



Operators Manual

Installation, Operation & Service

Electric Floor Model Kettles

For units built after August 1999

MODELS:

KEL-25, KEL-30, KEL-40, KEL-40-SH, KEL-60, KEL-80, KEL-100
KEL-25-T, KEL-40-T, KEL-60-T, KEL-80-T, KEL-100-T
KEL-40-SH, KEL-40-TSH, KEL-60-SH, KEL-60-TSH



Enodis

1333 East 179th St., Cleveland, Ohio, U.S.A. 44110

Phone: (216) 481-4900 Fax: (216) 481-3782
Visit our web site at www.clevelandrange.com

TABLE OF CONTENTS

Installation	<i>General</i>	1
	<i>Inspection</i>	1
	<i>Shipping Damage Instructions</i>	1
	<i>Installation</i>	1
	<i>Clearance Requirements</i>	1
	<i>Recommended Floor Drain Locations</i>	1
	<i>Recommended Floor Drain Detail</i>	2
	<i>Assembly</i>	2
	<i>Wire Connection</i>	2
	<i>Water</i>	2
	<i>Installation Checks</i>	3
	<i>Cleaning</i>	3
Operating Instructions	<i>General Parts Drawing</i>	4
	<i>Operating the Kettle</i>	5
	<i>Approximate Boiling Times</i>	5
Cleaning Instructions	<i>Care & Cleaning</i>	6
Service Parts	<i>Warranty</i>	7
	<i>Faucet Assembly</i>	7
	<i>Hinge Assembly</i>	8
	<i>Kettle Bottom & Side</i>	9-10
	<i>Control Console Components - Hand Tilt</i>	11-12
	<i>Control Console Components - Power Tilt</i>	13-14
	<i>Trunion Assembly</i>	15
	<i>2" Tangent Draw-Off Valve</i>	15
	<i>Spare Parts List</i>	16
Maintenance	<i>Inspection & Maintenance Check List</i>	17
	<i>Calibrating Procedure</i>	18
	<i>Pressure Relief Valve Periodic Testing Procedure</i>	18
	<i>Reservoir Fill Procedures</i>	19
	<i>Kettle Venting Instructions</i>	19
	<i>Vacuum Leak Test Procedure</i>	20
	<i>Repairing Leaks in Steam Jacketed Kettle Fittings</i>	20
	<i>Lubrication Procedure</i>	20
	<i>Hinge Adjustment Instruction</i>	20
	<i>Diagnostic Guide</i>	21-23
	<i>Wiring Diagrams</i>	24-25
Symbol Legend	26-27

INSTALLATION

GENERAL

Installation of the kettle must be accomplished by qualified electrical 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, NSF, ASME/Ntl. Bd., CSA, CGA, ETL, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

Note: Maximum voltage for LVD (low volt directive for Europe) to be 440 volts for CE marked appliances.

INSPECTION

Before unpacking visually inspect the unit for evidence of damage during shipping.

If damage is noticed, do not unpack the unit, follow Shipping Damage Instructions shown below.

SHIPPING DAMAGE INSTRUCTIONS

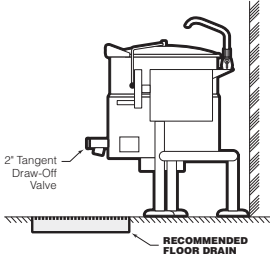
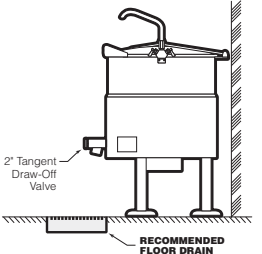
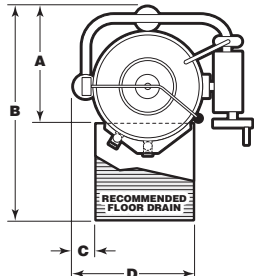
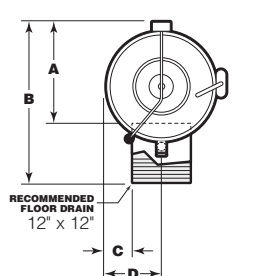
If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

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.

INSTALLATION

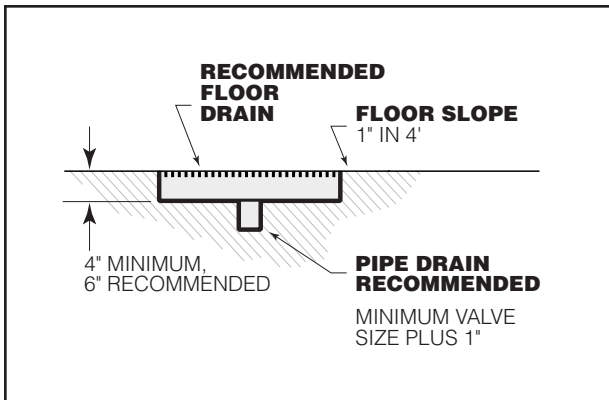
The first installation step is to refer to the Specification Sheets or Specification Drawings for detailed clearance and drain requirements in order to determine the location of the kettle. Next, carefully cut open the shipping carton for easy removal of the kettle.

CLEARANCE REQUIREMENTS & RECOMMENDED FLOOR DRAIN LOCATIONS

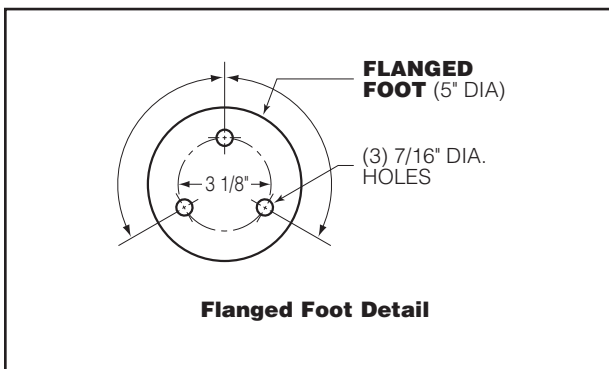
Clearance Requirements				
Back	Left Side	Right Side *		
0	0	12'		
* Minimum recommended clearance for service				
				
 <p style="text-align: center;">Tilting Models</p>		 <p style="text-align: center;">Stationary Models</p>		
Recommended Floor Drain Locations **				
Model #	A	B	C	D
KEL-25	22 3/8"	34"	5 1/4"	11 1/4"
KEL-30	25 3/8"	37"	6 3/4"	12 3/4"
KEL-40	28 5/8"	40"	7 3/4"	13 3/4"
KEL-40-SH	32 1/2"	44"	9 1/2"	15 1/2"
KEL-60	32 1/2"	44"	9 1/2"	15 1/2"
KEL-80	35 7/8"	47"	11 1/4"	17 1/4"
KEL-100	38 3/8"	50"	12 1/2"	18 1/2"
KEL-25-T	22 1/4"	51 3/4"	4"	24"
KEL-40-T	26"	56"	5 1/2"	28 1/2"
KEL-60-T	29 3/4"	62 1/2"	5 1/2"	31"
KEL-80-T	30 1/2"	65 3/8"	5 1/2"	35 1/2"
KEL-100-T	34 1/8"	69 1/4"	4"	40 1/2"

** Above dimensions apply to standard 2" Tangent Draw-Off Valve only. For other valves consult factory.

RECOMMENDED FLOOR DRAIN DETAIL



ASSEMBLY



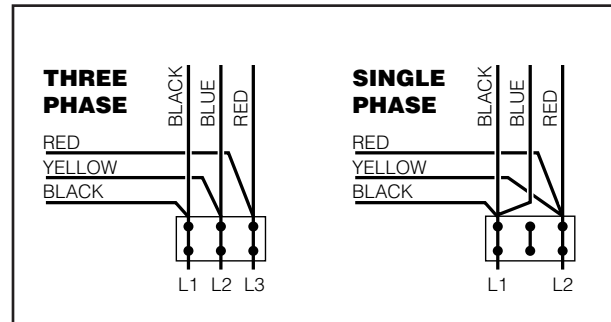
Position the kettle in its permanent location, and level the kettle by turning the adjustable flanged feet. Once positioned and leveled, permanently secure the kettle's flanged feet to the floor using 5/16" lag bolts and floor anchors (supplied by the installer). There are three bolts required to secure each of the flanged feet.

WIRE CONNECTION

Install in accordance with local codes and/or the National Electric Code ANSI/NFPA No. 70-1990 (USA) or the Canadian Electric Code CSA Standard C22.1 (Canada). A separate fused disconnect switch must be supplied and installed. The kettle must be electrically grounded by the installer.

The electrical supply must match the power requirements specified on the kettle's rating plate. The copper wiring must be adequate to carry the required current at the rated voltage. Refer to specification sheet for all electrical specifications.

Note: Maximum voltage for LVD (low voltage directive for Europe) to be 440 volts for CE marked appliances.



The kettle is wired for 3-phase operation at the factory. For single phase operation, rewire the terminal block to that shown in the above diagram.

Note: Ensure main power is turned off before connecting wires.

Stationary Models

Remove the screws securing the dome-shaped service cover underneath the kettle and remove the cover. A wiring diagram is affixed to the inside of cover. Fasten permanent copper wiring to the three-connection terminal block. Be sure to connect ground wire to the separate ground terminal connector (ground lug). Slide the cover's slot over the wiring and secure the cover to kettle with the screws.

Tilting Models

First remove the handwheel by loosening the allen screw. Then remove the two screws at the front and rear of the console cover and remove the cover. A wiring diagram is affixed to the underside of the console cover. Feed permanent copper wiring through the cut-out in the bottom of the console, and fasten to the three-connection terminal block. Be sure to connect the ground terminal connector (ground lug). Replace the console cover and handwheel.

WATER

The sealed jacket of the electric kettle is precharged with the correct amount of a water-based formula, and therefore, no water connection is required to the kettle jacket. The kettle can be equipped with optional hot and cold water taps, the taps require 1/2" copper tubing as supply lines.

INSTALLATION CHECKS

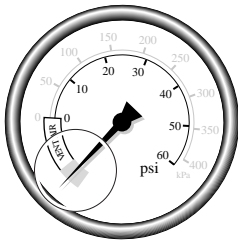
Although the kettle has been thoroughly tested before leaving the factory, the installer is responsible for ensuring the proper operation of kettle once installed.

Visual Checks

1. Check Tilting (tilting kettles):
 - A/ Gearbox tilts kettle smoothly and freely.
2. Insure there are:
 - A/ Three lag bolts securely holding each foot
 - B/ The bottom cover (stationary kettles) is in place and held with a nut.
 - C/ The console cover (tilting kettles) is in place and held with a screw.

