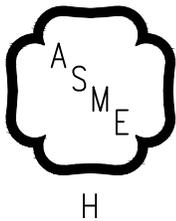


SERVICE AND MAINTENANCE INSTRUCTIONS FOR

K2™ CONDENSING HIGH EFFICIENCY DIRECT VENT ***GAS - FIRED HOT WATER BOILER***



As an ENERGY STAR® Partner, U.S. Boiler Company has determined that the K2™ Series meets the ENERGY STAR® guidelines for energy efficiency established by the United States Environmental Protection Agency (EPA).

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or loss of life. For assistance or additional information, consult a qualified installer, service agency or the gas supplier. This boiler requires a special venting system. Read these instructions carefully before installing.

IMPORTANT INFORMATION - READ CAREFULLY

NOTE: The equipment shall be installed in accordance with those installation regulations enforced in the area where the installation is to be made. These regulations shall be carefully followed in all cases. Authorities having jurisdiction shall be consulted before installations are made.

All wiring on boilers installed in the USA shall be made in accordance with the National Electrical Code and/or local regulations.

All wiring on boilers installed in Canada shall be made in accordance with the Canadian Electrical Code and/or local regulations.

The City of New York requires a Licensed Master Plumber supervise the installation of this product.

The Massachusetts Board of Plumbers and Gas Fitters has approved the K2™ Series boiler. See the Massachusetts Board of Plumbers and Gas Fitters website, http://license.reg.state.ma.us/pubLic/pl_products/pb_pre_form.asp for the latest Approval Code or ask your local Sales Representative.

The Commonwealth of Massachusetts requires this product to be installed by a Licensed Plumber or Gas Fitter.

The following terms are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important information concerning product life.



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death, serious injury or substantial property damage.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury or property damage.



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death, serious injury or substantial property damage.

NOTICE

Indicates special instructions on installation, operation, or maintenance which are important but not related to personal injury hazards.



DANGER

Explosion Hazard. DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

If you smell gas vapors, DO NOT try to operate any appliance - DO NOT touch any electrical switch or use any phone in the building. Immediately, call the gas supplier from a remotely located phone. Follow the gas supplier's instructions or if the supplier is unavailable, contact the fire department.



WARNINGS FOR THE HOMEOWNER

FOLLOW ALL INSTRUCTIONS and warnings printed in this manual and posted on the boiler.

INSPECT THE BOILER ANNUALLY. To keep your boiler safe and efficient, have a service technician follow the Service checklist near the end of this manual.

IF YOU ARE NOT QUALIFIED to install or service boilers, do not install or service this one.

THE BOILER MAY LEAK WATER at the end of its useful life. Be sure to protect walls, carpets, and valuables from water that could leak from the boiler.

PROTECT YOUR HOME IN FREEZING WEATHER. A power outage, safety lockout, or component failure will prevent your boiler from lighting. In winter, your pipes may freeze and cause extensive property damage. Do not leave the heating system unattended during cold weather

unless alarms or other safeguards are in place to prevent such damage

DO NOT BLOCK AIR FLOW into or around the boiler. Insufficient air may cause the boiler to produce carbon monoxide or start a fire.

KEEP FLAMMABLE LIQUIDS AWAY from the boiler, including paint, solvents, and gasoline. The boiler may ignite the vapors from the liquids causing explosion or fire.

KEEP CHILDREN AND PETS away from hot surfaces of the boiler, boiler piping, and vent pipe.

CARBON MONOXIDE (CO) is an odorless, deadly gas that may be introduced into your home by any malfunctioning fuel-burning product or vent system failure. Consider installing CO alarms near bedrooms in all levels of the building to warn you and your family of potential CO exposure.



WARNINGS FOR THE INSTALLER

READ THIS ENTIRE MANUAL before attempting installation, start-up, or service. Improper installation, adjustment, alteration, service, or maintenance may cause serious property damage, personal injury, or death.

DO NOT DISCONNECT PIPE FITTINGS on the boiler or in the heating system without first verifying that the system is cool and free of pressure and that your clothing will protect you from a release of hot water or steam. Do not rely solely on the boiler's temperature and pressure gage when making this judgment.

USE PROPER PERSONAL PROTECTION EQUIPMENT when servicing or working near the boiler. Materials of construction, flue products, and fuel contain alumina, silica, heavy metals, carbon monoxide, nitrogen oxides, and/or other toxic or harmful substances that can be hazardous to health and life and that are known to the State of California to cause cancer, birth defects, and other reproductive harm.

INSTALL ALL GUARDS, cover plates, and enclosures before operating the boiler.

SIZE THE BOILER PROPERLY relative to the design heat load or, if using domestic hot water priority, the peak hot water load, whichever is larger. A grossly oversized boiler will cycle excessively and this will lead to premature failure of the boiler and its components. Our warranty does not apply to damage from excessive cycling.

ADHERE TO ALL LOCAL CODE REQUIREMENTS. Contact your local code inspector prior to installation. In the absence of a local code, adhere to the *National Fuel Gas Code ANSI Z223.1/NFPA 54* or *CAN/CSA B149.1, Natural Gas and Propane Installation Code*.

ALL WIRING must comply with the *National Electrical Code ANSI/NFPA 70* (in the USA) or the *Canadian Electrical Code CSA C22.1* (in Canada) and any local regulations.

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I. Service and Maintenance



WARNING

Asphyxiation Hazard. Fire Hazard. Explosion Hazard. This boiler requires regular maintenance and service to operate safely. Follow the instructions contained in this manual.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Read and understand the entire manual before attempting installation, start-up operation, or service. Installation and service must be performed only by an experienced, skilled, and knowledgeable installer or service agency.



DANGER

Explosion Hazard. Electrical Shock Hazard. Burn Hazard. This boiler uses flammable gas, high voltage electricity, moving parts, and very hot water under high pressure. Assure that all gas and electric power supplies are off and that the water temperature is cool before attempting any disassembly or service.

Do not attempt any service work if gas is present in the air in the vicinity of the boiler. Never modify, remove or tamper with any control device.



WARNING

This boiler must only be serviced and repaired by skilled and experienced service technicians.

If any controls are replaced, they must be replaced with identical models.

Read, understand and follow all the instructions and warnings contained in all the sections of this manual.

If any electrical wires are disconnected during service, clearly label the wires and assure that the wires are reconnected properly.

Never jump out or bypass any safety or operating control or component of this boiler.

Assure that all safety and operating controls and components are operating properly before placing the boiler back in service.

Annually inspect all vent gaskets and replace any exhibiting damage or deterioration.

Burn Hazard. This boiler contains very hot water under pressure. Do not unscrew any pipe fittings nor attempt to disconnect any components of this boiler without positively assuring the water is cool and has no pressure. Always wear protective clothing and equipment when installing, starting up or servicing this boiler to prevent scald injuries. Do not rely on the pressure and temperature gauges to determine the temperature and pressure of the boiler. This boiler contains components which become very hot when the boiler is operating. Do not touch any components unless they are cool.

Respiratory Hazard. Boiler materials of construction, products of combustion and the fuel contain alumina, silica, heavy metals, carbon monoxide, nitrogen oxides, aldehydes and/or other toxic or harmful substances which can cause death or serious injury and which are known to the state of California to cause cancer, birth defects and other reproductive harm. Always use proper safety clothing, respirators and equipment when servicing or working nearby the appliance.

Failure to follow all instructions in the proper order can cause personal injury or death. Read all instructions, including all those contained in component manufacturers manuals which are provided with the boiler before installing, starting up, operating, maintaining or servicing.

All cover plates, enclosures and guards must be in place at all times.

I. Service and Maintenance (continued)

NOTICE

Warranty does not cover boiler damage or malfunction if the following steps are not performed at the intervals specified.

1) **Continuously:**

- a. **Keep the area around the boiler** free from combustible materials, gasoline and other flammable vapors and liquids.
- b. **Keep the area around the combustion air inlet terminal** free from contaminates.
- c. **Keep the boiler room ventilation openings** open and unobstructed.

