



# Owner's Manual

**IMPORTANT FOR FUTURE REFERENCE**  
 Please complete this information and retain this manual for the life of the equipment:  
 Model #: \_\_\_\_\_ Serial #:  
 #: \_\_\_\_\_ Date  
 Purchased: \_\_\_\_\_

# Sectional Fryers

Model P16-PF45 & P20-PF65



## **WARNING**

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

1100 Old Honeycutt Road Fuquay-Varina, North Carolina 27526 USA • [www.southbendnc.com](http://www.southbendnc.com)



# SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or to the equipment.



This symbol warns of immediate hazards that will result in severe injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury or death.



This symbol refers to a potential hazard or unsafe practice that could result in injury, product damage, or property damage.



This symbol refers to information that needs special attention or must be fully understood, even though not dangerous

## **WARNING FIRE HAZARD FOR YOUR SAFETY**

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of cooking appliances. Keep area around cooking appliances free and clear of combustibles. Purchaser of equipment must post in a prominent location detailed instructions to be followed in the event the operator smells gas. Obtain the instructions from the local gas supplier.

## **WARNING BURN HAZARD**

Contact with hot surfaces will cause severe burns. Always use caution when operating cooking appliances.

## **WARNING EXPLOSION AND ASPHYXIATION HAZARD**

In the event a gas odor is detected, shut down equipment at the main gas shut-off valve and immediately call the emergency phone number of your gas supplier. Improper ventilation can result in headaches, drowsiness, nausea, and could result in death. Do not obstruct the flow of combustion and ventilation air to and from cooking appliances.

## **WARNING ELECTRIC SHOCK HAZARD**

For appliances that use electric power, disconnect the power to the appliance before cleaning. Do not remove panels that require tools to remove.

## **NOTICE**

Southbend appliances are intended for commercial use only. Not for household use. Warranty will be void if service work is performed by other than a qualified technician, or if other than genuine Southbend replacement parts are installed.

Give this Owner's Manual and important papers to the proper authority to retain for future reference.

# INSTALLATION

## CHECKING YOUR NEW FRYER

Your new fryer has been carefully packed into one crate. Every effort has been made to ensure that your fryer is delivered to you in perfect condition. As you unpack your new fryer, inspect each of the pieces for damage. If something is damaged, DO NOT sign the bill of lading. Contact the shipper immediately, the shipper is only responsible for 15 days after delivery. Check the packing list enclosed with your fryer to ensure that you have received all of the parts to the fryer. If you are missing any parts, contact the dealer from whom the fryer was purchased.



### CAUTION

To prevent equipment damage, don't tilt the fryer onto any two of its casters or pull the unit by the flue vents.

## LEG/CASTER INSTALLATION AND ADJUSTMENT

Installing the legs and leveling the fryer is done with a 7/16" wrench, socket, and a large pair of water pump pliers. The legs/ casters must be installed to provide the necessary height to meet sanitation requirements and assure adequate air supply to the burner. Attach the legs by performing the following procedure.

- a. Lay the fryer on its side being careful not to damage the flue by pulling on it. Protect the outside of the fryer with cardboard or a drop cloth when laying it down.
- b. Attach each leg/caster with the hex head cap screws supplied with the fryer. Each leg/caster requires four 1/4-20 x 5/8" cap screws.
- c. Mount the screws from the inside of the fryer with the nut on the outside. The nuts have lock washers attached to them, therefore it is not necessary to use lock washers.
- d. When all four legs/casters are mounted, stand the unit up being careful not to put too much weight on any one leg/ caster. Adjust the height and level the fryer by adjusting the leveling devices on the leg/caster with the water pump pliers.
- e. On units with casters, move the fryer to the desired location and lock the wheels using the locking devices on the front of the casters.



### WARNING

The fryer must be properly restrained to prevent movement or tipping. This restraint must prevent the fryer from movements that would splash hot liquids on personnel, which could cause severe burns or injuries. Always wear oil proof gloves when moving or handling equipment or hot liquids.

## INSTALLATION CLEARANCES

The fryer needs clearance around it for proper operation. Adequate clearances allow for servicing and proper burner operation. The clearances shown below are for cooker installation in combustible and noncombustible construction.

	Combustible Construction	Non-Combustible Construction
Back	6"	0"
Sides	6"	0"
Floor - Combustible	9"	9" (Needed for Combustion)

# SPECIFICATIONS

## GAS CONNECTION

Your fryer will give you peak performance when the gas supply line is of sufficient size to provide the correct gas flow. The gas line must be installed to meet the local building codes or National Fuel Gas Code ANSI Z223.1 Latest Edition. In Canada, install the fryer in accordance with CAN/CGA-B149.1 or .2 and local codes. Gas line sizing requirements can be determined by your local gas company by referring to National Fuel Gas Code, Appendix C, Table C-4 (natural gas) and Table C-16 (propane). The gas line needs to be large enough to supply the necessary amount of fuel to all appliances without losing pressure to any appliance.

 **WARNING**

NEVER supply the fryer with a gas that is not indicated on the data plate. Using the incorrect gas type will cause improper operation. If you need to convert the fryer to another type of fuel, contact your dealer.

## FUEL TYPES

Each fryer is equipped to work with one type of fuel. The type of fuel with which the appliance is intended to operate is stamped on the data plate attached to the inside of the door.

**NOTICE**

NEVER use an adaptor to make a smaller gas supply line fit the cooker connection. This may not allow proper gas flow for optimum burner operation, resulting in poor cooker performance.

## QUICK DISCONNECT GAS CONNECTION

Gas fryers equipped with casters must be installed with connectors that comply with the Standard for Connectors for Movable Gas Appliances, ANSI Z223.1 Latest Edition, and Addenda Z21.69A Latest Edition. This connection should include a quick disconnect device that complies with the Standard for Quick Disconnect Devices for Use With Gas Fuel, ANSI Z223.1 Latest Edition. When installing a quick disconnect you must also install a means for limiting the movement of the fryer. This device will prevent the gas line or the quick disconnect from being strained. The restraining device should be attached to the cooker on the back panel.

## FUEL SUPPLY LINE LEAK AND PRESSURE TESTING

The fuel supply system must be tested before the fryer is used. If the fuel line is going to be tested at a pressure greater than ( $>$ ) 1/2 PSIG (3.45 kPa), make sure that the fryer is disconnected from the fuel line. If the fuel line is to be tested at a pressure equal to or less than ( $<$ ) 1/2 PSIG (3.45 kPa), the fryer can be connected but the unit's gas valve must be shut. Test all gas line connections for leaks with a solution of soap and water when pressure is applied.

## ELECTRICAL CONNECTION

The electrical service used by the fryer must comply with local codes. If there are no local codes that apply, refer to the National Electrical Code (NEC), ANSI/NFPA 70 to install the service. In Canada refer to CSA Standard C22.1 and local codes. Wiring diagrams are provided inside the fryer control box.

## VENTILATION AND FIRE SAFETY SYSTEMS

Your new fryer must have proper ventilation to function safely and properly. Exhaust gas temperatures can reach as high as 1000°F. Therefore, it is very important to install a fire safety system. Your ventilation system should be designed to allow for easy cleaning. Frequent cleaning of the ventilation system and the fryer will reduce the chances of fire. Table 1-2 provides a list of reference documents that provide guidance on ventilation and fire safety systems. This table is not necessarily complete. Additional information can be obtained from the CSA-International, 8501 East Pleasant Valley Road, Cleveland, OH 44131.

Excessive ventilation causes drafts, which will interfere with the proper operation of the pilot and the burner. Leave at least 18 inches of open space between the fryer's flue vent opening and the intake of the exhaust hood.

 **CAUTION**

Ensure that your ventilation system does not cause a down draft at the fryer's flue opening. Down drafts will not allow the fryer to exhaust properly and will cause overheating which may cause permanent damage. Damage caused by down drafts will not be covered under equipment warranty. NEVER allow anything to obstruct the flow of combustibles or ventilation exiting from the fryer flue. DO NOT put anything on top of the flue area.

**NOTICE**

NEVER connect the blower directly to the flue openings. The direct flow of air will cause poor temperature recovery, poor ignition, inefficient operation of the fryer, and could extinguish the pilot.

## GAS LINE REQUIREMENTS

A properly installed gas supply system will deliver  $7.0 \pm 2.0$ " w.c. natural gas ( $12.0 \pm 2.0$ " w.c. LP) to all appliances connected to the line, operating at full demand.

**NOTICE**

Do NOT exceed 13.5" W.C. pressure as damage may occur to the gas valve.

TOPIC	UNDERWRITERS LABORATORY DOCUMENT	NATIONAL FUEL GAS CODE DOCUMENT
EXHAUST HOODS	ANSI/UL 710	ANSI/NFPA 96
POWER VENTILATORS	ANSI/UL 705	ANSI/NFPA 96
FILTER UNIT	ANSI/UL 586 ANSI/UL 900	ANSI/NFPA 96
TYPES OF FIRE EXTINGUISHERS AND DETECTION EQUIPMENT		
CO <sub>2</sub>	ANSI/UL 154	ANSI/NFPA 12
DRY CHEMICAL	ANSI/UL 299	ANSI/NFPA 17
WATER	ANSI/UL 626	ANSI/NFPA 13
FOAM	ANSI/UL 8	ANSI/NFPA 11
SPRINKLERS	ANSI/UL 199	ANSI/NFPA 13
SMOKE DETECTORS	ANSI/UL 268	ANSI/NFPA 72
FIRE DETECTION THERMOSTATS	ANSI/UL 521	ANSI/NFPA 72

IF MAINTENANCE IS REQUIRED, CONTACT YOUR LOCAL FACTORY SERVICER, LOCAL FACTORY REPRESENTATIVE, OR THE FACTORY TO OBTAIN SERVICE.

# OPERATION

## LIGHTING INSTRUCTIONS

1. Fill kettle before lighting.
2. Turn combination gas valve knob to “PILOT” position.
3. Depress valve knob and light pilot. With pilot burning, hold knob depressed for 60 seconds. d. Release knob, pilot should remain lit.
4. **DO NOT** TURN COMBINATION GAS VALVE KNOB TO THE “ON” POSITION UNTIL VESSEL IS FULL OF WATER OR SHORTENING. TURNING THE KNOB TO “ON” WITH VESSEL EMPTY WILL DAMAGE THE VESSEL OR COMPONENTS AND VOID WARRANTY.
5. Relighting - wait 5 minutes before attempting to relight the pilot to allow for any gas in the fryer to dissipate.

 **WARNING**

Gas units installed with casters must have a restraining device. This device must be connected at all times that the fryer is connected to the gas supply. If it is disconnected for any reason, it must be reconnected.

## INITIAL CLEANING

When the fryer is shipped, many of its parts are covered with a thin coat of oil for protection. Before the fryer is ready for cooking it must be cleaned. This will remove oil coating and any foreign matter that may have accumulated during storage and shipment. Perform the cleaning as described below.

1. Fill the vessel with water.
2. Turn the fryer gas valve knob to the “ON” position. Allow the fryer to bring the water to a low boil and add one
3. Packet of fryer cleaner or a mild, low sudsing detergent and allow water to continue to boil for a minute, making sure the water does not boil over.
4. Turn the gas valve knob to the “PILOT” position and allow fryer to soak with the hot water for 15 minutes.

**NOTICE**

Do not leave the fryer unattended during cleaning. Never let the water level go below the “Min Level” mark on the back of the tank.

5. Using the fryer cleaning brush, scrub the inside of the fryer to remove protective coating.
6. When cleaning is complete, turn the gas valve knob to the “OFF” position and drain the water into a container suitable for hot water and dispose of it.
7. When the tank has cooled, rinse it thoroughly with cool water. Continue to rinse the tank until the cleaner has been rinsed thoroughly from the tank.
8. Using a clean dry cloth, wipe out all of the water. Be very thorough removing the water, because any residual water will cause hot oil to splatter out of the fryer. Close the drain valve and remove container.
9. Now that the tank is clean, you are ready to fill and operate the fryer. Refer to instructions on adding shortening to the fryer.

## THERMOSTAT CALIBRATION CHECK

### NOTICE

Thermostat calibration requires that the temperature of the fryer be raised above boiling. Therefore, you will need to drain the water from the fryer and fill it with oil. Before removing the water, perform the **Initial Cleaning** of the fryer. Cleaning the fryer now will prevent you from having to drain the oil and refill with water later.

**To perform the calibration check detailed below, you will need a digital thermometer.**

1. Place the tip of the thermometer in the shortening approximately 1" above the temperature sensors.
2. Set the thermostat at 325°F and wait for the temperature reading on the thermometer to rise. As the temperature rises toward 325°F watch the thermometer closely.
3. If the shortening temperature reaches 350°F and the burners DO NOT turn off, turn the thermostat down. Keep lowering the thermostat setting until the burners go out.

### CAUTION

If the burners do not turn off at the lowest thermostat setting, the thermostat could be defective. Contact your representative immediately.

4. Let the fryer cycle 4 to 6 times before checking the temperature. Compare the thermometer temperature against the thermostat setting. If the values are more than 5°F apart, calibrate the thermostat using the appropriate calibration procedure in this manual.

## THERMOSTAT CALIBRATION

### Millivolt thermostats

1. Set the thermostat dial to 325°F.
2. Remove the thermostat dial by pulling the knob straight out. DO NOT rotate the dial.
3. Hold the outside of the shaft so it does not move. Use the tip of a small, flat tip screw driver to scrape away the sealing compound from the adjustment screw.
4. Turn the adjustment screw clockwise to lower the temperature setting and counterclockwise to raise the temperature. One quarter turn changes the temperature approximately 25°F.
5. Turn the adjustment until the burners turn on at 325°F. Replace the knob and allow the fryer to cycle 4 to 6 times. Check the temperature of the thermometer against the thermostat dial. If it is greater than 5° F difference, repeat the calibration procedure.
6. When the calibration is correct, remove the thermometer and replace the tube screen.

## FRYER OPERATION

### Filling the Fryer with Liquid Shortening

1. Make sure the drain valve is completely closed.
2. Fill the fryer with oil to the "Oil Level" line marked on the back of the tank.

### Filling the Fryer with Solid Shortening

1. Make sure the drain valve is completely closed.
2. Remove the screen covering the tubes.
3. Cut the shortening into cubes no larger than 1". ALWAYS pack the shortening below, between, and on top of the burner tubes. DO NOT leave any large air gaps. Use care when packing the solid shortening in the tank. DO NOT bend or break the temperature sensor probes. If these are damaged the fryer will not function properly.
4. Once the fryer is packed with shortening, the shortening must be melted.
5. To melt shortening, manually pulse the burners ON and OFF using the thermostat until the shortening is liquidized enough to cover the heat tubes. This will protect the tank and components from damage and extend the life of the oil.

