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Wolf DF30-3 Owner's Manual

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----- Manual continues below part list -----

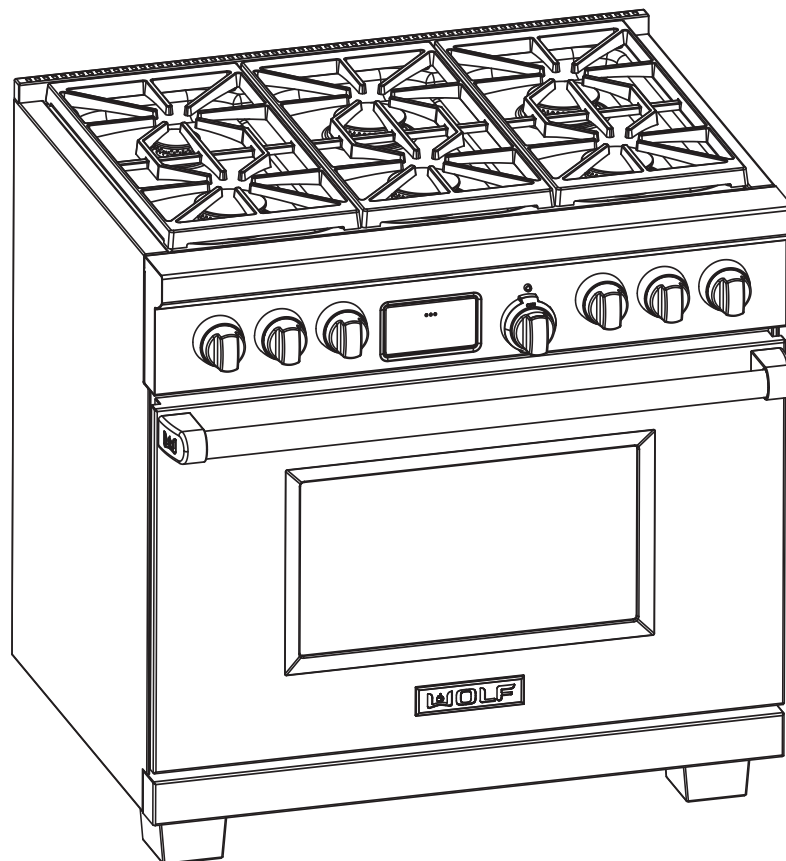
Available Replacement Parts for Wolf DF30-3

816364	SEL BEZEL, PT - 30, 36, SVCE
808643	SVCE, Element, Broil 30" SO30,D
823261	TEMPERATURE PROBE, ACCESSORY
809764	8-32 X .313 SKT SET SCREW
808637	Light Bulb - Oven Each
815573	KNOB INSERT, NYLINER - SVCE
816777	ORF, DISTR RING - .63MM, SVCE
816261	GRATE ASSY,BNR-DUAL FUEL,SVCE
811931	ELEM, BAKE, RIBBON-2200, SVCE
804685	SPACER, 0.5 HINGE POCKET
801554	HARD FIBER FLAT WASHER, BLACK
816296	GLASS PACK ASSY - LARGE, SVCE
809818	CONVECTION ASSY CCW, SVCE
811222	SELECTOR KNOB-RED, SVCE
811223	SELECTOR KNOB-BLACK, SVCE
815606	PAN EXTRUSION - SVCE
815563	IGNITER, 15K BNR ELCTD - SVCE
807052	RELAY BD - DUAL FUEL, SVCE
815525	INR DISTR RING ASSY, 15K-SVCE
815528	BURNER CAP ASSY, 15K - SVCE
815567	ELECTRODE, 9.2K DISC - SVCE
816294	LIMITER, THERMOSTAT - SVCE
9007307	SCREW, #8 X 3/8 MOD. TRUSS HD
803273	PIN, PILOT .187 X .375 SS
804372	WOK GRATE, TWO BURNER
804874	BNR O-RING SEAL - 15K BTU,SVCE
812271	HINGE,SPRING-DUAL FUEL 30,SVCE
812300	RACK, FLAT-30 DUAL FUEL, SVCE
830829	CASTER, LEVELING ASSY - SVCE
815527	INNER DISTR RING, 9.2K - SVCE

815605	SUBSTITUTED TO: 828241
816303	BURNER CAP ASSY, 9.2K - SVCE
816310	WIRE HARN-30,36 DUAL FUEL,SVCE
816386	ANGLE, WALL BRACE - SVCE
720824	SPRING-A30,36,SB SERIES,SVCE
816540	BEZEL,SEL,CHROME-30,36,SVCE
816703	GSKT,CAVITY-30,DUAL FUEL,SVCE
817743	O-RING SEAL, 9.2K BNR - SVCE
808640	SVCE, CATALYST, SMOKE
827460	VALVE,BURNER,9.2K,LP,SVCE
815523	BURNER HEAD ASSY-15K - SVCE
815546	BNR HEAD, WITH CAP - SM, SVCE
815552	SPARK MODULE 0+1 - SVCE AFTERMARKET
815572	SENSOR, TEMPERATURE - SVCE
829378	Lead Wire,30" SVCE (Gas Cooktop/ Dual Fu



Dual Fuel Range Technical Service Manual



DF30 - DF36 - DF48 - DF60
DF30-3 - DF36-3 - DF48-3 - DF60-3
DF30-4 - DF36-4 - DF48-4 - DF60-4

SECTION 1

GENERAL INFORMATION

INTRODUCTION

This Wolf Dual Fuel Technical Service Manual, Part #804710, has been compiled to provide the most recent technical service information about the Wolf Appliance, Inc., Dual Fuel Ranges. This information will enable the service technician to troubleshoot and diagnose malfunctions, perform necessary repairs, and return a Wolf Dual Fuel Range to proper operational condition.

The service technician should read the complete instructions contained in this Technical Service Manual before initiating any repairs on a Wolf Appliance.

* Some information in Section 3 (Operation Information) has been provided by the American Gas Association and reprinted with AGA's approval.

NOTE: Refer to the Dual Fuel Service Parts Manual #806375 for part numbers and exploded views for units produced prior to serial number 16000000 and Dual Fuel-3 Service Parts Manual #807040 for units produced after serial number 16000000.

IMPORTANT SAFETY INFORMATION

Below are the Product Safety Labels used in this manual. The "Signal Words" used are **WARNING** and **CAUTION**.

Please note that these safety labels are placed in areas where awareness of personal safety and product safety should be taken and lists the precautions to be taken when the signal word is observed.

WARNING

INDICATES THAT HAZARDOUS OR UNSAFE PRACTICES COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH

CAUTION

Indicates that hazardous or unsafe practices could result in minor personal injury or product and/or property damage

In addition, please pay attention to the signal word **"NOTE"**, which highlights especially important information within each section.

TECHNICAL ASSISTANCE

If you should have any questions regarding a Wolf appliance and/or this manual, please contact:

*Wolf Appliance, Inc.
ATTN: Service Department
P.O. Box 44988
Madison, WI 53744-4988*

*Customer Service & Parts / Warranty Claims
Phone #: (800) 332 - 9513*

*Technical Assistance
Phone #: (800) 919 - 8324*

*Customer Service & Technical Assistance
Facsimile #: (608) 441 - 5887*

*Parts / Warranty Claims
Facsimile #: (608) 441 - 5886*

*Office Hours:
7:00 AM to 7:00 PM Central Time
Monday through Friday*

This manual is designed to be used by Authorized Service Personnel only. Wolf Appliance, Inc. assumes no responsibility for any repairs made to Wolf appliances by anyone other than Authorized Service Technicians.

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PTS = Prior to Serial Number
SWS = Starting with Serial Number

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WARRANTY INFORMATION

This page contains a summary of the 2 & 5 Year Warranty that is supplied with every Wolf product, followed by details and notes about the warranties.

TWO & FIVE YEAR Warranty Summary

- Two year TOTAL PRODUCT warranty, parts and labor.
- Limited Parts Only Warranty for the 3rd through 5th year on the following parts only:
Electric heating elements
Electronic Control Boards

Warranty Details:

The warranty applies only to products installed for normal residential use. The warranty applies only to product installed in the United States or Canada.

Warranty Notes:

- All warranties begin at the time of the unit's initial installation.
- All Warranty and Service information collected by Wolf Appliance, Inc. is arranged and stored under the unit serial number and/or the customer's name. Please note that Wolf Appliance, Inc. requests that you have the model serial number available whenever contacting the factory or parts distributor.
- See Figure 1-1 for serial tag layout.
- See Figure 1-2 for serial tag location.

Wolf Appliance Company, LLC			Fitchburg, WI	SIDE OF THE APPLIANCE: 30". MINIMUM VERTICAL DISTANCE BETWEEN THE TOP BROILER GRID TO UNPROTECTED OVERHEAD COMBUSTIBLE SURFACES 36". MINIMUM HORIZONTAL DISTANCE BETWEEN OVERHEAD CABINETS INSTALLED TO EITHER SIDE OF THE APPLIANCE SHALL NOT BE LESS THAN THE NOMINAL WIDTH OF APPLIANCE TO BE USED IN CONJUNCTION WITH A SUITABLE VENT HOOD ONLY. COOKING UTENSILS SHALL NOT BE USED ON AN OPEN TOP BROILER SECTION. MINIMUM HORIZONTAL CLEARANCE FROM ISLAND INSTALLATION COOKTOP TO COMBUSTIBLE SIDE AND BACK WALL IS 12" "ANSI Z21.1 "HOUSEHOLD GAS COOKING APPLIANCES" "CSA IR 58, 1995" 
Gas	INPUT RATING EACH BURNER - BTU/HR			
Man. Press.	Left Rear Burner -	Other Top Burners -		
Griddle -	Charbroiler -	French Top -		
ELECTRICAL RATING: Volts - Amps - Hertz -				
Model # -	Serial # -	BD		
MINIMUM HORIZONTAL CLEARANCE FROM SIDES AND BACK OF APPLIANCE TO ADJACENT COMBUSTIBLE CONSTRUCTION EXTENDING 18" ABOVE THE COOKING SURFACE 12" FROM SIDE WALLS 0" FROM REAR WALL MINIMUM CLEARANCE BETWEEN ADJACENT COMBUSTIBLE MATERIALS BELOW THE COOKING SURFACE AND THE BACK AND SIDE OF THE APPLIANCE: 0". MAXIMUM DEPTH FOR OVERHEAD CABINETS IS 13" MINIMUM VERTICAL DISTANCE BETWEEN THE COOKING SURFACE AND THE BACK AND				

Figure 1-1. Typical Serial Tag Layout

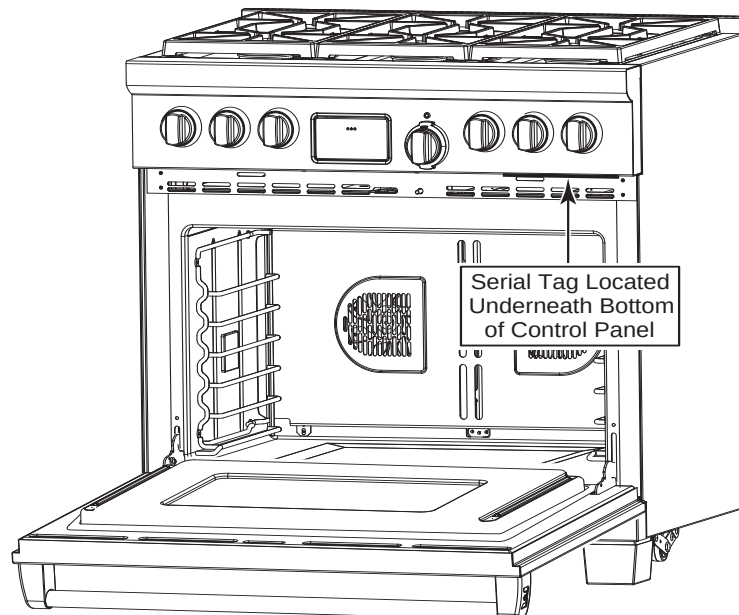


Figure 1-2. Serial Tag Located Underneath the Bottom of the Control Panel

MODEL FEATURES

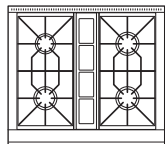
- Natural or LP gas rangetop with dual convection electric oven(s)
- Small 18-inch oven on 48-inch dual fuel range is single convection
- Stainless steel exterior finish
- Platinum bezel surrounds all knobs, Chrome and Bronze optional
- Option of Red or Black knobs
- Dual stacked sealed 15,000 burners with automatic re-ignition at all settings
- Dual stacked burners all have simmer capabilities
- Melt feature on one 9,200 Btu burner
- 11" or 22" 15,000 BTU (13,000 BTU - LP) Griddle with Infrared burner(s) and safety shut off system
- 11" or 22" 16,000 BTU Charbroiler with Infrared burner(s)
- 22" 15,000 BTU French Top burner with safety shutoff system
- Continuous cast iron porcelain top grates
- Pivoting touch control panel
- Coaxial temperature displaying oven knob
- Eight cooking modes
 - Bake Mode
 - Bake Stone Mode (30" and 36" cavities only)
 - Broil Mode
 - Convection Mode
 - Convection Bake Mode
 - Convection Broil Mode
 - Convection Roast Mode
 - Roast Mode
 - Proof Mode (18" only)
- Self-cleaning oven(s)
- Dehydration Feature
- Proof Feature (30" and 36" cavity)
- Delayed Start Feature
- Probe Feature
- Sabbath Feature
- Spring/damper door system
- Temperature probe
- Full extension bottom rack
- Hidden bake element
- Oven door windows and dual halogen lighting
- Blue porcelain oven interior
- Adjustable stainless steel legs in front and adjustable rear casters
- Optional Bake Stone
- High altitude conversion kit available for units installed above 8,000 feet
- Two and five year residential warranty
- CSA certified for US and Canada

MODEL NUMBER KEY

Refer to this key for an example of the model numbers.

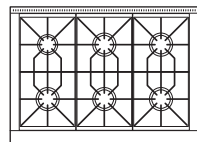
Model:		DF	36	6	CG-LP
<u>Product Type</u>	_____				
DF	Dual Fuel				
<u>Size</u>	_____				
30	30 - inch wide unit				
36	36 - inch wide unit				
48	48 - inch wide unit				
60	60 - inch wide unit				
<u>Surface Burners</u>	_____				
2	2 - Sealed burners				
4	4 - Sealed burners				
6	6 - Sealed burners				
<u>Model Features</u>	_____				
C	Charbroiler (11")				
G	Griddle (11")				
F	French Top (22")				
DG	Griddle (22")				
DC	Charbroiler (22")				
<u>Fuel</u>	_____				
LP	Propane Gas				

TOP CONFIGURATIONS OF 30", 36" and 48" DUAL FUEL RANGES



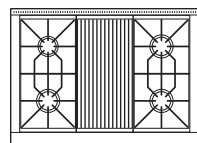
DF304

30" Dual Fuel Range with Four Burners



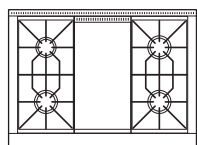
DF366

36" Dual Fuel Range with Six Burners



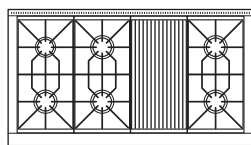
DF364C

36" Dual Fuel Range with Four Burners and 11" Charbroiler



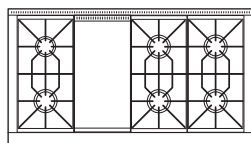
DF364G

36" Dual Fuel Range with Four Burners and 11" Griddle



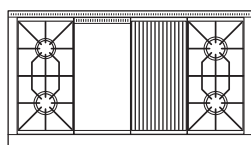
DF486C

48" Dual Fuel Range with Six Burners and 11" Charbroiler



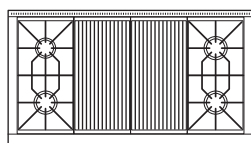
DF486G

48" Dual Fuel Range with Six Burners and 11" Griddle



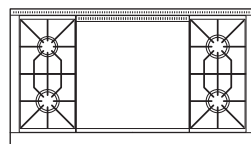
DF484CG

48" Dual Fuel Range with Four Burners and 11" Charbroiler and 11" Griddle



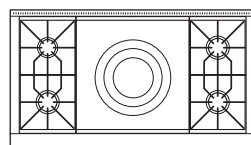
DF484DC

48" Dual Fuel Range with Four Burners and 22" Double Charbroiler



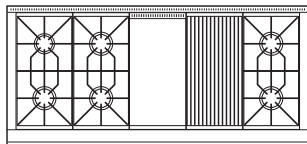
DF484DG

48" Dual Fuel Range with Four Burners and 22" Double Griddle

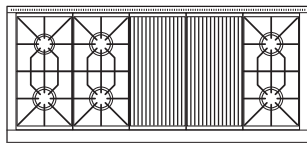


DF484F

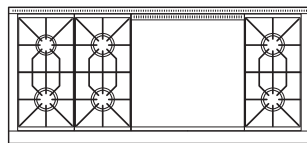
48" Dual Fuel Range with Four Burners and 22" French Top

TOP CONFIGURATIONS OF 60" DUAL FUEL RANGES

DF606CG

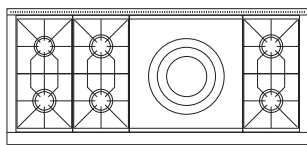
60" Dual Fuel Range with Six Burners and 11" Charbroiler and 11" Griddle


DF606DC

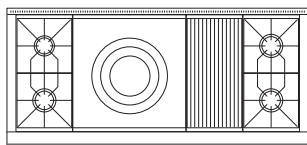
60" Dual Fuel Range with Six Burners and 22" Charbroiler


DF606DG

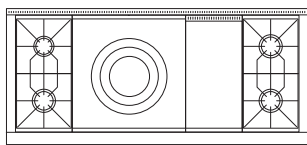
60" Dual Fuel Range with Six Burners and 22" Griddle


DF606F

60" Dual Fuel Range with Six Burners and 22" French Top


DF604CF

60" Dual Fuel Range with Four Burners and 11" Charbroiler and 22" French Top


DF604GF

60" Dual Fuel Range with Four Burners and 22" French Top and 11" Griddle

Note: LP units will be designated with a **-LP** at the end of the model number.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

SECTION 2

INSTALLATION INFORMATION

INSTALLATION INFORMATION

This section of the manual covers some of the installation issues that a service technician may need to know when servicing a Wolf Dual Fuel Range. If additional installation information is needed after reviewing this section of the manual, please refer to the Installation Guide or contact the Wolf Appliance Customer Service Department.

Electrical Requirements

Required Electrical Supply

- 240 volts AC, 60 Hertz, 30 ampere fused electrical supply for 30" and 36" units.
- 240 volts AC, 60 Hertz, 50 ampere fused electrical supply for 48" and 60" units.
- Separate circuit serving only this appliance.
- Installation site must be equipped with a properly grounded receptacle.

Maximum Connected Load

- 5,200 Watts for 30" and 36" units.
- 10,000 Watts for 48" and 60" units.

Minimum Electrical Wire Size

30" and 36"

- L1 and L2 - 12 AWG
- Neutral - 16 AWG
- Ground - 12 AWG

48" and 60"

- L1 and L2 - 8 AWG
- Neutral - 12 AWG
- Ground - 10 AWG

The unit is designed with a terminal block on the rear of the range. The terminal block allows for 3-wire or 4-wire installation. For a 4-wire installation, the ground strap from the unit to the terminal block must be cut. Two concentric knockouts (*on the terminal block*), are provided to allow a certified electrical contractor to wire the range directly to a junction box.

The terminal block will also accept an appliance power cord. The power cord must be sized correctly for the units voltage and amperage.

Please refer to state, municipal and local codes for the best means to connect the appliance to the electrical power supply.

WARNING

A SHOCK HAZARD COULD EXIST IF THE ELECTRIC RECEPTACLE OR THE POWER CORD ARE NOT PROPERLY GROUNDED AND POLARIZED.

CAUTION

The appliance may experience ignition problems if not properly grounded and polarized.

Gas Requirements

Wolf Dual Fuel Ranges are manufactured to work with natural gas or LP gas (Liquid Propane gas). The model / serial rating plate, located on the bottom of the control panel assembly just above the oven door on the far right, has information on the type of gas that should be used. If this information does not agree with the type of gas available, check with the local gas supplier.

Natural Gas Manifold Pressure

Standard natural gas orifices on the appliance are set for 5" WC (Water Column Pressure).

Liquid Propane Manifold Pressure

The standard propane gas orifices on the appliance are set for 10" WC (Water Column Pressure).

Gas Supply Line Size

- 3/4 inch rigid pipe to the range location
- For LP gas, piping or tubing size can be 1/2" minimum.

NOTE: A smaller size pipe on long runs may result in insufficient gas supply.

A CSA design-certified, 3-foot long, 1/2" or 3/4" ID, flexible metal appliance connector is recommended for connecting this range to the gas supply line.

⚠ CAUTION

Do not kink or damage the connector when moving the range

Gas Supply Pressure

- Maximum line pressure for natural gas and LP is 14" WC; 1/2 psi (3.5 kPa).
- Minimum line pressure for natural gas is 7" WC.
- Minimum line pressure for LP gas is 11" WC.

⚠ CAUTION

The maximum gas supply pressure to the regulator should never exceed 14" WC (Water Column Pressure); 1/2 psi (3.5kPa)

Gas Pressure Regulator

To control and maintain a uniform gas pressure in the gas manifold, Wolf gas appliances must be connected to the gas supply line through a pressure regulator. The burner orifices are sized for the pressure delivered by the regulator. Never attempt to operate a Wolf gas appliance without the use of the proper pressure regulator.

Gas Shut-off Valve

The supply line must be equipped with an approved shut-off valve. This valve should be located in accordance to all national, local codes and ordinances. (See Figure 3-1).

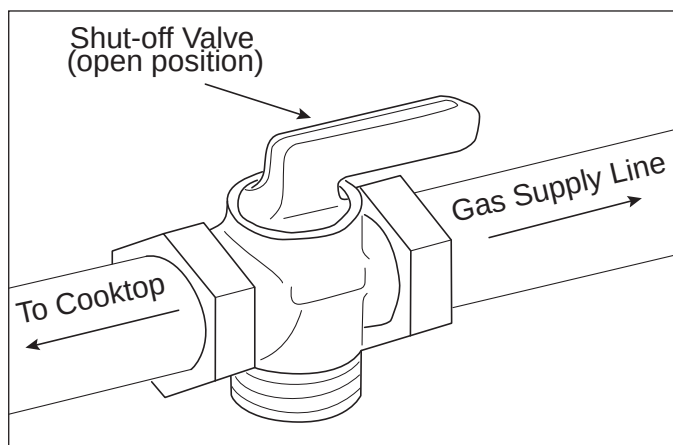


Fig. 3-1. Shut-off Valve

Leak Testing

Use a brush and liquid detergent to test all gas connections for leaks. Bubbles around connections will indicate a leak. If a leak appears, shut off gas valve controls and adjust connections. Then check connections again. Clean all the detergent solution from the range.

An electronic leak detector can also be utilized to test for leaks.

⚠ WARNING

NEVER USE OPEN FLAMES TO CHECK FOR GAS LEAKS. DO NOT USE LIQUID NEAR VALVE STEMS.

Supply Line Connection

All connections must be wrench-tightened. Do not make connections to gas piping too tight. Making the connection too tight may crack regulator and cause a gas leak. Do not allow pipes to turn when tightening fittings, tubing in the burner box may also bend and begin to leak.

Assemble flexible metal connector from gas supply pipe to pressure regulator. Determine fittings required, depending on size of gas supply line, flexible metal connector and shut-off valve. (See Figure 3-2).

Use a pipe-joint compound made for use with natural and LP gas. If flexible metal connector is used, be sure tubing is not kinked.

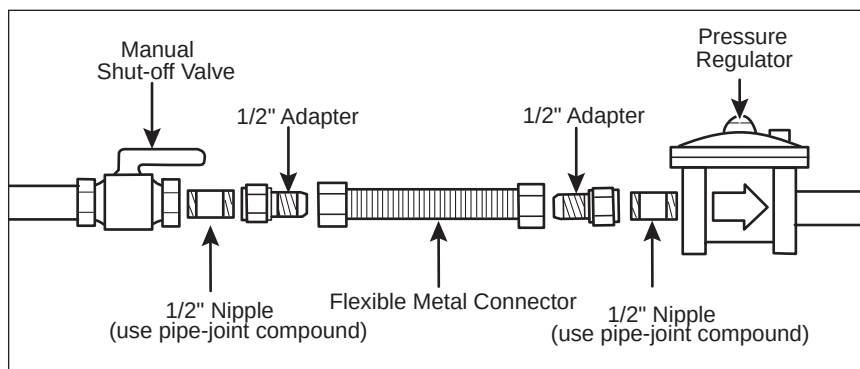
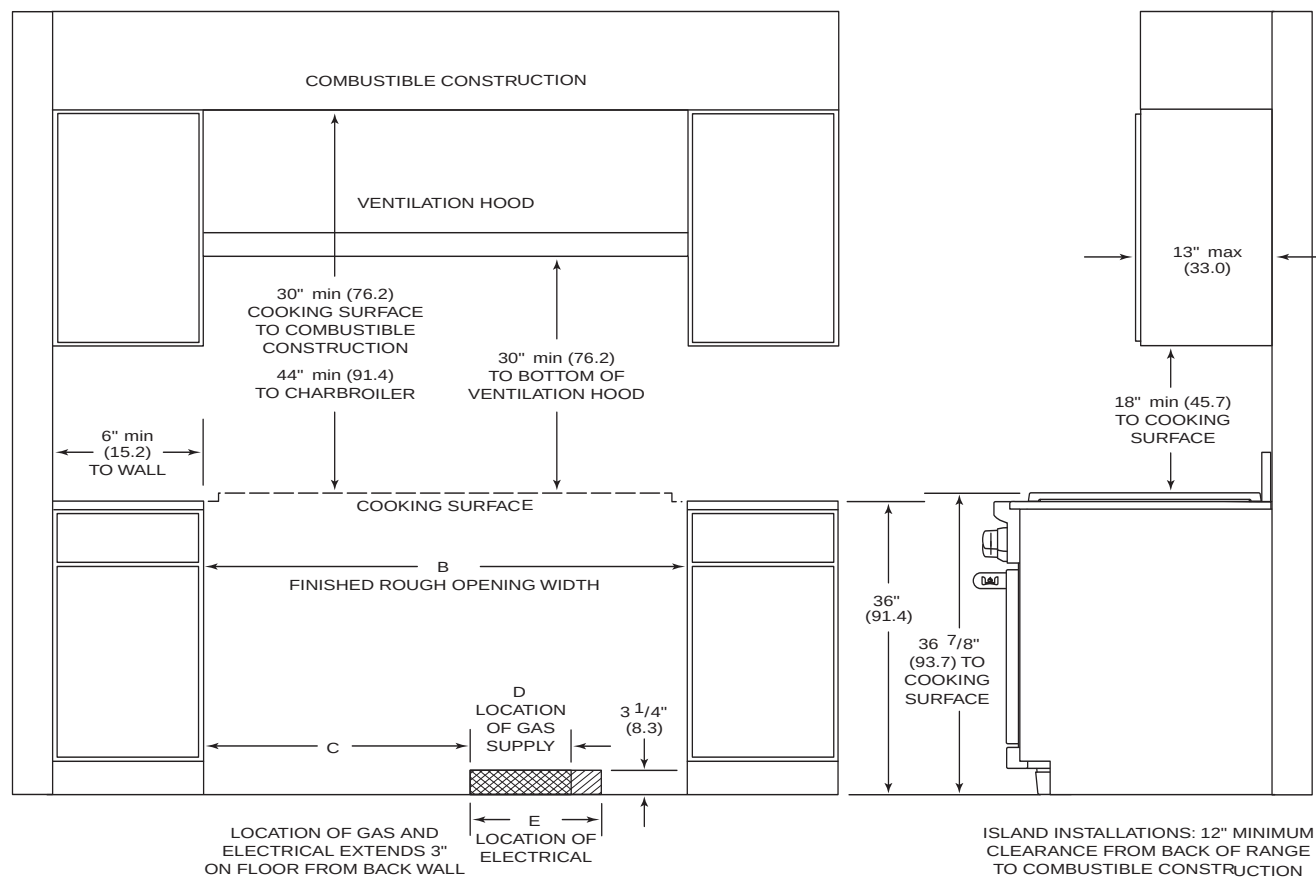
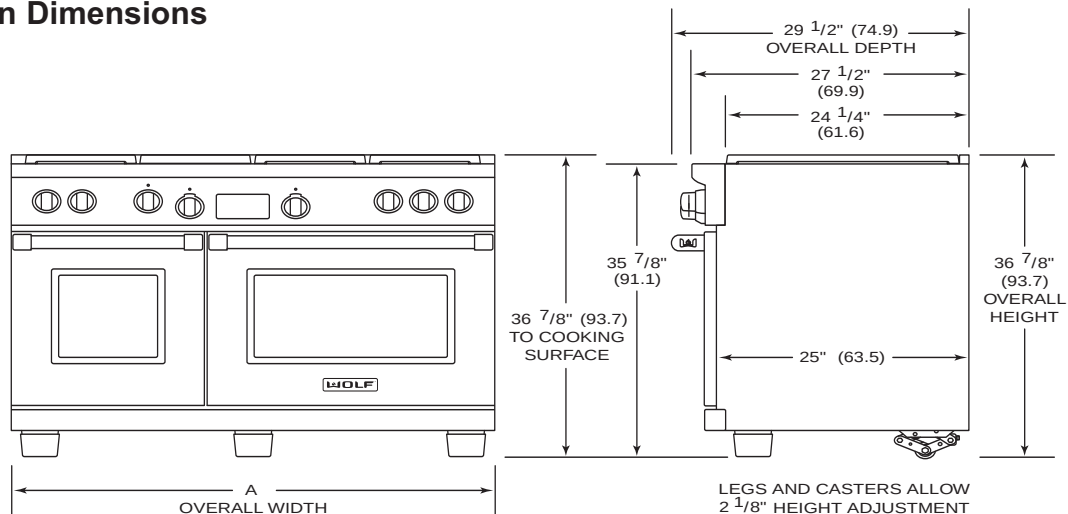


Fig. 3-2. Gas Connection

Installation Dimensions


Installation Dimensions	30" Range	36" Range	48" Range	60" Range
A *Overall width of range	29 7/8"	35 7/8"	47 7/8"	60 1/8"
B Finished rough opening width	30"	36"	48"	60 1/4"
C Dimension from edge of rough opening	8 1/2"	8 1/2"	24"	31"
D Location of gas supply	10"	15"	10"	10"
E Location of electrical	13"	19"	13"	13"

*width may vary to +1/8"

Figure 3-3. Dimension Chart

Anti-Tip Bracket Installation

Raise the unit to desired height using the rear leveling casters and adjusting the front adjustable legs. Try fitting the unit in place to verify the correct height.

Measure from the floor to the top of the range base flange on the back of the unit. Add 1/8" to this dimension, mark this height on the wall behind the unit. This will be the location of the bottom edge of the anti-tip bracket. Try to center the mark between the cabinets.

For 48-inch and 60-inch ranges, care must be taken to verify that the anti-tip bracket does not interfere with the inner cavity supports. Locate a stud or other solid mounting source, install the anti-tip bracket at the same level as this line. Push the unit back, ensure the rear base flange fits under the anti-tip bracket. (See Figure 3-3).

⚠ WARNING

ANTI-TIP BRACKET MUST BE ANCHORED TO WALL BEHIND UNIT SO IT IS DIRECTLY ABOVE THE BASE FLANGE OR APPLIANCE MAY TIP FORWARD

Unit Leveling

Rear Caster Adjustment

The Dual Fuel range has rolling casters, which allows easy movement of the range by picking up on the front of the unit. The range comes from the factory at an overall height of 35-7/8" (from floor to the top of the bullnose) before any height adjustment. The casters allow for 2-1/8" height adjustment.

NOTE: Do not lift by oven door(s) handle.

To raise or lower rear caster, reach directly underneath unit to rear caster and attach a 3/4" socket with an long extension onto the adjusting bolt located on front of caster assembly. Now, attach a drill or socket wrench to extension and turn bolt left or right to raise or lower. (See Figure 3-6)

Front Leveling Leg Adjustment

Dual Fuel ranges can be leveled at the front by turning the front leveling legs as indicated in figure 3-6. The legs allow for 2-1/8" height adjustment.

To raise or lower front leveling legs, use an adjustable wrench to turn the leveling leg nut to the left or right to raise or lower. (See Figure 3-6).

The stainless steel cover over the leveling leg floats up or down to conceal the leveling leg from view. If leveling leg is still visible and the stainless steel cover is all the way down, replace the stainless steel cover with a longer version, available as a sales accessory.

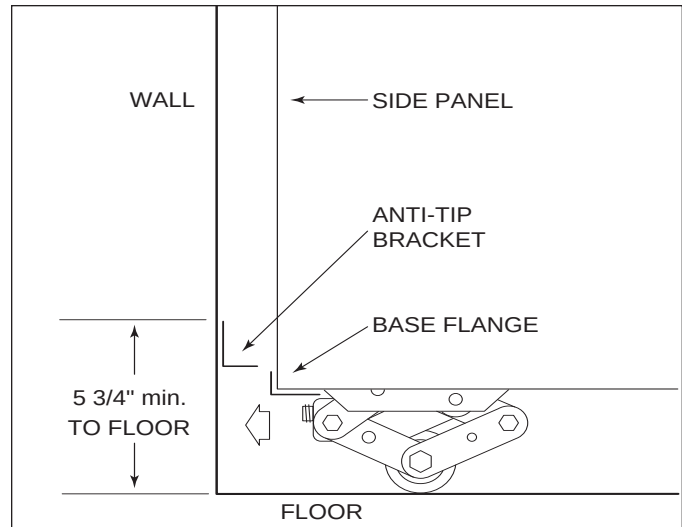


Figure 3-4. Anti-Tip Installation

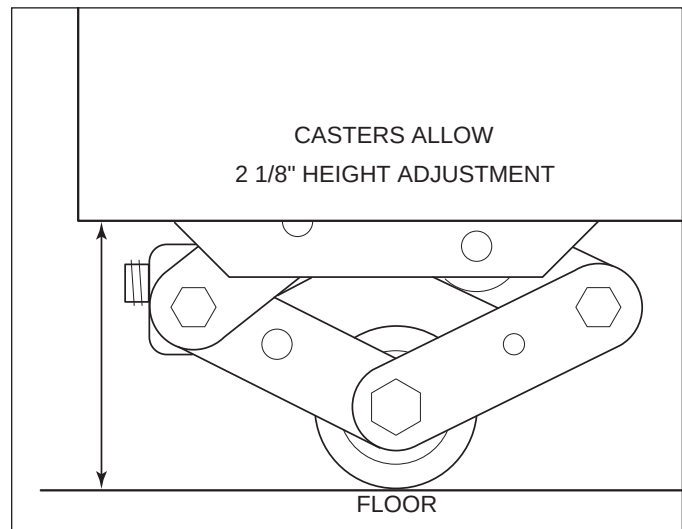


Figure 3-5. Caster Height

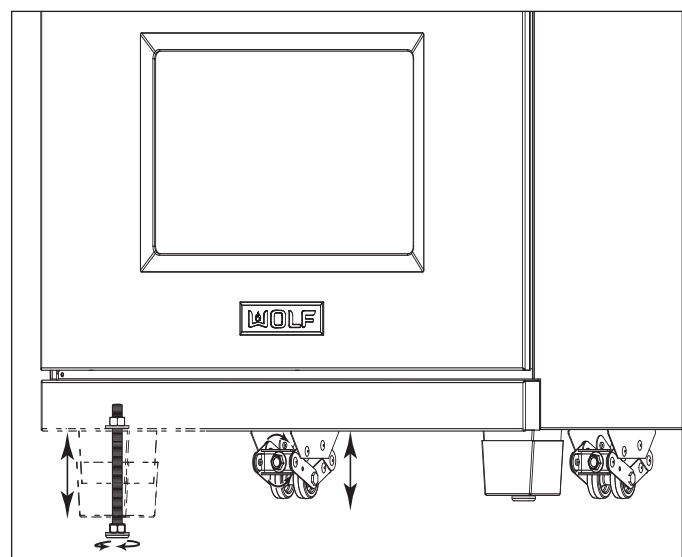


Figure 3-6. Caster and Leveling Leg Adjustment

SECTION 3

OPERATION INFORMATION

THEORY OF OPERATION

A service technician should understand how a gas appliance operates before attempting to service the appliance. This section provides descriptions of the different types of fuel gases and explains gas heating values. A definition of specific gravity of gas is given along with its characteristics and effects. Gas combustion principals are explained and gas burner components are described and illustrated. The end of this section contains illustrations which demonstrate basic cooking appliance theory of operation.

Types of Fuel Gas:

Gases used to supply heat energy are called fuel gases. Common fuel gases are not simply one kind of hydrocarbon, they are mixtures of hydrocarbon gases. They contain other gases as well, such as free hydrogen, carbon dioxide and nitrogen. As an example natural gas might contain 85% methane, 12% ethane and 3% of other gases. The presence of each of these gases in the fuel gas has some effect on the nature of the gas.

Some common fuel gasses are methane [CH_4], ethane [C_2H_6], Propane [C_3H_8] and butane [C_4H_{10}]. Propane and butane are nearly odorless. Natural gas that is processed to remove condensables and moisture, has little or no odor and no color. Odorants are added to natural gas before distribution to aid in leak detection. A common odorant used is a colorless liquid containing sulfur compounds.

Heating Value of Gas:

Heat energy produced when burning a fuel gas is commonly expressed in British Thermal Units (BTU). One BTU of heat will raise the temperature of one pound of water one degree Fahrenheit.

The more carbon and hydrogen atoms in each molecule of a fuel gas, the higher its heating value. Natural gas which is high in methane has a heating value of about 950 to 1150 BTU per cubic foot. The variance is due to the various other substances found in natural gases. The more ethane, propane or butane in the gas raises the heating value. Propane, or LP gas, has a heating value of about 2500 BTU per cubic foot, and butane about 3200 BTU per cubic foot.

Specific Gravity of Gas:

The specific gravity of a gas is the weight of one cubic foot, or the gas compared to one cubic foot of dry air. When stating the specific gravity of a gas, a pressure and temperature must be clearly stated. In the gas industry, the standard conditions of pressure and temperature are 30.0 inches of mercury and 60° F. A pressure of 30.0 inches of mercury will sustain a column of mercury 30 inches high in a tube with a vacuum on top of the column. Since air is used as the reference, its specific gravity is always 1.0. This value of 1.0 has no direct physical meaning with regard to air, such as its density. It is only a relative number or ratio used to express specific gravity of other gases.

The specific gravity of a gas will determine if the gas will rise or fall when released into the air. Natural gas will rise since its specific gravity is less than 1.0 at 0.4 to 0.8. Propane has a specific gravity of 1.5 and butane 2.0. These gases will fall when released into the air. They sometimes collect in low spots into pools which become a hazard if open flames are present.

In addition, specific gravity has two other characteristics. It has an important effect on the flow of gases through orifices, and hence the rating of the burners. Gas flow through an orifice is dependent upon the orifice size and the gas pressure upstream of the orifice. More of a lighter gas will flow through a given orifice size than a heavier gas at the same gas pressure. This effect is taken into account in tables and calculators used to select orifice sizes for burners.

The gas flow in pipes is also affected by specific gravity. At a given pressure at a pipe inlet, more lighter gas will flow through a pipe than a heavier gas.

Principals of Gas Combustion:

Combustion

When oxygen acts with a substance to produce large amounts of heat rapidly.

Requirements for Combustion

There are three required elements for combustion to occur; Fuel (Gas), Oxygen (Air) and Heat (Ignition Temperature, which for gas is between 1100°F/593°C and 1200°F/649°C). All must be present. Removing any one of the three and combustion will cease.

Chemistry of Combustion

Combustion of gas is a chemical reaction between fuel gas and oxygen. The basic elements of common fuel gasses are hydrogen [H] and carbon [C]. When hydrogen burns, water vapor [H₂O] is produced. Complete burning of carbon in fuel gases form carbon dioxide [CO₂] and water vapor [H₂O].

Controlled Combustion

Controlled combustion takes place when gas and air are supplied at proper rates to assure complete combustion of the gas in a steady flame. When a gas appliance is operating properly, burning starts at the burner ports. Gas flow is controlled by gas orifice size and gas pressure upstream of the orifice. Air is mixed with the gas before it passes through the burner ports. This added air is called "Primary Air". The remaining air required for complete combustion is supplied to the burner at the point of combustion and is called "Secondary air".

Adjustments of the gas-to-air ratio and the secondary air supply is the key to obtaining stable blue flames at a burner. Proper amounts of primary and secondary air are required for quiet and efficient burner operation and for complete combustion of the gas. Air Shutters or other devices provide control of primary air. Inlet opening and flue outlets control Secondary Air flow.

Total air

In an ideal situation, primary and secondary air is all that is needed (for the oxygen required) to burn the gas, but some additional air is required to assure complete burning of the gas. The total air, "primary", "secondary" and "excess" are expressed as percentages of the amount needed. About ten cubic feet of air is required to completely burn one cubic foot of gas. For this reason an appliance should not be operated in an air tight home.

Limits of Flammability

Not all air-to-gas mixtures will burn. Mixtures with 0% - 4% natural gas in air are too lean to burn. Mixtures of 4% - 14% natural gas in air can burn with a controlled flame. Flammability limits come into play when primary air adjustments are made on burners. If too much primary air is used, the mixture may become too lean and fall below flammability limits, thus preventing combustion.

Incomplete Combustion (*Causes and Effects*)

To obtain complete combustion, sufficient amounts of air must be supplied to the process. This air must have a reasonably normal oxygen content. Complete burning of gas produces harmless carbon dioxide gas and water vapor. If the air supply is insufficient, incomplete combustion occurs resulting in the formation of toxic by-products, such as carbon monoxide [CO] or aldehydes.

Carbon monoxide is colorless and odorless. Inhaling carbon monoxide in sufficient quantities could cause death by reducing oxygen levels in the blood.

Aldehydes, which are equally dangerous, have a sharp and penetrating odor which is easily detected by smell at very low concentrations. The odor caused by aldehydes should not be confused with odorants added to natural gas. The absence of aldehydes does not assure that carbon monoxide is not present. However, if the odor of aldehydes is present, then carbon monoxide is virtually always present.

Gas Burner Operation

A gas burner is a device to burn gas under control in order to produce useful heat. Primary air is brought into the burner from outside of the appliance at atmospheric pressure. The gas jet streaming from the orifice draws primary air with it into the burner.

The gas/air mixture, combined with a spark at the burner port(s) and the secondary air creates a controlled burn.

Burner Components: (PTS 17000000)

Burner Head - The component containing the burner ports where the gas/air mixture ignites. The burner ports are distributed in a useful pattern to optimize heat transfer. The flames should be spread so they can be easily reached by secondary air and provide a stable blue flame.

Venturi - Threaded brass pipe that threads into the jet holder through the distribution rings which narrows and then flares out again. This pipe helps maintain proper and constant primary air injection.

Inner Distribution Ring - Routes the gas from the simmer orifice hood to the simmer port holes located on the burner cap.

Outer distribution Ring - Routes the gas from the main burner orifice hood to the main burner port holes on the top of the burner head.

Jet Holder - This component is mounted to the burner mounting bracket and to the burner box. The main burner orifice is threaded into the jet holder as well as the venturi. It is the main support for the burner components.

Gas Orifice - An opening or hole which regulates or limits the amount of gas flowing to a burner. Gas flow rate (volume) depends on the size of the orifice (hole) and the gas pressure at the inlet of the orifice.

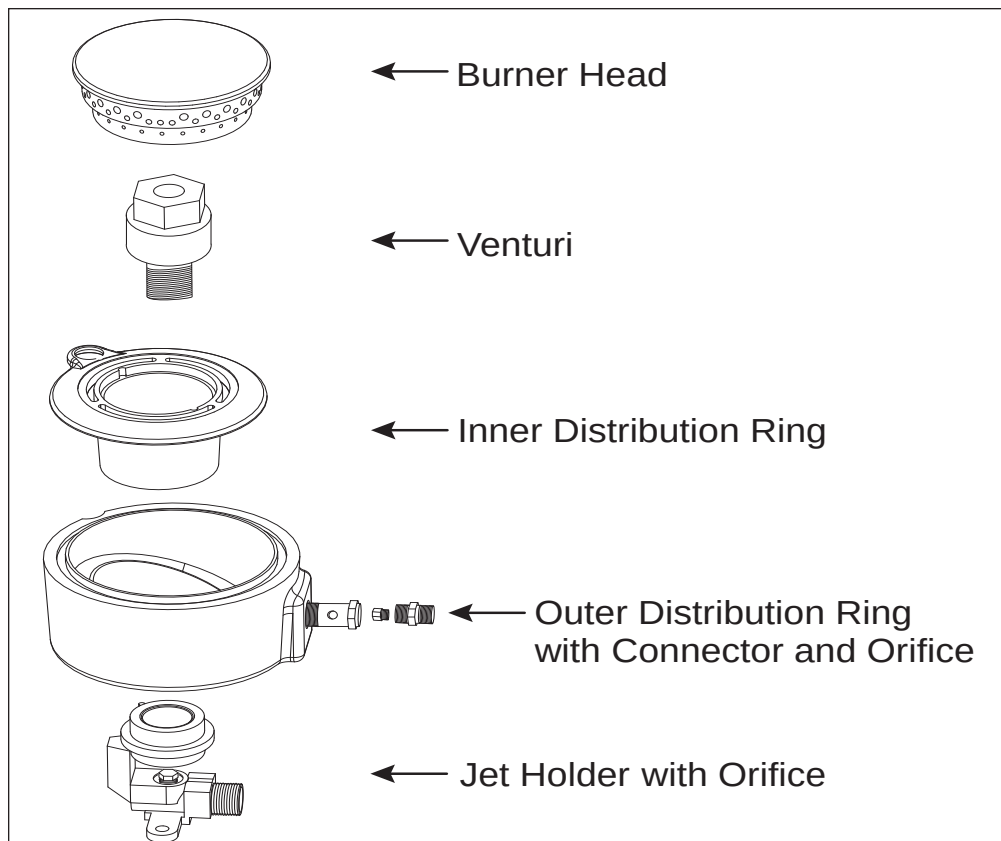


Figure 3-1. Burner Components

Burner Components: SWS 17000000

Burner Cap - Provides the upper portion of the ports required to create a combustible mix and proper flame quality of the burner and the decorative top for the burner with a black porcelain coating.

Burner - Contains the burner ports where the gas/air mixture ignites. The burner ports are distributed in a useful pattern to optimize heat transfer. The flames should be spread so they can be easily reached by secondary air and provide a stable blue flame. The burner also incorporates the Inner Distribution Ring, which Routes the gas from the simmer orifice to the simmer port holes, and the Outer Distribution Ring, which routes the gas from the main burner orifice to the main burner port holes.

Venturi - Helps maintain proper and constant primary air injection.

Electrode - The Electrode supplies the spark to ignite the burner. The electrode senses the flame, once the burner is ignited and will stop sparking. If no flame is sensed, and the valve is opened, the electrode will start sparking to re-ignite the flame. This is part of the auto-reignition system.

Orifice Holder - This component is mounted to the burner mounting bracket and to the burner box. The Simmer and Main orifice is threaded into the orifice holder and routes the gas to the appropriate ports of the burner. It is the main support for the burner components.

Simmer Orifice and Main Orifice - An opening or hole which regulates or limits the amount of gas flowing to a burner. Gas flow rate (volume) depends on the size of the orifice (hole) and the gas pressure at the inlet of the orifice.

