



Operators Manual

Installation, Operation & Service

Gas T1 Skilletts

**FOR MODELS
BUILT AFTER
MAY 2006:**

SGL-30-T1
SGL-40-T1



*For a complete Service Manual
refer to www.clevelandrange.com*



Enodis

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FOR THE USER

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR ANY OTHER FLAMMABLE LIQUIDS AND VAPOURS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

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

IMPORTANT

Post in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.

Keep appliance area free and clear from combustibles.

Do not obstruct the flow of combustion and ventilation air.

All service must be performed by a qualified cleveland range technician.

For unit equipped with casters, the installation shall be made with a connector that complies with the *Standard for Connectors for Movable Gas Appliances, ANSI Z21.69* or *Connectors for Moveable Gas Appliances, CAMCGA-6.16*, and a quick-disconnect device that complies with the *Standard for Quick Disconnect Devices for Use With Gas Fuel, ANSI Z21.41*, or *Quick Disconnect Devices for Use with Gas Fue4 CANT-6.9*. Adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement. A restraint can be attached to the rear leg next to the gas connection.

RETAIN THIS MANUAL FOR YOUR REFERENCE.

INSTALLATION

GENERAL

Installation of the unit must be accomplished by qualified installation personnel working to all applicable local and national codes. Improper installation of product could cause injury or damage.

This equipment is built to comply with applicable standards for manufacturers. Included among those approval agencies are: UL, A.G.A., NSF, ASME/N.Bd., CSA, CGA, ETL, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

Observe all clearance requirements to provide proper make-up air flow. Do not obstruct the flow of combustion and ventilation air. Check rating plate to ensure that unit has been equipped to operate with the type of gas available at the installation.

Dimensions and clearance requirements are shown on the Specification Sheet.

INSPECTION / UNPACKING

1. Before unpacking visually inspect the unit for evidence of damage during shipping.
2. If damage is noticed, do not unpack the unit, follow "SHIPPING DAMAGE INSTRUCTIONS" shown below.
3. Carefully remove unit from shipping carton. Remove any packing material from unit. After carefully unpacking check for "concealed" damage. If damage is noticed, follow "SHIPPING DAMAGE INSTRUCTIONS" shown below.
4. A protective material has been applied to the stainless steel panels. This material must be removed immediately after installation, as heat will melt the material and make it more difficult to remove.

SHIPPING DAMAGE INSTRUCTIONS

If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

1. Write down a description of the damage or the reason for suspecting damage as soon as it is discovered. This will help in filling out the claim forms later.
2. As soon as damage is discovered or suspected, notify the carrier that delivered the shipment.
3. Arrange for the carrier's representative to examine the damage.
4. Fill out all carrier claims forms and have the examining carrier sign and date each form.

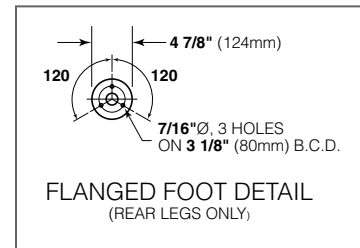
CLEARANCE REQUIREMENTS

This unit must be installed in accordance with the clearances shown on the rating label which is adhered to the unit.

FOR YOUR SAFETY. Keep the appliance area free and clear of combustible materials.

INSTALLATION

1. Position the unit in its permanent location, and level the unit by turning the adjustable feet.
2. Once positioned and leveled, permanently secure the unit's rear flanged feet to the floor using 5/16" lag bolts and floor anchors (supplied by the installer). Three bolts are required to secure each of the flanged feet.
3. Seal joints of flanged feet with a silicone sealant.



GAS

ENSURE THE GAS SUPPLY MATCHES THE UNIT'S REQUIREMENTS AS STATED ON THE RATING PLATE.

It is recommended that a sediment trap (drip leg) be installed in the gas supply line. If the gas pressure exceeds 14" water column, a pressure regulator must be installed, to provide a maximum of 14" water column gas pressure to the gas control valve.

Connect the gas line to the manual valve located at the rear of the control box.

Installation must be in accordance with local codes and/or the National Fuel Gas Code ANSI Z223.1 Latest Edition (USA) or the latest Installation Codes for Gas Burning Appliances and Equipment CAN/ CGA B149.1 (natural gas) and CAN/ CGA B149.2 (propane gas). Use a gas pipe joint compound which is resistant to L.P. gas. Test all pipe joints for leaks with soap and water solution. Ensure that the gas pressure regulator is set for the manifold pressure indicated on the gas rating plate.

The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.45 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.45 kPa).

ELECTRICAL

NOTE: Wiring diagram is located on the underside of the unit's control panel.

ENSURE THE ELECTRICAL SUPPLY MATCHES THE UNIT'S REQUIREMENTS AS STATED ON THE RATING LABEL.

A cord and plug are supplied with the 115 volt unit. Simply plug the unit into any grounded outlet rated for a minimum of 10 amps. The wiring diagram is located on the back of the console access panel.

When a unit is ordered and built for 208/240 volt, the supply line must be connected to the wiring terminations located inside the console. A wiring diagram is attached to the underside of the control panel.

WARNING: Electrical Grounding Instructions.

This unit is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. Standard supply voltage is 115 volts A.C., however, optional A.C. voltages can be supplied on special order. A separate fused disconnect switch must be supplied and installed in the high voltage electrical supply line. The unit when installed, must be electrically installed and grounded in accordance with local codes, or in the absence of local codes, with National Electrical Code, ANSI/NFPA 70-1990 (USA) or the Canadian Electrical Code, CSA C22.2, Part 1 (Canada).

VENTILATION

Gas fired units are only to be installed under a ventilation hood in a room which has provisions for adequate make up air. Further information can be obtained by referring to the U.S.A. National Fire Protection Associations NFPA96 regulations. These standards have also been adopted by the National Building Code in Canada.

WATER CONNECTION

(OPTIONAL)

A 1/2" NPT cold water line and/or a 1/2" NPT hot water line are required if unit is equipped with a single or double pantry faucet.

INSTALLATION CHECKS

Although the unit has been thoroughly tested before leaving the factory, the installer is responsible for ensuring the proper operation of unit once installed.

DO NOT ATTEMPT TO OPERATE THIS UNIT DURING A POWER FAILURE.

KEEP APPLIANCE AND AREA FREE AND CLEAR OF COMBUSTIBLES.

1. Supply power to the unit by placing the fused disconnect switch to the "ON" position.
2. Turn on main gas supply to unit. Open the skillet's shut-off valve (located at lower rear left).
3. Toggle HI / OFF / LO Switch to the "HI" or "LO" position.
4. For your safety the skillet is equipped with a power interrupter which automatically shuts off the gas supply to the burners whenever the skillet is raised more than 8°.

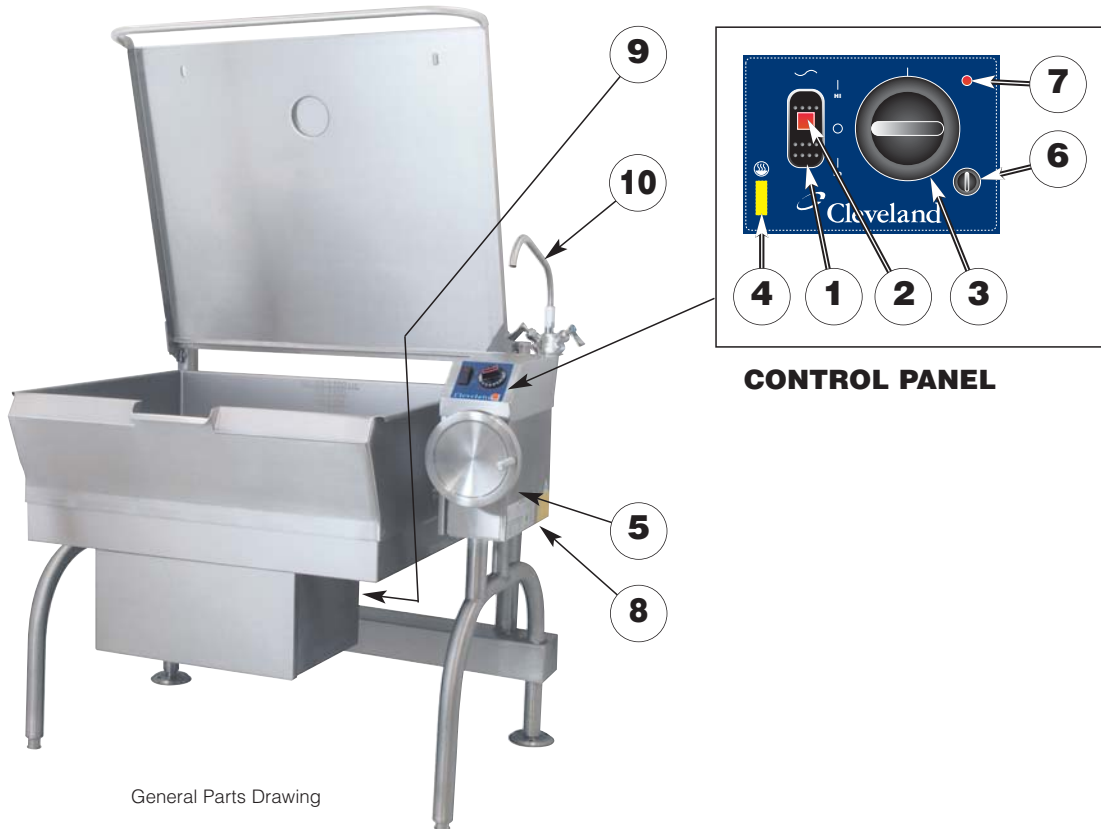
IMPORTANT: Before commencing to cook, ensure the skillet pan is in the lowered position. Also ensure the cover is raised.

5. Turn temperature control to maximum. Tilt skillet pan until heat indicator light turns off and heating system shuts down. The pan should be on a 5-10° angle.
6. Lower pan. Heat indicator light will re-light and heating system will re-energize.
7. Unit will continue to heat, heat indicator light will remain on until temperature is reached. Then the heat indicator light will cycle OFF indicating the heating system has shut off. The heat indicator light will continue to cycle ON and OFF as the heating system cycles ON and OFF maintaining the desired temperature.
3. Toggle HI / OFF / LO Switch to the "OFF" position.

CLEANING

After installation the unit must be thoroughly cleaned and sanitized prior to cooking.

OPERATING INSTRUCTIONS



ITEM #	DESCRIPTION	FUNCTION
1.	HI / OFF / LO Switch	Center position - power to the unit is OFF. HI position - unit is in high fire mode (unit heats faster). LO position - unit is in low fire mode (unit heats slower).
2.	Power Indicator Light (red)	Indicates power is ON.
3.	Temperature Dial	Regulates the surface temperature of the pan.
4.	Heat Indicator Light (yellow)	Turns ON when system is calling for heat and OFF when system is satisfied.
5.	Hand Tilt Wheel	Used for tilting the pan up or down.
6.	Power Tilt Switch	Option - Used for tilting the pan up or down.
7.	Reset Button	Fuse protection for optional power tilt.
8.	Manual Tilt Override	Used on units with optional power tilt for tilting the pan up or down in case of power or mechanical failure.
9.	Gas Shut Off Valve	Allows you to shut the gas off to the appliance if required.
10.	Faucet	Option - hot and/or cold faucet mounts to skillet for convenient filling of the pan.
11.	Tangent Draw-Off Valve (not shown)	Option - allows you to discharge product from the pan through the valve.

OPERATING THE UNIT

1. Ensure the gas and electrical supply to the unit are in the ON position.

FOR YOUR SAFETY:

This skillet will automatically shut off the gas supply when pan is raised more than 8°.

Before commencing to cook, ensure pan is in the lowered position.