Performance Checks

1. Supply power to the kettle by placing the fused disconnect switch to the "ON" position.



2. Before turning the kettle on, read the Vacuum/Pressure Gauge (4). The gauge's needle should be in the green zone. If the needle is in the "VENT AIR" zone, follow Kettle Venting Procedure on page 19 of this manual.
3. Turn the kettle's ON/OFF Switch/Solid State Temperature Control (1) to "1" (Min.). The Heat Indicator Light (Green) (2) should remain lit, indicating the element is on, until the set temperature is reached (130°F/54°C). Then the green light will cycle on and off, indicating the element is cycling on and off to maintain temperature.
4. Tilt the kettle forward (tilting models only). The Low Water Indicator Light (Red) (3) should be lit when the kettle is in a tilted position. This light indicates that the element has automatically been shut off by the kettle's safety circuit. This is a normal condition when the kettle is in a tilted position.
5. Raise the kettle to the upright position. The Low Water Indicator Light (Red) (3) should go out

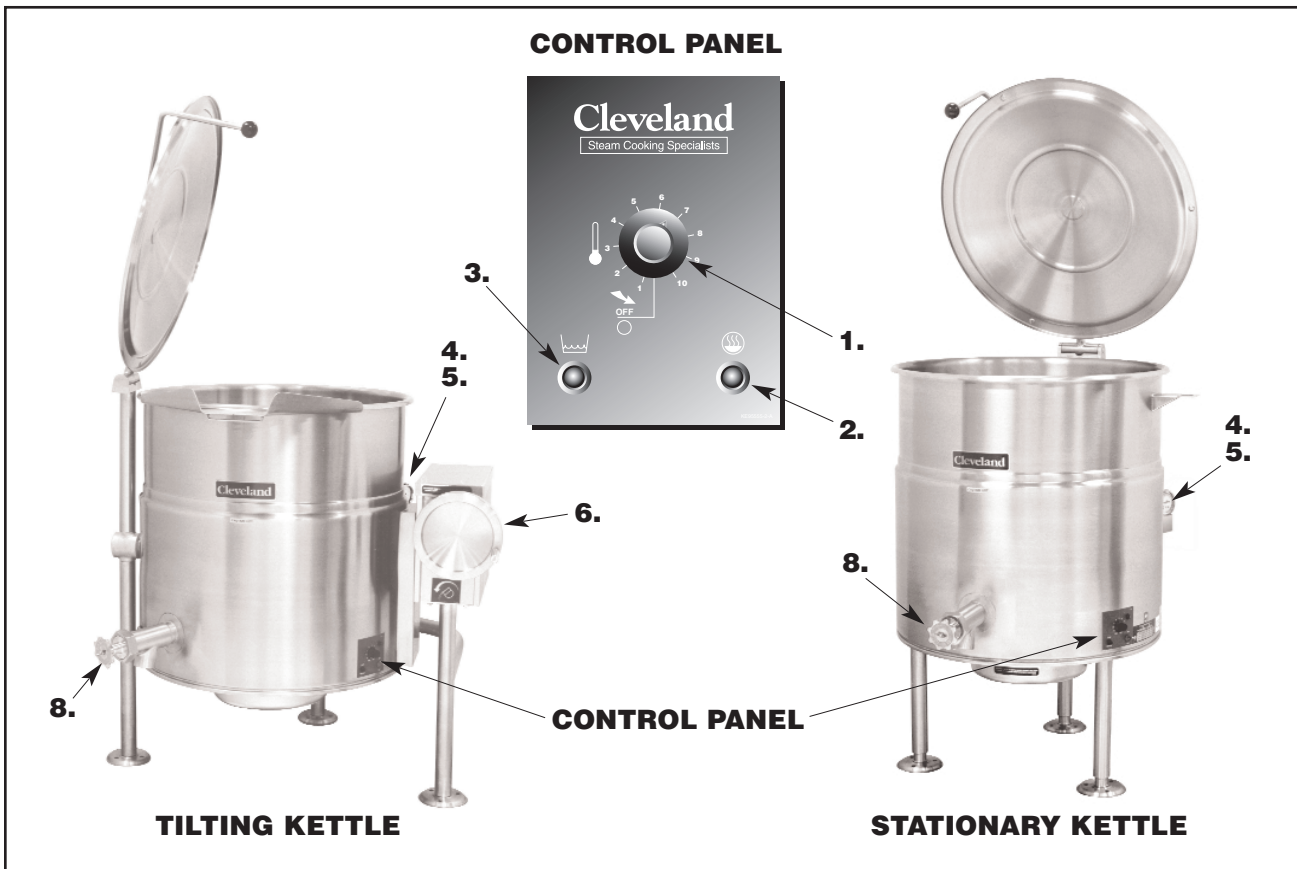
when the kettle is upright. If the red light remains lit in the upright position, it indicates a low water condition, and water must be added to the reservoir before the kettle can be operated. Refer to the Reservoir Fill Procedures on page 19 of this manual.

6. Turn the ON/OFF Switch/Solid State Temperature Control (1) to "10" (Max.) and allow the kettle to preheat. The green light should remain on until the set temperature (260°F/127°C) is reached. Then the green light will cycle ON and OFF, indicating the element is cycling ON and OFF to maintain temperature. Fill the kettle with cold water to the steam jacket's welded seam. Refer to the Temperature Range Chart on page 5 for the time required to bring the water to a boil.
7. When all testing is complete, empty the kettle and turn the ON/OFF Switch/Solid State Temperature Control (1) to the "OFF" position.

CLEANING

After installation the kettle must be thoroughly cleaned and sanitized prior to cooking. See complete cleaning instructions on page 6 of this manual.

OPERATING INSTRUCTIONS



General Parts Drawing

ITEM #	DESCRIPTION	FUNCTION
1.	On-Off Switch/Solid State Temperature Control	Turns kettle ON/OFF and allows the operator to adjust the kettle temperature in increments from 1 (Min.) to 10 (Max.). (see Temperature Range Chart in the Operating Instructions section on page 5 of this manual).
2.	Heat Indicator Light (Green)	When lit, indicates that the kettle element is on. Cycles ON-OFF with element.
3.	Low Water Indicator Light (Red)	When lit, indicates that the kettle is low on water and will not operate in this condition (see Reservoir Fill Procedures on page 19 of this manual).
4.	Vacuum/Pressure Gauge	Indicate steam pressure in PSI inside steam jacket as well as vacuum in inches of mercury.
5.	Pressure Relief Valve (not shown)	This valve is used to vent the kettle and in the unlikely event there is an excess steam build-up in the jacket, this valve opens automatically to relieve this pressure.
6.	Tilt Wheel	Used for tilting the kettle up or down. Some units have an optional Power Tilt Control Switch located in the same position.
7.	Power Tilt Control Switch (not shown)	Used for tilting the kettle up or down.
8.	Tangent Draw-Off Valve	Used for draining product or wash water from kettle. It is supplied as standard equipment on stationary kettles and is optional on tilting kettles.

OPERATING THE KETTLE

DO NOT LEAN ON OR PLACE OBJECTS ON KETTLE LIP. SERIOUS INJURY COULD RESULT IF KETTLE TIPPED OVER, SPILLING HOT CONTENTS.

1. Before turning kettle on, read the Vacuum/Pressure Gauge (4). The gauges needle should be in the green zone. If the needle is in the "VENT AIR" zone, refer to the Kettle Venting Instructions (page 19). Any air that may be present will increase cooking times. Once heated, the kettle's normal maximum operating pressure is approximately 10-12 psi, while cooking a water base product.
2. Ensure that the electrical service to the kettle is turned on at the fused disconnect switch.

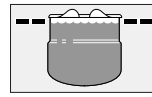
Temperature Control Setting	Approximate Product Temperature	
	°F	°C
1. (Min.)	130	54
2.	145	63
3.	160	71
4.	170	77
5.	185	85
6.	195	91
7.	210	99
8.	230	110
9.	245	118
10. (Max.)	260	127
NOTE: Certain combinations of ingredients will result in temperature variations		

Temperature Range Chart

3. Preheat the kettle by turning the ON/OFF Switch/Solid State Temperature Control (1) to the desired temperature setting (see above "Temperature Range Chart"). The Heat Indicator Light (Green) (2) will remain lit, indicating the burner is lit, until the temperature setting is reached. When the green light goes off, the heaters are off, and preheating is complete.

NOTE: When cooking egg and milk products, the kettle should not be preheated, as products of this nature adhere to hot cooking surfaces. These types of food should be placed in the kettle before heating is begun.

4. Place food product into the kettle. The Heat Indicator Light (Green) (2) will cycle on and off indicating the elements are cycling on and off to maintain the set temperature.



NOTE: Do not fill kettle above recommended level marked on outside of kettle.

NOTE: The Low Water Indicator Light (Red) (3) should not be lit during kettle operation. This light indicates that the elements have been automatically shut off by the kettle's safety circuit. It is normal for the red light to come on when the kettle is in a tilted position. However, the kettle cannot be operated when the red light remains lit while the kettle is in the upright position. This indicates a low water condition, and water must be added to the reservoir. Refer to Reservoir Fill Procedures on page 19 of this manual for details.

5. When cooking is completed place ON/OFF Switch/Solid State Temperature Control (1) to the "OFF" position.
6. Pour the contents of the kettle into an appropriate container by tilting the kettle forward. Care should be taken to pour slowly enough to avoid splashing off the product.

NOTE: As with cleaning food soil from any cookware, an important part of kettle cleaning is to prevent food from drying on. For this reason, cleaning should be completed immediately after cooked foods are removed. Refer to the Cleaning Instructions (page 6) for detailed kettle washing procedures.

APPROXIMATE BOILING TIMES

Gals.	Ltrs.	Times in Minutes					
		Standard Wattage			High Wattage*		
		208V	240V	480V	208V	240V	480V
25	95	60	45	60	40	30	30
40	150	60	50	75	40	30	30
60	225	100	75	75	50	40	40
80	300	130	100	100	65	50	50
100	375	160	120	120	80	60	60

*High Wattage is only available with 3 phase units.

The accompanying chart shows approximate times required for electric kettles of various capacities to boil water. The ON/OFF Switch/Solid State Temperature Control (1) must be set at "10" (Max.) throughout the heatup period. Water will boil about 1/3 faster if the kettle is filled only to the outer steam jacket's welded seam, resulting in a kettle filled to 2/3 capacity.

CLEANING INSTRUCTIONS

CARE AND CLEANING

Your kettle must be cleaned regularly to maintain its fast, efficient cooking performance, and to ensure its continued safe, reliable operation.

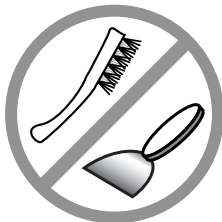


Chloride Cleaners

WARNING: Do not use chloride base detergents. There is a growing number of non-chloride cleaners available. If unsure of the cleaners chlorine content consult the supplier. Also avoid cleaners containing quaternary salt as they can cause the stainless steel to pit and rust.

WARNING: If any gaskets or seals are found defective, replace or repair immediately. (See Service Parts Drawings for part identification.)

1. Place the kettle's On-Off Switch/Solid State Temperature Control (1) to the "OFF" position.
2. Prepare a warm water and mild detergent solution in the kettle.
3. Remove food soil inside the kettle using a nylon brush.



Wire Brush & Scrapers

WARNING: Do not use a metal bristle brush or scraper, as this may permanently damage the kettle's stainless steel surface.

4. Loosen food which is stuck to the kettle by allowing it to soak at a low temperature setting.
5. If the kettle is equipped with a draw-off valve, it should be cleaned as follows:
 - a) Remove drain screen from bottom of kettle. Thoroughly wash and rinse the screen either in a sink or a dishwasher, then replace it into the kettle.
 - b) 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.

