.

Part number: PJ030010 (3 position selector switch).



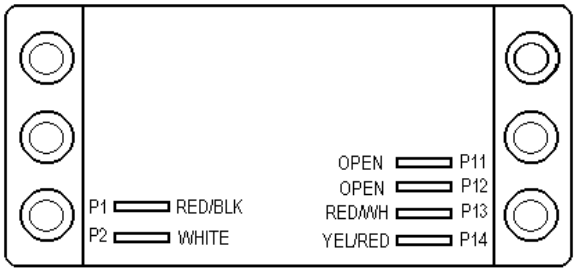
- **VESO SINGLE ELECTRIC WALL OVEN CLOCK CHANGE**

- **FOLLOW THE WIRE COLOR/CODE AND INSTALL NEW CLOCK**

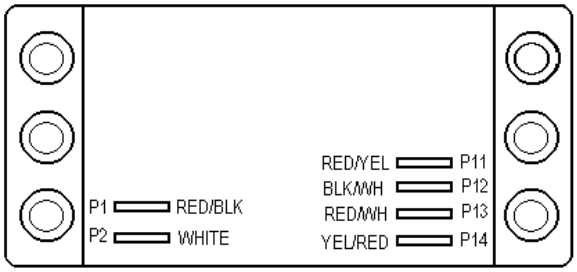
- **VEDO DOUBLE ELECTRIC WALL OVEN CLOCK CHANGE**

- **FOLLOW THE WIRE COLOR / CODE AND INSTALL NEW CLOCK**

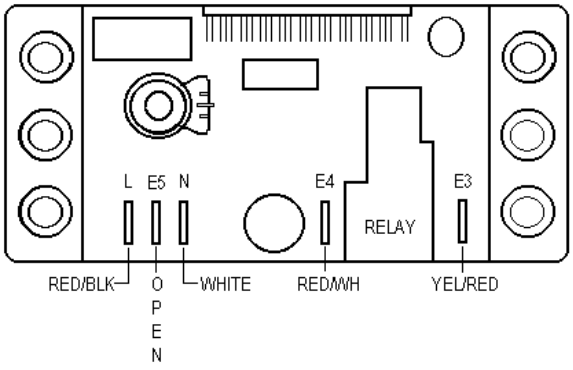
VESO SINGLE ELECTRIC WALL OVEN ORIGINAL CLOCK (OBSOLETE)



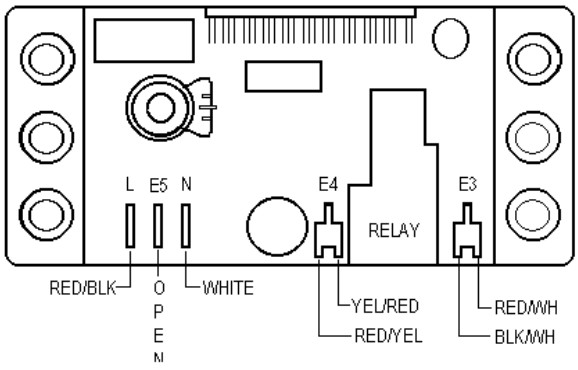
VEDO DOUBLE ELECTRIC WALL OVEN ORIGINAL CLOCK (OBSOLETE)



VESO SINGLE ELECTRIC WALL OVEN NEW CLOCK (PE050049)



VEDO DOUBLE ELECTRIC WALL OVEN NEW CLOCK (PE050049)



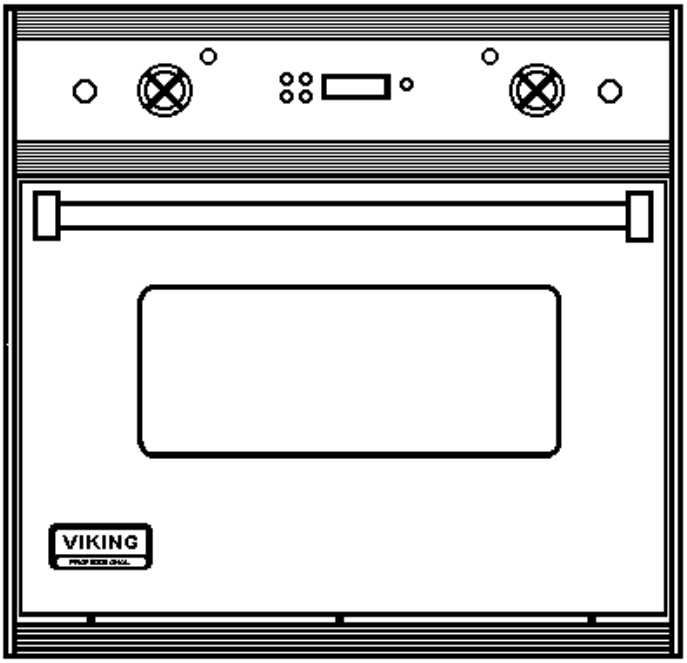
VESO / VEDO CLOCK CONVERSION KITS

Part No.	Description	Qty. Assy.
G5004536	VESO105SS Clock Conversion	
B2002942	Control Panel	1
PE050049	Clock	1
A2002913	Clock Mount	1
G5004537	VESO105WH Clock Conversion	
C9202942WH	Control Panel	1
PE050049	Clock	1
A2002913	Clock Mount	1
G5004538	VESO105 BK Clock Conversion	
C9202942BK	Control Panel	1
PE050049	Clock	1
A2002913	Clock Mount	1
G5004539	VEDO205SS Clock Conversion	
B2002924	Control Panel	1
PE050049	Clock	1
PE070208	Split Male Connector	1
A2002913	Clock Mount	1
G5004540	VEDO205WH Clock Conversion	
C9202924WH	Control Panel	1
PE050049	Clock	1
PE070208	Split Male Connector	1
A2002913	Clock Mount	1
G5004541	VEDO205BK Clock Conversion	
C9202924BK	Control Panel	1
PE050049	Clock	1
PE070208	Split Male Connector	1
A2002913	Clock Mount	1

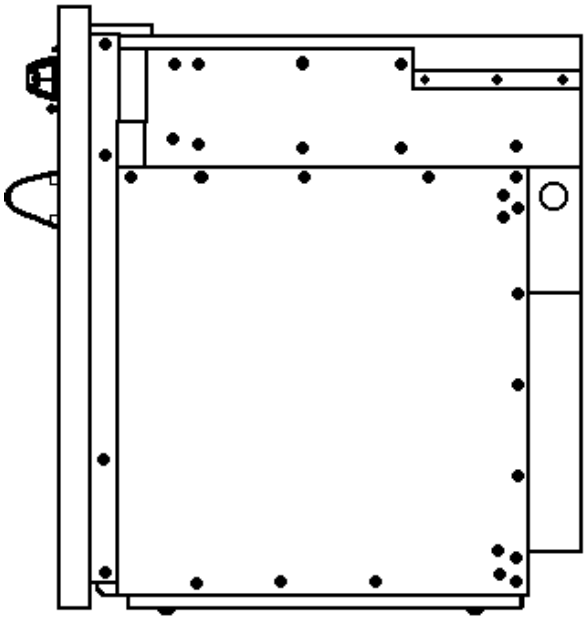
VESO105 UNDER VGSU161 INSTALLATION

The design of the VESO105 electric 30" wide single oven has been revised to make the installation of a VESO105 under a VGSU102 gas cooktop easier. To accomplish this, channel for the VGSU gas line was added to the rear corner of the VESO105 (see illustrations below).

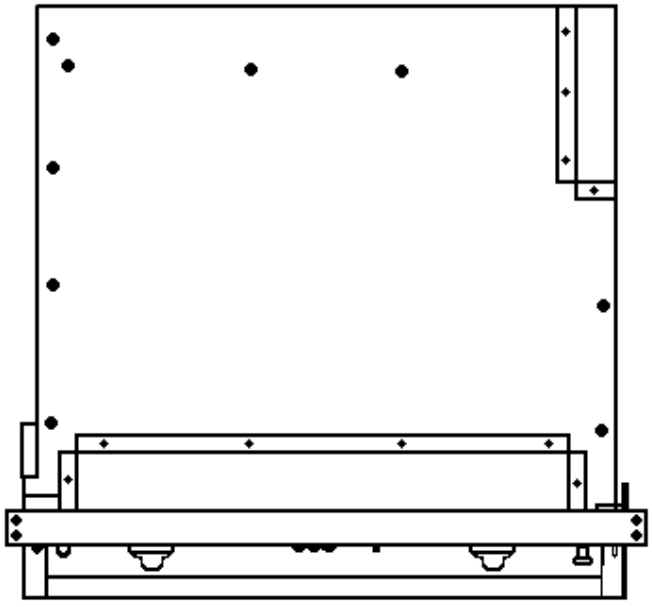
The **Serial Number** break for this change is **B0529981373.**



FRONT VIEW



TOP VIEW



SIDE VIEW

CURRENT PRODUCTION

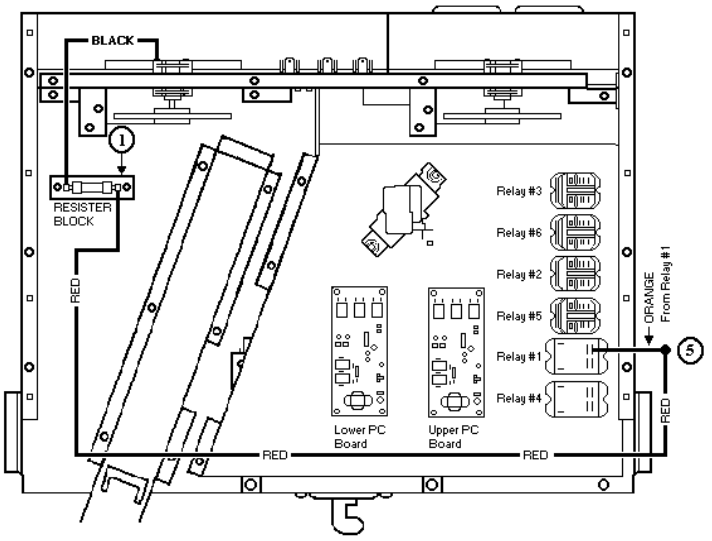


ILLUSTRATION #1

- Turn off power to the unit.
- Remove unit from the wall..
- Remove top cover of unit.
- (It may be necessary to remove the control panel, refer to **Illustration # 3**)
- Current production (**Illustration #1**) has the extended top oven vent.
- Mount the supplied **Fan Limit** (if applicable) to the top rear of the upper oven vent as shown in **illustration #1**.
- Remove **red wire** from the **resistor terminal board** (1) and # 1 relay (5). (Fig.#2) Discard this wire.

CONDENSATION CORRECTION KIT #G5004549

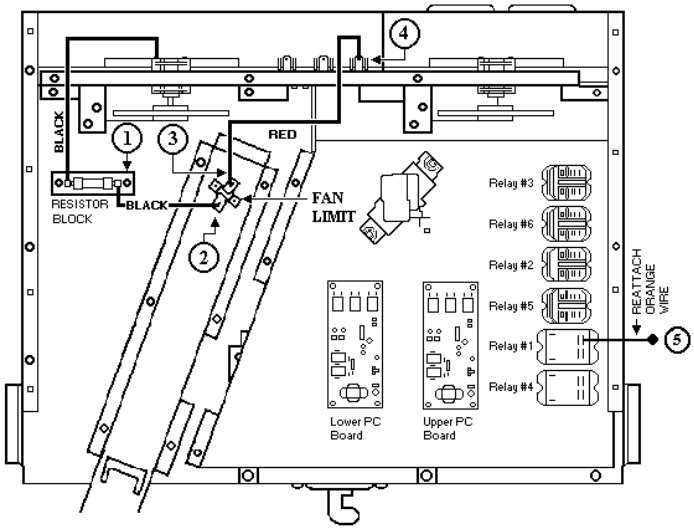


ILLUSTRATION # 2

- Reattach **orange wire** to # 1 relay (5).
- Attach supplied short **black wire** to fan limit (2) and **resistor terminal board** (1).
- Attach supplied red wire to L1 on terminal block (4), using piggyback connector supplied on wire, and **fan limit** (3).\
- Look over unit carefully to be sure that you have not pulled off any other connections and that there are no crimped wires.
- Put the top cover on the unit securely.
- Turn the breaker back on and test the unit.
- Turn the breaker off.
- Reinstall the unit in the wall.
- Turn the breaker on and test the unit.

KIT CONTAINS:

G4002967	Red Jumper (37.5")	1
G4002968	Black Jumper (18")	1
G4006310	Red Jumper (12")	1
PE050001	Terminal Board	1
PE070246	20 Watt, 100 ohm Resistor	1
PD020055	#10 x ½" Pan Head Tek Screw	2
PJ 030022	Fan Switch	1
PD020067	#6 x 3/8" Pan Head Tek Screw	2
F1911	Instruction Sheet	1

NOTE: Relays # 1, # 2, and # 3 are controls for VESO
single ovens. Relays # 4, # 5, and # 6 are added for VEDO double ovens.

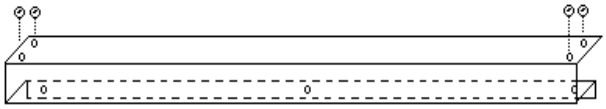
Illustration # 3 (right column) shows the components for VEDO double ovens.

ILLUSTRATION # 3
VESO / VEDO COMPONENT ACCESS

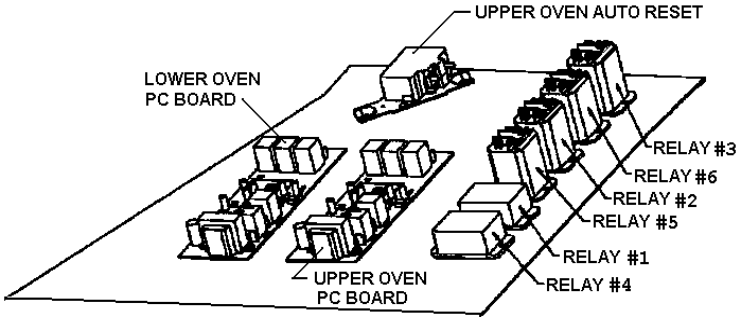
To gain access to the electric and electronic components:

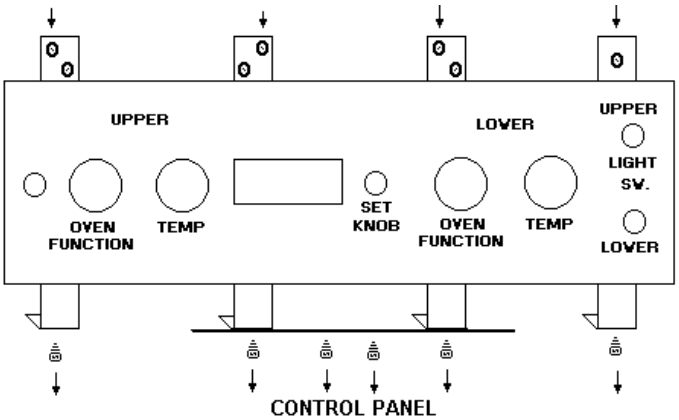
- Remove the top trim (A). Two screws at each corner attaching the top trim to the side trims and three screws along the bottom of the trim piece.
- Remove the lower control panel trim (B). Three screws along the bottom of the trim piece behind the oven door.
- Remove the control panel. Four screws at the top and six screws across the bottom (see drawing of the control panel). Pull the control panel carefully forward and tilt down. Being careful not to disconnect wires attached to the components on the reverse of the panel.
- The control panel is now accessible. Pull the component panel forward to release the panel from the side.
- Lift the component panel up to service the upper oven self-cleaning latch and components located on the latch mechanism.

The bottom trim piece (C) is removed to make the vertical door adjustment. Remove the two screws from each corner attaching the bottom trim to the side trim pieces. Remove the three screws across the top of the trim piece located beneath

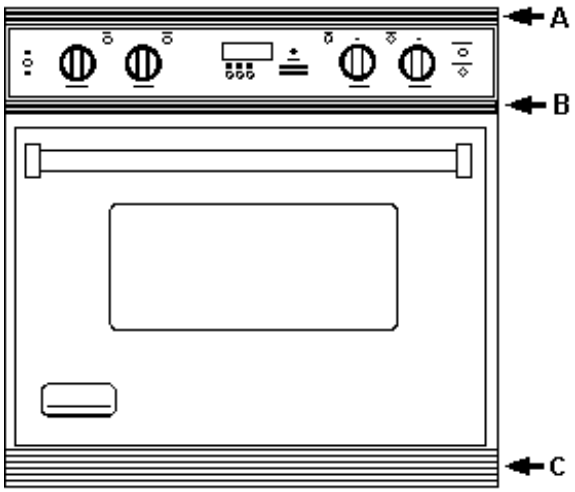


TOP TRIM

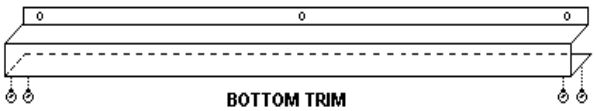




CONTROL PANEL



LOWER CONTROL PANEL TRIM



BOTTOM TRIM

VESO CONDENSATION KIT

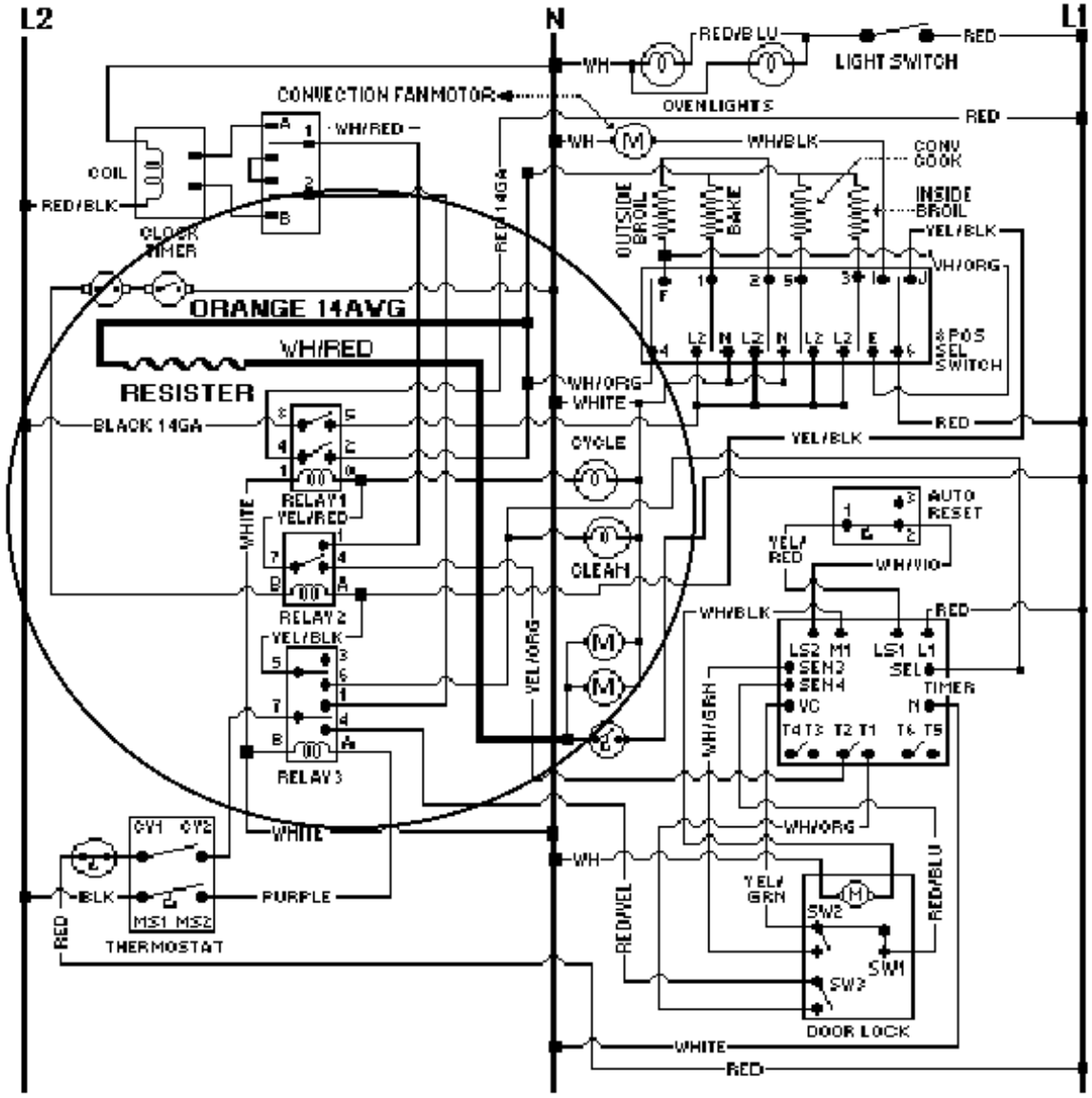
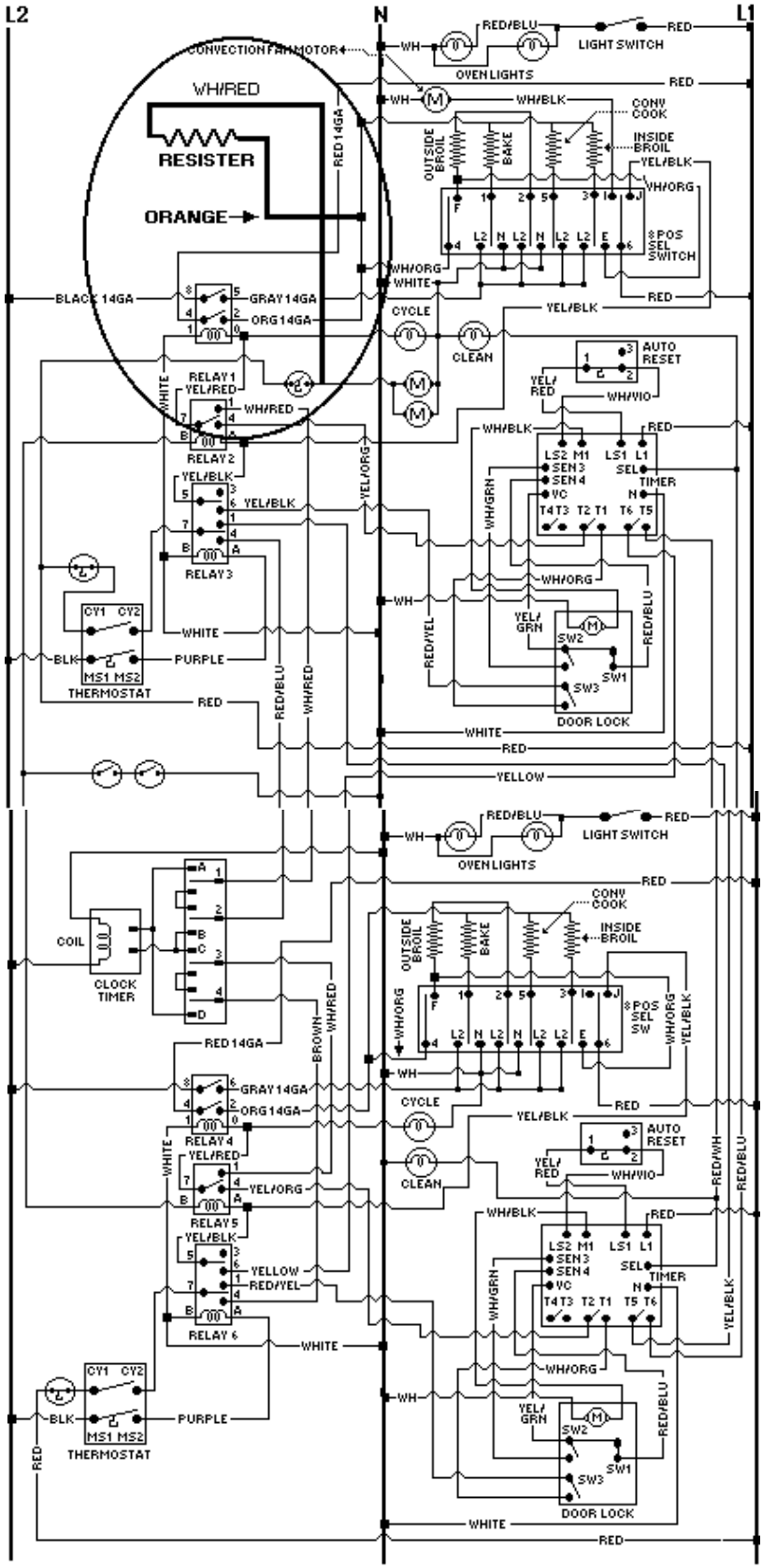


ILLUSTRATION # 4

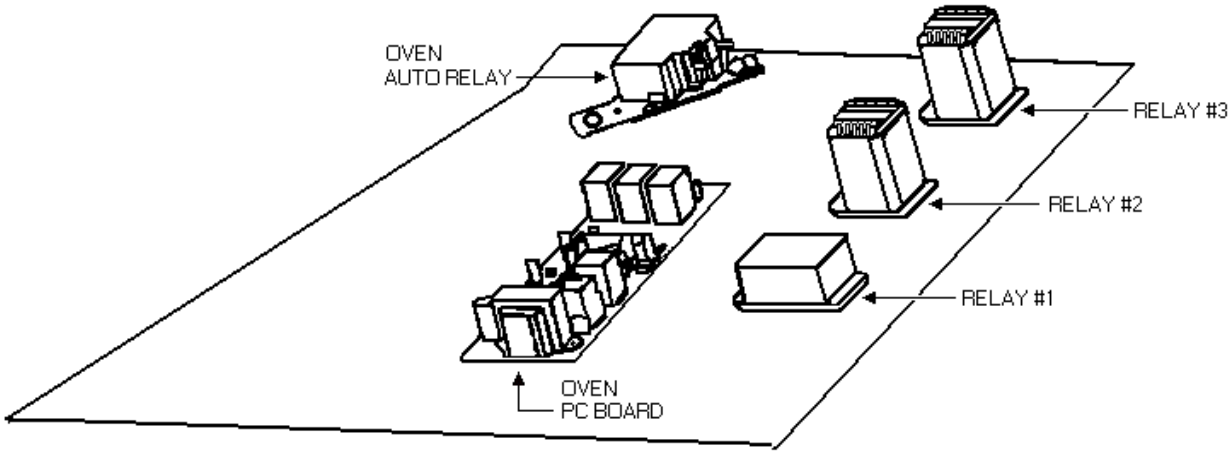
VEDO CONDENSATION KIT

ILLUSTRATION # 5



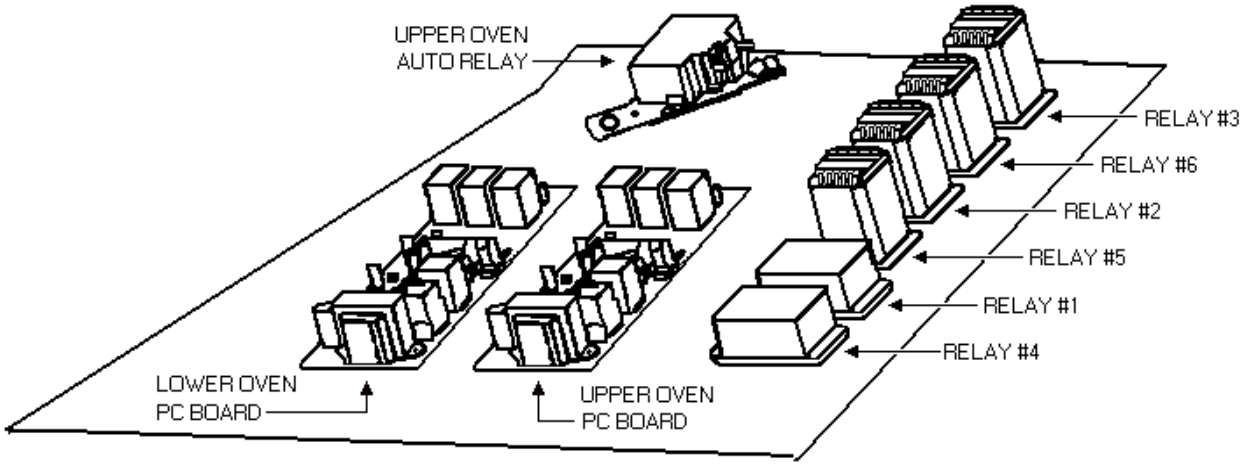
VESO105 COMPONENT LOCATION

Top compartment behind the control panel



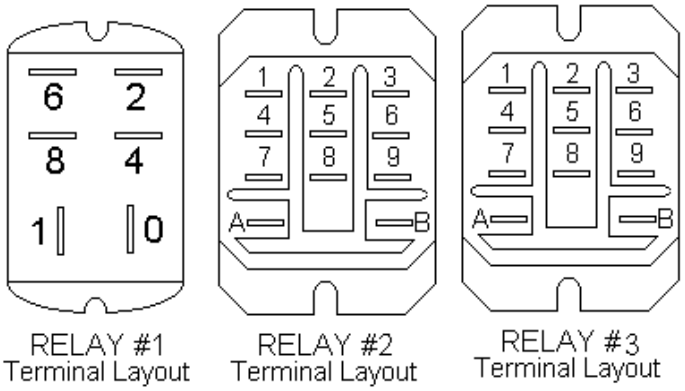
VEDO205 COMPONENT LOCATION

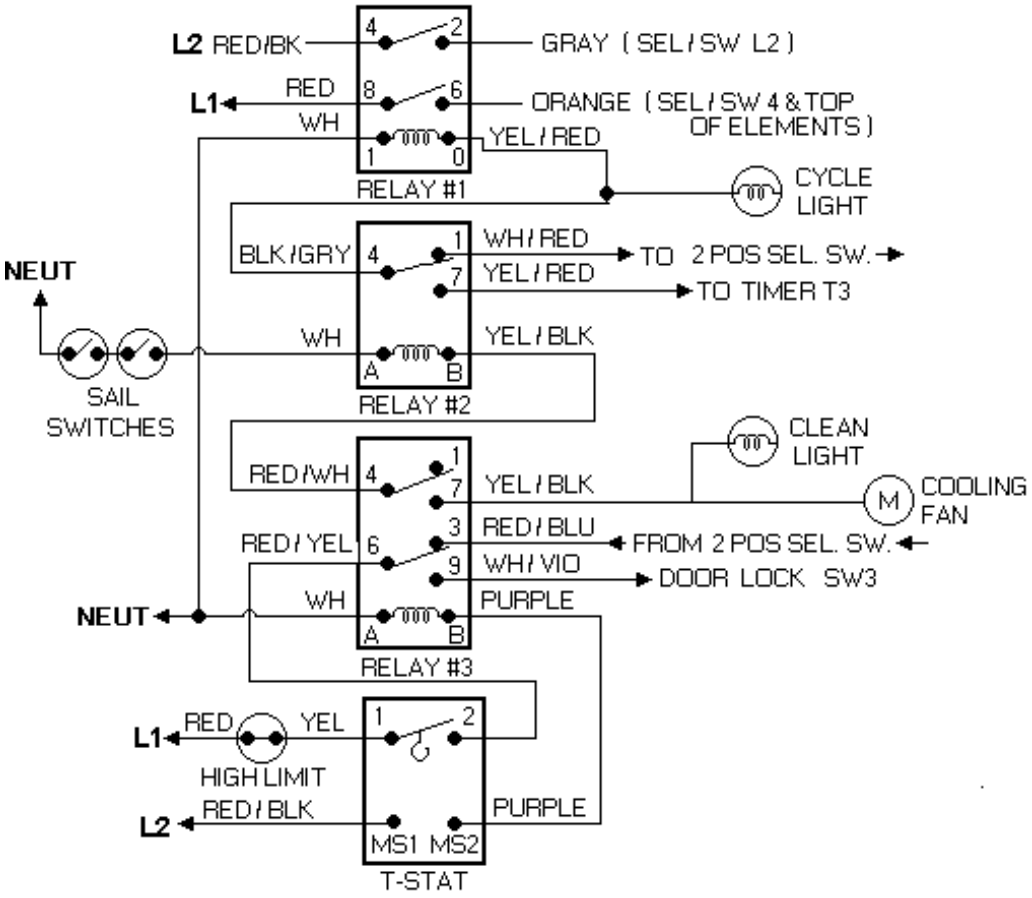
Top compartment behind the control panel