2) **Monthly Inspections:**

- a. **Inspect the vent piping and outside air intake piping** to verify they are open, unobstructed and free from leakage or deterioration. Call the service technician to make repairs if needed.
- b. **Inspect the condensate drain system** to verify it is leak tight, open and unobstructed. Call the service technician if the condensate drain system requires maintenance.
- c. **Inspect the water and gas lines** to verify they are free from leaks. Call the service technician to make repairs if required.

NOTICE

Water leaks can cause severe corrosion damage to the boiler or other system components. Immediately repair any leaks found.

- 4) **Annual Inspections and Service:** In addition to the inspections listed above, the following should be performed by a service technician once every year.
- a. **Follow the procedure** for turning the boiler off found in the Lighting and Operating Instructions (K2 Installation Instructions, Section XI Start-up and Checkout included with this boiler).
 - b. **Turn off all power** to the boiler.
 - c. **Inspect the wiring** to verify the conductors are in good condition and attached securely.



CAUTION / ATTENTION

Electrical Shock Hazard. Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Au moment de l'entretien des commandes, étiquetez tous les fils avant de les débrancher. Les erreurs de câblage peuvent nuire au bon fonctionnement et être dangereuses. S'assurer que l'appareil fonctionne adéquatement une fois l'entretien terminé.

- d. **Verify that the gas shutoff** shown in Figure 8.1 (K2 Installation Instructions included with this boiler) is closed
- e. **Disconnect the flexible gas line** at the gas valve flare connection (Figure 1.1).



WARNING

Fire Hazard. Explosion Hazard. Always use a back-up wrench on the flare connection when making or breaking this connection as shown in Figure 1.1. Failure to do so can cause adjacent threaded connections to loosen or damage to the gas valve. Check all internal gas piping for leaks any time it is disconnected or disturbed during servicing.

- f. **Unplug the electrical connection** to the gas valve.
- g. **Disconnect the air proving switch tube** from the gas valve outlet tap.
- h. **Unplug the power and speed control cables** from the blower.

