

Service

Gas Cooktops

This manual replaces RS2410001 Rev. 4

Service Manual for
Amana®
Caloric®
Modern Maid®

Models and manufacturing numbers in this manual

AKO2000	P1142512N
AKS30	P1142501N
AKS3020*	P1142517N
AKS3030*	P1142527N
AKS3030*	PAKS3030*
AKS3040*	P1142513N
AKS3040*	P1142518N
AKS3040*	P1142522N
AKS3040*	P1142525N
AKS3040*	PAKS3040*
AKS3050*	P1142526N
CKS3020*	P1142515N
GT341	
GT451	
GT583	
KGT341	P1123230N
KGT341	P1131428N
PGT120U	P1142504N
PGT153U	P1142506N
RTP201	P1131401N
RTP203	
RTP300	
RTP302	
RTP304	
RTP305	
RTP306	P1142508N
RTP306U	P1131494N
RTP307	
RTP308U	P1142505N
RTP348	
RTP349	

This manual is to be used by qualified appliance technicians only. Maytag does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

MAYTAG®

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Revision 0
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Important Information

Pride and workmanship go into every product to provide our customers with quality products. It is possible however, that during its lifetime a product may require service. Products should be serviced only by a qualified service technician who is familiar with the safety procedures required in the repair and who is equipped with the proper tools, parts, testing instruments and the appropriate service manual. **REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL BEFORE BEGINNING REPAIRS.**

IMPORTANT NOTICES



WARNING

If repairs are attempted by unqualified persons, dangerous conditions (such as exposure to electrical shock) may result. This may cause serious injury or death.



CAUTION

Amana will not be responsible for any injury or property damage arising from improper service or service procedures. If you perform service on your own product, you assume responsibility for any personal injury or property damage which may result.

To locate an authorized servicer, please consult your telephone book or the dealer from whom you purchased this product. For further assistance, please contact:

Customer Service Support Center

CAIR Center

<u>Web Site</u>	<u>Telephone Number</u>
WWW.AMANA.COM.....	1-800-843-0304
WWW.JENNAIR.COM.....	1-800-536-6247
WWW.MAYTAG.COM.....	1-800-688-9900
CAIR Center in Canada.....	1-800-688-2002
Amana Canada Product.....	1-866-587-2002

Recognize Safety Symbols, Words, and Labels



DANGER

DANGER—Immediate hazards which **WILL** result in severe personal injury or death.



WARNING

WARNING—Hazards or unsafe practices which **COULD** result in severe personal injury or death.



CAUTION

CAUTION—Hazards or unsafe practices which **COULD** result in minor personal injury or product or property damage.

Table of Contents

Important Information

Introduction

General Information	4
Model Identification and Ordering	
Replacement Parts	4
New Amana Cooking Products Nomenclature	4
Old Amana Cooking Products Nomenclature	4
Modern Maid Cooking Products Nomenclature ...	5
Caloric Cooking Products Nomenclature	5
Gas Cooktop Feature Chart.....	5

Installation

Before Installing	6
Receiving	6
Unpacking.....	6
Electrical Connections	6
Making the Gas Connections - All Models	6
Access to Gas Connection	6
Pressure Testing the	
Gas Supply Piping System	7
Test for Gas Leaks	7
Cooktop Conversion to LP Gas	7
Pressure Regulator Conversion - All Models....	7
Example One	7
Example Two	7
Example Three	7
Example Four	8
Example Five.....	8
Example Six.....	8
Converting Burners to LP Gas - All Models	8
Burner Section - All Models.....	9
BTU Input.....	9
Top Burner Adjustment.....	9
Proper Flame Adjustment - All Models	9
Installation Notes	
RTP308, AKS30, and PGT153 Models	9
Countertop Cutout	9
Clearances.....	10
Above a Drawer	10
Placing Unit in Countertop	10
Removal and Replacement of the Cooktop.....	10
Adjust Burner Flame Height.....	10
Installation Notes	
RTP201 and RTP203 Models	11
Countertop	11
Clearances.....	11
Placing Unit in Countertop	11
Adjusting Top Pilot.....	11
Installation Notes	
RTP302, RTP304, RTP305,	
RTP306 and RTP307 Models	12
Countertop Cutout	12
Clearances.....	12
Above a Drawer	12
Placing Unit in Countertop	12
Adjusting Top Pilots (Gas Ignition)	12
Automatic Pilotless Ignition Models	12

Installation Notes AKS3020, AKS3030,	
AKS3040, AKS3050, and CKS3020.....	13
Countertop Cutout	13
Clearances	13
Above a Drawer.....	13
Placing Unit in Countertop.....	13
Adjusting Air Shutter.....	13

Operating Instructions

Using the Cooktop	14
Cooking Utensils.....	14
Using a Wok	14
Operating the Cooktop	14
Burner Operation - All Models	14
Top Burner Settings	15
Flame Adjustment	15
Using Cooktop During Power Failure	15
Cleaning	15
Grates and Caps	15
Cooktop.....	15
Sealed Burners.....	16
Open Head Burners	16

Troubleshooting Procedures

Chart.....	17
Top Burner Valve.....	17
Spark Module (Models RTP306 and RTP307).....	18
Top Burner Spark Ignitors	18
Gas Pressure and Measurement	18
Measuring Gas Pressure.....	18
Using the Manometer	17

Disassembly Procedures

Maintop Removal.....	19
Models RTP302,RTP304, RTP305,RTP307	19
Models RTP203 and RTP210	19
Burner and Related Parts	19
Burners.....	19
Burner Control Valve	19
Pilot Fitting (Applicable Models)	19
Electronic Spark Module:	
Models RTP306 and RTP307	19
Spark Module Removal.....	20
Disassembly Instructions for	
Models AKS30, AKS3020, AKS3030, AKS3040,	
AKS3050, CKS3020, PGT153, and RTP308.....	20
Diecast Burners.....	20
Maintop.....	20
Venturi Assemblies	20
Spark Module	20
Burner Ignitor Switches	20
Burner Gas Valve	20
Manifold.....	20

Wiring Diagrams and Schematics

AKO2000	21
AKS30, PGT153, and RTP308.....	22
GT341 / PGT120	23
GT451.....	24
GT583.....	25
RTP306 and RTP307	26
AKS3020, AKS3030, AKS3040, AKS3050,	
and CKS3020	27

Introduction

General Information

This manual provides complete instructions and suggestions for handling, installing and servicing Amana® gas cooktops.

Directions, information, and warnings in this manual are developed from experience with, and careful testing of the product. If the unit is installed according to the manual, it will operate properly and will require minimal servicing. A unit in proper operating order ensures the consumer all the benefits provided by clean, modern gas cooking.

This manual contains all the information needed by authorized Maytag® service technicians to install and service Amana®, Caloric®, Modern Maid® gas cooktops. There may be, however, some parts which need further explanation. Maytag® maintains a toll-free technical support line to answer questions from authorized service technicians. To locate an authorized service technician, the number is 1-800-628-5782 for Amana products.

Model Identification and Ordering Replacement Parts

Unit's model and manufacturing numbers are recorded on its rating label. Rating label is located on the bottom of sealed burner units. On open burner units, rating label is located under maintop. Lift cooktop from front edge to see rating label on top of burner box. Before ordering parts, write down the correct model and manufacturing numbers from rating label. This avoids incorrect shipments and delays. Please refer to parts catalog when ordering replacement parts.

New Old Amana Cooking Products Nomenclature

Brand	Product	Fuel/Type	Configuration	Width	Feature	Series	Color
A - Amana	K - Cooktop	Electric	D - Double Cartridges	20 - 20"	1 - Least	0	E - Ebony
C - Caloric		E - Electric Downdraft	F - Fixed Cartridges	30 - 30"	2		K - Chrome
N - International		H - Halogen	S - Single Cartridge	36 - 36"	3		L - Almond
Z - Canadian		R - Rough Top	G - Griddle		4		W - White
		T - Radiant			5		LL -
		Gas			6		Almond/Almond
		G - Gas Downdraft			7		
		L - Gas Glass			8		SS - Stainless
		O - Open Burners			9 - Most		
		S - Sealed Burners					WW - White/White

Old Amana Cooking Products Nomenclature

Product Group	Product Type		Features	Color
G - Gas Wall oven	DG1-Downdraft Gas Cooktop, 1 pc	2H-Halogen Smoothtop	Wall oven Features- Variable Cooktop Width	No Designator-Ebony
R - Electric Wall oven	Grate	Cooktop, 2	.30=30"	K-Chrome Top
K - Cooktop	DH-Downdraft Electric Cooktop, Optional Halogen Cartridge	Halogen Elements, 1 Dual	.35=35"	L-Almond
CO - Convection Wall Oven	DS-Gas or Electric Downdraft Slide-In Wall oven	R-Electric Roughtop Wall oven, Calrod Elements	.300=30" reduced depth (20-1/4")	LG-Almond, Glass Door
O - Wall Oven	G-Gas on Glass Cooktop, Sealed Burners	S-Gas Wall oven, Sealed Burners	Wall Oven Width/Fuel	W(1*)-White
	H-Halogen Smoothtop Wall oven, 1 Dual Element	T-Radiant Smoothtop Wall oven	.24SE2=24" Single Electric (2.9 cu. ft. oven), Soft Look Trim	WW-White on White
		2T-Radiant Smoothtop Wall oven or Cooktop, 1 Dual Element	.27SE=27" Single Electric (3.3 cu. ft. oven)	E(1*)-Ebony
			.27DG=27" Double Gas (Two 3.3 cu. ft. ovens)	

Introduction

Modern Maid Cooking Products Nomenclature

Product Group	Product Type		Series	Features	Fuel	Color
D-Dishwasher F-Electric Product G-Refrigerator K-Cooktop M-Microwave Oven P-Gas Product X-Kit or Accessory	BR-Backguard Kit DC-Electric Single/Double Convection Wall Oven, Self-Clean DO-Electric Combination Wall Oven, Self-Clean DU-Electric Slide-In Wall oven, Self- Clean	ET-Electric Cooktop (Coil or Downdraft) GO-Gas Wall Oven, Manual Clean GT-Gas Cooktop HO-Double Gas Wall Oven, Self-Clean HU-Gas Slide-In Wall Oven, Self-Clean KO-Gas Wall Oven, Continuous Clean	Variable	Variable	N-Natural Gas Only U-Universal (Set for natural gas) 1-120 Volts, 60 Hz. 2-240 Volts, 60Hz.	W-White WW-White on White WW1-White on White/1 pc. grate B-Black B1-Black/1 pc. grate L-Almond K-Chrome Top D-Black Glass

Caloric Cooking Products Nomenclature

Product Group	Product Type		Series	Features	Fuel	Color
E-Electric Product R-Gas Range T-Trash Compactor H-Vent Hood M-Microwave Oven D-Dishwasher	C-Convertible H-High Broil J-Hi-Broil w/Cont. Cleaning Panels K-Upper Oven Microwave Lower - Self-Cleaning L-Low Broil M-Low Broil w/Cont. Cleaning Panels P-Portable	R-Microwave/Electric S-Self-Clean T-Cooktop U-Undercounter V-Variable Power W-Wall Oven w/Cont. Cleaning Panels Y-Self-Cleaning	P R D S	Variable	N-Natural Gas L-Bottled Gas U-Universal 1-115 Volts 2-240 Volts 8-208 Volts	0-No Color 1-White 2-Antique Copper 3-Avocado 4-Autumn 5-Satin/Stainless Steel 6-Black 8-Color Pack 9-Color Pack H-Harvest L-Almond W-White

Gas Cooktop Feature Chart

Model	Burner Ignition	Thermoset Burner	Tri-Set Controls	Hinged Top	Overall Dimensions	
					Width	Depth
AKO2000	Spark					
AKS30	Spark				29-1/2"	21"
AKS3020	Spark				29-1/2"	21-1/2"
AKS3030	Spark				29-1/2"	21-1/2"
AKS3040	Spark				29-1/2"	21-1/2"
AKS3050	Spark				29-1/2"	21-1/2"
CKS3020	Spark				29-1/2"	21-1/2"
GT341	Spark					
GT451	Spark					
GT583	Spark					
PGT120	Spark					
PGT153	Spark				29-1/2"	21"
KGT341	Spark					
RTP201	Pilot				23-1/2"	19-3/4"
RTP203	Pilot				23-1/2"	19-3/4"
RTP300	Pilot				29-1/2"	21"
RTP302	Pilot		X	X	29-1/2"	21"
RTP304	Pilot		X	X	29-1/2"	21"
RTP305	Pilot	X	X	X	29-1/2"	21"
RTP306	Spark		X	X	29-1/2"	21"
RTP307	Spark	X	X	X	29-1/2"	21"
RTP308	Spark				29-1/2"	21"

Refer to Rating Label on above models for information on Natural/L.P. gas supply pressure.