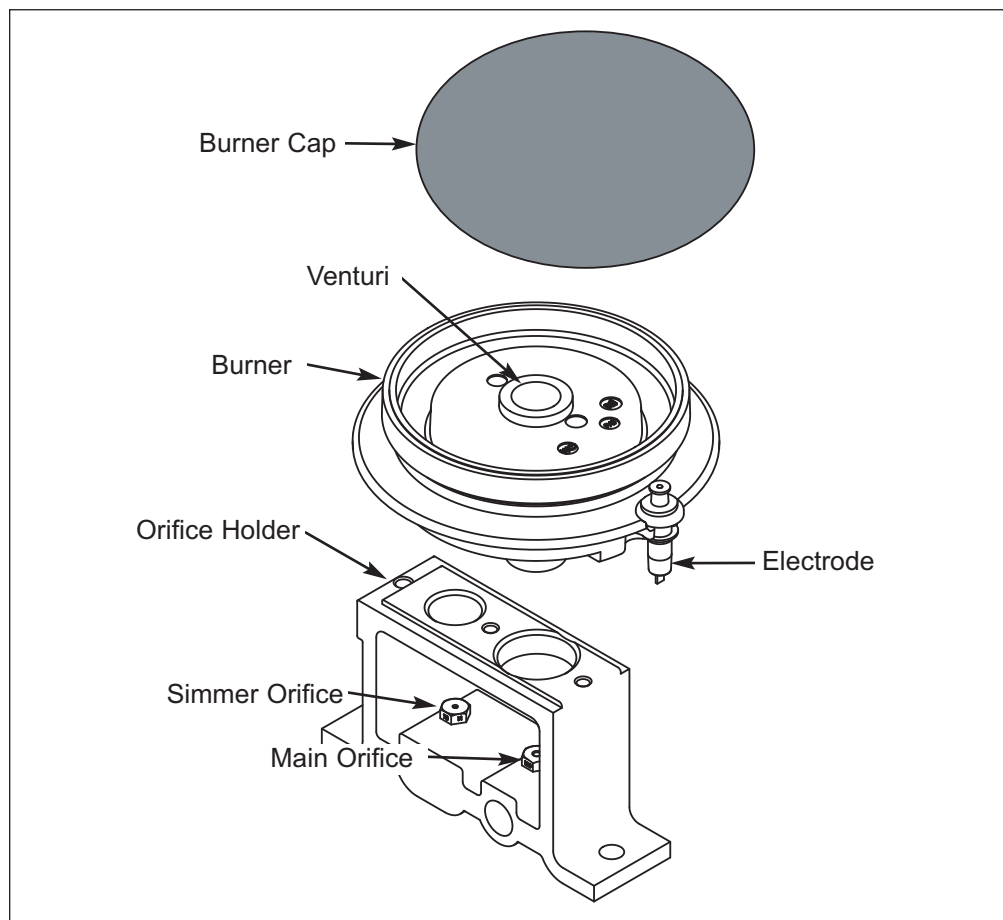


Figure 3-1A. Burner Components

Types of Burners:

Blue Flame Burners

All Wolf open surface burners, including the French Top burners are blue flame burners. With this type of burner, primary air is mixed with the fuel gas before the gas reaches the burner ports. An orifice is used to regulate gas flow to the burner and is sized to draw exact amount of air into the burner body. Air, which is mixed with the gas inside the burner body then exits the burner ports located in the burner head, where it is ignited. Secondary air is air from around the flames. The flame produced has several zones, each represents a stage in burning of the gas. The burner tip has a thin dark blue cone called the inner or primary cone. A lighter cone called the outer cone, surrounds the inner cone. Air around the flame diffuses into the flame to burn at the outer cone. If conditions are perfect, products from the inner cone burn here. The final products of burning are carbon dioxide and water vapor. An outer mantle surrounds the outer cone where burning is usually completed. It is nearly invisible and glows only because of the high temperature of the final combustion.

Infrared Burners

Wolf dual fuel ranges also use infrared burners. The under-fired application for the charbroiler and the griddle uses a porous refractory ceramic tile burner. (See Figure 3-2) With this type of burner, a substantial amount of energy output is in the form of infrared radiant energy. With infrared heat, thermal energy is transmitted through space without heating the medium through which it travels. Infrared energy is usually not affected by air flowing between the burners and heated surfaces because of the burner's numerous and tiny flames. This type of heat is very efficient and compact. The under-fired refractory infrared burner requires 100 percent primary air and is designed to have a hot glowing burner surface. The flame burns close to the burner surface at a high temperature.

NOTE: There is no shutter on infrared burners for adjusting the primary air and there is no change in orifice size for different altitude.

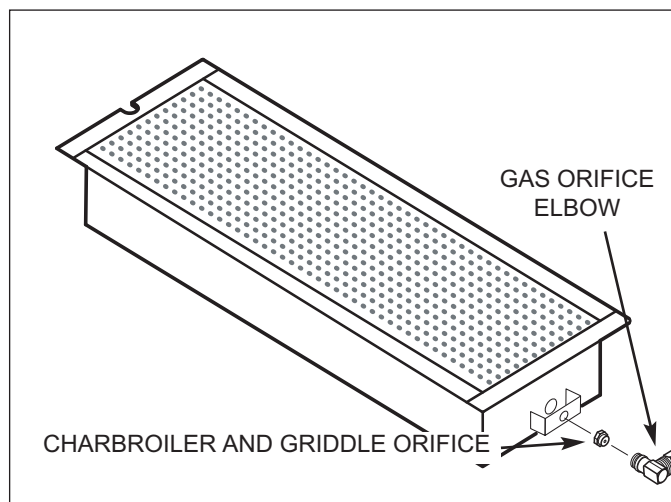


Figure 3-2. Infrared Burner

OPERATION OF THE DUAL FUEL RANGE

Surface Burners

A spark electrode ignites each surface burner. This control eliminates the need for continuous open flame pilots. For added safety and convenience, each burner is designed with an electronic re-ignition system. This feature enables any burner to automatically re-light in the event it is accidentally extinguished.

This unique dual stacked burner design combines all the burner parts in one configuration. Large burners provide a Btu/hr rating of 15,000 on HIGH and a High Simmer Btu/hr rating of approximately 3300. Small burners provide a Btu/hr rating of 9,200 on HIGH and a High Simmer Btu/hr rating of approximately 1600. All burners have simmer settings.

A distinguishing feature of the Wolf low Btu/hr control is its constant, low heat output ***without continuous ignitions***. Flame diameter remains full size, only the heat output is lowered. This is the ultimate control for simmering food.

After removing burner parts for any reason, it is extremely important that the burners are re-assembled correctly. The burner cap has a special orientation and should be seated flatly (see Figure 3-3 and Figure 3-3A).

Rotate burner cap until you feel it drop and click into position.

This patented dual stacked burner configuration makes it possible to enjoy cooking at full flame as well as maintaining control while simmering at the lowest flame setting.

Grate Placement

Low profile cast iron grates are designed for a close fit. This enables pans to move easily from one burner to another without having to lift the pan or have it tip over between the grates. Each grate sets securely on dimples on each corner of the cooktop pan. Continuous grates are interchangeable.

Control Knobs

The control knobs are positioned to correspond to the burners they regulate. The knobs on the far left regulate the burners on the left side. Conversely, the knobs on the far right regulate the burners on the right side.

Burner Lighting

To light a burner push in and turn the corresponding control knob counter clockwise to the HIGH setting. You will hear “clicking” and see the burner ignite. Once the burner is lit, continue turning the knob counter clockwise to any one of the settings, HIGH through LOW.

To select a simmer setting, turn the knob to the LOW setting. You will feel a stop-detent in the knob rotation. Push in on the knob, continuing to turn it counter clockwise. This moves the flame to the second tier. Now, select any variation within the SIMMER flame settings, HIGH through LOW.

Each knob is designed to be a “push-to-turn knob”. Although this is a child-safe design, children should never be left unattended in the kitchen when the range is in use.

Power Outage

In case of a power outage, the surface burners can be re-lit manually. Turn the control knob to “high” and place a flame near the igniter to light the burner.

DSI board operation (Griddle & French Top units only)

The DSI board serves the purpose of igniting the griddle burner, detecting the presence of this flame, and provides the signal to open the gas valve. When the thermostat is turned on, the red (call for heat) light comes on and the gas solenoid is opened. At this time you will hear a series of sparks and it will begin to check for the presence of a flame. If the igniter probe does not detect flame within a short period of time, the gas valve solenoid shuts off and there will be a delay before trying to reignite (this allows time for the non-combusted gas to dissipate). This process will reoccur in three sets and if it fails a third time the DSI board will shut down and will wait for the thermostat to be turned off and on before attempting to reignite. If flame detection is lost during operation this board will also allow time for the non-combusted gas to dissipate, but will attempt to reignite after this delay.

Charbroiler

This optional feature is designed with an infrared burner to give the highest quality and most efficient method of gas grilling. These burners become an orange-red color at the surface of the ceramic tiles. When the tiles are glowing, they transfer an intense heat to the food being grilled. This chars the outside of the food and leaves the inside tender and juicy.

The infrared burner is designed to operate at a full heat output of 16,000 BTU/hr. It is recommended using the Wolf blank-off plate when grilling most foods.

Charbroiler Operation

- Turn on the ventilation hood prior to using the charbroiler.
- If the knob is not set fully at "HIGH", the burner may turn blue and the automatic igniter will begin sparking. Turn the knob back to "HIGH".
- Preheat grill for about ten minutes before adding the food. The tiles will have an orange glow.
- For the 22-inch charbroiler, there are two separate burners with separate control knobs, which act independently of each other.

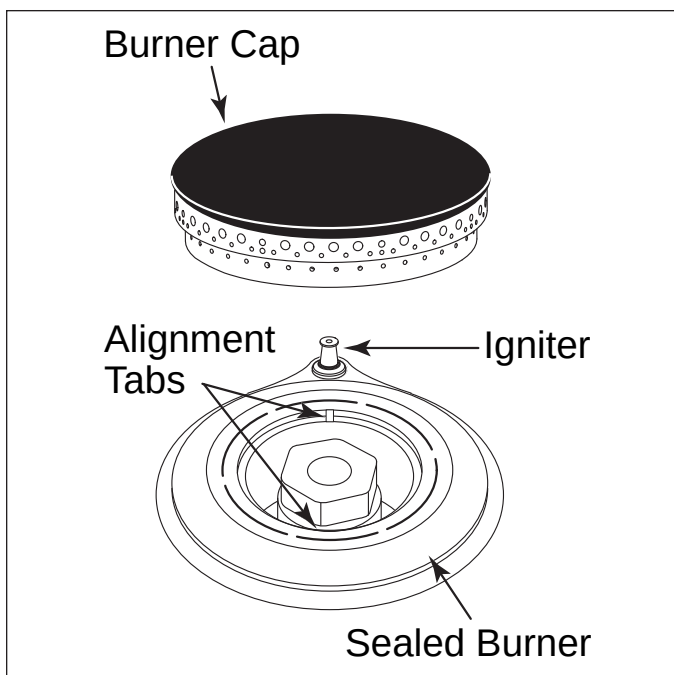


Figure 3-3. Stacked Dual Burner Assembly (PTS 17000000)

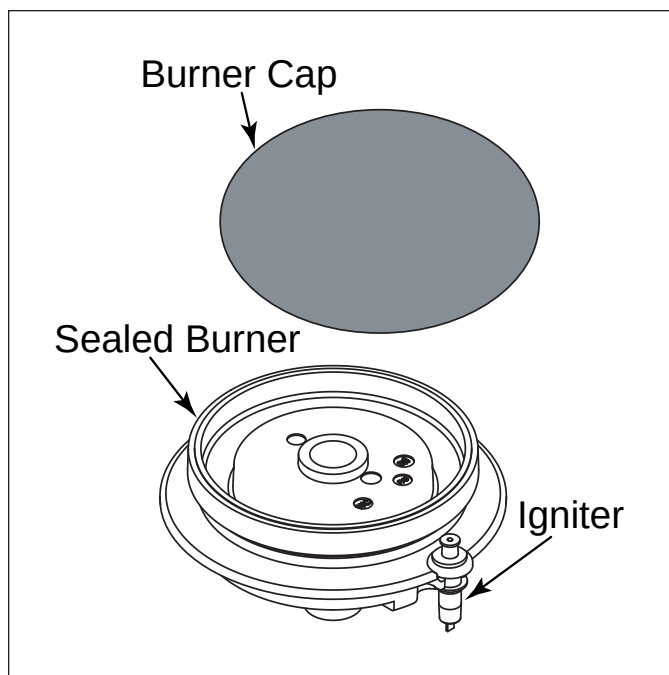


Figure 3-3A Stacked Dual Burner Assembly (SWS 17000000)

Cleaning and Maintenance

Part Identification	Material	Care Recommendation
Burner Pan Although resistant to most stains, it is not totally impervious to damage. Salt and some cooking liquids may pit and stain surface. Always remove these spills immediately. Avoid using abrasive cleaners; they will permanently scratch the surface.	Exterior Finish Porcelain Steel	<i>General care:</i> Use a clean cloth or sponge, wipe with warm water and mild detergent. Rinse and dry immediately. Apply protective polish, always in the same direction. <i>Spray degreaser:</i> Removes fingerprints and greasy spatters. Spray on a cloth and wipe surface. Buff dry immediately to avoid streaking. <i>Protective polish:</i> Apply to surface to maintain luster and protect from some food stains <i>Hard water stains:</i> Use white vinegar and water.
Burner Cap	Porcelain Enamel (matte finish) <i>Never wipe a warm or hot porcelain surface with a damp sponge; it may cause chipping or crazing (tiny hair-like cracks)</i>	Cool first. Wash in warm water with liquid detergent or mild abrasive cleaners. Foods high in acid or sugar content, such as milk, tomatoes, sauerkraut, fruit juices and pie filling, may pit or craze the surface. Remove as soon as possible. Do not cook the spill on again.
Burner Grates	Porcelain-Coated Cast Iron	Remove from cooktop and place on a flat surface near the sink. <i>Non-abrasive cleaners:</i> Hot water and liquid detergent, paste of baking soda and water, plastic pad or sponge. <i>Mild abrasive and abrasive cleaners:</i> Use sparingly.
Control Knobs	Metal	<i>General care:</i> Wipe each knob with a damp cloth and mild soap and water; rinse and dry. Never soak or use abrasive cleaners; they will scratch the finish and remove the markings.
Spark Igniters	Ceramic	Keep dry. Never spray water or cleaner directly on the igniter. When cleaning around the surface burner, be careful that the cloth does not catch on the igniter and damage it.

Charbroiler Cleaning and Maintenance

Part Identification	Material	Care Recommendation
Blank-Off Plate (If Applicable)	Stainless Steel	Wash with hot water and detergent. Use a soap-filled scouring pad to remove as much cooked-on soil as possible. The plate will turn a metallic blue color due to high heat; this is a permanent change.
Charbroiler Frame	Stainless Steel	Remove from the range. Soak in hot water and dish detergent. Wash thoroughly, scrubbing with scouring pad, if needed. Rinse and dry.
Grate	Porcelain Coated Cast Iron	When cool, lift off and set in the sink. Pour very hot water over the cooked-on residue. Cover with wet dish towels and pour more hot water over it. Allow the hot, moist conditions time to help loosen the residue. Remove remaining soil with a soap-filled scouring pad. Rinse and dry.
Igniter	Ceramic	Avoid contact with the igniter; it is fragile and can chip or break.
Mesh Screen (If Applicable)	Stainless Steel Wire	Use a wire brush to loosen any charred food particles.

Griddle

The cast iron griddle plate operates at 18,000 Btu/hr. It is thermostatically controlled which means once the set temperature is reached, the heat cycles to hold that setting. Prior to use it is necessary to "season" the griddle to protect the surface from moisture. This process will change the appearance.

NOTE: Seasoning does not create a non-stick surface. The use of additional oil is necessary during cooking.

Griddle Operation

- To heat the griddle, push in the knob and turn counter clockwise to desired temperature. It is normal to hear a clicking sound. This is the electronic ignition lighting the burner. When the burner is lighted, the thermostat will control the temperature.
- Preheat for approximately 10 to 15 minutes. When the griddle is preheated, the griddle indicator light will go out. The light will cycle on and off as the thermostat needs more heat to maintain the set temperature. This will allow heat to be evenly distributed and reach the set temperature.
- For the 22-inch griddle, there are two separate burners with separate control knobs, which act independently of each other.
- To turn off the griddle, turn the knob clockwise to the "OFF" position.

Griddle Care

- Use a metal spatula and scrape grease into the grease collection tray.
- When the surface has cooled, wipe it with a paper towel to remove excess grease or oil.
- Clean grease collection tray after each use. Do not allow grease to accumulate in the tray and become a fire hazard.
- To remove the drip tray, gently pull the tray towards yourself to lift it out. Clean drip tray with soapy water and a clean cloth.

Time of Day Clock

The clock can be visible on the display during all modes. To set clock, press the CLOCK key on display panel, "CLOCK" will flash on and off. Next, press the up or down arrow key to increase or decrease the time. Stop when correct time of day shows in display window. (See Figure 3-4). Now, press the CLOCK key or ENTER key to set clock. Two beeps will be heard when time has been entered.

NOTE: By holding down desired arrow key, counter will rapidly toggle through the numbers.

NOTE: Time will change from am to pm by passing the 12:00 mark.

Oven Timer

The oven has a timer that operates independently from the oven controls. Once a time is set in hours and minutes, the countdown is seen in the display window. Only the last minute counts down in seconds. To initiate oven timer, press TIMER key. (See Figure 3-5). Next, press the arrow up or arrow down key to increase or decrease desired amount of cooking time in hours and minutes. (See Figure 3-5). Then, press ENTER key or TIMER key to start timer. Two beeps will be heard. The oven will chime, time will continually flash when timing is complete. To exit oven timer function, press TIMER key, then press CLEAR key twice to clear time and return to clock.

FIELD OPTION MODE

Three Field option modes allows for the user to adjust or change specific option's of the ECH and oven controller, such as User Preference Offset, 12 hour to 24 hour clock and Fahrenheit to Celsius temperature.

UPO (User Preference Offset)

This option allows the user to offset a specific oven temperature $\pm 35^\circ$ in 1°F (Fahrenheit) increments. To initiate, press and hold the CLOCK key for 5 seconds. The current UPO will be displayed in the temperature readout knob, turning the knob at this point you can change the UPO. Turn the knob to the left or right to increase or decrease the UPO in 1° increments as much as $\pm 35^\circ$. (See Figure 3-6 and 3-7).

Changing Clock to 24 Hours

To set 24 hour clock, press and hold CLOCK key on display panel for 5 seconds. (See Figure 3-8). Now, press CLOCK key to change from 24 hour to 12 hour or vice versa. (See Figure 3-8). Then, press the ENTER or after short delay the clock will set by default.

Fahrenheit to Celsius

The oven can be changed from Fahrenheit to Celsius temperature or visa versa. To initiate, press and hold the CLOCK key on display panel for 5 seconds. Now, press the COOK-TIME key to change from $^\circ\text{F}$ and $^\circ\text{C}$ or visa versa. (See Figure 3-9). Next, press the ENTER key on the display panel or after short delay $^\circ\text{F}$ or $^\circ\text{C}$ will set by default.

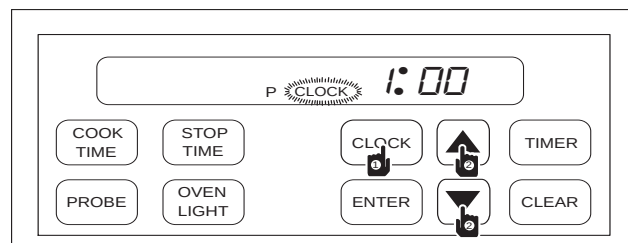


Figure 3-4. First, Press and Hold CLOCK Key for 5 Seconds. Then, Press Arrow Up or Arrow Down Key to Set Time

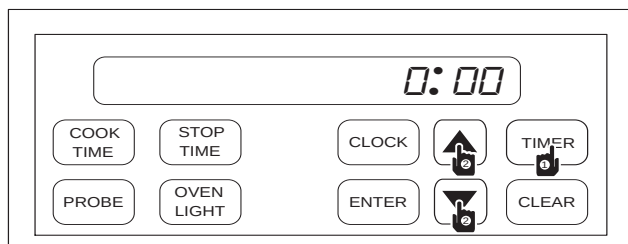


Figure 3-5. First, Press TIMER Key. Then, Use Arrow Up or Arrow Down Key to Set Desired Amount of Time

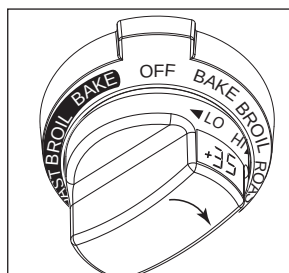


Figure 3-6. Turn Knob to Right to increase temperature

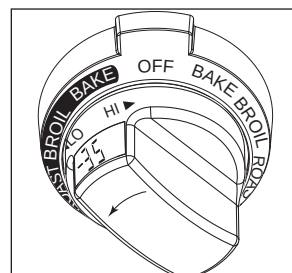


Figure 3-7. Turn Knob to Left to decrease temperature

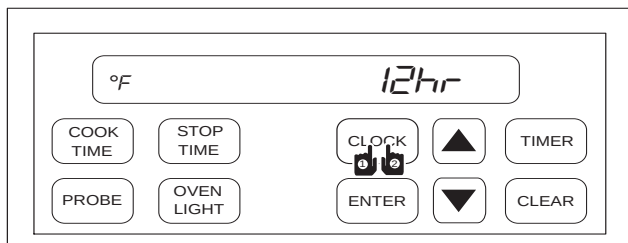


Figure 3-8. First, Press and Hold CLOCK Key for 5 Seconds. Then, Press CLOCK Key to toggle between 12hr and 24hr

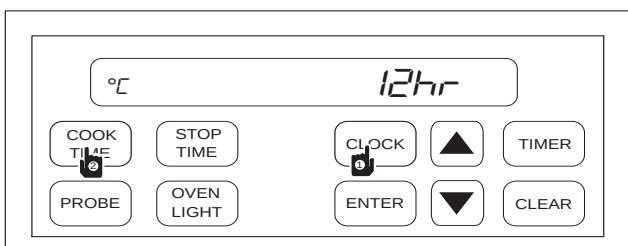


Figure 3-9. First, Press and Hold CLOCK Key for 5 Seconds. Then, Press COOK TIME Key to Toggle between $^\circ\text{F}$ and $^\circ\text{C}$

COOKING MODES

The dual fuel oven has multiple cooking modes, each dedicated to give the best results for a specific kind of cooking. The dual fuel oven also has some unique cooking features.

Most oven modes have a temperature setting of 170°F (75°C) to 550°F (290°C). The exception is Broil, Convection Broil and Proof mode.

NOTE: Bake Stone Element must be removed during all cooking modes excepts Bake Stone Mode.

Bake Mode

Both the hidden bake element and broil element are used to heat the air and cycle to maintain temperature. This mode is best for single rack cooking, primarily bakery foods. To initiate the Bake Mode, turn oven control knob bezel counter clockwise to BAKE. (See Figure 3-10). Temperature is preset to 350°F (175°C). To change oven temperature, immediately turn temperature readout knob to the right to increase oven temperature or to the left to decrease. (See Figure 3-11 and 3-12). Oven will turn on after 2 seconds or press ENTER key. To exit Bake Mode, turn oven knob bezel to OFF.

NOTE: Always preheat for Bake mode.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

NOTE: Temperatures below 150°F (65°C) are displayed by the word "Lo" in the oven knob display window during preheat.

NOTE: Oven will chime when oven preheat temperature has been achieved.

Bake Stone Mode

A specially designed rack and heating element are used for this mode to produce a hot oven environment necessary for baking on a ceramic stone. A heating element is added under the stone to enhance the heat from both convection fans.

To initiate Bake Stone Mode, turn the oven control knob bezel clockwise to STONE. (See Figure 3-14). Temperature is preset at 400°F (205°C). To change temperature, immediately turn temperature readout knob to right to increase oven temperature or to left to decrease. (See Figure 3-15 and 3-16). Oven will turn on after 2 seconds or press ENTER key. To exit Bake Stone Mode, turn oven knob bezel to OFF.

NOTE: "Stone" will appear and flash on hidden display and a beep tone will be heard 30 seconds if the bake stone element is not inserted into receptacle.

NOTE: Always preheat 25 minutes for Bake Stone mode.

Oven will chime when oven preheat temperature has been achieved.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

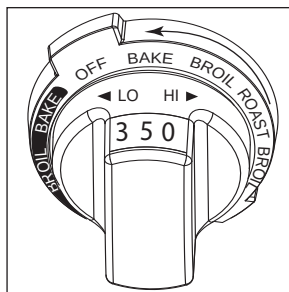


Figure 3-10. Turn Control Knob Bezel Counter Clockwise to BAKE

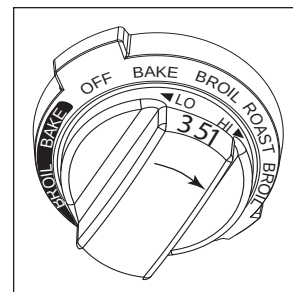


Figure 3-11. Increase Preset Temperature, Turn Knob to Right

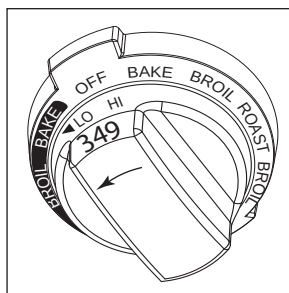


Figure 3-12. Decrease Preset Temperature, Turn Knob to Left

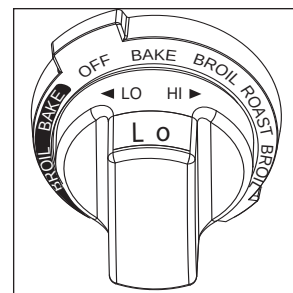


Figure 3-13. Lo appears in display window if temperature is below 150°F

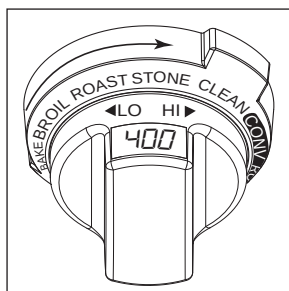


Figure 3-14. Turn Control Knob Bezel Counter Clockwise to STONE

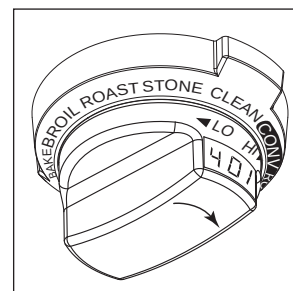


Figure 3-15. Increase Preset Temperature, Turn Knob to Right

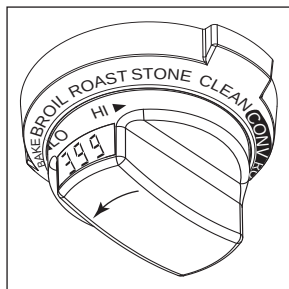


Figure 3-15. Decrease Preset Temperature, Turn Knob to Left

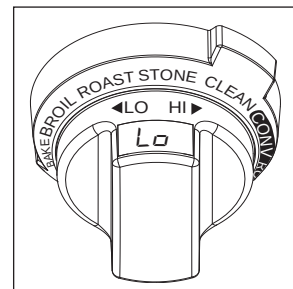


Figure 3-16. Lo appears in display window if temperature is below 150°F

Broil Mode

The top element is used to conduct an intense, radiant heat which browns one side of the food at a time. This mode is best for meats, fish and poultry pieces up to 1-inch thick.

To initiate Broil Mode, turn oven control knob bezel counter clockwise to BROIL. (See Figure 3-17). Temperature is preset to "br1" for 550°F (290°C)-Hi Broil. To change oven temperature, immediately turn the temperature readout knob to left to decrease oven setting to "br2" for 450°F (230°C)-Med Broil or "br3" for 350°F (175°C)-Low Broil. (See Figure 3-18 and 3-19). Oven will turn on after 2 seconds or press ENTER key. To exit Broil Mode, turn oven control knob bezel to OFF.

NOTE: Timer function may be used during this mode.

NOTE: Never preheat for Broil mode.

NOTE: Temperature probe may not be used in this mode.

Convection Mode

Dual convection fans, each with a heating element, operate from the back of the oven and move heated air throughout the entire oven cavity. Uniform air movement makes it possible to cook on all six rack levels simultaneously. The heat is cycled on and off to maintain temperature, resulting in evenly browned food.

To initiate Convection Mode, turn oven control knob bezel clockwise to the dark area on dial marked CONV. (See Figure 3-20). Temperature is preset at 325°F (160°C). To change oven temperature, immediately turn the temperature readout knob to right to increase oven temperature or to left to decrease oven temperature setting. (See Figure 3-21 and 3-22). Oven will turn on after 2 seconds or press ENTER key. To exit Convection Mode, turn oven knob bezel to OFF.

NOTE: Always preheat for Bake mode.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

NOTE: Temperatures below 150°F are displayed by the word "Lo" in the oven knob display window during preheat.

NOTE: Oven will chime when oven preheat temperature has been achieved.

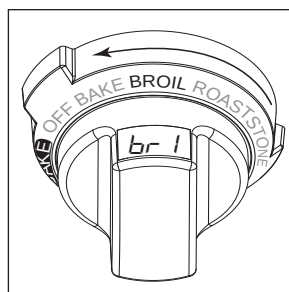


Figure 3-17. Turn Control Knob Bezel Counter Clockwise to BROIL

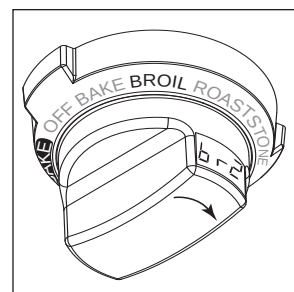


Figure 3-18. Turn Knob to the Right to change to br2.

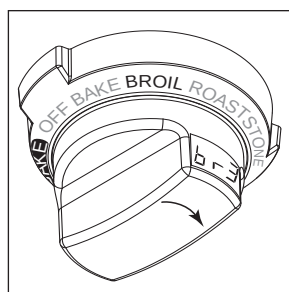


Figure 3-19. Turn Knob to the Right to change to br3.

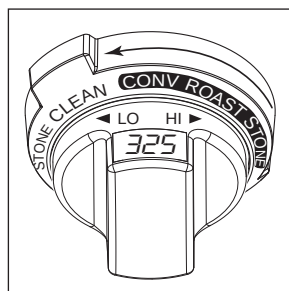


Figure 3-20. Turn Control Knob Bezel Clockwise to Dark Area Marked CONV

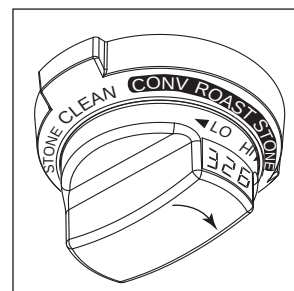


Figure 3-21. Increase Preset Temperature, Turn Knob to Right

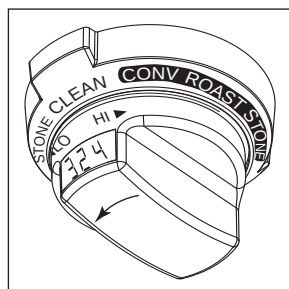


Figure 3-22. Decrease Preset Temperature, Turn Knob to Left

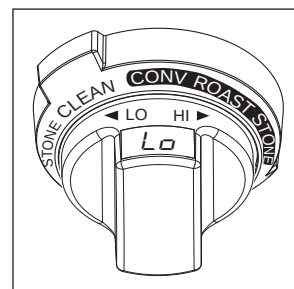


Figure 3-23. Lo appears in display window if temperature is below 150°F

Convection Bake Mode

This mode combines heat from two convection elements with some heat from the hidden bake element. Two convection fans circulate this heat within the oven cavity. The added heat from the hidden bake element make this mode ideal for pie baking.

To initiate Convection Bake Mode, turn oven control knob bezel clockwise to dark area on dial marked BAKE. (See Figure 3-24). Temperature is preset at 375°F (190°C). To change temperature, immediately turn temperature readout knob to right to increase oven temperature or to left to decrease oven temperature setting. (See Figure 3-25 and 3-26). Oven will turn on after 2 seconds or press ENTER key.

To exit Convection Bake Mode, turn oven knob bezel to OFF.

NOTE: Always preheat for Convection Bake mode.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

NOTE: Temperatures below 150°F (65°C) are displayed by the word "Lo" in the oven knob display window during preheat.

NOTE: Oven will chime when oven preheat temperature has been achieved.

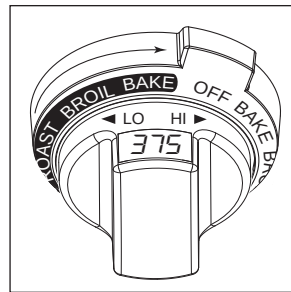


Figure 3-24. Turn Control Knob Bezel Clockwise to Dark Area Marked BAKE

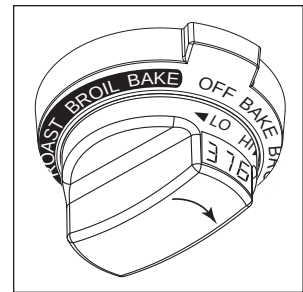


Figure 3-25. Increase Preset Temperature, Turn Knob to Right

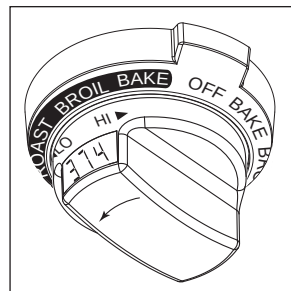


Figure 3-26. Decrease Preset Temperature, Turn Knob to Left

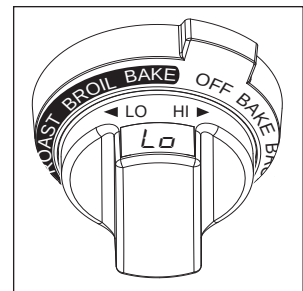


Figure 3-27. Lo appears in display window if temperature is below 150°F

Convection Broil Mode

Intense radiant heat from broil element browns and sears surface of the food. Both convection fans circulate hot air around the food. This mode shortens broiling times for thicker cuts of meat, fish and poultry. The high heat browns the exterior and convection keeps the interior moist and juicy.

To initiate Convection Broil Mode, turn oven control knob bezel clockwise to dark area on dial marked BROIL. (See Figure 3-28). Temperature is preset to "br1" for 550°F (290°C). To change temperature from, br1, immediately turn the temperature readout knob to left to decrease oven setting to "br2" 450°F (230°C)-Med Broil or "br3" 350°F (175°C)-Low Broil. (See Figure 3-29 and 3-30). Oven will turn on after 2 seconds or press ENTER key. To exit Convection Broil Mode, turn oven control knob to OFF.

NOTE: Timer function may be used during this mode.

NOTE: Never preheat for Convection Broil mode.

NOTE: Temperature probe may not be used in this mode.

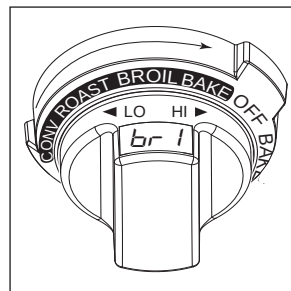


Figure 3-28. Turn Control Knob Bezel Clockwise to Dark Area Marked BROIL

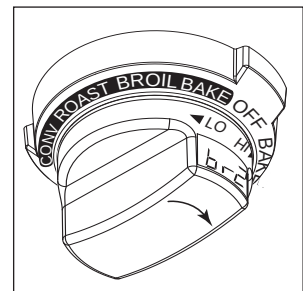


Figure 3-29. Turn Knob to Right to change to br2.

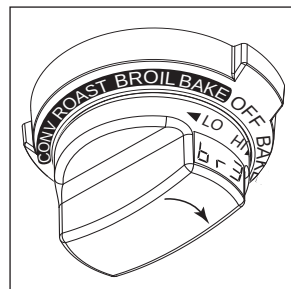


Figure 3-30. Turn Knob to Left to change to br3.

Convection Roast Mode

Heat from both convection fans, plus some heat from the broil element, intensifies the convective and radiant heating in this mode. This combination gently browns the exterior and seals in juices making it perfect for roasting tender cuts of beef, lamb, pork, and poultry.

To initiate Convection Roast Mode, turn oven control knob bezel clockwise to dark area on dial marked ROAST. (See Figure 3-31). Temperature is preset at 325°F (160°C). To change temperature, immediately turn temperature readout knob to right to increase oven temperature or to left to decrease oven temperature setting. (See Figure 3-32 and 3-33). Oven will turn on after 2 seconds or press ENTER key. To exit Convection Roast Mode, turn oven knob bezel to OFF.

NOTE: Always preheat for Convection Bake mode.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

NOTE: Temperatures below 150°F (65°C) are displayed by the word "Lo" in the oven knob display window during preheat.

NOTE: Oven will chime when oven preheat temperature has been achieved.

Roast Mode

Both bake and broil elements are used to heat and cycle to maintain temperature. Designed especially for roasting the less tender cuts of meat that should be covered, such as chuck roasts, lamb shanks, pot roasts, stew meat.

To initiate Roast Mode, turn oven control knob bezel counter clockwise to ROAST. (See Figure 3-35). Temperature is preset at 350°F (175°C). To change temperature, immediately turn temperature readout knob to right to increase oven temperature or to left to decrease oven temperature setting. (See Figure 3-36 and 3-37). Oven will turn on after 2 seconds or press ENTER key. To exit Convection Roast Mode, turn oven knob bezel to OFF.

NOTE: Always preheat for Roast mode.

NOTE: Temperature probe may be used in this mode.

NOTE: Timer function may be used during this mode.

NOTE: The temperature display alternates between set and actual oven temperatures during preheat.

NOTE: Temperatures below 150°F (65°C) are displayed by the word "Lo" in the oven knob display window during preheat.

NOTE: Oven will chime when oven preheat temperature has been achieved.

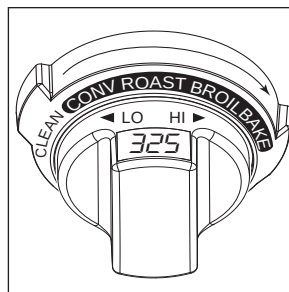


Figure 3-31. Turn Control Knob Bezel Clockwise to Dark Area Marked ROAST

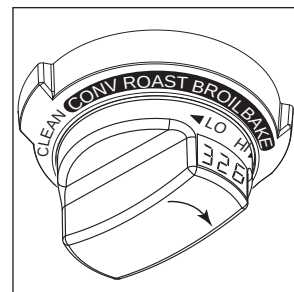


Figure 3-32. Increase Preset Temperature, Turn Knob to Right

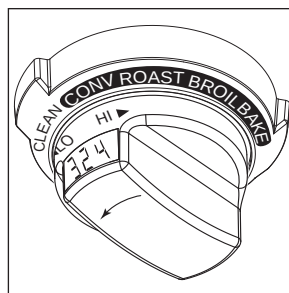


Figure 3-33. Decrease Preset Temperature, Turn Knob to Left

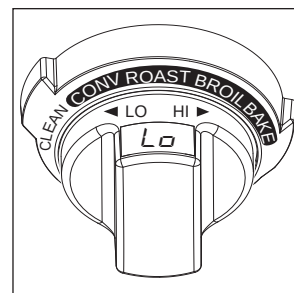


Figure 3-34. Lo Displayed Until Temperature goes above 150°.

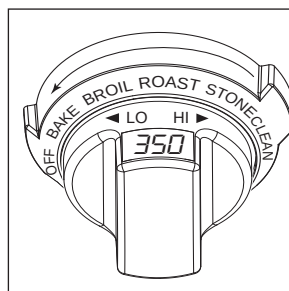


Figure 3-35. Turn Control Knob Bezel Counter Clockwise to BAKE

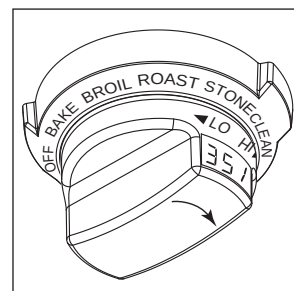


Figure 3-36. Increase Preset Temperature, Turn Knob to Right

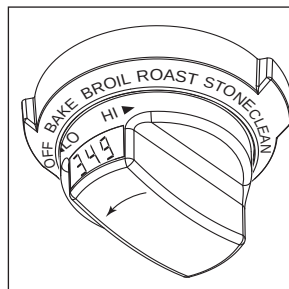


Figure 3-37. Decrease Preset Temperature, Turn Knob to Left

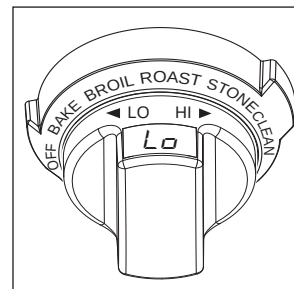


Figure 3-38. Lo Displayed Until Temperature goes above 150°.

OVEN FEATURES

Dehydration Feature

This feature allows for slowly drying out food for preservation and other cooking uses. This requires an optional accessory package.

To initiate Dehydration Feature, turn oven control knob bezel clockwise to CONV. (See Figure 3-39). Now turn control knob to left until "deH" shows in the control knob display window. 170°F (77°C). (See Figure 3-40). Then, release the temperature knob. Now, turn control knob left or right to desired dehydration temperature. (See Figure 3-41). *Dehydration is between 110°F - 150°F (45°C - 65°C).* To exit Dehydration Mode, turn oven knob bezel clockwise to OFF.

NOTE: Preheat is not necessary for Dehydration feature.

NOTE: Optional accessory package, not supplied with unit must be used.

Proof Mode (18" Cavity)

To activate PROOF Mode turn control knob counter clockwise to PROOF and set temperature between 85°F and 110°F. (See Figure 3-43).

Proof Feature (30" and 36" Cavity)

How PROOF feature works: A combination of Broil, Convection and Bake elements are used to heat and balance the air to maintain temperature. This feature is ideal for proofing bread dough. The oven does not allow the temperature to be set above 110°F (43.3°C). If the oven temperature is above 130°F (55°C), "HOT" will be indicated on the control panel. The user should open the oven door to allow the oven to cool down below 120°F (50°C) to prevent from destroying the yeast.

To initiate PROOF Feature, the oven must be OFF. Place dough in oven-safe dish in oven. Turn oven selector knob bezel counter clockwise to BAKE. (See Figure 3-44).

Hold Oven Selector knob to left until "PrF" shows on the knob. (See Figure 3-45). This will occur below 170°F (77°C). Release the knob, then quickly turn knob to the left or right and release to initiate PROOF.

NOTE: Oven temperature is preset at 85°F (29°C).

To change the temperature from 85°F (29°C), immediately turn the oven control knob to the right to increase the oven temperature. (See Figure 3-46). Press ENTER on the display panel or oven will turn on after 2 seconds by default. The temperature display alternates between set temperature and "PrF". Turn oven selector knob bezel to OFF to end this feature.



Figure 3-39. Turn Control Knob Bezel Clockwise to Dark Area Marked CONV

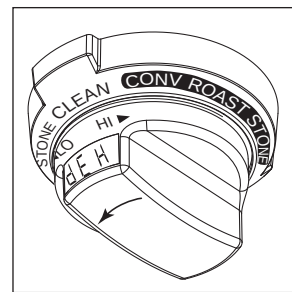


Figure 3-40. Turn and Hold Knob to Left Until "deH" Appears In Knob Display and Release Knob

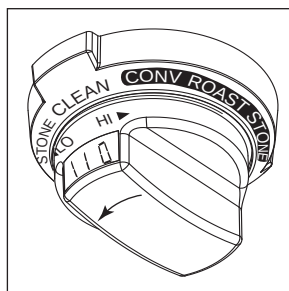


Figure 3-41. Turn Knob to Left or Right to Set Desired Dehydration Temperature

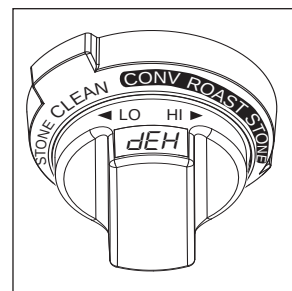


Figure 3-42. "deH" will Alternate with the Temperature in Display



Figure 3-43. Turn Control Knob Bezel counter clockwise to PROOF

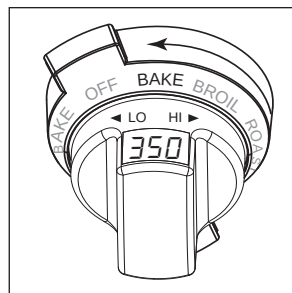


Figure 3-44. Turn Control Knob Bezel to BAKE



Figure 3-45. Turn and Hold Control Knob to Left until "PrF" is Displayed



Figure 3-46. Turn Control Knob Left or Right to Change Temperature

Delayed Start Feature

This feature controls the automatic timing of the oven's On and Off function. Set a cooking mode to start later in the day and turn off when the cooking is complete or set it to just to turn off at a preset time. See the Use & Care Manual for additional information.

Set controls to start cooking later and automatically turn off heat when finished.

To initiate Delayed Start Feature, turn oven control knob bezel to the desired mode. Change preset temperature if needed. (See Figure 3-47). Now, press COOK TIME key. Then, press up or down arrow key on the display panel to increase or decrease the desired cook time. Next, press STOP TIME key. Then, press up or down arrow key on the display panel to increase or decrease the desired stop time. Now, press ENTER key. The oven will appear as though it's on. (See Figure 3-48). The oven will turn on when clock time displays start time. To exit Delayed Start Feature, turn oven control knob bezel to OFF.

NOTE: Display appears as if the oven is on. One chime will ring before the last minute of the cooking time.

NOTE: Three chimes that repeat every 30 seconds signal end of cooking time. The oven will turn itself off.

NOTE: Do not delay the start when preheating is critical to the cooking results.

NOTE: The time-of-day clock must display the correct time prior to programming a timed activity.

Probe Feature

The probe measures internal temperature by measuring the internal temperature of food without opening oven door. It is a convenient and accurate way to achieve perfect doneness regardless of the type, cut or weight of food. Calculating a total cooking time by weight is no longer necessary using this feature.

To initiate Probe Feature, preheat oven in desired mode. Now, insert probe connector into receptacle, inside oven cavity. Next, PROBE will appear on display panel. Probe temperature is preset to 160°F (70°C). (See Figure 3-49). To change temperature, immediately turn temperature readout knob to right to increase probe temperature or to left to decrease probe temperature setting. (See Figure 3-50 and 3-51). Then, press ENTER key or after 2 seconds oven will turn on by default. Probe temperature will flash in knob display when temperature has been reached. (See Figure 3-52).

To exit, turn oven control knob bezel to OFF.

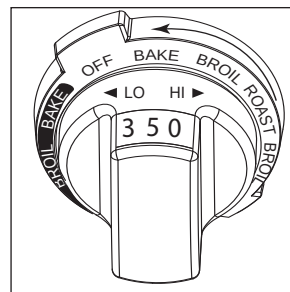


Figure 3-47. Set Control Knob Bezel to Desire Mode and Temperature

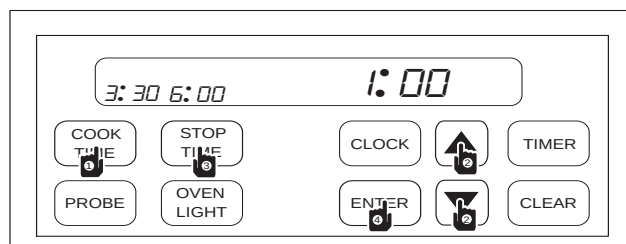


Figure 3-48. Press COOK TIME Key. Next, Press Arrow Up or Down Key To Set Desired Cook Time. Then, Press STOP TIME Key. Then, Press Arrow Up or Down Key To Set Desired COOK Time. Now, Press ENTER Key.

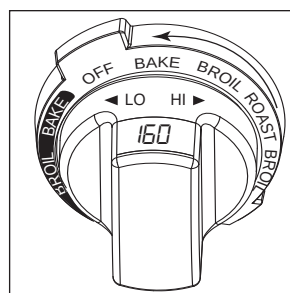


Figure 3-49. Probe Temperature Preset to 160°F

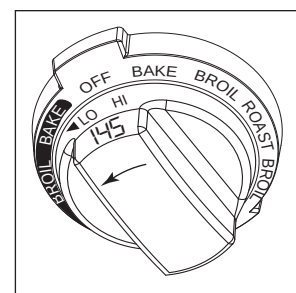


Figure 3-50. Turn Control Knob Bezel to Set Desired Temperature

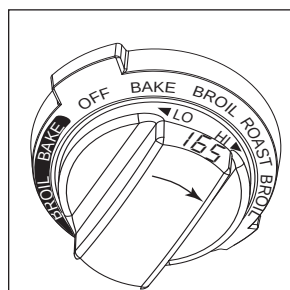


Figure 3-51. Turn Control Knob Bezel to Set Desired Temperature

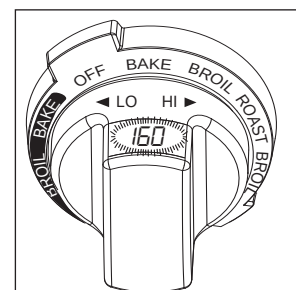


Figure 3-52. Probe Temperature will Flash when Temperature is Reached

Operation Information

Dual Fuel Range **WOLF®**

Sabbath Feature

This feature allows for baking or keeping food warm while still adhering to the "no work" requirements on religious Sabbath days.

To initiate Sabbath Feature, first add food to the oven. Now, turn oven control knob bezel to either BAKE or ROAST mode. (See Figure 3-53). Next, change preset temperature if needed. Then, press OVEN LIGHT key to turn oven lights on or off. (See Figure 3-55). Now, press and hold ENTER key on display panel for 5 seconds. (See Figure 3-55). Oven chimes twice and the word "SAb" appears in the display window on the oven temperature control knob. (See Figure 3-54). To exit Sabbath Feature, turn oven knob bezel to OFF.

NOTE: Oven remains on until this mode is cancelled.