- c) In a sink, wash and rinse the inside of the valve body using a nylon brush.
 - d) Reassemble the draw-off valve by reversing the procedure for disassembly. The valve's hex nut should be hand tight only.
6. Rinse kettle interior thoroughly, then drain the rinse water. Do not leave water sitting in unit when not in use.
 7. Using mild soapy water and a damp sponge, wash the exterior of the kettle, rinse, and dry.



Steel Pads

NOTE: For more difficult cleaning applications one of the following can be used: alcohol, baking soda, vinegar, or a solution of ammonia in water.

Avoid the use of chloride cleansers, which may damage the kettle's stainless steel surface.

WARNING: Steel wool should never be used for cleaning the cooking chamber of the kettle. Particles of steel wool become embedded in the cooking surface and rust, which may corrode the stainless steel.

NOTE: Unit should not be cleaned with a water jet.

8. Leave the cover off when the kettle is not in use.

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 & Discolouration	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	

SERVICE PARTS

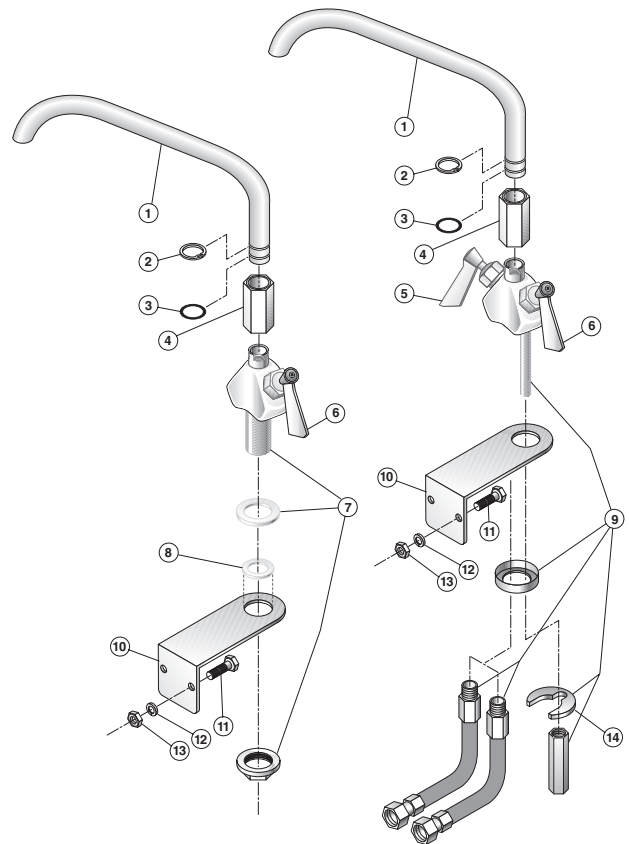
WARRANTY

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

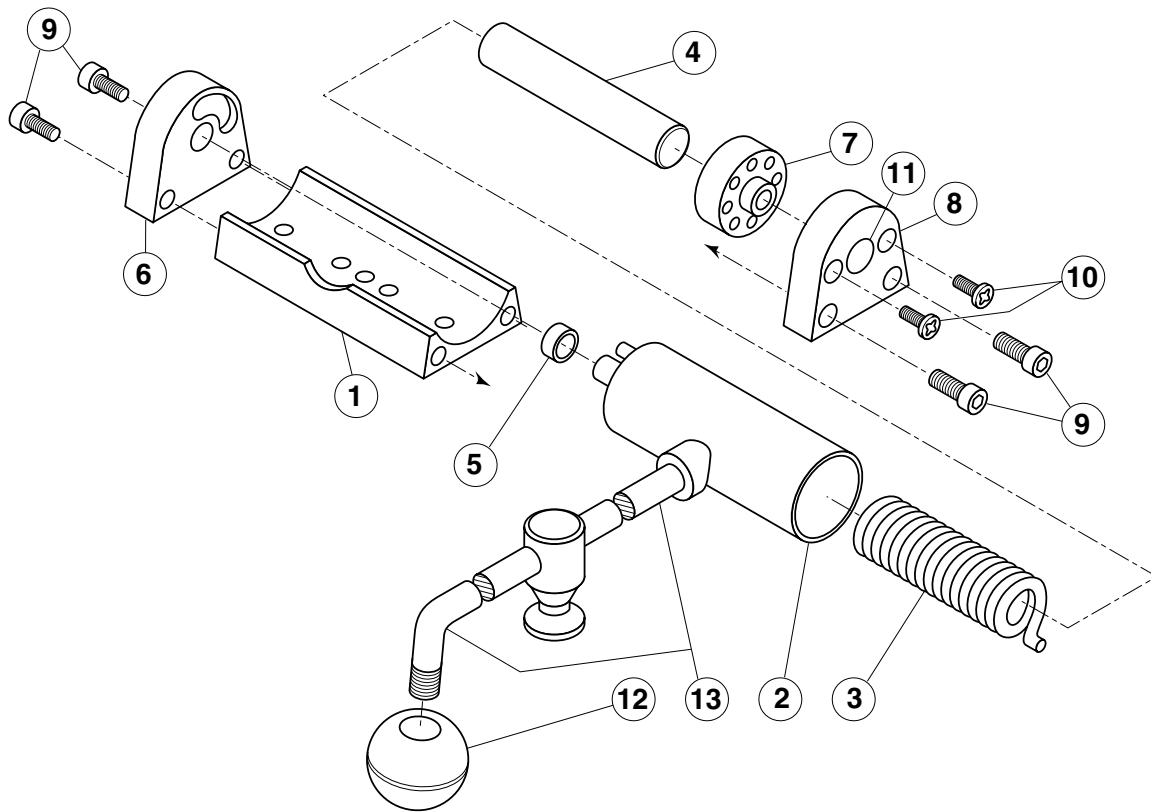
In order to preserve the various agency safety certification (UL, NSF, ASME/Ntl. Bd., etc.), only factory-supplied replacement parts should be used. The use of other than factory supplied replacement parts will void warranty.

FAUCET ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE50825-5	3/4" Spout1 (KEL-25/30/40/60/80/100 & 40-SH)	1
	KE50825-3	3/4" Spout (KEL-25-T)1	1
	KE50825-2	3/4" Spout (KEL-40/60/80/100-T)1	1
2.	FA95022	Retaining Ring1	1
3.	FA05002-19	"O" Ring1	1
4.	KE51736	Long Faucet Nut1	1
5.	SE50020	Hot Water Stem Assembly1 (Double Pantry only)	1
6.	SE50021	Cold Water Stem Assembly1	1
7.	KE51401	Single Pantry Body1 (c/w Item No. 6)	1
8.	KE50335	Adapter Washer1 (Single Pantry only)	1
9.	KE51403	Double Pantry Body1 (c/w Item No. 5&6)	1
10.	KE54159	Faucet Mounting Bracket1	1
11.	FA11258	Hex Cap Screw2	2
12.	FA30505	Washer2	2
13.	FA21008	Hex Nut2	2
14.	SE50447	Washer Horseshoe1	1

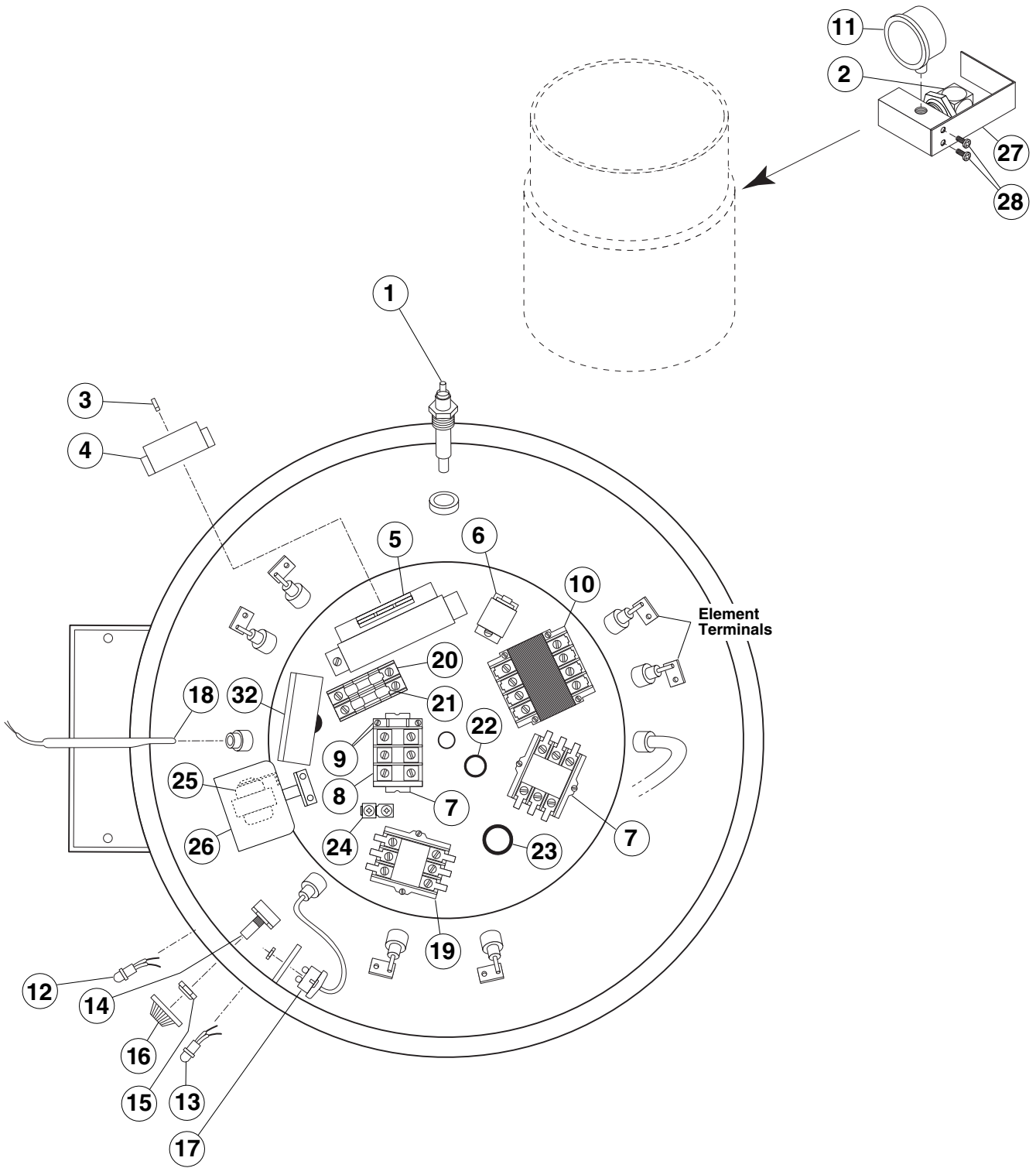


HINGE ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1. - 11	KE50597-1	Hinge Assembly - up to 40 gal.	1
	KE50597-2	60 & 80 gal.	1
	KE50597-3	100 gal. & up	1
1.	KE50882	Hinge Base	1
2.	KE51217	Hinge Cylinder	1
3.	KE50121-2	Torsion Spring - up to 40 gal.	1
	KE50121-1	60 gal & up	1
4.	KE50823-1	Hinge Pin - up to 80 gal.	1
	KE50823-2	100 gal. & up	1
5.	KE50824	Hinge Bearing	1
6.	KE50819-1	Hinge End Piece	1
7.	KE50620	Hinge Insert	1
8.	KE50819	Hinge End Piece	1
9.	FA11284	Screw, Socket Head	4
10.	FA11507	Cutting Screw,	2
11.	SK50418	Plug Button	1
12.	KE50151-E	Knob	1
13.		Cover Handle (specify model)	1