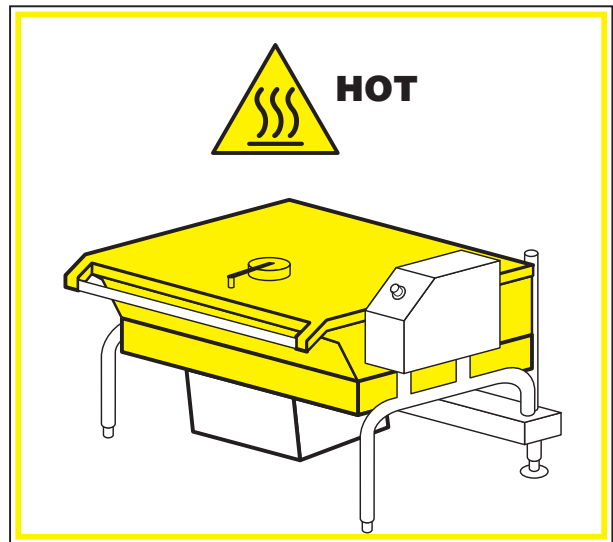
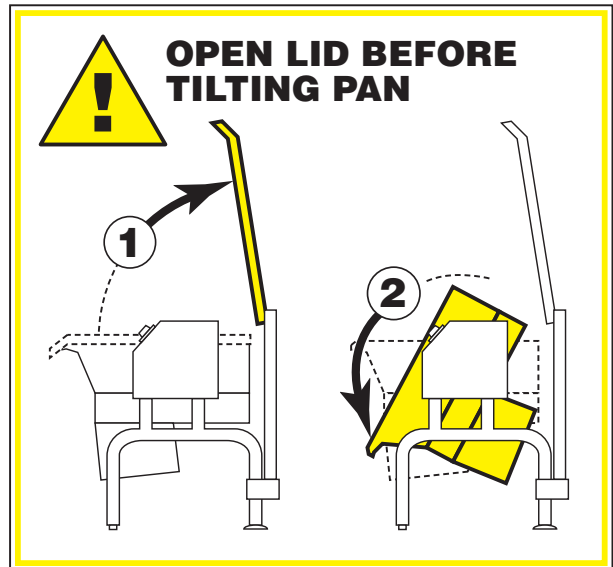
2. **MANUAL TILT:** Cleveland skillets are equipped with a manual tilt mechanism for raising and lowering the pan. To raise pan, raise the cover and turn the crank clockwise. To lower pan, turn counterclockwise.

POWER TILT: Cleveland skillets can also be equipped with an optional electric power tilt mechanism for raising and lowering the pan. To raise pan, raise the cover and press up on the tilt switch. To lower pan, press down on the tilt switch.

3. Toggle HI / OFF / LO Switch to the "HI" or "LO" position. The red Power Indicator Light indicates power is on. The yellow Heat Indicator Light indicates burners are on.
4. To preheat, set Temperature Dial to desired cooking temperature. Unit is preheated when the yellow light goes out.
5. Insert product in pan.
6. If desired, once product has cooked, it can be held prior to serving at a lower temperature setting.
7. When cooking is completed, set Temperature Dial and HI / OFF / LO Switch to the OFF position.
8. The best time to clean the skillet is immediately after use, once skillet has cooled down. Refer to section titled "CLEANING INSTRUCTIONS" for details.

OPERATING SUGGESTIONS

1. Turn power switch to the "OFF" position when skillet is not in use.
2. Allow skillet to preheat before adding product.
3. Always lift the spring assist cover before activating the tilt mechanism.
4. During an electrical power interruption, turn Power Switch to the OFF position. This unit cannot be made to operate without electrical power.








CLEANING INSTRUCTIONS



CARE AND CLEANING

Cooking equipment must be cleaned regularly to maintain its fast, efficient cooking performance and to ensure its continued safe, reliable operation. The best time to clean is shortly after each use (allow unit to cool to a safe temperature).

WARNINGS

- ⇒  Do not use detergents or cleansers that are chloride based or contain quaternary salt.
Chloride Cleaners
- ⇒  Do not use a metal bristle brush or scraper.
Wire Brush &
- ⇒  Steel wool should never be used for cleaning the stainless steel.
Steel Pads
- ⇒  Unit should never be cleaned with a high pressure spray hose.
High Pressure Spray Hose
- ⇒  Do not leave water sitting in unit when not in use.
Stagnant Water

CLEANING INSTRUCTIONS

1. Turn unit off.
2. Remove drain screen (if applicable). Thoroughly wash and rinse the screen either in a sink or a dishwasher.
3. Prepare a warm water and mild detergent solution in the unit.
4. Remove food soil using a nylon brush.
5. Loosen food which is stuck by allowing it to soak at a low temperature setting.
6. Drain unit.
7. Rinse interior thoroughly.
8. If the unit is equipped with a **Tangent Draw-Off Valve**, clean as follows:
 - a) Disassemble the draw-off valve first by turning the valve knob counter-clockwise, then turning the large hex nut counter-clockwise until the valve stem is free of the valve body.
 - b) In a sink, wash and rinse the inside of the valve body using a nylon brush.
 - c) Use a nylon brush to clean tangent draw-off tube.
 - d) Rinse with fresh water.
 - e) Reassemble the draw-off valve by reversing the procedure for disassembly. The valve's hex nut should be hand tight only.
9. If the unit is equipped with a **Butterfly Valve**, clean as follows:
 - a) Place valve in open position.
 - b) Wash using a warm water and mild detergent solution.
 - c) Remove food deposits using a nylon brush.
 - d) Rinse with fresh water.
 - e) Leave valve open when unit is not in use.
10. Using mild soapy water and a damp sponge, wash the exterior, rinse, and dry.

NOTES

- ⇒ For more difficult cleaning applications one of the following can be used: alcohol, baking soda, vinegar, or a solution of ammonia in water.
- ⇒ Leave the cover off when the kettle is not in use.
- ⇒ For more detailed instructions refer to the Nafem Stainless Steel Equipment Care and Cleaning manual (supplied with unit).

STAINLESS STEEL EQUIPMENT CARE AND CLEANING

(Supplied courtesy of Nafem. For more information visit their web site at www.nafem.org)

Contrary to popular belief, stainless steels ARE susceptible to rusting.

Corrosion on metals is everywhere. It is recognized quickly on iron and steel as unsightly yellow/orange rust. Such metals are called "active" because they actively corrode in a natural environment when their atoms combine with oxygen to form rust.

Stainless steels are passive metals because they contain other metals, like chromium, nickel and manganese that stabilize the atoms. 400 series stainless steels are called ferritic, contain chromium, and are magnetic; 300 series stainless steels are called austenitic, contain chromium and nickel; and 200 series stainless, also austenitic, contains manganese, nitrogen and carbon. Austenitic types of stainless are not magnetic, and generally provide greater resistance to corrosion than ferritic types.

With 12-30 percent chromium, an invisible passive film covers the steel's surface acting as a shield against corrosion. As long as the film is intact and not broken or contaminated, the metal is passive and stain-less. If the passive film of stainless steel has been broken, equipment starts to corrode. At its end, it rusts.

Enemies of Stainless Steel

There are three basic things which can break down stainless steel's passivity layer and allow corrosion to occur.

1. Mechanical abrasion
2. Deposits and water
3. Chlorides

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

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

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

So what does all this mean? Don't Despair!

Here are a few steps that can help prevent stainless steel rust.

1. Use the proper tools.

When cleaning stainless steel products, use non-abrasive tools. Soft cloths and plastic scouring pads will not harm steel's passive layer. Stainless steel pads also can be used but the scrubbing motion must be in the direction of the manufacturers' polishing marks.

2. Clean with the polish lines.

Some stainless steel comes with visible polishing lines or "grain." When visible lines are present, always scrub in a motion parallel to the lines. When the grain cannot be seen, play it safe and use a soft cloth or plastic scouring pad.

3. Use alkaline, alkaline chlorinated or non-chloride containing cleaners.

While many traditional cleaners are loaded with chlorides, the industry is providing an ever-increasing choice of non-chloride cleaners. If you are not sure of chloride content in the cleaner used, contact your cleaner supplier. If your present cleaner contains chlorides, ask your supplier if they have an alternative. Avoid cleaners containing quaternary salts; it also can attack stainless steel and cause pitting and rusting.

4. Treat your water.

Though this is not always practical, softening hard water can do much to reduce deposits. There are certain filters that can be installed to remove distasteful and corrosive elements. To insure proper water treatment, call a treatment specialist.

5. Keep your food equipment clean.

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

6. Rinse, rinse, rinse.

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

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

8. Regularly restore/passivate stainless steel.

Recommended cleaners for specific situations

Job	Cleaning Agent	Comments
Routine cleaning	Soap, ammonia, detergent, Medallion	Apply with cloth or sponge
Fingerprints & smears	Arcal 20, Lac-O-Nu Ecoshine	Provides barrier film
Stubborn stains & discoloration	Cameo, Talc, Zud, First Impression	Rub in direction of polish lines
Grease & fatty acids, blood, burnt-on-foods	Easy-off, De-Grease It Oven Aid	Excellent removal on all finishes
Grease & oil	Any good commercial detergent	Apply with sponge or cloth
Restoration/Passivation	Benefit, Super Sheen	

Review

1. Stainless steels rust when passivity (film-shield) breaks down as a result of scrapes, scratches, deposits and chlorides.
2. Stainless steel rust starts with pits and cracks.
3. Use the proper tools. Do not use steel pads, wire brushes or scrapers to clean stainless steel.
4. Use non-chlorinated cleaners at recommended concentrations. Use only chloride-free cleaners.
5. Soften your water. Use filters and softeners whenever possible.
6. Wipe off cleaning agent(s) and standing water as soon as possible. Prolonged contact causes eventual problems.

To learn more about chloride-stress corrosion and how to prevent it, contact the equipment manufacturer or cleaning materials supplier.

Developed by Packer Engineering, Naperville, Ill., an independent testing laboratory.

SERVICE PARTS

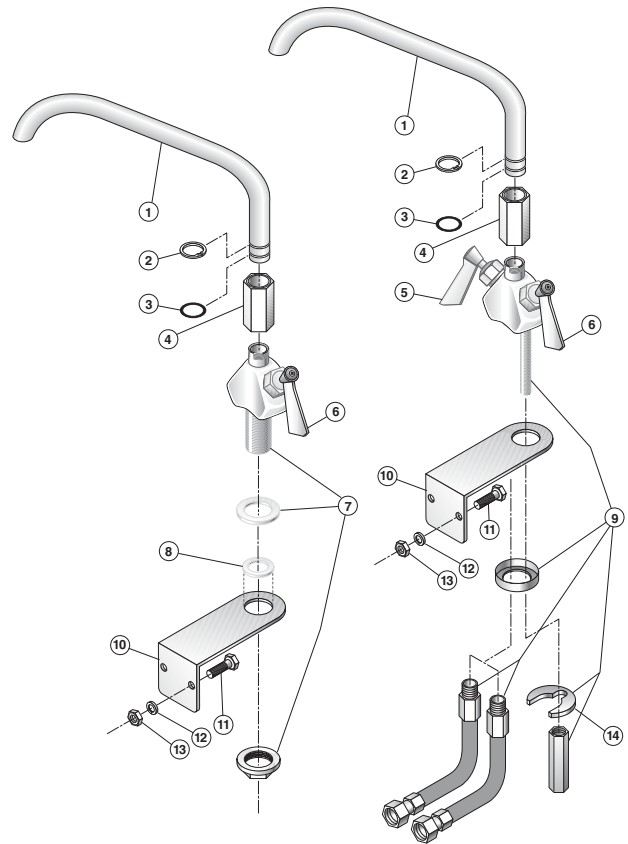
WARRANTY

Our Company supports a worldwide network of Maintenance and Repair Centers. Contact your nearest Maintenance and Repair Centre for replacement parts, service, or information regarding the proper maintenance and repair of your cooking equipment

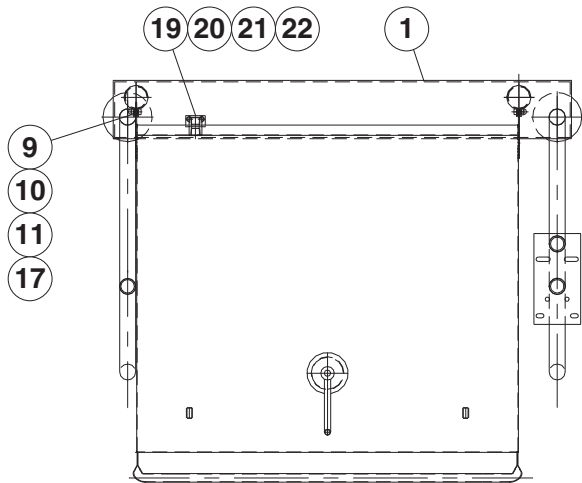
In order to preserve the various agency safety certification (UL, NSF, ASME/Ntl. Bd., etc.), only factory-supplied replacement parts should be used. The use of other than factory supplied replacement parts will void warranty.