Installation Instructions

Before Installing

Installing the gas cooktop in compliance with local electrical and gas building codes results in proper operation and consumer satisfaction with the cooktop.

Receiving

Inspect cooktop thoroughly at time of delivery. Immediately report any visible damage to carrier. Damage not discovered until after accepting delivery can still be claimed by using a concealed damage report form, available from the carrier's agent.

All shipments, i.e., complete cooktop or parts, are shipped at the buyer's risk. Amana responsibility ends when the consignment is accepted by the carrier in "good order." Amana supports damage claims by supplying invoices, bills of lading and other documentation as needed. Providing this assistance, however, does not imply any responsibility for settling claims. Do not deduct claims for loss or damage from the invoice and do not withhold payment pending adjustment of claims. Do not return any units or parts for credit without written consent.

Unpacking

Open one end of the carton. Remove all literature packed with the cooktop and slide cooktop onto a flat surface. Avoid countertop damage by NOT sliding cooktop across the countertop. Remove grates, burner caps and pressure regulator from the carton.

Electrical Connection

Models with automatic pilotless (spark) ignition require an external electrical source that must be grounded and polarized in accordance with local codes. Use National Electrical Code, ANSI/NFPA No. 70-Latest Edition in the absence of local codes.

The wall receptacle must be placed within easy reach of the power cord without interfering with the gas supply line.

Cooktops must be properly grounded. Cooktop power cords are equipped with a three-prong grounded plug. They fit standard three-prong wall receptacles.



WARNING

To avoid risk of serious electrical shock or property damage. Do not cut or remove the third (grounded) prong from the power plug.

The consumer is responsible for replacing any standard two-prong wall receptacle with a grounded and polarized three-prong wall receptacle. A qualified electrician should check any receptacle the customer doubts is properly grounded. The wiring diagram is on the bottom of the cooktop.

Making the Gas Connection - All Models

Verify the cooktop installation meets local codes or current American Gas Association requirements in the absence of local codes. When installing CGA units, verify that installation meets local codes or, in absence of local codes, current Natural Gas Installation Code CAN/CGA-B149.1 or current Propane Installation Code, CAN/CGA-B149.2 before connecting to the gas supply system.

Installation in manufactured homes must conform with the standard CAN/CSA-Z240 Mobile Homes, Manufactured Home Construction and Safety Standards, Title 24CFR, Part 3280, or with local codes if applicable.



WARNING

To avoid risk of personal injury or property damage. Use only new flexible connectors design certified by the AGA or CGA. Do not reuse an old connector. Do not reuse old connector when moving the appliance.

Access to Gas Connection

Install a manual shut-off valve in an accessible location outside the cooktop. Shut-off valve not supplied with cooktop.

Use a pipe joint compound resistant to the action of propane gas on all male threads.

Connect the gas supply line either using hard piping or a properly-certified flexible connector. The pressure regulator supplied with cooktops have a 1/2 inch NPT female connection. Check local codes before choosing a method.



WARNING

Do not overtighten the fitting on the pressure regulator. Overtightening may crack the regulator.

Installation Instructions

Pressure Testing the Gas Supply Piping System

Disconnect the cooktop from the house gas supply piping system during any pressure test exceeding 1/2 psig (3.5kPa).

Use the manual shut-off valve to isolate the cooktop from the supply system during pressure tests at pressures equal to or less than 1/2 psig (3.5kPa).

The gas supply pressure for checking the regulator setting is to be at least 1 inch WCP above pressure on rating label.

Test for Gas Leaks

Test for leaks after making final gas connection by closing all burner valves and turning on the gas supply. Test for leaks by applying soap suds to all gas connections in the supply line and in the cooktop. Bubbles appear when there is a leak. If bubbles indicate a leak, shut off the gas supply valve. Fix the leak by tightening the joint or by unscrewing the joint and applying additional pipe joint compound. Open the gas supply valve and retest for leaks. Retest for leaks on any joints disturbed.



DANGER

To avoid risk of property damage serious personal injury or death. Never use a lit match to check for leaks.

Cooktop Conversion to LP Gas

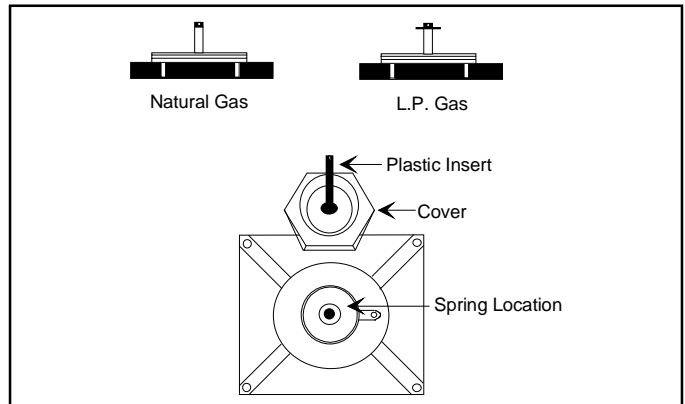
Amana, Caloric and Modern Maid gas cooktops are configured at the factory to use natural gas. The cooktops featured in this manual may be modified to use LP gas supplies. Modifying the gas supply pressure regulator and individual burner valves enables these units to use LP gas.

Pressure Regulator Conversion - All Models

Amana uses several types of gas pressure regulators for cooktop units. Each type, however, performs the same function. Universal pressure regulators, which equip all cooktops featured in this manual, enable connection to either natural gas or LP gas supplies. Cooktops are set at the factory to use natural gas; no modification is necessary. Modification, however, is necessary when connecting a cooktop to an LP gas supply. How each type of universal pressure regulator is converted to LP use is explained and illustrated in the following examples.

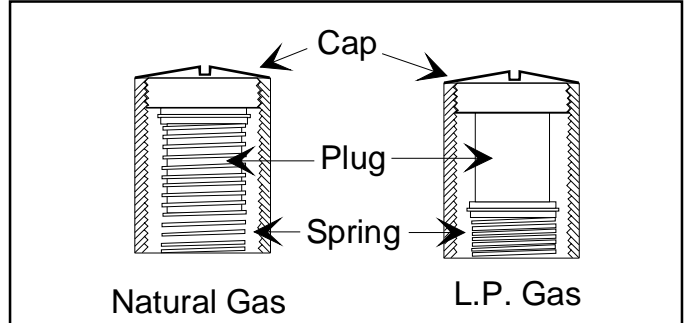
Example One

1. Remove pressure regulator cap with a 7/8-inch wrench.
2. Remove plastic insert from cap. Insert fits tightly in cap.
3. Reverse plastic insert. Push firmly into hole in cap.
4. Verify insert fits tightly in hole. Do not disturb spring in regulator body.
5. Replace cap in regulator body.



Example Two

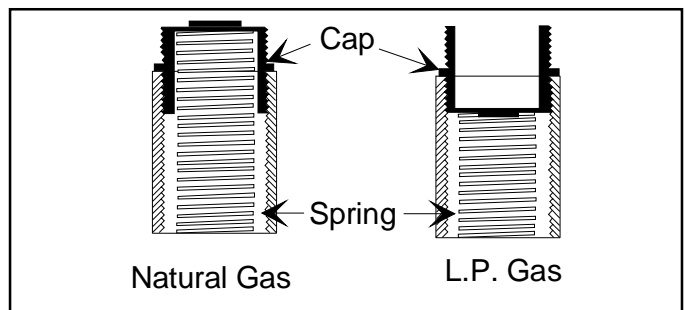
1. Remove cap with screwdriver.
2. Remove insert.
3. Reverse insert and replace. "LPG10" is visible. Do not disturb spring in regulator body.
4. Replace cap.



Example Three

1. Remove cap marked "Nat."
2. Reverse cap. "LP" now appears on cap.
3. Reinsert cap. Do not disturb spring beneath the cap. Verify fiber washer is correctly between cap and the regulator body.

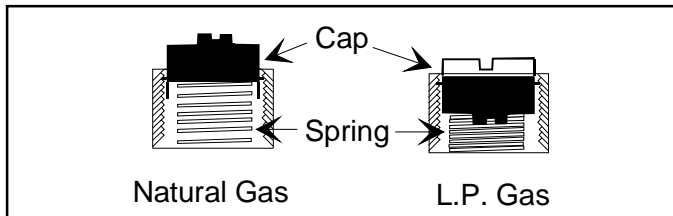
NOTE: Some models may not have washers. If washer is not supplied, none is needed.



Installation Instructions

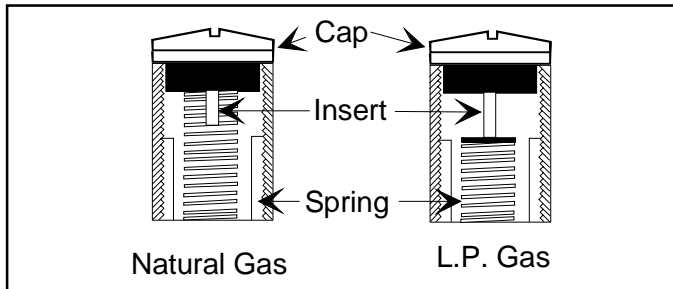
Example Four

1. Remove cap with screwdriver slot.
2. Reverse and replace cap. Verify "LPG10" is visible.
3. Do not disturb spring beneath cap.



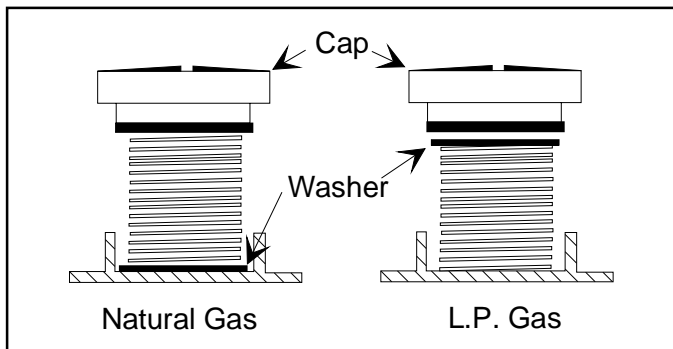
Example Five

1. Remove cap with screwdriver slot.
2. Remove black insert marked "NAT." from cap. Insert fits tightly in cap.
3. Reverse insert.
4. Replace in hole. Verify "LP" is visible. Verify that insert is pressed firmly into shoulder. Do not disturb spring in regulator body.
5. Replace cap in regulator body and tighten.



Example Six

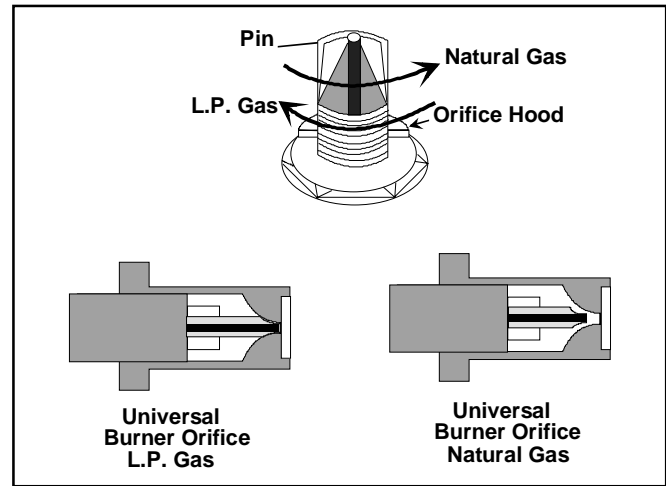
1. Remove cap with screwdriver slot.
2. Remove spring and washer. Washer will be at bottom of spring as illustrated below.
3. Reverse to bring washer to the top.
4. Reinstall spring and washer.
5. Tighten cap.



Converting Burners to LP Gas All Models

Universal units have double coaxial orifices sized for natural gas. Converting these orifices requires tightening the orifice hood as described below.

1. Remove grates, burner caps, knobs and control panel.
2. Remove or lift up maintop.
3. Remove venturi assemblies. Orifice hoods become accessible.
4. Turn clockwise each orifice hood approximately 1-1/2 to 2 turns. Orifices should fit snugly on the pins. Do not damage or distort the hole through pin center by overtightening.



5. Replace venturi assemblies, maintop, controls panel, knobs, burner caps and grates.



CAUTION

Do not overtighten orifice hood. Damage to pins inside the orifice hoods may result if hoods are overtightened.