I. Service and Maintenance (continued)

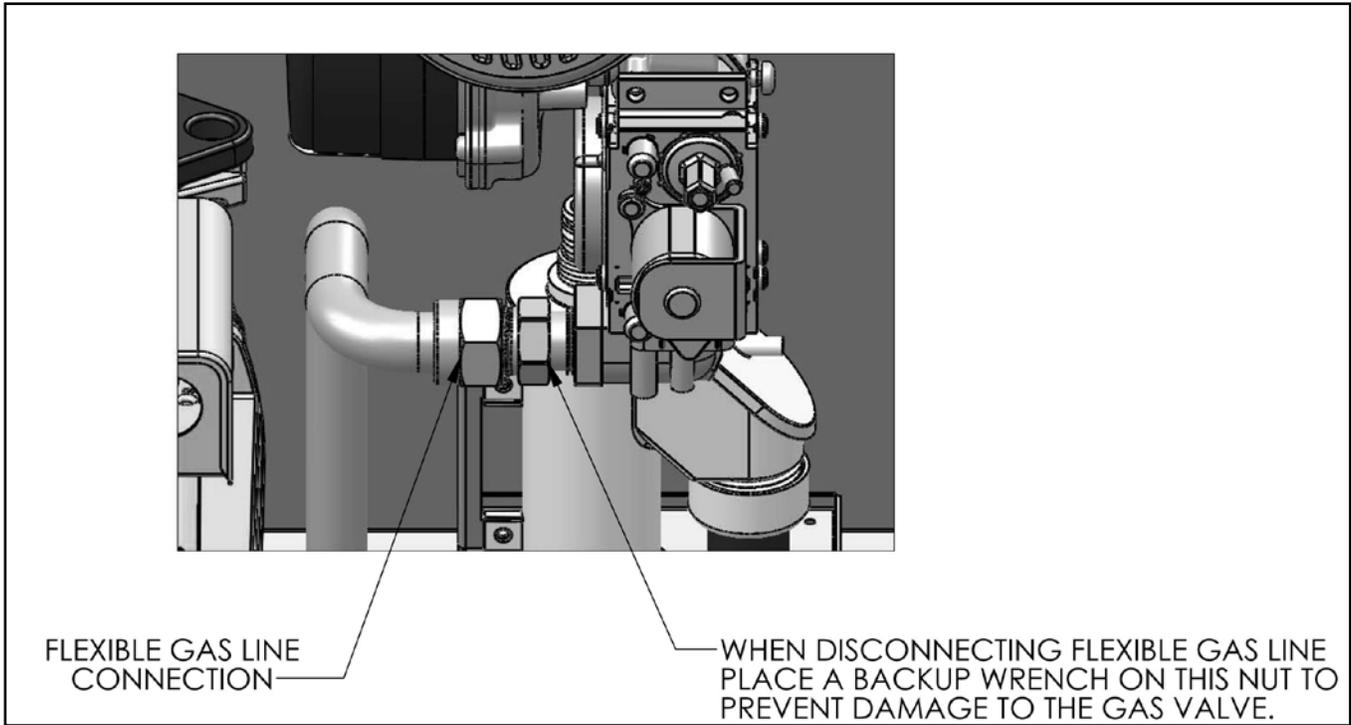


Figure 1.1: Disconnecting Flexible Gas Line

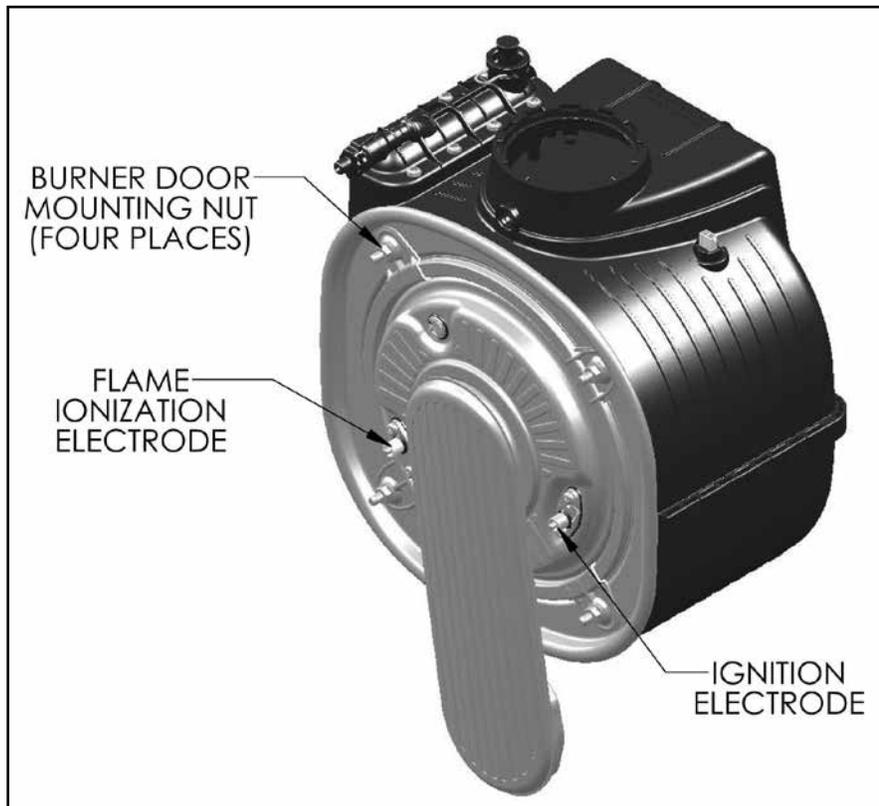


Figure 1.2: Flame Ionization Electrode and Ignition Electrode Location

I. Service and Maintenance (continued)

- i. **Unplug the ignition, ground, and flame rod wires** from the ignition electrode and the flame rod (Figure 1.2).
- j. **Use a 10 mm wrench to remove the four nuts** securing the fire door to the heat exchanger (Figure 1.2). Carefully remove the door/blower/gas valve assembly from the heat exchanger, being careful not to damage the refractory insulation on the inside of the door (see Refractory Warning on next page) or the electrodes.
- k. **Inspect the heat exchanger combustion chamber and vacuum** any debris found on the coil surfaces. If necessary, the coils may be brushed with a nonabrasive, nonmetallic brush. Do not use cleaning agents, solvents, acid or alkali products of any type to clean the heat exchanger .
- l. **Inspect the target wall and fire door insulation.** If either shows signs of damage, it must be replaced.
- m. **Inspect the burner for heat damage** or other deterioration. Use a non-metallic brush or source of compressed air to clean off dust or debris from ports.
- n. **Inspect the ignition electrode and flame rod** for deposits. Clean any found with steel wool. Do not use sand paper or Emory cloth for this cleaning. Inspect the ceramic portion of both of these parts for cracks and replace if any are found. Verify that the ignition electrode gap is within the range shown in Figure 1.3.
- o. **Inspect the blower gas valve assembly**, looking for dust, lint, or other debris that may have been drawn into this assembly. Excessive deposits may be vacuumed out.
The blower/gas valve assembly used on the 150 MBH and 180 MBH may be disassembled to expose the “swirl plate” (see Parts Section for identification of parts in this assembly). If it is necessary to clean the swirl plate, carefully note the orientation of all parts during disassembly and use care not to damage the swirl plate vanes. The venturi assembly used on the 80, 100, and 120 cannot be removed from the blower.
Inspect all rubber and plastic components on the blower/gas valve assembly, looking for deterioration. Replace blower and/or gas valve if deterioration is found.
- p. **Inspect and clean the condensate trap.** Place a bucket under the condensate cleanout cap on the bottom of the boiler (Figure 2.1 of the K2 Installation Instructions included with this boiler) to catch water in the trap as well as the ball and ball support. Unscrew the cap, being careful not to lose the ball or ball support. Flush any debris found in the trap with water – do not use other cleaning agents. Reassemble the trap as shown in Figure 1.4.



WARNING

Asphyxiation Hazard. Do not operate the boiler without the ball and ball support in place. Doing so could result in flue gas leakage into the indoors resulting in personal injury or death from Carbon Monoxide (CO) poisoning.

NOTICE

Attempting to clean the heat exchanger or trap with anything other than water could result in condensate backup, causing the boiler to shut-down.

- q. **Reinstall the fire door/blower/gas valve assembly**, following the above steps in reverse order.



CAUTION

Do not over tighten fire door mounting nuts. Doing so could break the fire door mounting studs. If any of these studs are damaged, the heat exchanger must be replaced. Use of a short 10 mm box wrench will reduce the risk of damaging these studs.

- r. **Inspect the vent system to verify that:**
 - All gaskets and joints between the boiler heat exchanger and terminal are leak tight.
 - All supports are intact and vent system is properly pitched
 - All pipe is in good condition. Look for damage such as cracks, heat distortion, discoloration, and embrittlement. If any such damage is found, the pipe must be replaced and the cause of the damage identified.
 - Vent/Intake terminals are in good condition, free from blockages, and still correctly located relative to doors, windows, decks, etc.
 - There is no gasoline, flammable liquids/vapors, or halogen based products stored in the vicinity of the vent or inlet terminals. Also verify that there are no chemical products containing chlorine, chloride based salts, chlorofluorocarbons, paint removers, cleaning solvents, or detergents stored near the air intake terminal.

I. Service and Maintenance (continued)

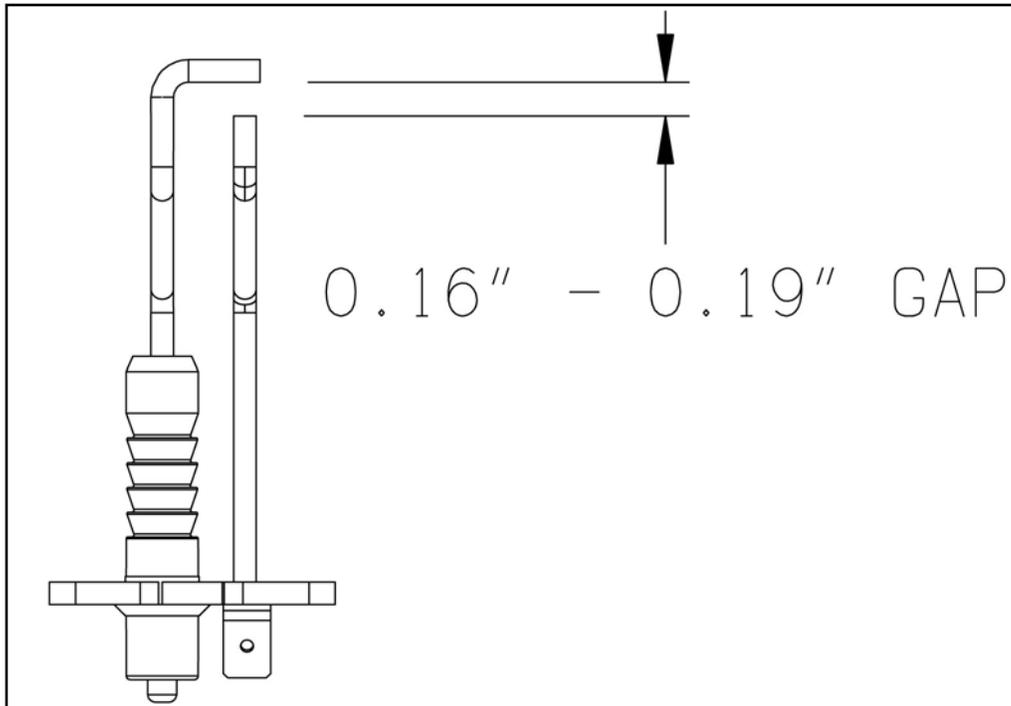


Figure 1.3: Ignition Electrode Gap

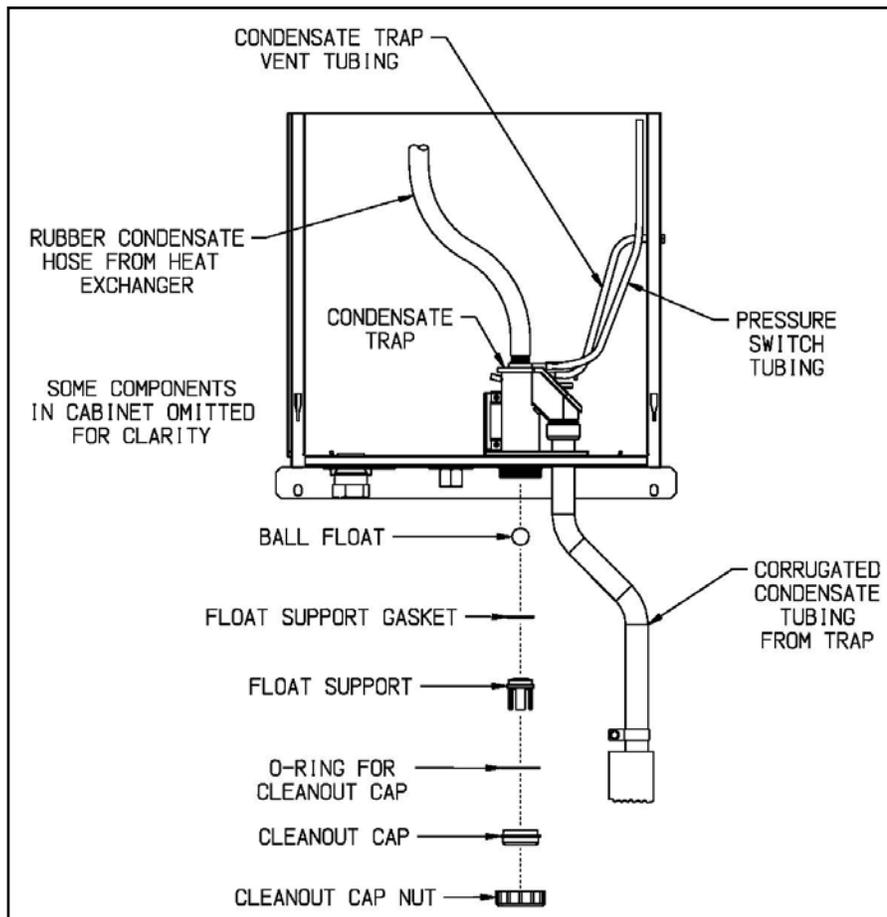


Figure 1.4: Condensate Trap Exploded Parts View

I. Service and Maintenance (continued)

Refer to K2 Installation Instructions, Venting Section (supplied with the boiler) to re-assemble any vent system components that are disassembled during this inspection and for details on supporting, pitching, and terminating the vent system.