FAUCET ASSEMBLY

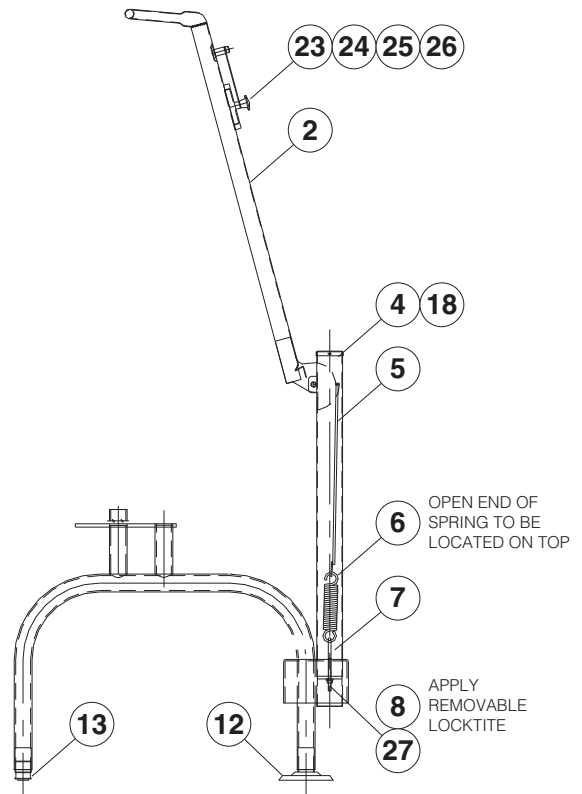
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE50825-7	3/4" SPOUT	1
2.	FA95022	RETAINING RING	1
3.	FA05002-19	"O" RING	1
4.	KE51736	LONG FAUCET NUT	1
5.	SE50020	HOT WATER STEM ASSEMBLY (DOUBLE PANTRY ONLY)	1
6.	SE50021	COLD WATER STEM ASSEMBLY	1
7.	KE51401	SINGLE PANTRY BODY (C/W ITEM NO. 6)	1
8.	KE50335	ADAPTER WASHER (SINGLE PANTRY ONLY)	1
9.	KE51403	DOUBLE PANTRY BODY (C/W ITEM NO. 5&6)	1
10.	SK00395-1	FAUCET MOUNTING BRACKET	1
11.	FA11258	HEX CAP SCREW	2
12.	FA30505-1	WASHER	2
13.	FA21008	HEX NUT	2
14.	SE50447	WASHER HORSESHOE	1



FRAME / LID ASSEMBLY

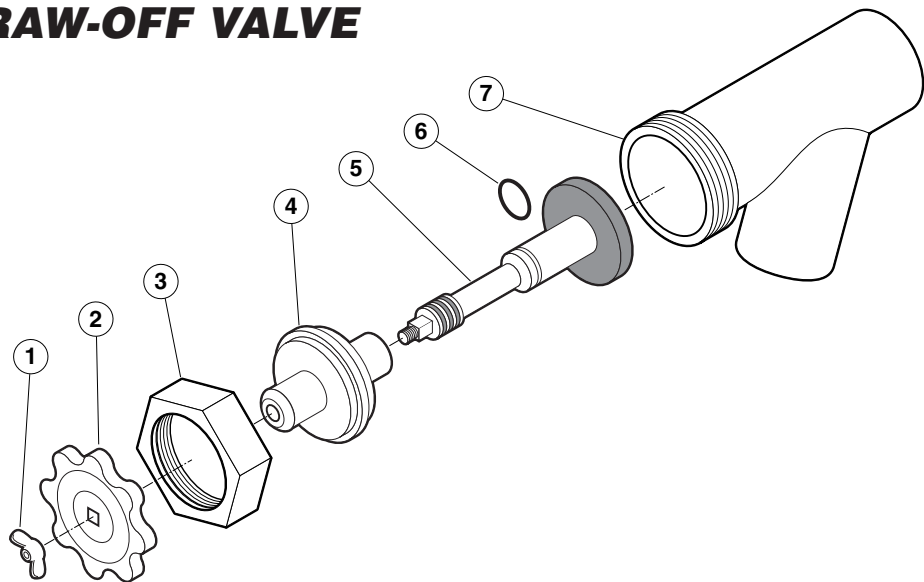


KE53068-3 Caster
KE53068-4 Locking caster



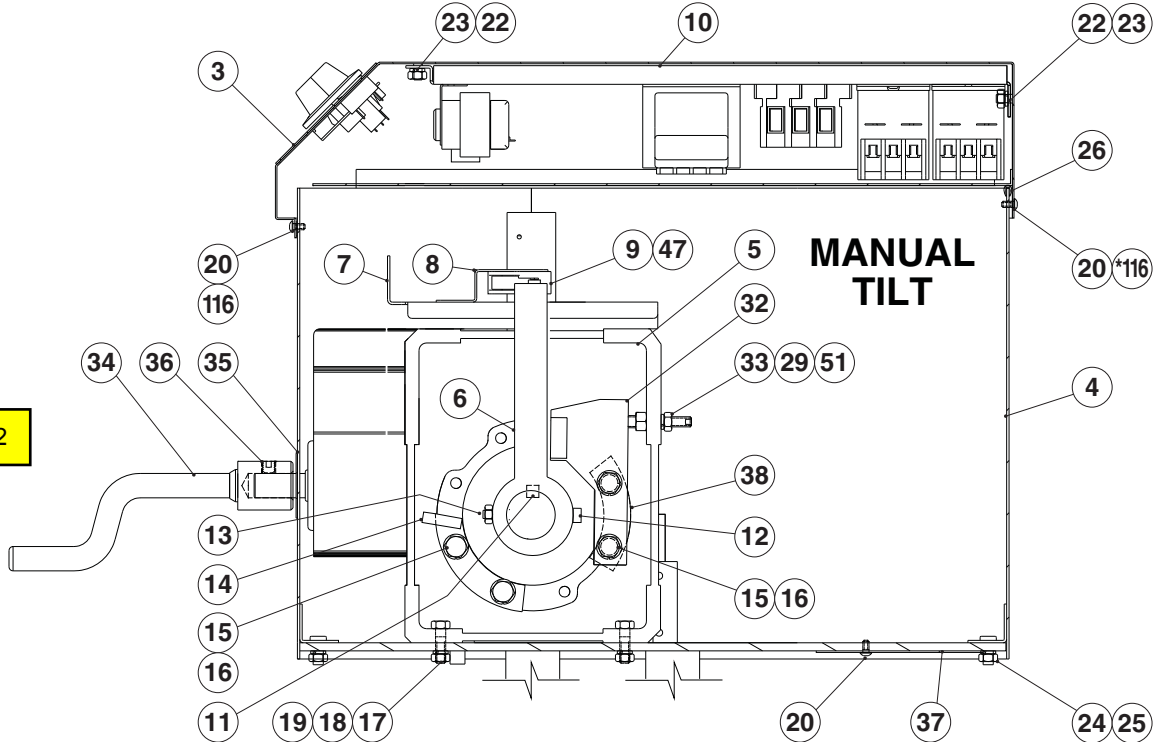
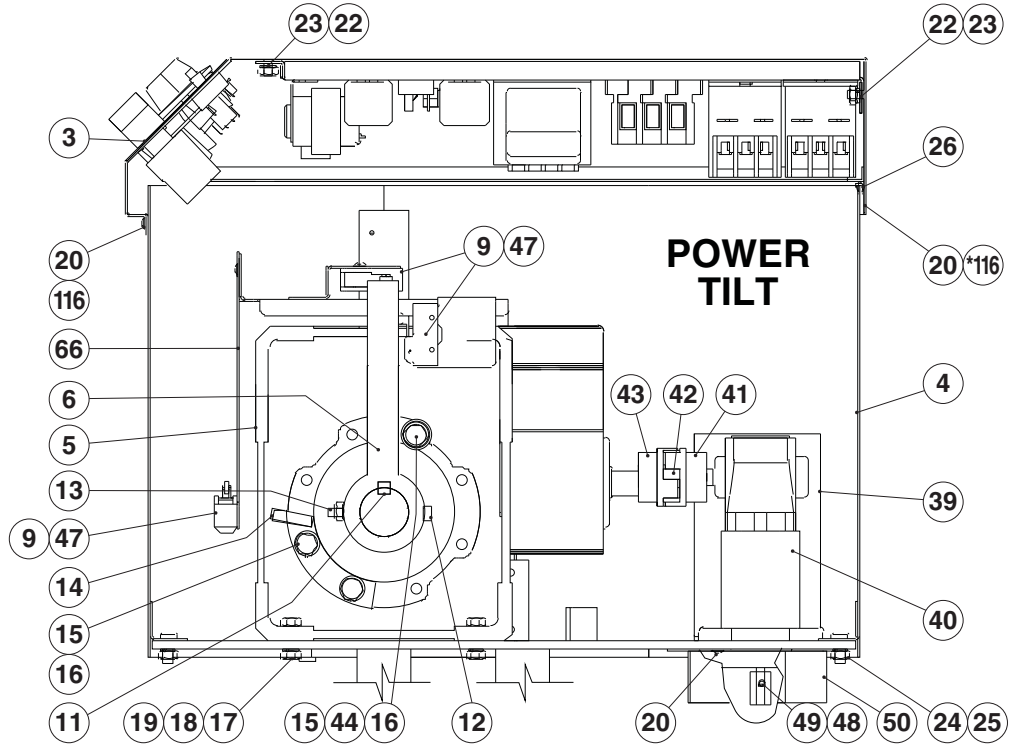
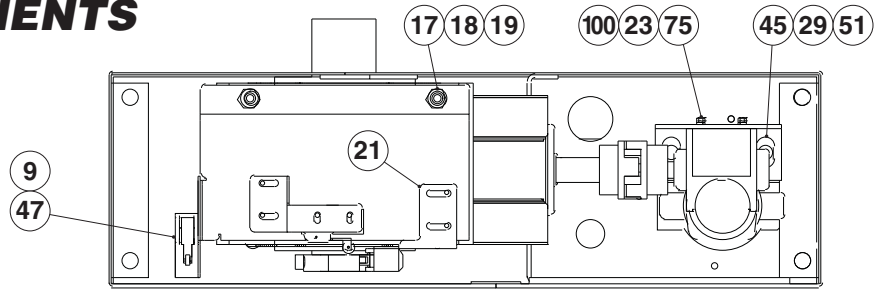
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK00392-1	FRAME WELDMENT (30 GALLON)	.1
	SK00392-2	FRAME WELDMENT (40 GALLON)	.1
2.	SK2457192	LID ASSEMBLY (30 GALLON)	.1
	SK2457193	LID ASSEMBLY (40 GALLON)	.1
4.	KE50187-1	CAP	.2
5.	SK00394-1	HOOK WELDMENT	.2
6.	SK2452300	SPRING	.2
7.	FA95087-1	EYE BOLT	.2
8.	FA20008	HEX NUT	.2
9.	KE53573-1	BEARING	.2
10.	FA15019-4	SHOULDER BOLT	.2
11.	FA21501-2	ACORN NUT	.2
12.	KE00099	ADJUSTABLE FOOT (FLANGED)	.2
13.	KE50249-1	FOOT ADJUSTOR (W/O FLANGE)	.2
17.	FA31029	LOCKWASHER	.2
18.	FA11054	SCREW	.4
19.	SK2459299	COUPLING ASSEMBLY	.1
20.	FA21024	HEX NUT (5/16-18)	.2
21.	FA31030	LOCKWASHER	.2
22.	FA30055	FLAT WASHER	.2
23.	SK00054	VENT COVER ASSEMBLY	.1
24.	SK2211200	SPACER	.1
25.	FA95081-1	BOLT, MODIFIED	.1
26.	SK50179	WASHER	.1
27.	FA30504	WASHER	.2

2" TANGENT DRAW-OFF VALVE



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1. - 7.	KE50972-B	DRAW-OFF ASSEMBLY	1
1.	FA95049	WING NUT	1
2.	KE527551	KNOB	1
3.	KE52754	HEX NUT	1
4.	KE52753	RETAINER	1
5.	KE52752	PISTON	1
6.	FA00111	"O" RING	1
7.	KE52751	VALVE BODY	2