### Fryer Shut-Down

There are two shutdown modes of fryer operation, STANDBY and COMPLETE. The Standby mode removes the ability for the fryer's main burners to cycle. Complete shutdown turns off the gas supply to the fryer. Shut down the fryer by:

#### STANDBY

Turn the thermostat to OFF. Turn the gas valve clockwise to the PILOT position. The cooker is now in Standby mode and can remain this way for only brief periods of time. **NEVER** leave the cooker in Standby overnight.

#### COMPLETE

To completely shut down the cooker, push and turn the gas valve counterclockwise to the OFF position. The fryer is now completely shut down and can be cleaned and filtered.

## FILTER PROCEDURES

### NOTICE

When working with hot oil **ALWAYS** wear oil-proof, insulated gloves.



### WARNING

- NEVER** • Run the filter system without a filter bag/paper.
- NEVER** • Empty the oil from the fryer before turning OFF the fryer burners.
- NEVER** • Store the UFM Filter Unit anywhere other than in the fryer filter cavity.

1. Slide the filter pan out. Carefully remove filtered residue off the filter media. Examine the filter media for clogged or torn areas. Refer to filter media replacement instructions following this section. Reinstall the pan.
2. Turn the fryer that is to be filtered OFF (See Standby Shutdown). Remove the baskets from the fryer tank(s).
3. Use the clean out brush to lift out the tube screens. If there are excess crumbs in the fryer tank, remove them with the crumb scoop.
4. If you have replaced the filter media or remove crumbs and debris, sprinkle Pre-Coat Filter Aid on the filter paper.
5. Check the drain spout to ensure that it is in the drain tower and over the filter pan opening.
6. Slowly open the green handled drain valve for the tank being filtered. If necessary use the clean-brush to clear the crumbs from the drain. Use the brush to clean the sides of the tank as the oil drains.

 **WARNING**

This filter pan is only large enough to hold the contents of ONE (1) tank at a time, during the filter process.

7. When the tank is empty, close the green handled drain valve. Open the red handled return valve to the tank you are filtering. This will start the pump and return the oil to the bottom of the fry tank.
8. When bubbles are seen coming out of the oil return spout, close the red handled valve to turn the pump off. If necessary add more oil to the tank to return the oil level to the fill mark. The fryer is now ready for use.

**DRAINING A TANK**

**Note** -The filter system is also used to drain the fryers. You will need a container capable of holding 400°F oil and protective gloves.

1. Rotate the drain down spout so that it extends in the container that you want to drain the shortening into.
2. Open the green handled drain valve for the tank to be drained. The oil will drain into the container you have chosen. When the container is full or the fry tank is empty, close the green handled drain valve. If the container was full repeat this step until fryer tank is empty.
3. Once tank is completely empty add new shortening and follow fryer start up procedures.

 **WARNING**

The power supply must be disconnected before servicing or cleaning the appliance.

**FILTER MEDIA REPLACEMENT**

The filter module stores neatly under the fryer when not in use. The unit is very easy to use and allows for quick installation and filtration, even under the busiest conditions. Follow the procedures below to change the filter media.

 **WARNING**

At operating temperature, the shortening in the fryer may be hotter than 375°F (190°C). This hot, melted shortening will cause severe burns. DO NOT let the hot shortening touch your skin or clothing. Always wear insulated oil proof gloves when working on the filter system. It will be easier and safer if the filter assembly has cooled to room temperature before handling any filter parts.

1. With the filter pan empty of oil, remove the filter media by grasping the filter pan handle and gently pull the assembly toward the front of the fryer.
2. Separate the filter pickup tube from the filter pickup screen assembly by pulling up on the pickup tube just above where it connects to the pickup screen assembly. Lift pickup tube and swing it to the left, until it rests on the left hand side of the filter pan.
3. Grab filter screen pickup assembly lift handles and carry it to a trash barrel and shake off heavy discard any debris that may be built upon the top of the assembly.
4. Unscrew the filter paper clip bracket from the filter paper support screen and slide the filter paper support screen out of the filter paper clip bracket.

5. Remove filter paper support screen from the filter envelope.
6. All of the filter pick up assembly parts can be washed in a dish washer or a pot sink. Flush out the suction tube assembly with hot water. After cleaning, it is very important to thoroughly dry the parts before reassembling. Water and oil do not mix. Water in hot oil will cause the oil to splatter.
7. Start reassembling the filter pick up assembly by sliding the new filter paper on to the filter paper support rack. Ensure that the hole in the filter paper goes over the pickup tube assembly threaded connector.
8. Fold the open end of the bag in two folds. The first fold should be approximately 1 inch from the end and the second should be over the edge of the rack assembly.
9. Slide the clip screen over the folded end of the filter paper. Ensure the opening of the clip screen goes over the pickup tube connection. Screw the suction tube connection onto the threaded connection.
10. Place the filter pickup assembly into the filter pan and slide the filter pan assembly back into the fryer cabinet.
11. Filter unit is now ready for use.

# CLEANING AND MAINTENANCE

 **WARNING**

Disconnect the power supply to the appliance before cleaning. Do not remove panels that require tools to remove.

 **WARNING**

Adjustments and service work should be performed only by a qualified technician who is experienced in, and knowledgeable with the operation of commercial gas cooking equipment. To assure confidence, contact your authorized service agency for reliable service, advice and other assistance with your appliance. Insist upon genuine factory parts to be used for any repair or service of your appliance.

Southbend appliances are sturdily constructed of the best materials and are designed to provide durable service when treated with ordinary care. To expect the best performance, your equipment must be maintained in good condition and cleaned daily. Naturally, the periods for this care and cleaning depend on the amount and degree of usage.

*Following the daily and periodic maintenance procedures will enhance long life for your equipment. Climatic conditions (such as salt air), may require more thorough and frequent cleaning or the life of the equipment could be adversely affected.*

Keep exposed, cleanable areas clean at all times.

## INITIAL CLEANING - See Page 6

## DAILY CLEANING AND MAINTENANCE

Cleaning should be performed daily to maintain peak operation and appearance.

1. Wipe up any shortening that spills onto the exterior of the fryer. This should be done with a clean soft cloth while the oil is still warm.
2. Use warm water with a mild detergent to clean surfaces. Be careful not to get water in the shortening and to remove any detergent from the fry tank.
3. Use a nonabrasive scouring powder or pad to clean stains if necessary.
4. Perform the weekly boil out cleaning of your fryer described below.

## WEEKLY FRYER CLEANING AND MAINTENANCE

This cleaning should include a complete draining of the fryer and a boil out.

1. You will need a container large enough to hold 1 1/2 times the oil in one tank. This container should also be able to withstand 400° F oil temperatures.
2. Shut fryer gas system OFF completely before performing procedures to ensure unit does not come on during any part of the cleaning operation.
3. Drain the oil from the fryer and discard or save for reuse. Remove tube rack/mesh tube screens and remove any large debris from the bottom of the fry tank. Once clean, return tube rack/mesh screens to the fry tank. Close the drain valve and fill the fry tank with water and non-caustic detergent.

4. Relight gas system pilot, following the lighting instructions.
5. Turn the fryer gas valve knob to the “ON” position. Allow the fryer to bring the water to a low boil and add one packet of fryer cleaner or a mild, low sudsing detergent and allow water to continue to boil for a minute, making sure water does not boil over.
6. Turn the gas valve knob to the “PILOT” position and allow fryer to soak with the hot water for 15 minutes.
7. Using the fryer cleaning brush, scrub the inside of the fryer to remove protective coating.
8. When cleaning is complete, turn the gas valve knob to the “OFF” position and drain the water into a container suitable for hot water and dispose of it.
9. When the tank has cooled, rinse it thoroughly with cool water. Continue to rinse the tank until the cleaner has been rinsed, thoroughly from the tank.
10. Using a clean dry cloth, wipe out all of the water. Be very thorough removing the water, because any residual water will cause hot oil to splatter out of the fryer. Close the drain valve and remove container.
11. Now that the tank is clean, you are ready to fill and operate the fryer. Refer to instructions on adding shortening to the fryer.

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# PARTS LISTS

## P16-PF45 ONLY

### TANK & FLUE

#### Tank & Flue Drawing A - Parts List

ITEM #	PART #	PART DESCRIPTION
1	B3322601-C	TANK WELDMENT MODULAR SST SG14R
2	1405556	36" DEEP FLUE ASSEMBLY
	1405559	42" DEEP FLUE ASSEMBLY
	60131002	BALL VALVE 1-1/4 FULL PORT REVERSIBLE LUG RIGHT HAND
4	A8030407	DRAIN LINE PIPING ADAPTER SG, SGM (NON-FILTER)
5	B6700604-C	WIRING PROBE SERVICE KIT SG
	B6700608-C	WIRING PROBE SERVICE KIT (BACK UP THERMOSTAT)
10	A3525901	FLUE GASKET SG14T
11	P7036726	STEEL TANK PLUG 1/4NPT
12	60130101	TANK REAR ADAPTER 37.5 FLARE SWIVEL X 1/2NPT
	P7036729	STEEL TANK PLUG 1/2NPT
13	A1406702	CLAMP HIGH LIMIT THERMOSTAT SG MILLIVOLT
16	PP11366	SCREW 10-24 X 5/8 PAN HEAD SST THREAD FORMING
18	P0076100	SCREW 10-24 X 3/4 SELF TAPPING
19	P0092300	NUT HEX 10-24 KEP ZN

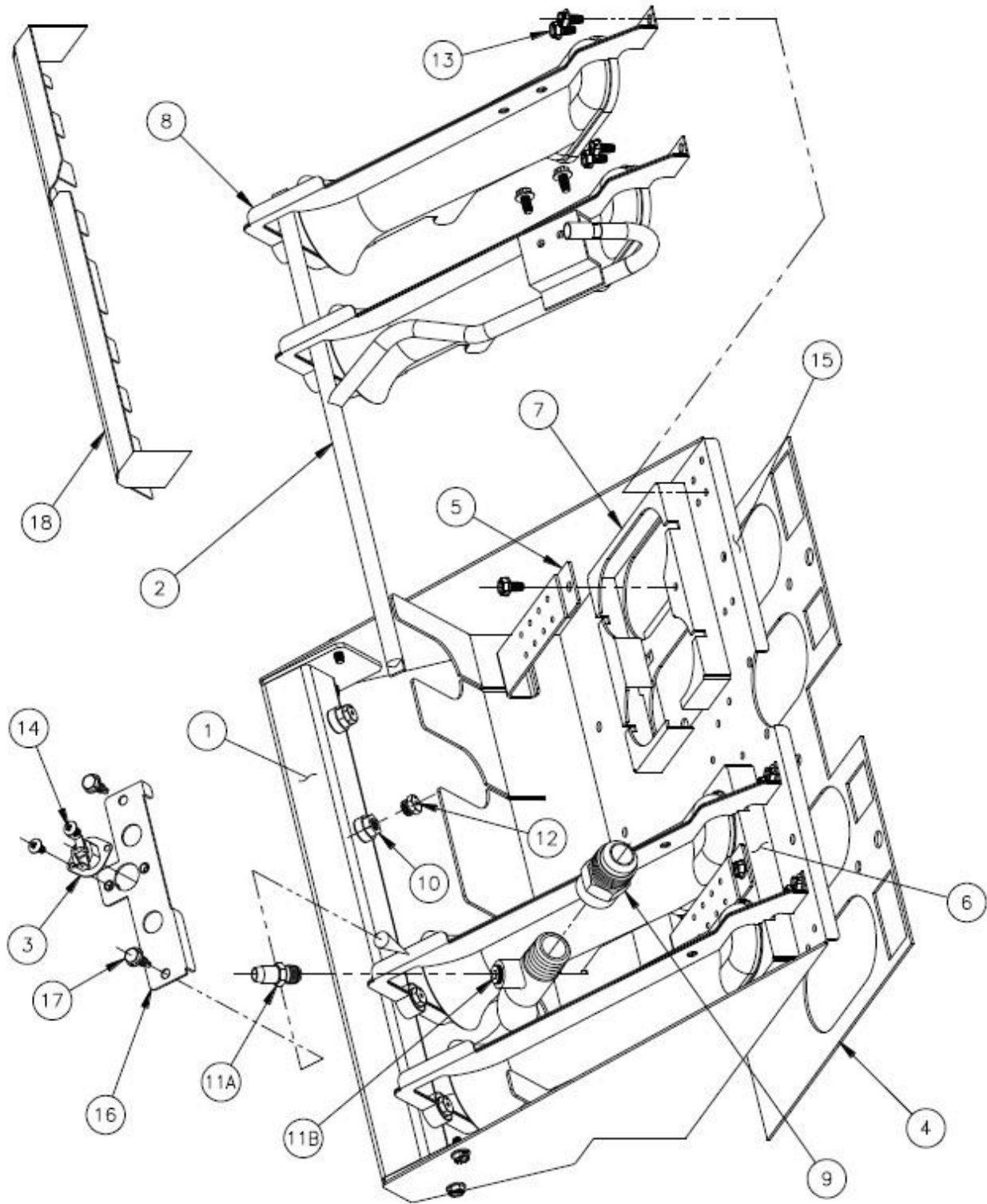


**P16-PF45 ONLY****BURNER ASSEMBLY****Burner Assembly Drawing B - Parts List**

ITEM #	PART #	PART DESCRIPTION
1	B8039101	BURNER MANIFOLD WELDMENT CENTER-TAP SG14, SG14R (REPLACES B8029701)
2	B8042001	SELF-CLEANING BURNER RUNNER TUBE SG14, SG14R
3	60147801	THERMAL-LIMIT SWITCH WITH MANUAL RESET
4	A8028401	GASKET BURNER BRACKET SG14R,SGM1824
		3M SUPER 77 MULTIPURPOSE HIGH TACK SPRAY ADHESIVE (REQUIRED WHEN INSTALLING NEW ITEM #4)
		<b>DO NOT SPRAY ADHESIVE ACROSS BURNER FACES</b>
5	A8027701	BURNER FLAME JUMPER SG14,SG14R,SG18,SG18F,SGC
8	B8037301-C	BURNER SLOTTED-FACE NATURAL
	B8037302-C	BURNER SLOTTED-FACE LP
	B8041901	BURNER INCONEL 601 WIRE-FACE SCREEN NATURAL SCB & LP (REPLACES B8030001)
9	60127501	FITTING ADAPTER FLARED 15/16-16 UN-2A X 1/2 FNPT BRASS
10	60129701	FITTING 1/4 MNPT X .344-32 UNS ORIFICE TIP BRASS
11A	60132801	FITTING TEST PRESSURE PLUG 1/8-27 (CE)
11B	N/A	PLUG 1/8 NPT 3/16 HEX SOCKET STEEL
12	A7513701	ORIFICE TIP 1.45mm DIA
	P6071309	ORIFICE TIP 1/16 DIA
	P6071336	ORIFICE TIP #36 DIA
	P6071337	ORIFICE TIP #37 DIA
	P6071338	ORIFICE TIP #38 DIA
	P6071339	ORIFICE TIP #39 DIA
	P6071340	ORIFICE TIP #40 DIA
	P6071341	ORIFICE TIP #41 DIA
	P6071342	ORIFICE TIP #42 DIA
	P6071343	ORIFICE TIP #43 DIA
	P6071344	ORIFICE TIP #44 DIA
	P6071353	ORIFICE TIP #53 DIA
	P6071354	ORIFICE TIP #54 DIA
	P6071355	ORIFICE TIP #55 DIA
	PP10859	ORIFICE TIP 1.51 mm DIA
13	PP10023	SCREW 10-24 X 3/8 SELF TAPPING
14	PP10687	SCREW 6-32 X 5/16 TRUSS HEAD PHILLIPS ZN
15	A8028001	BURNER BRACKET SG14R
16	A2036904-C	SELF-CLEANING BURNER HIGH-LIMIT BRACKET SG14, SG14R, SG18
17	P0075300	SCREW 10-16 X 5/8 HEX HEAD SELF-DRILLING
19 NOT SHOWN	B8031702	BURNER ASSEMBLY SLOT FACE NATURAL SG14R
	B8031705	BURNER ASSEMBLY INCONEL 601 WIRE-FACE SG14R