Installation Instructions

Burner Section - All Models

BTU Input

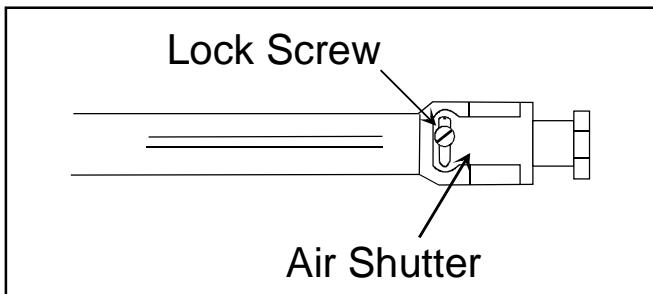
Models AKS30, PGT153 and RTP308 feature a pair of large and small burners each. The hourly BTU input for the larger burners is 9,000 when connected to a natural gas supply and 8,000 when connected to an LP gas supply. The BTU input for smaller burners is 7,000 when connected to a natural gas supply and 6,000 when connected to an LP gas supply.

Other models with just a single size burner is rated at 10,000 when connected to a natural gas supply and 9,000 when connected to an LP gas supply.

Refer to rating label for specific information.

Top Burner Adjustment

Air shutters must be adjusted for proper flame. Loosen the air shutter lock screw and adjust the air shutter until the flame's inner cone is blue-green and its outer mantle is dark blue.



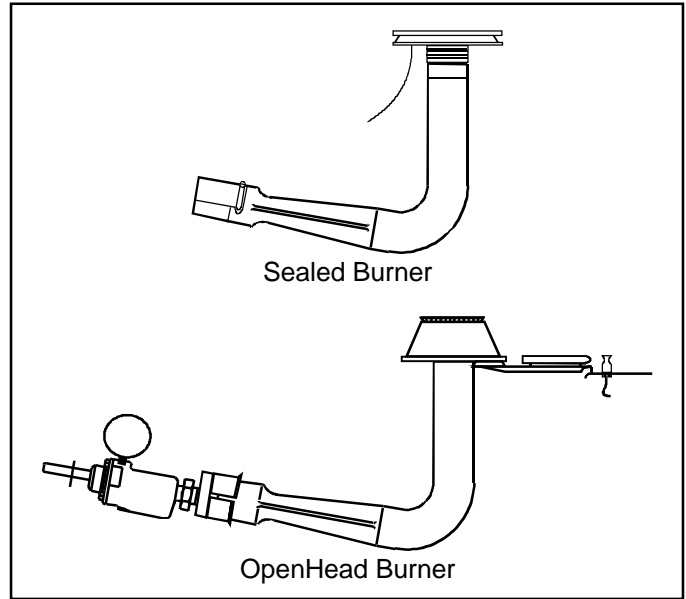
Adjusting pilot burners and locating adjustment screws for models with pilot lights are covered in installation notes for those models. A properly adjusted pilot flame means the burner will correctly ignite. Problems caused by delayed ignition are avoided.

Proper Flame Adjustment - All Models

For the best results, each burner should display a proper flame. A proper flame has a blue-green inner core, a dark blue outer mantle and a soft appearance.

A proper flame is set by adjusting the air shutters for each burner. Air shutter adjustment is described below.

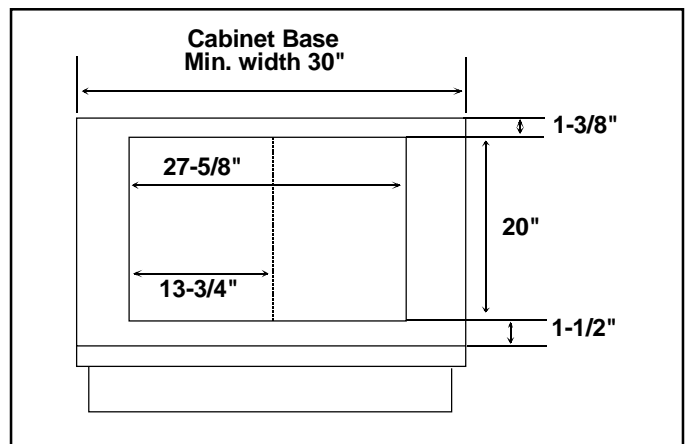
1. Remove grates, burner caps, knobs and control panel.
2. Remove or lift up maintop.
3. Loosen lock screw on air shutter.
4. Opening air shutter increases air to flame. Closing air shutter decreases air to flame.
5. Replace maintop, control panel, burner caps, knobs, and grates.



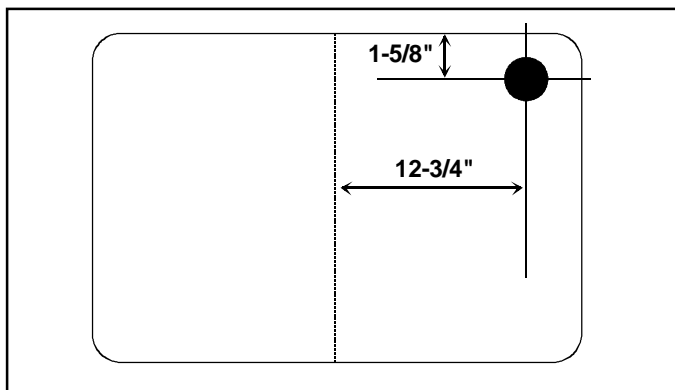
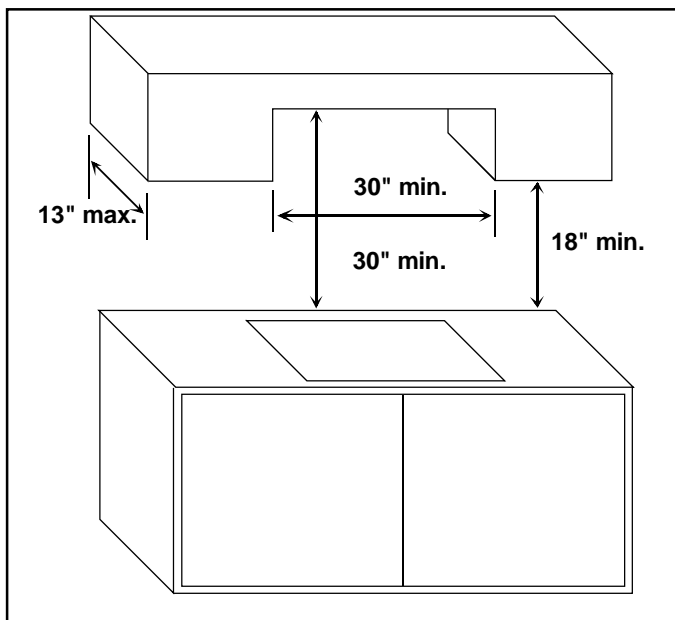
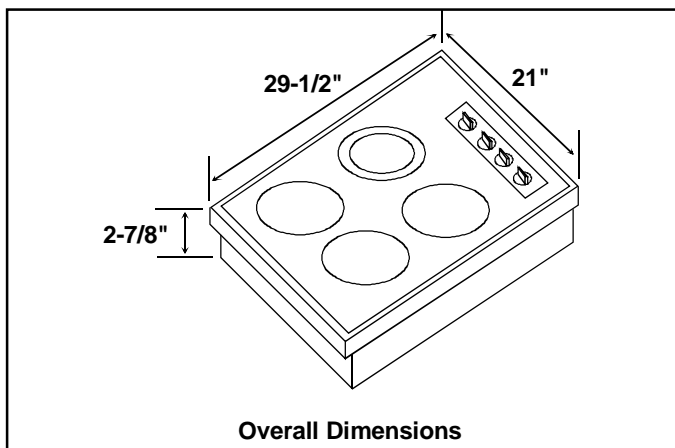
Installation Notes RTP308, AKS30, and PGT153 Models

Countertop Cutout

Prepare the countertop opening for the unit according to the dimensions as illustrated. The cooktop requires a base cabinet with a minimum width of 30 inches.



Installation Instructions



Clearances

Observe the following clearances to safely operate cooktop.

- Side by side cooktops - 5-7/8 inches, measured from the side flanges of the maintops.
- Rear wall - 1-3/8 inches
- Right side wall - 1/4 inch
- Left side wall - 5-7/8 inches

Above a Drawer

Allow a three inch clearance between the top of countertop and the top of a drawer or any other cabinet feature beneath the cooktop. There must be enough clearance to accommodate the pressure regulator and make adjusting the regulator easier.

Placing Unit in Countertop

1. Set unit into countertop cutout.
2. Center burner box in cutout.
3. The burner box's front edge and the edge of countertop must be parallel.
4. Locate holding tabs on the underside of cooktop. Pull each tab outward to form a 90 degree angle with bottom of cooktop. Tabs keep cooktop from being lifted out of cooktop.

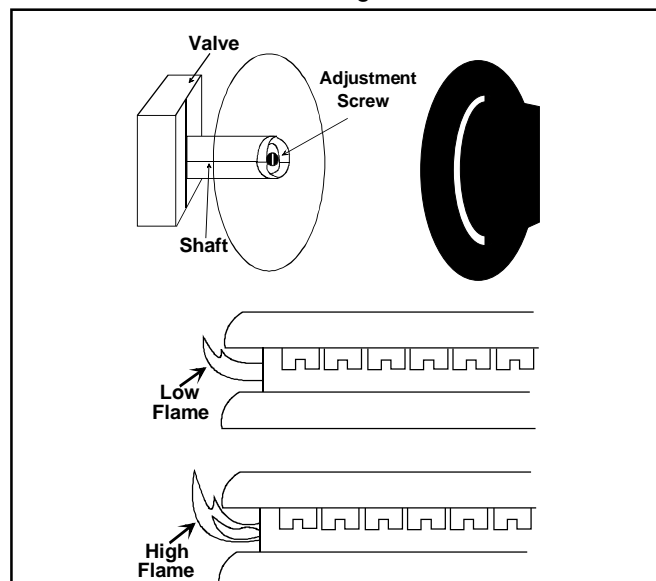
Removal and Replacement of the Cooktop

1. Shut off electrical and gas supply.
2. Turn holding tabs on the underside of the burner box inward.
3. Disconnect electrical connection.
4. Disconnect gas supply piping.
5. Replace cooktop by following steps listed under the previous heading.

Adjust Burner Flame Height

The low burner flame should be a steady blue flame approximately 1/4 inch in length. Make adjustments with the adjustment screw in the center of valve stem. Valve stem is directly behind the control knob.

1. Remove burner control knob by pulling straight up from valve stem.
2. Hold valve stem stationary. Turn screw in center of knob stem with flat blade screwdriver until flame is approximately 1/4 inch long at low setting.
3. Replace burner control knob.
4. Turn control knob from low to high to test flame. Check flame at each setting.

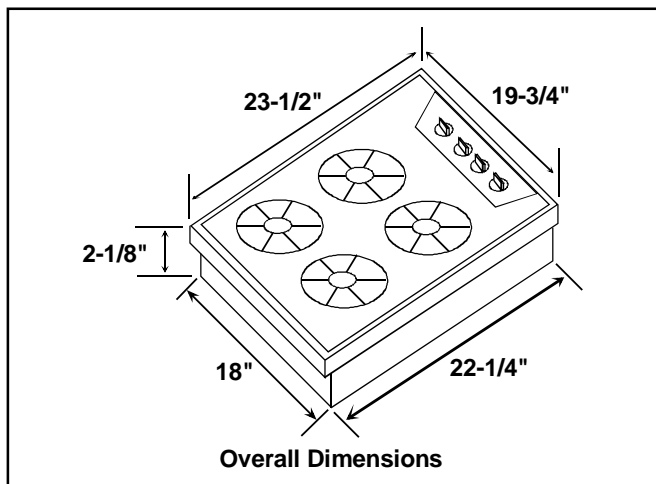


Installation Instructions

Installation Notes RTP201 and RPT203 Models

Countertop Cutout

Prepare countertop opening for these models as illustrated below.



Clearances

Observe the following clearances to safely operate cooktop.

- Side by side cooktops - 5-7/8 inches, measured from the side flanges of the maintops.
- Rear wall - 1-3/8 inches
- Right side wall - 1/4 inch
- Left side wall - 5-7/8 inches

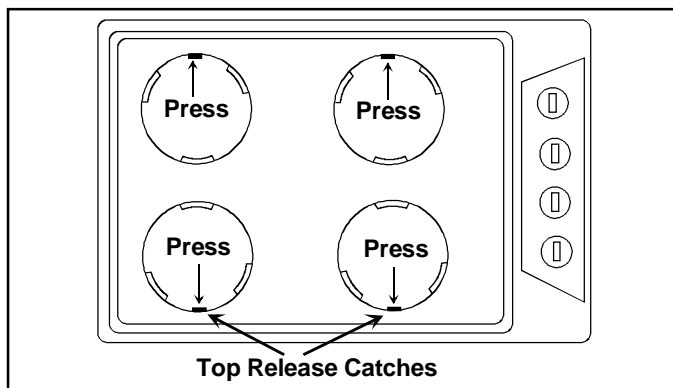
Above a Drawer

Allow a three inch clearance between the top of countertop and the top of a drawer or any other cabinet feature beneath cooktop. There must be enough clearance to accommodate the pressure regulator and make adjusting the regulator easier.