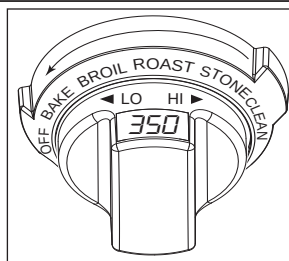


Figure 3-53. Turn Control Knob Bezel Counter Clockwise to ROAST

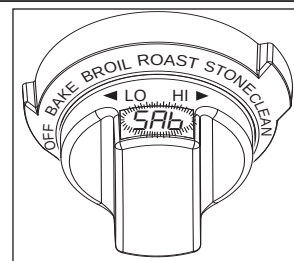


Figure 3-54. The letters "SAb" appear in the knob display.

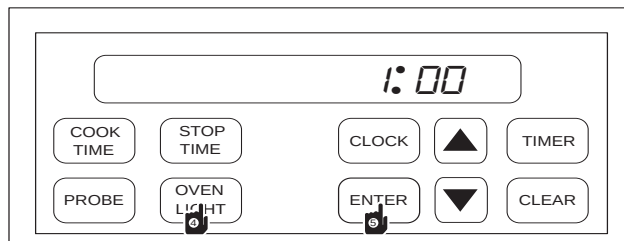


Figure 3-55. Press and Hold ENTER key to Set Oven to Sabbath.

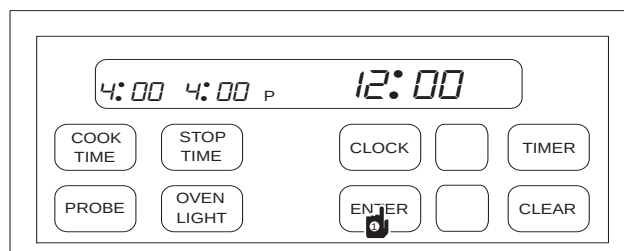


Figure 3-56. Press ENTER key. Automatically Sets for 4 Hours

Self-Clean Feature

The oven is heated in graduating steps to a preset high temperature. During this process, food soil is burned off leaving some white ash residue. For safety purposes, the door automatically locks during cleaning and unlocks when the cavity has cooled completely.

To initiate Self-clean Feature, first turn oven control knob bezel to CLEAN. (See Figure 3-57). Now, press ENTER key on the control panel or turn the oven temperature control knob bezel in either direction until "CLn" appears in temperature readout knob display window. The oven automatically sets for 4 hours. (See Figure 3-56). Self-clean feature is now enabled and "CLn" will be displayed in the oven control knob display window. (See Figure 3-58A and 3-58B). To exit Self-Clean Feature, turn oven knob bezel to OFF.

NOTE: The door gasket is important for a good seal. Do not hand clean, rub, puncture, or remove.

NOTE: Oven door will remain locked until temperature inside has cooled to below 300°F (150°C).

NOTE: Delayed Start feature can be programmed in this feature.

NOTE: Oven racks, broiler pan, any utensils stored in oven must be removed from oven cavity before self-cleaning.

NOTE: Units starting with serial number 16000000 the rack guides must also be removed.

NOTE: Model DF48 and DF60 only one cavity can be cleaned at one time.

NOTE: Model DF48 and DF60 If one cavity is being self-cleaned the other cavity cannot be used for cooking.

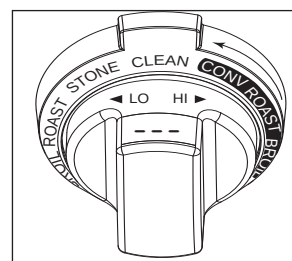


Figure 3-57. Turn Control Knob Bezel Counter Clockwise to CLEAN

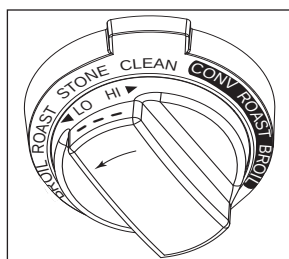


Figure 3-58A. Turn Knob to Left or Right, "CLn" will Display

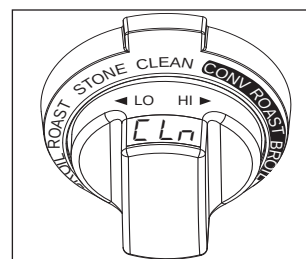


Figure 3-58B. Turn Control Knob Bezel Counter Clockwise to BAKE

DIAGNOSTIC MODE

Diagnostic Mode allows the Service Technician to inspect the functionality of the Oven Controller and Relay boards. Entering a key combination on the display panel will allow the Service Technician to enter Diagnostic Mode.

In Diagnostic Mode the last seven errors that have occurred to the oven controlling all the relays on the relay board and controller feedback of temperature and switches will be displayed.

The Electronic Control Housing will display last error code recorded in the Cook Time digit area, with Stop Time digits displaying the number that the error was recorded, number 1 being the most recent. The software version will be displayed in the Time of Day digits and current oven cavity temperature will be shown in the display window of the Oven Temperature Control Knob.

Initiating Diagnostic Mode

To initiate Diagnostic Mode, oven control knob bezel must be in the OFF position. Now, press and hold CLOCK key and TIMER key for 3 seconds. (See Figure 3-60). The ambient cavity temperature will be displayed in the temperature readout knob. Now, turn the oven temperature readout knob to the right seven separate times, this will toggle from error code 1 thru 7. (See Figure 3-62). To return to error code number one, turn oven temperature readout knob to the left seven separate times. (See Figure 3-63). The software version will be displayed in the hours and minutes display of the clock. (See Figure 3-64).

NOTE: Once diagnostic mode is entered, there is a 2 minute time out, which is restarted each time a key is pressed.

To clear error codes once unit has been fixed, press the CLEAR key.

To exit Diagnostic Mode, press the ENTER key.

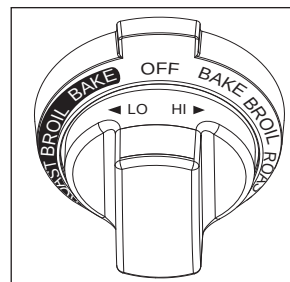


Figure 3-59. Control Knob Bezel Must be in OFF Position

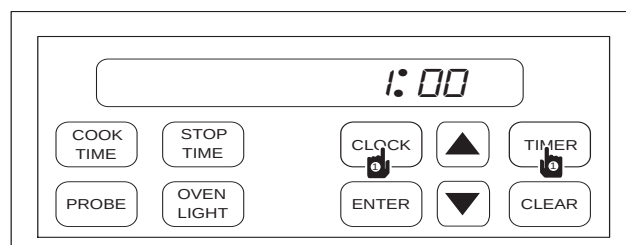


Figure 3-60. Press and Hold CLOCK and TIMER Key

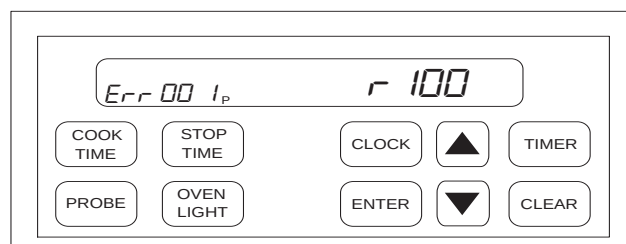


Figure 3-61. Error Code and Software Version Display

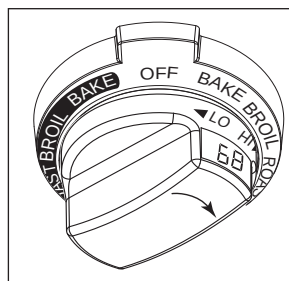


Figure 3-62. Turn Knob to Right Seven Separate Times to Toggle thru Error Codes

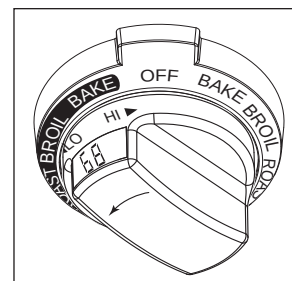


Figure 3-63. Turn Knob to Left Seven Separate Times to Toggle thru Error Codes

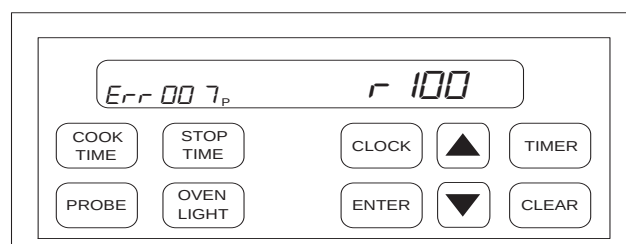


Figure 3-64. Error Code Display

ERROR INDICATORS

Error codes can give a visual and audible alarm. The visual indication will be “Err” displayed in the Cook Time digits and the number or letter of the error code will be displayed in the Stop Time digits of the Electronic Control Housing. The Oven Temperature Readout Knob will also show “Err” in the display window. The last seven errors will be stored in the EEPROM for recall when in diagnostic mode.

ERROR CODE CHART		
ERROR CODE	POSSIBLE CAUSE	TEST / ACTION
01	Door Lock or Unlock Switches not sensed within 60 seconds while driving the door lock motor	Perform motorized door lock test procedure in diagnostic mode Ohm door lock switches. Replace MDL (Motor Door Lock) Assembly if defective
02	Over temperature occurs when the oven reaches a temperature of 630 °F for an unlocked door and 950°F for a locked door	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
03	Open circuit detected on RTD Oven Sensor	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
04	Shorted circuit detected on the RTD Sensor	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
07	SPI Communication lost from ECH to the Control Board as reported by Control Board	Code reflects that the ECH cannot find the Control Board. Replace cable first. Replace ECH if replacing cable does not correct problem
08	EEPROM checksum is incorrect. Checked at power up	Replace oven controller
09	Meat probe being sensed as shorted	Initiated diagnostic mode and check meat probe. Ohm meat probe, check reading with Tech Data
0B	Analog to Digital error during calibration phase	Replace oven controller
0C	Communication lost with oven controller	Replace oven controller
0E	Power relay shorted, sensed as closed when should be open Failure of element circuit Failure of relay drive circuitry	Replace relay board Replace relay board Replace relay board

Figure 3-65. Error Code Chart

TESTING THE OVEN RELAY BOARD

Element Testing

First access diagnostic mode. Once in diagnostic mode, the technician can turn the oven control knob bezel to activate an element. The element relay and the double line breaker(dlb) will close to complete a 240/208 VAC circuit through a specific element. If the oven controller detects the current running through the closed circuit, the **CFH light will be illuminated.

NOTE: Diagnostic Mode will end 2 minutes after last key stroke or when the CLEAR key is pressed.

Turn Bezel (Cooking Mode)	Relay(s) Activated	Response
Stone (Use "PROOF" for 18" Cavity)	Left Convection Element	**CFH Indicator Light Illuminates
Clean	Right Convection Element	**CFH Indicator Light Illuminates
Conv	Bake Stone Element <i>(must be plugged in)</i>	**CFH Indicator Light Illuminates
Conv Roast	Inner Bake Element	**CFH Indicator Light Illuminates
Conv Broil	Broil Element	**CFH Indicator Light Illuminates
Conv Bake	Outer Bake Element	**CFH Indicator Light Illuminates

Figure 3-66. Element Testing Chart

** Call For Heat

RTD Testing

First access Diagnostic Mode. Once in diagnostic mode, the RTD temperature is shown in display window of temperature control knob. If the RTD is open, "Err 03" will be shown in the display of the electronic control housing. If the RTD is shorted, "Err 04" will be shown in the display of the electronic control housing.

NOTE: Diagnostic mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

Probe Testing

First access Diagnostic Mode. Next, press the PROBE key *(this will switch the readout to probe temperature as shown in the display window of the temperature control knob)*. If the probe has not been inserted, "out" will be shown as the probe temperature in the display window of the temperature control knob. If the probe is shorted, "Err 09" will be shown in the display of the electronic control housing.

NOTE: Diagnostic Mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

Fans and Motors

First access diagnostic mode. Once in diagnostic mode, the technician can turn the oven control knob bezel or press a key on the Electronic Control Housing to activate a fan or a motor. The fan and motor relays will close to complete a 120 VAC circuit through a specific fan or motor. If the oven controller detects the functionality through switches, the **CFH indicator light will be illuminated.

NOTE: Diagnostic mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

Turn Bezel (Cooking Mode) or Press Key on Electronic Control Housing	Relay(s) Activated	Action	Response
Broil	Right Convection Fan	Right Convection Fan Turns ON	Right Convection Fan ON
Roast	Left Convection Fan and 18" cavity convection fan	Left Convection Fan Turns ON	Left Convection Fan ON
Bake	Oven Light		Oven Light Turns On
Cook Time	Lo Cooling Fan	Cooling Fan ON	Cooling Fan ON at Low Speed
Stop Time	High Cooling Fan	Cooling Fan ON	Cooling Fan ON at High Speed
Clock NOTE: For DF48 and DF60 "CLOCK" cycles left MDL. Use "TIMER" to cycle right MDL.	Motor Door Lock (MDL)	MDL Switch in Closed Position	"P" Icon Appears
		MDL Switch in Transition	No Icon in Display
		MDL Switch in open Position	"A" Icon Appears
Probe	Probe		Meat Probe Temperature is Shown in Display Window of Temperature Control Knob
Clear			Clears All Stored Errors from EEPROM
Enter			Exits Diagnostic Mode

Figure 3-67. Fan and Motor Testing Chart

SECTION 4

COMPONENT ACCESS AND REMOVAL

COMPONENT ACCESS AND REMOVAL

This section explains how to access and remove components from a Wolf Dual Fuel Range. Depending on which component you are going to access or remove in the following sections, you may have to remove other components first. Refer to the appropriate section in this manual that explains how to access and remove those various components. When reassembling, just reverse the steps that were used to access and remove the components.

NOTE: Before attempting to access or remove any components from a Wolf Appliance, take note of the following warnings.

⚠ WARNING

TO AVOID SERIOUS BURNS AND/OR EXPLOSIONS, KEEP COMBUSTIBLES AWAY FROM THE APPLIANCE WHENEVER A FLAME IS PRESENT. REMEMBER THAT SURFACES AND COMPONENTS GET HOT DURING THE USE OF THE APPLIANCE.

TO AVOID ELECTRICAL SHOCK, POWER TO THE UNIT MUST BE DISCONNECTED WHENEVER ACCESSING AND/OR REMOVING COMPONENTS POWERED BY ELECTRICITY OR COMPONENTS NEAR OTHER ELECTRICAL COMPONENTS.

TO AVOID HAZARDOUS EXPLOSION OR GAS LEAKS, GAS TO THE UNIT MUST BE TURNED OFF AT THE GAS SUPPLY SOURCE WHENEVER ACCESSING AND/OR REMOVING COMPONENTS.

⚠ WARNING

TO ENSURE PROPER BURNER OPERATION, THE O-RINGS **MUST** BE REPLACED ANY TIME THE UNITS IS DISASSEMBLED FOR ANY REASON.

⚠ WARNING

WHEN REASSEMBLING GAS SUPPLY LINE TO REGULATOR, ONLY PIPE THREAD COMPOUND SHOULD BE USED. **DO NOT** USE TEFLON TAPE TO SEAL GAS PIPE CONNECTIONS.

Surface Burner Components (PTS 17000000)

Surface Burner Grate, Burner Head, Burner Cap, Venturi, Inner Distribution Ring, Igniter, Burner Pan, Outer Distribution Ring, Jet Holder, Deflector Shield, Spark Module, Burner Support and Surface Burner Orifices

Surface Burner Grate Removal (PTS 17000000)

The surface grate is a low profile, porcelainized cast iron grate that is designed for a close fit. To remove the surface grate, lift straight up and off of the top pan. (See Figure 4-1)

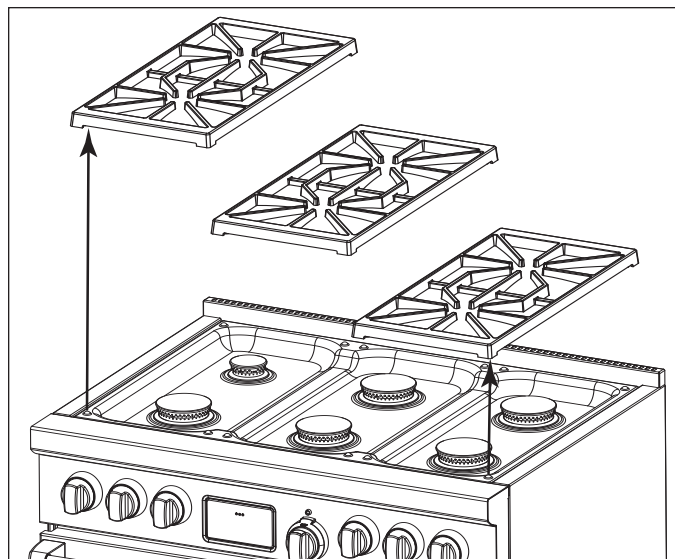


Figure 4-1. Surface Grate Removal

Burner Head with Cap Removal (PTS 17000000)

The burner head consists of a top and bottom layer of holes. When main burner heat is required, the gas travels through the main burner orifice hood (*mounted to the jet holder*), then through the venturi to the burner head and then out the top layer of holes. When simmer heat is required, the gas travels through the simmer orifice hood (*located on the side of the outer distribution ring*), up through the outer portion of the inner distribution ring, then to the bottom layer of holes on the burner head.

To remove the burner head, first remove the burner grates. Then, lift the burner head off of the inner distribution ring. (See Figure 4-2)

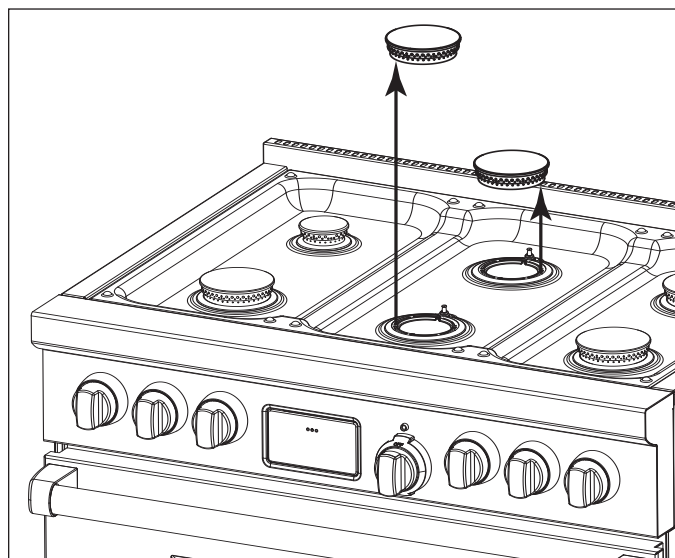


Figure 4-2. Burner Head Removal

Burner Cap Removal (PTS 17000000)

The burner cap can be replaced separately from the burner head if cap gets damaged.

To remove burner cap, turn burner head over so nut on underside is visible. Then, use a wrench to loosen nut and remove. Now, remove cap from the burner head. (See Figure 4-3)

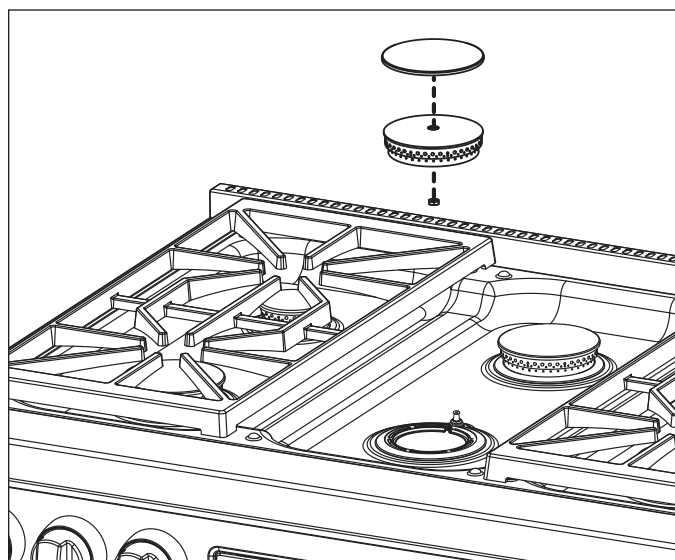


Figure 4-3. Burner Cap Removal

Venturi Removal (PTS 17000000)

The brass venturi mounts through the inner distribution ring and is threaded to the jet holder. There are two sizes of venturi. One size is for the large 15,000 BTU burners. The other size is for the smaller 9,200 BTU burners. The threads on the venturi are different for the large and for the small. They will only thread back into the appropriate sized jet holder.

To remove the venturi, first remove the burner head with cap and then extract the venturi using a 7/8 inch socket wrench from the jet holder. (See Figure 4-4)

⚠ WARNING

WHEN REINSTALLING VENTURI USE TORQUE WRENCH TO TIGHTEN TO 100 INCH/LBS. OVER TIGHTENING WILL DAMAGE UNIT AND GAS LEAKS MAY OCCUR.

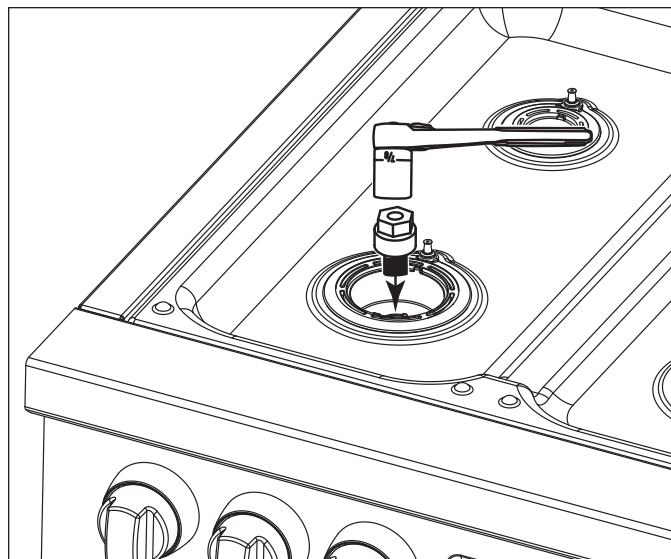


Figure 4-4. Venturi Removal

Inner Distribution Ring Removal (PTS 17000000)

The inner distribution ring routes the gas from the simmer orifice hood to the simmer holes located in the burner head.

To remove the inner distribution ring, first, remove the venturi. Then, lift the inner distribution ring from the cooktop pan and discard the O-ring which is mounted in a groove in the underside of the inner distribution ring. The O-ring provides the seal between the cooktop pan and the inner distribution ring. Now, unplug the igniter lead wire and use a small piece of black tape to secure the lead wire to the top pan. (See Figure 4-5)

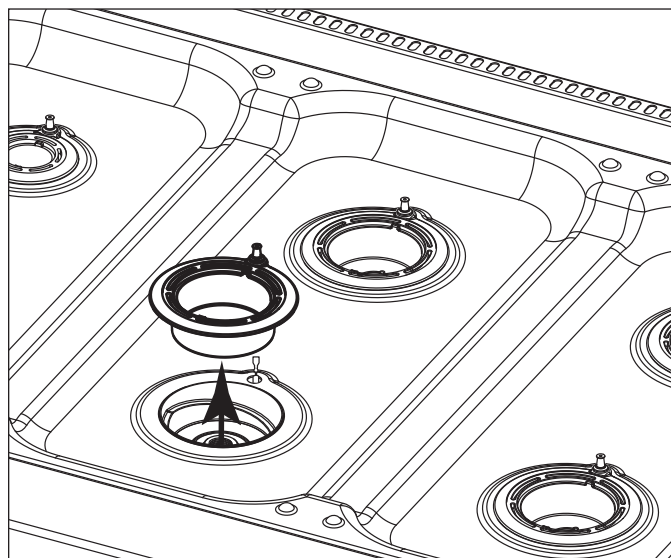


Figure 4-5. Outer Distribution Ring Removal

Igniter Removal (PTS 17000000)

The surface burner igniter is inserted down through the inner distribution ring. It is held in place by a spring and clip.

To remove the igniter, the burner head and venturi will need to be removed. Now, lift the inner distribution ring from the top pan, unplug igniter lead and tape it to the top pan. Then, push the spring up slightly and use pliers to remove the clip. Now, slide the spring off the igniter and pull the igniter up and out of inner distribution ring. (See Figure 4-6)

⚠ WARNING

TO ENSURE PROPER BURNER OPERATION, THE O-RINGS MUST BE REPLACED ANY TIME THE UNITS IS DISASSEMBLED FOR ANY REASON.

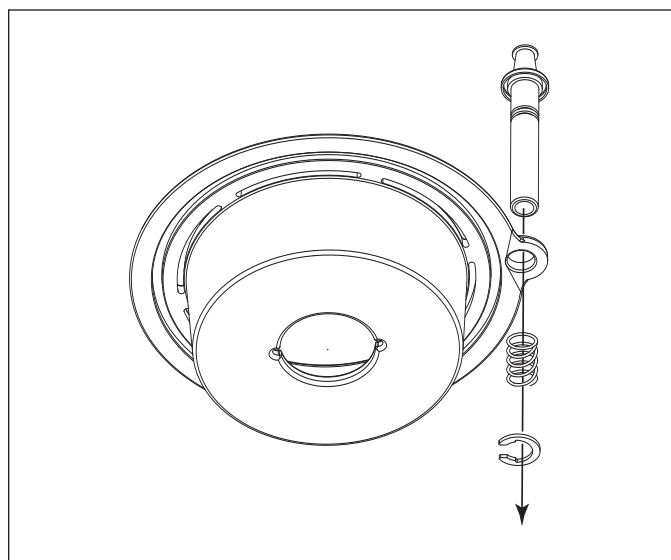


Figure 4-6. Igniter Removal

Surface Burner Components (SWS 17000000)

Burner Grate and Burner Assembly (SWS 17000000)

The burner grate locates on raised dimples formed on the burner pan. The burner assemblies have screws that pass through the assemblies, then thread into the orifice holder located under the burner pan. Burner caps are then placed over the burner assembly.

To remove the burner assembly, (See Figure 4-6A)

1. Remove burner grate from unit.
2. Remove burner caps from burner assembly.
3. Extract the two screws securing burner assembly to orifice holder.
4. Lift assembly off burner pan and remove wire lead from spark ignitor.
5. To remove spark ignitor from burner, extract screw from underside of burner assembly and separate.

Burner Pan and Trim Moldings (SWS 17000000)

There are two “L” shaped trim moldings for each burner pan that run from front to back of the unit. One moldings fits between the outer side assembly and the burner pan, the other molding fits between burner pans and grill grate or french cook top assembly, depending on the model.

To remove the burner pan,

1. Remove front and rear burner assemblies.
2. Remove trim moldings from each side of burner pan. (See Figure 4-6B)
3. Lift burner pan out of unit.

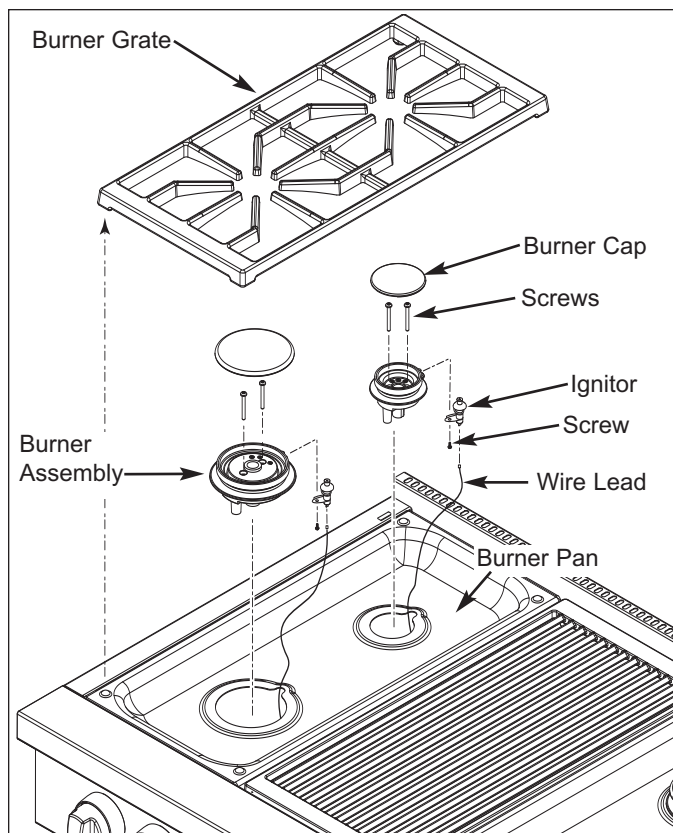


Figure 4-6A. Burner Assembly Removal

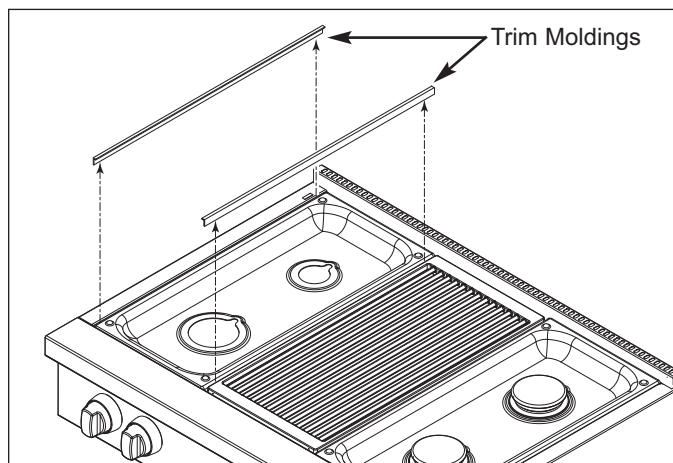


Figure 4-6B. Trim Moldings

Burner Pan - 6 Burner Removal

In order to remove the burner pan you will need to remove the grates, burner heads w/caps, venturis, igniter lead wires and inner distribution rings. Now the burner pan can be lifted straight up and off. (See Figure 4-7)

Burner Pan - 2 Burner Removal

In order to remove the burner pan you will need to remove the grate, burner heads w/caps, venturis, igniter lead wires and inner distribution rings. Now the burner pan can be lifted straight up and off. (See Figure 4-8)

Outer Distribution Ring Removal (PTS 17000000)

The outer distribution ring routes the gas from the main burner orifice hood to the main burner holes at the top of the burner head.

To remove the outer distribution ring, remove the grate(s), burner head(s) w/cap(s), venturis, igniter lead wires, inner distribution rings and burner pan. Then, using wrenches, disconnect the flexible gas tube that is mounted to the outer distribution ring connector. Next, lift the outer distribution ring from the jet holder. (See Figure 4-9) There are two different sized O-rings, which sit in grooves in the outer distribution ring.

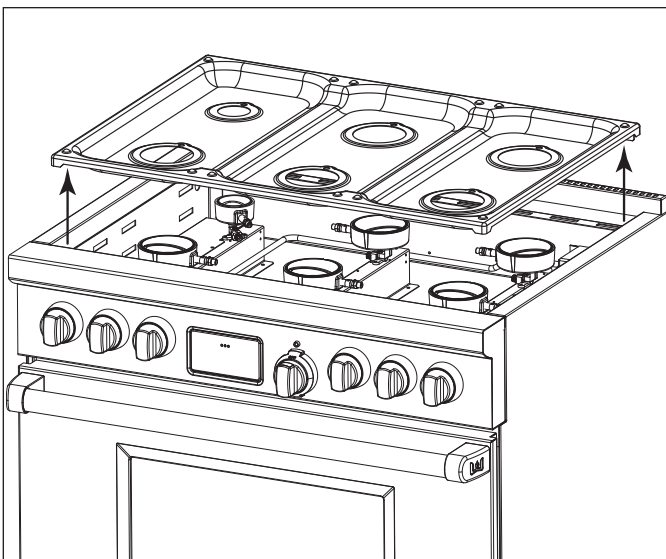


Figure 4-7. Six Burner Top Pan Removal

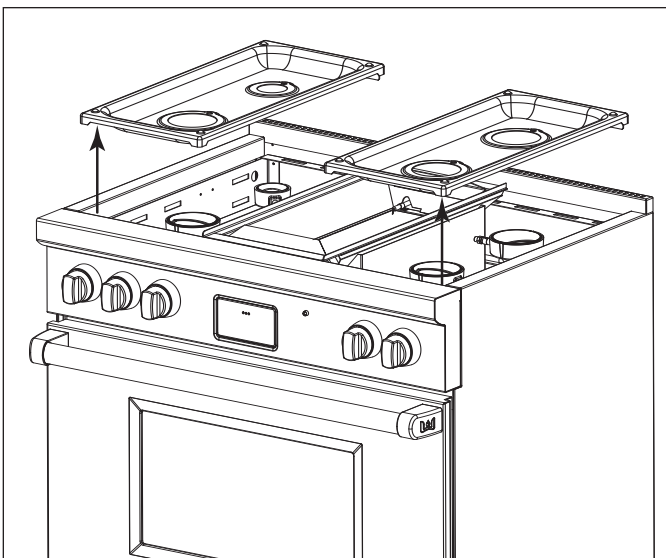


Figure 4-8. Four Burner Top Pan Removal

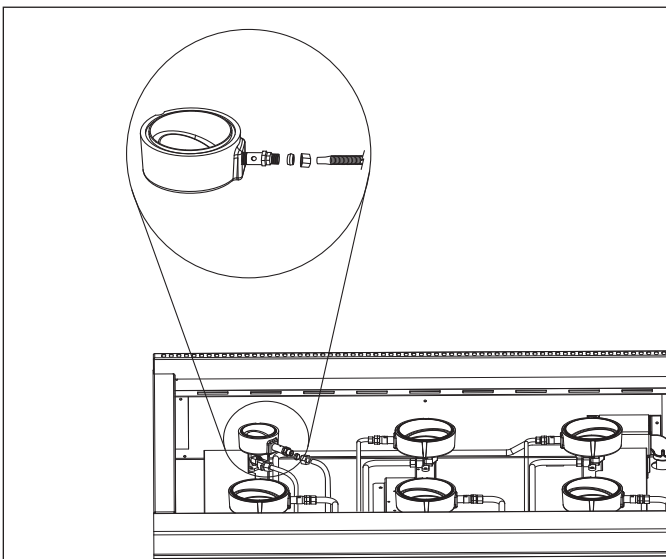


Figure 4-9. Outer Distribution Ring Removal

Jet Holder Removal (PTS 17000000)

The jet holder is mounted to the burner support on the bottom of the burner box. The main burner orifice is threaded into the jet holder as well as the venturi.

To remove the jet holder, remove the grate(s), burner head(s) w/cap(s), venturis, igniter lead wires, inner distribution ring(s), burner pan and outer distribution rings. Then, disconnect the flexible gas tube that is mounted to the jet holder. Now, extract the screws which secure the jet holder to the burner support and lift the jet holder off. (See Figure 4-10)

Deflector Shield Removal (PTS 17000000)

The deflector shield protects the spark modules and wiring from spillage that may occur.

To remove the deflector shield, remove the grate(s), burner head(s) w/cap(s), venturis, igniter lead wires, inner distribution rings, burner pan, outer distribution rings and jet holders. Now, extract the screws which secure it to the burner support and remove. (See Figure 4-11)

Spark Module Removal (PTS 17000000)

To remove the spark module, remove the grate(s), burner head(s) w/cap(s), venturis, igniter lead wires, inner distribution rings, burner pan, outer distribution rings and deflector shield. Now, disconnect the wiring. Then, extract the screws which secure it to the burner support and remove. (See Figure 4-11)

Burner Support Removal (PTS 17000000)

The burner support is mounted to the bottom of the burner box and acts as a spacer to keep the surface burner components at the proper height.

To remove the burner support, remove the grate(s), burner head(s) w/cap(s), venturis, igniter lead wires, inner distribution rings, burner pan, outer distribution rings, jet holders, deflector shield and spark module(s) (if mounted on burner support). Now, extract the screws which secure it to the burner box and remove. (See Figure 4-11)

Surface Burner Orifice Removal (PTS 17000000)

Simmer - The simmer orifice is hex shaped and attached to the inside of the outer distribution ring. Use a wrench to remove it.

Main - The main orifice is hex shaped and is attached to the bottom of the jet holder. Use a nut driver or socket to remove it. (See Figure 4-12)

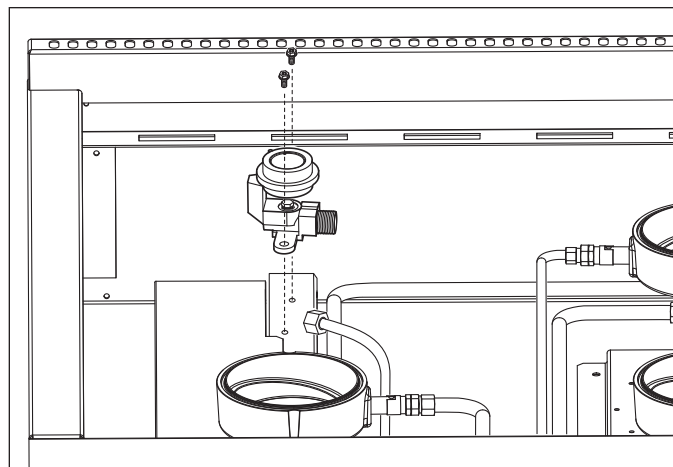


Figure 4-10. Jet Holder Removal

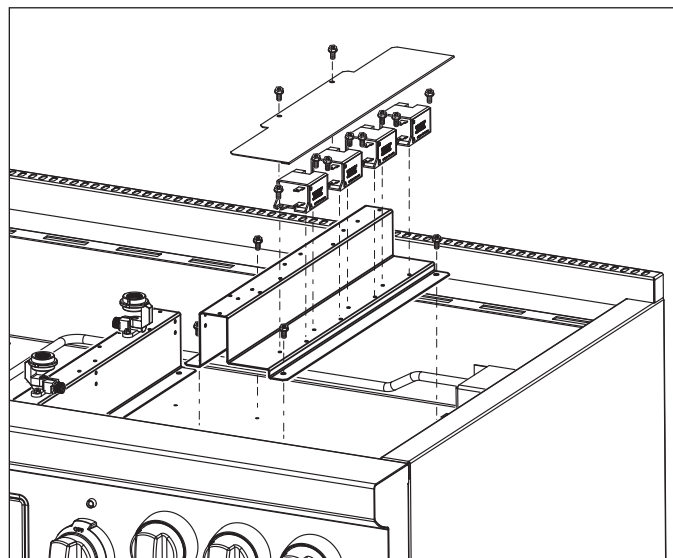


Figure 4-11. Deflector Shield, Spark Module and Burner Support Removal

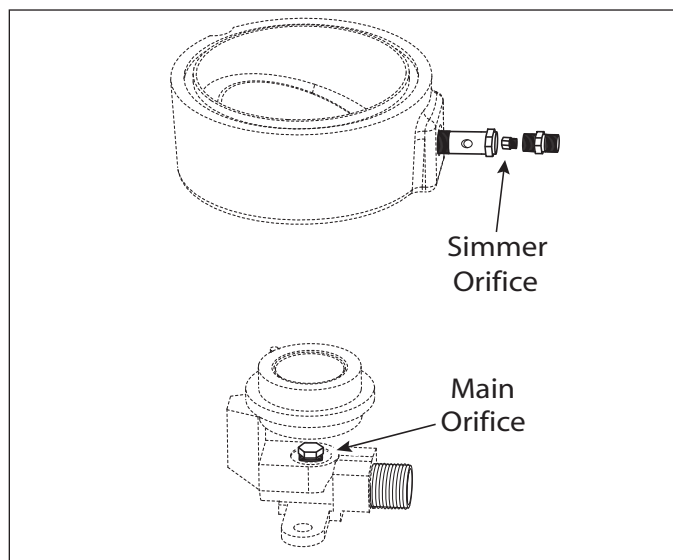


Figure 4-12. Orifice Locations

Orifice Removal (SWS 17000000)

The main and simmer orifice are threaded into the orifice holder and may be extracted without removing the orifice holder from its installation position.

To remove the orifice holder,

1. Remove burner grate and pan.
2. Use a 9/32" wrench or socket with extension, to extract orifice from orifice holder.
(See Figure 4-12A)

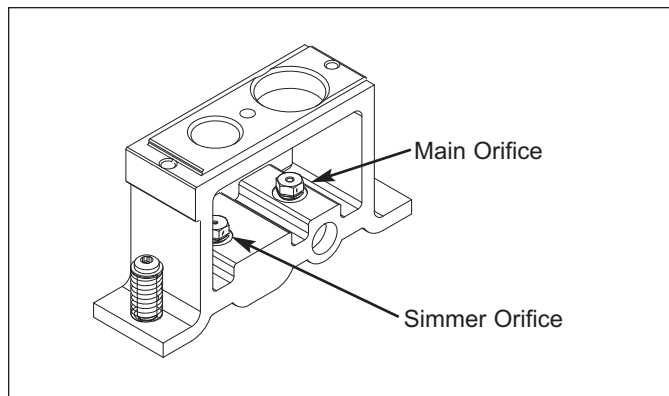


Figure 4-12A. Orifice Location

Orifice Holder (SWS 17000000)

The orifice holder assembly is secured with two screws to the unit frame. Each orifice holder assembly consists of an orifice holder, the main and simmer orifice, hat bracket and the mounting hardware. The orifice holder is mounted to the hat bracket with a stand-off and spring assembly which allows the orifice holder to flex when the burner assembly is installed.

To remove the orifice holder,

1. Remove burner grate and pan.
2. With a 3/8" and a 7/16" open end wrenches, remove the gas supply lines from orifice holder.
(See Figure 4-12B)
3. Extract the screws securing the orifice holder to the hat bracket.
4. Remove springs from standoffs, then lift orifice holder off of hat bracket.

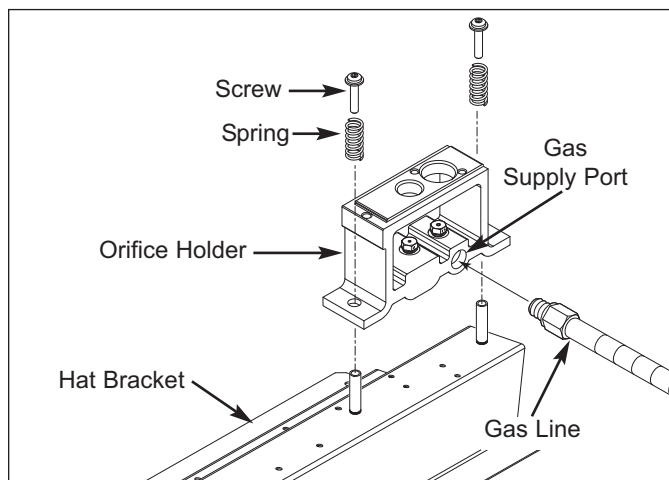


Figure 4-12B. Orifice Holder Removal

⚠ WARNING

WHEN REASSEMBLING ORIFICE TO ORIFICE HOLDER, ONLY PIPE THREAD COMPOUND SHOULD BE USED. DO NOT USE TEFLON TAPE TO SEAL GAS CONNECTIONS.

Infrared Charbroiler Components

Cover, Grate, Char Pan, Radiant, Electrode, Infrared Burner and IR Orifice

- Lift the Charbroiler cover from the unit.
 - Lift the Charbroiler grate from the char pan.
 - Lift the Charbroiler radiant from the char pan.
 - Lift the Charbroiler frame from the top of the unit.
- (See Figure 4-13)

Electrode Removal

The infrared Charbroiler electrode is attached to a bracket with a screw and then mounted 1/8" above the surface of the burner tile. The electrode wire is then inserted into a wire sleeve and routed to the spark module which is located underneath the deflector shield.

In order to remove the Charbroiler electrode, disconnect the electrode wire from the spark module. Extract the mounting screw from the electrode bracket and pull the electrode with wire lead up through oblong hole in the back wall. (See Figure 4-14)

Infrared Burner Removal

After removing the components listed above, extract the screws securing the IR weld assembly. Then, extract the screw from the rear of the IR burner box. Lift the burner box out by first sliding the IR weld assembly towards the rear. Next, lift the IR weld assembly up and rest it on the ECH shield. Disconnect the gas line from the brass orifice elbow. Now, lift the IR burner out of the IR weld assembly. (See Figure 4-14)

IR Orifice Removal

The orifice is located in the brass orifice elbow, which is threaded into the orifice holder at the front of the IR burner. The IR weld assembly must be raised up and placed on the ECH shield for access.

To remove the orifice, first disconnect the gas line from the brass orifice elbow. Then, unscrew the elbow from the orifice holder and extract the orifice from the elbow with wrenches. (See Figure 4-15 and 4-16)

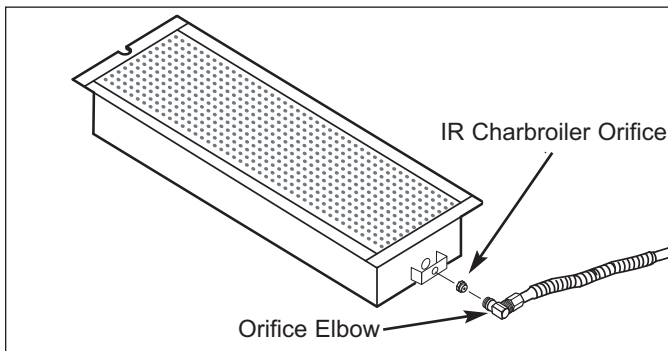


Figure 4-16. IR Charbroiler Orifice Removal

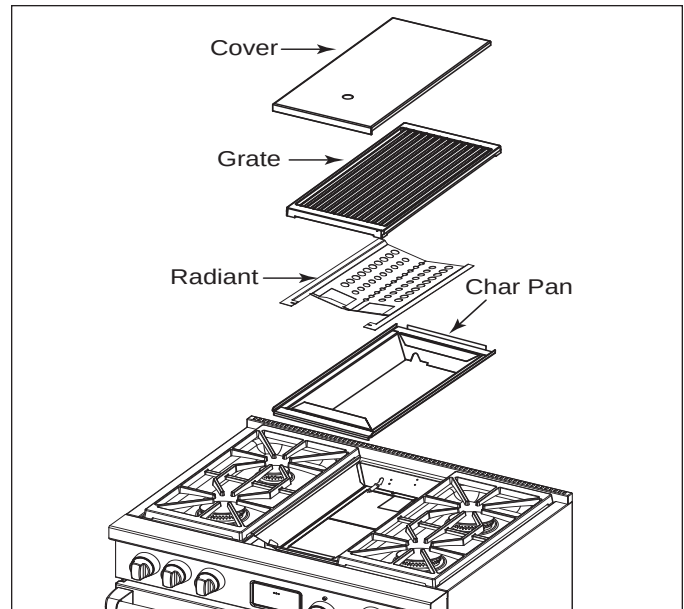


Figure 4-13. Components that Lift Off

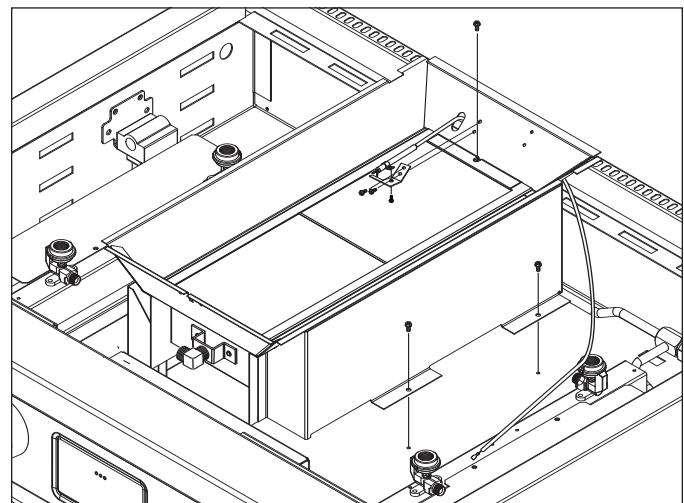


Figure 4-14. Electrode and Infrared Burner Removal

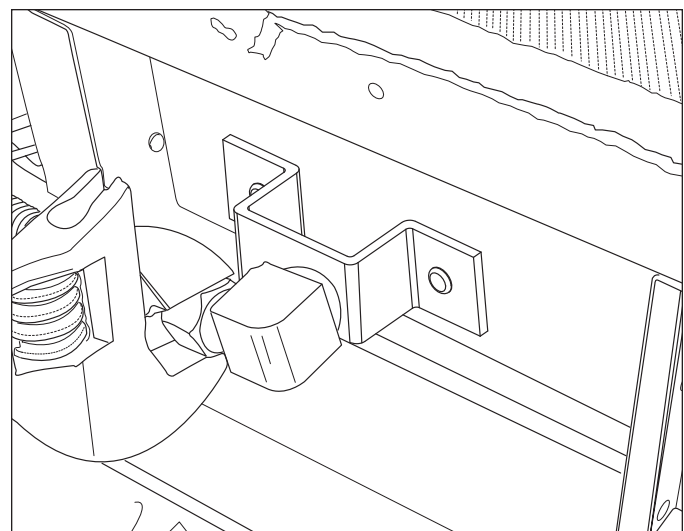


Figure 4-15. Flexible Gas Tube Removal

Infrared Griddle Components

Grease Tray, Griddle Plate, Thermostat Support Assembly, Electrode, IR Weld Assembly, Infrared Burner, Thermostat, Solenoid and IR Orifice

Grease Tray and Griddle Plate Removal

The griddle plate is a cast iron plate that rests on top of the griddle weld assembly. A grease tray sits in the well of the griddle. For cleaning purposes, it tilts up from the front edge for removal. An edge has been added to the lip of the cooking surface, which helps in the removal of the plate for cleaning and servicing. To remove the griddle plate, lift the front edge of the plate from underneath the cooking surface lip. Now, place both hands under the plate and lift it off. (See Figure 4-17)

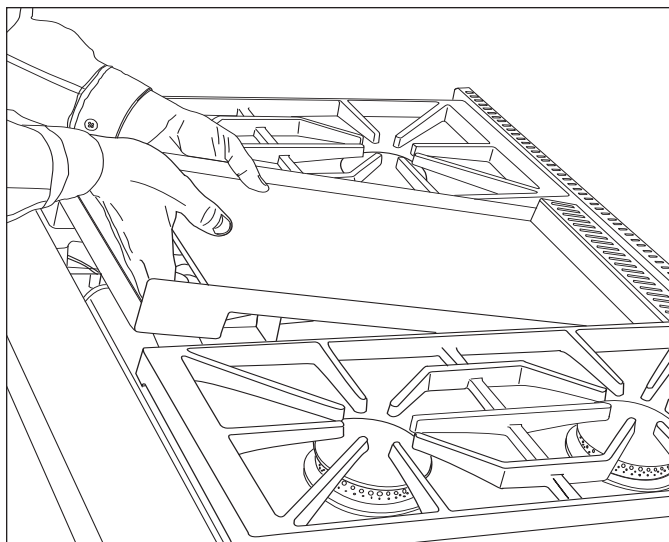


Figure 4-17. Griddle Plate Removal

Thermostat Support Assembly Removal

The thermostat sits in the trench of the thermostat assembly. Pull the tip back toward the control panel until it releases from the notch of the support assembly. Now, lift the thermostat up and maneuver the capillary tube out of the notch at the rear of the IR weld assembly. Then, extract the screws at the front and rear of the thermostat support assembly and lift out. (See Figure 4-18)

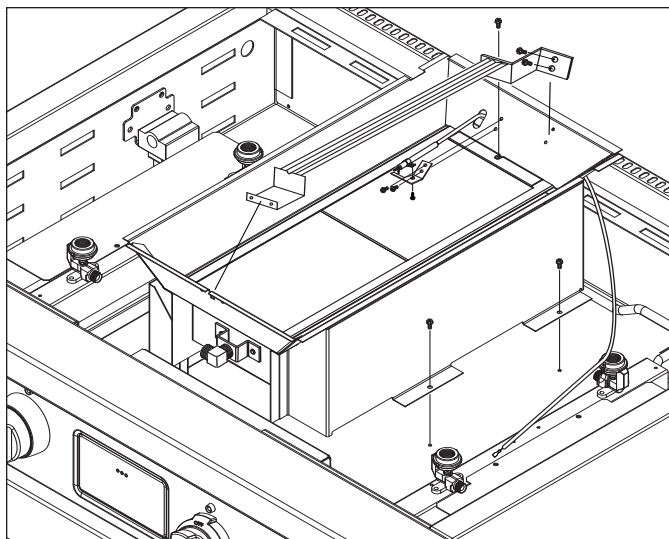


Figure 4-18. Thermostat Support, Electrode and IR Weld Assembly Removal

Electrode Removal

First disconnect the electrode lead from the DSI board. Now, extract the screws from the electrode bracket. Then, pull the electrode with lead through the oblong hole in the IR weld assembly. (See Figure 4-18)

IR Weld Assembly Removal

Extract the screws from either side of the IR weld assembly, lift the front edge and rest it on the shield that protects the ECH. Use a wrench to remove the gas line from the orifice elbow. (See Figure 4-18)

Infrared Burner Removal

First remove the screw securing the infrared burner to the IR weld assembly. Now, using an adjustable wrench, disconnect the gas line from the orifice elbow. (See Figure 4-19) Then, lift the IR burner out from the IR weld assembly.