VESO105 SINGLE SELF-CLEAN WALL OVEN

Relay location and wiring connections

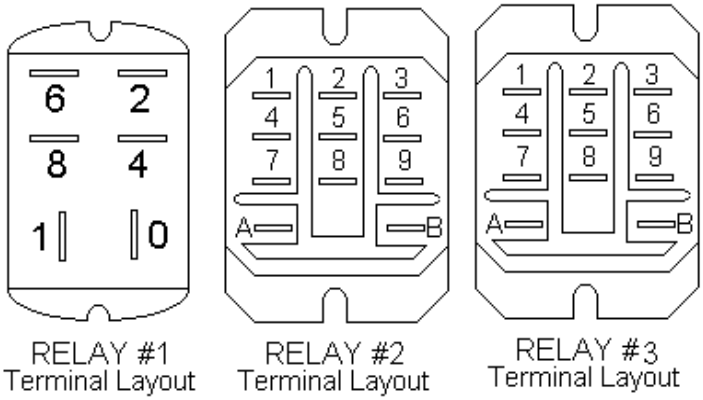


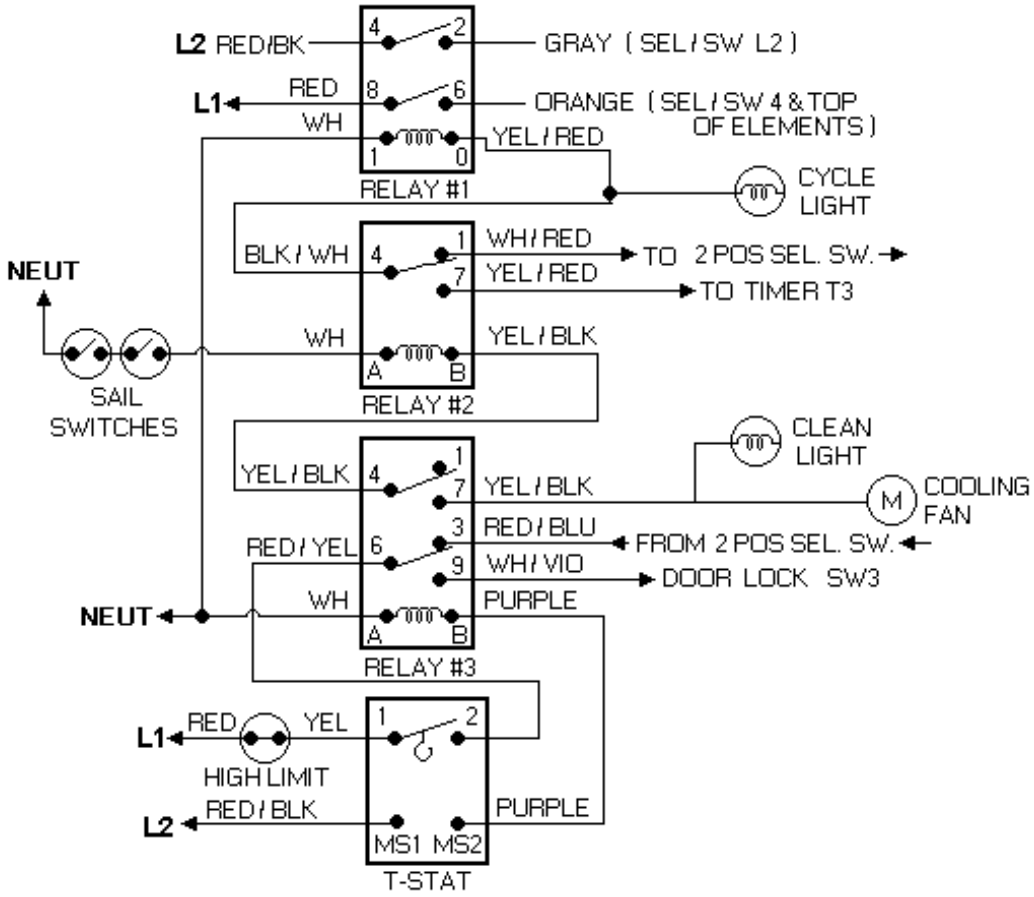


VESO 105 SINGLE OVEN

VEDO205 DOUBLE SELF-CLEAN WALL OVEN

Relay location and wiring connections

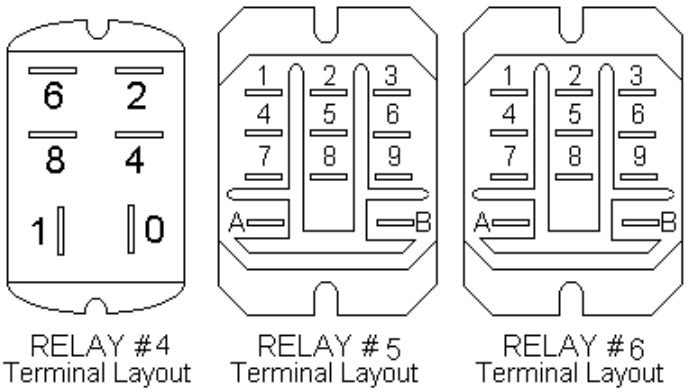


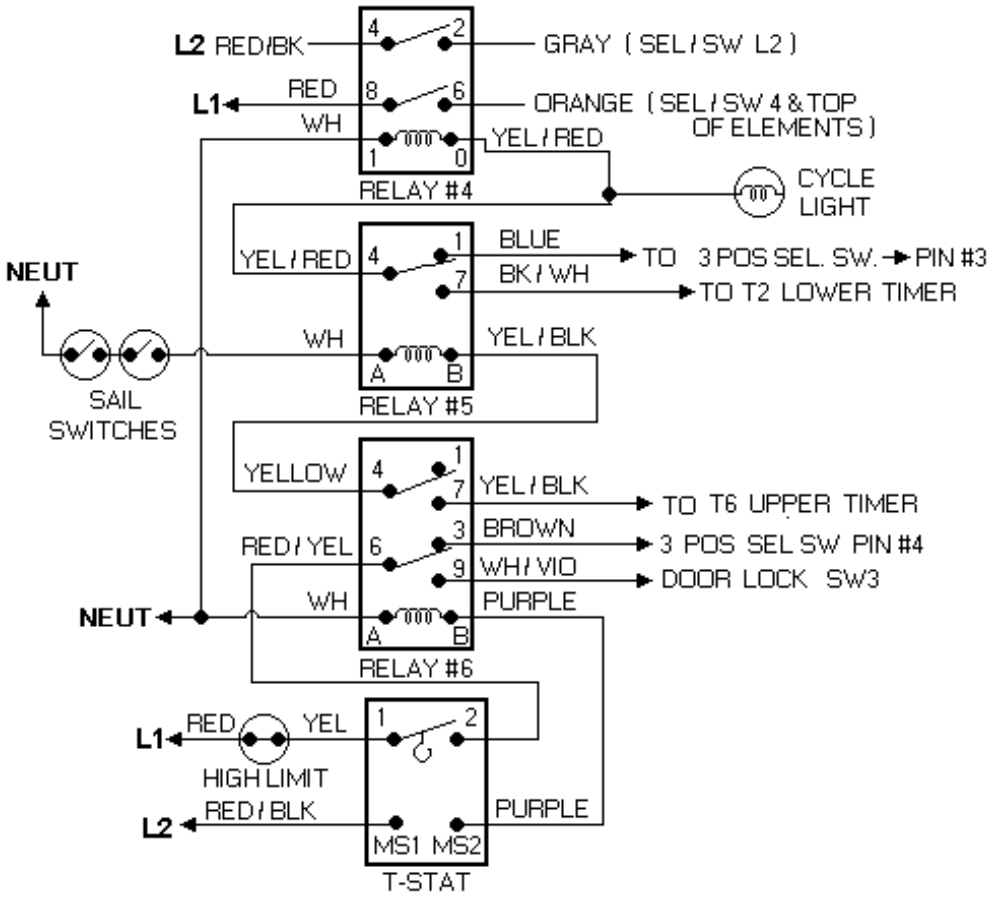


VEDO 205 TOP OVEN

VEDO205 DOUBLE SELF-CLEAN WALL OVEN

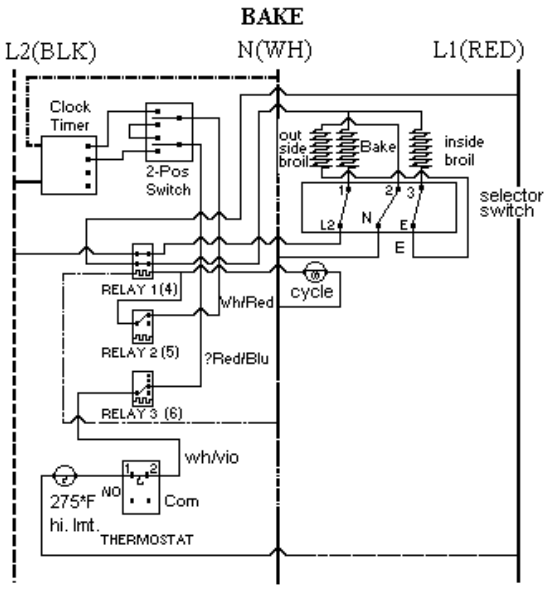
Relay location and wiring connections



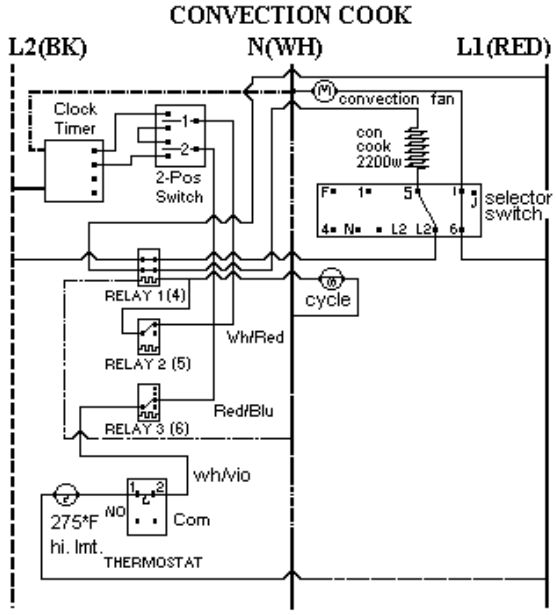


VEDO 205 BOTTOM OVEN

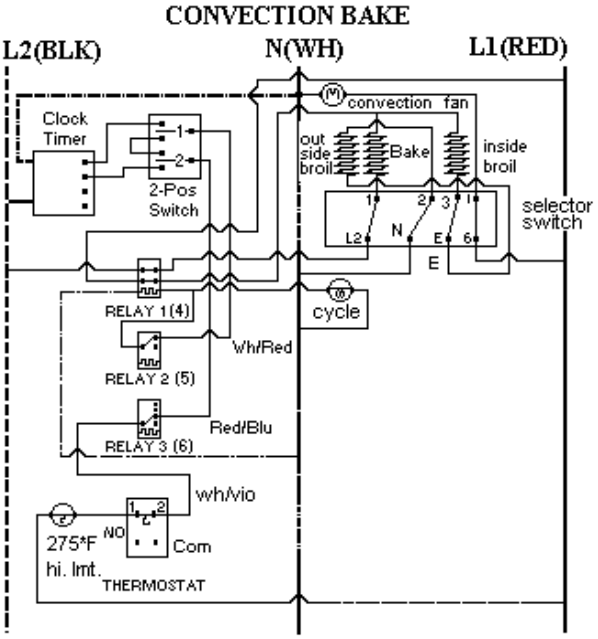
VIKING PREFERRED SERVICE
-----TECH NOTES -----



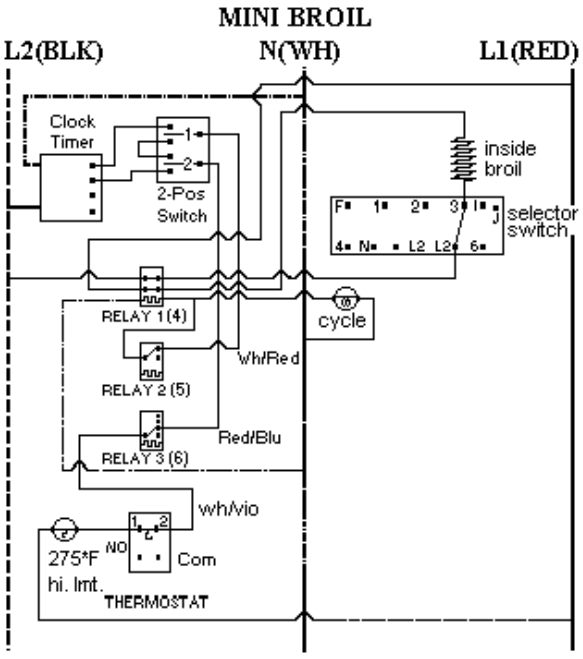
SELECT BAKE position closes switches 1-L2, 2-N, and 3-E. The thermostat closes switches Cy1-Cy2, which cycles with oven temperature powering relay 1 and the oven cycle light. When relay 1 closes, it powers the bake element at 208/240VAC, and with boil element in series across a 120VAC circuit, it powers the inside broil element at 70VAC and the out side broil element at 50VAC.



SELECT CONVECTION COOK position closes switches 5-L2 and 6-1. 6-1 powers the convection fan through L1 at 120VAC. The thermostat closes switches Cy1-Cy2, which cycles with oven temperature, powering relay 1 and the oven light. When relay 1 closes, it powers the convection element at 208/240VAC.



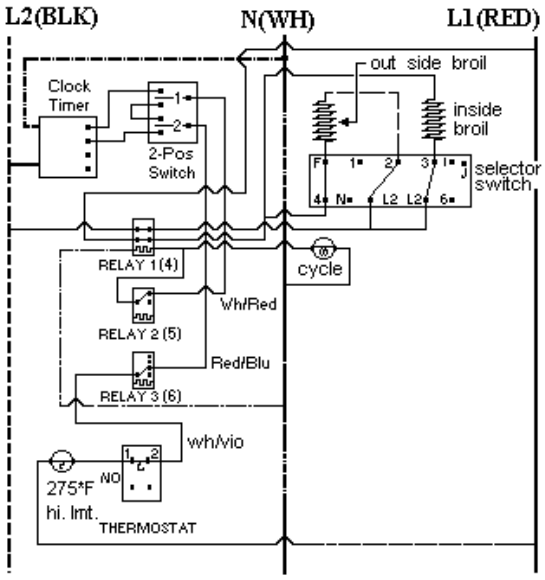
SELECT CONVECTION BAKE position closes switches 1-L2, 2-N, 3-E and 6-1. 6-1 powers the convection fan through L1 at 120VAC. The thermostat closes switch Cy1-Cy2m which cycles with oven temperature powering relay 1 and the oven light. When relay 1 closes, it powers the bake element at 208/240VAC, and with the broil element in series across a 120VAC circuit, it powers the inside broil element at 70VAC and the outside broil element at 50VAC.



SELECT MINI BROIL position closes switches 3-L2. The thermostat closes switch Dy1-Cy2, powering relay 1 and the oven cycle light. When relay 1 closes, it powers the inside broil element at 208/240VAC.

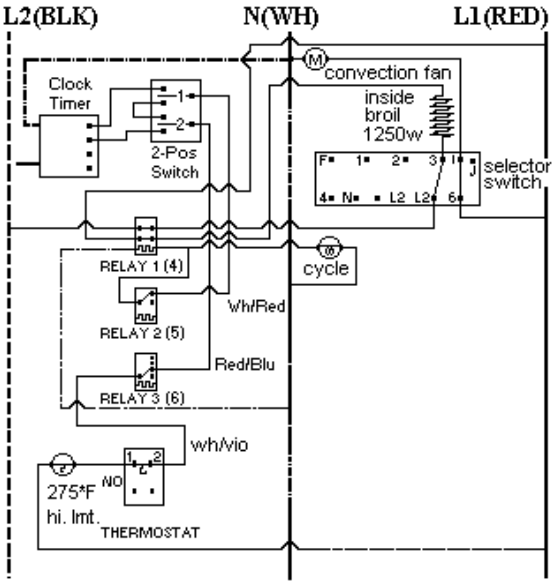
VIKING PREFERRED SERVICE
-----TECH NOTES-----

MAXI BROIL



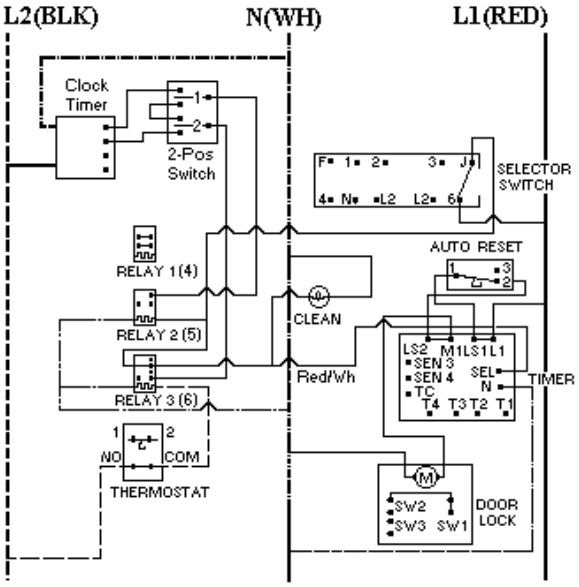
SELECT MAXI BROIL position closes switches 4-F, 2-L2, and 3-L2. The thermostat closes switch Cy1-Cy2, which cycles with oven temperature, powering relay 1 and the oven cycle light. When relay 1 closes, it powers the inside broil element at 208/240VAC and the outside broil element at 208/240VAC.

CONVECTION BROIL



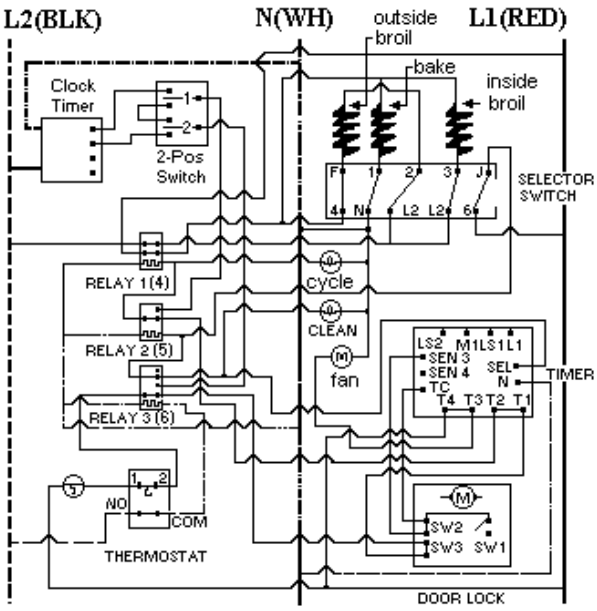
SELECT CONVECTION BROIL position closes switches 4-F, 2-L2, 3-L2 and 6-I. 6-I powers the convection fan through L1 at 120VAC. The thermostat closes switch Cy1-Cy2, which cycles with oven temperature. Powering relay 1 and the oven cycle light. When relay 2 closes it powers the inside broil element at 208/240VAC and the outside broil element at 208/240VAC.

CLEAN INITIATE UNTIL DOOR LOCK



SELECT CLEAN position closes heating element circuits 4-F, 1-N, @-L2, 3-L2 and door lock module/timer circuit J6 switches relay2. Thermostat clean position closes the cycle switch and thermostat clean switch, which switches relay 3. Switching relay 3 allows circuit J-6 to turn on the clean indicator light and enables the door lock module/timer which closes LS1-L1 and LS2-M1. This powers the door lock motor until 10 seconds after sensor #3 is signaled byVC that the door lock switch SW2 has been closed mechanically (along with SW3) by the door lock bolt.

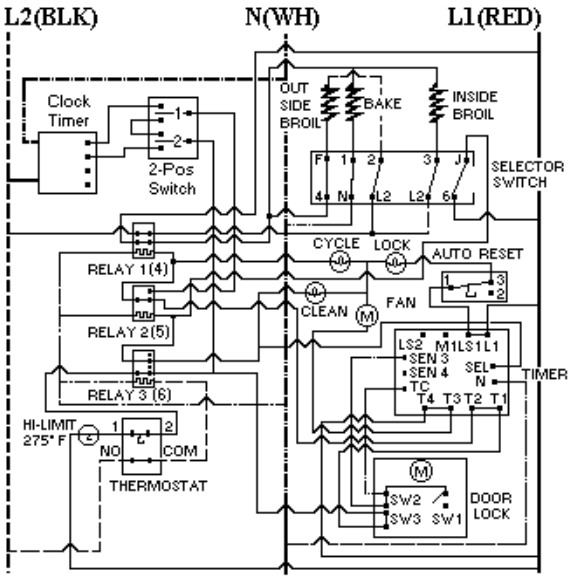
CLEAN DOOR LOCK BELOW 575˚F ± 25˚F



10 SECONDS after the signal to sensor #3, switch LS2-M1 is opened, stopping the door lock motion and switches T1-T2 and T3-T4 which switches relay 1, powering the cooling fan, which closes relay 1 powering the inside and outside broil elements at 208/240VAC and the bake element at 120VAC.

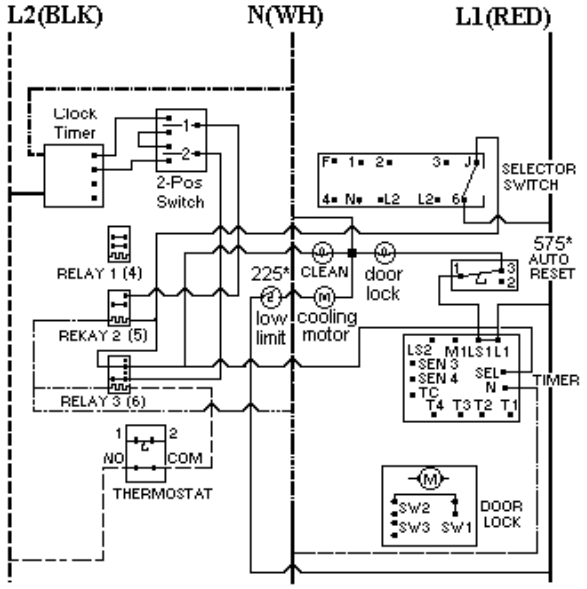
VIKING PREFERRED SERVICE
-----TECH NOTES-----

CLEAN DOOR LOCK ABOVE 575° F ± 25° F



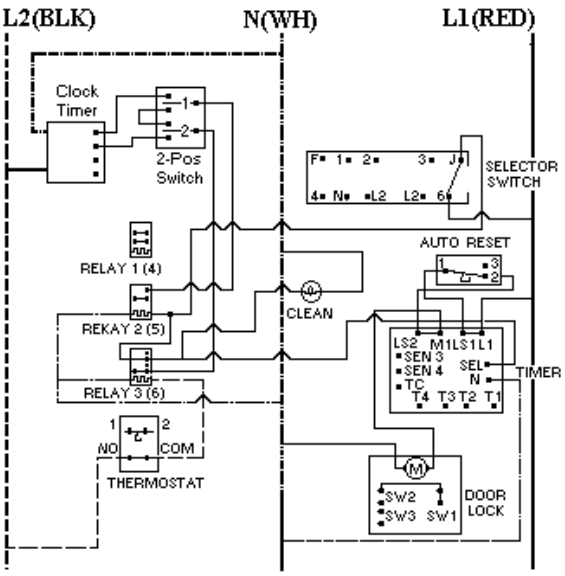
AUTO RESET switches to 1-3 which turns door lock indicator light on and disables door lock motor circuit.

CLEAN FINISH DOOR LOCK ABOVE 575° F ± 25° F



TIMER switches T3-T4, T1-T2 opens, turning off the cooling fan, which will then be operated at 120VAC by the fan limit switch when needed, and opening the circuit to relay 1 which disables the heating elements. Switch LS2-M1 closes to power the door lock motor.

CLEAN FINISH DOOR LOCK BELOW 575° F 25° F



AUTO reset switches 1-2 closed allowing the door lock motor to operate and turning the door lock light off. The door lock motor operates until 2 seconds after sensor 4 is signaled by VC that the door lock SW1 has been closed mechanically by the door lock bolt. The door lock/timer switches LS2-M1 and LS1-L1 open and the timer resets.

SB9908 (10/25/99)
VGSO166 W. Gas Wall Ovens

CLOCK / TIMER DISCONTINUED
Clock / Timer No. PE050018 is no longer available. The replacement Clock / Timer No. PE050061 requires changing the control panel to retrofit and replace part number PE050018. The new replacement Clock / Timer assembly listed below includes the new clock and the control panel.

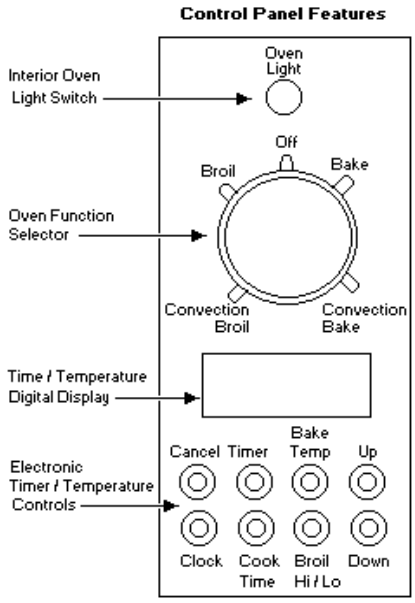
* **G5004598BK VGSO166 BLACK CONTROL PANEL CLOCK ASSEMBLY.**
PE050061 Worldtronic timer clock
PE040097 VGSO166 BK. Glass Control Panel

* **G5004599WH VGSO166 WHITE CONTROL PANEL CLOCK ASSEMBLY.**
PE050061 Worldtronic timer clock
PE040098 VGSO166 WH. Glass Control Panel.

FAULT CODES:
F1 SHORTED PROBE
F2 OPEN PROBE
F3 CONTROLLER MALFUNCTION

Oven Function Selector
The oven has an oven function selector with five settings:

- Bake
- Convection Bake
- Broil
- Convection Broil
- Off



Electronic Timer / Temperature Controls
The Electronic Timer / Temperature controls are used to program all timing and temperature functions. There are five modes of operation:

- Time of Day
- Minute / Hour Timer
- Hi / Lo Broil
- Immediate Cook
- Timed Cook

The time of day must be set before any other timing program can be used. When your oven is first connected to power, the timer display will flash 12:00. The time of day can not be changed if any timed modes of operation are operating.

VGSO166 GAS WALL OVEN
CLOCK / TIMER PE050061
(Refer to Fig #1)

A. REMOVE THE PLASTIC COVER FROM "J1" TO CONVERT THE TEMPERATURE READING FROM FAHRENHEIT TO CELSIUS

B. REMOVE THE PASTIC COVER FROM "J3" TO CONVERT 60 HZ TO 5O HZ.

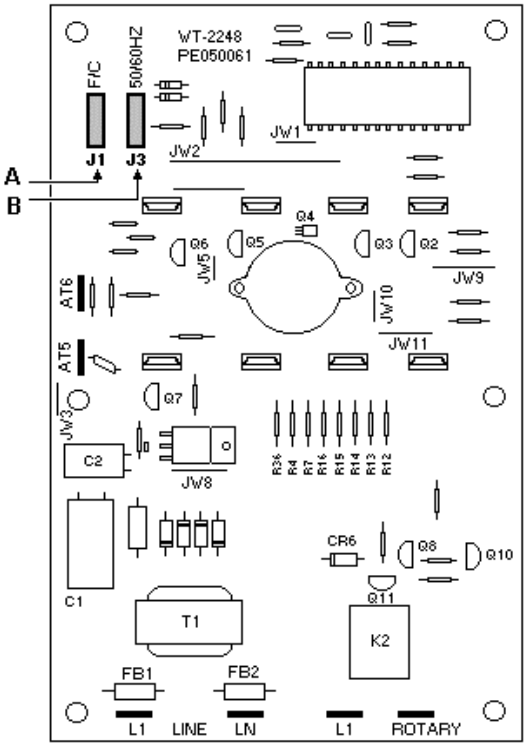
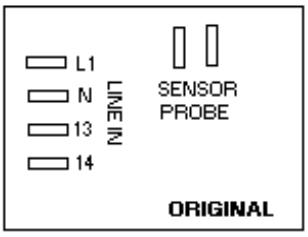
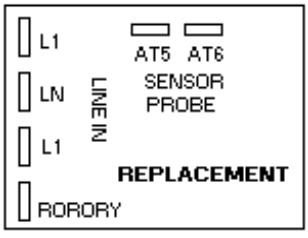


FIG #1



Clock Timer Pt# PE050018
is no longer available



Clock Timer Replacement
Pt# PE050061

Setting Time-of-Day

1. Press the clock button once. A single tone will sound and the colon will flash.
2. Use the up and down slew keys to set the correct time. Tapping a slew key once will increase or decrease in 1-minute increments. When the slew key is held down, the time will change in 5-minutes increments until the next hour is reached. Continuing to hold the slew key down will cause the time to change in single hour increments.
3. When the appropriate time is reached, release the slew key.

Setting the Minute / Hour Timer

The min / Hour Timer is designed for accurate timing of foods. It is ideal for baking delicate items such as biscuits, cookies, and popovers, and for precise broiling. It can be used for timing up to 12 hours.

1. Press the Timer button once. A single tone will sound, the timer L.E.D. will light 0:00 on the display and the colon will flash.
2. Use the up and down slew keys to set the timer. Tapping a slew key once will increase or decrease in 1-minute increments. When the slew key is held down, the time will change in 5-minute increments until the next hour is reached. Continuing to hold the slew key down will cause the time to change in single hour increments.
3. When the appropriate time is reached, release the slew key. The timer function mode will lockout changes and begin to count down if the slew keys are not pressed for 5 seconds. Pressing the timer key once will allow the timer set time to be changed during the countdown process. When the timer counts down to 1 minute, a single tone will sound indicating the timer will be out in 1 minute. When the timer counts down to 0:00 three tones will sound ever 12 seconds until the timer is cancelled by pressing the timer key for three seconds or if ten minutes has elapsed.

HI / LO Broil

1. Press the broil button once. A single tone will sound, the broil L.E.D. and the "---" segments of the display will light.
2. Press the up slew key for high broil and HI will appear on the display. Press the down slew key for low broil and LO will appear on the display.
3. The broil function mode will be terminated and the time-of-day displayed if the high or low broil is not selected within 30 seconds of pressing the broil key. The broil function can also be terminated by pressing the cancel button.

Immediate Cook

1. Press the bake button once. A single tone will sound, the bake L.E.D. and "---" segments of the display will light prompting the user to set the bake temperature using the slew keys.
2. The temperature will default to 350 degrees when either of the slew keys are pressed. Tapping a slew key will increase or decrease the temperature in 5 degrees increments. the temperature can be set from a low 170 degrees to a high of 550 degrees. The oven set temperature will displayed during the baking process.
3. The bake function may be terminated by pressing the cancel key once.

Setting the Timed Cook

1. Press the Cook-Time button once. A single tone will sound, the timer L.E.D. will light 0:00 on the display and the colon will flash.
2. Use the up and down slew keys to set the desired cooking time. Tapping a slew key once will increase or decrease in 1-minute increments. When the slew key is held down, the time will change in 5 minute increments until the next hour is reached. Continuing to hold the slew key down will cause the time to change in single hour increments.
3. When the appropriate time is reached, release the slew key. The timed cook function will terminate and the time-of-day displayed if the cook time is not set within 30 seconds of pressing the Cook-Time button.
4. When the cook time is set before the bake temperature, a tone will sound, the bake L.E.D. and the "---" of the display will light after 5 seconds prompting the user to set the bake temperature using the slew keys. The temperature will default to 350 degrees when either of the slew keys are pressed. Tapping a slew will increase or decrease the temperature in 5 degrees increments. Holding the slew key down, the temperature will change in 25 degrees increments. The temperature can be set from a low 170 degrees to a high of 550 degrees. The cook time function will be terminated and the time-of-day displayed if the temperature is not set within 30 seconds. When the cook time reaches 0:00, the oven will shut off and three tones will sound every 12 seconds until the cancel button is pressed or ten minutes has elapsed, at which time the cook time function is cancelled and the control will return to the time-of-day display.

PROGRAMMING INSTRUCTIONS FOR VGDO271 and VGDO273

Flashing Display
When power is connected to the oven the display flashes. Press OFF / CANCEL to clear display.

Setting Electronic Clock
1. Press CLOCK pad.
2. Press + or – pad until correct time-of-day displays.
   - Clock saves time-of-day approximately 5-10 seconds after time is entered.

Baking
1. Press BAKE pad.
2. Press + pad until desired temperature is displayed.
3. Check for the Bake Element (Electric ovens) to glow red.
4. Check for flame on the Bake Burner (Gas ovens).
5. Press OFF/CANCEL pad after making sure the Bake Element or Bake Burner is operative.

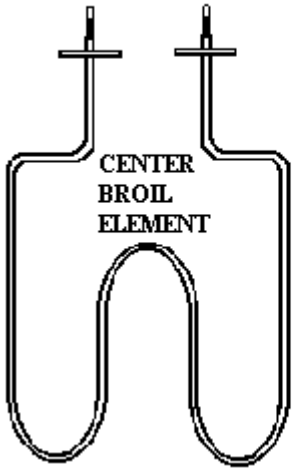
Instant Broil
1. Press BROIL pad
2. Press + pad to set broil temperature.
3. Check for the Broil Element (Electric ovens) to glow red.
4. Check for flames on the Broil Burner (Gas ovens).
5. Press OFF/CANCEL pad after making sure the Broil Element or Broil Burner is operative.

Self-cleaning
1. Press CLEAN pad.
2. Press + pad to adjust desired amount of cleaning time.
3. Broil Element will glow red (Electric ovens).
4. Check for flames on the Broil Burner (Gas ovens).
5. Press OFF/CANCEL pad after making sure the Broil Element or Broil Burner is operative.