P16-PF45 ONLY

Burner Assembly Drawing B

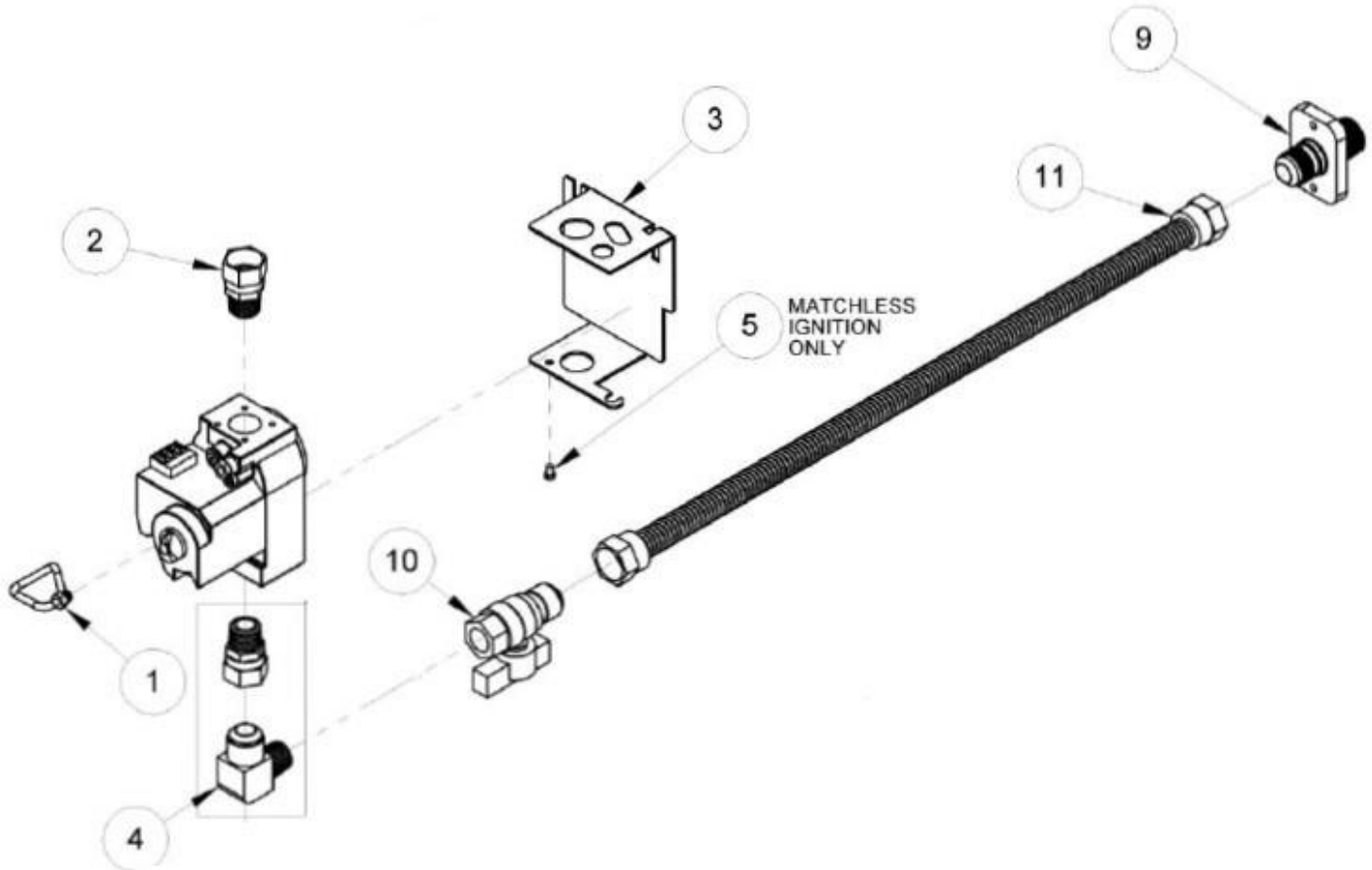


**P16-PF45 ONLY****GAS TRAIN****Gas Train Drawing C1 - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	60125901	TUBE, VENT GAS VALVE
2	60127601	FITTING, ADAPTER FEMALE SWIVEL X 1/2 MPT
3	A8029001-C	PIPING, VALVE SHIELD SG, SGC, SG18F
4	60127401	FITTING, ELBOW MALE FLARE X MPT
5	P0007300	SCREW, 8-32 X 1/4 HEX HEAD SLOTTED ZN
9	A8029105	COUPLING, GAS SUPPLY SHORT SG, MKG (PRIOR TO 2/05: USE A8029103)
10	60128101	VALVE, GAS SUPPLY SHUTOFF
11	60128015	TUBING, FLEXIBLE WITH FITTINGS 22 GAS (SG AFTER 2/05)

**P16-PF45 ONLY**

Gas Train **Drawing C1**



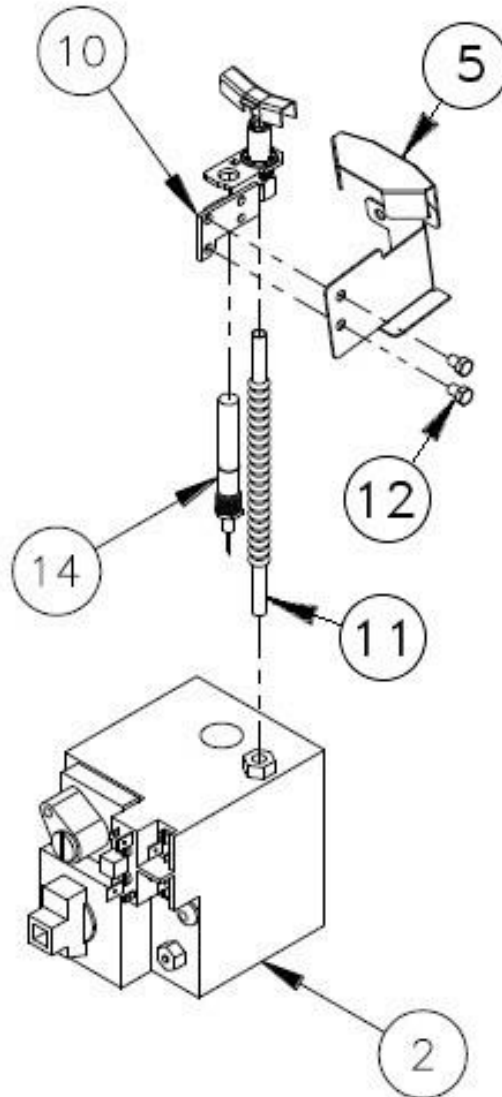
**P16-PF45 ONLY****GAS TRAIN****Gas Train Drawing C2 - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
2	60125201-C	VALVE, GAS VS820 NAT SG, SGC, SG18F
	60125202-C	VALVE, GAS VS820 LP SG, SGC, SG18F
5	A8035302	PIPING, PILOT BRACKET SG14 SG14R SG18
10	60128801	PILOT, REVERSE STANDING NAT SG
	60128802	PILOT, REVERSE STANDING LP SG
11	60119001	TUBE, FLEXIBLE WITHOUT FITTINGS 18 X 1/4 OD SG, SG18F, SGC
12	60088001	SCREW, 10-32 X 1/4 HEX HEAD SST
14	60125501	THERMOPILE, MILLIVOLT
23	2908-0940501	ORIFICE, PILOT RUNNER TUBE #52 NAT SG14, SG14R, SG14T
	2908-0940502	ORIFICE, PILOT RUNNER TUBE #68 LP SG
28A	B6783401	WIRING, IGNITION CABLE WITH GROUND WRAP 20" SG*

**P16-PF45 ONLY**

Gas Train **Drawing C2**

MILLIVOLT



# P16-PF45 & P20-PF65

## GAS CONVERSION KITS

### Gas Conversion Kits Quick Reference

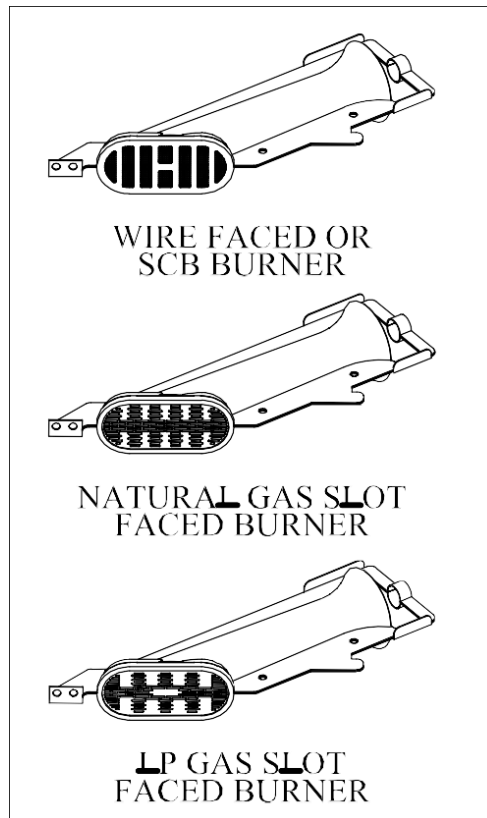
**MILLIVOLT SYSTEM, HONEYWELL VS820 GAS VALVE**

COVERING ALL COUNTRIES EXCEPT:

*Turkey, Switzerland, Slovenia, Slavakia, Spain, Romania, Bulgaria, Czech Republic, England, Scotland, Wales, Hungary, Ireland, Luxembourg, Poland, Portugal, France, Germany, South Korea, Australia, Belgium, Cyprus, Malta, Austria, Denmark, Estonia, Finland, Greece, Italy, Latvia, Lithuania, Norway, Sweden*

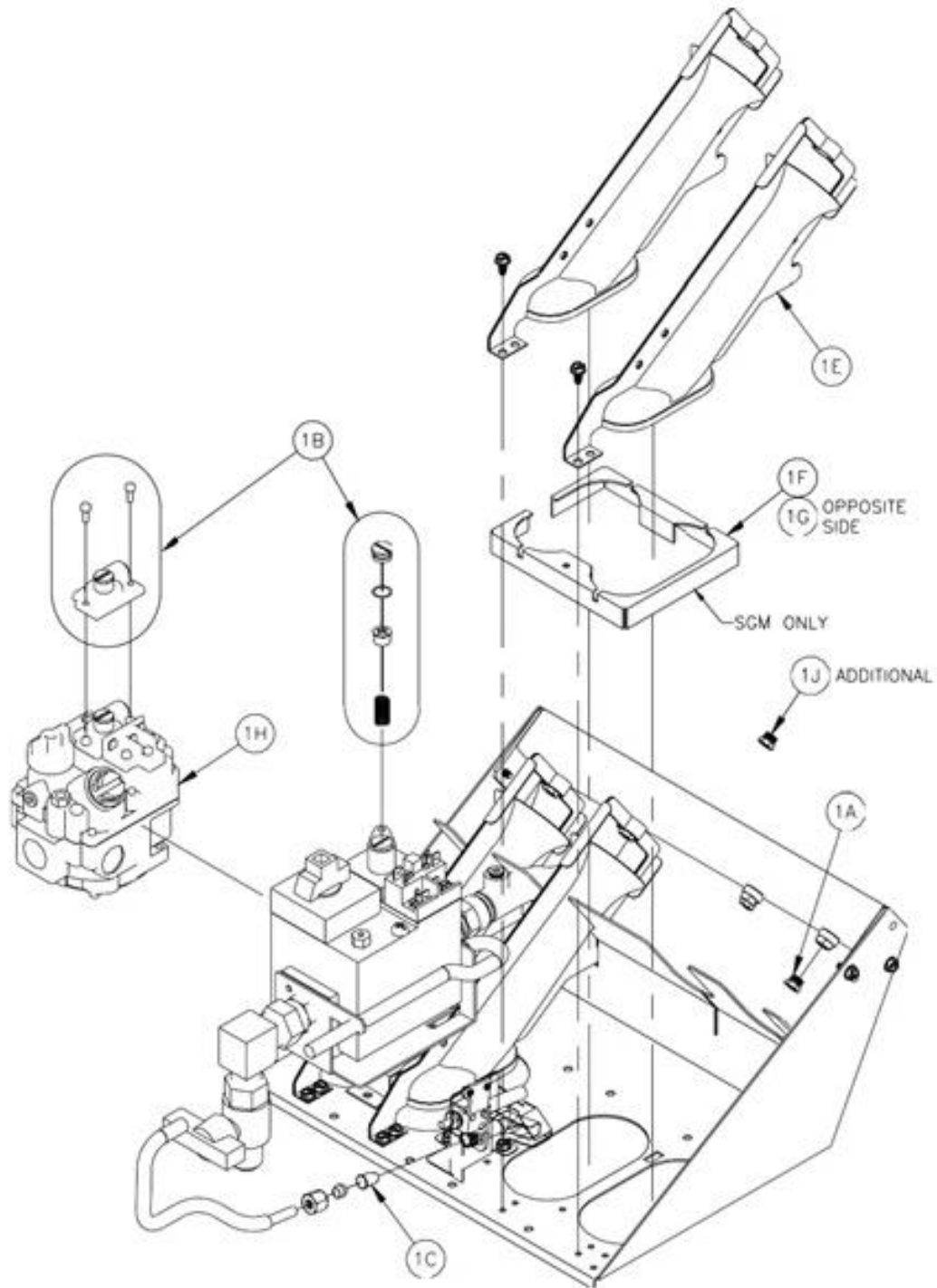
For these countries see parts lists D5, D6, D7, or D8