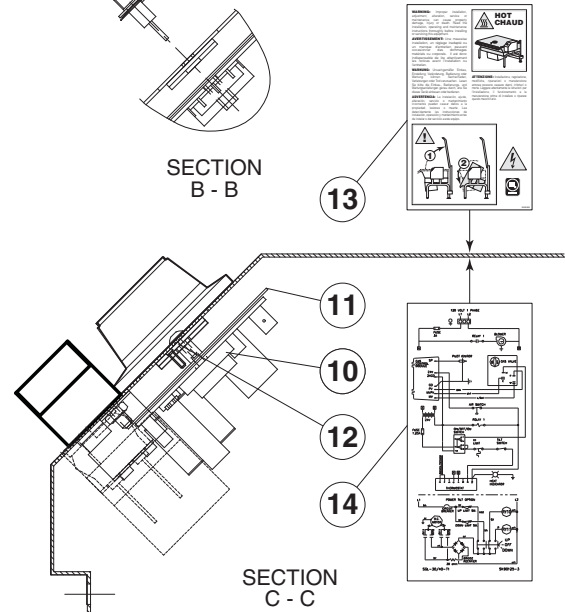
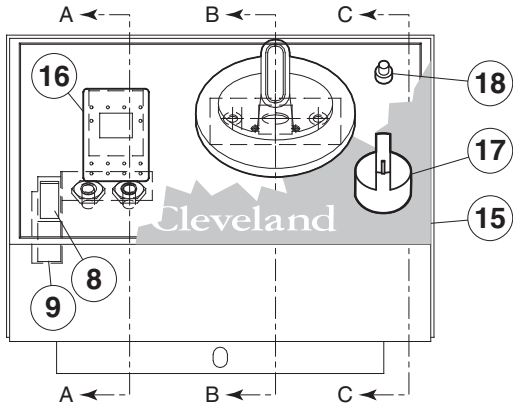
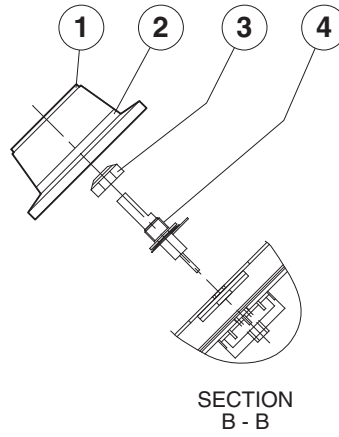
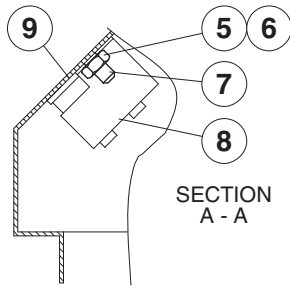
TILT COMPONENTS



TILT COMPONENTS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
3.	REF.SK00387	GEARBOX COVER ASSEMBLY	1
4.	KE002590	WRAP WELDMENT FOR GEAR	1
	KE55513-1	GEAR BOX	1
6.	KE602239	STOP ARM	1
7.	KE602587	SAFETY MOUNTING BRACKET	1
8.	KE602598	MOUNTING BRACKET	1
9.	SK2474500	SWITCH, TILT LIMIT	1
10.	REF.SK00410	COMPONENT PLATE ASSEMBLY	1
11.	FA95055-13	KEY, 3/8 X 3/8 X 5	1
12.	FA15019-6	SHOULDER BOLT	1
13.	FA21024	5-16 HEX NUT, 18-8 S.S.	1
14.	KE002527	STOP ASSEMBLY	1
15.	FA15021	BOLT, HEX CAP M10 X 30	2
16.	FA31500	LOCKWASHER, M10	2
17.	FA11526	HEX. CAP SCREW, 7/16-14 X 1-1/4" S.S. 18-8	6
18.	FA31011	7/16 SPLIT LOCKWASHER, S.S. 18-8	6
19.	FA21506	NUT, 7/16-14 S.S. 18-8	6
20.	FA11135	SCREW, 10-24 X 1/2	7
21.	KE602573	MOUNTING BRACKET	1
22.	FA21008	HEX. NUT, 1/4-20	6
23.	FA31029	SPLIT LOCKWASHER, 1/4	6
24.	FA21024	5/16 - 18, HEX NUT, 18-8 S.S.	4
25.	FA31030	SPLIT LOCKWASHER, 5/16	4
26.	KE600284-4	GASKET, SILICONE GRAY	1
29.	FA31031	SPLIT LOCKWASHER	2
32.	KE002215	STOP ARM	1
33.	FA19196	SET SCREW, 3/8-16 X 2 1/2"	1
34.	KE002509	HAND CRANK ASSEMBLY	1
35.	KE54738-5	WASHER, FLAT	1
36.	FA19505	SET SCREW, 3/8-24 X 3/8"	1
37.	KE602511	BOTTOM COVER	1
38.	KE602032	SPACER	1
39.	KE601725	SUPPORT	1
40.	KE52832-5	MOTOR, POWER TILT	1
41.	KE50582-5	COUPLING HUB, 1/2 BORE	1
42.	KE50583-1	COUPLING SPIDER	1
43.	KE50582-4	COUPLING HUB, 3/4 BORE	1
44.	KE601886	STOP	1
45.	FA11384	HEX. CAP SCREW, 3/8-16 X 1"	2
47.	FA10140	SCREW, 6-32 X 1 1/4	2
48.	KE602542	EXTENSION FOR SHAFT	1
49.	KE602543	SOCKET SET SCREW, CONE POINT	1
50.	KE602507	BOTTOM COVER	1
51.	FA21026	3/8 HEXAGON NUT	2
66.	KE602571	MOUNTING BRACKET	1
75.	FA11258	1/4-20 X 3/4 BOLT, 18-8 S.S.	4
100.	FA30505-1	FLAT WASHER, 1/4	4
116.	FA11511-2	10-32 X 3/8 PAN HEAD TORX SCREW	1

CONTROL BOX ASSEMBLY



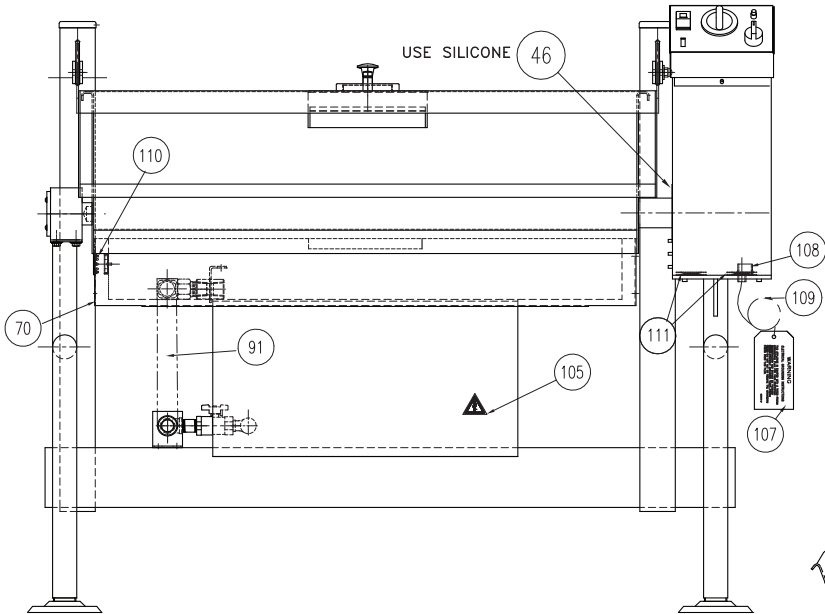
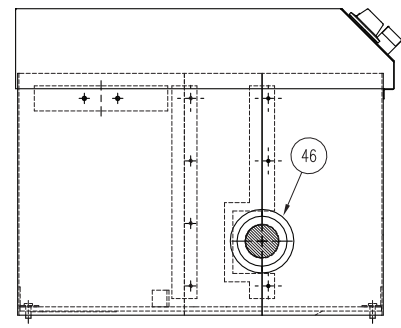
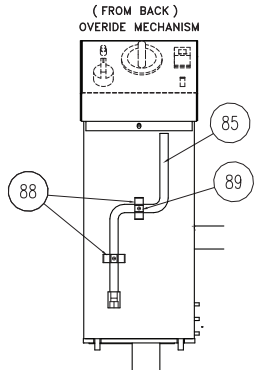
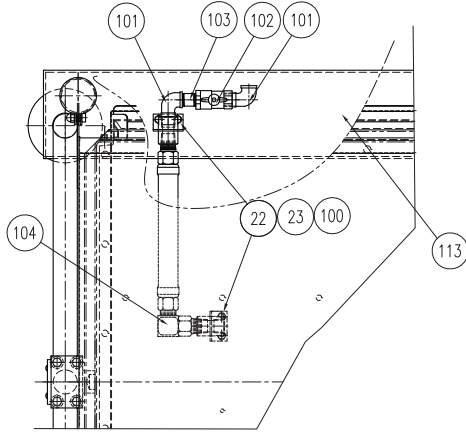
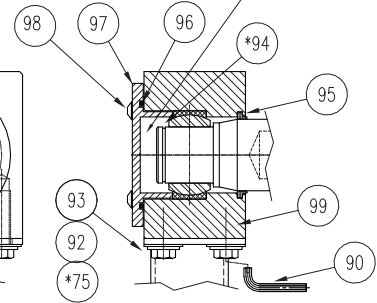
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK2138700	KNOB ASSEMBLY	1
2.	SK2360700	DIAL INSERT °F	1
	SK2360701	DIAL INSERT °C	1
3.	KE51005	RUBBER BOOT. #N9030 X 1/4	1
4.	SK2498399	POTENTIOMETER SHAFT ASSEMBLY	1
	SK2166800	POTENTIOMETER SHAFT	1
	SK2167000	TENSION PIN	1
	SK2167100	WASHER, BOWED/SPRING	1
	SK2167200	RETAINING RING, SP-NR #R1000-25	1
	SK2167300	PANEL BEARING	1
	SK2382800	RETAINING RING CLIP	1
5.	FA21006	NUT, S.S. F#10-24	2
6.	FA32022	TOOTH LOCK WASHER #10 S.S.	2
7.	FA40000-6	#10-24 X 3/8 S.S. WELD STUD	2
8.	SK50903-1	BRACKET, INDICATOR LIGHT	1
9.	SK50905-1	HEAT INDICATOR, 28V	1
10.	SE00119	THERMOSTAT	1
11.		THERMOSTAT INSULATOR	1
12.		STOP PLATE ASSEMBLY	1
13.	SK95063	CAUTION LABEL	1
14.	SK90125-3	WIRING DIAGRAM	1
15.	KE95604-5	CONTROLS LABEL, MANUAL TILT	1
	KE95604-6	CONTROLS LABEL, POWER TILT	1
16.	SK2474102	SWITCH, ON/OFF/ON, DUAL FIRING	1
17.	KE003209-11	Tilt Switch, on/off/on	1
18.	KE50579-2	CIRCUIT BREAKER	1
	FA05002-34	"O" RING, CIRCUIT BREAKER	1
	KE50580	WATER RESISTANT BOOT	1

GENERAL ASSEMBLY COMPONENTS

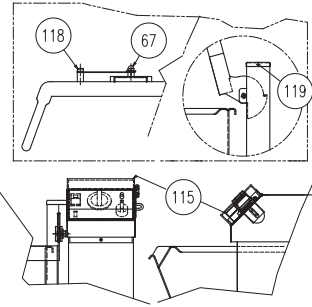
VIEW X
(FULL VIEW, UNSECTIONED)

NOTE: ITEMS MARKED WITH * ARE NOT SHOWN.