- s. **Replace any wiring** which has been disconnected.
- t. **Inspect the hydronic system.** Look for leaks and repair any found. If system contains antifreeze, or other additives, test and/or maintain them as directed by the additive manufacturer. Refer to K2 Installation Instructions, Start-up and Checkout Section (supplied with the boiler) for important information on boiler water and the use of boiler water additives.

NOTICE

Do not remove return pipe connection from heat exchanger to service the circulator.

- u. **Test the flow switch.** To do this:
 - Start with the boiler in standby.
 - Either close a shut-off in the boiler loop or unplug the boiler pump at connector L1. (Figure 10.6 of the K2 Installation Instructions supplied with the boiler)
 - Initiate a call for heat and confirm that the boiler shows an Active Fault indicating that the flow switch is open.



CAUTION

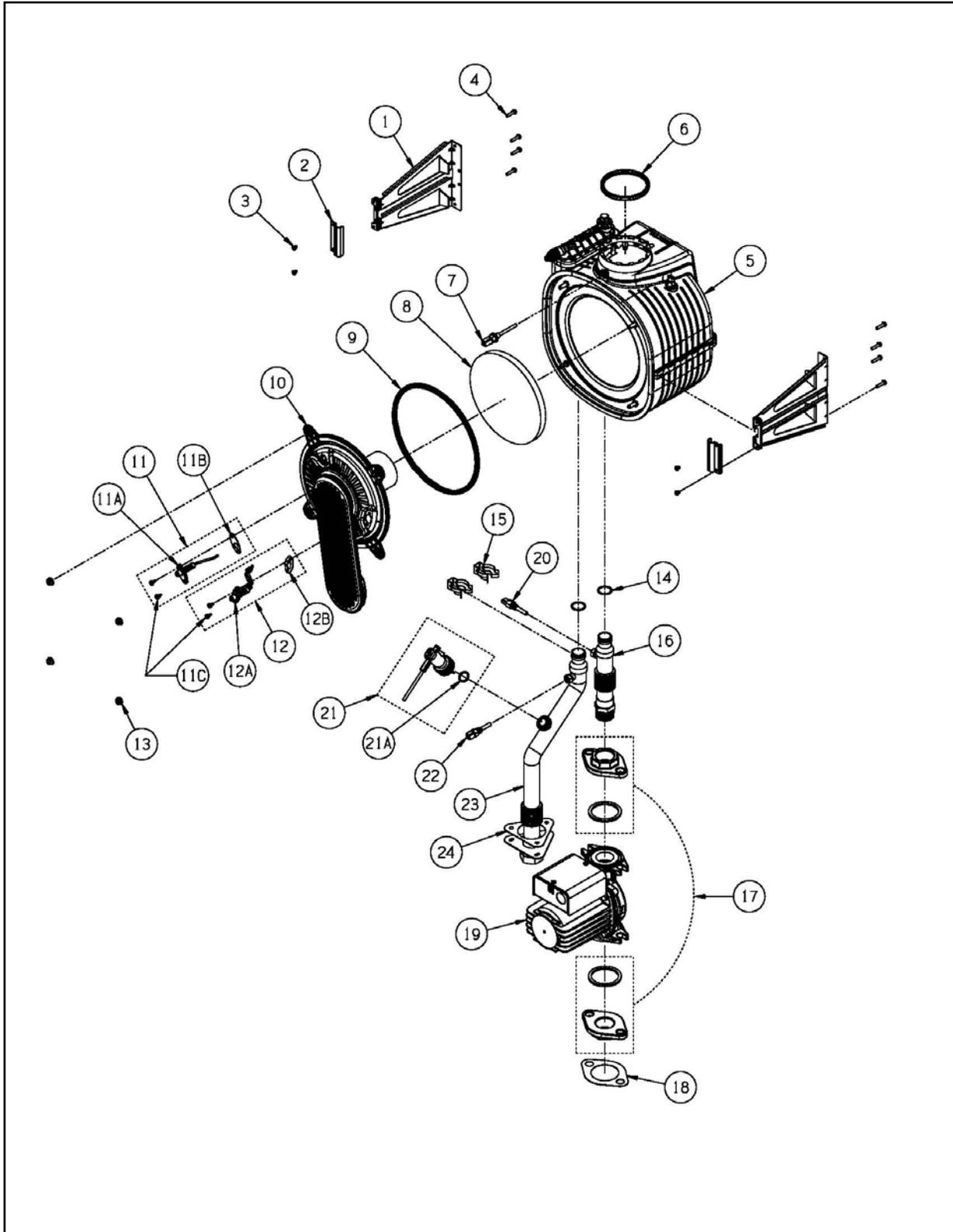
If burner comes on with no flow through the boiler, there is a problem with the flow switch. Turn the boiler off immediately. Failure to do so could cause severe heat exchanger damage.

- v. **Follow ALL instructions in** K2 Installation Instructions, Start-up and Checkout Section (supplied with the boiler) to place the boiler back in service, including the performance of a combustion test.

II. Repair Parts

All K2™ Series Repair Parts may be obtained through your local U.S. Boiler Wholesale distributor. Should you require assistance in locating a U.S. Boiler distributor in your area, or have questions regarding the availability of U.S. Boiler products or repair parts, please contact U.S. Boiler Customer Service at (717) 481-8400 or Fax (717) 481-8408.

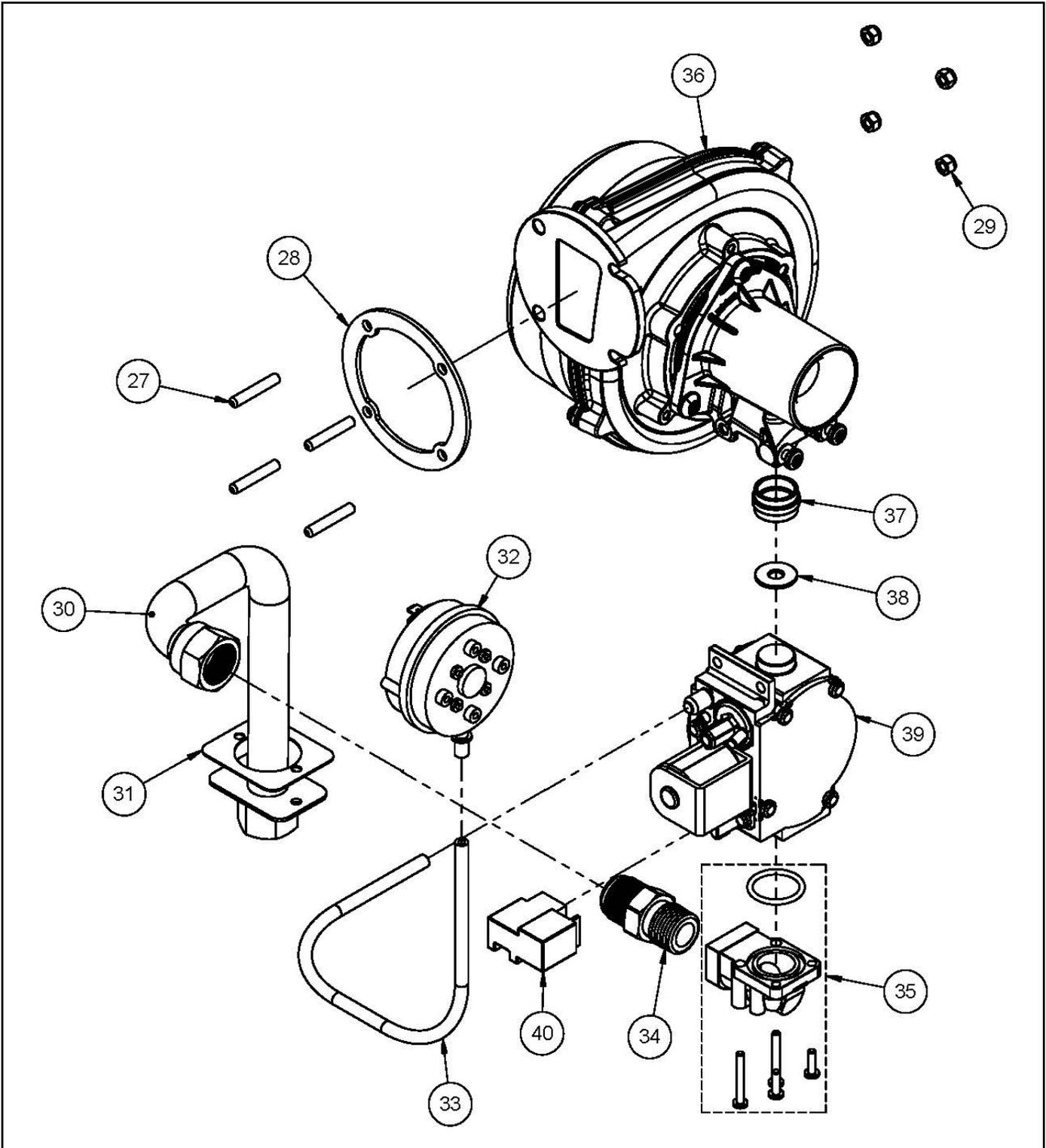
II. Repair Parts (continued)