BURNER TYPE	WIRE FACED BURNERS				SLOT FACED BURNERS			
	NAT TO LP	PARTS LIST	LP TO NAT	PARTS LIST	NAT TO LP	PARTS LIST	LP TO NAT	PARTS LIST
SG14R	B7510085-C	D2	B7510082-C	D2	B8043206-C	D1	B8043210-C	D1
SG18	B7510084-C	D2	B7510081-C	D2	B8043208-C	D1	B8043212-C	D1



# P16-PF45 & P20-PF65

## Gas Conversion Kits **Drawing D**



**P16-PF45 & P20-PF65**Gas Conversion Kits Slot Face Burners **Parts List D1****SLOT FACED BURNERS NATURAL TO LP**

ITEM #	MODELS	VALVE	PART #	PART DESCRIPTION	QTY
1	SG14,SG18F	VS820	B8043205-C	GAS CONV KIT SLOT FACED NAT TO LP VS820 SG14	
	SG14R, SG14RDI	VS820	B8043206-C	GAS CONV KIT SLOT FACED NAT TO LP VS820 SG14R	
	SG18	VS820	B8043208-C	GAS CONV KIT SLOT FACED NAT TO LP VS820 SG18	
	SG14	VR8204	B8043213-C	GAS CONV KIT SLOT FACED NAT TO LP VR8204 SG14	
	SG14R	VR8204	B8043214-C	GAS CONV KIT SLOT FACED NAT TO LP VR8204 SG14R	
	SG18	VR8204	B8043216-C	GAS CONV KIT SLOT FACED NAT TO LP VR8204 SG18	
1A	SG14, SG18F	VS820/VR8204	P6071353	ORIFICE TIP #53 DIA	4
	SG14R, SG14RDI	VS820/VR8204	P6071309	ORIFICE TIP 1/16 DIA	4
	SG18	VS820/VR8204	P6071353	ORIFICE TIP #53 DIA	5
1B	SG14, SG18F, SG18, SG14R, SG14RDI	VS820	60126502	GAS VALVE CONV KIT VS820 NAT TO LP	1
	SG14, SG18, SG14R	VR8204	PP11141	GAS VALVE CONV KIT VR8204 NAT TO LP	1
	SG14, SG18F, SG18, SG14R, SG14RDI	VS820/VR8204	P6071665	ORFICE PILOT SPUD LP .016 DIA	1
1D	SG14, SG18F, SG14T SG14R, SG14RDI, SG18	VS820/VR8204	PP10426	GAS CONV NOTICE LABEL NAT TO LP	1
1E	SG14, SG18F, SG14T, SG14R, SG14RDI	VS820/VR8204	B8037302-C	BURNER SLOTTED-FACE 304-SST LP	4
	SG18	VS820/VR8204	B8037302-C	BURNER SLOTTED-FACE 304-SST LP	5

**SLOT FACED BURNERS LP TO NATURAL**

ITEM #	MODELS	VALVE	PART #	PART DESCRIPTION	QTY
1	SG14R, SG14RDI	VS820	B8043210-C	GAS CONV KIT SLOT FACED LP TO NAT VS820 SG14R	
1A	SG14, SG18F	VS820/VR8204	P6071341	ORIFICE TIP #41 DIA	4
	SG14R, SG14RDI	VS820/VR8204	P6071338	ORIFICE TIP #38 DIA	4
	SG18	VS820/VR8204	P6071341	ORIFICE TIP #41 DIA	5
1B	SG14, SG18F, SG18, SG14R, SG14RDI	VS820	60126501	GAS VALVE CONV KIT VS820 LP TO NAT	1
	SG14, SG18, SG14R	VR8204	PP11319	GAS VALVE CONV KIT VR8204 LP TO NAT	1
	SG14, SG18F, SG18, SG14R, SG14RDI	VS820/VR8204	P6071666	ORFICE PILOT SPUD NAT .022 DIA	1
1D	SG14, SG18F, SG14T SG14R, SG14RDI, SG18	VS820/VR8204	PP10427	GAS CONV NOTICE LABEL LP TO NAT	1
1E	SG14R, SG14RDI	VS820/VR8204	B8037301-C	BURNER SLOTTED-FACE 304-SST NAT	4
	SG18	VS820/VR8204	B8037301-C	BURNER SLOTTED-FACE 304-SST NAT	5

**P16-PF45 & P20-PF65**Gas Conversion Kits Wire Face Burners **Parts List D2****WIRE FACED OR SCB BURNERS NATURAL TO LP**

ITEM #	MODELS	VALVE	PART #	PART DESCRIPTION	QTY
1	<b>SG14, SG14DI, SG18, SG18DI</b>	<b>VS820</b>	<b>B7510084-C</b>	<b>GAS CONV KIT NAT TO LP VS820 SG14,SG18</b>	
	<b>SG14R, SG14RDI</b>	<b>VS820</b>	<b>B7510085-C</b>	<b>GAS CONV KIT NAT TO LP VS820 SG14R</b>	
	<b>SG14, SG18</b>	<b>VR8204</b>	<b>B7510090-C</b>	<b>GAS CONV KIT NAT TO LP VR8204 SG14,SG18</b>	
1A	SG14, SG14DI, SG18, SG18DI	VS820/VR8204	P6071353	ORIFICE TIP #53 DIA	5
	SG14R, SG14RDI	VS820/VR8204	P6071309	ORIFICE TIP 1/16 DIA	4
1B	SG14, SG14DI, SG14R, SG14RDI, SG18, SG18DI	VS820	60126502	GAS VALVE CONV KIT VS820 NAT TO LP	1
	SG14, SG18, SG14R	VR8204	PP11141	GAS VALVE CONV KIT VR8204 NAT TO LP	1
1C	SG14, SG14DI, SG14R, SG14RDI, SG18, SG18DI	VS820/VR8204	P6071665	ORFICE PILOT SPUD LP .016 DIA	1
1D	SG14, SG14DI, SG14R, SG14T SG14TDI, SG14RDI, SG18, SG18DI	VS820/VR8204	PP10426	GAS CONV NOTICE LABEL NAT TO LP	1

**WIRE FACED OR SCB BURNERS LP TO NATURAL**

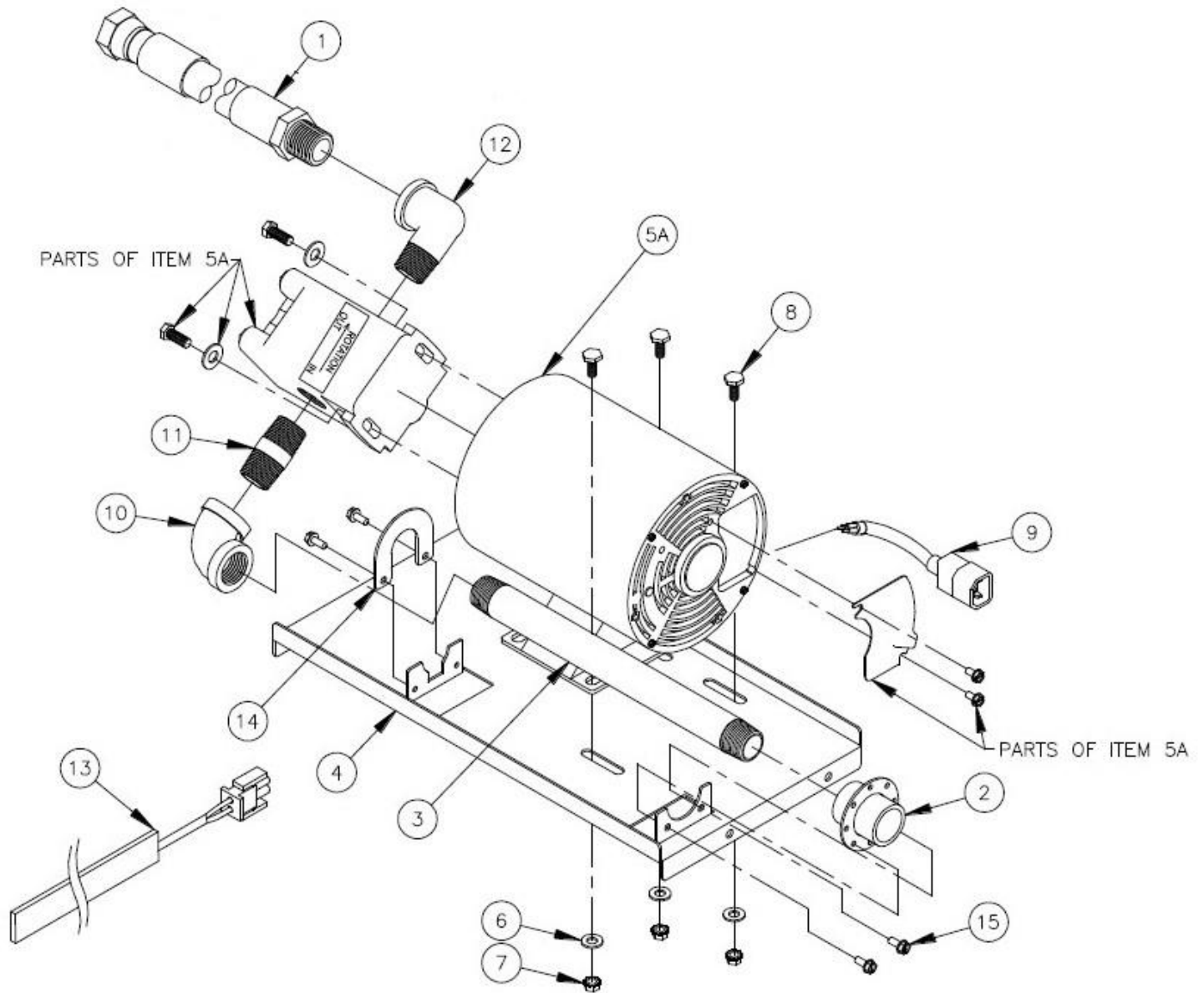
ITEM #	MODELS	VALVE	PART #	PART DESCRIPTION	QTY
1	<b>SG14, SG14DI, SG18, SG18DI</b>	<b>VS820</b>	<b>B7510081-C</b>	<b>GAS CONV KIT LP TO NAT VS820 SG14,SG18</b>	
	<b>SG14R, SG14RDI</b>	<b>VS820</b>	<b>B7510082-C</b>	<b>GAS CONV KIT LP TO NAT VS820 SG14R</b>	
	<b>SG14, SG18</b>	<b>VR8204</b>	<b>B7510087-C</b>	<b>GAS CONV KIT LP TO NAT VR8204 SG14,SG18</b>	
1A	SG14, SG14DI, SG18, SG18DI	VS820/VR8204	P6071341	ORIFICE TIP #41 DIA	5
	SG14R, SG14RDI	VS820/VR8204	P6071338	ORIFICE TIP #38 DIA	4
1B	SG14, SG14DI, SG14R, SG14RDI, SG18, SG18DI	VS820	60126501	GAS VALVE CONV KIT VS820 LP TO NAT	1
	SG14, SG18, SG14R	VR8204	PP11319	GAS VALVE CONV KIT VR8204 LP TO NAT	1
1C	SG14, SG14DI, SG14R, SG14RDI, SG18, SG18DI	VS820/VR8204	P6071666	ORFICE PILOT SPUD NAT .022 DIA	1
1D	SG14, SG14DI, SG14R, SG14T SG14TDI, SG14RDI, SG18, SG18DI	VS820/VR8204	PP10427	GAS CONV NOTICE LABEL LP TO NAT	1

**P16-PF45 ONLY****PUMP ASSEMBLY****Pump Assembly Drawing E - Parts List**

ITEM#	PART#	PART DESCRIPTION
1	60132201	FLUROPOLYMER HOSE 3/4 NPT FEMALE SWIVEL X 3/4 MPT
2	B6677001	FILTER INLET COUPLING
3	60131306	NIPPLE 3/4NPT X 11 BLACK IRON
4	A7029701-C	FILTER PUMP MOUNTING PLATE SFS*
5A	60143501	PUMP ASSEMBLY 8GPM .3HP 115/230V (50/60HZ)
	60143503	PUMP ASSEMBLY 8GPM .3HP 208/240V (50/60HZ)
	60143505	PUMP MOTOR ONLY 8GPM .3HP 115/230V (50/60HZ)
	60143506	PUMP MOTOR ONLY 8GPM .3HP 208/240V (50/60HZ)
	60143507	PUMP HEAD ONLY 8GPM (NO MOTOR)
6	P0080750	WASHER 5/16 FLAT
7	PP10828	NUT HEX 5/16 - 18 (KEP)
8	PP11261	BOLT 5/16 X 3/4
9	PP11338	POWER CORD MALE IEC-320 16-3 AWG
10	P9037679	ELBOW BLACK IRON 90° 3/4NPT
11	P7037355	NIPPLE 3/4NPT X 2 BLACK IRON
12	P7037751	STREET ELBOW BLACK IRON 90° 3/4NPT
13	60133503	HEATER TAPE 50W 120V 1/2 X 72 (AFTER 3/06)
	60133504	HEATER TAPE 50W 240/220V 1/2 X 72 (AFTER 3/06)
	60133508	HEATER TAPE 50W 208V 1/2 X 72 (AFTER 3/06)
14	A7092201-C	FILTER PIPING CLAMP
15	PP10023	SCREW 10 - 24 X 3/8 SELF TAPPING
17	A8033801	ELBOW FEMALE X MALE 15/16 FLARE
18 NOT SHOWN (INCLUDES ALL ITEMS)	B6678501-C	FILTER PUMP ASSEMBLY 115V W/O HEAT TAPE (SG)
	B6678502-C	FILTER PUMP ASSEMBLY 208V W/O HEAT TAPE (SG)
	B6678503-C	FILTER PUMP ASSEMBLY 230V W/O HEAT TAPE (SG)
	B6678504-C	FILTER PUMP ASSEMBLY 240V W/O HEAT TAPE (SG)
	B6678505-C	FILTER PUMP ASSEMBLY 115V WITH HEAT TAPE (SG)
	B6678506-C	FILTER PUMP ASSEMBLY 208V WITH HEAT TAPE (SG)
	B6678507-C	FILTER PUMP ASSEMBLY 230V WITH HEAT TAPE (SG)
	B6678508-C	FILTER PUMP ASSEMBLY 240V WITH HEAT TAPE (SG)