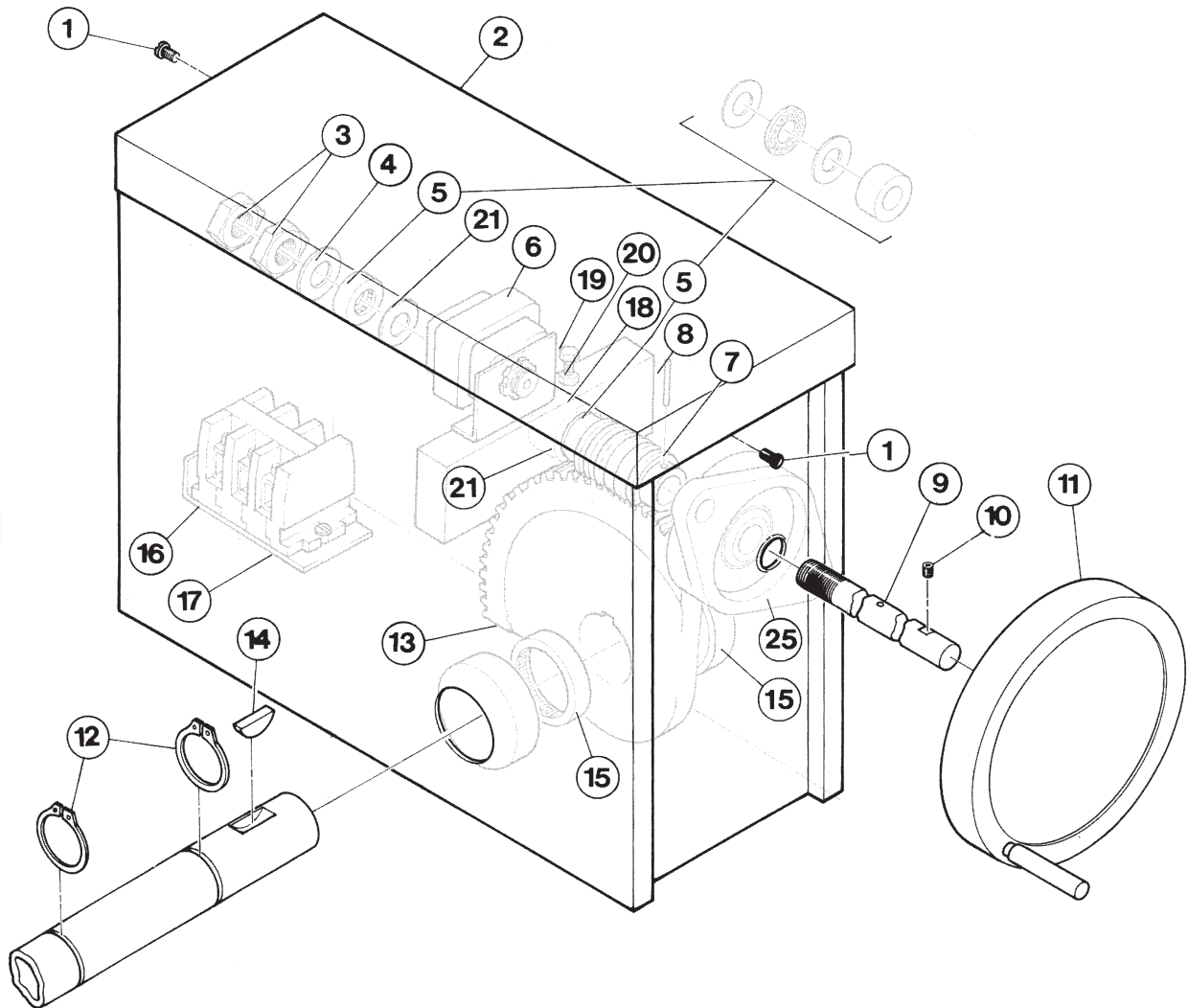
KETTLE BOTTOM & SIDE



KETTLE BOTTOM & SIDE

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE50556-1	Probe, Water Level	1
2.	KE51723	Safety Valve, 50 PSI, 1/2" (for 25-80 gallon kettles)	1
	KE51721	Safety Valve, 35 PSI, 1/2", (for 100 gallon kettles)	1
3.	KE51226	Wire Connector Terminal	10
4.	KE51225	Edge Connector	1
5.	KE00458	Solid State Control Box	1
6.	KE50753-7	Relay, 12 VDC	1
7.	KE54761	Bracket, Terminal Block	1
8.	KE50377	Terminal Block Section (Large, White)	3
	SK50055-1	Terminal Block Section (Small)	3
9.	KE50376	Terminal Block End Section (Large, White)	1
	SK50054-1	Terminal Block End Section (Small)	1
	SK50054-2	Terminal Block End Barrier	1
10.	KE53838-11	Transformer, 380-415 to 120-220V	1
	KE53838-12	Transformer, 440-480 to 240V	1
	KE53838-13	Transformer, 600 to 240V	1
11.	KE50429-3	Pressure Gauge	1
12.	KE50568-1	L.E.D., Green	1
13.	KE50567-1	L.E.D., Red	1
14.	SE00114	Potentiometer with ON/OFF Switch, c/w Item #15	1
15.	KE51005	Rubber Boot	1
16.	KE50569-1	Knob, Potentiometer	1
17.	KE50558	Safety Thermostat (140° C)	1
18.	KE50515	Thermistor	1
19.	KE50750-3	Contacto, 208/240V, 40 Amp. (standard kettles)	2
	KE50750-4	Contacto, 208/240V, 50 Amp. (special high wattage kettles - 6 elements)	2
	KE50750-5	Contacto, 208/240V, 60 Amp. (special high wattage kettles - 6 elements)	2
20.	KE51139-1	Fuse Holder	1
21.	KE52936-1	Fuse, 1/2 amp (used on 380 to 600V units)	1
22.	KE54833-3	Snap-In Bushing, .875"	1
23.	KE54833-4	Snap-In Bushing 1.093"	1
24.	KE50473	Ground	1
25.	KE53838-19	Transformer, 120 to 16V	1
	KE53838-21	Transformer, 240 to 16V	1
26.	KE50391	Bracket, Electrical Entry, 1 3/8" hole	1
	KE50392	Bracket, Electrical Entry, 1 3/4" hole	1
27.	KE54852-1	Guard Bracket, Pressure Relief Valve	1
28.	FA11145	Screw, 10-32 x 3/8" SS	2

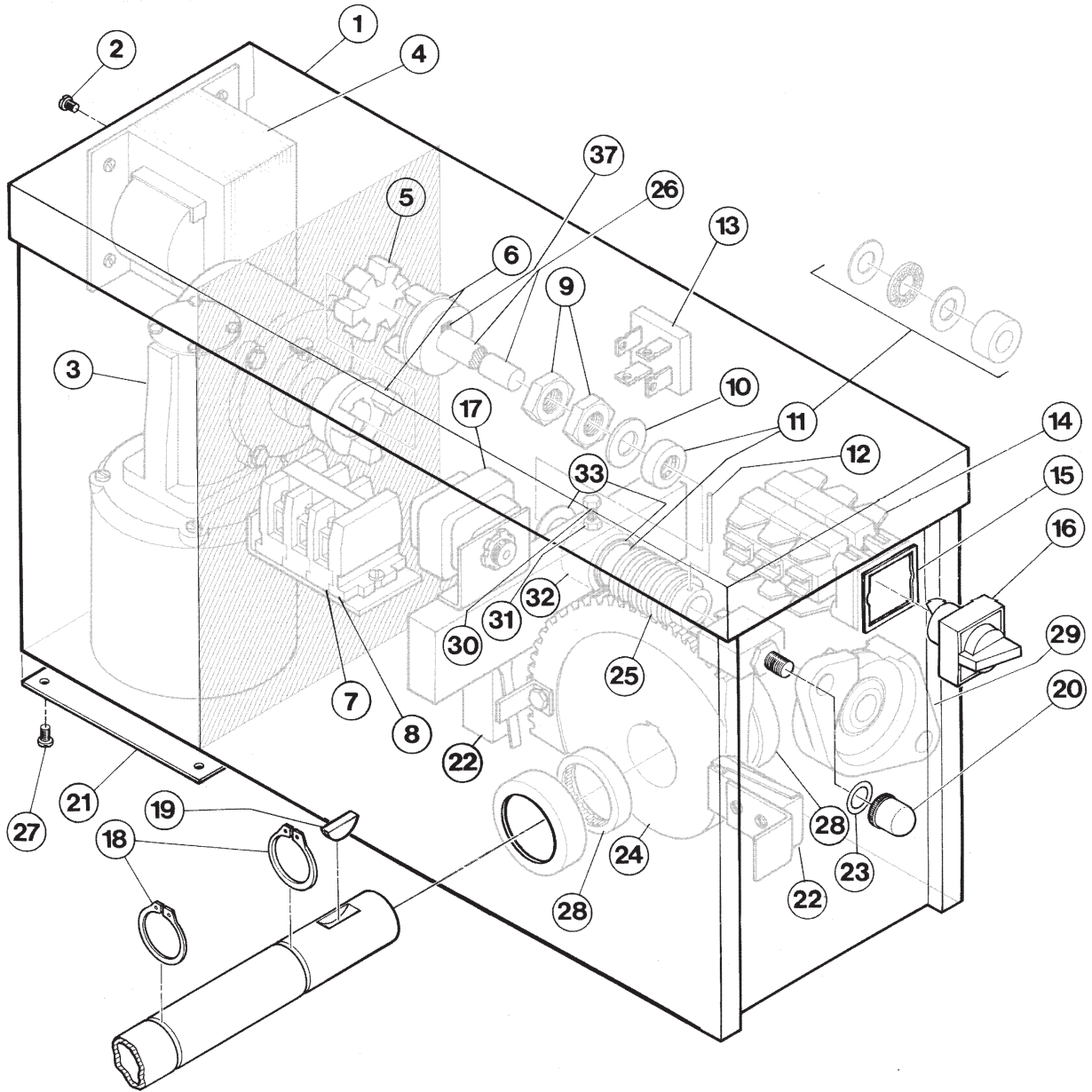
CONTROL CONSOLE COMPONENTS - HAND TILT



CONTROL CONSOLE COMPONENTS - HAND TILT

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	FA11134	Screw, 10-24 x 3/8" SS	.2
2.	KE50325	Gear Box Lid	.1
3.	FA95008	Locknut, 3/4-16	.2
4.	FA30088	Washer, 1 1/2" O.D. x 13/16" I.D. x .125 "W.	.1
5.	SE00036	Thrust Bearing Assembly and Spacer	.2
6.	KE50752	Transformer, 240/16V	.1
7.	KE50315	Worm	.1
8.	FA95005	Tension Pin	.1
9.	KE50375	Tilt Shaft	.1
10.	FA19505	Set Screw, hand wheel	.1
11.	KE00508	Hand Wheel	.1
12.	FA95007	Retaining Ring (25-40 gallon)	.2
	FA95050	Retaining Ring (60 gallon & up)	.2
13.	KE00151	Segment Gear (25-40 gallon)	.1
	KE52833	Segment Gear (60 gallon & up)	.1
14.	FA95048	Woodruff Key (25-40 gallon)	.1
	FA95051	Woodruff Key (60 gallon & up)	.1
15.	KE51711	Roller Bearing, trunnion (25-40 gallon)	.2
	KE517111	Roller Bearing, trunnion (60 gallon & up)	.2
16.	KE50377	Terminal Block Section (large, white)	.3
	SK50055	Terminal Block Section (small, black)	.3
17.	KE50376	Terminal Block End Section (large, white)	.1
	SK50054	Terminal Block End Section (small, black)	.1
18.	T40226	Bearing Assembly	.1
19.	FA10623	Bolt, 5/16-24 x 1 1/2"	.1
20.	FA20029	Hex Nut, 5/16-24	.1
21.	KE51891	Washer, 1 1/2" O.D. x 13/16" I.D. x .037" W.	.2
25.	KE51730	Bearing, tilt shaft	.1