NOTES:

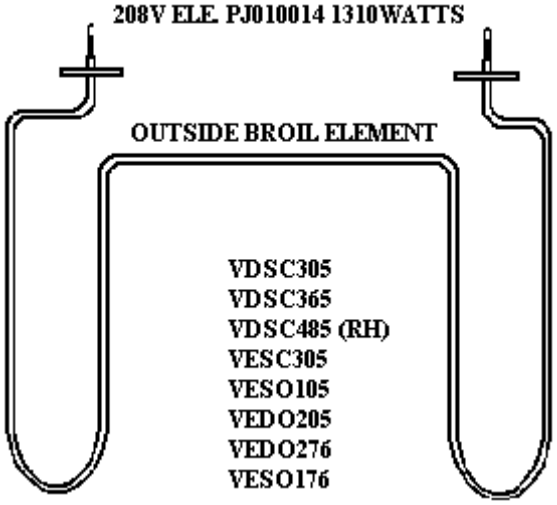
240 / 208 VOLT HEATING ELEMENTS

240V ELE. PJ010001 1250WATTS
208V ELE. PJ010013 940WATTS



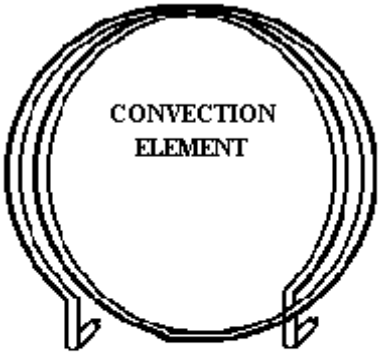
VDSC305
VDSC365
VDSC485 (LH)
VDSC485 (RH CENTER)
VESC305
VESO105
VEDO205
VESO176
VEDO276

240V ELE. PJ010002 1750WATTS
208V ELE. PJ010014 1310WATTS



VDSC305
VDSC365
VDSC485 (RH)
VESC305
VESO105
VEDO205
VEDO276
VESO176

240V ELE. PJ010003 2200WATTS
208V ELE. PJ010015 1650WATTS

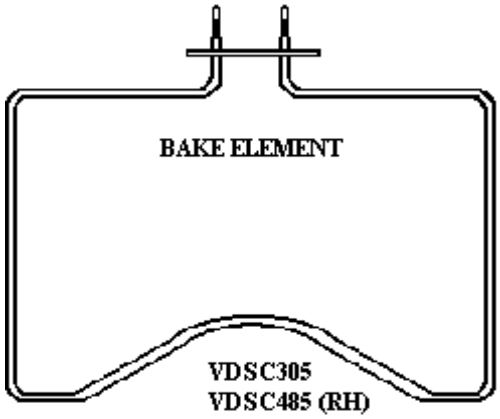


VDSC305
VDSC365
VDSC485
VDSC105
VDSC205
VDSC176
VDSC276
VEDO276

VESO105
VESO176
VEDO276

PE150005
VEDO273
VEDO275

240V ELE. PJ010004 2750WATTS
208V ELE. PJ010016 2060WATTS

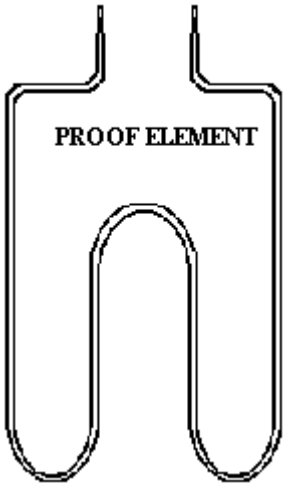


VDSC305
VDSC485 (RH)
VESC306
VESO105
VEDO205
VEDO275
VESO175

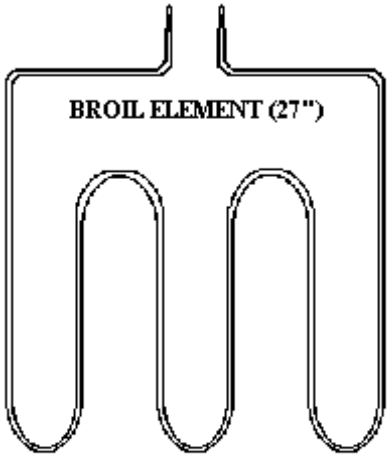
240 / 208 VOLT HEATING ELEMENTS

240V ELE. PJ010005 2065 WATTS
208V ELE. PJ010017 1550 WATTS

120V ELE. PJ010007 20 WATT



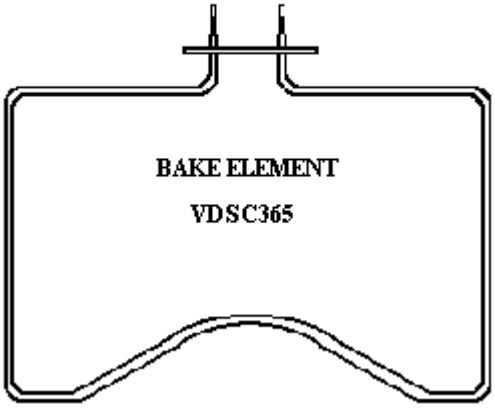
240V ELE. PE150003
208V ELE. PJ010020



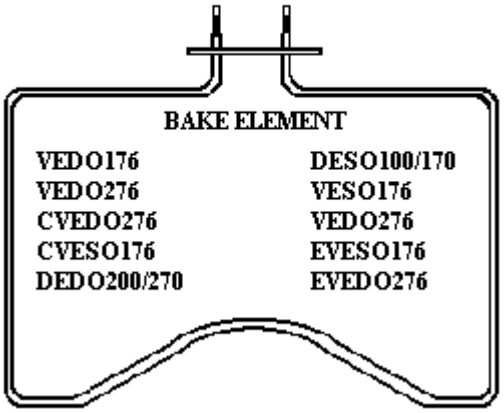
VEDO176 VEDO273
VEDO175 VEDO275

BAKE VPS00464 - PJ150004
BROIL VPS00505 - PE150003
CONVECTION VPS00465 - PE150005

240V ELE. PJ010006 3250 WATTS
208V ELE. PJ010018 2440 WATTS



240V ELE. PJ010012 2750 WATTS
208V ELE. PJ010021 2060 WATTS



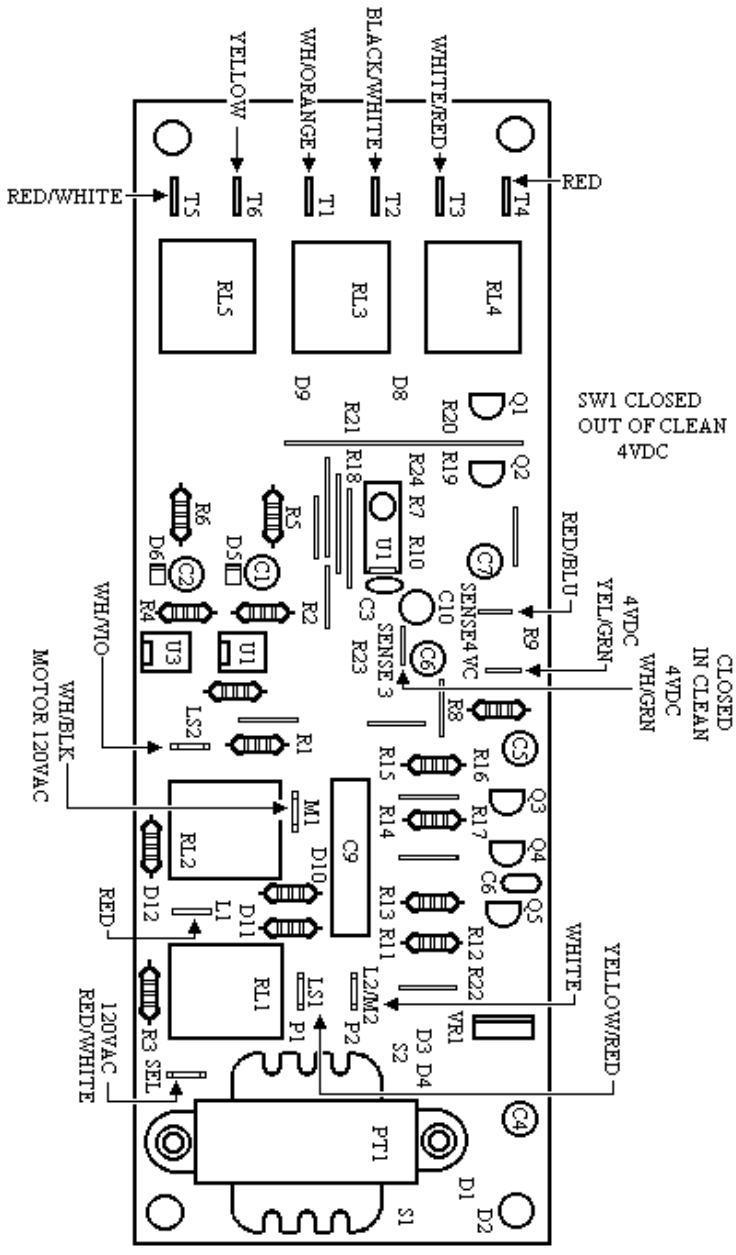
WARMING DRAWER 120V ELEMENTS

36" -- VEWD162 -- PJ010008 550WATTS
30" -- VEWD101/102 --PJ010009 450WATTS
27" -- VEWD172 -- PJ010010 425WATTS

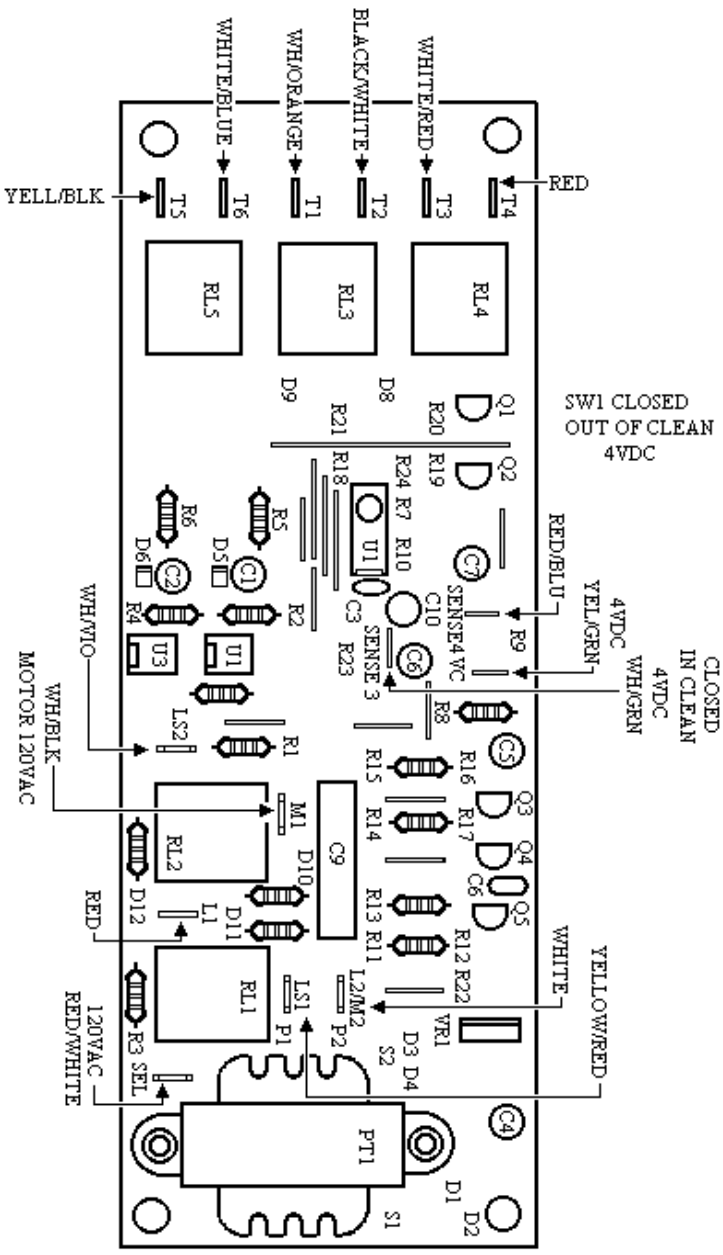
VEWD100/160/161 --PW120002 450WATTS
VEWD161 (ROLL WARMER) -- PW120009

30" -- DEWD100 -- PJ010009 450WATTS
27" -- DEWD170 -- PJ010010 425WATTS

DOOR LOCK 3

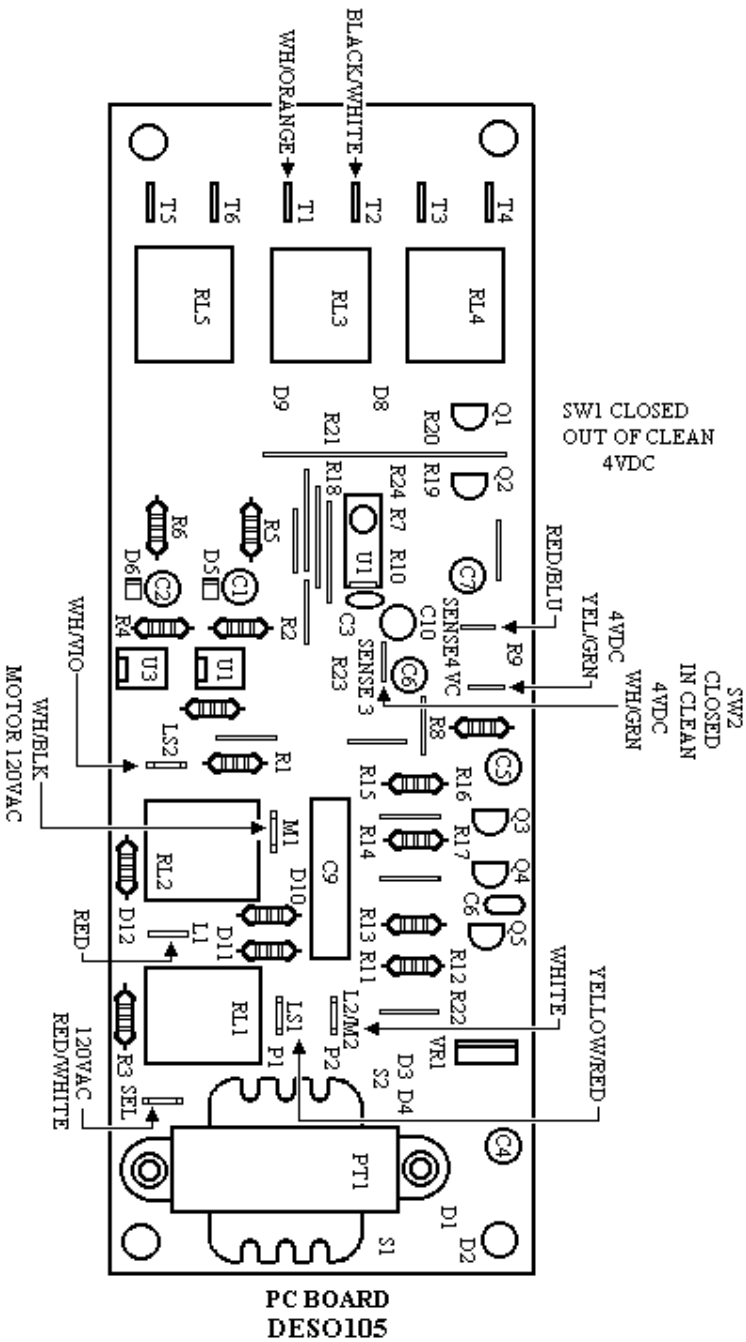


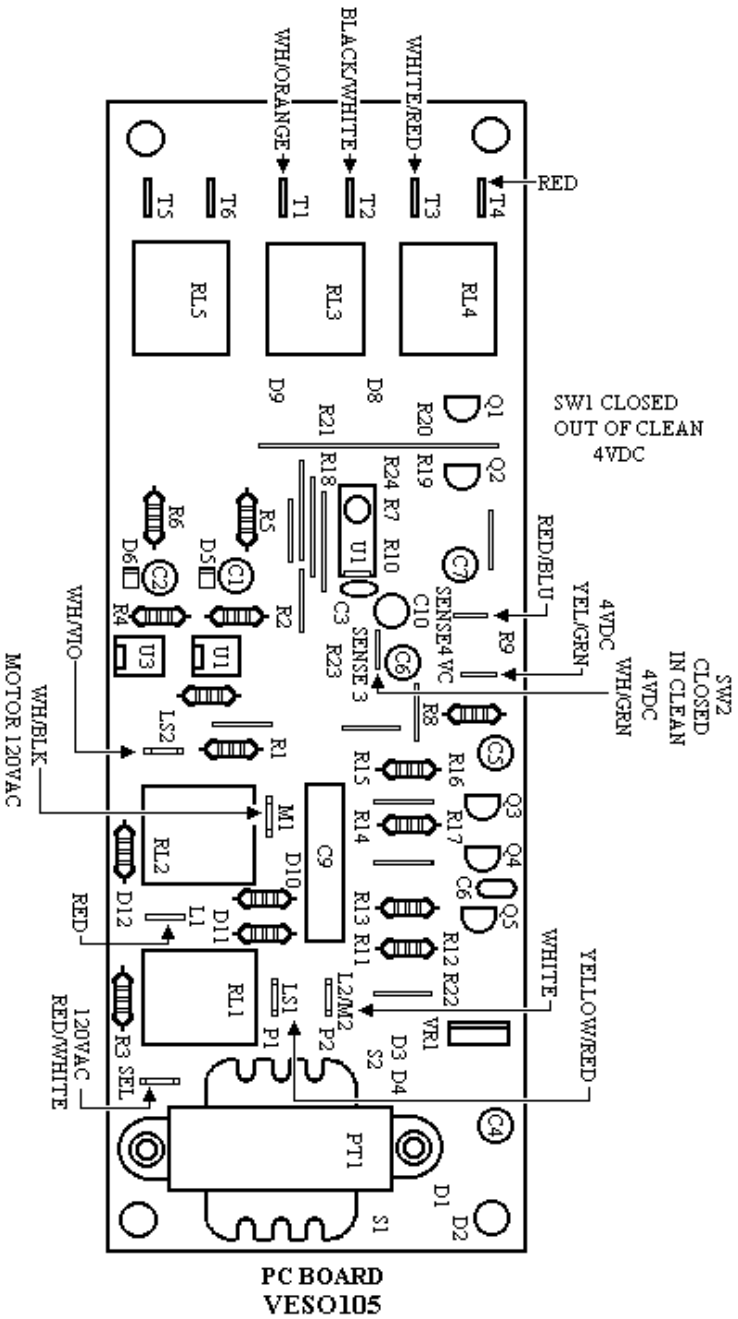
PC BOARD
VEDO205 UPPER



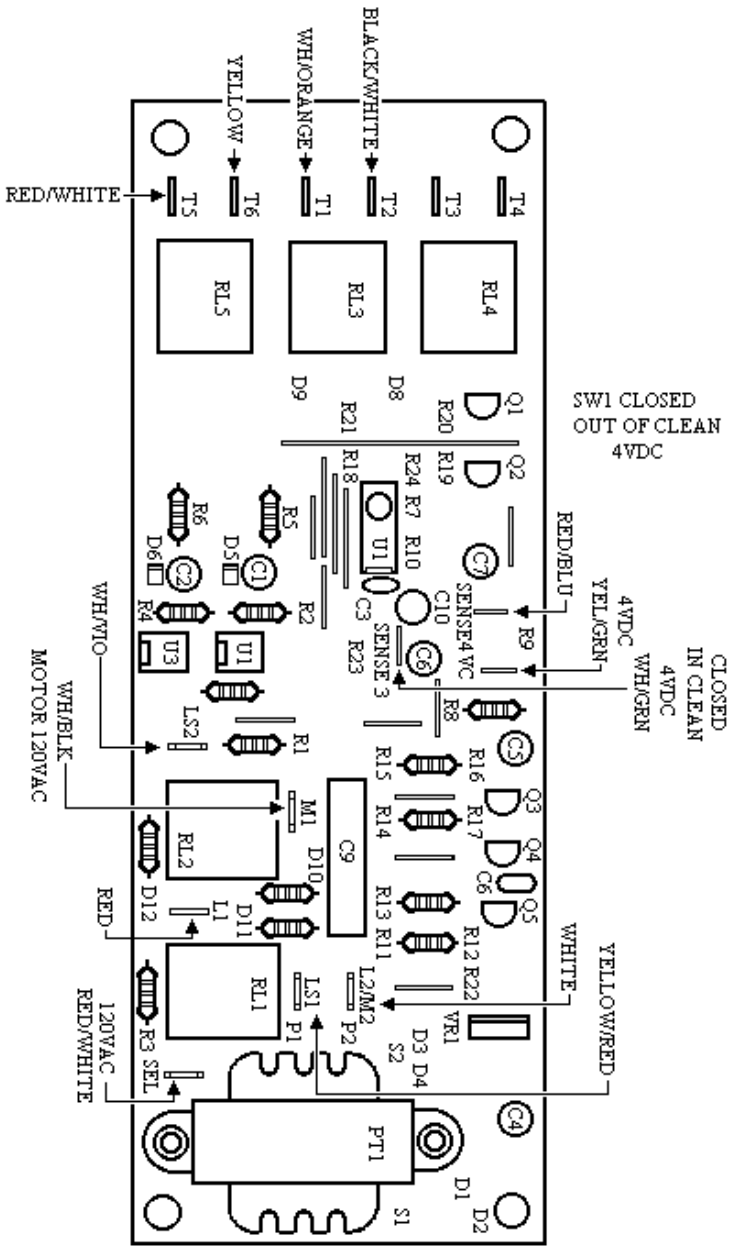
PC BOARD
VEDO205 LOWER

VIKING DOOR LOCK

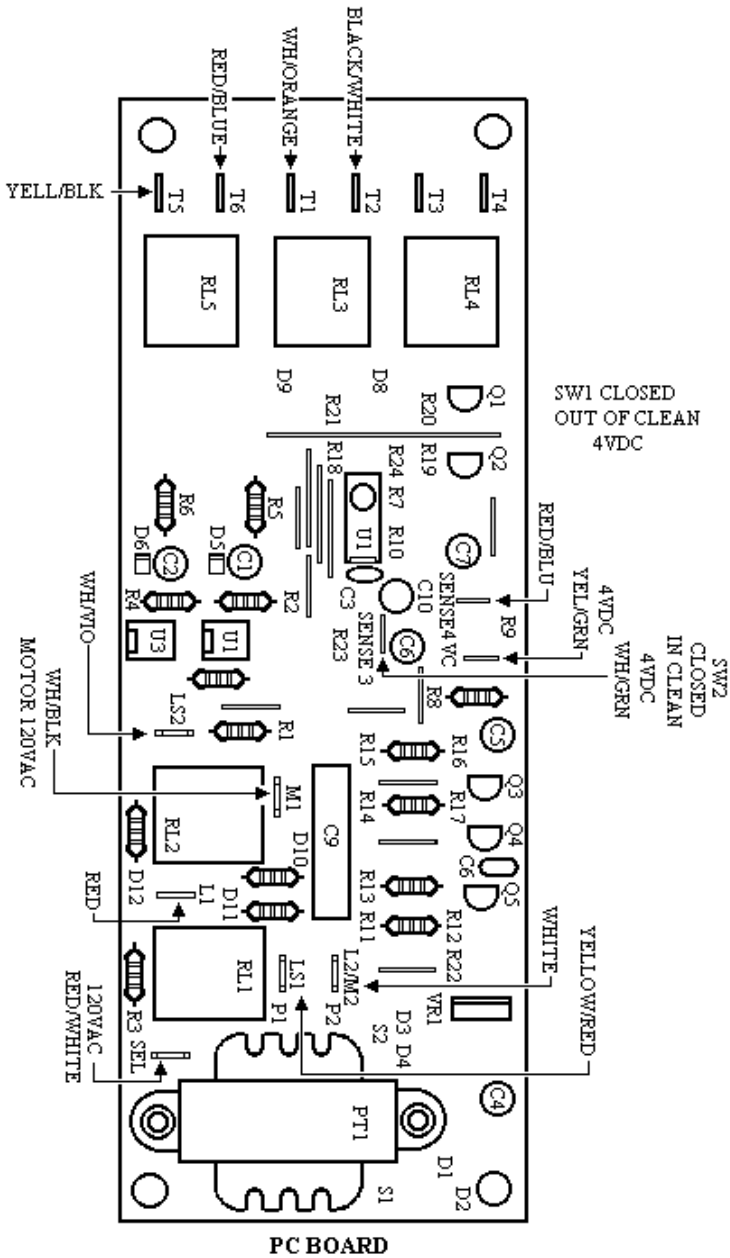




VIKING DOOR LOCK 5

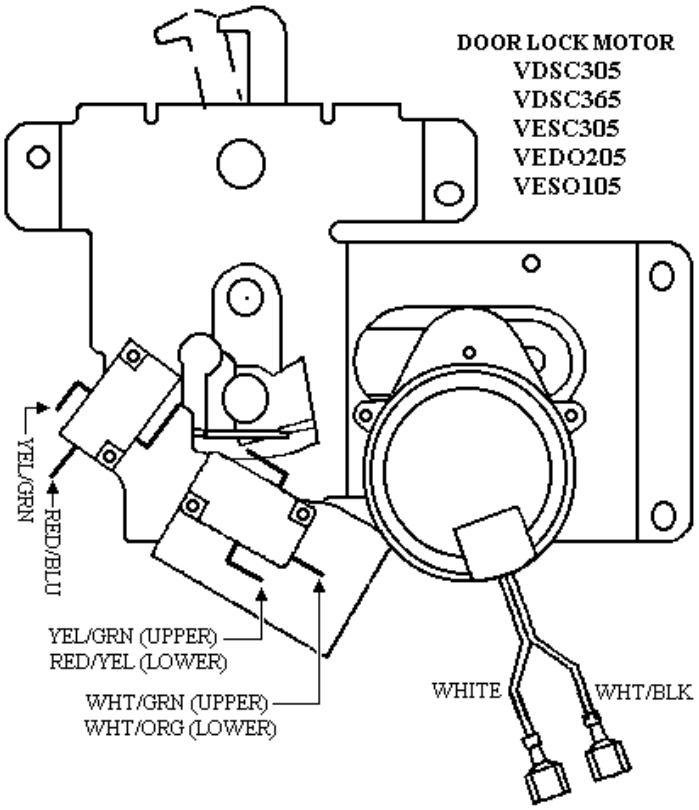


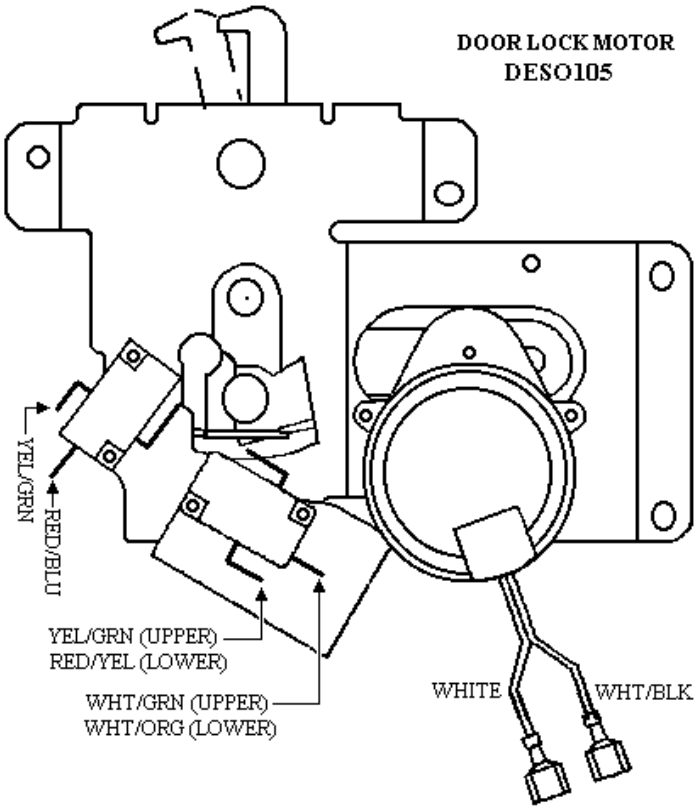
PC BOARD
DEDO200 UPPER

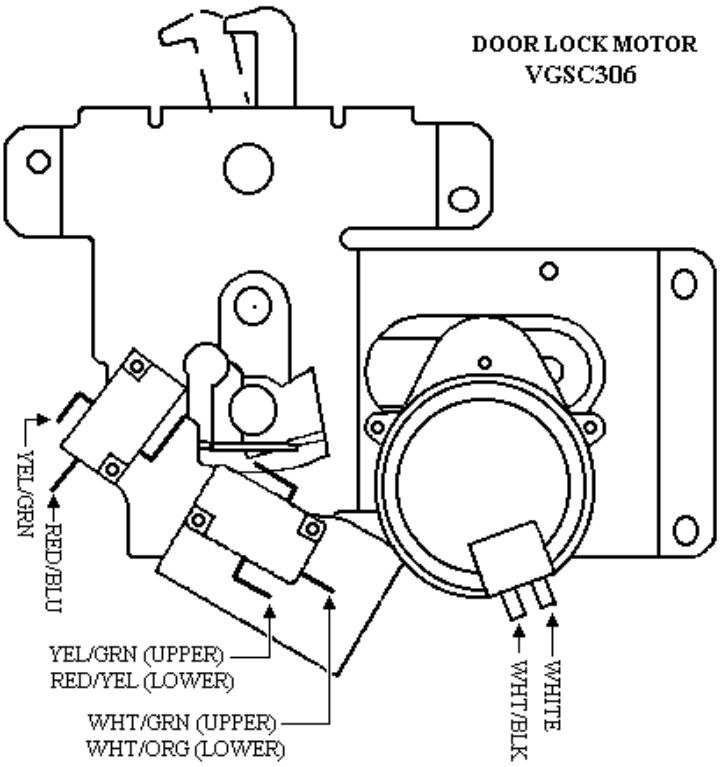


PC BOARD
DEDO200 LOWER

VIKING SELF-CLEAN DOOR LOCK MOTOR WIRING







V. MICRO-CHAMBER

WARMING DRAWER

NOTES:

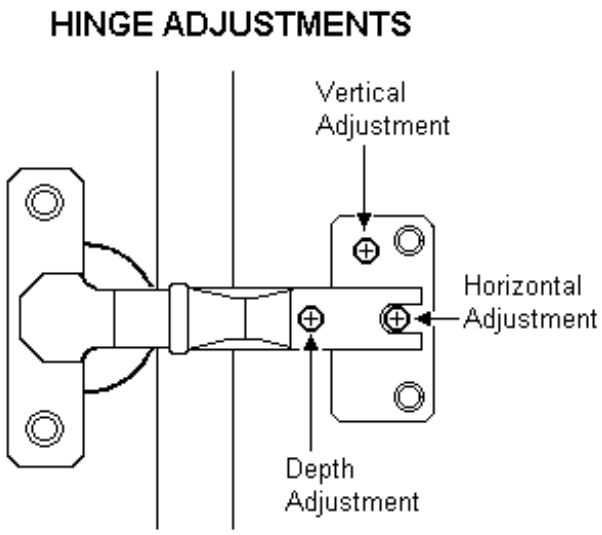
MICRO-CHAMBER

HINGE ADJUSTMENTS

To adjust the door up and down, loosen the vertical adjustment screw, make adjustments, then retighten the screw.

To adjust the door in or out, loosen the horizontal adjustment screw, make adjustments, then retighten the screw.

To adjust the gap between the door and all sides of the chamber, turn the depth adjustment screw.



WARMING DRAWERS

Pre-heat (warm-up) time:

VEWD102 / 30“ Wide

Setting #1 (90 degrees) = 7:36 Min.
Setting #2 (155 degrees) = 25:27 Min.
Setting #3 (250 degrees) = 50: 00 Min.

VEWD162 / 36" Wide

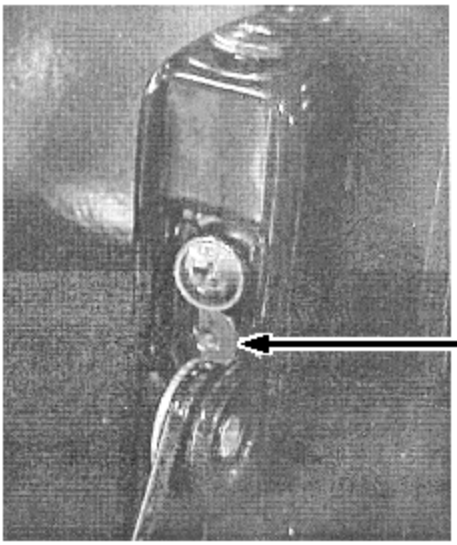
Setting #1 (90 degrees) = 9:54 Min.
Setting #2 (155 degrees) = 38:06 Min.
Setting #3 (250 degrees) = 54:46 Min.

WARMING DRAWER
120V ELEMENTS

VEWD162 — PJ010008
VEWD102 — PJ010009
VEWD172 — PJ010010
VEWD160 — PW120002
VEWD161 — PW120002

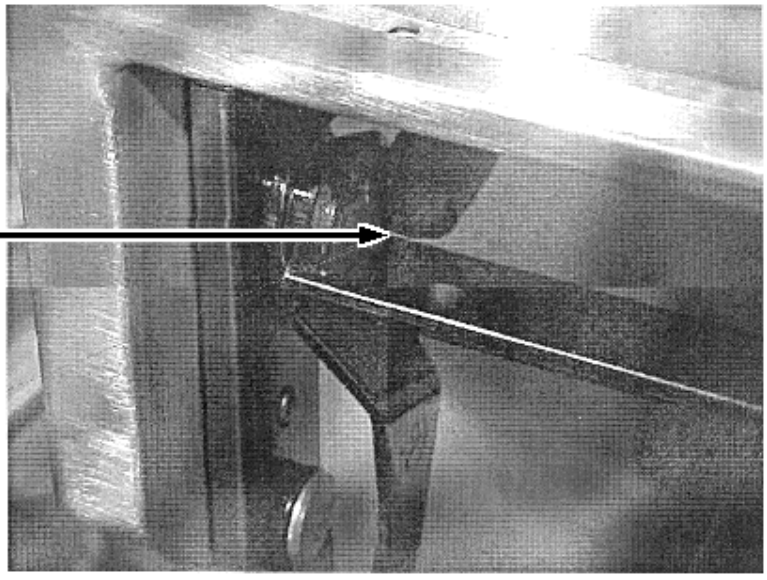
VEWD (ROLL WARMER)
— PW120009

Micro Chamber Door Adjustment



If the door is not fitting snug at the bottom (RH or LH side), use this adjustment screw to move the door out at the top, so the bottom will shut properly

Make sure cross bar is not hitting the piston. If it is, turn it around, so the larger slant is facing towards the top and rear.



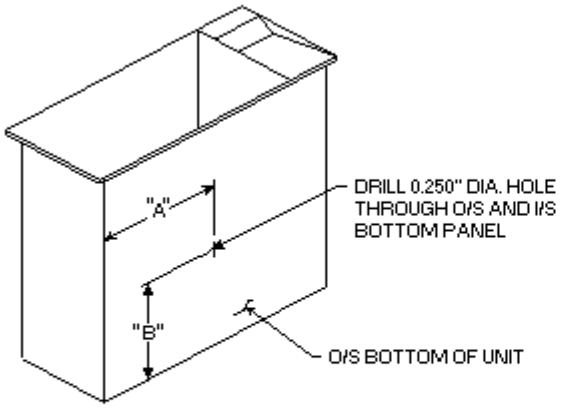
Warming Drawer Bottom Panel Warping

Models: VEWD172/102/162 and DEWD170/100

Field fix for Inside bottom panel warping on Warming Drawer, causing the drawer to rub the thermal bulb bracket when opening/closing.

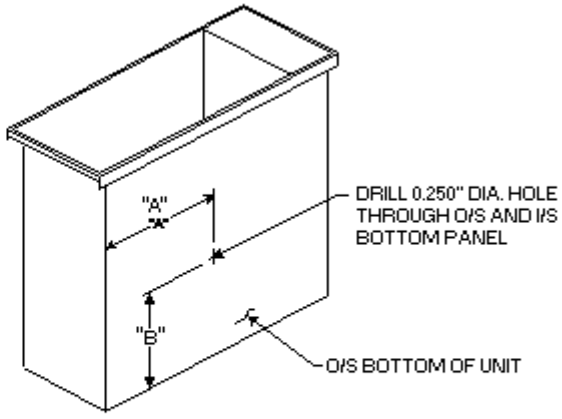
1. DISCONNECT THE ELECTRICITY FROM THE UNIT AND REMOVE FROM THE CABINET.
2. REMOVE THE DOOR AND/OR PAN ASSEMBLIES.
3. DRILL 0.250 DIA. HOLE THROUGH THE OUTSIDE AND INSIDE BOTTOM PANEL – (SEE THE ATTACHED DRAWING FOR DIMENSIONS.)
4. INSERT A #10-24 X 0.750" MACHINE SCREW FROM THE BOTTOM OF THE UNIT AND USE A #10-24 NUT ON THE INSIDE OF THE UNIT TO PULL THE TWO PANELS TOGETHER.
5. RE-INSTALL THE UNIT INTO THE CABINET AND RE-CONNECT THE ELECTRICITY.

DESIGNER SERIES



MODEL	"A"	"B"
DEWD170	11"	8"
DEWD100	12 1/2"	8"

PRO SERIES



MODEL	"A"	"B"
VEWD172	8 1/2"	10 1/2"
VEWD102	10"	10 1/2"
VEWD162	12"	10 1/2"

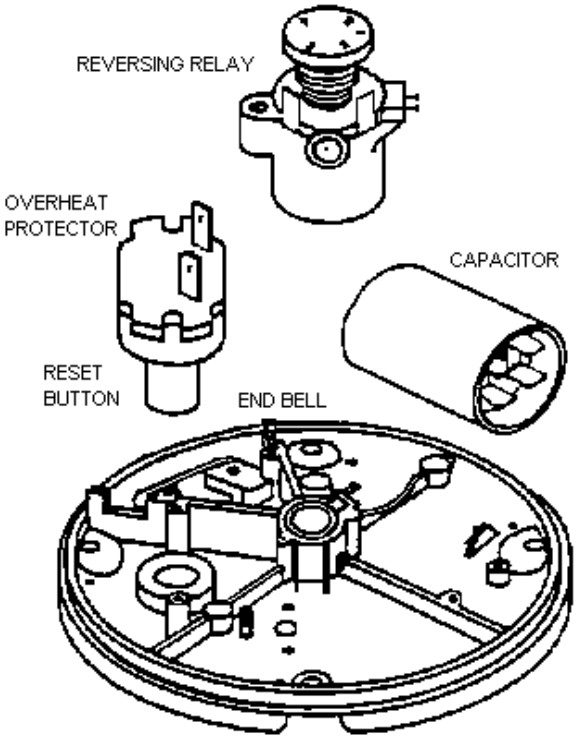
VI. DISPOSERS / COMPACTORS

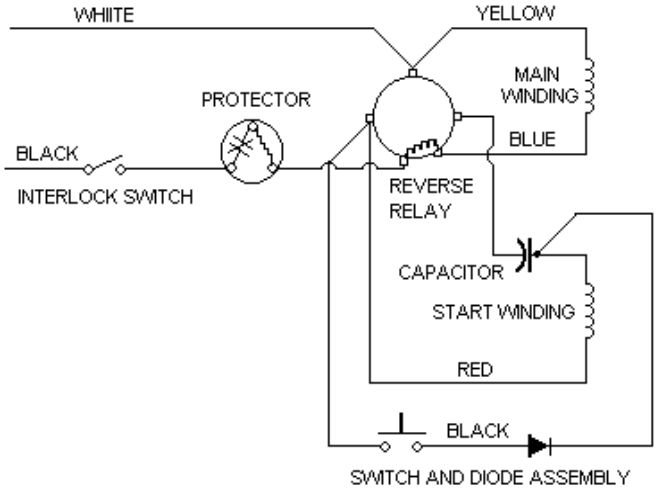
NOTES:

DISPOSERS

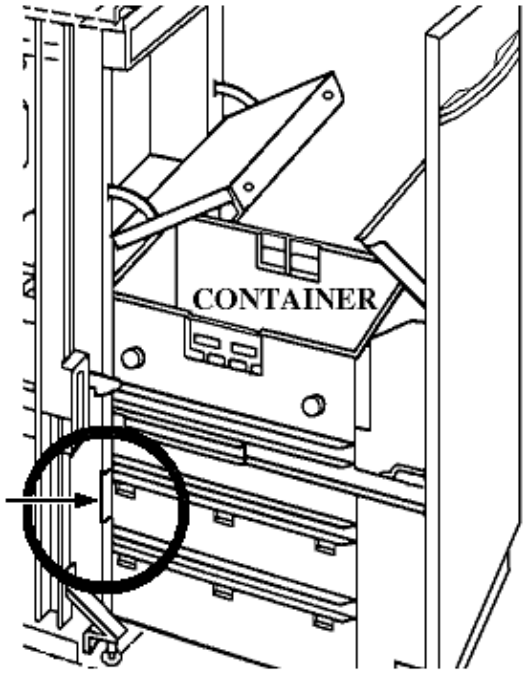
Q. What checks should be made before requesting an exchange (RMA)?