Placing Unit in Countertop

Unpack all parts. Access the burner compartment by removing the maintop as follows:

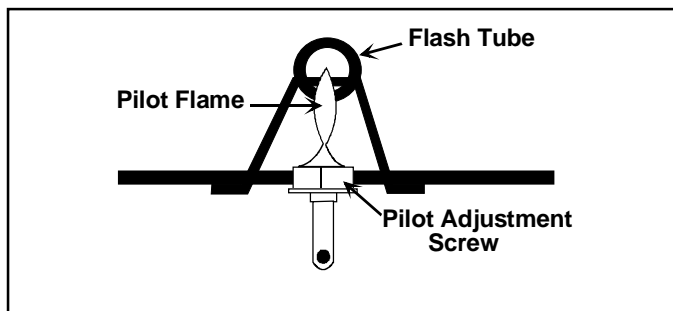
1. Remove top grates, burner bowls and burner knobs.
2. Unlatch maintop from burner box by pressing down on four release catches located inside burner openings as shown.



3. Lift maintop by grasping between two burner openings and lifting up.
4. Set unit into countertop cutout.
5. Center burner box in cutout. Front edges of burner box and countertop must be parallel.
6. Secure to countertop with screws.

Adjusting Top Pilot

1. Turn pilot adjustment screws clockwise until fully closed.
2. Turn pilot adjusting screws 1-1/2 turns counterclockwise.
3. Light pilots.
4. Adjust until flame tips are even with center of flash tubes as shown below.

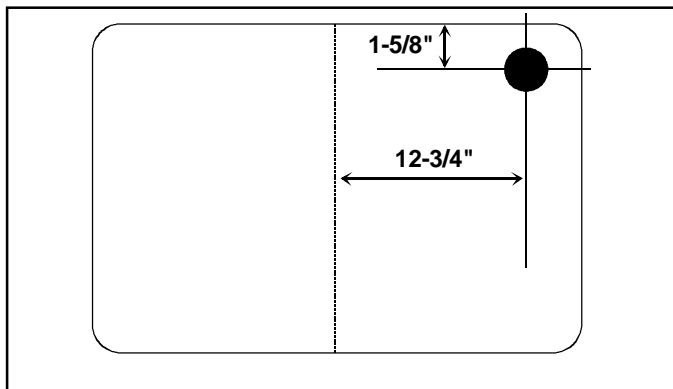
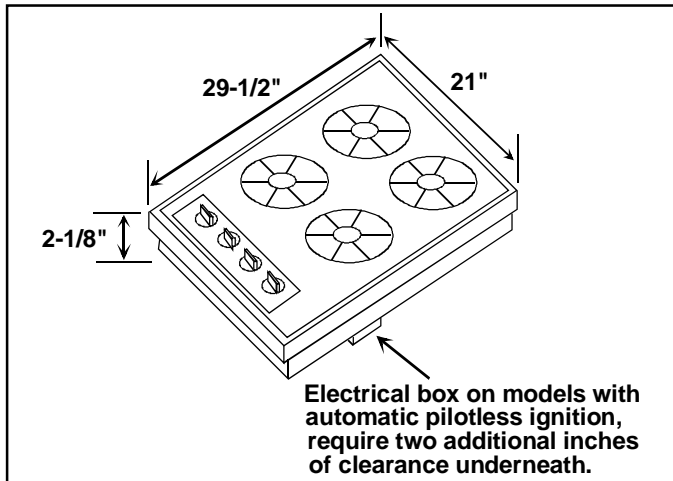
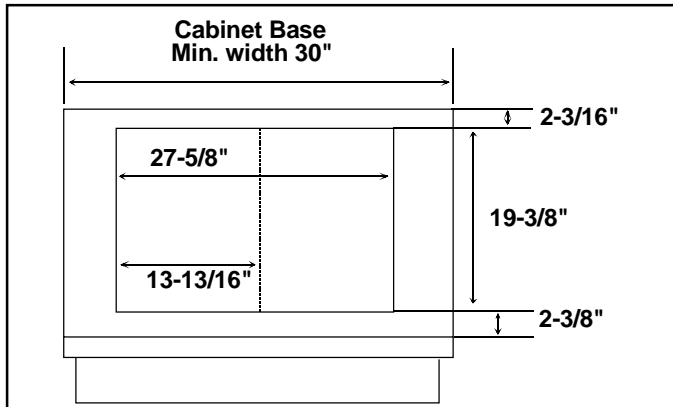


Installation Instructions

Installation Notes RTP302, RTP304, RTP305, RTP306, and RTP307 Models

Countertop Cutout

Cut countertop opening for unit according to dimensions illustrated below. A 30 inch minimum base cabinet is required.



Clearances

Observe the following clearances to safely operate the cooktop.

- Side by side cooktops - 5-7/8 inches, measured from the side flanges of the maintops.
- Rear wall - 1- 3/8 inches
- Right side wall - 1/4 inch
- Left side wall - 5-7/8 inches

Above a Drawer

Allow a three inch clearance between the top of the countertop and the top of a drawer or any other cabinet feature beneath the cooktop. There must be enough clearance to accommodate the pressure regulator and make adjusting the regulator easier.

Models RTP306 and RTP307 have an electrical supply cord and an electrical supply box. It is important that the wall receptacle be located within the cabinet cutout specifications.

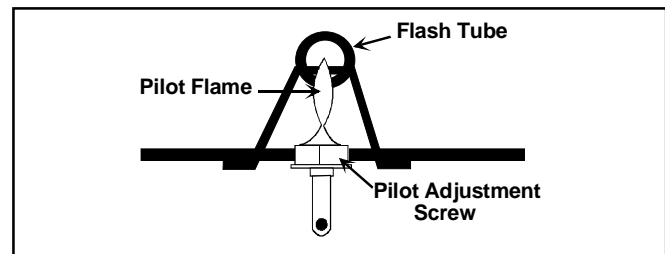
Placing Unit in Countertop

Remove all literature packed with cooktop. To access the burner compartment do the following.

1. Remove the carton containing the maintop and grates from the top of the cooktop.
2. Remove packing material and tape securing control panel to burner box.
3. Set unit into countertop cutout.
4. Center burner box in cutout. Front edges of burner box and countertop must be parallel.
5. Secure to countertop with screws.

Adjusting Top Pilots (Gas Ignition)

1. Turn pilot adjustment screws clockwise until closed.
2. Turn pilot adjust screws 1-1/2 turns counterclockwise.
3. Light pilots.
4. Adjust until flame tips are even with center of flash tubes as shown below.



Automatic Pilotless Ignition Models

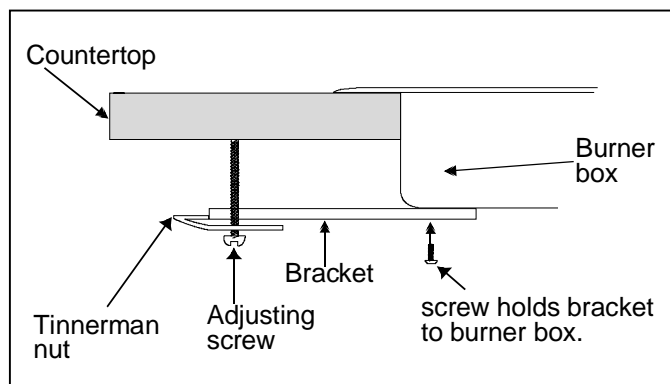
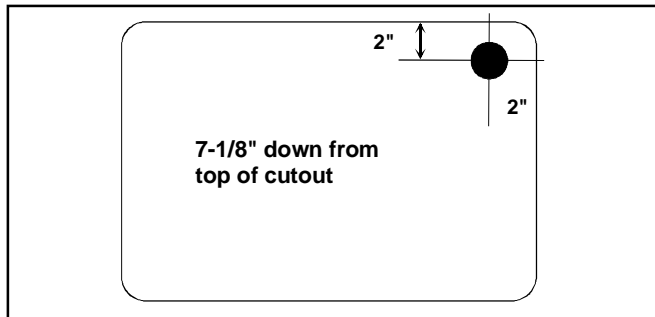
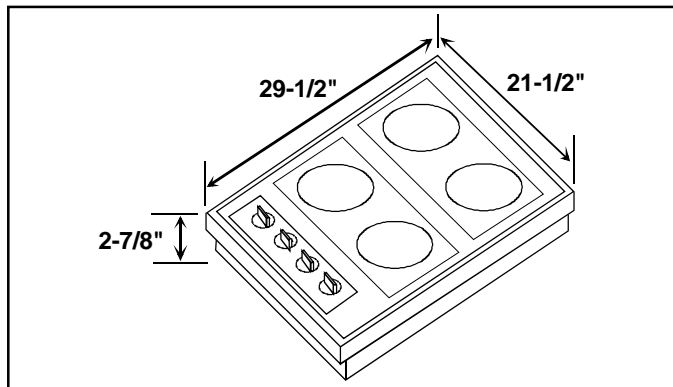
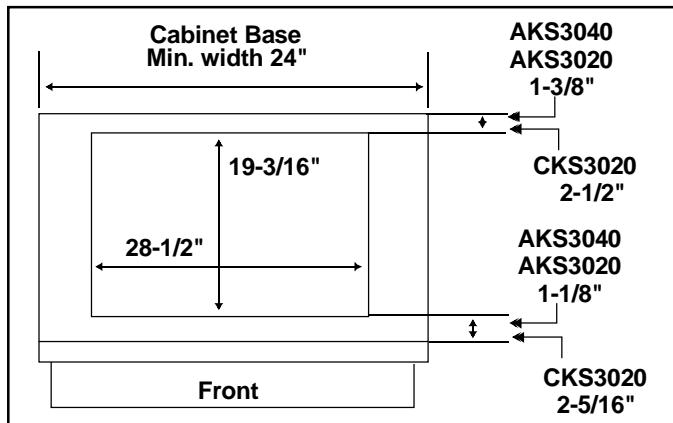
Turn gas valve for one of the top burners fully counterclockwise starts an electrode between the flash tubes sparking. The sparking continues as long as the knob is in this position. Turn the knob to the "HI" position after burner lights. The electrode will stop sparking. There are no standing pilots to light or adjust. Models with ignitor coils operate similarly except the ignitor coil will glow.

Installation Instructions

Installation Notes AKS3020, AKS3030, AKS3040, AKS3050, and CKS3020 Models

Countertop Cutout

Cut countertop opening for unit according to dimensions illustrated below. A 24 inch minimum base cabinet is required.



Clearances

Observe the following clearances to safely operate the cooktop.

- 30" to bottom of cabinet.
- Rear wall—1-3/8 inches
- Right side wall—5-7/8 inches
- Left side wall—5-7/8 inches
- Front dimensions—1-1/8" AKS3020, AKS3030, AKS3040, AKS3050
2-5/16" CKS3020
- 3" from top of countertop to drawer or other obstruction under countertop.
- With pressure regulator, drawer must be shorted or rear of drawer must be cut for clearance.
- Minimum of 6-1/4" must separate side flanges of cooktops installed side by side.

Above a Drawer

Allow a three inch clearance between the top of the countertop and the top of a drawer or any other cabinet feature beneath the cooktop. There must be enough clearance to accommodate the pressure regulator and make adjusting the regulator easier.

Placing Unit in Countertop

Remove all literature packed with cooktop.

1. Remove burner grates and caps.
2. Remove screws securing burners to cooktop.
3. Unplug terminal connections from burners.
4. Remove maintop from burner box.
5. Locate 4 holes, one in each corner.
6. Drill hole through holes in flange into countertop.
 - Use size 5/64" drill bit.
 - Do not drill through countertop.
7. Insert screws provided into holes and tighten until cooktop is secure.

Securing Cooktop to Countertop

1. Locate 3 installation bracket assemblies on bottom of burner box. Each assembly consists of a bracket and tinnerman nut attached to the burner box by a screw.
2. Loosen screw which holds bracket to burner box a 1/4 turn. Rotate bracket so tinnerman nut is directly beneath countertop. Tighten screws securing bracket to burner box.
3. Obtain adjusting screws (three 4-inch machine screws) and install screws into tinnerman nuts, tighten adjusting screws to secure countertop.

Adjusting Air Shutter

1. Remove control knobs, grates, caps, and burner bowls.
2. Remove screws securing burners to cooktop, and unplug terminal connections from burners.
3. Lift top off burner box to expose air shutters.
4. Slide air shutter open or closed depending on appearance of burner flame.
 - If flame is yellow and does not hold its shape, open air shutter.
 - If flame is blowing or noisy, close air shutter.
5. Reassemble in reverse order.
6. After adjustment retest burner flames.