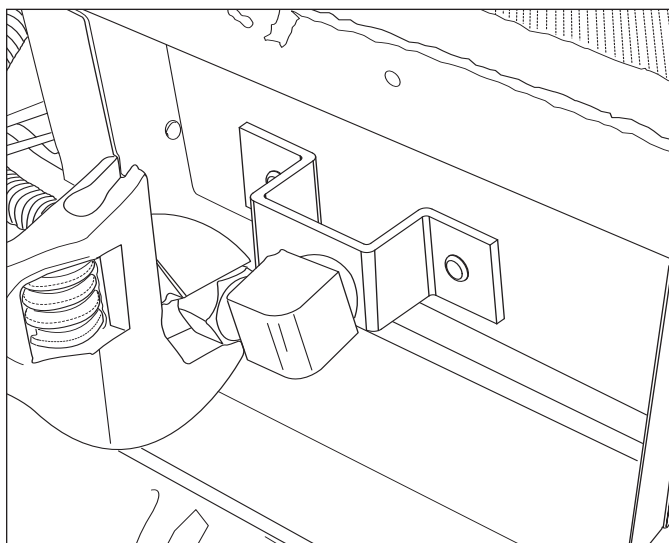


Figure 4-19. Infrared Burner Gas Line Removal

Infrared Thermostat Removal

The griddle thermostat is mounted to the bull nose with two screws and the thermostat bulb is inserted into a channel on the support assembly beneath the griddle plate.

To remove the thermostat, first lift off the griddle plate and slide the thermostat bulb from the support assembly. Pull the griddle knob from the shaft of the thermostat and extract the thermostat mounting screws. Remove the bull nose from the unit (See *Bull Nose Removal Instructions*). Unplug the electrical leads from the thermostat. (See Figure 4-21)

Solenoid Removal

The griddle solenoid valve is mounted to the side wall beneath the burner pan, usually on the left hand side. In order to remove the solenoid, the surface burner components will need to be removed first. Extract the solenoid cover mounting screws and remove the cover. Disconnect the gas lines from the solenoid. Now, extract the screws from the solenoid mounting bracket and pull the solenoid from the unit. (See Figure 4-22)

IR Orifice Removal

The orifice is located in the brass orifice elbow, which is threaded into the orifice holder at the front of the IR burner. The Ir weld assembly must be raised up and placed on the ECH shield for access.

To remove the orifice, first disconnect the gas line from the brass orifice elbow. Then, unscrew the elbow from the orifice holder and extract the orifice from the elbow with wrenches. (See Figure 4-20 and 4-23)

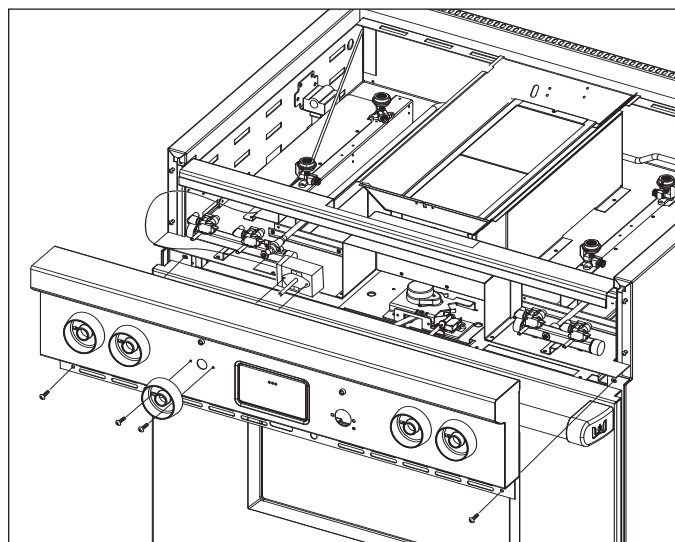


Figure 4-21. Thermostat Removal

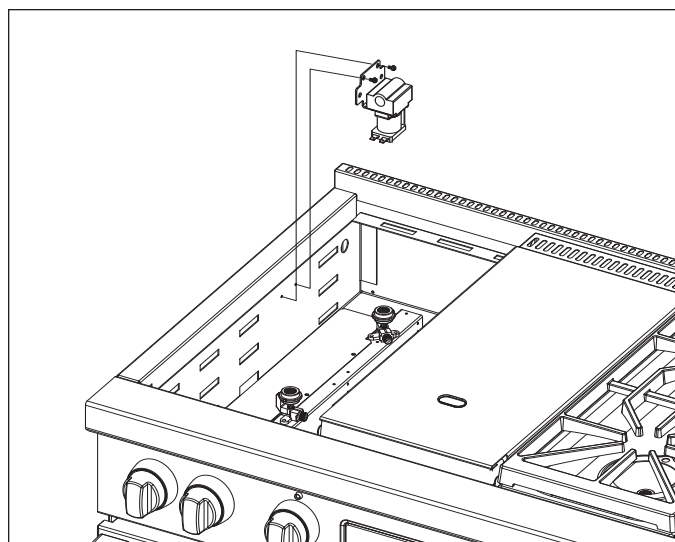


Figure 4-22. Solenoid Removal

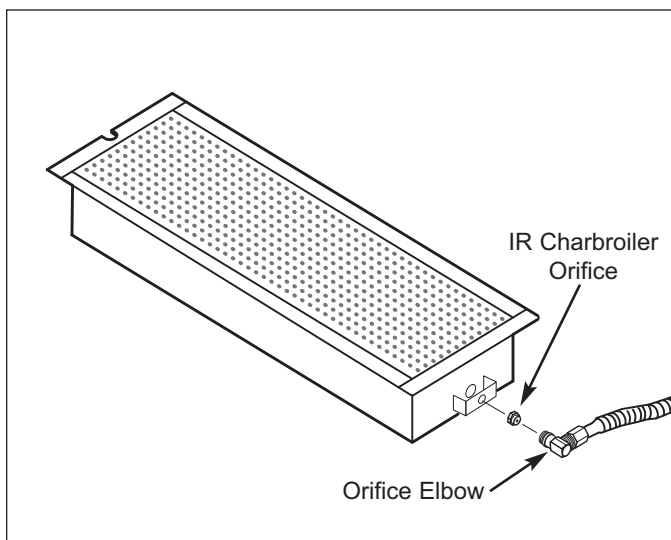


Figure 4-20. IR Charbroiler Orifice Removal

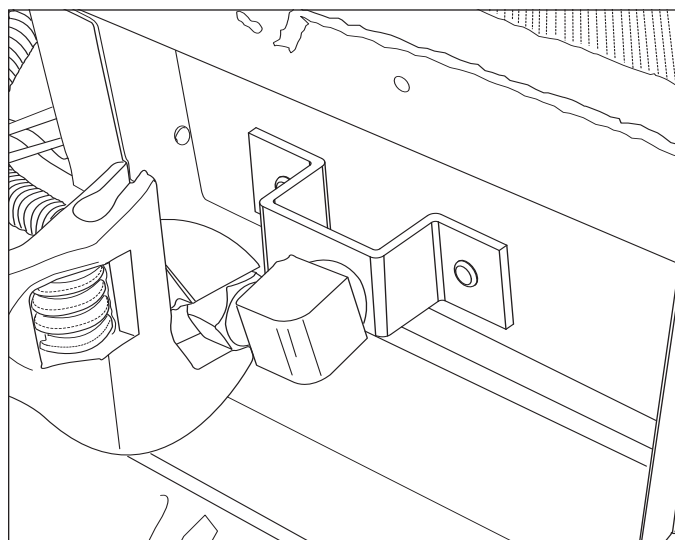


Figure 4-23. Infrared Burner Gas Line Removal

Bull Nose Components

Burner Knobs, Burner Knob Bezel, Oven Selector Knob, Function Selector Bezel, Bull Nose, Indicator Light, Selector Switch and ECH

Burner Knob Removal

The burner knobs are marked with OFF, HI/LO and simmer HI/LO settings. To remove burner knobs, pull the knobs straight off the valve stem(s) of the burner valve(s). (See Figure 4-23)

Burner Knob Bezel Removal

The burner knob bezels are attached to the bull nose with screws. To remove the burner knob bezel(s), first remove the burner knobs. Now using a phillips screwdriver, extract the screws that secure the bezel(s) to the bull nose. (See Figure 4-23)

Oven Selector Knob Removal

The oven selector knob features an LCD display window built into the knob. The LCD will display the temperature of the oven cavity. It will also display abbreviated words. This allows the user to know what special feature they are in. Such as dehydration and sabbath. It will also display Err, this signifies that an error code has been logged into the controller.

To remove the oven selector knob, pull the knob straight out from the selector switch. (See Figure 4-24)

Function Selector Bezel Removal

The function selector knob is labeled with the various cooking modes. This allows the user to turn the function selector knob to engage the various cooking modes.

To remove the function selector knob, first remove the oven selector knob. Now, pull the function selector bezel straight off from the selector switch. (See Figure 4-24)

Bull Nose Removal

To remove the bull nose, first remove all the knobs and the function selector bezel. Then, open the oven door. Now, extract the screws from the bottom left and right corner of the bull nose. Then, grasp the bull nose on the sides and lift up, this will disengage the screws from the keyhole slots of the bull nose and remove. (See Figure 4-25)

NOTE: To completely remove the bullnose, unplug the ribbon cable from the ECH to control board.

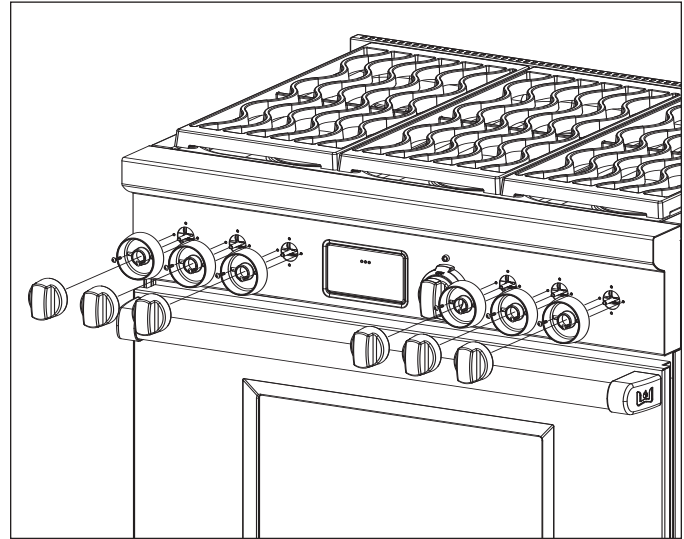


Figure 4-23. Burner Knob Removal

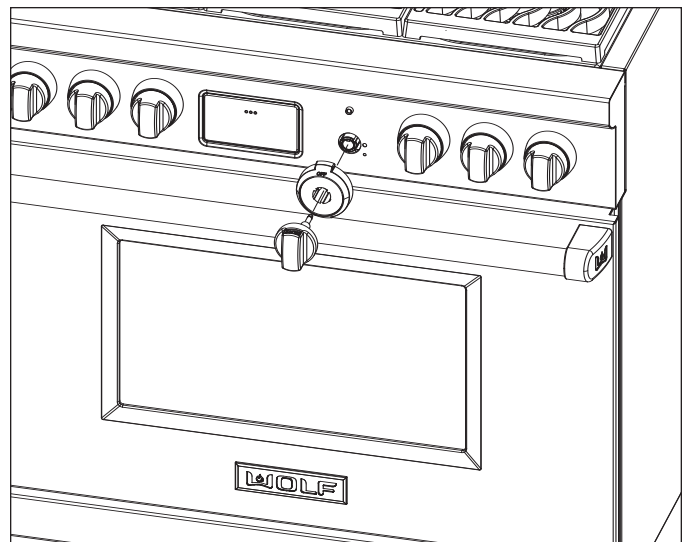


Figure 4-24. Oven Selector Knob and Bezel Removal

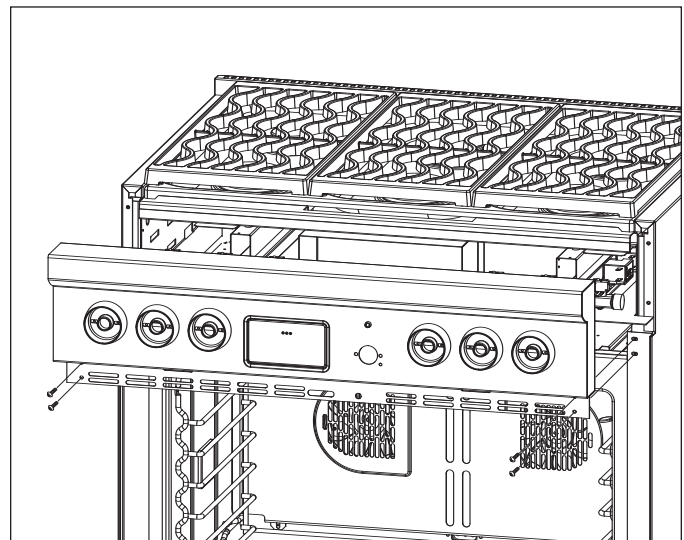


Figure 4-25. Bull Nose Removal

NOTE:

To remove the selector switch, indicator light and ECH, the bull nose will need to be removed from the unit.

Selector Switch Removal

To remove the selector switch, unplug the cable wire harness from the ECH. Then, extract the screws that secure it to the bull nose and remove. Once the selector switch has been removed, the cable wire harness can be removed from the selector switch. (See Figure 4-26)

Indicator Light

To remove the indicator light, unplug the electrical wires from the indicator light to the ECH. Now, remove the spring clip that secures the indicator light to the bull nose. Next, the indicator light can be pull out from the front of the bull nose. (See Figure 4-26)

ECH Removal

To remove the ECH lay the bull nose down on a flat surface with the ECH facing up towards you. Next, locate and extract the three screws that secure the ECH to the bull nose. (See Figure 4-27) Now, disconnect all wiring from the ECH. Then, lift the ECH straight up and out from the bull nose. (See Figure 4-28)

ECH Adjustment

The ECH should be positioned in the center of the ECH opening. If the ECH rubs or scraps when opening or closing it can be adjusted with four screws located on the underside of the bull nose.

To adjust the ECH, located the four screws under the bull nose. Then, loosen the adjustment screws. Now, position the ECH in the center of the opening and retighten the adjustment screws. (See Figure 4-27)

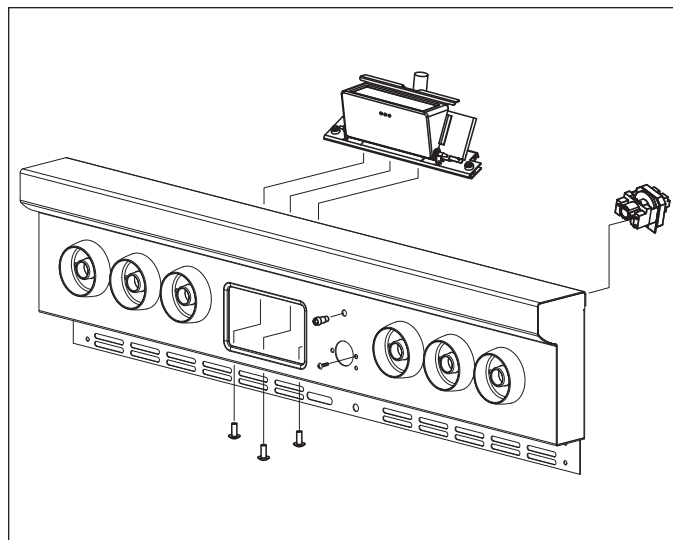


Figure 4-26. Removal of Components from Bull Nose

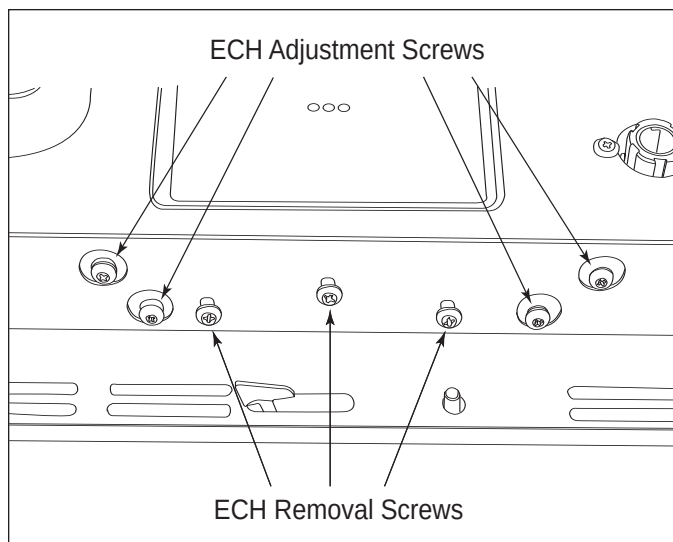


Figure 4-27. Removal Screws and Adjustment Screws

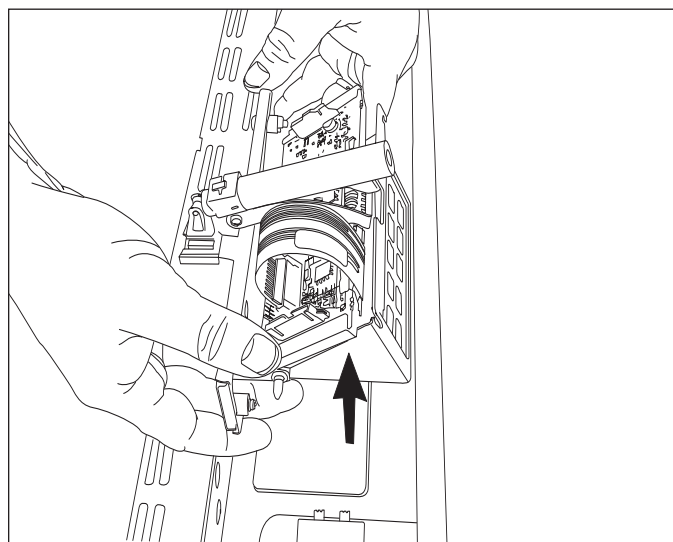


Figure 4-28. ECH Removal

Components Behind the Bull Nose

Valve Switch, Burner Valve, Charbroiler Valve, Griddle Shut Off Valve, Manifold, Control Board, Relay Board, Motorized Door Latch, Transformer and Regulator

NOTE:

To remove the following components, the bull nose will need to be removed.

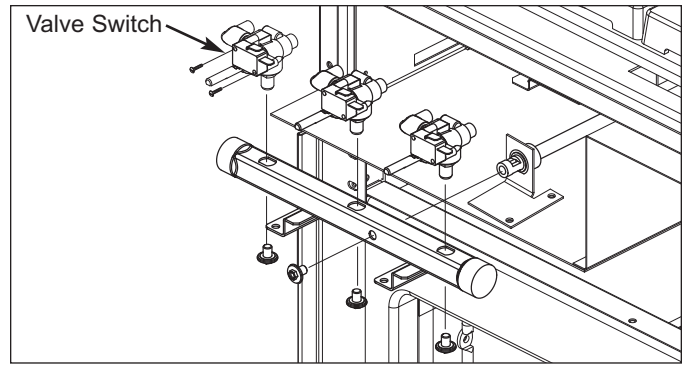


Figure 4-28. Burner Valve Removal

Valve Switch Removal

To remove the valve switch, first disconnect the wire leads from the switch. Then, extract the mounting screws and pull the switch from the valve. (See Figure 4-28)

Burner Valve, Charbroiler Valve, and Griddle Shut Off Valve Removal

Disconnect the flexible gas lines, disconnect any wire leads. Then, extract the screw from underneath the manifold that secures the valve or shut off. (See Figures 4-28, 4-29 and 4-30)

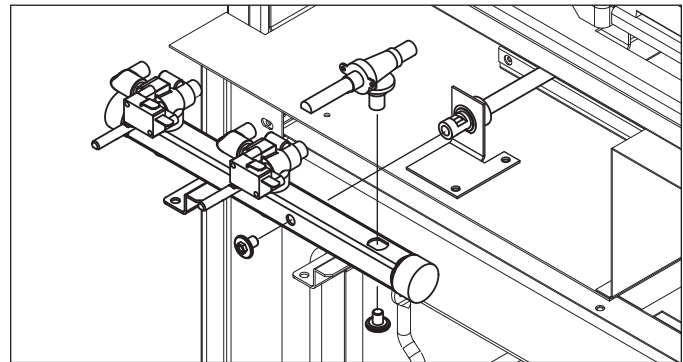


Figure 4-29. Charbroiler Valve Removal

Manifold Removal

First remove all the valves and shut offs. Then, extract the screw in the front of the manifold that secures it to the manifold gas supply line. Now, extract the screws that secure the manifold to the unit and lift out. (See Figures 4-28, 4-29 and 4-30)

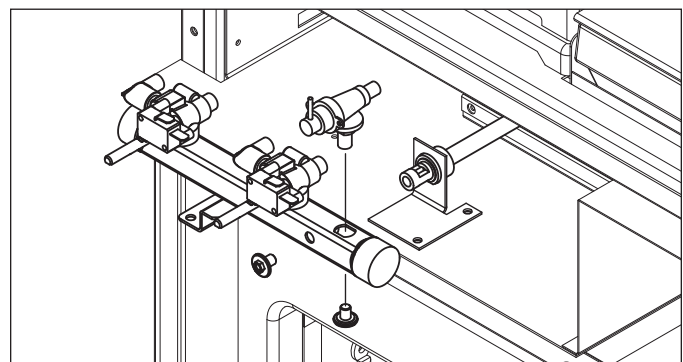


Figure 4-30. Griddle Shut Off Removal

Control Board, Relay Board, Motorized Door Latch and Transformer Removal

Using a small socket and driver, extract the screws that secures the control board plate to the unit. Then, carefully pull the plate straight forward to the front of the unit to gain access to the components.

NOTE: Before disconnecting any wires, make note of their location. Make sure to reference the wiring diagram when re-connecting any wires.

Now, extract the screw(s) which secures the component to the control board plate and disconnect the wiring. Then, remove the component. (See Figure 4-31)

When re-installing the control board plate with components back into the unit, be carefully so the wiring to the components don't get snagged and pulled off from their location.

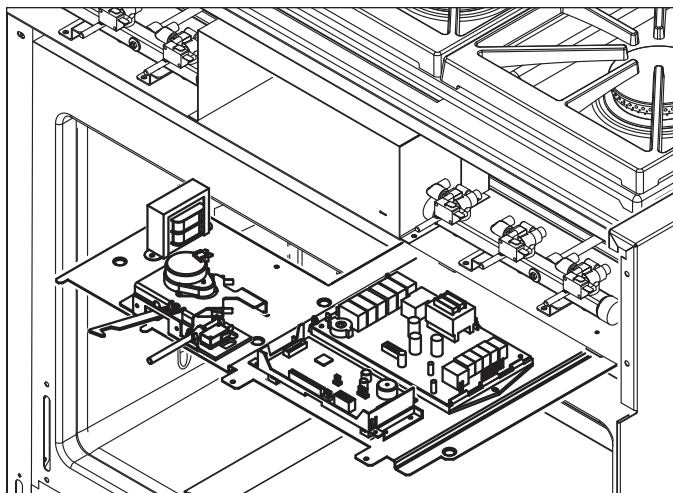


Figure 4-31. Component Removal from Control Plate

Regulator Removal

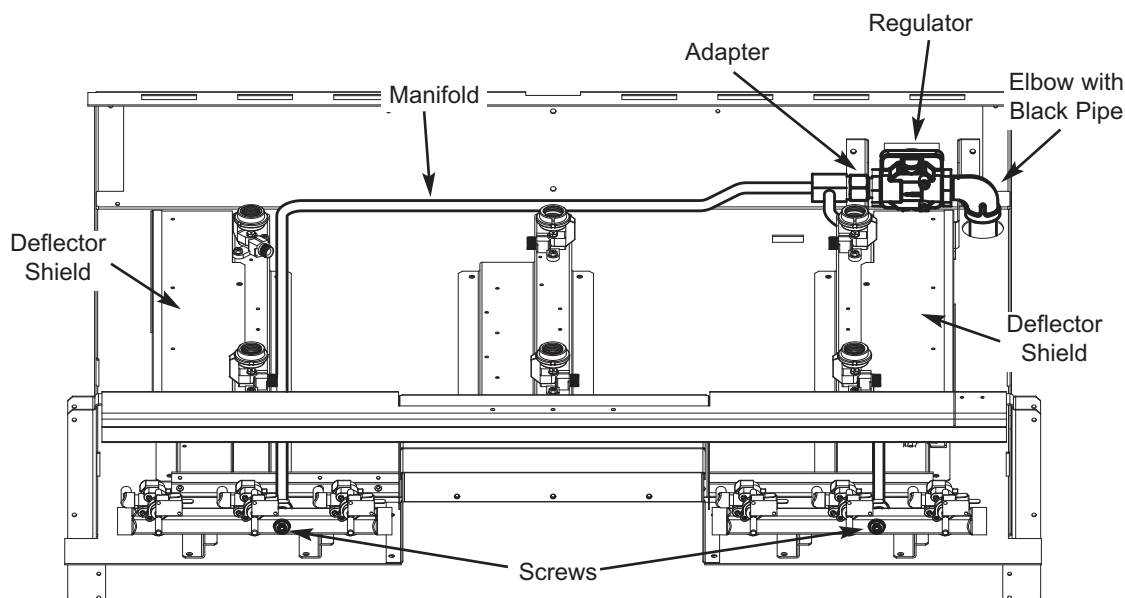
First, pull unit out to access rear of unit. Then, shut off gas supply and disconnect electric supply. Next, remove back panel and disconnect gas union. Now, Remove bull nose, top pan(s) depending on model configuration and extract the screw on front of each manifold which secure the gas lines to manifolds. Next, remove the deflector shields. Then, remove regulator cover and push gas lines out from manifolds. Now, lift entire gas line, adapter, regulator and section of black pipe disconnected at union, out from unit. Once this section has been lifted out from the unit, disconnect the black pipe with elbow from regulator and remove the adapter from regulator. To reassemble, just reverse these steps.

⚠ WARNING

TO ENSURE PROPER BURNER OPERATION, THE O-RINGS **MUST** BE REPLACED ANY TIME THE UNITS IS DISASSEMBLED FOR ANY REASON.

⚠ WARNING

WHEN REINSTALLING VENTURI USE TORQUE WRENCH TO TIGHTEN TO 100 INCH/LBS. OVER TIGHTENING WILL DAMAGE UNIT AND GAS LEAKS MAY OCCUR.



Oven Door Components

Oven Door Removal

The oven door uses a spring and damper system. Only one hinge arm is spring loaded, which requires use of the hinge pin for removal.

On 30-inch and 36-inch units, the hinge pin will be inserted through the hole in right hinge arm (*looking at the front of the unit*). (See Figure 4-32 and 4-33)

On 48-inch and 60-inch units, the spring hinges are located on the outside edges of the unit. On these units, the left oven door will have the spring hinge on the left side. The right oven door will have the spring hinge on the right side. (See Figure 4-33)

Door(s) Removal

To remove oven door, first open the door to its fully opened position. Insert the hinge pin through hole in the appropriate hinge arm. (See Figure 4-34) Remove the screw and the retainer clip from the hinge cover.

NOTE: On units with a new style single hinge retainer plate (See Figure 4-34A), it will require the removal of skirt prior to door removal. The new style single retainer plate will remain with the door during removal once the two screws, securing the retainer plate, are removed.

Close the oven door to about a 60° angle from the horizontal. Lift up on the door while continuing to pull the door away from the unit.

For 48-inch and 60-inch units, complete this procedure for both the left and right oven doors.

⚠ CAUTION

If the pin device is too long, it will rub against the inner door liner and chip the porcelain.

⚠ WARNING

DO NOT LIFT OR CARRY THE OVEN DOOR BY THE DOOR HANDLES.

FAILURE TO INSERT SUPPLIED PIN IN APPROPRIATE HINGE ARM WILL CAUSE DAMAGE TO UNIT, AND POSSIBLE INJURIES MAY OCCUR.

Door(s) Reinstallation

To reinstall door assembly, fully extend hinge claw of hydraulic damper hinge. Next, hold oven door on opposite sides, lift door until the hinges are aligned with the hinge openings in the oven frame. Now, insert hinge claw of hydraulic damper hinge into hinge pocket before inserting the spring side hinge.

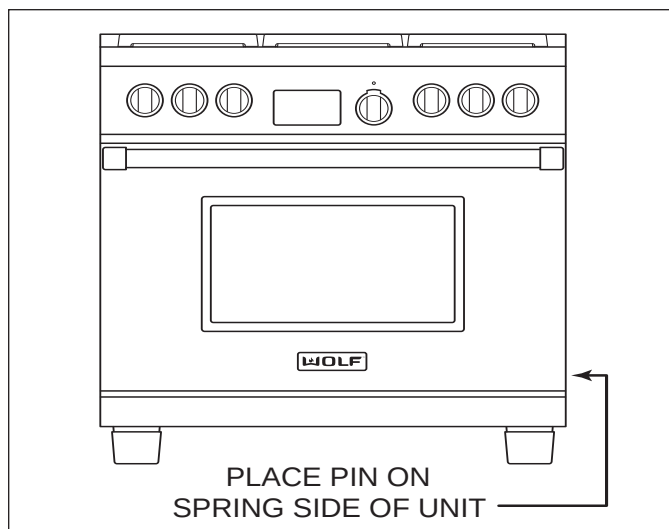


Figure 4-32. Pin Placement for 30" and 36" Units

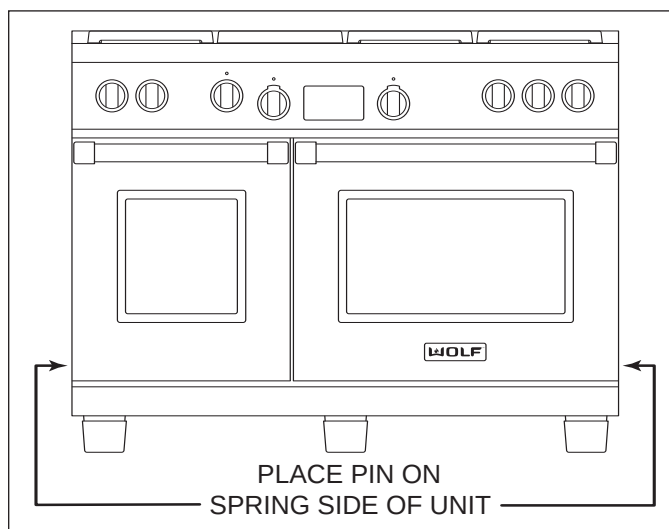


Figure 4-33. Pin Placement for 48" and 60" Units

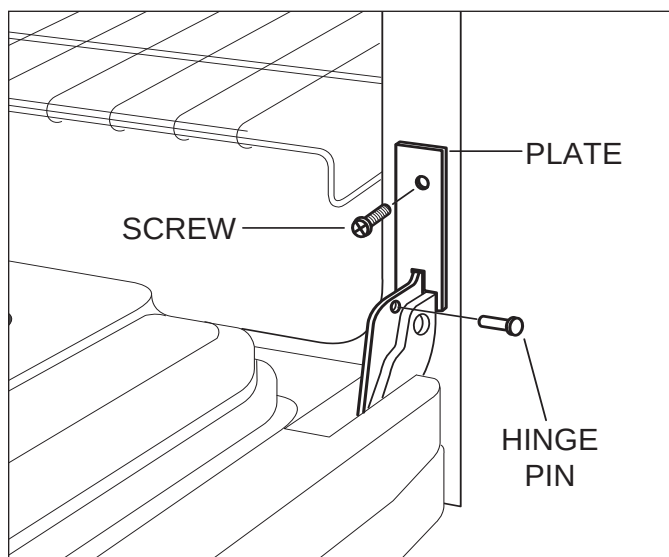


Figure 4-34. Pin Placement On Hinge

Door(s) Reinstallation (Continued)

Then, position door in hinge openings at a 30° angle from vertical. Now, insert spring side hinge into hinge pocket. Next, lower door to fully opened position and remove hinge pin. Reinstall plate and screw over hinge opening. Then, open and close door to insure its properly installed.

NOTE: On units with a new style single hinge retainer plate (See Figure 4-34A), you will need to install the single hinge retainer onto the hinge claw prior to installing door.

⚠ CAUTION

Failure to screw in the bottom screw will lead to future failure. The hole must be drilled and used to secure the bracket.

NOTE: If replacing old style hinge retainer with new style (See Figure 4-34A), you will be required to drill a 9/64" hole for the lower screw once door is installed and prior to installing skirt.

For 48-inch and 60-inch units, complete this procedure for both the left and right oven doors.

Door Adjustments

To adjust doors for height use a 5/32" allen wrench to turn the allen screw for the hinge pocket. This will raise or lower the oven door to the desired height allowing for proper alignment between the bull nose and the top of the oven door. Do this procedure for each side of the oven door until the desired alignment is obtained. (See Figure 4-35 and 4-36)

Door Gasket Removal

First, open the oven door. Now, locate the small clips attached to the underside of the gasket and gently pull the clips from the mounting holes. Next, pull the ends of the gasket out from the bottom of the door liner and remove. (See Figure 3-37).

NOTE: On units starting with serial #16000000 the gasket will be mounted to the front collar of the cavity. Removal procedure is the same.

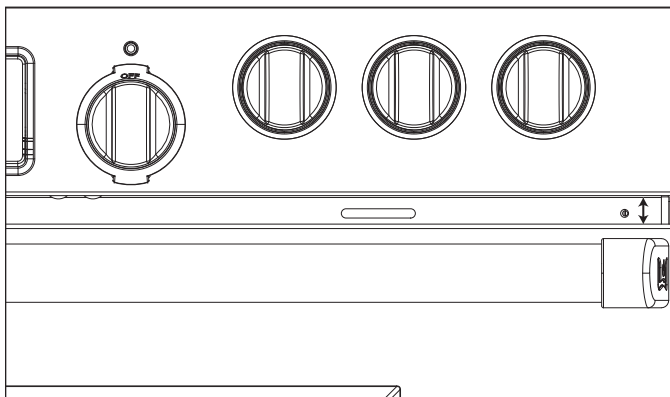


Figure 4-36. Alignment between Bull Nose and Door

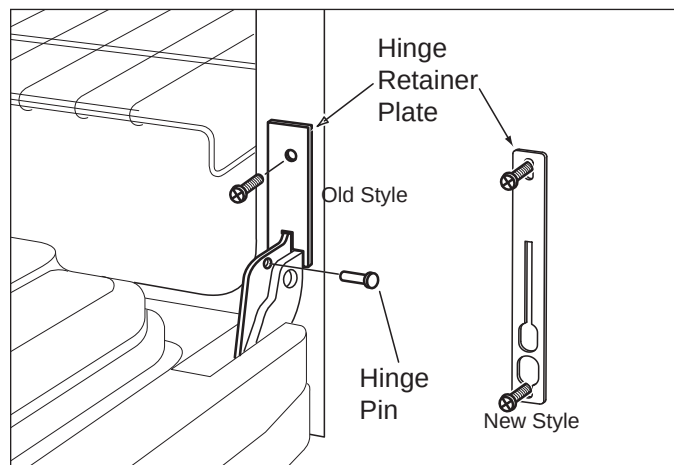


Figure 4-34A. Old style and New Style Hinge Retainer

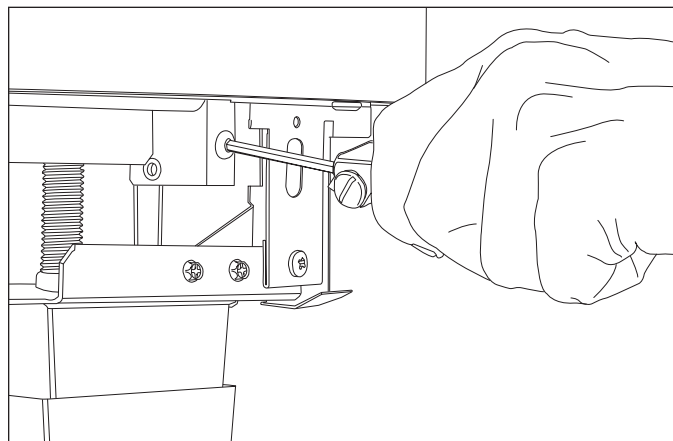


Figure 4-35. Use a 5/32" Allen Wrench to Adjust Door

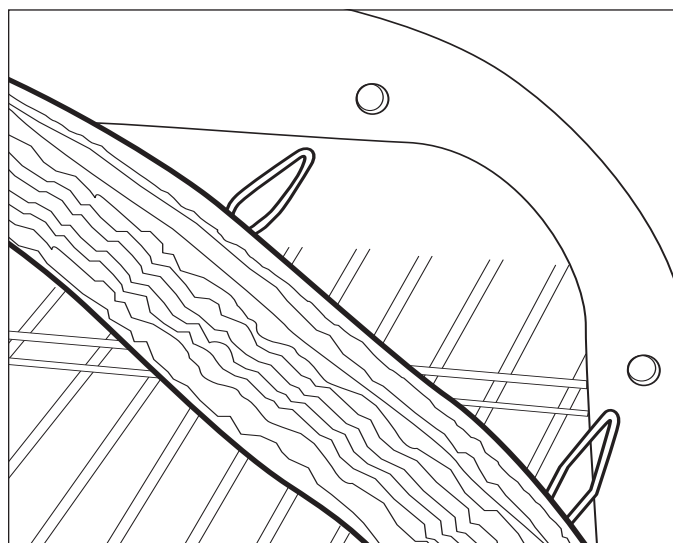


Figure 4-37. Door Gasket Mounting

⚠ CAUTION

When removing or disconnecting the door hinge, remember it could recoil quickly when released.

⚠ CAUTION

Logo must be removed prior to disassembly of door. Use of a heat gun and putty knife, wrapped with tape, will help in the removal.

Outer Door Skin Assembly Removal

First, remove the oven door assembly and lay on front. Extract the two screws on the inside top of the door liner. Next, extract the three screws at the bottom of the outer door skin. Then, remove the outer door skin with handle and lay on front. Now, extract the four screws from the door handle assembly and remove. Remove the heat shield and insulation from the outer door skin. (See Figure 4-38).

Glass Pack Removal

To begin, remove the oven door assembly. Then remove the outer door skin. Now, extract the screws that secure the door liner bracket to the door liner, also extract the screws on the sides of the door liner bracket in order to remove. Now, remove door baffle from around glass pack. Now, lift the glass pack up and remove. (See Figure 4-39)

Hinge Removal

To begin, remove the oven door assembly and outer door skin assembly. Next, extract the two screws at the bottom corner of the door liner. Raise the bottom of the door hinge assembly from the door liner. Then, using a small flat bladed screwdriver, carefully raise the tab at the top of the hinge and slide the hinge out from under tab and remove. (See Figure 4-40)

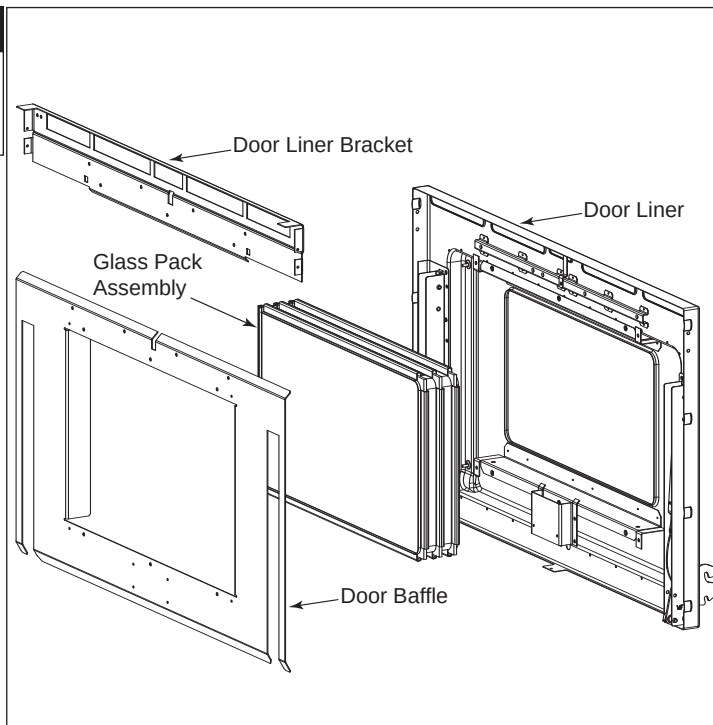


Figure 4-39. Glass Pack Assembly Removal

Hydraulic Hinge Removal

To begin, remove the oven door assembly and outer door skin assembly. Next, extract the two screws at the bottom corner of the door liner. Now, raise the bottom of the hydraulic hinge assembly from the door liner. Then, using a small flat bladed screwdriver carefully raise the tab at the top of the hydraulic hinge and slide the hinge out from under tab and remove. (See Figure 4-40)

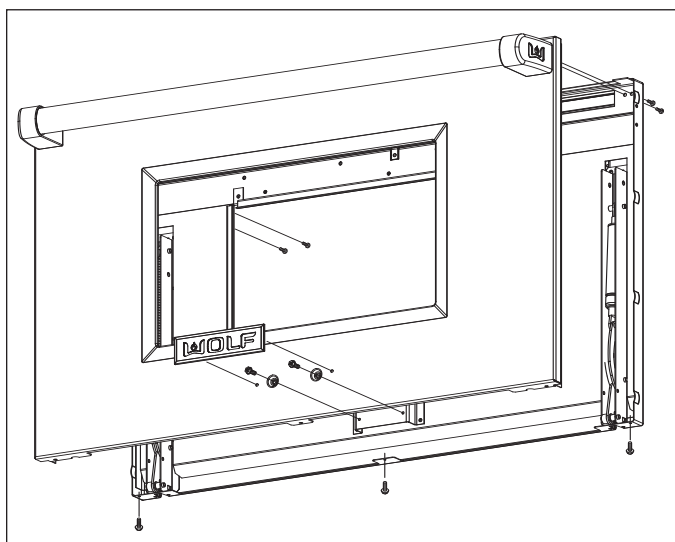


Figure 4-38. Door Skin Removal

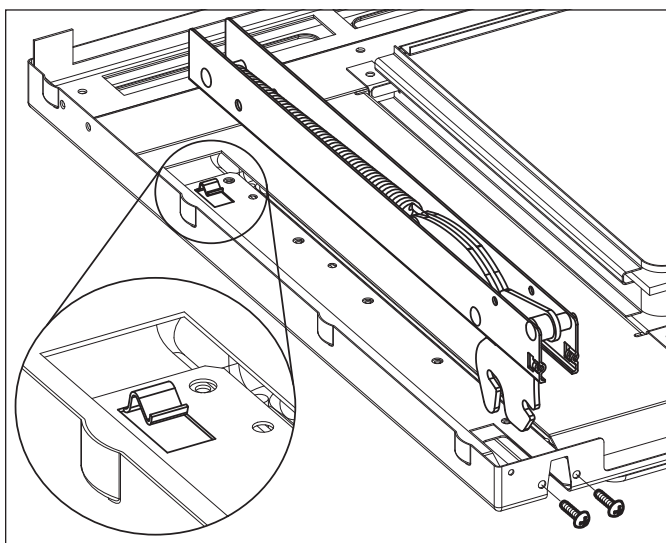


Figure 4-40. Spring and Hydraulic Hinge Removal

Oven Compartment Components

Left and Right Rack Guide Removal

First, remove oven racks. Then, extract the screws in each corner, top and bottom of the rack guide and lift guide out.

NOTE: On units starting with serial #16000000 the oven rack guides remove without extracting any screws. Simply lift upwards on the rack to disengage the shoulder screw from the keyhole slot on the rack guide and remove. (See Figure 4-41)

Oven Light Removal

To remove the oven light you will need to remove the oven racks and guides. Next, the light cover will need to be removed by gently pulling the light cover off the light housing. Now, to remove the light bulb, lift the bulb straight up and out of the light bulb socket.

NOTE: When replacing the light bulb with a new one, wrap a clean cloth around the new bulb so fingerprints are not left on the new bulb. The greasy residue from fingerprints may cause the new bulb to burn out prematurely.

Convection Baffle Plate Removal

First, the racks and rack guides will need to be removed. Now, extract the screws in each corner, the top and bottom of the convection baffle plate and remove. (See Figure 4-42)

Convection Fan Assembly Removal

The racks, rack guides and convection baffle plate will need to be removed first. Then, extract the screws around the convection fan and the top screw located between the element (where the element goes through the oven cavity). (See Figure 4-43) Now, pull fan assembly into oven cavity and disconnect wiring and remove.