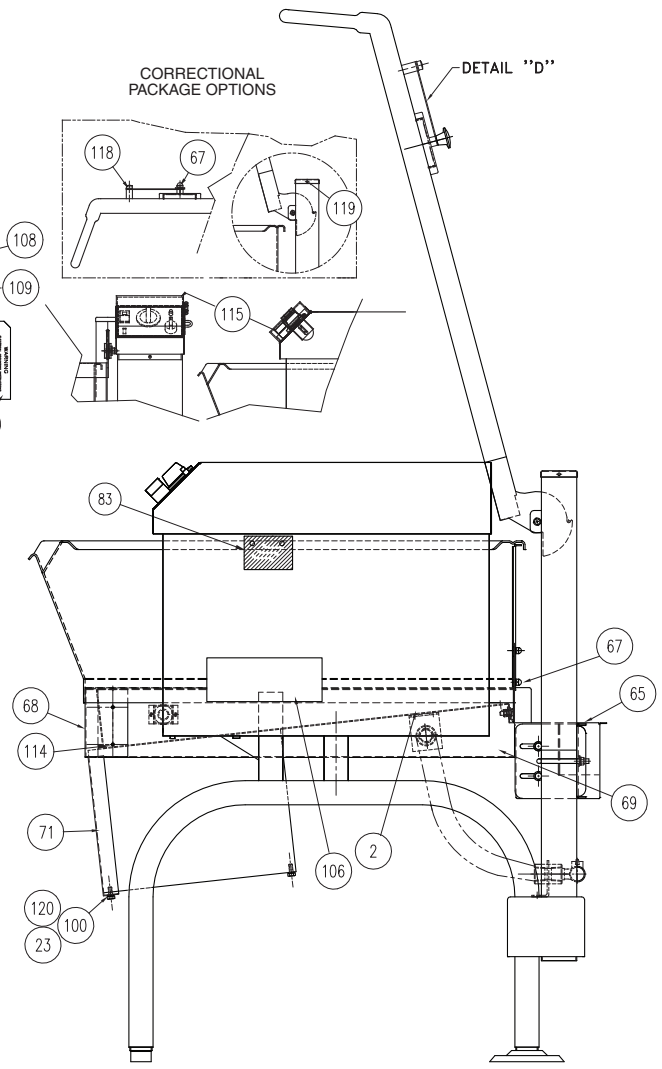
FILL WITH GREASE



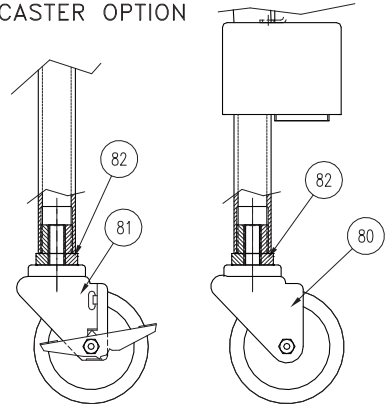
CORRECTIONAL PACKAGE OPTIONS



DETAIL "D"



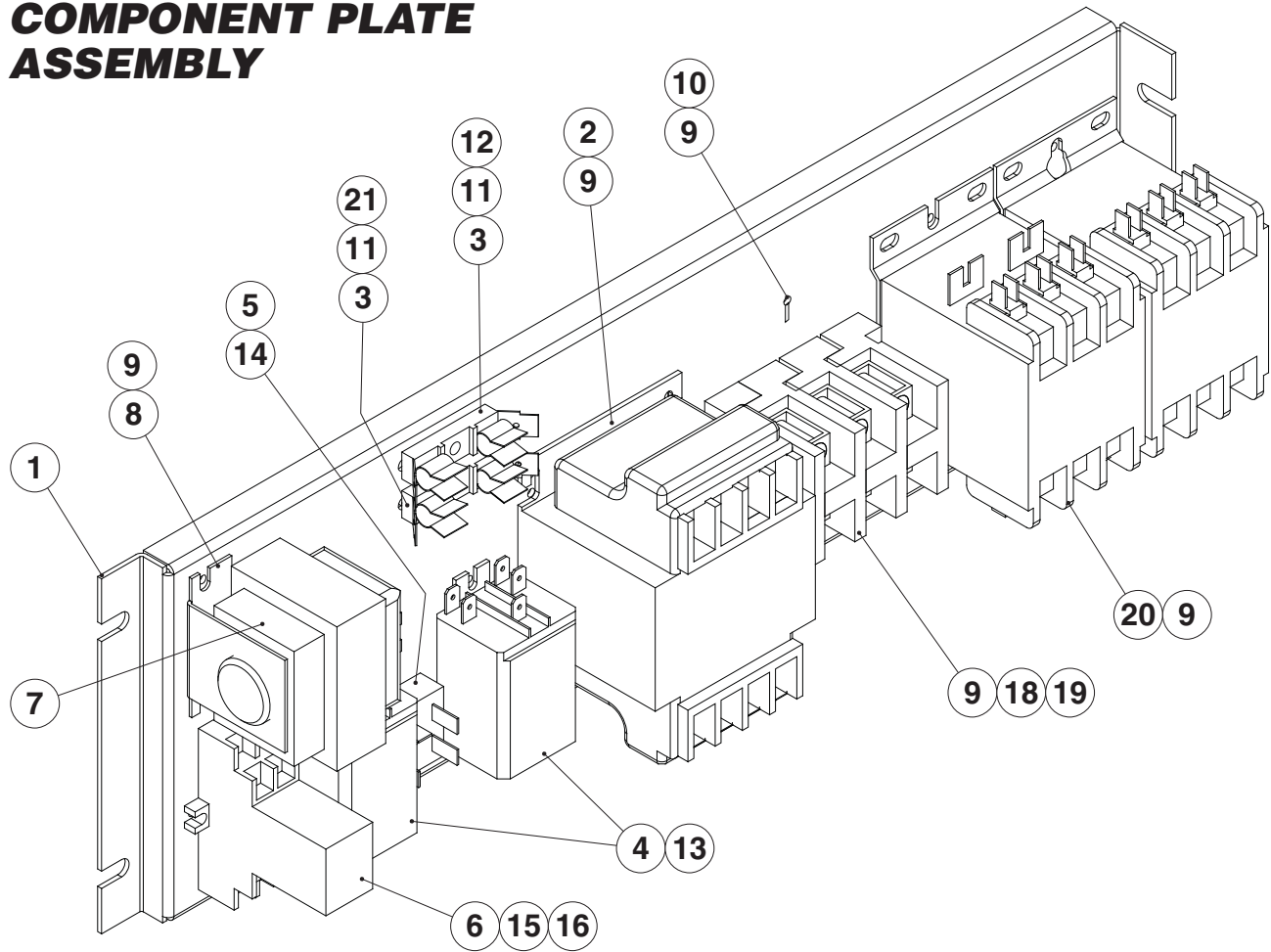
CASTER OPTION



GENERAL ASSEMBLY COMPONENTS

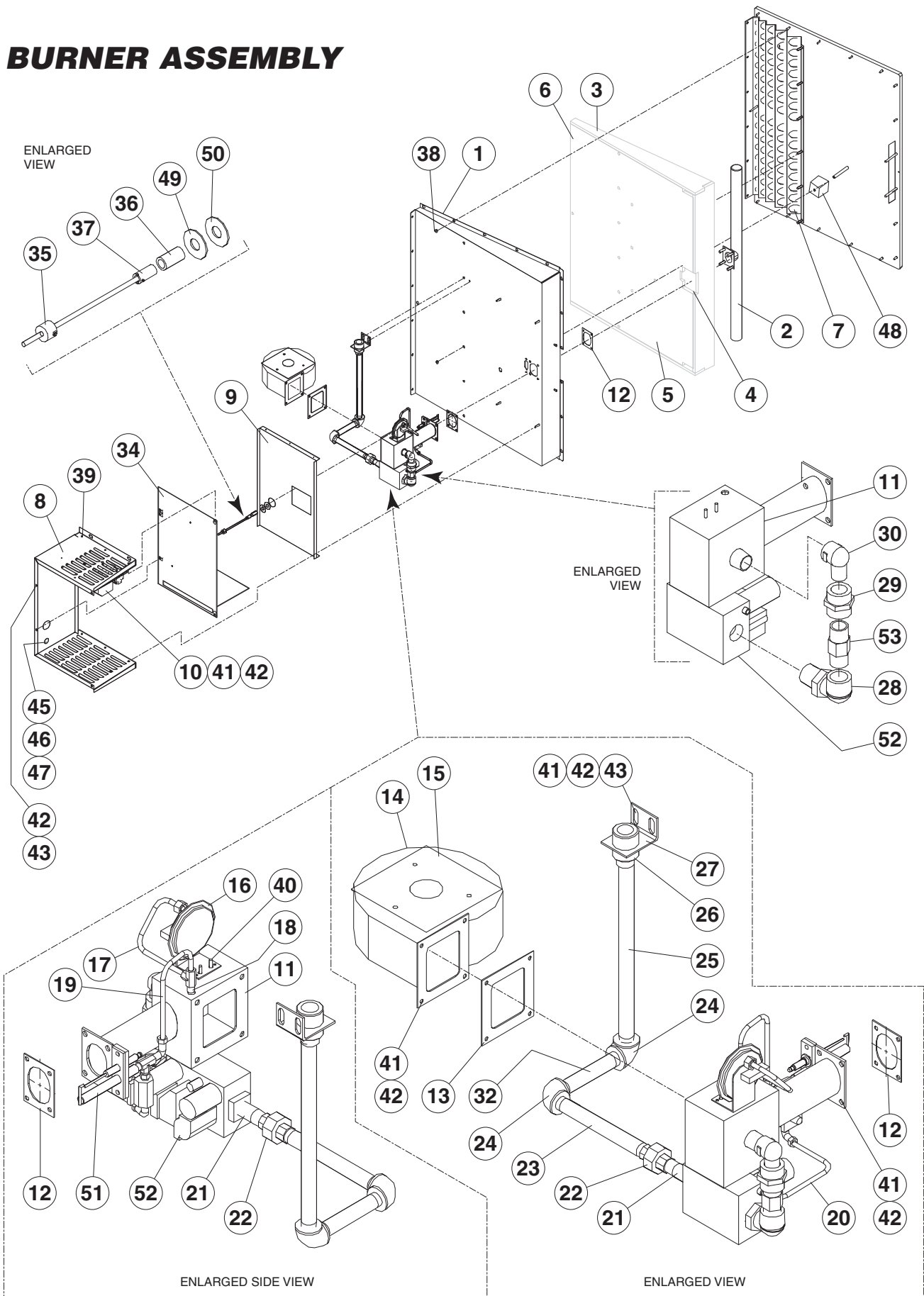
ITEM NO.	PART NO.	DESCRIPTION	QTY.	
			30 Gal.	40 Gal.
22	FA21008	HEX. NUT 1/4-20	4	4
23	FA31029	SPLIT LOCKWASHER 1/4	4	4
46	KE51084-2	WASHER	1	1
65	KE002486-1	FLUE DEFLECTOR ASSEMBLY	1	-
	KE002486-2	FLUE DEFLECTOR ASSEMBLY	-	1
67	FA21501-2	ACORN NUT 1/4-20, S.S.	5	5
68	SK50942-1	FRONT COVER	1	-
	SK50942-2	FRONT COVER	-	1
69	SK50943-1	SIDE COVER, R.H.	1	1
70	SK50943-2	SIDE COVER, L. H.	1	1
71	SK50946-1	FRONT BOX COVER ASSEMBLY	1	1
75	FA11511-20	SECURITY HEX SOCKET SCREW 3/8-16 X1 (CP OPTION)	4	4
	KE55443	CAP SCREW, 3/8-16 X1 HIGH STRENGTH (NO CP OPTION)	4	4
80	KE53068-3	SWIVEL CASTER W/O BRAKE	2	2
81	KE53068-4	SWIVEL CASTER WITH BRAKE	2	2
82	KE53046-1	CASTER SLEEVE	4	4
83	KE95447	LABEL TO COVER FAUCET MTG. HOLES	1	1
85	KE003160	HANDLE WELDMENT	1	1
88	SK2473800	SPRING CUP	2	2
89	F10	SCREW: PAN QUAD 8-32 X 3/8	2	2
90	FA11511-101	SHORT ARM SECURITY HEX KEY	1	1
91	SK2495600	STRIP FILL	1	-
	SK2474400	STRIP FILL	-	1
92	KE55445	WASHER, HIGH STRENGTH ULTRA-COATED	4	4
93	FA31031	SPLIT LOCK WASHER, S.S., 3/8 DIA.	4	4
94	FA95007-12	RETAINING RING, 1 DIA. 3/16	1	1
95	KE55440	WIPER SEAL	1	1
96	FA05002-47	O-RING, 2 DIA. X 2 DIA. 3/16	1	1
97	KE55446	PLATE, BEARING RETAINING	1	1
98	FA11511-2	10-32 X 3/8 PAN HEAD TORX SCREW (CP OPTION)	4	4
	F182	10-32 X 1/2 SLOTTED HEAD S.S. SCREW (NO CP OPTION)	4	4
99	KE02383	HOUSING ASSEMBLY, TRUNNION	1	1
100	FA30505-1	FLAT WASHER 1/4	4	4
101	FA11258	1/4-20 X 3/4 BOLT, 18-8 S.S.	4	4
102	F01518-1	SHUT SET VALVE	1	1
103	N0640C1.5	NIPPLE	1	1
104	SK2472702	SWIVEL CONNECTOR	1	1
105	KE95497	RISK OF ELECTRIC SYMBOL	1	1
106	KE95552-2	LABEL, GAS RATING	1	1
107	KE95533-9	TAG	1	1
108	KE51258-1	CONDUIT CONNECTOR	1	1
110	KE54907-16	PLUG BUTTON	1	1
111	KE55356	EXTRUDEC WASHER	4	4
113	KE55407	EQUIPMENT INSTALLATION LABEL	1	1
114	FAL1511-2	10-32 X 3/8 PAN HEAD TORX SCREW (CP OPTION)	8	8
114	FL 82	10-32 X 1/2 S.S. SLOTTED HEAD SCREW (NO CP OPTION)	8	8
120	FAL1511-11	1/4-20 X 3/4 PAN HEAD TORX SCREW (CP OPTION)	2	2
	FA11258	1/4-20 X 3/4 PAN HEAD CAP SCREW (NO CP OPTION)	2	2