**P16-PF45 ONLY**

Pump Assembly Post **Drawing E**

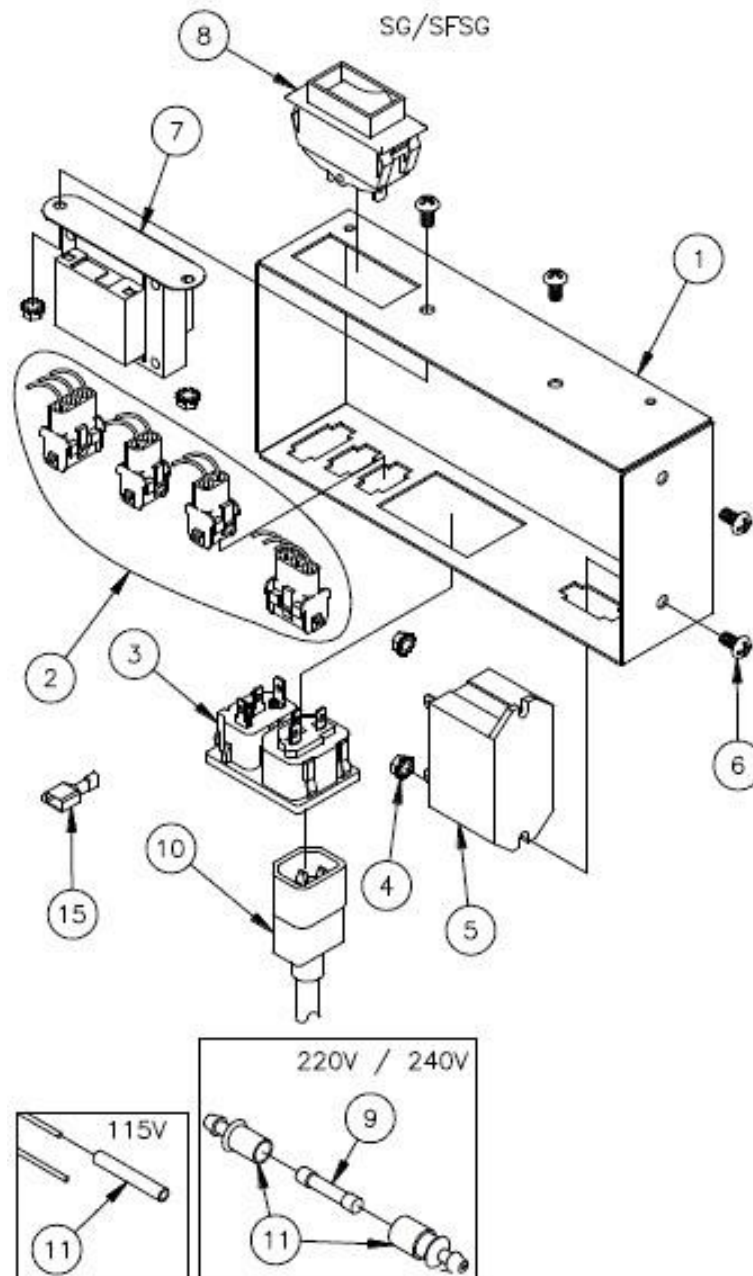


**P16-PF45 ONLY****PUMP BOX****Pump Box Drawing F - Parts List**

ITEM#	PART#	PART DESCRIPTION
1	A7028701-C	FILTER PUMP BOX HOUSING
2	B6748701	FILTER PUMP BOX WIRING
3	60148401	POWER INLET/OUTLET IEC320 (REPLACES 60130701, NEW A7028701-C REQUIRED PRIOR TO 6/05)
4	P0092300	NUT 10 - 24 (KEP)
5	PP11058	RELAY SPST 30A 24VAC (115V)
	60104701	RELAY DPST 30A 24VAC (208/220/240V)
6	PP10693	SCREW 10 - 24 X 3/8
7	60130301	TRANSFORMER 5VA 120V
	60130302	TRANSFORMER 5A 240VAC
	60130303	TRANSFORMER 5VA 208V
8	60077901	CIRCUIT BREAKER, SPST 250V 10A (115V)
	60078502	CIRCUIT BREAKER, DPST 250V 5A (208/220/240V)
9	60132701	FUSE, CERAMIC 0.2A TD .25 X 1.25 (208/220/240V)
10	60128403	M-F JUMPER CORD IEC-320 16-3 AWG X 34" SFSG*
	60128501	CORD NEMA 5-15P / IEC320 16-3 AWG X 96"
11	PP11228	BUTT SPLICE BLUE (115V)
	PP10765	FUSE HOLDER (208/220/240V)
13	A1844001-C	CABLE RETAINER
14	60130501	LAY IN STRAIN RELIEF
16 NOT SHOWN (INCLUDE S ALL ITEMS)	B6673006-C	FILTER PUMP CONTROL BOX ASSEMBLY 115V SGM*
	B6673007-C	FILTER PUMP CONTROL BOX ASSEMBLY 220/240V SGM*
	B6675001-C	FILTER PUMP CONTROL BOX ASSEMBLY 115V
	B6675002-C	FILTER PUMP CONTROL BOX ASSEMBLY 208V
	B6675003-C	FILTER PUMP CONTROL BOX ASSEMBLY 220/240V
	B6675004-C	FILTER PUMP CONTROL BOX ASSEMBLY 115V SFSG*
	B6675005-C	FILTER PUMP CONTROL BOX ASSEMBLY 208V SFSG*
	B6675006-C	FILTER PUMP CONTROL BOX ASSEMBLY 220/240V SFSG*

P16-PF45 ONLY

Pump Box Drawing F

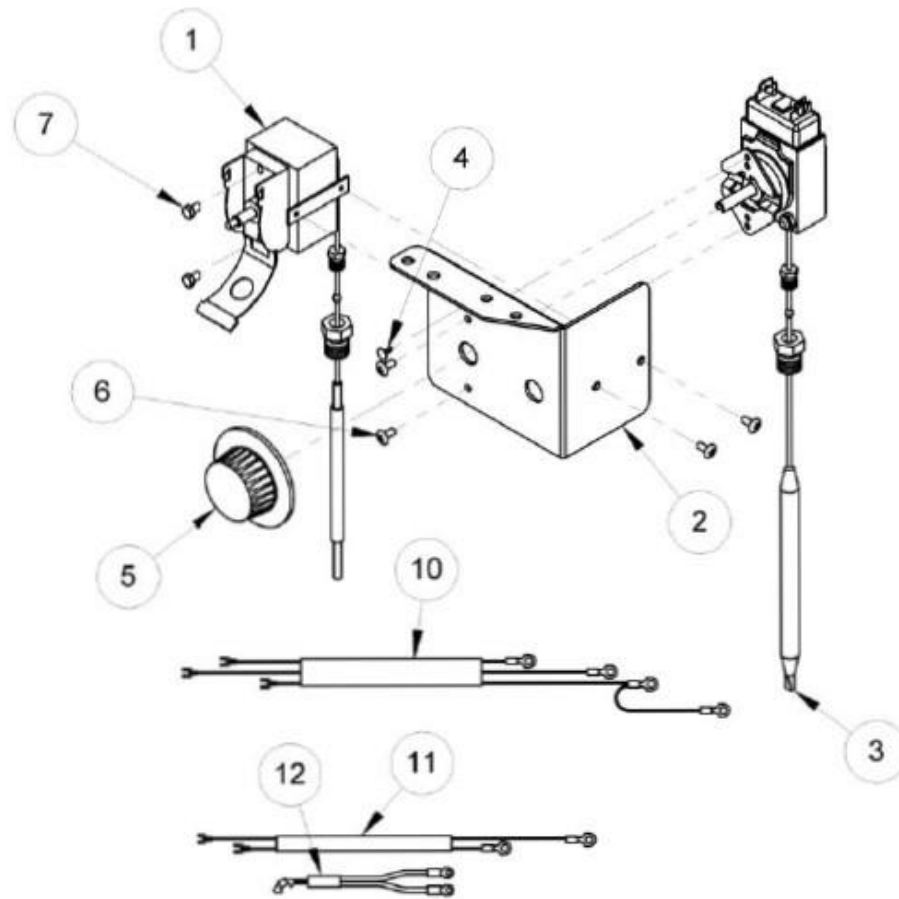


**P16-PF45 ONLY****SMALL ASSEMBLIES**Small Assemblies **Drawing G - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	PP10084	SWITCH, HI-LIMIT LCM05030
2	A8028601-C	PIPING, BRACKET HI-LIMIT-THERMOSTAT SG MILLIVOLT
3	60125402	THERMOSTAT, RX MILLIVOLT 200-374F
	60125401	THERMOSTAT, RX MILLIVOLT 200-400F
4	P0190700	CLIP, CANOE FASTEX
5	PP10539	KNOB, THERMOSTAT WITH OFF, 200-400F & 100-200C
6	PP10687	SCREW, 6-32 X 313 THRUSSE HEAD PHILLIPS ZN
7	P0007300	SCREW, 8-32 X 250 HEX HEAD ZN
10	B6744401	WIRING, MILLIVOLT HI-LIMIT & THERMOSTAT SG

**P16-PF45 ONLY**

Small Assemblies **Drawing G**



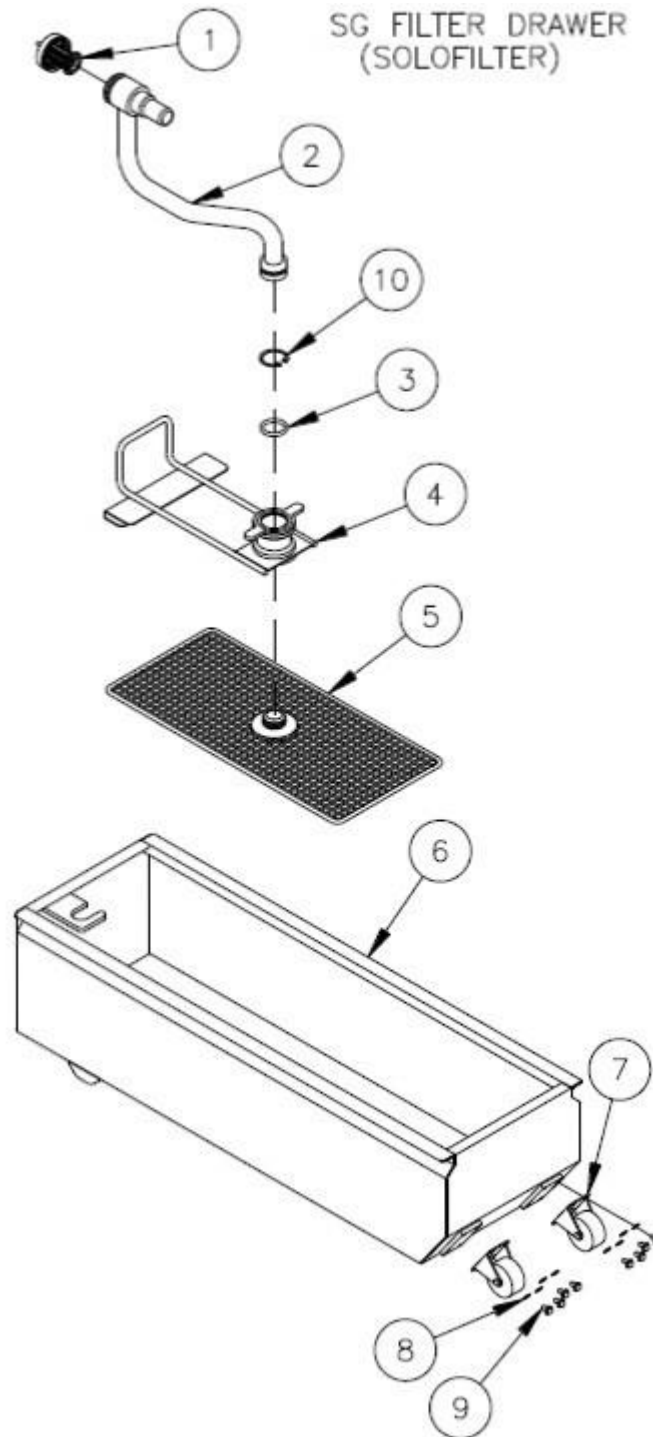
**SG MILLIVOLT**

**P16-PF45 & P20-PF65****FILTER PAN****Filter Pan Drawing H - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	B6671201	FILTER, STRAINER CAP SFD
2	B6673901	FILTER, PICKUP TUBE P16-PF45
	B6671001	FILTER, PICKUP TUBE P20-PF65
3	60068301	O-RING, VITON 1" ID X 1.375" OD
4	B6671102	FILTER, SUPPORT CLIP P16-PF45 PAPER
	B6671103	FILTER, SUPPORT CLIP P20-PF65 PAPER
5	B6664303	FILTER, SUPPORT P16-PF45 PAPER
	B6664304	FILTER, SUPPORT P20-PF65 PAPER
6	B6670802	FILTER, PAN P16-PF45
	B6670801	FILTER, PAN P20-PF65
7	60131401	RIGID 2.5" CASTER
8	PP11208	LOCK WASHER #10 SST (SPLIT)
9	P0011300	SCREW, 10-24 X 3/8
10	60136301	EXTERNAL RETAINING RING 1-7/16"