Broil Element and Broil Pan Removal

To have more room when removing the broil element, remove the racks from the unit. Next, extract the four screws that secure the element and broil pan to the ceiling of the oven cavity. Now, extract the two screws that secure the element leads through the oven cavity. Then, pull the element forward and down into the oven cavity until the terminals and wires are exposed. Now, disconnect the wires and remove the element and broil pan. (See Figure 4-44)

Smoke Catalyst Removal

The catalyst is located in the rear ceiling of the oven cavity. To remove, extract the two screws and pull catalyst straight down and remove. (See Figure 4-44)

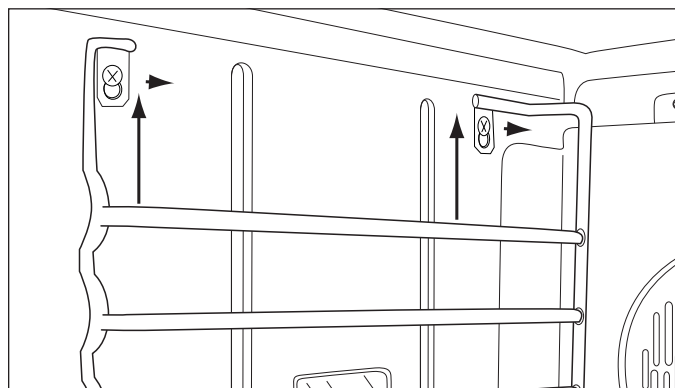


Figure 4-41. Removable Rack Guides

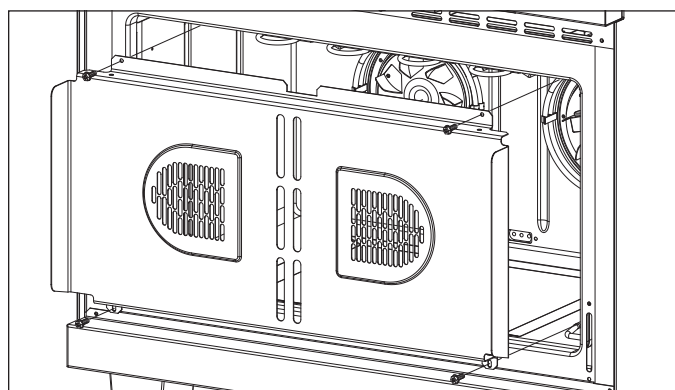


Figure 4-42. Convection Baffle Removal

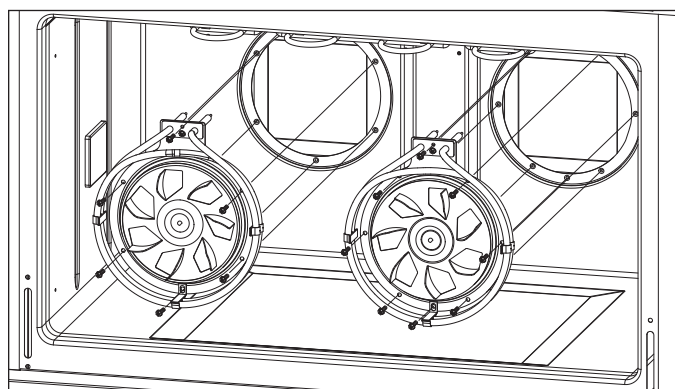


Figure 4-43. Convection Fan Removal

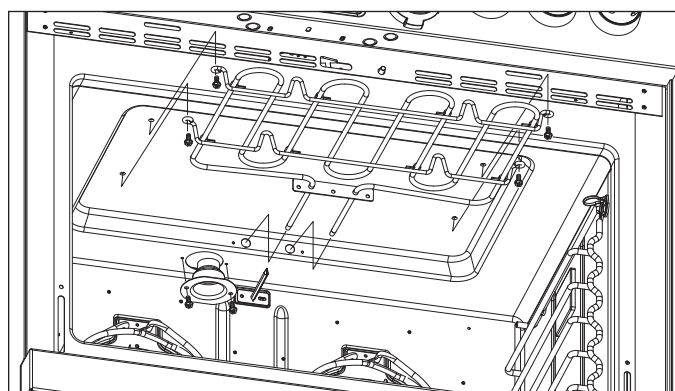


Figure 4-44. Broil Element and Smoke Catalyst Removal

Temperature Sensor Removal

Extract the two screws which secure the sensor to the oven cavity. Next, carefully pull the sensor with wire leads straight out from the oven cavity, until the molex connector is inside the oven cavity. Now, unplug the molex connector and remove the temperature sensor. (See Figure 4-45)

NOTE: When the moles connector is disconnected, make sure the male end of the connector doesn't fall back into the hole. If it does, the unit may have to be pulled out from its installation in order to reconnect the molex connectors for the sensor.

Probe Cover and Probe Switch Removal

To remove the probe cover, first you will need to raise the probe cover up. Now, using a wrench, loosen and remove the nut. Now, the cover can be removed.

To remove the probe switch the outer side panel on the right side of the unit will need to be removed. Next, extract the screw and remove the access panel for the probe switch. Now, pull the switch from the oven cavity and disconnect the wires from the switch terminals. (See Figure 4-45)

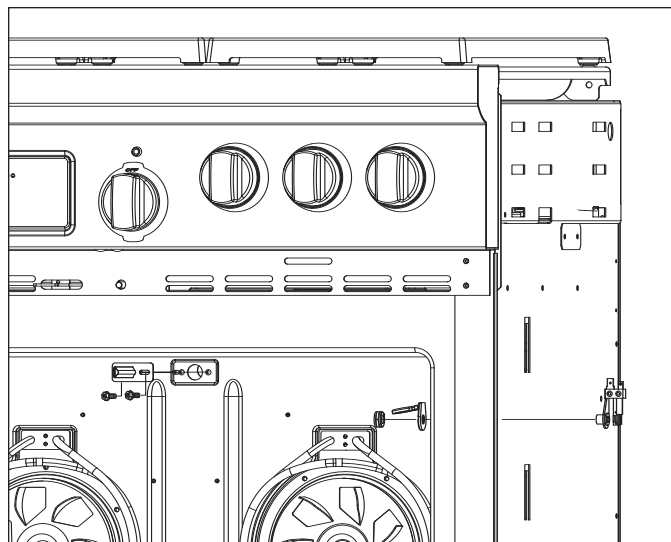


Figure 4-45. RTD and Probe Removal

Hidden Bake Element Removal

The hidden bake element is located in the front of the unit behind the grill skirt.

To remove the bake element, first remove the grill skirt. Now, disconnect the wiring harness for the bake element. Then, extract the screws that secure the heat shield. Next, carefully pull the pan assembly straight forward and tilt down. Now, slide the element pan assembly towards the front until it stops. Then, lift the element assembly out from the pan assembly. (See Figure 4-46)

NOTE: When re-installing the bake element and pan assembly back into the unit, be careful not to break off the white insulation that lines the element.

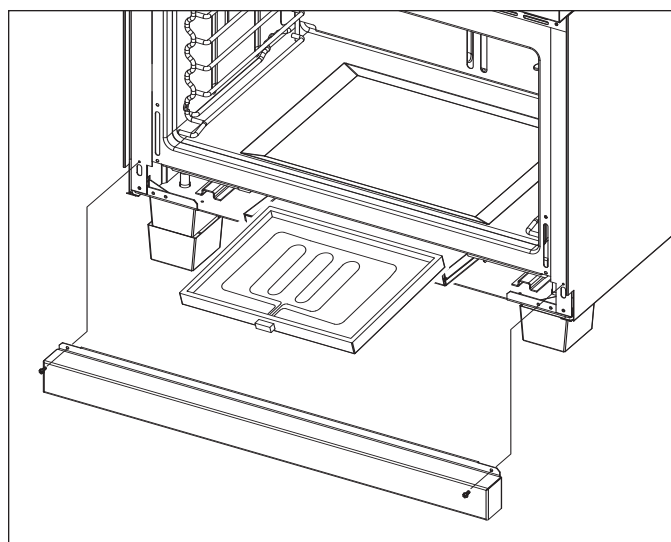


Figure 4-46. Bake Element Removal

Side and Back Panel Components

Outer Side Panel Removal

In order to remove the side panel, the unit must be pulled from its installation and remove the door assembly, bull nose assembly, grill skirt and island trim or riser first. Now, extract the four screws from the rear of the side panel and the two screws from the front of the side panel. Then, grasp the bottom of the side panel and tilt outward slightly while lifting the side panel upward and remove. (See Figure 4-47)

Cooling Fan Removal

The cooling fan is located at the rear of the unit between the top surface burners and the oven. To remove the cooling fan, first extract the screws that secure the side panels and island trim or riser. Now, extract all the screws that secure the back panel. Then, extract the two screws in the lower middle of the fan mounting bracket (these two screws secure the cooling fan in position). Next, remove the fan mounting bracket. Then, disconnect the wiring and remove the cooling fan. (See Figure 4-48)

Thermo Limiter

The thermo limiter can be reset if it trips. The thermo limiter is mounted on the back panel insulation (this is a metal panel). To remove the thermo limit, the back panel will need to be removed. Then, disconnect the wiring to the limit and remove.

NOTE: If the thermo limiter has been tripped, you can reset it by removing the convection baffle and left convection fan from the oven cavity. Reach through the left convection fan opening. The limiter is located directly above the opening and to the right. You can now reset the limit for the oven.

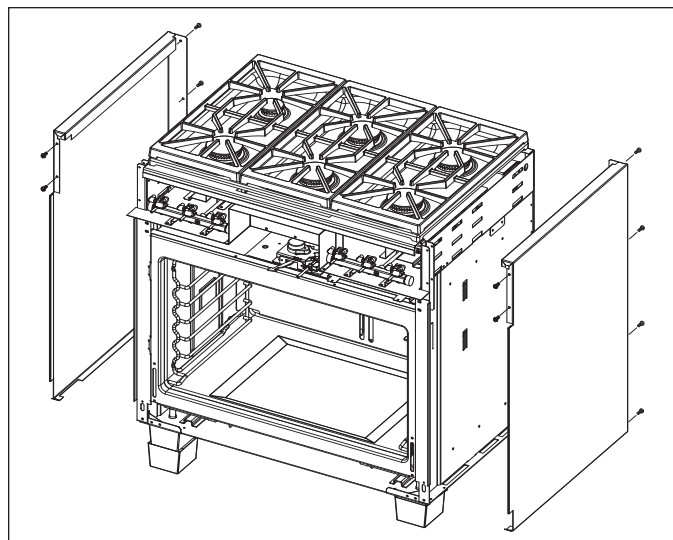


Figure 4-47. Outer Side Panel Removal

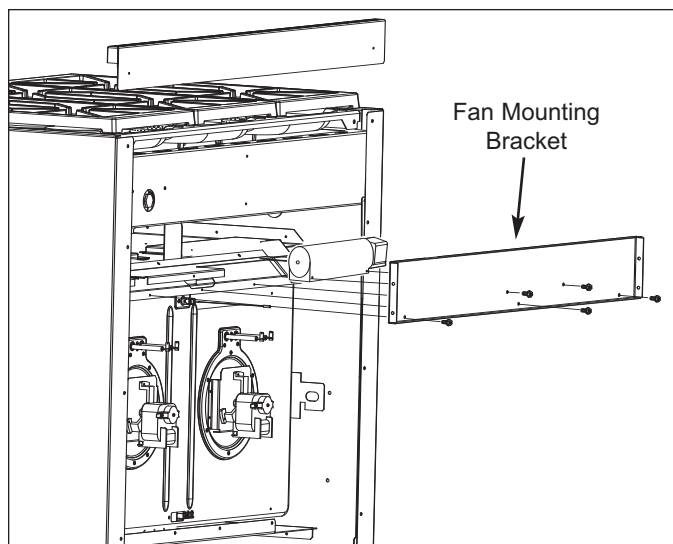


Figure 4-48. Cooling Fan Removal

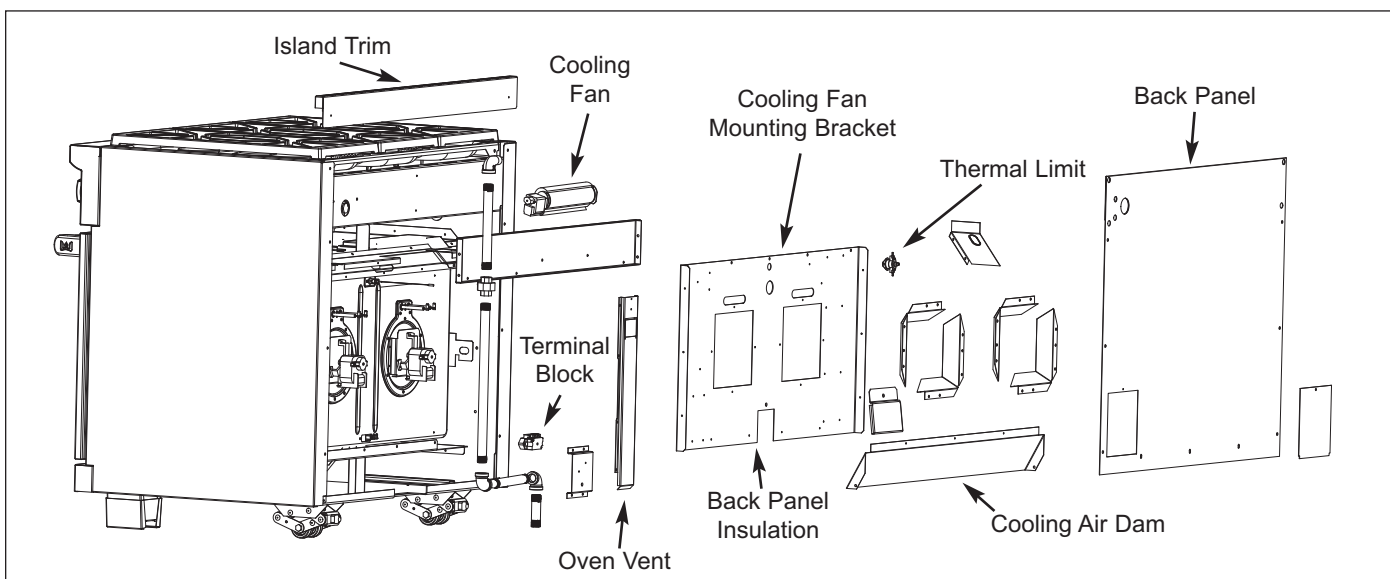


Figure 4-49. Removal of Back Panel Components

[illegible]

SECTION 5

TROUBLESHOOTING GUIDE

TROUBLESHOOTING GUIDE

This section of the manual contains the General Troubleshooting Guide which will help the Service Technician troubleshoot a Wolf Dual Fuel Range.

How to Use the Troubleshooting Guide

The troubleshooting guide table of contents shows how the troubleshooting guide is laid out. The troubleshooting guide is organized into component areas with the most common problems listed first.

On the table of contents identify the description of the problem that the unit is experiencing. To the left of the problem description is a letter. Locate that letter in the left column of the Troubleshooting Guide. The center column of the troubleshooting guide will identify the possible causes for the problem. The information to the right of the possible causes will explain what tests to perform in order to determine if what you are checking is the cause, and/or what action to take to correct the problem.

Diagnostic Mode

To initiate Diagnostic Mode, the oven control knob bezel must be OFF position. Now, press and hold CLOCK key and TIMER key for 3 seconds. The ambient cavity temperature will be displayed in the temperature readout knob. Now, turn the oven temperature readout knob to the right seven separate times, this will toggle from error code 1 thru 7. To return to error code number one, turn the oven temperature readout knob to the left seven separate times. The software version will be displayed in the hours and minutes display of the clock. To clear error codes once unit has been fixed, press the CLEAR key. To exit Diagnostic Mode, press the ENTER key.

NOTE: Once diagnostic mode is entered, there is a 2 minute time out, which is restarted each time a key is pressed.

Error Indicators

Error codes can give a visual and audible alarm. The visual indication will be "Err" displayed in the Cook Time digits and the number or letter of the error code will be displayed in the Stop Time digits of the Electronic Control Housing. The Oven Temperature Readout Knob will also show "Err" in the display window. The last seven errors will be stored in the EEPROM for recall when in diagnostic mode.

FIELD OPTION MODE

Field option mode allows for the user to adjust or change specific options of the ECH and oven controller, such as User Preference Offset, 12 hour to 24 hour clock and ° Fahrenheit to °Celsius temperature.

UPO (User Preference Offset)

This option allows the user to offset a specific oven temperature $\pm 35^{\circ}$ in 1°F (Fahrenheit) increments or $\pm 19^{\circ}$ in 1°C (Celsius) increments.

To initiate, press and hold the CLOCK key for 5 seconds. The current UPO will be displayed in the temperature readout knob, turning the knob at this point you can change the UPO. Turn the knob to the left or right to increase or decrease the UPO in 1° increments as much as $\pm 35^{\circ}$.

Changing Clock to 24 Hours

To set 24 hour clock, press and hold CLOCK key on display panel for 5 seconds. Now, press CLOCK key to change from 24 hour to 12 hour or vice versa. Then, press ENTER or after short delay the clock will set by default.

Fahrenheit to Celsius

The oven temperature can be changed to read Fahrenheit or Celsius temperature..

To initiate, press and hold CLOCK key on display panel for 5 seconds. Now, press COOKTIME key to change from °F and °C or visa-versa. Next, press ENTER key on the display panel or after short delay °F or °C will set by default.

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Problems Associated with the Surface Burners

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
A. CONSTANT SPARKING AT SURFACE BURNER	Ground wire disconnected at outlet or inside unit	May have to call an electrician. Check internal connections, may have to wire correctly
	Spark module wired incorrectly or defective	Rewire spark module(s) or replace
	Electrode not positioned properly	Reposition electrode. Electrode should be seated down to cooktop pan.
	Burner head not properly positioned on inner distribution ring	Rotate to correct position and advise owner
	Defective micro switch at burner valve	Replace micro switch
	Cut or splice in electrode wire	Replace electrode wire
B. INTERMITTENT SPARKING AT SURFACE BURNER	Dirty electrode	Clean with wire brush
	Cracked or damaged electrode	Replace electrode
	Cut or splice in electrode wire	Replace electrode wire
	Loose wire connection at spark module	Repair wire connection
C. POOR IGNITION AT SURFACE BURNER	Defective spark module	Replace spark module
	Burner head not properly seated on inner distribution ring	Rotate to correct position and advise owner
	Electrode not positioned properly	Reposition electrode. Electrode should be seated down to cooktop pan.
	Partially plugged ports in burner head	Clear/clean as necessary
	O-rings not properly installed	Install properly or replace if defective
	Debris on inner distribution ring	Clean/remove debris
	Inner distribution ring has burr or crack	Replace inner distribution ring
	Improper Gas orifice	Check orifice stamp number
	Gas pressure	Check gas pressure with a manometer
	Improper gas type	Check for gas type and advise owner if improper. May have to convert unit to LP/Natural gas
D. NO IGNITION AT SURFACE BURNER	Defective micro-switch at burner valve	Replace micro switch
	Defective/dirty electrode	Replace/clean electrode
	Defective or loose wiring	Replace/repair wiring
	Defective spark module	Replace spark module(s)
	No Power	Check outlet and circuit breaker
	No gas to unit	Check gas pressure with a manometer
E. POPPING NOISE AT SURFACE BURNER DURING SIMMER MODE	Burner head not seated properly	Reposition burner head and advise owner
	O-rings damaged or not seated properly	Replace/reposition o-ring
	Burr on bottom of burner head	Replace burner head
	Burner head damaged or dirty with food debris	Replace/clean burner head
	Inner distribution ring cracked or warped	Replace inner distribution ring
F. FLAME APPEARANCE ON SURFACE BURNER(S) <i>1. Tall flame</i> <i>2. Yellow flame</i> <i>3. Pulsing flames</i>	Burner head not positioned properly	Make sure burner head is locked in properly
	Burners not getting enough primary or secondary air	Make sure air vents at front of burner box are not blocked
	Port holes in burner head not to specification or damaged/dirty	Replace/clean burner head
	Incorrect gas orifices	Check stamp number on orifices
	Gas pressure	Check gas pressure using a manometer

Problems Associated with the Charbroiler

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
G. CONSTANT SPARKING AT CHARBROILER	Defective micro switch at burner valve	Replace micro switch
	Defective Spark Module	Replace Spark Module
	Arcing at spark module to bracket or unit chassis	Check for break in insulation or missing
H. INTERMITTENT SPARKING AT CHARBROILER	Dirty electrode	Clean food debris from electrode
	Cracked or damaged electrode	Replace electrode
	Defective micro switch at burner valve	Replace micro switch
	Arc at cut or splice in electrode wire	Replace electrode
	Defective Spark Module	Replace Spark Module
I. POOR IGNITION AT CHARBROILER	Cracked or damaged electrode	Replace electrode
	Electrode not positioned properly to Infrared burner, not close enough to tile surface.	Reposition electrode properly to Infrared burner. Electrode should be clear of the screen and 1/8" above the tile
	Partially plugged holes in the burner tile	Clear as necessary with wire paper clip. Replace burner if too many burner holes are clogged.
	Wrong orifice size	Check orifice stamp number. Replace if incorrect
	Blockages in mixing tube or orifice	Clear or clean as necessary
	Gas pressure	Check gas pressure using a manometer
	Bent orifice bracket holder	Straighten so that gas jet is aimed straight down mixing tube or replace bracket holder
	Improper gas type	Check for gas type and advise owner if improper. May have to convert unit to LP/Natural gas
J. NO IGNITION AT CHARBROILER	Defective micro switch	Replace micro switch
	Loose or bad wire connection	Check all wires per wiring diagram
	Defective sparker	Replace sparker
	Defective Spark Module	Replace Spark Module
	No power	Check outlet and circuit breaker
	No gas	Check gas pressure using manometer
	Short to spark module bracket or chassis	Visually inspect the spark module bracket
K. UNEVEN HEAT AT CHARBROILER	Unit not level	Level unit from front to rear and side to side
	Radiant plate not in correct position or installed	Correct position of Radiant Plate or install if missing
L. CHARBROILER TOO HOT	Incorrect orifice	Verify proper orifice is installed for gas type

Problems Associated with the Griddle

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
M. CONSTANT SPARKING AT GRIDDLE / FT	Ground wire disconnected at outlet in wall or power cord to unit terminal block	May have to call an electrician
	Ground wire on DSI board loose or defective	Check ground wire. Replace if defective
	Defective solenoid assembly	Replace solenoid assembly
	Arc at cut or splice in electrode wire	Replace electrode
N. INTERMITTENT SPARKING AT GRIDDLE / FT	Cracked or damaged electrode	Replace electrode
	Arc at cut or splice in electrode wire	Check for break in insulation. Replace electrode if defective
	Bad connection at the J1 connector on the DSI board	Perform DSI board troubleshooting procedures located at end of section 6
	Bad connection at the GND connector on the DSI board to unit chassis	Check GND wire connections. Ohm ground wire. Replace if defective
	Defective DSI board	Perform DSI board troubleshooting procedure located at end of section 6
O. POOR IGNITION AT GRIDDLE	Cracked or damaged electrode	Replace electrode
	Electrode not positioned properly to Infrared burner, not close enough to tile surface	Reposition electrode properly to Infrared burner. Electrode should be clear of the screen and $\frac{1}{8}$ " above the tile
	Partially plugged holes in the burner tile	Clear as necessary with wire paper clip. Replace burner if too many burner holes are clogged.
	Incorrect orifice size	Check orifice stamp number. Replace if incorrect
	Gas pressure	Check gas pressure with a manometer
	Blockages in mixer tube or orifice	Clear or clean as necessary
	Bent orifice bracket holder	Straighten bracket holder so gas jet is aimed straight down mixing tube or replace bracket holder
P. NO IGNITION AT GRIDDLE / FT	Improper gas type	Check for gas type and advise owner if improper. May have to convert unit to LP/Natural gas
	Defective electrode	Ohm electrode with wire. If open replace electrode
	No gas	Check gas supply, make sure gas is turned on at shut off valve on manifold and supply source. Check gas pressure with a manometer
	Defective DSI board	Perform DSI board troubleshooting procedures located at end of section 6
Q. CANNOT REGULATE TEMPERATURE AT GRIDDLE	Kinked or pinched capillary tube on the thermostat	Straighten capillary tube if possible. Replace thermostat.
	Thermostat bulb not installed properly	Install thermostat bulb properly
	Defective thermostat	Replace thermostat

Problems Associated with the Griddle

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
R. “CFH” INDICATOR LIGHT <u>ON</u> BUT <u>NO</u> HEAT ON GRIDDLE SURFACE	Improper Seal at bull nose to burner box	Check griddle operation with cooling fan OFF - does griddle work? If yes, check with cooling fan ON. If no, check for gaps and proper sealing of burner box
	Thermostat bulb incorrectly positioned on thermostat support assembly	Reposition thermostat bulb
	Defective solenoid	Ohm solenoid. Replace if defective
	Electrode not positioned properly to Infrared burner, improper gap to tile surface	Reposition electrode properly to Infrared burner. Electrode should be clear of the screen and 1/8” above the tile
	Shut off valve on manifold in off position or supply gas not turned on	Check gas supply, make sure gas is turned on at shut off valve on manifold and supply source. Check gas pressure with a manometer
S. “CFH” INDICATOR LIGHT <u>OFF</u> AND <u>NO</u> HEAT ON GRIDDLE SURFACE	Defective thermostat	Ohm thermostat. Replace if defective
	No power to unit	Reset breaker / turn on electrical power to unit

Problems Associated with the Function Selector Bezel and Oven Selector Knob

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
T. OVEN <u>WILL NOT</u> GO INTO COOKING MODE	Defective wires from ECH to selector switch	Check connectors by unplugging each end. Then, plug connectors back in and check mode. Still not working, ohm wires on cable from ECH to selector switch. Replace if defective
	Defective Oven Selector Knob	Ohm knob. Replace if defective
	Defective selector switch	Replace selector switch
U. OVEN <u>WILL</u> ENTER COOKING MODE BUT <u>NO DIS-PLAY</u> IN OVEN SELECTOR KNOB	Loose or defective wire harness or connection from selector switch to ECH	Reseat connections. Check continuity of wire harness, replace if defective.
	Defective selector switch	Replace selector switch
	Defective ECH	Replace ECH
V. OVEN SELECTOR KNOB CONTINUOUSLY INCREASE OR DECREASES TEMPERATURE READING	Oven selector knob stuck	Turn knob to HI or LO position and let go. Does temperature readout stop increasing or decreasing? If yes, can the problem be recreated? If yes, replace selector switch. If no, problem fixed - knob was stuck
W. “PF” DISPLAYED IN OVEN SELECTOR KNOB	Unit had a power failure	Turn oven selector bezel to cooking mode, then back to OFF to reset
X. “Hot” DISPLAYED IN OVEN SELECTOR KNOB	Oven temperature too hot for cooking mode selected	Open oven door to cool oven cavity temperature
	Loose or defective connection at J2 connector on oven controller	Check connections at J2. Unplug and reseat
	RTD out of specifications	Ohm RTD sensor. Replace if out of specification according to technical data
	If “Hot” is displayed, a mode was attempted while the temperature was above the threshold.	A single long beep will occur. Allow the oven to cool down, then select mode and temperature desired.

Problems Associated with the Electronic Control Housing (ECH)

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
Y. “Err” DISPLAYED IN OVEN SELECTOR KNOB	Error code has been logged into oven controller	Initiate diagnostic mode to displayed error code. Repair procedure according to error code displayed
Z. “SAb” DISPLAYED IN OVEN SELECTOR KNOB	Unit in sabbath feature	Turn oven bezel to OFF to exit
AA . NO DISPLAY IN ECH	Temperature knob not inserted properly into selector switch	Pull temperature knob out and reinsert fully
	ECH needs to reboot	Turn circuit breaker off for 5 seconds, then turn back on
	Circuit breaker tripped, no power	Reset circuit breaker. May have to call an electrician
	Loose or defective wire connection(s)	Perform testing procedure located at end of section 6
	Defective Relay Board	Perform testing procedure located at end of section 6
	Defective Oven Controller	Perform testing procedure located at end of section 6
BB. UNRESPONSIVE KEY PAD(S)	Unit in Sabbath feature	Turn oven bezel to OFF to exit
	ECH needs to reboot	Turn circuit breaker off for 5 seconds, then turn back on
	Loose/defective cable connection from oven controller to electronic control housing	Unplug cable connections and ohm cables, if defective, replace cable. If good, reinsert cable
	Defective key pad(s)	Replace ECH
	Defective ECH	Replace ECH
CC. ECH DOESN'T FLIP OUT	ECH rubbing on control panel	Recenter ECH with adjustment screws located on underside of control panel
	Defective ECH	Replace ECH
DD. UNIT BEEPS WHEN ANY AREA OF THE ECH IS TOUCHED	Defective ground between ECH and unit	Check continuity using ohm meter. Place leads on ECH assembly and the unit. Push the ECH open and closed while performing continuity checks. No reading, go to next possible cause
	Spring on ECH binding on mounting bracket and housing	Re-center spring in-between bushings
	Broken spring on ECH mounting bracket	Replace ECH

Problems Associated with the Oven

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
EE. LONG PREHEAT	Defective hidden bake element	Check for error codes in diagnostic mode. Perform element testing procedure in diagnostic mode
FF. NO HEAT	Loose or defective wire connection	Repair or replace wire connections or wires
	Open element	Check for error codes in diagnostic mode. Perform element testing procedure. Replace if defective
	Shorted element	Check for error codes in diagnostic mode. Perform element testing procedure. Replace if defective
	Thermo Limiter open or tripped	Ohm limit, replace if defective. Reset limit
	Relay board failure	Perform relay board testing procedure. Replace if defective
GG. NO BROIL	Loose or defective wire connection	Repair or replace wire connections or wires
	Open element	Check for error codes in diagnostic mode. Perform element testing procedure. Replace if defective
	Shorted element	Check for error codes in diagnostic mode. Perform element testing procedure. Replace if defective
	Open or Shorted RTD	Initiate diagnostic mode, check for error codes
	Thermo Limiter open or tripped	Ohm limit, replace if defective. Reset limit
	Relay board failure	Perform relay board testing procedure. Replace if defective
HH. “CFH INDICATOR LIGHT DOES NOT LIGHT WHEN TURNED TO COOKING MODE	Oven cavity too hot	Open oven door to cool oven cavity
	Loose or defective wire connections from ECH to “CFH” LED	Check wire connections. Repair/replace wire(s) Defective ECH. Replace ECH
	Defective LED	Replace “CFH” LED
II. OVEN TEMPERATURE TOO HIGH OR TOO LOW	Customer using wrong temperature	Refer to Use/Care Guide for operation
	User Preference Offset (UPO) miscalibrated	Check UPO setting. Before making any temperature changes to UPO, check oven temperature with thermometer. UPO setting can be $\pm 35^{\circ}\text{F}$.
	Defective RTD Sensor	Ohm RTD sensor, check technical data for correct ohm reading. Replace if defective. If RTD good, replace oven controller
JJ. TEMPERATURE PROBE NOT WORKING	Wrong cooking mode for probe	Refer to Use/Care Guide for operation
	Probe not inserted all the way into the receptacle	Check for error codes in diagnostic mode. Insert probe into receptacle first before initiating diagnostic mode
	Loose or defective wiring	Repair or replace wiring
	Defective probe switch	Replace probe switch
	Defective probe	Ohm probe, check technical data for correct ohm reading. Replace if defective
KK. COOLING FAN DOES NOT WORK	Loose or defective wiring	Repair or replace wiring
	Defective cooling fan	Check for error codes in diagnostic mode. Replace if defective
LL. COOLING FAN NOISY	Air diverter bracket loose	Tighten air diverter bracket screws
	Defective cooling fan motor	Replace cooling fan

Problems Associated with the Oven

PROBLEM	POSSIBLE CAUSE	TEST / ACTION
MM. CONVECTION FAN <u>DOES NOT</u> WORK	Loose or defective wire connection	Repair or replace wiring
	Defective convection motor	Replace convection fan assembly
NN. NOISY CONVECTION FAN	Fan blade out of balance	Replace convection motor assembly
	Loose fan blade	Tighten nut for fan blade
OO. CONVECTION FAN <u>DOES NOT</u> SHUT OFF WHEN OVEN DOOR OPEN	Unit in sabbath feature	Turn oven bezel to OFF to exit
	Defective door switch	Ohm door switch and motor. Replace motorized door latch assembly if defective
PP. OVEN LIGHT <u>DOES NOT</u> WORK	Defective bulb <i>(if only one bulb out)</i>	Replace bulb
	Defective fuse <i>(if both bulbs out)</i>	Test fuse and replace if it is bad
	Loose or defective wiring	Repair or replace wiring
	Defective door switch <i>(if both bulbs out)</i>	Replace motorized door latch assembly
	Defective key pad <i>(if both bulbs out)</i>	Replace ECH
	Defective transformer <i>(if both bulbs out)</i>	Replace transformer
	Loose or defective wiring	Repair or replace wiring
QQ. DOOR WILL NOT LOCK IN SELF-CLEAN MODE	Defective motorized door latch assembly	Ohm switches and motor. Replace if defective

Problems Associated with Error Codes

ERROR CODE	POSSIBLE CAUSE	TEST / ACTION
01	Door Lock or Unlock Switches not sensed within 60 seconds while driving the door lock motor	Perform motorized door lock test procedure in diagnostic mode Ohm door lock switches. Replace MDL (Motor Door Lock) Assembly if defective
02	Over temperature occurs when the oven reaches a temperature of 630 °F for an unlocked door and 950°F for a locked door	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
03	Open circuit detected on RTD Oven Sensor	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
04	Shorted circuit detected on the RTD Sensor	Ohm RTD sensor, replace if defective. If RTD good replace oven controller.
07	SPI Communication lost from ECH to the Control Board as reported by Control Board	Code reflects that the ECH cannot find the Control Board. Replace cable first. Replace ECH if replacing cable does not correct problem
08	EEPROM checksum is incorrect. Checked at power up	Replace oven controller
09	Meat probe being sensed as shorted	Initiated diagnostic mode and check meat probe. Ohm meat probe, check reading with Tech Data
0B	Analog to Digital error during calibration phase	Replace oven controller
0C	Communication lost with oven controller	Replace oven controller
0E	Power relay shorted, sensed as closed when should be open	Replace relay board
	Failure of element circuit Failure of relay drive circuitry	Replace relay board Replace relay board

ECH TROUBLESHOOTING FLOW CHART

Step 1. Testing Wire Connections

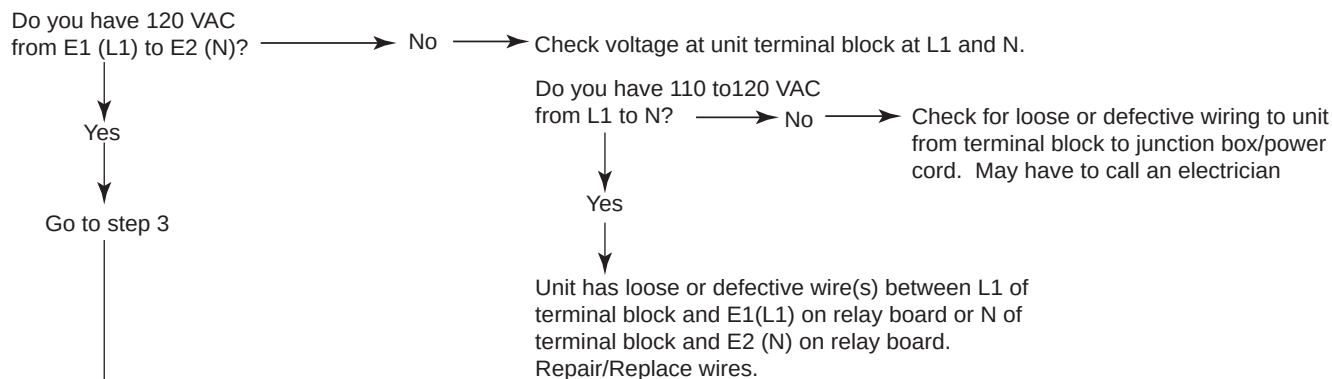
Check wire connections at J4 connector on oven controller to J1 connector of relay board, unplug both ends and reseal.

Check wire connections at J11A connector on oven controller to J1 connector on ECH, unplug both ends and reseal.

Check wire connections at E1 (L1) and E2 (N) connector on relay board, unplug both ends and reseal.

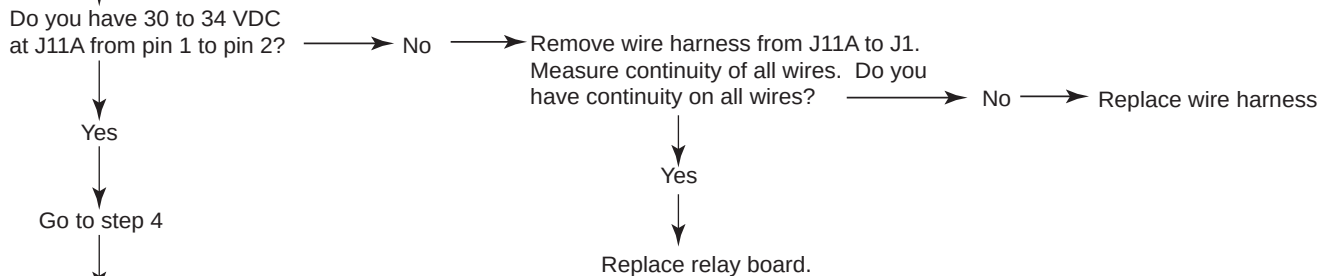
Step 2. Testing Voltage on Relay Board

Using a volt/ohm meter set to read AC voltage, place one meter probe to E1 (L1) and one meter probe to E2 (N).



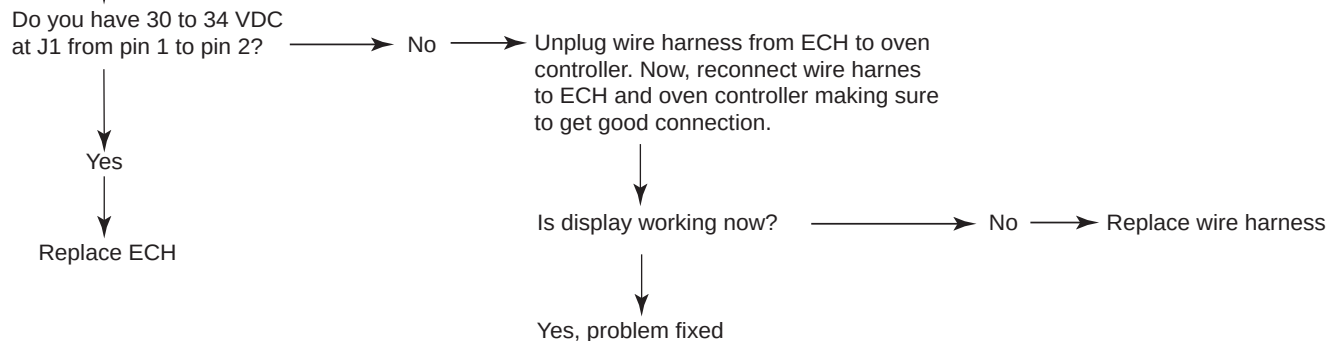
Step 3. Testing Voltage at Oven Controller

Using a volt/ohm meter set to read DC voltage, at the J11A connector, place one meter probe to pin 1 and one meter probe to pin 2.



Step 4. Testing Voltage at ECH (Electronic Control Housing)

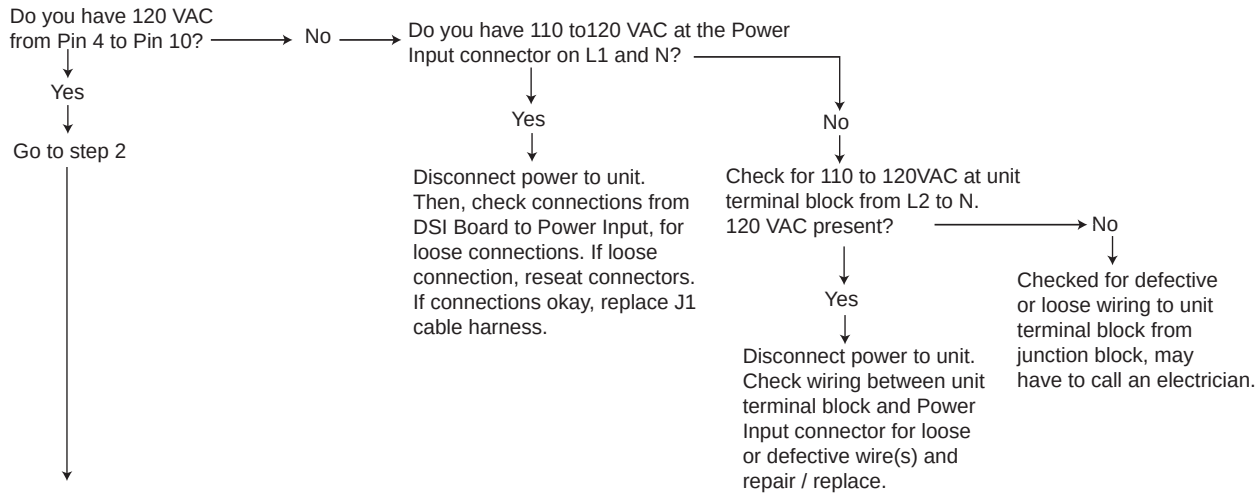
Using a volt/ohm meter set to read DC voltage, at the J1 connector, place one meter probe to pin 1 and one meter probe to pin 2.



DSI BOARD TROUBLESHOOTING FLOW CHART

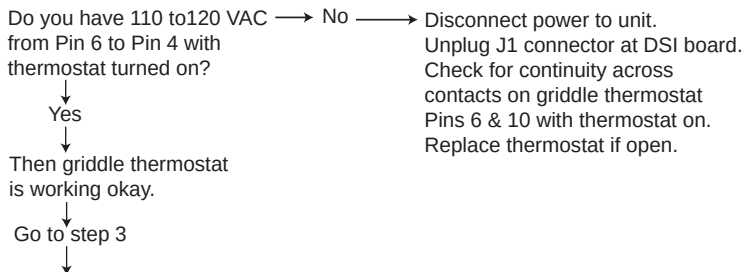
Step 1. Testing Supply Voltage for DSI Board

Using a volt/ohm meter set to read AC voltage, place one meter probe to pin 4 and one meter probe to pin 10 on the J1 connector of the DSI board.



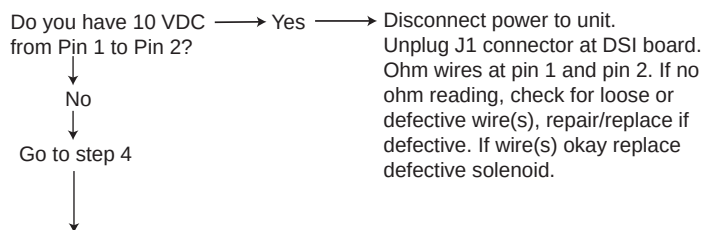
Step 2. Testing Griddle Thermostat

Using a volt/ohm meter set to read AC voltage, place one meter probe to pin 6 and one meter probe to pin 4 on the J1 connector of the DSI board.



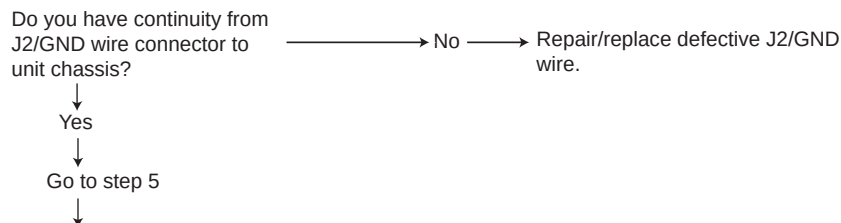
Step 3. Testing DC Voltage for Solenoid Output

Using a volt/ohm meter set to read DC voltage, place one meter probe to pin 1 and one meter probe to pin 2 on the J1 connector of the DSI board.



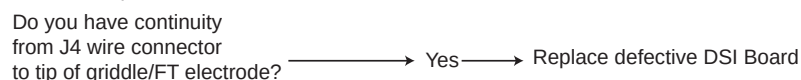
Step 4. Testing Continuity of J2/GND Wire for DSI Board

Disconnect power to unit. Disconnect wire at J2/GND connection.



Step 5. Testing Continuity of Griddle/FT Electrode for DSI Board

Disconnect power to unit. Disconnect wire at J4 connection.



TESTING THE OVEN RELAY BOARD

Element Testing

First access diagnostic mode. Once in diagnostic mode, the technician can turn the oven control knob bezel to activate an element. The element relay and the double line breaker(dlb) will close to complete a 240/208 VAC circuit through a specific element. If the oven controller detects the current running through the closed circuit, the **CFH light will be illuminated.

NOTE: Diagnostic Mode will end 2 minutes after last key stroke or when the CLEAR key is pressed.

Turn Bezel (Cooking Mode)	Relay(s) Activated	Response
Stone (Use "PROOF" for 18" Cavity)	Left Convection Element	**CFH Indicator Light Illuminates
Clean	Right Convection Element	**CFH Indicator Light Illuminates
Conv	Bake Stone Element <i>(must be plugged in)</i>	**CFH Indicator Light Illuminates
Conv Roast	Inner Bake Element	**CFH Indicator Light Illuminates
Conv Broil	Broil Element	**CFH Indicator Light Illuminates
Conv Bake	Outer Bake Element	**CFH Indicator Light Illuminates

** Call For Heat

RTD Testing

First access Diagnostic Mode. Once in diagnostic mode, the RTD temperature is shown in display window of temperature control knob. If the RTD is open, "Err 03" will be shown in the display of the electronic control housing. If the RTD is shorted, "Err 04" will be shown in the display of the electronic control housing.

NOTE: Diagnostic mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

Probe Testing

First access Diagnostic Mode. Next, press the PROBE key *(this will switch the readout to probe temperature as shown in the display window of the temperature control knob)*. If the probe has not been inserted, "out" will be shown as the probe temperature in the display window of the temperature control knob. If the probe is shorted, "Err 09" will be shown in the display of the electronic control housing.

NOTE: Diagnostic Mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

⚠ WARNING				
TO AVOID ELECTRICAL SHOCK, POWER TO THE UNIT MUST BE DISCONNECTED BEFORE PERFORMING THE FOLLOWING TESTS.				
Oven Selector Switch Test				
Switch Position	Pin 7	Pin 8	Pin 9	Pin 10
OFF				
Conv. Bake	X			
Conv. Broil	X	X		
Conv. Roast		X		
Convection		X	X	
Self Clean		X	X	X
Stone		X		X
Roast	X	X		X
Broil	X			X
Bake				X

The chart to the right can be used to verify proper functionality of the oven selector switch. Use an Ohm Meter to perform these continuity tests.

The wire harness must be disconnected from the ECH assembly to prevent inaccurate readings.

As you rotate the switch to the position of the chart you should find continuity between Pin 6 and the pins marked with an "X".

Fans and Motors

First access diagnostic mode. Once in diagnostic mode, the technician can turn the oven control knob bezel or press a key on the Electronic Control Housing to activate a fan or a motor. The fan and motor relays will close to complete a 120 VAC circuit through a specific fan or motor. If the oven controller detects the functionality through switches, the **CFH indicator light will be illuminated.

NOTE: Diagnostic mode will end 2 minutes after last key stroke or when the ENTER key is pressed.

Turn Bezel (Cooking Mode) or Press Key on Electronic Control Housing	Relay(s) Activated	Action	Response
Broil	Right Convection Fan	Right Convection Fan Turns ON	Right Convection fan ON
Roast	Left Convection Fan and 18" cavity convection fan	Left Convection Fan Turns ON	Left Convection Fan ON
Bake	Oven Light	Activates Oven Lights	Oven Light Turns On
Cook Time	Low Cooling Fan	Cooling Fan Turns ON	Cooling Fan On At Low Speed
Stop Time	High Cooling Fan	Cooling Fan Turns ON	Cooling Fan On At High Speed
Clock NOTE: For DF48 and DF60 "CLOCK" cycles left MDL. Use "TIMER" to cycle right MDL.	Motor Door Lock (MDL)	MDL Switch in Closed Position	"A" Icon Appears
		MDL Switch in Transition	No Icon in Display
		MDL Switch in open Position	"P" Icon Appears
Probe	Probe		Meat Probe Temperature is Shown in Display Window of Temperature Control Knob
Clear			Clears All Stored Errors from EEPROM
Enter			Exits Diagnostic Mode

WARNING

TO AVOID ELECTRICAL SHOCK, POWER TO THE UNIT MUST BE DISCONNECTED BEFORE PERFORMING THE FOLLOWING TEST.

Ohm Testing Elements at Relay Board

This procedure will allow the service technician to ohm any of the elements directly at the relay board.

At the relay board, pull the wire off of the terminal DLB/E11. This is done to keep from ohming the relay board. It does not take the Thermo limiter out of the equation, but if the technician DOES NOT get an ohm reading from the DLB lead to all of the element leads, then, there is a problem with the Thermo Limiter.