Operating Instructions

Using the Cooktop

- Use Proper Pan Size
Use cooking utensils with flat bottoms large enough to cover the flame. Correct-sized utensils improve cooking efficiency and promotes safety. Undersized utensils expose clothing and spillovers to direct flame.
- Never Leave Surface Units Unattended
At high heat settings, boilovers can cause smoking or fire.
- Glazed Cooking Utensils
Use glass, glass/ceramic, earthenware or other glazed utensils for cooking. Sudden temperature changes may break some utensils.
- Turn Utensil Handles Inward
A handle extending from the cooktop invites accidents.

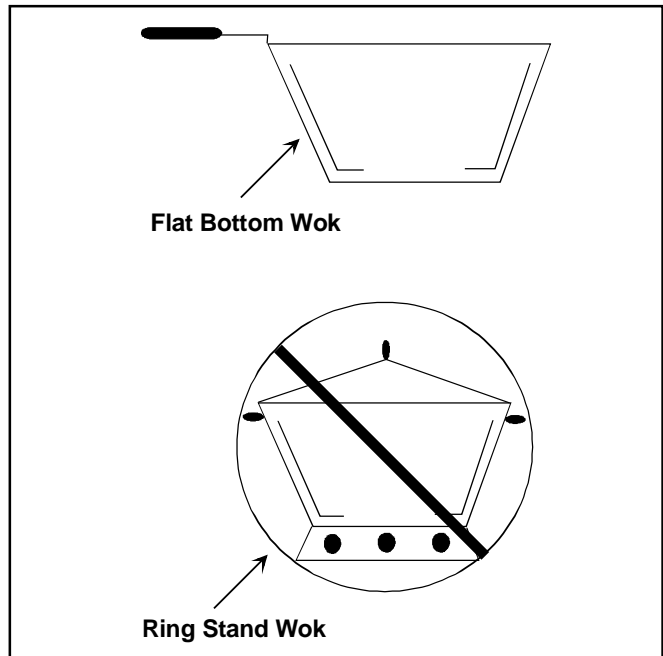
Cooking Utensils

Utensils made of different materials react differently to cooking temperatures. The best results occur by matching cooking utensil and cooking style. The following list describes the cooking characteristics of various materials.

- Glass/ceramic responds slowly to temperature changes. It responds best to long and slow heating of liquids.
- Aluminum responds quickly to temperature changes. It responds best for frying, braising and roasting.
- Cast iron responds slowly to temperature changes. It responds best for long low heat cooking and pan frying.
- Stainless steel combined with another metal such as copper, responds better to temperature changes. Use stainless steel for soups, sauces, vegetables and general cooking.
- Copper, tin-lined utensils respond quickly to temperature changes. It is excellent for gourmet cooking, wine sauces and egg dishes.
- Enamelware is stain resistant porcelain over metal. The cooking time varies according to the base metal. Lower temperatures are usually recommended.
- Utensil design is important. Select utensils with flat bottoms, straight sides, handle weight that does not tilt the pan, and pans that match the burner size. Do not use pans that exceed the diameter of the burner.

Using a Wok

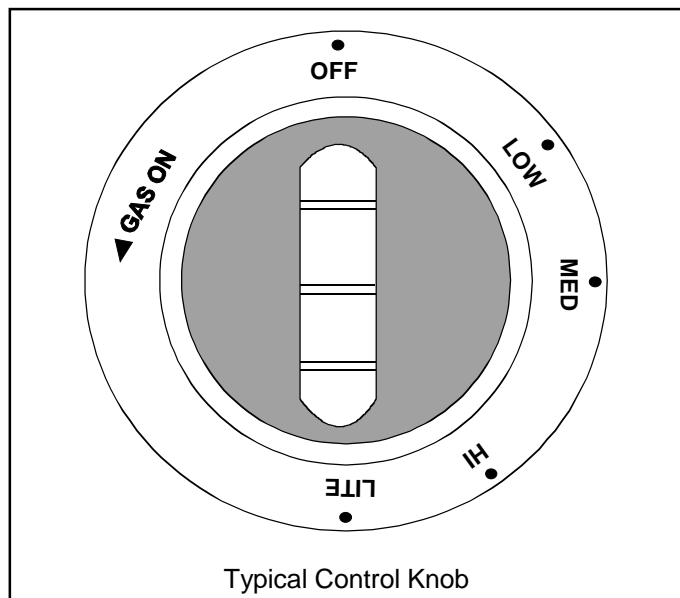
Do not use a wok with a ring stand. A wok with a ring stand does not allow the proper air/gas mixture while cooking. Use only a flat bottom wok.



Operating the Cooktop

Burner Operation - All models

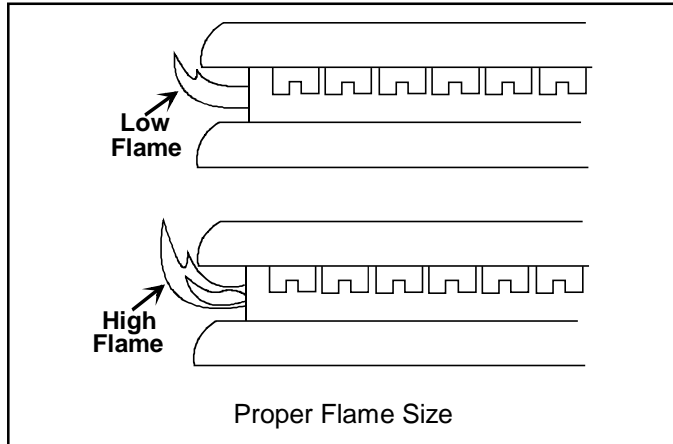
1. Push in and turn control to LITE. Burner sparks.
2. Burner lights automatically.
3. Turn knob to desired setting. Sparking stops. Turn burner control to any position, except LITE, to set flame.
4. Turn control to OFF when finished.



Operating Instructions

Top Burner Settings

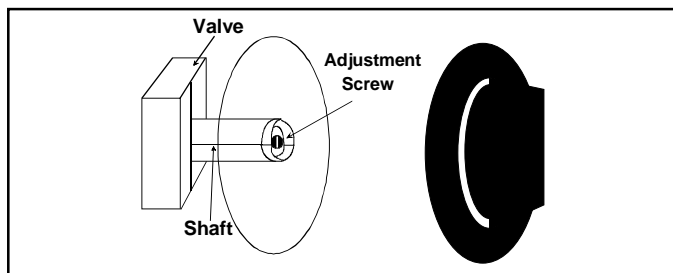
Check the burner for correct flame size and shape. Set burner on LOW. Adjust flame to approximately 1/4 inch length. Turn flame from LOW to HIGH several times to verify that burner stays lit. The flame should be soft. There should be no blowing or lifting.



The HIGH flame should be a steady flame with a distinct inner cone. There should be no blowing or lifting. Use the adjustment screw in the valve stem if LOW burner flame is not steady and approximately 1/4 inch long.

Flame Adjustment

1. Remove control knob.
2. Using a small, flat blade screwdriver, turn screw located in center of knob stem until flame is the proper size.
3. Replace control knob.
4. Turn control from LOW to HIGH several times and check flame at each setting.



WARNING

The flame should not extend beyond the edge of the cooking utensil. It may contact clothing or pot holders and cause a fire.

Using Cooktop During Power Failure

Although the system used to light the burner is electric, the burner can be used during prolonged power outages. Follow the instructions below.

1. Hold a lit match at desired burner.
2. Push in and turn control to LITE. When burner lights, turn control to desired setting.
3. When finished cooking, turn all controls to OFF.

Cleaning

Do not clean cooktop until it cools. Sudden temperature changes can crack the porcelain or enamel cooktop surface. Washing the cooktop with hot, soapy water after each use minimizes the need for heavy cleaning. To preserve the original appearance, rinse and wipe the surfaces dry after washing.

Wipe up marinades, fruit juices, vinegar and milk spills to avoid permanent stains. These materials contain acids and cause discoloration and permanent staining. DO NOT touch any portion of the cooktop when it is hot. Wait and wipe up spills after the cooktop is cool.

Grates and Caps

Clean grates and caps with a damp cloth and soapy water. Nonabrasive cleaners or pads may be used. DO NOT use harsh powders, scouring pads or steel wool pads. Never use oven cleaners on the grates or any other part of the cooktop. For burned or dried on spillovers, soak grates in warm soapy water.

Dry all components to prevent rusting. Replace grates and burner bowls. Verify that burner ports are not blocked.

Cooktop

Clean cooktops with a damp cloth and soapy water. A nonabrasive cleaner or pad may be used. Do not use harsh powders, scouring pads or steel wool pads. Never use oven cleaners on porcelain cooktop. Clean the cooktop regularly.

Dry the top thoroughly. Stainless steel cooktops may be coated with a stainless steel protectant. Call Amana Consumer Affairs for a recommendation.

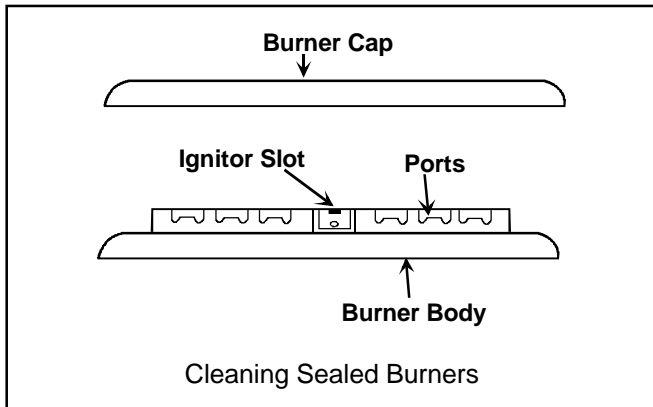
Operating Instructions

Sealed Burners

Clean burners with a damp cloth and warm soapy water. A nonabrasive cleaner or pad may be used. Verify that burner ports are not blocked.

Do not block the small slot above the ignitor. A blocked slot results in poor burner ignition. Replace burner caps correctly.

Dry all burner components to prevent rusting. Allow ignitors to dry before lighting burners.



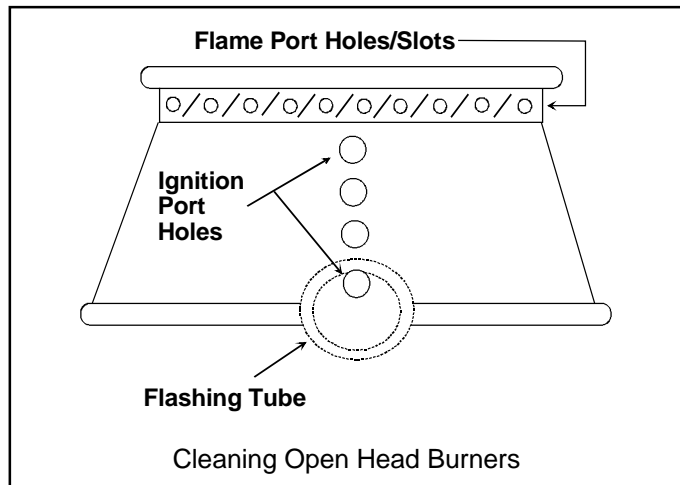
Open Head Burners

Open head burners can be removed for cleaning. Maintop and burners must be cool before cleaning.

1. Remove grates. Lift or remove maintop.
2. Grasp burners at burner head. Lift upward and away.

Open head burners may fail to perform properly if ports are clogged or plugged. Use warm water and soap to clean. Soaking loosens burned on materials. Clear clogged burner holes with a thin wire. Do not use toothpicks to clean burner holes.

Burners must be completely dry before being used again. Water logged burner parts might cause uneven heating or interfere with automatic lighting.



Troubleshooting Procedures

In the following procedures, correct gas pressure should be first determined (natural or LP gas).

Problem	Probable Cause	Correction
1. Burner will not ignite.	<ul style="list-style-type: none"> • Top pilots not lighted, or ignitors not operating. • Orifice hoods are clogged. • Burner venturi, burner cap or burner ignition ports clogged. 	<ul style="list-style-type: none"> • Light top pilots, or correct ignitor operation. • Clean orifice hoods and verify size in use is correct. • Clean burner venturi, cap or ignitor port.
2. Burners will not ignite. "Spark" at top burner ignitors.	<ul style="list-style-type: none"> • Burner venturi, burner cap or burner ignition ports clogged. • Air shutters out of adjustment. • Burner flame not correctly adjusted. (LP Gas) 	<ul style="list-style-type: none"> • Clean burner venturi or ignition ports. • Adjust air shutters according to installation instructions. • Adjust burner flame according to LP conversion information in installation instructions.
3. Burners will not ignite. No "Spark" at burner ignitors. Burner knob pushed down, turned to and held in LIGHT position.	<ul style="list-style-type: none"> • No 120 VAC to range. • Circuit breaker or fuse blown. • Microswitch contacts not closing. • Faulty wiring. • Inoperative spark module. • Ignitor ceramic dirty, spark gap out of adjustment. 	<ul style="list-style-type: none"> • Check electric at wall outlet. • Reset circuit breaker or replace fuse. • Check activator movement, replace microswitch. • Check wiring against appropriate wiring diagram and be sure all terminals and connections are tight. • Check module according to information in the following section. • Clean ceramic, check grounding strap spark gap according to information in the following section.