# P16-PF45 & P20-PF65

## Filter Pan Drawing H

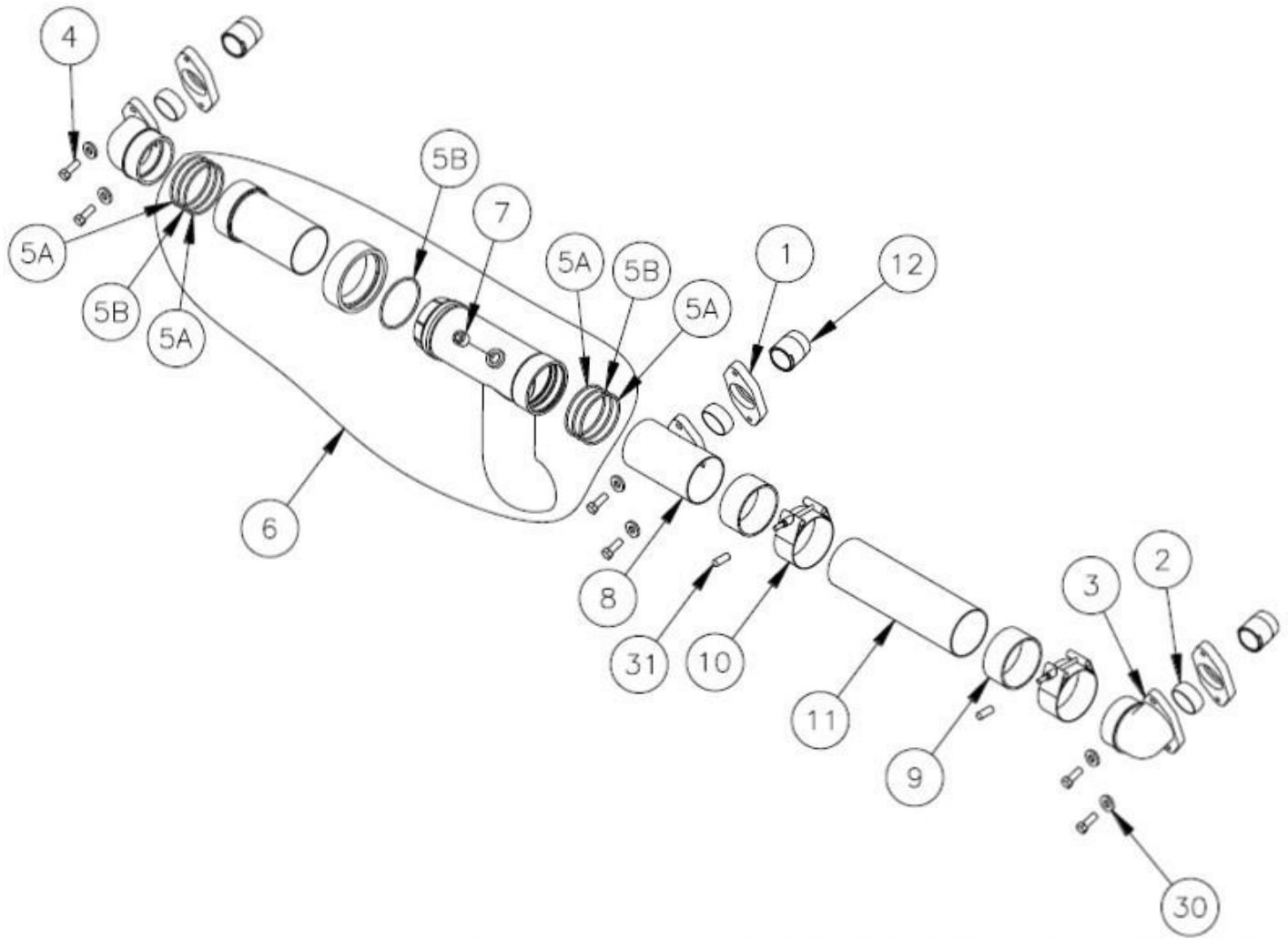


**P16-PF45 & P20-PF65****DRAIN LINE****Drain Line Drawing J - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	A7022201	FILTER DRAIN FLANGE
2	A7022101	FILTER DRAIN SEAL FERRULE
3	B6665101	FILTER DRAIN ELBOW
4	60088002	3/8-16 X 1-1/4 SCREW
5A	60068303	FLUROPOLYMER O-RING, 3" X 3.25 OD (WHITE)
5B	60068302	VITON O-RING (BLACK)
6	B6664701	FILTER DRAIN LINE DOWN SPOUT SG14-14, SG14-18, SG14-14R
	B6664702	FILTER DRAIN LINE DOWN SPOUT SG18-18, SG18-14*
7	60137501	STEEL PLUG, 1/2NPT INTERNAL HEX
8	B6665201	FILTER DRAIN TEE
9	60059302	DRAINLINE GASKET
10	60127702	QUICK RELEASE BAND CLAMP
11	A7022401	DRAIN LINE TUBE SG18-18, SGM1824-1824
	A7022403	DRAIN LINE TUBE SG18-14
	A7022405	DRAIN LINE TUBE SG14-18
	A7022407	DRAIN LINE TUBE SG14-14
	A7022409	DRAIN LINE TUBE SG14T-14, SG14-14T
	A7022411	DRAIN LINE TUBE SG14T-14T
	A7022413	DRAIN LINE TUBE SG14T-18
	A7022415	DRAIN LINE TUBE SG18-14T
12	A7021701	FILTER, NIPPLE ADAPTER
30	P0082700	WASHER, 3/8 SPLIT LOCK
31	PP10177	VINYL SCREW PROTECTION CAP

P16-PF45 & P20-PF65

Drain Line Drawing J

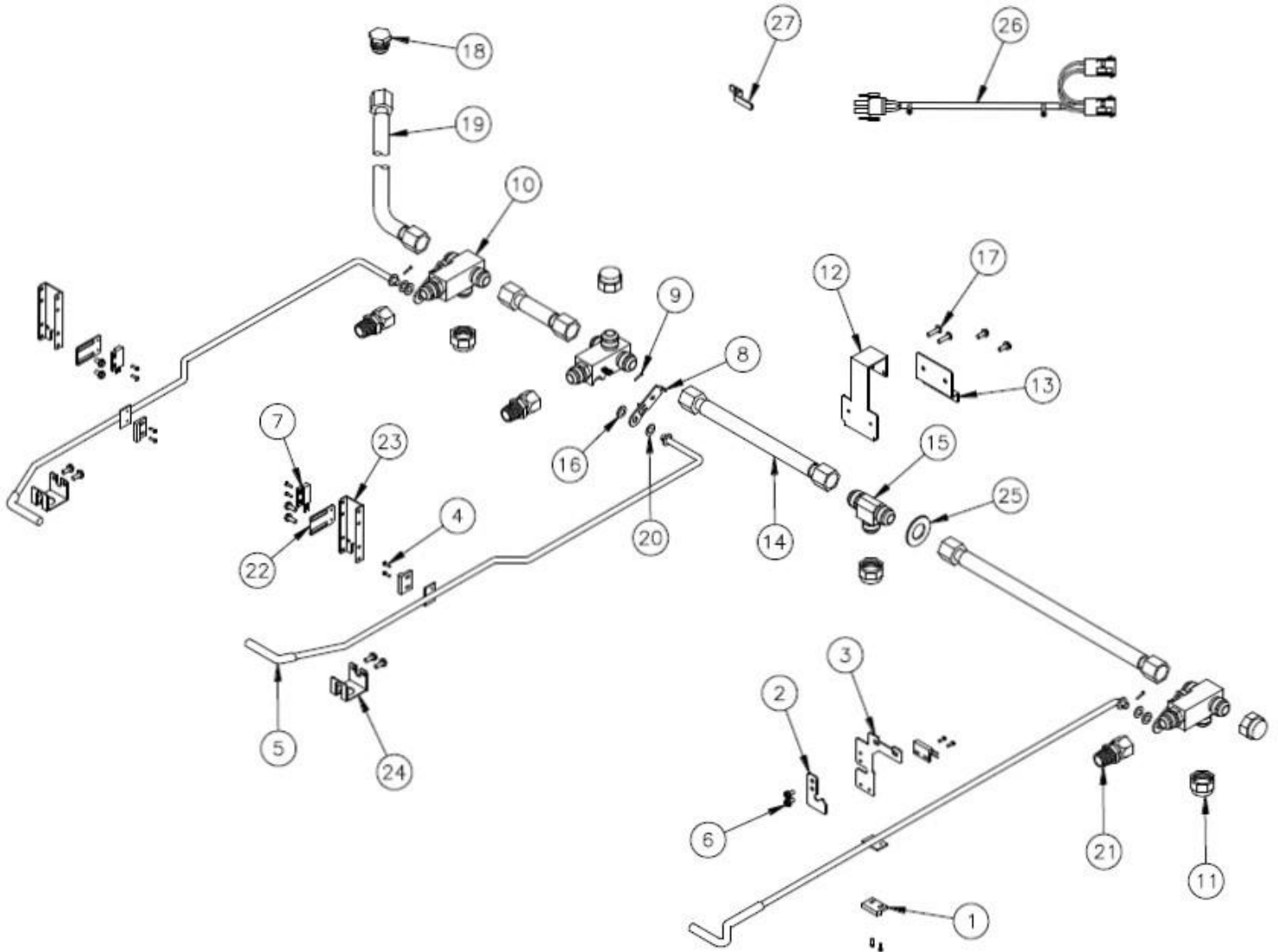


**P16-PF45 & P20-PF65****RETURN LINE**Return Line **Drawing K - Parts List**

ITEM#	PART#	PART DESCRIPTION
1	PP10263	PROXIMITY ACTUATOR SWITCH
2	A7020501-C	FILTER RETURN HANDLE BRACKET CLAMP
3	A7020301-C	FILTER RETURN HANDLE BRACKET P20-PF65
	A7020401-C	FILTER RETURN HANDLE BRACKET P16-PF45
4	PP10266	SCREW 4 - 40 X .250
5	B4003701	RETURN HANDLE P16-PF45
	B4003702	RETURN HANDLE P20-PF65
6	PP10023	SCREW 10 - 24 X 1/2 SELF TAPPING
7	B5305001	DRAIN VALVE INTERLOCK ASSEMBLY
8	60129802	RETURN VALVE HANDLE SG14T LH
9	P0190200	COTTER PIN 1/16 X 3/4
10	60131801	FILTER RETURN BALL VALVE 3 WAY (W/ SG14, SG18, SG14T RH HANDLE)
11	60130001	RETURN VALVE END CAP
14	60135901	HOSE REINFORCED FLUROPOLYMER SWIVEL X SWIVEL 14.5 (14-14)
	60135902	HOSE REINFORCED FLUROPOLYMER SWIVEL X SWIVEL 19.5 (18-18)
	60135903	HOSE REINFORCED FLUROPOLYMER SWIVEL X SWIVEL 17.5 (18-14)
	60135904	HOSE REINFORCED FLUROPOLYMER SWIVEL X SWIVEL 15.0 (14-18)
	60128008	FLEXIBLE TUBING WITH FITTINGS 15.50 (14-14, 18-14T, 14-18)
	60128009	FLEXIBLE TUBING WITH FITTINGS 19.00 (18-18, 18-14, 14-18, 1824-1824)
15	A8033001	RETURN TEE FLARE X FLARE X FLARE SGBNB
16	P0080750	WASHER FLAT 5/16
18	60133801	VENT TUBE PLUG
19	60128010	FLEXIBLE TUBING WITH FITTINGS 22.00 LH UNIT VENT TUBE
20	60131901	SPRING WASHER 5/8 5/16 HOLE
21	60130101	SWIVEL FITTING NPT TO MPT ADAPTER
26	B6746301	RETURN HOSE WIRE JUMPER
27	A1844401-C	WIRE CLAMP