CONTROL CONSOLE COMPONENTS - POWER TILT

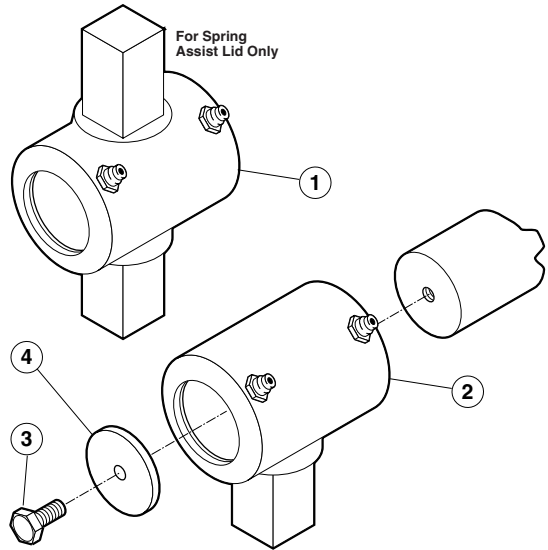


CONTROL CONSOLE COMPONENTS - POWER TILT

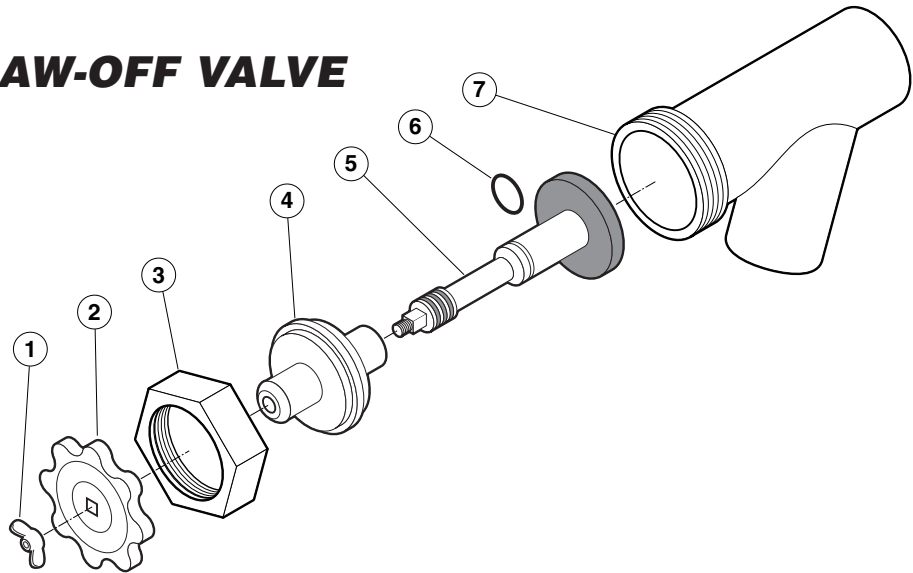
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE503252	Gear Box Lid	1
2.	FA11134	Screw, 10-24 x 3/8" S.S.	1
3.	KE50577	Motor	1
4.	KE51224	Transformer, 208/120V (HG3J)	1
	KE52386	Transformer, 220, 240/120V (HG5J)	1
5.	KE50583	Buna-N Insert	1
6.	KE50582	Coupling	2
7.	KE50377	Terminal Block Section (large, white)	3
	SK50055	Terminal Block Section (small, black)	3
8.	KE50376	Terminal Block End Section (large, white)	1
	SK50054	Terminal Block End Section (small, black)	1
9.	FA95008	Locknut, 3/4-16	2
10.	FA30088	Washer, 1 1/2" O.D. x 13/16" I.D. x .125" W.	1
11.	SE00036	Thrust Bearing Assembly and Spacer	2
12.	FA95005	Tension Pin	1
13.	KE50581	Bridge Rectifier	1
14.	KE51011	Contact Section	6
15.	KE51009	Square Spacer Plate	1
16.	KE51010	Square Actuator	1
17.	KE50752	Transformer, 240/16V	1
18.	FA95007	Retaining Ring (25-40 gallon)	1
	FA95050	Retaining Ring (60 gallon & up)	1
19.	FA95048	Woodruff Key (25-40 gallon)	1
	FA95051	Woodruff Key (60 gallon & up)	1
20.	KE50580	Water Resistant Boot	1
22.	KE51007	Micro Switch	2
23.	FA00012	"O" Ring, circuit breaker	1
24.	KE00151	Segment Gear (25-40 gallon)	1
	KE52833	Segment Gear (60 gallon & up)	1
25.	KE50315	Worm	1
26.	KE50441	Tilt Shaft	1
27.	FA11081	Screw, 8-32 x 1/2", SS	4
28.	KE51711	Roller Bearing, trunnion (25-40 gallon)	2
	KE517111	Roller Bearing, trunnion (60 gallon & up)	2
29.	KE51731	Bearing, tilt shaft	1
30.	FA10623	Bolt, 5/16-24 x 1 1/2"	1
31.	FA20229	Hex Nut, 5/16-24	1
32.	T40226	Bearing assembly	1
33.	KE51891	Washer, 1 1/2" O.D. x 13/16" I.D. x .037" W.	2
37.	FA95037	Key, 3/16" x 3/16" x 3/4"	1
38.	FA95014	Key, 3/16" x 3/16" x 1"	1
39.	KE50579	Circuit breaker, 1 amp	1

TRUNNION ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE00354	Trunnion Bearing Casting	1
	KE00354-D	Trunnion Bearing Casting (without roller bearings, used prior to July 1984)	1
	KE51711	Roller Bearing	2
Note: Units without roller bearings cannot be replaced by units with roller bearings.			
2.	KE00351	Trunnion Bearing Casting	1
	KE00351-D	Trunnion Bearing Casting (without roller bearings, used prior to July 1984)	1
3.	KE00349	Bolt, 5/16-18 x 1/2"	1
4.	KE50666	Spherical Washer	1



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

SPARE PARTS LIST

<i>ITEM ON.</i>	<i>DESCRIPTION</i>	<i>QTY.</i>	<i>QTY.</i>
		<i>DOMESTIC</i>	<i>OVERSEAS</i>

Refer to page 9, Kettle Bottom& Side for parts drawing

KE00458	Solid State Control Box	1	1
KE50753-7	Relay, 12 VDC		1
KE50750-5	Contactora, 208/240V, 60 Amp. (special high wattage kettles - 6 elements)	1	2
KE53838-11	Transformer, 380-415 to 120-220V		1
SE00114	Potentiometer with ON/OFF Switch, c/w Rubber Boot	1	1
KE51005	Rubber Boot	1	1
KE50569-1	Knob, Potentiometer	1	1
KE50515	Thermistor		1
KE51005	Rotary Seal		1
KE52936-1	Fuse, 1/2 amp (used on 380 to 600V units)		1
KE53838-19	Transformer, 120 to 16V	1	1
KE53838-21	Transformer, 240 to 16V	1	1

Refer to page 7, Faucet Assembly for drawing

FA05002-19	"O" Ring for Faucet Spout	1	1
------------	---------------------------	---	---

MAINTENANCE

ALL SERVICE MUST BE PERFORMED BY A QUALIFIED SERVICE TECHNICIAN.

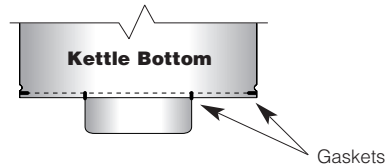
Cleveland Range equipment requires little preventative maintenance. We do however provide the following chart as a guideline for inspection and maintenance to keep your unit functioning at 100%.

INSPECTION AND MAINTENANCE CHECK LIST

The following check should be completed every six months or more frequently if unit is in a high volume facility.

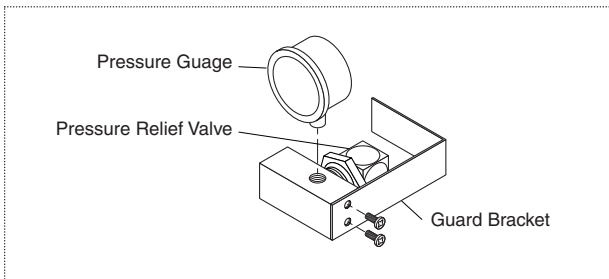
WARNING: It is imperative that damaged seals be repaired immediately to prevent equipment failure and/or damage.

ITEM	CHECK
BOTTOM COVER GASKETS	Check to see both gaskets are in place and are not cracked or split.
CONSOLE COVER	Insure there are two screws firmly holding down the cover. If not replace screws.
HAND WHEEL (hand tilt models only)	Check hand wheel for tightness. If loose tighten allen screw.
TILTING (tilting models only)	Check that kettle tilts smoothly. Grease as described in Lubrication Procedure (page 20).
PRESSURE GAUGE	Check that the gauge does not have moisture on its inside face. Replace if moisture is present. Check that the gauge shows a vacuum (needle is well into the Green zone) when cold and shows between 25-40 psi when unit is hot. If not follow Vacuum Leak Test Procedure (page 20).
PRESSURE RELIEF VALVE	Check pressure relief valve as described in Pressure Relief Valve Testing Procedure (page 18).
TEMPERATURE CHECK	Following Calibrating Procedure (page 18) check the inner kettle surface temperature with a digital surface thermometer and adjust if required.



CALIBRATING PROCEDURE

1. Insure the unit has a vacuum before you begin calibrating procedures. If unit requires venting refer to Kettle Venting Instructions on page 19 of this manual.
2. Turn kettle ON and set temperature dial to 10 (Max.).
3. Allow the unit to cycle twice.
4. Check temperature of the inner kettle surface with a digital surface thermometer.
5. Temperature should be between 260° F and 265° F.
6. Using a screw driver adjust temperature by turning the potentiometer on the black box. Turn very little. Turn clockwise to INCREASES and counter-clockwise to DECREASE temperature.
7. Allow the unit to cycle twice.
8. Check temperature of the inner kettle surface with a digital surface thermometer.
9. Repeat steps 4 through 8 until unit is calibrated.