COMPONENT PLATE ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE602092	COMPONENT PLATE	1
2.	KE53838-10	TRANSFORMER	1
3.	KE51139	FUSE HOLDER	2
4.	KE50753-10	RELAY, DTDP / 10A / 120VAC	2
5.	KE50581	BRIDGE RECTIFIER	1
6.	SK2475500	RELAY (ELECTRIC MODELS ONLY)	1
7.	KE53838-25	TRANSFORMER	1
8.	KE53444	BRACKET, TRANSFORMER MOUNTING	1
9.	F10	8-32 X 3/8	3
10.	KE50473	GROUND LUG	1
11.	FA904	6-32 x 5/8	2
12.	KE52936-8	FUSE, 1.25 AMP.	1
14.	FA15018-8	8-32 X 1	1
15.	SK2475600	HOLDER (ELECTRIC MODELS ONLY)	1
16.	SK2475700	SPRING (ELECTRIC MODELS ONLY)	1
17.	F904	6-32 X 5/8 (ELECTRIC MODELS ONLY)	2
18.	KE50577	TERMINAL BLOCK (ELECTRIC MODELS ONLY)	3
19.	KE50576	END (ELECTRIC MODELS ONLY)	1
20.	KE50750-7	CONTACTOR (ELECTRIC MODELS ONLY)	2
21.	KE52936-6	FUSE, 3 AMP	1

BURNER ASSEMBLY



BURNER ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK00399-1	BURNER PAN ASSEMBLY (30 GALLON)	1
	SK00389-1	BURNER PAN ASSEMBLY (40 GALLON)	1
2.	SK000086-3	BURNER ASSEMBLY (30 GALLON)	1
	SK000086-4	BURNER ASSEMBLY (40 GALLON)	1
3.	SK2460300	INSULATION, SIDE	2
4.	SK2460700	INSULATION, BURNER/IGNITOR	1
5.	SK2460500	INSULATION FRONT (30 GALLON)	1
	SK2460400	INSULATION FRONT (40 GALLON)	1
6.	SK50939-1	INSULATION BOTTOM (30 GALLON)	1
	SK50919-1	INSULATION BOTTOM (40 GALLON)	1
7.	SK2494999	BAFFLE ASSEMBLY (30 GALLON)	1
	SK2471099	BAFFLE ASSEMBLY (40 GALLON)	1
8.	SK00396-1	BOX ASSEMBLY	1
9.	SK2471200	HEAT SHIELD (30 GALLON)	1
	SK50927-1	HEAT SHIELD (40 GALLON)	1
10.*	SK00397-1	GAS IGNITION CONTROL ASSEMBLY.	1
	* SEE "GAS IGNITION CONTROL SYSTEM" DRAWING FOR MORE DETAIL		
11.	SK2463299	AIR MIX CHAMBER ASSEMBLY	1
12.	SK2460000	GASKET, BURNER MOUNTING	2
13.	SK2460200	GASKET, FAN MOUNTING	1
14.	SK2476000	BLOWER FAN	1
15.	SK2480101	AIR ORIFICE: BLOWER (30 GALLON)	1
	SK2480100	AIR ORIFICE: BLOWER (40 GALLON)	1
16.	SK2488100	AIR SWITCH	1
17.	SK2491100	1/4 TUBE AIR PROVE	1
18.	SK2473000	COMPRESSION TEE	1
19.	SK2491200	1/4 TUBE AIR MIX - IGNITOR	1
20.	SK2491300	1/4 TUBE GAS VALVE ELBOW COMPT.	1
21.	FI05226-1	NIPPLE	1
22.	FI00073-1	UNION	1
23.	FI05226-7	NIPPLE	1
24.	FI00040-1	ELBOW	2
25.	SK01477-11	NIPPLE (30 GALLON)	1
	SK01477-12	NIPPLE (40 GALLON)	1
26.	FI05231	REDUCER	1
27.	SK2459299	COUPLING ASSEMBLY	1
28.	SK076015-2	ELBOW, 3/4 UNION	1
29.	SK076029-70	UNION	1
30.	SK2489700	STREET ELBOW	1
32.	FI05226-8	NIPPLE	1
34.	SK2462899	COVER ASSEMBLY, GAS COMPT. BOX	1
35.	SK50933-1	SENSOR	1
36.	SK2490600	FULL COUPLING, S.S.	1
37.	SK2487800	BAYONET, ADAPTER	1
38.	F95	PAL NUT	15-19

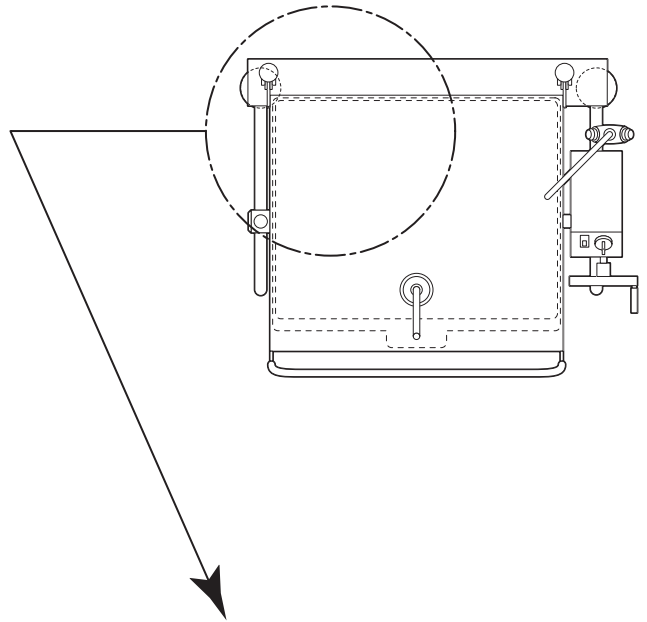
If metal air switch:
KE02423 conversion kit

if plastic air switch KE55453-1

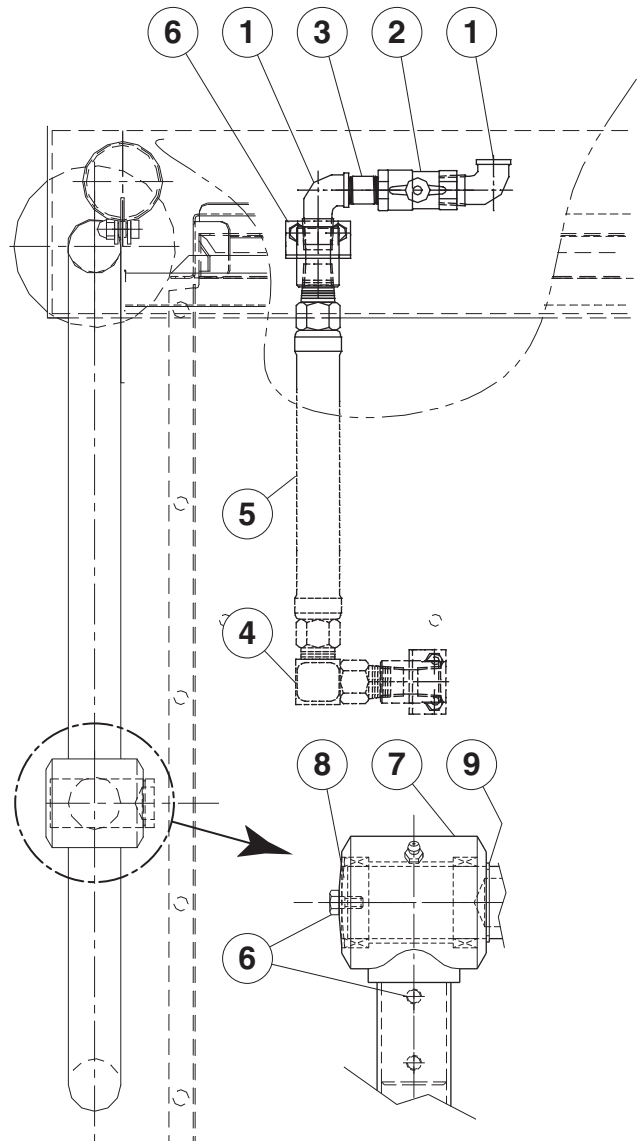
BURNER ASSEMBLY (continued)

39.	F10	SCREW, PAN QUARD, 8-32X3/8	.....6
40.	F900	K-LOCK NUT, 10-24	.....3
41.	FA21008	HEX NUT, 1/4 -20 S.S.	.....23-25
42.	FA31029	SPLIT LOCKWASHER, 1/4-S.S.	.....23-25
43.	FA11258	HEX SCREW, 1/4-20 X 3/4	.....8-10
44.	FA30505-1	WASHER, 1/4	.....13-15
45.	SK50399	CONNECTOR, 1/2 LIQUIDTIGHT	.....1
46.	KE54617-1	CONNECTOR, 45 DEG. 1/2 TIGHT	.....1
47.	KE51916-2	1/2 LIQUIDTIGHT	.....1
48.	SK50941-1	PROBE INSULATION (30 GALLON)	.....1
	SK50941-2	PROBE INSULATION (40 GALLON)	.....1
49.	FA30505-3	WASHER	.....1
50.	SK2460900	GASKET	.....1
51.*	SK00398-1	PILOT ASSEMBLY, NATURAL GAS	.....1
	SK00398-2	PILOT ASSEMBLY, LP	.....1
	* SEE "PILOT ASSEMBLY" DRAWING FOR MORE DETAIL		
52.	SK2488200	GAS VALVE, NATURAL GAS	.....1
	SK2488201	GAS VALVE, LP	.....1
53.	SK2499600	ORIFICE, NATURAL GAS (30 GALLON)	.....1
	SK2473100	ORIFICE, NATURAL GAS (40 GALLON)	.....1
	SK2499700	ORIFICE, LP. (30 GALLON)	.....1
	SK2473200	ORIFICE, LP. (40 GALLON)	.....1

GAS TRAIN, TRUNNION ASSEMBLIES



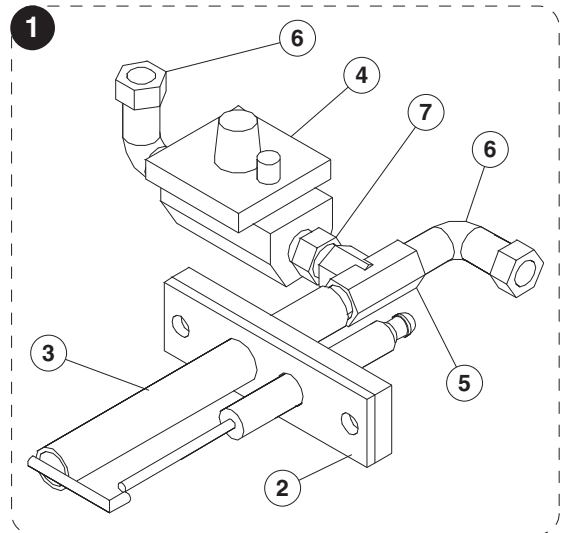
ITEM NO.	PART NO.	DESCRIPTION	QTY.
GAS TRAIN			
1.	FI00134	ELBOW	2
2.	F01518-1	SHUT OFF VALVE	1
3.	FI00607	NIPPLE	1
4.	SK2472702	SWIVEL CONNECTOR	1
5.	SK2472701	GAS CONNECTOR HOSE	1
6.	SK2459299	BRACKET ASSEMBLY, GAS LINE ...	1
TRUNNION			
6.	FA95027	BOLT MODIFIED	3
7.	KE00351	TRUNNION HOUSING ASSEMBLY ..	1
8.	KE50666	SPHERICAL WASHER	1
9.	FA95007-1	RETAINING RING	1