Right Convection Element:	PR5/E9 to DLB/E11 wire
Left Convection Element:	PR2/E5 to DLB/E11 wire
Outer Bake Element:	PR4/E8 to DLB/E11 wire
Inner Bake Element:	PR3/E6 to DLB/E11 wire
Bake Stone Element:	PR6/E10 to DLB/E11 wire
Broil Element:	PR1/E4 to DLB/E11 wire

SECTION 6

TECHNICAL DATA

Technical Data Chart

Part Description	Part Number	Voltage	Amperage	Watts	Ohms
Motorized Latch	802257	120		4	2900
Temperature Sensor	800306				1091 @ 75°F
Oven Light	800307	12	1 to 2	20	.6
Element, Convection		240	10	2400	24
Element, Convection		208	8.7	1803	24
Fan, Convection CCW	800699	120	.46	55	8.8
Fan, Convection CW	800701	120	.46	55	8.8
Element, Bake-18"	802012	240	6.04	1450	39.7
Element, Bake-18"	802012	208	5.2	1082	39.7
Element, Bake Outer-30", 36"	804152	240	4.166	1000	57.6
Element, Bake Inner-30", 36"		240	5	1200	48
Element, Bake Outer-30", 36"		208	3.6	750	57.6
Element, Bake Inner-30", 36"		208	4.33	900	48
Cooling Fan	801143	120		65	HI 9.7 / LO 12.8
Meat Probe	800529				34,000 @ 90°F
Element, Bake Stone	800717	240	14.6	3500	16.4
Element, Bake Stone		208	12.7	2640	16.4
Transformer	800950	120 to 12	3.33	40	
Element, Broil 18"	802071	240	8.33	2000	28.8
Element, Broil 18"		208	7.2	1500	28.2
Element, Broil 30"	801120	240	15	3600	16
Element, Broil 30"		208	13	2704	16
Element, Broil 36"	801615	240	16.6	4000	14.4
Element, Broil 36"		208	14.4	3004	14.4
Solenoid, Single	802089	10			185 to 215

NOTE: Actual readings may vary by $\pm 10\%$

Orifice Quick Reference Chart - PTS 17000000				
Part Description	Part Number	Orifice Size		
		Metric	Marking	
Burner Valve, Lg, Nat	802018	Simmer Bypass 0.62	62	
		Main Bypass 0.97	97	
Burner Valve, Sml, Nat	804349	Simmer Bypass 0.60	60	
		Main Bypass 0.57	57	
Burner Valve, Lg, LP	802400	Simmer Bypass 0.39	39	
		Main Bypass 0.6	60	
Burner Valve, Sml, LP	808015	Simmer Bypass 0.39	39	
		Main Bypass 0.46	46	
Jet Holder, Lg, Nat w/orifice	802404	Main 1.78	178	
Jet Holder, Lg, LP w/orifice	802405	Main 1.15	115	
French Top Jet Holder, Nat	802250	1.78	178	
French Top Jet Holder, LP	802275	1.15	115	
Jet Holder, Sml, Nat w/orifice	805730	Main 1.4	140	
Jet Holder, Sml, LP w/orifice	805729	Main 0.91	91	
Outer Dist. Ring, Sml, Nat w/orifice	800470	Simmer 0.63	J	
Outer Dist Ring, Sml, LP w/orifice	802679	Simmer 0.37	G	
Outer Dist. Ring, Lg, Nat w/orifice	802398	Simmer 0.90	S	
Outer Dist. Ring, Lg, LP w/orifice	802276	Simmer 0.57	P	
Char-Broiler IR Orifice, Nat	800837	0.50	50	
Char-Broiler IR Orifice, LP	801011	0.57	57	
Griddle IR Orifice, Nat	800838	0.51	51	
Griddle IR Orifice, LP	801011	0.57	57	

Orifice Quick Reference Chart - SWS 17000000					
Part Description	Part Number	Orifice Size			
		Part#	Size	Marking	
Burner Valve, 15K, Nat	808016	Simmer 804128	.62 mm	62	
		Main 809495	.67 mm	67	
Burner Valve, 15K, LP	808017	Simmer 809493	.43 mm	43	
		Main 809493	.43 mm	43	
Burner Valve, 9.2K, Nat	808014	Simmer 809493	.43 mm	43	
		Main 800054	.54 mm	54	
Burner Valve, 9.2K, LP	808015	Simmer 801322	.33 mm	33	
		Main 800893	.34 mm	34	
Orifice Holder, 15K, Nat	809781	Simmer 809485	.79 mm	79	
		Main 809484	1.80 mm	180	
Orifice Holder, 15K, LP	809752	Simmer 809479	.47 mm	47	
		Main 809743	1.17 mm	117	
Orifice Holder, 9.2K, Nat	808000	Simmer 809482	.65 mm	65	
		Main 809481	1.40 mm	140	
Orifice Holder, 9.2K, LP	808001	Simmer 809477	.41 mm	41	
		Main 809476	.93 mm	93	
Orifice Holder, FT, Nat	802250	Main 809484	1.80 mm	178	
Orifice Holder, FT, LP	802275	Main 809743	1.17 mm	117	
Orifice Char IR, Nat		800837	0.070 in.	50	
Orifice Char IR, LP		801011	0.043 in.	57	
Orifice Griddle IR, Nat		800838	0.067 in.	51	
Orifice Griddle IR, LP		801011	0.043 in.	57	

Operation Time Chart (Convection Fans May Operate in Preheat)

Mode	Element(s)	Operation Time	Convection Fan
Bake	Outer Inner Broil	60% 32% 10%	None
Broil	Broil	100% 70% 50%	None
Roast	Outer Inner Broil	37% 63% 30%	None
Bake Stone	Broil Bake	42% 58%	Left - 43% Right - 38%
Convection	Left Convection Right Convection	55% 55%	Left - 55% Right - 55%
Convection Roast	Broil Left Convection Right Convection	17% 47% 47%	Left - 100% Right - 100%
Convection Broil	Broil	100% 70% 50%	Left - 100% Right - 100%
Convection Bake	Outer Inner Left Convection Right Convection	8% 20% 57% 57%	Left - 57% Right - 57%

Operation Time Chart

Mode	Elements	Operation Time	Duration
Self Clean	Stage 1- Outer Inner Broil	33% 66% 66%	12 minutes
	Stage 2 - Outer Inner Broil	33% 66% 66%	Until Oven Reaches 850°F

NOTE: Door locks at start of Self-Clean. Unlocks at 300°F.

Cooling Fan Operational Temperatures

Lo Speed - ON @ 225°F	Lo Speed - OFF @ 175°F
High Speed - ON @ 430°F	High Speed - OFF @ 380°F
Oven OFF - Cooling Fan turns OFF @ 300°F	

Preheat Times

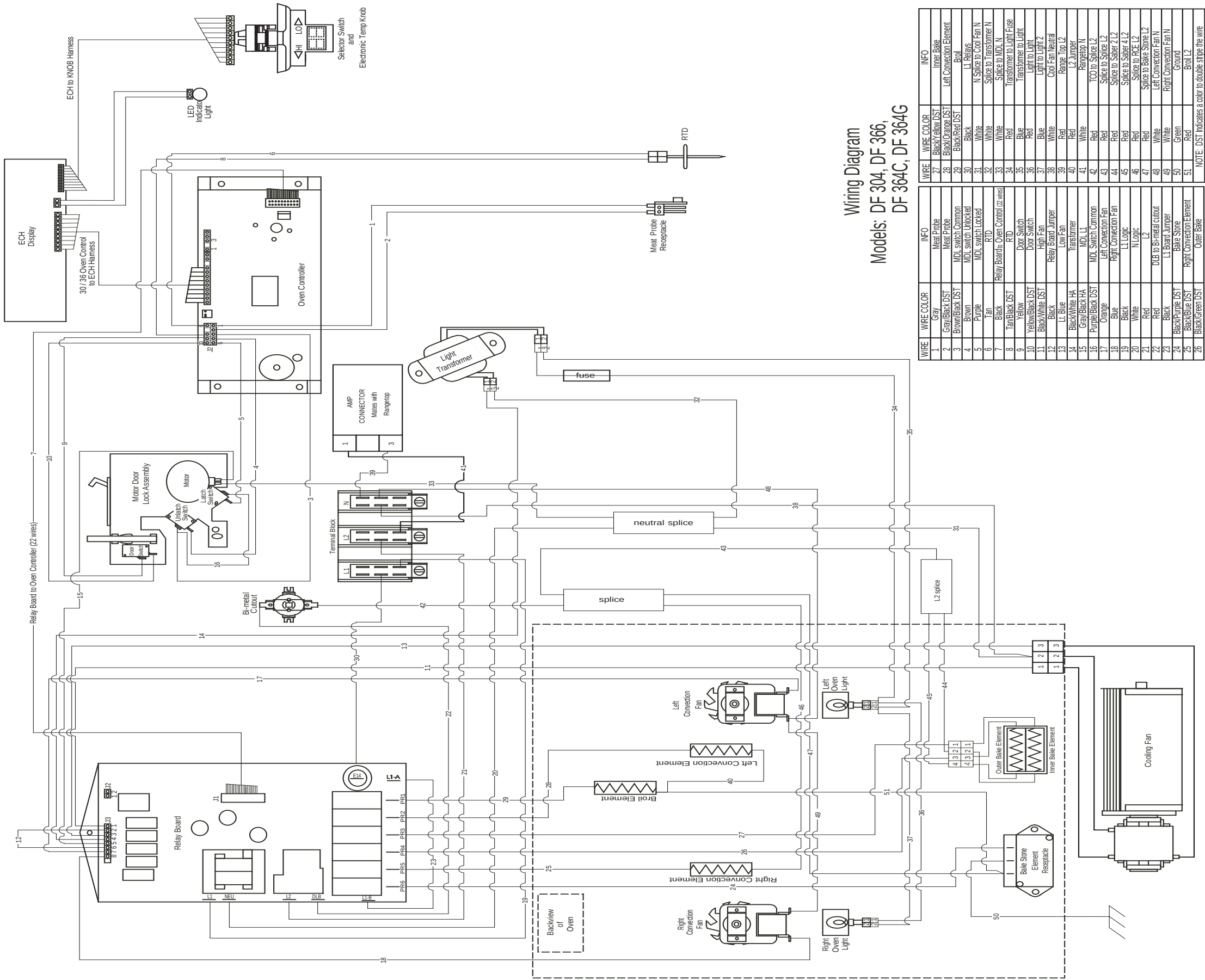
Mode	Temp.	240V 30" / 36"	208V 30" / 36"	240V 18"	208V 18"	NOTE: Preheat times are approx.
Bake	350 °F	13 min.	15 min.	16 min.	21 min.	
Convection Bake	375 °F	15 min.	27 min.	18 min.	29 min.	
Convection Roast	325 °F	13 min.	19 min.	18 min.	23 min.	
Convection	325 °F	18 min.	23 min.	16 min.	20 min.	
Roast	350 °F	13 min.	17 min.	20 min.	26 min.	
Bake Stone	400 °F	24 min.	32 min.	n/a	n/a	

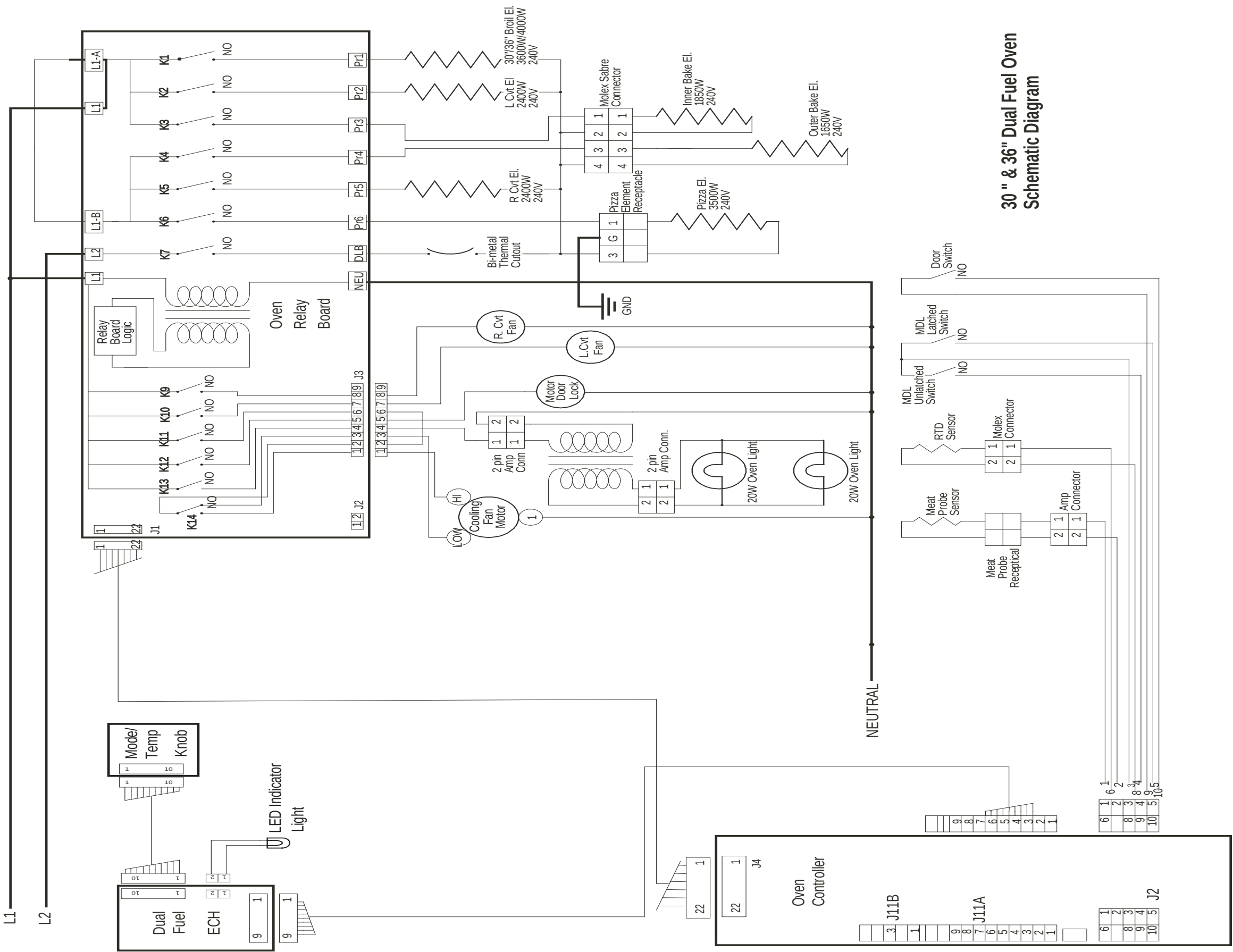
SECTION

N 7

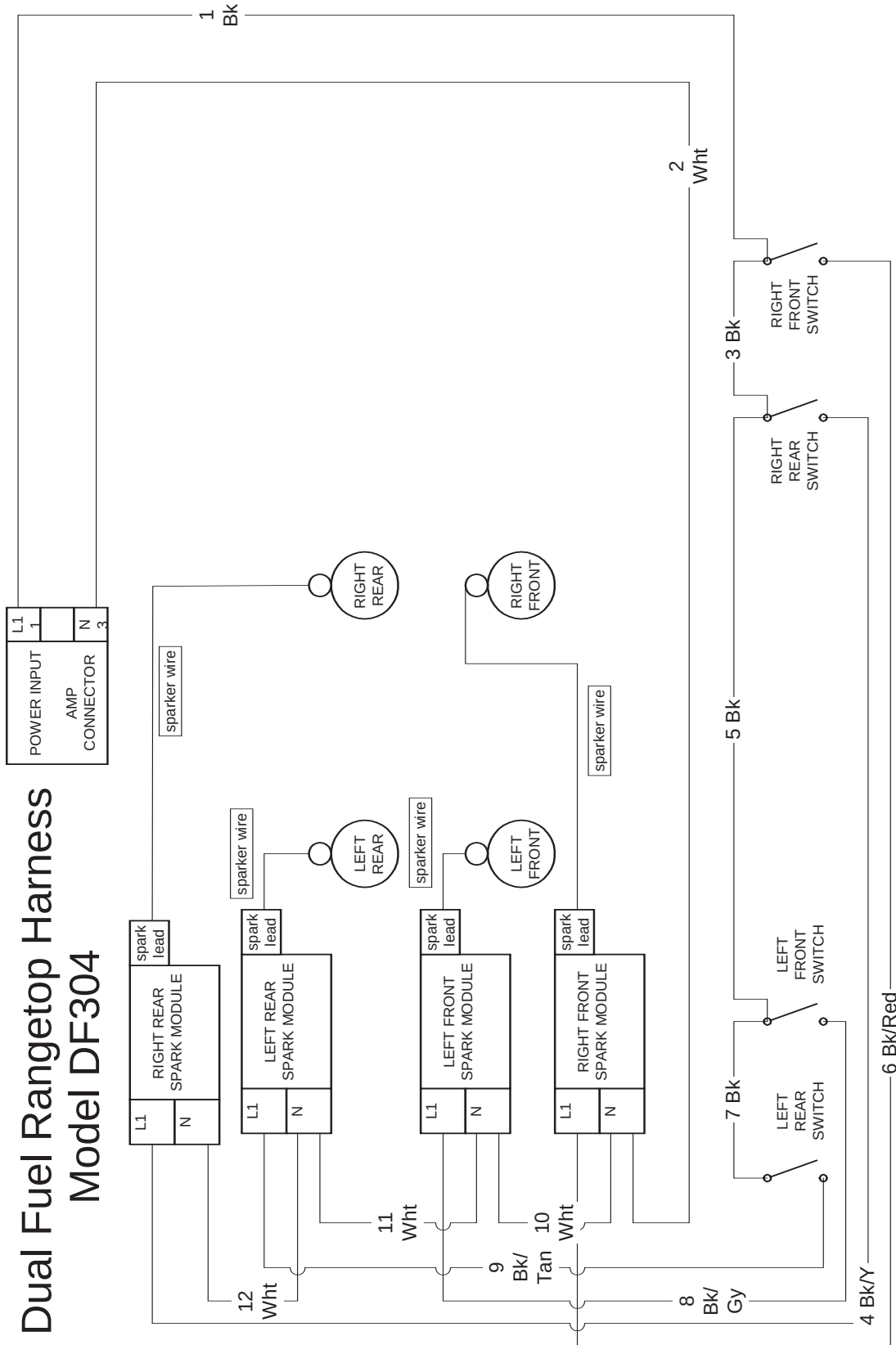
WIRING

DIAGRAMS

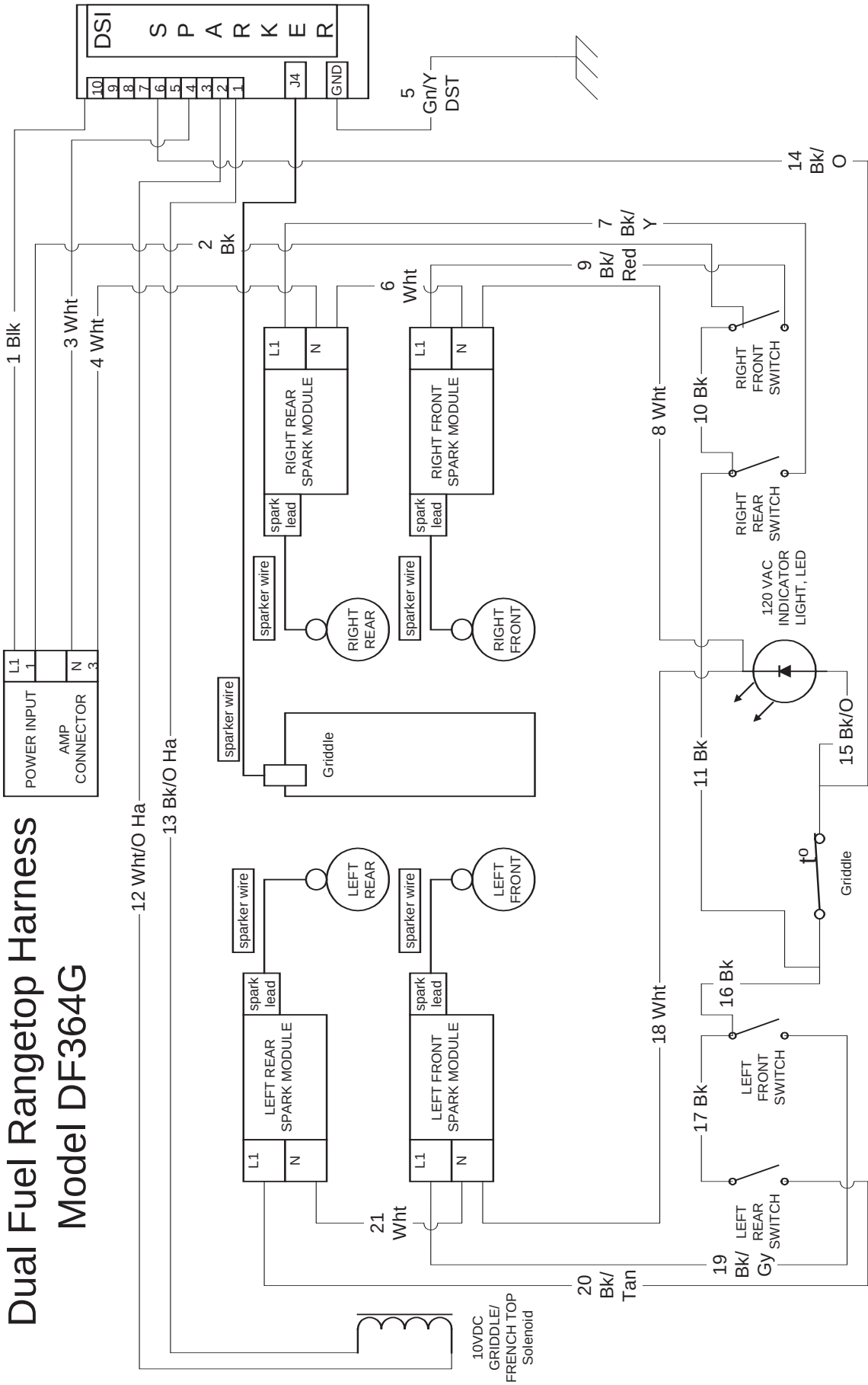




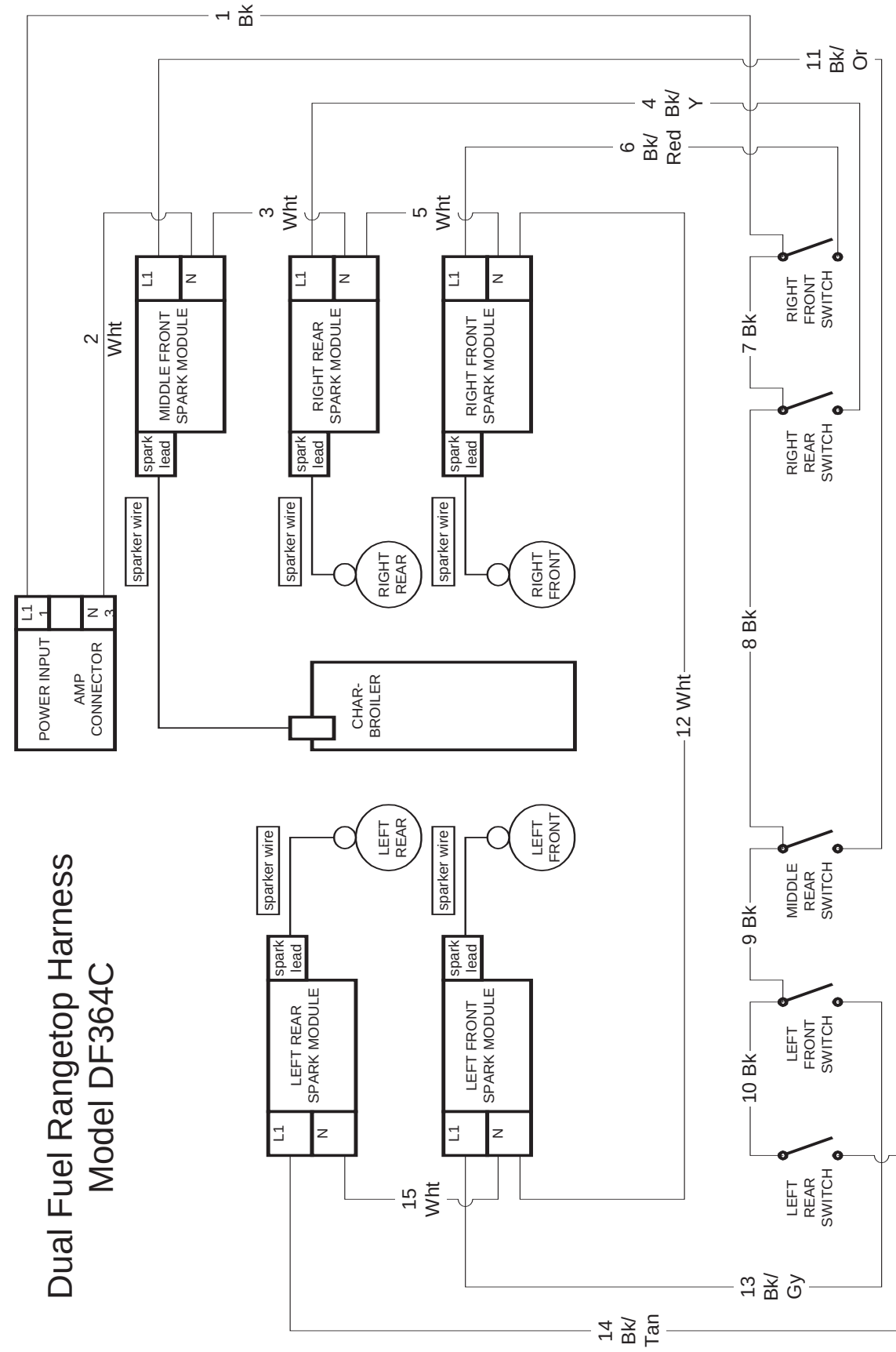
Dual Fuel Rangetop Harness
Model DF304



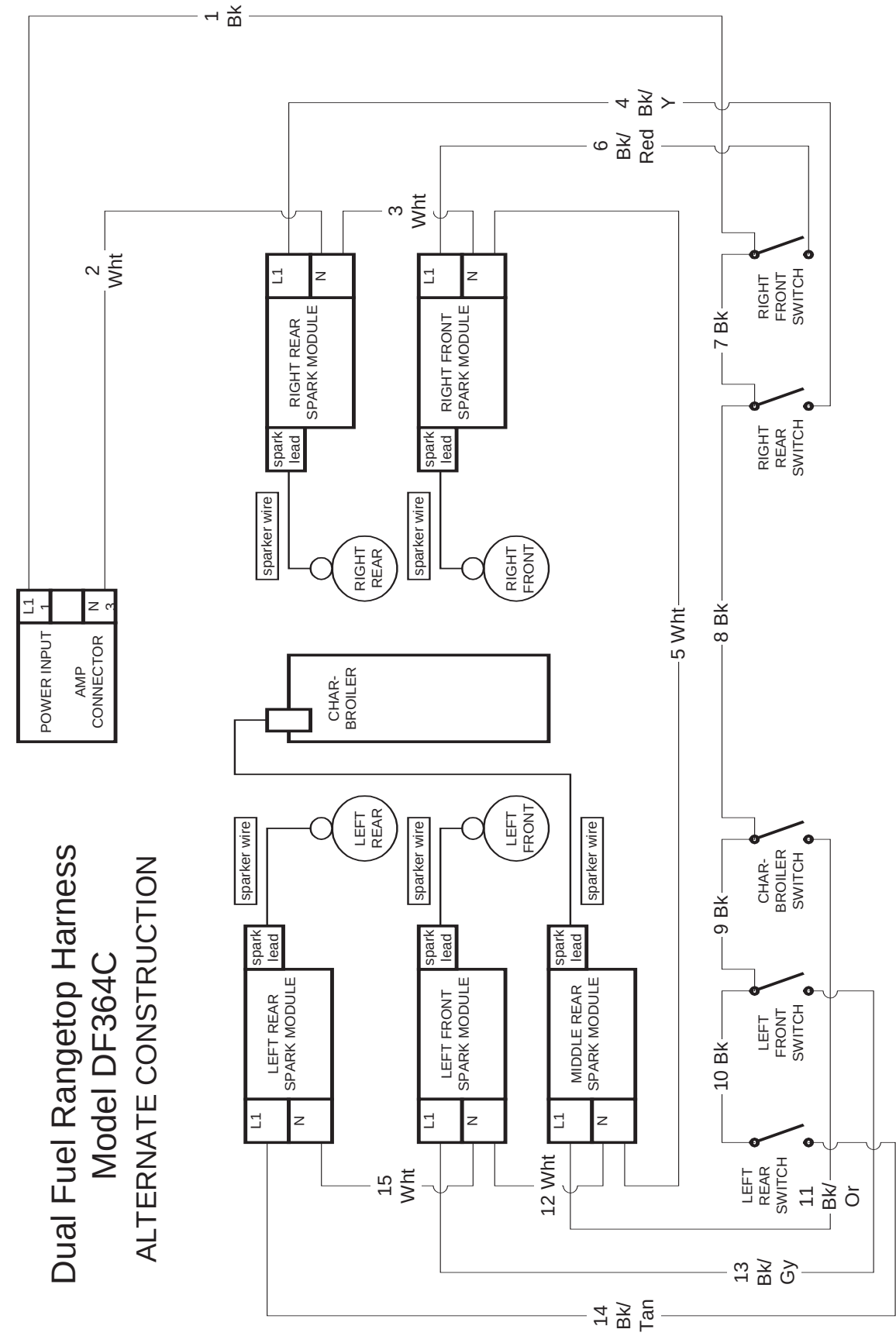
Dual Fuel Rangetop Harness
Model DF364G



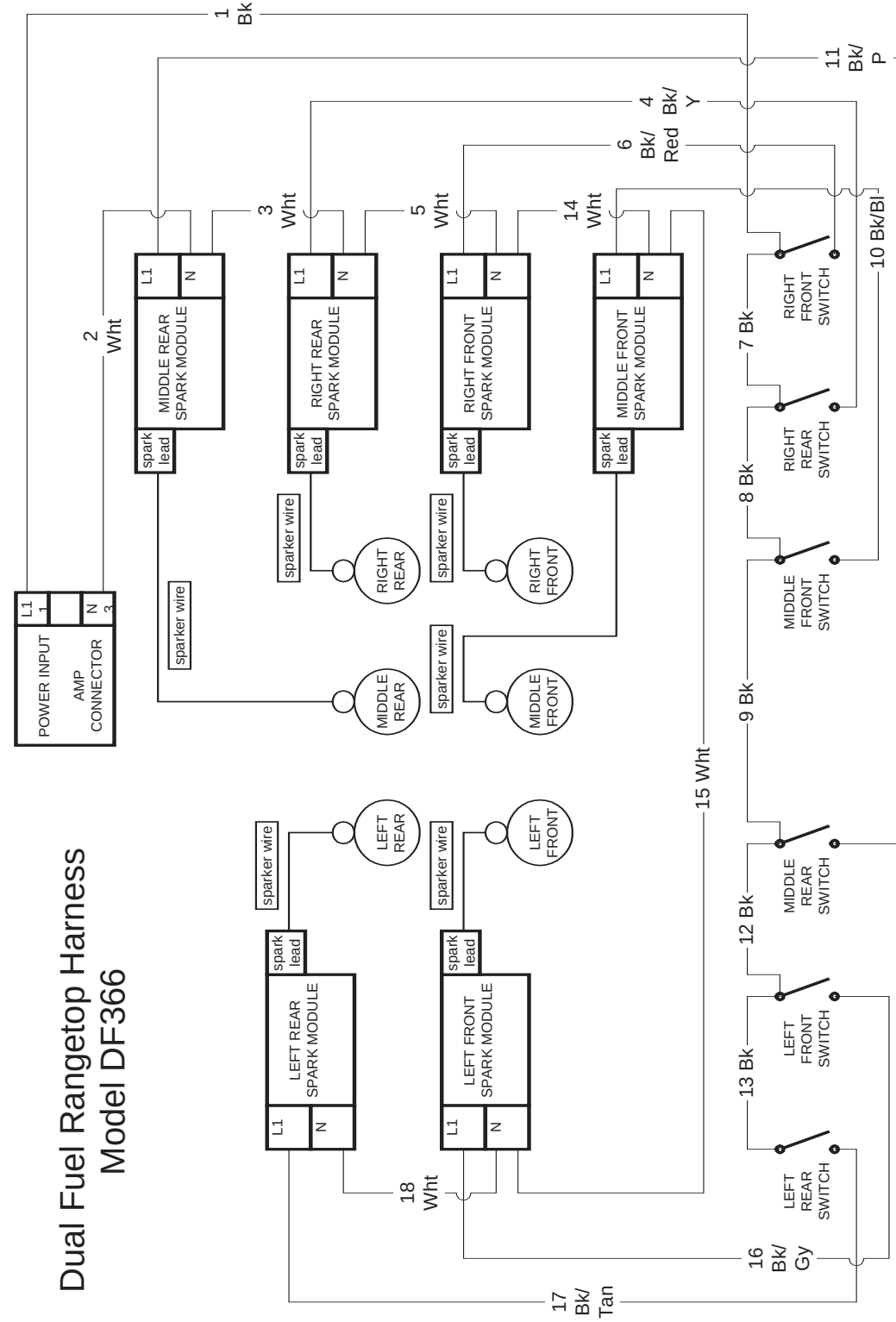
Dual Fuel Rangetop Harness Model DF364C



Dual Fuel Rangenetop Harness Model DF364C ALTERNATE CONSTRUCTION



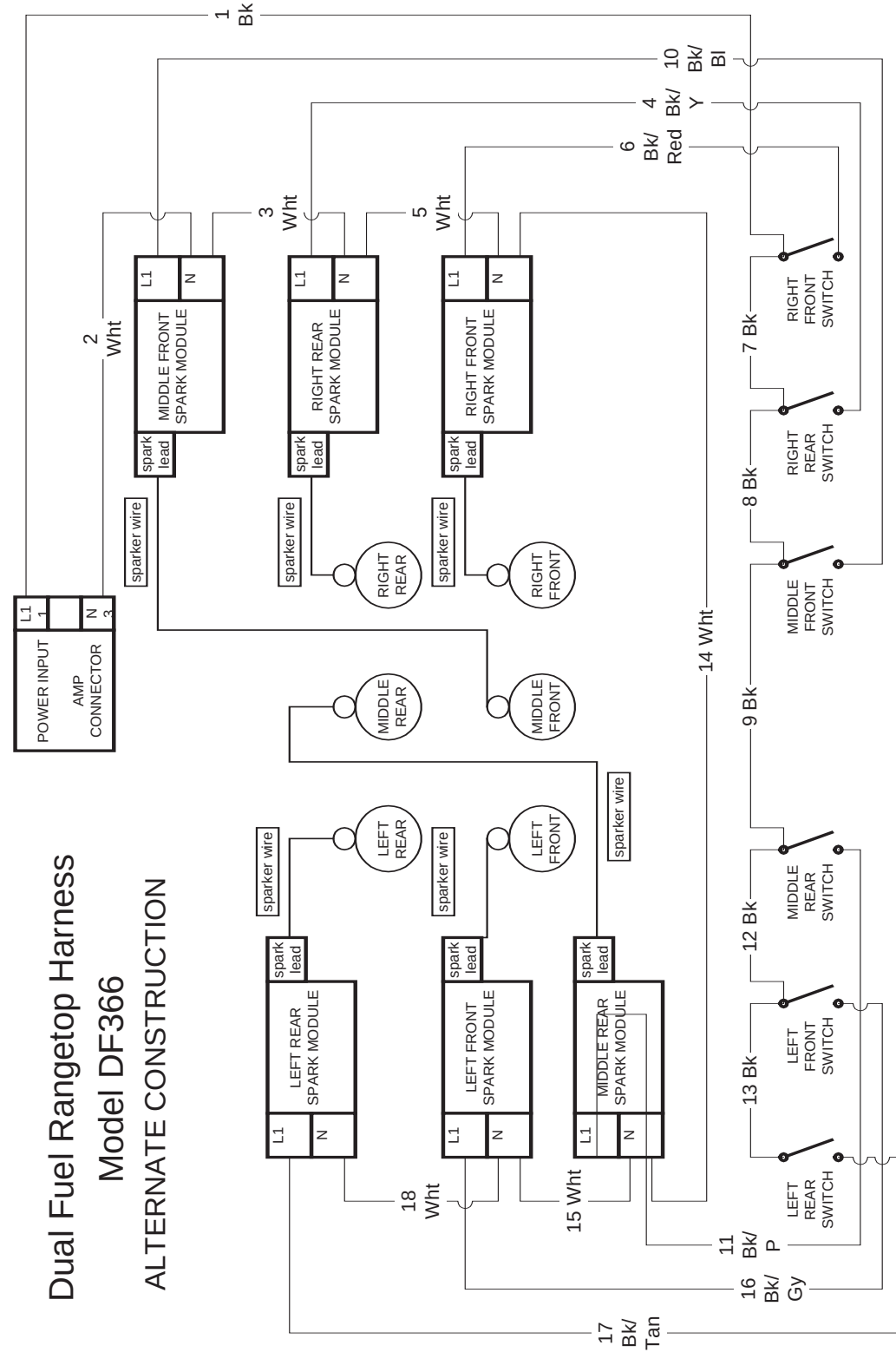
Dual Fuel Rangetop Harness Model DF366

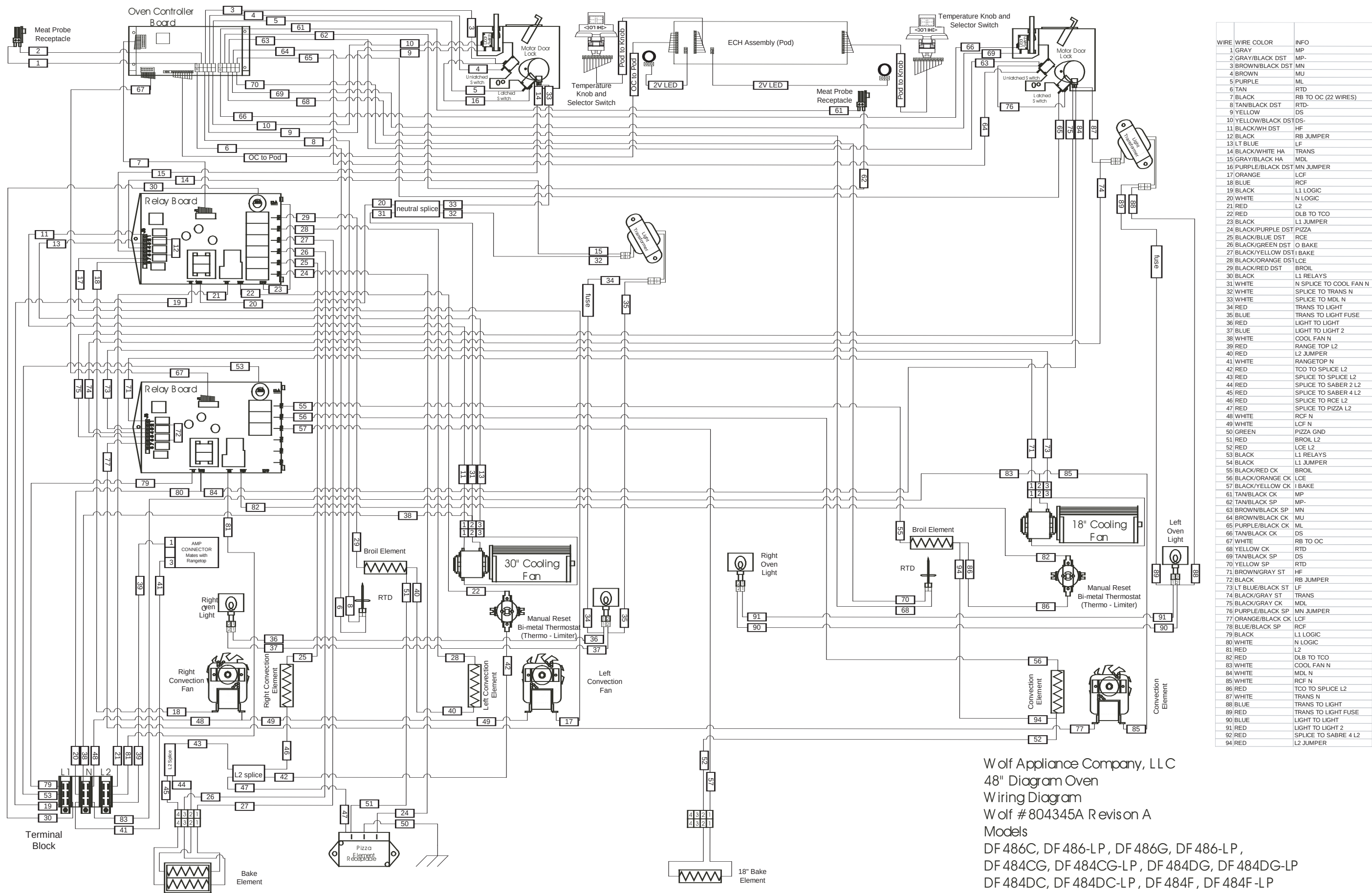


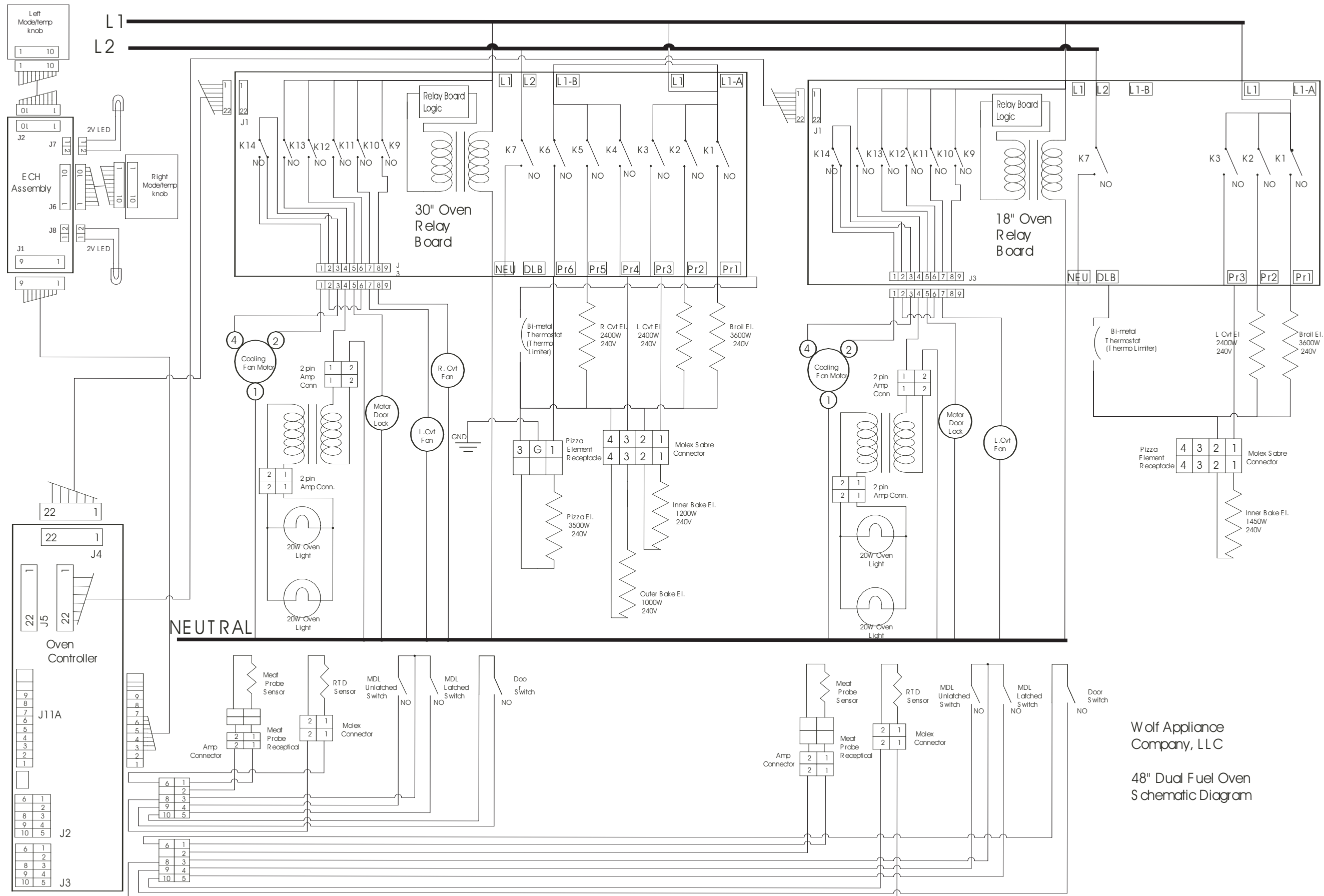
Dual Fuel Rangetop Harness

Model DF366

ALTERNATE CONSTRUCTION





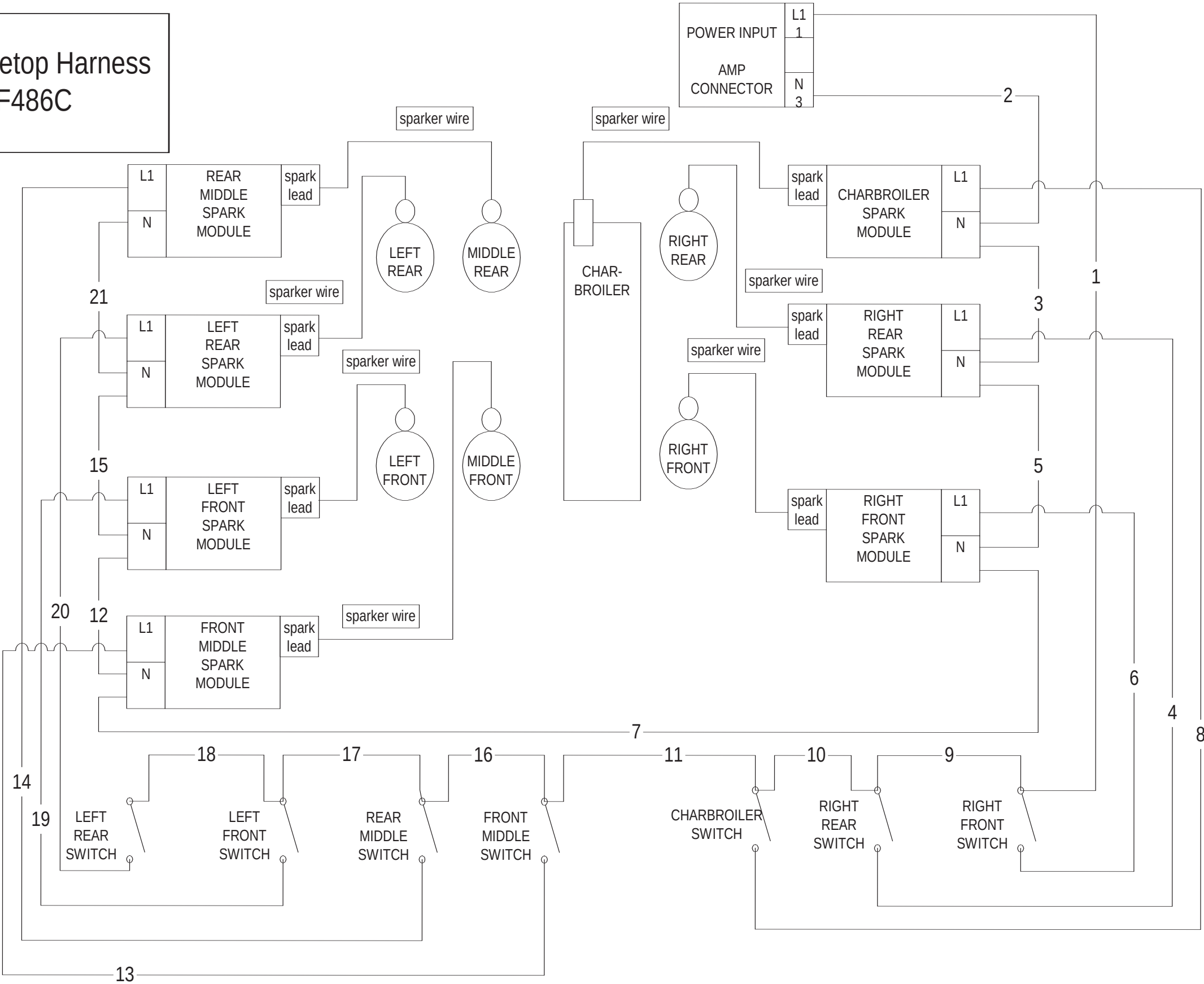


Wolf Appliance
Company, LLC

48" Dual Fuel Oven
Schematic Diagram

Dual Fuel Rangetop Harness
Model DF486C

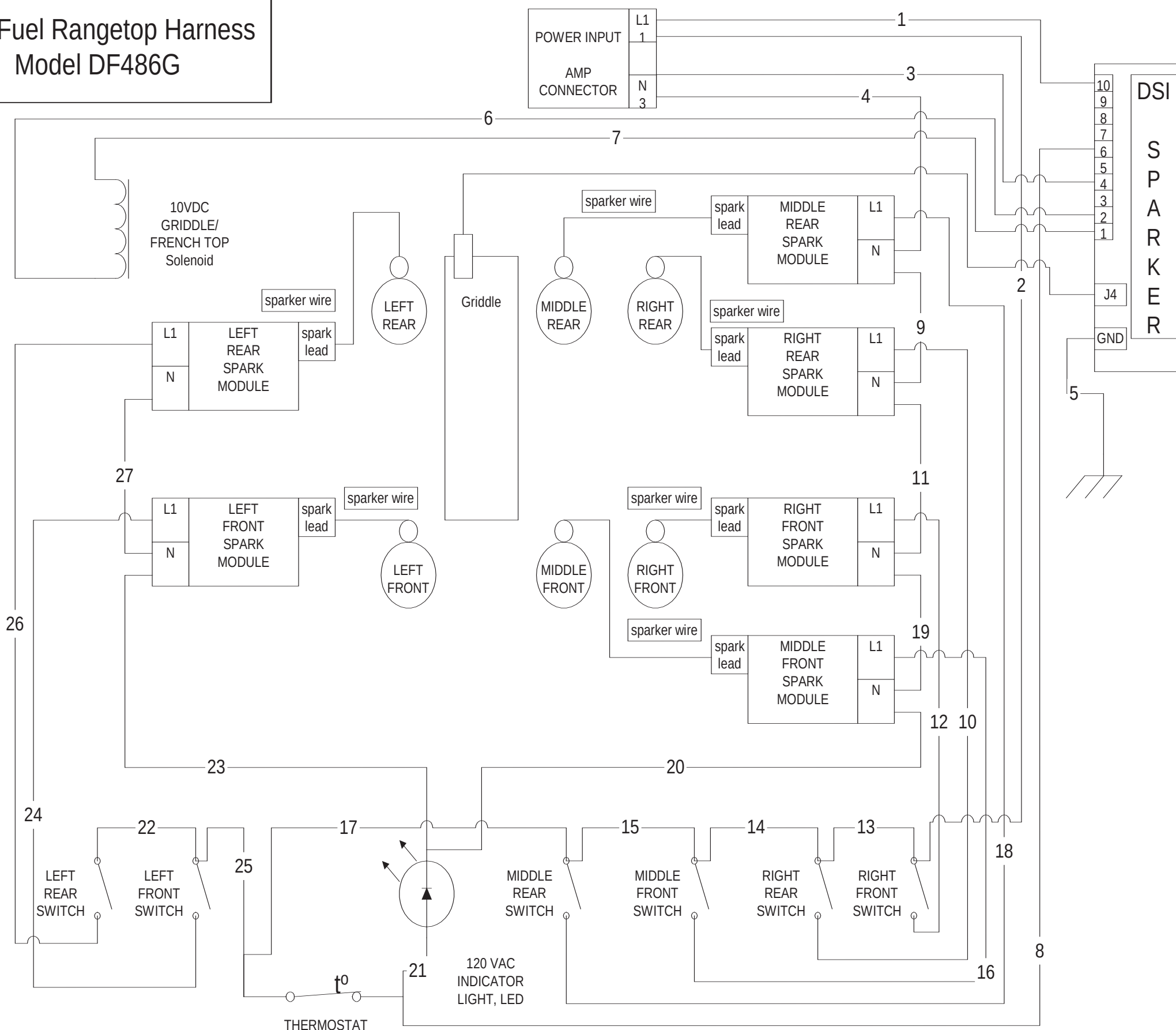
WIRE	WIRE COLOR	INFO
1	BLACK	L1 IN
2	WHITE	N IN
3	WHITE	N JUMPER
4	BLACK/YELLOW SST	RIGHT REAR
5	WHITE	N JUMPER
6	BLACK/RED SST	RIGHT FRONT
7	WHITE	N JUMPER
8	BLACK/GREEN SST	CHARBROILER
9	BLACK	L1 JUMPER
10	BLACK	L1 JUMPER
11	BLACK	L1 JUMPER
12	WHITE	N JUMPER
13	BLACK/BLUE SST	MIDDLE FRONT
14	BLACK/PURPLE SST	MIDDLE REAR
15	WHITE	N JUMPER
16	BLACK	L1 JUMPER
17	BLACK	L1 JUMPER
18	BLACK	L1 JUMPER
19	BLACK/GRAY SST	LEFT FRONT
20	BLACK/TAN SST	LEFT REAR
21	WHITE	N JUMPER
SST: SINGLE STRIPE ON THE WIRE		
HA: HASH ON THE WIRE		
DST: DOUBLE STRIPE ON THE WIRE		