Pressure Relief Valve/Gauge Assembly Drawing

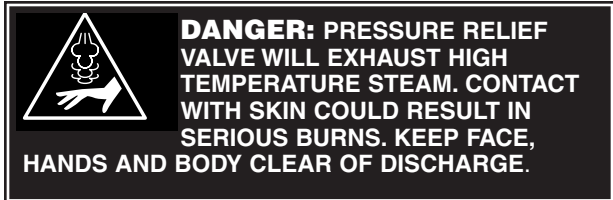
PRESSURE RELIEF VALVE PERIODIC TESTING PROCEDURE

WARNING: IMPROPER REFILLING OF KETTLE JACKET WILL RESULT IN IRREVERSIBLE DAMAGE TO UNIT.

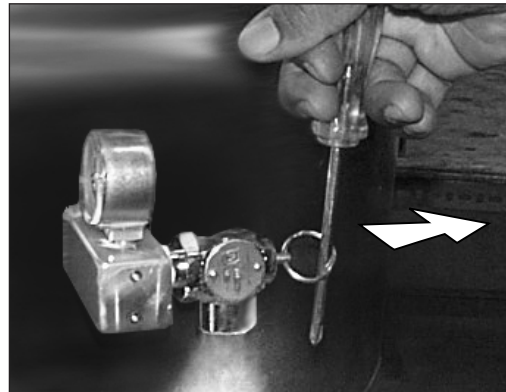
Most insurance agencies require periodic testing of pressure relief valves used on pressure vessels. This procedure will allow you to safely and quickly test your kettle's pressure relief valve. We recommend this test be performed twice a year.

NOTE: The following instruction is intended for use by qualified service personnel.

WARNING: Kettle surface will be hot and steam will be released during testing. Take necessary precautions including the use of gloves and eye protection to prevent personal injury.



1. Remove guard bracket from pressure relief valve/gauge assembly.
2. With the kettle empty, turn unit ON and set temperature control to 10 (Max.). Allow the kettle to heat until the unit cycles off.
3. Switch unit OFF and disconnect main power at fused disconnect switch.



4. Stand to the side of the pressure relief valve discharge tube and pull valve open for a maximum of one second. Repeat test three to four times. Each time the mechanism should move freely and be accompanied by a rapid escape of steam.
5. Replace guard bracket from pressure relief valve/gauge assembly.

If valve appears to be sticking replace pressure relief valve.

If foreign material is discharged then drain kettle and replace pressure relief valve.

See Reservoir Fill Procedure (page 19) for full instructions on the correct method for refilling kettle jacket.

WARNING: Improper refilling of kettle jacket will result in irreversible damage to unit.

NOTE: Rust inhibitor is purchased locally. Read directions and do not exceed manufacturer's recommendation (excessive rust inhibitor can also cause solidification).

RESERVOIR FILL PROCEDURES

The kettle's water level must be maintained at the proper level to submerge the heater elements. Under normal operating conditions, the sealed water reservoir should never require the addition of water.

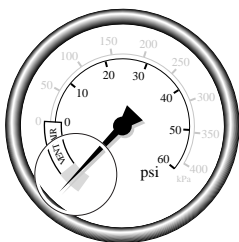
If the red "low water" light comes on during use (while the kettle is in an upright position), the water level has reached a critically low level. The low water protection control has automatically shut off the heater elements. The following procedure must be completed before further use:

NOTE: Have a qualified service technician repair the leakage problem and add water to the unit. Ensure that the red "low water" light is on when the kettle is upright. On tilting kettles, it is normal for the red light to come on when the kettle is in a tilted position, as the elements are not submerged in water at this point.

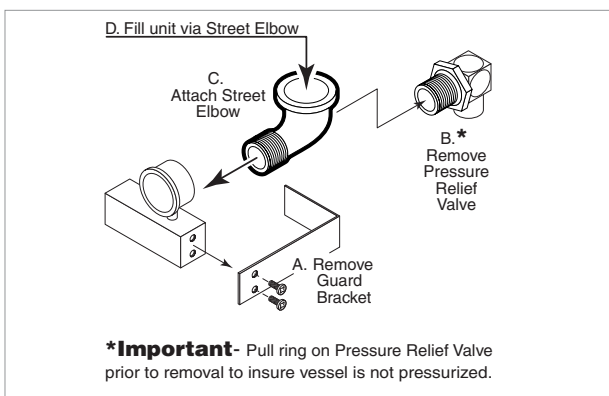
CAUTION: Only a mixture of distilled water and rust inhibitor should be used when adding water to a partially filled water reservoir. Local tap water conditions may cause kettle damage which is not covered under warranty. Rust inhibitor is purchased locally. Read directions and do not exceed manufacturer's recommendation (excessive rust inhibitor can also cause solidification).

DISTILLED WATER REQUIREMENTS

Kettle Capacity	When Red "Low Water Light" comes on, add Distilled Water	When the Reservoir is Completely Empty, Add Distilled Water
25 gallon	1.0 U.S Gallons	3.75 U.S. Gallons
30 gallon	1.5 U.S Gallons	4.3 U.S. Gallons
40 gallon	2.0 U.S Gallons	4.75 U.S. Gallons
60 gallon	2.1 U.S Gallons	5.75 U.S. Gallons
80 gallon	2.6 U.S Gallons	6.5 U.S. Gallons
100 gallon	2.8 U.S Gallons	7.25 U.S. Gallons



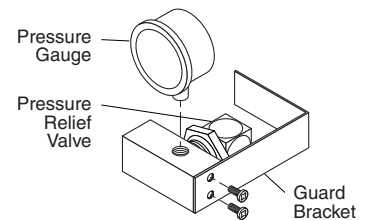
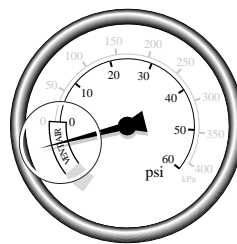
1. Ensure kettle is at room temperature and pressure gauge showing zero or less pressure.
2. Shut off power to the kettle at the fused disconnect switch.



Pressure Relief Valve/Gauge Assembly Drawing

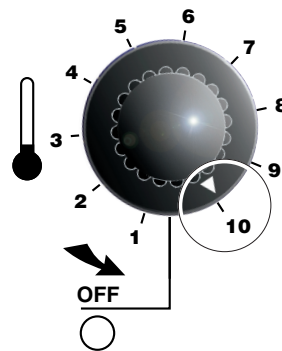
3. Remove Guard Bracket (A).
4. Pull Pressure Relief Valve (B) open to insure vessel is not pressurized.
5. Remove Pressure Relief Valve (B).
6. Replace Pressure Relief Valve (B) with Street Elbow (C).
7. Add distilled water (D) through the Street Elbow (C), using a funnel if necessary. Refer to **Distilled Water Requirements** chart for the proper amount required.
8. Apply a thread sealant (i.e. Teflon tape) to the Pressure Relief Valve's (B) thread and replace.
9. Replace Guard Bracket (A).
10. Restore power to unit at the fused disconnect switch.
11. The kettle must now be vented. (Refer to the Kettle Venting Instructions shown below).

KETTLE VENTING INSTRUCTIONS

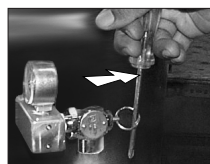


The following venting procedure should be followed when the Vacuum/Pressure Gauge needle is in the "VENT AIR" zone:

NOTE: Check for and eliminate leaks prior to venting (See Repairing Leaks in Steam Jacketed Kettle Fittings on page 19).

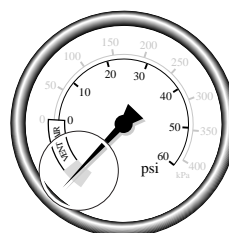


1. Remove guard bracket from pressure relief valve/gauge assembly.
2. Turn kettle ON and set Temperature Control to **10** (Max.), heat the empty kettle until unit cycles off.
3. Vent kettle by pulling safety valve ring 8-10 times in short 2-3 second blasts with a 5 second interval between pulls.



NOTE: If unit cycles ON, stop venting and wait for kettle to cycle OFF before continuing.

4. Turn kettle OFF. Add cold water to kettle until its surface temperature is below 100°F. The pressure gauge needle should be in the green zone, indicating a vacuum in the kettle's jacket.



5. Replace guard bracket from pressure relief valve/gauge assembly.

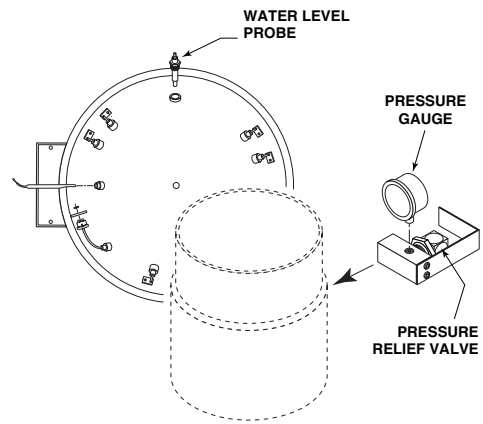
VACUUM LEAK TEST PROCEDURE

If the kettle will not hold vacuum, test for leaks at:

- A.** Water Level Probe (Remove bottom cover).
- B.** Pressure Relief Valve.
- C.** Pressure Gauge.

LEAK TEST PROCEDURE:

1. Heat kettle until unit cycles off.
2. Shut off power to the kettle at the fused disconnect switch.
3. Spread Bubble Type Leak Detector over suspected area and watch closely for bubbles.
4. Repair areas as required.



REPAIRING LEAKS IN STEAM JACKETED KETTLE FITTINGS

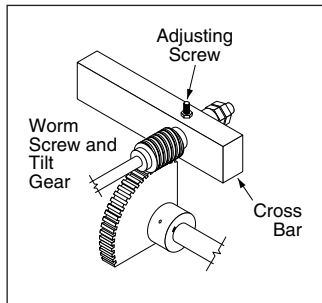
If unit will not hold a vacuum the most likely cause is a leak at one of the fittings.

Often, the easiest way to eliminate a leak is reseal the suspect areas.

1. Water Level Probe Remove, clean threads, apply teflon thread sealant and reinstall.
2. Pressure Relief Valve **A/** Inspect for signs of leaks. Replace if required.
 B/ Remove, clean threads, apply teflon thread sealant and reinstall.
3. Pressure Gauge **A/** Inspect face of gauge. If it contains moisture on the inside of face replace.
 B/ Remove, clean threads, apply teflon thread sealant and reinstall.

LUBRICATION PROCEDURE

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

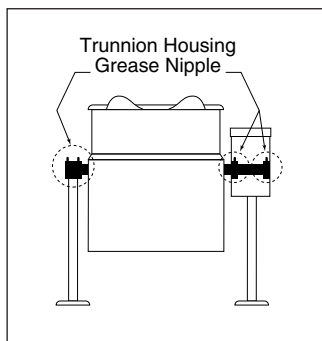


TRUNNION HOUSING, WORM SCREW AND TILT GEAR

These parts are accessed through the top cover of the console.