PILOT ASSEMBLY

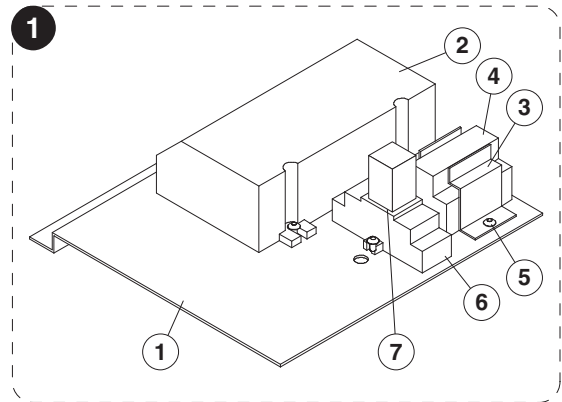
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK00398-1	PILOT ASSEMBLY, NATURAL GAS	1
	SK00398-2	PILOT ASSEMBLY, LP	1
2.	SK2460100	GASKET	1
3.	SK2477000	IGNITOR/PILOT ASSEMBLY	1
4.	SK2488300	GAS REGULATOR	1
5.	SK2489800	TEE, 1/8	1
6.	FI05198-1	ELBOW, 1/8	2
7.	SK2488400	VARIABLE ORIFICE NATURAL GAS	1
	SK2488401	VARIABLE ORIFICE PROPANE	1

SE00117 Ignition Cable

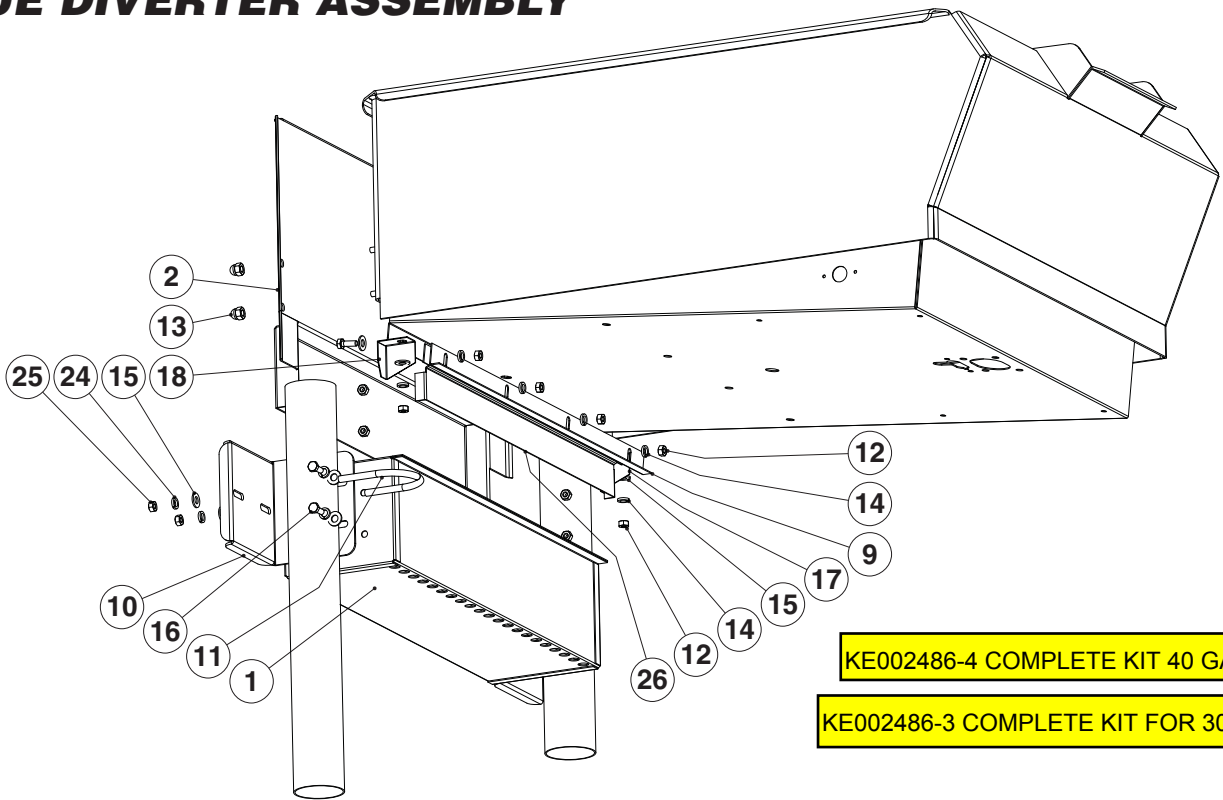


GAS IGNITION CONTROL SYSTEM

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK00397-1	GAS IGNITION CONTROL ASSEMBLY	1
	105693	GAS CONTROL MODULE	1
2.	SK50931	BRACKET FOR HIGH LIMIT	1
3.	KE55069-7	HIGH LIMIT	1
4.	FA12	SCREW, 10-24 X 3/8	8
5.	SK2475600	HOLDER	1
6.	SK2475500	RELAY	1
7.	SK2475700	SPRING	1



FLUE DIVERTER ASSEMBLY



KE002486-4 COMPLETE KIT 40 GALLON

KE002486-3 COMPLETE KIT FOR 30 GALLON

ITEM NO.	PART NO.	DESCRIPTION	QTY
1.	KE002440-1	CHANNEL WLD'T ASS'Y; 30	.1
	KE002440-2	CHANNEL WLD'T ASS'Y; 40	.1
2.	KE602434-1	FLUE FRONT; 30	.1
	KE602434-2	FLUE FRONT; 40	.1
9.	KE602438-1	ANGLE; 30	.1
	KE602438-1	ANGLE; 30	.1
10.	KE602444	BRACKET; FRAME CLAMP	.2
11.	FA95092-3	U; 3" FRAME CLAMP	.2
12.	FA21008	HEX NUT; S.S.; 1/4-20	.6/8
13.	FA21501-2	HEX HEAD DOMED NUT; S.S.; 1/4-20	.4
14.	FA31029	SPRING LOCK WASHER; 1/4 I.D.	10/12
15.	FA30505-1	FLAT WASHER; S.S.; 1/4 I.D.	14/16
16.	FA11258	HEX HEAD SCREW; S.S.; 1/4-20 X3/4	.8/10
17.	KE602373-1	FILLER PIECE; R.H.	.1
18.	KE602373-2	FILLER PIECE; L.H.	.1
19.	SK2330100	SILICONE (NOT SHOWN)	.1
22.	SK2472405	GASKET, PAN TO FLUE (NOT SHOWN); 30	.1
	SK2472406	GASKET, PAN TO FLUE (NOT SHOWN); 40	.1
23.	KE602382	INSULATION (NOT SHOWN)	.1
24.	FA31030	SPRING LOCK WASHER, 5/16" I.D.	.4
25.	FA21024	HEX NUT, S.S. 5/16"-18	.4
26.	KE602568-1	FLUE BACK; 30	.1
	KE602568-2	FLUE BACK; 40	.1
27.	KE802607	INSTALLATION INSTRUCTIONS FOR SERVICE (NOT SHOWN)	.1

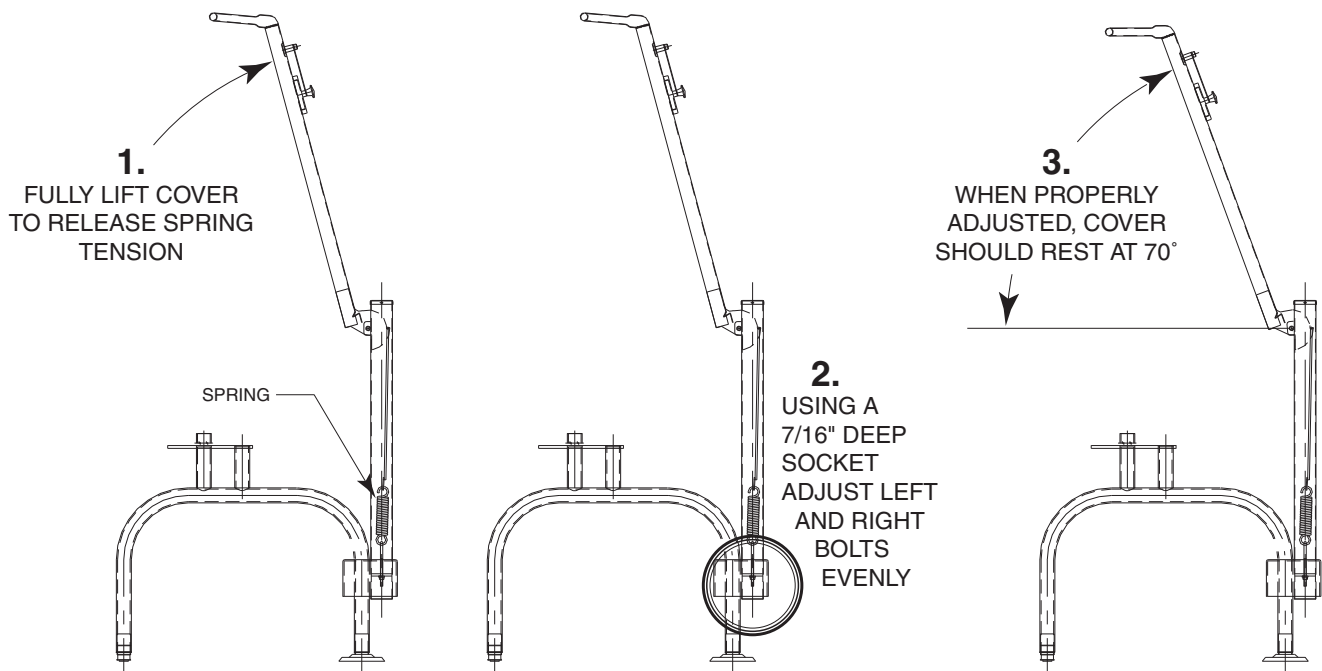
MAINTENANCE



WARNING:

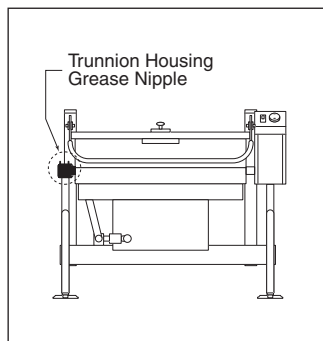
Any maintenance or service involving disassembly of components should be made by a qualified service technician. Ensure gas, electrical and water supply (if applicable) to the unit are shut off.