Top Burner Valve

Tri-Set burner valves are standard for all models except RTP203, and RTP201.

Troubleshooting Procedures

Spark Module (Models RTP306 and RTP307)

The spark module for the automatic pilotless ignition (spark) system on models RTP306 and RTP307 is located at the bottom rear of the unit. It is housed in the electrical box. The module is accessed by removing two screws holding the electrical box to the unit, which detaches the electrical box. Disconnect electrical power before attempting to remove the box.

In the event of "NO SPARK" verify that the ignitor ceramic is clean and the gap between ignitor and ignitor grounding bracket dimple is 1/8" (-1/32", +0).

1. Check AC line fuse, or circuit breaker.
2. Disconnect electricity at disconnect plug, and turn off gas supply to cooktop.
3. Using wiring diagram, verify all terminals and wire connections are correct and tight.
4. Set meter on VAC scale.
5. Attach one meter lead of test meter to the black wire terminal on spark module.
6. Attach remaining lead to white wire terminal on spark module.
7. Reconnect electricity at main disconnect plug.
8. Turn all top burner knobs to their light positions.
9. No line voltage at test meter indicates an electrical circuit interruption before spark module.
10. If line voltage is at test meter then check ignitors.
11. If ignitors are OK; replace ignition module.

Top Burner Spark Ignitors

1. Disconnect electricity at main disconnect plug.
2. Disconnect two spark ignitor leads from spark module terminals.
3. Set ohmmeter on the RX1 ohm scale (adjust to zero).
4. Attach one meter lead to a good ground (bare metal) on the cooktop.
5. Touch remaining meter lead to each terminal of ignitor lead. A continuity reading from either ignitor lead indicates the ignitor lead is shorted to ground. Replace ignitor lead. If no continuity reading from either ignitor lead to ground, then proceed to Step 6.
6. Attach one meter lead to one terminal to the ignitor lead and touch the remaining meter lead on the opposite end of the ignitor lead that is attached to the top burner mounting bracket. Repeat same procedure with the other ignitor lead. No continuity on either lead indicates an open circuit in the ignitor lead wire. Replace ignitor lead.

Gas Pressure and Measurement

Correct burner ignition and operation depend upon adequate gas pressure. Amana, Caloric and Modern Maid cooktop regulators are designed to provide proper pressure. Refer to Rating Label for pressure supply. These units are set at the factory for natural gas. The gas regulator and gas valves on these units may be converted when connected to LP/propane gas.

The minimum supply pressure to the regulator must be at least 7 inches WCP for natural gas and 11 inches WCP for LP/propane gas. The maximum pressure cannot exceed 14 inches WCP.

Measuring Gas Pressure

Measure gas pressure by using pressure meters and gauges or by using a manometer. The following directions apply to using a manometer. If pressure meters and gauges are used, follow directions supplied with those units.

Using the Manometer

A manometer is a U-shaped tube of clear plastic or glass. Between the two "legs" of the U is a scale measured in inches.

Fill the tube with water until the water level reaches "0" on both legs. Connect one leg of the tube to the range manifold or gas valve orifice. Leave the other leg open. Applying gas pressure pushes down the water on one side and up on the other side.

The procedure for taking a gas pressure measurement is simple. Connect the tubing from one leg of the manometer to the gas valve orifice hood. Bleed off trapped air by inserting a small screwdriver blade briefly under the connecting tubing. Trapped air could give an inaccurate reading. Turn on gas valve. Take a full load reading by turning on all top burners to verify that pressure under full load is still within specifications.

Gas pressure is measured in WCP by adding the readings from both tubes. If water level on both legs is at the two inch mark, this indicates a pressure of 4 inches WCP that conforms with cooktop specifications as specified on rating label.

Disassembly Procedures



WARNING

To avoid risk of electrical shock, serious personal injury or death. Make sure oven is properly grounded and polarized. Always disconnect electrical supply before servicing unit.

Maintop Removal

Models RTP302, RTP304, RTP305, RTP307

These models feature a hinged maintop to make cleaning easier. The hinge is on the rear of the maintop. Lift from the front to access the burner box. Some models feature a support rod that holds the maintop up. For complete maintop removal proceed as follows:

1. Verify that maintop and grates are cool.
2. Remove all grates.
3. Raise the maintop to about a 60 degree angle.
4. Lift maintop up from hinges.

Models RTP203 and RTP201

These models are not provided with rear hinges. To remove the maintop proceed as follows:

1. Verify maintop and grates are cool.
2. Remove burner bowls and grates.
3. Lift off control knobs.
4. Unlock maintop by releasing catches located in each burner opening.
5. Grasp maintop between burner openings. Lift upward to remove maintop.

Burner and Related Parts

Burners

1. Verify that maintop and grates are cool.
2. Remove maintop or raise it to access burners.
3. If necessary, remove Phillips head shipping screws securing burners to mounting brackets at burner heads.
4. Lift burner up and away from control valve.
5. When replacing burners, verify each is properly positioned with respect to ignition flash tubes and control valve. Test for proper ignition of burner.

Burner Control Valve

1. Turn off gas and electrical supply.
2. Remove grates, maintop and burners.
3. Remove actuator switch assembly on applicable models.
4. Unscrew valve from manifold.

Pilot Fittings (Applicable Models)

1. Remove maintop.
2. Turn pilot gas off at pilot adjusting screw.
3. Remove tubing nut at pilot assembly.
4. Remove pilot shield on channel and cone in pilot cup.
5. Pilot assembly can be removed from the bottom.
6. When replacing the pilot, verify that the tubing connection on pilot assembly faces toward pilot tubing.
7. Open and adjust pilot adjusting screw.



WARNING

To avoid risk of electrical shock, serious personal injury or death. Make sure oven is properly grounded and polarized. Always disconnect electrical supply before servicing unit.

NOTE: Whenever a component or tubing with threaded ends or fittings is serviced or replaced, apply a good quality, gas-resistant pipe dope or sealant compound to the threads to minimize gas leaks. A sealing tape compatible with LP gas may also be used to seal joints.

Electronic Spark Module: Models RTP306 and RTP307

The automatic pilotless ignition (spark) system is employed in models RTP306 and RTP307. It consists of an electronic spark module, burner spark ignitors and an actuator switch assembly on the control valves. When any gas control valve is turned to ignition position (LIGHT), gas flows to the burner. A cam on the control activates the spring loaded actuator and switch, completing a 120 VAC power circuit to the spark module. A separate lever switch is found on thermostet control valves, connected in parallel with the main actuator switch. These valves operate differently than the standard valve with respect to rotation of the control shaft.

When power is applied to the module, a repeated momentary high voltage is fed through the output leads to the spark gap ignitors located between the burner flash tubes. The resultant spark across the gap ignites the gas present at the flash tube and the burner. The spark module is mounted inside the electrical box on the bottom rear of the assembly.

Disassembly Procedures

Spark Module Removal

1. Disconnect unit from electrical power source.
2. Remove electrical box cover secured by two screws.
3. Disconnect lead wires to the spark module and remove.
4. Reverse procedure to reassemble. When installing spark module, verify that lead wires are correctly connected to the unit. See spark module wiring diagram located beneath unit.

Disassembly Instructions for Models AKS30, AKS3020, AKS3030, AKS3040, AKS3050, CKS3020, PGT153, and RTP308

Diecast Burners

1. Disconnect electric and gas supplies.
2. Lift off grates and burner caps.
3. Remove phillips screw securing sealed burner to maintop.
4. Lift sealed burners high enough to pull wire from electrode.
5. Reverse procedure to reinstall.

Maintop

1. Disconnect electric and gas supplies.
2. Lift off grates, burner caps, control knobs and control panel.
3. Remove diecast burners. (See **Diecast Burners**, section.)
4. Remove phillips screws securing maintop to venturi assemblies.
5. Remove phillips screws securing maintop to manifold support brackets.
6. Lift off maintop.
7. Reverse procedure to reinstall.

Venturi Assemblies

1. Disconnect electric and gas supplies.
2. Remove diecast burners. (See **Diecast Burners**, section.)
3. Remove maintop. (See **Maintop**, section.)
4. Remove phillips screws securing venturi assembly to burner box. Repeat for each assembly.
5. Lift out venturi assemblies.

Spark Module

1. Disconnect electric and gas supplies.
2. Remove diecast burners. (See **Diecast Burners**, section.)
3. Remove maintop. (See **Maintop**, section.)
4. Remove screws securing spark module to burner box.
5. Disconnect lead wires to spark module and remove.
6. Reverse procedure to reinstall. When installing spark module verify that lead wires are correctly connected to unit.

Burner Ignitor Switches

1. Disconnect electric and gas supplies.
2. Remove diecast burners. (See **Diecast Burners**, section.)
3. Remove maintop. (See **Maintop**, section.)
4. Disconnect lead wires.
5. Pull burner ignitor switches from burner valves.
6. Reverse procedure to reinstall. Verify that lead wires are correctly connected.

Burner Gas Valves

1. Disconnect electric and gas supplies.
2. Remove diecast burners. (See **Diecast Burners**, section.)
3. Remove maintop. (See **Maintop**, section.)
4. Disconnect lead wires from spark switch.
5. Pull burner ignitor switches from burner valves.
6. Using an appropriate wrench, remove bolts with washers securing burner valves to manifold.
7. Reverse procedure to reinstall. Verify that lead wires are correctly connected to spark switch.
8. Test for leaks with soap solution or leak tester.

Manifold

1. Disconnect electric and gas supplies.
2. Disconnect gas pressure regulator from unit.
3. Remove diecast burners. (See **Diecast Burners**, section.)
4. Remove maintop. (See **Maintop**, section.)
5. Disconnect lead wires from spark switches.
6. Pull off surface burner ignition switches.
7. Remove burner gas valves.
8. Disconnect screw from each manifold mounting brackets.
9. Lift manifold and inlet seal from bottom.
10. Reverse procedure to reinstall.
11. Test for leaks with soap solution or leak tester.



DANGER

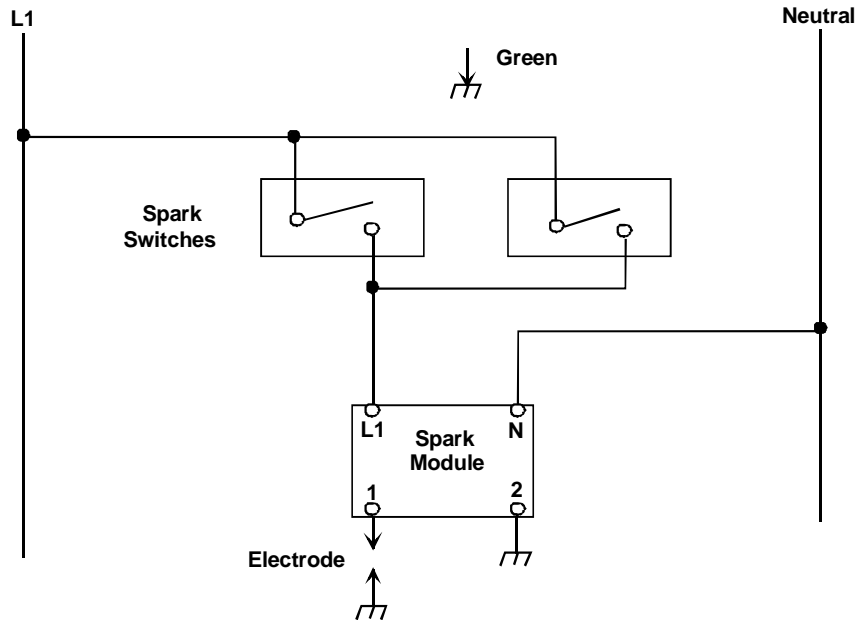
To avoid risk of property damage, serious injury, or death. Do not test for leaks with an open flame.