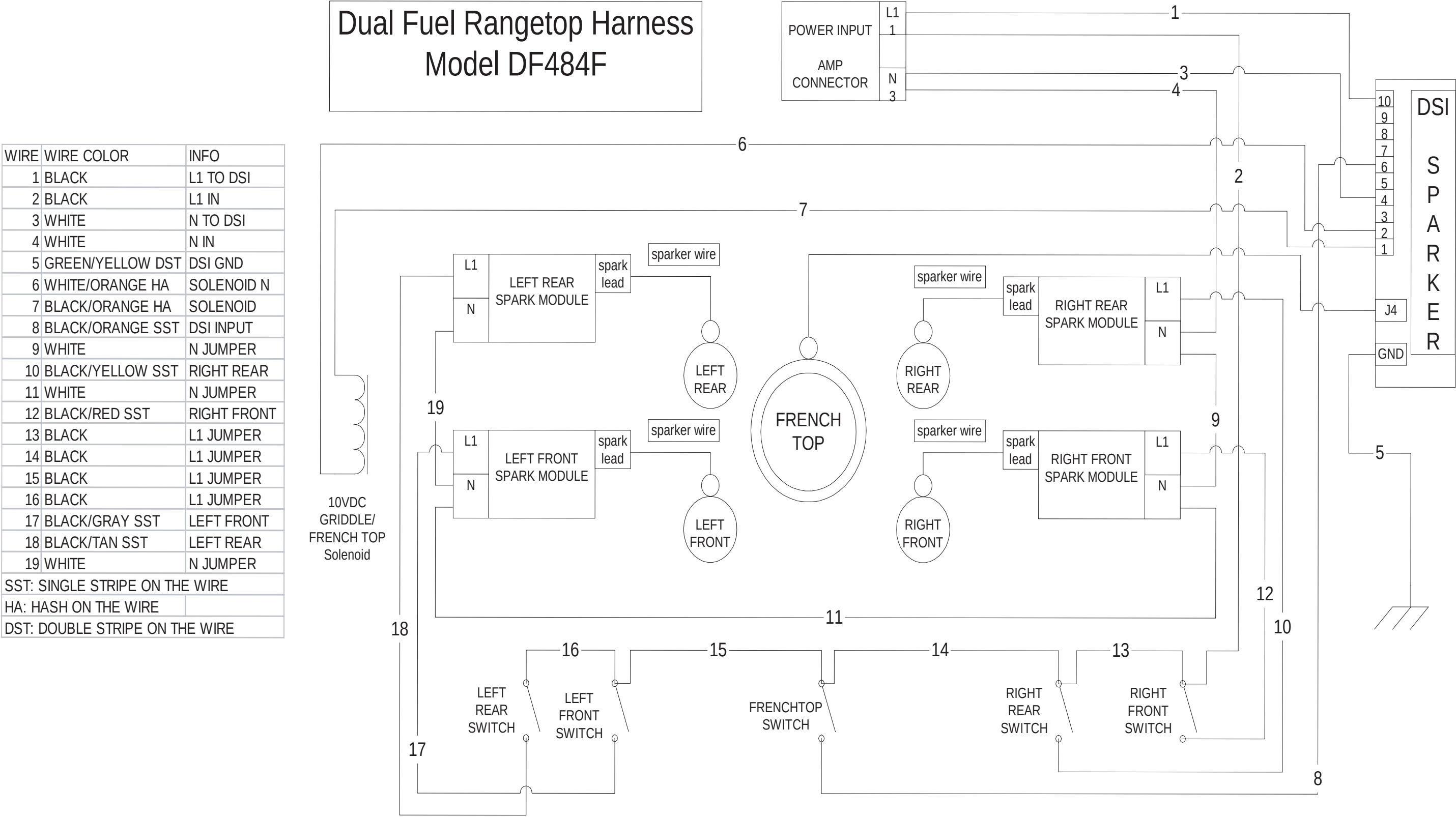


Dual Fuel Rangetop Harness
Model DF486G

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI
2	BLACK	L1 IN
3	WHITE	N TO DSI
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID N
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/BLUE SST	MIDDLE FRONT
17	BLACK	L1 JUMPER
18	BLACK/PURPLE SST	MIDDLE REAR
19	WHITE	N JUMPER
20	WHITE	N JUMPER
21	BLACK/ORANGE SST	LED INDICATOR
22	BLACK	L1 JUMPER
23	WHITE	N JUMPER
24	BLACK/GRAY SST	LEFT FRONT
25	BLACK	L1 JUMPER
26	BLACK/TAN SST	LEFT REAR
27	WHITE	N JUMPER

SST: SINGLE STRIPE ON THE WIRE
HA: HASH ON THE WIRE
DST: DOUBLE STRIPE ON THE WIRE





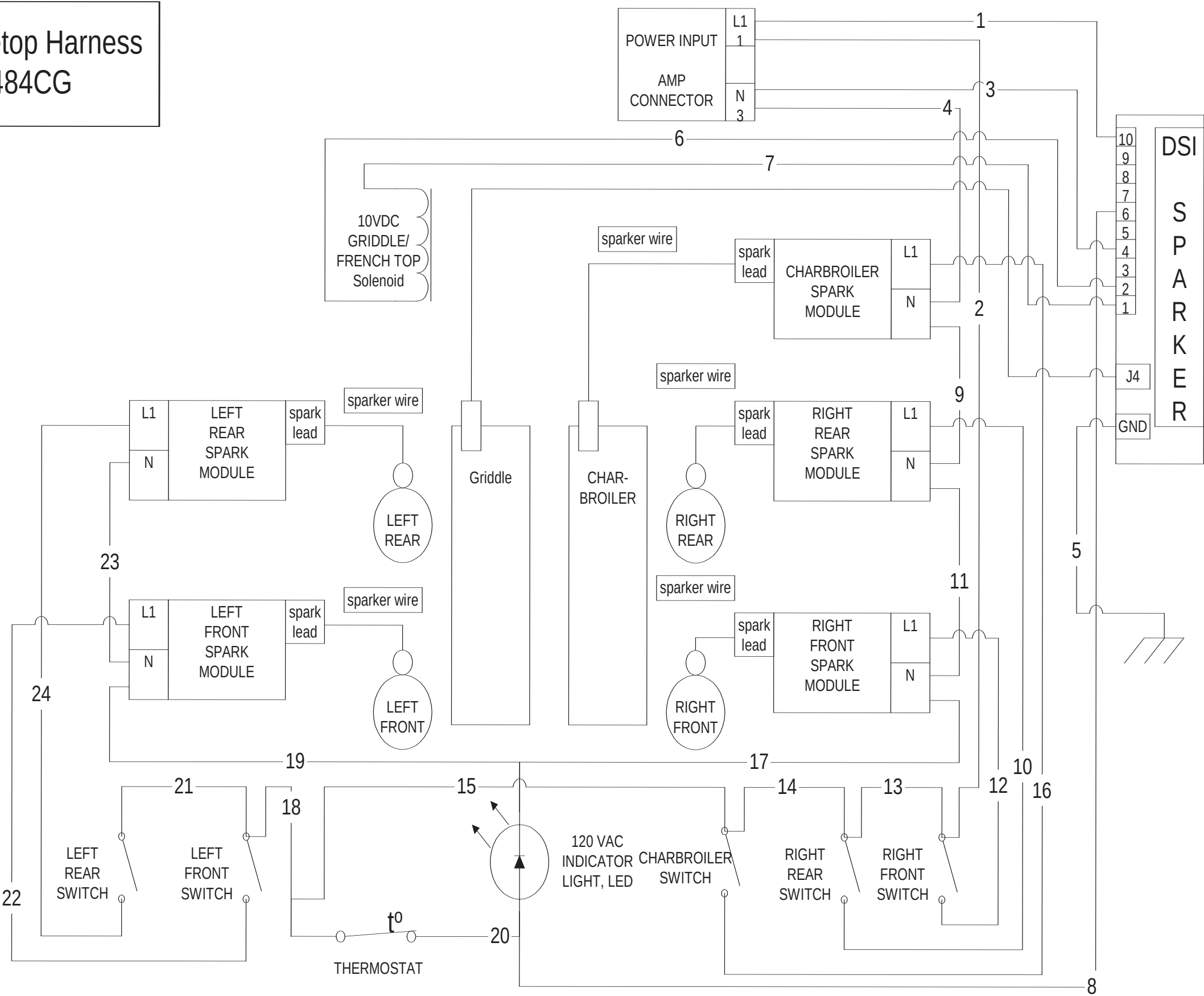
Dual Fuel Rangetop Harness
Model DF484CG

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI
2	BLACK	L1 IN
3	WHITE	N TO DSI
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID N
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/GREEN SST	CHARBROILER
17	WHITE	N JUMPER
18	BLACK	L1 JUMPER
19	WHITE	N JUMPER
20	BLACK/ORANGE SST	LED INDICATOR
21	BLACK	L1 JUMPER
22	BLACK/GRAY SST	LEFT FRONT
23	WHITE	N JUMPER
24	BLACK/TAN SST	LEFT REAR

SST: SINGLE STRIPE ON THE WIRE

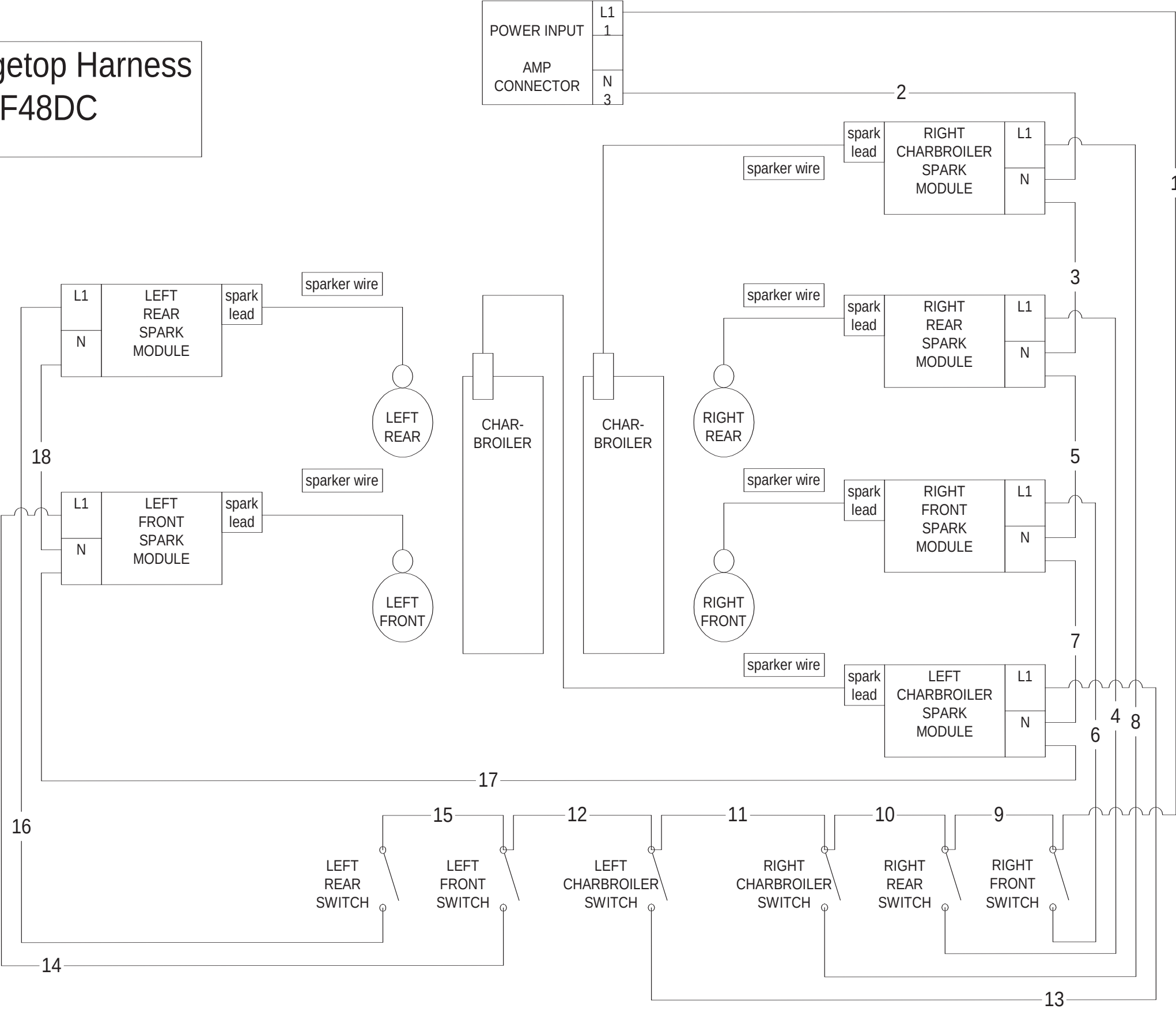
HA: HASH ON THE WIRE

DST: DOUBLE STRIPE ON THE WIRE



Dual Fuel Rangetop Harness
Model DF48DC

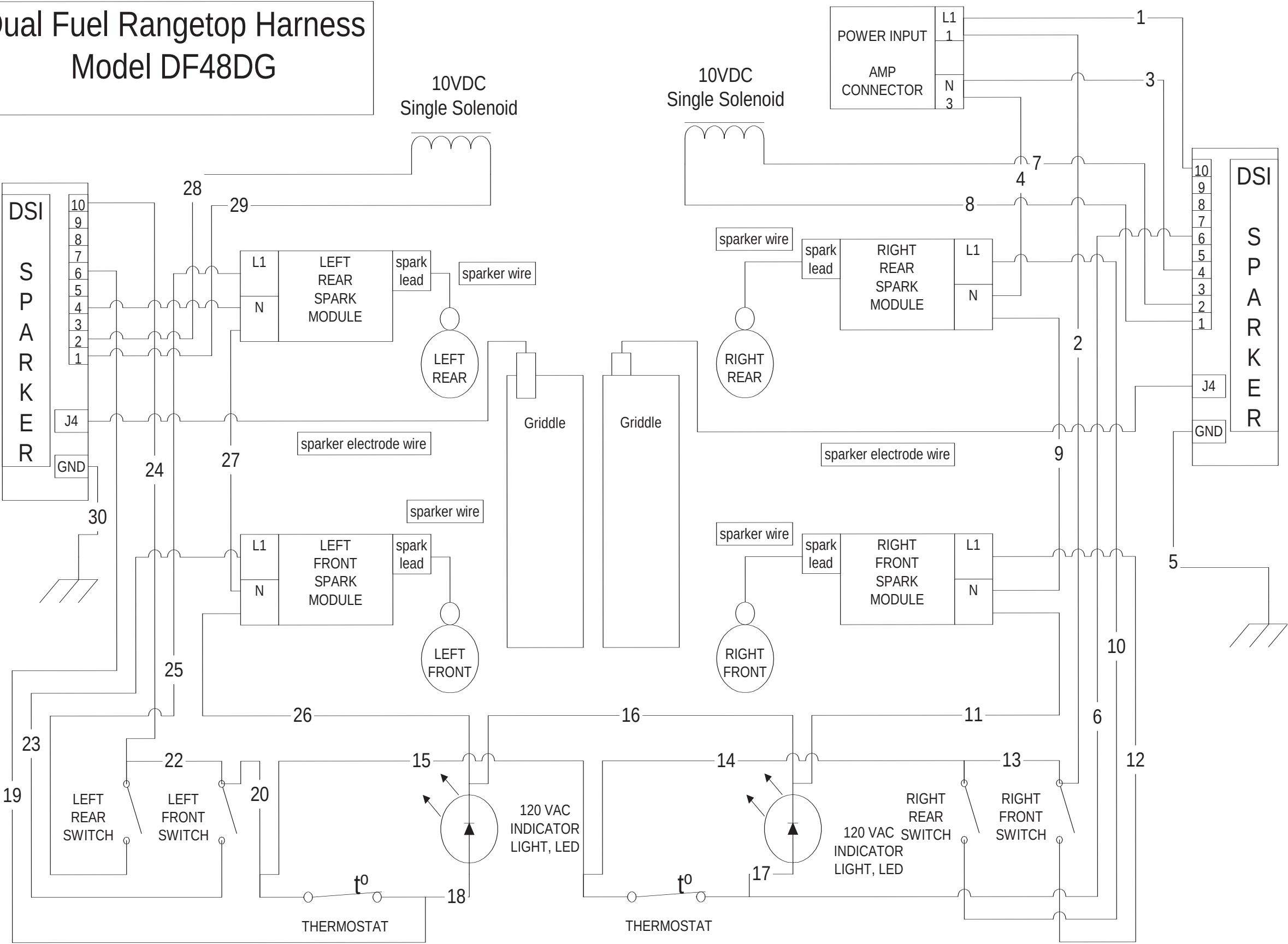
WIRE	WIRE COLOR	INFO
1	BLACK	L1 IN
2	WHITE	N IN
3	WHITE	N JUMPER
4	BLACK/YELLOW SST	RIGHT REAR
5	WHITE	N JUMPER
6	BLACK/RED SST	RIGHT FRONT
7	WHITE	N JUMPER
8	BLACK/GREEN SST	CHARBROILER
9	BLACK	L1 JUMPER
10	BLACK	L1 JUMPER
11	BLACK	L1 JUMPER
12	BLACK	L1 JUMPER
13	BLACK/ORANGE SST	CHARBROILER
14	BLACK/GRAY SST	LEFT FRONT
15	BLACK	L1 JUMPER
16	BLACK/TAN SST	LEFT REAR
17	WHITE	N JUMPER
18	WHITE	N JUMPER
SST: SINGLE STRIPE ON THE WIRE		
HA: HASH ON THE WIRE		
DST: DOUBLE STRIPE ON THE WIRE		

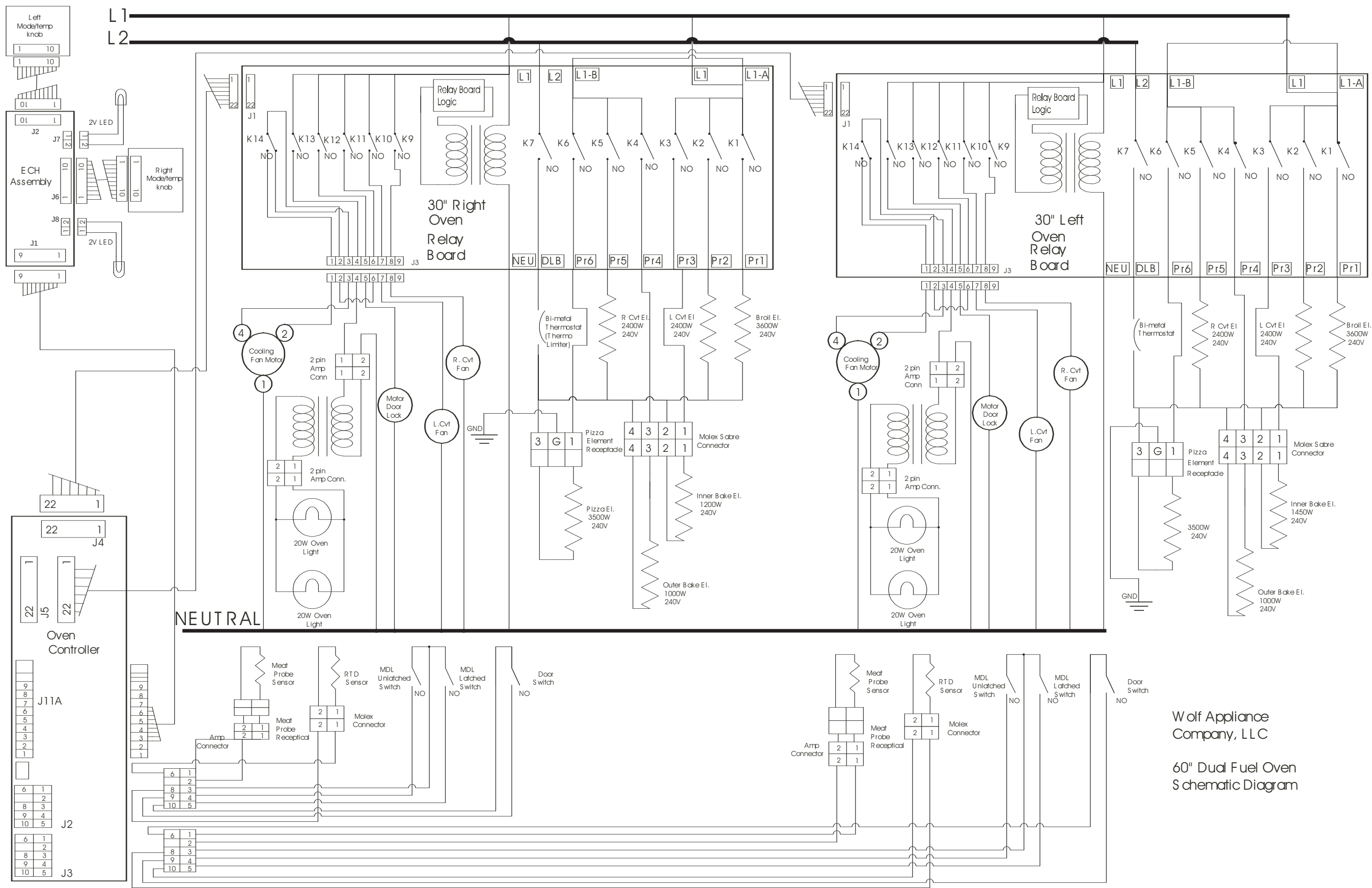


Dual Fuel Rangetop Harness

Model DF48DG

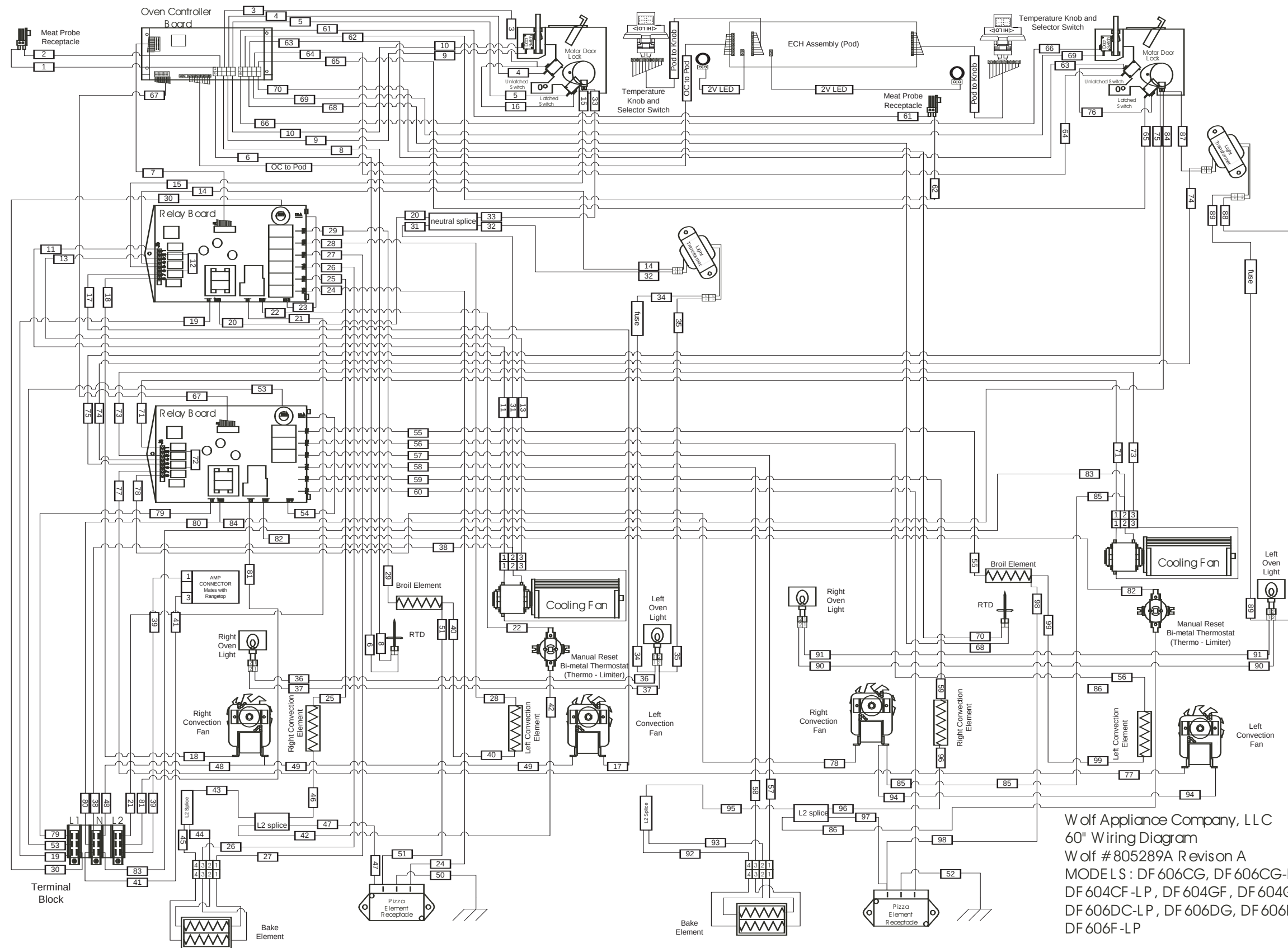
WIRE	WIRE COLOR	INFO
1	BLACK	L1 INTO DSI (1)
2	BLACK	L1 IN
3	WHITE	N INTO DSI (1)
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND (1)
6	BLACK/ ORANGE SST	DSI INPUT (1)
7	WHITE/ ORANGE HA	SOLENOID N (1)
8	BLACK/ ORANGE HA	SOLENOID (1)
9	WHITE	N JUMPER
10	BLACK/ YELLOW SST	RIGHT REAR
11	WHITE	N JUMPER
12	BLACK/ RED SST	FRONT REAR
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	WHITE	N JUMPER
17	BLACK/ ORANGE SST	LED INDICATOR (1)
18	BLACK/ GREEN SST	LED INDICATOR (2)
19	BLACK/ GREEN SST	DSI INPUT (2)
20	BLACK	L1 JUMPER
21	WHITE	N JUMPER
22	BLACK	L1 JUMPER
23	BLACK/ GRAY SST	LEFT FRONT
24	BLACK	L1 INTO DSI (2)
25	BLACK/ TAN SST	LEFT REAR
26	WHITE	N JUMPER
27	WHITE	N INTO DSI (2)
28	WHITE/ GREEN HA	SOLENOID N (2)
29	BLACK/ GREEN HA	SOLENOID (2)
30	GREEN/ YELLOW DST	SPARKER GND (2)
SST: SINGLE STRIPE ON THE WIRE		
HA: HASH ON THE WIRE		
DST: DOUBLE STRIPE ON THE WIRE		





Wolf Appliance
Company, LLC

60" Dual Fuel Oven
Schematic Diagram



WIRE	WIRE COLOR	INFO
1	GRAY	MP
2	GRAY/BLACK DST	MP-
3	BROWN/BLACK DST	MN
4	BROWN	MU
5	PURPLE	MDL
6	TAN	RTD
7	BLACK	RB TO OC 22 wires
8	TAN/BLACK DST	RTD-
9	YELLOW	DS
10	YELLOW/BLACK DST	DS-
11	BLACK/WHITE DST	HF
12	BLACK	RB JUMPER
13	LT BLUE	LF
14	BLACK/WHITE HA	TRANS
15	GRAY/BLACK HA	MDL
16	PURPLE/BLACK HA	MN JUMPER
17	ORANGE	LCF
18	BLUE	RCF
19	BLACK	L1 LOGIC
20	WHITE	N LOGIC
21	RED	L2
22	RED	DLB TO TCO
23	BLACK	L1 JUMPER
24	BLACK/PURPLE DST	PIZZA
25	BLACK/BLUE DST	RCF
26	BLACK/GREEN DST	O BAKE
27	BLACK/YELLOW DST	I BAKE
28	BLACK/ORANGE DST	LCE
29	BLACK/RED DST	BROIL
30	BLACK	L1 RELAYS
31	WHITE	NEUTRAL
32	WHITE	NEUTRAL
33	WHITE	NEUTRAL
34	RED	TRANS TO LIGHT
35	BLUE	TRANS TO LIGHT
36	RED	LIGHT TO LIGHT
37	BLUE	LIGHT TO LIGHT 2
38	WHITE	COOL FAN N
39	RED	RANGE TOP L2
40	RED	L2
41	WHITE	RANGETOP N
42	RED	TCO TO SPLICE L2
43	RED	L2
44	RED	L2
45	RED	L2
46	RED	L2
47	RED	L2
48	WHITE	RCF N
49	WHITE	LCF N
50	GREEN	PIZZA GND
51	RED	BROIL L2
52	GREEN	PIZZA GND
53	BLACK	L1 RELAYS
54	BLACK	L1 JUMPER
55	BLACK/RED HA	BROIL
56	BLACK/ORANGE HA	LCE
57	BLACK/YELLOW HA	I BAKE
58	BLACK/GREEN HA	O BAKE
59	BLACK/BLUE HA	RCE
60	BLACK/PURPLE HA	PIZZA
61	TAN/BLACK HA	MP
62	TAN/BLACK SST	MP-
63	BROWN/BLACK SST	MN
64	BROWN/BLACK HA	MU
65	PURPLE/BLACK HA	ML
66	TAN/BLACK HA	RTD
67	WHITE	RB TO OC
68	YELLOW HA	DS
69	TAN/BLACK SST	RTD-
70	YELLOW SST	DS-
71	BROWN/GRAY DST	LF
72	BLACK	RB JUMPER
73	LT BLUE/BLACK DST	HF
74	BLACK/GRAY DST	TRANS
75	BLACK/GRAY HA	MDL
76	PURPLE/BLACK SST	MN JUMPER
77	ORANGE/BLACK HA	LCF
78	BLUE/BLACK SST	RCF
79	BLACK	L1 LOGIC
80	WHITE	N LOGIC
81	RED	L2
82	RED	DLB TO TCO
83	WHITE	COOL FAN N
84	WHITE	MDL N
85	WHITE	RCF N
86	RED	L2
87	WHITE	TRANS N
88	BLUE	TRANS TO LIGHT
89	RED	TRANS TO LIGHT
90	BLUE	LIGHT TO LIGHT
91	RED	LIGHT TO LIGHT 2
92	RED	L2
93	RED	L2
94	WHITE	CVF TO CVF N
95	RED	L2
96	RED	L2
97	RED	L2
98	RED	L2
99	RED	L2

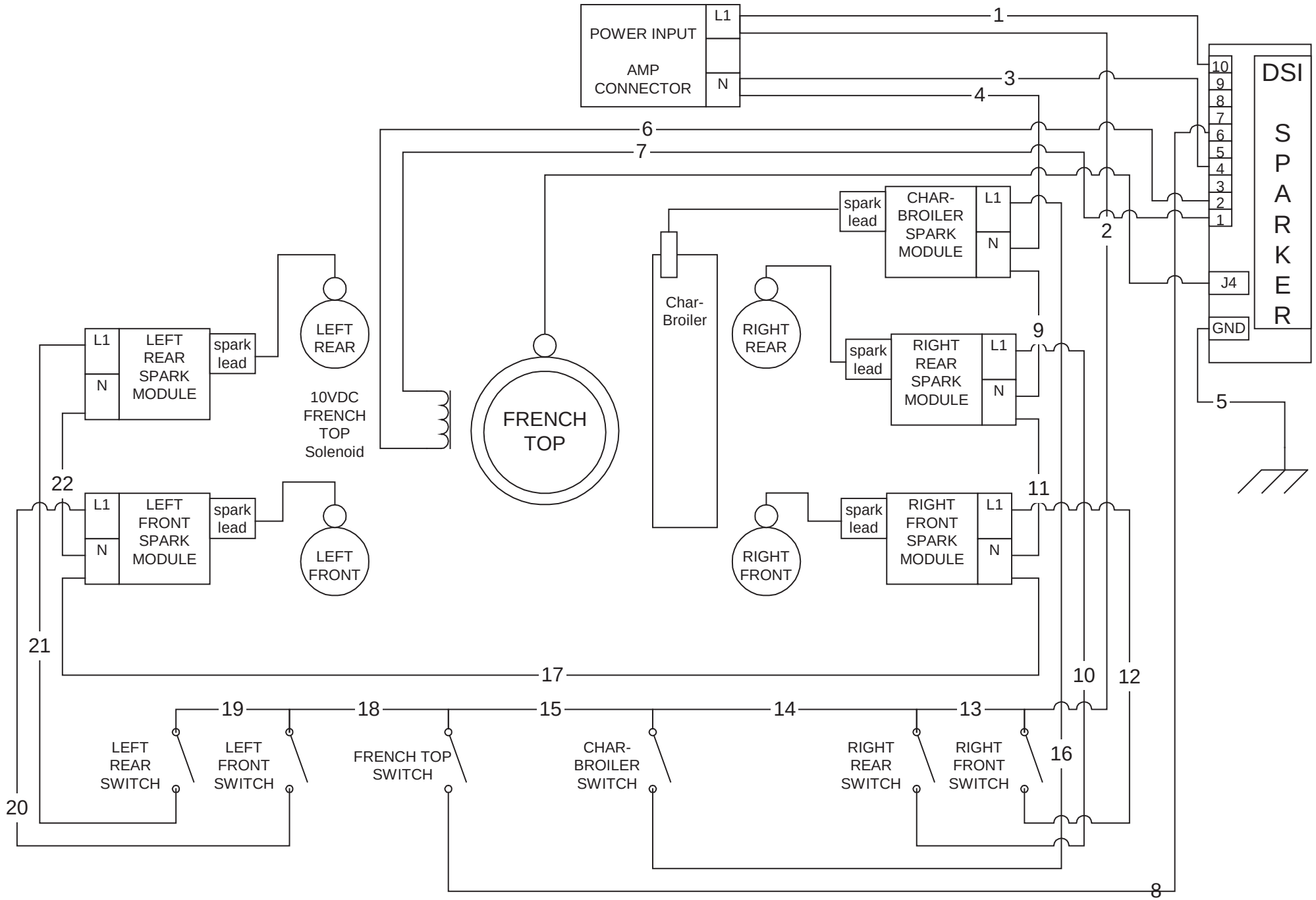
Wolf Appliance Company, LLC
60" Wiring Diagram
Wolf #805289A Revision A

94	WHITE	CVF
95	RED	L2
96	RED	L2
97	RED	L2
98	RED	L2
99	RED	L2

MODELS : DF 606CG, DF 606CG-LP, DF 604CF,
DF 604CF-LP, DF 604GF, DF 604GF-LP, DF 606DC,
DF 606DC-LP, DF 606DG, DF 606DG-LP, DF 606F,
DF 606F-LP

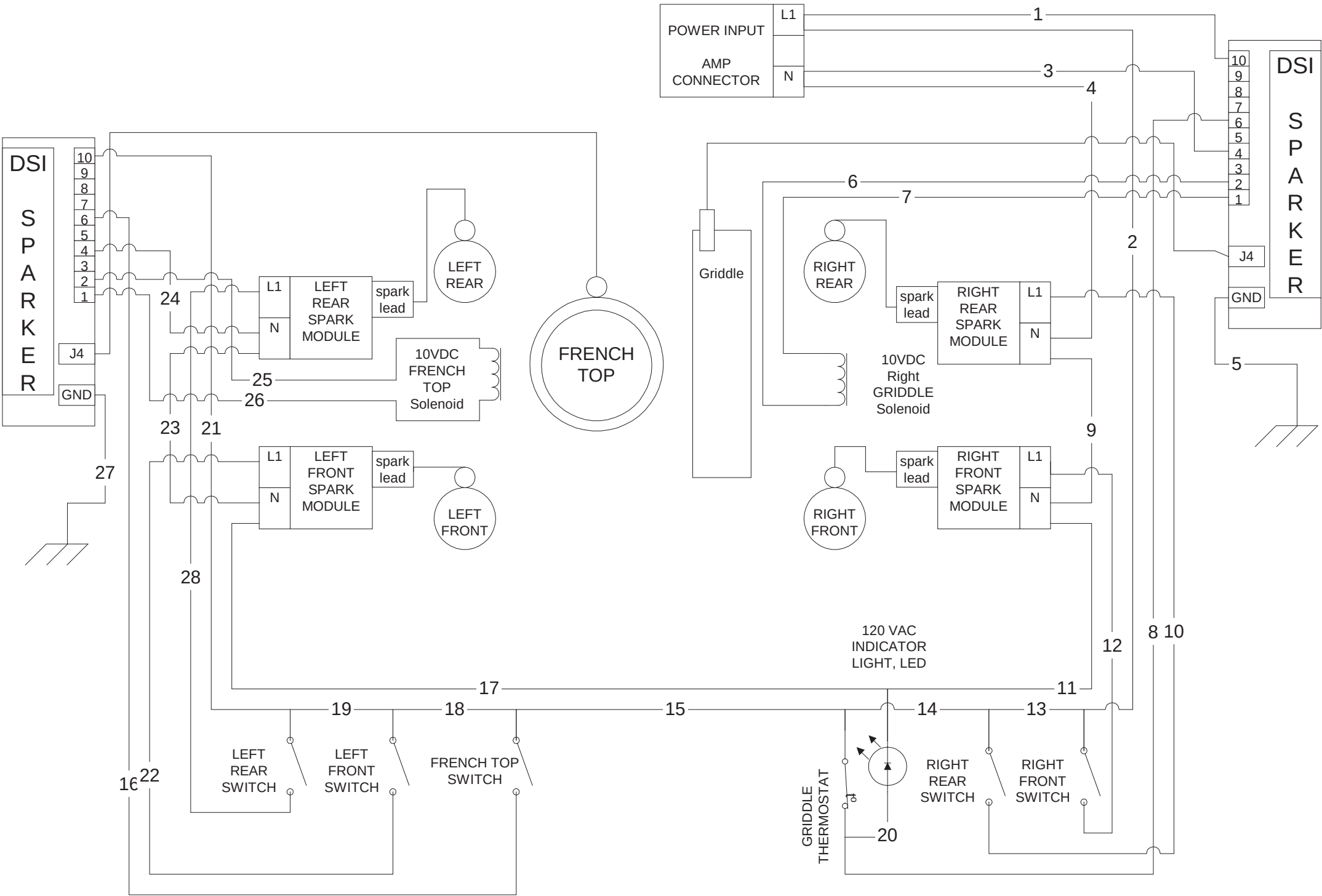
Dual Fuel Rangetop Harness
Model DF604CF

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI MODULE
2	BLACK	L1 IN
3	WHITE	N TO DSI MODULE
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID N
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI GRIDDLE INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/GREEN SST	CHARBROILER
17	WHITE	N JUMPER
18	BLACK	L1 JUMPER
19	BLACK	L1 JUMPER
20	BLACK/GRAY SST	LEFT FRONT
21	BLACK/TAN SST	LEFT REAR
22	WHITE	N JUMPER
NOTE		SST: SINGLE STRIPE ON THE WIRE
		HA:HASH MARKING On THE WIRE
		DST: DOUBLE STRIPE ON THE WIRE



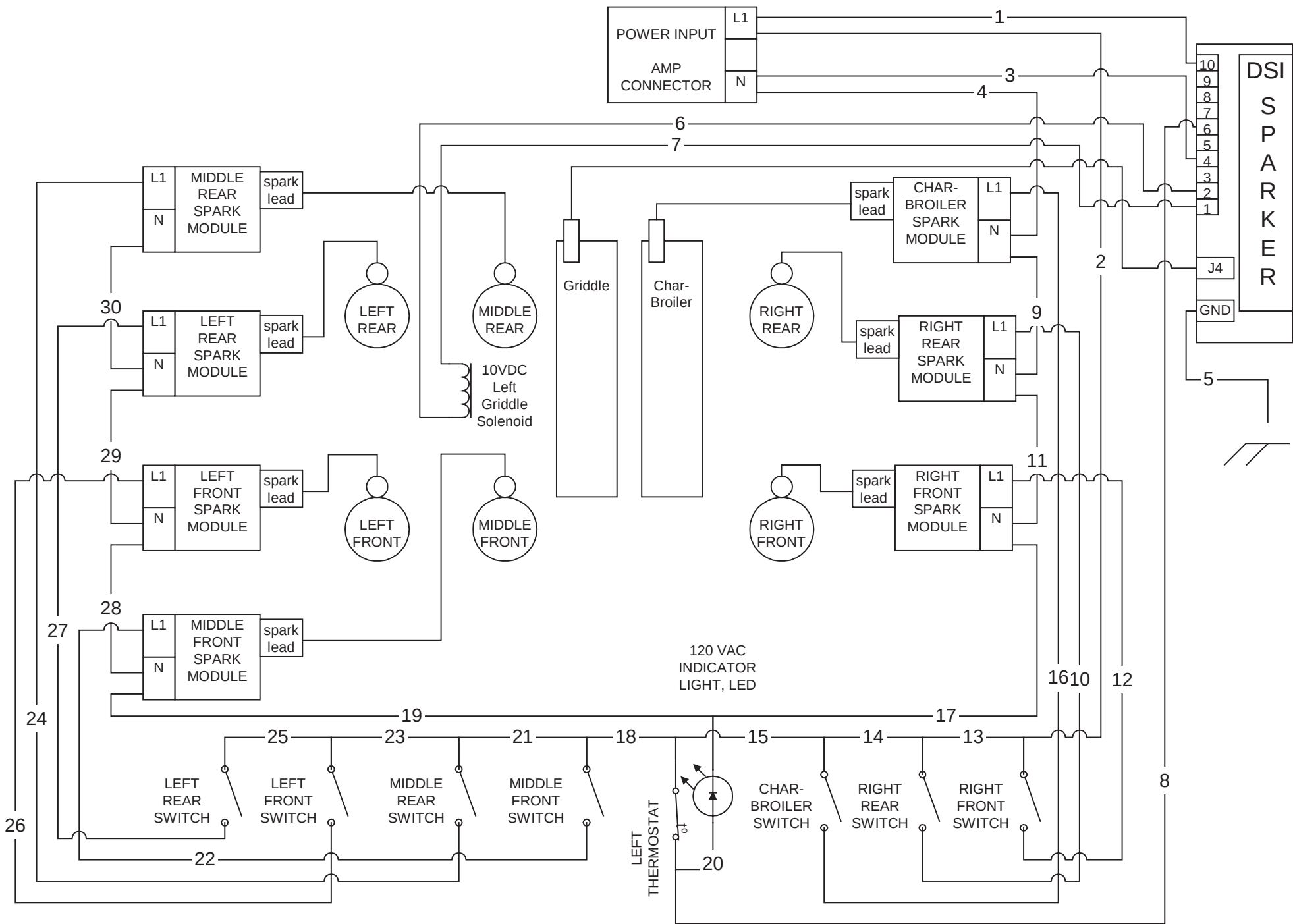
Dual Fuel Rangetop Harness
Model DF604GF

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI (1)
2	BLACK	L1 IN
3	WHITE	N TO DSI (1)
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND (1)
6	WHITE/ORANGE HA	SOLENOID N (1)
7	BLACK/ORANGE HA	SOLENOID (1)
8	BLACK/ORANGE SST	DSI GRIDDLE (1)
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/GREEN SST	FRENCH TOP
17	WHITE	N JUMPER
18	BLACK	L1 JUMPER
19	BLACK	L1 JUMPER
20	BLACK/ORANGE SST	LED INDICATOR
21	BLACK	L1 JUMPER
22	BLACK/GRAY SST	LEFT REAR
23	WHITE	N JUMPER
24	WHITE	N TO DSI (2)
25	WHITE/GREEN HA	L1 JUMPER
26	BLACK/GREEN HA	LEFT FRONT
27	GREEN/YELLOW DST	SPARKER GND
28	BLACK/TAN SST	LEFT REAR
NOTE SST: SINGLE STRIPE ON THE WIRE		
HA: HASH MARKING ON THE WIRE		
DST: DOUBLE STRIPE ON THE WIRE		