P16-PF45 & P20-PF65

Return Line Drawing K

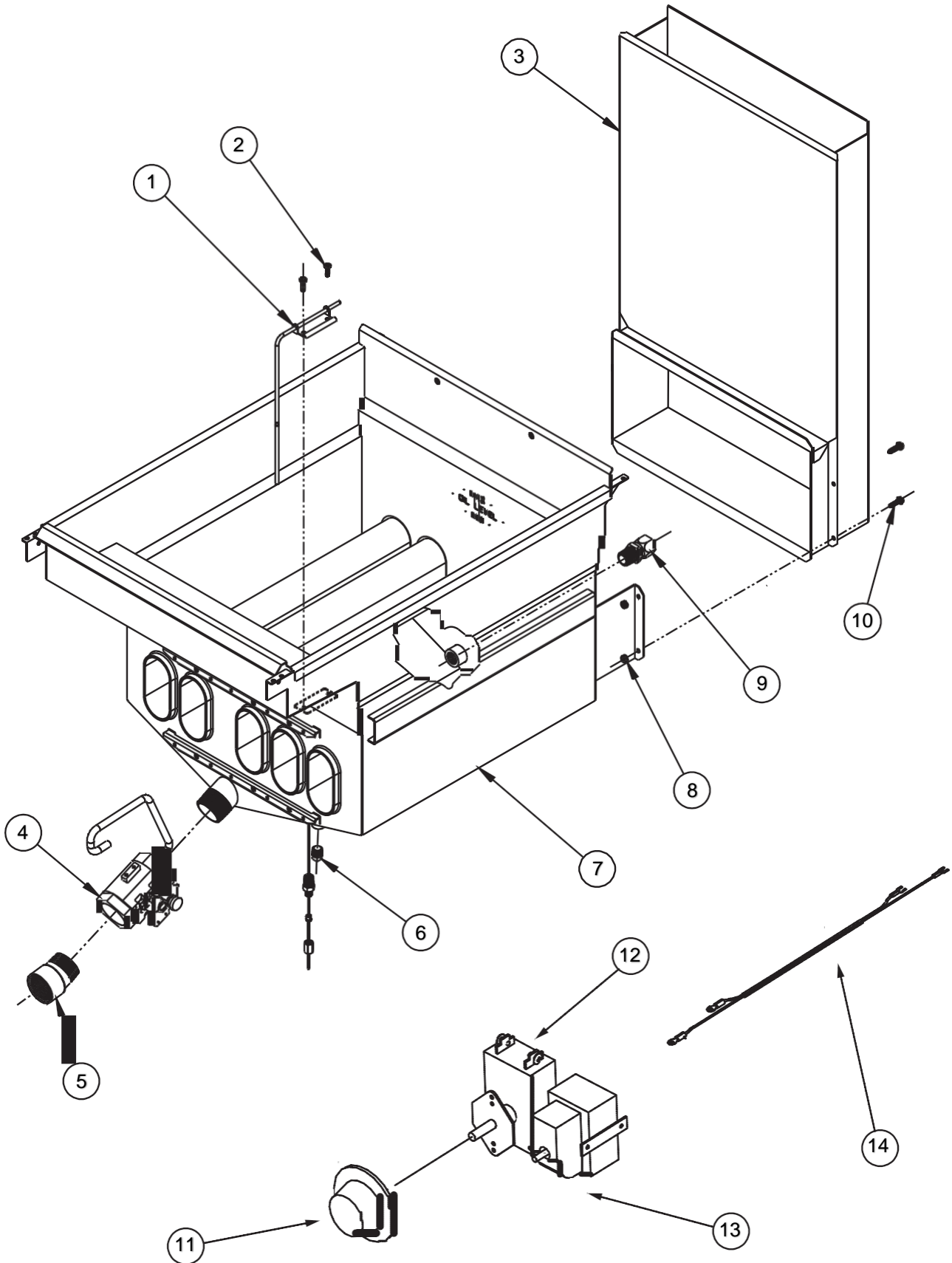


**P20-PF65 ONLY****TANK ASSEMBLY & THERMOSTAT**Tank Assembly and Thermostat **Drawing L - Parts List**

ITEM#	PART#	PART DESCRIPTION
1	A1406702	CLAMP HIGH LIMIT/THERMOSTAT
2	N/A	SCREW 10-24 X 5/8 PAN HEAD SST THREAD FORMING
3	1188585	P20-PF65 36" DEEP FLUE FRONT
	1188583	P20-PF65 36" DEEP FLUE REAR
	1188586	P20-PF65 42" DEEP FLUE FRONT
	1188584	P20-PF65 42" DEEP FLUE REAR
4	60131002	BALL VALVE, 1-1/4" FULL PORT REVERSIBLE LUG, RIGHT HAND
5	A8030407	DRAIN LINE PIPING ADAPTER (NON-FILTER)
6	N/A	STEEL TANK PLUG 1/4" NPT
7	B3322801-C	TANK WELDMENT MODULAR P20-PF65
8	N/A	NUT HEX 10-24 KEP ZINC
9	60130101	TANK REAR ADAPTOR 37.5 FLARE SWIVEL X 1/2" NPT (FILTER)
	N/A	STEEL TANK PLUG 1/2" NPT (NON-FILTER)
10	N/A	SCREW 10-24 X 3/4" SELF TAPPING
11	PP10539	KNOB, THERMOSTAT WITH OFF, 200-400F (100-200C)
12	60125401	THERMOSTAT , RX MILLIVOLT 200-400F
13	PP10084	SWITCH, HI-LIMIT
14	B6744401	WIRING, MILLIVOLT HI-LIMIT & THERMOSTAT

P20-PF65 ONLY

Tank Assembly and Thermostat **Drawing L**

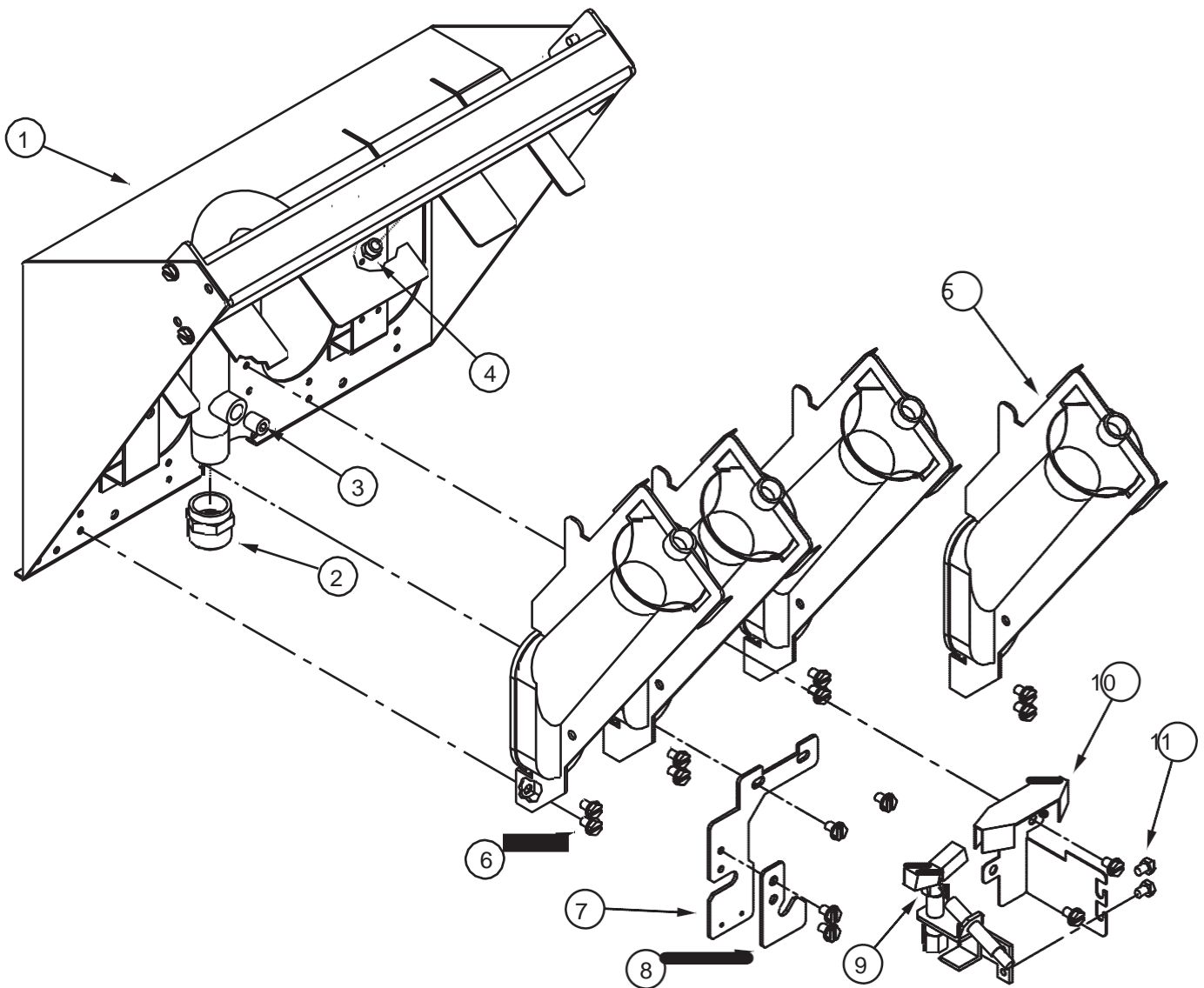


**P20-PF65 ONLY****BURNER ASSEMBLY****Burner Assembly Drawing M - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	B8029801	BURNER MANIFOLD WELDMENT P20-PF65
2	60127501	FITTING ADAPTOR FLARED 15/16-16 UN-2A X 1/2" FNPT BRASS
3	N/A	PLUG 1/8" NPT 3/16" HEX SOCKET STEEL
4	P6071353	ORIFICE TIP, #53 - LP
	P6071341	ORIFICE TIP, #41 - NAT
5	B8037302-C	BURNER, SLOTTED FACE LP GAS
	B8037301-C	BURNER, SLOTTED FACE NAT GAS
6	N/A	SCREW 10-24 X 3/8" SELF TAPPING
7	A7020301	FILTER RETURN HANDLE BRACKET
8	A7020501	FILTER RETURN HANDLE COVER
9	60128801	NATURAL GAS STANDING PILOT
	60128802	PROPANE GAS STANDING PILOT
10	A8035302	PILOT BRACKET
11	N/A	SCREW 10-24 X 1/4" HEX HEAD SST

**P20-PF65 ONLY**

Burner Assembly **Drawing M**

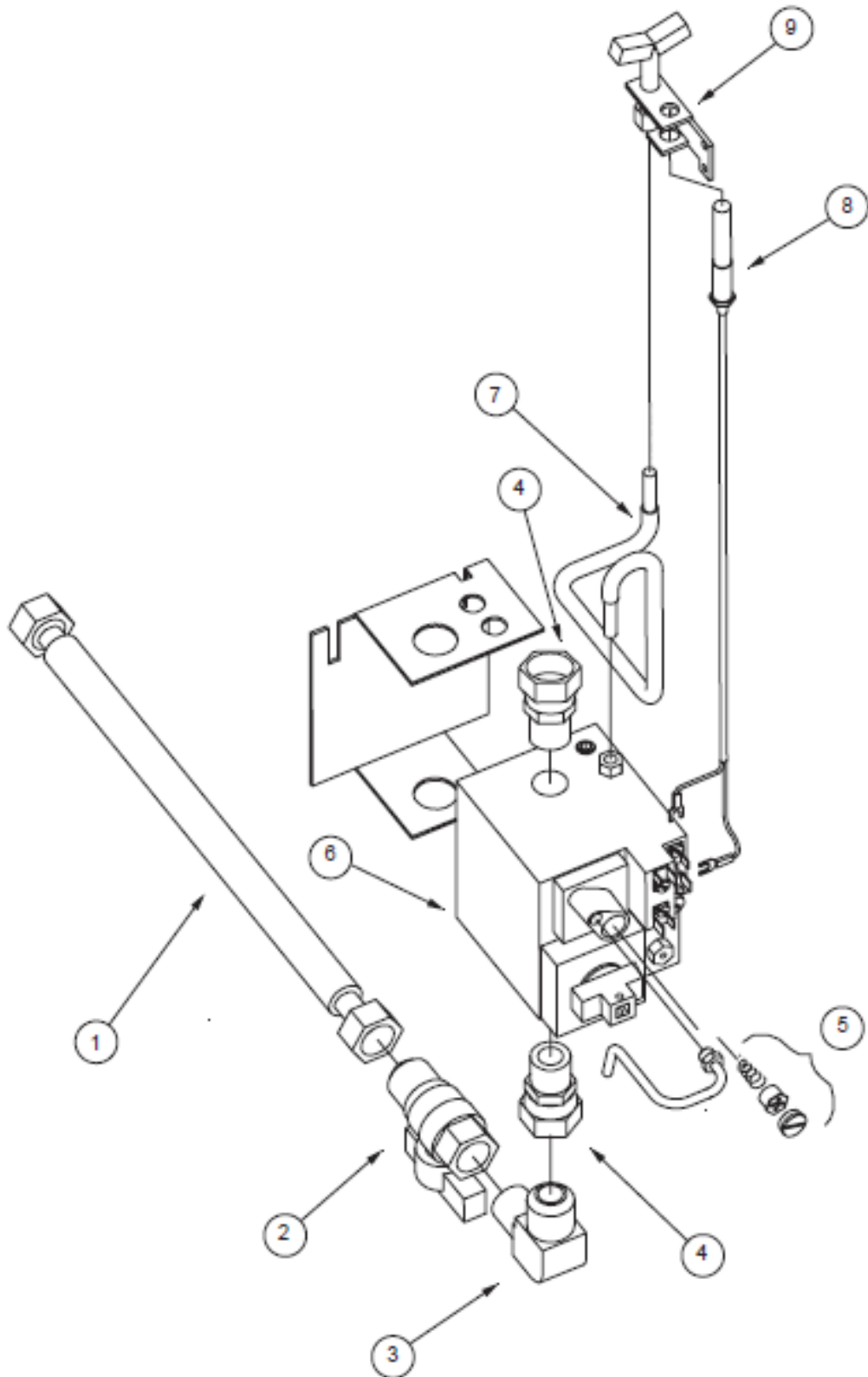


**P20-PF65 ONLY****GAS VALVE ASSEMBLY**Gas Valve Assembly **Drawing N - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	60128015	TUBING, FLEXIBLE WITH FITTINGS, 22 GAS
2	60128101	VALVE, GAS SUPPLY, SHUT-OFF
3	60127401	FITTING, ELBOW MALE FLARE X MPT
4	60127601	FITTING, ADAPTER FEMALE SWIVEL X 1/2 MPT
5	60126502	CONVERSION KIT, NAT TO LP VR820
	60126501	CONVERSION KIT LP TO NAT VR820
6	60125201-C	MILLIVOLT GAS VALVE, VS820 NAT
	60125202-C	MILLIVOLT GAS VALVE, VS820 LP
7	60119001	TUBING, FLEXIBLE WITHOUT FITTINGS 18 X 1/4 OD
8	60125501	THERMOPILE, MILLIVOLT
9	60128801	PILOT ASSEMBLY, NAT
	60128802	PILOT ASSEMBLY, LP