HINGE ADJUSTMENT INSTRUCTIONS



LUBRICATION PROCEDURE

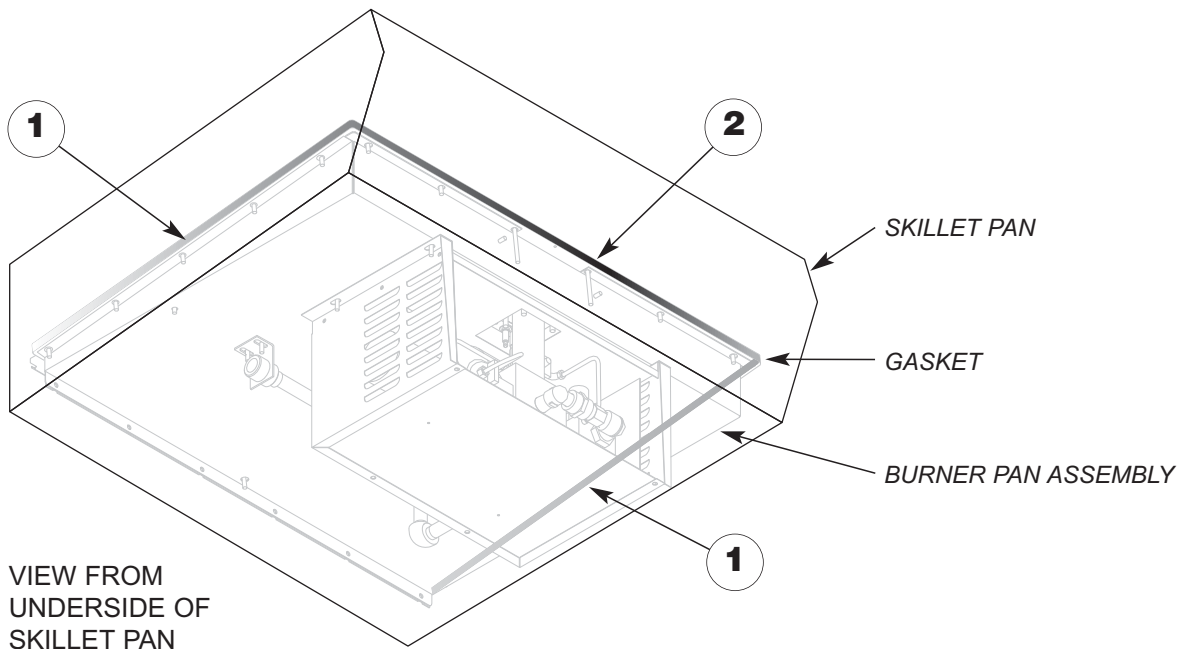
Lubricate the following parts every three months to insure smooth operation and reduce wear.



TRUNNIONS

On the left hand side of the skillet there are two grease nipples on the top back portion of the trunnion housing.

BURNER ASSEMBLY GASKET EXAMINATION PROCEDURE



NOTE: It is imperative that this procedure be completed at least twice yearly.

1. Turn skillet to ON. The burner must be firing during this procedure.
2. Using a stainless steel extension mirror, inspect gasket between burner pan assembly and skillet pan (sides and front only).
3. Replace gasket if:
 - gasket shows signs of deterioration
 - a flame can be seen coming through the gasket
 - condensation forms on the extension mirror (indicating escaping heat)

GASKET PART #s

		30 GALLON	40 GALLON
1	SIDES	SK2472402	SK2472402
2	FRONT	SK2472400	SK2472401

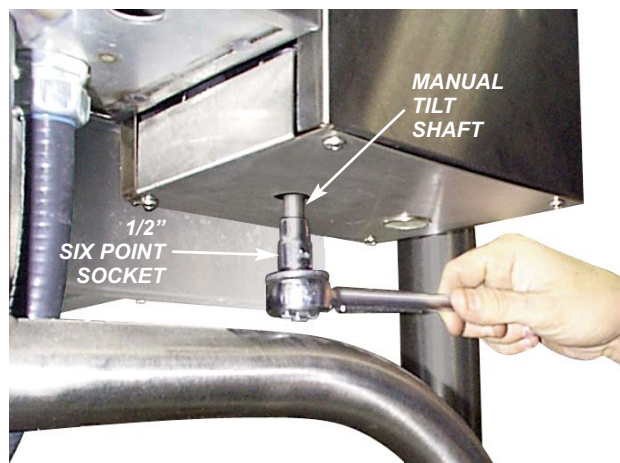
SEQUENCE OF OPERATIONS

When using these instructions refer to the SGL-TI wiring schematic.

- 115 VAC is sent through the 3 amp fuse to
 - The primary of the 24 VAC transformer
 - 24 VAC is sent from the secondary of the 24VAC transformer to the Hi/Off/Low Switch.
 - Contacts of the RI Blower Relay
 - The optional Power Tilt Circuit
- With the Hi/Off/Low switch in the Low position.
 - 24 VAC is sent through the normally closed high limit switch to the mercury switch.
 - If the skillet is in the down position then 24 VAC is sent through mercury switch to pin 9 on the thermostat.
- With the Hi/Off/Low Switch in the Hi position 24 VAC is also sent to the Hi terminal on the gas valve.
 - Gas will not leave the valve until the main gas valve opens (see step 7).
- If the steamer is calling for heat the 24 VAC is sent from pin number 10 to R1 Blower Relay.
 - The normally open contacts of the blower relay close sending 115 VAC to the blower.
 - The blower turns closing the air switch.
 - 24 VAC is sent through the now closed air switch to the ignition module.
- Ignition module sends spark from terminal SP to the igniter.
- Ignition module also sends 24 VAC from pins PV and MV/PV to the pilot coil of the gas valve pins P and C.
 - Pilot valve opens sending gas to the Pilot assembly.
 - Spark and gas meet and pilot is ignited.
 - AC current is passed through the flame and rectified then sent back to the ignition module.
- If the ignition module reads a minimum of 1.0 micro-amps through the burner ground then 24 VAC is sent from pins MV and MV/PV of the ignition module to pins M and C on the Gas valve.
 - The main (low) gas valve opens and gas (3.0" W.C. natural gas or 8.0" W.C. LP) is sent to the burner.
 - If the skillet is in the Hi position (see step 3) 24VAC will be at the HI terminal and the gas pressure will be 3.5" W.C. natural or 10.0" W.C. LP.
 - Burner ignites until thermostat is satisfied.
- When thermostat is satisfied, 24 VAC is removed from pin 10 on the thermostat and the heat circuit is de-energized
- If the skillet has the optional Power Tilt option and is in the down position, 115 VAC is sent from the customer connect through the circuit breaker and the up limit switch to the tilt switch.
- With the tilt switch in switch in the Up position
 - 115 VAC is sent to the Bridge Rectifier
 - 115 VDC is sent from the rectifier through the 30-ohm resistor to the normally open RY10 and RY11 relay contacts.
 - 115 VAC is sent to the RY 10 relay coil.
 - The normally open RY10 contact close and 90 VDC is sent to the DC motor
 - The DC motor is energized and the skillet tilts until the switch is released or the up limit switch opens.
- With the Tilt switch in the Down position
 - 115 VAC is sent to the Bridge Rectifier
 - 115 DC is sent from the rectifier through the 30-ohm resistor to the normally open RY10 and RY11 relay contacts.
 - 115 VAC is sent to the RY 11 relay coil.
 - The normally open RY 11 contact close and the polarity of the 90 VDC is reversed.
 - The DC motor is energized and the skillet lowers until the switch is released or the Down limit switch opens.

POWER TILT MANUAL OVERRIDE

In case of power failure or malfunction the skillet pan can be tilted manually following these instructions.

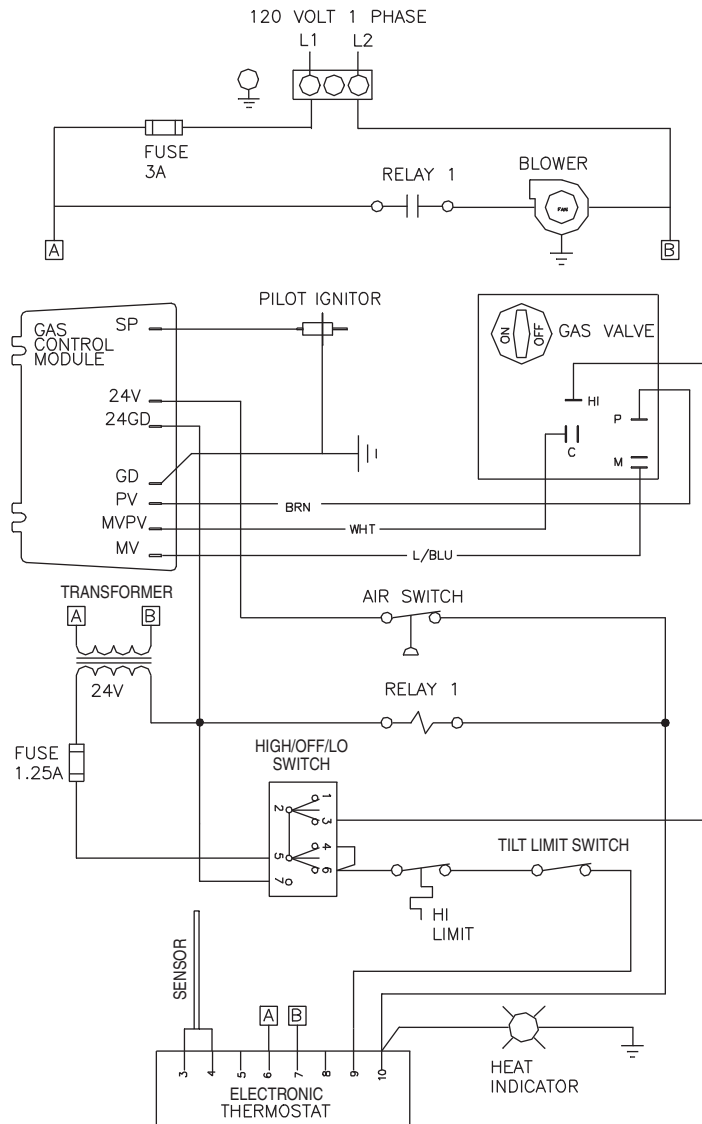


1. Fit a 1/2" SIX POINT SOCKET over the MANUAL TILT SHAFT as shown above.
2. Turn socket wrench clockwise to empty contents.

SPARE PARTS LIST

PART NO.	DESCRIPTION	QTY.
SK2474500	SWTCH, TILT LIMIT	1
KE53838-25	TRANSFORMER	1
KE52936-8	FUSE, 1.25 AMP	1
KE52936-6	FUSE, 3 AMP	1
SK00397-1	GAS IGNITION CONTROL ASSEMBLY.	1
SK50933-1	TEMPERATURE SENSOR (RTD)	1
SK2488200	GAS VALVE, NATURAL GAS	1
SK2488201	GAS VALVE, LP	1
FA15019-6	SHOULDER BOLT	1
FA21024	5-16 HEX NUT, 18-8 S.S.	1
SK2498399	POTENTIOMETER SHAFT ASSEMBLY	1
	<i>INCLUDES:</i>	
SK2166800	POTENTIOMETER SHAFT	1
SK2167000	TENSION PIN	1
SK2167100	WASHER, BOWED/SPRING	1
SK2167200	RETAINING RING, SP-NR #R1000-25	1
SK2167300	PANEL BEARING	1
SK2382800	RETAINING RING CLIP	1
SK50905-1	INDICATOR LIGHT CLEAR, 28V	1
SK2142002	THERMOSTAT	1
SK2477000	IGNITOR/PILOT ASSEMBLY	1
SK2488300	GAS REGULATOR	1
SK2475300	GAS CONTROL MODULE	1
KE55069-7	SAFETY THERMOSTAT	1
SK2475500	RELAY	1
SK2474102	SWITCH, ON/OFF/ON, DUAL FIRING	1
	POWER TILT ONLY	
KE53137-3	TILT SWITCH, ON/OFF/ON	1
KE53184	CONTACT SECTION HOLDER (LATCH)	1
KE53138-1	CONTACT BLOCK	4
KE50579-2	CIRCUIT BREAKER	1
FA05002-34	"O" RING, CIRCUIT BREAKER	1
KE50580	WATER RESISTANT BOOT	1

WIRING DIAGRAM



ELECTRICAL COMPONENT PART #s

FUSE 3A	KE52936-6
FUSE 1.25A	KE52936-8
RELAY 1	SK2475500
BLOWER	SK2476000
PILOT IGNITOR	SK2477000
GAS CONTROL MODULE	105693
GAS VALVE (NATURAL)	KE003671-1
GAS VALVE (LP)	1057821
TRANSFORMER, 24V	KE53838-25
AIR SWITCH	KE55453-1
HIGH/OFF/LO SWITCH	SK2474102
HIGH LIMIT	KE55069-7
TILT LIMIT SWITCH	SK2474500
THERMOSTAT	SE00119
SENSOR	SK50933-1
HEAT INDICATOR	SK50905-1
CIRCUIT BREAKER	KE50579-2
RY10 (RELAY)	KE50753-10
RY11 (RELAY)	KE50753-10
DC MOTOR	KE52832-5
BRIDGE RECTIFIER	KE50581
TILT SWITCH	KE003209-11
- SECTION	
- CONTACT BLOCK	