Apply grease to gear teeth. Check for

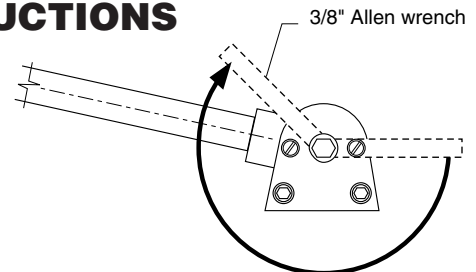
excessive play and adjust with adjusting screw located on top of cross bar.



KETTLE TRUNNIONS

On the left hand side of the kettle there are two grease nipples on the top back portion of the trunnion housing. On the right hand side of the kettle you must remove the console cover to access the two grease nipples.

HINGE ADJUSTMENT INSTRUCTIONS



1. Insert 3/8" Allen wrench.
2. Turn clockwise to relieve tension on spring.
3. While tension is released remove one of the two slotted screws.
4. To prevent Allen wrench from springing back abruptly while the second slotted screw is removed, insert a pin (approximately 1/8") in the hole where the first slotted screw was removed from.
5. Remove second slotted screw.
6. While holding Allen wrench remove pin.
7. Turn Allen wrench clockwise to tighten or counter-clockwise to loosen tension to produce desired effect.
8. Re-insert pin in one of the two holes.
9. Tighten one slotted screw in the other hole (it may be necessary to turn Allen wrench slightly to align holes).
10. Remove pin and repeat step number 9 for other slotted screw.

DIAGNOSTIC GUIDE

This section contains servicing information intended for use by Authorized Service Personnel.

NOTE 1: If Fault Isolation Procedure is required, be sure to start at step #1.

NOTE 2: On table type kettles the entire control mounting panel may be removed from kettle control housing for easier troubleshooting and parts replacement.

A/ Problem: Kettle is not heating at all. (Kettle must be on and temperature control set.)

Possible Causes

- | | | |
|------------------------------------|--|--|
| 1. No incoming power. | 6. Defective safety thermostat. | 10. Defective thermistor. |
| 2. Kettle is tilted. | 7. Defective contactor/s. | 11. Defective 240/16 VAC transformer. |
| 3. Low water condition. | 8. Defective potentiometer (temperature control). | 12. Defective control box. |
| 4. Defective ON/OFF switch. | 9. Defective low water level probe. | 13. Defective elements. |
| 5. Defective 12 VDC relay. | | |

Fault Isolation Procedure

Step	Test	Result	Remedy
1.	Is there proper incoming voltage at terminal block?	Yes	Go to step #2.
		No	Correct external power supply problem.
2.	Is the red LED illuminated?	Yes	Follow Reservoir Fill Procedure (page 19). If this does not correct the problem, go to Problem D .
		No	Go to step #3.
3.	Is the green LED illuminated?	Yes	Go to step #4.
		No	Go to step #7.
4.	Do both contactors energize?	Yes	Check contactor contacts for pitting. Voltage across contactor terminals while in a closed position indicates a poor contact. Replace contactor/s as necessary. Check elements for short at ground or an open circuit. If element/s are defective contact the factory. Elements are not field replaceable.
		No	Go to step #5.
5.	Measure continuity across safety thermostat. Is it an open circuit?	Yes	Replace defective safety thermostat.
		No	Go to step #6.
6.	Is there 120 VAC present across the coils of the contactors?	Yes	Replace defective contactor/s.
		No	Go to step #6.
7.	Remove wire from low water level probe and ground it to the body of the kettle. Do the contactors now energize?	Yes	Clean or replace defective low water level probe. Replace defective red LED.
		No	Go to step #8.
8.	Is there 16 VAC present at output of 16 VAC transformer?	Yes	Go to step #9.
		No	Replace defective 240/16 VAC transformer.

9.	Measure continuity of ON/OFF switch/temperature control. Is it operating properly?	Yes No	Go to step #10 . Replace defective ON/OFF switch/temperature control.
10.	Unplug control box and measure the resistance across potentiometer. Is it approximately 0 ohms at maximum setting and 50,000 ohms at minimum?	Yes No	Go to step #11 . Replace defective potentiometer (ON/OFF switch/temperature control)
11.	Remove edge connector from control box. While kettle is cold or thermistor is removed and allowed to cool, measure the resistance between edge connector's pins #2 and #7. Is it approximately 100,00 ohms?	Yes No	Spray contact cleaner on control box terminals and edge connector. Try box again, if the problem still exists, replace defective control box. Replace defective thermistor.

B/ Problem: Kettle heats too slowly or not hot enough. (**Note:** normal max. operating pressure with an empty kettle is 30-35 psi.)

Possible Causes

- | | | |
|---|--|----------------------------------|
| 1. Air in jacket requires venting. | 3. Defective potentiometer (temperature control). | 5. Defective contactor/s. |
| 2. Defective safety thermostat. | 4. Defective thermistor. | 6. Defective control box. |
| | | 7. Defective elements/s. |

Fault Isolation Procedure

Step	Test	Result	Remedy
1.	In a cold state, does the pressure gauge read in the green zone?	Yes No	Go to step #2 . There is air present in the jacket of the kettle. Follow Kettle Venting Procedure (page 19). If constant venting is required, there is a leak that should be corrected.
2.	Do the contactors shut off too early? (before reaching normal maximum operating pressure.)	Yes No	Go to step #3 . Check contactor contacts for pitting. Voltage across terminal of contactor while energized signifies a poor contact. Replace contactor/s as necessary. Check elements for short to ground or open circuit. If elements are defective, contact the factory. Elements are not field replaceable.
3.	Does the green LED remain illuminated after the contactors shut off?	Yes No	Replace defective safety thermostat. Go to step #4 .
4.	Unplug control box and measure the resistance across potentiometer (temperature control). Is it approximately 0 ohms at maximum and 50,000 ohms at minimum setting?	Yes No Yes	Go to step #5 . Replace defective thermistor. Go to step #6 .

5.	Remove kettle thermistor and allow to cool. Remove edge connector from control box. Test resistance across edge connector's pins #2 and #7. Is it approximately 100,000 ohms?	No	Replace defective thermistor
6.	Turn the potentiometer on the control box clockwise to increase the maximum operating temperature. Does the kettle now achieve maximum operating pressure of 30-35 psi in an empty kettle?	Yes No	Kettle is operating correctly. Spray contact cleaner on control terminals and edge connector. Try box again. If problem still exists, replace defective control box.

C/ Problem: Kettle is overheating.

Possible Causes

- | | | |
|--------------------------------|--|-----------------------------------|
| 1. Defective thermistor | 2. Defective potentiometer (temperature control). | 3. Defective 12 VDC relay. |
| | | 4. Defective control box. |

Fault Isolation Procedure

Step	Test	Result	Remedy
1.	Does the green LED turn off even though the contactors remain energized?	Yes No	Replace defective 12 VDC relay. Go to step #2.
2.	Unplug the control box and measure the resistance across the potentiometer (temperature control), Is the resistance approximately 0 ohms at maximum and 50,000 ohms at minimum setting?	Yes No	Go to step #3. Replace defective thermistor.
3.	Remove kettle thermistor and allow to cool. Remove edge connector from control box. Test resistance across edge connector's pins #2 and #7. Is it approximately 100,000 ohms?	Yes No	Go to step #4. Replace defective thermistor.
4.	Turn the potentiometer (temperature control) on the control box counter-clockwise to decrease the maximum operating temperature. does the kettle continue to overheat?	Yes No	Spray contact cleaner on control box terminal and edge connector. Try box again. If problem still exists, replace defective control box. Kettle is operating correctly.

D/ Problem: Red LED remains illuminated even though water has been added.

Possible Causes

- | | |
|---|----------------------------------|
| 1. Defective low water level probe | 2. Defective control box. |
|---|----------------------------------|

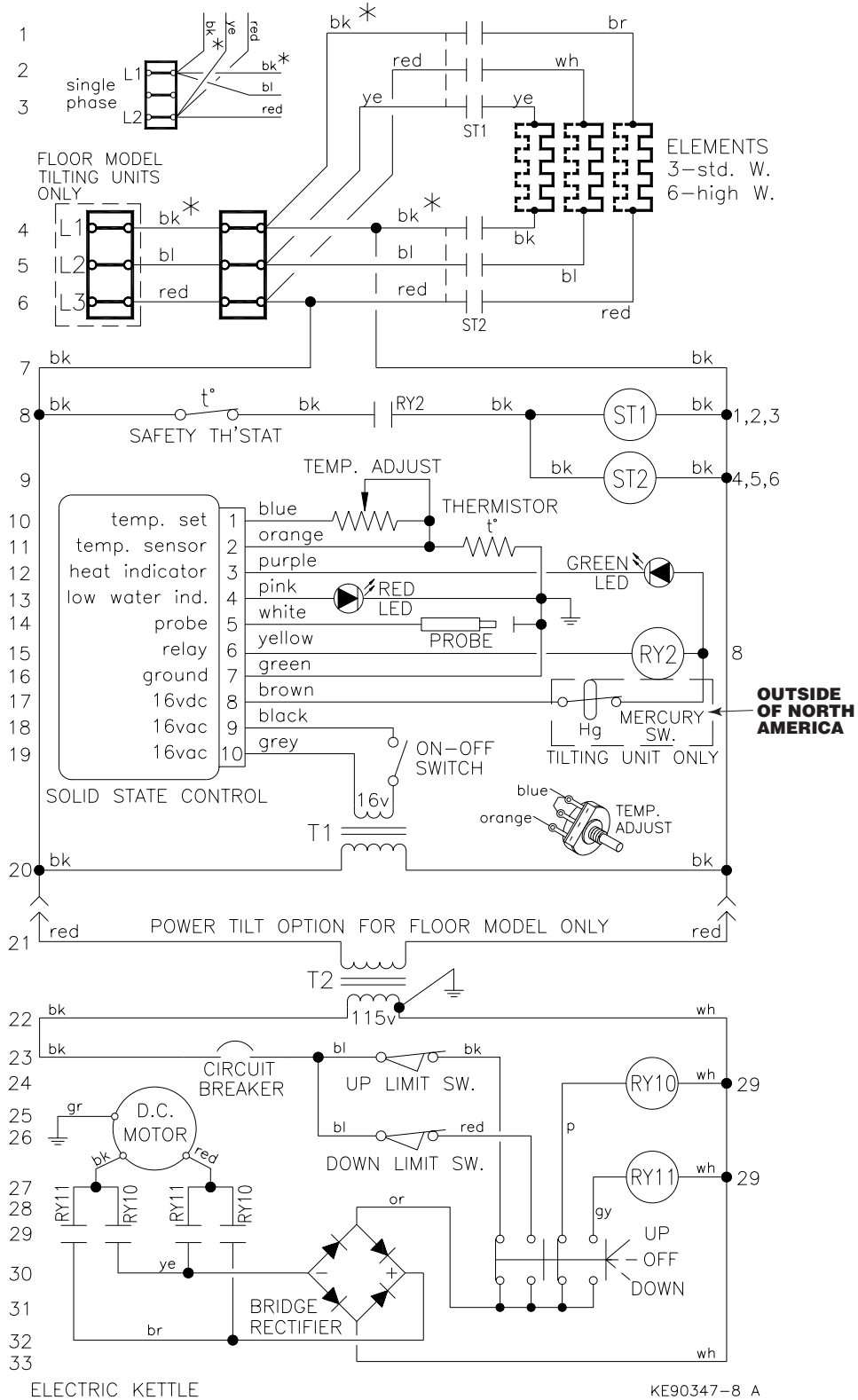
Fault Isolation Procedure

Step	Test	Result	Remedy
1.	Remove wire from low water level probe and ground the wire to the body of the kettle. Does the red LED turn off?	Yes No	Replace or clean defective low water level probe. Spray contact cleaner on control box terminals and edge connector. Try box again. If problem still exist, replace defective control box.