**P20-PF65 ONLY**

Gas Valve Assembly **Drawing N**

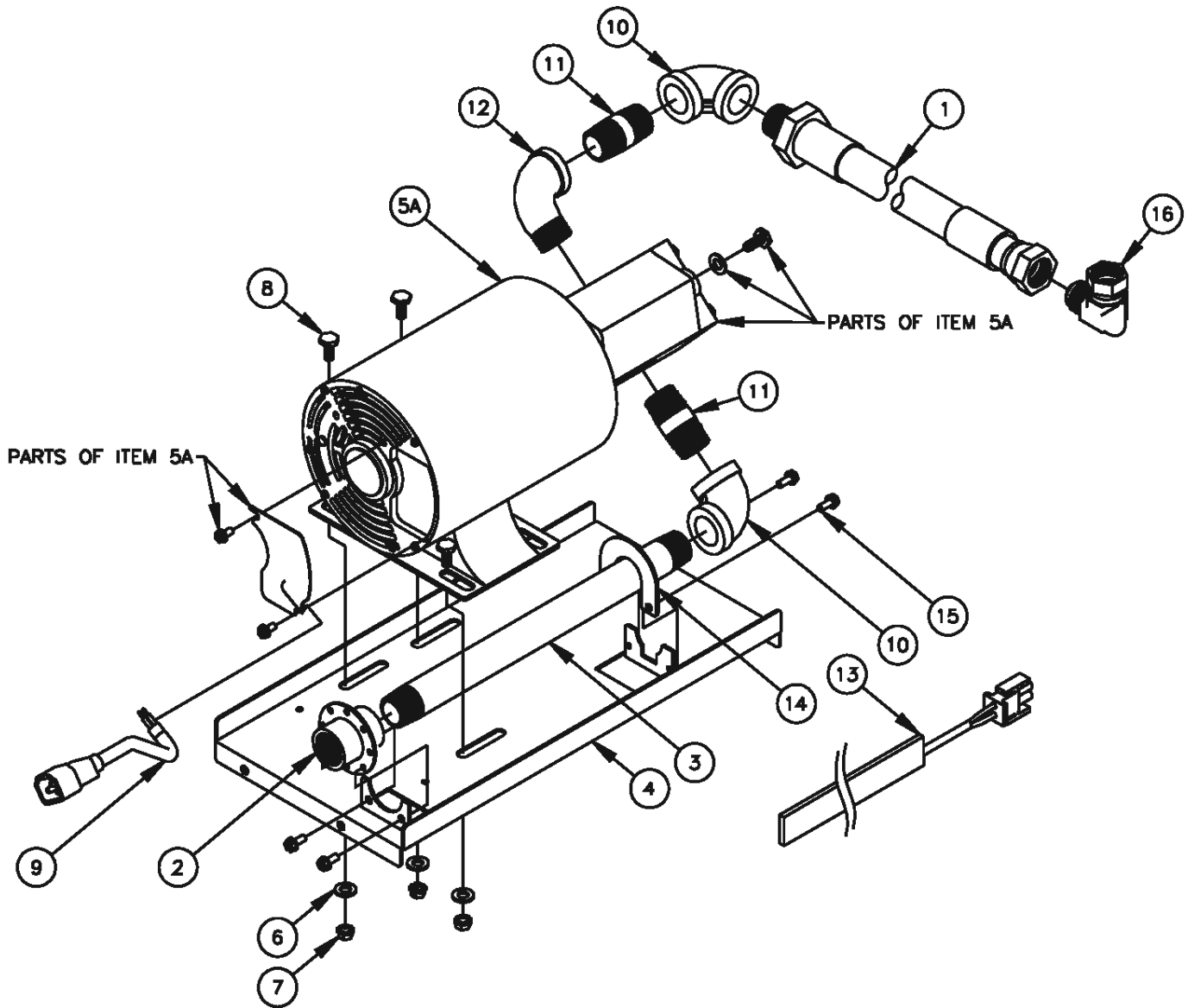


**P20-PF65 ONLY****FILTER PUMP ASSEMBLY**Filter Pump Assembly **Drawing P - Parts List**

ITEM#	PART#	PART DESCRIPTION
1	60132201	TEFLON HOSE 3/4" NPT FEMALE SWIVEL X 3/4 MPT
2	B6677001	FILTER INLET COUPLING
3	60131307	NIPPLE 3/4 NPT X 12 BLACK IRON
4	A7029201-C	FILTER PUMP MOUNTING PLATE
5A	60143501	PUMP ASSEMBLY 8GPM .3HP 115/230V (50/60HZ)
	60143503	PUMP ASSEMBLY 8GPM .3HP 208/240V (50/60HZ)
	60143505	PUMP MOTOR ONLY 8GPM .3HP 115/230V (50/60HZ)
	60143506	PUMP MOTOR ONLY 8GPM .3HP 115/230V (50/60HZ)
	60143507	PUMP HEAD ONLY 8GPM (NO MOTOR)
6	N/A	WASHER 5/16 FLAT
7	N/A	NUT HEX 5/16 - 18 (KEP)
8	N/A	BOLT 5/16 X 3/4
9	PP11338	POWER CORD MALE IEC-320 16-3 AWG
10	N/A	ELBOW BLACK IRON 90° 3/4NPT
11	N/A	NIPPLE 3/4NPT X 2 BLACK IRON
12	N/A	STREET ELBOW BLACK IRON 90° 3/4NPT
13	60133503	HEATER TAPE 50W 120V 1/2 X 72
	60133504	HEATER TAPE 50W 240/220V 1/2 X 72
	60133508	HEATER TAPE 50W 208V 1/2 X 72
14	A7092201-C	FILTER PIPING CLAMP
15	N/A	SCREW 10-24 X 3/8" SELF TAPPING
16	A8033801	ELBOW FEMALE X MALE 15/16 FLARE

P20-PF65 ONLY

Filter Pump Assembly Drawing P

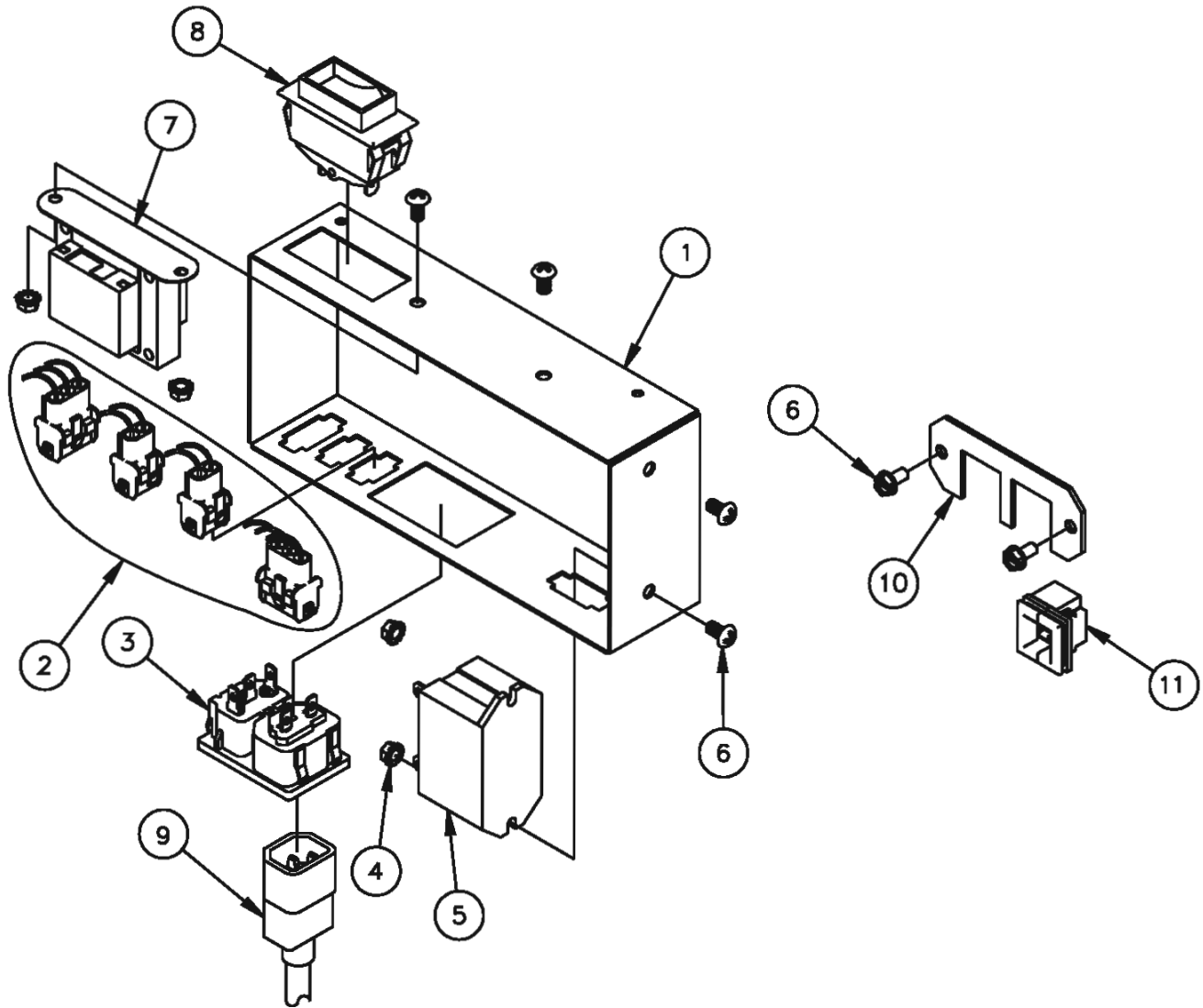


**P20-PF65 ONLY****FILTER PUMP CONTROL BOX**Filter Pump Control Box **Drawing R - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	A7028701-C	FILTER PUMP BOX HOUSING
2	B6748701	FILTER PUMP BOX WIRING
3	60148401	POWER INLET/OUTLET IEC-320
4	N/A	NUT 10-24 (KEP)
5	PP11058	RELAY SPST 30A 24VAC (115V)
	60104701	RELAY DPST 30A 24VAC (208/220/240V)
6	N/A	SCREW 10-24 X 3/8
7	60130301	TRANSFORMER 5VA 120V
	60130302	TRANSFORMER 5VA 240V
	30130303	TRANSFORMER 5VA 208V
8	60077901	CIRCUIT BREAKER, SPST 250V 10A (115V)
	60078502	CIRCUIT BREAKER, DPST 250V 5A (208/220/240V)
9	60128403	M-F JUMPER CORD IEC-320 16-3 AWG X 34"
	60128501	CORD NEMA 5-15P IEC-320 16-3 AWG X 96"
10	A1844001-C	CABLE RETAINER
11	60130501	LAY IN STRAIN RELIEF

P20-PF65 ONLY

Filter Pump Control Box Drawing R

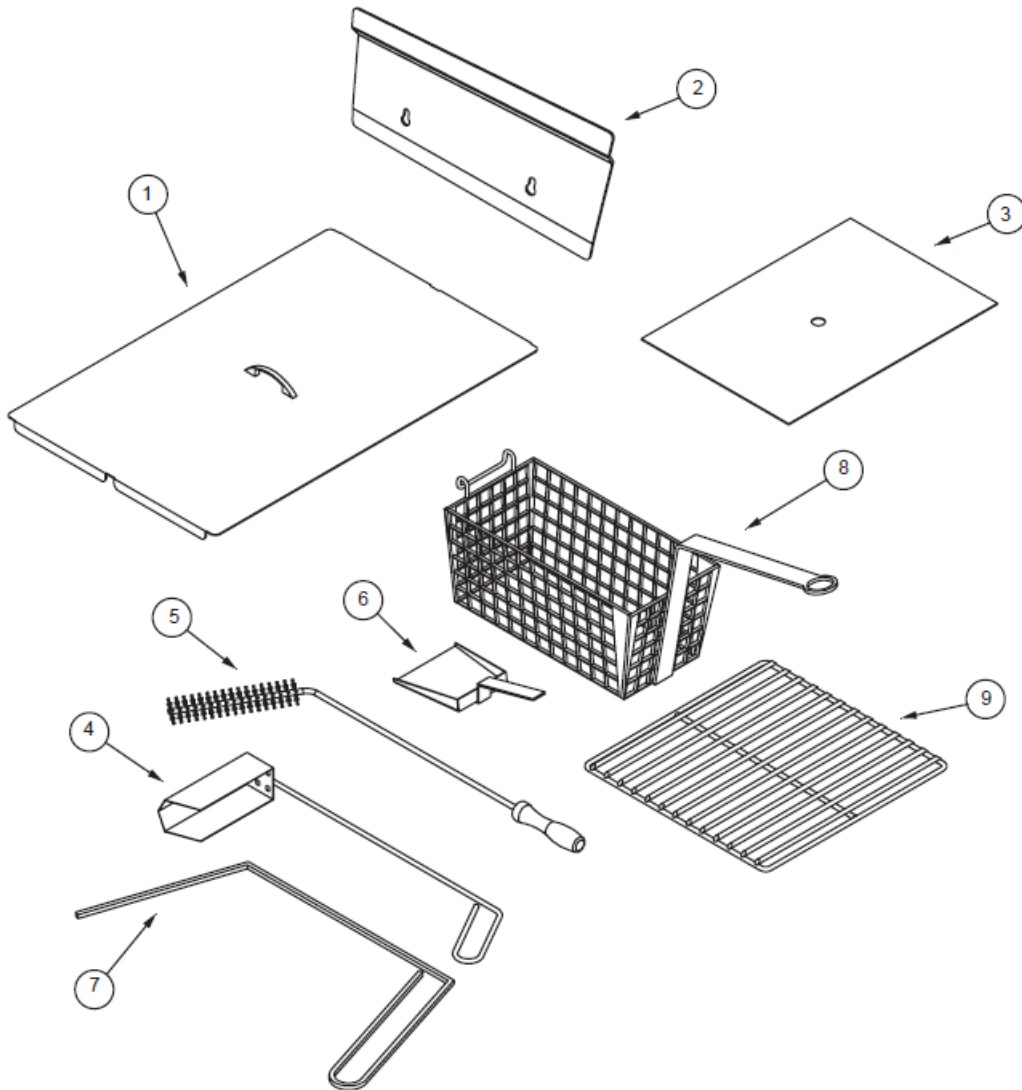


**P16-PF45 & P20-PF65****ACCESSORIES**Accessories **Drawing S - Parts List**

<b>ITEM#</b>	<b>PART#</b>	<b>PART DESCRIPTION</b>
1	1186990	TANK COVER - P16-PF45
	1186991	TANK COVER - P20-PF65
2	1405600	BASKET HANGER - P16-PF45 - 36" DEEP FLUE
	1188591	BASKET HANGER - P20-PF65 - 36" DEEP FLUE
	1405607	BASKET HANGER - P16-PF45 - 42" DEEP FLUE
	1189465	BASKET HANGER - P20-PF65 - 42" DEEP FLUE
3	A6667104	FILTER PAPER - P16-PF45 -18.5" X 20.5"
	PP10613	FILTER PAPER - P20-PF65 -20.5" X 9.92"
4	B5008101	FRYER CRUMB SCOOP
5	PP10056	CLEANING BRUSH NYLON
6	B6681201	FILTER CRUMB SCOOP
7	A3301001	CLEAN-OUT ROD
8	P6072184	TWIN BASKET P20-PF65
	P6072188	TWIN BASKET FINE MESH P20-PF65
	P6072145	TWIN BASKET P16-PF45
	P6072146	TWIN BASKET FINE MESH P16-PF45
	P6072147	TRIPLE BASKET P16-PF45
	P6072185	TRIPLE BASKET P20-PF65
	P6072143	SQUARE BULK BASKET FRONT HANDLE P16-PF45
	P6072144	SQAURE BULK BASKET FINE MESH, FRONT HANDLE P16-PF45
	P6072181	SQUARE BULK BASKET FRONT HANDLE P20-PF65
	P6072180	SQUARE BULK BASKET SIDE HANDLES P20-PF65
9	P6073148	TUBE RACK P16-PF45
	A4500201	TUBE SCREEN P16-PF45
	B4511901	TUBE RACK P20-PF65
	P6072186	TUBE SCREEN P20-PF65

# P16-PF45 & P20-PF65

## Accessories **Drawing S**



# Sectional Fryers

Model P16-PF45 & P20-PF65



A product with the Southbend name incorporates the best in durability and low maintenance. We all recognize, however, that replacement parts and occasional professional service may be necessary to extend the useful life of this appliance. When service is needed, contact a Southbend Authorized Service Agency, or your dealer. To avoid confusion, always refer to the model number, serial number, and type of your appliance.



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