Dual Fuel Rangetop Harness
Model DF606CG

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI MODULE
2	BLACK	L1 IN
3	WHITE	N TO DSI MODULE
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID COMMON
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI GRIDDLE INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR BURNER
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT BURNER
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/GREEN SST	CHARBROILER
17	WHITE	N JUMPER
18	BLACK	L1 JUMPER
19	WHITE	N JUMPER
20	BLACK/ORANGE SST	LED INDICATOR
21	BLACK	L1 JUMPER
22	BLACK/BLUE SST	MIDDLE FRONT BURNER
23	BLACK	L1 JUMPER
24	BLACK/PURPLE SST	MIDDLE REAR BURNER
25	BLACK	L1 JUMPER
26	BLACK/GRAY SST	LEFT FRONT BURNER
27	BLACK/TAN SST	LEFT REAR BURNER
28	WHITE	N JUMPER
29	WHITE	N JUMPER
30	WHITE	N JUMPER
NOTE		SST: SINGLE STRIPE THE WIRE
		HA: HASH THE WIRE
		DST: DOUBLE STRIPE THE WIRE



Dual Fuel Rangetop Harness
Model DF606DC

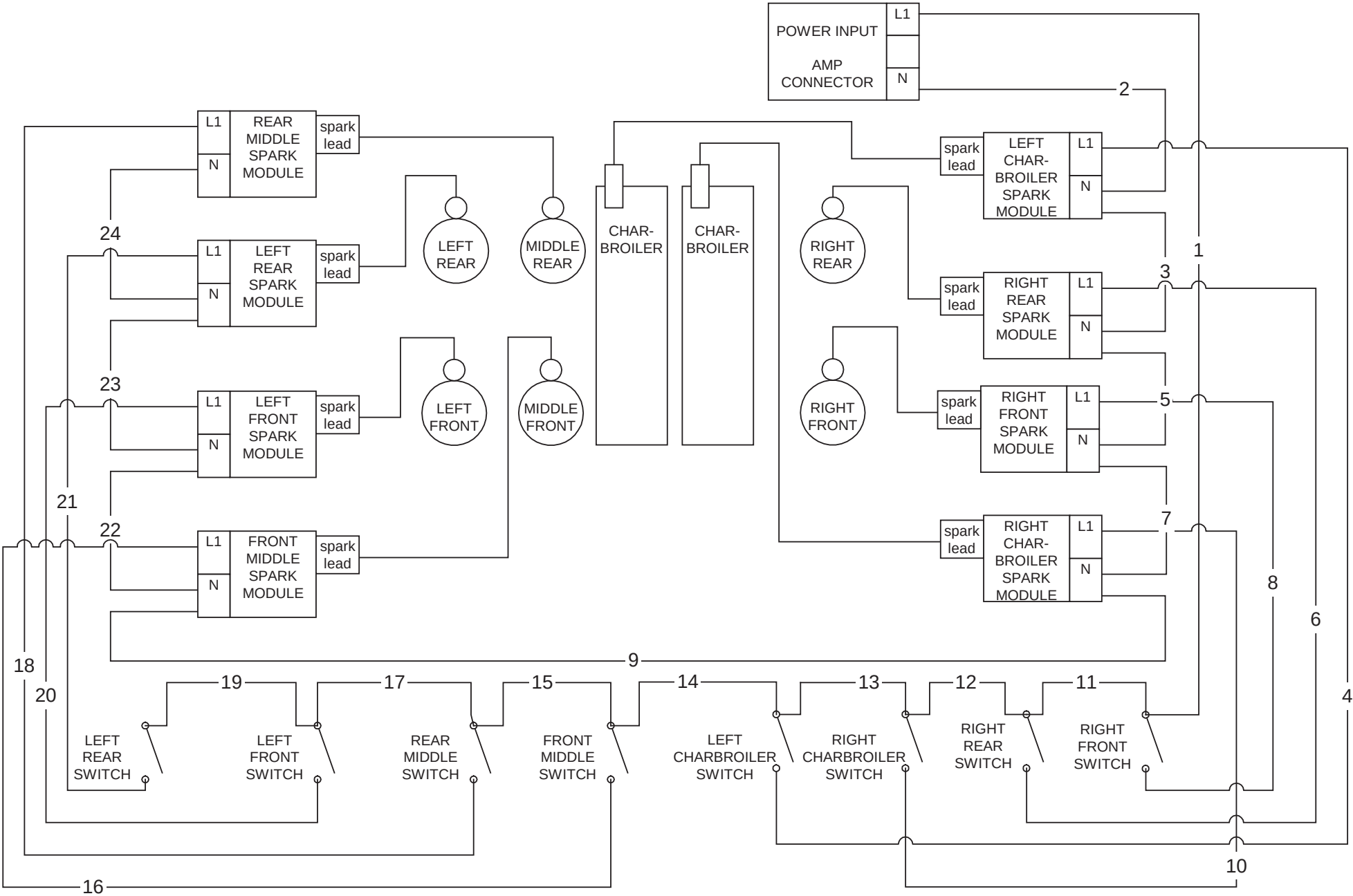
WIRE	WIRE COLOR	INFO
1	BLACK	L1 IN
2	WHITE	N IN
3	WHITE	N JUMPER
4	BLACK/GREEN SST	R. CHARBROILER
5	WHITE	N JUMPER
6	BLACK/YELLOW SST	RIGHT REAR
7	WHITE	N JUMPER
8	BLACK/RED SST	RIGHT FRONT
9	WHITE	N JUMPER
10	BLACK/ORANGE SST	L. CHARBROILER
11	BLACK	L1 JUMPER
12	BLACK	L1 JUMPER
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/BLUE SST	MIDDLE FRONT
17	BLACK	L1 JUMPER
18	BLACK/PURPLE SST	MIDDLE REAR
19	BLACK	L1 JUMPER
20	BLACK/GRAY SST	LEFT FRONT
21	BLACK/TAN SST	LEFT REAR
22	WHITE	N JUMPER
23	WHITE	N JUMPER
24	WHITE	N JUMPER

NOTE:

SST: SINGLE STRIPE THE WIRE

HA: HASH ON THE WIRE

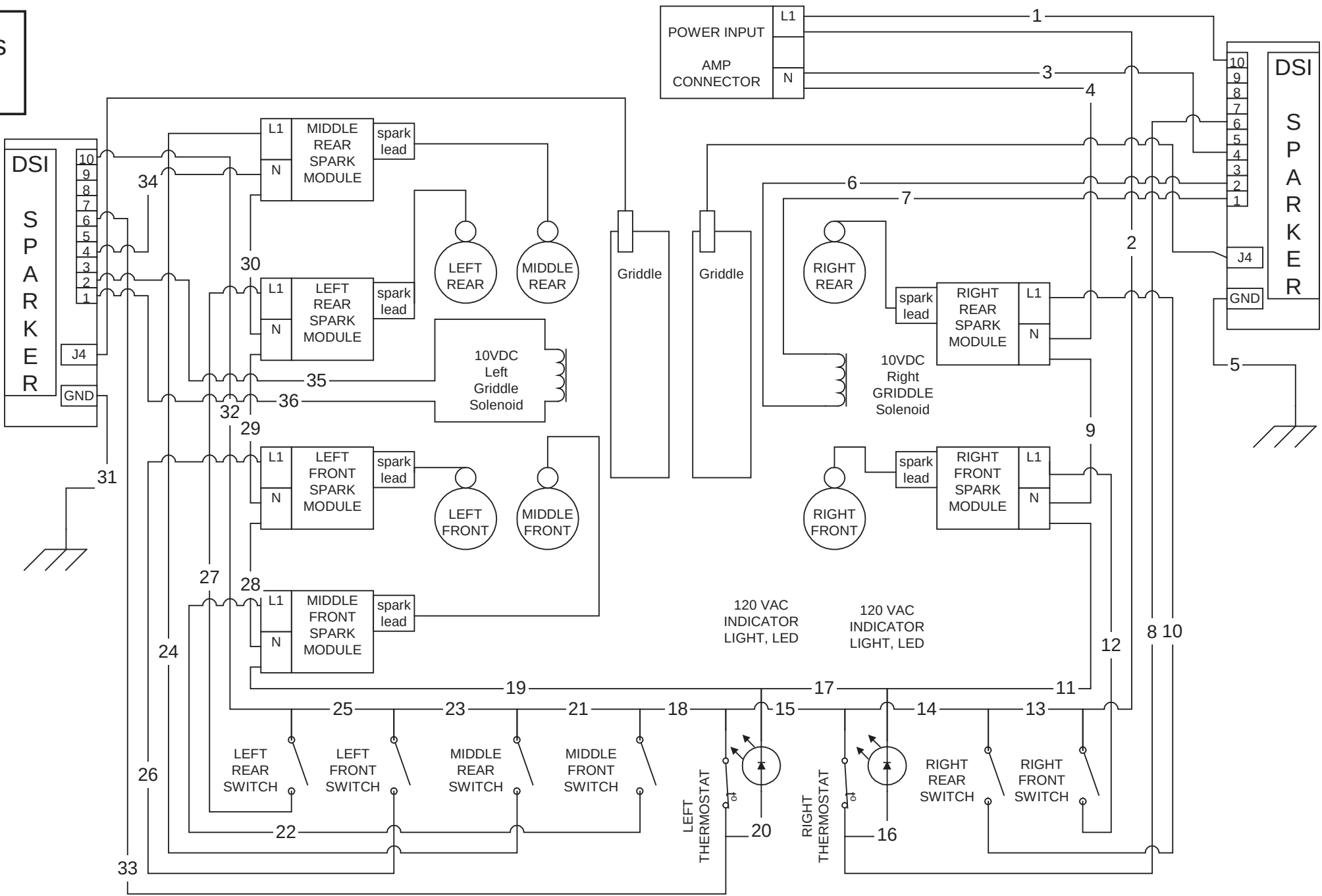
DST: DOUBLE STRIPE THE WIRE



Dual Fuel Rangetop Harness
Model DF606DG

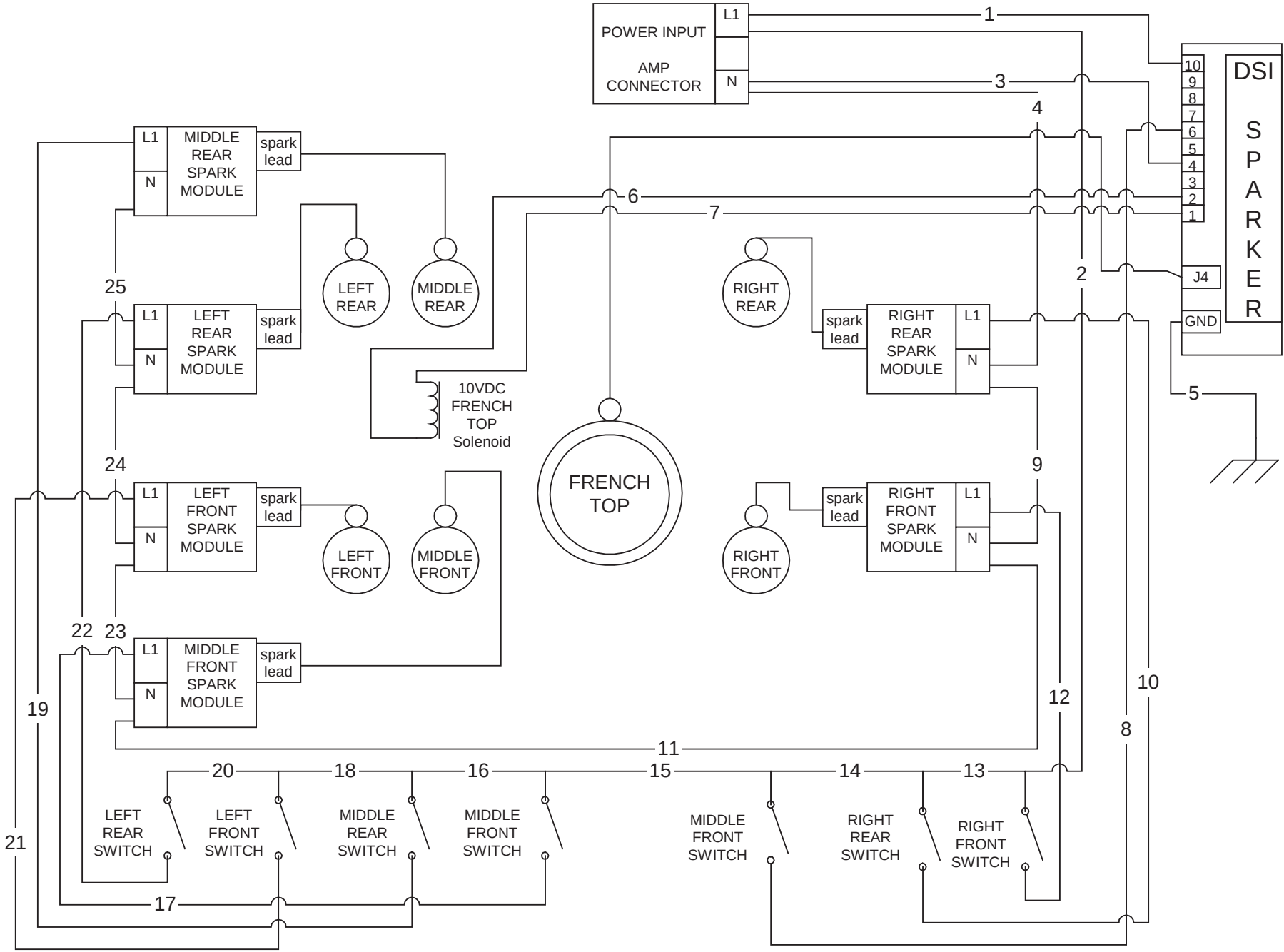
WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI MODULE
2	BLACK	L1 IN
3	WHITE	N TO DSI MODULE
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID COMMON
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI GRIDDLE INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR BURNER
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT BURNER
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK/ORANGE SST	LED INDICATOR
17	WHITE	N JUMPER
18	BLACK	L1 JUMPER
19	WHITE	N JUMPER
20	BLACK/GREEN SST	LED INDICATOR
21	BLACK	L1 JUMPER
22	BLACK/BLUE SST	MIDDLE FRONT BURNER
23	BLACK	L1 JUMPER
24	BLACK/PURPLE SST	MIDDLE REAR BURNER
25	BLACK	L1 JUMPER
26	BLACK/GRAY SST	LEFT FRONT BURNER
27	BLACK/TAN SST	LEFT REAR BURNER
28	WHITE	N JUMPER
29	WHITE	N JUMPER
30	WHITE	N JUMPER
31	GREEN/YELLOW DST	SPARKER GND
32	BLACK	L1 TO DSI MODULE
33	BLACK/GREEN SST	DSI GRIDDLE INPUT
34	WHITE	N TO DSI MODULE
35	WHITE/GREEN HA	SOLENOID COMMON
36	BLACK/GREEN HA	SOLENOID

NOTE SST: SINGLE STRIPE THE WIRE
DST: DOUBLE STRIPE THE WIRE
HA: HASH THE WIRE

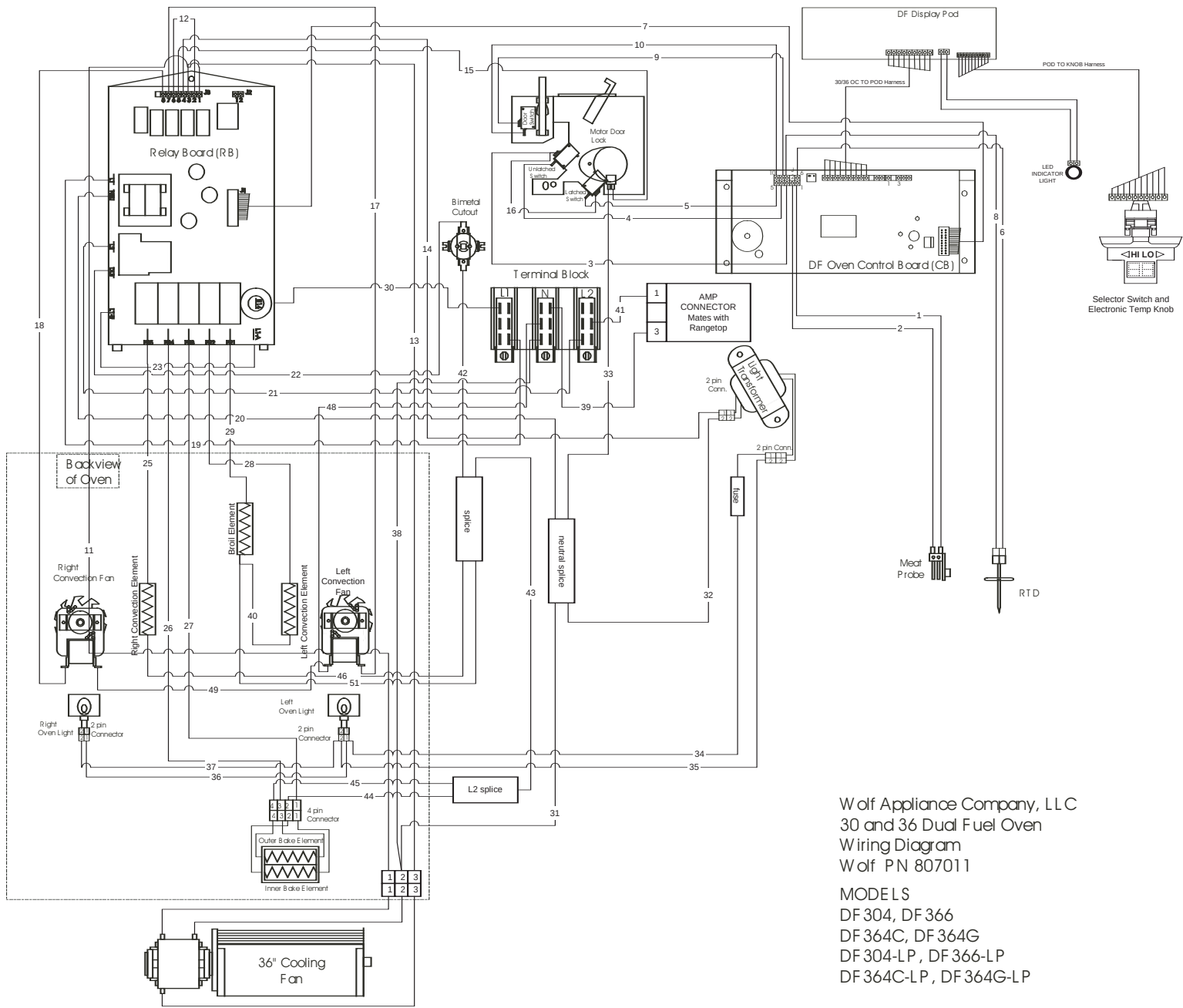


Dual Fuel Rangetop Harness
Model DF606F

WIRE	WIRE COLOR	INFO
1	BLACK	L1 TO DSI MODULE
2	BLACK	L1 IN
3	WHITE	N TO DSI MODULE
4	WHITE	N IN
5	GREEN/YELLOW DST	SPARKER GND
6	WHITE/ORANGE HA	SOLENOID COMMON
7	BLACK/ORANGE HA	SOLENOID
8	BLACK/ORANGE SST	DSI GRIDDLE INPUT
9	WHITE	N JUMPER
10	BLACK/YELLOW SST	RIGHT REAR BURNER
11	WHITE	N JUMPER
12	BLACK/RED SST	RIGHT FRONT BURNER
13	BLACK	L1 JUMPER
14	BLACK	L1 JUMPER
15	BLACK	L1 JUMPER
16	BLACK	L1 JUMPER
17	BLACK/BLUE SST	MIDDLE FRONT BURNER
18	BLACK	L1 JUMPER
19	BLACK/PURPLE SST	MIDDLE REAR BURNER
20	BLACK	L1 JUMPER
21	BLACK/GRAY SST	LEFT FRONT BURNER
22	BLACK/TAN SST	LEFT REAR BURNER
23	WHITE	N JUMPER
24	WHITE	N JUMPER
25	WHITE	N JUMPER
NOTE		SST: SINGLE STRIPE THE WIRE
		DST: DOUBLE STRIPE THE WIRE
		HA: HASH THE WIRE

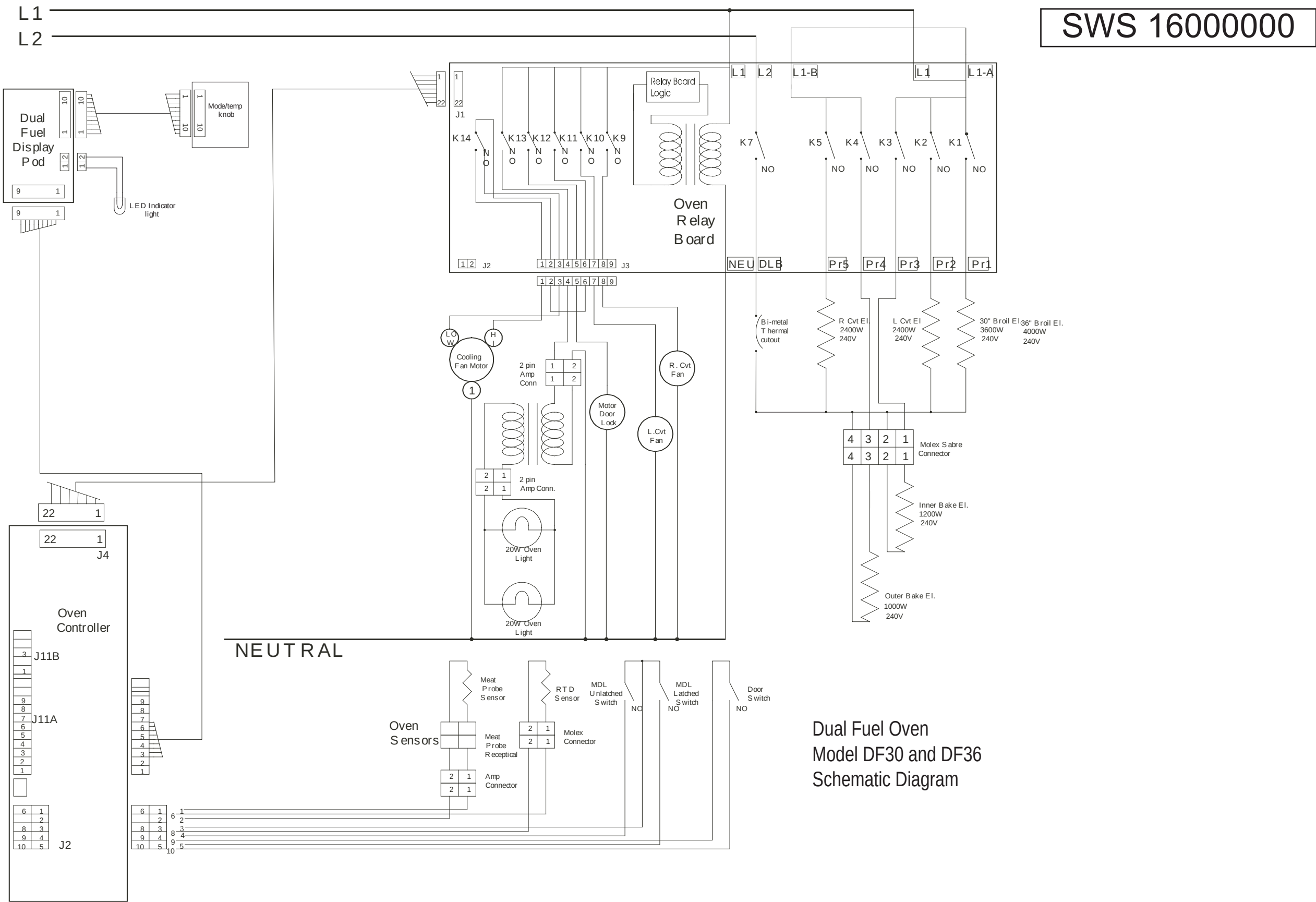


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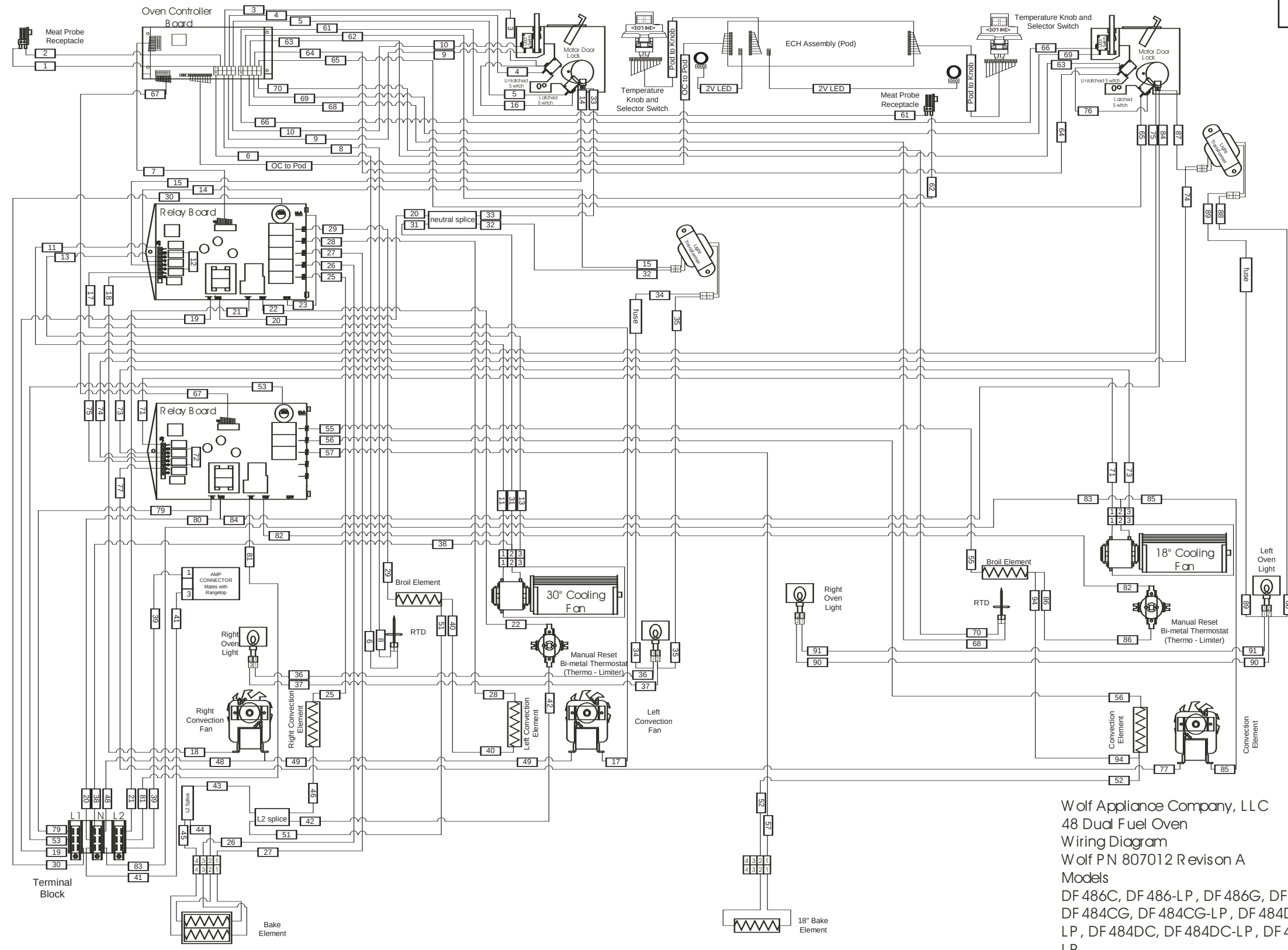


Wolf Appliance Company, LLC
30 and 36 Dual Fuel Oven
Wiring Diagram
Wolf PN 807011
MODELS
DF 304, DF 366
DF 364C, DF 364G
DF 304-LP, DF 366-LP
DF 364C-LP, DF 364G-LP

WIRE	WIRE COLOR	INFO
1	GRAY	Meat Probe
2	GRAY/BLACK DST	Meat Probe -
3	BROWN/BLACK DST	MDL switch Common
4	BROWN	MDL switch Unlocked
5	PURPLE	MDL switch Locked
6	TAN	RTD
7	BLACK	RB TO OC 22 wires
8	TAN/BLACK DST	RTD-
9	YELLOW	Door Switch
10	YELLOW/BLACK DST	Door Switch-
11	BLACK/WH DST	High Fan
12	BLACK	Relay Board Jumper
13	LT BLUE	Low Fan
14	BLACK/WHITE HA	Transformer
15	GRAY/BLACK HA	MDL L1
16	PURPLE/BLACK DST	MDL switch Common
17	ORANGE	Left Convection Fan
18	BLUE	Right Convection Fan
19	BLACK	L1 LOGIC
20	WHITE	N LOGIC
21	RED	L2
22	RED	DLB TO Bimetal cutout
23	BLACK	L1 board JUMPER
25	BLACK/BLUE DST	RCE
26	BLACK/GREEN DST	O BAKE
27	BLACK/YELLOW DST	I BAKE
28	BLACK/ORANGE DST	LCE
29	BLACK/RED DST	BROIL
30	BLACK	L1 RELAYS
31	WHITE	N SPICE TO COOL FAN N
32	WHITE	SPLICE TO TRANS N
33	WHITE	SPLICE TO MDL N
34	RED	TRANS TO LIGHT FUSE
35	BLUE	TRANS TO LIGHT
36	RED	LIGHT TO LIGHT
37	BLUE	LIGHT TO LIGHT 2
38	WHITE	COOL FAN Neutral
39	RED	RANGE TOP L2
40	RED	L2 JUMPER
41	WHITE	RANGETOP N
42	RED	TCO TO SPLICE L2
43	RED	SPLICE TO SPLICE L2
44	RED	SPLICE TO SABER 2 L2
45	RED	SPLICE TO SABER 4 L2
46	RED	SPLICE TO RCE L2
48	WHITE	RCF N
49	WHITE	LCF N
51	RED	BROIL L2
NOTE: DST INDICATES A COLOR TO DOUBLE STRIPE THE WIRE		



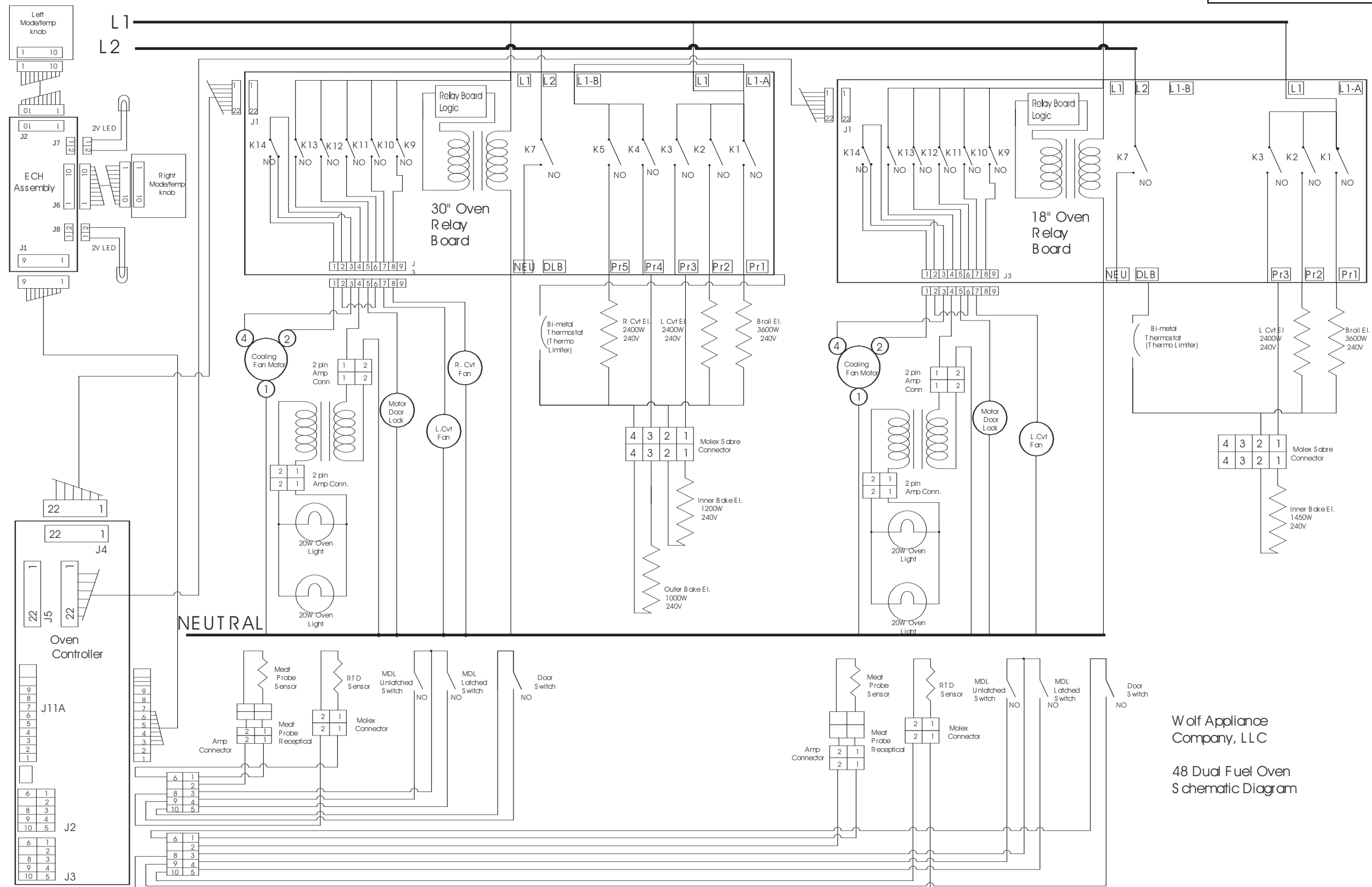
SWS 16000000



WIRE	WIRE COLOR	INFO
1	GRAY	MP
2	GRAY/BLACK DST	MP
3	BROWN/BLACK DST	MN
4	BROWN	MU
5	PURPLE	ML
6	TAN	RTD
7	BLACK	RB TO OC (22 WIRES)
8	TAN/BLACK DST	RTD-
9	YELLOW	DS
10	YELLOW/BLACK DST	DS-
11	BLACK/WH DST	HF
12	BLACK	RB JUMPER
13	LT BLUE	LF
14	BLACK/WHITE HA	TRANS
15	GRAY/BLACK HA	MDL
16	PURPLE/BLACK DST	MN JUMPER
17	ORANGE	LCF
18	BLUE	RCF
19	BLACK	L1 LOGIC
20	WHITE	N LOGIC
21	RED	L2
22	RED	DLB TO TCO
23	BLACK	L1 JUMPER
25	BLACK/BLUE DST	RCE
26	BLACK/GREEN DST	O BAKE
27	BLACK/YELLOW DST	I BAKE
28	BLACK/ORANGE DST	LCE
29	BLACK/RED DST	BROIL
30	BLACK	L1 RELAYS
31	WHITE	N SPLICE TO COOL FAN N
32	WHITE	SPLICE TO TRANS N
33	WHITE	SPLICE TO MDL N
34	RED	TRANS TO LIGHT
35	BLUE	TRANS TO LIGHT FUSE
36	RED	LIGHT TO LIGHT
37	BLUE	LIGHT TO LIGHT 2
38	WHITE	COOL FAN N
39	RED	RANGE TOP L2
40	RED	L2 JUMPER
41	WHITE	RANGE TOP N
42	RED	TCO TO SPLICE L2
43	RED	SPLICE TO SPLICE L2
44	RED	SPLICE TO SABER 2 L2
45	RED	SPLICE TO SABER 4 L2
46	RED	SPLICE TO RCE L2
48	WHITE	RCF N
49	WHITE	LCF N
51	RED	BROIL L2
52	RED	LCE L2
53	BLACK	L1 RELAYS
54	BLACK	L1 JUMPER
55	BLACK/RED CK	BROIL
56	BLACK/ORANGE CK	LCE
57	BLACK/YELLOW CK	I BAKE
61	TAN/BLACK CK	MP
62	TAN/BLACK SP	MP-
63	BROWN/BLACK SP	MN
64	BROWN/BLACK CK	MU
65	PURPLE/BLACK CK	ML
66	TAN/BLACK CK	DS
67	WHITE	RB TO OC
68	YELLOW CK	RTD
69	TAN/BLACK SP	DS
70	YELLOW SP	RTD
71	BROWN/GRAY ST	HF
72	BLACK	RB JUMPER
73	LT BLUE/BLACK ST	LF
74	BLACK/GRAY ST	TRANS
75	BLACK/GRAY CK	MDL
76	PURPLE/BLACK SP	MN JUMPER
77	ORANGE/BLACK CK	LCF
78	BLUE/BLACK SP	RCF
79	BLACK	L1 LOGIC
80	WHITE	N LOGIC
81	RED	L2
82	RED	DLB TO TCO
83	WHITE	COOL FAN N
84	WHITE	MDL N
85	WHITE	RCF N
86	RED	TCO TO SPLICE L2
87	WHITE	TRANS N
88	BLUE	TRANS TO LIGHT
89	RED	TRANS TO LIGHT FUSE
90	BLUE	LIGHT TO LIGHT
91	RED	LIGHT TO LIGHT 2
92	RED	SPLICE TO SABER 4 L2
94	RED	L2 JUMPER

Wolf Appliance Company, LLC
48 Dual Fuel Oven
Wiring Diagram
Wolf PN 807012 Revision A
Models
DF 486C, DF 486-LP, DF 486G, DF 486-LP ,
DF 484CG, DF 484CG-LP, DF 484DG, DF 484DG-
LP, DF 484DC, DF 484DC-LP, DF 484F, DF 484F -
LP

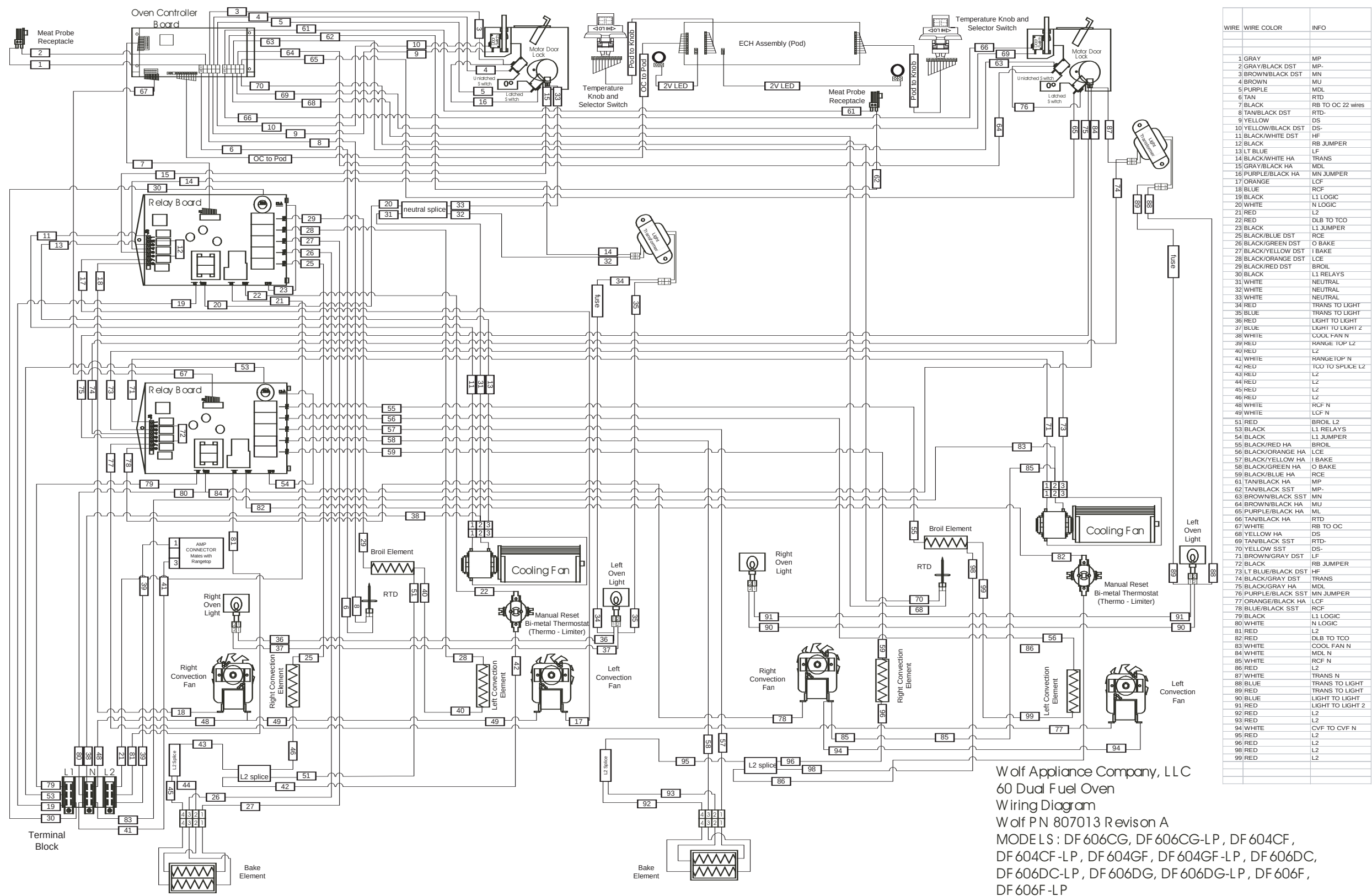
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Company, LLC

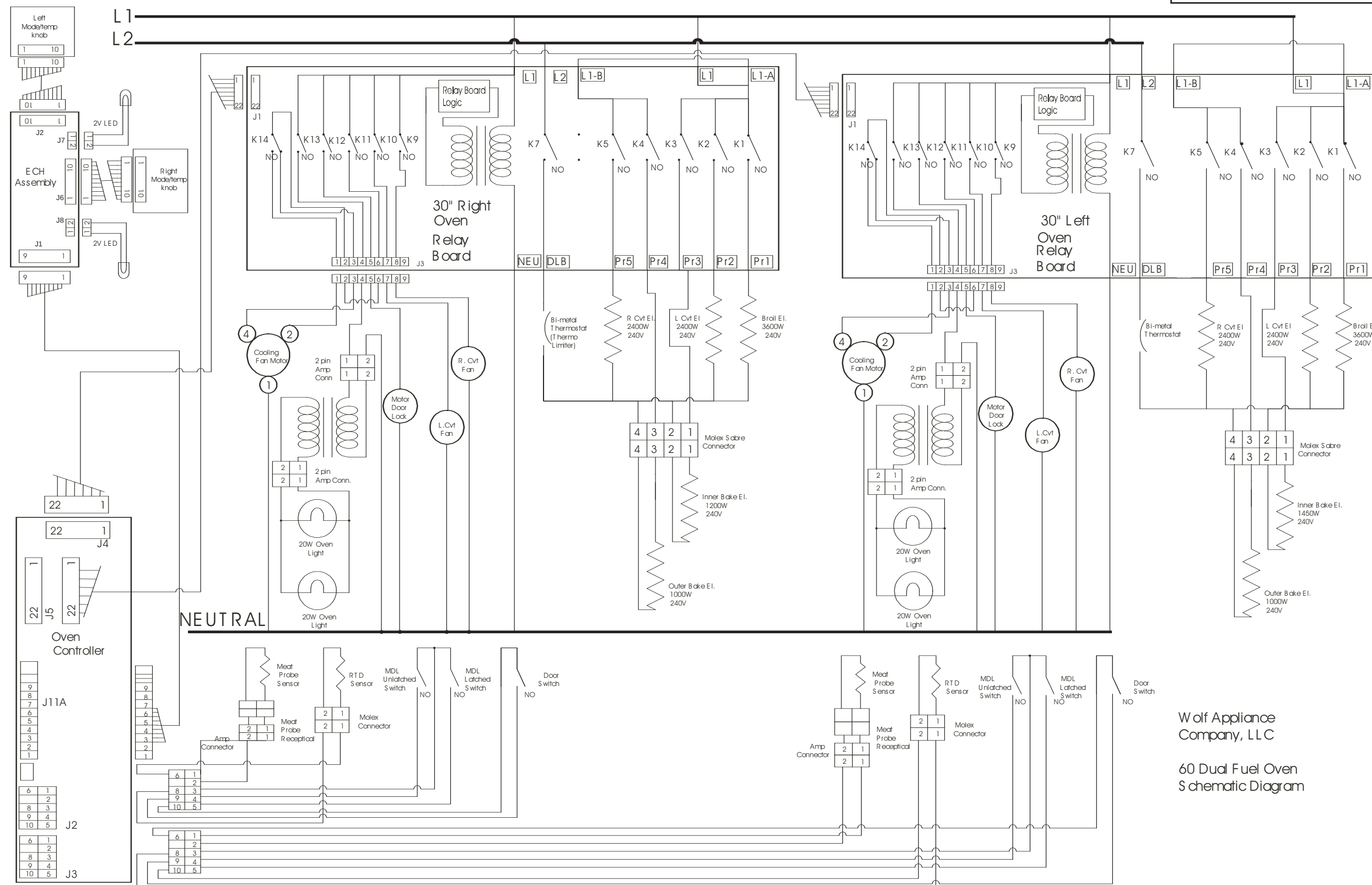
48 Dual Fuel Oven
Schematic Diagram

SWS 16000000



WIRE	WIRE COLOR	INFO
1	GRAY	MP
2	GRAY/BLACK DST	MP-
3	BROWN/BLACK DST	MN
4	BROWN	MU
5	PURPLE	MDL
6	TAN	RTD
7	BLACK	RB TO OC 22 wires
8	TAN/BLACK DST	RTD-
9	YELLOW	DS
10	YELLOW/BLACK DST	DS-
11	BLACK/WHITE DST	HF
12	BLACK	RB JUMPER
13	LT BLUE	LF
14	GRAY/WHITE HA	TRANS
15	GRAY/BLACK HA	MDL
16	PURPLE/BLACK HA	MN JUMPER
17	ORANGE	LCF
18	BLUE	RCF
19	BLACK	L1 LOGIC
20	WHITE	N LOGIC
21	RED	L2
22	RED	DLB TO TCO
23	BLACK	L1 JUMPER
25	BLACK/BLUE DST	RCE
26	BLACK/GREEN DST	O BAKE
27	BLACK/YELLOW DST	I BAKE
28	BLACK/ORANGE DST	LCE
29	BLACK/RED DST	BROIL
30	BLACK	L1 RELAYS
31	WHITE	NEUTRAL
32	WHITE	NEUTRAL
33	WHITE	NEUTRAL
34	RED	TRANS TO LIGHT
35	BLUE	TRANS TO LIGHT
36	RED	LIGHT TO LIGHT
37	BLUE	LIGHT TO LIGHT 2
38	WHITE	COOL FAN N
39	RED	RANGE TOP L2
40	RED	L2
41	WHITE	RANGETOP N
42	RED	TCO TO SPUCE L2
43	RED	L2
44	RED	L2
45	RED	L2
46	RED	L2
48	WHITE	RCF N
49	WHITE	LCF N
51	RED	BROIL L2
53	BLACK	L1 RELAYS
54	BLACK	L1 JUMPER
55	BLACK/RED HA	BROIL
56	BLACK/ORANGE HA	LCE
57	BLACK/YELLOW HA	I BAKE
58	BLACK/GREEN HA	O BAKE
59	BLACK/BLUE HA	RCE
61	TAN/BLACK HA	MP
62	TAN/BLACK SST	MN
63	BROWN/BLACK SST	MU
64	BROWN/BLACK HA	MU
65	PURPLE/BLACK HA	MDL
66	TAN/BLACK HA	RTD
67	WHITE	RB TO OC
68	YELLOW HA	DS
69	TAN/BLACK SST	RTD-
70	YELLOW SST	DS-
71	BROWN/GRAY DST	LF
72	BLACK	RB JUMPER
73	LT BLUE/BLACK DST	HF
74	BLACK/GRAY DST	TRANS
75	BLACK/GRAY HA	MDL
76	PURPLE/BLACK SST	MN JUMPER
77	ORANGE/BLACK HA	LCF
78	BLUE/BLACK SST	RCF
79	BLACK	L1 LOGIC
80	WHITE	N LOGIC
81	RED	L2
82	RED	DLB TO TCO
83	WHITE	COOL FAN N
84	WHITE	MDL N
85	WHITE	RCF N
86	RED	L2
87	WHITE	TRANS N
88	BLUE	TRANS TO LIGHT
89	RED	TRANS TO LIGHT
90	BLUE	LIGHT TO LIGHT
91	RED	LIGHT TO LIGHT 2
92	RED	L2
93	RED	L2
94	WHITE	CVF TO CVF N
95	RED	L2
96	RED	L2
98	RED	L2
99	RED	L2

SWS 16000000



Wolf Appliance
Company, LLC

60 Dual Fuel Oven
Schematic Diagram