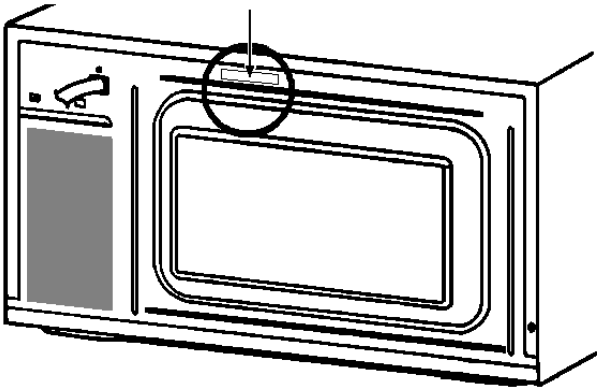
A. 1. Check for power to the disposer.
2. Press the reset button on the bottom of the disposer firmly. Suggest using a pencil to depress the button. If
3. the motor is warm (hot) wait approximately 5 minutes and retry the reset button.
3. Check the relay on the disposer.
4. Some models have the reversing switch which may be confused with the reset button. The reversing switch is on the s





COMPACTOR
Serial plate location – lower left frame





MICRO-WAVE OVEN
Serial plate location – upper front face

VII DISHWASHER

NOTES_____

DISHWASHERS

Q. What type fill hose is recommended on the dishwasher?
A. The installation calls for the inlet water tubing size 3/8" OD minimum. The fill valve has a 3/8" OD NPT female connection. When using a **FLEXIBLE** line be sure to secure the flex line to a solid brace. The flex line will relax with use and can come in contact with an electrical terminal, causing a short circuit.

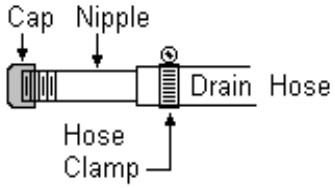
Super Clean System: Normal Cycle

1) Set temperature
2) Turn to "ON"
3) Drain pump will be on for 30 seconds.
4) Fill valve will open for 60 seconds supplying 1.3 gallons of water.
5) Pre-wash for 5 or 6 minutes (not heated)
6) Drain pump turns on and drains water to just over the top of the filter (1/8").
7) Then the circulations pump turns on for 45 to 50 seconds to wash the bottom of the tank and filter.
8) Action stops for 1 minute.
9) The pump turns on and drains unit
10) The fill valve turns on and the regular wash begins.
11) After water reaches the set temperature the unit will wash for 20 minutes
12) Stops
13) Drain pumps for 30 seconds.
14) Fill valve on for 60 seconds.
15) Rinses for 4 minutes.
16) Drains
17) Refills for 2nd rinse (heated water)
18) Drains
19) Heating element on for drying cycle.
20) Vent opens after 30 seconds into dry cycle.
21) Drying cycle approximately 12 minutes.

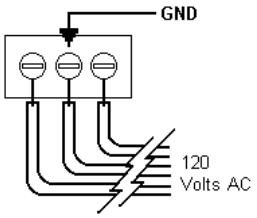
- Depending on the temperature setting the thermostat will cycle the element on and off during the drying cycle.
- Check the thermostat wiring when the dishwasher doesn't heat the water.
- Check the pressure switch when the drain pump runs all the time. To check the pressure switch jumper pins 11 and 12 together, if pump shuts off the pressure switch is bad.
- The water is heated while recirculating .

RECOMMENDATION: For the best results in dishwasher draining when using an air gap, specify **full or large flow air gap.** An example, US Brass Modes CD3 (Plano, Tx.--LA CA.).

VIKING D/W SALES FLOOR DEMONSTRATION CONTINUOUS WASH



2" or 3" x ½" PVC Nipple
½" Female Cap (PVC)
¾" x 1 ¼" SS hose clamp
6" 16-3 SJ Wire / 3 prong male plug



Add 1 ½ gal of Water to Dishwasher and plug into a 120VAC outlet. The water should be drained occasionally.

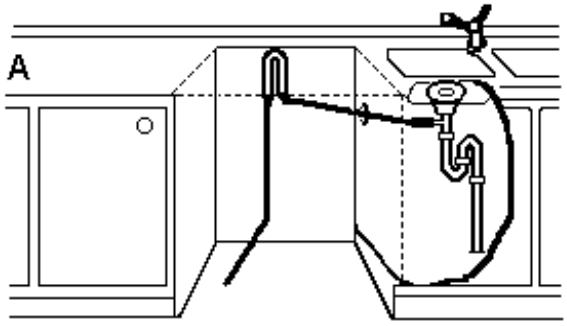
DRAIN SUPPLY (Proper installation)

Viking provides a 7/8" drain hose which is connected to the back of the unit to form a high loop. If additional drain hose is needed, please purchase an additional Viking drain hose and join it to the provided hose with a 7/8" copper tube. (Do not use any fittings anywhere in the drain line that are less than 7/8" ID).

The access hole for the drain line should be 1 ½".

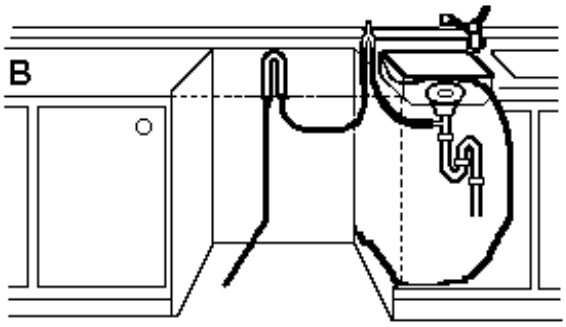
The end of the drain line is ½", but it is adjustable to 7/8", ¾" 5/8". If the drain connection is larger than ½", you can easily cut the drain line to fit the connection.

The illustration to the left show three different ways to connect the drain supply line.



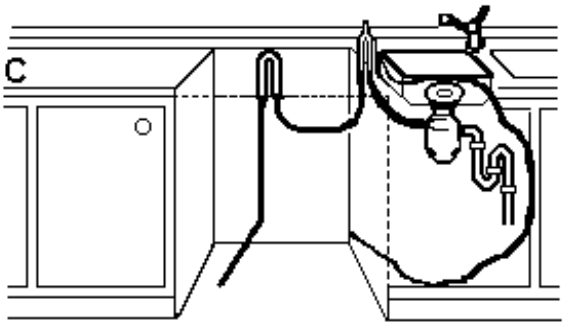
THE HIGH LOOP

All Viking dishwashers have drain hoses attached to the drain pump and fastened to the back of the unit. This gives the drain hose an automatic high loop, which is necessary for proper draining. The drain hose is fastened at the best loop height with a plastic zip tie. To eliminate potential drain problems, simply leave this hose in place.



IMPORTANT THINGS TO REMEMBER

- Failure to provide the proper drain connection height (minimum of 20" above the bottom of the dish washer base) lower than a 20" high loop will result in improper drainage, which will damage the machine.
- No part of the drain hose should be higher than 35" from the bottom of the dishwasher.
- The hose must be drawn straight to a floor well or its equivalent because it might function as a siphon and empty the machine.
- The drain hose can be extended to a maximum length of 10 feet. Joints and jointed tubes, if any, must have an ID of at least 7/8".
- If the drain line is going to be connected to a waste disposer, be sure to remove the knockout or plug from the fitting on the disposer before connecting the drain line.
- Don't use fittings smaller than 7/8", otherwise the water may not drain properly.



DISHWASHER BATH PROCEDURES

SUPPLIES NEEDED:
½ cup citric acid crystals,
Tang breakfast drink (large jar),
White Vinegar, or
Glass Magic (may use any one of these).

INSTRUCTIONS:

1. Remove all dishes before the bath.

2. Make sure your mesh filter trap is clean.

3. Remove all rinse agent from the dispenser. NEVER use a rinse agent in soft water.

4. Set the dishwasher to normal or pots and pans cycle. These cycles have one and two pre-washes (pre-wash cycles activate our super cleaning system.) Use high temperature settings while doing the bath unless you have high iron content in your water. With high iron content use the low temperature setting always.

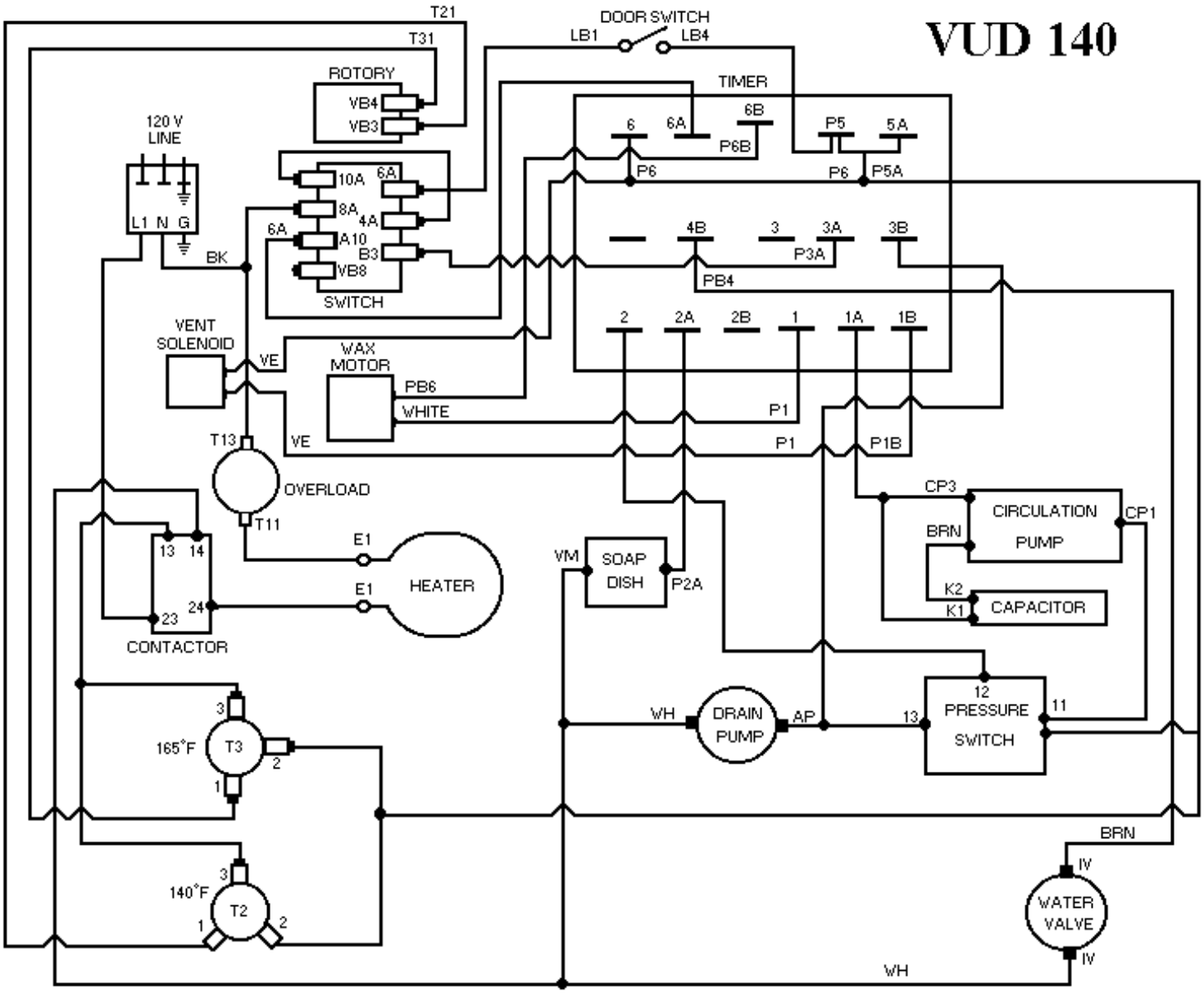
5. Turn the dishwasher on. If using the pots and pans cycle, you will hear the unit fill then drain, this will happen twice. If using the normal cycle you will hear the unit fill and drain once (these are pre-wash cycles.) After the pre-wash cycles are drained, open the door, place either ½ cup of citric acid crystals or one large jar of tang in the main wash cycle. Close the door and let it complete the cycle. If using the white vinegar, at the end of the pre-wash cycle open the door, turn off the water to the dishwasher from under the sink. Place one and one-half gallons of white vinegar in the dishwasher. Close the door and let it complete the cycle. At the end of the wash cycle you will hear the unit drain. When the draining is complete open the door to stop the cycle. Turn the water back on under the sink. Close the door and let the unit finish the complete cycle. To use the glass magic, put 2 tbsp. in soap cup and run the cycle as normal.

6. The dishwasher should now be clean. To check, we suggest that you run a rinse and hold cycle. After the inlet valve has shut off and the circulation pump has started, open the door (don't let the water settle.) If the water is cloudy another bath is recommended. Depending on the amount of buildup, it may require several baths. After each bath, run a rinse and hold cycle until the water is clear.

7. After all buildup is removed, we recommend using the cycles with pre-wash for better cleaning. A buildup of white film or grit is common if the water hardness is 7 grains or above. It is also common with soft water systems with 3 grains or less. Your local dealer or distributor will be able to assist with the correct combination of detergents to use so the buildup won't return or return as fast. In high iron water areas this cleaning process will be necessary about once every month (depending on how often the unit is used.)

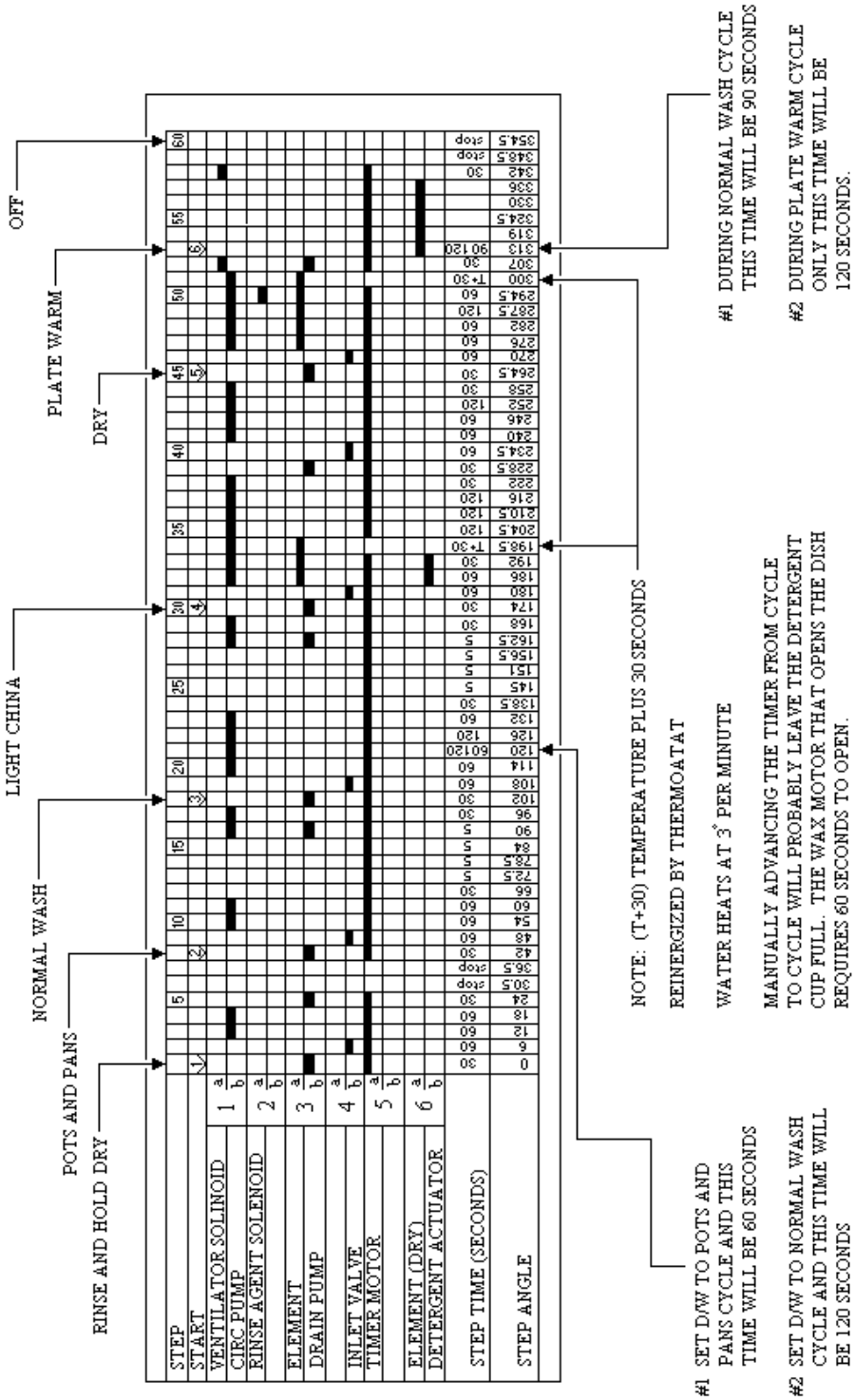
WIRING DIAGRAM

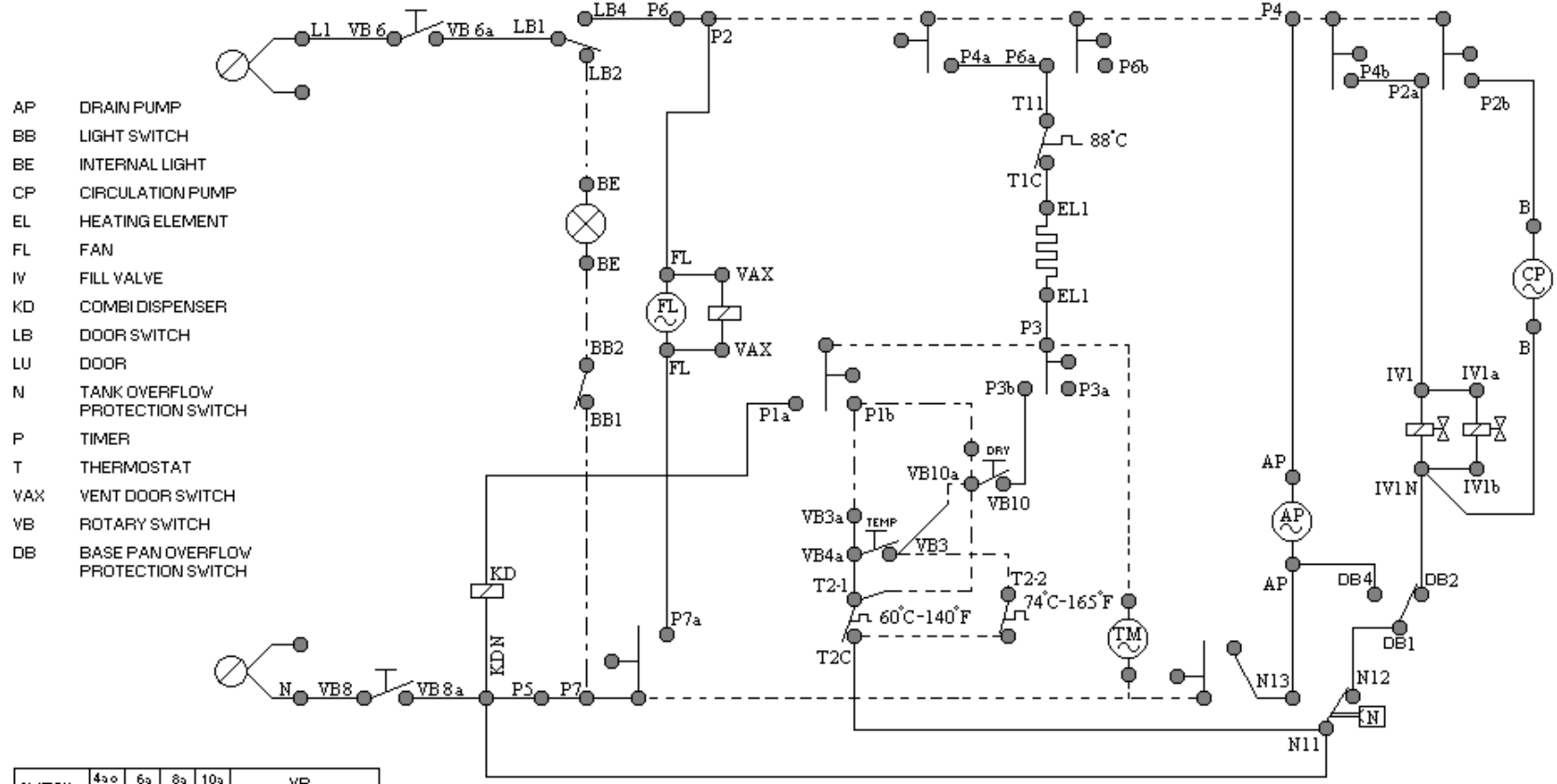
VUD 140 UNDERCOUNTER DISHWASHER

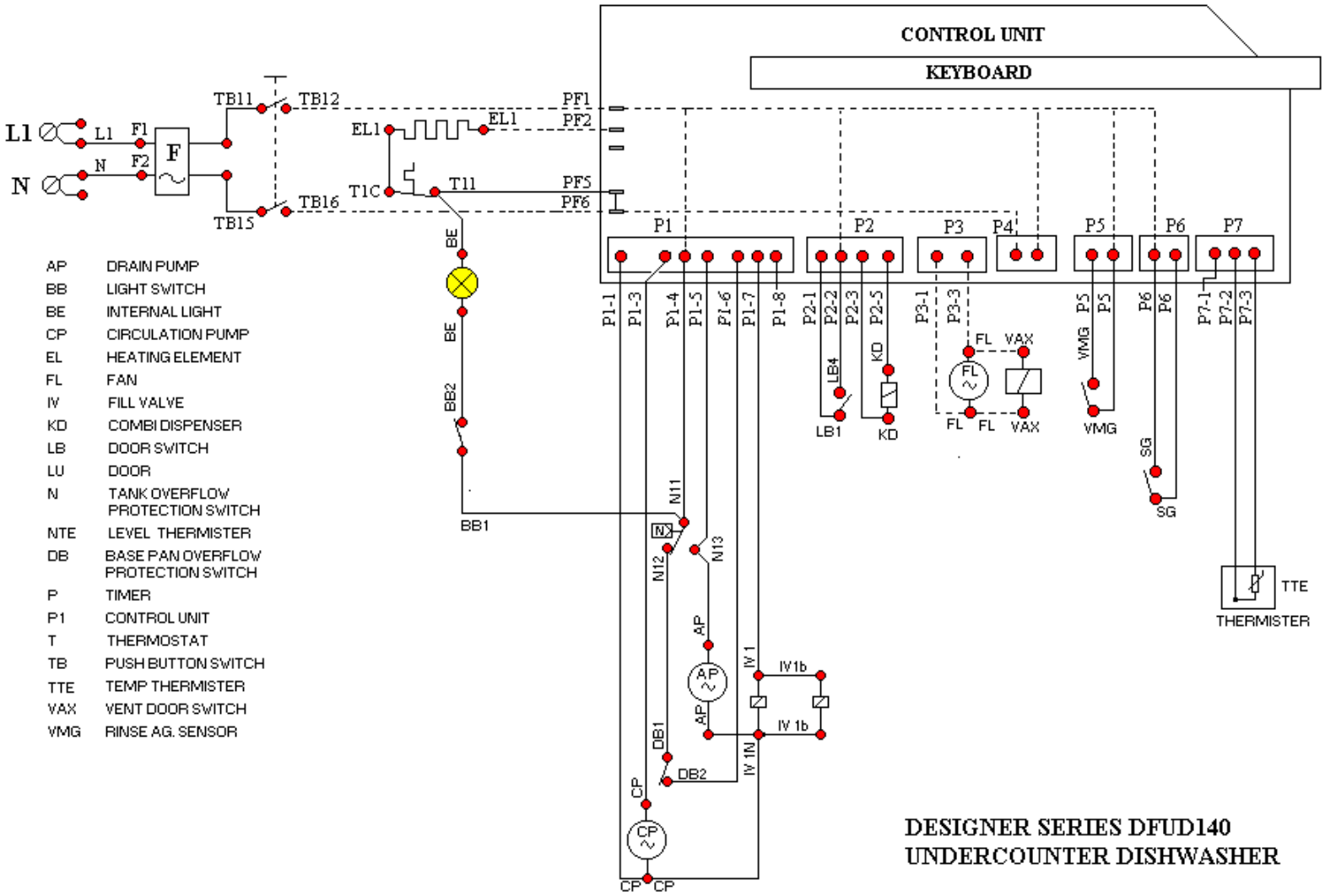


CYCLE SELECTION

VUD140 UNDERCOUNTER DISHWASHER

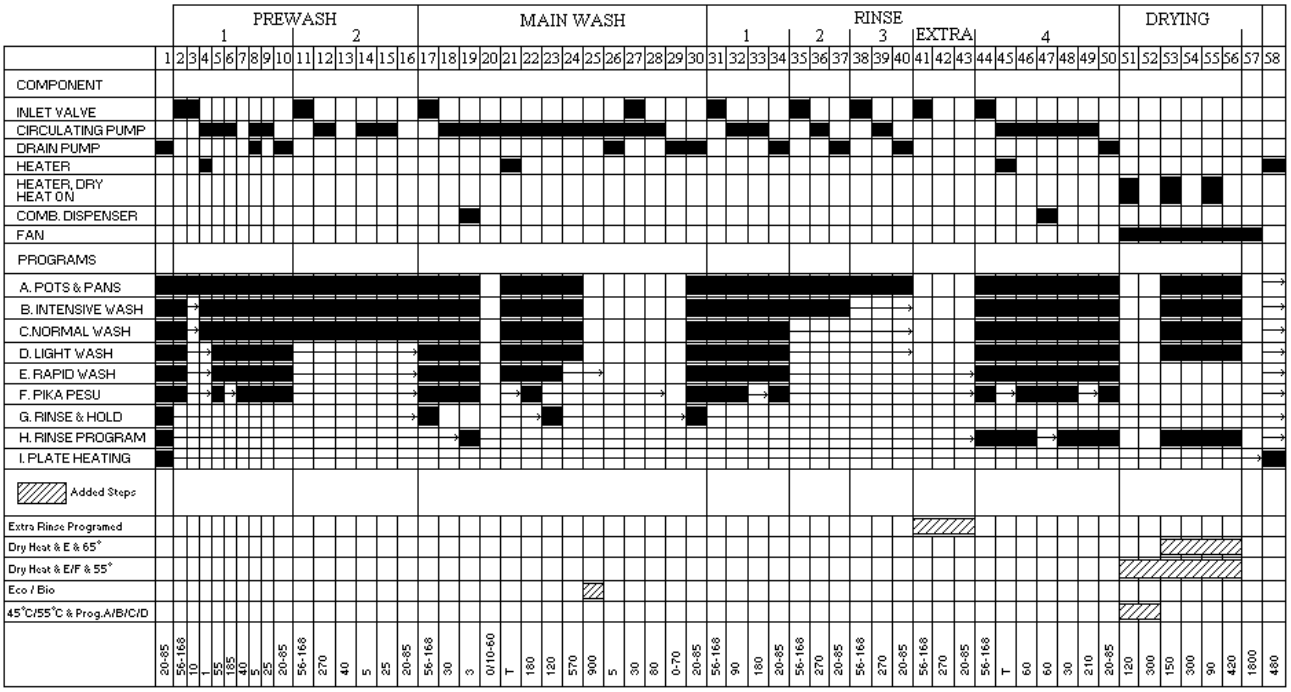



AP DRAIN PUMP
BB LIGHT SWITCH
BE INTERNAL LIGHT
CP CIRCULATION PUMP
EL HEATING ELEMENT
FL FAN
IV FILL VALVE
KD COMBI DISPENSER
LB DOOR SWITCH
LU DOOR
N TANK OVERFLOW PROTECTION SWITCH
P TIMER
T THERMOSTAT
VAX VENT DOOR SWITCH
VB ROTARY SWITCH
DB BASE PAN OVERFLOW PROTECTION SWITCH
L1
VB 6
VB 6a
LB1
LB4
P6
P2
LB2
BE
FL
VAX
BB2
BB1
P1a
P7a
KD
KDN
N
VB8
VB 8a
P5
P7
P4
P4a
P6a
P6b
T11
88°C
T1C
EL1
P3
P3b
P3a
P1b
DRY
VB10a
VB10
VB3a
TEMP
VB3
VB4a
T2-1
60°C-140°F
T2-2
74°C-165°F
T2C
TM
AP
DB4
DB2
DB1
N13
N12
N
N11
P4b
P2a
P2b
B
CP
IV1
IV1a
IV1 N
IV1b
SWITCH CONTACT
POSITION
0
1
2
3
4
5
VB
ROTORY SWITCH FOR SELECTING TEMP. AND DRY HEATING
INTERNAL CONNECTIONS
ONLY INCLUDED IN SOME MODELS



DESIGNER SERIES DFUD140
UNDERCOUNTER DISHWASHER

DESIGNER SERIES DFUD 140
CYCLE SEQUENCE CHART



Geographical location of switches on the keyboard. (Some switches are not displayed on some models.)

INLET TIME

Press 5 Five Times to Enter Program Mode.
Press 3 to get Normal Inlet Time (Default)
Press 4 to get 25% increase
Press 5 to get 50% increase
Press 6 to get 100% increase
Press 7 to get 150% increase
Press 8 to get 200% increase

DRAINAGE TIME

Press 3 Five Times to Enter Program Mode.
Press 3 to get 20 sec. Drain Time
Press 4 to get 25 sec. Drain Time (Default)
Press 5 to get 35 sec. Drain Time
Press 6 to get 45 sec. Drain Time
Press 7 to get 65 sec. Drain Time

VIKING RANGE
DESIGNER SERIES DFUD140 FAULT CODES

FAULT TRACING: PRESS TEMPERATURE FIVE TIMES AND THEN:

1) PRESS QUICK WASH ONCE FOR INLET VALVE.
2) PRESS RINSE AND HOLD ONCE FOR SOAP DISPENSER.
3) PRESS ECONOMY ONCE FOR HEATER.
4) PRESS HEATED DRY FOR CIRCULATION PUMP.
5) PRESS HEATED DRY FOR DRAIN PUMP.
6) PRESS DELAY START ONCE FOR FAN MOTOR.

INLET TIME ADJUSTMENT: PRESS ECONOMY FIVE TIMES AND THEN:

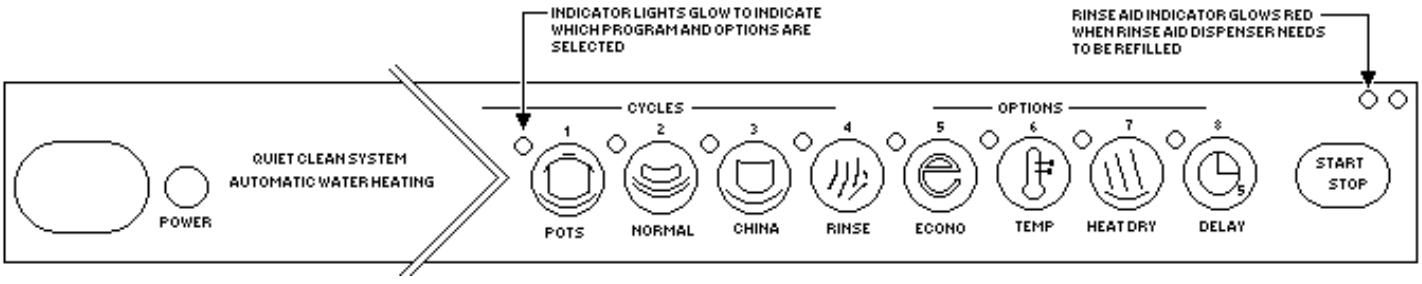
1) PRESS QUICK WASH TO GET NORMAL FILL TIME.
2) PRESS RINSE AND HOLD WASH TO INCREASE 25%.
3) PRESS ECONOMY TO INCREASE 50%.
4) PRESS TEMPERATURE TO INCREASE 100%.
5) PRESS HEATED DRY TO INCREASE 150%.
6) PRESS DELAY START TO INCREASE 200%.

DRAIN TIME ADJUSTMENT: PRESS QUICK WASH FIVE TIMES AND THEN:

1) PRESS QUICK WASH ONCE FOR A 20 SECOND DRAIN.
2) PRESS RINSE AND HOLD ONCE FOR A 25 SECOND DRAIN.
3) PRESS ECONOMY ONCE FOR A 35 SECOND DRAIN.
4) PRESS TEMPERATURE ONCE FOR A 45 SECOND DRAIN.
5) PRESS HEATED DRY ONCE FOR A 85 SECOND DRAIN.

PROTECTED START PROGRAM: PRESS RINSE AND HOLD FIVE TIMES AND THEN:

1) PRESS ECONOMY WASH ONCE FOR PROTECTED START.
2) PRESS RINSE AND HOLD ONCE FOR NORMAL START.



INSTRUCTIONS FOR ACCESSING FAULT CODES FOR DESIGNER SERIES MODEL DFUD040 DISHWASHER

FAULT TRACING:
PRESS RINSE AND HOLD FIVE TIMES WITHIN 15 SECONDS AND THEN:

1) PRESS POTS AND PANS ONCE TO TEST INLET VALVE.
2) PRESS NORMAL WASH ONCE TO TEST SOAP DISPENSER
3) PRESS NORMAL WASH AGAIN TO TEST RINSE AID DISPENSER.
4) PRESS QUICK WASH ONCE TO TEST HEATING ELEMENT.
5) PRESS RINSE AND HOLD ONCE TO TEST CIRCULATION PUMP.
6) PRESS HEATED DRY ONCE TO TEST DRAIN PUMP AND FAN MOTOR..

INLET TIME ADJUSTMENT:
PRESS QUICK WASH FIVE TIMES WITHIN 15 SECONDS AND THEN:

1) PRESS POTS AND PANS TO RESET TO NORMAL FILL TIME.
2) PRESS NORMAL WASH ONCE TO INCREASE BY 15 SECONDS. .
3) PRESS QUICK WASH ONCE TO INCREASE BY 30 SECONDS..
4) PRESS RINSE AND HOLD ONCE TO INCREASE BY 60 SECONDS. .
5) PRESS HEATED DRYONCE TO INCREASE BY 120 SECONDS.