WIRING DIAGRAM

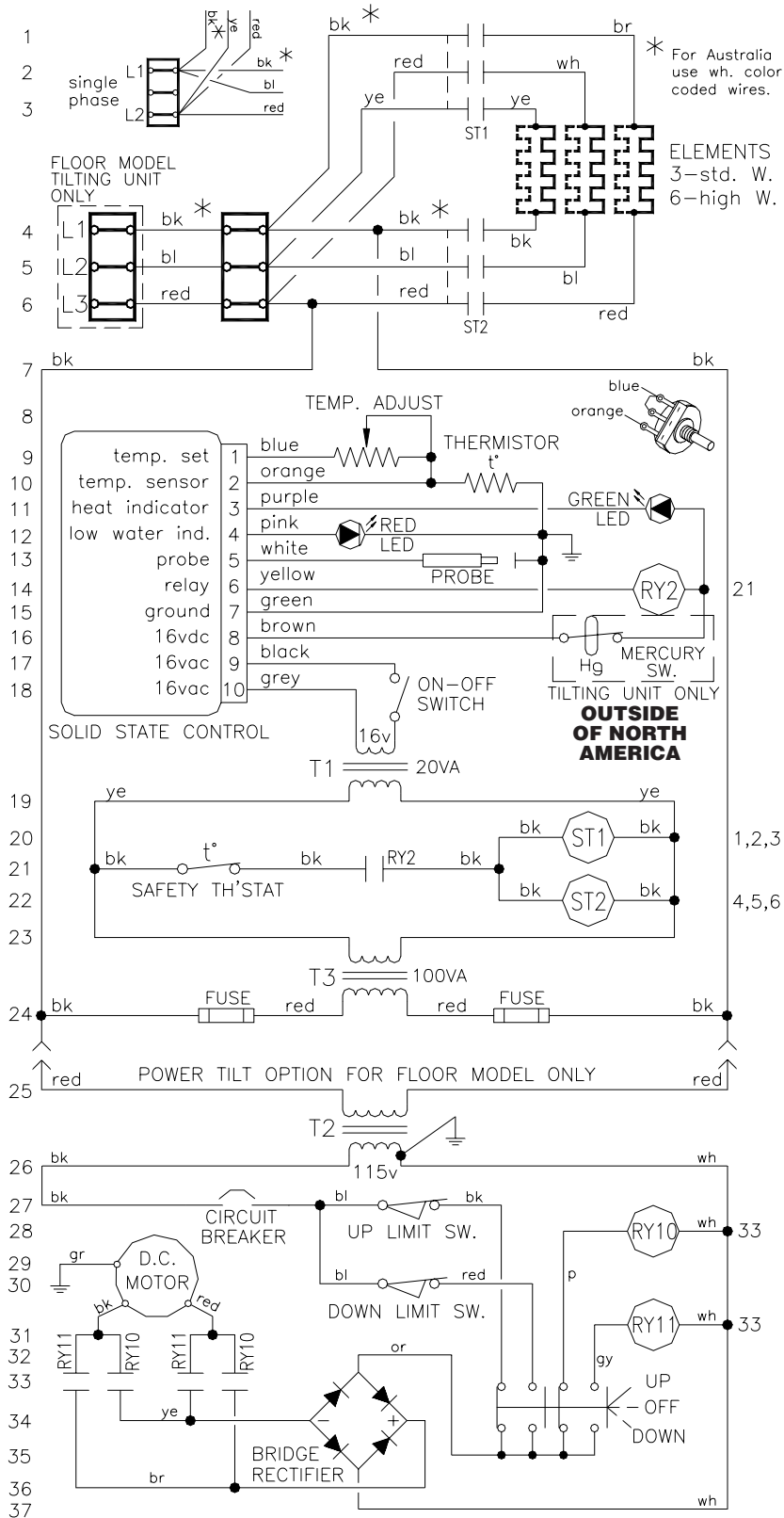
200-240v

* - FOR AUSTRALIA USE WHITE COLOR CODED WIRE.



WIRING DIAGRAM

380-600v



Symbol Legend (page 1 of 2)

□ English □ French □ Spanish □ Italian □ German □ Chinese-Simplified □ Chinese-Traditional

	<p>RISK OF ELECTRICAL SHOCK DANGER DE SECOUSSE ÉLECTRIQUE PELIGRO DE ELECTROCHOQUE PERICOLO DI SCOSSA STROMSCHLAG-GEFAHR</p> <p>有触电危險 有觸電危險</p>		
	<p>SPLASHPROOF ANTIÉCLABOUSSURES A PRUEBA DE SALPICADURAS PROTETTO CONTRO GLI SPRUZZI SPRITZWASSERDICHT</p> <p>防濺水的 防濺水的</p>		
	<p>DISCONNECT ELECTRICAL SUPPLY BEFORE WORKING ON KETTLE COUPER LE COURANT AVANT D'INTERVENIR SUR L'ÉQUIPEMENT DESCONECTAR LA ALIMENTACION ELECTRICA ANTES DE REALIZAR TRABAJOS EN EL EQUIPO DISINSERIRE LA CORRENTE PRIMA DI LAVORARE SULLA MACCHINA STROMVERSORGUNG AUSSCHALTEN, BEVOR AM GERÄT GEARBEITET WIRD</p> <p>操作设备前切断电源 操作設備前切斷電源</p>		
	<p>MAIN POWER ALIMENTATION ÉLECTRIQUE ALIMENTACION PRINCIPAL ALIMENTAZIONE HAUPTSTROM</p> <p>主电源 主電源</p>		<p>ON MARCHE ENCENDIDO ACCESO AN</p> <p>开 開</p>
	<p>OFF ARRÊT APAGADO SPENTO AUS</p> <p>关 關</p>		<p>PAUSE, INTERRUPTION PAUSE, INTERRUPTION PAUSA, INTERRUPCION PAUSA, INTERRUZIONE PAUSE, UNTERBRECHUNG</p> <p>暫停，间断 暫停，間斷</p>
	<p>CONTINUE CONTINUER CONTINUAR CONTINUA WEITER</p> <p>继续 繼續</p>		<p>RESET RÉENCLANCHER RECONECTAR RESET NULLSTELLEN</p> <p>重新设定 重新設定</p>
	<p>START OF ACTION DÉBUT DE L'ACTION INICIAR FUNCIONAMIENTO INIZIO OPERAZIONE FUNKTION STARTEN</p> <p>开始操作 開始操作</p>		<p>STOP OF ACTION ARRÊT DE L'ACTION PARAR FUNCIONAMIENTO ARRESTO OPERAZIONE FUNKTION STOPPEN</p> <p>停止操作 停止操作</p>
	<p>FAST START DÉMARRAGE RAPIDE INICIO RAPIDO AVVIAMENTO RAPIDO SCHNELLER START</p> <p>快启动 快啓動</p>		<p>FAST STOP, EMERGENCY ARRÊT RAPIDE D'URGENCE PARADA RAPIDA, EMERGENCIA ARRESTO RAPIDO, EMERGENZA SCHNELLER STOPP, NOTFALL</p> <p>快止动，紧急 快止動，緊急</p>


Symbol Legend (page 2 of 2)

□ English □ French □ Spanish □ Italian □ German □ Chinese-Simplified □ Chinese-Traditional




AUTOMATIC TEMPERATURE CONTROL
 COMMANDE AUTOMATIQUE DE LA TEMPÉRATURE
 AJUSTE AUTOMÁTICO DE TEMPERATURA
 CONTROLLO AUTOMATICO TEMPERATURA
 AUTOMATISCHE TEMPERATURREGELUNG

自动温度控制
 自動溫度控制




LOW WATER
 NIVEAU BAS DE L'EAU
 NIVEL DE AGUA BAJO
 LIVELLO BASSO
 WASSERSTAND NIEDRIG

低水量
 低水量




BURNER AND/OR ELEMENT ENERGIZED
 BRÛLEUR ET/OU ÉLÉMENT ALLUMÉ
 QUEMADOR O ELEMENTO ENCENDIDO
 FIAMMA E/O ELEMENTO ATTIVATI
 BRENNER ODER ELEMENT EINGESCHALTET

燃烧器和/或元件带电
 燃燒器和/或元件帶電




IGNITION FAILURE
 PANNE D'ALLUMAGE
 FALLO DE ENCENDIDO
 MANCATA ACCENSIONE
 ZÜNDUNGSFEHLER

点火失效
 點火失效




HEATING
 ÉBULLITION
 CALEFACCION
 RISCALDAMENTO
 HEIZUNG

加热
 加熱



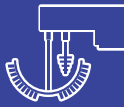
COOLING
 REFROIDISSEMENT
 REFRIGERACION
 RAFFREDDAMENTO
 KÜHLUNG

冷却
 冷卻




HEAT ADJUSTMENT
 RÉGLAGE DE LA CHALEUR
 REGULACION DE CALOR
 REGOLAZIONE RISCALDAMENTO
 WÄRMEREGULIERUNG

热调节
 熱調節




MIXER BRIDGE
 PONT DU MÉLANGEUR
 PUENTE DE MEZCLADORA
 MENSOLA MESCOLATORE
 MISCHER-BRÜCKE

搅拌桥
 攪拌橋




LEFT KETTLE
 BOUILLLOIRE GAUCHE
 HERVIDOR IZQUIERDO
 BOLLITORE SINISTRO
 LINKER KOCHKESSEL

左壺
 左壺




RIGHT KETTLE
 BOUILLLOIRE DROITE
 HERVIDOR DERECHO
 BOLLITORE DESTRO
 RECHTER KOCHKESSEL

右壺
 右壺



MIX
 MÉLANGER
 MEZCLAR
 MESCOLATURA
 MISCHEN

混合
 混合




LIFT
 LEVER
 LEVANTAR
 SOLLEVARE
 HEBEN

提升
 提升



UP
 HAUT
 ARRIBA
 SU
 RAUF


向上
 向上



DOWN
 BAS
 ABAJO
 GIÙ
 RUNTER


向下
 向下

27



HOT WATER
 EAU CHAUDE
 AGUA CALIENTE
 ACQUA CALDA
 HEISSES WASSER

热水
 熱水



COLD WATER
 EAU FROIDE
 AGUA FRIA
 ACQUA FREDDA
 KALTES WASSER

冷水
 冷水