II. Repair Parts (continued)

Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
1	Fixing Clamp Bracket	Contact U.S. Boiler Company; Provide boiler serial number				
2	Holding Clamp					
3	M4 x 7 Fixing Clamp Screw					
4	10 -32 x 1/2" Thread Cutting Screw					
5	Bare Heat Exchanger					
6	Flue Outlet Gasket Kit	105882-01				
7	Flue Temperature Sensor Repair Kit	105883-01				
8	Rear Target Wall Insulation Repair Kit	105651-01				
9	Cold Burner Door Black Outer Gasket Repair Kit	106030-01				
10	Cold Burner Door Assembly Repair Kit	105875-01	105876-01	105877-01	105878-01	
Not Shown	Cold Burner Door Insulation Repair Kit	105879-01				
11A, 11B, 11C	Flame Rod Repair Kit (includes flame rod, gasket and hardware)	105880-01				
12A, 12B, 11C	Ignition Electrode Repair Kit (includes electrode, gasket and hardware)	105881-01				
13	M6 Serrated Flange Hex Burner Door Nut	101724-01 (4)				
14, 15	O-Ring Repair Kit [includes (2) 22 mm x 2 mm O-rings and (2) connection clips]	105888-01				
16, 17, 18	Repair Return Piping Assembly Kit (includes return piping assembly, 1" circulator flange kit and circulator flange gasket)	105889-01				
19	Circulator Repair Kit	105863-01 (Taco) / 105862-01 (Grundfos)				
20	Return Temperature Sensor Repair Kit	105910-01				
21	Flow Switch Repair Kit (includes flow switch with O-ring)	105892-01				
22	Repair Supply Temperature Sensor Kit	105911-01				
23, 24	Repair Supply Piping Assembly Kit (includes supply piping assembly and supply piping gasket)	105890-01		105891-01		

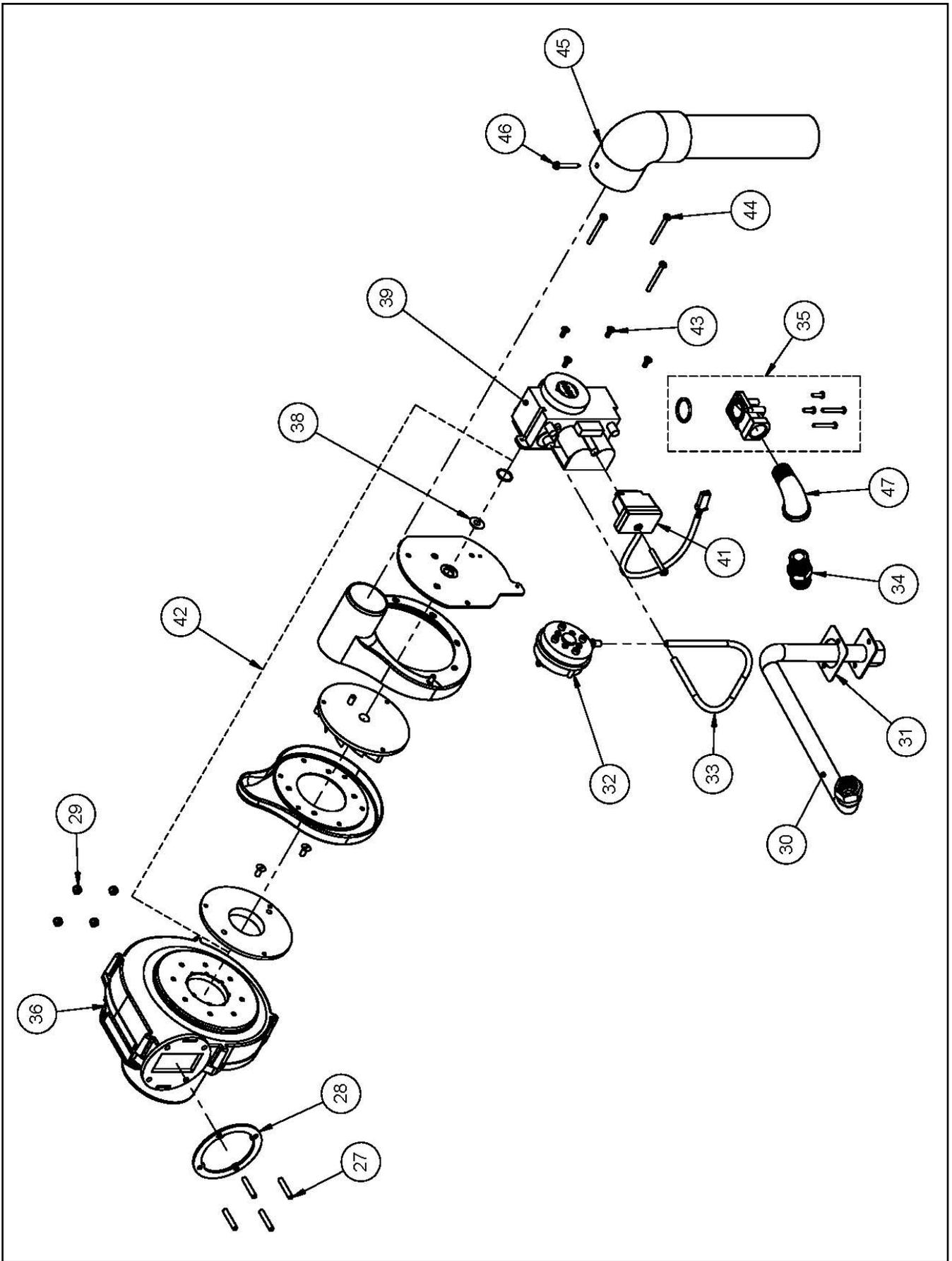
II. Repair Parts (continued)



II. Repair Parts (continued)

Key No.	Description	Part Number (Qty)		
		K2-080	K2-100	K2-120
27, 28, 29, 36	Blower Repair Kit (includes blower, hardware and gasket)	105809-01		105810-01
29	Blower Outlet Gasket Repair Kit	106029-01		
30, 31, 34	CSST Gas Line Assembly Repair Kit (includes gas line assembly and gasket)	106032-01		
32	Air Proving Pressure Switch Repair Kit	105849-01		
33	Silicone Tubing Repair Kit	105855-01		
35	Gas Valve Flange Repair Kit	105831-01		
37, 38, 39, 40	Gas Valve Repair Kit (includes gas valve, gas orifice, rubber coupling, rectifier module and hardware)	105812-01		
40	Rectifier Module	E Box 1: 105828-01 / E Box 2: 105829-01		