Wiring Diagrams and Schematics

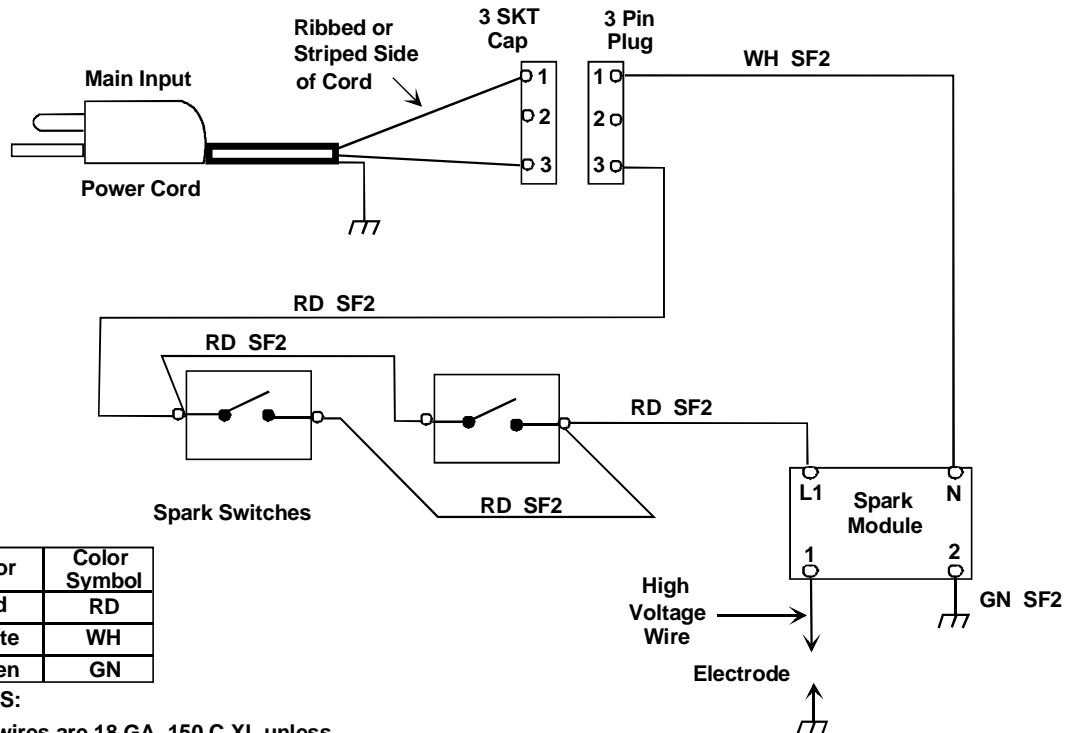


WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect power to cooktop before servicing, unless testing requires it.



SCHEMATIC



Color	Color Symbol
Red	RD
White	WH
Green	GN

NOTES:

1. All wires are 18 GA, 150 C XL unless otherwise noted. SF2 is SEW-2/SF2 200 C rated
2. See serial plate for input ratings.
3. All replacement wires must have same ratings as original wires.

WIRING DIAGRAM

Spark Module Circuit for AKO2000
Part Number 35-315140-04-0

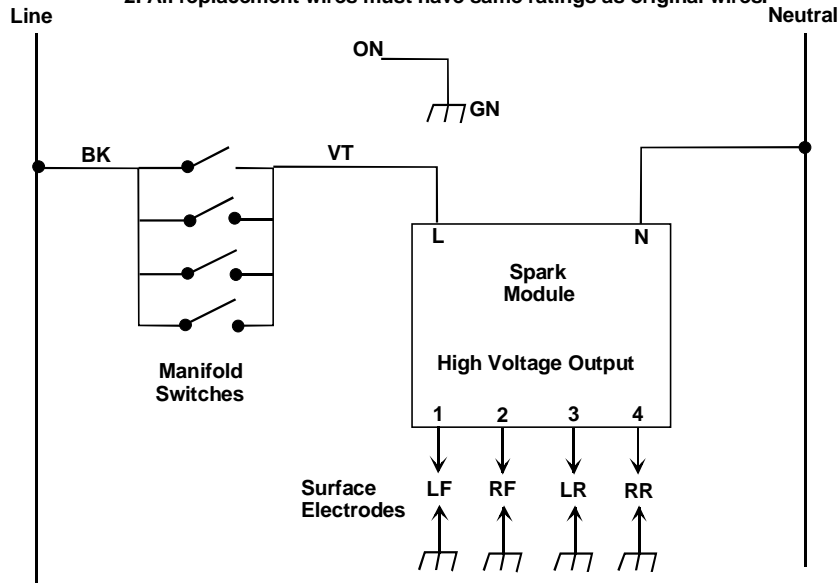
Wiring Diagrams and Schematics



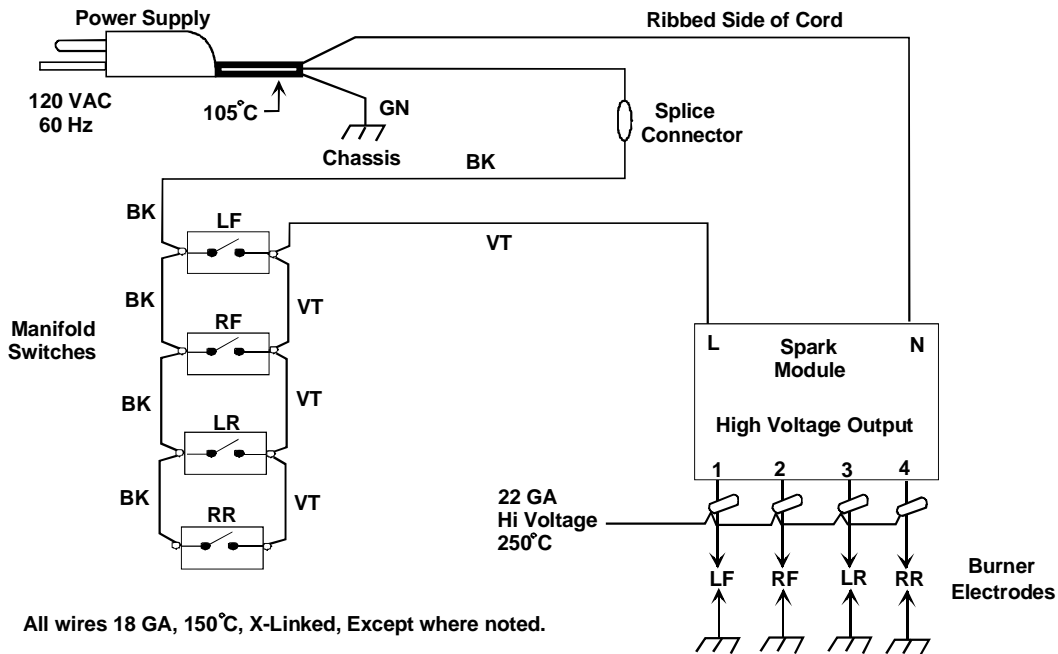
WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect power to cooktop before servicing, unless testing requires it.

NOTE: 1. All wires 18GA, 150°C XL unless otherwise specified.
2. All replacement wires must have same ratings as original wires.



SCHEMATIC



All wires 18 GA, 150°C, X-Linked, Except where noted.

WIRING DIAGRAM

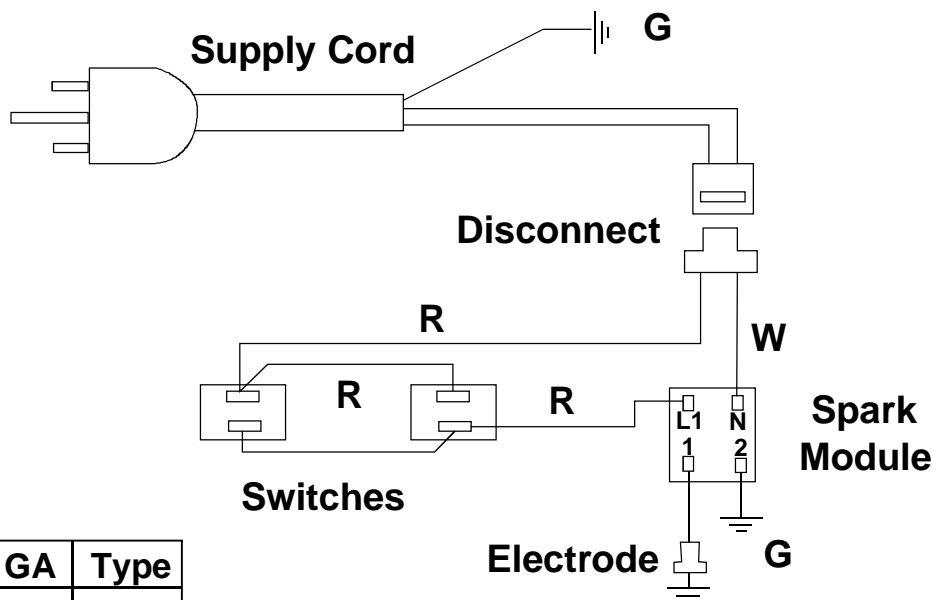
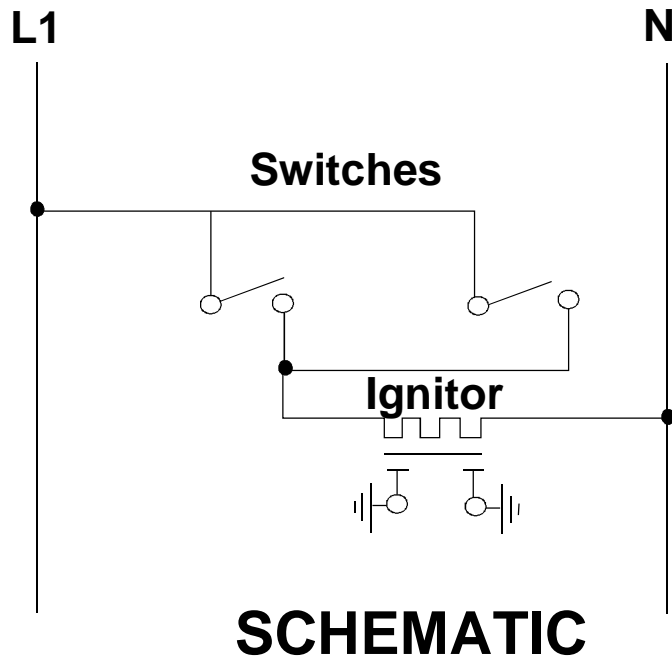
Electric Igniter Circuit for AKS30, PGT153, and RPT308
Part Number 35-308249-04-0

Wiring Diagrams and Schematics



WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect power to cooktop before servicing, unless testing requires it.



Code	Color	GA	Type
R	Red	18	SF
W	White	18	SF

WIRING DIAGRAM

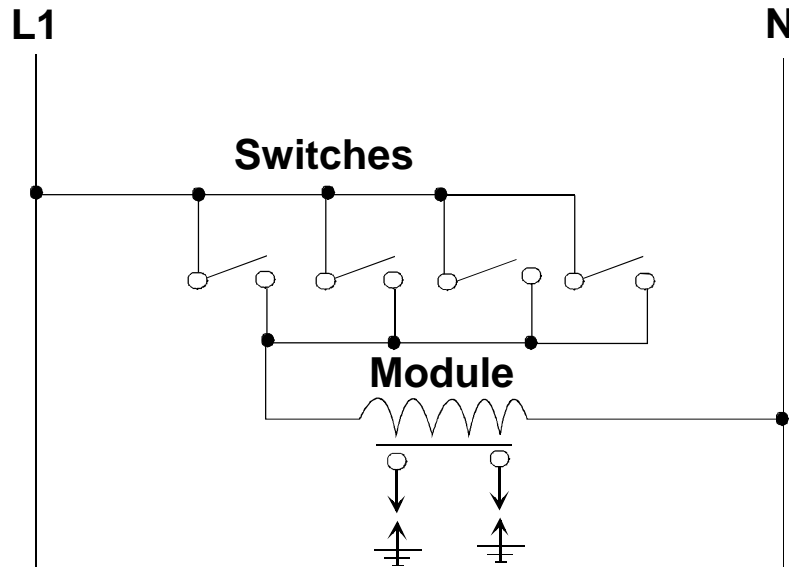
Spark Module Circuit for GT341 / PGT120
Part Number 81-05-483

Wiring Diagrams and Schematics

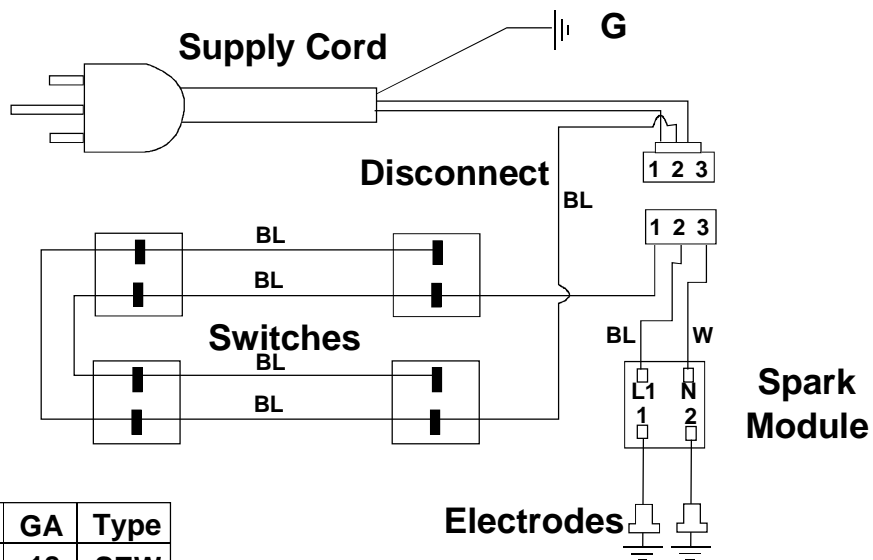


WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect power to cooktop before servicing, unless testing requires it.