DRAIN TIME ADJUSTMENT:
PRESS POTS AND PANS FIVE TIMES WITHIN 15 SECONDS AND THEN: Date: 10/30/03

1) PRESS POTS AND PANS ONCE TO DECREASE DRAIN TIME BY 5 SECONDS.
2) PRESS NORMAL WASH ONCE TO RESET TO NORMAL DRAIN TIME.
3) PRESS QUICK WASH ONCETO INCREASE BY 10 SECONDS.
4) PRESS RINSE AND HOLD ONCE TO INCREASE BY 20 SECOND.
5) PRESS HEATED DRY ONCE TO INCREASE BY 60 SECOND.

PROTECTED START PROGRAM:
PRESS NORMAL WASH FIVE TIMES WITHIN 15 SECONDS AND THEN:

1) PRESS QUICK WASH ONCE TO A 3 SECOND PROTECTED START.
2) PRESS NORMAL WASH ONCE FOR NORMAL START.

V111. Ventilators

NOTES:

VENTILATORS
Noise Complaints

A. Remove four (4) screws and lift off the "Chinese Hat" (A). The electrical connections are under the cap.

B. To remove the unit from the roof mount remove the four (4) screws on the base (B).

C. These components #5 - #6 - #7 - #12 and #14 hold the unit together. There are four (4) sleeves with the associated screws. There are three (3) locations for these components. The screws can vibrate loose and cause noise.

D. The cooling fan fins (#3 on the drawing) can be bent and cause noise.

E. The impeller plate (#11 on the drawing) has been the biggest problem causing noise.

DECIBELS (DB): Unit of measure for sound

SONE: (1) A unit of loudness. A simple tone of frequency 1000 HZ (cycles), 40 DB (decibels) above a listeners threshold, produce a loudness of 1 SONE. The loudness of any that is judged be the listener to be "n" times that of the 1 SONE is "n" SONES.

(2) A value for loudness. May be used for overall evaluation of a sound or of a frequency band. The SONE scale is linear (in contrast to decibels which are logarithmic).

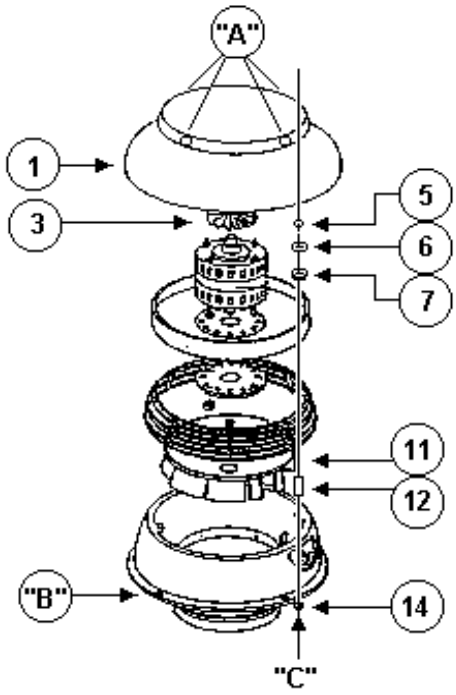
SONE: ("n") A subjective unit of loudness, equal to the Loudness of a pure tone having a frequency of 1000 HZ (cycles) per second at 40 decibels above the listener's threshold of audibility.

- The average refrigerator produces 2 to 3 SONES.
- The average vacuum cleaner produces 10 to 15 SONES.
- A Sears 180 CFM range hood has a rating of 6.5 SONES. (Source – Sears catalog.)

VIKING hoods produced before Feb. 1998 has between 4.5 and 5.0 SONES.

VIKING 10" hoods:
Model 3019 produces 5.87 SONES.
Model 3619 produces 6.1 SONES.
Model 3610 produces 6.4 SONES.

Exterior Power Ventilator
VEPV1900-RCK



VIKING HOODS: The static pressure at the hood is 1/10 of an inch. Adding any duct work will change the static pressure. Each installation needs to be calculated by a professional contractor.

VENT WALL CAP

The area of the open end of a wall cap must be equal to the area of duct being used.

12" Dia. = 113" square
10" Dia. = 78 ½" square
8" Dia. = 50' square
3 ¼" x 10" = 32.5" square

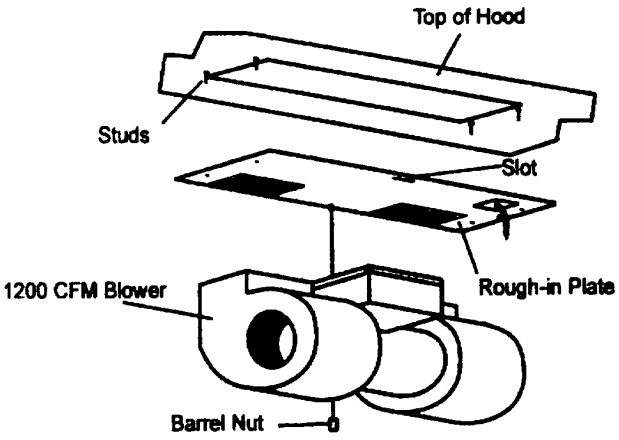
SERVICING THE INTERIOR VENTILATORS

HOOD TRANSITIONS: THE TRANSITION PLATE IS A PART OF THE BLOWER PACKAGE AND IS SHIPPED WITH THE BLOWER, NOT WITH THE 18" HOOD.

- Blower package purchased from source may not include the transition plate.
- A request for a transition plate to be shipped separate will not be honored. (It may be purchased.)
- The transition can not be installed without the hood.
- To determine the validity of a request for missing parts, ask (1) HOOD MODEL NO. (2) HAVE YOU RECEIVED YOUR BLOWER PACKAGE?

VIV600 –Interior Ventilator Kit (600 CFM)

1. Unplug the ventilator power cord from the receptacle located on the topside of the light panel.
2. Loosen the barrel nuts and wing nut.
3. Slice ventilator to the left to disengage the barrel nut studs from the keyhole openings.
4. Lower the ventilator for service.



VIV600

PV300001	BLOWER
PV300002	ROUGH-IN TRANSITION, DAMPER

VIV1200

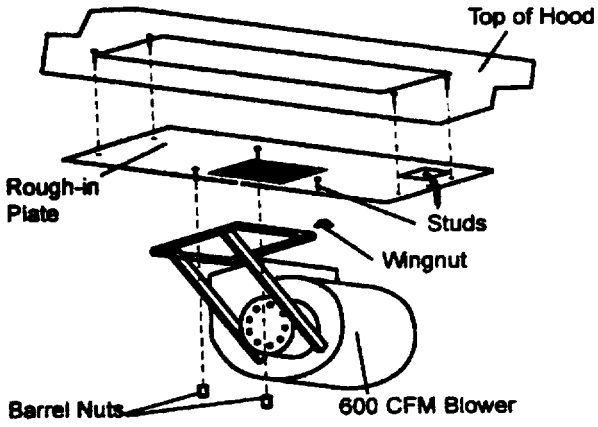
PV300003	BLOWER
PV300004	ROUGH-IN
PV300005	TRANSITION
PV300006	DAMPER (VEV900-VEV1200-VIV1200)

VEV900

PV300007

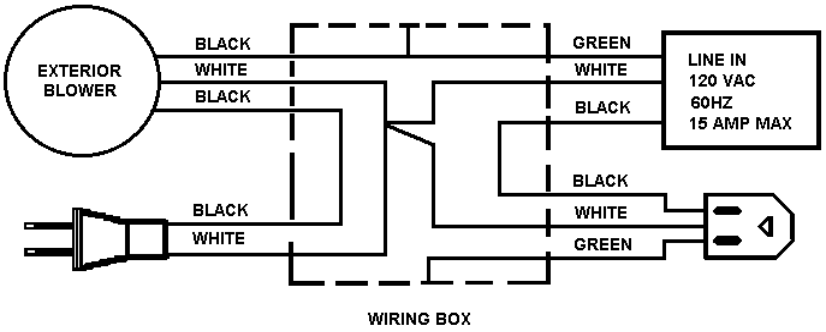
VEV 900 / VEV1200

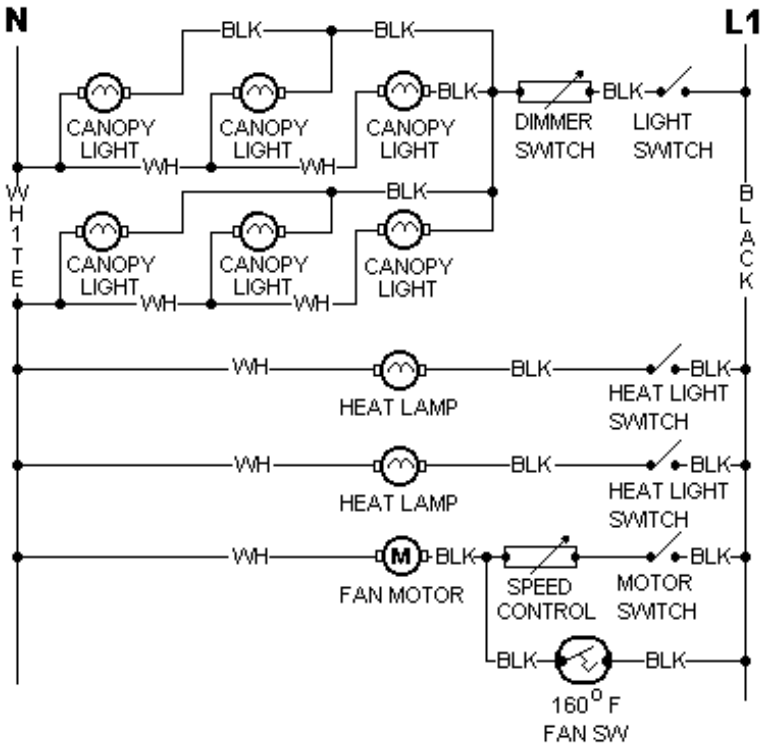
PV300008	ROUGH-IN (W/10" ROUND OPENING)

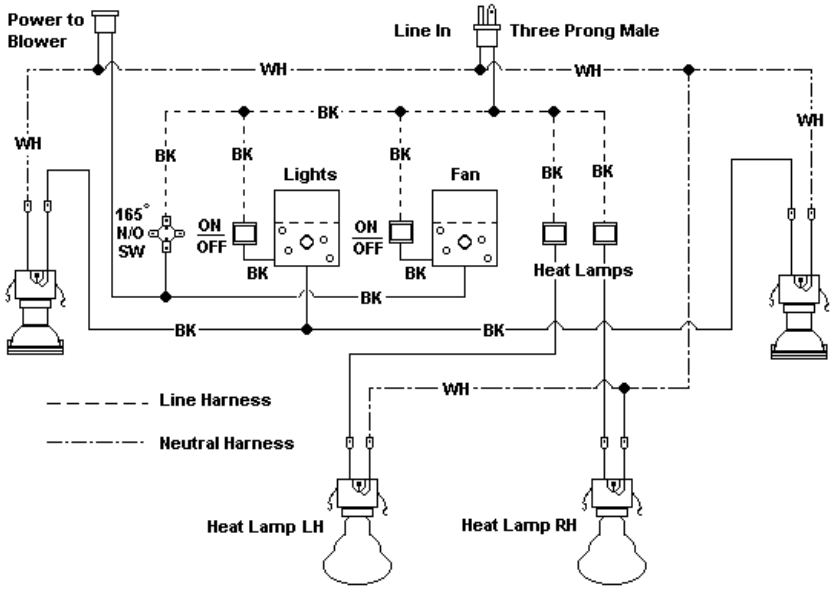


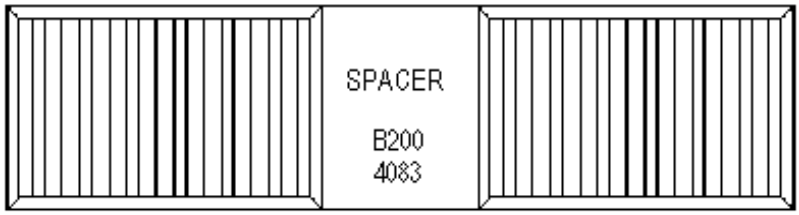
VIV1200-Interior Power Ventilator Kit (1200CFM)

1. Unplug the ventilator power cord from the receptacle located on the topside of the light panel.
2. Loosen (about halfway) the barrel nut using a long flat head screwdriver.
3. Pull ventilator toward the front to disengage.
4. Remove ventilator for service.

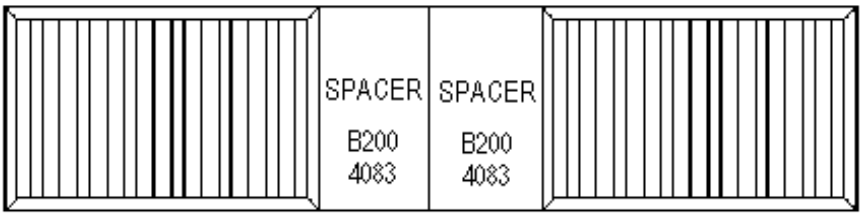

EXTERIOR BLOWER
BLACK
WHITE
BLACK
BLACK
WHITE
GREEN
WHITE
BLACK
LINE IN
120 VAC
60HZ
15 AMP MAX
BLACK
WHITE
GREEN
WIRING BOX


N
L1
BLK
BLK
CANOPY LIGHT
CANOPY LIGHT
CANOPY LIGHT
BLK
DIMMER SWITCH
BLK
LIGHT SWITCH
WH
WH
WH
WHITE
BLACK
BLK
CANOPY LIGHT
CANOPY LIGHT
CANOPY LIGHT
WH
WH
WH
WH
BLK
HEAT LAMP
BLK
BLK
HEAT LIGHT SWITCH
WH
BLK
HEAT LAMP
BLK
BLK
HEAT LIGHT SWITCH
WH
M
BLK
FAN MOTOR
SPEED CONTROL
MOTOR SWITCH
BLK
BLK
160° F
FAN SW

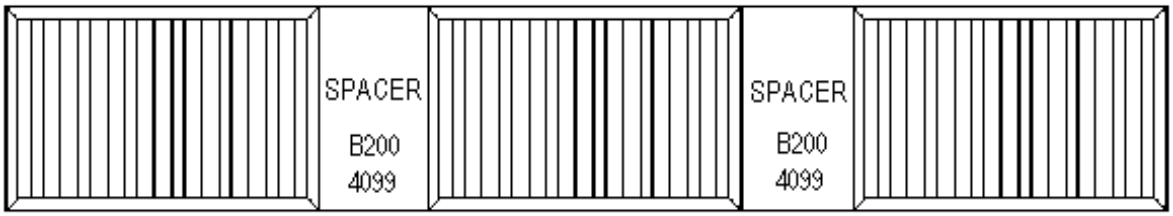

Power to Blower
Line In
Three Prong Male
WH
WH
WH
WH
BK
BK
BK
BK
Lights
Fan
BK
BK
165° N/O SW
ON
OFF
ON
OFF
BK
BK
BK
Heat Lamps
BK
BK
Line Harness
Neutral Harness
WH
Heat Lamp LH
Heat Lamp RH



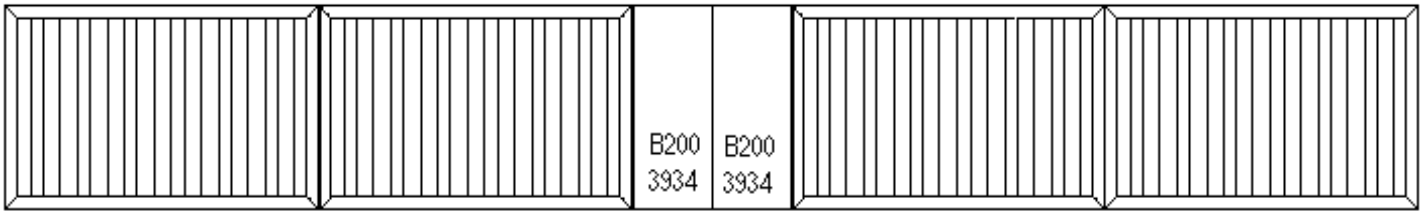
VIH3608



VIH4208

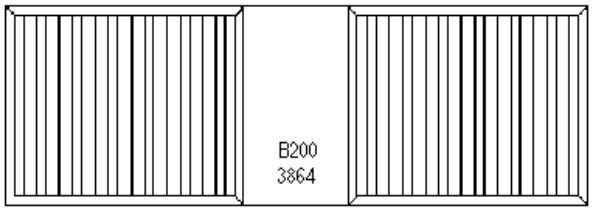


VIH5408

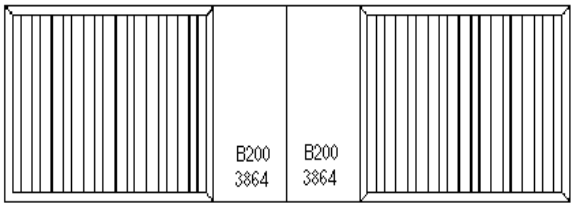


VIH6608

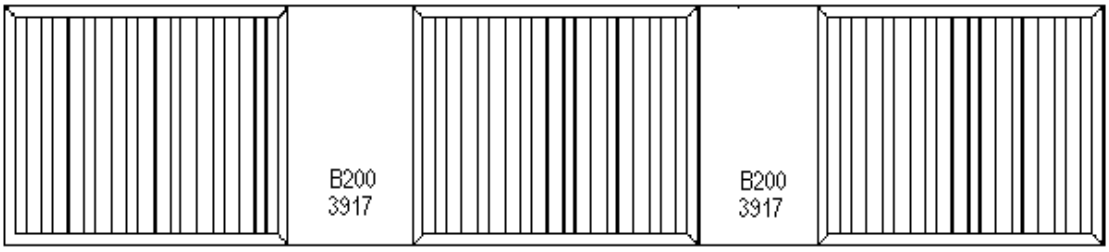
FILTER PART NUMBER – G310955
18” ISLAND HOODS



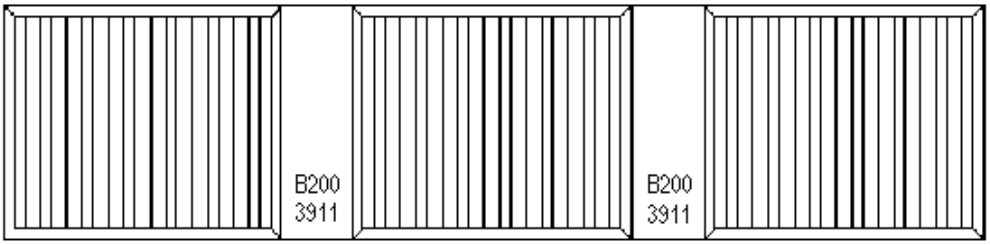
VWH3648 / 78



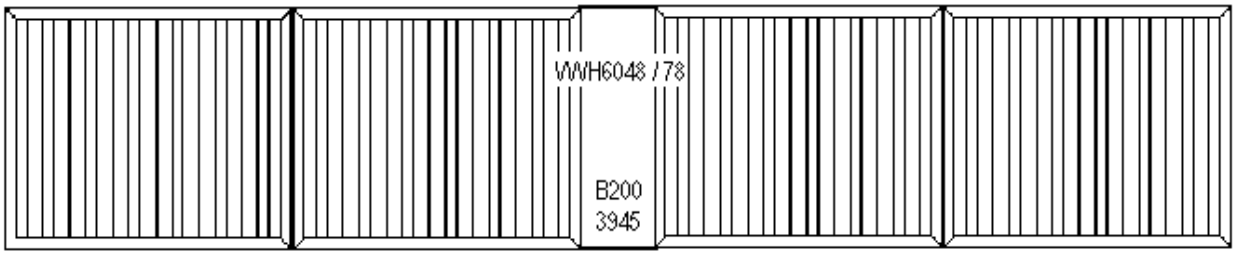
VWH4248 / 78



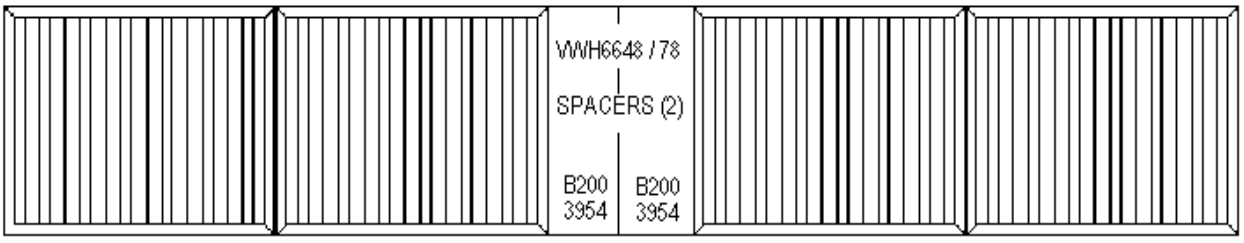
VWH5448 / 78



VWH4848 / 78



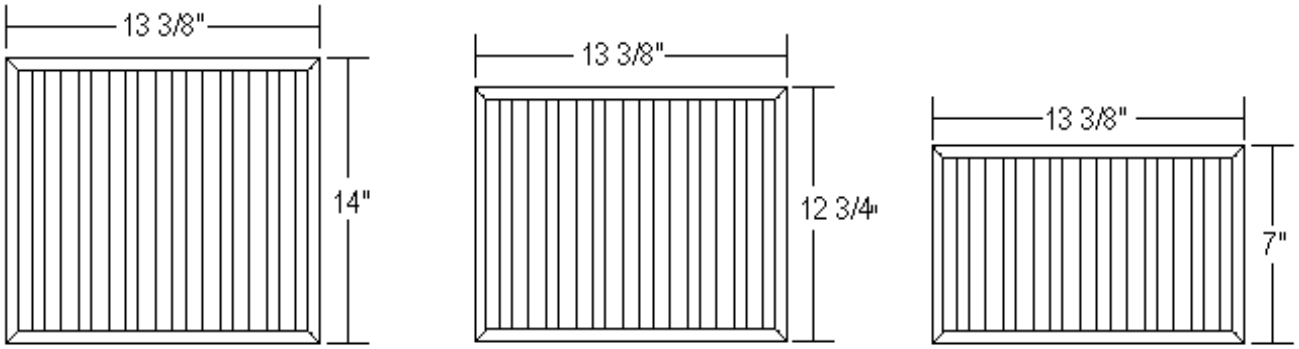
VWH6048 / 78



VWH6648 / 78

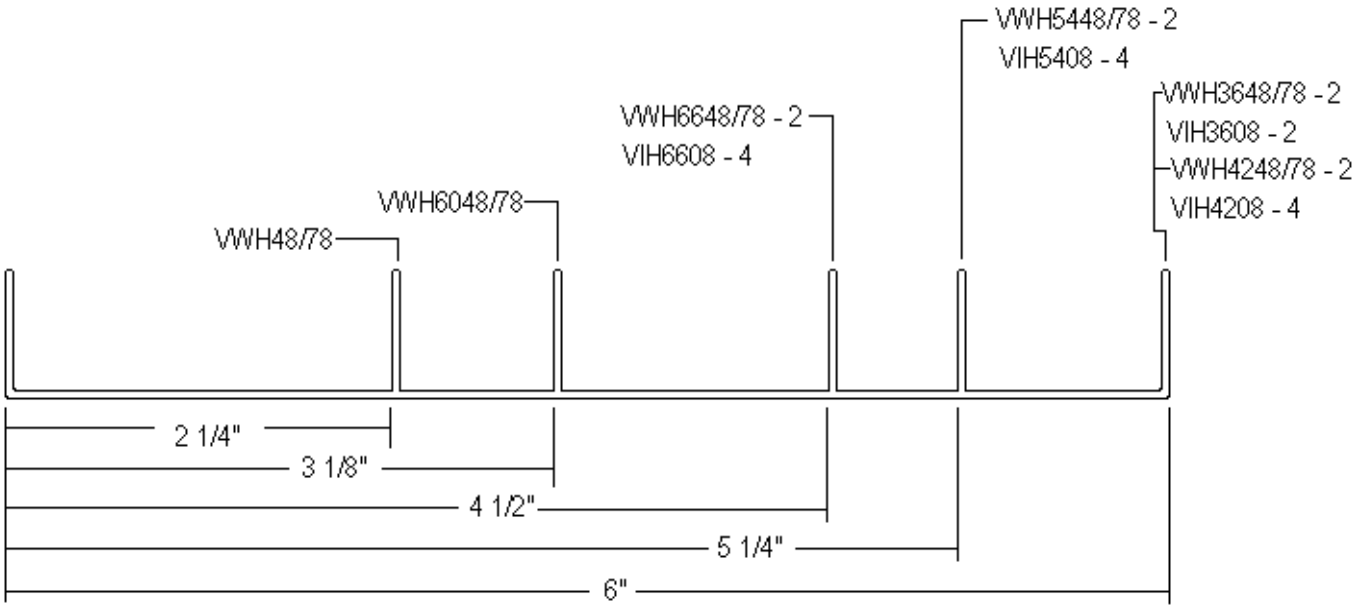
FILTER PART NUMBER – G3104046
18” WALL HOOD

VENTILATOR FILTER PART NUMBERS AND DIMENSIONS



18" WALL HOODS | 10" WALL HOODS | 18" ISLAND HOODS

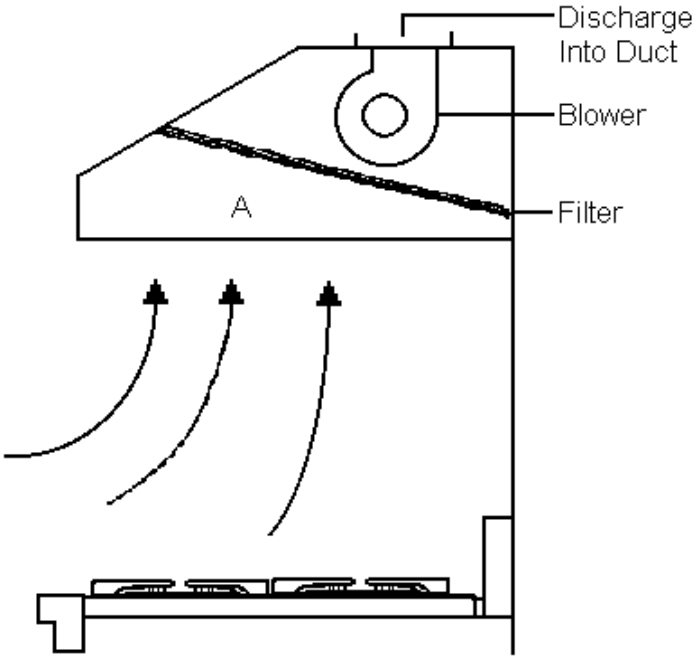
VENTILATOR FILTER SPACERS DIMENSIONS



MODEL NUMBER	PART NUMBER	MODEL NUMBER	PART NUMBER
VWH3648 / 78	B2003864 (1)	VWH6648 / 78	B2003954 (2)
VWH4248 / 78	B2003864 (2)	VIH3608	B2004083 (1)
VWH5448 / 78	B2003917 (2)	VIH4208	B2004083 (2)
VWH4848 / 78	B2003911 (2)	VIH5408	B2004099 (2)
VWH6048 / 78	B2003945 (1)	VIH6608	B2003934 (2)

VENTILATION SYSTEM OPERATION

As a guide to ventilation system selection, this is a description of how a ventilation system works and how the performance is affected by variables in the system.



When the blower is operating, a high negative pressure is created in the canopy "A". This causes make-up air to rush to the canopy, it picks up smoke and odor that is rising from the cooking surfaces. This air with smoke and odor is discharged into the duct, as make-up air continues to rush to the canopy and carries away smoke and odor. This negative pressure condition is determined by the velocity in F.P.M. (feet per minute) that the air is being discharged into the duct. The greater the F.P.M. the greater the negative pressure and the more air that is evacuated. An adequate supply of make-up air is required for proper operation of the ventilation system. In extremely tight construction, it may be necessary to provide make-up air by slightly opening a window or door.

Static pressure has the greatest affect on ventilation performance than anything else.

What is static pressure?

Static pressure (bursting pressure) is the pressure applied to the walls of the air duct. The smaller the duct diameter the higher the static pressure, as this pressure increases the volume of air moved decreases. That static pressure will increase or decrease with duct size and design length. Most ventilation systems are designed to operate at a static pressure of .1 - .2 W.C.P. (A rule of thumb 10" dia. duct = .07 W.C.P. / 10' equivalent length.)

What increased static pressure?

1. Excessive duct length.
2. Duct restrictions, i.e. elbows, turns, undersize wall caps, etc.
3. Undersized duct.
4. Heavy spring loaded dampers.

What reduces static pressure?

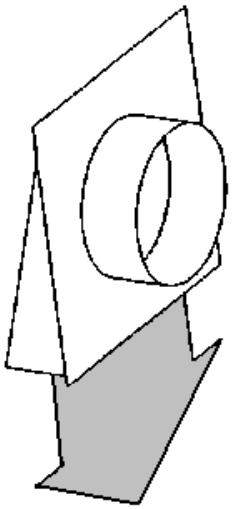
1. Duct length as short as possible.
2. Duct design as direct as possible with no elbows or turns.
3. The largest duct size possible.
4. Gravity dampers where possible.
5. Properly sized wall cap.

GUIDE FOR SIZING VENTILATION EQUIPMENT FOR HIGH PERFORMANCE RESIDENTIAL EQUIPMENT

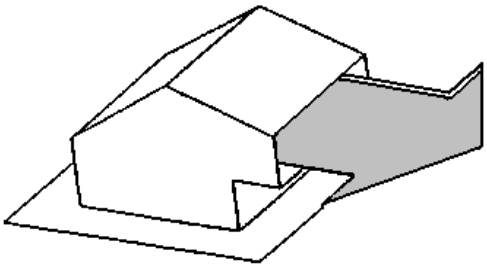
OVERHEAD CANOPY TYPE HOODS

Recommended Minimum CFM for Cooking Surface Configurations.

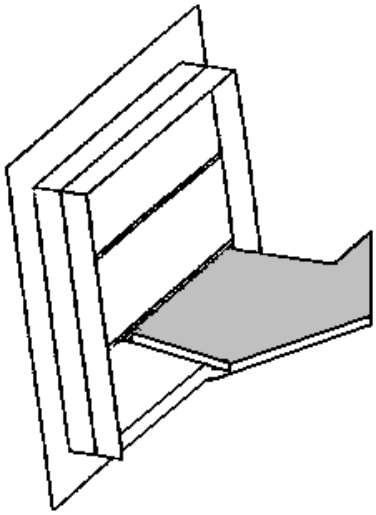
1. Cooktop against rear wall No Grill (square feet) x 100 CFM / sq. ft.
2. Cooktop against rear wall With Grill (square feet) x 150 CFM / sq. ft.
3. Cooktop island installation No Grill (square feet) x 100 CFM / sq. ft.
4. Cooktop island installation With Grill (square feet) x 150 CFM / sq. ft.
5. When selection the hood canopy size, always use a hood that is equal to or slightly wider than the cook to[width.
6. When ducting air moving equipment, always use the maximum size that space will allow. Do not use the size of the discharge collar to determine duct size. This is only a transition from the unit to the duct.
7. The duct length should be as short and direct as possible for optimum air movement.
8. The best duct for ventilation is round duct. The next best is square (not rectangular).
9. Always use the least number of 90 elbows as possible. Each 90 turn is equivalent to 7 feet of straight duct.
10. It is recommended that ventilation duct equivalent length should not exceed 50 feet . However, if longer runs are necessary, add 2 inches to the duct size after the first 10 feet..
11. Wall caps and roof caps must be equal to or greater than the duct size area and should have a CFM capacity equal to the ventilating equipment. Shown below are some typical commonly used. Consult a qualified installer for proper size and style determination.



WALL CAP

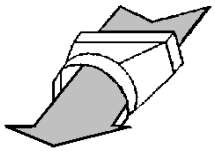
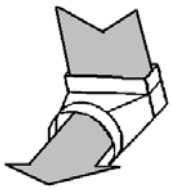
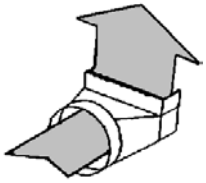
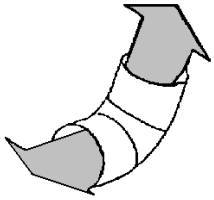
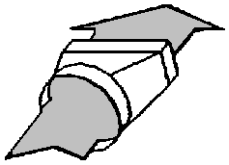
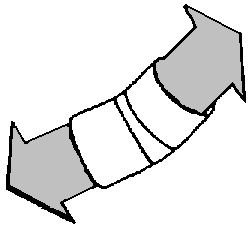


ROOF CAP



WALL BACK DRAFT DAMPER

12. To determine duct length use the chart below to determine the equivalent length of transition and elbows. The smaller the diameter of the elbow or transition, the longer length equivalent will apply.

Transition / Elbow Addition to Overall Length		
4 - 5 Foot 	6 - 7 Foot 	8 - 9 Foot 
6 - 10 Foot 	1 - 3 Foot 	2.5 - 3.5 Foot 

13. Square Inch Area of Various Duct Sizes

Diameter	Square Inc	Equivalent Square Duct
6	28.3	5.3 x 5.3
7	38.5	6.2 x 6.2
8	50.3	7.0 x 7.0
9	63.3	7.9 x 7.9
10	78.5	8.8 x 8.8
11	95.0	9.7 x 9.7
12	113.0	10.6 x 10.6

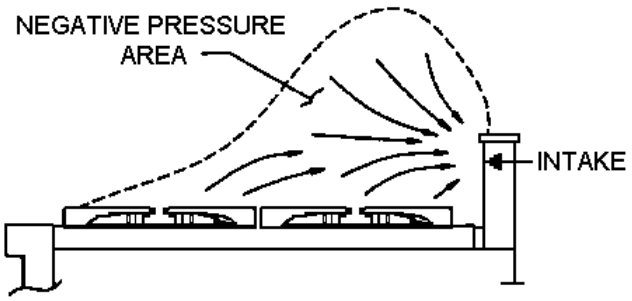
14. Things that affect ventilation performance:
    - Distance from cooktop to hood performance
    - Excessive turns or elbows close together.
    - Under rated power for application.
    - Undersized wall or roof cap.
    - Duct length too long
    - High static pressure.
    - Duct work too small.

    Note: Always consult a qualified ventilation specialist to assist in the selection of duct design and ventilation equipment.

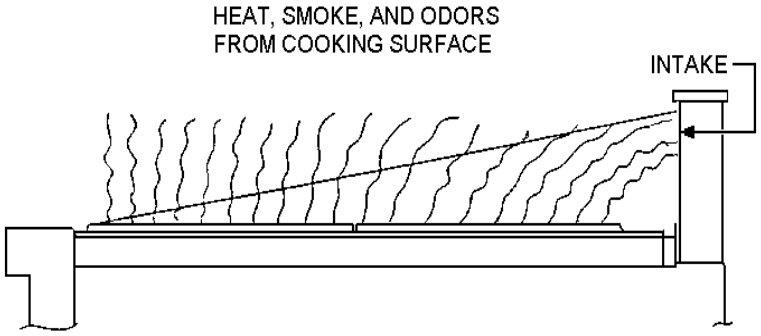
15. When using an external power ventilation system you must keep duct runs as short as possible with minimum elbows and the largest possible duct size.