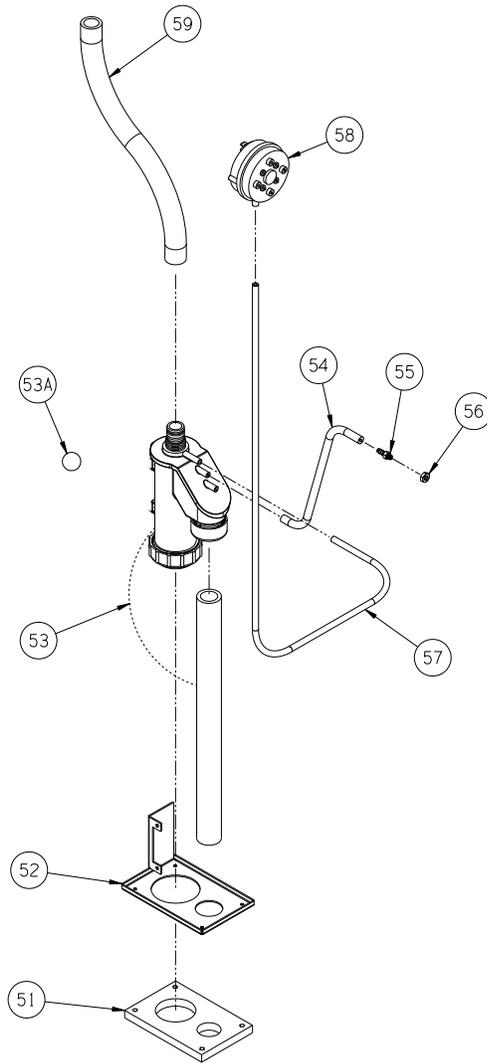
II. Repair Parts (continued)



II. Repair Parts (continued)

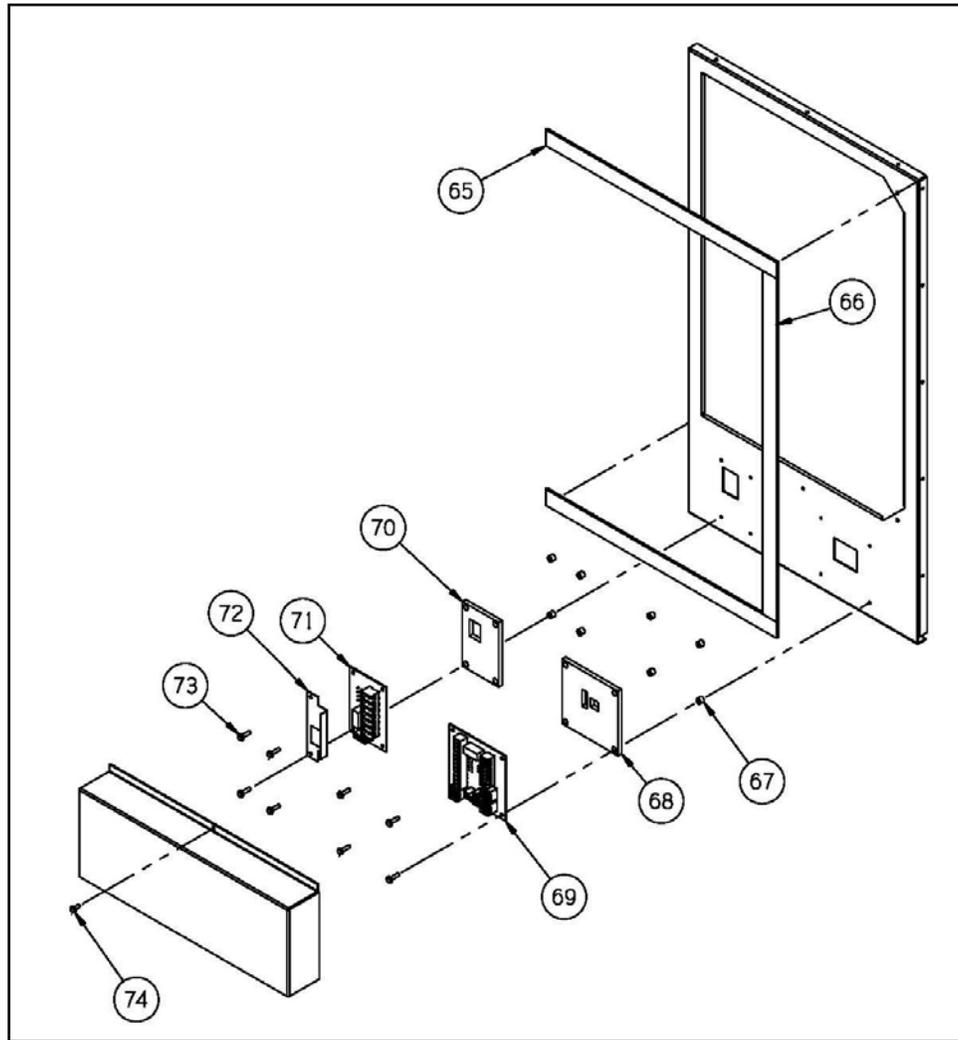
Key No.	Description	Part Number (Qty)	
		K2-150	K2-180
27, 28, 29, 36	Blower Repair Kit (includes blower, hardware and gasket)	105811-01	
29	Blower Outlet Gasket Repair Kit	106029-01	
30, 31, 34	CSST Gas Line Assembly Repair Kit (includes gas line assembly and gasket)	106032-01	
31	CSST Gas Line Flange Gasket	104692-01	
32	Air Proving Pressure Switch Repair Kit	105849-01	
33	Silicone Tubing Repair Kit	105855-01	
35	Gas Valve Flange Repair Kit	105831-01	
38, 39, 43	Gas Valve Repair Kit (includes gas valve, gas orifice, o-ring gasket and hardware)	105813-01	
40, 41	Gas Valve Harness Repair Kit	105830-01	
38, 39, 42, 43, 44	Blower Inlet Shroud Assembly Kit (includes shroud parts, swirlplate, gas orifice, o-ring and hardware)	105832-01	105833-01
45	Attenuator Assembly	105234-01	
46	8 -18 Self Drilling Screw	80860716	
47	1/2" NPT 90° Street Elbow	8066015011	