SCHEMATIC



Code	Color	GA	Type
BL	Blue	18	SEW
W	White	18	SEW

WIRING DIAGRAM

Spark Module Circuit for GT451

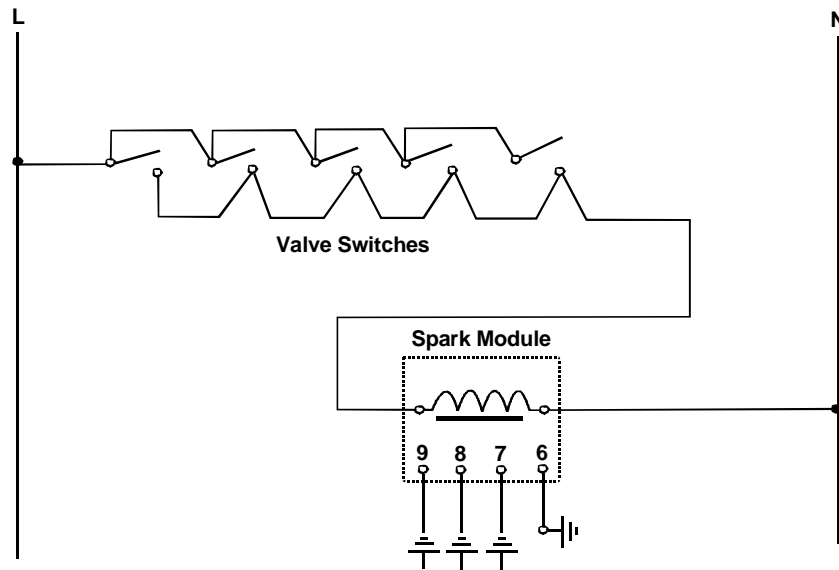
Part Number 35-042914-04-0

Wiring Diagrams and Schematics

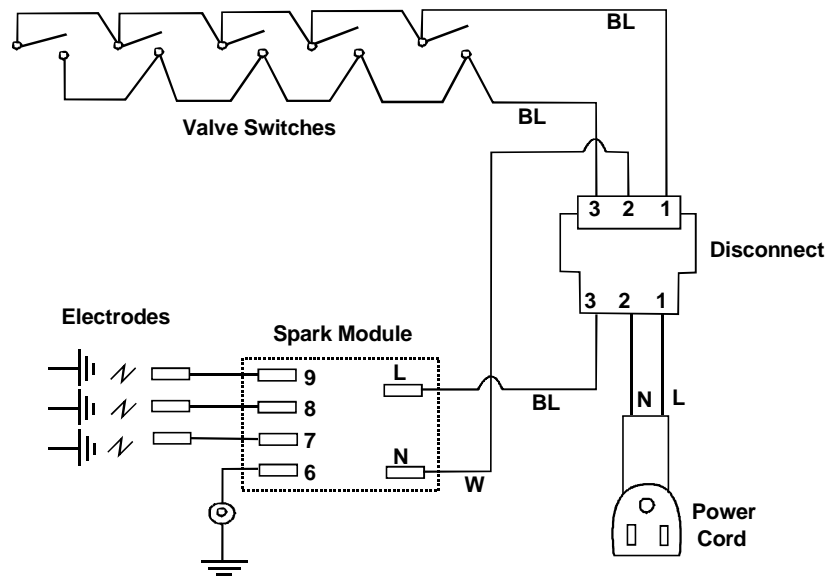


WARNING

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SCHEMATIC



Code	Color	GA	Type
BL	Blue	18	SEW
W	White	18	SEW

WIRING DIAGRAM

Spark Module Circuit for GT583

Part Number 81-05-577

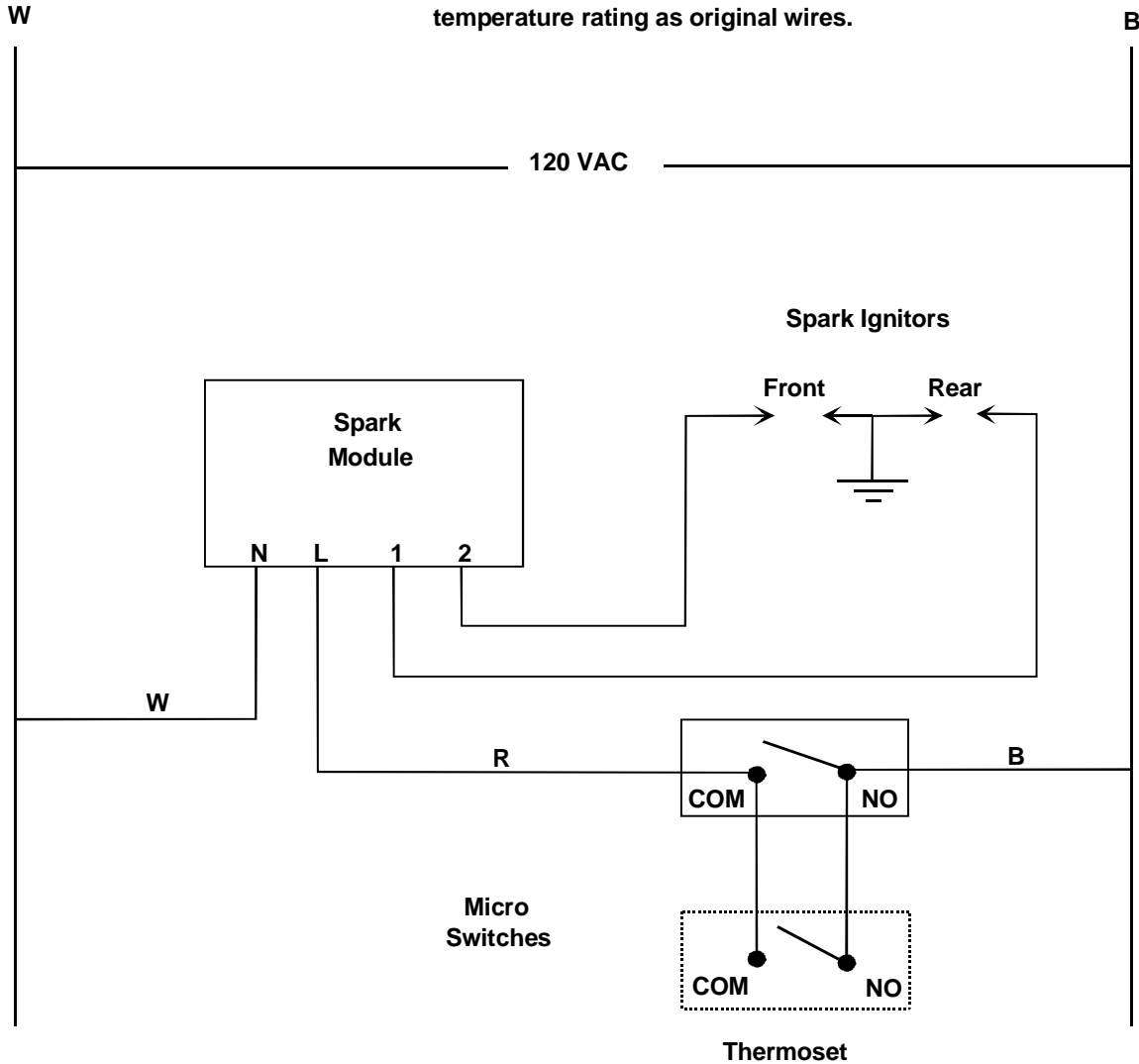
Wiring Diagrams and Schematics



WARNING

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NOTE: Replacement wires must have same insulation and temperature rating as original wires.



WIRING DIAGRAM

Spark Module Circuit for RPT306 and RPT307

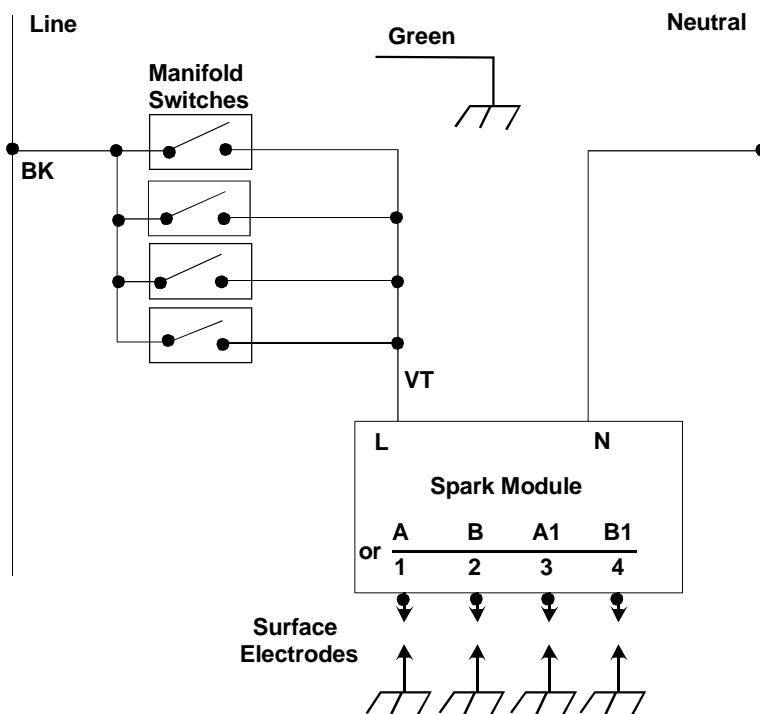
Part Number 69628

Wiring Diagrams and Schematics

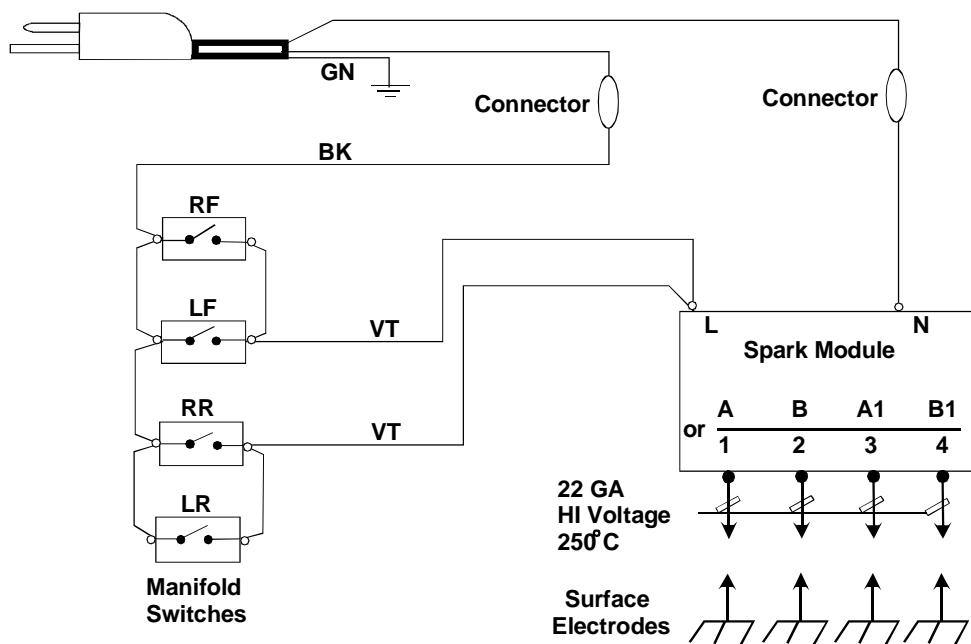


WARNING

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SCHEMATIC



WIRING DIAGRAM

Electric Ignitor Circuit for AKS3020, AKS3030, AKS3040,
AKS3050, and CKS3020
Part Number 35-317134-05-0