DOWNDRAFT VENTILATION SYSTEM

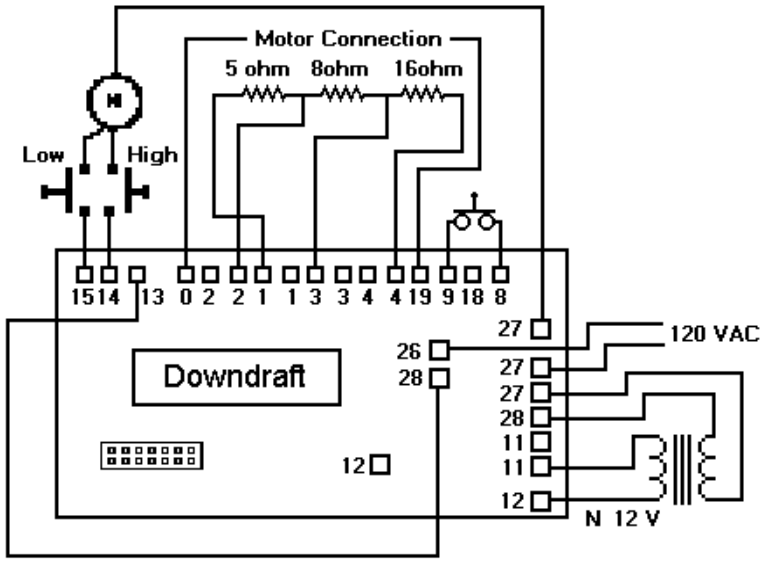
A downdraft system usually does not have the capacity of producing a high negative pressure area in a long horizontal direction. A natural upward vertical force occurs when using a cooktop. As the heat, smoke and odor rise the downdraft can not overcome this vertical force that moves away from the intake. A downdraft does not have the advantage of a canopy to collect this rising smoke and odor as it removes it into the duct system. The downdraft must rely on a very high velocity in order to create as large a negative pressure area as possible. This negative pressure area will always remain relatively close to the intake because there is nothing to aid in directing it in a horizontal direction. As a result, the ability to capture smoke, heat and odor decreases as the distance from the intake increases.



Before selecting a ventilating system, one should consider the type of cooktop that will be used, how it will be used, and how each type of ventilation system could be expected to perform with that cooktop. A ventilation specialist should always be consulted to determine the proper system for the application.



1. Downdraft ventilation systems have a limited capacity for smoke and odor removal in a horizontal direction.
2. Downdraft systems are not recommended for use with cooktops with grills (BBQ grills)
3. High performance gas grills move heat, smoke, odors, in a vertical direction at a rate of 20 – 40 FPM (Feet Per Minute). It is very difficult for downdraft systems to overcome this vertical movement and redirect it to a horizontal direction.
4. The downdraft power decreases as the distance from the intake increases. (See diagram above.)
5. When installing downdraft ventilation systems it is important to follow ducting guidelines, as to size, length and turns (elbows). It is always better to oversize ducting for downdrafts, as the performance is more easily affected by duct design and installation.



SB99-10 (10/25/99)

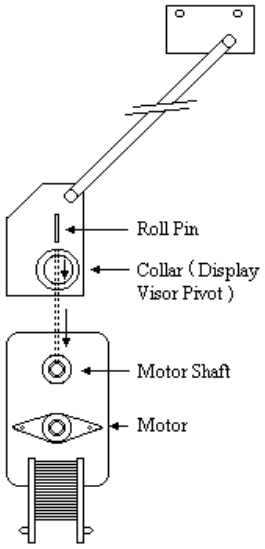
VIPR REAR DOWNDRAFT / INTAKE\PLENUM

Complaint: Power to the unit intermittently lost when turning off blower with the vent in the up position.

Correction: Replace the Printed Circuit Board control to eliminate the intermittent loss of power to the unit with the intake plenum in the up position. The perceived problem is a radiated spike signal from the motor components that interrupts the power at the PCB. Our vender h as added a suppressor network to the PCB. Any PCB board with a label that reads "REV 10/99" or has a date of "Nov/99" or later has been modified.

VIPR REAR DOWN DRAFT

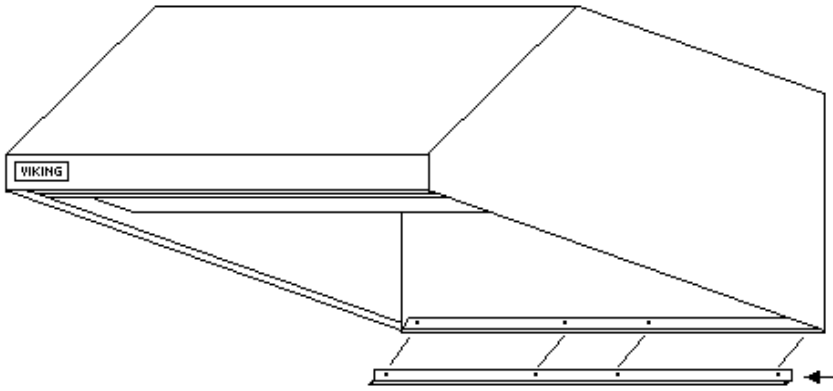
When the motor runs and the display visor does not raise, the roll pin that holds the collar to the motor shaft has probably sheared off. The common cause normally is a difference in the hole size in the collar and the motor shaft. The roll pin is a 1/8" in diameter. It may be necessary to size the holes to match.



ADAPTER KITS
(OLD to NEW)
(NEW to OLD)

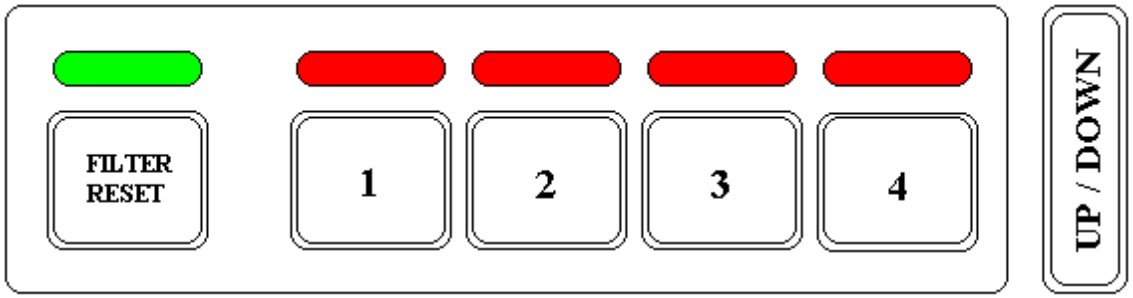
- "Old" Downdraft with "New" 500 CFM internal vent Kit – VIDV500-----PDN1500K
- "New" Downdraft with "Old" 900 CFM exterior vent Kit----------NDPE900K
- Cutout / Extension Kit (bracket Kit)----CEK

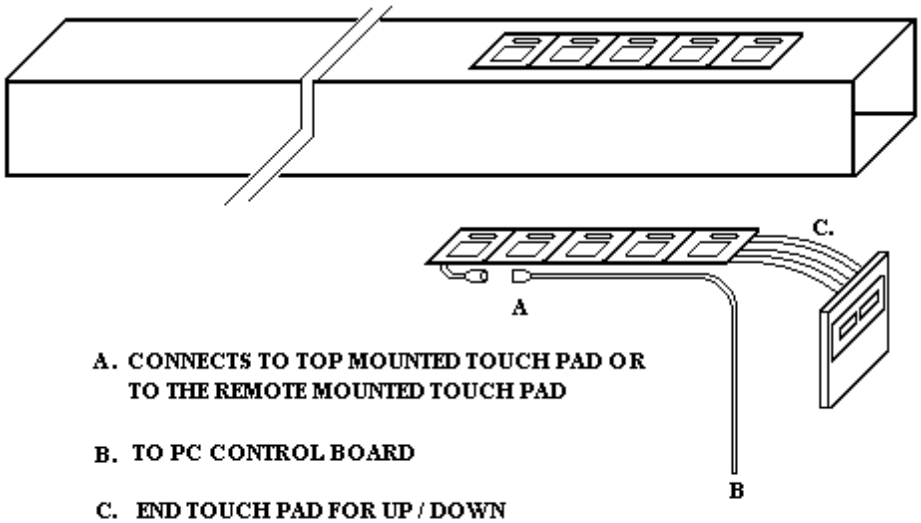
VWH3010 / 3610
FILTER FIT REPAIR



REMOVE SCREWS FROM EXISTING FILTER SUPPORT AND REMOVE CAREFULLY NOT TO SCRATCH INSIDE OF HOOD. REPLACE WITH NEW SUPPORT WITH EXISTING SCREWS.

SHORTEN REAR FILTER SUPPORT
B2003806 - VWH3010
B2003829 - VWH3610



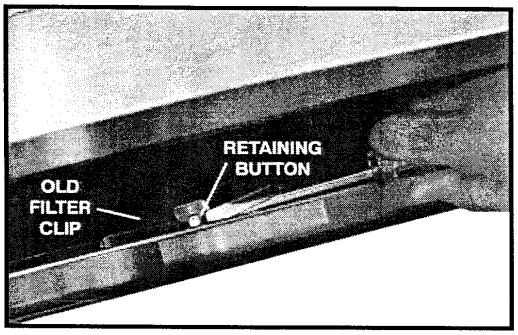


A. CONNECTS TO TOP MOUNTED TOUCH PAD OR TO THE REMOTE MOUNTED TOUCH PAD

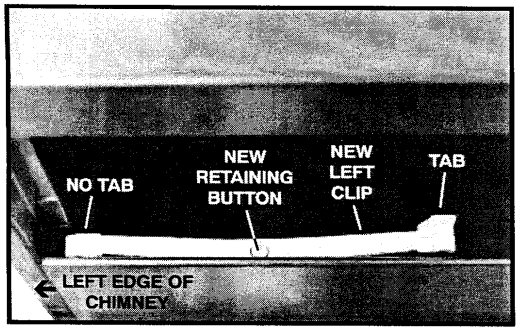
B. TO PC CONTROL BOARD

C. END TOUCH PAD FOR UP / DOWN IS RIBBON CONNECTED TO THE TOP MOUNTED TOUCH PAD.

DOWNDRAFT FILTER CLIPS
Replacement Instructions

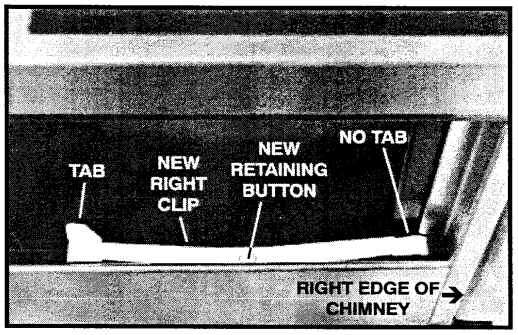


1 Remove **OLD FILTER CLIPS** and **RETAINING BUTTONS**. Slide a screwdriver under one side of clip, then lift and twist screwdriver until clip and button pop out.

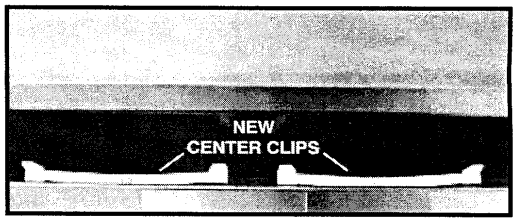


2 Select the **NEW LEFT CLIP** with **NO TAB** on the left side. Use a **NEW RETAINING BUTTON** to snap clip into hole at **LEFT EDGE OF CHIMNEY**.

NOTE Make sure the retaining button is fully engaged. The head of the retaining button should be slightly recessed into the clip.



3 Select the **NEW RIGHT CLIP** with **NO TAB** on the right side. Use a **NEW RETAINING BUTTON** to snap clip into hole at **RIGHT EDGE OF CHIMNEY**.

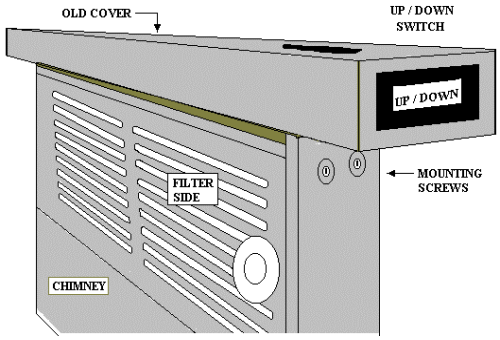


4 The **NEW CENTER CLIPS** have tabs on both ends. Install them in the same manner as the left and right clips.

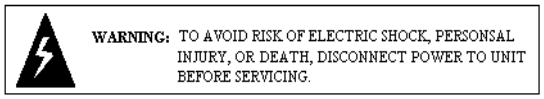
VIKING DOWNDRAFT TOP COVER ASSEMBLY

TOP COVER MODEL	WIDTH	COLOR	FOR USE WITH DOWNDRAFT MODEL
DRT 30 WH	30”	WHITE	VIPR101SS
DRT 30 BK	30”	BLACK	VIPR101SS
DRT 36 WH	36”	WHITE	VIPR161SS
DRT 36 BK	36”	BLACK	VIPR161SS
DRT 48 WH	48”	WHITE	VIPR181SS
DRT 48 BK	48”	BLACK	VIPR181SS

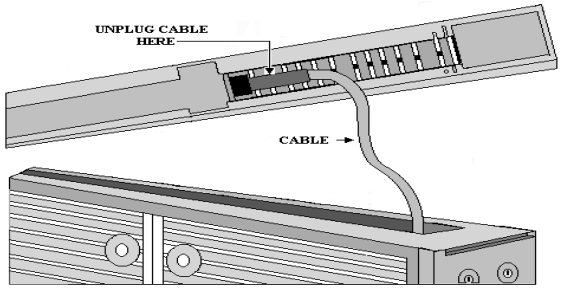
REMOVE OLD COVER



1. Press **up / down switch** to raise **chimney.**



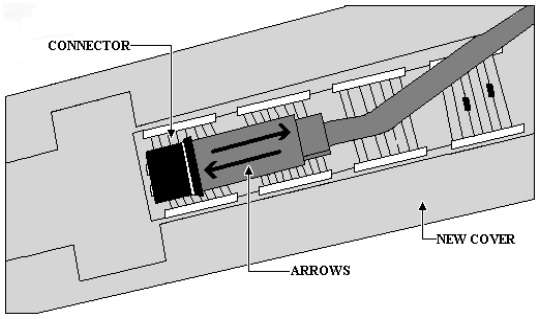
2. Remove four (4) **mounting screws** (2 from each end) and lift off existing **cover.**



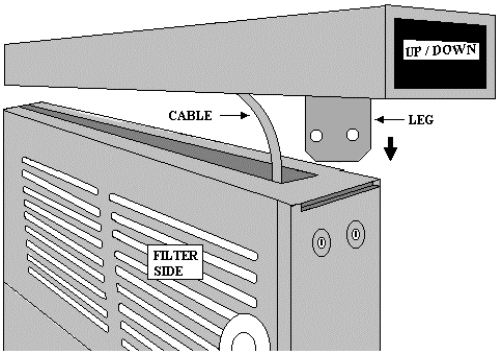
3. Pull 6 to 8 inches of **cable** out of the chimney.

4. Carefully turn top cover upside-down. DO NOT LET CABLE FALL DOWN INTO CHIMNEY.

INSTALL NEW COVER



5. Plug cable into **connector** on the underside of **new cover.** Make sure **arrows** on cable end are facing outward and that cable is plugged in all the way. Also check small ribbon cable-to make sure that it is plugged in properly.

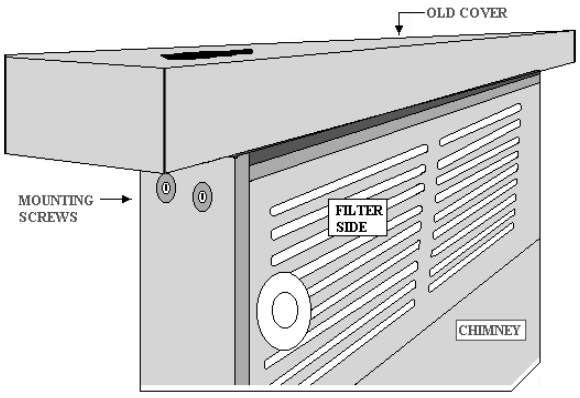


6. Turn top cover over and carefully feed cable back into chimney. Be careful not to unplug cable in the process.
7. Slide **legs** into ends of chimney and secure top cover with four (4) mounting screws (2 on each end).
8. Re-connect power and check operation.

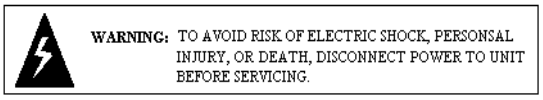
VIKING REMOTE DOWNDRAFT
TOP COVER ASSEMBLY

TOP COVER MODEL	WIDTH	COLOR	FOR USE WITH DOWNDRAFT MODEL
RRT 30 WH	30”	WHITE	VIPR101RSS
RRT 30 BK	30”	BLACK	VIPR101RSS
RRT 36 WH	36”	WHITE	VIPR161RSS
RRT 36 BK	36”	BLACK	VIPR161RSS
RRT 48 WH	48”	WHITE	VIPR181RSS
RRT 48 BK	48”	BLACK	VIPR181RSS

REMOVE OLD COVER

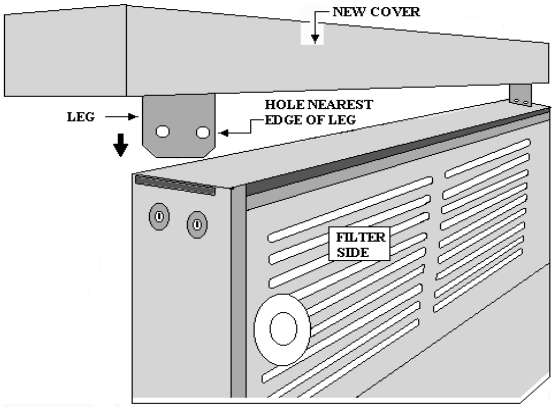


1. Press up / down switch to raise **chimney.**



2. Remove four (4) **mounting screws** (2 from each end) and lift off existing **cover.**

INSTALL NEW COVER



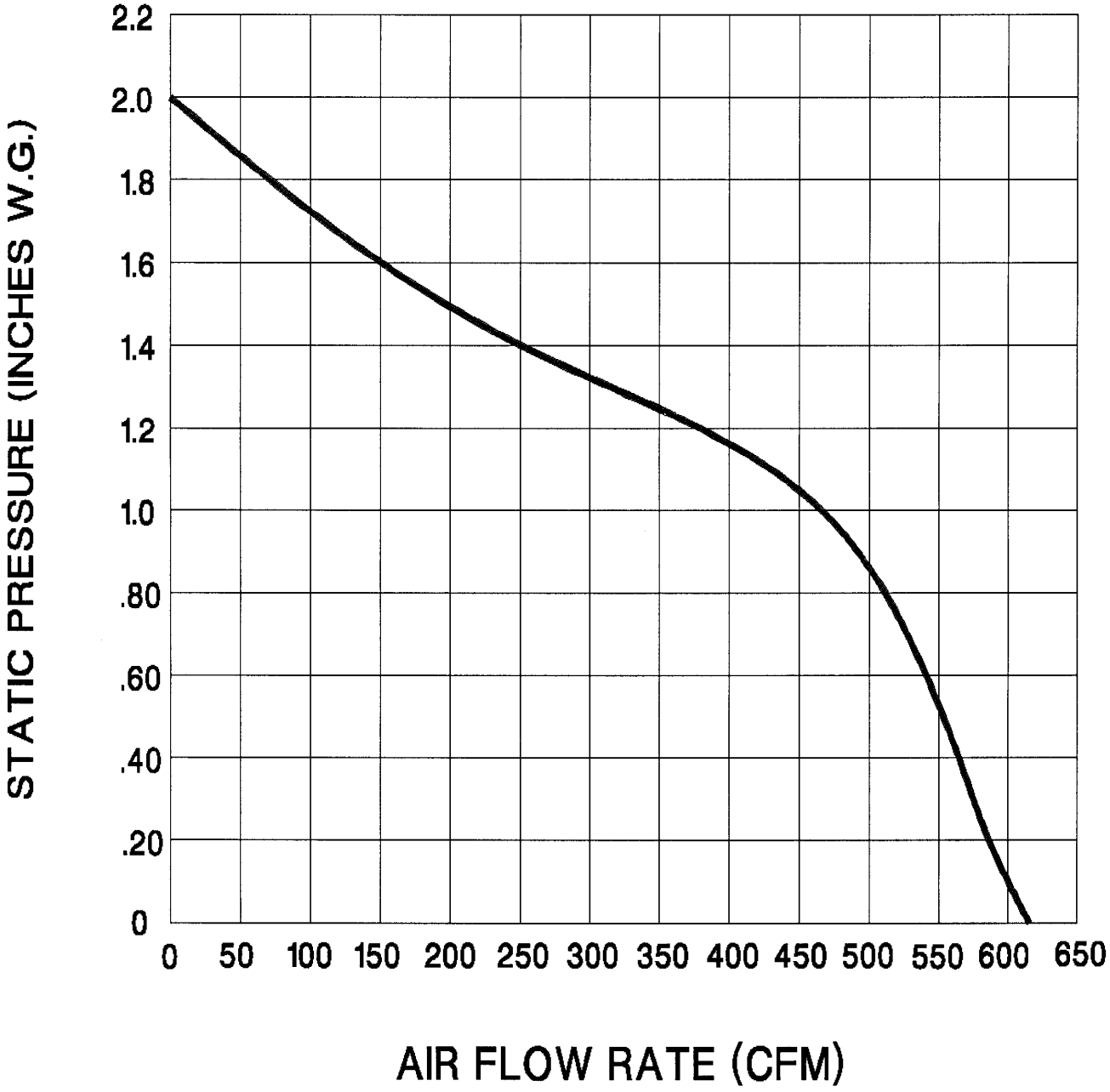
3. Slide **legs** of **new cover** into ends of chimney and secure with four (4) mounting screws (2 on each end).

NOTE: Install new cover with **holes nearest edge of legs** toward the **filter side** of chimney.

4. Re-connect electrical power and check operation.

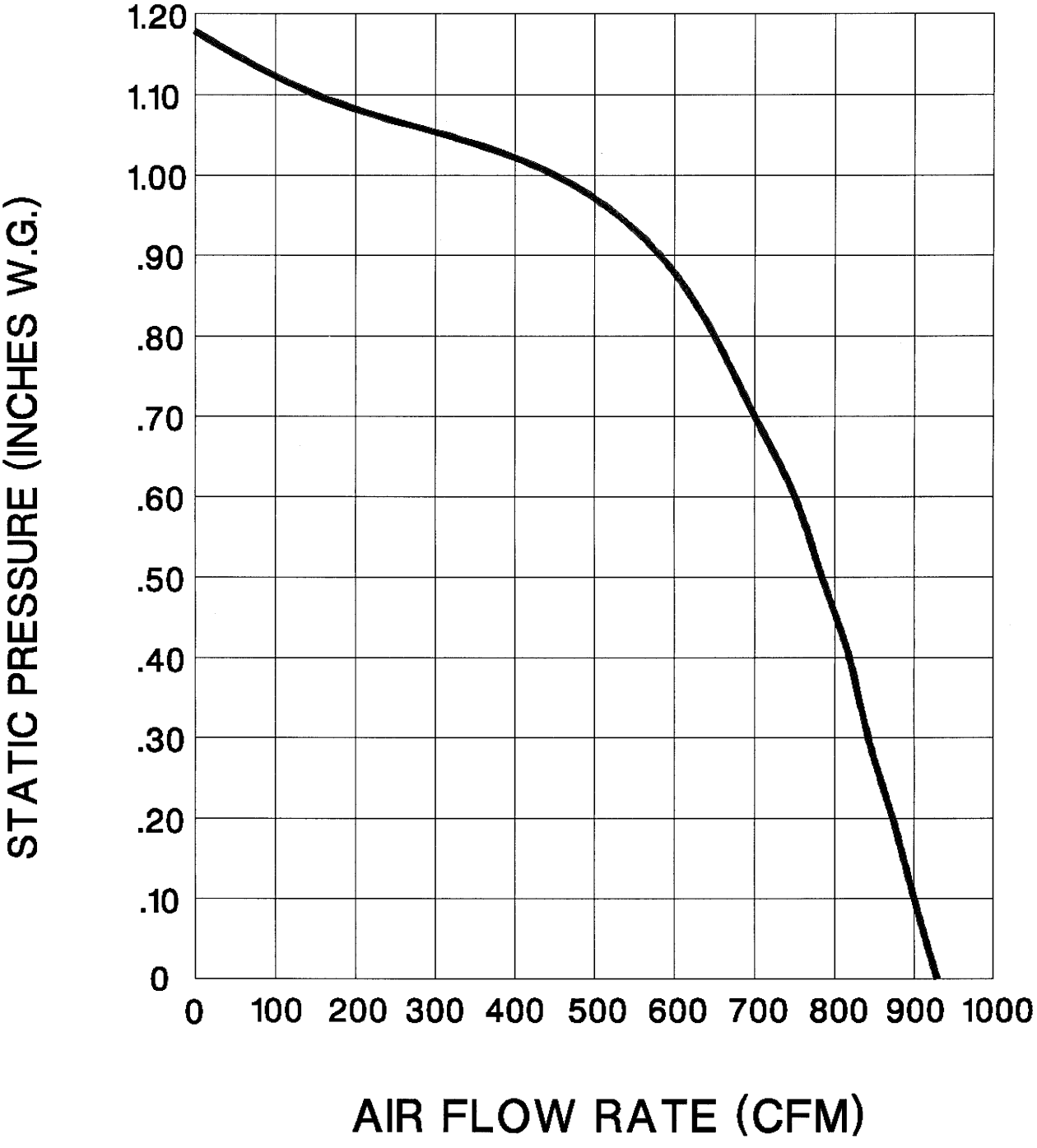
VIV600

INTERNAL VENTILATOR



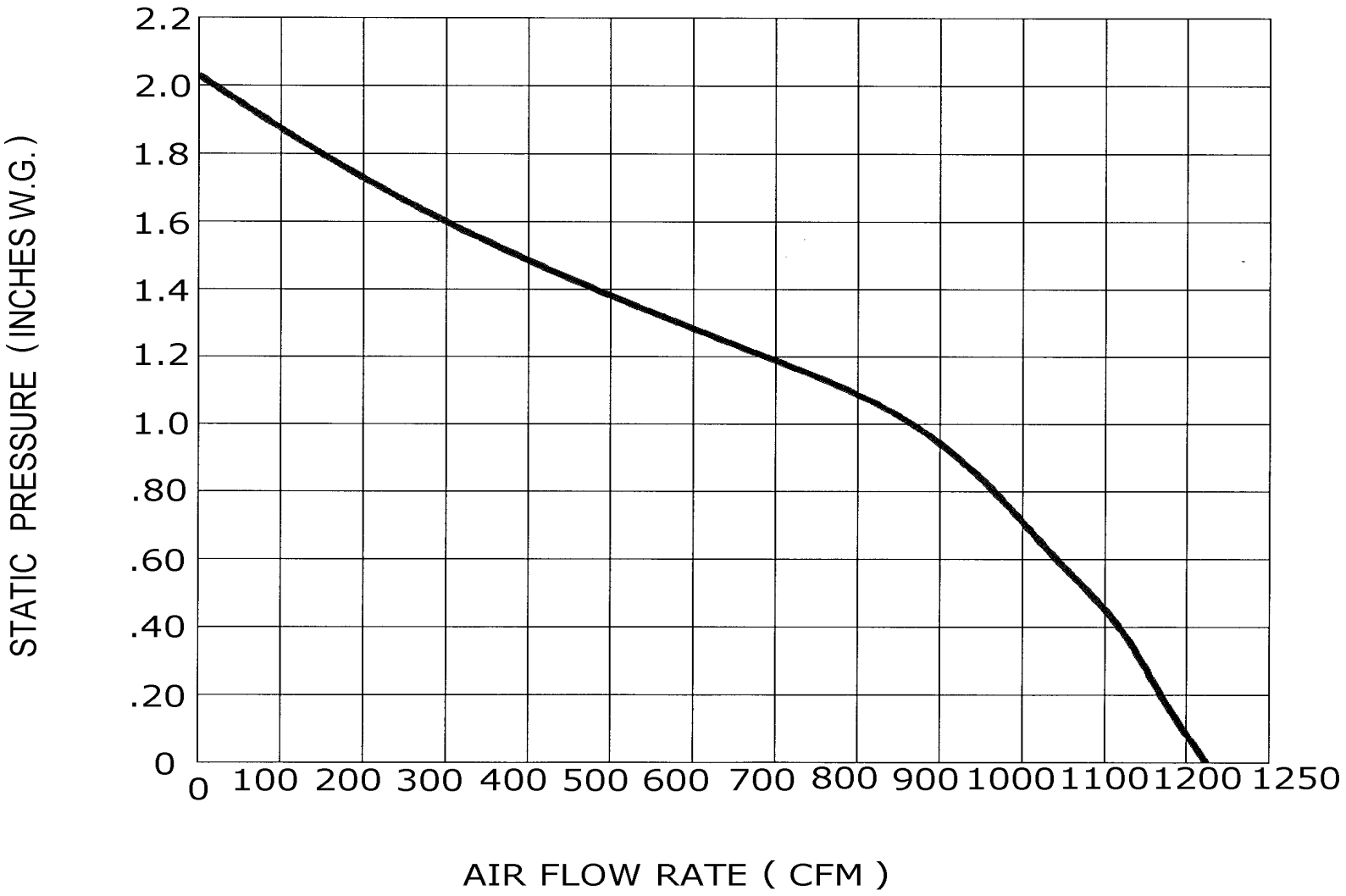
VEV900

EXTERNAL VENTILATOR



VIV 1200

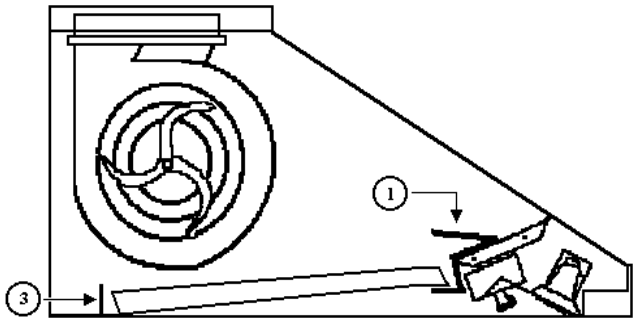
INTERNAL VENTILATOR

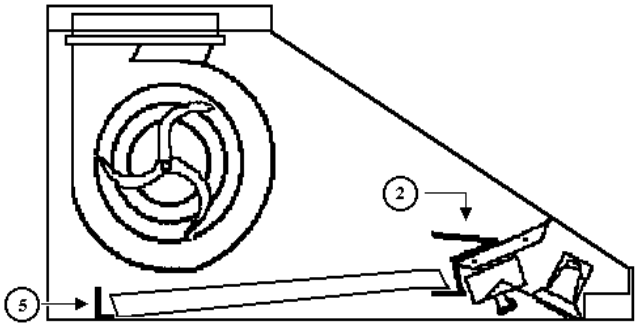


819

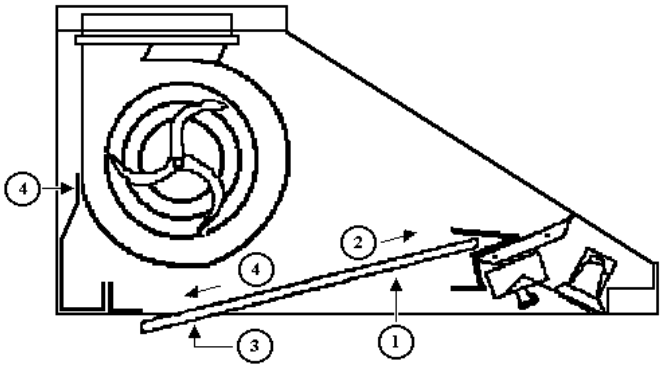
REPLACING ORIGINAL FILTER CLIPS WITH NEWLY DESIGNED CLIPS

(EFFECTIVE PRIOR TO SERIAL # H02160103041)





1. Remove existing wire **channel bracket.**
2. Replace with new wire **channel bracket** (supplied)
3. Remove existing rear **filter support**.
4. Place **motor stand—off bracket** (supplied) Making sure holes are aligned. (I/S holes for 3010, O/S holes for 3610)
5. Replace with new rear **filter suppor**t. (supplied)



TO REPLACE FILTER, PUSH FRONT OF FILTER UP (1) AND FORWARD (2) PUSH REAR OF FILTER UP (3) AND SLIDE BACK (4) ONTO REAR FILTER SUPPORT.

G3203142 FILTER SUPPORT ASSEMBLY – VWH3010

B2006286 BLOWER SPACER
B2006287 REAR FILTER SUPPORT
B2006289 WIRE CHANNEL BRACKET

G3203143 FILTER SUPPORT ASSEMBLY – VWH3610

B2006286 BLOWER SPACER
B2006288 REAR FILTER SUPPORT
B2006289 WIRE CHANNEL BRACKET

VENTILATION PRODUCT/VENTILATOR KIT MATRIX

VENTILATION PRODUCT/VENTILATOR KIT MATRIX

Professional Series Hoods * Pro Series Hoods (10" H.)	400 CFM	VIV600 (600 CFM)	VIV1200 1200 CFM)	VEV900 (900 CFM)	VEV1200 (1200 CFM)
30" & 36"	x (standard)				
Pro Series Hoods (18" H)					
Wall and Island					
30"		X		X	
36" & 42"		X	X (W /grill range/rangetops)	X	X (W/grill range/rangetops)
48" & 54			X		X
60" & 66"			X		X
Designer Series Hoods *					
Tall Tradional w/ledge, Tall Tradional ledgeless					
30", 36", &42"		X	X (W/grill range/rangetops)	X	X W/grill range/rangetops)
48"			X		X

* Over Professional Series or Designer Series cooking products.