II. Repair Parts (continued)



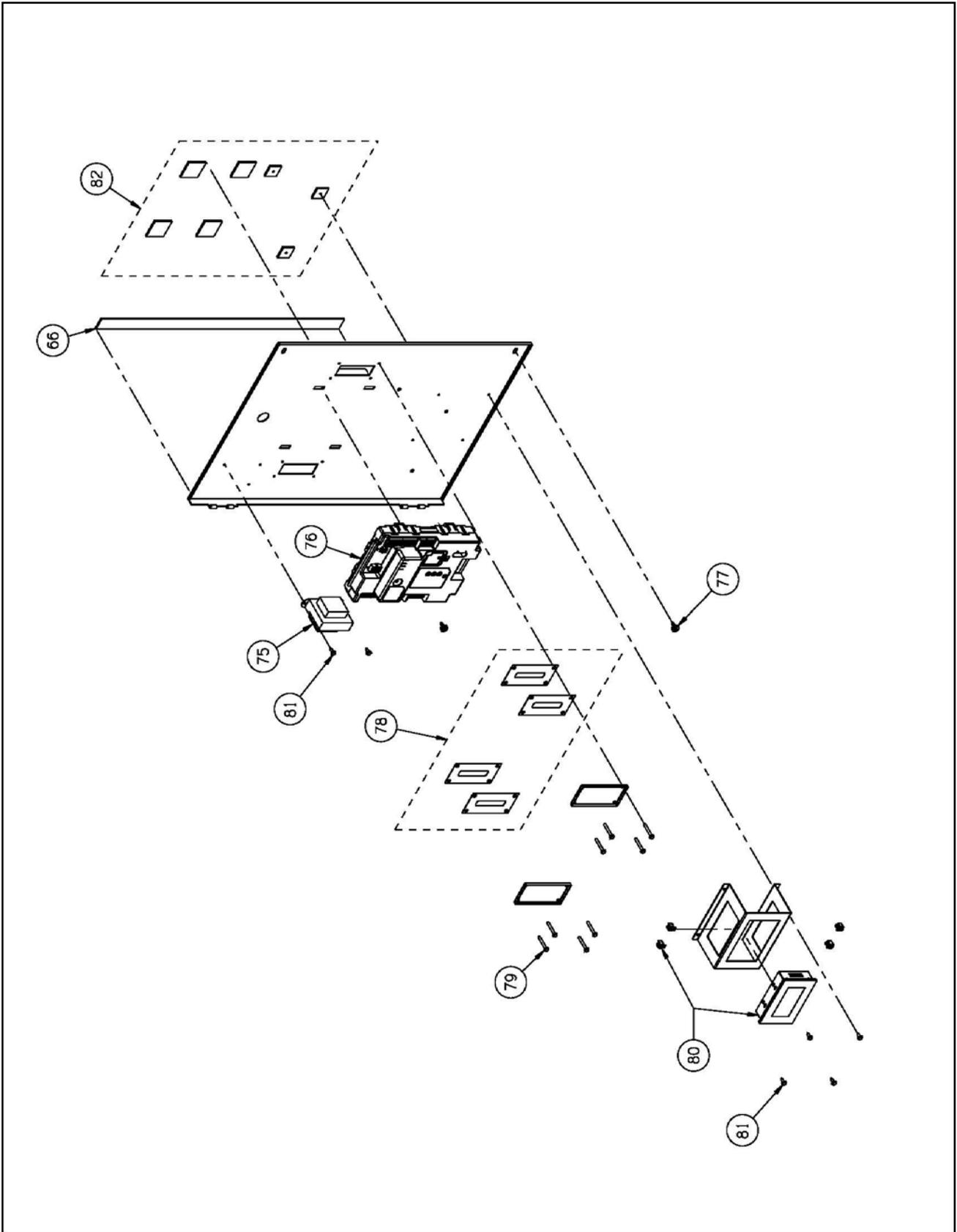
Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
51, 52, 53	Condensate Trap Repair Kit (includes gasket, bracket and trap ball)			105851-01		
53A	Ball for Condensate Trap Repair Kit			105850-01		
55, 56	Vent Fitting Repair Kit (includes hardware)			105859-01		
54, 57, 59	Silicone Tubing Repair Kit (includes 3/16" and 3/4" tubing and spring clamp)			105855-01		
58	Sump Pressure Switch Repair Kit			105857-01		

II. Repair Parts (continued)



Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
65	Gasket, Short, Vestibule Frame	Contact U.S. Boiler Company				
66	Gasket, Long, Vestibule Frame / Control Panel					
67, 68, 69, 73	Repair Low Voltage Printed Circuit Board (PCB) Kit (includes Low Voltage PCB and hardware)	105853-01				
67, 70, 71, 72, 73	Repair High Voltage Printed Circuit Board (PCB) Kit (includes Line Voltage PCB, insulator, gasket and hardware)	105852-01				
74	8-18 x 1/2" Screw	105368-01				
not shown	HV & LV Fuse Kit	105856-01				

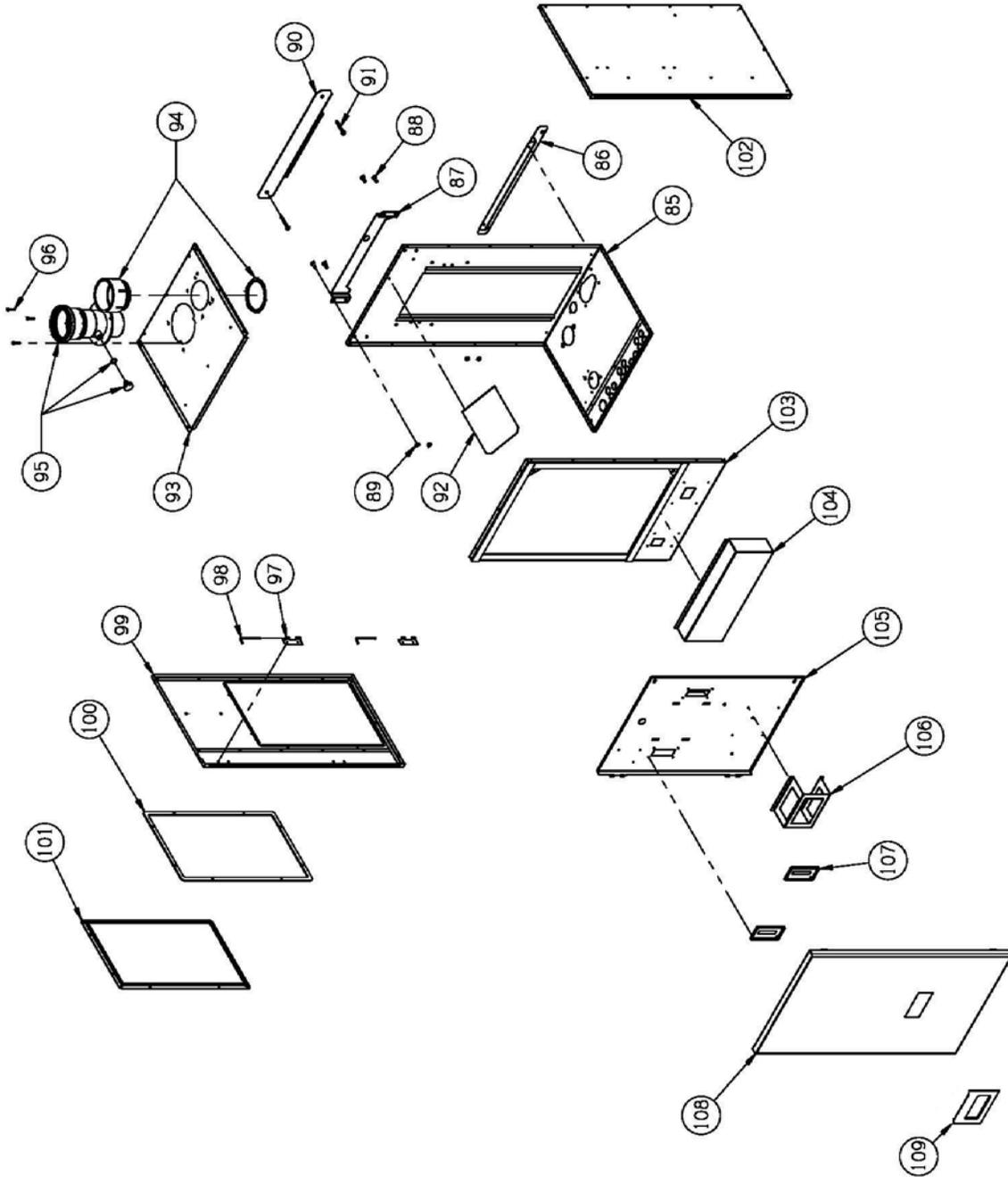
II. Repair Parts (continued)



II. Repair Parts (continued)

Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
75	Transformer Repair Kit			106034-01		
76	Sage 2 Boiler Control Repair Kit			106194-01		
77	Thumb Screw w/Clip Repair Kit [includes (2) 8-32 x 13/32 screws and (2) retaining clips]			106033-01		
78	Gasket, Wire Partition			104690-01 (4)		
79	8 -18 x 1/2" Self Tapping Screw			105368-01 (8)		
80	Programmable Display GT02 Repair Kit			106217-01		
81	8 -18 x 1/2" Self Tapping Screw			105368-01 (6)		
82	Control Panel Gasket			105109-01 (4)		