Designer Series Hoods over DS Cooking Products	DIV440 (440 CFM)	DIV600 (600 CFM)	DIV880 (880 CFM)	DIV1200 (1200 CFM)	DEV900 (900 CFM)	DEV1200 (1200 CFM)
Classic Chimney, Classic Chimney w/ledge, Classic Chimney ledgeless - Wall						
30" (33" w/ledge)	X				X	
36" & 42" (39" & 45" w/ledge		X			X	X
48" (51"w/ledge)				X	X	X
Classic Chimney - Island						
36" & 42"		X			X	X
54"				X	X	X
Slim Traditional - Wall						
30"	X		X		X	
36" & 42"	X				X	X
48"			X		X	X
Box - Wall						
30"	X		X		X	
30", 36" &42"	X				X	X
48"			X		X	X

Designer Series Hoods						
Over Professional series Cooking Products	DI440 (440 CFM)	DEV600 (600 CFM)	DIV880 (880 CFM)	DIV1200 (1200 CFM)	DEV900 (900 CFM)	DEV1200 (1200 CFM)
Classic Chimney, Classic w/ledge, Classic Chimney ledgeless - Wall						
30" (33" w/ledge)	X				X	
36"& 42"(39" & 45" w/ledge)		X (no gridle orgrill range/rangetops)			X	X recommenede w/grille range/rangetops
48" (51" w/ledge)				X recommenede w/grille range/rangetops		X recommenede w/grille range/rangetops
Classic Chimney - Island						
36" & 42"		X (no gridle orgrill range/rangetops)			X	X recommenede w/grille range/rangetops
54"				X recommenede w/grille range/rangetops		X recommenede w/grille range/rangetops
Slim Traditional - Wall						
30"	X				X	
36" & 42"	X (no gridle orgrill range/rangetops)				X (no gridle orgrill range/rangetops)	X (no gridle orgrill range/rangetops)
48"						

Box - Wall						
30"	X				X	
36" & 42"	X (no gridle orgrill range/rangetops)				X (no gridle orgrill range/rangetops)	X (no gridle orgrill range/rangetops)
48'						

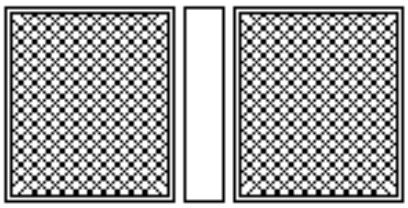
Downdrafts *			
	VIDV500 (500 CFM)	VEDV900 (900 CFM)	VEDV1200 (1200 CFM)
Professional Series			
30" & 36"	X	X	
48"	X	X	X
Designer Series			
30" & 36"	X	X	
48"	X	X	X

* Do not use downdraft with grill modes rangetops

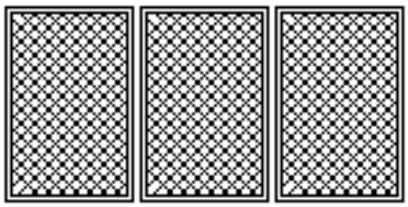
42” DESIGNER HOODS

The 42”designer hood was designed with two (2) filters and one (1) spacer. The filters were changed to three (3) smaller filters without the center spacer. The three (3) filters [G3106215] will fit the original space for the two (2) filters and one (1) spacer used in the earlier production. See illustrations below:

42" Designer Hoods



Original 42" Designer Hoods
(2) Filters with (1) Spacer



Production change
(3) Filters [G3106215]

Reason for change: To improve fit.
Production change approximately March 2001

IX. REFRIGERATORS

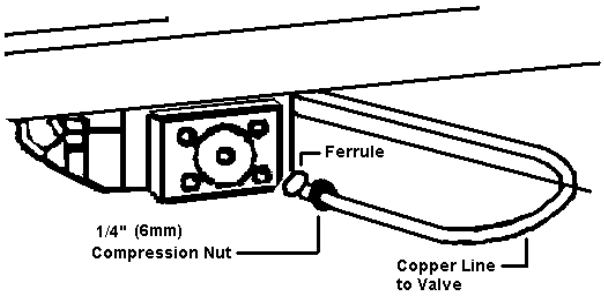
NOTES:_____

REFRIGERATORS

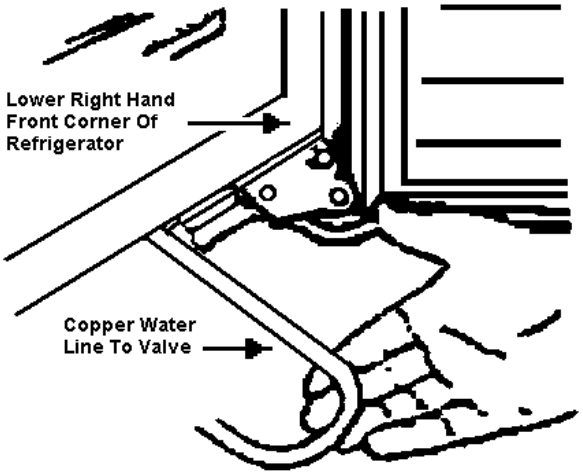
Q. What is the cure to keep the ice maker tube from freezing up?

A. The early models did not have a heater around the fill tube. For these models, order and install a Heater Kit, part number PR150063. We have in the field 3 models from Whirlpool, 04, 05, and 06. (Whirlpool part # for the 04 manufactured before April 1997 is 2004593). (Whirlpool part # for the 05 / 06 is 2004594).

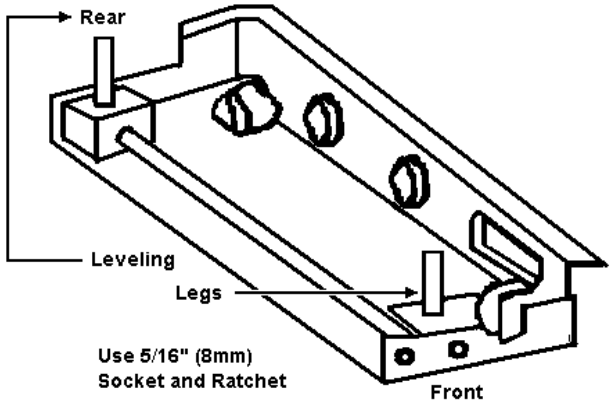
- Refrigerators manufactured after Nov. 1997 will have the fill tube heater in place.
- Other changes to look for is (1) a redesigned top grille, designed to partially cover the top hinges; (2) Wafer head screws for mounting the door shins; (3) Increased door spacer thickness to aid in reducing sweating; (4) Relocated Ice Maker water valve.



Do not kink the water supply line. Remove cap from water valve. Slide compression nut, then ferrule, onto the water supply line. Insert the water supply line completely into the water valve. Tighten compression nut to the water valve. Do not overtighten. Turn water supply valve "on". Wait a few minutes. Check line connection and water valve for leaks

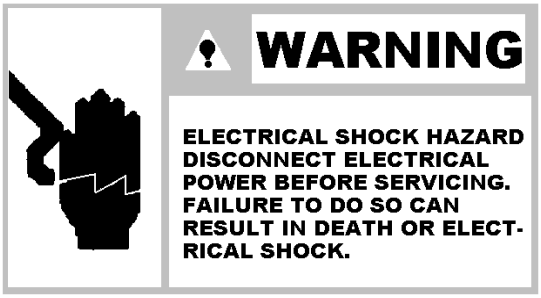


Pull water line out from underneath the refrigerator. Carefully make a 3 ½" or less (180°) hook shaped end in the water supply line.



Use socket wrench to turn leg levelers to the right (clockwise) until the refrigerator weight is supported by the leveling legs. The rollers should be off the floor. **NOTE:** All four leveling legs must contact the floor to support and stabilize the full weight of the refrigerator. Rollers are for moving the refrigerator and not for permanent support.

FILL TUBE HEATER KIT
INSTALLATION INSTRUCTIONS

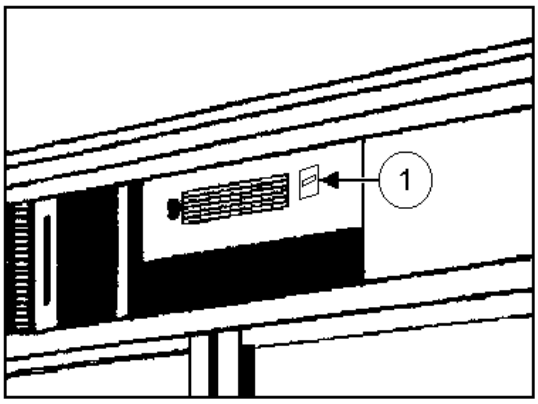


The fill tube heater kit replaces the fill tube extension and is designed to keep the fill tube from freezing shut. The heater kit contains the following:

- Fill tube heater
- Instruction sheet

Follow these steps to install the fill tube heater.

1. Remove the top grille decorative panel and turn off the power switch. Replace the grille if it is together.

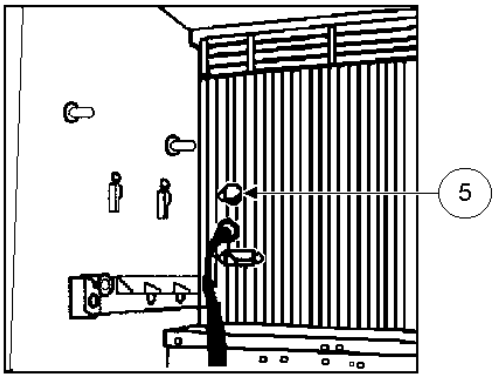


2. Remove all shelves, the container (bin) and brackets.

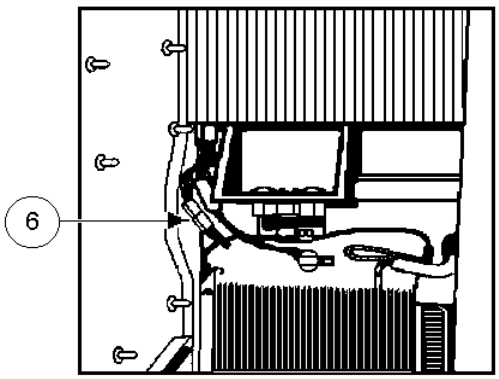
3. Remove the air duct cover and the air diffuser grille at the top of the air duct.

4. Remove the ice maker assembly, the lower light fixture assembly and disconnect the wiring.

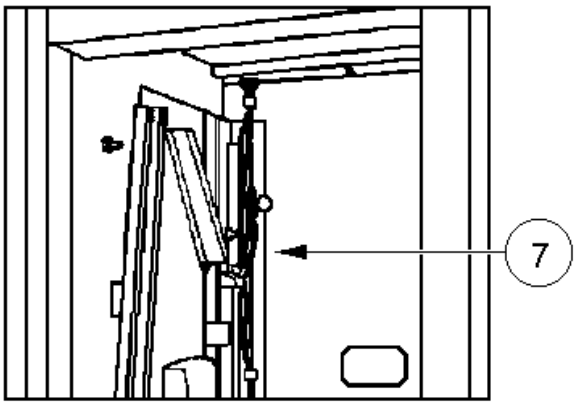
5. Remove the existing fill tube extension.



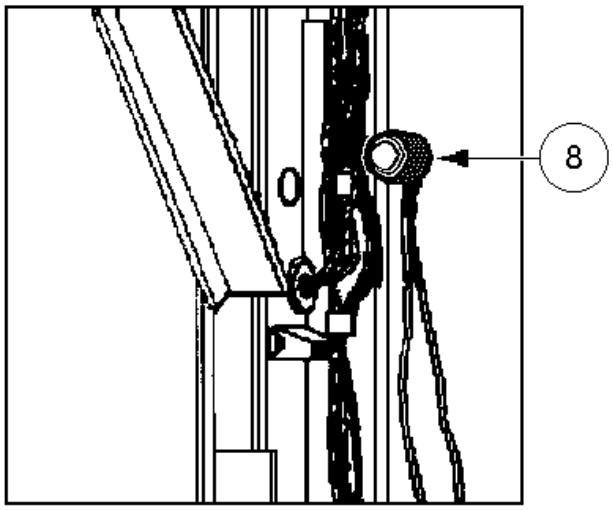
6. Remove the evaporator cover to access the wire connections.



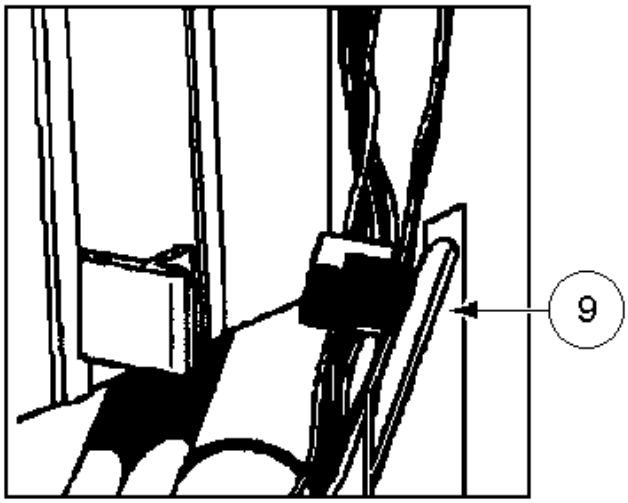
7. Pull the air duct assembly away from the mounting clips and swing the cover against the left wall. Remove the bottom three (3) wire retainer clips



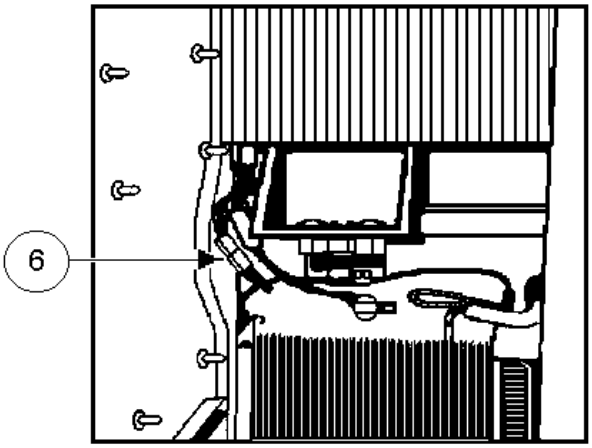
8. Disconnect the RED defrost heater wire connectors and connect the fill tube heater connectors to the RED defrost circuit connectors. Install the fill tube heater assembly over the fill tube coming through the back wall.



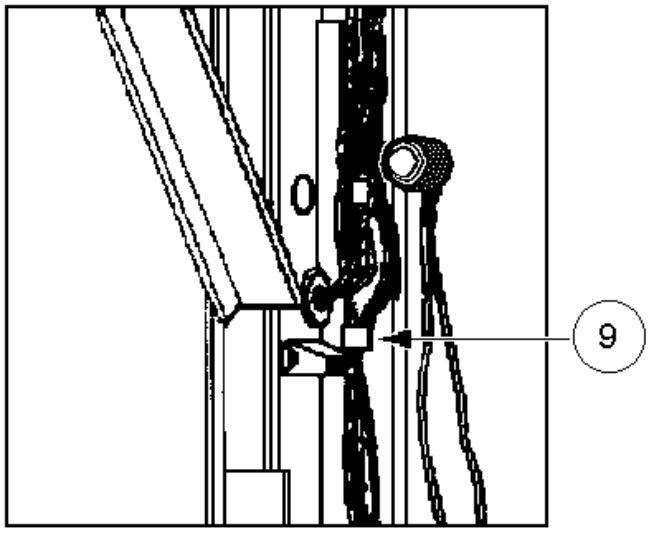
9. Run all wires together down to the rectangular cabinet harness grommet and tape the two (2) fill tube heater wires to the back flat edge of the grommet. Tape the fill tube heater wires to the cabinet harness approximately three (3) inches below the ice maker harness grommet.



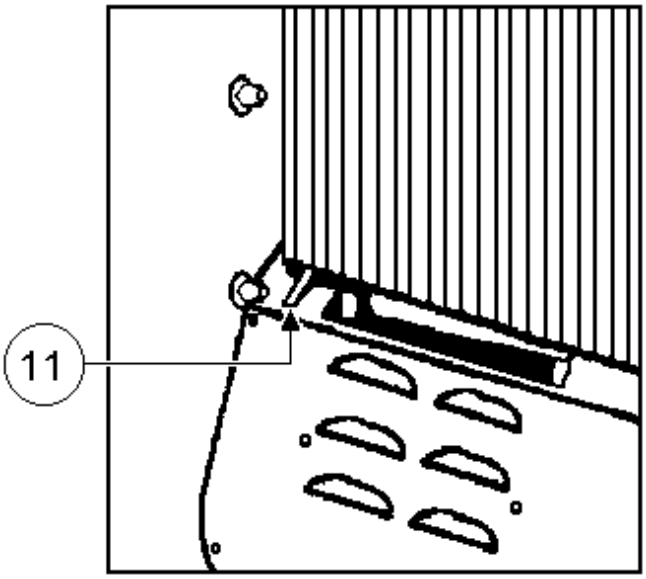
NOTE: Push the heater assembly onto the fill tube making sure it is pushed to the back wall. Make sure the assembly does not interfere with the ice maker fill cup and will allow proper water flow from the tube. RED connectors are to be connected only to RED connectors.



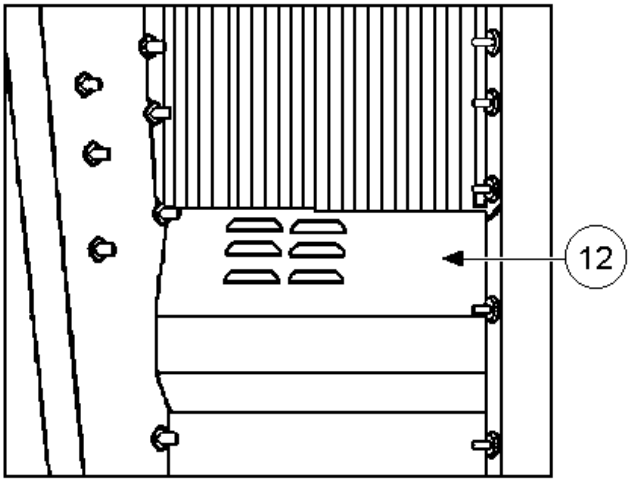
10. Place all wiring in the air duct channel and secure with the four (4) retainer clips. Install the air duct assembly. Make sure the fill tube heater assembly does not interfere with the back side of the air duct.



11. Reinstall the evaporator cover. Place the rectangular grommet in the slot in the upper left corner of the cover. **NOTE:** Be careful to position the rectangular grommet so the fill tube heater wires rest against the back wall. Insure that the wires are not pinched. Make sure the bottom edge of the air duct touches the top of the evaporator cover.



12. Reinstall the remaining components in reverse order.

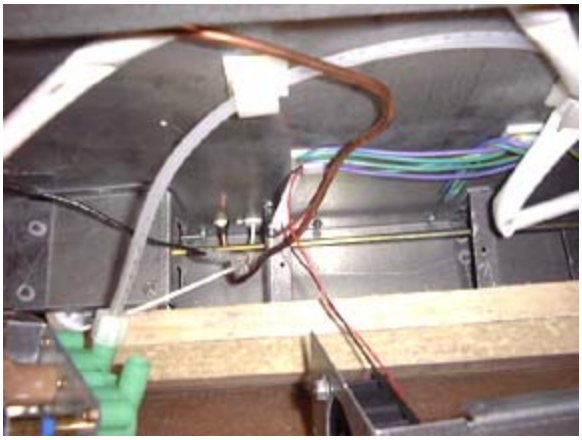


REFRIGERATION (Con't)

Criteria for condensation concerns:
(Not a Black and White scenario)

90° F. with 84% Relative Humidity (RH)
65° F. with 98% Relative Humidity (RH)

The unit passes if there are no running water droplets on the unit after 4 hours. There may still be condensation but not running off the unit. Above these conditions the heater could be necessary.



The Viking VCBB 360 bottom mount will have a mullion heater foamed in place **For Service Only,** not powered from the factory. Heater – 120VAC – 20 Watts – 661 ± 7.5 Ω.

1. Disconnect power to the unit using power switch.
2. Remove the toe grille (kick plate).
3. Remove the two (2) screws holding the water valve in place for access to the water valve wiring harness.
4. Remove the "L" shaped cover behind the water valve for easy access to the mullion heater wires (black and white).
5. Carefully slit water valve wiring harness vinyl sleeve to expose one black and one white lead with bullet terminals.
6. Locate mullion heater leads at the left side of cabinet and connect to black and white leads of the water valve terminators.
7. Wrap vinyl sleeve with electrical tape to close slit.
8. Reinstall "L" shaped cover the water valve.
9. Replace toe grille (kick plate).

THERMOSTAT SERVICE

THE FACT THAT THE STORAGE TEMPERATURE IS INCORRECT DOES NOT JUSTIFY REPLACING THE THERMOSTAT. CHECK THE FOLLOWING *BEFORE* CHANGING THE THERMOSTAT.

1. Customer adjustment and usage.
2. Actual storage temperature (0-5, 38-42).
3. Capillary clamping
   a. Loose
   b. Incorrect contact
4. Correct barrier (wall thickness) if required.
5. Slit or broken barrier.
6. Correct position of barrier over end of sensing tube.
7. Capillary tube making contact where it should not.
8. Broken wires in wiring.
9. Incorrect refrigerant charge. (evaporator sensing thermostat only)
10. Damper not set properly.
11. Slow fan.
12. Defrost heater on.
13. Defrost system not functioning . (clogged are passage).
14. Shorted light switch.

ALL OF THE ABOVE CAUSE A GOOD THERMOSTAT TO APPEAR DEFECTIVE.

THE FOLLOWING MAKES IT NECESSARY TO REPLAC THE THERMOSTAT

1. Shorted contacts.
2. Open (no contacts).
3. Capillary tube has lost its charge.
4. Wrong thermostat.
5. Way out of calibration.

One end of the capillary tube is connected to the bellows or diaphragm that actuates the switch in the thermostat. The tubing is charged with a refrigerant gas and the end is then closed. Refrigerant gases used since it becomes another use of the temperature and pressure relationships of refrigerant gases. Temperature changes of the sensing tube will cause the pressure of the trapped gas to change.

A rising temperature and increase of pressure causes the bellows to expand, close the switch, and start the unit. A lowering temperature causes lower pressure, the bellows contract and the unit stops. A good question to ask at this point would be: "What will happen if the capillary tube loses its charge of gas?" Answer: /without the gas to expand the bellows, the thermostat would act as if it were too cold and the unit would not start.

DESCRIBE – IT CHECK LIST

THE SEALED SYSTEM

1. The compressor draws refrigerant gas through the suction line from the evaporator.
2. The compressor compresses the refrigerant gas and pumps it into the condenser.
3. Heat from the refrigerant gas in the condenser is radiated into the cooler air of the surrounding room.
4. As the refrigerant passes through the condenser, it gives up it's heat and changes into a liquid state. (liquid refrigerant is restricted to the lower one or two passes of the condenser.)
5. The high pressure refrigerant liquid leaves the condenser and enters the much smaller capillary tube.
6. The capillary tube conti9nues alongside (or inside) the suction line to which it gives off some of its heat. The capillary tube and the suction line make up the heat exchanger.
7. The capillary tube leaves the heat exchanger and connects to the evaporator. The suction increases in the diameter of the tubing causing a low pressure area. The temperature of the refrigerant drops rapidly as it changes from a liquid to a mixture of liquid and gas.
8. As the refrigerant passes through the evaporator, it absorbs heat from the air and warmer items in the refrigerator. As the refrigerant absorbs heat, most of it changes from a liquid to a gas. (Feel the temperature at the inlet of the evaporator, it is noticeably lower then the temperature at the outlet. See frost accumulation on the evaporator.)
9. The refrigerant that does not turn to gas in the evaporator is trapped in the accumulator where it is held until it absorbs enough heat to turn to gas.
10. As the refrigerant leaves the evaporator and accumulator, it is drown to the compressor through the suction line. The suction line forms the other part of the heat exchanger.

COOLING MODE

1. Thermostat closes while the timer is in its cooling period.
2. Current flows through run winding to start relay coil. Start relay contacts close, energizing start winding.
3. Compressor motor starts and continues running throughout cooling mode. When it reaches ¾ of its operating speed, counter EMF in the run windings reduce current to the start relay coil.

DESCRIBE – IT CHECKLIST (Con't)

(COOLING MODE CON'T)

The start relay contacts fall open. (You can hear the compressor motor running)

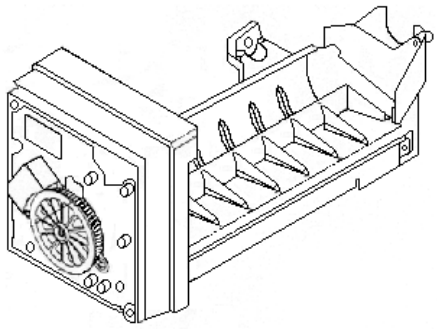
4. The run capacitor is activated in series with start winging).
5. The evaporator fan motor is activated at the instant of start and continues running throughout the cooling mode. (You can hear the evaporator fan motor running when the freezer door is opened).
6. The condenser fan motor is activated at the instant of start and continues running throughout the cooling mode. (You can feel slight air movement at the left side of the grille.
7. Mullion and stile heaters are energized throughout accumulated 10 hours cooking period. (You can feel heat along the mullion and stile.)
8. The temperature drops in the refrigerator until the bimetal closes.
9. When the bimetal closes, the timer motor starts running. Time is accumulated towards the 10 hour cooling period.
10. The temperature continues to drop in the refrigerator until the thermostat contacts open.
11. When the thermostat contacts open, current is cut to the compressor motor, to the evaporator fan motor, to the condenser fan motor, and to the timer motor. All four motors stops running. Cooling mode time is not accumulated toward the 10 hours cooling period. (The condenser motor can no longer be heard. The evaporator fan motor can no longer be heard when the freezer door is opened. No air movement can be felt at the left side of the grille.)
12. The mullion and stile heaters remain energized. (You can feel heat along the mullion and stile.)
13. When the temperature rises sufficiently in the refrigerator, the thermostat contacts will close again and the cycle will begin all over again. These cycles continue until the 10 hours in cooling period are accumulated by the timer and it moves to the defrost period.

DEFROST MODE:

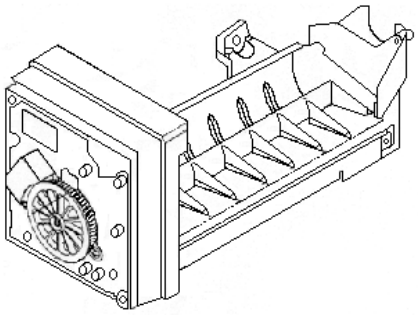
1. The timer switch moves to the defrost position. Since the refrigerator has been in its cooling mode to this point, the bimetal is closed.
2. The defrost switch activates the defrost heater. (You can feel the defrost heater getting warm. You can see the frost on the evaporator begin to melt. The inside of the refrigerator warms gradually.)
3. When the timer switch moves to the defrost position, current is cut off the thermostats, compressor motor, evaporator fan motor, and the condenser fan motor. (The condenser motor can no longer be heard. The evaporator fan motor can no longer be heard when the freezer door is opened. No air movement can be felt at the left side of the grille.)
4. The timer motor circuit is completed through the overload, the run winding of the compressor motor, and the start relay coil.
5. After 5 to 15 minutes the temperature in the refrigerator rises enough for the bimetal to open.
6. When the bimetal opens. The defrost heater is deactivated.
7. Frost on the evaporator melts into the drip pan, flows into the drain cup and down the drain tube into the drain pan underneath the refrigerator. This water is evaporated during the cooling mode by the heat from the compressor and condenser. (You can see water collect in the drain pan.)
8. The timer runs for 21 minutes from beginning of the defrost mode at which time the timer switch moves to the cooling position and cooling begins.

ICE MAKER ASSEMBLY

The VCBB360 /362 AND VCBS481 /482 refrigerators use a different icemaker.
The VCBB362R / L is the same product as the VCBB360R / L but built by Viking Refrigeration.



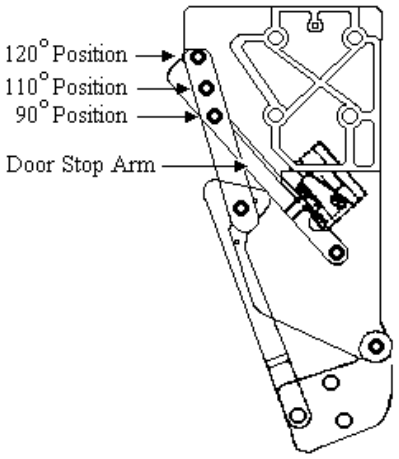
VCBB360 / 362 Icemaker
G5096547 Icemaker Assembly



VCBS481 /482 Icemaker
G5096497 Icemaker Assembly

DOOR STOP ADJUSTMENT

1. Remove center grill blade from the top air grill.
2. Remove top air grill by removing (4) ¼" screws with a magnetic screw driver. Pull assembly forward.
3. Open refrigerator door so door stop arm and shoulder screws are accessible. Shoulder screws should be in 110° door opening position.
4. Remove shoulder screw and place shoulder screw in the 90° or 120° door opening position.



To prevent the hinge arm screw from coming loose with use:

1. Loosen the torx screw 1 full turn.
2. Add "Lock Tite" to the screw threads.
3. Re-tighten the screw.

Viking Preferred Service
Viking Range Corporation • 5601 Viking Road-CR525 • Greenwood, Mississippi (MS) • 38930 • (662) 451-4133 • Fax: (662) 451-4386

Service Bulletin

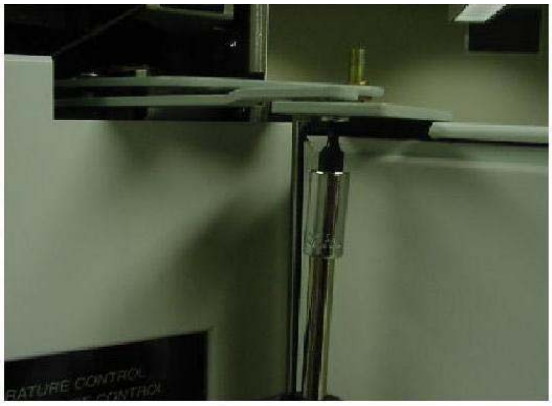
No: 2001-14

Date: 5/17/01

RE: Preventing Hinge Screw from coming loose over time.

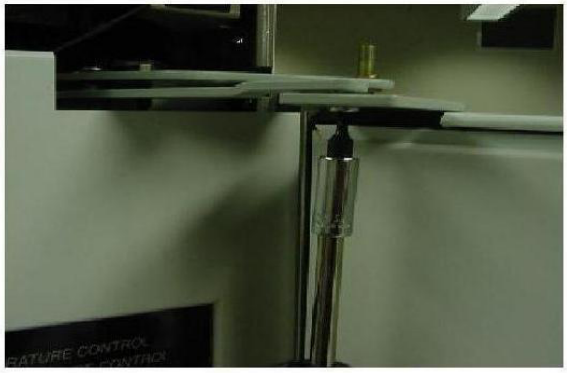
Models: VCBB 362 and VCSB 482

G5007240 Screw Repair Kit



1. Loosen torx (T-15) screw one full turn.

2. Add Loctite (non-hardening) to top of screw.

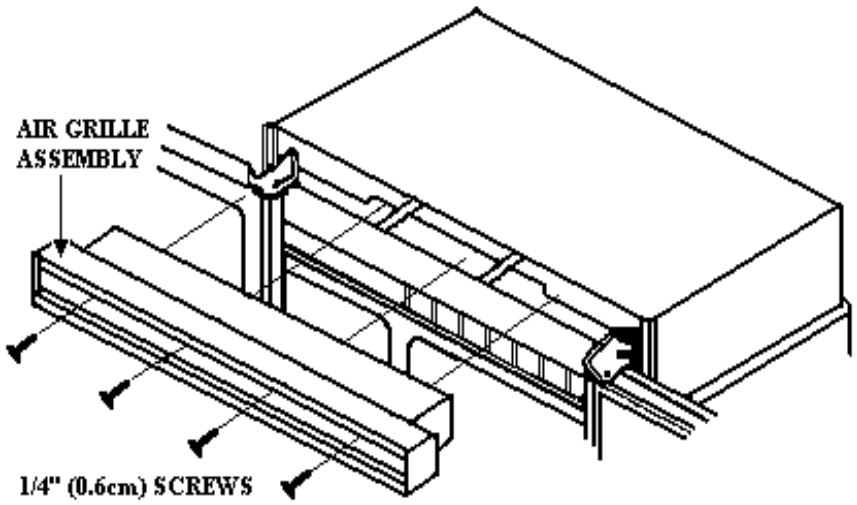


3. Tighten screw.

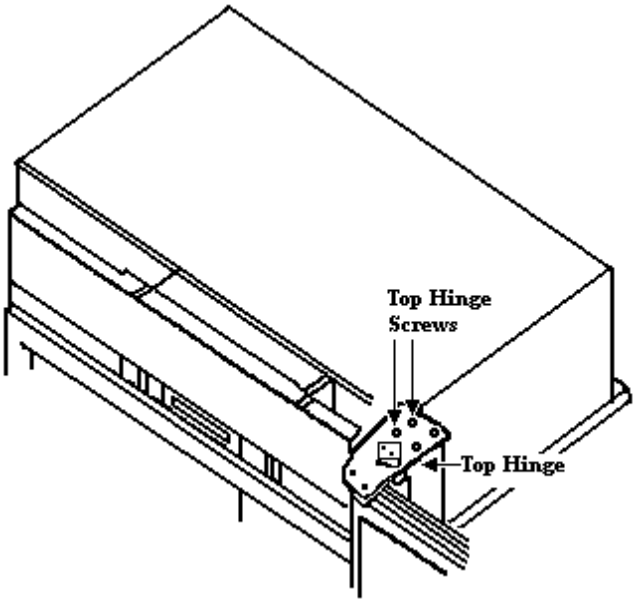
Post Office Drawer 956 • 111 Front Street • Greenwood, Mississippi 38930 USA • Telephone (662) 455-1200 • FAX (662) 453-7939
website: http://www.vikingrange.com.

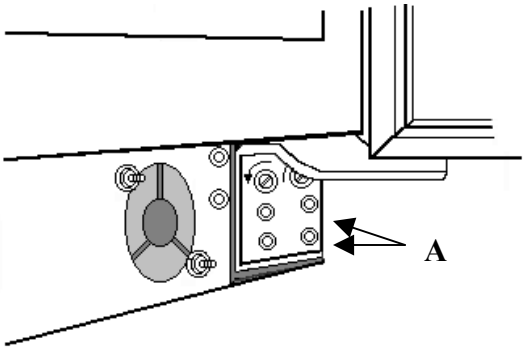
HINGE ADJUSTMENT

Verify proper door alignment. **Only** the *top hinge* is adjustable.



1. Remove the center grill blade from the top air grill.
2. Remove top grill by removing (4) ¼" screws with a magnetic screwdriver. Pull assembly forward.
3. Loosen the (4) top hinge screws.
4. Align refrigerator door for even spacing between the doors by lifting the door.
5. Tighten screws.





To raise the door, loosen the four (4) bolts (A) on the lower hinge mounting plate. **CAUTION: (**THE DOOR IS HEAVY. USE BLOCKS TO RAISE THE DOOR APPROXIMATELY 1/8" ABOVE THE OTHER DOOR, THEN TIGHTEN THE BOLTS. THE DOOR WILL SETTLE THE 1/8" AFTER REMOVING THE BLOCKS.)

INSTRUCTIONS FOR FIELD INSTALLATION SOLID STATE AC CONTROLS ON VUAR140 / VRBD / VUBD / VUAR150 / VUWC150 ONLY

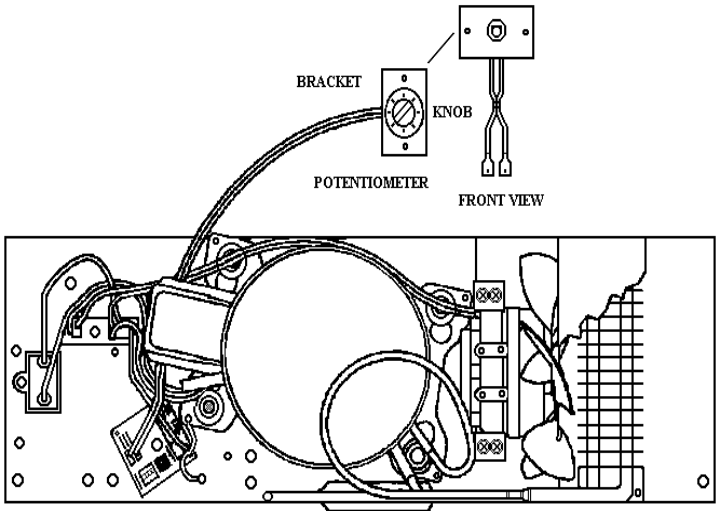
TOOLS NEEDED: 5/16" NUT DRIVER AND PHILLIPS SCREW DRIVER

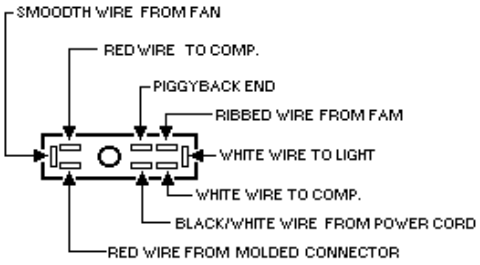
.

1. Before working on the unit unplug it first.
2. Using the Phillips screwdriver, remove the screws from the grille on the front of the unit.
3. Carefully pull the wires off of the old thermostat.
4. Unscrew the thermostat from the bracket.
5. Loosen the screw holding the thermobulb clamp on.
6. Gently remove the thermobulb away from clamp.
7. Go to rear of unit and gently pull the capillary tube from the thermostat out of the unit.
8. Set dip switches for the correct unit.(Ill # 1)
9. Mount control on base plate in location shown in the supplied drawing.
10. Plug in molded connector from the power cord to control (match up according to the color of the wires).
11. Install neutral wire to control.
12. Install Potentiometer according to supplied drawing.
13. Route wire back and plug into control.
14. Feed thermistor from the back and install on evaporator plate
15. Route remaining thermistor wire along insulated tube and cable tie securely.
16. Plug thermistor into control.
17. Put unit back together.

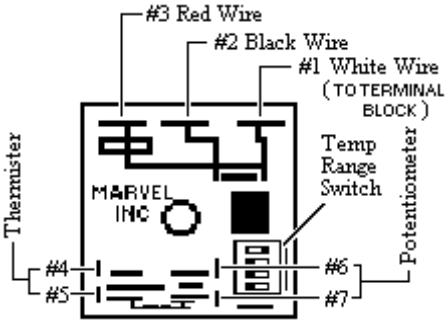
SWITCH SETTING	UNIT APPLICATION	SWITCH SETTING	UNIT APPLICATION	
1 2 4 8 ON →	VUAR140 VRBD VUBD	1 2 4 8 ON →	VUWC140	THE REMAINING SWITCH COMBINATIONS ARE NOT USED. SETTING THE SWITCHES TO AN UNLISTED COMBINATION WILL CAUSE THE UNIT TO NOT WORK.
1 2 4 8 ON →	VUAR150	1 2 4 8 ON →	VUWC150	

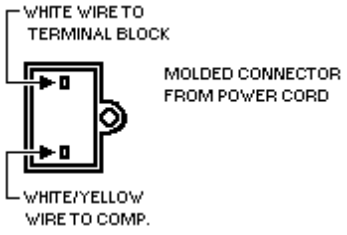
Ill. # 1





TERMINAL BLOCK





RE: Loose or Unstable Control Panel

To gain access to the back of the control panel to install the Control Panel Stabil-Izer: (Ill # 1)

- Remove the Air Grille Assembly.
- Remove the Air Duct Weld.
- Remove Corner Brace Assembly.

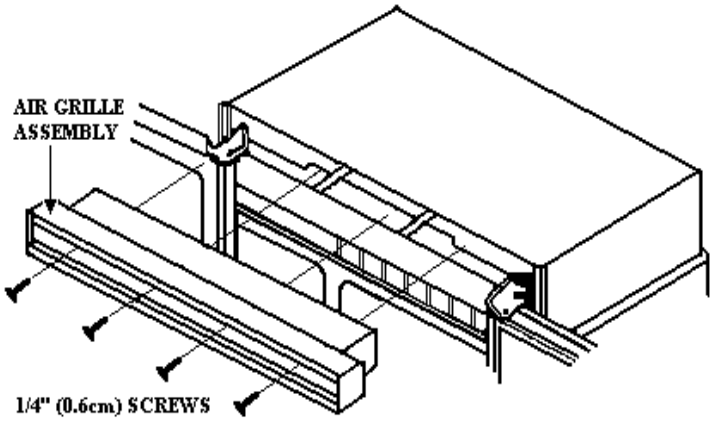
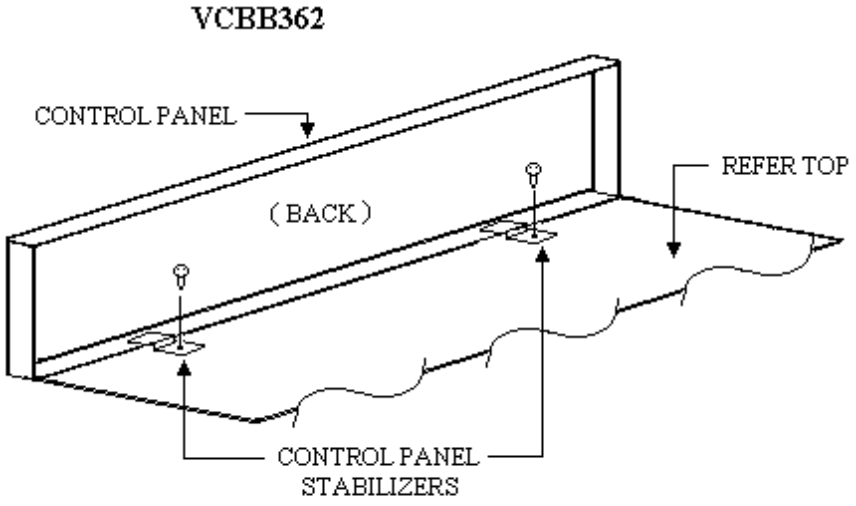


Illustration # 1

Using the two (2) screws (PD020048) provided, locate and mount the two (2) Control Panel Stabilizers approximately 1/3rd of the way from each end. (Ill #2)



Screws (2) PD020048

Stabilizers (2) B2096943

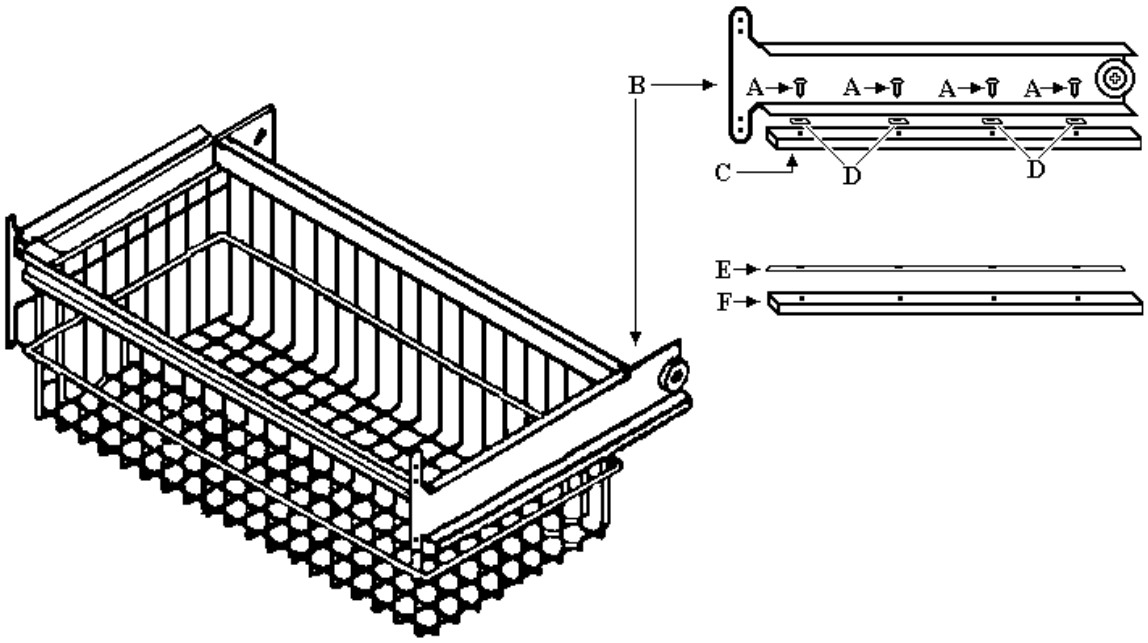
Illustration # 2

VCBB360 / DDBB / DTBB / DFBB
BOTTOM MOUNT REFRIGERATOR

G5007408 FREEZER BASKET REPAIR KIT

The Kit contains:

(8) PD920125 #8 x 3/8”x 4 x HO Type B screws
(2) PK930042 Glide Spacers (Item #E)
(2) 12189101 Glides (Item #F)

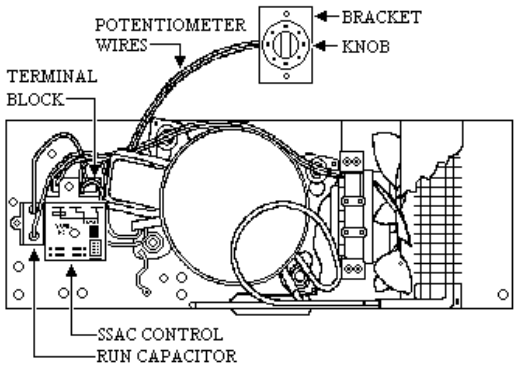


1. Remove freezer drawer from the refrigerator.
2. Remove 4 screws (Item “A”)
3. Remove and discard plastic spacers (Item “D”)
4. Remove guide rail on left side (Item “C”)
5. Insert guide rail spacer [(Item “E”) (PK930042)] between guide bottom (Item “F”) and guide rail (Item “B)
6. Attach (“F” & “E”) to basket rail (Item “B”) with the (8) supplied screws.
7. Repeat steps 2 through 6 for the right side.
8. Return the freezer drawer to the refrigerator.

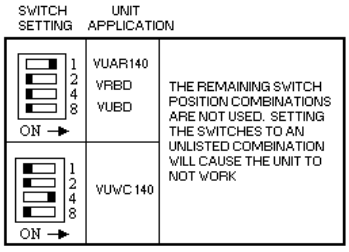
INSTALLATION OF SOLID STATE (SSAC) AC CONTROLS
VUAR140 / VRBD / VUBD UNITS

Tools Needed: Phillips Screw Driver, 5/16" Nut Driver and 5/32" Drill Bit.

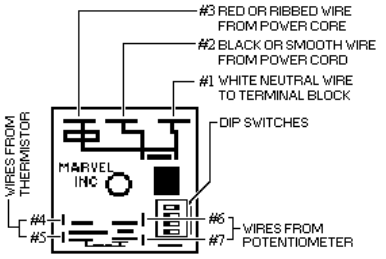
1. Disconnect power to the unit.
2. Remove the screws from the grille on the front of the unit.
3. Carefully pull the wires off of the old thermostat.
4. Unscrew the thermostat from the bracket and mount the potentiometer in it's place. Make sure the off position on the knob is at twelve o'clock. Route the wires to the back of the unit.(See Ill #A)
5. Put the grille back on.
6. Using the 5/16" nut driver, remove the screws from the back panel, top and bottom sections.
7. Remove the thermo-bulb clamp on the evaporator.
8. Go to the rear of the unit and remove the putty from the hole, gently pull the capillary tube from the thermostat out of the unit.
9. Set the dip switches on the SSAC control for the correct unit. (See Ill #B)
10. Mount the SSAC control on the base plate. (if there is not a 5/32" hole already there you will need to drill one). (See Ill #A)
11. Connect the potentiometer wires to terminals #6 & #7 on the SSAC control. (See Ill #C)
12. Connect the new white wire to terminal #1 on the SSAC control then connect the other end (with the piggyback) to the neutral side of the terminal block. (See Ill #D)
13. Connect the molded connector from the power core to the SSAC control black or smooth wire to terminal #2 & red or ribbed wire to terminal #3. (See Ill #D)
14. Feed the thermistor from the back and mount on evaporator plate where the thermo-bulb clamp was. (Remember to put the putty back in the hole.) (See Ill #D)
15. Route remaining thermistor wire along insulated tube and cable tie securely.
16. Connect the thermistor wires to terminals #4 & $5 on the SSAC control. (See Ill #C)
17. Put the back panels back on and plug the unit back in. Turn the unit on. Your installation is complete.



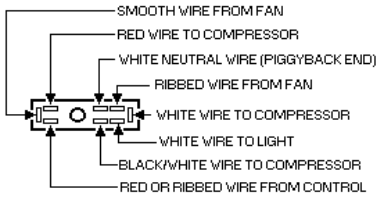
Ill #A **140 SERIES MECHANICAL ASSEMBLY**



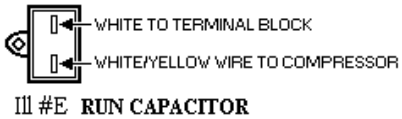
Ill #B **DIP SWITCH SETTINGS**



Ill #C **SSAC CONTROL**

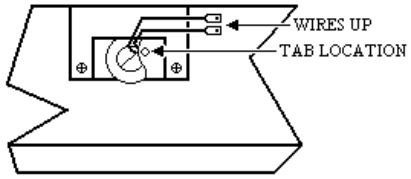


Ill #D **TERMINAL BLOCK**



Ill #E **RUN CAPACITOR**

Ill #F

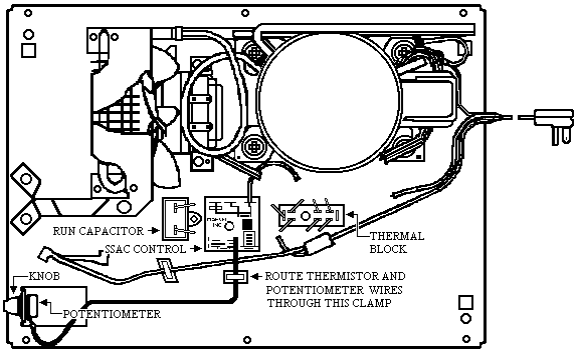


Ill #G POTENTIOMETER ORIENTATION

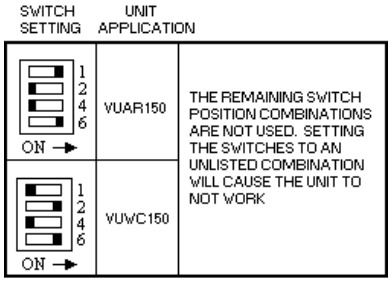
INSTALLATION OF SOLID STATE (SSAC) AC CONTROLS
VUAR150 / VUWC150 UNITS

Tools Needed: Phillips Screw Driver, 5/16" Nut Driver and 5/32" Drill Bit.

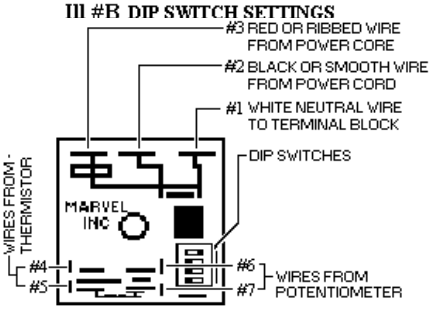
1. Disconnect power to the unit.
2. Remove the screws from the grille on the front of the unit.
3. Carefully pull the wires off of the old thermostat.
4. Unscrew the thermostat from the bracket and mount the potentiometer in it's place. Make sure the off position on the knob is at twelve o'clock. Route the wires to the back of the unit. (See Ill #A)
5. Put the grille back on.
6. Using the 5/16" nut driver, remove the screws from the back panel, top and bottom sections.
7. Remove the thermo-bulb clamp on the evaporator.
8. Go to the rear of the unit and remove the putty from the hole, gently pull the capillary tube from the thermostat out of the unit.
9. Using the nut driver, remove the screws from the mechanical base plate and the ground wires. Carefully slide out the mechanical assembly.
10. Set the dip switches on the SSAC control for the correct unit. (See Ill #B)
11. Mount the SSAC control on the base plate. (if there is not a 5/32" hole already there you will need to drill one). (See Ill #A)
12. Connect the potentiometer wires to terminals #6 & #7 on the SSAC control. (See Ill #C)
13. Connect the new white wire to terminal #1 on the SSAC control then connect the other end (with the piggyback) to the neutral side of the terminal block. (See Ill #D)
14. Connect the molded connector from the power core to the SSAC control black or smooth wire to terminal #2 & red or ribbed wire to terminal #3. (See Ill #D)
15. Feed the thermistor from the back and mount with the clamp provided on the back of the liner. To ease installation, remove the evaporator mounting screws and lift the evaporator up out of the way. (Remember to put the putty back in the hole.) (See Ill #H)
16. Route remaining thermistor wire along insulated tube and cable tie securely.
17. Connect the thermistor wires to terminals #4 & $5 on the SSAC control. (See Ill #C)
18. Put the back panels back on and plug the unit back in. Turn the unit on. Your installation is complete.



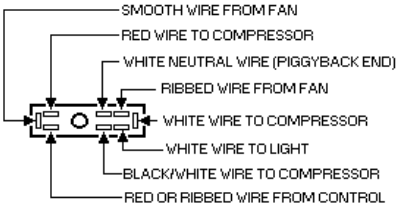
Ill #A 150 SERIES MECHANICAL ASSEMBLY



Ill #B DIP SWITCH SETTINGS

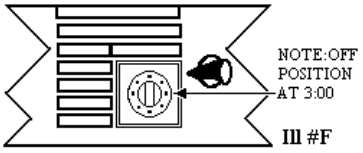


Ill #C SSAC CONTROL

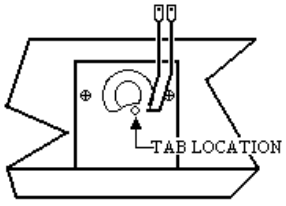


Ill #D TERMINAL BLOCK

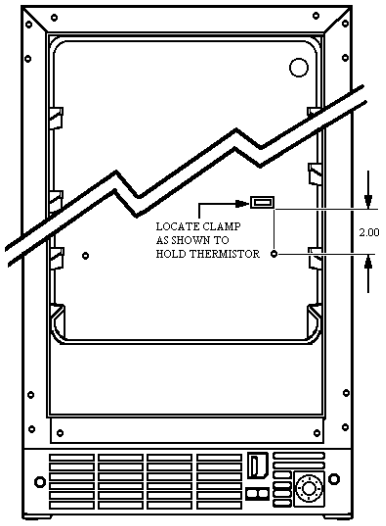
Ill #E RUN CAPACITOR



Ill #F



Ill #G POTENTIOMETER ORIENTATION



Ill #H

BTM Deli Control Instruction Sheet-11-08-02

1) Open Refrigerator Door

2) Remove Produce Drawers (Crisper Pan Assembly-12056902)

BTM Deli Control Instruction Sheet-11-08-02

3) Remove MeatSavor Lid and Shelf (Deli Lid Assembly-12223207 and Deli Top Assembly-12223303).

4) Remove Deli Control Cover (Cover-Deli Control-12073701)

BTM Deli Control Instruction Sheet-11-08-02

5) Disassembly Deli Control Slide from Deli Control Cover (Side-Deli Control-12073601)

6) Place Deli Control Restrictor onto Duct Crisper Air (10931801) using four countersunk screws (M0215704).

BTM Deli Control Instruction Sheet-11-08-02

7) Place tape (Aluminum worked best) along edges of Restrictor. Use 1.5" to 2" wide tape on the left and right sides and have .625" covering the Restrictor sides. Use 1" wide tape on the top and bottom sides and have .25" covering the Restrictor Top and Bottom

8) Place gasket material along edge of Meat Savor Glides. (PLEASE NOTE: Service Fix will have white gaskets)

Left Hand Side

BTM Deli Control Instruction Sheet-11-08-02

Right Hand Side

9) Replace Deli Control Cover and Slide
(PLEASE NOTE: Picture same as Step 3)

10) Replace MeatSavor Lid and Shelf
(PLEASE NOTE: Picture same as step 2)

11) Replace Produce Drawers
(PLEASE NOTE: Picture same as Step 1)

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Re: Installation of aluminum tape in the control area above the light bulb.

Model: VCWB300 Wine Cooler

Step 1

1. Remove the 3 hex head screws from the rear of the control panel in the top of the cabinet.
2. Push forward and pull control panel loose.
3. Unplug all wire connections.
4. Place control panel upside down.

Step 2

1. Remove the 4 Phillips head screws holding the light housing.
2. Slide the light to one side.

Step 3

1. Align the 2” aluminum tape with light housing slots and run the length of light strip area (~20”).
2. If any holes are covered, simply poke a hole through the strip with a small pin.
3. Reinstall the control panel being careful not to strip the screws.

Step 4

1. Loosen the 2 - 3/16” hex head screws on the underside of the top mullion shelf.
2. Spin the metal bracket 90 degreed to allow for lighting to drop.

Step 5

1. Align the 2” aluminum tape between the light nestings (~20”) being careful to stay in bulb area to keep from being visible after assembly.
2. Replace lights and tighten to hex head screws to hold light in place.

The part number for the tape used is VM0275166 and there is a 30-minute time allowance per unit to complete this repair.

VIKING REFRIGERATOR DOOR GASKETS.

Models: Old Models 362 / 482
New Models 363 / 483

The non-polarized door gasket for the new model refrigerators, 363 and 483, will not inner-change with the polarized door gaskets used on the 362 and 482 model refrigerators. When ordering parts use the part numbers listed below. As always, to insure you receive the correct part, include MODEL and SERIAL numbers on your parts order.

Bottom Mount door gasket part numbers:

Old 362 part number: (Polarized)
PB970120
PB970121

New 363 part number: (Non-Polarized)
PB970133
PB970134

Side by Side door gaskets part numbers:

Old 482 part number: (Polarized)
PB970122
PB970123

New 483 part number: (Non-Polarized)
PB970135
PB970136

REFRIGERANT CHARGE CORRECTION

Models: VCBB363 and VCSB483

Correction to the **refrigerant charge** on the rating plate.

The correct **refrigerant charge** for the VCSB483 should be 5.5 oz.

The correct **refrigerant charge** for the VCBB363 should be 4.6 oz.

LIGHT SHIELD AND CONTROL PANEL WARPING

Re: Refrigerator and freezer lights overheating cause light shield and control panel warp.
Models affected: Side x Side and Bottom Freezer Refrigerators.

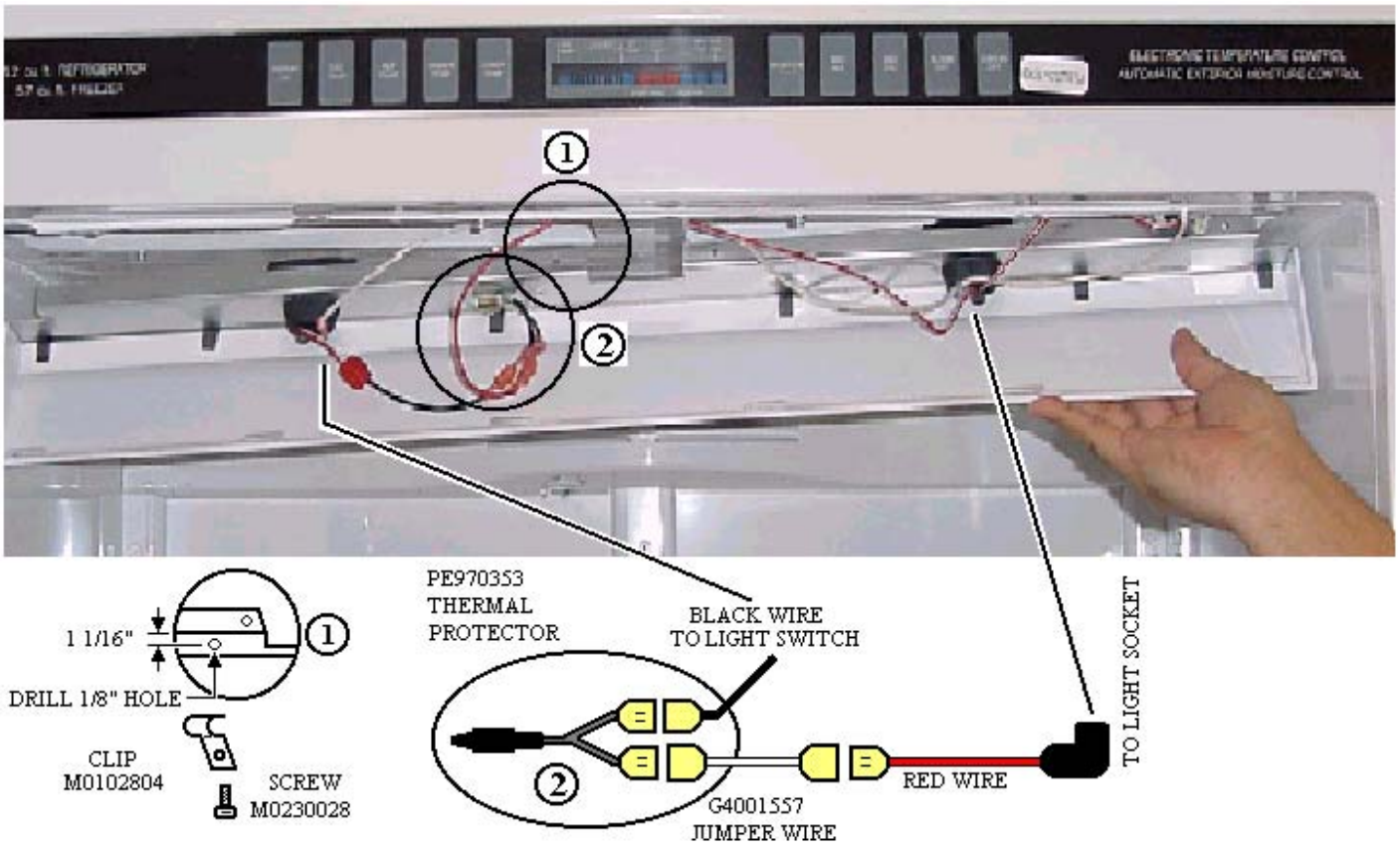
Install Light Thermal Kit (#G5098071) as shown in illustrations below.

Kit consists of:

QTY	PART NUMBER	DESCRIPTION
1	PE970353	Thermal Protector
1	M0102804	Bracket (Clip)
1	M0230028	Screw
1	G4001557	Jumper Wire
1	F90158	Installation Instructions

Installation steps:

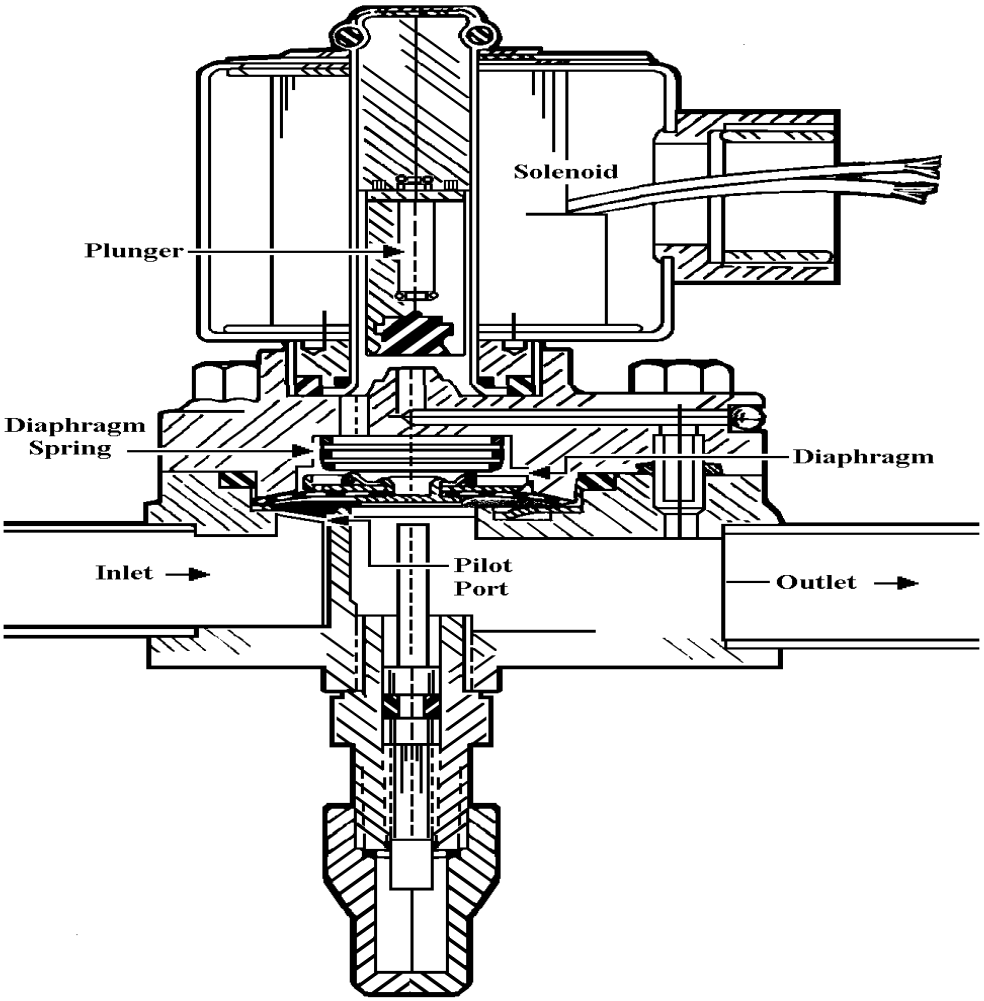
1. Remove the light shield to expose the wiring to the light socket and light switch.
2. Drill a mounting hole for the Bracket (clip) as shown in (1)
3. Install Thermal Protector, using the Bracket (clip) and Screw provided.
4. Connect the Thermal Protector between the light socket and the light switch as shown below (2)



Cut-a-way of a **PILOT-OPERATED Solenoid Valve**

When the solenoid, A, is energized, the Plunger, B, will be pulled from its seat. The pressure in the diaphragm spring area, D, will leave to cylinder and the diaphragm, E, will move up. The movement of the diaphragm controls will open the pilot port, F.

When the solenoid valve is de-energized, plunger, B, returns to its seat. Pressure from G goes through a small opening and builds up pressure in diaphragm spring area, D. The spring then closes the pilot port, F.



Service Bulletin 2003-10S (Update)

Date 07/15/03

The Viking 360/362/363 and 483 "G" Series refrigeration products have a mullion heater foamed in place **For Service Only,** not powered from the factory.

360/362/363 Bottom Mount Refrigerator
Heater – 120VAC – 20 Watts – 661 ± 7.5 Ω.

483 "G" Series 48 & 42 " S x S Refrigerator
Heater – 120VAC – 28 Watts – 661 ± 7.5 Ω.

1. Disconnect power to the unit using power switch.
2. Remove the toe grille (kick plate).
3. Remove the two (2) screws holding the water valve in place for access to the water valve wiring harness.
4. Remove the "L" shaped cover behind the water valve for easy access to the mullion heater wires (black and white).
5. Carefully slit water valve wiring harness vinyl sleeve to expose one black and one white lead with bullet terminals.
6. Locate mullion heater leads at the left side of cabinet and connect to black and white leads of the water valve terminators.
7. Wrap vinyl sleeve with electrical tape to close slit.
8. Reinstall "L" shaped cover the water valve.
9. Replace toe grille (kick plate).

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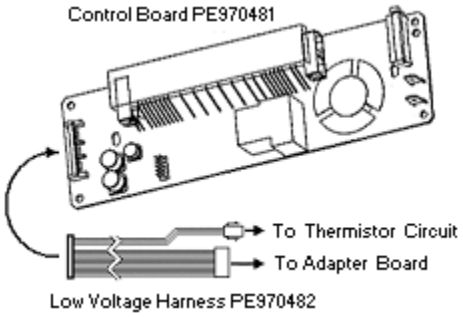
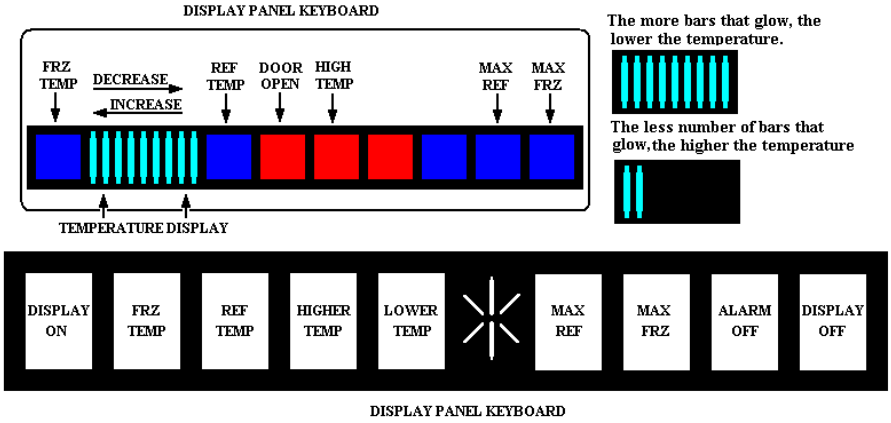
Models: VCBB360/362/363 36”W. Bottom Mount Refrigerator/Freezers
VCSB423 42”W. Side-by-Side Refrigerator/Freezers
VCSB481/482/483 48”W. Side-by-Side Refrigerator/Freezers
VCSB483D 48” W. Side-by-Side Refrigerator/Freezer with Ice and Water Dispenser.

When replacing the **G5099919 Controller Kit** in the refrigerator-freezer the **Temperature Offsets** will have to be checked and reset if necessary. To check the setting of the **Freezer** and **Fresh Food** offsets use the chart included within this bulletin and confirm the correct setting.



Kit consists of: **Control board PE970481** and
Low voltage Harness PE970482



To access Display Panel Operation:
∗**Hidden Button**∗ (See control panel above.)

To activate Program Mode: Two programming modes are available. Mode A allows reading of refrigerator and freezer thermistor temperatures. Mode B is used for all other programming functions.

1. Open refrigerator door.
2. Press Display On pad
3. Press Hidden (∗) pad
4. Within 6 seconds press the following pads in this sequence; Max Ref., Max Frz., Max Ref., Max Frz.
5. When access is granted, tone will sound 3 times and control will be in program mode A, red unmarked indicator light will illuminate.
6. Toggle to Program Mode B by pressing the Display On pad. The red unmarked indicator light will be off.

Mode B Functions:
Automatic Keyboard Functions
Door Alarm Delay
Max Ref. Run Time Duration
Max Frz. Run Time Duration
Temperature Offset Calibration Offset amount adjusts temperatures for refrigerator cut-in and cut-outs by the amount of offset.

To verify or change the freezer offset, perform the following:

1. While in Mode B, select Frz Temp button, verify that the indicator light that is lit (referenced from left to right) agrees with the Temperature Calibration Offset table.
2. If the offset does not agree with the value shown in the table, use Higher Temp or Lower Temp buttons to adjust the offset to the indicator shown in the Temperature Calibration Offset table.

To verify or change the refrigerator offset, perform the following:

1. While in Mode B, select Ref Temp button, verify that the indicator light that is lit (referenced from left to right) agrees with the Temperature Calibration Offset table.
2. If the offset does not agree with the value shown in the table, use Higher Temp or Lower Temp buttons to adjust the offset to the indicator shown in the Temperature Calibration Offset table.

To exit programming mode, press and hold Display On until 3 successive beeps are heard.
The chart below shows the factory default temperature offset indicators for each Viking model.

Temperature Calibration Chart

Model	Description	Frz Offset	FF Offset
36" Btm	363 "G" Series	5	8
48" SxS	483 "G" Series	4	6
42" SxS	423 "G" Series	4	7
48" SxS Dispenser	483 "G" Series	3	4