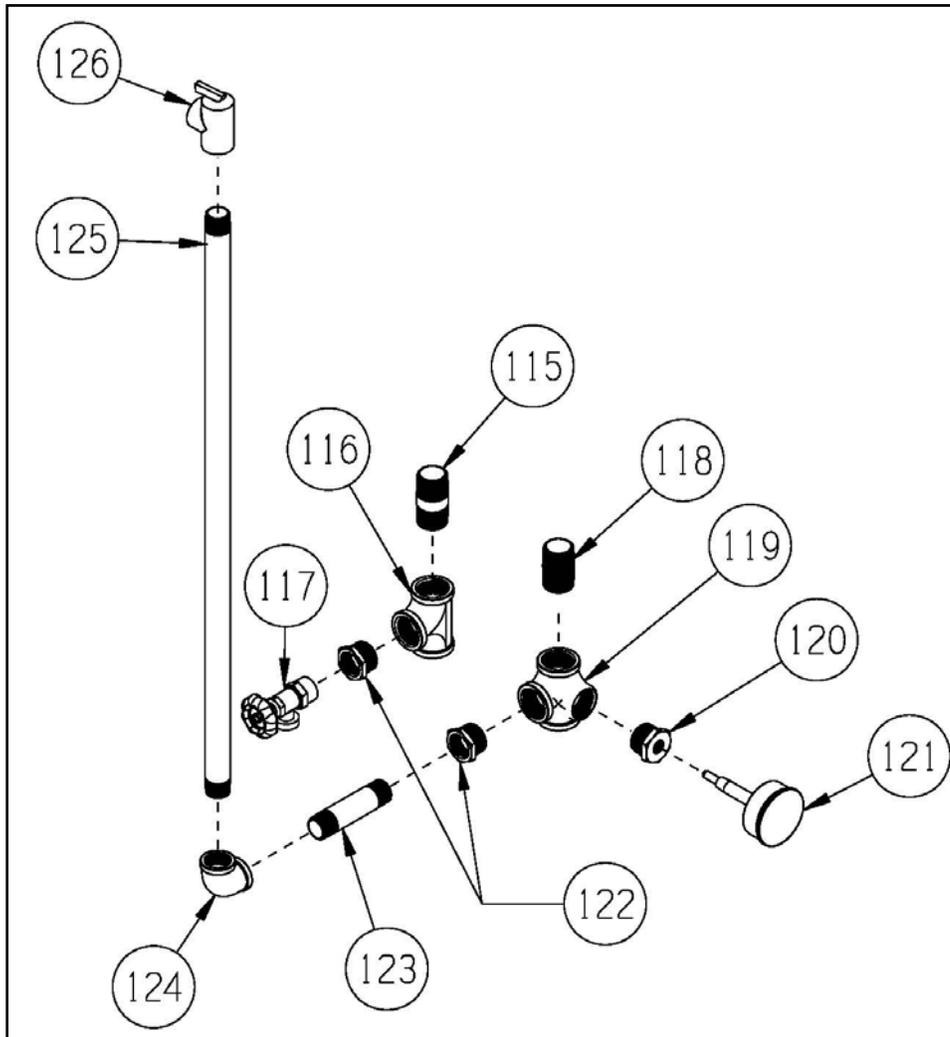
II. Repair Parts (continued)



II. Repair Parts (continued)

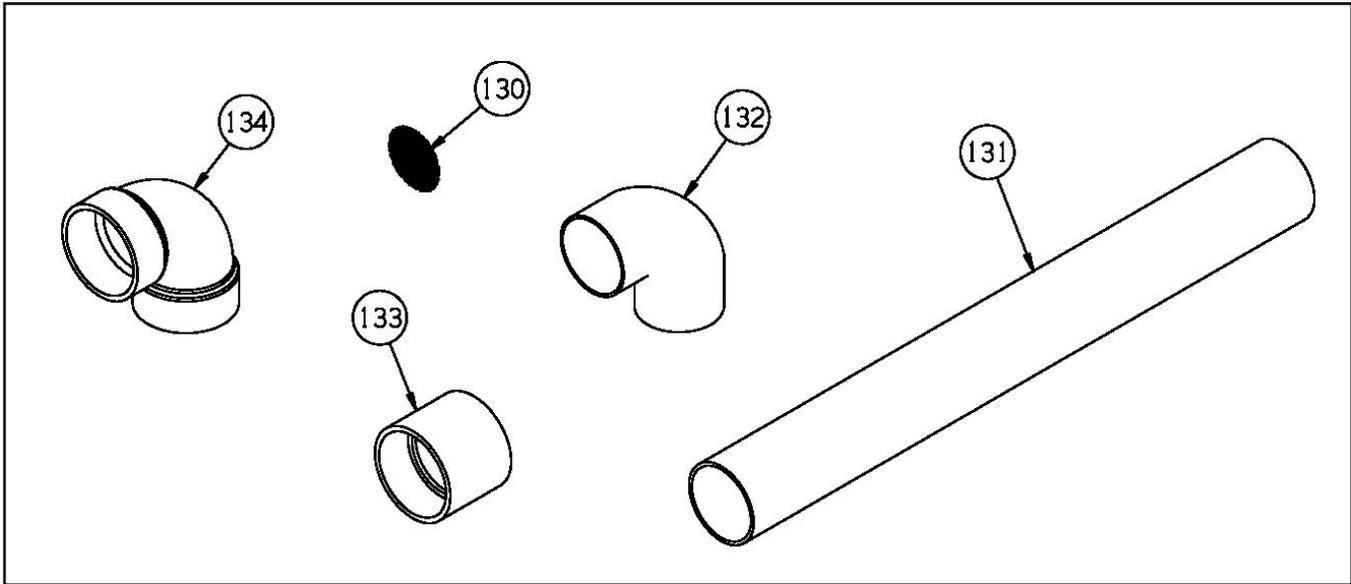
Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
85, 87	Base-Rear Panel Assembly	105092-01			105092-02	
86	Bottom Securing Bracket	102870-01				
90	Hanging Bracket, Wall	102869-01				
91	5/16 X 2" Lag Screw	101043-01 (4)				
92	Air Intake Shield Bracket	104682-01				
93	Top Panel	105070-01			105070-02	
94	3" PVC Intake Coupling with Locknut Repair Kit	105848-01				
95	Repair Vent Adapter Kit (includes vent adapter and vent adapter gasket)	105858-01				
96	8 -18 x 1/2" Screw	80860716 (3)				
97	Control Hinge Bracket	104681-01 (2)				
98	Hinge Pin	105104-01 (2)				
99	Left Side Panel	105068-01			105068-02	
100, 101	Access Panel Assembly	105072-01				
102	Right Side Panel	105069-01			105069-02	
103	Vestibule Frame	105093-01				
104	Wiring Enclosure Cover	104679-01				
105	Control Panel	104680-01				
106	Display Mounting Bracket	104683-01				
107	Wire Cover Bracket	104685-01 (2)				
108	Repair Kit, Front Cover / "K2" Decal (includes front panel, logo plate and "K2" decal)	105895-01				
	Cable Holder Anchor Mount (not shown)	105166-01 (3)				
	5/16 Flat Washer (not shown)	80860611 (4)				

II. Repair Parts (continued)



Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
115	1"NPT X 2-1/2" Nipple			806600357		
116	1" NPT Tee			806601015		
117	3/4" NPT Boiler Drain Valve			806603061		
118	1"NPT x 2" Nipple			806600004		
119	1" NPT Tee with Side Outlet			105298-01		
120	1" x 1/4" NPT Hex Reducing Bushing			806600529		
121	Temperature & Pressure Gauge Repair Kit			105894-01		
122	1" x 3/4" NPT Hex Reducing Bushing			806600501 (2)		
123	3/4" NPT X 4" Nipple			806600014		
124	3/4" NPT 90° Elbow			806601502		
125	3/4" NPT X 30" Nipple			105297-01		
126	30 psi Relief Valve			81660319		

II. Repair Parts (continued)



Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
130	3" Stainless Steel Rodent Screen			102191-01 (2)		
131	3" X 30" Schedule 40 CPVC Pipe			102193-01		
132	3" Schedule 80 CPVC 90° Elbow			102192-01		
133	3" PVC Coupling			105292-01		
134	3" PVC Long Sweep 90° Elbow			105293-01		

II. Repair Parts (continued)



140



143



141



144



142



145

Key No.	Description	Part Number (Qty)				
		K2-080	K2-100	K2-120	K2-150	K2-180
140	Low Voltage / Communication Harness Repair Kit			105869-01		
141	High Voltage Harness Repair Kit			105868-01		
142, 143, 145	Repair Kit, Trap/Flame, Trap/Ground, Circulator Pigtail (includes wire harnesses)			105870-01		
144	Ignition Cable Harness Repair Kit			105907-01		
not shown	LWCO Jumper Repair Kit			105908-01		
not shown	Outdoor Temperature Sensor (not shown)			102946-01		

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